



Ecug'Pq0'35/3379/GN/GGE

Mercantile Customer: Little Miami Joint Fire

Electric Utility: Duke Energy

**Program Title or
Description: Lighting (Custom)**

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: Mercantile Customer Information

Name: **Little Miami Joint Fire and Rescue**

Principal address: **7036 Main Street Newtown Ohio 45244**

Address of facility for which this energy efficiency program applies:

7036 Main Street Newtown Ohio 45244

Name and telephone number for responses to questions:

Grady Reid Jr 513-287-1038

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

- ☐ The customer uses more than seven hundred thousand kilowatt hours per year at the above facility.
- ✓ The customer is part of a national account involving multiple facilities in one or more states. (**Refer to Appendix A for documentation.**)

Section 2: Application Information

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

- ☐ Individually, without electric utility participation.
- ✓ **Jointly with the electric utility.**

B) The electric utility is: **Duke Energy**

C) The customer is offering to commit (check any that apply):

- ☐ Energy savings from the customer's 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 capacity savings 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 (check those that apply):

- ☐ 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): **January 2012.**
- ☐ Behavioral or operational improvement.

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

- 1) If you checked the box indicating that the 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 the customer 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 any less efficient new equipment that was rejected in favor of the more efficient new equipment.

- 3) If you checked the box indicating that the 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: **8,055 kWh**
Refer to Appendix B for calculations and supporting document

Please describe the less efficient new equipment that was 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):
 - ☐ 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?

January 2012

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

0.92 kW

Refer to Appendix B for calculations and supporting documentation.

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 energy efficiency 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 **\$320.00. Refer to Appendix C for documentation.** (Rebate shall not exceed 50% project cost.

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 the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 24 month period, the customer 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 **7.74** (Skip to Subsection 2.) **Refer to Appendix D for calculations and supporting documents.**

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 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 **\$4080.00**.

The utility's program costs were **\$207.00**.

The utility's incentive costs/rebate costs were **\$320.00**.

Refer to Appendix D for calculations and supporting documents.

Section 7: Additional Information

Please attach the following supporting documentation to this application:

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

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

- 1) any confidentiality requirements associated with the agreement;
- 2) a description of any consequences of noncompliance with the terms of the commitment;
- 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
- 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,
- 5) a commitment by the customer to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.

Refer to Offer Letter following this application

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.



DUKE ENERGY
Mercantile Self Direct Program
139 East Fourth Street
Cincinnati, OH 45202
513 629 5572 fax

April 3, 2013

Mr. Terry Ramsey
Little Miami Joint Fire and Rescue
7036 Main Street
Newtown, Ohio 45244

Subject: Your **CUSTOM** Application for a Duke Energy Mercantile Self-Direct Rebate

Dear Mr. Ramsey:

Thank you for your Duke Energy Mercantile Self Direct rebate application. As noted in the Energy Conservation Measure (ECM) chart on page two, a total rebate of \$320.00 has been proposed for your lighting project completed in the 2012 calendar year. **All Self Direct Rebates are contingent upon approval by the Public Utilities Commission of Ohio (PUCO).**

At your earliest convenience, please indicate if you accept this rebate by

- providing your signature on page two
- completing the PUCO-required affidavit on page three.

Please return the documents to my attention via fax at 513-629-5572 or e-mail to SelfDirect@Duke-Energy.com. Upon receipt, Duke Energy will submit the necessary documentation to PUCO. Following PUCO's approval, Duke Energy will remit payment.

At Duke Energy, we value your business and look forward to working with you on this and future energy efficiency projects. We hope you will consider our Smart Saver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Grady Reid, Jr.", written in a cursive style.

Grady Reid, Jr
Product Manager
Mercantile Self Direct Rebates

cc: Marvin Blade, Duke Energy
Rob Jung, Ecova
Neil Wittberg, Plug Smart

Please indicate your response to this rebate offer within 30 days of receipt.

☒ Rebate is accepted.

☐ Rebate is declined.

By accepting this rebate, Little Miami Joint Fire and Rescue affirms its intention to commit and integrate the energy efficiency projects listed on the following pages into Duke Energy's peak demand reduction, demand response and/or energy efficiency programs.

Additionally, Little Miami Joint Fire and Rescue also agrees to serve as joint applicant in any future filings necessary to secure approval of this arrangement as required by PUCO and to comply with any information and reporting requirements imposed by rule or as part of that approval.

Finally, Little Miami Joint Fire and Rescue affirms that all application information submitted to Duke Energy pursuant to this rebate offer is true and accurate. Information in question would include, but not be limited to, project scope, equipment specifications, equipment operational details, project costs, project completion dates, and the quantity of energy conservation measures installed.

If rebate is accepted, will you use the monies to fund future energy efficiency and/or demand reduction projects?

☒ YES

☐ NO

If rebate is declined, please indicate reason (optional):


Customer Signature

TERRY RAMSEY
Printed Name

4-16-13
Date

Proposed Rebate Amounts

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	Installed High Efficiency Lighting Fixtures which included pinned CFL and T8 (Qty – 184)	\$320.00
Total		\$320.00



Public Utilities
Commission

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

Case No.: ____ - ____ -EL-EEC

State of _____ :

PERRY RAMSEY, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

LITTLE MIAMI JOINT FIRE & RESCUE DISTRICT

[insert customer or EDU company name and any applicable name(s) doing business as]

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.
3. I am aware of fines and penalties which may be imposed under Ohio Revised Code Sections 2921.11, 2921.31, 4903.02, 4903.03, and 4903.99 for submitting false information.

[Signature] FIRECHIEF
Signature of Affiant & Title

Sworn and subscribed before me this 16th day of APRIL,
2013 Month/Year

[Signature]
Signature of official administering oath

CHARLENE C. METZGER
Print Name and Title NOTARY

CHARLENE C. METZGER
Notary Public, State of Ohio
My Commission Expires 01-03-2016

My commission expires on _____

06802074 03				80600576 20		
LITTLE MIAMI JOINT FIRE				LITTLE MIAMI JOINT FIRE AND		
7036 MAIN				6904 MURRAY		
CINCINNATI, OH 45244				CINCINNATI, OH 45227		
Date	Days	Actual KWH		Date	Days	Actual KWH
12/13/2012	31	12,720		11/16/2012	29	3,860
11/12/2012	31	12,960		10/18/2012	29	4,159
10/12/2012	29	14,320		9/19/2012	30	6,999
9/13/2012	30	18,640		8/20/2012	31	7,995
8/14/2012	29	18,880		7/20/2012	30	8,284
7/16/2012	32	20,080		6/20/2012	30	6,869
6/14/2012	30	15,920		5/21/2012	31	5,646
5/15/2012	29	13,600		4/20/2012	30	4,343
4/16/2012	32	13,680		3/21/2012	29	4,436
3/15/2012	29	11,760		2/21/2012	29	4,603
2/15/2012	29	12,720		1/23/2012	34	5,378
1/17/2012	34	15,600		12/20/2011	32	4,922
Totals		180,880				67,494

[illegible]

Nov 2012 V2

Salesforce Opportunity Name 0
Project Name Little Miami Joint Fire and Rescue- MSD Custom - High Efficiency Lighting

Application # LUT01
LUT01-LMBFORD-NC HE Lights

Rev. 1
State OH

Measure Description

This measure involves the new installation of 184 high efficiency lighting fixtures, which use a lower total wattage when compared to fixtures based on standard lighting power densities (LPD) for the area types listed. The installed fixture types include pinned CFLs and linear fluorescent T8 fixtures.

Baseline

Baseline usage is based on ASHRAE 90.1-2007 standard lighting power densities for the area types provided. The submitted LPD was 0.94 watts/sf but the verified LPD was found to be 0.93 watts/sf when sourcing ASHRAE standards. The result was an overall decrease in baseline demand and annual kWh.

Savings Calculation Methodology

Savings are calculated in a slightly different manner than a typical lighting table. Due to the method of comparing baseline LPDs and actual proposed fixture quantities a line by line calculation was not suitable. Instead, a whole building lighting kWh was used to determine lighting savings. The facility is stated to operate 8,760 hours per year, however sleeping quarters were modified to turn off 6 hours per day on average to account for time spent sleeping. This daily estimate of hours of sleep is based on a firefighter sleep study conducted by the IAF report conducted in 2007.

Incremental Measure Cost (IMC)

A cost estimate for the alternative baseline was provided as \$5,915.64 and the measure cost was identified as the invoiced line item for "Branch Lighting Fixtures" at \$32,000.00. The resulting incremental cost is \$26,084.36.

IMC Calculation

IMC (\$)	Baseline Cost (\$)	Measure Cost (\$)
\$26,084.36	\$5,915.64	\$32,000.00

References to source documents/back up files as appropriate

LITTLE MIAMI JOINT FIRE AND RESCUE DISTRICT_APP ATTACHMENTS_01082013 (E).pdf
LITTLE MIAMI JOINT FIRE AND RESCUE DISTRICT_COUNTSHEET_01082013 (E).xls
LITTLE MIAMI JOINT FIRE AND RESCUE DISTRICT_LIGHTING WKST_01082013 (E).xls
little miami joint fire and rescue district_specs_01142013.pdf

