



Legal Department

March 2, 2016

Chairman Andre T. Porter
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, OH 43215-3793

**Re: In the Matter of the Application of)
Tire Discounters, Inc.)
and Ohio Power Company) Case No. 16-0265-EL-EEC
for Approval of a Special Arrangement)
Agreement with a Mercantile Customer)**

Erin C. Miller
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Regulatory Services
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Dear Chairman Porter,

Attached please find the Joint Application of Ohio Power Company (AEP Ohio) and the above-referenced mercantile customer for approval of a Special Arrangement of the commitment of energy efficiency/peak demand reduction (EE/PDR) resources toward compliance with the statutory benchmarks for 2016 (hereinafter "Joint Application").

Amended Substitute Senate Bill 221, codified at R.C. 4928.66, sets forth EE/PDR benchmarks that electric distribution utilities are required to meet or exceed. The statute allows utilities to include EE/PDR resources committed by mercantile customers for integration into the utilities' programs to be counted toward compliance with a utility's EE/PDR benchmarks. The statute also enables the Commission to approve special arrangements for mercantile customers that commit EE/PDR resources to be counted toward compliance with EE/PDR benchmarks.

The Commission's Order in Case No. 10-834-EL-EEC established a streamlined process to expedite review of these special arrangements by developing a sample application process for parties to follow for consideration of such programs implemented during the prior three calendar years. The attached Joint Application and affidavit conforms with AEP Ohio's version of the streamlined sample application. As requested by Commission Staff, any confidential information referenced in the Joint Application has been provided confidentially to Commission Staff for filing in Commission Docket 10-1599-EL-EEC and subject to the confidentially protections of R.C. 4901.16 and OAC 4901-1-24(E). AEP Ohio respectfully requests that the Commission treat the two cases as associated dockets and that any confidential information provided to Staff for filing in connection with the Joint Application be subject to the protective order requested in Docket 10-1599-EL-EEC.

Cordially,

/s/ Erin C. Miller
Erin C. Miller

Attachments



Case No.: 16-0265-EL-EEC

Mercantile Customer: TIRE DISCOUNTERS INC

Electric Utility: Ohio Power

Program Title or Description: AEP Ohio Business Incentives for Energy Efficiency: Self Direct Program

Rule 4901:1-39-05(F), Ohio Administrative Code (O.A.C.), permits a mercantile customer to file, either individually or jointly with an electric utility, an application to commit the customer's existing demand reduction, demand response, and energy efficiency programs for integration with the electric utility's programs. The following application form is to be used by mercantile customers, either individually or jointly with their electric utility, to apply for commitment of such programs in accordance with the Commission's pilot program established in Case No. [10-834-EL-POR](#)

Completed applications requesting the cash rebate reasonable arrangement option (Option 1) in lieu of an exemption from the electric utility's energy efficiency and demand reduction (EEDR) rider will be automatically approved on the sixty-first calendar day after filing, unless the Commission, or an attorney examiner, suspends or denies the application prior to that time. Completed applications requesting the exemption from the EEDR rider (Option 2) will also qualify for the 60-day automatic approval so long as the exemption period does not exceed 24 months. Rider exemptions for periods of more than 24 months will be reviewed by the Commission Staff and are only approved up the issuance of a Commission order.

Complete a separate application for each customer program. Projects undertaken by a customer as a single program at a single location or at various locations within the same service territory should be submitted together as a single program filing, when possible. Check all boxes that are applicable to your program. For each box checked, be sure to complete all subparts of the question, and provide all requested additional information. Submittal of incomplete applications may result in a suspension of the automatic approval process or denial of the application.

Any confidential or trade secret information may be submitted to Staff on disc or via email at ee-pdr@puc.state.oh.us.

Section 1: Company Information

Name: TIRE DISCOUNTERS INC

Principal address: 3650 East Kemper Road, Cincinnati, Oh 45241

Address of facility for which this energy efficiency program applies: 1968 Baltimore Reynolds Rd, Reynoldsburg, Oh 43068

Name and telephone number for responses to questions:

Robert Oestreicher, Tire Discounters Inc, (513) 618-7308

Electricity use by the customer (check the box(es) that apply):

- ☐ The customer uses more than seven hundred thousand kilowatt hours per year at our facility. (Please attach documentation.)

See Confidential and Proprietary Attachment 4 – Calculation of Rider Exemption and UCT which provides the facility consumption for the last three years, benchmark kWh, and the last 12 months usage.

- ☒ The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.) When checked, see Attachment 6 – Supporting Documentation for a listing of the customer's name and service addresses of other accounts in the AEP Ohio service territory.

Section 2: Application Information

A) The customer is filing this application (choose which applies):

- ☐ Individually, on our own.
- ☒ Jointly with our electric utility.

B) Our electric utility is: Ohio Power Company

The application to participate in the electric utility energy efficiency program is "Confidential and Proprietary Attachment 3 – Self Direct Program Project Completed Application."

C) The customer is offering to commit (choose which applies):

- ☐ Energy savings from our energy efficiency program. (Complete Sections 3, 5, 6, and 7.)
- ☐ Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)
- ☒ Both the energy savings and the demand reduction from the customer's energy efficiency program. (Complete all sections of the Application.)

Section 3: Energy Efficiency Programs

A) The customer's energy efficiency program involves (choose whichever applies):

- ☒ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, 12/31/2014 and the date on which the customer would have replaced your equipment if you had not replaced it early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)).

The remaining life of the equipment varies and is not known with certainty. The future replacement date is unknown and has historically been at the end of equipment life. Replacement was completed early to achieve energy savings and to reduce future maintenance costs.

- ☐ Installation of new equipment to replace equipment that needed to be replaced. The customer installed new equipment on the following date(s):
- ☐ Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s):
- ☐ Behavioral or operational improvement.

B) Energy savings achieved/to be achieved by your energy efficiency program:

- 1) If you checked the box indicating that your project involves the early replacement of fully functioning equipment replaced with new equipment, then calculate the annual savings [(kWh used by the original equipment) - (kWh used by new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Unit Quantity (watts) = Existing (watts x units) - Installed (watts x units)

kWh Reduction (Annual Savings) = Unit Quantity x (Deemed kWh/Unit)

Annual savings: 10,261 kWh

See Confidential and Proprietary Attachment 5 - Self Direct Program Project Calculation for annual energy savings calculations and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.

- 2) If you checked the box indicating that you installed new equipment to replace equipment that needed to be replaced, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by the higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: kWh

Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.

- 3) If you checked the box indicating that your project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: kWh

Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.

- 4) If you checked the box indicating that the project involves behavioral or operational improvements, provide a description of how the annual savings were determined.

Section 4: Demand Reduction/Demand Response Programs

A) The customer's program involves (check the one that applies):

- ☒ Coincident peak-demand savings from the customer's energy efficiency program.
- ☐ Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)
- ☐ Potential peak-demand reduction check the one that applies):

➤ Choose one or more of the following that applies:

- ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.
- ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.

B) On what date did the customer initiate its demand reduction program?

The coincident peak-demand savings are permanent installations that reduce demand through energy efficiency and were installed on the date specified in Section 3 A above.

C) What is the peak demand reduction achieved or capable of being achieved (show calculations through which this was determined):

Unit Quantity (watts) = Existing (watts x units) – Installed (watts x units)

KW Demand Reduction = Unit Quantity (watts) x (Deemed KW/Unit (watts))

.0 kW

See Confidential and Proprietary Attachment 5 – Self Direct Program Project Calculation for peak demand reduction calculation, and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.

Section 5: Request for Cash Rebate Reasonable Arrangement (Option 1) or Exemption from Rider (Option 2)

Under this section, check the box that applies and fill in all blanks relating to that choice.

