



Legal Department

April 26, 2018

Chairman Asim Z. Haque  
Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus, OH 43215-3793

Re: In the Matter of the Application of )  
Nationwide Childrens Hospital )  
and Ohio Power Company ) Case No. 18-0045-EL-EEC  
for Approval of a Special Arrangement )  
Agreement with a Mercantile Customer )

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Dear Chairman Haque,

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 2018 (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/ Julie E. Sanders  
Julie E. Sanders

Attachments



**Case No.: 18-0045-EL-EEC**

Mercantile Customer: NATIONWIDE CHILDRENS HOSPITAL

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](mailto:ee-pdr@puc.state.oh.us).

## Section 1: Company Information

Name: NATIONWIDE CHILDRENS HOSPITAL

Principal address: 700 Childrens Drive, Columbus, Oh 43205

Address of facility for which this energy efficiency program applies: 757 Mooberry St  
Unit A, Columbus, Oh 43205-2675

Name and telephone number for responses to questions:

Marla Southers, Nationwide Childrens Hospital, (614) 355-1536

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, and the date on which the customer would have replaced such equipment if it had not been replaced 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)).
- ☐ 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): 9/18/2015
- ☐ 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:

Annual savings: kWh

- 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:

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

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

Annual savings: 54,365 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.

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

The less efficient new equipment is the minimum required by Ohio State code or Federal Standard whichever is more stringent. For those measures where no code applies the baseline equipment is assumed to be the least efficient equipment available in the marketplace or standard practice, whichever results in the most conservative annual savings. Any information available describing the less efficient new equipment option is provided in 10-1599-EL-EEC for the work papers that provide all methodologies, protocols, and practices used in this application for prescriptive measures.

- 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 (choose which 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))

10.7 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 seeking is:

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

☒ A cash rebate of \$ 1,722.58. (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.)

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: 8.80 (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 \$ 18,029.08

The utility's program costs were \$ 326.19

The utility's incentive costs/rebate costs were \$ 1,722.58.

## 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

Project # 17-21898

Docket # 18-0045


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

Case No.: 18-0045-EL-EEC


State of Ohio :

R-SEKAR TYER, 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.

 ENGINEER  
Signature of Affiant & Title

Sworn and subscribed before me this 16<sup>th</sup> day of March, 2018 Month/Year

  
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	NATIONWIDE CHILDRENS HOSPITAL		
Project Number	AEP-17-21898		
Customer Premise Address	757 MOOBERRY ST UNIT A, COLUMBUS, OH 43205-2675		
Customer Mailing Address	700 Childrens Drive, Columbus, OH 43205		
Date Received	11/1/2017		
Project Installation Date	9/18/2015		
Annual kWh Reduction	54,365		
Total Project Cost	\$6,507.52		
Unadjusted Energy Efficiency Credit (EEC) Calculation	\$2,296.77		
Simple Payback (yrs)	0.8		
Utility Cost Test (UCT) for EEC	8.80		
Utility Cost Test (UCT) for Exemption	0.02		
<i>Please Choose One Option Below and Initial</i>			
Self Direct EEC: 75%	\$1,722.58	<input checked="" type="checkbox"/>	Initial: <i>MS</i>
EE/PDR Rider Exemption	2 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.  
As part of major renovation of the facility, energy efficient LED lightings were installed in interior space

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

*John J. Williams*  
\_\_\_\_\_  
Title: Manager  
Date: 1/4/2018

NATIONWIDE CHILDRENS HOSPITAL

By: *M. Humaker*  
\_\_\_\_\_  
Title: DIRECTOR ENGINEERING OPS  
Date: 1.4.18



## APPLICATION GUIDELINES

All 2017 AEP Ohio Business Incentives Program projects must be completed and Final Applications received no later than November 10, 2017, 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 Application<sup>1</sup>

(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 Process Efficiency 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

445 Hutchinson Avenue, Suite 300

Columbus, Ohio 43235

877-541-3048 | [aepohiosolutions@clearesult.com](mailto:aepohiosolutions@clearesult.com)

Visit our website at [AEPohio.com/solutions](http://AEPohio.com/solutions)

<sup>1</sup>A 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.



## CHECKLIST OF REQUIRED ATTACHMENTS

### PRE-APPROVAL

- ☐ Completed Applicant Information Form
- ☐ Estimated Total Project Cost
- ☐ Estimated Completion Date
- ☐ Completed Incentives Requested Section of Application
- ☐ Applicable Incentive Worksheets
- ☐ Completed Third-Party Payment Release Authorization Section with W9 (optional)
- ☐ Signed Customer Agreement Form
- ☐ Equipment Specifications
- ☐ Proposed Scope of Work
- ☐ W-9 (Customer's W-9 or 3rd party W-9, if applicable)

### FINAL APPLICATION ONLY (NO PRE APP SUBMITTED)

- ☐ Completed Applicant Information Form
- ☐ Completed Incentives Requested Section of Application
- ☐ Applicable Incentive Worksheets
- ☐ Total Project Cost
- ☐ Completion date
- ☐ Completed and Signed Final Payment Agreement and Customer Agreement Forms
- ☐ Completed Third-Party Payment Release Authorization Section with W9 (optional)
- ☐ Itemized Invoices
- ☐ Equipment Specifications
- ☐ Scope of Work
- ☐ W-9 (Customer's W-9 or 3rd party W-9, if applicable)

### FINAL APPLICATION (IF PRE APP HAS BEEN SUBMITTED)

- ☐ Completed Applicant Information Form (optional)
- ☐ Assigned Project Number on Signature Page
- ☐ Total Project Cost
- ☐ Project Completion Date
- ☐ Completed and Signed Final Payment Agreement and Customer Agreement Forms
- ☐ Completed Third-Party Payment Release Authorization Section (optional)
- ☐ Itemized Invoices
- ☐ Updated Scope of Work (if there were changes from pre)
- ☐ Applicable Incentive Worksheets (if there were changes from pre)

#### AEP Ohio Business Incentives Program

445 Hutchinson Avenue, Suite 300  
Columbus, Ohio 43235  
877-541-3048 | [aepohiosolutions@clearesult.com](mailto:aepohiosolutions@clearesult.com)  
Visit our website at [AEPohio.com/solutions](http://AEPohio.com/solutions)

#### Revised Submittal

Please complete below if this is a revised submittal.

Submittal date \_\_\_\_\_

AEP Project Number (if known) AEP - \_ \_ - \_ \_ \_ \_ \_



## 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 - where check will be sent

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 eleven digits of the account number.



## 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 (THIS TABLE SELF-POPULATES FROM WORKSHEETS)

Incentive Category	Applied for Incentives	Applicable Self- Direct Incentives
Lighting		
HVAC		
Motors		
Motor Rewind		
Drives		
Compressed Air		
Refrigeration/Food Service		
Agriculture		
Miscellaneous		
Process Efficiency		
NC Lighting (SD Only)		
Total		

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



## CUSTOMER AGREEMENT

### 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 Efficient Products for Business/Process Efficiency Terms and Conditions, and Final Application Agreement](#)  
[Link to Self-Direct Terms and Conditions, and Final Application Agreement](#)

Pre-Application	Final-Application
Project Completion Year (Select One) _____	Self-Direct _____
Project Completion Date _____	Total Project Cost _____
Date _____	Total Applied for Incentive _____
Total Requested Incentive <sup>1</sup> _____	Total Self-Direct Requested Incentive <sup>2</sup> _____
Print Name _____	AEP Ohio Customer Signature _____

### 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) _____
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**SUBMIT VIA EMAIL**

**PRINT APPLICATION**

<sup>1</sup>Incentives have a threshold of 50% of the project cost and total incentives paid to a threshold of \$25,000 and Bid4Efficiency above that.

<sup>2</sup>Self-Direct incentives are 75% of Total Requested Incentive, after 50% of the project cost threshold and tiering is applied.