Savings Calculations

Attached Files
Equipment Specs
Calculations
Cost Documentation



Room #	Type	Area (sf)	LPD (watts/sf)	Baseline kW	Baseline kWh	Fixture wattage	84	58	84	84	84	58	58	58	84	110	74	55	25	15	28	35	47	47	2.7
						Fixture type	A1	B1	B2	B3	B3D	B4	B4D	B5	B6	B7	C1	D1	D2	D3	F1	F2	F3	F4	X1
100	Fire Station Engine Room	6308	0.8	5.05	44,206.46																				1
102	Fire Station Engine Room	943	0.8	0.75	6,608.54			10									54								2
103	Locker	218	0.6	0.13	1,145.81										2										
104	Locker	280	0.6	0.17	1,471.68									4											
105	Storage	87	0.8	0.07	609.70									1											
106	Office	84	1.1	0.10	905.78									1											
115/113	Dining	583	0.9	0.52	4,596.37		32																		
107	Locker	170	0.8	0.14	1,191.36			2																	
108	Restroom	97	0.9	0.09	764.75													1					1		
109	Restroom	97	0.9	0.09	764.75													1					1		
111	Exercise Area	315	0.9	0.28	2,483.46			4																	
112	Hall	714	0.5	0.36	3,127.32					5									5				3		3
110/114	Mech/Elec	155	1.5	0.23	2,036.70												2								
116	Fire Station Sleeping	524	0.3	0.16	1,032.80					10										11					
117	Restroom	55	0.9	0.05	433.62													1							
118	Restroom	49	0.9	0.04	386.32													1							
119	Office	174	1.1	0.19	1,676.66					2															
120	Lobby	98	1.3	0.13	1,116.02																			2	
121	Lobby	462	1.3	0.60	5,261.26																			14	
122	Office	86	1.1	0.09	828.70								1												
123	Storage	190	0.8	0.15	1,331.52			3																	
124	Conference Room	1115	1.3	1.45	12,697.62						6	1	8												
126	Office	206	1.1	0.23	1,985.02					3															
mezz	Office	943	1.1	1.04	9,086.75																				
TOTALS		13963		12.11	105,748.97	Total Fixtures/fixture type	12	19	0	20	6	2	8	6	2	0	62	4	5	11	0	2	3	16	6
			0.93			Total kW/fixture type	1.008	1.102	0	1.68	0.504	0.116	0.464	0.348	0.168	0	4.588	0.22	0.125	0.165	0	0.07	0.141	0.752	0.0162
						Total kWh/fixture type	8830.08	9653.52	0	12877.2	4415.04	1016.16	4064.64	3048.48	1471.68	0	40190.88	1927.2	1095	1084.05	0	613.2	1235.16	6587.52	141.912
							97.09	22.87	48.98	64.3	22.87	22.87	22.87	22.87	48.98	22.87	22.87	22.87	17.5	22.87	17.5	20.5	20.5	25.99	0
						Alt cost	1165.08	434.53	0	1286	137.22	45.74	182.96	137.22	97.96	0	1417.94	91.48	87.5	251.57	0	35	61.5	328	155.94

Alt cost 1165.08
434.53
0
1286
137.22
45.74
182.96
137.22
97.96
0
1417.94
91.48
87.5
251.57
35
61.5
328
155.94

Summary	kW	kWh
Baseline	12.11	105,748.97
Proposed	11.47	98,251.72
Savings	0.64	7,497.25

Costs	
Per Invoice	\$ 32,000.00
Baseline est. cost	\$ 5,915.64

Alternate Building plans				Alternate	Watt	Cost Per	Cost total
A1	12	Day-Brite	LA240C777-EB-WTAR19-LJA-RD-WT	250w MH Low bay	295	\$97.09	\$1,165.08
B1	19	COLUMBIA	STR24-232G-FAA12-125-EU	21 32w T8	54	\$22.87	\$434.53
B2	20	COLUMBIA	STR24-332G-FAA12-125-EU	41 32w T8	83	\$48.98	\$50.00
B3	6	COLUMBIA	STR24-332G-MPO-EU	41 32w T8	109	\$64.30	\$1,286.00
B3D	6	COLUMBIA	STR24-332G-MPO-EDU	21 32w T8	54	\$22.87	\$137.22
B4	2	COLUMBIA	STR24-232G-MPO-EU	21 32w T8	54	\$22.87	\$45.74
B4D	8	COLUMBIA	STR24-232G-MPO-EDU	21 32w T8	54	\$22.87	\$182.96
B5	6	COLUMBIA	PM24-232-FAA12-187-EU	21 32w T8	54	\$22.87	\$137.22
B6	2	COLUMBIA	PM24-332-FAA12-187-EU	41 32w T8	83	\$48.98	\$97.96
B7	0	COLUMBIA	STR24-432G-FAA12-125M-EU	21 32w T8	54	\$22.87	\$0.00
C1	62	COLUMBIA	K14-232-U-EU-KLW6	21 32w T8	54	\$22.87	\$1,417.94
D1	4	COLUMBIA	P14-232-EU	21 32w T8	54	\$22.87	\$91.48
D2	5	Step-Line	ALE-WH	30w Inc	30	\$17.50	\$87.50
D3	11	COLUMBIA	WA12-117-EU-PSW	21 32w T8	54	\$22.87	\$251.57
F1	2	PRESCOUTE	CF7832HEB-WTFR0255 (26 watt)	75w Inc	75	\$17.50	\$0.00
F2	9	PRESCOUTE	CF7832HEB-WTFR0255 (32 watt)	100w Inc	100	\$17.50	\$155.00
F3	3	PRESCOUTE	CF7832HEB-WTFR0255 (42 watt)	150w Inc	150	\$20.50	\$61.50
F4	16	PRESCOUTE	CF7832HEB-WTFR0255 SCA60 (42 watt)	150w Inc	150	\$20.50	\$328.00
X1	6	Dual-Lite	Series LX	30w Inc	30	\$25.99	\$155.94
OPS (occ sensor)	36			NONE	0	\$0.00	\$0.00

Appendix C -Cash Rebate Calculation

Little Miami Joint Fire and Rescue

Measure	Quantity	Cash Rebate Rate	Cash Rebate
Installed High Efficiency Lighting Fixtures which included pinned CFL and T8 (Qty – 184)	1	50% of incentive that would be offered by the Smart \$aver Custom program	\$320
			\$320

Appendix D -UCT Value

Little Miami Joint Fire and Rescue

Measure	Total Avoided Cost	Program Cost	Incentive	Quantity	Measure UCT
Installed High Efficiency Lighting Fixtures which included pinned CFL and T8 (Qty – 184)	\$4,080	\$207	\$320	1	7.74
Totals	\$4,080	\$207	\$320	1	

Total Avoided Supply Costs	\$4,080	Aggregate Application UCT	7.74
Total Program Costs	\$207		
Total Incentive	\$320		

Ohio Mercantile Self Direct Program

Application Guide & Cover Sheet

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email this form along with completed Mercantile Self Direct Prescriptive or Custom applications, proof of payment, energy savings calculations and spec sheets to SelfDirect@Duke-Energy.com. You may also fax to 1-513-629-5572.

Mercantile customers, defined as using at least 700,000 kWh annually are eligible for the Mercantile Self Direct program. Please indicate mercantile qualification:

- ☒ a single Duke Energy Ohio account
☐ multiple accounts in Ohio (energy usage with other utilities may be counted toward the total)

Please list Duke Energy account numbers below (attach listing of multiple accounts and/or billing history for other utilities as required):

Account Number	Annual Usage	Account Number	Annual Usage

Self Direct rebates are available for completed Custom projects that have not previously received a Duke Energy Smart Saver® Custom Incentive. Self Direct incentives are applicable to Prescriptive measures that were installed more than 90 days prior to submission to Duke Energy and have not previously received a Duke Energy Prescriptive rebate.

Self Direct Program requirements dictate that certain projects that may be Prescriptive in nature under the Smart Saver program must be evaluated using the Custom process. Use the table on page two as a guide to determine which Self Direct program fits your project(s). Apply for Self Direct projects using the appropriate application forms in conjunction with this cover sheet. Where Mercantile Self Direct Prescriptive applications are listed, please refer to the measure list on that application. If your measure is not listed, you may be eligible for a Self Direct Custom rebate. Self Direct Custom applications, like Smart Saver Custom applications, should include detailed analysis of pre-project and post-project energy usage and project costs. Please indicate which type of rebate applications are included in the table provided on page two.

Please check each box to indicate completion of the following program requirements:

<input checked="" type="checkbox"/> All sections of appropriate application(s) are completed	<input checked="" type="checkbox"/> Proof of payment.*	<input checked="" type="checkbox"/> Manufacturer's Spec sheets	<input checked="" type="checkbox"/> Energy model/calculations and detailed inputs for Custom applications
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* If a single payment record is intended to demonstrate the costs of both Prescriptive & Custom projects, please include an additional document with an estimated breakout of costs for each Prescriptive and Custom energy conservation measure.

Application Type	Replaced equipment at end of lifetime or because equipment failed**	Replaced fully operational equipment to improve efficiency***	New Construction
Lighting	MSD Custom Part 1 <input type="checkbox"/> Custom Lighting Worksheet <input type="checkbox"/>	MSD Prescriptive Lighting <input type="checkbox"/>	MSD Prescriptive Lighting <input type="checkbox"/>
		MSD Custom Part 1 <input type="checkbox"/> Custom Lighting Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input checked="" type="checkbox"/> Custom Lighting Worksheet <input checked="" type="checkbox"/>
Heating & Cooling	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Prescriptive Heating & Cooling <input checked="" type="checkbox"/>
			MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>
Window Films, Programmable Thermostats, & Guest Room Energy Management Systems	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General and/or EMS Worksheet(s) <input type="checkbox"/>	MSD Prescriptive Heating & Cooling <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General and/or EMS Worksheet(s) <input type="checkbox"/>
Chillers & Thermal Storage	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Prescriptive Chillers & Thermal Storage <input type="checkbox"/>
			MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>
Motors & Pumps	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Prescriptive Motors, Pumps & Drives <input type="checkbox"/>
			MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>
VFDs	Not Applicable	MSD Prescriptive Motors, Pumps & Drives <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom VFD Worksheet <input type="checkbox"/>
		MSD Custom Part 1 <input type="checkbox"/> MSD Custom VFD Worksheet <input type="checkbox"/>	
Food Service	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Prescriptive Food Service <input type="checkbox"/>
			MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>
Air Compressors	MSD Custom Part 1 <input type="checkbox"/> MSD Custom Compressed Air Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom Compressed Air Worksheet <input type="checkbox"/>	MSD Prescriptive Process <input type="checkbox"/>
			MSD Custom Part 1 <input type="checkbox"/> MSD Custom Compressed Air Worksheet <input type="checkbox"/>
Process	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	MSD Prescriptive Process <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>
		MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>	
Energy Management Systems	MSD Custom Part 1 <input type="checkbox"/> MSD Custom EMS Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom EMS Worksheet <input type="checkbox"/>	MSD Custom Part 1 <input type="checkbox"/> MSD Custom EMS Worksheet <input type="checkbox"/>
Chiller Tune-ups	MSD Prescriptive Chiller Tune-ups <input type="checkbox"/>		
Behavioral*** & No/Low Cost	MSD Custom Part 1 <input type="checkbox"/> MSD Custom General Worksheet <input type="checkbox"/>		

** Under the Self Direct program, failed equipment and equipment at the end of its useful life are evaluated differently than early replacement of fully functioning equipment. **All equipment replacements due to failure or old age will be evaluated via the Custom program.**

*** Please ensure that you include the age of the replaced equipment for measures classified as "Early Replacement" in your application as well as the estimated date that you would have otherwise replaced the existing equipment if you had not chosen a more energy efficient option.

