



Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Request for Quote

<b>Proc Folder:</b> 1217614		<b>Reason for Modification:</b>	
<b>Doc Description:</b> MCAS Lighting Project		Addendum No. 1	
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2023-05-02	2023-05-09 13:30	CRFQ 0603 ADJ2300000027	2

**BID RECEIVING LOCATION**


BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

05/08/23 14:39:20  
 WV Purchasing Division

**VENDOR**

Vendor Customer Code: 000000200158  
 Vendor Name: WVA Electric Supply Co.  
 Address: 250 12th St. W.  
 Street:  
 City: Huntington  
 State: WV Country: USA Zip: 25704  
 Principal Contact: Jeff Floyd VP of WV Power Systems  
 Vendor Contact Phone: 304-525-0361 Extension: 4514

**FOR INFORMATION CONTACT THE BUYER**  
 David H Pauline  
 304-558-0067  
 david.h.pauline@wv.gov

Vendor Signature X  FEIN# 55-0333898 DATE 5/5/2023

All offers subject to all terms and conditions contained in this solicitation

**ADDITIONAL INFORMATION**

Addendum No. 1

- 1) To respond to vendor technical questions, see attached.
- 2) To make a change to the General Terms & Conditions, see attached.
- 3) Bid opening remains May 9, 2023, at 1:30 pm., est.

No other changes.

**INVOICE TO****SHIP TO**

ADJUTANT GENERALS  
OFFICE  
1703 COONSKIN DR

ADJUTANT GENERALS  
OFFICE  
305 FAYETTE PIKE

CHARLESTON WV  
US

MONTGOMERY WV  
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Lithonia WPX2 Cut-Off Wall Pack, or Equal	12.00000	EA	\$188.16e	\$2257.92

Comm Code	Manufacturer	Specification	Model #
39101600	Barron		WLZ4-3-4K-BR

**Extended Description:**

Contract Item 3.1.1

**INVOICE TO****SHIP TO**

ADJUTANT GENERALS  
OFFICE  
1703 COONSKIN DR

ADJUTANT GENERALS  
OFFICE  
305 FAYETTE PIKE

CHARLESTON WV  
US

MONTGOMERY WV  
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Lithonia TWX2 Forward Throw Wall Pack, or Equal	4.00000	EA	\$121.25e	\$485.00

Comm Code	Manufacturer	Specification	Model #
39101600	Cooper		WPMLED15S

**Extended Description:**

Contract Item 3.1.2

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	SATCO NUVO 62-1144R1 Up-and-Down Wall Sconce, or Equal	4.00000	EA	<i>\$101.89e</i>	<i>\$407.56</i>

Comm Code	Manufacturer	Specification	Model #
39101600			

**Extended Description:**  
Contract Item 3.1.3

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	SATCO NUVO 62/1645 Indoor Wall Sconce, or Equal	4.00000	EA	<i>\$68.91e</i>	<i>\$275.64</i>

Comm Code	Manufacturer	Specification	Model #
39101600			

**Extended Description:**  
Contract Item 3.1.4

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	SATCO NUVO 60/890 Outdoor Central Park Light, or Equal	2.00000	EA	<i>\$99.90e</i>	<i>\$199.80</i>

Comm Code	Manufacturer	Specification	Model #
39101600			

**Extended Description:**  
Contract Item 3.1.5

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
6	WAC Lighting LED Vanity Light (WS-180216), or Equal	30.00000	EA	<i>\$69.75e</i>	<i>\$2092.50</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Efficient</i>		<i>EL-221L-18-20LED</i>

**Extended Description:**  
Contract Item 3.1.6

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
7	Lithonia Flat Panel Troffer, LED, CPX CPX 2X2 3200, or Equal	225.00000	EA	<i>\$48.78e</i>	<i>\$10,975.50</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Metalux</i>		<i>22CGT3540C</i>

**Extended Description:**  
Contract Item 3.1.7

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
8	Lithonia 2X2SMKSH, Surface Mount Kit, Flat Panel or Equal	12.00000	EA	<i>\$35.55e</i>	<i>\$426.60</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Metalux</i>		<i>CGTSURF22</i>

**Extended Description:**  
Contract Item 3.1.8

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
9	Lithonia CPX-2X4-4000LM-40K-M2 LED Flat Panel Troffer, or Eq	160.00000	EA	<i>\$62.99e</i>	<i>\$10,078.40</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Metalux</i>		<i>24CGT4540C</i>

**Extended Description:**  
Contract Item 3.1.9

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
10	Lithonia WF6 6" LED Wafer Recessed Downlight, or Equal	25.00000	EA	<i>\$22.45e</i>	<i>\$561.25</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Halo</i>		<i>HLB6099FSIEMWR</i>

**Extended Description:**  
Contract Item 3.1.10

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
11	Lithonia WF8 8" LED Wafer Recessed Downlight, or Equal	25.00000	EA	<i>\$40.31e</i>	<i>\$1,007.75</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Halo</i>		<i>HLB8169FS1EMWR</i>

Extended Description:  
Contract Item 3.1.11

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
12	Lithonia FMLWL 48" LED Wraparound, or Equal	40.00000	EA	<i>\$81.55e</i>	<i>\$3,262.00</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Cooper</i>		<i>4NWS3C3-LNV</i>

Extended Description:  
Contract Item 3.1.12

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
13	Lithonia FMLWL 24" Low-Profile Wraparound Flush Mount, or Eq	10.00000	EA	<i>\$68.42e</i>	<i>\$684.20</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Cooper</i>		<i>2NWS3C3-UNV</i>

**Extended Description:**

Contract Item 3.1.13

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
14	Lithonia FMLRL M4 20840 14" Round Low Profile LED, or Equal	200.00000	EA	<i>\$63.42e</i>	<i>\$12,684.00</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Efficient</i>		<i>EL-822-15LED</i>

**Extended Description:**

Contract Item 3.1.14



INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
15	Lithonia EU2C Emergency Light Only (Not An Exit), or Equal	6.00000	EA	<i>\$27.70e</i>	<i>\$166.20</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Barron</i>		<i>QMS-WH</i>

**Extended Description:**

Contract Item 3.1.15

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
16	Lithonia CNY LED P1 Canopy Light, or Equal	4.00000	EA	<i>\$107.80e</i>	<i>\$431.20</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Barron</i>		<i>ECX-40-CP-BR</i>

**Extended Description:**

Contract Item 3.1.16

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
17	Barron SSF-4' Series LED Linear Stairwell Fixture, or Equal	15.00000	EA	<i>\$139.00e</i>	<i>\$2,085.00</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Barron</i>		<i>SSF-4-CP-SC</i>

**Extended Description:**

Contract Item 3.1.17

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON US	WV	MONTGOMERY US	WV

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
18	Lithonia Lighting Cylinder Downlight, or Equal	19.00000	EA	<i>\$342.66e</i>	<i>\$6,510.54</i>

Comm Code	Manufacturer	Specification	Model #
39101600	<i>HALO</i>	<i>This line item consist of 4 parts to make complete.</i>	

**Extended Description:**

Contract Item 3.1.18

Part 1:	Halo HCC6S5DD010BZ	<i>\$138.75e</i>	<i>\$2,636.25</i>
Part 2:	Halo HCC8P36BZ	<i>\$97.56e</i>	<i>\$1,853.64</i>
Part 3:	Halo HML6C4550840	<i>\$71.00e</i>	<i>\$1,349.00</i>
Part 4:	Halo 61MDH	<i>\$35.35e</i>	<i>\$671.65</i>

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
19	Lithonia Contractor Select LED Floodlight, or Equal	2.00000	EA	\$ 51.20e	\$ 102.40

Comm Code	Manufacturer	Specification	Model #
39101600	Cooper		LSF25-KN-PC

**Extended Description:**

Contract Item 3.1.19  
"ESXF1ALOSWW2KYDDB Contractor Select" or equal

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
20	48" Med Pin T8 LED Bypass Tubes	30.00000	EA	\$ 8.95e	\$ 268.50

Comm Code	Manufacturer	Specification	Model #
39101600	EIKO		12933-L14WT8/48/BSDG/FCCT

**Extended Description:**

Contract Item 3.1.20

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
21	36" Med Pin T8 LED Bypass Tubes	5.00000	EA	\$ 8.95 <sub>e</sub>	\$ 44.75

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Eiko</i>	<i>12951 L12WT8/36/BSDG/FCCT</i>	

**Extended Description:**

Contract Item 3.1.21

INVOICE TO		SHIP TO	
ADJUTANT GENERALS OFFICE 1703 COONSKIN DR		ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE	
CHARLESTON	WV	MONTGOMERY	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
22.	US Architectural Lighting Post Top Light, or Equal	6.00000	EA	\$ 663.00 <sub>e</sub>	\$ 3,978.00

Comm Code	Manufacturer	Specification	Model #
39101600	<i>Cooper</i>	<i>LXT-PA1-40-750-U-5WQ-A-BK</i>	

**Extended Description:**

Contract Item 3.1.22

LCMRV32LEDNWPTRAL9005T

INVOICE TO	SHIP TO
------------	---------

ADJUTANT GENERALS OFFICE 1703 COONSKIN DR  CHARLESTON WV US	ADJUTANT GENERALS OFFICE 305 FAYETTE PIKE  MONTGOMERY WV US
--	--

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
23	Delivery Fee	1.00000	EA		\$ 0.00

Comm Code	Manufacturer	Specification	Model #
39101600			

**Extended Description:**

Contract Item 3.1.23

SCHEDULE OF EVENTS
--------------------

Line	Event	Event Date
1	Vendor Technical Questions Due By 11:00 am., est.	2023-04-28

**SOLICITATION NUMBER: CRFQ ADJ2300000027**  
**Addendum Number: 1**

---

The purpose of this addendum is to modify the solicitation identified as (“ADJ2300000027”) to reflect the change(s) identified and described below.

**Applicable Addendum Category:**

- Modify bid opening date and time.
- Modify specifications of product or service being sought.
- Attachment of vendor questions and responses.
- Attachment of pre-bid sign-in sheet.
- Correction of error.
- Other

**Description of Modification to Solicitation:**

1. To correct error in the Terms and Conditions regarding Insurance Requirements, see attached.
2. To provide responses to questions received, see attached.
3. Bid opening remains May 9th, 2023, at 1:30pm.

**Additional Documentation:** Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

**Terms and Conditions:**

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

**CRFQ ADJ2300000016**  
**Lighting Project for MCAS**  
**Addendum # 1**

---

To issue responses to technical questions & to change insurance requirements in the Terms & Conditions originally supplied.

**Q1. Just to confirm on the solicitation, the lights are a one-time purchase not an installation.**

A1. This is correct. MCAS is only wanting the lights because the installation will be done by employees at MCAS.

**Q2. Line #5 Lamps are not provided with fixtures, do we need to quote lamps?**

A2. No, you don't need to quote lamps. We only need the fixtures.

**Q3. Line # 22 There is no pole information provided, is the pole existing?**

A3. The poles are currently in place.

**Q4. Line #18 There is limited information provided, no part # given. Can you provide more information on this item? Diameter, length, wattage, LED, Surface Mount Ceiling, Wall Mount, Color? Any information you could provide would be appreciated.**

A4. The answer to this is in the specifications 3.1.18. 1-7.

**3.1.18. Contract Item #18 – Lithonia Lighting® Cylinder Downlight, (or Equal)**

Quantity of Nineteen (19)

**3.1.18.1. Mount Type:** Pendant

**3.1.18.2. Fixture Color:** Dark Bronze

**3.1.18.3. Lumens:** 5000

**3.1.18.4. Color Temp:** 4000k

**3.1.18.5. Voltage:** 120

**3.1.18.6. Wattage:** 150

**3.1.18.7. Dimensions:** 14" x 13"

**Other Information:**

**The original terms & conditions stated a requirement for Automobile Liability Insurance. This is not required because this will be installed by MCAS and the products will be dropped shipped. See #8 of the Terms & Conditions as Revised.**



**CRFQ ADJ2300000027**  
**REVISED TERMS & CONDITIONS**

**8. INSURANCE:** The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

**Commercial General Liability Insurance** in at least an amount of: \$1,000,000.00 per occurrence.

**Automobile Liability Insurance** in at least an amount of: \_\_\_\_\_ per occurrence.

**Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: \_\_\_\_\_ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

**Commercial Crime and Third Party Fidelity Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Cyber Liability Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

**Pollution Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Aircraft Liability** in an amount of: \_\_\_\_\_ per occurrence.

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CRFQ ADJ2300000027**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |                                     |                |                          |                 |
|-------------------------------------|----------------|--------------------------|-----------------|
| <input checked="" type="checkbox"/> | Addendum No. 1 | <input type="checkbox"/> | Addendum No. 6  |
| <input type="checkbox"/>            | Addendum No. 2 | <input type="checkbox"/> | Addendum No. 7  |
| <input type="checkbox"/>            | Addendum No. 3 | <input type="checkbox"/> | Addendum No. 8  |
| <input type="checkbox"/>            | Addendum No. 4 | <input type="checkbox"/> | Addendum No. 9  |
| <input type="checkbox"/>            | Addendum No. 5 | <input type="checkbox"/> | Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

WV Electric Supply Co.  
Company  
Jeff Floyd  
Authorized Signature  
5-5-2023  
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

## **INSTRUCTIONS TO VENDORS SUBMITTING BIDS**

**1. REVIEW DOCUMENTS THOROUGHLY:** The attached documents contain a solicitation for bids. Please read these instructions and all documents attached in their entirety. These instructions provide critical information about requirements that if overlooked could lead to disqualification of a Vendor's bid. All bids must be submitted in accordance with the provisions contained in these instructions and the Solicitation. Failure to do so may result in disqualification of Vendor's bid.

**2. MANDATORY TERMS:** The Solicitation may contain mandatory provisions identified by the use of the words "must," "will," and "shall." Failure to comply with a mandatory term in the Solicitation will result in bid disqualification.

**3. PREBID MEETING:** The item identified below shall apply to this Solicitation.

A pre-bid meeting will not be held prior to bid opening

A **MANDATORY PRE-BID** meeting will be held at the following place and time:

All Vendors submitting a bid must attend the mandatory pre-bid meeting. Failure to attend the mandatory pre-bid meeting shall result in disqualification of the Vendor's bid. No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

An attendance sheet provided at the pre-bid meeting shall serve as the official document verifying attendance. Any person attending the pre-bid meeting on behalf of a Vendor must list on the attendance sheet his or her name and the name of the Vendor he or she is representing.

Additionally, the person attending the pre-bid meeting should include the Vendor's E-Mail address, phone number, and Fax number on the attendance sheet. It is the Vendor's responsibility to locate the attendance sheet and provide the required information. Failure to complete the attendance sheet as required may result in disqualification of Vendor's bid.

All Vendors should arrive prior to the starting time for the pre-bid. Vendors who arrive after the starting time but prior to the end of the pre-bid will be permitted to sign in but are charged with knowing all matters discussed at the pre-bid.

Questions submitted at least five business days prior to a scheduled pre-bid will be discussed at the pre-bid meeting if possible. Any discussions or answers to questions at the pre-bid meeting are preliminary in nature and are non-binding. Official and binding answers to questions will be published in a written addendum to the Solicitation prior to bid opening.

**4. VENDOR QUESTION DEADLINE:** Vendors may submit questions relating to this Solicitation to the Purchasing Division. Questions must be submitted in writing. All questions must be submitted on or before the date listed below and to the address listed below to be considered. A written response will be published in a Solicitation addendum if a response is possible and appropriate. Non-written discussions, conversations, or questions and answers regarding this Solicitation are preliminary in nature and are nonbinding.

Submitted emails should have the solicitation number in the subject line.

Question Submission Deadline: April 28, 2023, at 11:00 am., est.

Submit Questions to: David Pauline, Senior Buyer  
2019 Washington Street, East  
Charleston, WV 25305  
Fax: (304) 558-3970  
Email: David.H.Pauline@wv.gov

**5. VERBAL COMMUNICATION:** Any verbal communication between the Vendor and any State personnel is not binding, including verbal communication at the mandatory pre-bid conference. Only information issued in writing and added to the Solicitation by an official written addendum by the Purchasing Division is binding.

**6. BID SUBMISSION:** All bids must be submitted on or before the date and time of the bid opening listed in section 7 below. Vendors can submit bids electronically through wvOASIS, in paper form delivered to the Purchasing Division at the address listed below either in person or by courier, or in facsimile form by faxing to the Purchasing Division at the number listed below. Notwithstanding the foregoing, the Purchasing Division may prohibit the submission of bids electronically through wvOASIS at its sole discretion. Such a prohibition will be contained and communicated in the wvOASIS system resulting in the Vendor's inability to submit bids through wvOASIS. The Purchasing Division will not accept bids, modification of bids, or addendum acknowledgment forms via email. Bids submitted in paper or facsimile form must contain a signature. Bids submitted in wvOASIS are deemed to be electronically signed.

Any bid received by the Purchasing Division staff is considered to be in the possession of the Purchasing Division and will not be returned for any reason.

**For Request for Proposal ("RFP") Responses Only:** Submission of a response to a Request for Proposal is not permitted in wvOASIS. In the event that Vendor is responding to a request for proposal, the Vendor shall submit one original technical and one original cost proposal prior to the bid opening date and time identified in Section 7 below, plus     N/A     convenience copies of each to the Purchasing Division at the address shown below. Additionally, the Vendor should clearly identify and segregate the cost proposal from the technical proposal in a separately sealed envelope.

**Bid Delivery Address and Fax Number:**

Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130  
Fax: 304-558-3970

A bid submitted in paper or facsimile form should contain the information listed below on the face of the submission envelope or fax cover sheet. Otherwise, the bid may be rejected by the Purchasing Division.

VENDOR NAME: WVa Electric Supply Company  
BUYER: David H. Pauline  
SOLICITATION NO.: CRFQ 0603ADJ2300000027-2  
BID OPENING DATE: May 9, 2023  
BID OPENING TIME: 1:30 pm. est.  
FAX NUMBER: 304-558-3970

**7. BID OPENING:** Bids submitted in response to this Solicitation will be opened at the location identified below on the date and time listed below. Delivery of a bid after the bid opening date and time will result in bid disqualification. For purposes of this Solicitation, a bid is considered delivered when confirmation of delivery is provided by wvOASIS (in the case of electronic submission) or when the bid is time stamped by the official Purchasing Division time clock (in the case of hand delivery).

Bid Opening Date and Time: May 9, 2023, at 1:30 pm., est.

Bid Opening Location: Department of Administration, Purchasing Division  
2019 Washington Street East  
Charleston, WV 25305-0130

**8. ADDENDUM ACKNOWLEDGEMENT:** Changes or revisions to this Solicitation will be made by an official written addendum issued by the Purchasing Division. Vendor should acknowledge receipt of all addenda issued with this Solicitation by completing an Addendum Acknowledgment Form, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

**9. BID FORMATTING:** Vendor should type or electronically enter the information onto its bid to prevent errors in the evaluation. Failure to type or electronically enter the information may result in bid disqualification.

**10. ALTERNATE MODEL OR BRAND:** Unless the box below is checked, any model, brand, or specification listed in this Solicitation establishes the acceptable level of quality only and is not intended to reflect a preference for, or in any way favor, a particular brand or vendor. Vendors may bid alternates to a listed model or brand provided that the alternate is at least equal to the model or brand and complies with the required specifications. The equality of any alternate being bid shall be determined by the State at its sole discretion. Any Vendor bidding an alternate model or brand should clearly identify the alternate items in its bid and should include manufacturer's specifications, industry literature, and/or any other relevant documentation demonstrating the equality of the alternate items. Failure to provide information for alternate items may be grounds for rejection of a Vendor's bid.

This Solicitation is based upon a standardized commodity established under W. Va. Code § 5A-3-61. Vendors are expected to bid the standardized commodity identified. Failure to bid the standardized commodity will result in your firm's bid being rejected.

**11. EXCEPTIONS AND CLARIFICATIONS:** The Solicitation contains the specifications that shall form the basis of a contractual agreement. Vendor shall clearly mark any exceptions, clarifications, or other proposed modifications in its bid. Exceptions to, clarifications of, or modifications of a requirement or term and condition of the Solicitation may result in bid disqualification.

**12. COMMUNICATION LIMITATIONS:** In accordance with West Virginia Code of State Rules §148-1-6.6, communication with the State of West Virginia or any of its employees regarding this Solicitation during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited without prior Purchasing Division approval. Purchasing Division approval for such communication is implied for all agency delegated and exempt purchases.

**13. REGISTRATION:** Prior to Contract award, the apparent successful Vendor must be properly registered with the West Virginia Purchasing Division and must have paid the \$125 fee, if applicable.

**14. UNIT PRICE:** Unit prices shall prevail in cases of a discrepancy in the Vendor's bid.

**15. PREFERENCE:** Vendor Preference may be requested in purchases of motor vehicles or construction and maintenance equipment and machinery used in highway and other infrastructure projects. Any request for preference must be submitted in writing with the bid, must specifically identify the preference requested with reference to the applicable subsection of West Virginia Code § 5A-3-37, and must include with the bid any information necessary to evaluate and confirm the applicability of the requested preference. A request form to help facilitate the request can be found at: [www.state.wv.us/admin/purchase/vrc/Venpref.pdf](http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf).

**15A. RECIPROCAL PREFERENCE:** The State of West Virginia applies a reciprocal preference to all solicitations for commodities and printing in accordance with W. Va. Code § 5A-3-37(b). In effect, non-resident vendors receiving a preference in their home states, will see that same preference granted to West Virginia resident vendors bidding against them in West Virginia. Any request for reciprocal preference must include with the bid any information necessary to evaluate and confirm the applicability of the preference. A request form to help facilitate the request can be found at: [www.state.wv.us/admin/purchase/vrc/Venpref.pdf](http://www.state.wv.us/admin/purchase/vrc/Venpref.pdf).

**16. SMALL, WOMEN-OWNED, OR MINORITY-OWNED BUSINESSES:** For any solicitations publicly advertised for bid, in accordance with West Virginia Code §5A-3-37 and W. Va. CSR § 148-22-9, any non-resident vendor certified as a small, women-owned, or minority-owned business under W. Va. CSR § 148-22-9 shall be provided the same preference made available to any resident vendor. Any non-resident small, women-owned, or minority-owned business must identify itself as such in writing, must submit that writing to the Purchasing Division with its bid, and must be properly certified under W. Va. CSR § 148-22-9 prior to contract award to receive the preferences made available to resident vendors. Preference for a non-resident small, women-owned, or minority owned business shall be applied in accordance with W. Va. CSR § 148-22-9.

**17. WAIVER OF MINOR IRREGULARITIES:** The Director reserves the right to waive minor irregularities in bids or specifications in accordance with West Virginia Code of State Rules § 148-1-4.6.

**18. ELECTRONIC FILE ACCESS RESTRICTIONS:** Vendor must ensure that its submission in wvOASIS can be accessed and viewed by the Purchasing Division staff immediately upon bid opening. The Purchasing Division will consider any file that cannot be immediately accessed and viewed at the time of the bid opening (such as, encrypted files, password protected files, or incompatible files) to be blank or incomplete as context requires and are therefore unacceptable. A vendor will not be permitted to unencrypt files, remove password protections, or resubmit documents after bid opening to make a file viewable if those documents are required with the bid. A Vendor may be required to provide document passwords or remove access restrictions to allow the Purchasing Division to print or electronically save documents provided that those documents are viewable by the Purchasing Division prior to obtaining the password or removing the access restriction.

**19. NON-RESPONSIBLE:** The Purchasing Division Director reserves the right to reject the bid of any vendor as Non-Responsible in accordance with W. Va. Code of State Rules § 148-1-5.3, when the Director determines that the vendor submitting the bid does not have the capability to fully perform or lacks the integrity and reliability to assure good-faith performance.”

**20. ACCEPTANCE/REJECTION:** The State may accept or reject any bid in whole, or in part in accordance with W. Va. Code of State Rules § 148-1-4.5. and § 148-1-6.4.b.”

**21. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**22. WITH THE BID REQUIREMENTS:** In instances where these specifications require documentation or other information with the bid, and a vendor fails to provide it with the bid, the Director of the Purchasing Division reserves the right to request those items after bid opening and prior to contract award pursuant to the authority to waive minor irregularities in bids or specifications under W. Va. CSR § 148-1-4.6. This authority does not apply to instances where state law mandates receipt with the bid.

**23. EMAIL NOTIFICATION OF AWARD:** The Purchasing Division will attempt to provide bidders with e-mail notification of contract award when a solicitation that the bidder participated in has been awarded. For notification purposes, bidders must provide the Purchasing Division with a valid email address in the bid response. Bidders may also monitor wvOASIS or the Purchasing Division's website to determine when a contract has been awarded.

**24. ISRAEL BOYCOTT CERTIFICATION:** Vendor's act of submitting a bid in response to this solicitation shall be deemed a certification from bidder to the State that bidder is not currently engaged in, and will not for the duration of the contract, engage in a boycott of Israel. This certification is required by W. Va. Code § 5A-3-63.



## **GENERAL TERMS AND CONDITIONS:**

**1. CONTRACTUAL AGREEMENT:** Issuance of an Award Document signed by the Purchasing Division Director, or his designee, and approved as to form by the Attorney General's office constitutes acceptance by the State of this Contract made by and between the State of West Virginia and the Vendor. Vendor's signature on its bid, or on the Contract if the Contract is not the result of a bid solicitation, signifies Vendor's agreement to be bound by and accept the terms and conditions contained in this Contract.

**2. DEFINITIONS:** As used in this Solicitation/Contract, the following terms shall have the meanings attributed to them below. Additional definitions may be found in the specifications included with this Solicitation/Contract.

**2.1. "Agency" or "Agencies"** means the agency, board, commission, or other entity of the State of West Virginia that is identified on the first page of the Solicitation or any other public entity seeking to procure goods or services under this Contract.

**2.2. "Bid" or "Proposal"** means the vendors submitted response to this solicitation.

**2.3. "Contract"** means the binding agreement that is entered into between the State and the Vendor to provide the goods or services requested in the Solicitation.

**2.4. "Director"** means the Director of the West Virginia Department of Administration, Purchasing Division.

**2.5. "Purchasing Division"** means the West Virginia Department of Administration, Purchasing Division.

**2.6. "Award Document"** means the document signed by the Agency and the Purchasing Division, and approved as to form by the Attorney General, that identifies the Vendor as the contract holder.

**2.7. "Solicitation"** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.

**2.8. "State"** means the State of West Virginia and/or any of its agencies, commissions, boards, etc. as context requires.

**2.9. "Vendor" or "Vendors"** means any entity submitting a bid in response to the Solicitation, the entity that has been selected as the lowest responsible bidder, or the entity that has been awarded the Contract as context requires.

**3. CONTRACT TERM; RENEWAL; EXTENSION:** The term of this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below:

**Term Contract**

**Initial Contract Term:** The Initial Contract Term will be for a period of \_\_\_\_\_  
\_\_\_\_\_. The Initial Contract Term becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as \_\_\_\_\_), and the Initial Contract Term ends on the effective end date also shown on the first page of this Contract.

**Renewal Term:** This Contract may be renewed upon the mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any request for renewal should be delivered to the Agency and then submitted to the Purchasing Division thirty (30) days prior to the expiration date of the initial contract term or appropriate renewal term. A Contract renewal shall be in accordance with the terms and conditions of the original contract. Unless otherwise specified below, renewal of this Contract is limited to \_\_\_\_\_ successive one (1) year periods or multiple renewal periods of less than one year, provided that the multiple renewal periods do not exceed the total number of months available in all renewal years combined. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Alternate Renewal Term** – This contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's office (Attorney General approval is as to form only)

**Delivery Order Limitations:** In the event that this contract permits delivery orders, a delivery order may only be issued during the time this Contract is in effect. Any delivery order issued within one year of the expiration of this Contract shall be effective for one year from the date the delivery order is issued. No delivery order may be extended beyond one year after this Contract has expired.

**Fixed Period Contract:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and must be completed within \_\_\_\_\_ days.

**Fixed Period Contract with Renewals:** This Contract becomes effective upon Vendor's receipt of the notice to proceed and part of the Contract more fully described in the attached specifications must be completed within \_\_\_\_\_ days. Upon completion of the work covered by the preceding sentence, the vendor agrees that:

the contract will continue for \_\_\_\_\_ years;

the contract may be renewed for \_\_\_\_\_ successive \_\_\_\_\_ year periods or shorter periods provided that they do not exceed the total number of months contained in all available renewals. Automatic renewal of this Contract is prohibited. Renewals must be approved by the Vendor, Agency, Purchasing Division and Attorney General's Office (Attorney General approval is as to form only).

**One-Time Purchase:** The term of this Contract shall run from the issuance of the Award Document until all of the goods contracted for have been delivered, but in no event will this Contract extend for more than one fiscal year.

**Construction/Project Oversight:** This Contract becomes effective on the effective start date listed on the first page of this Contract, identified as the State of West Virginia contract cover page containing the signatures of the Purchasing Division, Attorney General, and Encumbrance clerk (or another page identified as \_\_\_\_\_), and continues until the project for which the vendor is providing oversight is complete.

**Other:** Contract Term specified in \_\_\_\_\_

**4. AUTHORITY TO PROCEED:** Vendor is authorized to begin performance of this contract on the date of encumbrance listed on the front page of the Award Document unless either the box for "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked in Section 3 above. If either "Fixed Period Contract" or "Fixed Period Contract with Renewals" has been checked, Vendor must not begin work until it receives a separate notice to proceed from the State. The notice to proceed will then be incorporated into the Contract via change order to memorialize the official date that work commenced.

**5. QUANTITIES:** The quantities required under this Contract shall be determined in accordance with the category that has been identified as applicable to this Contract below.

**Open End Contract:** Quantities listed in this Solicitation/Award Document are approximations only, based on estimates supplied by the Agency. It is understood and agreed that the Contract shall cover the quantities actually ordered for delivery during the term of the Contract, whether more or less than the quantities shown.

**Service:** The scope of the service to be provided will be more clearly defined in the specifications included herewith.

**Combined Service and Goods:** The scope of the service and deliverable goods to be provided will be more clearly defined in the specifications included herewith.

**One-Time Purchase:** This Contract is for the purchase of a set quantity of goods that are identified in the specifications included herewith. Once those items have been delivered, no additional goods may be procured under this Contract without an appropriate change order approved by the Vendor, Agency, Purchasing Division, and Attorney General's office.

**Construction:** This Contract is for construction activity more fully defined in the specifications.

**6. EMERGENCY PURCHASES:** The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency. Emergencies shall include, but are not limited to, delays in transportation or an unanticipated increase in the volume of work. An emergency purchase in the open market, approved by the Purchasing Division Director, shall not constitute a breach of this Contract and shall not entitle the Vendor to any form of compensation or damages. This provision does not excuse the State from fulfilling its obligations under a One-Time Purchase contract.

**7. REQUIRED DOCUMENTS:** All of the items checked in this section must be provided to the Purchasing Division by the Vendor as specified:

**LICENSE(S) / CERTIFICATIONS / PERMITS:** In addition to anything required under the Section of the General Terms and Conditions entitled Licensing, the apparent successful Vendor shall furnish proof of the following licenses, certifications, and/or permits upon request and in a form acceptable to the State. The request may be prior to or after contract award at the State's sole discretion.

The apparent successful Vendor shall also furnish proof of any additional licenses or certifications contained in the specifications regardless of whether or not that requirement is listed above.

**8. INSURANCE:** The apparent successful Vendor shall furnish proof of the insurance identified by a checkmark below prior to Contract award. The insurance coverages identified below must be maintained throughout the life of this contract. Thirty (30) days prior to the expiration of the insurance policies, Vendor shall provide the Agency with proof that the insurance mandated herein has been continued. Vendor must also provide Agency with immediate notice of any changes in its insurance policies, including but not limited to, policy cancelation, policy reduction, or change in insurers. The apparent successful Vendor shall also furnish proof of any additional insurance requirements contained in the specifications prior to Contract award regardless of whether that insurance requirement is listed in this section.

Vendor must maintain:

**Commercial General Liability Insurance** in at least an amount of: 1,000,000.00 per occurrence.

**Automobile Liability Insurance** in at least an amount of: 100,000.00 per occurrence.

**Professional/Malpractice/Errors and Omission Insurance** in at least an amount of: \_\_\_\_\_ per occurrence. Notwithstanding the forgoing, Vendor's are not required to list the State as an additional insured for this type of policy.

**Commercial Crime and Third Party Fidelity Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Cyber Liability Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Builders Risk Insurance** in an amount equal to 100% of the amount of the Contract.