Submitted by Bright Focus Sales, Inc. James Alford	Catalog Number: 2STG50L835-4-PMW-UNV-DIM  Notes:	Type: <b>R1</b> <span style="border: 1px solid black; padding: 2px;">OK</span>  COL15-7168
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#### application

- Subtle enclosure curves provide architectural styling to complement any space.
- Smooth brightness across the face of the luminaire prevents glare and provides excellent visual comfort.
- Directs a controlled amount of light to higher angles to eliminate "cave effect" without creating glare.
- Ideal for modern offices, schools and retail environments.
- Excellent luminaire efficacy provides significant energy savings.
- High CRI source provides excellent color rendering.
- LEDs are an excellent source for use with controls since frequent switching does not affect the life of the light source.
- Grid, Flange or Z-spline/ Modular models available.
- Some SoftTrace luminaires are DesignLights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers. ([www.designlights.org/QPL](http://www.designlights.org/QPL))

#### construction/finish

- One piece die-formed embossed steel housing provides added rigidity, resists damage during shipment/handling.
- T-bar grid clips are built into luminaire ends for quick and easy installation, no extra parts required.
- Suitable for end-to-end mounting.
- End K.O.s for thru wiring or conduit entry in shallow plenums.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

#### electrical

- Driver and LED boards are easily accessible from below. LED boards are individually replaceable if required.
- 0-10V dimming is standard.
- Five-year luminaire warranty including LED boards and driver.
- High efficiency LEDs have 50,000 hour L70 rated life (defined as 70% lumen maintenance.)
- ETL listed to UL standards, suitable for damp locations.

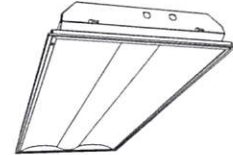
#### enclosure

- Choice of three enclosures:
  - Single piece thermo formed acrylic lens with ribbed center diffuser (D)
  - Three piece acrylic lens with smooth center diffuser (DS)
  - Three piece acrylic lens with round perforated steel center diffuser (PMW).
- Ribbed side diffusers (RIB option) are available for the DS and PMW center diffuser options.

**0170-AR**

Architectural

SoftTrace  
2x4 LED

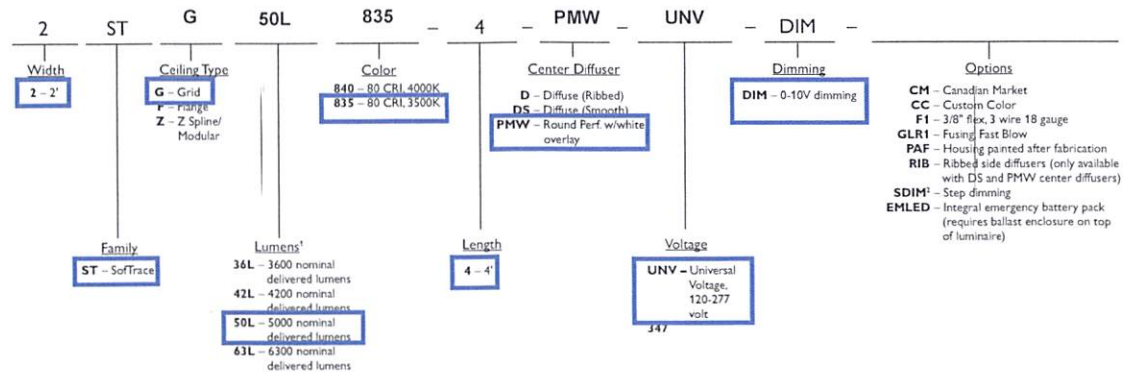


#### Specifier's Reference

Project	
Type	
Model No.	
Comments	

**E.C. SHALL INSTALL LINE AND LOW VOLTAGE CONTROL WIRING AS NEEDED FOR DIMMING CONTROL WITHIN AREAS SHOWN ON PLANS**

Example: 2STG50L840-4-D-UNV-DIM



#### Footnotes:

- <sup>1</sup> The lumen values stated above are relevant only to the "D" center diffuser option. For lumen values with the other diffusers, check the photometrics tests online for those specific catalog numbers.
- <sup>2</sup> SDIM may not be available on all products. Consult factory.

#### Accessories

- FKDP24** - Flange conversion kit 2'x4'
- FMA24** - 2'x4" F mounting frame for NEMA "F" mounting



**PHILIPS**  
**Day-Brite**

**PHILIPS**  
**CFI**

Submitted by Bright Focus Sales, Inc. James Alford	<b>Job Name:</b> NCH-ED6 BACKFILL	<b>Catalog Number:</b> 2STG50L835-4-PMW-UNV-DIM  <b>Notes:</b>	<b>Type:</b>  <b>R1</b>  COL15-7168
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## SofTrace 2x4 LED

0170-AR

### 2x4 SofTrace LED, 4200 nominal delivered lumens, diffuse

LER - 102

Catalog No.	2STG42L840-4-D-UNV-DIM	Candlepower				Light Distribution				Average Luminance			
Test No.	32320	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross	
S/MH	1.3	0	1496	1496	1496	0-30	1169	27.7	45	1929	2122	2209	
Lamp Type	LED	5	1486	1489	1496	0-40	1918	45.5	55	1774	1974	2057	
Lumens/Lamp	4219	15	1427	1442	1457	0-60	3356	79.6	65	1573	1781	1878	
Input Watts	41.2	25	1306	1346	1382	0-90	4218	100.0	75	1284	1607	1742	
		35	1131	1201	1258				85	820	1287	1188	
		45	918	1009	1051								
		55	684	762	793								
		65	447	506	534								
		75	223	280	303								
		85	48	75	70								
Comparative yearly lighting energy cost per 1000 lumens – \$2.35 based on 3000 hrs. and \$.08 pwr KWH.													
The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.													
Photometric values based on test performed in compliance with LM-79.													
Coefficients of Utilization													
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)													
pcc		80				70				50			
pwr		70	50	30		70	50	30		50	30		
RCR													
0		118	118	118		115	115	115		111	111		
1		109	104	100		106	102	97		96	93		
2		99	91	83		95	89	82		84	80		
3		90	80	71		88	78	70		75	68		
4		82	70	61		80	68	60		67	59		
5		76	63	54		73	61	54		59	52		
6		69	56	47		68	56	46		54	46		
7		65	52	42		63	51	41		48	41		
8		60	46	39		58	46	38		45	38		
9		56	42	34		55	42	34		40	34		
10		53	40	32		52	39	32		38	30		

### 2x4 SofTrace LED, 5000 nominal delivered lumens, diffuse

LER - 101

Catalog No.	2STG50L840-4-D-UNV-DIM
Test No.	32326
S/MH	1.3
Lamp Type	LED
Lumens/Lamp	4899
Input Watts	48.5

Comparative yearly lighting energy cost per 1000 lumens = **\$2.38** based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

Candlepower				
Angle	End	45	Cross	
0	1737	1737	1737	
5	1725	1729	1737	
15	1657	1675	1692	
25	1515	1562	1605	
35	1314	1394	1462	
45	1067	1171	1221	
55	796	884	922	
65	520	588	621	
75	260	325	352	
85	56	88	81	

Light Distribution			
Degrees	Lumens	% Luminaire	
0-30	1357	27.7	
0-40	2227	45.5	
0-60	3896	79.5	
0-90	4898	100.0	

Average Luminance			
Angle	End	45°	Cross
45	2243	2461	2567
55	2063	2291	2391
65	1830	2067	2183
75	1494	1865	2022
85	960	1493	1390

Coefficients of Utilization									
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=.20)									
CEC	80			70			50		
pwr	70	50	30	70	50	30	70	50	30
RCR									
0	118	118	118	115	115	115	111	111	111
1	109	104	100	106	102	97	96	93	
2	98	91	83	95	89	82	84	80	
3	88	80	71	86	78	70	75	68	
4	82	70	61	80	68	60	67	59	
5	76	63	54	73	61	54	59	52	
6	69	56	47	68	56	46	54	46	
7	65	52	42	63	51	41	48	41	
8	60	46	39	58	46	38	45	38	
9	56	42	34	55	42	34	40	34	