**** Behavioral energy efficiency and demand reduction projects must be both measurable and verifiable. Provide justification with your application.

Mercantile Self Direct Nonresidential Custom Rebate Application PART 1



Proposed energy efficiency measures may be eligible for Self-Direct Custom rebates if they clearly reduce electrical consumption and/or demand as compared to the appropriate baseline.

Before you complete this application, please note the following important criteria:

- Submitting this application does not guarantee a rebate will be approved.
- Rebates are based on electricity conservation only.
- Electric demand and/or energy reductions must be well documented with auditable calculations.
- Incomplete applications cannot be reviewed; all fields are required.

Refer to the complete list of Instructions and Disclaimers, beginning on page 6.

Notes on the Application Process

If you have any questions concerning how to complete any portion of the application or what supplementary information is required, please contact your Duke Energy Ohio, Inc account manager or the Duke Energy Smart Saver® team at 1-866-380-9580.

Every application must include calculations of the baseline electrical usage and the electrical usage of the proposed high-efficiency equipment/system. Monthly calculations are best. You, the Duke Energy Ohio customer, or your equipment vendor / engineer should perform these calculations and submit them to Duke Energy for review. *We strongly encourage the use of modeling software (such as eQuest or comparable) for complex projects.*

Upon receipt of your application, an acknowledgement email will be sent to you with an estimated response time based on an initial assessment of your application. The application review may include some communication to resolve any questions about the project or to request additional information. Applications that are received complete without missing information have a faster review time.

There are two ways to submit your completed application.

Email your scanned form to: SelfDirect@duke-energy.com

Or, fax your form to 513-629-5572

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



1. Contact Information (Required)

Duke Energy Customer Contact Information					
Company Name	Little Miami Joint Fire and Rescue District				
Address	7036 Main Street				
Project Contact	Terry Ramsey				
City	Newtown	State	OH	Zip Code	45244
Title	Fire Chief				
Office Phone	513-200-4275	Mobile Phone		Fax	
E-mail Address	tramsey@lmfr.org				

Equipment Vendor / Contractor / Architect / Engineer Contact Information					
Company Name	Plug Smart				
Address	1275 Kinnear Rd, Suite 229				
City	Columbus	State	OH	Zip Code	43212
Project Contact	Neil Wittberg				
Title	Energy Engineer				
Office Phone	614-949-5616	Mobile Phone		Fax	1-800-518-5576
E-mail Address	neil.wittberg@plugsmart.com				
Describe Role	ensures rebate is correctly applied for				

Payment Information					
Payee Legal Company Name (as shown on Federal income tax return):	Little Miami Joint Fire and Rescue District				
Mailing Address	7036 Main Street				
City	Newtown	State	OH	Zip Code	45244
Type of organization (check one) <input type="checkbox"/> Individual/Sole Proprietor <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input checked="" type="checkbox"/> Unit of Government <input type="checkbox"/> Non-Profit (non-corporation)					
Payee Federal Tax ID # of Legal Company Name Above:	31-1450951				
Who should receive incentive payment? (select one) <input checked="" type="checkbox"/> Customer <input type="checkbox"/> Vendor (Customer must sign below)					
If the vendor is to receive payment, please sign below: I hereby authorize payment of incentive directly to vendor:					
Customer Signature _____ Date____/____/____ (mm/dd/yyyy)					

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



2. Project Information (Required)

A. Please indicate project type:

- ☒ New Construction
- ☐ Expansion at an existing facility
- ☐ Replacing equipment due to equipment failure
- ☐ Replacing equipment that is estimated to have remaining useful life of 2 years or less
- ☐ Replacing equipment that is estimated to have remaining useful life of more than 2 years
- ☐ Behavioral, operational and/or procedural programs/projects

B. Please describe your project, or attach a detailed project description that describes the project.

New Fire station built for the little miami joint fire and rescue service.

C. When did you start and complete implementation?

Start date 04 / 2011 (mm/yyyy) End date 01 / 2012 (mm/yyyy)

D. Are you also applying for Self-Direct Prescriptive incentives and, if so, which one(s)¹?

Yes, heating and cooling.

E. Please indicate which worksheet(s) you are submitting for this application (check all that apply):

- ☒ Lighting
- ☐ Variable Frequency Drive (VFD)
- ☐ Compressed Air
- ☐ Energy Management System (EMS)
- ☐ General (for projects not easily submitted using one of the above worksheets)

F. Please tell us if there is anything about your electrical energy projections (either for the baseline or the proposed project) that you are either unsure about or for which you have made significant assumptions. Attach additional sheets as needed.

Using Comcheck software with ASHRAE 90.1 2004 as our new building baseline

Required: Attach a supplier or contractor invoice or other equivalent information documenting the Implementation Cost for each project listed in your application. (Note: self-install costs cannot be included in the Implementation Cost)

¹ If your project involves some equipment that is eligible for prescriptive incentives and some equipment that is likely eligible for custom incentives, and if it is feasible to separate the equipment for the energy analysis, then the equipment will be evaluated separately. If it is not feasible to separate the equipment for analysis, then the equipment will be evaluated together in the custom application.

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



3. Signature (Required – must be signed by Duke Energy customer)

Customer Consent to Release of Personal Information

I, (insert name) Terry Ramsey, do hereby consent to Duke Energy disclosing my Duke Energy Ohio, Inc Account Number and Federal Tax ID Number to its subcontractors solely for the purpose of administering Duke Energy Ohio's Mercantile Self-Direct Program. I understand that such subcontractors are contractually bound to otherwise maintain my Duke Energy Ohio, Inc Account Number and Federal Tax ID Number in the strictest of confidence.

I realize that under the rules and regulations of the public utilities commission, I may refuse to allow Duke Energy Ohio, Inc to release the information set forth above. By my signature, I freely give Duke Energy Ohio, Inc permission to release the information designated above.

Application Signature

I certify that I meet the eligibility requirements of the Duke Energy Ohio, Inc Mercantile Self Direct Custom Incentives Program and that all information provided within this application is correct to the best of my knowledge. I agree to the terms and conditions set forth for this program. I certify that the numbers, energy savings, and responses shown on this form are correct. Further, I certify that the taxpayer identification number is current and correct. I am not subject to backup withholding because: (a) I am exempt from backup withholding; or (b) I have not been notified by the IRS that I am subject to backup withholding as a result of a failure to report all interest or dividends; or (c) the IRS has notified me that I am no longer subject to backup withholding. I am a U.S. citizen (includes a U.S. resident alien).

A handwritten signature in black ink, appearing to read 'Terry Ramsey', written over a horizontal line.

Duke Energy Ohio, Inc Customer Signature

Print Name

TERRY RAMSEY

Date

1-2-13



The Lighting Worksheet is part 2 of the application. Do not submit this file without submitting a completed Part1 Custom Application document file, which can be found at www.duke-energy.com.

Before you complete this application, please note the following important criteria:

- Incentive approval is required PRIOR to equipment purchase, or any other activity which would indicate that the Duke Energy customer has already decided to proceed.
- Submitting this application does not guarantee an incentive will be approved.
- Incentives are based on electricity conservation only.
- Electric demand and/or energy reductions must be well documented with auditable calculations.
- Simple payback without incentive must be greater than 1 year.
- Incomplete applications will not be reviewed; all fields are required.

Refer to the complete list of Instructions and Disclaimers, found in the Custom Application Part 1 document.

Please enter your information and data into the cells that are shaded.
Cells in white are locked and cannot be written over.

Duke Energy Customer Contact Information (Match the information in Application Part 1):

Name	Terry Ramsey
Company	Little Miami Joint Fire and Rescue District

Equipment Vendor / Project Engineer Contact Information

Name	
Company	

Before proceeding with the custom application, please verify that your project is not on the prescriptive incentive application.

The prescriptive incentive applications can be found at:

KY <http://www.duke-energy.com/kentucky-business/energy-management/energy-efficiency-incentives.asp>

Kentucky only: custom incentives only available to K-12 school facilities; prescriptive incentives available for those not on rate TT.

OH <http://www.duke-energy.com/ohio-business/energy-management/energy-efficiency-incentives.asp>

NC <http://www.duke-energy.com/north-carolina-business/energy-management/energy-efficiency-incentives.asp>

SC <http://www.duke-energy.com/south-carolina-business/energy-management/energy-efficiency-incentives.asp>

Prescriptive incentives are already pre-approved and the application is submitted after project implementation.

Take note of the equipment eligibility on the prescriptive application before planning to utilize the prescriptive application.



Please enter your information and data into the cells that are shaded.

Cells in white are locked and cannot be written over.

List of Sites (Required)

Project/ Site (see note 1)	Site Name	Electric Account Number(s) (see note 2)	Site Address	Area (sq ft)	Location within Facility	Location Type	Indoor or Outdoor?
<i>Example</i>	<i>Distribution Center</i>	<i>12345678 01</i>	<i>Example: 123 Main Street, Anywhere USA 12345</i>	<i>1000</i>	<i>Warehouse</i>	<i>Industrial</i>	<i>Indoor</i>
1	Newton Fire Station #76	6802074032	7036 Main Street Newtown OHIO 45244	13,125	Office	Government	Indoor
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

If your application involves more than 20 lighting projects, please check here and use multiple worksheets.

☐

1 Project/Site

You can write over the default project/site number with a store #, building identifier, or other reference that distinguishes one project/location from another.

2 Electric Account Number(s)

If there are multiple meters at a site, only include the Duke Energy account numbers that pertain to the project.

Currently active account number(s) are required for an existing facility. For new construction, write in "new construction."



	Hours of Use (see note 3)								Controls (see note 5)				
Project/ Site	24 x 7	Weekday		Saturday		Sunday		Weeks of Use in Year (see note 4)	Total Annual Hours of Use	Existing		Proposed	Description
		Start Hour	End Hour	Start Hour	End Hour	Start Hour	End Hour			Type of Control	Hours Reduction	Type of Control	
Example	No	8:00 AM	7:00 PM	10:00 AM	6:00 PM	1:00 PM	6:00 PM	52	3,536	None	0%	Occupancy	Applying for Prescriptive Incentive
1	Yes							52	8,760	None		Occupancy	Applying for Prescriptive Incentive
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14	No												
15													
16													
17													
18													
19													
20													

3 Hours of Use

For unoccupied times, leave applicable cells blank.