**Pollution Insurance** in an amount of: \_\_\_\_\_ per occurrence.

**Aircraft Liability** in an amount of: \_\_\_\_\_ per occurrence.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

6/29/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER AssuredPartners of West Virginia, LLC 1 Insurance Way; PO Box 10 Ona WV 25545	CONTACT NAME: Kim Woods
	PHONE (A/C, No, Ext): (304) 736-2222 FAX (A/C, No): (304) 302-3401
	E-MAIL ADDRESS: kim.woods@assuredpartners.com
	INSURER(S) AFFORDING COVERAGE
INSURED West Virginia Electric Supply Company Att: Jared Colker PO Box 6668 Huntington WV 25773-6668	INSURER A: Motorists Insurance NAIC # 13331
	INSURER B: BrickStreet/Encova Insurance NAIC # 12372
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES CERTIFICATE NUMBER: Master 22/23 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			5000049665	7/1/2022	7/1/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Employee Benefits \$ 1,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			5000049665	7/1/2022	7/1/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ DRive other Car Medical Payments \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0			5000055373	7/1/2022	7/1/2023	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
B	<input type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY <input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WCB1018836	1/29/2023	1/29/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

## CERTIFICATE HOLDER

## CANCELLATION

Evidence of Coverage	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE Kim Woods/KIMWOO <i>Kim Woods</i>

**9. WORKERS' COMPENSATION INSURANCE:** Vendor shall comply with laws relating to workers compensation, shall maintain workers' compensation insurance when required, and shall furnish proof of workers' compensation insurance upon request.

**10. VENUE:** All legal actions for damages brought by Vendor against the State shall be brought in the West Virginia Claims Commission. Other causes of action must be brought in the West Virginia court authorized by statute to exercise jurisdiction over it.

**11. LIQUIDATED DAMAGES:** This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications:

\_\_\_\_\_ for \_\_\_\_\_.

Liquidated Damages Contained in the Specifications.

Liquidated Damages Are Not Included in this Contract.

**12. ACCEPTANCE:** Vendor's signature on its bid, or on the certification and signature page, constitutes an offer to the State that cannot be unilaterally withdrawn, signifies that the product or service proposed by vendor meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise indicated, and signifies acceptance of the terms and conditions contained in the Solicitation unless otherwise indicated.

**13. PRICING:** The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.

**14. PAYMENT IN ARREARS:** Payments for goods/services will be made in arrears only upon receipt of a proper invoice, detailing the goods/services provided or receipt of the goods/services, whichever is later. Notwithstanding the foregoing, payments for software maintenance, licenses, or subscriptions may be paid annually in advance.

**15. PAYMENT METHODS:** Vendor must accept payment by electronic funds transfer and P-Card. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)

**16. TAXES:** The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.

**17. ADDITIONAL FEES:** Vendor is not permitted to charge additional fees or assess additional charges that were not either expressly provided for in the solicitation published by the State of West Virginia, included in the Contract, or included in the unit price or lump sum bid amount that Vendor is required by the solicitation to provide. Including such fees or charges as notes to the solicitation may result in rejection of vendor's bid. Requesting such fees or charges be paid after the contract has been awarded may result in cancellation of the contract.

**18. FUNDING:** This Contract shall continue for the term stated herein, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise made available, this Contract becomes void and of no effect beginning on July 1 of the fiscal year for which funding has not been appropriated or otherwise made available. If that occurs, the State may notify the Vendor that an alternative source of funding has been obtained and thereby avoid the automatic termination. Non-appropriation or non-funding shall not be considered an event of default.

**19. CANCELLATION:** The Purchasing Division Director reserves the right to cancel this Contract immediately upon written notice to the vendor if the materials or workmanship supplied do not conform to the specifications contained in the Contract. The Purchasing Division Director may also cancel any purchase or Contract upon 30 days written notice to the Vendor in accordance with West Virginia Code of State Rules § 148-1-5.2.b.

**20. TIME:** Time is of the essence regarding all matters of time and performance in this Contract.

**21. APPLICABLE LAW:** This Contract is governed by and interpreted under West Virginia law without giving effect to its choice of law principles. Any information provided in specification manuals, or any other source, verbal or written, which contradicts or violates the West Virginia Constitution, West Virginia Code, or West Virginia Code of State Rules is void and of no effect.

**22. COMPLIANCE WITH LAWS:** Vendor shall comply with all applicable federal, state, and local laws, regulations and ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to comply with all applicable laws, regulations, and ordinances. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**23. ARBITRATION:** Any references made to arbitration contained in this Contract, Vendor's bid, or in any American Institute of Architects documents pertaining to this Contract are hereby deleted, void, and of no effect.



**24. MODIFICATIONS:** This writing is the parties' final expression of intent. Notwithstanding anything contained in this Contract to the contrary no modification of this Contract shall be binding without mutual written consent of the Agency, and the Vendor, with approval of the Purchasing Division and the Attorney General's office (Attorney General approval is as to form only). Any change to existing contracts that adds work or changes contract cost, and were not included in the original contract, must be approved by the Purchasing Division and the Attorney General's Office (as to form) prior to the implementation of the change or commencement of work affected by the change.

**25. WAIVER:** The failure of either party to insist upon a strict performance of any of the terms or provision of this Contract, or to exercise any option, right, or remedy herein contained, shall not be construed as a waiver or a relinquishment for the future of such term, provision, option, right, or remedy, but the same shall continue in full force and effect. Any waiver must be expressly stated in writing and signed by the waiving party.

**26. SUBSEQUENT FORMS:** The terms and conditions contained in this Contract shall supersede any and all subsequent terms and conditions which may appear on any form documents submitted by Vendor to the Agency or Purchasing Division such as price lists, order forms, invoices, sales agreements, or maintenance agreements, and includes internet websites or other electronic documents. Acceptance or use of Vendor's forms does not constitute acceptance of the terms and conditions contained thereon.

**27. ASSIGNMENT:** Neither this Contract nor any monies due, or to become due hereunder, may be assigned by the Vendor without the express written consent of the Agency, the Purchasing Division, the Attorney General's office (as to form only), and any other government agency or office that may be required to approve such assignments.

**28. WARRANTY:** The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.

**29. STATE EMPLOYEES:** State employees are not permitted to utilize this Contract for personal use and the Vendor is prohibited from permitting or facilitating the same.

**30. PRIVACY, SECURITY, AND CONFIDENTIALITY:** The Vendor agrees that it will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the Agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the Agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/default.html>.

**31. YOUR SUBMISSION IS A PUBLIC DOCUMENT:** Vendor's entire response to the Solicitation and the resulting Contract are public documents. As public documents, they will be disclosed to the public following the bid/proposal opening or award of the contract, as required by the competitive bidding laws of West Virginia Code §§ 5A-3-1 et seq., 5-22-1 et seq., and 5G-1-1 et seq. and the Freedom of Information Act West Virginia Code §§ 29B-1-1 et seq.

**DO NOT SUBMIT MATERIAL YOU CONSIDER TO BE CONFIDENTIAL, A TRADE SECRET, OR OTHERWISE NOT SUBJECT TO PUBLIC DISCLOSURE.**

Submission of any bid, proposal, or other document to the Purchasing Division constitutes your explicit consent to the subsequent public disclosure of the bid, proposal, or document. The Purchasing Division will disclose any document labeled "confidential," "proprietary," "trade secret," "private," or labeled with any other claim against public disclosure of the documents, to include any "trade secrets" as defined by West Virginia Code § 47-22-1 et seq. All submissions are subject to public disclosure without notice.

**32. LICENSING:** In accordance with West Virginia Code of State Rules § 148-1-6.1.e, Vendor must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agency or political subdivision. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Upon request, the Vendor must provide all necessary releases to obtain information to enable the Purchasing Division Director or the Agency to verify that the Vendor is licensed and in good standing with the above entities.

**SUBCONTRACTOR COMPLIANCE:** Vendor shall notify all subcontractors providing commodities or services related to this Contract that as subcontractors, they too are required to be licensed, in good standing, and up-to-date on all state and local obligations as described in this section. Obligations related to political subdivisions may include, but are not limited to, business licensing, business and occupation taxes, inspection compliance, permitting, etc. Notification under this provision must occur prior to the performance of any work under the contract by the subcontractor.

**33. ANTITRUST:** In submitting a bid to, signing a contract with, or accepting a Award Document from any agency of the State of West Virginia, the Vendor agrees to convey, sell, assign, or transfer to the State of West Virginia all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to Vendor.

**34. VENDOR NON-CONFLICT:** Neither Vendor nor its representatives are permitted to have any interest, nor shall they acquire any interest, direct or indirect, which would compromise the performance of its services hereunder. Any such interests shall be promptly presented in detail to the Agency.

Revised 11/1/2022

**35. VENDOR RELATIONSHIP:** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship or employer-employee relationship is contemplated or created by this Contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating any and all individuals employed pursuant to the terms of this Solicitation and resulting contract. Neither the Vendor, nor any employees or subcontractors of the Vendor, shall be deemed to be employees of the State for any purpose whatsoever. Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension, or other deferred compensation plans, including but not limited to, Workers' Compensation and Social Security obligations, licensing fees, etc. and the filing of all necessary documents, forms, and returns pertinent to all of the foregoing.

Vendor shall hold harmless the State, and shall provide the State and Agency with a defense against any and all claims including, but not limited to, the foregoing payments, withholdings, contributions, taxes, Social Security taxes, and employer income tax returns.

**36. INDEMNIFICATION:** The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against: (1) Any claims or losses for services rendered by any subcontractor, person, or firm performing or supplying services, materials, or supplies in connection with the performance of the Contract; (2) Any claims or losses resulting to any person or entity injured or damaged by the Vendor, its officers, employees, or subcontractors by the publication, translation, reproduction, delivery, performance, use, or disposition of any data used under the Contract in a manner not authorized by the Contract, or by Federal or State statutes or regulations; and (3) Any failure of the Vendor, its officers, employees, or subcontractors to observe State and Federal laws including, but not limited to, labor and wage and hour laws.

**37. NO DEBT CERTIFICATION:** In accordance with West Virginia Code §§ 5A-3-10a and 5-22-1(i), the State is prohibited from awarding a contract to any bidder that owes a debt to the State or a political subdivision of the State. By submitting a bid, or entering into a contract with the State, Vendor is affirming that (1) for construction contracts, the Vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, neither the Vendor nor any related party owe a debt as defined above, and neither the Vendor nor any related party are in employer default as defined in the statute cited above unless the debt or employer default is permitted under the statute.

**38. CONFLICT OF INTEREST:** Vendor, its officers or members or employees, shall not presently have or acquire an interest, direct or indirect, which would conflict with or compromise the performance of its obligations hereunder. Vendor shall periodically inquire of its officers, members and employees to ensure that a conflict of interest does not arise. Any conflict of interest discovered shall be promptly presented in detail to the Agency.

**39. REPORTS:** Vendor shall provide the Agency and/or the Purchasing Division with the following reports identified by a checked box below:

Such reports as the Agency and/or the Purchasing Division may request. Requested reports may include, but are not limited to, quantities purchased, agencies utilizing the contract, total contract expenditures by agency, etc.

Quarterly reports detailing the total quantity of purchases in units and dollars, along with a listing of purchases by agency. Quarterly reports should be delivered to the Purchasing Division via email at [purchasing.division@wv.gov](mailto:purchasing.division@wv.gov).

**40. BACKGROUND CHECK:** In accordance with W. Va. Code § 15-2D-3, the State reserves the right to prohibit a service provider's employees from accessing sensitive or critical information or to be present at the Capitol complex based upon results addressed from a criminal background check. Service providers should contact the West Virginia Division of Protective Services by phone at (304) 558-9911 for more information.

**41. PREFERENCE FOR USE OF DOMESTIC STEEL PRODUCTS:** Except when authorized by the Director of the Purchasing Division pursuant to W. Va. Code § 5A-3-56, no contractor may use or supply steel products for a State Contract Project other than those steel products made in the United States. A contractor who uses steel products in violation of this section may be subject to civil penalties pursuant to W. Va. Code § 5A-3-56. As used in this section:

- a. "State Contract Project" means any erection or construction of, or any addition to, alteration of or other improvement to any building or structure, including, but not limited to, roads or highways, or the installation of any heating or cooling or ventilating plants or other equipment, or the supply of and materials for such projects, pursuant to a contract with the State of West Virginia for which bids were solicited on or after June 6, 2001.
- b. "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two or more or such operations, from steel made by the open heath, basic oxygen, electric furnace, Bessemer or other steel making process.
- c. The Purchasing Division Director may, in writing, authorize the use of foreign steel products if:
  1. The cost for each contract item used does not exceed one tenth of one percent (.1%) of the total contract cost or two thousand five hundred dollars (\$2,500.00), whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project; or
  2. The Director of the Purchasing Division determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

**42. PREFERENCE FOR USE OF DOMESTIC ALUMINUM, GLASS, AND STEEL:** In Accordance with W. Va. Code § 5-19-1 et seq., and W. Va. CSR § 148-10-1 et seq., for every contract or subcontract, subject to the limitations contained herein, for the construction, reconstruction, alteration, repair, improvement or maintenance of public works or for the purchase of any item of machinery or equipment to be used at sites of public works, only domestic aluminum, glass or steel products shall be supplied unless the spending officer determines, in writing, after the receipt of offers or bids, (1) that the cost of domestic aluminum, glass or steel products is unreasonable or inconsistent with the public interest of the State of West Virginia, (2) that domestic aluminum, glass or steel products are not produced in sufficient quantities to meet the contract requirements, or (3) the available domestic aluminum, glass, or steel do not meet the contract specifications. This provision only applies to public works contracts awarded in an amount more than fifty thousand dollars (\$50,000) or public works contracts that require more than ten thousand pounds of steel products.

The cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than twenty percent (20%) of the bid or offered price for foreign made aluminum, glass, or steel products. If the domestic aluminum, glass or steel products to be supplied or produced in a “substantial labor surplus area”, as defined by the United States Department of Labor, the cost of domestic aluminum, glass, or steel products may be unreasonable if the cost is more than thirty percent (30%) of the bid or offered price for foreign made aluminum, glass, or steel products. This preference shall be applied to an item of machinery or equipment, as indicated above, when the item is a single unit of equipment or machinery manufactured primarily of aluminum, glass or steel, is part of a public works contract and has the sole purpose or of being a permanent part of a single public works project. This provision does not apply to equipment or machinery purchased by a spending unit for use by that spending unit and not as part of a single public works project.

All bids and offers including domestic aluminum, glass or steel products that exceed bid or offer prices including foreign aluminum, glass or steel products after application of the preferences provided in this provision may be reduced to a price equal to or lower than the lowest bid or offer price for foreign aluminum, glass or steel products plus the applicable preference. If the reduced bid or offer prices are made in writing and supersede the prior bid or offer prices, all bids or offers, including the reduced bid or offer prices, will be reevaluated in accordance with this rule.

**43. INTERESTED PARTY SUPPLEMENTAL DISCLOSURE:** W. Va. Code § 6D-1-2 requires that for contracts with an actual or estimated value of at least \$1 million, the Vendor must submit to the Agency a disclosure of interested parties prior to beginning work under this Contract. Additionally, the Vendor must submit a supplemental disclosure of interested parties reflecting any new or differing interested parties to the contract, which were not included in the original pre-work interested party disclosure, within 30 days following the completion or termination of the contract. A copy of that form is included with this solicitation or can be obtained from the WV Ethics Commission. This requirement does not apply to publicly traded companies listed on a national or international stock exchange. A more detailed definition of interested parties can be obtained from the form referenced above.

**44. PROHIBITION AGAINST USED OR REFURBISHED:** Unless expressly permitted in the solicitation published by the State, Vendor must provide new, unused commodities, and is prohibited from supplying used or refurbished commodities, in fulfilling its responsibilities under this Contract.

**45. VOID CONTRACT CLAUSES:** This Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law.

**46. ISRAEL BOYCOTT:** Bidder understands and agrees that, pursuant to W. Va. Code § 5A-3-63, it is prohibited from engaging in a boycott of Israel during the term of this contract.

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Valarie Tomlin Branch Manager Bradley  
(Address) 5710 Robert C. Byrd Dr. Bradley WV 25818  
(Phone Number) / (Fax Number) 304-255-5067 304-255-5075  
(Email address) Valarie.tomlin@WVSupply.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

WVa Electric Supply Co.  
(Company)  
Jeff Floyd  
(Signature of Authorized Representative)  
Jeff Floyd Vice President 5-5-23  
(Printed Name and Title of Authorized Representative) (Date)  
304-525-0361 x 4514  
(Phone Number) (Fax Number)  
jeff.floyd@WVSupply.com  
(Email Address)

**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ230000027**

---

**SPECIFICATIONS**

1. **PURPOSE AND SCOPE:** The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Army National Guard, Mountaineer Challenge Academy South to establish a contract for the one-time purchase of various light fixtures and supplies.
  
2. **DEFINITIONS:** The terms listed below shall have the meanings assigned to them below. Additional definitions can be found in Section 2 of the General Terms and Conditions.
  - 2.1. **“Contract Item” or “Contract Items”** means the list of items identified in Section 3.1 below and on the Pricing Pages.
  
  - 2.2. **“Solicitation”** means the official notice of an opportunity to supply the State with goods or services that is published by the Purchasing Division.
  
  - 2.3. **“LED”** means light-emitting diode.
  
  - 2.4. **“Lumen”** means a measure of the total amount of visible light in some defined beam or angle or emitted from some source.
  
  - 2.5. **“Voltage”** means electric pressure, electric tension, or (electric) potential difference.
  
  - 2.6. **“Wattage”** means a measure of electrical power expressed in watts.
  
3. **GENERAL REQUIREMENTS:**
  - 3.1. **Contract Items and Mandatory Requirements:** Contract Item must meet or exceed the mandatory requirements of the brands and models listed below and may be substituted for by equal or comparable items to specified brands below. All lumens will be +/-20%, all wattage will be +/-20%, all dimensions will be +/-20%, and all voltage will be 120V.
    - 3.1.1. **Contract Item #1 – Lithonia Lighting® WPX2 Cut-Off Wall Pack, (or Equal) Quantity of Twelve (12)**
      - 3.1.1.1. **Mount Type:** Wall
      - 3.1.1.2. **Fixture Color:** Dark Bronze
      - 3.1.1.3. **Lumens:** 6000
      - 3.1.1.4. **Voltage:** 120
      - 3.1.1.5. **Color Temp:** 5000k



**REQUEST FOR QUOTATION  
Various Light Fixtures and Supplies for MCAS  
CRFQ ADJ2300000027**

---

- 3.1.1.6. **Wattage:** 47
            - 3.1.1.7. **Dimensions:** 9" x 12" x 4"
    - 3.1.2. **Contract Item #2 – Lithonia Lighting® TWX2 Forward Throw Wall Pack, (or Equal) Quantity of (4)**
      - 3.1.2.1. **Mount Type:** Wall
      - 3.1.2.2. **Fixture Color:** Dark Bronze
      - 3.1.2.3. **Lumens:** 6000
      - 3.1.2.4. **Color Temp:** 5000k
      - 3.1.2.5. **Voltage:** 120
      - 3.1.2.6. **Wattage:** 47
      - 3.1.2.7. **Dimensions:** 9" x 13" x 4"
    - 3.1.3. **Contract Item #3 – SATCO|NUVO® 62-1144R1 Up-and-Down Wall Sconce, (or Equal) Quantity of (4)**
      - 3.1.3.1. **Mount Type:** Wall
      - 3.1.3.2. **Fixture Color:** Black
      - 3.1.3.3. **Lumens:** 1800
      - 3.1.3.4. **Color Temp:** 3000k
      - 3.1.3.5. **Voltage:** 120
      - 3.1.3.6. **Wattage:** 20
      - 3.1.3.7. **Dimensions:** 12" x 3" x 3"
    - 3.1.4. **Contract Item #4 – SATCO|NUVO® 62/1645 Indoor Wall Sconce, (or Equal) Quantity of (4)**
      - 3.1.4.1. **Mount Type:** Wall
      - 3.1.4.2. **Fixture Color:** White/Brushed Nickel
      - 3.1.4.3. **Lumens:** 850
      - 3.1.4.4. **Color Temp:** 5000k
      - 3.1.4.5. **Voltage:** 120
      - 3.1.4.6. **Wattage:** 10
      - 3.1.4.7. **Dimensions:** 10.5" x 9"
    - 3.1.5. **Contract Item #5 – SATCO|NUVO® 60/890 Outdoor Central Park Light, (or Equal) Quantity of Two (2)**
      - 3.1.5.1. **Mount Type:** Wall
      - 3.1.5.2. **Fixture Color:** Black
      - 3.1.5.3. **Lumens:** 3-Lamp Candelabra
      - 3.1.5.4. **Voltage:** 120
      - 3.1.5.5. **Wattage:** <60
      - 3.1.5.6. **Dimensions:** 23" x 7.5"

**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ230000027**

---

- 3.1.6. Contract Item #6 – WAC Lighting® LED Vanity Light (WS-180216), (or Equal) Quantity of Thirty (30)**
- 3.1.6.1. Mount Type: Wall**
  - 3.1.6.2. Fixture Color: White/Brushed Nickel**
  - 3.1.6.3. Lumens: 900**
  - 3.1.6.4. Color Temp: 3500k**
  - 3.1.6.5. Voltage: 120**
  - 3.1.6.6. Wattage: 16**
  - 3.1.6.7. Dimensions: 16” x 5.5”**
- 3.1.7. Contract Item #7 – Lithonia Lighting® Flat Panel Troffer, LED, CPX CPX 2X2 3200LM 50K M4, (or Equal) Quantity of Two Hundred and Twenty-Five (225)**
- 3.1.7.1. Mount Type: Ceiling**
  - 3.1.7.2. Fixture Color: White**
  - 3.1.7.3. Lumens: 3200**
  - 3.1.7.4. Color Temp: 5000k**
  - 3.1.7.5. Voltage: 120**
  - 3.1.7.6. Wattage: 30**
  - 3.1.7.7. Dimensions: 2’ x 2’**
- 3.1.8. Contract Item #8 – Lithonia Lighting 2X2SMKSH, Surface Mount Kit, Flat Panel, (or Equal) Quantity of Twelve (12)**
- 3.1.8.1. Wattage: 30**
  - 3.1.8.2. Dimensions: 2’ x 2’**
- 3.1.9. Contract Item #9 – Lithonia Lighting® CPX-2X4-4000LM-40K-M2 LED Flat Panel Troffer, (or Equal) Quantity of One Hundred and Sixty (160)**
- 3.1.9.1. Mount Type: Ceiling**
  - 3.1.9.2. Fixture Color: White**
  - 3.1.9.3. Lumens: 4000**
  - 3.1.9.4. Color Temp: 5000k**
  - 3.1.9.5. Voltage: 120**
  - 3.1.9.6. Wattage: 40**
  - 3.1.9.7. Dimensions: 2’ x 4’**
- 3.1.10. Contract Item #10 – Lithonia Lighting®WF6 6" LED Wafer Recessed Downlight, (or Equal) Quantity of Twenty-Five (25)**
- 3.1.10.1. Mount Type: Ceiling**
  - 3.1.10.2. Fixture Color: White**
  - 3.1.10.3. Lumens: 1000**
  - 3.1.10.4. Color Temp: 5000k**

**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ2300000027**

---

- 3.1.10.5. **Voltage:** 120
- 3.1.10.6. **Wattage:** 13
- 3.1.10.7. **Dimensions:** 6" Round
  
- 3.1.11. **Contract Item #11 – Lithonia Lighting® WF8 8" LED Wafer Recessed Downlight, (or Equal) Quantity of Twenty-Five (25)**
  - 3.1.11.1. **Mount Type:** Ceiling
  - 3.1.11.2. **Fixture Color:** White
  - 3.1.11.3. **Lumens:** 1700
  - 3.1.11.4. **Color Temp:** 5000k
  - 3.1.11.5. **Voltage:** 120
  - 3.1.11.6. **Wattage:** 21
  - 3.1.11.7. **Dimensions:** 8" Round
  
- 3.1.12. **Contract Item #12 – Lithonia Lighting® FMLWL 48" LED Wraparound, (or Equal) Quantity of Forty (40)**
  - 3.1.12.1. **Mount Type:** Ceiling
  - 3.1.12.2. **Fixture Color:** White
  - 3.1.12.3. **Lumens:** 2500
  - 3.1.12.4. **Color Temp:** 4000k
  - 3.1.12.5. **Voltage:** 120
  - 3.1.12.6. **Wattage:** 40
  - 3.1.12.7. **Dimensions:** 45" x 6" x 3"
  
- 3.1.13. **Contract Item #13 – Lithonia Lighting® FMLWL 24" Low-Profile LED Wraparound Flush Mount, (or Equal) Quantity of Ten (10)**
  - 3.1.13.1. **Mount Type:** Ceiling
  - 3.1.13.2. **Fixture Color:** White
  - 3.1.13.3. **Lumens:** 1200
  - 3.1.13.4. **Color Temp:** 4000k
  - 3.1.13.5. **Voltage:** 120
  - 3.1.13.6. **Wattage:** 20
  - 3.1.13.7. **Dimensions:** 24" x 6" x 3"
  
- 3.1.14. **Contract Item #14 – Lithonia Lighting® FMLRL M4 20840 14" Round Low-Profile LED, (or Equal) Quantity of Two Hundred (200)**
  - 3.1.14.1. **Mount Type:** Ceiling
  - 3.1.14.2. **Fixture Color:** White
  - 3.1.14.3. **Lumens:** 1600
  - 3.1.14.4. **Color Temp:** 4000k
  - 3.1.14.5. **Voltage:** 120
  - 3.1.14.6. **Wattage:** 24

**REQUEST FOR QUOTATION  
Various Light Fixtures and Supplies for MCAS  
CRFQ ADJ2300000027**

---

**3.1.14.7. Dimensions: 14" Round**

**3.1.15. Contract Item #15 – Lithonia Lighting® EU2C Emergency Light Only (Not An Exit), (or Equal) Quantity of Six (6)**

**3.1.15.1. Mount Type: Ceiling/Wall**

**3.1.15.2. Fixture Color: White**

**3.1.15.3. Lumens: 90-Minute**

**3.1.15.4. Voltage: 120**

**3.1.15.5. Wattage: 0.5-1.0**

**3.1.15.6. Dimensions: 10" x 4"**

**3.1.16. Contract Item #16 – Lithonia Lighting® CNY LED P1 Canopy Light, (or Equal) Quantity of Four (4)**

**3.1.16.1. Mount Type: Ceiling/Wall**

**3.1.16.2. Fixture Color: White**

**3.1.16.3. Lumens: 1200**

**3.1.16.4. Color Temp: 4000k**

**3.1.16.5. Voltage: 120**

**3.1.16.6. Wattage: 20**

**3.1.16.7. Dimensions: 24" x 6" x 3"**

**3.1.17. Contract Item #17 – Barron® SSF-4' Series LED Linear Stairwell Fixture (Emergency 90-Minute), (or Equal) Quantity of Fifteen (15)**

**3.1.17.1. Mount Type: Ceiling/Wall**

**3.1.17.2. Fixture Color: White**

**3.1.17.3. Lumens: 5000**

**3.1.17.4. Color Temp: 4000k**

**3.1.17.5. Voltage: 120**

**3.1.17.6. Wattage: 40**

**3.1.17.7. Dimensions: 48" x 4"**

**3.1.18. Contract Item #18 – Lithonia Lighting® Cylinder Downlight, (or Equal) Quantity of Nineteen (19)**

**3.1.18.1. Mount Type: Pendant**

**3.1.18.2. Fixture Color: Dark Bronze**

**3.1.18.3. Lumens: 5000**

**3.1.18.4. Color Temp: 4000k**

**3.1.18.5. Voltage: 120**

**3.1.18.6. Wattage: 150**

**3.1.18.7. Dimensions: 14" x 13"**

**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ2300000027**

---

- 3.1.19. Contract Item #19 – Lithonia Lighting® ESXF1ALOSWW2KYDDB Contractor Select™ LED Floodlight, (or Equal) Quantity of Two (2)**
- 3.1.19.1. Mount Type: Knuckle**
  - 3.1.19.2. Fixture Color: Dark Bronze**
  - 3.1.19.3. Lumens: 5000**
  - 3.1.19.4. Color Temp: 5000k**
  - 3.1.19.5. Voltage: 120**
  - 3.1.19.6. Wattage: 35**
  - 3.1.19.7. Dimensions: 9” x 6”**
- 3.1.20. Contract Item #20 – LED Bypass Tubes Quantity of Thirty (30)**
- 3.1.20.1. Mount Type: Med Pin T8**
  - 3.1.20.2. Lumens: 1500**
  - 3.1.20.3. Color Temp: 5000k**
  - 3.1.20.4. Voltage: 120**
  - 3.1.20.5. Wattage: 14**
  - 3.1.20.6. Dimensions: 48”**
- 3.1.21. Contract Item #21 – LED Bypass Tubes Quantity of Five (5)**
- 3.1.21.1. Mount Type: Med Pin T8**
  - 3.1.21.2. Lumens: 1500**
  - 3.1.21.3. Color Temp: 5000k**
  - 3.1.21.4. Voltage: 120**
  - 3.1.21.5. Wattage: 14**
  - 3.1.21.6. Dimensions: 36”**
- 3.1.22. Contract Item #22 – US Architectural Lighting® Post Top Light (LCMRV32LEDNWPTRAL9005T), (or Equal) Quantity of Six (6)**
- 3.1.22.1. Mount Type: Post-Top**
  - 3.1.22.2. Fixture Color: Black**
  - 3.1.22.3. Color Temp: 5000k**
  - 3.1.22.4. Voltage: 120**
  - 3.1.22.5. Wattage: 32**
  - 3.1.22.6. Dimensions: 40” x 16”**
- 3.1.23. Contract Item #23 – Delivery Fee**
- 3.1.23.1. Vendor shall provide an all-inclusive fee for freight charges.**

**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ2300000027**

---

**4. CONTRACT AWARD:**

**4.1. Contract Award:** The Contract shall be awarded to the Vendor that provides the Contract Items meeting the required specifications for the lowest overall total bid cost.

**4.1.1.** The relationship of the Vendor to the State shall be that of an independent contractor and no principal-agent relationship is contemplated or created by the parties to this contract. The Vendor as an independent contractor is solely liable for the acts and omissions of its employees and agents. Vendor shall be responsible for selecting, supervising, and compensating all individuals employed pursuant to the terms of the Request for Quotation and resulting contract. Neither the Vendor nor any employees or contractors of the Vendor shall be deemed employees of the State of West Virginia for any purposes.

**4.1.2.** Vendor shall be exclusively responsible for payment of employees and contractors for all wages and salaries, taxes, withholding payments, penalties, fees, fringe benefits, professional liability insurance premiums, contributions to insurance and pension or other deferred compensation plans, including but not limited to Worker's Compensation and Social Security obligations, and licensing fees, etc., and the filing of all necessary documents, forms, and returns pertinent to all the foregoing.

**4.2. Commodity Lines:** Vendor submitting bids electronically through wvOasis should input the unit cost for each commodity line, wvOasis will automatically total the cost for each line and once all lines are complete will automatically provide a total overall bid cost.

**Paper Bids:** Vendors submitting a paper bid will print out the Solicitation documents in order to complete their bid. Vendors will manually input the unit price for each commodity line and manually multiply the quantity by the unit price to get the total price per commodity line. Once all lines have been completed the Vendor will add up the total price from each commodity line in order to provide a total overall bid cost.

**REQUEST FOR QUOTATION  
Various Light Fixtures and Supplies for MCAS  
CRFQ ADJ230000027**

---

**5. ORDERING AND PAYMENT:**

**5.1. Ordering:** Vendor shall accept orders through wvOASIS, regular mail, facsimile, e-mail, or any other written form of communication. Vendor may, but is not required to, accept on-line orders through a secure internet ordering portal/website. If Vendor has the ability can accept on-line orders, it should include in its response a brief description of how Agencies may utilize the on-line ordering system. Vendor shall ensure that its on-line ordering system is properly secured prior to processing Agency orders on-line.

**5.2. Payment:** Vendor shall accept payment in accordance with the payment procedures of the State of West Virginia.

**6. DELIVERY AND RETURN:**

**6.1. Delivery Time:** Vendor shall deliver standard orders within working days after orders are received. Vendor shall deliver emergency orders within fourteen (14) working day(s) after orders are received. Vendor shall ship all orders in accordance with the above schedule and shall not hold orders until a minimum delivery quantity is met.

**6.2. Late Delivery:** The Agency placing the order under this Contract must be notified in writing if orders will be delayed for any reason. Any delay in delivery that could cause harm to an Agency will be grounds for cancellation of the delayed order, and/or obtaining the items ordered from a third party. Any Agency seeking to obtain items from a third party under this provision must first obtain approval of the Purchasing Division.

**6.3. Delivery Payment/Risk of Loss:** Standard order delivery shall be F.O.B. destination to the Agency's location. Vendor shall include the cost of standard order delivery charges in its bid pricing/discount and is not permitted to charge the Agency separately for such delivery. The Agency will pay delivery charges on all emergency orders if Vendor invoices those delivery costs as a separate charge with the original freight bill attached to the invoice.