Note: If Option 2 is selected, the application will not qualify for the 60-day automatic approval. All applications, however, will be considered on a timely basis by the Commission.

A) The customer is applying for:

☒ Option 1: A cash rebate reasonable arrangement.

OR

☐ Option 2: An exemption from the cost recovery mechanism implemented by the electric utility.

OR

☐ Commitment payment

B) The value of the option that the customer is are seeking is:

Option 1: A cash rebate reasonable arrangement, which is the lesser of (show both amounts):

☐ A cash rebate of \$_____. (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)

OR

☒ A cash rebate valued at no more than 50% of the total project cost, which is equal to \$ 647.33. (Attach documentation and calculations showing how this payment amount was determined.)

See Confidential and Proprietary Attachment 5 – Self Direct Program Project Calculation for incentive calculations for this mercantile program.

Option 2: An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.

- ☐ An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for ____ months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)

OR

- ☐ A commitment payment valued at no more than \$_____. (Attach documentation and calculations showing how this payment amount was determined.)

OR

- ☐ Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of an ongoing efficiency program that is practiced by our organization. (Attach documentation that establishes your organization's ongoing efficiency program. In order to continue the exemption beyond the initial 24 month period your organization will need to provide a future application establishing additional energy savings and the continuance of the organization's energy efficiency program.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

- ☐ Total Resource Cost (TRC) Test. The calculated TRC value is: _____
(Continue to Subsection 1, then skip Subsection 2)
- ☒ Utility Cost Test (UCT) . The calculated UCT value is: 3.53 (Skip to Subsection 2.)

Subsection 1: TRC Test Used (please fill in all blanks).

The TRC value of the program is calculated by dividing the value of our avoided supply costs (generation capacity, energy, and any transmission or distribution) by the sum of our program overhead and installation costs and any incremental measure costs paid by either the customer or the electric utility.

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The utility's incremental measure costs were _____.

Subsection 2: UCT Used (please fill in all blanks).

We calculated the UCT value of our program by dividing the value of our avoided supply costs (capacity and energy) by the costs to our electric utility (including administrative costs and incentives paid or rider exemption costs) to obtain our commitment.

Our avoided supply costs were \$ 2,500.71

The utility's program costs were \$ 61.57

The utility's incentive costs/rebate costs were \$ 647.33.

Section 7: Additional Information

Please attach the following supporting documentation to this application:

- Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment.

See Attachment 1 - Self Direct Project Overview and Commitment for a description of the project. See Attachment 6 - Supporting Documentation, for the specifications of the replacement equipment 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed. Due to the length of time since the equipment replacement, the make, model and year of the replaced equipment is not available.

- A copy of the formal declaration or agreement that commits your program to the electric utility, including:

- 1) any confidentiality requirements associated with the agreement;

See Attachment 2 - Self Direct Program Project Blank Application including Rules and Requirements. All confidentiality requirements are pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 - Self Direct Program Project Completed Application.)

- 2) a description of any consequences of noncompliance with the terms of the commitment;

See Attachment 2 - Self Direct Program Project Blank Application including Rules and Requirements. All consequences of noncompliance are pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 - Self Direct Program Project Completed Application.

- 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;

None required because the resources committed are permanent installations that reduce demand through increased efficiency during the Company's peak summer demand period generally defined as May through September and do not require specific coordination and communication to provide demand reduction capabilities to the Company.

- 4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,

See Attachment 2 – Self Direct Program Blank Application including Rules and Requirements granting such permission pursuant to the Retrospective Projects/Rules and Requirements that are part of the signed application which is provided as Confidential and Proprietary Attachment 3 – Self Direct Program Project Completed Application.

- 5) a commitment by you to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.

See Attachment 1 - Self Direct Project Overview and Commitment for the commitment to comply with any information and compliance reporting requirements imposed by rule or as part of the approval of this arrangement by the Public Utilities Commission of Ohio.

- A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results. Additionally, identify and explain all deviations from any program measurement and verification guidelines that may be published by the Commission.

The Company applies the same methodologies, protocols, and practices to Self Direct Program retrospective projects that are screened and submitted for approval as it does to prospective projects submitted through its Prescriptive and Custom Programs. The Commission has not published a technical reference manual for use by the Company so deviations can not be identified. The project submitted is a prescriptive project and energy savings are determined as described in Confidential and Proprietary Attachment 5 - Self Direct Program Project Calculation, and 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures, as needed.



Public Utilities Commission

Application to Commit
Energy Efficiency/Peak Demand
Reduction Programs
(Mercantile Customers Only)

Case No.: 16-0265-EL-EEC

State of Ohio :

Allan Leary, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

DNV GL Energy Services USA Inc. agent of Ohio Power

2. I have personally examined all the information contained in the foregoing application, including any exhibits and attachments. Based upon my examination and inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.

Allan Leary engineer
Signature of Affiant & Title

Sworn and subscribed before me this 8th day of February, 2016 Month/Year

Dawn G. Irving
Signature of official administering oath

Dawn G. Irving - Notary
Print Name and Title

My commission expires on 9-3-2019



DAWN G IRVING
NOTARY PUBLIC
STATE OF OHIO
Comm. Expires
September 03, 2019



Self Direct Project Overview & Commitment

The Public Utility Commission of Ohio (PUCO) will soon review your application for participation in AEP Ohio's Energy Efficiency/Peak Demand Response program. Based on your submitted project, please select by initialing one of the two options below, sign and fax to 877-607-0740.

Customer Name	TIRE DISCOUNTERS INC	
Project Number	AEP-15-16344	
Customer Premise Address	1968 BALTIMORE REYNOLDS RD, REYNOLDSBURG, OH 43068	
Customer Mailing Address	3650 East Kemper Road, Cincinnati, OH 45241	
Date Received	8/13/2015	
Project Installation Date	12/31/2014	
Annual kWh Reduction	10,261	
Total Project Cost	\$14,958.70	
Unadjusted Energy Efficiency Credit (EEC) Calculation	\$863.10	
Simple Payback (yrs)	12.6	
Utility Cost Test (UCT) for EEC	3.53	
Utility Cost Test (UCT) for Exemption	0.03	
<i>Please Choose One Option Below and Initial</i>		
Self Direct EEC: 75%	\$647.33	<input checked="" type="checkbox"/> Initial: <i>PAU</i>
EE/PDR Rider Exemption	12 Months (with possible extension up to 93 months after PUCO Approval)	<input type="checkbox"/> Initial: _____

Note: This is a one time selection. By selecting EEC, the customer will receive payment in the amount stated above. Selection of EE/PDR rider exemption, will result in the customer not being eligible to participate in any other energy efficiency programs offered by AEP Ohio during the period of exemption. In addition, the term of EE/PDR rider exemption is subject to ongoing review for compliance and could be changed by the PUCO.

If EEC has been selected, will the Energy Efficiency Funds selected help you move forward with other energy efficiency projects? ☒ YES ☐ NO

Note: Exemptions for periods beyond 24 months are subject to look-back or true-up adjustments every year to ensure that the exemption accurately reflects the EEDR savings. Applicants must file for renewal for any exemption beyond 12 months.

Project Overview:

The Self Direct (Prescriptive and Custom) project that the above has completed and applied is as follows.

Retrofitted (11) 400w MH into (11) STR-LWY-4M-HT-12-E-UL-BK 700

Retrofitted (1) 400w MH into (1) SEC-EDG-3M-WM-04-UL-BK-700

The documentation that was included with the application proved that the energy measures applied for were purchased and installed.

By signing this document, the Mercantile customer affirms its intention to commit and integrate the above listed energy efficiency resources into the utility's peak demand reduction, demand response, and energy efficiency programs. By signing, the Mercantile customer also agrees to serve as a joint applicant in any filings necessary to secure approval of this arrangement by the Public Utilities Commission of Ohio, and comply with any information and compliance reporting requirements imposed by rule or as part of that approval.