4 Weeks of Use in Year

If the lighting fixtures are not in use 52 weeks during the year (for example, during holiday or summer break), provide an explanation of when they are not expected to be in use and why:

5 Controls

Please attach more description of existing and/or proposed controls if more space is needed. If sufficient description is not provided, then controls portion of project will not be evaluated. Attach assumptions and calculations to support estimated reduction in hours that result from the controls.

New occupancy sensors should be applied for through the prescriptive application unless ineligible for prescriptive.

New or upgraded EMS/building controls require a separate application part 2. Without the separate application, EMS portion of the project will not be evaluated for an incentive.



Project/ Site	Existing Fixture(s)								
	Existing Fixture Installation Year (see note 6)	Fixture Type	Fixture Manufacturer (see note 6)	Fixture Model Number (see note 6)	Lamps per Fixture	Fixture Size	Fixture Input Power (watts) (see note 7)	Quantity of Fixtures	Total Demand (kW)
Example	1995	High Pressure Sodium	Manufacturer	Model #	1		190	175	33
1	2011	Other (enter by typing)	COMcheck	code specs			13,125	1	13
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
Application Total									1 13

6 Information on Existing Fixture(s)

Optional - please provide as much information as you can.

For new construction projects, provide information on the light fixture(s) that would meet the building code in your location.

7 Fixture Input Power (watts)

Provide actual input power (in watts), not nominal power rating. For example, a 400 watt (nominal) metal halide fixture has a typical input power of approximately 459 watts.

Project/ Site	Proposed Fixture(s)										Projected Savings			Incremental Project Cost \$ (see note 11)
	Fixture Type	Fixture Manufacturer (see note 8)	Fixture Model Number (see note 8)	Warranty of Proposed Fixtures (years)	Lamps per Fixture	Fixture Input Power (watts) (see note 9)	Quantity of Fixtures	Total Demand (kW)	Lumen Output per Fixture	Lumen/ Sq Ft	Demand (kW)	Annual Energy (kWh)	Other Annual Savings \$ (see note 10)	
Example	T8 Fluorescent	Manufacturer	Model #	5.0	1.0	78	225	18		0		55,515	\$1,265	\$29,215
1	Other (enter by typing	see comcheck	see comcheck		see	11,467	1	11	see light	#VALUE!	2	14,524		
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Application Total

Average Electric Rate \$/kWh

\$0.10

Project Simple Electric Payback (see note 12)

1 11
years

2 14,524 \$0 \$0

8 Fixture Manufacturer and Model Number

Attach a scanned copy of a spec sheet for each fixture that includes the input power (watts), lumen output and other relevant information.

For eligible LED fixtures, refer to the FAQs for Custom Incentives found at www.duke-energy.com and attach required documents if necessary.**9 Fixture Input Power (watts)**

Provide actual input power (in watts), not nominal power rating. For example, a 400 watt (nominal) metal halide fixture has a typical input power of approximately 459 watts.

10 Other Annual Savings \$

Optional. Estimate other annual savings in addition to electric (for example operations/maintenance savings).

11 Incremental Project Cost \$

Attach a copy of a formal proposal with the projected project costs.

For new construction projects, a formal proposal is also required with the projected costs for the light fixture(s) that would meet the building code in your location.

12 Project Simple Electric Payback

If the simple payback on the project is less than 1 year, then the project is not eligible for a custom incentive. Please check that the electric rate is accurate based on history.

APPLICATION AND CERTIFICATE FOR PAYMENT

TO OWNER: Little Miami Joint Fire & Rescue District
Fairfax Municipal Bldg
5903 Hawthorne Avenue
Fairfax, Ohio 45227

PROJECT: Little Miami Fire & Rescue District
New Fire Station - Newtown, Station #76

APPLICATION No: NINE
PERIOD TO: 1.31.2012
PROJECT NOS: MSA # 10114.00
CONTRACT DATE:

FROM CONTRACTOR: UNITED ELECTRIC CO., INC.
1309 ETHAN AVE
CINCINNATI OHIO 45225

VIA ARCHITECT: MICHAEL SCHUSTER ASSOCIATES
316 WEST FOURTH STREET
CINCINNATI OHIO 45202

CONTRACT FOR: ELECTRICAL **NEWTOWN PENCIL DUE FIRST WEDS OF EVERY MONTH

RETAINAGE REDUCTION: 50% CONTRACT SUM PAID - NO ADDITIONAL FUNDS TO BE RETAINED FROM LABOR

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment as shown below, in connection with the Contract
Continuation sheet is attached.

1. ORIGINAL CONTRACT SUM.....\$	328,000.00
2. Net Change by Change Orders.....\$	(14,281.00)
3. CONTRACT SUM TO DATE.....\$	313,719.00
4. TOTAL COMPLETED & STORED TO DATE.....\$	313,238.00
5. RETAINAGE	
a. 8% total Contract.....\$	14,485.00
b. 8% of Stored Material.....\$	0.00
Total Retainage.....\$	14,485.00
6. TOTAL EARNED LESS RETAINAGE.....\$	298,753.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT.....\$	295,753.00
8. CURRENT PAYMENT DUE.....\$	3,000.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE.....\$	14,966.00

Change Order/Contract	ADDITIONS	DEDUCTIONS
Total Changes approved in Previous months by Owner	884.00	-15165.00
Total approved this month	0.00	0.00
TOTALS	884.00	-15165.00
NET CHANGES by Change Order	-14281.00	

The Contractor certified that the work covered by this pay request has been completed in accordance with the Contract Documents and that all progress payments previously paid by the State have been applied by the Contractor to discharge in full all of Contractor's obligations incurred in connection with the work covered by all prior pay requests.
UNITED ELECTRIC CO., INC.

Thomas G. Murray
Contractor

01/11/12

Based upon on-site observations, the firm affirms that the work has progressed to the percentage of completeness indicated on the pay request.

David H. Spring
Architect

01/17/12
Date

Scott V. Jelle
CR

1/18/12

Approved: *Jim Kammer*

1/19/12

	material	labor
page one	167150.00	114350.00
page two	20956.50	10781.50
	188106.50	125131.50

313238.00

Total compl.
99.85%

PROJECT NAME:
ARCHITECT:
CONSTRUCTION MANAGER:
CONTRACTOR:

LITTLE MIAMI JOINT FIRE & RESCUE DISTRICT STATION #76
MICHAEL SCHUSTER ASSOCIATES
UNITED ELECTRIC CO., INC.

SUBMITTAL DATE: 1.11.2012
PAY APPLICATION : NINE
UE JOB 11-16006

ITEM NUMBER	DESCRIPTION OF WORK		SCHEDULED VALUE	WORK COMPLETED		MATERIALS PRESENTLY STORED	TOTAL COMPLETED & STORED TO DATE		BALANCE TO FINISH	RETAINAGE
				PREVIOUS APPS.	THIS PERIOD			%		
MIAMI TOWNSHIP FIRE STATION & COMMUNITY CENTER										
	BOND	MATERIAL	5,000.00	5,000.00	0.00		5,000.00	100.00%	0.00	400.00
	MOBILIZATION	LABOR	2,500.00	2,500.00	0.00		2,500.00	100.00%	0.00	0.00
	DE-MOBILIZATION	LABOR	1,000.00	1,000.00	0.00		1,000.00	100.00%	0.00	0.00
	PERMITS	MATERIAL	2,200.00	2,200.00	0.00		2,200.00	100.00%	0.00	176.00
	GENERAL CONDITIONS	LABOR	11,000.00	11,000.00	0.00		11,000.00	100.00%	0.00	0.00
	PUNCH LIST / CLOSEOUT	LABOR	5,000.00	2,000.00	3,000.00		5,000.00	100.00%	0.00	0.00
	ALLOWANCE	MATERIAL	3,406.00	3,000.00	0.00		3,000.00	88.08%	406.00	240.00
	TEMPORARY	LABOR	8,500.00	8,500.00	0.00		8,500.00	100.00%	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
	SITE ELECTRIC/ TELE/ CABLE SERVICE	MATERIAL	9,500.00	9,500.00	0.00		9,500.00	100.00%	0.00	760.00
	SITE ELECTRIC SERVICE	LABOR	14,000.00	14,000.00	0.00		14,000.00	100.00%	0.00	0.00
	SITE LIGHTING	MATERIAL	7,500.00	7,500.00	0.00		7,500.00	100.00%	0.00	600.00
	SITE LIGHTING	LABOR	4,000.00	4,000.00	0.00		4,000.00	100.00%	0.00	0.00
	DISTRIBUTION AND PANEL EQUIPMENT	MATERIAL	17,000.00	17,000.00	0.00		17,000.00	100.00%	0.00	1,360.00
	DISTRIBUTION AND PANEL EQUIPMENT	LABOR	15,000.00	15,000.00	0.00		15,000.00	100.00%	0.00	0.00
	DISTRIBUTION & FEEDER CONDUIT	MATERIAL	8,500.00	8,500.00	0.00		8,500.00	100.00%	0.00	680.00
	DISTRIBUTION & FEEDER CONDUIT	LABOR	10,000.00	10,000.00	0.00		10,000.00	100.00%	0.00	0.00
	DISTRIBUTION & FEEDER WIRE	MATERIAL	6,200.00	6,200.00	0.00		6,200.00	100.00%	0.00	496.00
	DISTRIBUTION & FEEDER WIRE	LABOR	4,200.00	4,200.00	0.00		4,200.00	100.00%	0.00	0.00
	BRANCH POWER CONDUIT	MATERIAL	10,000.00	10,000.00	0.00		10,000.00	100.00%	0.00	800.00
	BRANCH POWER CONDUIT	LABOR	15,000.00	15,000.00	0.00		15,000.00	100.00%	0.00	0.00
	BRANCH POWER WIRING	MATERIAL	3,000.00	3,000.00	0.00		3,000.00	100.00%	0.00	240.00
	BRANCH POWER WIRING	LABOR	2,500.00	2,500.00	0.00		2,500.00	100.00%	0.00	0.00
	BRANCH POWER DEVICES	MATERIAL	450.00	450.00	0.00		450.00	100.00%	0.00	36.00
	BRANCH POWER DEVICES	LABOR	1,600.00	1,600.00	0.00		1,600.00	100.00%	0.00	0.00
	BRANCH LIGHTING CONDUIT	MATERIAL	12,000.00	12,000.00	0.00		12,000.00	100.00%	0.00	960.00
	BRANCH LIGHTING CONDUIT	LABOR	1,850.00	1,850.00	0.00		1,850.00	100.00%	0.00	0.00
	BRANCH LIGHTING WIRING	MATERIAL	5,500.00	5,500.00	0.00		5,500.00	100.00%	0.00	440.00
	BRANCH LIGHTING WIRING	LABOR	4,000.00	4,000.00	0.00		4,000.00	100.00%	0.00	0.00
	BRANCH LIGHTING FIXTURES	MATERIAL	32,000.00	32,000.00	0.00		32,000.00	100.00%	0.00	2,560.00
	BRANCH LIGHTING FIXTURES	LABOR	9,000.00	9,000.00	0.00		9,000.00	100.00%	0.00	0.00
	GENERATOR CONDUIT	MATERIAL	9,600.00	9,600.00	0.00		9,600.00	100.00%	0.00	768.00
	GENERATOR CONDUIT	LABOR	2,000.00	2,000.00	0.00		2,000.00	100.00%	0.00	0.00
	GENERATOR WIRING	MATERIAL	3,700.00	3,700.00	0.00		3,700.00	100.00%	0.00	296.00
	GENERATOR WIRING	LABOR	1,600.00	1,600.00	0.00		1,600.00	100.00%	0.00	0.00
	GENERATOR EQUIPMENT	MATERIAL	32,000.00	32,000.00	0.00		32,000.00	100.00%	0.00	2,560.00
	GENERATOR EQUIPMENT	LABOR	1,600.00	1,600.00	0.00		1,600.00	100.00%	0.00	0.00
	TOTAL	MATERIAL	167,556.00	167,150.00	0.00	0.00	167,150.00	99.76%	167,556.00	13,372.00
		LABOR	114,350.00	111,350.00	3,000.00	0.00	114,350.00	100.00%	114,350.00	0.00
	GRAND TOTAL THIS PAGE		281,906.00						281,906.00	