**6.4. Return of Unacceptable Items:** If the Agency deems the Contract Items to be unacceptable, the Contract Items shall be returned to Vendor at Vendor's expense and with no restocking charge. Vendor shall either make arrangements for the return within five (5) days of being notified that items are unacceptable or permit the Agency to arrange for the return and reimburse Agency for delivery expenses. If the original packaging cannot be utilized for the return, Vendor will supply the Agency with appropriate return packaging

**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ2300000027**

---

upon request. All returns of unacceptable items shall be F.O.B. the Agency's location. The returned product shall either be replaced, or the Agency shall receive a full credit or refund for the purchase price, at the Agency's discretion.

**6.5. Return Due to Agency Error:** Items ordered in error by the Agency will be returned for credit within 30 days of receipt, F.O.B. Vendor's location. Vendor shall not charge a restocking fee if returned products are in a resalable condition. Items shall be deemed to be in a resalable condition if they are unused and in the original packaging. Any restocking fee for items not in a resalable condition shall be the lower of the Vendor's customary restocking fee or 5% of the total invoiced value of the returned items.

**7. VENDOR DEFAULT:**

**7.1. Failure to provide Contract Items in accordance with the requirements contained herein.**

**7.1.1. Failure to comply with other specifications and requirements contained herein.**

**7.1.2. Failure to comply with any laws, rules, and ordinances applicable to the Contract Services provided under this Contract.**

**7.1.3. Failure to remedy deficient performance upon request.**

**7.2. The following remedies shall be available to Agency upon default.**

**7.2.1. Immediate cancellation of the Contract.**

**7.2.2. Immediate cancellation of one or more release orders issued under this Contract.**

**7.2.3. Any other remedies available in law or equity.**

**8. MISCELLANEOUS:**

**8.1. No Substitutions:** Vendor shall supply only Contract Items submitted in response to the Solicitation unless a contract modification is approved in accordance with the provisions contained in this Contract.

**8.2. Vendor Supply:** Vendor must carry sufficient inventory of the Contract Items being offered to fulfill its obligations under this Contract. By signing its bid,



**REQUEST FOR QUOTATION**  
**Various Light Fixtures and Supplies for MCAS**  
**CRFQ ADJ230000027**

---

Vendor certifies that it can supply the Contract Items contained in its bid response.

**8.3. Reports:** Vendor shall provide quarterly reports and annual summaries to the Agency showing the Agency's items purchased, quantities of items purchased, and total dollar value of the items purchased. Vendor shall also provide reports, upon request, showing the items purchased during the term of this Contract, the quantity purchased for each of those items, and the total value of purchases for each of those items. Failure to supply such reports may be grounds for cancellation of this Contract.

**8.4. Contract Manager:** During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Valarie Tomlin

Telephone Number: 304-255-5067

Fax Number: 304-255-5075

Email Address: Valarie.tomlin@wvsupply.com



WV SUPPLY  
 P.O. BOX 6668  
 HUNTINGTON, WV 25773  
 (800) 624-3433



# Quotation

EXPIRATION DATE	QUOTE NUMBER
05/30/2023	S2214998
WV SUPPLY P.O. BOX 6668 HUNTINGTON, WV 25773 (800) 624-3433	PAGE NO.
	1 of 6

QUOTE TO:

SHIP TO:

WV ADJUTANT GENERALS OFFICE  
 ATTN: ACCOUNTS PAYABLE  
 1703 COONSKIN DR  
 CHARLESTON, WV 25311

WV ADJUTANT GENERALS OFFICE  
 305 FAYETTE PIKE  
 MONTGOMERY, WV 25136

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
41601	CRFQ-0603-ADJ	23-00000027-1	HOUSE ACCOUNT	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
VALARIE TOMLIN	BEST WAY	NET 30 DAYS	04/27/2023	Yes
ORDER QTY	DESCRIPTION		UNIT PRICE	EXT PRICE
12ea	BAR WLZ4-3-4K-BR * LINE 1		188.160/ea	2257.92
4ea	LUM WPMLED15S MEDIUM LED WALL PACK 3000K/4000K/5000K SELECTABLE CCT 3977-7535 SELECTABLE LUMENS SWITCHABLE PHOTOCONTROL * LINE 2		121.250/ea	485.00
4ea	SAT 62-1144R1 20W LED WALL SCONCE * LINE 3		101.890/ea	407.56
4ea	SAT 62/1645 LED WALL SCONCE * LINE 4		68.910/ea	275.64
2ea	SAT 60/890 TEX BLK WALL LANTERN * LINE 5		99.900/ea	199.80
30ea	NON EL-221L-18-20LED EFFICIENT 20W 18"L LED VANITY LIGHT 120V * LINE 6		69.750/ea	2092.50

\*\* Continued on Next Page \*

Subtotal	
S&H Charges	
Amount Due	

This quotation is submitted by us subject to Strikes, Fires, Accidents and conditions over which we have no control. Prices and deliveries are subject to change without notice and all orders will be accepted by us subject to our ability to obtain such prices and deliveries from our suppliers. Any Federal or State taxes, when and if effective, will be added to the prices quoted. Unless otherwise specified, terms will be 30 days net. Prices quoted are F.O.B. Huntington or factory, unless transportation charges are allowed and so indicated on the quotation. Prices on this quotation are based on quantities specified. If quantities ordered are less than shown, prices quoted are subject to revision by us.  
 On materials for future delivery our manufacturers are accepting orders only on the basis of prices in effect on date of shipment. Therefore, the prices named in this quotation are those currently in effect, and any orders accepted by us will be billed at prices in effect on date of shipment, unless otherwise specified.

WV SUPPLY  
 P.O. BOX 6668  
 HUNTINGTON, WV 25773  
 (800) 624-3433



# Quotation

EXPIRATION DATE	QUOTE NUMBER
05/30/2023	S2214998
WV SUPPLY P.O. BOX 6668 HUNTINGTON, WV 25773 (800) 624-3433	PAGE NO.
	2 of 6

QUOTE TO:

SHIP TO:

WV ADJUTANT GENERALS OFFICE  
 ATTN: ACCOUNTS PAYABLE  
 1703 COONSKIN DR  
 CHARLESTON, WV 25311

WV ADJUTANT GENERALS OFFICE  
 305 FAYETTE PIKE  
 MONTGOMERY, WV 25136

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
41601	CRFQ-0603-ADJ	23-0000027-1	HOUSE ACCOUNT	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
VALARIE TOMLIN	BEST WAY	NET 30 DAYS	04/27/2023	Yes
ORDER QTY	DESCRIPTION	UNIT PRICE	EXT PRICE	
225ea	MEX 22CGT3540C 2X2 FLAT PANEL 3582 LUMENS 4000K 120-277 0-10V DIMMING TO 10% * LINE 7	48.780/ea	10975.50	
12ea	MEX CGTSURF22 SURF MT KIT FOR 22CGT FIXTURE * LINE 8	35.550/ea	426.60	
160ea	MEX 24CGT4540C 2X4 FLAT PANEL 4432 LUMENS 4000K 120-277V 0-10V DIMMING TO 10% * LINE 9	62.990/ea	10078.40	
25ea	HAL HLB6099FS1EMWR 6" ROUND LENS 900 LUMEN 120V WHITE COLOR SELECTABLE * LINE 10	22.450/ea	561.25	
25ea	HAL HLB8169FS1EMWR 8" LED LENS DOWNLIGHT 1600 LUMEN 120V FIELD SELECTABLE 27K,3K,35K,4K,5K WHITE * LINE 11	40.310/ea	1007.75	
		Subtotal		
		S&H Charges		
		Amount Due		

\*\* Continued on Next Page \*

This quotation is submitted by us subject to Strikes, Fires, Accidents and conditions over which we have no control. Prices and deliveries are subject to change without notice and all orders will be accepted by us subject to our ability to obtain such prices and deliveries from our suppliers. Any Federal or State taxes, when and if effective, will be added to the prices quoted. Unless otherwise specified, terms will be 30 days net. Prices quoted are F.O.B. Huntington or factory, unless transportation charges are allowed and so indicated on the quotation. Prices on this quotation are based on quantities specified. If quantities ordered are less than shown, prices quoted are subject to revision by us. On materials for future delivery our manufacturers are accepting orders only on the basis of prices in effect on date of shipment. Therefore, the prices named in this quotation are those currently in effect, and any orders accepted by us will be billed at prices in effect on date of shipment, unless otherwise specified.

WV SUPPLY  
 P.O. BOX 6668  
 HUNTINGTON, WV 25773  
 (800) 624-3433



# Quotation

EXPIRATION DATE	QUOTE NUMBER
05/30/2023	S2214998
WV SUPPLY P.O. BOX 6668 HUNTINGTON, WV 25773 (800) 624-3433	PAGE NO.
	3 of 6

QUOTE TO:

SHIP TO:

WV ADJUTANT GENERALS OFFICE  
 ATTN: ACCOUNTS PAYABLE  
 1703 COONSKIN DR  
 CHARLESTON, WV 25311

WV ADJUTANT GENERALS OFFICE  
 305 FAYETTE PIKE  
 MONTGOMERY, WV 25136

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
41601	CRFQ-0603-ADJ	23-0000027-1	HOUSE ACCOUNT	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
VALARIE TOMLIN	BEST WAY	NET 30 DAYS	04/27/2023	Yes
ORDER QTY	DESCRIPTION		UNIT PRICE	EXT PRICE
40ea	MEX 4NWS3C3-UNV 4' FIELD SELECTABLE WRAP * LINE 12		81.550/ea	3262.00
10ea	MEX 2NWS3C3-UNV 2' FIELD SELECTABLE WRAP * LINE 13		68.420/ea	684.20
200ea	NON EL-822-15LED 11" ROUND LED INTERIOR CEILING 15W 120V * LINE 14		63.420/ea	12684.00
6ea	BAR QMS-WH Micro LED Thermoplastic Emergency Unit * LINE 15		27.700/ea	166.20
4ea	BAR ECX-40-CP-BR Square LED Canopy FIELD SELECTABLE 20W,30W,40, COLOR TEMP 3K,4K,5K 120-277V BRONZE * LINE 16		107.800/ea	431.20
15ea	BAR SSF-4-CP-SC LED Linear Stairwell Fixture * LINE 17		139.000/ea	2085.00

\*\* Continued on Next Page \*

Subtotal	
S&H Charges	
Amount Due	

This quotation is submitted by us subject to Strikes, Fires, Accidents and conditions over which we have no control. Prices and deliveries are subject to change without notice and all orders will be accepted by us subject to our ability to obtain such prices and deliveries from our suppliers. Any Federal or State taxes, when and if effective, will be added to the prices quoted. Unless otherwise specified, terms will be 30 days net. Prices quoted are F.O.B. Huntington or factory, unless transportation charges are allowed and so indicated on the quotation. Prices on this quotation are based on quantities specified. If quantities ordered are less than shown, prices quoted are subject to revision by us.  
 On materials for future delivery our manufacturers are accepting orders only on the basis of prices in effect on date of shipment. Therefore, the prices named in this quotation are those currently in effect, and any orders accepted by us will be billed at prices in effect on date of shipment, unless otherwise specified.

WV SUPPLY  
 P.O. BOX 6668  
 HUNTINGTON, WV 25773  
 (800) 624-3433



# Quotation

EXPIRATION DATE	QUOTE NUMBER
05/30/2023	S2214998
WV SUPPLY P.O. BOX 6668 HUNTINGTON, WV 25773 (800) 624-3433	PAGE NO.
	4 of 6

QUOTE TO:

SHIP TO:

WV ADJUTANT GENERALS OFFICE  
 ATTN: ACCOUNTS PAYABLE  
 1703 COONSKIN DR  
 CHARLESTON, WV 25311

WV ADJUTANT GENERALS OFFICE  
 305 FAYETTE PIKE  
 MONTGOMERY, WV 25136

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
41601	CRFQ-0603-ADJ	23-0000027-1	HOUSE ACCOUNT	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
VALARIE TOMLIN	BEST WAY	NET 30 DAYS	04/27/2023	Yes
ORDER QTY	DESCRIPTION		UNIT PRICE	EXT PRICE
19ea	HAL HCC6S50D010BZ 6" SURFACE MNT CYLINDER FOR CEILING, CABLE, PENDANT MNT 5000 LM 120/277 1-10V BRONZE * LINE 18		138.750/ea	2636.25
19ea	HAL HCC8P36BZ Bronze pendant stem kit * LINE 18		97.560/ea	1853.64
19ea	HAL HM6C4550840 6" LED MOD 4500-5000 LUMEN 80CRI 4K * LINE 18		71.000/ea	1349.00
19ea	HAL 61MDH 6" TRIM REFLECTOR MED BEAM * LINE 18		35.350/ea	671.65
2ea	LUM LSF25-KN-PC CCT SELECT FLOOD, 25W, KNC, PC * LINE 19		51.200/ea	102.40
			Subtotal	
			S&H Charges	
			Amount Due	

\*\* Continued on Next Page \*

This quotation is submitted by us subject to Strikes, Fires, Accidents and conditions over which we have no control. Prices and deliveries are subject to change without notice and all orders will be accepted by us subject to our ability to obtain such prices and deliveries from our suppliers. Any Federal or State taxes, when and if effective, will be added to the prices quoted. Unless otherwise specified, terms will be 30 days net. Prices quoted are F.O.B. Huntington or factory, unless transportation charges are allowed and so indicated on the quotation. Prices on this quotation are based on quantities specified. If quantities ordered are less than shown, prices quoted are subject to revision by us. On materials for future delivery our manufacturers are accepting orders only on the basis of prices in effect on date of shipment. Therefore, the prices named in this quotation are those currently in effect, and any orders accepted by us will be billed at prices in effect on date of shipment, unless otherwise specified.

WV SUPPLY  
 P.O. BOX 6668  
 HUNTINGTON, WV 25773  
 (800) 624-3433



# Quotation

EXPIRATION DATE	QUOTE NUMBER
05/30/2023	S2214998
WV SUPPLY P.O. BOX 6668 HUNTINGTON, WV 25773 (800) 624-3433	PAGE NO.
	5 of 6

QUOTE TO:

SHIP TO:

WV ADJUTANT GENERALS OFFICE  
 ATTN: ACCOUNTS PAYABLE  
 1703 COONSKIN DR  
 CHARLESTON, WV 25311

WV ADJUTANT GENERALS OFFICE  
 305 FAYETTE PIKE  
 MONTGOMERY, WV 25136

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
41601	CRFQ-0603-ADJ	23-0000027-1	HOUSE ACCOUNT	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
VALARIE TOMLIN	BEST WAY	NET 30 DAYS	04/27/2023	Yes
ORDER QTY	DESCRIPTION		UNIT PRICE	EXT PRICE
30ea	EIK L14WT8/48/BSDBG/FCCT 12933 14W 1800LM T8 4FT TYPE B SINGLE+DOUBLE END GLASS 80CRI 30/35/40/50/65K 120-277 * LINE 20		8.950/ea	268.50
5ea	EIK L12WT8/36/BSDBG/FCCT 12951 12W 1150LM T8 3FT TYPE B SINGLE+DOUBLE END GLASS 80CRI 30/35/40/50/65K 120-277 * LINE 21		8.950/ea	44.75
6ea	CLG LXT-PA1-40-750-U-5WQ-A-BK STREETWORKS DECORATIVE TOP 40W 5K 120/277V TYPE V REFRACTIVE LENS BLACK * LINE 22 ***SUBJECT TO CREDIT APPROVAL PRIOR TO PURCHASE*** * NON RETURNABLE * NON CANCELABLE * QUOTATION BASED ON ALL ITEMS		663.000/ea	3978.00
** Continued on Next Page *			Subtotal	
			S&H Charges	
			Amount Due	

This quotation is submitted by us subject to Strikes, Fires, Accidents and conditions over which we have no control. Prices and deliveries are subject to change without notice and all orders will be accepted by us subject to our ability to obtain such prices and deliveries from our suppliers. Any Federal or State taxes, when and if effective, will be added to the prices quoted. Unless otherwise specified, terms will be 30 days net. Prices quoted are F.O.B. Huntington or factory, unless transportation charges are allowed and so indicated on the quotation. Prices on this quotation are based on quantities specified. If quantities ordered are less than shown, prices quoted are subject to revision by us.  
 On materials for future delivery our manufacturers are accepting orders only on the basis of prices in effect on date of shipment. Therefore, the prices named in this quotation are those currently in effect, and any orders accepted by us will be billed at prices in effect on date of shipment, unless otherwise specified.

WV SUPPLY  
 P.O. BOX 6668  
 HUNTINGTON, WV 25773  
 (800) 624-3433



# Quotation

EXPIRATION DATE	.QUOTE NUMBER
05/30/2023	S2214998
WV SUPPLY P.O. BOX 6668 HUNTINGTON, WV 25773 (800) 624-3433	
PAGE NO.	
6 of 6	

QUOTE TO:

SHIP TO:

WV ADJUTANT GENERALS OFFICE  
 ATTN: ACCOUNTS PAYABLE  
 1703 COONSKIN DR  
 CHARLESTON, WV 25311

WV ADJUTANT GENERALS OFFICE  
 305 FAYETTE PIKE  
 MONTGOMERY, WV 25136

CUSTOMER NUMBER	CUSTOMER PO NUMBER	JOB NAME / RELEASE NUMBER	SALESPERSON	
41601	CRFQ-0603-ADJ	23-0000027-1	HOUSE ACCOUNT	
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT ALLOWED
VALARIE TOMLIN	BEST WAY	NET 30 DAYS	04/27/2023	Yes
ORDER QTY	DESCRIPTION		UNIT PRICE	EXT PRICE
	ORDERED, CHANGE IN QUANTITY WILL RESULT IN PRICE CHANGE OF QUOTE			

**WIRE & PIPE PRICING NOTICE:** All quotes/bids for wire and pipe are valid for the date of the quotation only. Wire subject to Escalation/De-Escalation at time of order placement, based on Comex for Copper at the close of the previous business day.

**TAX & FREIGHT NOTICE:** Applicable taxes are NOT included in this quotation and will be added, based on delivery location at time of shipment. Freight charges or other fees are subject to change, unless otherwise noted.

**LEAD TIME NOTICE:** Due to supply chain disruptions caused by COVID-19, we are currently unable to guarantee lead times. However, we will work on your behalf to deliver orders according to your required date.

Subtotal	58984.71
S&H Charges	0.00
<b>Amount Due</b>	<b>58984.71</b>

This quotation is submitted by us subject to Strikes, Fires, Accidents and conditions over which we have no control. Prices and deliveries are subject to change without notice and all orders will be accepted by us subject to our ability to obtain such prices and deliveries from our suppliers. Any Federal or State taxes, when and if effective, will be added to the prices quoted. Unless otherwise specified, terms will be 30 days net. Prices quoted are F.O.B. Huntington or factory, unless transportation charges are allowed and so indicated on the quotation. Prices on this quotation are based on quantities specified. If quantities ordered are less than shown, prices quoted are subject to revision by us.  
 On materials for future delivery our manufacturers are accepting orders only on the basis of prices in effect on date of shipment. Therefore, the prices named in this quotation are those currently in effect, and any orders accepted by us will be billed at prices in effect on date of shipment, unless otherwise specified.

**DESCRIPTION**

The WLZ Series features an architecturally relevant low-profile LED design in lumen packages ranging from 1500 lumens to over 12,000 lumens. Its high-efficiency light engine is designed for optimal light control and distribution with zero uplight. This family of product is offered in several size housings to complement any building exterior and accommodates mounting heights up to 35'. Integral emergency battery backup available for path of egress with Cold Location operation down to -20°C.

**SPECIFICATIONS**

**Construction**

- Sleek die-cast aluminum housing with stainless steel hardware and powder coated black, bronze, silver or white finish
- UV-stabilized polycarbonate optical lens
- Integral heat sink for maximized heat dissipation
- Back box houses drivers away from LEDs and includes three ¾" hubs (WLZ1 and WLZ2 - two ¾" hubs)

**Optics/LEDs**

- Zero uplight design to minimize light pollution
- 15 to 100 Watt models replace up to 400 Watt HID for up to 70% energy savings
- Efficacies up to 123 LPW at 5000K to maximize utility rebates
- Type III and Type IV distributions for optimal light distribution (WLZ1 - Type III only)
- Available in 3000K, 3500K, 4000K and 5000K CCT
- L70 of 50,000 hours at 40°C
- CRI of ≥70

**Electrical**

- Class 2 power supply, 120-277VAC, 50/60Hz
- 347/480VAC Dedicated driver option for WLZ4, WLZ7 and WLZ10
- 0-10V Dimming driver (120-277VAC only)
- Power supply rated Class A EMI rating

**Installation**

- Housing hinges to back box and is secured with set screws
- Back box is complete with three ¾" hubs and internal bubble level for easy installation (WLZ1 and WLZ2 - two ¾" hubs)
- Mounts to a standard 3-1/2" or 4" square electrical J-box
- Suitable for downlight installation only

**Options**

**Battery Backup**

- Integral battery backup (BB) provides over 700 lumens and 90 minutes of runtime for path of egress. Rated for ambient temperatures of 0°C to 40°C (32°F to 104°F). Not available on WLZ1
- Integral Battery Backup with Internal Heater (BB-IH) provides over 700 lumens and 90 minutes of runtime for path of egress in Cold Locations down to -20°C. Not available on WLZ1 or WLZ2.
- Factory installed dual driver options for WLZ4 and WLZ10 (WLZ7 is standard with two drivers)
- Factory installed 120/277VAC button type photocontrol option (PC)
- Factory installed 10kVA surge protection options (SP or SPH)

**Accessories (Field Installed)**

- 120/277VAC Button type universal photocontrol options accessory (PCU)
- Dimming occupancy sensor programmable, Wattstopper FSP221 available in multiple finishes (TL-SCES-L2)
- Remote control for occupancy sensor. Optional (TL-FSIR100)

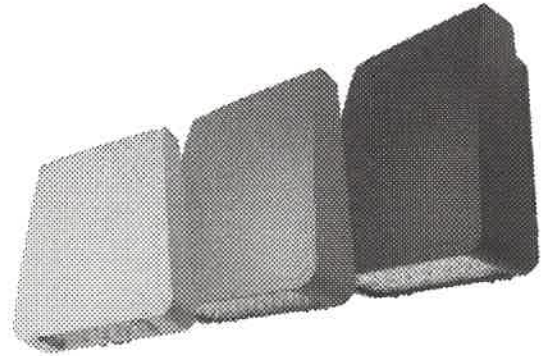
**Testing & Compliance**

- cULus Listed for Wet Locations
- International Dark Sky friendly approved product. (IDA) 3000K only
- Operating temperatures: -40°C to 40°C (-40°F to 104°F)

**Warranty**

- Five year warranty (terms and conditions apply)

Model: WLZ4-3-4K-BR Date: \_\_\_\_\_  
 Accessories: \_\_\_\_\_  
 Job Name: Line 1 Type: \_\_\_\_\_



Model	WLZ1	WLZ2	WLZ4	WLZ7	WLZ10
<b>Wattage (nominal)</b>	15W	25W	40W	70W	100W
<b>Lumens (lm)</b>	1745	3198	5021	8729	12,393
<b>Efficacy (LPW)</b>	115	118	123	120	116
<b>Equivalency (HID)</b>	50W	100W	150W	250W	400W
<b>Distribution</b>	Type III, IV (WLZ1 Type III only)				
<b>CCT</b>	3000K, 3500K, 4000K, 5000K				
<b>CRI</b>	≥70				
<b>Input Voltage</b>	120-277VAC, 50/60Hz, 347/480V option				
<b>Operating Temp</b>	-40°C to 40°C (-40°F to 104°F)				
<b>Certifications</b>	UL Listed for Wet Locations, IDA				
<b>Warranty</b>	5 Years				
<b>Weight</b>	2.6 lbs	3.3 lbs	6.0 lbs	9.9 lbs	12.1 lbs

\* Nominal Wattage, tested at 5000K CCT, Type III distribution. Values at 120/277VAC. See performance table for more detailed lumen information.  
 Note: Environment and application will affect actual performance. Typical values and 25°C (77°F) used for testing. Specifications subject to change without notice.



**Ordering Information (Example: WLZ2-3-4K-BR)**

Series/Configuration	Distribution	Input Voltage	CCT	Finish	Options
WLZ1 = 15W, Extra-Small	3 = Type III	BLANK = 120-277VAC	3K = 3000K	BL = Black	BB <sup>5</sup> = Battery backup
WLZ2 = 25W, Small	4 <sup>2</sup> = Type IV	HVS <sup>3</sup> = 347/480VAC	35K <sup>4</sup> = 3500K	BR = Bronze	BB-II <sup>6</sup> = Cold Location Battery backup (operation down to -20°C)
WLZ4 = 40W, Medium			4K = 4000K	SV <sup>4</sup> = Silver	DD <sup>7</sup> = Dual driver
WLZ7 <sup>1</sup> = 70W, Large			5K = 5000K	WH <sup>4</sup> = White	PC = 120/277VAC Button photocontrol
WLZ10 = 100W, Extra-Large					SP = 120/277VAC Surge protection SPH = 347/480VAC Surge protection

**Notes**

<sup>1</sup> Standard with two drivers

<sup>2</sup> Not available for WLZ1 configuration

<sup>3</sup> WLZ4, WLZ7 and WLZ10 only, compatible with SPH option only

<sup>4</sup> Consult factory for availability

<sup>5</sup> WLZ2, WLZ4, WLZ7 and WLZ10 only, 120/277VAC Only. Not compatible with DD and SPH options

<sup>6</sup> WLZ4, WLZ7 and WLZ10 only, 120/277VAC Only. Not compatible with DD and SPH options

<sup>7</sup> Dual driver option available for WLZ4 and WLZ10 only. Not compatible with photocontrol option, consult factory

<sup>8</sup> Compatible with WLZ4, WLZ7 and WLZ10 only. Contact factory for compatibility with other options

<sup>9</sup> Dimming occupancy sensor, programmable, Wattstopper FSP221, L2 Lens

<sup>10</sup> Order as a separate line item. Shipped in separate box for final installation in the field

**Accessories<sup>10</sup> (Field Installed)**

PCU = 120/277VAC Button photocontrol accessory

TL-SCES-L2<sup>9</sup> = Motion sensor, white finish

TL-SCES-L2-BL<sup>9</sup> = Motion sensor, black finish

TL-SCES-L2-BR<sup>9</sup> = Motion sensor, bronze finish

TL-SCES-L2-GR<sup>9</sup> = Motion sensor, gray finish

TL-PSIR-100 = Remote control for TL-SCES sensor (for additional settings, optional)

**Performance Data**

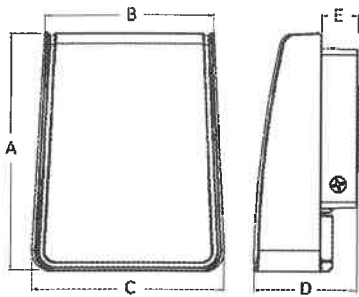
Model	Wattage (W)	CCT	Distribution	Lumen Output (lm)	Efficacy (LPW)
WLZ1-3-3K-XX	15	3000K	Type III	1531	101
WLZ1-3-4K-XX	15	4000K	Type III	1534	101
WLZ1-3-5K-XX	15	5000K	Type III	1745	115
WLZ2-3-3K-XX	25	3000K	Type III	2795	103
WLZ2-3-4K-XX	25	4000K	Type III	2997	111
WLZ2-3-5K-XX	25	5000K	Type III	3198	118
WLZ2-4-3K-XX	25	3000K	Type IV	2609	98
WLZ2-4-4K-XX	25	4000K	Type IV	2797	105
WLZ2-4-5K-XX	25	5000K	Type IV	2985	112
WLZ4-3-3K-XX	40	3000K	Type III	4389	107
WLZ4-3-4K-XX	40	4000K	Type III	4705	115
WLZ4-3-5K-XX	40	5000K	Type III	5021	123
WLZ4-4-3K-XX	40	3000K	Type IV	4021	98
WLZ4-4-4K-XX	40	4000K	Type IV	4310	105
WLZ4-4-5K-XX	40	5000K	Type IV	4599	112
WLZ7-3-3K-XX	70	3000K	Type III	7657	105
WLZ7-3-4K-XX	70	4000K	Type III	8193	113
WLZ7-3-5K-XX	70	5000K	Type III	8729	120
WLZ7-4-3K-XX	70	3000K	Type IV	6837	94
WLZ7-4-4K-XX	70	4000K	Type IV	7316	101
WLZ7-4-5K-XX	70	5000K	Type IV	7794	107
WLZ10-3-3K-XX	100	3000K	Type III	10,871	102
WLZ10-3-4K-XX	100	4000K	Type III	11,632	109
WLZ10-3-5K-XX	100	5000K	Type III	12,393	116
WLZ10-4-3K-XX	100	3000K	Type IV	9706	91
WLZ10-4-4K-XX	100	4000K	Type IV	10,385	98
WLZ10-4-5K-XX	100	5000K	Type IV	11,065	104

\* Nominal Wattage. Values at 120/277VAC

\*\* HVS configuration not DLC qualified

Specifications are subject to change without notice.  
Installation must be performed in accordance with  
Barron Lighting Group installation instructions.

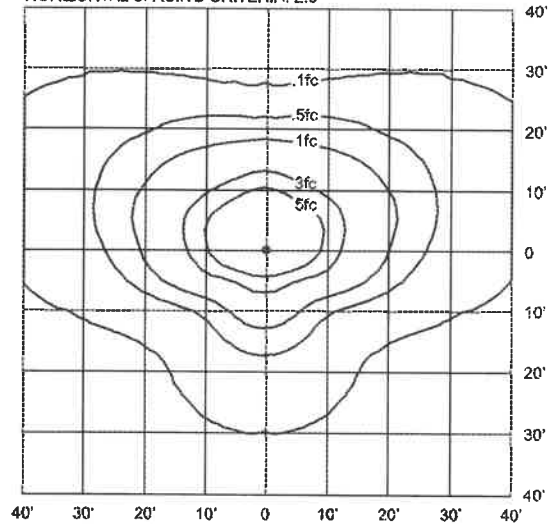
**Dimensions**



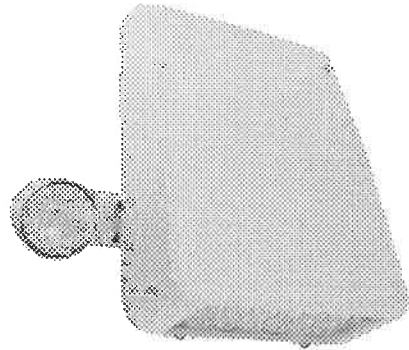
Model	A	B	C	D	E
WLZ1	6.7"	5.0"	5.6"	3.2"	1.4"
WLZ2	8.0"	5.7"	6.0"	3.2"	1.4"
WLZ4	10.2"	6.8"	7.8"	5.0"	1.9"
WLZ7	11.6"	8.3"	9.4"	5.0"	1.9"
WLZ10	11.6"	10.3"	11.5"	5.0"	1.9"

**Sample Photometrics**

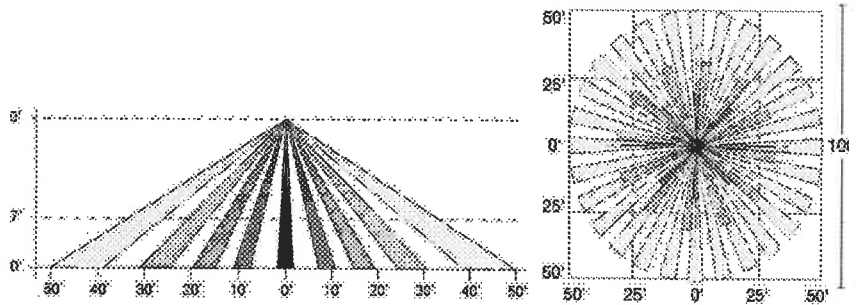
**WLZ4-3-5K**  
 IES: TYPE III VERY SHORT  
 MOUNTING HEIGHT: 10'  
 TILT: ZERO  
 HORIZONTAL SPACING CRITERIA: 2.0



**Sensor Details (Accessory: TL-SCES-L2)**



**Side and Top Sensor Coverage Pattern:**  
 With FSP-L7 lens (included) 360° lens

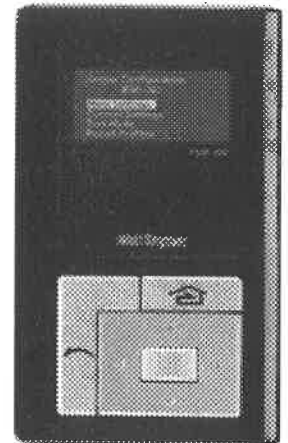


**Settings for TL-SCES-L2**

	Settings	Default
High Mode:	0-10V	10V
Low Mode:	Off, 0-9.8V	1V
Time Delay:	30 seconds; 5-30 minutes	5 Minutes
Cut Off Delay:	None, 1-60 Minutes, 1-5 hours	1 Hour
Sensitivity:	None, Low, Medium, Max	Max
Setpoint:	None, 1-250fc, Auto	Disabled
Ramp Up Time:	None, 1-60 Seconds	Disabled
Fade Down Time:	None, 1-60 Seconds	Disabled

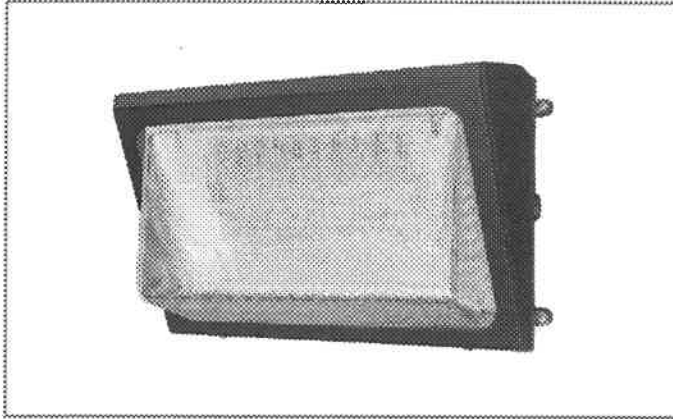
**NOTE:**

To change settings in the field, please order TL-FSIR-100 controller.