Ohio Power Company

By: *John J. Will*

Title: Manager

Date: 11/23/2015

TIRE DISCOUNTERS INC

By: *[Signature]*

Title: VP and CLO

Date: 11-19-15

APPLICATION GUIDELINES

All 2015 AEP Ohio Business Incentives Program projects must be completed and Final Applications received no later than November 13, 2015, in order to qualify for incentives identified in this application.

Step 1: Verify Eligibility

- ✓ Customer must have a valid AEP Ohio account.
- ✓ Equipment/measure must be installed at facilities served by the AEP Ohio account.
- ✓ Project must produce permanent reduction in electrical energy use (kWh).
- ✓ All installed equipment must meet or exceed the specifications in the application.
- ✓ Please see the **Terms and Conditions** for Self-Direct or
- ✓ **Terms and Conditions** for all other programs for program eligibility and requirements.

Step 2: Complete Applicant Information

- ✓ All fields in customer and project information sections must be completed.
- ✓ Solution Provider/contractor information must be completed if project is not self-performed.

Step 3: Complete the Incentive Worksheet(s)

- ✓ Find and read specifications related to the project.
- ✓ Ensure new equipment/measure meets or exceeds the specifications.
- ✓ Choose the incentive category on the worksheet based on the installed equipment and specifications.
- ✓ Complete all fields (fixture description, operating hours, etc.) on the related worksheet.

Step 4: Sign Customer Agreement

- ✓ Read the Terms and Conditions before signing and submitting the application.
- ✓ Sign Pre-Approval Agreement and submit the application to reserve funds.
- ✓ Sign Final Application Agreement and submit the application after the project is completed.
- ✓ Complete Third Party Payment Release Authorization ONLY if incentive payment is to be paid to an entity other than AEP Ohio customer listed on the Applicant Information page.

Step 5: Submit Pre-Approval Application¹ (For Self-Direct applications, skip to Step 7)

- ✓ Submitting a Pre-Approval Application to determine

qualification and reserve program funds for a project is strongly recommended.

- ✓ All custom measures require pre-approval.
- ✓ Complete all fields for Pre-Approval Agreement section.
- ✓ **Pre-Approval Application must be submitted with:**
 - **Proposed scope of work (type and quantity of old and new equipment must be listed)**
 - **Specification sheets for all proposed equipment**
 - **W-9 form**
- ✓ Submit application via email, fax or mail.
- ✓ During the application review, an inspection may be required; the team will contact applicants requiring an inspection for scheduling.

Step 6: Complete Project

- ✓ New equipment must be installed and operational to submit a Final Application.

Step 7: Submit Final Application

- ✓ Submit a Final Application.
- ✓ Use the same application used during pre-approval (if applicable).
 - Change Application Type to Final Application
- ✓ Complete all fields for Final Application Agreement section.
- ✓ Update the application if there are any changes (customer contact, incentive measure, equipment, etc.).
- ✓ **Final Application must be submitted with:**
 - **Dated and itemized material invoice**
 - **External labor invoice (if applicable)**
 - **If Pre-Approval Application was not submitted, include the documents listed on Step 5**
- ✓ Submit application via email, fax or mail.
- ✓ During the application review, an inspection may be required; the team will contact applicants requiring an inspection for scheduling.

Additional steps are required for Self-Direct applications after application submission. Please see the Self-Direct Terms and Conditions for details.

AEP Ohio Business Incentives Program

2740 Airport Drive, Suite 160. Columbus, OH 43219

Phone: (877) 607-0739 | Fax: (877) 607-0740

aepohioincentives@dnvgl.com

Visit our website at AEPohio.com/solutions

¹A Pre-Approval Application is not a guarantee of an incentive; the actual incentive will be based on the energy savings and equipment installed as determined in the Final Application. Funds are reserved for 90 days, unless an applicant is granted an extension. The program team reserves the right to contact the customer before the reservation expiration date to ensure that the project is moving forward. If the project is not underway, the reservation may be cancelled. Reserved funds are not transferable to other projects, facilities and/or customers. A waiting list will be established when funds become fully subscribed.

*Prescriptive, Custom & Self-Direct
Program Application*



CHECKLIST

PRE-APPROVAL APPLICATION

Required Attachments

- ☐ Completed Applicant Information form
- ☐ Completed Incentives Requested section of Application form
- ☐ Signed Customer Agreement form
- ☐ Equipment specifications
- ☐ Proposed scope of work (required on Custom projects and recommended for all projects)
- ☐ W-9 (required for LLC, individual, partnership, property management companies)

Applicable Incentive Worksheets

Please complete worksheets for checked boxes.

- ☐ Lighting
- ☐ HVAC
- ☐ Motors & Drives
- ☐ Compressed Air
- ☐ Refrigeration/Food Service
- ☐ Agriculture & Miscellaneous
- ☐ Transformer
- ☐ UPS
- ☐ Custom

Application date _____
Estimated incremental project cost _____
Expected completion date _____

Incomplete applications will delay processing and reservation of funds.

FINAL APPLICATION

Required Attachments

- ☐ Completed Applicant Information form
- ☐ Completed and signed Final Payment Agreement and Customer Agreement forms
- ☐ Completed Third-Party Payment Release
- ☐ Authorization section (optional)
- ☐ Itemized invoices
- ☐ Equipment specifications¹
- ☐ Updated scope of work¹
- ☐ W-9¹ (required for LLC, individual, partnership, property management companies)

Incentive Worksheets

Please complete worksheets for checked boxes.

- ☐ Lighting
- ☐ HVAC
- ☐ Motors & Drives
- ☐ Compressed Air
- ☐ Refrigeration/Food Service
- ☐ Agriculture & Miscellaneous
- ☐ Transformer
- ☐ UPS
- ☐ Custom

Application date _____
Final incremental project cost _____
Final completion date _____

Incomplete applications will delay processing and incentive payment.
¹If submitted with a pre-application, required only if project changed.

Revised Submittal

Please complete below if this is a revised submittal.

Submittal date _____

AEP Project Number (if known) AEP - 1 ____ - ____ - ____ - ____

AEP Ohio Business Incentives Program

2740 Airport Drive, Suite 160. Columbus, OH 43219
Phone: (877) 607-0739 | Fax: (877) 607-0740
aepohioincentives@dnvgl.com
Visit our website at AEPohio.com/solutions

*Prescriptive, Custom & Self-Direct
Program Application*



APPLICANT INFORMATION

AEP Application Number AEP - __ - _____

Application Type (Select One)

Customer Information

Business Name _____

Name as It Appears on Utility Bill _____

AEP Ohio Account Number* at Project Site _____ - _____ - _____ - _____ Multiple AEP Ohio Account Numbers for this Project? (Select One)

Taxpayer ID _____ - _____ W-9 Tax Status (Select One)

Contact Name _____ Contact Title _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____ Contact Email _____

How Did You Hear About the Program? (Select One) AEP OH Energy Advisor _____

Project Information

Project Name (if applicable) _____

☐ Check if mailing address and project site address are the same.

Project Site Address _____ City _____ State OH Zip _____

Building Type (Select One) Shift (Select One)

Annual Operating Hours _____ Building Area (sq. ft.) _____

Construction Type (Select One)

Does the facility have a data center? (Select One)

*Please only enter the first ten digits of the account number.