### 2x4 SofTrace LED, 6300 nominal delivered lumens, diffuse

LER - 94

Catalog No.	25TG63L840-4-D-UNV-DIM	Candlepower				Light Distribution				Average Luminance			
Test No.	32908	Angle	End	45	Cross	Degrees	Lumens	% Luminaire		Angle	End	45°	Cross
S/MH	1.3	0	2188	2188	2188	0-30	1713	27.7		45	2829	3117	3231
Lamp Type	LED	5	2177	2177	2186	0-40	2813	45.5		55	2600	2893	2996
Lumens/Lamp	6183	15	2092	2112	2131	0-60	4922	79.6		65	2300	2604	2722
Input Watts	65.7	25	1917	1976	2024	0-90	6183	100.0		75	1870	2341	2519
		35	1661	1767	1841					85	1197	1866	1692
		45	1347	1484	1538								
		55	1004	1117	1157								
		65	654	741	775								
		75	326	408	439								
		85	70	110	99								
Comparative yearly lighting energy cost per 1000 lumens - <b>\$2.55</b> based on 3000 hrs. and \$.08 pwr KWH.													
The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.													
Photometric values based on test performed in compliance with LM-79.													
Coefficients of Utilization													
EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)													
pcc		80			70			50					
pwr		70	50	30		70	50	30			50	30	
RCR													
0	119	119	119		116	116	116			111	111		
1	109	104	100		106	102	97			96	93		
2	98	91	83		95	89	82			84	80		
3	90	80	71		88	78	70			75	68		
4	82	70	61		80	68	60			67	59		
5	76	63	54		73	61	54			59	52		
6	69	56	47		68	56	46			54	46		
7	65	52	42		63	51	41			48	41		
8	60	46	39		58	46	38			45	38		
9	56	42	34		55	42	34			40	34		
10	53	40	32		52	39	32			38	30		



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0170-AR 10/14 page 3 of 3

Philips Lighting  
North America Corporation  
200 Franklin Square Drive  
Somerset, NJ 08873  
Tel. 855-486-2216

Imported by: Philips Lighting  
A division of Philips Electronics Ltd.  
281 Hillmount Rd.  
Markham, ON Canada L6C 2S3  
Tel. 800-668-9008

Submitted by Bright Focus Sales, Inc. James Alford	Job Name: NCH-ED6 BACKFILL	Catalog Number: 2STG34L835-2-PMW-UNV-DIM  Notes:	Type: <b>R2</b> <span style="border: 1px solid black; padding: 2px;">OK</span>  COL15-7168
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#### application

- Subtle enclosure curves provide architectural styling to complement any space.
- Smooth brightness across the face of the luminaire prevents glare and provides excellent visual comfort.
- Directs a controlled amount of light to higher angles to eliminate "cave effect" without creating glare.
- Outstanding visual comfort, ideal for modern offices, schools and retail environments.
- High CRI source provides excellent color rendering with a CRI of 80.
- LEDs are an excellent source for use with controls since frequent switching does not affect the life of the light source.
- Grid, Flange or Z-spline/ Modular models available.
- Listed for use in insulated ceilings (Type IC.)

#### construction/finish

- One piece die-formed embossed steel housing provides added rigidity, resists damage during shipment/handling.
- T-bar grid clips are built into luminaire ends for quick and easy installation, no extra parts required.
- End K.O.s for thru wiring or conduit entry in shallow plenums.
- Suitable for end to end mounting.
- Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility.

#### electrical

- Driver and LED boards are easily accessible from below. LED boards are individually replaceable, if required, via plug-in connectors.
- 0-10V dimming is standard.
- Available emergency option requires ballast enclosure on top of luminaire.
- Five year standard luminaire warranty including LED boards and driver. Emergency driver and batteries have a three year warranty in models so equipped.
- High efficiency LEDs have a minimum 50,000 hour rated life (L<sub>70</sub>).
- ETL listed to UL standards, suitable for damp locations.

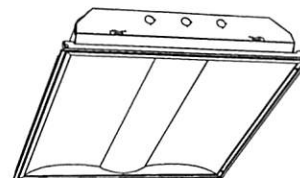
#### enclosure

- Choice of three enclosures:
  - Single piece thermo formed acrylic lens with ribbed center diffuser (D)
  - Three piece acrylic lens with smooth center diffuser (DS)
  - Three piece acrylic lens with round perforated steel center diffuser (PMW).
- Ribbed side diffusers (RIB option) are available for the DS and PMW center diffuser options.

**0168-AR**

Architectural

SoftTrace  
2x2 LED



#### Specifier's Reference

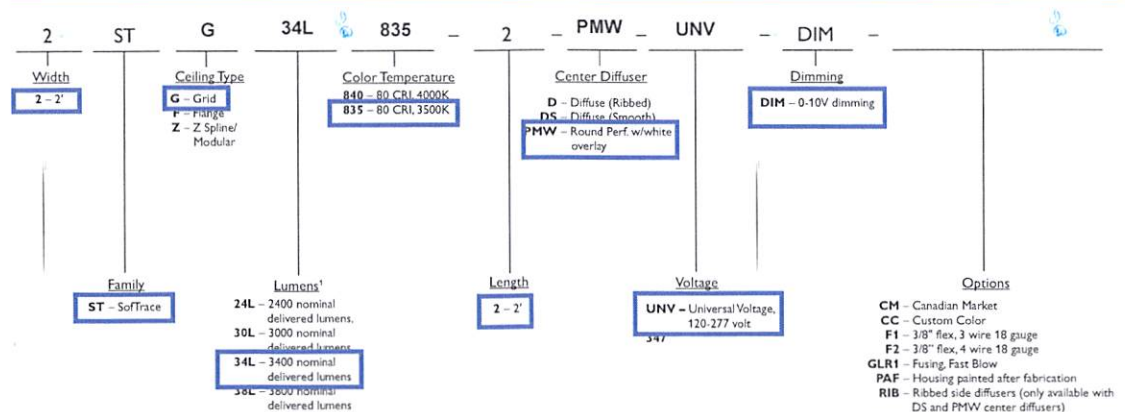
Project

Type

Model No.

**E.C. SHALL INSTALL LINE AND LOW VOLTAGE CONTROL WIRING AS NEEDED FOR DIMMING CONTROL WITHIN AREAS SHOWN ON PLANS**

Example: 2STG24L840-2-D-UNV-DIM



#### Footnotes:

- <sup>1</sup> The lumen values stated above are relevant only to the "D" center diffuser option. For lumen values with the other diffusers, check the photometrics tests online for those specific catalog numbers.
- <sup>2</sup> SDIM may not be available on all products. Consult factory.