Specifications are subject to change without notice. Installation must be performed in accordance with Barron Lighting Group installation instructions.

Project		Catalog #	WPMLED15S	Type	
Prepared by		Notes	Line 2	Date	



## Lumark AP

### WPM Wall Pack B-Series

Wall Mount Luminaire

#### Product Features



#### Product Certifications



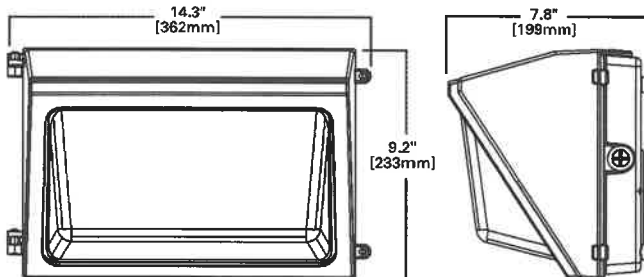
**Interactive Menu**

- **Ordering Information** page 2
- **Product Specifications** page 2
- **Energy and Performance Data** page 2

#### Quick Facts

- Fixed output and selectable configurations available
- Lumen packages range from 3,500 - 13,400 lumens
- Replaces 70W up to 250W HID equivalent
- Efficacies up to 149 lumens per watt
- Energy and maintenance savings up to 89%
- Heat and impact resistant borosilicate glass lens

#### Dimensional Details





## Ordering Information

Model Number	Lumens / Wattage	Color Temperature	Voltage	Controls
WPMLD07B=Medium LED Wall Pack	3,500 / 30W	4000K / 80CRI	120-277V, 50/60Hz	-
WPMLD10B=Medium LED Wall Pack	4,800 / 40W	4000K / 80CRI	120-277V, 50/60Hz	-
WPMLD15B=Medium LED Wall Pack	7,100 / 60W	4000K / 80CRI	120-277V, 50/60Hz	-
WPMLD20B=Medium LED Wall Pack	9,800 / 80W	4000K / 80CRI	120-277V, 50/60Hz	-
WPMLD25B=Medium LED Wall Pack	12,000 / 100W	4000K / 80CRI	120-277V, 50/60Hz	-
WPMLD15S=Medium LED Wall Pack	Selectable Lumens: 4,000-7,800 / 30-60W	Selectable CCT: 3000,4000,5000K / 80CRI	120-347V, 50/60Hz	Selectable Dusk-to-Dawn via Button-type photocontrol
WPMLD25S=Medium LED Wall Pack	Selectable Lumens: 9,800-13,400 / 70-100W	Selectable CCT: 3000,4000,5000K / 80CRI	120-347V, 50/60Hz	Selectable Dusk-to-Dawn via Button-type photocontrol

**NOTES:**  
1. DesignLights Consortium® Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details.

## Product Specifications

### Construction

- Die-cast aluminum housing with hinged, removable die-cast aluminum door
- Three 1/2" threaded conduit entry points

### Optics

- Impact and heat resistant borosilicate refractive glass lens to withstand IK07

### Electrical

- 40°C minimum operating temperature
- 40°C maximum operating temperature
- >.9 power factor
- <20% total harmonic distortion

- Class 2 driver incorporates internal fusing designed to withstand 2kV surge
- 0-10V dimming driver standard

### Controls

- Selectable configurations supply internal toggle switches to adjust luminaire CCT and lumens. Selectable luminaires will ship default at 4000K CCT and maximum lumen output. Selectable configurations also provide an integrated button-type photocontrol for dusk-to-dawn operation. The photocontrol is also field-adjustable via toggle switches to either enable, disable, or modify the settings. The photocontrol ships default enabled.

### Typical Applications

- Outdoor
- Parking Lots
- Walkways
- Building Areas

### Finish

- Bronze

### Shipping Data

- 13.1 lbs. (5.9 kgs.)

## Energy and Performance Data

### Power and Lumens (Fixed SKUs)

[View WP ESD files](#)

Model Number	WPMLD07B	WPMLD10B	WPMLD15B	WPMLD20B	WPMLD25B
Power (Watts)	27.9	37.7	57.4	81.0	102.2
Input Current @ 120V (A)	0.24	0.35	0.52	0.68	0.86
Input Current @ 277V (A)	0.11	0.16	0.24	0.31	0.38
<b>Performance</b>					
Lumens	3,518	4,869	7,456	10,399	12,873
Lumens Per Watt	126	129	130	128	126

### Power and Lumens (WPMLD15S Selectable)

Light Engine	Set to 30W	Set to 40W	Set to 60W	
Switch setting	2-ON	1-ON	1,2,3-OFF	
Power (Watts)	29.2	40.9	59.2	
Input Current @ 120V (A)	0.24	0.34	0.50	
Input Current @ 277V (A)	0.11	0.16	0.23	
Input Current @ 347V (A)	0.09	0.13	0.19	
<b>Performance</b>				
3000K	Lumens	3,977	5,409	7,360
	Lumens per Watt	139	135	128
4000K	Lumens	4,122	5,659	7,806
	Lumens per Watt	146	144	138
5000K	Lumens	4,175	5,616	7,535
	Lumens per Watt	143	137	127

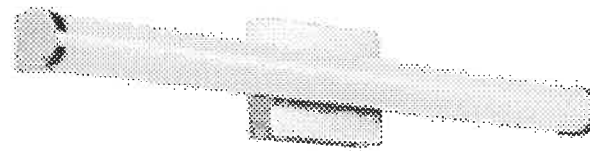
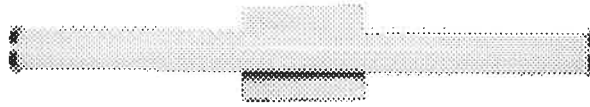
### Power and Lumens (WPMLD25S Selectable)

Light Engine	Set to 70W	Set to 80W	Set to 90W	Set to 100W	
Switch setting	3-ON	2-ON	1-ON	1,2,3-OFF	
Power (Watts)	71.6	81.6	91.9	100.8	
Input Current @ 120V (A)	0.60	0.68	0.77	0.84	
Input Current @ 277V (A)	0.28	0.31	0.34	0.37	
Input Current @ 347V (A)	0.23	0.26	0.28	0.31	
<b>Performance</b>					
3000K	Lumens	9,779	10,887	11,968	12,597
	Lumens per Watt	137	134	131	125
4000K	Lumens	10,360	11,469	12,651	13,376
	Lumens per Watt	149	146	143	139
5000K	Lumens	10,083	11,193	12,258	12,829
	Lumens per Watt	141	137	133	128

## Lumen Maintenance

Configuration	Ambient Temperature	TM-21 Lumen Maintenance (54,000 Hours)	Theoretical L70 (Hours)
Up to 60W	Up to 40°C	88.7%	>156,000
Up to 100W	Up to 40°C	87.22%	>143,000

## Model#: EL-221L-18-20LED



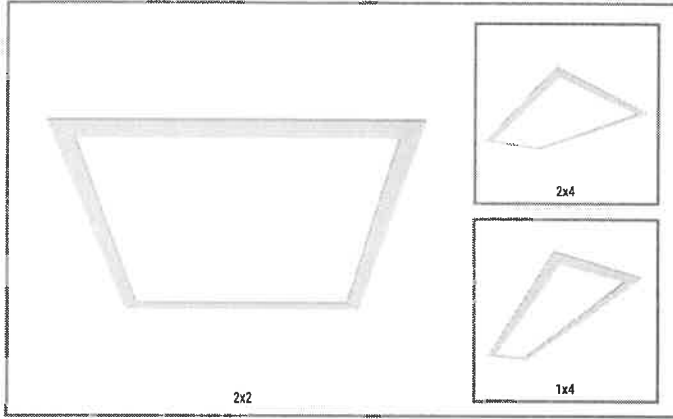
- TYPE:** Interior Vanity (horizontal mounting) or Sconce (vertical mounting)
- WIDTH:** 18"
- LENS HEIGHT:** 1.75"
- PROJECTION:** 3"
- BACKPLATE:** 6.25" x 4.25"
- SOCKET TYPE:** Integrated LED Module
- SHADE:** White Acrylic Lens
- AVAILABLE FINISH:** Brushed Nickel
- ADA COMPLIANT:** Yes
- ETL LISTED:** Yes (Damp Location)

**MOQ applies to**

- Different Color Temperature (CCT)
- Different Product Finish

Total Wattage	Voltage	Color Temperature	Lumen Output	Dimmable	CRI	Dimmer Compatibility	Dimmer Range	Lamp Life	ENERGY STAR
20w	120V	3000K (MOQ applies to Other CCT)	1600	Yes	>85	Forward Phasing	10-100%	50000 HR	No

Project		Catalog #	22CGT3540C - Line 7 CGTSURF22 - Line 8 24CGT4540C - Line 9	Type	
Prepared by		Notes	Line 7, 8, & 9	Date	



# Metalux

## CGT

### LED Backlit Panel

**Typical Applications**  
Offices • Education • Healthcare • Retail

### Interactive Menu

- Order Information page 2
- Photometric Data page 4
- Product Warranty

### Product Certification

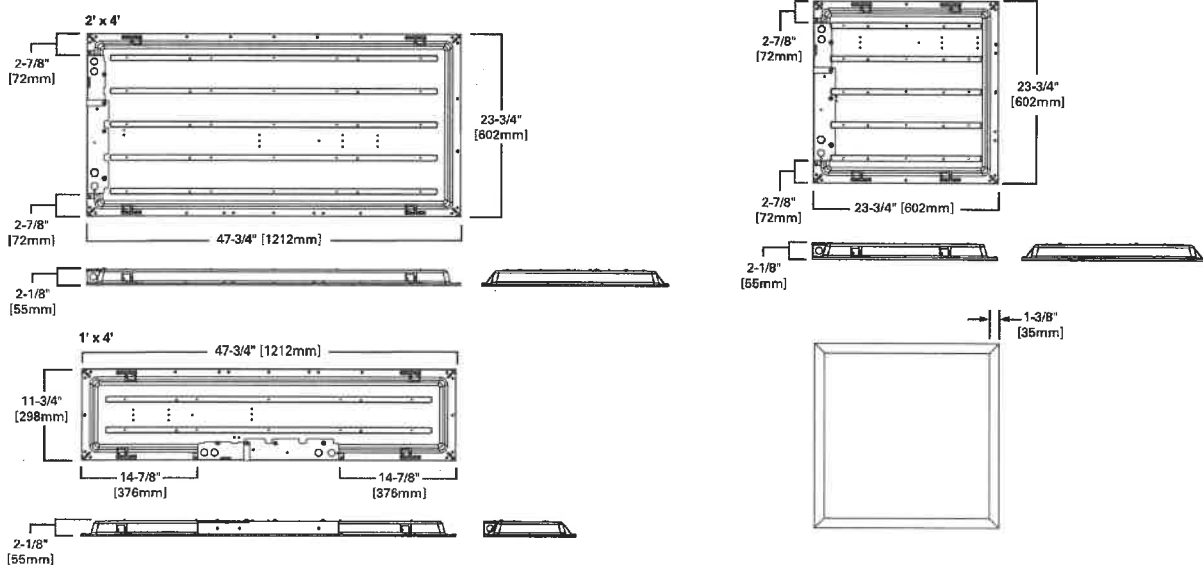
### Product Features

damp location

### Top Product Features

- Steel housing is post-painted to increase efficacy, facilitate installation, and inhibit corrosion
- Acrylic micro-optics provide uniform illumination across the entire lens
- Extruded aluminum door frame with welded and ground mitered corners, tightly seals to the housing for optimal performance and aesthetics
- 2-1/8" overall height ideal for shallow plenums
- Projected lumen maintenance based on TM21 testing standards is >L84, @60,000 hours

### Dimensional and Mounting Details



Ordering Information/Performance

UNV (120-277)

Catalog	Size	UPC	CCT	CRI (Min)	Delivered Nominal Lumens	Watts		Efficacy (lm/W)		Input Current (A)	
						120V	277V	120V	277V	120V	277V
14CGT4035C	1x4	080083879526	3500K	80	4189	39.4	38.8	106	108	0.33	0.15
14CGT4040C		080083879540	4000K	80	4351			110	112		
14CGT4050C		080083879861	5000K	80	4351			110	112		
22CGT3535C	2x2	080083880003	3500K	80	3449	31.4	31.7	110	109	0.2	0.09
22CGT3540C		080083880027	4000K	80	3582			114	113		
22CGT3550C		080083880041	5000K	80	3582			114	113		
24CGT4535C	2x4	080083880089	3500K	80	4268	38.8	38	110	112	0.33	0.15
24CGT4540C		080083880102	4000K	80	4432			114	117		
24CGT4550C		080083880126	5000K	80	4432			114	117		
24CGT5535C		080083880164	3500K	80	5139	46.8	46.4	110	111	0.39	0.18
24CGT5540C		080083880188	4000K	80	5337			114	115		
24CGT5550C		080083880201	5000K	80	5337			114	115		

L7  
L9

\* All SKUs stocked in multiple North American DC's.

347V

Catalog	Size	UPC	CCT	CRI (Min)	Delivered Nominal Lumens	Watts	Efficacy (lm/W)	Input Current (A)
14CGT4035C-347	1x4	80083880249	3500K	80	4190	39.9	105	0.11
14CGT4040C-347		80083880263	4000K	80	4351		109	
14CGT4050C-347		80083880287	5000K	80	4351		109	
22CGT3535C-347	2x2	80083880409	3500K	80	3449	32.6	106	0.09
22CGT3540C-347		80083880423	4000K	80	3582		110	
22CGT3550C-347		80083880454	5000K	80	3582		110	
24CGT4535C-347	2x4	80083880492	3500K	80	4268	37.9	113	0.11
24CGT4540C-347		80083880515	4000K	80	4432		117	
24CGT4550C-347		80083880539	5000K	80	4432		117	
24CGT5535C-347		80083880577	3500K	80	5139	46.7	110	0.13
24CGT5540C-347		80083880591	4000K	80	5337		114	
24CGT5550C-347		80083880614	5000K	80	5337		114	

\* All SKU's stocked at Canada DC(s). 347V SKUs not available at Elk Grove Village.

Options

Catalog	Description	Example	Notes
EL7W <sup>(1)</sup>	7W EM Pack, Installed	22CGT3540-EL7W	Remote Indicator/Test Switch
EL10W <sup>(1)</sup>	10W EM Pack, Installed		Remote Indicator/Test Switch
EL14W <sup>(1)</sup>	14W EM Pack, Installed	14CGT4040C-EL14W	Remote Indicator/Test Switch
EL14WSD <sup>(1),(2)</sup>	14W EM Pack with self-diagnostic, Installed		Remote Indicator/Test Switch
A3/8-4/18GDIM	6' Length, 3/8" Cable, 2 Wire, 2 Dimming Leads, Ground	24CGT4535C-A3/8-4/18G DIM	
A3/8-5/18GDIM	6' Length, 3/8" Cable, 3 Wire, 2 Dimming Leads, Ground	24CGT5540C-A3/8-5/18G DIM	
EL7W-A3/8-5/18GDIM	7W EM Pack, Installed, and 6' Flex, 3/8" Cable, 3 Wire, 2 Dimming Leads, Ground	14CGT4050C-EL14W-A3/8-5/18GDIM 22CGT3535C-EL7W-A3/8-4/18GDIM	EL7W and EL14W can be used with any of the optional flex. EM pack is always specified before (to the left of) the flex, in the catalog number.

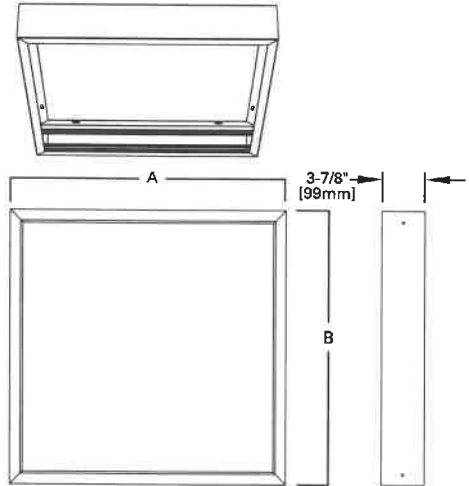
Notes: (1) Factory installed with integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. Battery option increases total height by 1 inch. (2) Emergency Battery Pack and Flex Conduit Options are not available in 347V.

### Surface Mounting Options

L8

Catalog No.	Description	UPC	A	B
CGTSURF24	2x4 CGT Surface Mount Kit	080083083107	24-5/8" [625mm]	48-5/8" [1235mm]
CGTSURF22	2x2 CGT Surface Mount Kit	080083083121	24-5/8" [625mm]	24-5/8" [625mm]
CGTSURF14	1x4 CGT Surface Mount Kit	080083083145	12-5/8" [321mm]	48-5/8" [1235mm]

**Note:** Cannot be used with EL7W or EL14W options.



### Drywall Frame Kit

Catalog No.	Description	UPC	Size
DF-24W-U	2x4 dry wall frame kit	662401232970	2x4
DF-22W-U	2x2 dry wall frame kit	662401232963	2x2
DF-14W-U	1x4 dry wall frame kit	662401232949	1x4

### Suspension Kit

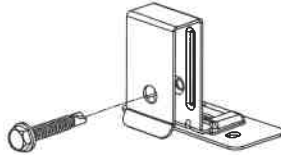
Catalog	UPC	Description
FPSUS24-B	080083876686	2 point Y-hanger suspension kit includes sleeved aircraft cable, carabiner, ceiling connection, SO cord, cord connectors and round 4" J-box cover plate
FPSUS24	080083258895	2 point Y-hanger suspension kit includes aircraft cable, carabiner, ceiling connection, SO cord, cord connectors and round 4" J-box cover plate

Mounting height from ceiling  
**Min.** = 7-1/4" [184mm]  
**Max.** = 27" [286mm]

### Ceiling Retention

Catalog	UPC
CGTEQ	080083083084

Required by some local codes. Order one set for each fixture (Four clips per kit)



### Shipping Data

	1x4	2x2	2x4
Product Weight (lb.)	7.3	6.8	11.9
Packaged Weight (lb.)	8.4	8.4	14.5
Pallet Qty	54	36	18
Pallet Size	52" x 40"	53" x 49"	

### Load Data

THD	<15% THD
PF	>.94 PF



## Product Specifications

### Construction

- Robust die-formed steel back plate is post-painted to ensure durability
- Housing is absent of holes to resist debris/bug intrusion
- Aluminum door frame with mitered corners, tightly fastened to the housing

### Mounting

- Integral grid clips provided and include suspension / wire retention features
- Grid clip includes fold up hang points. Use FPSUS24 or other desired suspension methods for direct suspension
- "Earthquake clip" accessories available
- Junction box constructed of code gauge galvanized steel with access plate
- Multiple Trade size KO provided and JBox is suitable for up to 12AWG wiring
- Surface and suspension kits available for use in grid or hard surfaces
- Factory installed flexible with dimming leads available

### Controls

- Standard UNV 120 - 277V driver with 0-10V dimming, 10% standard
- Optional 347V driver with 0-10V dimming driver
- Can be used with tile mounted sensor or other remote mount controls

### Electrical

- Projected lumen maintenance based on TM21 testing standards is >L84 @60,000 hours
- Driver rated for FCC part 15 Class B for use in residential or commercial applications
- LEDs are 80 CRI (minimum) and available in 3500K, 4000K, and 5000K CCT

### Emergency Options

- 120V-277V integral emergency battery pack comes in 7-watts, 10-watt, or 14-watts
- Constant power to the LED system for controlled, predictable discharge
- Remote indicator test switch
- Min. 90-minute backup period for code compliance

### Optical Shielding

- Acrylic micro-optics enable uniform distribution of the LEDs for uniform lens illumination
- Frosted lens with smooth pattern delivers uniform illumination across the entire lens
- Durable lens with surface texture to minimize scratch and impact damage

### Compliance

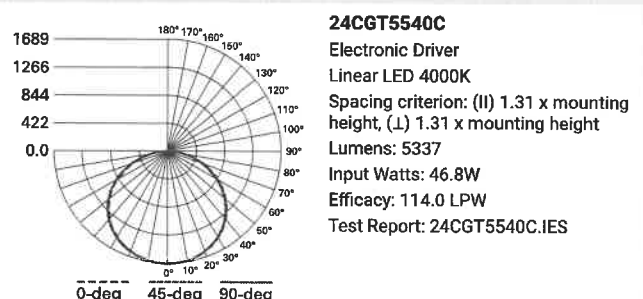
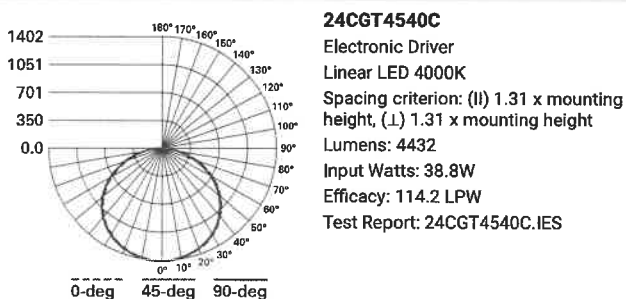
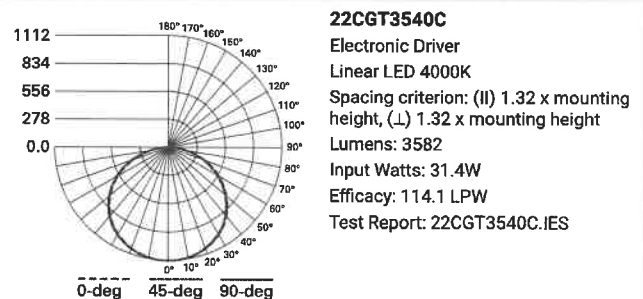
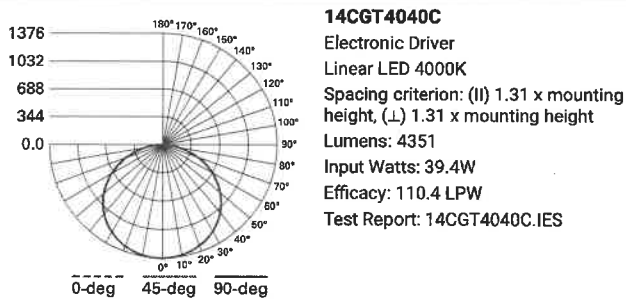
- cULus listed for 25C ambient environments, indoor applications
- IC rated for direct insulation contact
- Damp location listed
- IESNA LM-79 and LM-80 standards compliant
- DesignLights Consortium® Qualified and classified for DLC Standard, refer to www.designlights.org for details.
- Suitable for State of California Title 24 high efficacy luminaire
- FCC part 15 class B (residential) compliant
- Meets IP5X rating from the room side with no modification needed

### Warranty

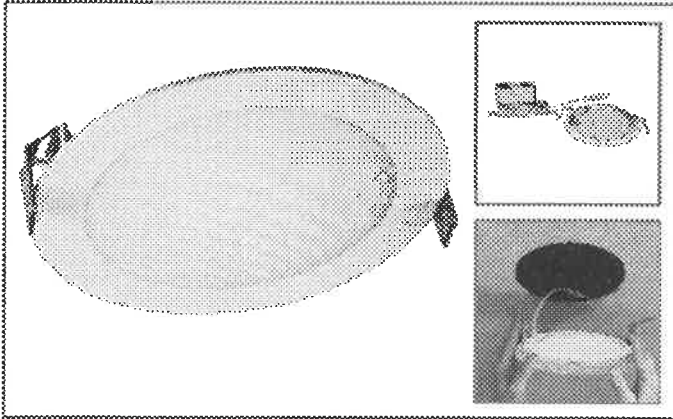
- Five year warranty
- Extended warranty to 10 years available

## Photometric Data

[View IES files](#)



Project	Catalog #	HLB6099FS1EMWR	Type
Prepared By	Notes	Line 10	Date



# HALO

## HLB6

### 6" LED Lens Downlight with Remote Driver / Junction Box

Typical Applications  
Residential

### Interactive Menu

- Order Information page 2
- Product Specifications page 2
- Energy Data page 3
- Photometric Data page 3
- Product Warranty
- Dimming Guide

### Product Certification

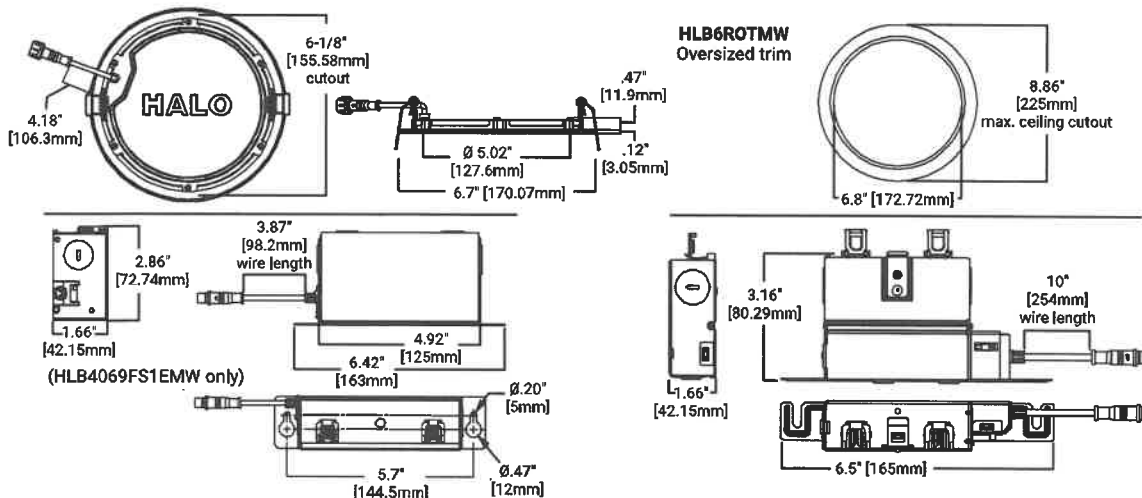
Refer to ENERGY STAR® Certified Products List.  
Can be used to comply with California Title 24 High Efficiency requirements.  
Certified to California Appliance Efficiency Database under JAB.

### Product Features

### Top Product Features

- Direct mount (does not require recessed housing or junction box)
- Delivers up to 1,150 lumens; Achieves L70 at 50,000 hours in IC and non-IC applications
- 2700K, 3000K, 3500K, 4000K and 5000K field selectable CCT; 3000K and 4000K fixed CCT
- 90 CRI (min), R9 50 and color accuracy within 4 SDCM
- Wet location listed for showers and protected ceilings; Available in 120V or 120-277V

### Dimensional and Mounting Details



## Order Information

SAMPLE ORDER NUMBER: HLB6099FS1EMWR

HLB6	09	9FS	1E	MW	R
Models	Lumens	CRI / CCT	Driver	Finish	Packaging

Model	Lumens	CRI / CCT	Driver	Finish	Packaging
<b>HLB6</b> = 6-inch LED lens downlight with remote driver / junction box	<b>09</b> = 900 lumens (nominal)	<b>930</b> = 90 CRI minimum, 3000K CCT <b>940</b> = 90 CRI minimum, 4000K CCT <b>9FS</b> = 90 CRI minimum, field selectable 2700K, 3000K, 3500K, 4000K or 5000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming <b>E010</b> = 120-277V, 0-10V 5% dimming <sup>(1)</sup>	<b>MW</b> = matte white flange	<b>R</b> = recyclable 4-color unit carton suitable for point of purchase merchandising display
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>
			(1) E010 driver is only available in FS color temperature.		

### Accessories

Accessories	
<b>HL6RSMF</b> = 6" round and square mounting frame <b>HLB6R0TMW</b> = 6" round oversized trim, 6.8" ID, 8.86" OD, matte white  <b>Designer Trims</b> <b>HLB6RTRMMW</b> = 6" round decorative overlay, matte white <b>HLB6RTRMMB</b> = 6" round decorative overlay, matte black <b>HLB6RTRMSN</b> = 6" round decorative overlay, satin nickel <b>HLB6RTRMTBZ</b> = 6" round decorative overlay, tuscan bronze	<b>Extension Cable / Dedicated Driver / Box</b> <b>HLB06EC</b> – 6 ft. extension cable <b>HLB12EC</b> – 12 ft. extension cable <b>HLB20EC</b> – 20 ft. extension cable  <b>Extension Cable / Selectable Driver / Box</b> <b>HLB06FSEC</b> – 6 ft. extension cable <b>HLB12FSEC</b> – 12 ft. extension cable <b>HLB20FSEC</b> – 20 ft. extension cable



**HLB6RTRMMW**  
White (Paintable), Splay



**HLB6RTRMMB**  
Matte Black, Splay



**HLB6RTRMSN**  
Satin Nickel, Splay



**HLB6RTRMTBZ**  
Tuscan Bronze, Splay

## Product Specifications

### Housing

- Die-cast aluminum mounting frame with integral flange provides passive thermal cooling
- Achieves L70 at 50,000 hours in IC and non-IC applications
- High impact diffuse lens provides shielding to the light guide minimizing pixilation

### Gasket

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

### Optics

- Precision acrylic light guide organizes source flux into wide distribution with 1.4 spacing criteria, useful for general area illumination

### LED Array

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- 90 CRI minimum; R9 greater than 50 provides high color rendering
- Fixed 3000K and 4000K CCT color temperatures; color accuracy within 3 SDCM
- Optional field selectable color temperature, select 2700K, 3000K, 3500K, 4000K or 5000K CCT; color accuracy within 4 SDCM
- Meets ENERGY STAR® color angular uniformity requirements; Deviation is less than 0.006 u' v'

### Remote Driver/Junction Box

- Pre-galvanized steel driver/junction box with captive hinged junction box cover
- Listed for six #12 AWG 90° C splice conductors: two in, two out plus two ground
- Two 1/2" conduit pry-outs
- Two Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box
- Accepts NM cable types: 14-2, 14-3, 12-2, 12-3 (U.S.) and 14-2, 14-3, 12-2 (Canadian)
- Three 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral mounting holes facilitate direct mounting to building structure or mounting frame

### Driver

- Available in 120V or 120-277V, providing noise free operation
- Continuous flicker-free dimming down to 5% with select dimmers
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting, CMP/FT6 rated

### Installation

- Can be installed in 1/2" to 1-1/4" thick ceilings
- Cutout utilizes standard round hole saw sizes; cutout template provided
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leak
- Housing is less than 1/2" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

### Optical Mounting Frame

- Pre-galvanized steel mounting frame locates fixture fittings during electrical rough-in and provides cutout guidance for drywall contractor
- Provides attachment of remote driver/junction box

### Compliance

- cULus Certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation (reference NEMA LSD57-2013)
- Wet location listed and IP44 ingress protection
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- State of California Title 24 high efficacy
- LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2016 JA8 High Efficacy Lighting
- ENERGY STAR® certified (reference "Certified Light Fixtures" database)

### Warranty

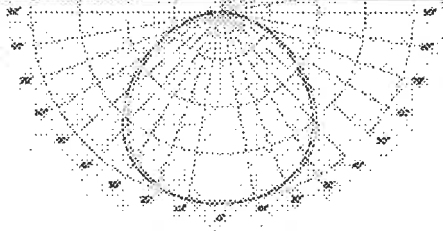
- Five year limited warranty, consult website for details. [www.cooperlighting.com/warranty](http://www.cooperlighting.com/warranty)

## Energy Data

Lumens	900 Series
Input Voltage	120V
Input Current	132 (mA)
Input Power	13.8 (W)
Efficiency	74.1 (LPW)
Inrush (A)	2.1 A @ 14mS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 22 dba

## Photometric Data

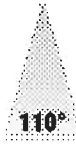
HLB6099FS1EMDWR 3000K		
Luminaire Lumens	1023	
Input watts	13.8	
LER (LPW)	74.1	
Spacing Criteria	0-180	1.31
	90-270	1.31
	Diagonal	1.41
Beam angle (degrees)	112.2	
Field angle (degrees)	161.3	
Zonal Lumens	Lumens	% Lumens
0-30	294	27.7
0-40	486	45.8
0-50	851	80.2
0-90	1061	100



\* Tested in accordance with IES LM63. Field results may vary.