*Prescriptive, Custom & Self-Direct
Program Application*



APPLICANT INFORMATION

Solution Provider/Contractor Information (If project is not self-performed by customer)

Contracting Company Name _____

Contact Name _____ Title of Contact _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____ Contact Email _____

Who should we contact with questions about the application? ☐ Customer ☐ Contractor

Primary Contact Information

Contact Name _____ Title of Contact _____

Phone _____ Ext. _____ Contact Email _____

INCENTIVE SUMMARY TABLE

Incentive Category	Applied for Incentives	Applicable Self- Direct Incentives
Lighting		
HVAC		
Motors		
Drives		
Compressed Air		
Refrigeration/Food Service		
Agriculture		
Miscellaneous		
Appliance Recycling		
Custom		
NC Lighting (SD Only)		
Total		

*Prescriptive, Custom & Self-Direct
Program Application*



CUSTOMER AGREEMENT

AEP Application Number AEP - _ _ - _ _ _ _ _

Pre-Approval Agreement

By signing this document, I agree to program requirements outlined in the measure specifications, Terms and Conditions, and Final Application Agreement. As an eligible customer, I verify the information is correct and request consideration for participation under this program. Furthermore, I concur that I meet all eligibility criteria in order to receive payment under this program.

[Link to Prescriptive/Custom Terms and Conditions, and Final Application Agreement.](#)

Estimated Completion Date

Estimated Project Cost

Total Incentive Requested¹

Date

AEP Ohio Customer Signature

Print Name

¹Incentives are capped at 50% of the project cost and total incentives are capped at \$25,000.

Prescriptive, Custom & Self-Direct
Program Application



CUSTOMER AGREEMENT

AEP Application Number AEP - _ _ - _ _ _ _ _

Third Party Payment Release Authorization (Optional, NOT APPLICABLE TO Self-Direct)

Complete this section **ONLY** if incentive payment is to be paid to an entity other than the AEP Ohio customer.

Make checks payable to: Company/Individual _____

Mailing Address _____ City _____ State OH Zip _____

Phone _____ Ext. _____

Taxpayer ID of 3rd Party _____ - _____ W-9 Tax Status _____

By signing this document, I authorize the payment of the incentive to the third party named above and understand that I will not receive the incentive payment from AEP Ohio. I also understand that my release of the payment to a third party does not exempt me from the program requirements outlined in the measure specifications, Terms and Conditions, and Final Application Agreement.

Print Name

Date

Customer Signature (AEP Ohio Customer)

Final Application Agreement

By signing this document, I agree to program requirements outlined in the measure specifications, Terms and Conditions for the applicable program and Final Application Agreement. As an eligible customer, I verify the information is correct and request consideration for participation under this program. Furthermore, I concur that I meet all eligibility criteria in order to receive payment under this program.

[Link to Prescriptive/Custom Terms and Conditions, and Final Application Agreement](#)

[Link to Self-Direct Terms and Conditions, and Final Application Agreement](#)

Project Completion Year (Select One) _____

Is this a Self-Direct application? (Select One) _____

Project Completion Date _____

Total Project Cost _____

Date _____

Total Applied for Incentive _____

Total Requested Incentive¹ _____ \$ 0.00

Total Self-Direct Requested Incentive² _____

Print Name

AEP Ohio Customer Signature

SUBMIT VIA EMAIL

PRINT APPLICATION

¹Incentives are capped at 50% of the project cost and total incentives are capped at \$25,000.

²Self-Direct incentives are 75% of Total Requested Incentive, after 50% of the project cost cap and tiering is applied.

[illegible]

Cree Edge™ Series **DLC**

LED Security Wall Pack Luminaire

Product Description

The Cree Edge™ wall mount luminaire has a slim, low profile design. The luminaire end caps are made from rugged die cast aluminum with integral, weathertight LED driver compartments and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting box for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard.

Applications: General area and security lighting

Performance Summary

Utilizes BetaLED® Technology

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

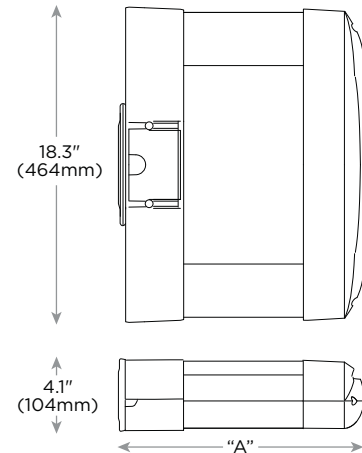
CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK	Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required



LED Count (x10)	Dim. "A"	Weight
02	9.9" (251mm)	20 lbs (9.1kg)
04	11.9" (303mm)	22 lbs (10.0kg)
06	13.9" (353mm)	25 lbs (11.3kg)
08	15.9" (404mm)	27 lbs (12.2kg)
10	17.9" (455mm)	31 lbs (14.1kg)
12	19.9" (505mm)	32 lbs (14.5kg)

Ordering Information

Example: SEC EDG 2M WM 06 E UL SV 700

SEC EDG		WM		E					
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options	
SEC EDG	2M Type II Medium 2MB Type II Medium w/BLS 2S Type II Short 2SB Type II Short w/BLS	3M Type III Medium 3MB Type III Medium w/BLS 4M Type IV Medium 4MB Type IV Medium w/BLS	WM Wall Mount	02 04 06 08 10 12	E	UL Universal 120-277V BZ Bronze PB Platinum SV Silver WH White	350 350mA 525 525mA -Available with 20-80 LEDs 700 700mA -Available with 20-60 LEDs	40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current F Fuse - Refer to ML spec sheet for availability with ML options - Available with UL voltage only - When code dictates fusing, use time delay fuse ML Multi-Level - Refer to ML spec sheet for details - Intended for downlight applications of 0° tilt P Photocell - Refer to ML spec sheet for availability with ML options - Must specify UL or 34 voltage PML Programmable Multi-Level - Refer to PML spec sheet for details - Intended for downlight applications of 0° tilt	

US: www.cree.com/lighting

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Rev. Date: V1 04/23/2015



Cree Edge™ LED Security Wall Pack Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications
- Housing is rugged aluminum
- Furnished with low copper, light weight mounting box designed for installation over standard and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Allows mounting for uplight or downlight
- Designed and approved for easy through-wiring
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, platinum bronze, silver and white are available
- **Weight:** See Dimensions and Weight Chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120–277V or 347–480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weathertight J-Box with leads (wire nuts) for easy power hook up
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20LED (525 & 700 mA) and 40-120 LED: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15 standards for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529 when ordered without P, PML or ML options
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified. Exceptions apply when ordered with full backlight control. Please refer to www.designlights.org/QPL for most current information
- Dark Sky Friendly, IDA Approved. Please refer to www.darksky.org/ for most current information
- Meets Buy American requirements within ARRA

Electrical Data*							
LED Count (x10)	System Watts 120-480V	Total Current					
		120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F)

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

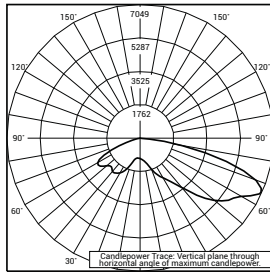
¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

Cree Edge™ LED Security Wall Pack Luminaire

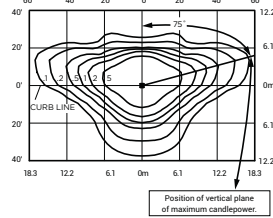
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

2M



ITL Test Report #: 79174
SEC EDG 2M ** 06 E UL 700 40K
Initial Delivered Lumens: 11,128



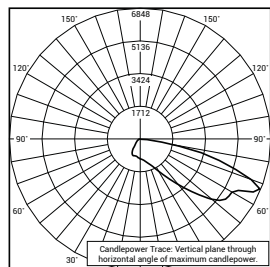
SEC EDG 2M ** 08 E UL 525 40K
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 11,835
Initial FC at grade

Type II Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	2,138	B1 U0 G1	2,220	B1 U0 G1
04	4,276	B1 U0 G1	4,440	B1 U0 G1
06	6,340	B2 U0 G2	6,584	B2 U0 G2
08	8,454	B2 U0 G2	8,779	B2 U0 G2
10	10,542	B3 U0 G3	10,947	B3 U0 G3
12	12,650	B3 U0 G3	13,137	B3 U0 G3
525mA				
02	2,993	B1 U0 G1	3,108	B1 U0 G1
04	5,986	B2 U0 G2	6,216	B2 U0 G2
06	8,876	B2 U0 G2	9,218	B2 U0 G2
08	11,835	B3 U0 G3	12,290	B3 U0 G3
700mA				
02	3,656	B1 U0 G1	3,796	B1 U0 G1
04	7,311	B2 U0 G2	7,593	B2 U0 G2
06	10,842	B3 U0 G3	11,259	B3 U0 G3

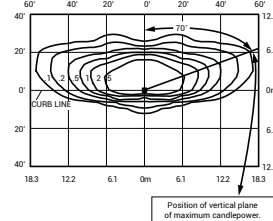
* Initial delivered lumens at 25°C (77°F).