#### Accessories

- KDPP22 - Flange conversion kit 2'x2'
- FMA22 - 2'x2' "F" mounting frame for NEMA "F" mounting



0168-AR 08/14

**PHILIPS**  
**Day-Brite**

**PHILIPS**  
**CFI**

Submitted by Bright Focus Sales, Inc. James Alford	<b>Job Name:</b> NCH-ED6 BACKFILL	<b>Catalog Number:</b> 2STG34L835-2-PMW-UNV-DIM  <b>Notes:</b>	<b>Type:</b>  <b>R2</b>  COL15-7168
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## SofTrace 2x2 LED

0168-AR

### 2x2 SofTrace LED, 3000 nominal delivered lumens, diffuse LER - 89

Catalog No. 2STG30L840-2-D-UNV-DIM Test No. 32306 S/MH 1.3 Lamp Type LED Lumens/Lamp 2895 Input Watts 32.6	Candlepower				Light Distribution			Average Luminance			
	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0	1057	1057	1057	0-30	819	28.3	45	3081	3341	3528
	5	1049	1053	1054	0-40	1334	46.1	55	2821	3092	3290
	15	1001	1016	1027	0-60	2309	79.8	65	2500	2816	3035
	25	909	941	968	0-90	2894	100.0	75	2055	2539	2829
	35	778	825	866				85	1405	1861	1801
	45	626	679	717							
	55	465	510	543							
	65	304	342	369							
	75	153	189	211							
	85	35	47	45							

Comparative yearly lighting energy cost per 1000 lumens - \$2.70 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

### 2x2 SofTrace LED, 3400 nominal delivered lumens, diffuse LER - 85

Catalog No. 2STG34L840-2-D-UNV-DIM Test No. 32305 S/MH 1.3 Lamp Type LED Lumens/Lamp 3449 Input Watts 40.5	Candlepower				Light Distribution			Average Luminance			
	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0	1259	1259	1259	0-30	976	28.3	45	3674	3973	4206
	5	1249	1255	1256	0-40	1589	46.1	55	3365	3680	3924
	15	1192	1209	1224	0-60	2750	79.8	65	2984	3347	3621
	25	1081	1120	1153	0-90	3448	100.0	75	2459	3014	3387
	35	927	981	1032				85	1696	2231	2185
	45	747	808	855							
	55	555	607	647							
	65	363	407	440							
	75	183	224	252							
	85	43	56	55							

Comparative yearly lighting energy cost per 1000 lumens - \$3.29 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.

### 2x2 SofTrace LED, 3800 nominal delivered lumens, diffuse LER - 86

Catalog No. 2STG38L840-2-D-UNV-DIM Test No. 32072 S/MH 1.3 Lamp Type LED Lumens/Lamp 3869 Input Watts 44.8	Candlepower				Light Distribution			Average Luminance			
	Angle	End	45	Cross	Degrees	Lumens	% Luminaire	Angle	End	45°	Cross
	0	1411	1411	1411	0-30	1094	28.3	45	3937	4264	4522
	5	1399	1406	1409	0-40	1782	46.1	55	3604	3949	4221
	10	1375	1387	1397	0-60	3085	79.8	65	3192	3590	3901
	15	1336	1356	1372	0-90	3867	100.0	75	2622	3232	3652
	20	1282	1311	1340				85	1803	2421	2405
	25	1213	1256	1294							
	30	1132	1185	1233							
	35	1039	1101	1159							
	40	941	1010	1068							
	45	838	908	962							
	50	732	798	850							
	55	622	682	729							
	60	515	569	611							
	65	406	457	496							
	70	302	349	387							
	75	204	252	285							
	80	117	160	176							
	85	47	64	63							

Comparative yearly lighting energy cost per 1000 lumens - \$2.79 based on 3000 hrs. and \$.08 pwr KWH.

The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.

Photometric values based on test performed in compliance with LM-79.




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0168-AR 08/14 page 3 of 3

Philips Lighting  
North America Corporation  
200 Franklin Square Drive  
Somerset, NJ 08873  
Tel. 855-486-2216

Imported by: Philips Lighting.  
A division of Philips Electronics Ltd.  
281 Hillmount Rd.  
Markham, ON Canada L6C 2S3  
Tel. 800-668-9008

	Project 15-21034-1 Date 2/3/2015 NCH ED6 BACKFILL	Catalog Number LDN6 35/20 LO6AR 277	Type <div>OK</div> <div>C1</div>
	Submitted By LIGHTING UNLIMITED INC	Notes	



## FEATURES & SPECIFICATIONS

**INTENDED USE** — Typical applications include corridors, lobbies, conference rooms and private offices.

**CONSTRUCTION** — 16-gauge galvanized steel mounting/plaster frame with trim clips to mount open conical shape reflector.

Vertically adjustable mounting brackets that use 16-gauge flat bar hangers (included), 1/2" conduit or C channel T-bar fasteners. Provides 3-3/4" total adjustment.

Post installation adjustment possible from above or below the ceiling.

Galvanized steel junction box with bottom-hinged access covers and spring latches. Two combination 1/2"-3/4" and three 1/2" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out) No. 12 AWG conductors, rated for 90°C.

Secondary housing adjustment system for precise, final ceiling-to-flange alignment.

Maximum 1-1/2" ceiling thickness.

**OPTICS** — LED light source with diffused lens, recessed in a deep reflector with a 55-degree cutoff. Aluminum full reflectors are optically designed to maximize lumen output and to provide superior glare control.

Anodized trim colors for open and wallwash reflectors are available in clear, pewter, wheat or gold. White polyester powder coat also available.

Minimum CRI of 80.

**ELECTRICAL** — High-efficiency, eldoLED 0-10V dimming driver mounted to the junction box, dims luminaire to 10% of its light output. 1% dimming option available (see EZ1 ordering options below).

Dimming fixture requires two (2) additional low-voltage wires to be pulled.

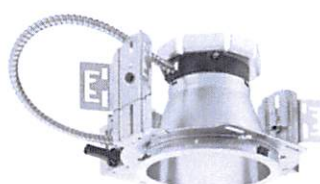
For compatible dimmers and dimming range, refer to Dimmer Compatibility Chart on page 4.

The system maintains 70% lumen output for more than 50,000 hours.

**LISTINGS** — CSA certified to US and Canadian safety standards. Open downlight (LO6): Wet location listed. Wallwash downlight (LW6): Rated for damp and dry locations only. ENERGY STAR® certified.

**WARRANTY** — 5-year limited warranty. Complete warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

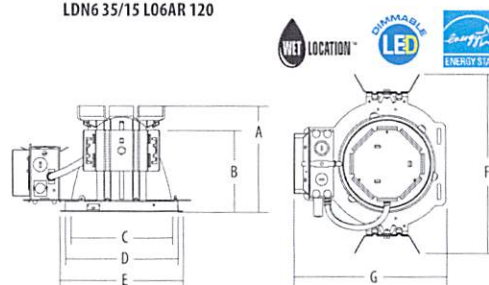
**E.C. SHALL INSTALL LINE AND LOW VOLTAGE CONTROL WIRING AS NEEDED FOR DIMMING CONTROL WITHIN AREAS SHOWN ON PLANS**



LDN6 35/15 LO6AR 120

# LDN6

6" OPEN and WALLWASH LED  
Non-IC  
New Construction Downlight



Overall height varies by lumen package. Reference dimension chart for details.

**Maximum Overall Dimensions** — All dimensions are inches (centimeters) unless otherwise indicated.

Lumen package	(A) Height	(B) Frame height	(C) Aperture	(D) Ceiling opening	(E) Outside diameter	(F) Width	(G) Length
600 lm	6-7/16 (16.4)	5-3/4 (14.6)	6-15/16 (17.6)	7-1/8 (18.1)	7-1/2 (19.1)	12-15/16 (32.8)	10-15/16 (27.8)
1000 lm							
1500 lm							
2000 lm	7-13/16 (19.9)						

**ORDERING INFORMATION** — Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN6 35/15 LO6AR 120

LDN6		35/20		LO6 AR				277		
Series	Color temperature		Lumens <sup>1,2</sup>		Reflector	Trim color		Finish	Voltage	Options
LDN6	27/	2700 K	06	600 lumens	LO6 Open downlight  LW6 Wallwash downlight <sup>1</sup>	AR	Clear	(blank) Semi-specular  LD Matte-diffuse  LS Specular	120	EL Emergency battery pack with integral test switch <sup>6</sup>
	30/	3000 K				PR	Pewter		277	ELR Emergency battery pack with remote test switch <sup>6</sup>
	35/	3500 K	10	1000 lumens		WTR	Wheat			SF Single fuse
	40/	4000 K				GR	Gold			TRW White painted flange <sup>7</sup>
			15	1500 lumens		WR	White <sup>4</sup>		TRBL Black painted flange	
			20	2000 lumens					NPS80EZ nLight® dimming pack controls 0-10V eldoLED drivers. Refer to <a href="#">TN-633</a> .	
									NPS80EZER nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit. Refer to <a href="#">TN-633</a> . <sup>8</sup>	
									RRL___ RELOC®-ready luminaire connectors enables a simple and consistent factory installed option across all ABL luminaire brands. Refer to <a href="#">RRL</a> for complete nomenclature.	
									EZ1 eldoLED dims to 1%	
									CP Chicago plenum <sup>5,9</sup>	

**Accessories:** Order as separate catalog number.

EACISSM 375	Compact interruptible emergency AC power system
EACISSM 125	Compact interruptible emergency AC power system
GRA68 JZ	Oversized trim ring with 8" outside diameter <sup>10</sup>
SCA6	Sloped ceiling adapter. Refer to <a href="#">TECH-SCA</a> for more options.