## Color Metric Summary - 3000K

TM-30-15	Rf = 90.9
	Rg = 100.7
CRI/CIE	Ra = 94.1
	R9 = 68.5



CCT - Range of 2700K- 5000K

## Product Specifications

### PRODUCT SPECIFICATIONS

Lumens	1023
Watts	13.8
Lumens Per Watt (Efficacy)	74.1
Color Accuracy (CRI)	94
Light Color (CCT)	3000K

0.7100m Lux @ 1m distance

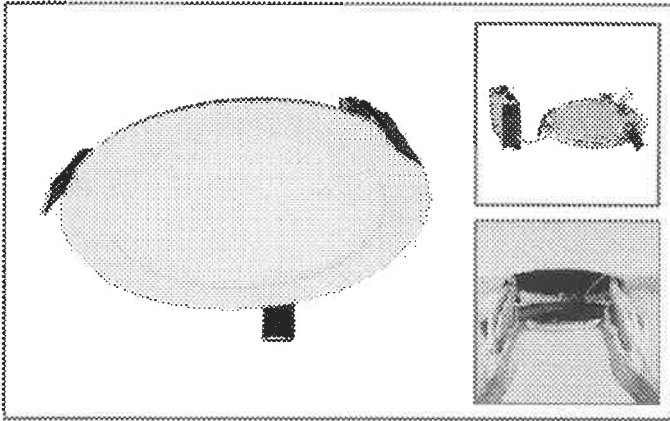
warm white    soft white    bright white

2700K    3000K    4500K    6500K

HLB6 6-inch	CCT	Lumens	Power (W)	LPW
Fixed CCT	3000K	992.3	13.6	73.4
	4000K	1057.7	13.6	78.0
Field Selectable CCT	2700K	989	13.7	72.2
	3000K	1023	13.8	74.1
	3500K	1060	13.8	76.8
	4000K	1096	13.8	79.4
	5000K	1141	13.7	83.3



Project	Catalog #	HLB8169FS1EMWR	Type	
Prepared by	Notes	Line 11	Date	



# HALO

## HLB8

### 8" LED Lens Downlight with Remote Driver / Junction Box

Typical Applications:  
Residential, Mixed-Use

### Interactive Menu

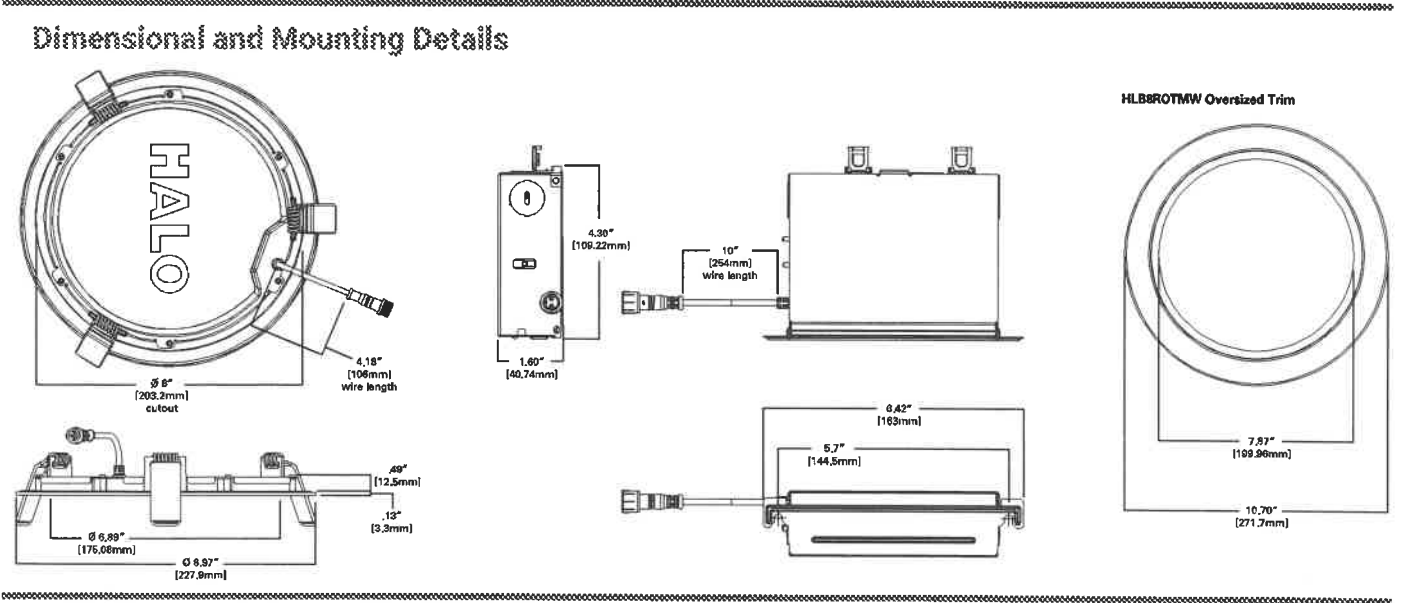
- Order Information page 2
- Product Specification page 2
- Photometric Data page 3
- Product Warranty

### Product Certification

Refer to ENERGY STAR® Certified Products List.  
Can be used to comply with California Title 24 High Efficacy requirements.  
Certified to California Appliance Efficiency Database under JAB.

### Product Features

- Direct mount (does not require recessed housing or junction box)
- Delivers up to 1600 lumens; Achieves L70 at 50,000 hours in IC and non-IC applications
- 2700K, 3000K, 3500K, 4000K and 5000K field selectable CCT
- 90 CRI (min), R9 50 and color accuracy within 4 SDCM
- Wet location listed for showers and protected ceilings; Available in 120V



## Order Information

SAMPLE ORDER NUMBER: **HLB8169FS1EMWR**

Models	Lumens	CRI / CCT	Driver	Finish	Packaging
<b>HLB8</b>	<b>16</b>	<b>9FS</b>	<b>1E</b>	<b>MW</b>	<b>R</b>
<b>HLB8</b> = 8-Inch LED lens downlight with remote driver / junction box	<b>16</b> = 1600 lumens (nominal)	<b>9FS</b> = 90 CRI minimum, field selectable 2700K, 3000K, 3500K, 4000K or 5000K CCT	<b>1E</b> = 120V 60Hz, LE & TE phase cut 5% dimming	<b>MW</b> = matte white flange	<b>R</b> = recyclable 4-color unit carton suitable for point of purchase merchandising display
<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>	<b>Notes</b>

### Accessories

Accessories
<b>HLB8SMF</b> = 8" round or square mounting frame <b>HLB8ROTMW</b> = 8" oversized trim  <b>Extension Cable 1 sale CCTable Driver/Jbox</b> <b>HLB06FSEC</b> - 6 ft. extension cable <b>HLB12FSEC</b> - 12 ft. extension cable <b>HLB20FSEC</b> - 20 ft. extension cable

## Product Specifications

### Housing

- Die cast aluminum mounting frame with integral flange provides passive thermal cooling achieving L70 at 50,000 hours in IC and non-IC applications
- Optional overlays with designer finishes provide design options, matte white is field paintable to match any décor
- High impact diffuse lens provides shielding to the light guide minimizing pixilation

### Gasket

- Closed cell gasket achieves restrictive airflow and wet location listing without additional gaskets or caulking

### Optics

- Precision acrylic light guide organizes source flux into wide distribution with 1.4 spacing criteria, useful for general area illumination

### LED Array

- Plurality of mid power LED's provides a uniform source with high efficiency and long life
- Available in 90 CRI minimum, R9 greater than 50 and color accuracy within 4 SDCM providing color uniformity
- Field selectable color temperature, select 2700K, 3000K, 3500K, 4000K or 5000K CCT
- 1600 lumens nominal.
- Meets ENERGY STAR® color angular uniformity requirements, deviation is less than 0.006 u' v'

### Remote Driver/Junction Box

- Steel driver/junction box with captive hinged junction box cover
- Listed for (6) #12 AWG 90° C splice conductors
- (2) ½" conduit pry-outs
- (2) Slide-N-Side™ non-metallic (NM) wire traps allows wiring outside the box
- Accepts 14-2, 14-3, 12-2, 12-3 U.S. and 14-2, 14-3, 12-2 Canadian NM cable
- (3) 4-port push wire nuts with clear caps for quick and reliable mains voltage connections
- Integral keyhole mounting slots facilitate direct mounting to building structure or new construction mounting frame

### Driver

- 120V 60 Hz constant current driver provides noise free operation
- Continuous, flicker-free dimming from 100% to 5% with select phase cut dimmers
- Plenum rated inline electrical quick connect provides low voltage connection to fixture fitting
- Optional extension cables allow remote mounting

### Installation

- Can be installed in 1/2" to 1-1/4" thick ceilings
- Cutout utilizes standard round hole saw sizes, cutout template provided
- Heat treated springs hold fixture fitting securely in the ceiling eliminating light leaks
- Light source is less than ½" thick and can span a 2" nominal framing member
- Can be removed from below the ceiling for service or replacement

### Optical Mounting Frame

- Pre-galvanized steel mounting frame locates fixture fittings during electrical rough in and provides cutout guidance for drywall contractor
- Provides tool-less attachment of remote driver / junction box

### Compliance

- cULus certified type IC suitable for direct contact with air permeable insulation
- Not recommended for use in direct contact with spray foam insulation, reference NEMA LSD57-2013
- Wet location listed and IP65 ingress protection
- Airtight per ASTM-E283-04
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC 47CFR Part 15 consumer limits
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- Can be used for State of California Title 24 high efficacy LED compliance under JA8, reference Modernized Appliance Efficiency Database System (MAEDBS) for 2019 JA8 High Efficacy Lighting
- ENERGY STAR® certified, reference "Certified Light Fixtures" database

### Warranty

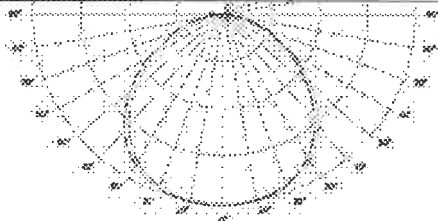
- Five-year limited warranty, consult website for details. [www.cooperlighting.com](http://www.cooperlighting.com)

## Energy Data

Lumens	1600
Input Voltage	120V
Input Current	170 (mA)
Input Power	20.9 (W)
Efficiency	84.3 (LPW)
Inrush (A)	1.2 A @ 72 μS
THD	≤ 20%
PF	≥ 0.90
T Ambient	-30° - +40°C
Sound Rating	≤ 22 dba

## Photometric Data

HLB8168FS1600K-3000K		
Luminaire lumens		1761
Input watts		20.9
LER (LPW)		84.3
Spacing Criteria	0-180	1.26
	90-270	1.26
	Diagonal	1.38
Beam angle (degrees)		112
Field angle (degrees)		163
Zonal lumens	Lumens	% Lumens
0-30	474	26.8
0-40	778	43.9
0-60	1380	78
0-90	1768	99.9



\* Tested in accordance with IES LM63. Field results may vary.

## Color Metric Summary - 3000K

TM-30-15	Rf = 94
	Rg = 99
CRI/CIE	Ra = 96
	R9 = 69.9



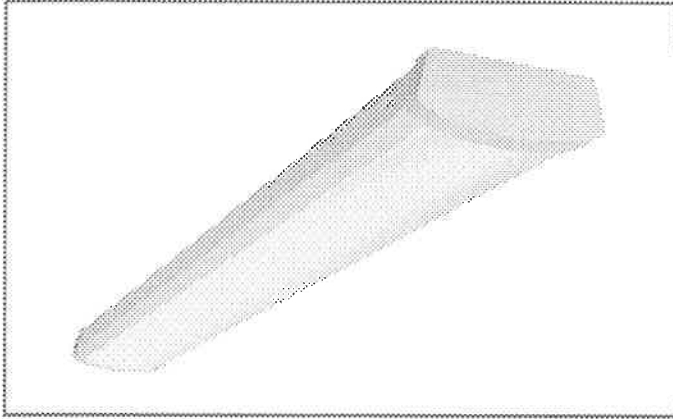
CCT - Range of 2700K- 5000K



## Product Specifications

PRODUCT SPECIFICATIONS	
Lumens	1761
Watts	20.9
Lumens Per Watt (Efficacy)	84.3
Color Accuracy (CRI)	94
Light Color (CCT)	3000K
Controlled Color Temperature (CCT)	
warm white	soft white
2700K	3000K
4500K	6500K

Project		Catalog #	4NWS3C3-UNV - Line 12 2NWS3C3-UNV - Line 13	Type	
Prepared by		Notes	Line 12 & 13	Date	



## Metalux

### NWS Selectable Wrap

LED Wraparound with Selectable Lumens and CCT

#### Typical Applications

• Offices • Education • Healthcare • Retail

**Interactive Menu**

- Order Information page 2
- Product Specifications page 3
- Product Warranty

#### Product Certification



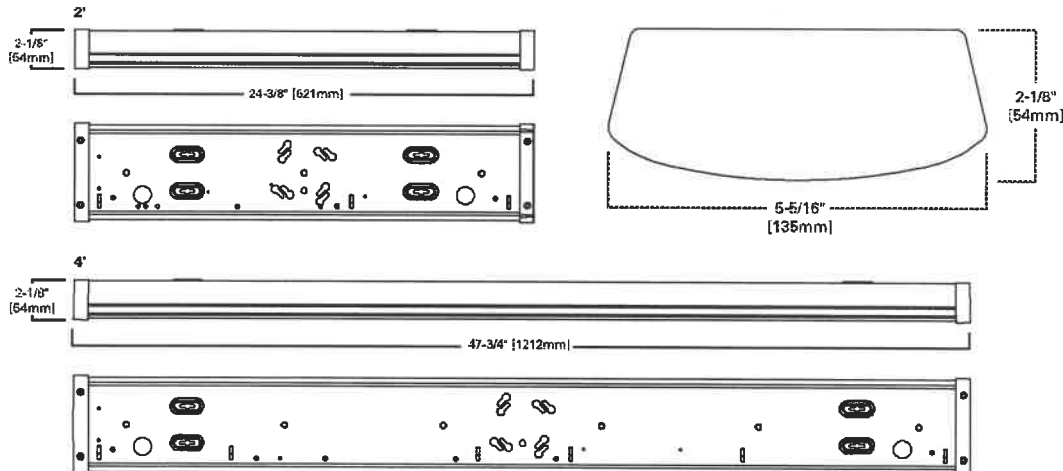
#### Product Features



#### Top Product Features

- Selectable CCT 3500K, 4000K, 5000K and selectable lumens up from 2,000-5,200 lumens
- Up to 143 lm/w efficiency, ideal for replacing two or three lamp fluorescent wraparounds (up to 96W equivalent)
- 0-10V dimming standard with 120-277V UNV
- Phase cut 120V triac dimming with "R" ordering option
- Suitable for ceiling, wall, or suspension mounting and row mounting
- DLC 5.1 Compliant
- Optional integrated microwave motion sensor (MS) available for 4' type

#### Dimensional and Mounting Details





**Order Information and Performance Data**

Size	Catalog Number	UPC	Volt	Sensor	Lumen Setting	Nominal CCT	CRI	Delivered Nominal Lumens	Watts	Efficacy (lm/W)	Wt.	Units per Pallet
213 2 ft	2NWS3C3-UNV	080083257485	120-277V	NO	High	3500K	82	2,522	21.8	116	3.1 lbs.	224
						4000K	82	2,679	21.0	128		
						5000K	82	2,574	21.7	119		
					Medium	3500K	82	2,266	18.0	126		
						4000K	82	2,366	17.5	135		
						5000K	82	2,294	18.1	127		
					Low	3500K	82	2,009	15.8	127		
						4000K	82	2,087	15.3	136		
						5000K	82	2,032	15.8	128		
212 4ft	4NWS3C3-UNV	080083257522	120-277V	NO	High	3500K	82	4,937	40.6	122	4.6 lbs.	112
						4000K	82	5,272	38.9	136		
						5000K	82	5,010	40.7	123		
					Medium	3500K	82	4,324	33.1	130		
						4000K	82	4,498	31.8	141		
						5000K	82	4,357	33.2	131		
					Low	3500K	82	3,800	28.5	133		
						4000K	82	3,930	27.5	143		
						5000K	82	3,822	28.5	134		
4ft	4NWS3C3MS-UNV	080083257607	120-277V	YES	High	3500K	82	4,851	38.9	125	4.6 lbs.	112
						4000K	82	5,016	37.7	133		
						5000K	82	4,872	38.8	126		
					Medium	3500K	82	4,145	32.7	127		
						4000K	82	4,285	31.7	135		
						5000K	82	4,216	32.5	130		
					Low	3500K	82	3,675	28.7	128		
						4000K	82	3,766	27.8	135		
						5000K	82	3,729	28.5	131		
4ft	4NW35C3R	080083257447	120V	NO	3500L	3000K	82	3,830	35.8	107		
						3500K	82	4,124	34.0	121		
						4000K	82	3,954	35.5	111		

**Accessories**

**Accessories, Order Separately**

EBPLED7W-User Installed, Remote Mount, 7 Watt LED Emergency Battery Pack  
 EBPLED14W-User Installed, Remote Mount, 14 Watt LED Emergency Battery Pack  
 Y-TOGGLE-10 2PK-(2) Y-Toggle Cable Kits at 10FT long

**Load Data**

	2'	4'
PF	>=0.98	>=0.98
THD%	<20%	<20%
Low Temp Start	-20	-20

**Shipping Data**

Catalog Base	Wt.	Units per Pallet
2NW	3.1 lbs.	224
4NW	4.6 lbs.	112

## Product Specifications

### Construction

- Cold rolled steel die form housing with finished ends
- Post painted with high gloss white powder coating
- High-impact plastic end caps

### Shielding

- Smooth white lens provides glare-free performance
- Standard LED blended for wide area coverage
- Replaces 2 or 3-lamp fluorescents up to 96W

### Installation

- Surface (wall or ceiling) mount via junction box or direct to surface
- Suspension mount capable using standard V-hook or Y-toggle mounting kits

### Electrical

- Projected life of L70 at 50,000 hours
- Efficacy up to 143 lm/W
- Phase cut dimming down to 10% (120V)
- 0-10V dimming down to 10% for UNV skus (120-277V)
- User installed, remote mount, 7 & 14 Watt LED emergency battery pack options are available

### Compliance

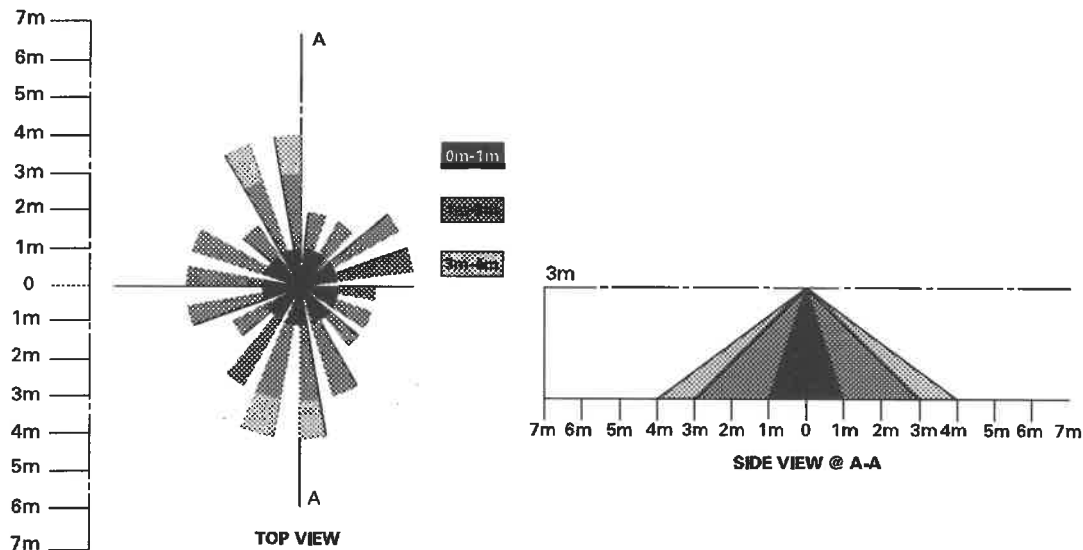
- UL/cUL listed for damp location
- Rated for -4F (-20C) to 104F (40C) ambient operating temperatures
- Meets FCC Part 15 Class B requirements
- RoHS compliant
- LED complies with IESNA LM-79 and LM-80
- ENERGY STAR® Certified luminaire (For 120V sku only) - consult ENERGY STAR® Certified Product List
- DLC 5.1 Standard Qualified

### Limited Warranty

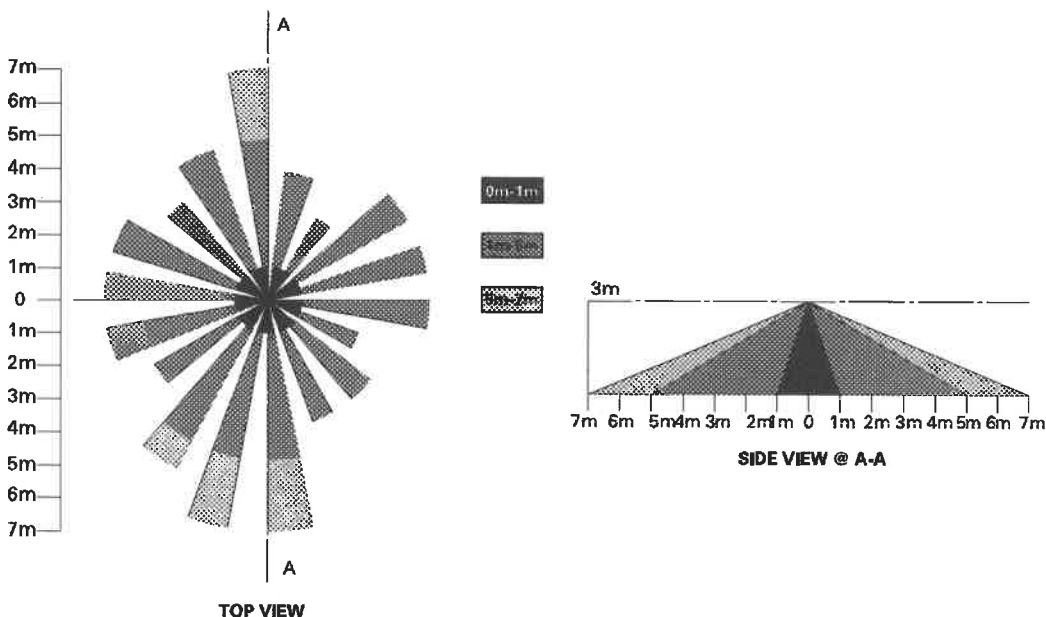
- Five year limited warranty

## Sensor Coverage ("MS" SKU Designation)

### NWS SENSOR DETECTION 50% COVERAGE

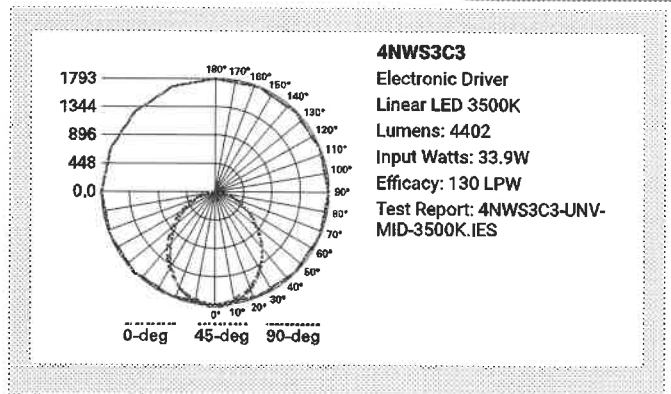
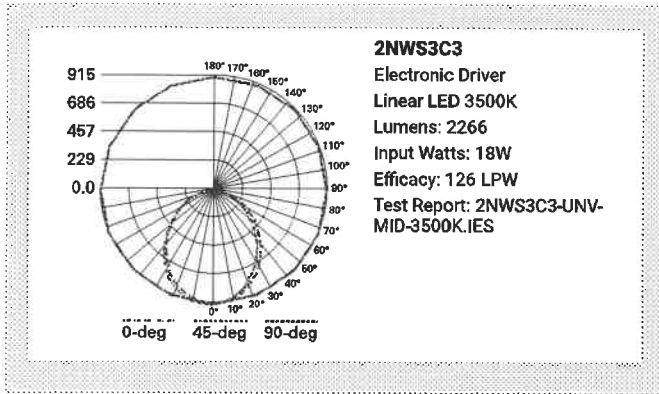


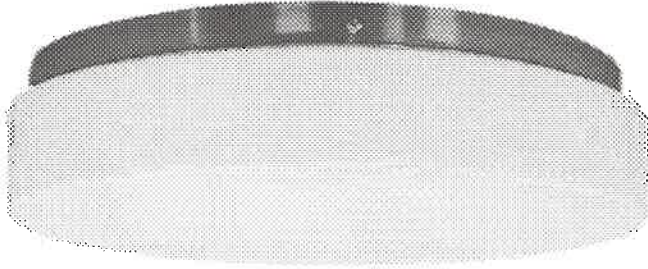
### NWS SENSOR DETECTION 100% COVERAGE



Photometric Data

 View IES files





**TYPE:** Interior Ceiling  
**DIAMETER:** 11"  
**HEIGHT:** 3.5"  
**SHADE:** White Acrylic Lens  
**ENCLOSED:** Yes  
**SOCKET TYPE:** E26 Medium Base Integrated LED  
**AVAILABLE FINISH:** Brushed Nickel

**MOQ applies to**

- Different Color Temperature (CCT)
- Different Product Finish

## ORDERING OPTIONS:

### A. Fixture Only, No Bulb Included

Model#:	Bulb Type	Voltage	Dimmable	UL Listing
EL-822	The choice is yours as long as it is an E26 socket base. Make sure the bulb size is not too big and fits nicely inside the shade. <b>DO NOT USE INCANDESCENT BULBS IN THIS FIXTURE!!!</b>	120V	Yes <b>ONLY</b> if pairing with a dimmable bulb	Yes (Damp Location)

### B. 1 x 9w A19 LED Bulb Included

Model#:	Total Wattage	Voltage	Color Temperature	Lumen Output	Dimmable	CRI	Lamp Life	UL Listing
EL-822-109E26LED	9w	120V	2700K Warm White	800	Yes	90	25000 HR	Yes (Damp Location)

### C. 15w Integrated LED

Model#:	Total Wattage	Voltage	Color Temperature	Lumen Output	Dimmable	CRI	Dimmer Compatibility	Lamp Life	ETL Listing
<b>EL-822-15LED</b>	15w	120V	3000K (MOQ applies to Other CCT)	1050	Yes	>85	Forward Phasing	50000 HR	Yes (Damp Location)



# EQUITY LINE EXITRONIX

## QMS Series

### Micro LED Thermoplastic Emergency Unit

The compact QMS Series combines a traditional low-profile appearance with energy-efficient LED dependability. Fully adjustable square heads in a value-engineered emergency unit provide economical path of egress illumination for any commercial application. The QMS Series is an excellent match for the QCSS exit/emergency combo.

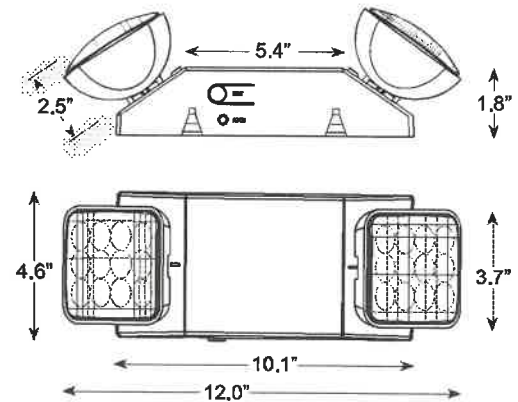
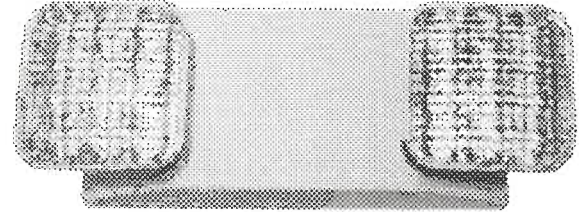
#### FEATURES & BENEFITS

- Two (2) 1.0W fully adjustable square heads with long-lasting, high-intensity LED lamps
- Suitable for Damp Locations
- Suitable for ceiling or wall mount
- California Energy Commission (CEC) Title 20 Compliant

#### SPECIFICATIONS

- Illumination:** Two (2) fully adjustable long-life, high-intensity LED lamp heads, 1.0W per head
- Housing:** Injection-molded UL 94 5VA flame-retardant, high-impact resistant thermoplastic enclosure
- Input:** 120/277VAC Dual primary, 60Hz
- Battery:** Maintenance-free 3.6V NiCad battery
- Operating Temp:** 0°C to 50°C (32°F to 122°F)
- Run Time:** 90 minute emergency run time, 24 hour recharge time
- Mounting:** Ceiling or wall mount
- Finish:** White
- Certifications:** UL 924 Listed for Damp Locations  
Meets NFPA 101 Life Safety Code, NEC, OSHA  
California Energy Commission (CEC) Title 20 Compliant
- Warranty:** Any component that fails due to a manufacturing defect is guaranteed for five years with a separate five year prorated warranty for NiCad batteries. The warranty does not cover physical damage, abuse or instances of uncontrollable natural forces. See the full Exitronix warranty document for detailed information. (Terms and conditions apply)

Model: QMS-WH Date: \_\_\_\_\_  
 Accessories: \_\_\_\_\_  
 Job Name: Line 15 Type: \_\_\_\_\_



#### ORDERING INFORMATION Example: QMS-WH

Series	Finish	Accessories (Order as separate line item)
QMS	WH=White	WG-S = Wire Guard (Back Mount)

ULTIMATE PERFORMANCE. UNPARALLELED VALUE.

Specifications are subject to change without notice.  
 Installation must be performed in accordance with  
 Barron Lighting Group Installation Instructions.

10800342 Rev 5

#### CONSTRUCTION

The QMS is an injection-molded enclosure constructed of UV-stabilized, UL 94 5VA flame-retardant, high-temperature, high-impact thermoplastic. Units resist denting, peeling, scratching and corrosion. Toolless access provided for easy maintenance. Universal J-box mounting pattern with keyhole slots and snap-together design provide simple installation. The factory-installed, glare-free thermoplastic lamp heads are fully adjustable and incorporate energy-saving, long-life bright white LEDs to provide optimal center-to-center spacing.

#### ILLUMINATION

Illumination is provided by high-intensity, long-life LEDs consuming only 1.0W of power per head. LEDs provide excellent illumination while maximizing energy efficiency.

#### ELECTRICAL

##### Input

Dual-voltage input 120 or 277VAC @ 60Hz, 1.0W power consumption

##### Nickel Cadmium Battery – NiCad

Extronix nickel cadmium batteries are maintenance free.

##### Emergency

The QMS will operate for a minimum of 90 minutes during a loss of power with a 24 hour maximum recharge time for the battery.

#### Solid-State Transfer

The unit features a solid-state switching transistor which eliminates damaged contacts or mechanical failures associated with relays. The switching circuit is designed to detect a loss of AC power and automatically energizes the lamps. Upon restoration of the AC voltage, the emergency lamps will switch off and the charger will automatically recharge the battery.

#### Test Button

Our easily located test button allows for manual verification of proper operation of the transfer circuit and emergency lamps.

#### INSTALLATION

Units are mountable in any orientation, on ceiling or walls. A universal mounting pattern and rear keyhole slots are provided as well as top and side conduit entry options for ease of installation.