PROJECT NAME:
ARCHITECT:
CONSTRUCTION MANAGER:
CONTRACTOR:

LITTLE MIAMI JOINT FIRE & RESCUE DISTRICT STATION #76
MICHAEL SCHUSTER ASSOCIATES
UNITED ELECTRIC CO., INC.

SUBMITTAL DATE: 1 11 2012
PAY APPLICATION : NINE
UE 11-16006

ITEM NUMBER	DESCRIPTION OF WORK		SCHEDULED VALUE	WORK COMPLETED		MATERIALS PRESENTLY STORED	TOTAL COMPLETED		BALANCE TO FINISH	RETAINAGE
				PREVIOUS APPS.	THIS PERIOD		& STORED TO DATE	%		
MIAMI TOWNSHIP FIRE STATION & COMMUNITY CENTER										
	AV CONDUIT	MATERIAL	700.00	700.00	0.00		700.00	100.00%	0.00	56.00
	AV CONDUIT	LABOR	320.00	320.00	0.00		320.00	100.00%	0.00	0.00
	AV WIRING	MATERIAL	500.00	500.00	0.00		500.00	100.00%	0.00	40.00
	AV WIRING	LABOR	750.00	675.00	0.00		675.00	90.00%	75.00	0.00
	AV EQUIPMENT	MATERIAL	1,500.00	1,500.00	0.00		1,500.00	100.00%	0.00	120.00
	AV EQUIPMENT	LABOR	1,780.00	1,780.00	0.00		1,780.00	100.00%	0.00	0.00
	SECURITY CONDUIT	MATERIAL	750.00	750.00	0.00		750.00	100.00%	0.00	60.00
	SECURITY CONDUIT	LABOR	1,000.00	1,000.00	0.00		1,000.00	100.00%	0.00	0.00
	SECURITY WIRING	MATERIAL	250.00	250.00	0.00		250.00	100.00%	0.00	20.00
	SECURITY WIRING	LABOR	250.00	250.00	0.00		250.00	100.00%	0.00	0.00
	SECURITY DEVICES	MATERIAL	100.00	100.00	0.00		100.00	100.00%	0.00	8.00
	SECURITY DEVICES	LABOR	100.00	100.00	0.00		100.00	100.00%	0.00	0.00
	TELE / DATA CONDUIT	MATERIAL	1,200.00	1,200.00	0.00		1,200.00	100.00%	0.00	96.00
	TELE / DATA CONDUIT	LABOR	1,600.00	1,600.00	0.00		1,600.00	100.00%	0.00	0.00
	TELE / DATA WIRING	MATERIAL	2,750.00	2,750.00	0.00		2,750.00	100.00%	0.00	220.00
	TELE / DATA WIRING	LABOR	2,000.00	2,000.00	0.00		2,000.00	100.00%	0.00	0.00
	TELE / DATA DEVICES	MATERIAL	2,500.00	2,500.00	0.00		2,500.00	100.00%	0.00	200.00
	TELE / DATA DEVICES	LABOR	1,000.00	1,000.00	0.00		1,000.00	100.00%	0.00	0.00
		MATERIAL		0.00	0.00		0.00	#DIV/0!	0.00	0.00
		LABOR		0.00	0.00		0.00	#DIV/0!	0.00	0.00
	LIGHTNING PROTECTION CONDUIT	MATERIAL	900.00	900.00	0.00		900.00	100.00%	0.00	72.00
	LIGHTNING PROTECTION CONDUIT	LABOR	1,000.00	1,000.00	0.00		1,000.00	100.00%	0.00	0.00
	LIGHTNING PROTECTION WIRING	MATERIAL	3,500.00	3,500.00	0.00		3,500.00	100.00%	0.00	280.00
	LIGHTNING PROTECTION WIRING	LABOR	3,700.00	3,700.00	0.00		3,700.00	100.00%	0.00	0.00
	FIRE ALARM CONDUIT	MATERIAL	1,200.00	1,200.00	0.00		1,200.00	100.00%	0.00	96.00
	FIRE ALARM CONDUIT	LABOR	1,600.00	1,600.00	0.00		1,600.00	100.00%	0.00	0.00
	FIRE ALARM WIRING	MATERIAL	750.00	750.00	0.00		750.00	100.00%	0.00	60.00
	FIRE ALARM WIRING	LABOR	1,200.00	1,200.00	0.00		1,200.00	100.00%	0.00	0.00
	FIRE ALARM DEVICES	MATERIAL	5,000.00	5,000.00	0.00		5,000.00	100.00%	0.00	400.00
	FIRE ALARM DEVICES	LABOR	1,600.00	1,600.00	0.00		1,600.00	100.00%	0.00	0.00
	CHANGE ORDERS						0.00	#DIV/0!	0.00	0.00
	NO. 02 - Value engineering changes per Bulletin 1	LABOR	(7,582.50)	(7,582.50)	0.00		(7,582.50)	100.00%	0.00	0.00
	NO. 02 - Value engineering changes per Bulletin 1	MATERIAL	(7,582.50)	(7,582.50)	0.00		(7,582.50)	100.00%	0.00	(606.60)
	NO. 017- FLAT SCREENS	LABOR	539.00	539.00	0.00		539.00	100.00%	0.00	0.00
	NO. 017- FLAT SCREENS	MATERIAL	345.00	345.00	0.00		345.00	100.00%	0.00	27.60
	ALLOWANCE FOR CABLING	MATERIAL	6,594.00	6,594.00	0.00	0.00	6,594.00	100.00%	0.00	527.52



United
ELECTRIC CO.

Job: 11-16006
NEW FIRE STATION NEWTOWN
7036 MAIN STREET
AARON WAUDBY 859-983-1766
NEWTOWN, OH 45244

Page: 1

APPLICATION AND CERTIFICATION FOR PAYMENT

AIA DOCUMENT G702

PAGE ONE OF

PAGES

TO OWNER: Little Miami Joint Fire & Rescue
Fairfax Municipal Building
5903 Hawthorne Ave
Fairfax, OH 45227

PROJECT: New Fire Station-Newtown
Station #76

APPLICATION NO: SEVEN

Distribution to:

☒ OWNER☒ ARCHITECT☐ CONTRACTOR

PERIOD TO: 12/1/11

FROM CONTRACTOR: VIA ARCHITECT: Michael Schuster Associates, Inc.

PECK HANNAFORD + BRIGGS
4670 CHESTER AVE
CINCINNATI, OH 45232

316 W 4th Street
Cincinnati, OH 45202
Dan Montgomery
dmontgomery@msaarch.com
241-5666

****NEW REMIT
ADDRESS ****

PROJECT NOS: Package 2: Mechanical
MSA #10114.00

CONTRACT DATE: 3/21/2011

CONTRACT FOR: HVAC / MECHANICAL

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM \$ 275,000.00

2. Net change by Change Orders \$ (443.00)

3. CONTRACT SUM TO DATE (Line 1 ± 2) \$ 274,557.00

4. TOTAL COMPLETED & STORED TO DATE (Column G on G703) \$ 274,557.00

5. RETAINAGE:

a. 8 TILL 50% % of Completed Work \$ 14,365
(Column D + E on G703)

b. % of Stored Material \$
(Column F on G703)

Total Retainage (Lines 5a + 5b or
Total in Column I of G703) \$ 14,365

6. TOTAL EARNED LESS RETAINAGE \$ 260,192
(Line 4 Less Line 5 Total)

7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate) \$ 256,692

8. CURRENT PAYMENT DUE \$ 3,500

9. BALANCE TO FINISH, INCLUDING RETAINAGE \$ 14,365
(Line 3 less Line 6)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$0.00	\$443.00
Total approved this Month	\$0.00	\$0.00
TOTALS	\$0.00	\$443.00
NET CHANGES by Change Order	(\$443.00)	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR: PECK HANNAFORD + BRIGGS

By: Lee Anne Childers Date: 12/15/11
Lee Anne Childers, Billing Coordinator

State of: OHIO

County of: HAMILTON

Subscribed and sworn to before me this

15TH OF DECEMBER

Notary Public:

My Commission expires:

TRACI REUSS
Notary Public, State of Ohio
My Commission Expires
August 21, 2016

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED \$ 3,500

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By:

Date:

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein, issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

PECK HANNAFORD + BRIGGS

PAGE 1 of 1 PAGES

APPLICATION NUMBER: 7

PHB #: 211296

APPLICATION DATE: 12/07/11

PERIOD TO: 12/01/11

Contract No.:

A	B	C	D	E	F	G	H	I	J
Item No.	Description of Work	Scheduled Value	Work Completed		Materials Presently Stored (Not in D or E)	Total Completed and Stored To Date (D+E+F)	% (G/C)	Balance To Finish (C-G)	Retainage
			From Previous Application (D+E)	This period					8% (Enter % Above)
1	Mobilization/Demobilization	4,000	3,500	500	-	4,000	100%	0	320
2	Coordination	6,000	6,000		-	6,000	100%	0	480
3	Sheetmetal Labor	48,000	47,000	1,000	-	48,000	100%	0	3,840
4	Sheetmetal Material	18,000	18,000		-	18,000	100%	0	1,440
5	Piping Labor	23,000	22,500	500	-	23,000	100%	0	1,840
6	Piping Material	15,000	15,000		-	15,000	100%	0	1,200
7	Insulation	10,000	10,000		-	10,000	100%	0	800
8	Equipment	96,000	96,000		-	96,000	100%	0	7,680
9	Controls	40,000	38,500	1,500	-	40,000	100%	0	3,200
10	Allowance	10,000	10,000	-	-	10,000	100%	0	800
11	Rigging	5,000	5,000		-	5,000	100%	0	400
CO#1	Bulletin 1	(443)	(443)		-	(443)	-	0	(35)
			-		-	-	-	0	-
			-		-	-	-	0	-
			-		-	-	-	0	-
			-		-	-	-	0	-
			-		-	-	-	0	-
			-		-	-	-	0	-
			-		-	-	-	0	-
	TOTALS	274,557	271,057	3,500	0	274,557	100%	0	21,965

LUMINAIRE: ST824-332G-FSA12-3E

ST8, Lensed Troffer

2' X 4' 3 LAMP WITH A12 LENS

BALLAST: B332I120RH

BALLAST FACTOR: 0.88

LAMP: F32T8

LUMENS PER LAMP: 2900

WATTS: 84

MOUNTING: RECESSED

SHIELDING ANGLE: 0° = 90 90° = 90

SPACING CRITERION: 0° = 1.24 90° = 1.35

LUMINOUS OPENING IN FEET

LENGTH: 3.83

WIDTH: 1.82

HEIGHT: 0.00

TEST #12581

DATE: 7/25/2000

TOTAL LUMINAIRE EFFICIENCY = 84.7%

LUMINAIRE EFFICACY RATING (LER) = 77

ANSI/IESNA RP-1-2004 COMPLIANCE: NONCOMPLIANT

COMPARATIVE YEARLY LIGHTING ENERGY COST PER 1000 LUMENS = \$3.12

BASED ON 3000 HRS. AND \$.08 PER KWH

ZONAL LUMENS

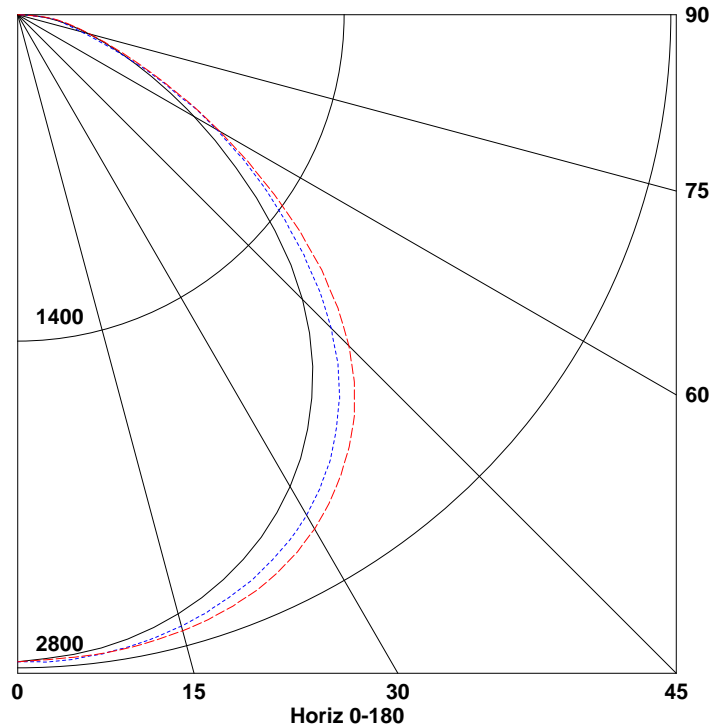
ZONE	LUMENS	% LAMP	% FIXTURE
0-30	2212	25.4	30.0
0-40	3657	42.0	49.6
0-60	6240	71.7	84.7
0-90	7370	84.7	100.0
0-180	7370	84.7	100.0

AVERAGE LUMINANCE

CANDELA/SQ M

ANGLE	0.0	22.5	45.0	67.5	90.0
0	4282	4282	4282	4282	4282
30	4163	4260	4415	4513	4536
40	3965	4106	4324	4471	4523
45	3767	3920	4151	4320	4385
50	3459	3635	3849	4007	4084
55	3075	3282	3476	3559	3616
60	2696	2863	3045	3079	3095
65	2338	2408	2525	2565	2569
70	2036	2005	1982	2118	2140
75	1838	1784	1659	1921	1909
80	1832	1761	1761	1903	1948
85	1967	1825	1984	1949	2020

INDOOR CANDELA PLOT



0.0 ——— 45.0 - - - - - 90.0 - 180.0 - - . - -

COEFFICIENTS OF UTILIZATION (%)

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = 20%

RC	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	101	101	101	101	99	99	99	99	94	94	94	90	90	90	86	86	86	85
1	93	89	86	83	91	87	84	81	84	81	79	80	78	76	77	76	74	72
2	85	78	73	69	83	77	72	68	74	70	66	71	68	65	69	66	63	61
3	78	69	63	58	76	68	62	57	66	60	56	63	59	55	61	57	54	52
R	4	72	62	55	49	70	61	54	49	59	53	48	57	52	48	55	51	47
C	5	66	55	48	43	64	55	48	43	53	47	42	51	46	42	50	45	41
R	6	61	50	43	37	59	49	42	37	48	42	37	46	41	37	45	40	36
	7	57	45	38	33	55	45	38	33	44	37	33	42	37	33	41	36	32
	8	53	42	35	30	51	41	34	30	40	34	29	39	33	29	38	33	29
	9	49	38	31	27	48	38	31	27	37	31	27	36	30	26	35	30	26
	10	46	35	29	24	45	35	28	24	34	28	24	33	28	24	32	27	24

RCR = ROOM CAVITY RATIO RC = EFFECTIVE CEILING CAVITY REFLECTANCE RW = WALL REFLECTANCE

THIS PHOTOMETRIC TEST WAS PERFORMED USING A SPECIFIC LAMP/BALLAST COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER LAMP/BALLAST COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. THE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATING ASSIGNED TO THE LAMP(S) OR TO THE CANDELA VALUES SHOWN. LUMINAIRE EFFICACY RATING (LER) PER NEMA LE5-1993. ANSI/IESNA RP-1 COMPLIANCE IS BASED ON TEST LUMENS AND STANDARD BALLAST FACTOR. THIS TEST RUN IN ACCORDANCE WITH CURRENT IESNA PUBLISHED PROCEDURES.

APPROVED BY: _____

LUMINAIRE: ST824-332G-FSA12-3E
ST8, Lensed Troffer
2' X 4' 3 LAMP WITH A12 LENS

TEST #12581
DATE: 7/25/2000

CANDELA VALUES

ANGLE	0.0	22.5	45.0	67.5	90.0
0.0	2773	2773	2773	2773	2773
2.5	2761	2771	2777*	2776	2767
5.0	2751	2763	2772	2774	2764
7.5	2737	2750	2763	2768	2760
10.0	2716	2731	2750	2760	2754
12.5	2690	2708	2733	2748	2745
15.0	2658	2679	2713	2733	2733
17.5	2620	2646	2687	2715	2718
20.0	2576	2606	2656	2692	2697
22.5	2526	2561	2622	2664	2671
25.0	2470	2511	2580	2628	2637
27.5	2406	2454	2532	2584	2595
30.0	2335	2389	2476	2531	2544
32.5	2255	2316	2410	2465	2482
35.0	2167	2233	2333	2391	2412
37.5	2070	2140	2242	2310	2334
40.0	1967	2037	2145	2218	2244
42.5	1851	1921	2031	2108	2135
45.0	1725	1795	1901	1978	2008
47.5	1588	1658	1756	1831	1861
50.0	1440	1513	1602	1668	1700
52.5	1289	1366	1444	1495	1525
55.0	1142	1219	1291	1322	1343
57.5	1003	1073	1140	1158	1169
60.0	873	927	986	997	1002
62.5	751	789	838	845	847
65.0	640	659	691	702	703
67.5	542	544	558	576	578
70.0	451	444	439	469	474
72.5	376	364	348	388	389
75.0	308	299	278	322	320
77.5	251	245	233	265	265
80.0	206	198	198	214	219
82.5	163	150	162	162	172
85.0	111	103	112	110	114
87.5	54	52	51	51	51
90.0	0	0	0	0	0