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

2MB



CSA Test Report #: 6447
ARE EDG 2MB ** 06 E UL 700 40K
Initial Delivered Lumens: 7,953



SEC EDG 2MB ** 08 E UL 525 40K
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 8,915
Initial FC at grade

Type II Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,610	B0 U0 G1	1,672	B0 U0 G1
04	3,221	B0 U0 G1	3,345	B0 U0 G1
06	4,776	B1 U0 G1	4,959	B1 U0 G1
08	6,368	B1 U0 G1	6,613	B1 U0 G2
10	7,941	B1 U0 G2	8,246	B1 U0 G2
12	9,529	B1 U0 G2	9,895	B1 U0 G2
525mA				
02	2,254	B0 U0 G1	2,341	B0 U0 G1
04	4,509	B1 U0 G1	4,682	B1 U0 G1
06	6,686	B1 U0 G2	6,943	B1 U0 G2
08	8,915	B1 U0 G2	9,258	B1 U0 G2
700mA				
02	2,754	B0 U0 G1	2,860	B0 U0 G1
04	5,507	B1 U0 G1	5,719	B1 U0 G1
06	8,167	B1 U0 G2	8,481	B1 U0 G2

* Initial delivered lumens at 25°C (77°F).

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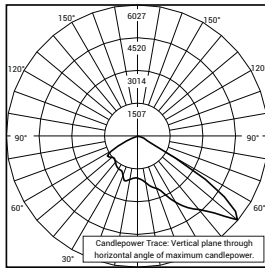


Cree Edge™ LED Security Wall Pack Luminaire

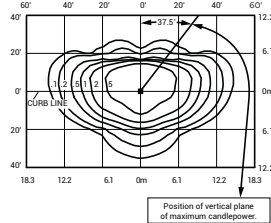
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

2S



ITL Test Report #: 79175
SEC EDG 2S ** 06 E UL 700 40K
Initial Delivered Lumens: 11,704



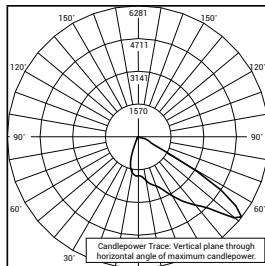
SEC EDG 2S ** 08 E UL 525 40K
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 12,604
Initial FC at grade

Type II Short Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	2,277	B1 U0 G1	2,364	B1 U0 G1
04	4,553	B1 U0 G1	4,728	B1 U0 G1
06	6,752	B2 U0 G2	7,012	B2 U0 G2
08	9,003	B2 U0 G2	9,349	B2 U0 G2
10	11,226	B3 U0 G3	11,658	B3 U0 G3
12	13,472	B3 U0 G3	13,990	B3 U0 G3
525mA				
02	3,187	B1 U0 G1	3,310	B1 U0 G1
04	6,375	B2 U0 G2	6,620	B2 U0 G2
06	9,453	B2 U0 G2	9,816	B3 U0 G3
08	12,604	B3 U0 G3	13,088	B3 U0 G3
700mA				
02	3,893	B1 U0 G1	4,043	B1 U0 G1
04	7,786	B2 U0 G2	8,086	B2 U0 G2
06	11,546	B3 U0 G3	11,990	B3 U0 G3

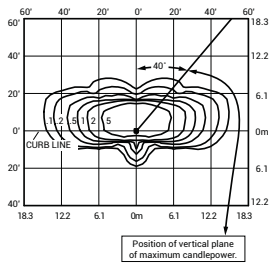
* Initial delivered lumens at 25°C (77°F).

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf

2SB



CSA Test Report #: 6454
ARE EDG 2SB ** 06 E UL 700 40K
Initial Delivered Lumens: 9,202



SEC EDG 2SB ** 08 E UL 525 40K
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 9,683
Initial FC at grade

Type II Short Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,749	B0 U0 G1	1,816	B0 U0 G1
04	3,498	B1 U0 G1	3,633	B1 U0 G1
06	5,188	B1 U0 G1	5,387	B1 U0 G1
08	6,917	B1 U0 G1	7,183	B1 U0 G1
10	8,625	B2 U0 G1	8,957	B2 U0 G1
12	10,350	B2 U0 G2	10,748	B2 U0 G2
525mA				
02	2,449	B1 U0 G1	2,543	B1 U0 G1
04	4,898	B1 U0 G1	5,086	B1 U0 G1
06	7,263	B1 U0 G1	7,542	B1 U0 G1
08	9,683	B2 U0 G2	10,056	B2 U0 G2
700mA				
02	2,991	B1 U0 G1	3,106	B1 U0 G1
04	5,982	B1 U0 G1	6,212	B1 U0 G1
06	8,871	B2 U0 G1	9,212	B2 U0 G2

* Initial delivered lumens at 25°C (77°F).

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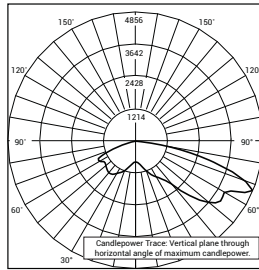


Cree Edge™ LED Security Wall Pack Luminaire

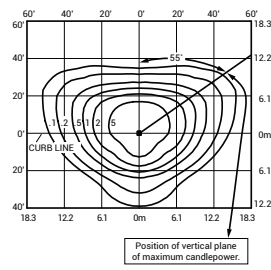
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

3M



ITL Test Report #: 79173
SEC EDG 3M ** 06 E UL 700 40K
Initial Delivered Lumens: 10,343



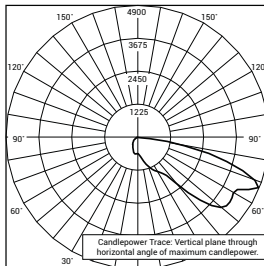
SEC EDG 3M ** 08 E UL 525 40K
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 11,220
Initial FC at grade

Type III Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens w/BLS*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens w/BLS*	BUG Ratings** Per TM-15-11
350mA				
02	2,027	B1 U0 G1	2,105	B1 U0 G1
04	4,054	B1 U0 G1	4,209	B1 U0 G1
06	6,011	B2 U0 G2	6,242	B2 U0 G2
08	8,015	B2 U0 G2	8,323	B2 U0 G2
10	9,994	B3 U0 G3	10,379	B3 U0 G3
12	11,993	B3 U0 G3	12,454	B3 U0 G3
525mA				
02	2,837	B1 U0 G1	2,947	B1 U0 G1
04	5,675	B2 U0 G2	5,893	B2 U0 G2
06	8,415	B2 U0 G2	8,739	B2 U0 G2
08	11,220	B3 U0 G3	11,652	B3 U0 G3
700mA				
02	3,466	B1 U0 G1	3,599	B1 U0 G1
04	6,932	B2 U0 G2	7,198	B2 U0 G2
06	10,279	B3 U0 G3	10,674	B3 U0 G3

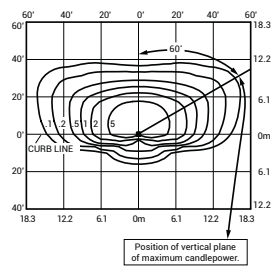
* Initial delivered lumens at 25°C (77°F).