#### Damp Location Rated

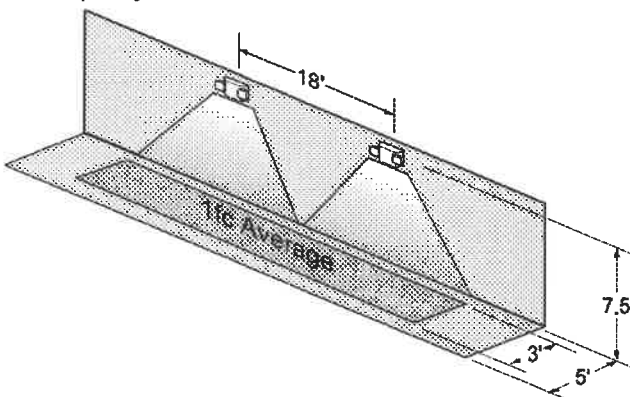
Damp Location Rated fixture that is normally or periodically subject to condensation of moisture in, on or adjacent to, and includes partially protected locations.

#### CONFORMANCE TO CODES & STANDARDS

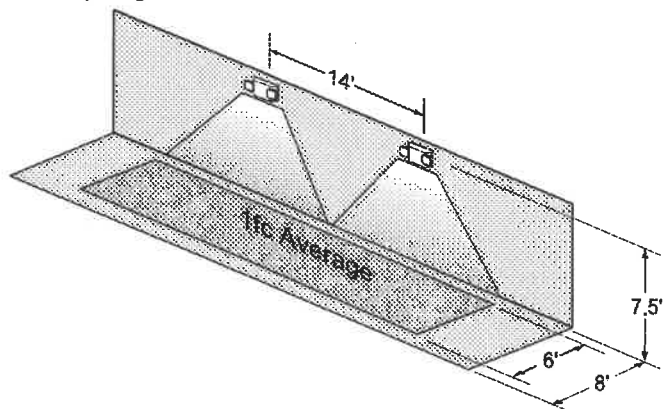
The QMS Series is UL Listed for Damp Locations and meets or exceeds the following: UL 924, NEC requirements and NFPA 101.

#### SAMPLE PHOTOMETRICS

Using multiple units at a typical 7.5' mounting height with 80/50/20 reflectances on a 3' wide path of egress yields the following center-to-center spacing:



Using multiple units at a typical 7.5' mounting height with 80/50/20 reflectances on a 6' wide path of egress yields the following center-to-center spacing:



ULTIMATE PERFORMANCE. UNPARALLELED VALUE.

Specifications are subject to change without notice.  
Installation must be performed in accordance with  
Barron Lighting Group installation instructions.

10800342 Rev 5

# EQUITY LINE

## TRACE•LITE

# ECX Series

## Square LED Canopy

### DESCRIPTION

The ECX Series square LED canopy luminaire has a highly durable design that delivers affordability and energy efficiency to any canopy application. It is available in two configurations and features three field-selectable lumen packages and three field-selectable color temperatures. The ECX is constructed with a die-cast aluminum housing and a Fresnel lens that offers 160° distribution and IK10 impact resistance. Optional battery backup kit and sensor are available. The ECX Series is ideal for indoor or outdoor applications including parking garages, schools, office complexes, light commercial development, apartments, walkways, entryways, and stairwells.

### CONSTRUCTION

- Die-cast aluminum housing in a bronze or white powder coat finish
- Two configurations; small 8" x 8" square, large 10" x 10" square
- Hinged mounting plate for easy surface mount installation
- Enclosure is supplied with three 1/2" hubs to facilitate conduit feed and one 3/4" hub on top of the unit for pendant mount

### OPTICS/LEDS

- High transmittance, UV-stabilized polycarbonate Fresnel lens provides uplight
- 160° Distribution for optimal spacing
- IK10 Rated lens for optimal impact resistance
- Two configurations offered;
  - Small - 40W; power selectable between 20W-30W-40W offering between 2,400 and 5,800 lumens
  - Large - 75W; power selectable between 40W-60W-75W offering between 4,800 and 10,875 lumens
- Efficacies up to 145 LPW maximize energy savings and utility rebates
- CCT Switchable; 3000K, 4000K and 5000K CCT
- CRI ≥80
- L70 > 100,000 hours
- L90 > 51,000 hours

### ELECTRICAL

- Universal 120-277VAC, 50/60Hz
- Power Factor > 0.90
- 0-10V Dimming driver

### INSTALLATION

- Easy surface mount installation with hinged mounting plate. Can be surface mounted to standard 3-1/2" or 4" recessed square J-box
- Three removable, threaded plugs allow surface mounted 1/2" conduit feed
- Threaded hub with clear plugs provides access to CCT & power switches
- Pendant mounted using a standard 3/4" downrod and hardware (supplied by others)

### OPTIONS

- Integral microwave sensor option (SC) behind the lens. Sensor allows for two or three step/level dimming and has optional daylight harvesting capabilities. Settings can be adjusted via optional remote-control accessory. See sensor details for default sensor settings

### ACCESSORIES

- 15W Battery Backup Kit in White or Bronze finish (ECX-BB-WH, ECX-BB-BR) offers up to 1,800 lumens of emergency powered illumination for 90 minutes for path of egress. Rated for ambient temperatures of 0°C to 40°C (32°F to 104°F)
- Remote control for sensor (TL-MSH12-REMOTE)
- 12.5" Transition plate, white finish (MC-TR)
- 16" Transition plate, white finish (MC-TR16)

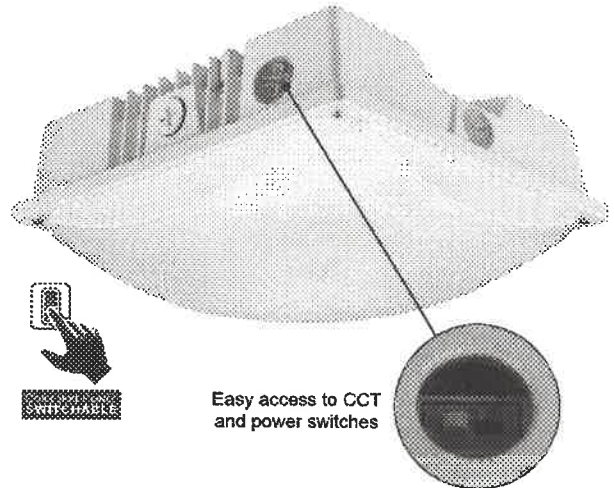
### TESTING & COMPLIANCE

- cULus listed for wet locations
- IP65 rated
- DesignLights Consortium® (DLC) PREMIUM Qualified
- Operating temperatures: -20°C to 40°C (-4°F to 104°F)

### WARRANTY

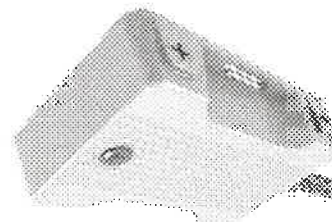
- Five year warranty (terms and conditions apply)

Model: ECX-40-CP-BR Date: \_\_\_\_\_  
 Accessories: \_\_\_\_\_  
 Job Name: Line 16 Type: \_\_\_\_\_



Specs At A Glance*		
Model	ECX-40	ECX-75
Wattage (W)	20W-30W-40W (Switchable)	40W-60-75W (Switchable)
Lumens (lm)	2,400-5,800	4,800-10,875
Efficacy (LPW)	120-145	
Distribution	160°	
CCT	3000K-4000K-5000K (Switchable)	
CRI	> 80	
Input Voltage	120-277VAC, 50/60Hz	
Operating Temp	-20°C to 40°C (-4°F to 104°F)	
Certifications	cULus Listed for Wet Locations, IP65, DLC PREMIUM	
Warranty	5 Years	

\*Nominal Wattage. Tested at 5000K CCT.  
 See performance table for more detailed lumen information.



Battery Backup Kit  
 Accessory (ECX-BB-WH)

Specifications are subject to change without notice.  
 Installation must be performed in accordance with  
 Barron Lighting Group installation instructions.



**ORDERING INFORMATION**

**Example:** ECX-75-CP-WH-SC

Series	Wattage	CCT	Finish	Options
ECX	40 = 40W (Switchable; 20W-30W-40W) 75 = 75W (Switchable; 40W-60W-75W)	CP = 3000K-4000K-5000K	BR <sup>1</sup> = Bronze WH = White	SC = Sensor

**Accessories<sup>2</sup> (Field Installed)**

ECX-BB-WH = 15W Battery Backup Kit, White Finish
ECX-BB-BR = 15W Battery Backup Kit, Bronze Finish
TL-MSH12-REMOTE = Remote Control for Sensor
MC-TR = 12.5" Transition Plate, White Finish
MC-TR16 = 16" Transition Plate, White Finish

**Notes**

<sup>1</sup> Only available on ECX-40 configuration

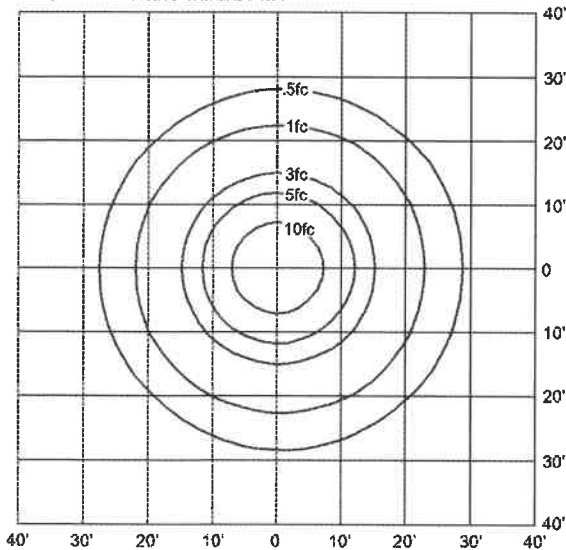
<sup>2</sup> Order as a separate line item; shipped in separate box for field installation

**PERFORMANCE TABLE**

Model	Wattage	CCT	Distribution	Lumen Output	Efficiency	CRI
ECX-40-CP (20W, 3K)	20	3000K	160°	2,422	121	>80
ECX-40-CP (20W, 4K)	20	4000K		2,630	131	>80
ECX-40-CP (20W, 5K)	20	5000K		2,745	142	>80
ECX-40-CP (30W, 3K)	30	3000K		3,741	130	>80
ECX-40-CP (30W, 4K)	30	4000K		3,960	132	>80
ECX-40-CP (30W, 5K)	30	5000K		4,080	136	>80
ECX-40-CP (40W, 3K)	40	3000K		5,009	139	>80
ECX-40-CP (40W, 4K)	40	4000K		5,472	136	>80
ECX-40-CP (40W, 5K)	40	5000K		5,796	144	>80
ECX-75-CP (40W, 3K)	40	3000K		4,800	120	>80
ECX-75-CP (40W, 4K)	40	4000K		4,915	122	>80
ECX-75-CP (40W, 5K)	40	5000K		5,203	130	>80
ECX-75-CP (60W, 3K)	60	3000K		7,525	132	>80
ECX-75-CP (60W, 4K)	60	4000K		7,780	130	>80
ECX-75-CP (60W, 5K)	60	5000K		7,985	133	>80
ECX-75-CP (75W, 3K)	75	3000K		9,987	133	>80
ECX-75-CP (75W, 4K)	75	4000K		10,468	139	>80
ECX-75-CP (75W, 5K)	75	5000K		10,875	145	>80

**SAMPLE PHOTOMETRICS**

**ECX-75-CP: 75W, 4000K CCT**  
 IES: TYPE VS Short  
 MOUNTING HEIGHT: 10'  
 TILT: ZERO  
 HORIZONTAL SPACING CRITERIA: 1.54



Specifications are subject to change without notice.  
 Installation must be performed in accordance with  
 Barron Lighting Group installation instructions.



## SENSOR SETTINGS

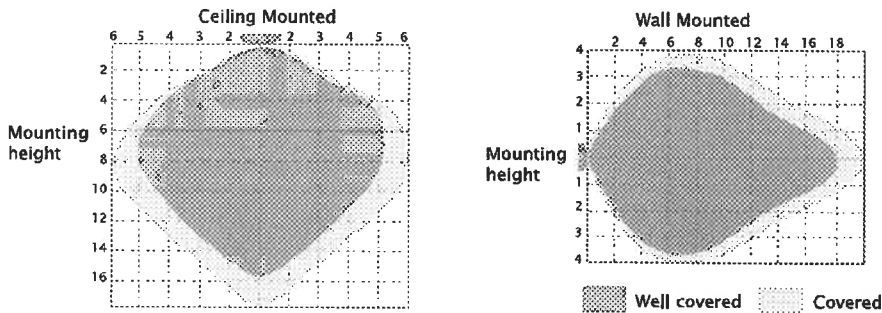
Operating Voltage	12VDC
Operating Current	≤ 25Ma
Output	DIM / 0-10V
Stand-by Power	≤ 0.5W
Detection Area	25% / 50% / 75% / 100%
Hold Time	5s / 30s / 1min / 3min / 5min / 10min / 20min / 30min
Daylight Threshold	2Lux / 10Lux / 30Lux / 50Lux / 80Lux / 120Lux / Disable
Stand-by Period	0s / 10s / 30s / 1min / 5min / 10min / 30min / +∞
Stand-by Dimming Level	10% / 20% / 30% / 50%
Microwave Frequency	5.8GHz ± 75MHz
Microwave Power	> 0.3mW
Mounting Height	Max 15m / 49.2' (ceiling mounted)
Detection Range	Max ø14m / 45.92' (ceiling mounted)
Operating Temperature	-20°C~60°C
Motion Detection	0.5~1.5m/s

Factory Default Settings: Area 100%/ Hold Time 5s/ Daylight Threshold Disable  
Stand-by Period 0s/ Stand-by Dimming Level 10%

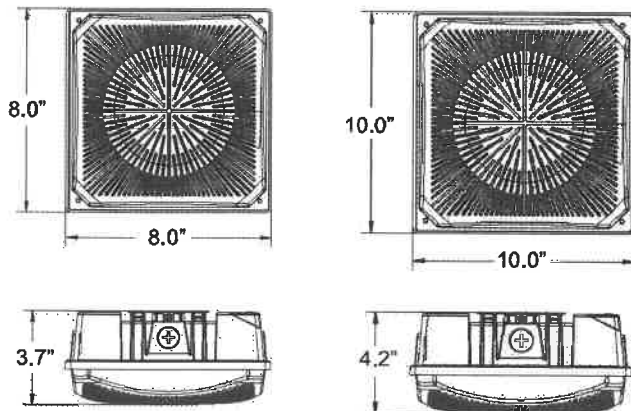
## DETECTION COVERAGE

Typical installation height: 8 - 15m (26.2' - 49.2')

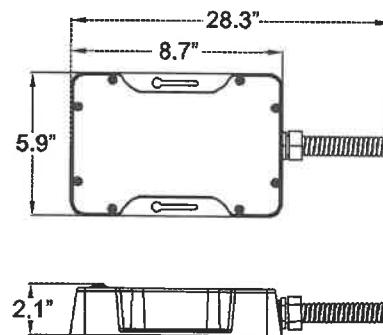
This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.



## DIMENSIONS



## BATTERY BACKUP KIT DIMENSIONS (ECX-BB-XX)



Specifications are subject to change without notice.  
Installation must be performed in accordance with  
Barron Lighting Group installation instructions.

10810409 Rev 7

**DESCRIPTION**

The SSF LED Linear Stairwell Series features a sleek yet robust construction with an IK08 impact-tested steel housing, vandal-proof hardware and UV-stabilized polycarbonate lens. The SSF Series is offered in both 2' and 4' configurations and comes standard with an integral microwave sensor centered behind the lens providing 2 or 3 step - level dimming as well as optional daylight harvesting capability. Internal switches allow the user to select the CCT (3000K-3500K-4000K) and the power output (between 10W to 40W, depending on fixture size), providing maximum project flexibility. The SSF is offered with a battery backup option providing 90 minutes of emergency egress lighting. The SSF is a DesignLights Consortium® PREMIUM qualified product in the stairwell and linear ambient category, maximizing energy-savings and utility rebates. Designed for stairwell applications, the SSF can be used in a wide variety of other indoor, general ambient lighting applications including schools, hospitals and stores and is the perfect choice for both new construction and retrofits.

**SPECIFICATIONS**

**Construction:**

- Durable 4-3/8" width, 22-gauge steel enclosure in a white powder coated finish, IK08 impact tested, 2' and 4' length
- Vandal-resistant Pin-In Torx hardware
- Flanged housing ends secure the lens in place
- Several knockouts across the bottom of the housing and the two ends
- All visible hardware in a white finish to match enclosure

**Optics/LEDs:**

- UV-stabilized frosted polycarbonate lens offering an even, diffused light
- Units provide a range of lumen packages by simply selecting the wattage desired for your application;
  - 2' unit – wattage selectable from 10W through 30W offering up to 3850 lumens
  - 4' unit – wattage selectable from 12W through 40W offering up to 5320 lumens
- Switches are located inside fixture
- Significant energy savings compared to traditional light sources with up to 130 LPW
- Color switchable between 3000K, 3500K and 4000K CCT. Switch is located inside the fixture.
- L70 >100,000 hours
- CRI ≥80

**Electrical:**

- Class 2 power supply, 120 to 277VAC, 50/60Hz
- 0-10V dimming driver, 1-100% flicker-free dimming
- 12V auxiliary output from the driver
- 4kV driver protection
- All units are provided with an integral microwave sensor, centered behind the lens. Sensor allows for 2 or 3 step - level dimming and has optional daylight harvesting capabilities. Settings can be adjusted via optional remote control accessory. See sensor details for default sensor settings.
- Sensor can easily be disabled for on/off fixture operation

**Testing & Compliance:**

- cETLus Listed for Damp Locations
- Operating temperatures: -20°C to 40°C (-40°F to 104°F)
- DesignLights Consortium® (DLC) PREMIUM Qualified in the stairwell and linear ambient category (consult QPL for qualified models)

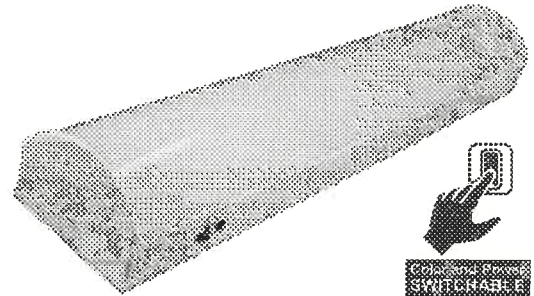
**Warranty:**

- Five Year Warranty (Terms and Conditions Apply)

**Options:**

- Integral battery Backup (BB option) offers 875 lumens and over 90 minutes of emergency powered illumination for path of egress. Rated for ambient temperatures of 0°C to 40°C (32°F to 104°F)

Model: SSF-4-CP-SC Date: \_\_\_\_\_  
 Accessories: \_\_\_\_\_  
 Job Name: Line 17 Type: \_\_\_\_\_



Model	SSF-2				SSF-4			
Wattage (W)*	10W	15W	20W	30W	12W	18W	25W	40W
Lumens (lm)	1290	1980	2810	3850	1590	2320	3250	5320
Efficacy (LPW)	130LPW							
CCT (K)	Switchable (3000K-3500K-4000K)							
CRI	≥80							
Input Voltage	120-277VAC, 50/60Hz							
Operating Temp	-20°C to 40°C (-4°F to 104°F)							
Certifications	cETLus Listed for Damp Locations, DLC PREMIUM							
Warranty	5 Years							
Weight**	4.4 lbs				8.2 lbs			

\* Nominal wattage. Tested at 4000K CCT.  
 \*\* Net weight without battery backup (add 0.9 lbs for battery backup)  
 Note: Environment and application will affect performance. Typical values and 25°C used for testing. Specifications subject to change without notice.

**Accessories:**

- Remote control for sensor (TL-RC-SCNS) allows field programming of sensor settings. Default sensor settings provided in sensor detail section (this accessory is not required if default settings are acceptable)
- 2' Long, T20 Torx Pin-In security (TRHT-T20-PIN), 1/4" drive bit hex shaft for standard drills

**Installation:**

- For ceiling or wall surface mount installation
- Several knockouts behind the enclosure and on both ends for flexibility in mounting
- Remove one end cap to slide and snap out the lens for easy access to inside the fixture
- Clips inside the fixture provide simple access for wiring and installation as well as access to the CCT and power selectable switches
- Not suitable for installation in T-bar ceilings without field mounting modifications to be determined by installer
- Includes security cable to hold led tray in place during installation
- Includes quick connect on leads for easy easy wiring

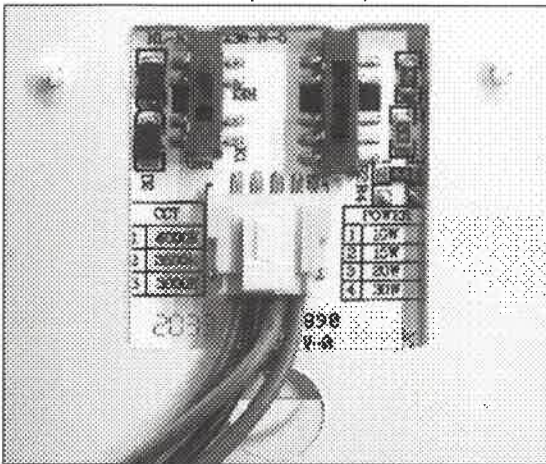
**Ordering Information** (Example: SSF-4-CP-SC)

SKU	Description
SSF-2-CP-SC	2' Linear Stairwell, Switchable 3000K-3500K-4000K CCT, Switchable 10W-15W-20W-30W, Integral Microwave Sensor, White Finish
SSF-2-CP-BB-SC	2' Linear Stairwell, Switchable 3000K-3500K-4000K CCT, Switchable 10W-15W-20W-30W, Integral Microwave Sensor, Battery Backup, White Finish
SSF-4-CP-SC	4' Linear Stairwell, Switchable 3000K-3500K-4000K CCT, Switchable 12W-18W-25W-40W, Integral Microwave Sensor, White Finish
SSF-4-CP-BB-SC	4' Linear Stairwell, Switchable 3000K-3500K-4000K CCT, Switchable 12W-18W-25W-40W, Integral Microwave Sensor, Battery Backup White Finish

Notes	Accessories* (Field Installed)
1 Order as a separate line item. Shipped in a separate box for final installation in the field	TL-PC-SC-NS - Remote control required for sensor field programming TRHT-120-PIN - 2" Long, 120 Torx, Pin-In Security, 1/4" Drive Bit Hex Shaft for Standard Drills

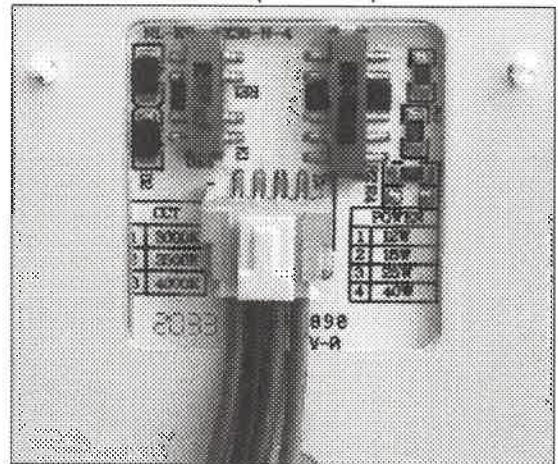
**Color & Power Selectable Switch Details**

**SSF-2 (2 Foot Unit)**



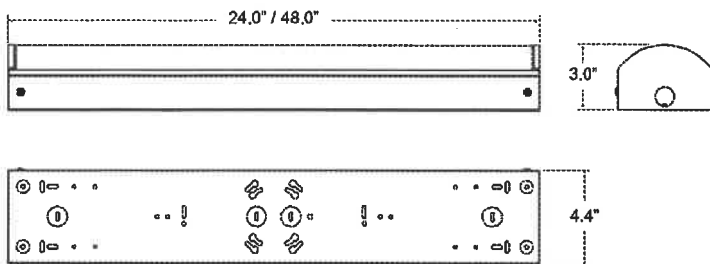
Power Switchable: 10W-15W-20W-30W (default)  
CCT Switchable: 3000K-3500K-4000K (default)

**SSF-4 (4 Foot Unit)**



Power Switchable: 12W-18W-25W-40W (default)  
CCT Switchable: 3000K-3500K-4000K (default)

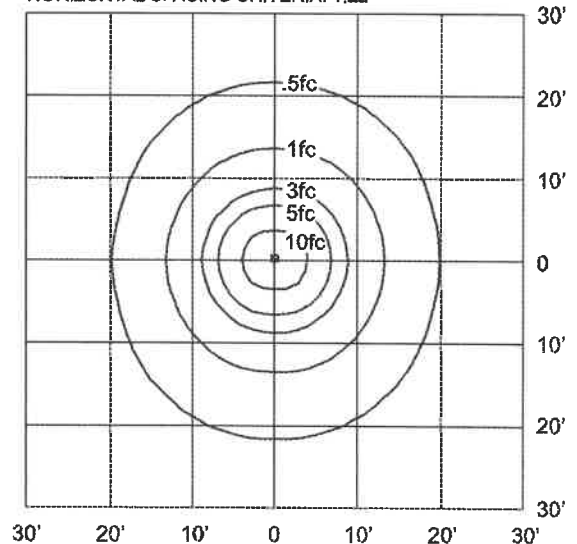
**Dimensions**



**Sample Photometry**

**SSF-4-CP: 40W, 4000K CCT**

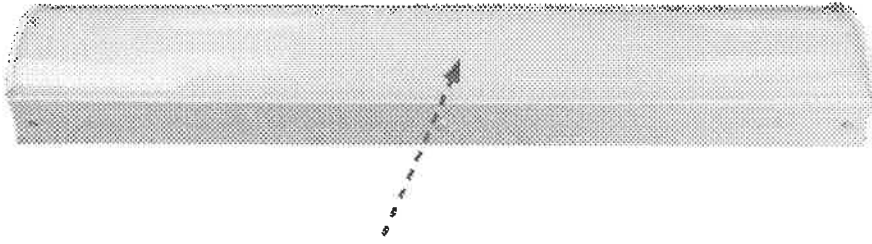
IES: TYPE VS Very Short  
MOUNTING HEIGHT: 8'  
TILT: ZERO  
HORIZONTAL SPACING CRITERIA: 1.22



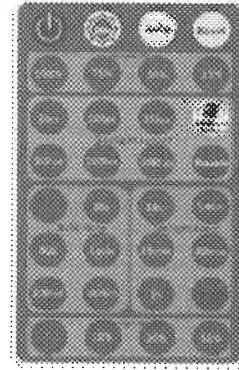
Specifications are subject to change without notice.  
Installation must be performed in accordance with  
Barron Lighting Group installation instructions.



## Sensor Details



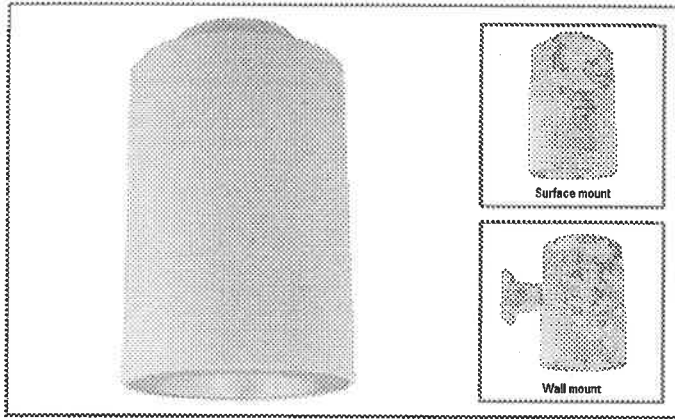
- 5.8Ghz C-band microwave sensor located in the center of the unit behind the lens
- 12V/24V DC input
- 0-10V DC output signal
- Can provide two or three step occupancy settings with optional daylight harvesting capabilities
- IR remote control programming/commissioning (sold separately) allows user to program:
  - Sensitivity (100%, 75%, 50% or 25%)
  - Daylight harvesting (400lux, 5000lux, 1000lux, disabled)
  - Standby/Hold time before dimming (30sec, 90sec, 5min, 10min, 30min)
  - Dim/Twilight level (0%, 10%, 30%, 50%)
  - Standby/Twilight time before unit turns off (+∞/does not turn off, 10min, 30min, 1hr)
- Detection range up to 40'. Mounting height between 8' – 20'
- Sensor can easily be disabled for fixture on/off operation



### Sensor Default Settings

- Sensitivity: 100%
- Daylight: Disabled
- Hold time—5min
- Standby time— +∞
- Standby dimming—50%

Project		Catalog #	HCC6S50D010BZ HCC8P34BZ HM6C4550840	Type	61MDH
Prepared by		Notes	Line 18	Date	



# HALO Commercial

## HCC6 | HM6C | 61

### 6-inch lens cylinder and lens wall wash

Typical Applications  
Office • Healthcare • Hospitality • Institutional

### Interactive Menu

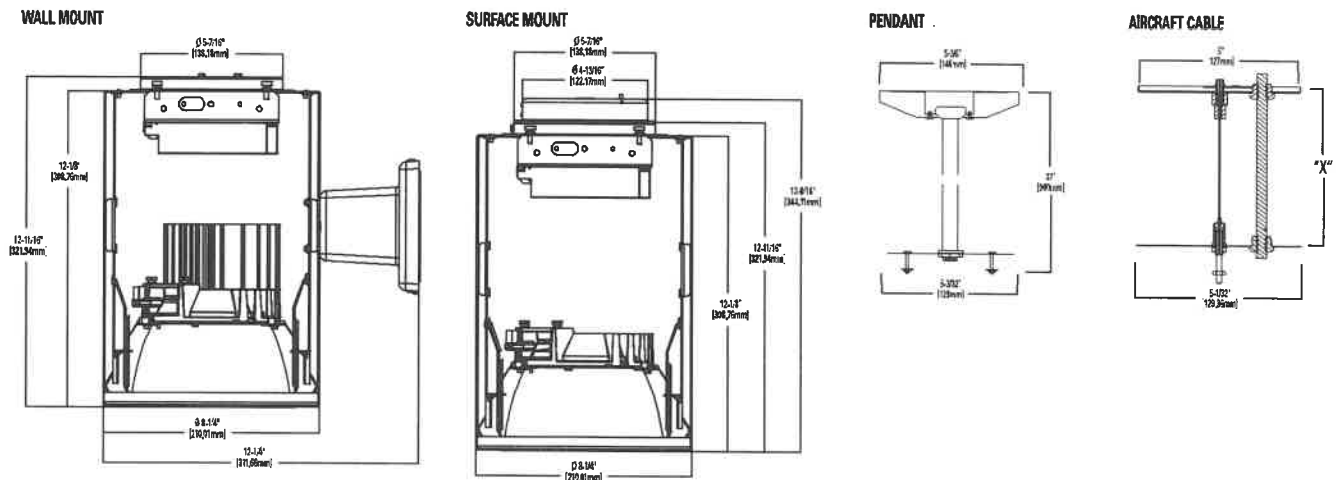
- Order Information page 2
- Product Specifications page 3
- Photometric Data page 4
- Energy & Performance Data page 7
- Product Warranty

### Product Certification

### Top Product Features

- 500 to 5000 lumens
- 2700K, 3000K, 3500K, 4000K, 5000K CCT; 80 or 90 CRI
- Narrow, Medium, Wide beam distribution in precision formed reflectors
- Wall wash with exclusive rotatable linear spread lens
- Specular, Semi Specular, White, Black & White Baffle reflector finishes
- Matte white, matte black, silver and bronze silver cylinder finishes
- Wall mount, and Surface mount with aircraft cable and pendant accessory options

### Dimensional and Mounting Details



## Order Information

SAMPLE ORDER NUMBER: **HCC6S20D010MW - HM6C0525835 - 61MDC**

A complete luminaire consists of a cylinder, LED module, and reflector; ordered separately

<b>HCC6S</b>	<b>50</b>	<b>D010</b>	<b>BZ</b>
Cylinder	Lumens	Driver Options	Finish
<b>HCC6S</b> = 6" Surface Mount Cylinder for ceiling, cable, or pendant mounting <b>HCC6W</b> = 6" Wall Mount Cylinder	05 = 500 lm 07 = 750 lm 10 = 1000 lm 15 = 1500 lm 20 = 2000 lm 25 = 2500 lm 30 = 3000 lm 35 = 3500 lm 40 = 4000 lm 45 = 4500 lm 50 = 5000 lm	<b>D010</b> =UNV 120-277V, 50/60Hz, 0-10V 1%-100% dimming at 120-277V on 0-10V controls  <b>Canada Option 500-5000 lumens:</b> <b>D010347</b> = 347VAC 50/60Hz 0-10V 1%-100% dimming. For 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000lm models only	<b>MW</b> = Matte White <b>MB</b> = Matte Black <b>BZ</b> = Bronze <b>SL</b> = Silver
Notes	Notes	Notes	Notes

<b>HCC8P36BZ</b>	
Accessories (Order & install Separately)	Options
<b>Pendant Kit<sup>(1)</sup></b> <b>HCC8P36MW</b> = Matte White pendant stem kit <b>HCC8P36MB</b> = Matte black pendant stem kit <b>HCC8P36BZ</b> = Bronze pendant stem kit <b>HCC8P36SL</b> = Silver pendant stem kit	<b>Blank</b> = 36" <b>SP*</b> = * specify 6 to 144 in 1" increments
<b>Aircraft Cable Kit<sup>(2)</sup></b> <b>HCAC120MW</b> = 120" white power cable & aircraft cable kit <b>HCAC48MW</b> = 48" white power cable & aircraft cable kit <b>HCAC120MB</b> = 120" black power cable & aircraft cable kit <b>HCAC48MB</b> = 48" black power cable & aircraft cable kit	<b>Blank</b> = 5 conductor cable (power & 0-10V dimming)
Notes	Notes
(1) Pendant and Aircraft Cable mounting accessories for use with surface cylinders. (2) Aircraft cable kit finish options: white or black cable & canopy plate, and stainless steel aircraft cable	

<b>HM6C</b>	<b>4550</b>	<b>840</b>
LED Module	Lumens	CRI / CCT (minimum)
<b>HM6C</b> = 6" LED Modules For use with HCC6 cylinders only	0525 = 500 - 2500 lumen 3040 = 3000-4000 lumen 4550 = 4500-5000 lumen	827 = 80CRI, 2700K 830 = 80CRI, 3000K 835 = 80CRI, 3500K 840 = 80CRI, 4000K 850 = 80CRI, 5000K 927 = 90CRI, 2700K 930 = 90CRI, 3000K 935 = 90CRI, 3500K 940 = 90CRI, 4000K 950 = 90CRI, 5000K
Notes	Notes	Notes

<b>61</b>	<b>MB</b>	<b>H</b>		
Reflector	Distribution	Finish	Flange	Accessories
<b>61</b> = 6" self-flanged, conical reflector	<b>ND</b> = narrow reflector 58° beam angle, 0.97 SC <b>MD</b> = medium reflector 60° beam angle, 1.10 SC <b>WD</b> = wide reflector 65° beam angle, 1.28 SC <b>RWW</b> = rotatable wall wash with linear spread lens	<b>C</b> = Specular clear <b>H</b> = Semi-specular clear <b>W</b> = White	<b>Blank</b> = Polished flange standard with C & H reflectors <b>Blank</b> = White flange standard with W reflector <b>WF</b> = White flange option available with C & H reflectors	<b>61RWWPK</b> = Replacement part kit - wall wash lens insert - for use with 61RWW* only
<b>61</b> = 6" self-flanged, baffle reflector	<b>WD</b> = wide baffle 65° beam angle, 1.28 SC <b>RWW</b> = rotatable wall wash with linear spread lens (wide beam baffle with lens wall wash insert)	<b>BB</b> = Black baffle <b>WB</b> = White baffle	<b>Blank</b> = White flange standard with BB & WB <b>BF</b> = Black flange option available with BB	
Notes	Notes	Notes	Notes	
(3) Values are nominal, based on specular clear reflector, other may vary. Additional factors include CR/CCT, reflector finish, and lumen selected.				