### Notes

- 1 Approximate lumen output.
- 2 Overall height varies by lumen package. Reference dimension chart on page 1.
- 3 Rated for damp and dry locations only.
- 4 Not available with finishes.
- 5 Not available with emergency options.
- 6 For dimensional changes, refer to chart on page 4. Not available with CP option.
- 7 Not available with WR (white trim color).
- 8 For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
- 9 277 volt CP products require marked spacing. Install with minimal spacing between: (a) Center-to-center of adjacent luminaires: 2 ft.; (b) Top of luminaire to overhead building member: 3 in.; (c) Luminaire center to side of building member: 1 ft.
- 10 Refer to [TECH-GOOF RINGS](#) for more options.

Project 15-21034-1 Date 2/3/2015  
NCH ED6 BACKFILLSubmitted By  
LIGHTING UNLIMITED INCCatalog Number  
LDN6 35/20 LO6AR 277

Notes

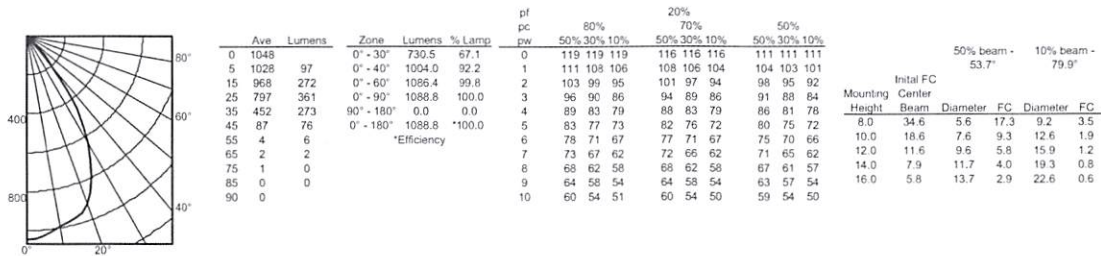
C1

## LDN6

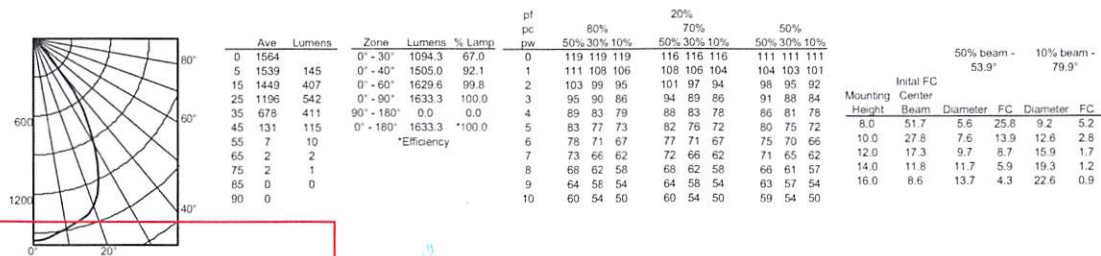
## PHOTOMETRY

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30" Above Floor for a Single Luminaire
--------------------	-------------------	-------------	----------------------------	--

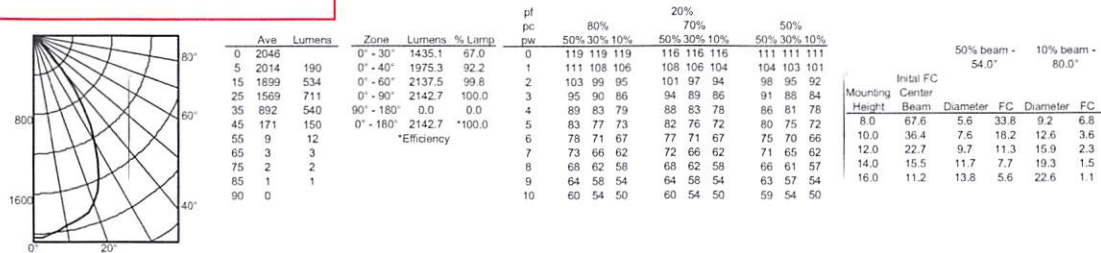
LDN6 35/10 LO6AR 120, input watts: 18, delivered lumens: 1089, LM/W = 61, spacing criterion at 0 = 1.03, test no. LTL25148SL.



LDN6 35/15 LO6AR 120, input watts: 26, delivered lumens: 1633, LM/W = 63, spacing criterion at 0 = 1.03, test no. LTL25146.



LDN6 35/20 LO6AR 120, input watts: 35, delivered lumens: 2143, LM/W = 61, spacing criterion at 0 = 1.04, test no. LTL25144.



## Notes

- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- Actual performance may differ as a result of end-user environment and application.
- Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%.
- CRI: 80 typical.

Project 15-21034-1 Date 2/3/2015  
NCH ED6 BACKFILLSubmitted By  
LIGHTING UNLIMITED INCCatalog Number  
7CRM3L HI 12FT R12 277 EZB SCT LP835 F1/24 C210 ACG

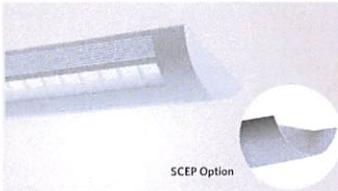
Notes

Type

L1-12'

OWNER SHALL CONFIRM FIXTURE IS DESIRED. THIS WAS DISCUSSED WITH ED HOHMANN OF NCH AS THE INTENDED DIRECTION, BUT THIS SHOULD BE REVIEWED AND APPROVED BY NCH PRIOR TO ORDERING. THIS MATCHES THE SPECIFICATION ON PLANS

Peerless

Cerra 7 LED  
Lightvent  
Indirect

## SPECIFICATIONS

Suspended 7" x 2"

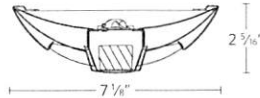
7CRM3L

7CRM3L HI 12 FT R12 277 EZB

SCT LP835 F1/ 24 C210 ACG

## DIMENSIONS

## 7CRM3L



## SPECIFICATIONS

## Construction

Nominal 7" x 2" crescent housing is formed from one-piece cold-rolled steel. Flat end plate standard. Sculptured die-cast aluminum end cap is optional.

## Source

Low (LO) and high (HI) lumen packages and three available color temperature options (3000K, 3500K and 4000K).

## Optics

Softshine™ optical system consists of injection-molded primary optic, high performance film and highly reflective metal reflector.

## Finish

Finish for housing and end caps is white, black or painted aluminum. Consult factory for custom colors.

## Dimming

elddLED® driver provides smooth, flicker-free dim-to-dark dimming down to 0.1%.

## CATALOG NUMBER

## Controls

An nLight® module embedded into the luminaire facilitates Cat-5e wired system networking (ENN8) and constant lumen management (LMES20) at 80% of initial light output. See Page 2 for integrated sensor and system networking options.

## Electrical

LED light engine — consisting of modular LED boards and a 0-10V or DALI dimming driver — is rated for 50,000 hours (L80) at 25° C ambient temperature. Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

## Environment

Damp location label option. Ambient operating temperature 0° C to 35° C.