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3MB



CSA Test Report #: 6448
ARE EDG 3MB ** 06 E UL 700
Initial Delivered Lumens: 7,740



SEC EDG 3MB ** 08 E UL 525 40K
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 8,300
Initial FC at grade

Type III Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens w/BLS*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens w/BLS*	BUG Ratings** Per TM-15-11
350mA				
02	1,499	B1 U0 G1	1,557	B1 U0 G1
04	2,999	B1 U0 G1	3,114	B1 U0 G1
06	4,446	B1 U0 G1	4,617	B1 U0 G1
08	5,929	B1 U0 G2	6,157	B1 U0 G2
10	7,393	B1 U0 G2	7,677	B1 U0 G2
12	8,872	B1 U0 G2	9,213	B1 U0 G2
525mA				
02	2,099	B1 U0 G1	2,180	B1 U0 G1
04	4,198	B1 U0 G1	4,359	B1 U0 G1
06	6,225	B1 U0 G2	6,464	B1 U0 G2
08	8,300	B1 U0 G2	8,619	B1 U0 G2
700mA				
02	2,564	B1 U0 G1	2,662	B1 U0 G1
04	5,127	B1 U0 G2	5,325	B1 U0 G2
06	7,603	B1 U0 G2	7,896	B1 U0 G2

* Initial delivered lumens at 25°C (77°F).

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LEDway® Series DLC

LEDway® LED Street Light

Product Description

Luminaire housing is all aluminum construction. Standard luminaire utilizes terminal block for power input suitable for #2-#14 AWG wire. Luminaire is designed to mount on a 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon and/or a 1.25" (32mm) IP, 1.66" (42mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° to allow for luminaire leveling (two axis T-level included).

Applications: Roadway, parking lots, walkways and general area spaces

Performance Summary

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

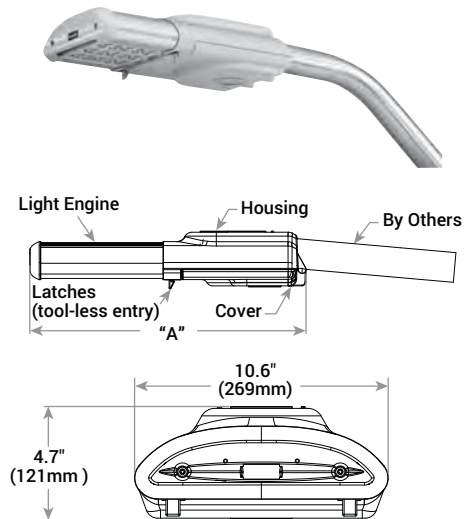
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed		
Bird Spikes for Light Engine XA-BRDSK30 - 20-30 LED XA-BRDSK60 - 40-60 LED XA-BRDSK90 - 70-90 LED XA-BRDSK120 - 100-120 LED	Bird Spikes for Housing XA-BRDSKPHSG IP Pipe Sealing Kit XA-XIL125IP - Required when mounting IP66 rated HT Mount to a 1.25" (32mm) IP, 1.66" O.D. horizontal tenon	External Backlight Shield XA-XSLBLS30 - 20-30 LED XA-XSLBLS60 - 40-60 LED XA-XSLBLS90 - 70-90 LED XA-XSLBLS120 - 100-120 LED



LED Count (x10)	Dim. "A"	Weight*
02	17.5" (443mm)	13.0 lbs. (5.9kg)
03	17.5" (443mm)	13.5 lbs. (6.1kg)
04	22.0" (559mm)	16.5 lbs. (7.5kg)
05	22.0" (559mm)	17.0 lbs. (7.7kg)
06	22.0" (559mm)	17.5 lbs. (7.9kg)
07	26.8" (681mm)	22.0 lbs. (10.0kg)
08	26.8" (681mm)	22.5 lbs. (10.2kg)
09	26.8" (681mm)	22.5 lbs. (10.2kg)
10	33.1" (842mm)	27.5 lbs. (12.5kg)
11	33.1" (842mm)	28.0 lbs. (12.7kg)
12	33.1" (842mm)	28.0 lbs. (12.7kg)

* Add 5.0 lbs. (2.3kg) for transformer in 347-480V luminaires when ML option is selected

Ordering Information

Example: STR-LWY-2M-HT-02-E-UL-SV-700

STR-LWY				E				
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options*	Drive Current	Options
STR-LWY	2M Type II Medium 2MB Type II Medium w/BLS 2S Type II Short 3M Type III Medium 4M Type IV Medium 5M Type V Medium	HT Horizontal Tenon	02 03 04 05 06 07 08 09 10 11 12	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver	525 525mA 700 700mA	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current R NEMA® Photocell Receptacle - Intended for downlight applications with maximum 45° tilt - Photocell by others UTL Utility - Includes exterior wattage label that reflects watts for the drive current selected. The ability to exceed selected drive current will be disabled 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire

* Light engine portion of extrusion is not painted and will remain natural aluminum regardless of color selection
NOTE: Price adder may apply depending on configuration



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Rev. Date: V1 08/05/2015



LEDway® LED Street Light

Product Specifications

CONSTRUCTION & MATERIALS

- Housing is all aluminum construction
- Terminal block for power input suitable for #2-#14 AWG wire
- HT Mount is designed to mount on a 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon and/or a 1.25" (32mm) IP, 1.66" (42mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° to allow for luminaire leveling (two axis T-level included)
- XA-XIL125IP accessory kit required when mounting IP66 rated HT Mount to a 1.25" (32mm) IP, 1.66" (42mm) O.D. horizontal tenon
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, and silver are available
- Weight:** See Dimensions and Weight chart on page 1

ELECTRICAL SYSTEM

- Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor:** > 0.9 at full load
- Total Harmonic Distortion:** < 20% at full load
- Quick disconnect harness suitable for mate and break under load provided on power feed to driver for ease of maintenance
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used
- 10V Source Current:** 20-60 LED: 0.15mA; 80-120 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered with IP option, without R option
- Meets CALTrans 611 Vibration testing and GR-63-CORE Section 4.4.1/5.4.2 Earthquake Zone 4
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10K surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish are endurance tested to withstand 5,000 hours of elevated ambient salt fog as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- Meets FCC Part 15 standards for conducted and radiated emissions
- DLC qualified. Exceptions apply when ordered with 20 LEDs at 525mA or full backlight control. Please refer to www.designlights.org/QPL for most current information