## Product Specifications

### Cylinder

- Round seamless spun aluminum housing available in matte white, matte black, bronze, or silver paint finish

### Mounting

- Ceiling mount: Included cylinder mounting plate installs to ceiling junction box (supplied by others), and the surface cylinder mounts to the plate with easy twist and lock hooks
- Pendant mount: Pendant stem (ordered separately) is field installed to the surface cylinder mounting plate. Offered in matching housing finishes
- Aircraft cable mount: Aircraft cable (ordered separately) is field installed to the surface cylinder mounting plate. Offered in white or black cable kit
- Wall mount: A mounting arm on the cylinder is designed to be attached directly to wall junction box (supplied by others) via a sturdy mounting plate

### LED Module

- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation
- Available in 80 or 90 CRI (nominal), provides accuracy within 3 SDCM color uniformity
- 90 CRI, R9>50 (refer to chromaticity technical note online for details)
- Correlated Color Temperature options (nominal)
  - 2700K, 3000K, 3500K, 4000K, 5000K
- Passive thermal management achieves L70 at 50,000 hours in IC and non IC applications
- Integral diffuse lens provides visual shielding

### Lumen Options

- Lumen options include 500, 750, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, lumens

### Reflector

- Self-flanged aluminum reflectors are available in narrow, medium or wide distribution patterns
- Wall wash reflector features a rotatable linear spread lens for precise alignment of vertical illumination
- Reflector attaches to LED module with (3) speed clamps
- Multiple painted or plated finishes are available

### Reflector / Module Retention

- Reflector / module assembly is securely retained in the housing with (2) torsion springs

### Driver

- Field replaceable constant current driver
- UNV 120-277V input standard; continuous dimming 1%-100% with 0-10V analog controls.

### Canada option

- 347VAC 50/60Hz continuous 1%-100% dimming on 0-10V analog controls

### Electrical Connections

- Quick disconnect allows for tool-less replacement of LED engine from below
- (3) 4-port push wire nuts for mains voltage, with 1-port for fixture connection

### Compliance

- cULus Listed to UL 1598 / C22.2 No. 250.0, suitable for damp locations and wet locations in covered ceilings only
- Surface and wall mount cylinder is UL Certified (US and Canada) for wet location with protected ceiling and IP65 rated (wet location and IP65 not applicable to wall wash which is damp location)
- Pendant and aircraft cable mount cylinders are UL Certified (US and Canada) for damp location
- EMI/RFI emissions FCC CFR Title 47 Part 15 Class A 277V & Class B 120V
- Contains no mercury or lead and RoHS compliant
- Photometric testing in accordance with IES LM-79-08
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11
- May be used to comply with State of California Title 24 non-residential code, as a dimmable LED luminaire
- ENERGY STAR® certified, refer to certified light fixture database

### Warranty

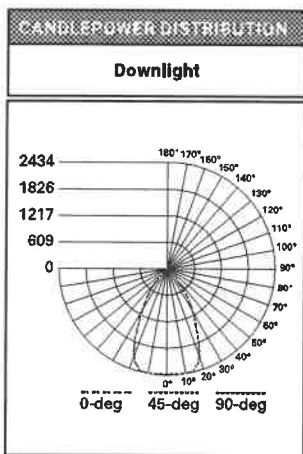
- Five year limited warranty, consult website for details. [www.cooperlighting.com/legal](http://www.cooperlighting.com/legal)

## Photometric Data

View IES files

### NARROW DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

NARROW (5° BEAM)	
Test Number	P581878
Housing	HC620D010 <sup>(1)</sup>
Module	HM60525835
Reflector	61NDC
Lumens	2228 Lm
Efficacy	111.4 Lm/W
SC	0.93
UGR	11.7



CONE OF LIGHT			
MH	FC	L	W
5.5'	80.2	5	5
7'	49.5	6.4	6.4
8'	37.9	7.4	7.4
9'	30	8.2	8.2
10'	24.3	9.2	9.2
12'	16.9	11	11

CANDELA TABLE	
Degrees Vertical	Candela
0	2427
5	2422
15	2405
25	1621
35	761
45	118
55	12
65	3
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1636	73.4
0-40	2098	94.2
0-60	2223	99.8
0-90	2228	100
90-180	0	0
0-180	2228	100

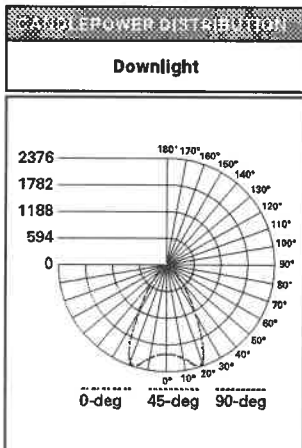
LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	9187
55	1118
65	376
75	318
85	0

\*Value are nominal with specular clear reflectors, other finishes and field results may vary.  
SC = Spacing Criteria  
UGR = Unified Glare Rating

1. Test with HC620D010 also applies to HCC620D010 using same reflector and LED module.

### MEDIUM DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

MEDIUM (5° BEAM)	
Test Number	P581875
Housing	HC620D010 <sup>(1)</sup>
Module	HM60525835
Reflector	61MDC
Lumens	2307 Lm
Efficacy	115.3 Lm/W
SC	1.06
UGR	11.8



CONE OF LIGHT			
MH	FC	L	W
5.5'	68.7	5.6	5.6
7'	42.4	7.2	7.2
8'	32.5	8.2	8.2
9'	25.7	9.4	9.4
10'	20.8	10.4	10.4
12'	14.4	12.4	12.4

CANDELA TABLE	
Degrees Vertical	Candela
0	1998
5	2022
15	2307
25	1842
35	796
45	126
55	15
65	4
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1671	72.4
0-40	2163	93.8
0-60	2301	99.7
0-90	2307	100
90-180	0	0
0-180	2307	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	9753
55	1395
65	571
75	318
85	0

\*Value are nominal with specular clear reflectors, other finishes and field results may vary.  
SC = Spacing Criteria  
UGR = Unified Glare Rating

1. Test with HC620D010 also applies to HCC620D010 using same reflector and LED module.

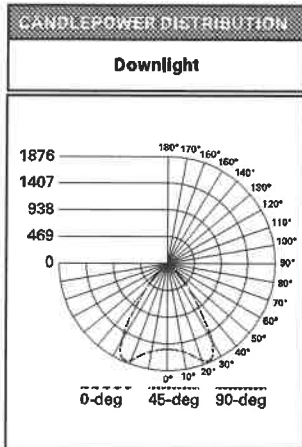


## Photometric Data

[View IES files](#)

### WIDE DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WIDE (65° BEAM°)	
Test Number	P581885
Housing	HC620D010 <sup>(1)</sup>
Module	HM60525835
Reflector	61WDC
Lumens	2359 Lm
Efficacy	118 Lm/W
SC	1.28
UGR	11.6



CONE OF LIGHT			
MH	FC	L	W
5.5'	50.5	7	7
7'	31.2	8.8	8.8
8'	23.9	10.2	10.2
9'	18.8	11.4	11.4
10'	15.3	12.8	12.8
12'	10.6	15.4	15.4

CANDELA TABLE	
Degrees Vertical	Candela
0	1526
5	1540
15	1685
25	1861
35	1027
45	252
55	32
65	6
75	2
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1461	61.9
0-40	2105	89.2
0-60	2351	99.6
0-90	2359	100
90-180	0	0
0-180	2359	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	19506
55	3078
65	765
75	318
85	0

\*Value are nominal with specular clear reflectors, other finishes and field results may vary.  
SC = Spacing Criteria  
UGR = Unified Glare Rating

1. Test with HC620D010 also applies to HCC620D010 using same reflector and LED module.

### Photometric Multipliers (Nominal Lumen Values)

500 Lumens	750 Lumens	1000 Lumens	1500 Lumens	2000 Lumens	2500 Lumens	3000 Lumens	3500 Lumens	4000 Lumens	4500 Lumens	5000 Lumens
0.33	0.44	0.54	0.74	1.00	1.12	1.46	1.76	1.81	2.17	2.28

Multipliers for relative lumen values with other series models.

### Color Finish Multipliers

Finish Code	T	H	W2000	B3
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.92	0.91	0.82

Multipliers for relative lumen values with other color finishes.

### CCT Multipliers - 80CRI

3700K	4000K	4500K	5000K	5500K
0.92	0.98	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

### CCT Multipliers - 90CRI

3700K	4000K	4500K	5000K	5500K
0.77	0.84	0.89	0.90	0.90

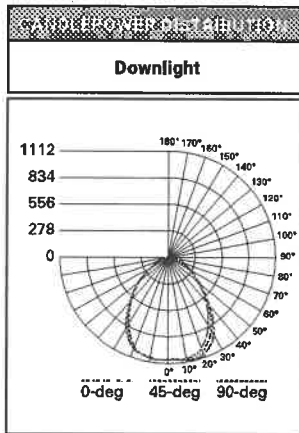
Multipliers for relative lumen values with other series color temperatures.

## Photometric Data

[View IES files](#)

### WALL WASH DISTRIBUTION - SPECULAR CLEAR FINISH, 2000 LUMEN MODEL, 80 CRI, 3500K

WALL WASH	
Test Number	P581882
Housing	HC620D010 (1)
Module	HM60525835
Reflector	61RWVC
Lumens	2179 Lm
Efficacy	109 Lm/W
SC	1.15



CANDELA TABLE	
Degrees Vertical	Candela
0	1080
5	1081
15	1112
25	1034
35	800
45	514
55	319
65	184
75	85
85	12
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	849	39
0-40	1313	60.2
0-60	1978	90.8
0-90	2179	100
90-180	0	0
0-180	2179	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	39810
55	30479
65	23907
75	17983
85	7359

SC = Spacing Criteria, nominal for specular clear reflector, other finishes and field results may vary.

1. Test with HC620D010 also applies to HCC620D010 using same reflector and LED module.

SINGLE UNIT FOOTCANDLES							
2.5' from wall (distance from fixture along wall)							
1	19.3	13.8	6.1	2.2	0.7	0.3	0.1
2	29.1	22.6	12.3	5.7	2.5	1.2	0.6
3	27.6	22.5	13.8	7.3	3.7	1.9	1
4	21	18.2	12.4	7.4	4.2	2.4	1.4
5	14.4	13.1	9.9	6.6	4.1	2.5	1.6
6	9.7	9.1	7.5	5.5	3.7	2.5	1.6
7	6.7	6.4	5.5	4.3	3.2	2.2	1.5
8	4.7	4.6	4.1	3.4	2.7	2	1.4
9	3.4	3.3	3.1	2.7	2.2	1.7	1.3
10	2.5	2.5	2.4	2.1	1.8	1.4	1.1

MULTIPLE UNIT FOOTCANDLES						
2.5' from wall (Distance from fixture along 3")			2.5' from wall (Distance from fixture along 4")			
1	21.5	19.1	21.5	20	12.1	20
2	34.7	34.4	34.7	31.6	24.6	31.6
3	34.9	36	34.9	31.3	27.6	31.3
4	28.4	30.7	28.4	25.2	24.8	25.2
5	21	23.2	21	18.6	19.8	18.6
6	15.2	16.8	15.2	13.4	15	13.4
7	11	12	11	9.9	11	9.9
8	8.1	8.7	8.1	7.4	8.2	7.4
9	6.1	6.5	6.1	5.6	6.2	5.6
10	4.6	4.9	4.6	4.3	4.7	4.3

### Photometric Multipliers (Nominal Lumen Values)

600 Lumens	750 Lumens	1000 Lumens	1500 Lumens	2000 Lumens	2500 Lumens	3000 Lumens	3500 Lumens	4000 Lumens	4500 Lumens	5000 Lumens
0.33	0.44	0.54	0.74	1.00	1.12	1.46	1.76	1.81	2.17	2.28

Multipliers for relative lumen values with other series models.

### Color Finish Multipliers

Finish Code	1	11	111	1111
Finish	Specular Clear	Semi-Specular	Matte White White Baffle	Black Baffle
Multiplier	1.00	0.92	0.91	0.82

Multipliers for relative lumen values with other color finishes.

### CCT Multipliers - 80CRI

5000K	4000K	3500K	3000K	2700K
0.92	0.98	1.00	1.03	1.03

Multipliers for relative lumen values with other series color temperatures.

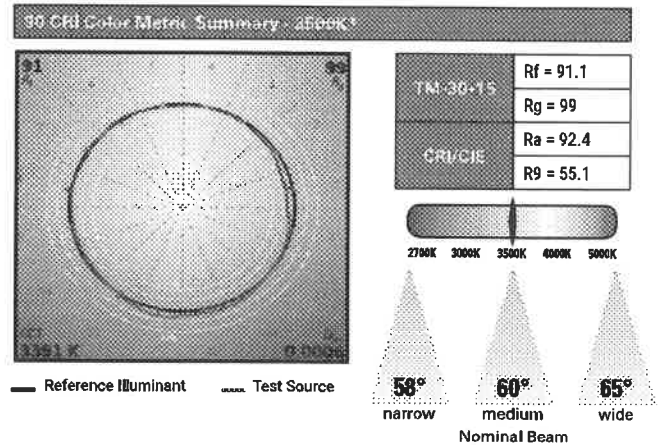
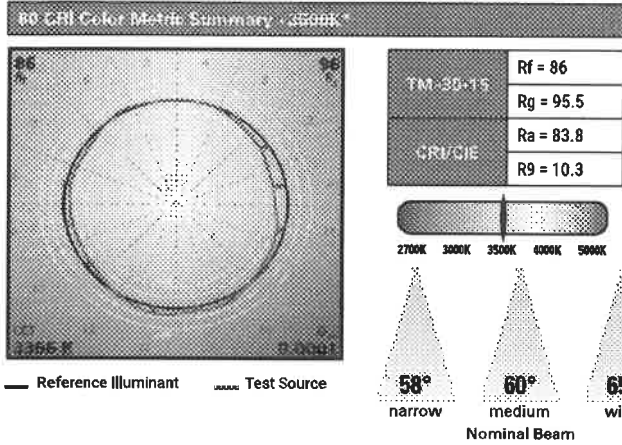
### CCT Multipliers - 90CRI

5000K	4000K	3500K	3000K	2700K
0.77	0.84	0.89	0.90	0.90

Multipliers for relative lumen values with other series color temperatures.

## Energy and Performance Data

### COLOR METRICS - TM-30-15 & CRI/CIE (3500K)



### ENERGY DATA

Series	500 lumen		750 lumen		1000 lumen		1500 lumen		2000 lumen	
	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.051	0.026	0.067	0.036	0.083	0.039	0.119	0.053	0.171	0.077
Input Power (W)	6.1	6.5	7.9	8.3	10	10.4	14.5	14.5	20.9	20.6
In-rush (A)	1.9	8.4	2	8.4	2.2	8.5	2.7	8.5	2.1	9.7
Inrush duration (µs)	251	135	237	133	250	134	250	139	245	131
THD (%)	6.2	13.5	7.4	8.8	5.4	10.3	10	6.7	6.5	7.9
PF	≥ 0.99	≥ 0.9	≥ 0.98	≥ 0.92	≥ 0.99	≥ 0.95	≥ 0.99	≥ 0.97	≥ 0.99	≥ 0.96

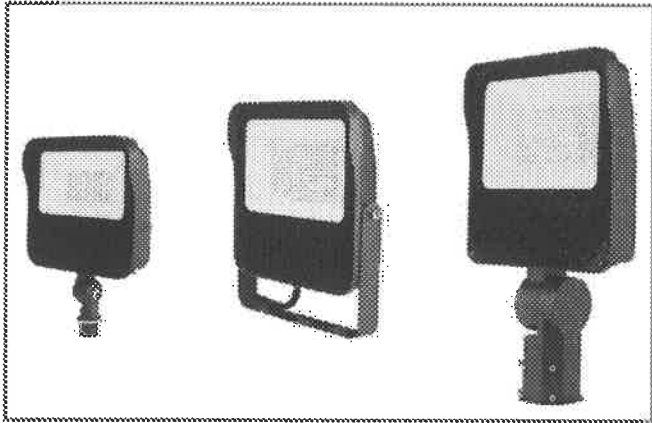
Series	2500 lumen		3000 lumen		≥3500 lumen		4000 lumen		4500 lumen	
	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Voltage 120-277VAC	120V	277V	120V	277V	120V	277V	120V	277V	120V	277V
Input Current (A)	0.23	0.103	0.24	0.107	0.292	0.152	0.351	0.159	0.384	0.172
Input Power (W)	27.5	27.5	28.6	28.5	34.6	35.1	42.1	42.1	45.9	45.6
In-rush (A)	2.5	5.6	2.5	11.6	3.4	13.9	3.1	14.7	3.1	14.8
Inrush duration (µs)	232	123	216	111	183	95	200	98	202	100
THD (%)	6.5	8.1	7.8	8.3	5.6	10	4.1	9.5	4.5	8.5
PF	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.96	≥ 0.99	≥ 0.93	≥ 0.99	≥ 0.94	≥ 0.99	≥ 0.95

Series	5000 lumen	
Input Voltage 120-277VAC	120V	277V
Input Current (A)	0.419	0.186
Input Power (W)	50.1	49.5
In-rush (A)	3.1	15
Inrush duration (µs)	202	117
THD (%)	5.5	7.6
PF	≥ 0.99	≥ 0.96

Minimum starting temperature -30°C (-22°F)  
 (Nominal input 120-277VAC & 100% of rated output power)

Sound Rating: Class A standards

Project		Catalog #	LSF25-KN-PC	Type	
Prepared by		Notes	Line 19	Date	



## Lumark AP

### LSF Selectable Flood Series

Floodlight Luminaire

**Product Features**

- Light Architect™
- 1000-10-0000
- MARKETPRO  
Packaging solutions
- CCT
- Selectable lumens

**Interactive Menu**

- Ordering Information page 2
- Product Specifications page 2
- Mounting Details page 3
- Energy and Performance Data page 4

**Product Certifications**

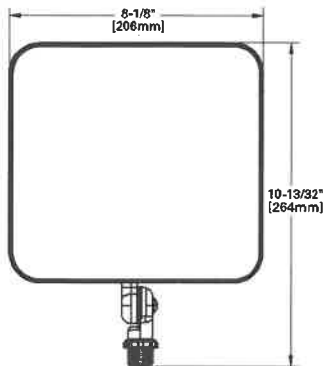
- SYSTEMS CERTIFIED
- PREMIUM
- 1.5G VIB
- FC CLASS A CANICES-005
- IP65
- UL CERTIFIED
- RoHS COMPLIANT
- 5 YEAR

#### Quick Facts

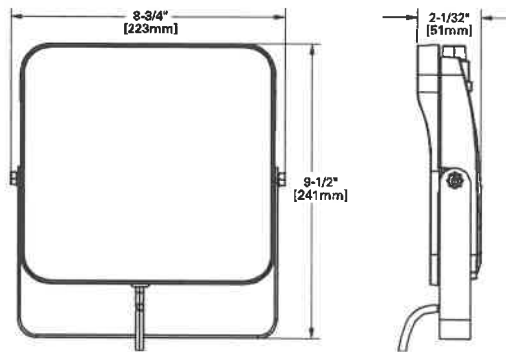
- Available in 3 housing sizes and multiple lumen packages
- Available in selectable CCT and selectable lumens
- Up to 161 lumens per watt
- Lumen packages ranging from 1,700-20,000 lumens
- Replaces 150W-470W HID

#### Dimensional Details

##### Knuckle Mount



##### Yoke Mount



## Stock Ordering Information

Stock Sample Number: LSF25-KN-PC

L 19

Model Number	Lumens/Wattage	CCT Selectable	Voltage	Controls
<b>LSF25-KN-PC</b>	<b>Selectable Lumens:</b> 1700-2500-3500-4000 / 11-15-22-25W	3000K-4000K-5000K / 70 CRI	120-347V, 50-60 Hz	Selectable Dusk-to-Dawn via Button-type photocontrol
LSF65-KN-PC	<b>Selectable Lumens:</b> 5000-6500-8000-10,000 / 25-35-45-65W			
LSF120-SF-PC	<b>Selectable Lumens:</b> 9000-12,000-15,000-20,000 / 50-70-90-120W			
LSF25-YK-PC	<b>Selectable Lumens:</b> 1700-2500-3500-4000 / 11-15-22-25W			
LSF65-YK-PC	<b>Selectable Lumens:</b> 5000-6500-8000-10,000 / 25-35-45-65W			
LSF120-TR-PC	<b>Selectable Lumens:</b> 9000-12,000-15,000-20,000 / 50-70-90-120W			

## Product Specifications

### Construction

- Die-cast aluminum housing
- Durable surface powder coating spray
- Fully sealed tempered glass

### Controls

- Selectable configurations offer internal toggle switches for adjusting luminaire CCT and lumens.
- Default settings for selectable luminaires are 5000K CCT and maximum lumen output.
- Integrated button-type photocontrol is included for dusk-to-dawn operation.
- Photocontrol can be field-adjusted via toggle switches to modify the settings. The default setting for the photocontrol is enabled.
- To disable the photocontrol, place the provided cap over the sensor.

### Electrical

- -40°C minimum operating temperature
- 40°C maximum operating temperature
- >.9 power factor
- <20% total harmonic distortion
- Class 2 driver incorporates internal fusing designed to withstand 4kV surge
- 0-10V dimming driver standard

### Mounting

- Knuckle
- Slipfitter
- Trunnion
- Yoke

### Finish

- Bronze

### Typical Applications

- Facade
- Wall washing
- Landscape lighting
- Building lighting
- Sign lighting
- Commercial lighting

### Shipping Data

- LSF25: 6.8x5.8x1.9 in  
12 units/carton  
Approx weight per carton: 27 lbs
- LSF65: 8.1x7.7x2.1 in  
6 units/carton  
Approx weight per carton: 23 lbs
- LSF120: 10.4x11.3x3.3 in  
1 unit/carton  
Approx weight per carton: 12.5 lbs

### Warranty

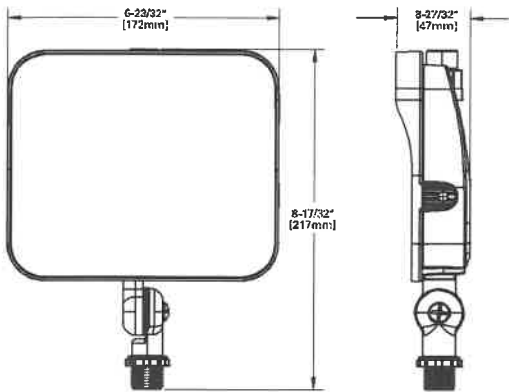
- Standard five-year warranty



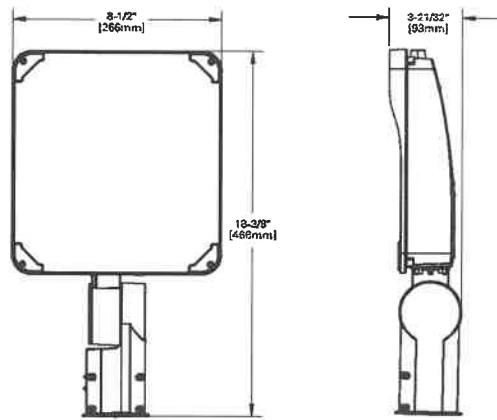
Mounting Details

Mounting Types

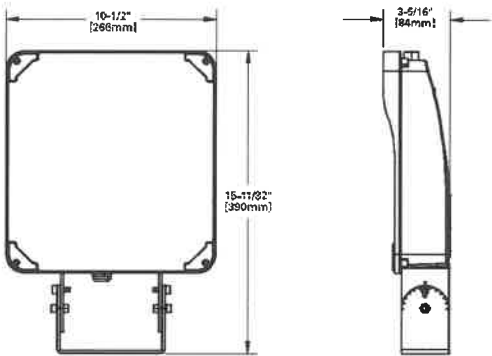
Knuckle Mount



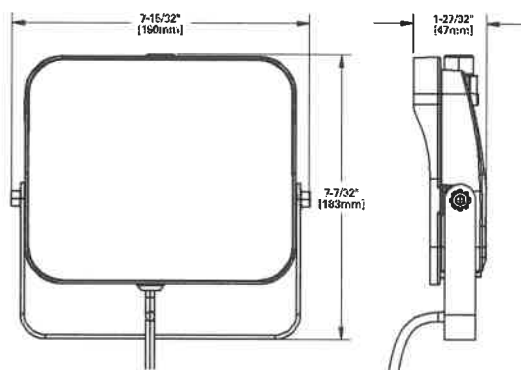
Slipfitter Mount



Trunnion Mount

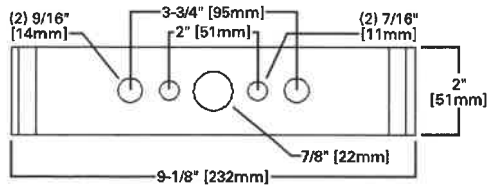


Yoke Mount

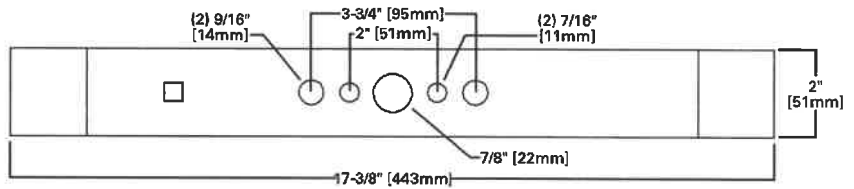


Drilling Patterns

Trunnion Mount



Yoke Mount



## Energy and Performance Data

### Power and Lumens (LSF25 Selectable)

Light Engine		Set to 11W	Set to 15W	Set to 22W	Set to 25W
<b>Switch setting</b>					
Power (Watts)		11	15	22.9	27.7
Input Current @120V (A)		0.09	0.13	0.19	0.23
Input Current @277 (A)		0.04	0.05	0.08	0.10
Input Current @347V (A)		0.03	0.04	0.07	0.08
<b>Performance</b>					
3000K	Lumens	1,718	2,502	3,321	3,783
	Lumens per Watt	156.0	154.2	144.8	136.5
4000K	Lumens	1,777	2,627	3,533	4,115
	Lumens per Watt	162.0	175.1	154.0	148.5
5000K	Lumens	1,746	2,545	3,370	3,883
	Lumens per Watt	158.7	169.7	146.9	140.1

### Power and Lumens (LSF65 Selectable)

Light Engine		Set to 25W	Set to 35W	Set to 45W	Set to 65W
<b>Switch setting</b>					
Power (Watts)		27.2	37	47.5	63.1
Input Current @120V (A)		0.23	0.31	0.40	0.53
Input Current @277 (A)		0.10	0.13	0.17	0.23
Input Current @347V (A)		0.08	0.11	0.14	0.18
<b>Performance</b>					
3000K	Lumens	4,687	6,128	7,538	9,454
	Lumens per Watt	172.3	165.6	158.7	149.8
4000K	Lumens	4,925	6,449	8,053	10,324
	Lumens per Watt	181.1	174.3	169.5	163.6
5000K	Lumens	4,779	6,273	7,739	9,747
	Lumens per Watt	175.7	169.5	162.9	154.5

### Power and Lumens (LSF120 Selectable)

Light Engine		Set to 50W	Set to 70W	Set to 90W	Set to 120W
<b>Switch setting</b>					
Power (Watts)		50	69.4	90.7	125
Input Current @120V (A)		0.42	0.58	0.76	1.04
Input Current @277 (A)		0.18	0.25	0.33	0.45
Input Current @347V (A)		0.14	0.20	0.26	0.36
<b>Performance</b>					
3000K	Lumens	8,692	11,613	14,505	18,595
	Lumens per Watt	173.8	167.3	159.9	148.8
4000K	Lumens	9,027	12,338	15,487	20,220
	Lumens per Watt	180.5	177.8	170.7	161.8
5000K	Lumens	8,820	11,911	14,791	19,015
	Lumens per Watt	176.4	171.6	163.1	152.1

### Lumen Maintenance

Configuration	Ambient Temperature	TM-21 Lumen Maintenance (50,000 hrs)	Reported L70 (hrs)
Up to 25W	25°C	82.80%	>72,000
Up to 65W	25°C	86.50%	>72,000
Up to 120W	25°C	86.50%	>72,000

Configuration	Ambient Temperature	TM-21 Lumen Maintenance (50,000 hrs)	Reported L70 (hrs)
Up to 25W	40°C	86.50%	>72,000
Up to 65W	40°C	83.80%	>72,000
Up to 120W	40°C	83.20%	>72,000

CCT Temperature	Lumen Multiplier
3000K	1.0000
4000K	1.0672
5000K	1.0340

### EPA Data

Catalog #	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'
LSF25-KN-PC	0.0910	0.0950	0.1339	0.1712	0.2036	0.2323	0.2539	0.2730	0.2842	0.2891
LSF65-KN-PC	0.1173	0.1326	0.1976	0.2587	0.3139	0.3610	0.3981	0.4287	0.4462	0.4517
LSF120-SF-PC	0.3352	0.3352	0.4506	0.5745	0.6844	0.7759	0.8469	0.8984	0.9402	0.9680



## T8 Type B LED T8 Lamps

### HIGHLIGHTS

- LED T8 Type B lamps easily replaces existing T8 fluorescent lamps by bypassing the existing fluorescent ballast and wiring directly to line voltage
- Internal LED driver means no need to replace a ballast resulting in long-term maintenance savings
- FieldCCeT models provide the ability to select between 3000K, 3500K, 4000K, 5000K or 6500K, all in one lamp
- No socket changes; uses shunted or non-shunted sockets, for applicable single or double-ended applications
- Wide illumination angle provides 330° of light distribution
- Instantaneous full light output upon power-up
- Glass material for better light transmission
- Frosted glass lens reduces visual glare and provides optimal heat dissipation

### CERTIFICATIONS

- UL Listed for Damp Locations
- FCC Compliant
- RoHS Compliant
- DesignLights Consortium® Qualified - meets DLC requirements for efficacy and lumen maintenance

### PERFORMANCE

- High efficacy: up to 173 lm/W
- Available in single CCT models: 3500K, 4000K or 5000K CCT or FieldCCeT models: (field-selectable CCT 30/35/40/50/6500K)
- CRI >82
- Rated lifetime L70: >50,000 hours @ 45°C

### ELECTRICAL

- Input voltage: 120-277V, 50/60 Hz
- Built-in surge protection: up to 1kV
- Power Factor: >0.9
- THD: <20%

### THERMAL

- -4°F to 113°F (-20°C to 45°C) operating temperature\*

### CONSTRUCTION

- Available in 2', 3', and 4' lengths
- Frosted glass lens
- G13 base

### WARRANTY

- 5-Year limited warranty available [online](#). Contact your EIKO sales rep for additional details.