## Luminaire Length

4', 8', and 12' lengths in a single section for exact suspension spacing of 4', 8', and 12'. For total luminaire length, add 1/8" for each flat end plate or 3" for each sculptured end cap. Using internal joiners, 4', 8', and 12' sections can be joined to form longer length luminaires.

## Validation

CSA/CUS listed. Individual sections are FCC part 15 certified. LM-79 tested. Lighting Facts partner.

## Warranty

Five-year limited warranty coverage includes luminaire construction, LED light engine, driver and nLight control device. Terms and conditions apply.

## Packaging

Recycled cardboard box and inserts. Biodegradable protective luminaire bag. Recycled kraft paper tape.

E.C. SHALL INSTALL LINE AND LOW VOLTAGE CONTROL WIRING AS NEEDED FOR DIMMING CONTROL WITHIN AREAS SHOWN ON PLANS

Examples: 7CRM3L HI 40FT R8 277 120 ENN8 ISE EC SCT LP835 F1/24 C210 LMES20 DSCN1 — 7CRM3L LO 40FT R8 120 EZB SCT LP835 F1/24 C110

7CRM3L	HI	12 FT	R12	277	EZB	SCT		
Luminaire	Light Output <sup>1</sup>	Luminaire Row Length	Maximum Section Length	Voltage	Driver Type/Control Protocol <sup>2</sup>	# of Emergency Modules	Emergency Type <sup>3</sup>	Switching
7CRM3L	LO Low HI High	X FT (4" increments) 12'	R4 4' section(s) R8 8' section(s) R12 12' section(s)	120 277	EZB elddLED 0-10v EDAB elddLED DALI ENN8 elddLED 0-10v; nLight-enabled	(Blank) None 1SE 1 section 2SE 2 sections XSE X sections	(Blank) None EC Emergency circuit	SCT Single circuit
LP835	F1/	24	C210	ACG				
LED Color Temperature	Mounting Type / Overall Suspension	Finish	Options					
LP830 3000K 80+ CRI 17-20+R9 LP835 3500K 80+ CRI 17-20+R9 LP840 4000K 80+ CRI 17-20+R9	F1/ T-bar ceiling (universal mounting bracket) F1A/ T-bar ceiling (UMB with integrated J-box) F2/ Hard ceiling (horizontal J-box)	C10 Painted aluminum (fine textured) C202 Black (fine textured) C210 White white (fine textured) C099 Custom finish	ACG Adjustable cable grippers BLK Black cord, cord manager and canopy CFG Configuration, consult factory for drawings CP Chicago plenum (available with F1A only) DL Damp location label GLR Fusing (fast blow) GMF Fusing (slow blow) LMES20 80% lumen management without networking MCS Matching feed canopy at support OJB Offset junction box SCEP Sculptured end cap SLP Sloped ceiling for 10-45°, must be specified with F2 and OJB options XXXX Integrated sensor; choose options and obtain code on page 2					

## Notes:

- 1 Contact factory for custom light outputs up to 6100
- 2 Selected driver type must be compatible with selected sensor/networking option. See Page 2.
- 3 Emergency type is installed in last 4' of luminaire sections. Separate feed required.

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7CRM3L Cerra 7 LED Lightvent  
Indirect 1

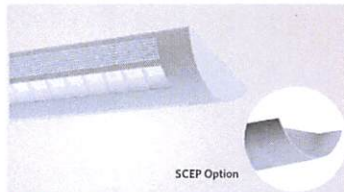
Project 15-21034-1 Date 2/3/2015  
NCH ED6 BACKFILLSubmitted By  
LIGHTING UNLIMITED INCCatalog Number  
7CRM3L HI 16FT R8 277 EZB SCT LP835 F1/24 C210 ACG

Notes

Type

L1-16'

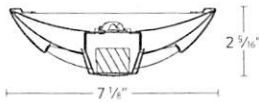
OWNER SHALL CONFIRM FIXTURE IS DESIRED. THIS WAS DISCUSSED WITH ED HOHMANN OF NCH AS THE INTENDED DIRECTION, BUT THIS SHOULD BE REVIEWED AND APPROVED BY NCH PRIOR TO ORDERING. THIS MATCHES THE SPECIFICATION ON PLANS

**Peerless****Cerra 7 LED**  
Lightvent  
Indirect**SPECIFICATIONS**

Suspended 7" x 2"

7CRM3L

7CRM3L HI 16 FT R8 277 EZB SCT LP835 F1/ 24 C210 ACG

**DIMENSIONS****7CRM3L**

Lumen Packages:	Low (LO)			High (HI)		
Color Temperature	3000K	3500K	4000K	3000K	3500K	4000K
Delivered Lumens*	2909	3091	3257	4530	4813	5072
Input Watts*	29	29	29	51	51	52
Lumens Per Watt*	99	102	107	86	91	95

\*per 4' section

**SPECIFICATIONS****Construction**

Nominal 7" x 2" crescent housing is formed from one-piece cold-rolled steel. Flat end plate standard. Sculptured die-cast aluminum end cap is optional.

**Source**

Low (LO) and high (HI) lumen packages and three available color temperature options (3000K, 3500K and 4000K).

**Optics**

Softshine® optical system consists of injection-molded primary optic, high performance film and highly reflective metal reflector.

**Finish**

Finish for housing and end caps is white, black or painted aluminum. Consult factory for custom colors.

**Dimming**

elidoLED® driver provides smooth, flicker-free dim-to-dark dimming down to 0.1%.

**CATALOG NUMBER**

Examples: 7CRM3L HI 40FT R8 277 120 ENNB ISE EC SCT LP835 F1/24 C210 LMES20 D5CNL — 7CRM3L LO 40FT R8 120 EZB SCT LP835 F1/24 C110

<b>7CRM3L</b>	<b>HI</b>	<b>16 FT</b>	<b>R8</b>	<b>277</b>	<b>EZB</b>	<b>SCT</b>		
<b>Luminaire</b>	<b>Light Output<sup>1</sup></b>	<b>Luminaire Row Length</b>	<b>Maximum Section Length</b>	<b>Voltage</b>	<b>Driver Type/Control Protocol<sup>2</sup></b>	<b># of Emergency Modules</b>	<b>Emergency Type<sup>3</sup></b>	<b>Switching</b>
7CRM3L	LO Low HI High	X FT (4' increments) <b>16'</b>	R4 4' section(s) R8 8' section(s) R12 12' section(s)	120 <b>277</b>	EZB elidoLED 0-10v EDAB elidoLED DALI ENNB elidoLED 0-10v; nLight-enabled	(Blank) None 1SE 1 section 2SE 2 sections XSE X sections	(Blank) None EC Emergency circuit	SCT Single circuit
<b>LP835</b>	<b>F1/</b>	<b>24</b>	<b>C210</b>	<b>ACG</b>				
<b>LED Color Temperature</b>	<b>Mounting Type /</b>	<b>Overall Suspension</b>	<b>Finish</b>	<b>Options</b>				
LP830 3000K 80+ CRI 17-20+R9 LP835 3500K 80+ CRI 17-20+R9 LP840 4000K 80+ CRI 17-20+R9	F1/ T-bar ceiling (universal mounting bracket) F1A/ T-bar ceiling (LUMS with integrated J-box) F2/ Hard ceiling (horizontal J-box)	12 12" 18 18" 24 24" 36 36" 48 48" 72 72" XX XX" Overall suspension is measured from ceiling to bottom of luminaire	C10 Painted aluminum (fine textured) C102 Black (fine textured) C210 White white (fine textured) C099 Custom finish	ACG Adjustable cable grippers BLK Black cord, cord manager and canopy CFG Configuration, consult factory for drawings CP Chicago plenum (available with F1A only) DL Damp location label GLR Fusing (fast blow) GMF Fusing (slow blow) LMES20 80% lumen management without networking MCS Matching feed canopy at support OJB Offset junction box SCEP Sculptured end cap SLP Sloped ceiling (for 10-45", must be specified with F2 and OJB options) XXXX Integrated sensor, choose options and obtain code on page 2				

**Notes:**

- 1 Contact factory for custom light outputs up to 6100.
- 2 Selected driver type must be compatible with selected sensor/networking option. See Page 2.
- 3 Emergency type is installed in last 4' of luminaire sections. Separate feed required.