Electrical Data*								
LED Count (x10)	System Watts 120-277V	System Watts 347-480V	Total Current					
			120V	208V	240V	277V	347V	480V
525mA								
02	35	39	0.30	0.18	0.16	0.15	0.12	0.10
03	53	55	0.45	0.26	0.23	0.21	0.16	0.13
04	66	71	0.56	0.33	0.29	0.26	0.21	0.16
05	86	87	0.72	0.42	0.37	0.33	0.25	0.19
06	100	103	0.84	0.49	0.43	0.38	0.30	0.22
07	120	124	1.01	0.60	0.54	0.49	0.37	0.28
08	139	140	1.17	0.69	0.62	0.56	0.41	0.31
09	149	156	1.26	0.74	0.66	0.59	0.46	0.34
10	167	172	1.41	0.83	0.73	0.65	0.50	0.38
11	182	188	1.54	0.89	0.79	0.70	0.55	0.41
12	197	204	1.67	0.96	0.85	0.75	0.59	0.44
700mA								
02	47	51	0.39	0.23	0.21	0.19	0.15	0.12
03	70	73	0.59	0.34	0.30	0.27	0.21	0.16
04	91	93	0.77	0.45	0.39	0.35	0.27	0.20
05	113	115	0.96	0.55	0.48	0.43	0.33	0.25
06	134	135	1.13	0.65	0.57	0.50	0.39	0.29
07	163	165	1.37	0.80	0.71	0.63	0.48	0.36
08	182	186	1.54	0.90	0.79	0.70	0.54	0.40
09	203	207	1.72	0.99	0.87	0.78	0.60	0.45
10	227	229	1.92	1.11	0.97	0.86	0.67	0.49
11	248	250	2.10	1.21	1.05	0.93	0.73	0.53
12	267	274	2.26	1.30	1.13	1.00	0.80	0.58

* Electrical data at 25°C (77°F)

Recommended LEDway® Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

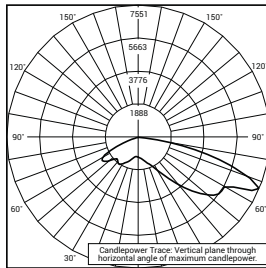
¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

LEDway® LED Street Light

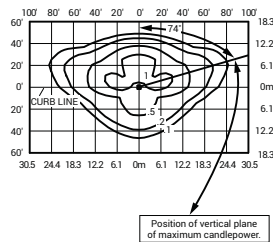
Photometry

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2M



ITL Test Report #: 77237
STR-LWY-2M-**-06-E-UL-700-40K
Initial Delivered Lumens: 11,094



STR-LWY-2M-**-03-E-UL-700-40K
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 5,688
Initial FC at grade

Type II Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
525mA				
02	3,064	B1 U1 G1	3,182	B1 U1 G1
03	4,550	B1 U1 G1	4,725	B1 U1 G1
04	6,079	B2 U1 G2	6,313	B2 U1 G2
05	7,549	B2 U1 G2	7,839	B2 U1 G2
06	9,000	B2 U1 G2	9,346	B2 U1 G2
07	10,532	B2 U1 G2	10,937	B2 U1 G2
08	11,982	B3 U1 G3	12,443	B3 U1 G3
09	13,419	B3 U1 G3	13,935	B3 U1 G3
10	14,994	B3 U1 G3	15,571	B3 U1 G3
11	16,440	B3 U1 G3	17,072	B3 U1 G3
12	17,880	B3 U1 G3	18,568	B3 U1 G3
700mA				
02	3,830	B1 U1 G1	3,977	B1 U1 G1
03	5,688	B2 U1 G1	5,907	B2 U1 G2
04	7,598	B2 U1 G2	7,891	B2 U1 G2
05	9,436	B2 U1 G2	9,799	B2 U1 G2
06	11,250	B2 U1 G2	11,683	B3 U1 G3
07	13,165	B3 U1 G3	13,671	B3 U1 G3
08	14,978	B3 U1 G3	15,554	B3 U1 G3
09	16,774	B3 U1 G3	17,419	B3 U1 G3
10	18,742	B3 U1 G3	19,463	B3 U1 G3
11	20,550	B3 U1 G3	21,340	B3 U1 G3
12	22,351	B3 U1 G3	23,210	B3 U1 G3

* Initial delivered lumens at 25°C (77°F)

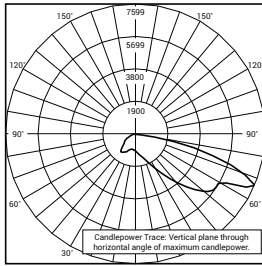
** For more information on the IES BUG (Backlight-Uplight-Clare) Rating visit:
www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf. Valid with no tilt

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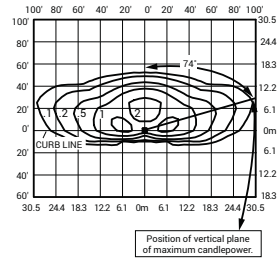
Photometry

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2MB



ITL Test Report #: 77236
STR-LWY-2MB-**-06-E-UL-700-40K
Initial Delivered Lumens: 8,402



STR-LWY-2MB-**-06-E-UL-700-40K
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,474
Initial FC at grade

Type II Medium Distribution w/BLS				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
525mA				
02	2,308	B0 U0 G1	2,397	B0 U0 G1
03	3,428	B1 U0 G1	3,559	B1 U0 G1
04	4,579	B1 U0 G1	4,755	B1 U0 G1
05	5,686	B1 U0 G1	5,905	B1 U0 G1
06	6,779	B1 U0 G2	7,040	B1 U0 G2
07	7,933	B1 U0 G2	8,238	B1 U0 G2
08	9,026	B1 U0 G2	9,373	B1 U0 G2
09	10,108	B1 U0 G2	10,497	B1 U0 G2
10	11,294	B1 U0 G2	11,728	B1 U0 G2
11	12,383	B1 U0 G2	12,860	B1 U0 G2
12	13,468	B1 U0 G2	13,986	B1 U0 G2
700mA				
02	2,885	B0 U0 G1	2,996	B0 U0 G1
03	4,284	B1 U0 G1	4,449	B1 U0 G1
04	5,724	B1 U0 G1	5,944	B1 U0 G1
05	7,107	B1 U0 G2	7,381	B1 U0 G2
06	8,474	B1 U0 G2	8,800	B1 U0 G2
07	9,916	B1 U0 G2	10,298	B1 U0 G2
08	11,282	B1 U0 G2	11,716	B1 U0 G2
09	12,635	B1 U0 G2	13,121	B1 U0 G2
10	14,118	B1 U0 G2	14,661	B2 U0 G2
11	15,479	B2 U0 G2	16,075	B2 U0 G2
12	16,836	B2 U0 G3	17,483	B2 U0 G3

* Initial delivered lumens at 25°C (77°F)

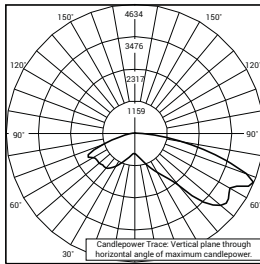
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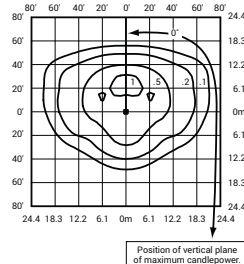
Photometry

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3M



CESTL Test Report #: 2013-0068
STR-LWY-3M-**-06-E-UL-700-40K
Initial Delivered Lumens: 10,430



STR-LWY-3M-**-03-E-UL-700
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 5,600
Initial FC at grade

Type III Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
525mA				
02	2,905	B1 U0 G1	3,016	B1 U0 G1
03	4,314	B1 U0 G1	4,480	B1 U0 G1
04	5,763	B2 U0 G2	5,985	B2 U0 G2
05	7,156	B2 U0 G2	7,432	B2 U0 G2
06	8,533	B2 U0 G2	8,861	B2 U0 G2
07	9,985	B3 U0 G3	10,369	B3 U0 G3
08	11,360	B3 U0 G3	11,797	B3 U0 G3
09	12,722	B3 U0 G3	13,211	B3 U0 G3
10	14,215	B3 U0 G3	14,762	B3 U0 G3
11	15,586	B3 U0 G3	16,185	B3 U0 G3
12	16,952	B3 U0 G3	17,604	B3 U0 G3
700mA				
02	3,631	B1 U0 G1	3,771	B1 U0 G1
03	5,392	B2 U0 G2	5,600	B2 U0 G2
04	7,204	B2 U0 G2	7,481	B2 U0 G2
05	8,945	B2 U0 G2	9,290	B3 U0 G3
06	10,666	B3 U0 G3	11,076	B3 U0 G3
07	12,481	B3 U0 G3	12,961	B3 U0 G3
08	14,200	B3 U0 G3	14,746	B3 U0 G3
09	15,902	B3 U0 G3	16,514	B3 U0 G3
10	17,769	B3 U0 G3	18,452	B3 U0 G3
11	19,483	B3 U0 G3	20,232	B3 U0 G3
12	21,190	B3 U0 G3	22,004	B3 U0 G3