\*This is not intended for night lighting.

## KEY FEATURES

### NO BALLAST REQUIRED

Eliminate the ballast with a simple installation using shunted or non-shunted sockets for single or double-ended install.

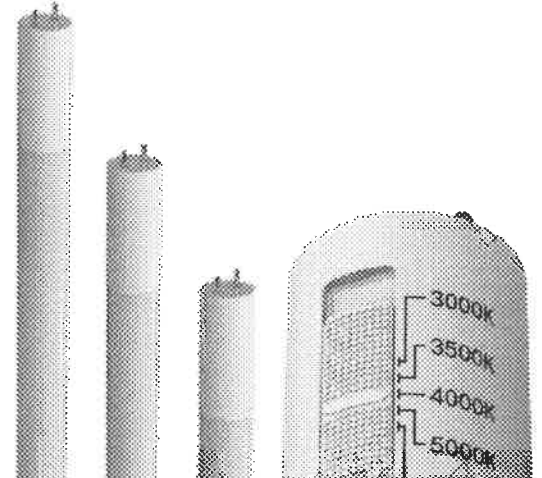
### FIVE COLOR TEMPERATURES IN ONE

FieldCCeT models (one SKU providing 3000K, 3500K, 4000K, 5000K, and 6500K CCT) allows you to reduce your inventory while providing more flexibility to your customers.

### WIDER BEAM, MORE LIGHT

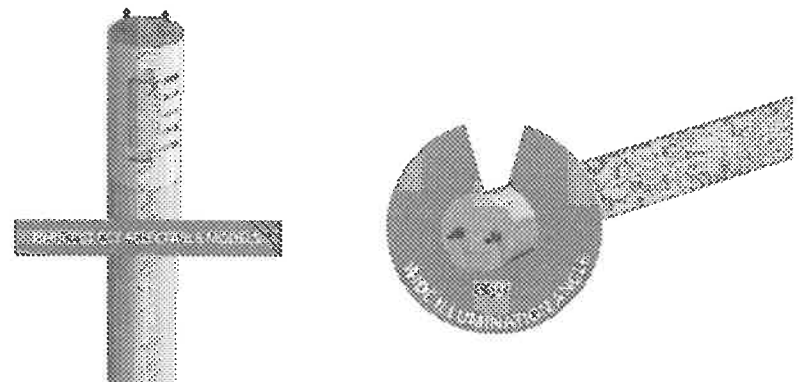
Wide illumination angle provides 330° of light distribution.

project name	Line 20+21	type
catalog number	12933, 12951	voltage
approved by		date



FieldCCeT Models also available

T8 Type B Lamps Available in 2', 3' and 4' lengths





## AVAILABLE MODELS

ORDER CODE	ITEM #	WATTS	LUMENS	CCF*	EFFICIACY (lm/W)	INPUT VOLTAGE	SINGLE + DOUBLE-ENDED	TRADITIONAL WATTAGE EQUIVALENT	ULC ID#
<b>2' LENGTH</b>									
12949	L9WT8/24/BSDG/835	9W	1100 lm	3500K	122 lm/W	120-277V	Single + Double-ended	17W Fluorescent	S-T6LHX9
12946	L9WT8/24/BSDG/840	9W	1150 lm	4000K	127 lm/W	120-277V	Single + Double-ended	17W Fluorescent	S-S29Y48
12930	L9WT8/24/BSDG/850	9W	1150 lm	5000K	127 lm/W	120-277V	Single + Double-ended	17W Fluorescent	S-43VOY6
12937	L9WT8/24/BSDG/FCCT	9W	1150 lm	30/35/40/50/6500K	127 lm/W	120-277V	Single + Double-ended	17W Fluorescent	S-KR01YN
<b>3' LENGTH</b>									
12927	L12WT8/36/BSDG/835	12W	1400 lm	3500K	116 lm/W	120-277V	Single + Double-ended	25W Fluorescent	S-C1XR5N
12928	L12WT8/36/BSDG/840	12W	1450 lm	4000K	120 lm/W	120-277V	Single + Double-ended	25W Fluorescent	S-YWUMT2
12935	L12WT8/36/BSDG/850	12W	1450 lm	5000K	120 lm/W	120-277V	Single + Double-ended	25W Fluorescent	S-BGUK21
L21 12951	L12WT8/36/BSDG/FCCT	12W	1450 lm	30/35/40/50/6500K	120 lm/W	120-277V	Single + Double-ended	25W Fluorescent	S-RU00XZ
<b>4' LENGTH</b>									
12942	L9.5WT8/48/BSDG/835	9.5W	1600 lm	3500K	168 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLG3CR73ZC8Q
12940	L9.5WT8/48/BSDG/840	9.5W	1650 lm	4000K	173 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLZ27QNT3Y9
12938	L9.5WT8/48/BSDG/850	9.5W	1650 lm	5000K	173 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLZV16XPC03X
12948	L12WT8/48/BSDG/835	12W	1700 lm	3500K	141 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLI1ER915TXS
12941	L12WT8/48/BSDG/840	12W	1800 lm	4000K	150 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLR44UNH947M
12947	L12WT8/48/BSDG/850	12W	1800 lm	5000K	150 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLS988U884O1
L20 12933	L14WT8/48/BSDG/FCCT	14W	1800 lm	30/35/40/50/6500K	128 lm/W	120-277V	Single + Double-ended	32W Fluorescent	S-SIB7L
12931	L15WT8/48/BSG/840	15W	1800 lm	4000K	120 lm/W	120-277V	Single-ended	32W Fluorescent	P2J5PJD6
12956	L15WT8/48/BSG/850	15W	1800 lm	5000K	120 lm/W	120-277V	Single-ended	32W Fluorescent	P5DYPYSH
12954	L15WT8/48/BSDG/835	15W	2100 lm	3500K	140 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLC635B4BHZI
12936	L15WT8/48/BSDG/840	15W	2200 lm	4000K	146 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PLGRXV4SCABP
12958	L15WT8/48/BSDG/850	15W	2200 lm	5000K	146 lm/W	120-277V	Single + Double-ended	32W Fluorescent	PL52JOCENV2

\*All Field CCT lamps ship in 4000K CCT.

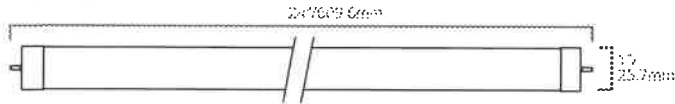
## COMPATIBLE EMERGENCY BATTERIES (FOR TYPE B INSTALLATION ONLY)

ORDER CODE	ITEM #	DESCRIPTION	INPUT VOLTAGE	EMERGENCY TIME	OUTPUT POWER	BACKUP LUMENS	RECHARGE TIME	TITLE 20
10361	EMB-CP-5WBT-U	External Emergency Battery, 5W	120-277V	>90 mins	5W	700	24 hrs	Yes
11675	EEBE18WHA170S	External Emergency Battery, 18W	120-347V	>90 mins	18W	Refer to lamp**	24 hrs	Yes

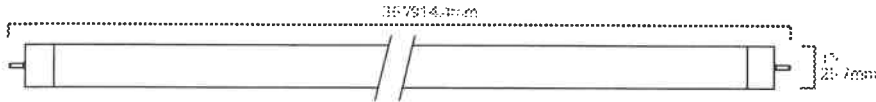
\*\*Refer to the lamps name output for the backup lumens.

## PRODUCT DIMENSIONS

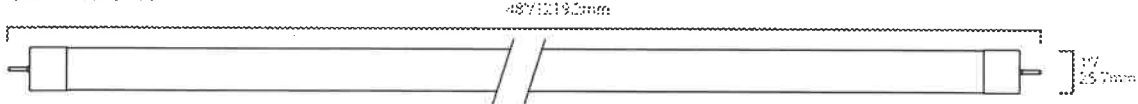
T8 - 2 FT.



T8 - 3 FT.



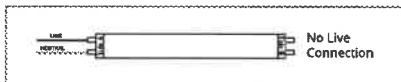
T8 - 4 FT.



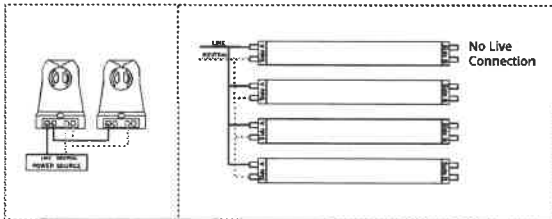
## WIRING DIAGRAMS

### SINGLE-ENDED

Single Lamp Installation

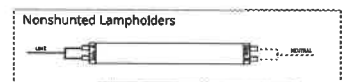
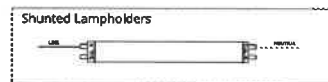


Multiple Lamp Installation

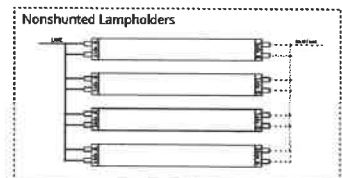
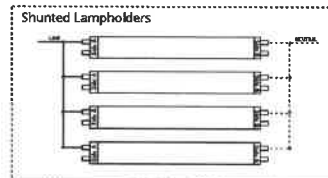


### DOUBLE-ENDED\*

Single Lamp Installation

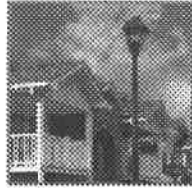
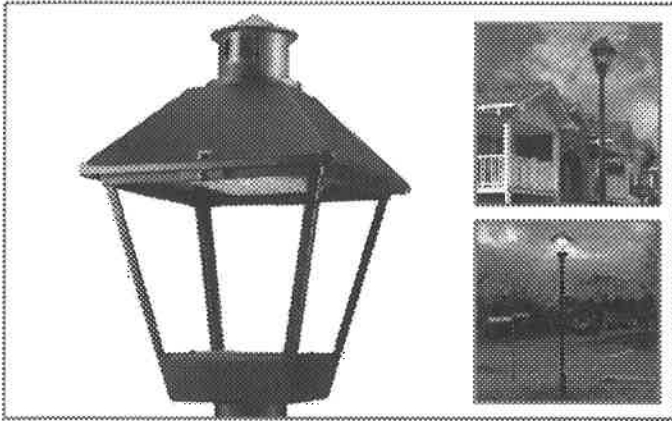


Multiple Lamp Installation



\*Note: Both pins on each end of the lamp must be connected to line voltage as shown above. If lamp holder is a non-shunted type it must be shunted (shorted) by external jumper.

Project	Catalog #	LXT-PAI-40-750-U-5WQ	Type	A BK
Prepared by	Notes	Line 22	Date	



## Streetworks

### LXF / LXT Lexington

#### Decorative Post Top Luminaire

#### Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

#### Product Features



#### Product Certifications



#### Interactive Menu

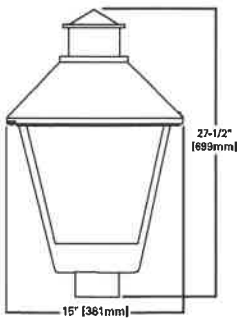
- [Ordering Information](#) page 2
- [Product Specifications](#) page 2
- [Energy and Performance Data](#) page 3

#### Quick Facts

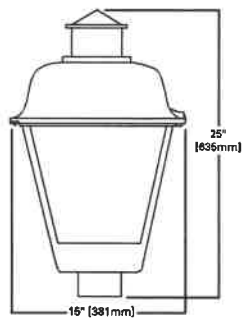
- Replaces up to 400W equivalent HID
- Asymmetric & Symmetric distributions
- 0-10V dimming driver standard
- UL 1449/MOV surge protection available
- 3G vibration rated

#### Dimensional Details

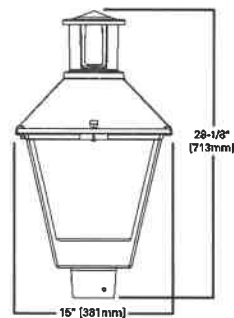
LXF



LXT



LXF - Tall Cupola



LXT - Tall Cupola



## Ordering Information

SAMPLE NUMBER: LXF-PA1-20-740-U-T2U-CL-BK-10MSP-PR7

L22

Product Family	Configuration	Wattage Bucket	Color Temperature	Voltage	Distribution	Lens	Finish
LXF=Lexington LXT=Lexington w/ Traditional Top	PA1=Direct Mount Rectangle (24 LED)	20=20W <sup>1</sup> 30=30W 40=40W 50=50W 60=60W 70=70W 80=80W 90=90W 100=100W	740=70CRI, 4000K 727=70CRI, 2700K <sup>6</sup> 827=80CRI, 2700K <sup>6</sup> 730=70CRI, 3000K <sup>6</sup> 750=70CRI, 5000K <sup>6</sup> AMB=Amber 590nm	U=Universal (120-277V) 2=120V <sup>2</sup> 8=480V <sup>4</sup> 9=347V	T2U=Type II Urban T3=Type III T4W=Type IV Wide 5WQ=Type V Square Wide SL3=Type III w/ Spill Control	[Blank]=Open (No Lens) A=Refractive Lens Panels CL=Clear Lens Panel FL=Frosted Lens TL=Textured Lens Panel	BK=Black AP=Grey BZ=Bronze WH=White
Options (Add as Suffix)		Controls		Accessories (Order Separately)			
10K=Series 10kV UL 1449 Surge Protective Device 20K=Series 20kV UL 1449 Surge Protective Device 20KI=Series 20kV UL 1449 Surge Protective Device with light indicator 20MSP=Parallel 20kV MOV Surge Protective Device 10MSP=10kV MOV Surge Protection Device HA=50°C High Ambient Temperature <sup>8</sup> S=Snap Latches for Tool-less Light Replacement J=Factory Installed Ladder Rest HSS=House Side Shield <sup>7</sup> TC=Tall Cupola <sup>9</sup> PSC=Photocontrol Shorting Cap NPC=NEMA Photocontrol - Multi-Tap LLPC=Longlife Photocontrol Included FADC=Field Adjustable Dimming Controller BC= Bird Cone <sup>10</sup>		SLTD=DALI <sup>3</sup> PR=NEMA Photocontrol Receptacle <sup>4</sup> PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle		TA1BK=Decorative Ladder Rest for Field Installation (Black) OA/RA1013=Photocontrol Shorting Cap OA/RA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA1223=10kV Surge Module Replacement HS-LX-24=Field Installed House Side Shield <sup>7</sup> VGS-ARCH=Short Vertical Drop Shield VGL-ARCH=Long Vertical Drop Shield			
<b>NOTES:</b> 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information. 2. PA1-20 only available in 120V only. 3. Only available in universal voltage. Consult your lighting representative at Cooper Lighting Solutions if custom programming is required. Not available with PA1-90, PA1-100. Consult your lighting representative at Cooper Lighting Solutions if greater than PA1-90 (83W) is needed. 4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems). 5. Use dedicated IES files when performing layouts. These files are published on the Lexington product page on the website. 6. If "PR" selected, dimming functionality not available, leads will be capped. 7. HSS not available with 5WQ distribution. 8. HA not available with PA1-100 if paired with HSS option. 9. Use tall cupola to accommodate network control solutions requiring the 7-pin receptacle. 10. Bird cone cannot be ordered with lens panels.							

## Product Specifications

### Construction

- Hinged die-cast aluminum top with cupola cover
- Captive retaining screw
- Die-cast aluminum base housing
- Other finish colors available; Consult your Streetworks representative
- 1" ANSI wattage/source label

### Optics

- Choice of five patented, high efficiency AccuLED Optics™ technology manufactured from injection-molded acrylic
- Optics are precisely designed to shape the light output, maximizing efficiency and application spacing; AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements
- Offered standard in various CCTs and minimum 70 CRI
- For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed
- Optics are IP66 enclosure rated
- Offered open sided as a standard with four lens options

### Electrical

- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life
- Standard drivers feature electronic universal voltage (120-277V, 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments.
- 10 kV/10 kA common and differential mode and 10 kV MOV surge protection available

### Mounting

- Self-aligning pole-top fitter fits 2-3/8" and 3" O.D. tenons
- Square headed 1-1/4" polymer coated mounting bolts

### Finish

- Cast components finished in a Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear
- Optional colors include bronze, grey and white; RAL and custom color matches available

### Shipping Data

- Approximate Net Weight: 25 lbs. (11 kgs.)
- Effective Projected Area: 1.7 (Sq. Ft.)

### Warranty

- Standard five-year warranty
- Optional ten-year warranty, please see your Cooper Lighting Solutions Streetworks sales representative for more information



Energy and Performance Data

Power and Lumens

Light Engine	PA1-70	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
Nominal Power (Watts)	21	31	40	54	64	74	83	94	96	
Wattage Label	20	30	40	50	60	70	80	90	100	
Current (A) @120V	0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
Current (A) @277V	--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35	
Current (A) @347V	--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
Current (A) @480V	--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21	
<b>Optics</b>										
T2U	4000K	2,799	3,926	5,084	6,557	7,576	8,497	9,287	10,013	10,139
	Lumens per Watt	133	127	127	121	118	115	112	107	106
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
	3000K	2,549	3,576	4,630	5,972	6,899	7,738	8,458	9,119	9,234
	Lumens per Watt	121	115	116	111	108	105	102	97	96
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
T2U-A	4000K	2,613	3,666	4,747	6,122	7,073	7,933	8,671	9,349	9,467
	Lumens per Watt	124	118	119	113	111	107	104	99	99
	BUG Rating	B1-U2-G1	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3
	3000K	2,380	3,339	4,323	5,576	6,442	7,225	7,897	8,514	8,622
	Lumens per Watt	113	108	108	103	101	98	95	91	90
	BUG Rating	B1-U2-G1	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B3-U3-G3
T2U-CL	4000K	2,721	3,817	4,943	6,375	7,365	8,260	9,029	9,735	9,858
	Lumens per Watt	130	123	124	118	115	112	109	104	103
	BUG Rating	B1-U2-G1	B1-U2-G1	B2-U3-G2	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3
	3000K	2,478	3,477	4,502	5,806	6,708	7,523	8,223	8,865	8,978
	Lumens per Watt	118	112	113	108	105	102	99	94	94
	BUG Rating	B1-U2-G1	B1-U2-G1	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3
T2U-TL	4000K	2,604	3,653	4,730	6,100	7,048	7,905	8,640	9,315	9,433
	Lumens per Watt	124	118	118	113	110	107	104	99	98
	BUG Rating	B1-U2-G1	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,371	3,327	4,308	5,556	6,419	7,199	7,869	8,484	8,591
	Lumens per Watt	113	107	108	103	100	97	95	90	89
	BUG Rating	B1-U2-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
T2U-FL	4000K	2,555	3,584	4,640	5,985	6,914	7,755	8,476	9,138	9,254
	Lumens per Watt	122	116	116	111	108	105	102	97	96
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,326	3,264	4,226	5,450	6,297	7,062	7,719	8,323	8,428
	Lumens per Watt	111	105	106	101	98	95	93	89	88
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
T2U-HSS	4000K	2,037	2,858	3,701	4,773	5,514	6,185	6,760	7,288	7,380
	Lumens per Watt	97	92	93	88	86	84	81	78	77
	BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	3000K	1,855	2,603	3,371	4,347	5,022	5,632	6,156	6,638	6,721
	Lumens per Watt	88	84	84	81	78	76	74	71	70
	BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
SL3	4000K	2,772	3,888	5,035	6,494	7,502	8,414	9,197	9,916	10,041
	Lumens per Watt	132	125	126	120	117	114	111	105	105
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	3000K	2,524	3,541	4,586	5,914	6,833	7,663	8,376	9,030	9,145
	Lumens per Watt	120	114	115	110	107	104	101	96	95
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3

## Power and Lumens

Light Engine	PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
<b>Nominal Power (Watts)</b>	21	31	40	54	64	74	83	94	96	
<b>Wattage Label</b>	20	30	40	50	60	70	80	90	100	
<b>Current (A) @120V</b>	0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
<b>Current (A) @277V</b>	--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35	
<b>Current (A) @347V</b>	--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
<b>Current (A) @480V</b>	--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21	
<b>Optics</b>										
<b>SL3-A</b>	<b>4000K</b>	2,570	3,606	4,669	6,022	6,958	7,803	8,529	9,196	9,312
	<b>Lumens per Watt</b>	122	116	117	112	109	105	103	98	97
	<b>BUG Rating</b>	BUG Rating	BUG Rating	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,341	3,284	4,253	5,484	6,336	7,106	7,767	8,375	8,480
	<b>Lumens per Watt</b>	111	106	106	102	99	96	94	89	88
<b>SL3-CL</b>	<b>4000K</b>	2,640	3,704	4,796	6,185	7,146	8,014	8,760	9,445	9,564
	<b>Lumens per Watt</b>	126	119	120	115	112	108	106	100	100
	<b>BUG Rating</b>	B1-U2-G2	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	<b>3000K</b>	2,404	3,373	4,368	5,633	6,508	7,299	7,978	8,601	8,710
	<b>Lumens per Watt</b>	114	109	109	104	102	99	96	91	91
<b>SL3-TL</b>	<b>4000K</b>	2,563	3,596	4,656	6,005	6,938	7,781	8,505	9,170	9,286
	<b>Lumens per Watt</b>	122	116	116	111	108	105	102	98	97
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,334	3,275	4,241	5,469	6,318	7,086	7,746	8,351	8,456
	<b>Lumens per Watt</b>	111	106	106	101	99	96	93	89	88
<b>SL3-FL</b>	<b>4000K</b>	2,507	3,517	4,554	5,873	6,785	7,610	8,318	8,968	9,081
	<b>Lumens per Watt</b>	119	113	114	109	106	103	100	95	95
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,283	3,203	4,147	5,349	6,180	6,931	7,575	8,167	8,271
	<b>Lumens per Watt</b>	109	103	104	99	97	94	91	87	86
<b>SL3-HSS</b>	<b>4000K</b>	2,322	3,257	4,217	5,439	6,284	7,047	7,703	8,305	8,410
	<b>Lumens per Watt</b>	111	105	105	101	98	95	93	88	88
	<b>BUG Rating</b>	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	<b>3000K</b>	2,114	2,966	3,841	4,953	5,723	6,418	7,015	7,564	7,659
	<b>Lumens per Watt</b>	101	96	96	92	89	87	85	80	80
<b>T3</b>	<b>4000K</b>	2,800	3,927	5,086	6,559	7,578	8,498	9,289	10,015	10,142
	<b>Lumens per Watt</b>	133	127	127	121	118	115	112	107	106
	<b>BUG Rating</b>	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	<b>3000K</b>	2,550	3,577	4,631	5,973	6,901	7,740	8,460	9,121	9,236
	<b>Lumens per Watt</b>	121	115	116	111	108	105	102	97	96
<b>T3-A</b>	<b>4000K</b>	2,622	3,678	4,763	6,143	7,097	7,960	8,700	9,380	9,498
	<b>Lumens per Watt</b>	125	119	119	114	111	108	105	100	99
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,338	3,350	4,338	5,594	6,463	7,249	7,923	8,542	8,650
	<b>Lumens per Watt</b>	114	108	108	104	101	98	95	91	90
<b>BUG Rating</b>	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	

## Power and Lumens

Light Engine	PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
<b>Nominal Power (Watts)</b>	21	31	40	54	64	74	83	94	96	
<b>Wattage Label</b>	20	30	40	50	60	70	80	90	100	
<b>Current (A) @120V</b>	0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
<b>Current (A) @277V</b>	--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35	
<b>Current (A) @347V</b>	--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
<b>Current (A) @480V</b>	--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21	
<b>Optics</b>										
<b>T3-CL</b>	<b>4000K</b>	2,719	3,814	4,939	6,370	7,359	8,253	9,021	9,726	9,849
	<b>Lumens per Watt</b>	129	123	123	118	115	112	109	103	103
	<b>BUG Rating</b>	B1-U2-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	<b>3000K</b>	2,476	3,473	4,498	5,801	6,702	7,516	8,216	8,858	8,970
	<b>Lumens per Watt</b>	118	112	112	107	105	102	99	94	93
<b>T3-TL</b>	<b>4000K</b>	2,623	3,680	4,765	6,146	7,100	7,963	8,704	9,384	9,503
	<b>Lumens per Watt</b>	125	119	119	114	111	108	105	100	99
	<b>BUG Rating</b>	B1-U2-G2	B1-U3-G2	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4
	<b>3000K</b>	2,389	3,351	4,340	5,597	6,466	7,252	7,927	8,546	8,654
	<b>Lumens per Watt</b>	114	108	109	104	101	98	96	91	90
<b>T3-FL</b>	<b>4000K</b>	2,563	3,595	4,656	6,004	6,937	7,780	8,504	9,169	9,284
	<b>Lumens per Watt</b>	122	116	116	111	108	105	102	98	97
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,334	3,274	4,240	5,468	6,318	7,086	7,745	8,350	8,455
	<b>Lumens per Watt</b>	111	106	106	101	99	96	93	89	88
<b>T3-HSS</b>	<b>4000K</b>	2,121	2,975	3,853	4,969	5,740	6,438	7,037	7,587	7,683
	<b>Lumens per Watt</b>	101	96	96	92	90	87	85	81	80
	<b>BUG Rating</b>	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	<b>3000K</b>	1,931	2,710	3,509	4,525	5,228	5,863	6,409	6,910	6,997
	<b>Lumens per Watt</b>	92	87	88	84	82	79	77	74	73
<b>T4W</b>	<b>4000K</b>	2,779	3,899	5,048	6,511	7,522	8,436	9,221	9,942	10,067
	<b>Lumens per Watt</b>	132	126	126	121	118	114	111	106	105
	<b>BUG Rating</b>	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	<b>3000K</b>	2,531	3,550	4,598	5,929	6,850	7,683	8,398	9,054	9,168
	<b>Lumens per Watt</b>	121	115	115	110	107	104	101	96	95
<b>T4W-A</b>	<b>4000K</b>	2,619	3,674	4,757	6,135	7,088	7,949	8,689	9,368	9,486
	<b>Lumens per Watt</b>	125	119	119	114	111	107	105	100	99
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,385	3,346	4,332	5,587	6,455	7,240	7,913	8,532	8,639
	<b>Lumens per Watt</b>	114	108	108	103	101	98	95	91	90
<b>T4W-CL</b>	<b>4000K</b>	2,712	3,804	4,926	6,353	7,340	8,232	8,998	9,701	9,824
	<b>Lumens per Watt</b>	129	123	123	118	115	111	108	103	102
	<b>BUG Rating</b>	B1-U2-G2	B1-U3-G2	B1-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	<b>3000K</b>	2,470	3,465	4,486	5,786	6,685	7,497	8,195	8,835	8,947
	<b>Lumens per Watt</b>	118	112	112	107	104	101	99	94	93
<b>BUG Rating</b>	B1-U2-G1	B1-U3-G2	B1-U3-G2	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	

## Power and Lumens

Light Engine	PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
<b>Nominal Power (Watts)</b>	21	31	40	54	64	74	83	94	96	
<b>Wattage Label</b>	20	30	40	50	60	70	80	90	100	
<b>Current (A) @120V</b>	0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
<b>Current (A) @277V</b>	--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35	
<b>Current (A) @347V</b>	--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
<b>Current (A) @480V</b>	--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21	
<b>Optics</b>										
<b>T4W-TL</b>	<b>4000K</b>	2,595	3,640	4,714	6,079	7,024	7,877	8,610	9,283	9,400
	<b>Lumens per Watt</b>	124	117	118	113	110	106	104	99	98
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	<b>3000K</b>	2,363	3,315	4,293	5,537	6,397	7,174	7,841	8,454	8,561
	<b>Lumens per Watt</b>	113	107	107	103	100	97	94	90	89
	<b>BUG Rating</b>	B1-U2-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4
<b>T4W-FL</b>	<b>4000K</b>	2,540	3,563	4,614	5,950	6,874	7,710	8,427	9,086	9,200
	<b>Lumens per Watt</b>	121	115	115	110	107	104	102	97	96
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G5	B2-U3-G5
	<b>3000K</b>	2,313	3,245	4,202	5,419	6,261	7,021	7,675	8,274	8,379
	<b>Lumens per Watt</b>	110	105	105	100	98	95	92	88	87
	<b>BUG Rating</b>	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
<b>T4W-HSS</b>	<b>4000K</b>	2,081	2,919	3,780	4,875	5,633	6,317	6,905	7,445	7,539
	<b>Lumens per Watt</b>	99	94	94	90	88	85	83	79	79
	<b>BUG Rating</b>	B0-U0-G1	B0-U0-G1	B0-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	<b>3000K</b>	1,895	2,659	3,443	4,440	5,130	5,753	6,288	6,780	6,866
	<b>Lumens per Watt</b>	90	86	86	82	80	78	76	72	72
	<b>BUG Rating</b>	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
<b>5WQ</b>	<b>4000K</b>	2,936	4,118	5,333	6,878	7,946	8,912	9,741	10,502	10,635
	<b>Lumens per Watt</b>	140	133	133	127	124	120	117	112	111
	<b>BUG Rating</b>	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	<b>3000K</b>	2,674	3,751	4,857	6,264	7,237	8,116	8,871	9,565	9,685
	<b>Lumens per Watt</b>	127	121	121	116	113	110	107	102	101
	<b>BUG Rating</b>	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
<b>5WQ-A</b>	<b>4000K</b>	2,765	3,879	5,023	6,478	7,485	8,394	9,175	9,892	10,017
	<b>Lumens per Watt</b>	132	125	126	120	117	113	111	105	104
	<b>BUG Rating</b>	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G4	B4-U3-G4
	<b>3000K</b>	2,518	3,533	4,575	5,900	6,816	7,645	8,356	9,009	9,123
	<b>Lumens per Watt</b>	120	114	114	109	106	103	101	96	95
	<b>BUG Rating</b>	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3
<b>5WQ-CL</b>	<b>4000K</b>	2,845	3,991	5,168	6,665	7,701	8,637	9,440	10,178	10,306
	<b>Lumens per Watt</b>	135	129	129	123	120	117	114	108	107
	<b>BUG Rating</b>	B2-U3-G1	B3-U3-G2	B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G3	B4-U3-G3
	<b>3000K</b>	2,591	3,635	4,707	6,070	7,013	7,865	8,597	9,269	9,386
	<b>Lumens per Watt</b>	123	117	118	112	110	106	104	99	98
	<b>BUG Rating</b>	B2-U2-G1	B3-U3-G2	B3-U3-G2	B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G3	B4-U3-G3
<b>5WQ-TL</b>	<b>4000K</b>	2,753	3,863	5,002	6,451	7,453	8,358	9,136	9,850	9,974
	<b>Lumens per Watt</b>	131	125	125	119	116	113	110	105	104
	<b>BUG Rating</b>	B2-U3-G2	B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G3	B4-U3-G3
	<b>3000K</b>	2,508	3,518	4,555	5,875	6,787	7,612	8,320	8,971	9,084
	<b>Lumens per Watt</b>	119	111	114	109	106	103	100	95	95
	<b>BUG Rating</b>	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3



## Power and Lumens

Light Engine	PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
<b>Nominal Power (Watts)</b>	21	31	40	54	64	74	83	94	96	
<b>Wattage Label</b>	20	30	40	50	60	70	80	90	100	
<b>Current (A) @120V</b>	0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
<b>Current (A) @277V</b>	--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35	
<b>Current (A) @347V</b>	--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
<b>Current (A) @480V</b>	--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21	
<b>Optics</b>										
SWQ-FL	<b>4000K</b>	2,703	3,792	4,910	6,333	7,316	8,206	8,969	9,670	9,792
	<b>Lumens per Watt</b>	129	122	123	117	114	111	108	103	102
	<b>BUG Rating</b>	B2-U3-G2	B2-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G4	B3-U4-G4	B3-U4-G4
	<b>3000K</b>	2,462	3,453	4,472	5,767	6,663	7,473	8,168	8,807	8,918
	<b>Lumens per Watt</b>	117	111	112	107	104	101	98	94	93
	<b>BUG Rating</b>	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G4	B3-U3-G4

## Lumen Maintenance

Light Engine	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (3 Years)
PA1	Up to 40°C	> 98%	> 800,000

## Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

 [View LXF/LXT IES files](#)

## FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Note: +/-5% typical value