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7CRM3L Cerra 7 LED Lightvent Indirect **1**

E.C. SHALL INSTALL LINE AND LOW VOLTAGE CONTROL WIRING AS NEEDED FOR DIMMING CONTROL WITHIN AREAS SHOWN ON PLANS

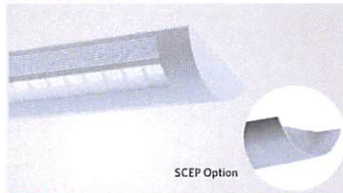
Project 15-21034-1 Date 2/3/2015  
NCH ED6 BACKFILLSubmitted By  
LIGHTING UNLIMITED INCCatalog Number  
7CRM3L HI 28FT R12 277 EZB SCT LP835 F1/24 C210 ACG

Notes

Type

L-28'

OWNER SHALL CONFIRM FIXTURE IS DESIRED. THIS WAS DISCUSSED WITH ED HOHMANN OF NCH AS THE INTENDED DIRECTION, BUT THIS SHOULD BE REVIEWED AND APPROVED BY NCH PRIOR TO ORDERING. THIS MATCHES THE SPECIFICATION ON PLANS

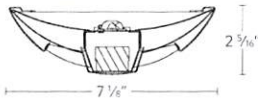
**Peerless****Cerra 7 LED**  
Lightvent  
Indirect**SPECIFICATIONS**

Suspended 7" x 2"

7CRM3L

7CRM3L HI 28 FT R12 277 EZB

SCT LP835 F1/ 24 C210 ACG

**DIMENSIONS****7CRM3L**

Lumen Packages:	Low (LO)			High (HI)		
Color Temperature	3000K	3500K	4000K	3000K	3500K	4000K
Delivered Lumens*	2909	3091	3257	4530	4813	5072
Input Watts*	29	29	29	51	52	52
Lumens Per Watt*	99	102	107	86	91	95

\*per 4' section

**SPECIFICATIONS****Construction**

Nominal 7" x 2" crescent housing is formed from one-piece cold-rolled steel. Flat end plate standard. Sculptured die-cast aluminum end cap is optional.

**Source**

Low (LO) and high (HI) lumen packages and three available color temperature options (3000K, 3500K and 4000K).

**Optics**

Softshine® optical system consists of injection-molded primary optic, high performance film and highly reflective metal reflector.

**Finish**

Finish for housing and end caps is white, black or painted aluminum. Consult factory for custom colors.

**Dimming**

elidoLED® driver provides smooth, flicker-free dim-to-dark dimming down to 0.1%.

**CATALOG NUMBER**

Examples: 7CRM3L HI 40FT R8 277 120 ENNB ISE EC SCT LP835 F1/24 C210 LMES20 DSCNL — 7CRM3L LO 40FT R8 120 EZB SCT LP835 F1/24 C110

<b>7CRM3L</b>	<b>HI</b>	<b>28 FT</b>	<b>R12</b>	<b>277</b>	<b>EZB</b>	<b>SCT</b>
<b>Luminaire</b>	<b>Light Output<sup>1</sup></b>	<b>Luminaire Row Length</b>	<b>Maximum Section Length</b>	<b>Voltage</b>	<b>Driver Type/Control Protocol<sup>2</sup></b>	<b># of Emergency Modules</b>
<b>7CRM3L</b>	<b>LO Low</b> <b>HI High</b>	<b>X FT</b> (4' increments) <b>28'</b>	<b>R4</b> 4' section(s) <b>R8</b> 8' section(s) <b>R12</b> 12' section(s)	<b>120</b> <b>277</b>	<b>EZB</b> elidoLED 0-10v <b>EDAB</b> elidoLED DALI <b>ENNB</b> elidoLED 0-10v; nLight-enabled	<b>(Blank) None</b> <b>ISE</b> 1 section <b>ZSE</b> 2 sections <b>XSE</b> X sections
<b>Emergency Type<sup>3</sup></b>	<b>Switching</b>					
<b>(Blank) None</b> <b>EC</b> Emergency circuit	<b>SCT</b> Single circuit					
<b>LP835</b>						
<b>LED Color Temperature</b>	<b>Mounting Type /</b>	<b>Overall Suspension</b>	<b>Finish</b>			
<b>LP830</b> 3000K 80+ CRI 17-20+R9	<b>F1/</b> T-bar ceiling (universal mounting bracket)	<b>12</b> 12"	<b>C110</b> Painted aluminum (fine textured)			
<b>LP835</b> 3500K 80+ CRI 17-20+R9	<b>F1A/</b> T-bar ceiling (UMB with integrated I-box)	<b>24</b> 24"	<b>C202</b> Black (fine textured)			
<b>LP840</b> 4000K 80+ CRI 17-20+R9	<b>F2/</b> Hard ceiling (horizontal I-box)	<b>36</b> 36"	<b>C210</b> White white (fine textured)			
		<b>48</b> 48"	<b>C099</b> Custom finish			
		<b>72</b> 72"				
		<b>XX</b> XX"				
Overall suspension is measured from ceiling to bottom of luminaire						
<b>Options</b>						
<b>ACG</b> Adjustable cable grippers						
<b>BLK</b> Black cord, cord manager and canopy						
<b>CFG</b> Configuration, consult factory for drawings						
<b>CP</b> Chicago plenum (available with F1A only)						
<b>DL</b> Damp location label						
<b>GLR</b> Fusing (fast blow)						
<b>GMF</b> Fusing (slow blow)						
<b>LMES20</b> 80% lumen management without networking						
<b>MCS</b> Matching feed canopy at support						
<b>OJB</b> Offset junction box						
<b>SCEP</b> Sculptured end cap						
<b>SLP</b> Sloped ceiling (for 10-45°, must be specified with F2 and OJB options)						
<b>XXXX</b> Integrated sensor; choose options and obtain code on page 2						


**Notes:**

- Contact factory for custom light outputs up to 6100
- Selected driver type must be compatible with selected sensor/networking option. See Page 2
- Emergency type is installed in last 4' of luminaire sections. Separate feed required

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7CRM3L Cerra 7 LED Lightvent  
Indirect

 <b>LIGHTING UNLIMITED</b>	Project 15-21034-1 Date 2/3/2015 NCH ED6 BACKFILL	Catalog Number AF 2 32 MVOLT GEB10IS	Type
	Submitted By LIGHTING UNLIMITED INC	Notes <div>OK</div>	S1



## FEATURES & SPECIFICATIONS

**INTENDED USE** — For applications that require medium to high light levels such as manufacturing, warehousing, storage, retail or task lighting. Ideal for mounting heights up to 25'.

**Attributes:** Heavy-duty design for demanding industrial environments. Pressure-lock lampholders enclosed in snap-in turret housing. Available in 4' or 8' lengths. 6" lamp spacing of 2-lamp models, 3" lamp spacing on 3-lamp models. Solid top, 10% or 20% upright reflectors available, painted after fabrication.

**CONSTRUCTION** — Die-embossed reflector constructed of heavy gauge cold-rolled steel.

**Finish:** Five-stage iron-phosphate pretreatment ensures superior paint adhesion and rust resistance. Finish is high-gloss baked white enamel.

**ELECTRICAL** — Thermally protected, resetting, Class P, HPF, UL listed, CSA Certified ballast is standard. Energy saving and electronic ballasts are sound rated A.

Fixture is suitable for damp locations. AWM, TFM or THHN wire used throughout, rated for required temperatures.