*MAXIMUM CANDELA VALUE

I.E.S.N.A. VISUAL COMFORT PROBABILITY

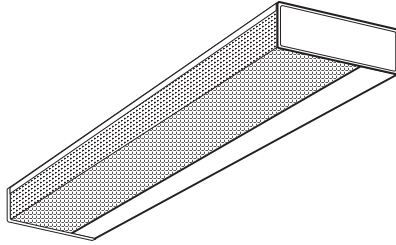
ILLUMINATION = 100 FC

REFLECTANCES = 80/50/20

WORK PLANE HEIGHT = 2.5 FEET

		LENGTHWISE				CROSSWISE			
HEIGHT		8.5	10.0	13.0	16.0	8.5	10.0	13.0	16.0
ROOM SIZE									
W	L								
20	20	61	65	72	81	59	63	69	78
20	30	56	59	63	70	54	57	60	67
20	40	53	56	59	63	51	54	57	61
20	60	51	53	56	59	49	51	53	57
30	20	63	66	71	78	62	64	69	76
30	30	57	59	62	67	56	58	60	65
30	40	54	55	57	61	52	54	56	58
30	60	51	53	54	56	49	51	52	55
30	80	49	51	51	54	48	49	50	52
40	20	65	68	72	77	64	67	70	76
40	30	59	61	63	67	58	60	61	65
40	40	55	57	58	60	53	55	56	58
40	60	51	53	54	56	50	52	52	54
40	80	50	51	51	53	48	50	49	52
40	100	49	50	50	52	48	49	48	50
60	30	60	62	64	67	59	61	62	66
60	40	56	58	58	60	55	57	57	59
60	60	52	54	54	56	51	52	52	54
60	80	50	51	51	53	49	50	49	51
60	100	49	50	49	51	48	49	48	49
100	40	59	61	61	63	58	60	60	62
100	60	55	56	56	58	54	55	55	57
100	80	52	53	52	54	51	52	51	53
100	100	51	51	50	52	50	50	49	51

BASED ON IES PROCEDURE RQQ-2 (1972) WITH Mr > 0



FEATURES

- Heavy code gauge cold rolled steel housing
- One piece shielding assembly easily removable for cleaning without the use of hardware
- Easy installation and maintenance
- White powder coat finish, painted after fabrication
- White textured endcaps of injection molded thermoplastic
- Low profile design
- Variety of options available
- Ideal for restroom, stairwell, work station and bedlighting
- UL listed 1598 for damp locations

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Heavy code gauge cold rolled steel housing and ballast cover. Embossed housing. Endcaps are textured, injection molded plastic, with an opaque finish to match housing.

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

FINISH

Painted parts are treated with a five stage phosphate bonding process and finished with a high reflectance baked white powder coat finish, applied after fabrication.

SHIELDING

Front of diffuser has inside linear prisms and bottom has pyramidal prisms for low brightness control. For added strength and durability, 25% DR is standard. Lens slides forward for easy installation and maintenance

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE WAL4-132-EU

WAL							
MODEL	SIZE	NO. OF LAMPS	LAMP TYPE	BALLAST	VOLTAGE	OPTIONS	
WAL Low Profile Wall Mount	2 2'	1 One	17 2', T8: 17 Watt	E Electronic T8, Instant Start	U 120V-277V	GLR	Fast Blow Fuse
	3 3'	2 Two	25 3', T8: 25 Watt	ETT Electronic Twin Tube, Instant Start, (Specify voltage)	347 347V	NL	Incandescent Night Light Socket (120V only)
	4 4'		28 4', T5: 28 Watt	EP Electronic T5 or T8, Programmed Start		EL	Emergency Battery Pack
			32 4', T8: 32, 30, 28 or 25 Watt			GCO	Grounded Convenience Outlet (120V only)
			40TT Twin Tube Compact, 2G11 Base: 40 Watt	For others available, see Ballast Options.		PSW	Pull Switch, One Circuit (120V only)
			54 4', T5HO: 54 or 51 Watt			PL7	Fluorescent Night Light for 7W T-4 G23 lamp. (Lamp not included). PL ballast will default to fixture voltage unless specified. Not available in 2' unit with battery pack.
						PL9	Fluorescent Night Light for 9W T-4 G23 lamp. (Lamp not included). PL ballast will default to fixture voltage unless specified. Not available in 2' unit with battery pack.
						PL13	Fluorescent Night Light for 13W T-4 GX23 lamp. (Lamp not included). PL ballast will default to fixture voltage unless specified. Not available in 2' unit with battery pack.
						4PSW	Four-way Pull Switch, for Two Circuit, 2-Lamp Units (120V only)
						NYCU	NYC Compliant, Union Labeled

For a complete list of options, see options and accessories section.

PHOTOMETRIC DATA

AVG. LUMINANCE (Candela/Sq. M.)

LUMINAIRE DATA

Luminaire	WAL4-232-EU WAL Surface Mounted 8" X 49" 2-Lamp Wall Mount with Acrylic Prismatic Lens
Ballast	B232I120HP
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	55
Shielding Angle	N/A
Spacing Criterion	N/A
Luminous Opening in Feet	Length: 4.00 Width: 0.47 Height: 0.00

	0.0	45.0	90.0	135.0	180.0
0	7306	7306	7306	7306	7306
30	7127	8852	9328	8852	7127
40	6884	9141	9776	9141	6884
45	6534	8769	9101	8769	6534
50	5710	7732	7812	7732	5710
55	4262	6498	6858	6498	4262
60	3298	5428	6252	5428	3298
65	2953	5013	6327	5013	2953
70	2812	5273	7901	5273	2812
75	2787	6437	11437	6437	2787
80	2803	9430	18465	9430	2803
85	2759	19840	38892	19840	2759

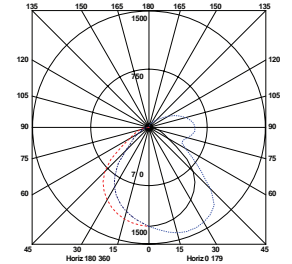
ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1023	17.6	25.9
0-40	1684	29.0	42.7
0-60	2737	47.2	69.3
0-90	3403	58.7	86.2
90-120	427	7.4	10.8
90-130	487	8.4	12.3
90-150	535	9.2	13.6
90-180	545	9.4	13.8
0-180	3948	68.1	100.0

COEFFICIENTS OF UTILIZATION (%)

RC	80	70	50	0
RW	70	50	30	10
1	72	68	65	62
2	65	60	55	51
3	60	53	48	43
4	55	47	41	37
5	51	42	37	32
6	47	38	32	28
7	44	35	29	25
8	41	32	26	22
9	38	29	24	20
10	36	27	22	18

INDOOR CANDELA PLOT



RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

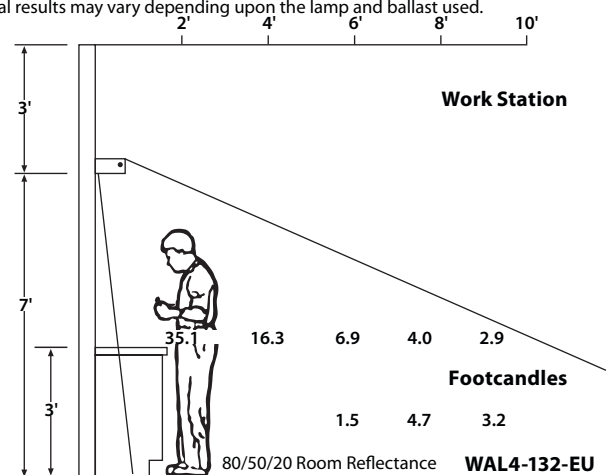
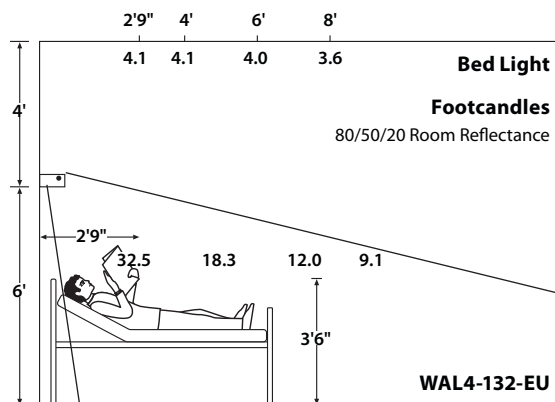
Total Luminaire Efficiency	68.1%
Luminaire Efficacy Rating (LER)	63
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.81 based on 3000 hrs. and \$0.08 per KWH

ENERGY DATA

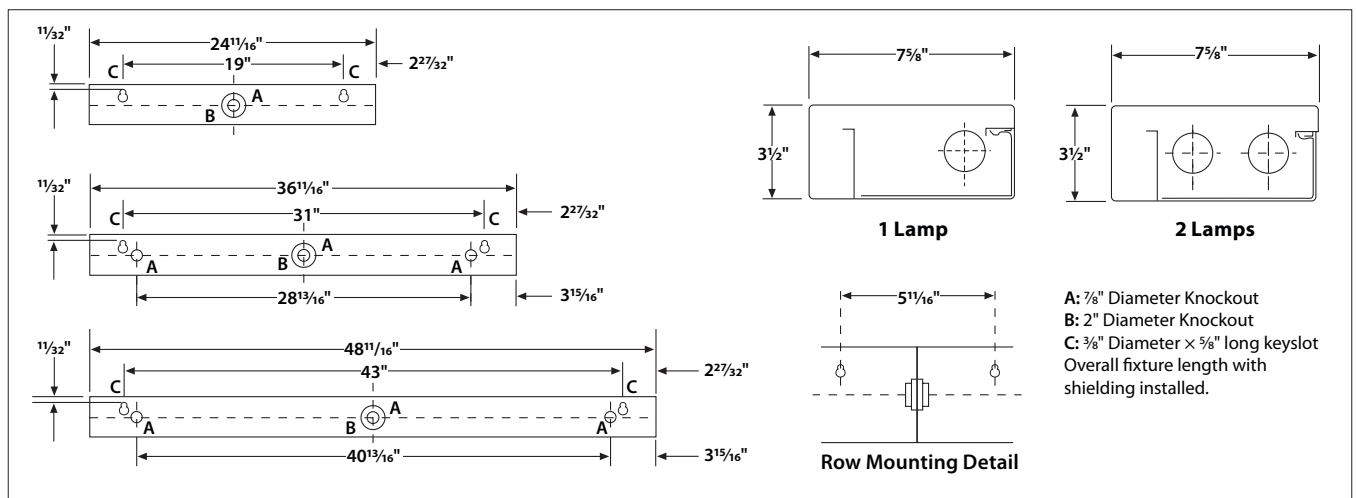
LER: 66 Energy Cost: \$3.64*
Input Watts: 30 BF: .88

The above energy calculations were conducted using a specific lamp/ballast combination. Actual results may vary depending upon the lamp and ballast used. Lamp and ballast specifications are subject to change without notice.

*Comparative annual lighting energy cost per 1000 lumens based on 3000 hours and \$0.08 per KWH.



DIMENSIONAL DATA



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.



Recessed Step Light

ALE

One 25W A-19 Incandescent Lamp
Non-IC Rated
120V

DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____

LiteStep

For conversion to millimeters,
multiply inches by 25.4
Not to Scale

APPLICATIONS:

The ALE incandescent step light is an ideal solution for a wide variety of interior applications including commercial, retail, and residential projects.