* Initial delivered lumens at 25°C (77°F)

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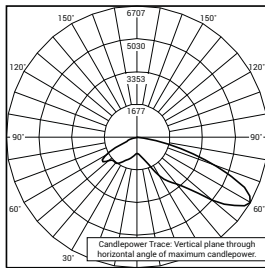


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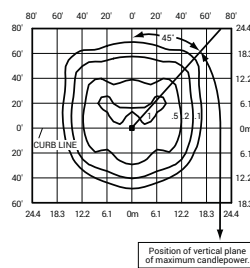
Photometry

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4M



CESTL Test Report #: 2013-0028
STR-LWY-4M-**-06-E-UL-700-40K
Initial Delivered Lumens: 11,036



STR-LWY-4M-**-03-E-UL-700
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 5,907
Initial FC at grade

Type IV Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
525mA				
02	3,064	B1 U0 G1	3,182	B1 U0 G1
03	4,550	B2 U0 G1	4,725	B2 U0 G1
04	6,079	B2 U0 G1	6,313	B2 U0 G1
05	7,549	B2 U0 G2	7,839	B2 U0 G2
06	9,000	B2 U0 G2	9,346	B2 U0 G2
07	10,532	B2 U0 G2	10,937	B2 U0 G2
08	11,982	B3 U0 G2	12,443	B3 U0 G2
09	13,419	B3 U0 G3	13,935	B3 U0 G3
10	14,994	B3 U0 G3	15,571	B3 U0 G3
11	16,440	B3 U0 G3	17,072	B3 U0 G3
12	17,880	B3 U0 G3	18,568	B3 U0 G3
700mA				
02	3,830	B1 U0 G1	3,977	B1 U0 G1
03	5,688	B2 U0 G1	5,907	B2 U0 G1
04	7,598	B2 U0 G2	7,891	B2 U0 G2
05	9,436	B2 U0 G2	9,799	B2 U0 G2
06	11,250	B2 U0 G2	11,683	B3 U0 G2
07	13,165	B3 U0 G3	13,671	B3 U0 G3
08	14,978	B3 U0 G3	15,554	B3 U0 G3
09	16,774	B3 U0 G3	17,419	B3 U0 G3
10	18,742	B3 U0 G3	19,463	B3 U0 G3
11	20,550	B3 U0 G3	21,340	B3 U0 G3
12	22,351	B3 U0 G3	23,210	B4 U0 G3

* Initial delivered lumens at 25°C (77°F)

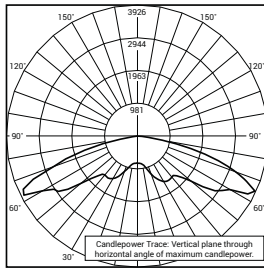
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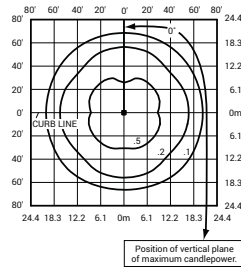
Photometry

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5M



CESTL Test Report #: 2013-0019
STR-LWY-5M-**-06-E-UL-700-40K
Initial Delivered Lumens: 11,633



STR-LWY-5M-**-03-E-UL-700
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 6,214
Initial FC at grade

Type V Medium Distribution				
LED Count (x10)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
525mA				
02	3,223	B2 U0 G1	3,347	B2 U0 G1
03	4,787	B3 U0 G1	4,971	B3 U0 G1
04	6,395	B3 U0 G2	6,640	B3 U0 G2
05	7,941	B3 U0 G2	8,246	B3 U0 G2
06	9,468	B3 U0 G2	9,832	B3 U0 G2
07	11,079	B4 U0 G2	11,505	B4 U0 G2
08	12,605	B4 U0 G2	13,089	B4 U0 G2
09	14,116	B4 U0 G3	14,659	B4 U0 G3
10	15,773	B4 U0 G3	16,379	B4 U0 G3
11	17,294	B4 U0 G3	17,959	B4 U0 G3
12	18,809	B4 U0 G3	19,533	B4 U0 G3
700mA				
02	4,029	B2 U0 G1	4,184	B2 U0 G1
03	5,983	B3 U0 G2	6,214	B3 U0 G2
04	7,993	B3 U0 G2	8,301	B3 U0 G2
05	9,926	B3 U0 G2	10,308	B3 U0 G2
06	11,835	B4 U0 G2	12,290	B4 U0 G2
07	13,849	B4 U0 G3	14,381	B4 U0 G3
08	15,756	B4 U0 G3	16,362	B4 U0 G3
09	17,645	B4 U0 G3	18,324	B4 U0 G3
10	19,716	B4 U0 G3	20,474	B4 U0 G3
11	21,618	B4 U0 G3	22,449	B5 U0 G3
12	23,512	B5 U0 G3	24,416	B5 U0 G3

* Initial delivered lumens at 25°C (77°F)

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LEDway® LED Street Light

Luminaire EPA

Horizontal Tenon Mount							
LED Count (x10)	1 Luminaire	Single	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
	Horizontal Tenon Mount	Round External Mount / Square Internal Mount Horizontal Tenons with Luminaires					
		PT-1H/PD-1H4	PT-2H(90°)/ PD-2H4(90)	PT-2H(180°)/ PD-2H4(180)	PT-3H(90°)/ PD-3H4(90)	PT-3H(120)	PT-4H(90°)/ PD-4H4(90)
20-30	0.57	0.79	1.02	1.35	1.53	1.38	1.94
40-60	0.69	0.91	1.19	1.59	1.774	1.59	2.18
70-90	0.71	0.93	1.27	1.75	1.93	0.71	2.34
100-120	0.80	1.04	1.38	1.86	2.04	1.82	2.45

Tenon EPA

Part Number	EPA
PD Series Tenons	0.09
PT Series Tenons	0.10
WM-2L	0.13
XA-TMDA8	0.07

Tenons and Brackets* (must specify color)	
Square Internal Mount Horizontal Tenons (Aluminum) - Mounts to 4" (102mm) square aluminum or steel poles PD-1H4 – Single PD-3H4(90) – 90° Triple PD-2H4(90) – 90° Twin PD-4H4(90) – 90° Quad PD-2H4(180) – 180° Twin	Round External Mount Horizontal Tenons (Aluminum) - Mounts to 2.375" (60mm) O.D. round aluminum or steel poles or tenons PT-1H – Single PT-3H(90) – 90° Triple PT-2H(90) – 90° Twin PT-4H(90) – 90° Quad PT-2H(180) – 180° Twin
Wall Mount Brackets - Mounts to wall, roof or side of wood pole WM-2L – Standard	Direct Arm Pole Adaptor Bracket - Mounts to 3-6" (76-152mm) round or square aluminum or steel poles XA-TMDA8

* Refer to the [Bracket and Tenons spec sheet](#) for more details

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

3/2/2016 4:40:41 PM

in

Case No(s). 16-0265-EL-EEC

Summary: Application Tire Discounters Inc. and Ohio Power Company for approval of a special arrangement agreement with a mercantile customer electronically filed by Mrs. Erin C Miller on behalf of Ohio Power Company