**INSTALLATION** — For surface or suspended mounting, unit or row installation.

**LISTINGS** — UL Listed for 25°C ambient temperatures. 120V, 277V and MVOLT are UL Listed and CSA Certified (standard). 347V is CSA Certified (see Options). NOM Certified (see Options).

**WARRANTY** — 1-year limited warranty. Full warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx).

Ballast warranties provided through the component manufacturers.

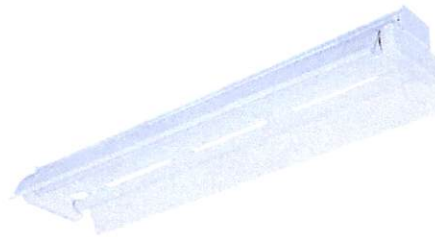
Actual performance may differ as a result of end-user environment and application.

Note: Specifications subject to change without notice.

### Heavy-Duty Turret Industrial

# AF

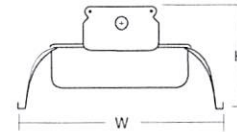
4' or 8' lengths  
1, 2, 3 or 4 lamps



#### Specifications

Length: 49-13/16 (126.5) or  
99-5/8 (253.0)  
Width: 13-3/8 (34.0)  
Height: 6-5/8 (16.8)

All dimensions are inches (centimeters)  
unless otherwise indicated.



### ORDERING INFORMATION

For shortest lead times, configure product using **bolded options**.

Example: AF 3 32 MVOLT GEB10IS

AF	2	32	MVOLT	GEB10IS	
Series	Number of lamps	Lamp type	Voltage	Options	
AFST Solid reflector	1	<b>32</b> 32W T8 (48")	<b>120</b>	<b>Shipped installed in fixture</b>	
AF10 10% upright apertured reflector	<b>2</b>	48 38W T12 slimline (48")	<b>277</b>	GEB Electronic ballast, ≤20% THD <sup>1</sup>	PLF_ Plug-in wiring. Specify 1, 2 or 3 branch circuits & hot wires (A = black, B = red, C = blue, AB or AC)
<b>AF 20% upright apertured reflector</b>	<b>3</b>	96T8 59W T8 slimline (96")	347	<b>GEB10IS</b> T8 electronic ballast, ≤10% THD, instant start	TILW Tandem in-line wiring CSA CSA Certified (347V only)
For tandem double-length unit, add prefix T. Example: TAF10	4	<b>HO lamps</b>	<b>MVOLT</b>	<b>GEB10RS</b> T8 electronic ballast, ≤10% THD, rapid start <sup>2</sup>	
	Not included	48HO 60W T12 800MA (48")		GEB10PS Electronic ballast, ≤10% THD, programmed start	
		48T8HD 60W T8 slimline (48")		EL Emergency battery pack (nominal 300 lumens), see Life Safety Section <sup>3</sup>	
		96HO 110W T12 800mA (96")		GLR Internal fast-blow fusing (add X for external) <sup>3</sup>	
		96T8HO 86W T8 300mA (96")		GMF Internal slow-blow fusing (add X for external) <sup>3</sup>	

### Accessories

Order as separate catalog number

ACEP	Full-depth endplates (1 pair)
HRUN	Hooker™ T-bar hanger for 5" channel (flush to ceiling)
HRUN1	Hooker™ T-bar hanger for 5" channel (1-1/2" from ceiling)
SQ_	Swivel stem hanger (specify length in 2" increments)
1B	Ceiling spacer (1-1/2" to 2-1/2" from ceiling).
HC36	Chain hangers (1 pair, 36" long).
THUN	Tong hanger for 5" channel
WGAFPV	Wireguard, 4" white (order 2 for 8' fixtures)
DLAF ME	4' 30" x 30" metal eggcrate louver (order 2 for 8' fixtures)
DLAF A12	4' framed acrylic prismatic lens (order 2 for 8' fixtures)

#### Notes

- 1 Available for 96 (T12) and 48HO (T12).
- 2 Available for 96HO and 347V.
- 3 Specify voltage.



Type
------

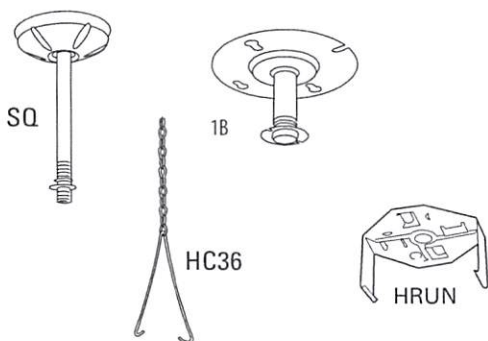
S1

## AF

For unit or row installation. Surface or stem mounting.<sup>1</sup>

**UNIT INSTALLATION** — Minimum of two hangers required.

**ROW INSTALLATION** — One hanger per fixture plus one per row required.



A = 1/4 x 1/2 (64 x 13) Oval Hole

C = 7/8 (22) Dia.K.O.

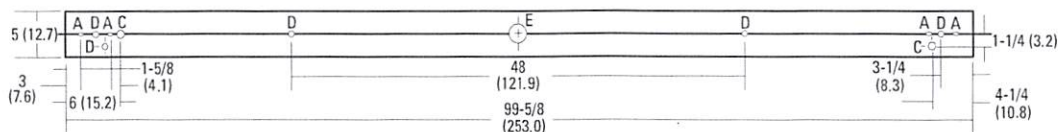
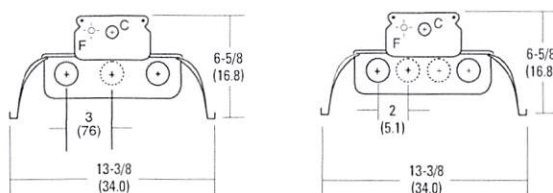
D = 11/16 (17) Dia. K.O.

E = 2 (51) Dia. K.O.

F = 7/16 (111) Dia. K.O.

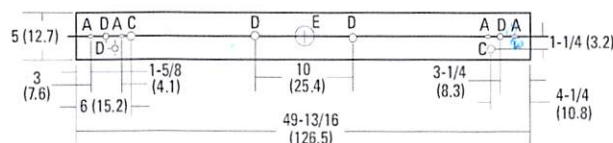
All dimensions are inches (millimeters).

*Specifications subject to change without notice.*



Energy (Calculated in accordance with NEMA standard LE-5)					
LER.FW	ANNUAL ENERGY COST*	LAMP DESCRIPTION	LAMP LUMENS	BALLST FACTOR	WATTS
74	\$3.24	(2) F32T8	2800	.88	60

\*Calculated in accordance with NEMA Standards LE-5.



Calculated using the zonal cavity method in accordance with IESNA LM41 procedure. Floor reflectances are 20%. Lamp configurations shown are typical. All data based on 25°C. Full photometric data on these and other configurations available upon request.

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S/MH 1.4

### Coefficient of Utilization

	80%			70%			50%		
Ceiling	70%	50%	30%	70%	50%	30%	50%	30%	10%
Wall									
1	94	90	86	90	86	83	79	76	74
2	86	79	73	82	75	70	69	65	61
3	78	69	62	74	66	60	61	56	52
4	72	61	54	68	59	52	54	48	44
5	65	54	46	62	52	44	48	41	37
10	43	31	24	41	30	23	28	22	18

### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixture
0-30	998	17.2	19.0
0-40	1677	28.9	31.9
0-60	3126	53.9	59.6
0-90	4074	70.2	77.6
90-180	1175	20.3	22.4
0-180	5249	90.5	100.0



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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**4/26/2018 1:41:27 PM**

**in**

**Case No(s). 18-0045-EL-EEC**

Summary: Application Nationwide Children's Hospital and Ohio Power Company for approval of a special arrangement agreement with a mercantile customer  
electronically filed by Julie E Sanders on behalf of Ohio Power Company