HOUSING:

Welded steel housing with white baked enamel finish complete with thermal protector.

FACEPLATE:

Die cast aluminum hinged louvered faceplate. Faceplates do not contain a lens. Available in black (BL), bronze (BZ), white (WH) or Prescolite's exclusive Zet (Z, metallic silver) finish.

LAMP:

One (1) 25W A-19 lamp. Lamp furnished by others.

SOCKET:

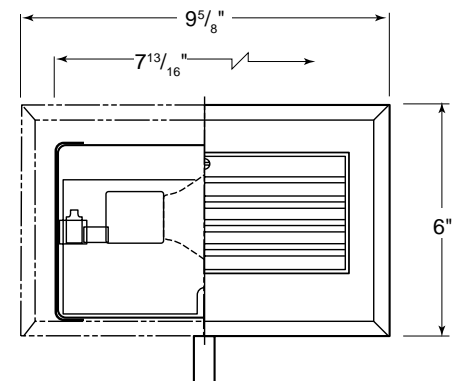
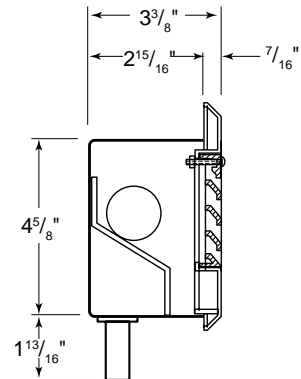
One (1) medium base porcelain socket with nickel plated screw shell.

INSTALLATION:

Galvanized steel mounting brackets are included.

LABELS:

U.L., CSA approved for damp locations and concrete pour. Note: Salt air application may cause cast aluminum to oxidize over time. Contact Technical Support for questions. Approved for exterior/interior installations. Non-IC rated, not approved for through wiring. Consult factory for N.Y. City approval



CATALOG NUMBER:

EXAMPLE: ALEBZ

HOUSING AND FACEPLATE

FINISH

☐ ALE

25W A-19
Incandescent
Non-IC recessed step
light

☐ BL

Black

☐ BZ

Bronze

☐ WH

White

☐ Z

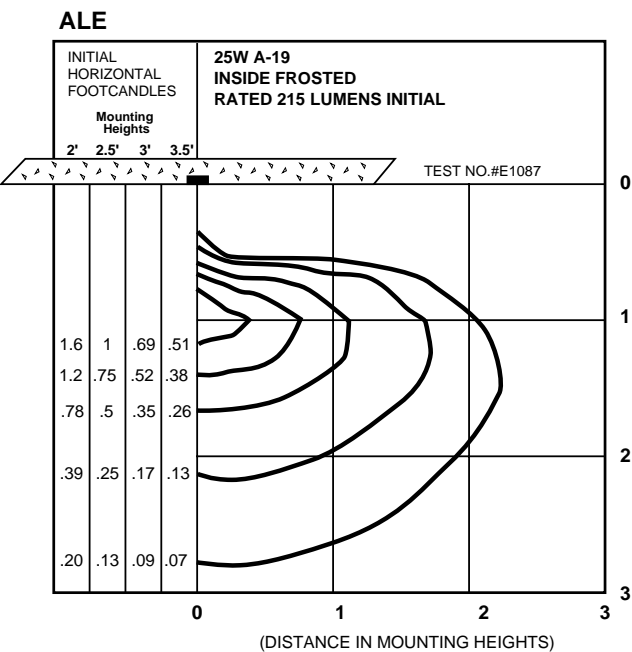
Zet, metallic silver

PHOTOMETRIC DATA

LiteStep
Step Light - ALE

LAMP DATA

Rated Watts	25W
Rated Lumens	210
Efficacy (LPW)	8.4
Rated Life (hours)	1000
Base	Medium



NOTES

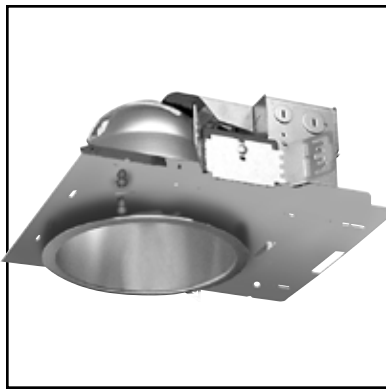
Refer to www.prescolite.com for additional photometric tests (IES Files).



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Blvd., • Greenville, SC 29607 U.S.A. • Phone (864) 599-6000
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Hubbell Lighting, Inc.



Featuring VirtualSource Reflectors

APPLICATIONS:

The CFT832HEB offers a horizontally lamped compact fluorescent lensed downlight that provides superior brightness and glare control. This luminaire is ideal for a wide variety of medium to high ceiling applications including commercial, retail, hospitality, and food service areas where a lensed trim is required.

HOUSING:

One-piece galvanized 18-gauge cold rolled steel platform. Prewired J-box with snap-on cover for easy access. Vented at lamp tip and socket for maximum light output. Same housing accommodates downlight and wall wash downlight reflectors.

REFLECTOR:

High purity aluminum Alzak Virtual Source® iridescence suppressed reflector. Self-trim standard. Painted white self-trim available. Baffled units standard with painted white self-trim. Choice of fresnel, prismatic, or clear acrylic lens.

BALLAST:

One (1) compact fluorescent Class 'P' electronic multi-volt (120V through 277V) ballast suitable for operating all 26W, 32W, and 42W triple tube lamps. HPF and EOL protection standard. Accessible from below ceiling. 347V available (specify wattage when ordering).

8" Horizontal Regressed Lensed Downlight CFT832HEB

One 26W, 32W, or 42W Triple Tube 4-Pin Lamp

Non-IC Rated

120V, 208V, 240V, 277V, or 347V

LAMP:

One (1) 26W (GX24q-3 base), 32W (GX24q-3 base), or 42W (GX24q-4 base) 4-pin triple tube compact fluorescent lamp. Lamp furnished by others or as option below.

SOCKET:

One (1) injection molded socket suitable for 26W, 32W, and 42W triple tube lamps (vented).

INSTALLATION:

Universal adjustable mounting brackets accommodate 1 1/2" or 3/4" lathing channel or 1/2" EMT (by others), or Prescolite 24" bar hangers (B24 or B6).

LABELS:

UL listed or UL/CSA listed with CDN option for wet locations. Approved for through wiring and thermally protected. Non-type I.C.

LAMP INCLUDED OPTION:

Specify lamp type T (Triple 4-pin) and temperature as shown below.

DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____

Architektür



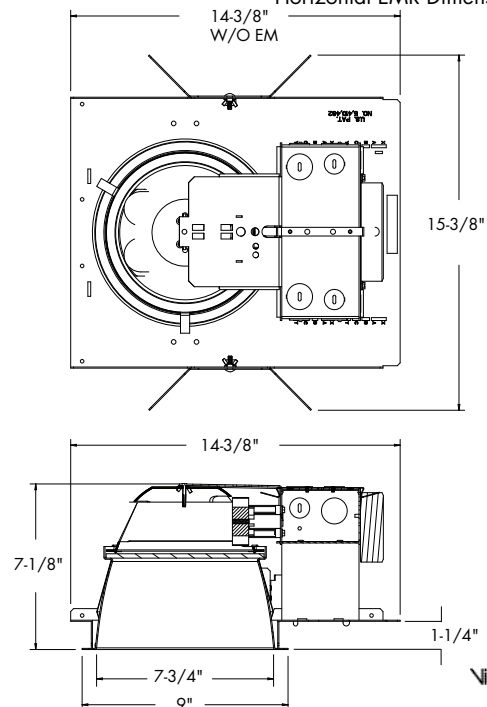
Ceiling Cutout: 8 1/4"

Maximum Ceiling Thickness: 1 1/4"

For conversion to millimeters, multiply inches by 25.4

Not to Scale

Horizontal EMR Dimension 17-1/2"



CATALOG NUMBER:

EXAMPLE: CFT832HEB STF802HCL LP32T30K B6

HOUSING	HOUSING OPTIONS	HOUSING OPTIONS	REFLECTORS	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> CFT832HEB 8", (1) 26W/32W/42W Triple tube, multi-volt electronic ballast	<input type="checkbox"/> CDN Canadian electrical code compliant ballast disconnect <input type="checkbox"/> CDN 347V⁴ Canadian electrical code compliant ballast disconnect <input type="checkbox"/> CP¹ Chicago Plenum. Construction specifications may vary. Refer to Chicago Plenum specification sheets on www.prescolite.com. <input type="checkbox"/> DM Electronic Analog Dimming Ballast to 3%, 4-wire, 0-10, analog (120V-277V) <input type="checkbox"/> ECDM⁶ Lutron EcoSystem or 3-wire line voltage dimming ballast (120-277V). Dims to 5%. <input type="checkbox"/> HDM⁵ Lutron Hi-Lume Dimming Ballast to 1%, 3-wire, line voltage (specify supply voltage/wattage) <input type="checkbox"/> 2DM Lutron Tu-Wire Dimming Ballast to 5%, 2-wire line voltage (120 volt only; Specify wattage)	<input type="checkbox"/> 7DM Advance Mark 7 Dimming Ballast to 5%, 4-wire, 0-10V, analog (120V-277V) (Specify wattage) <input type="checkbox"/> XDM Advance Mark 10 Dimming Ballast to 5%, 2-wire, line voltage (specify supply voltage/wattage) <input type="checkbox"/> EMR² Emergency battery pack w/ remote test switch and indicator light required for lensed reflector <input type="checkbox"/> FSDFA Fuse kit installed <input type="checkbox"/> RIF1 Radio interference filter (single circuit) <input type="checkbox"/> MW26 Max Wattage label, 26W <input type="checkbox"/> MW32 Max Wattage label, 32W <input type="checkbox"/> SYL³ Osram Sylvania Ballast (available only for standard EB option) <input type="checkbox"/> SMT Philips Advance SmartMate® ballast <input type="checkbox"/> WIH wiHUBB® Enabled (see page 3)	<input type="checkbox"/> STF802H VS 8" Alzak reflector REFLECTOR COLOR <input type="checkbox"/> Blank Clear Alzak <input type="checkbox"/> CG Champagne Gold Alzak <input type="checkbox"/> BL Black Alzak <input type="checkbox"/> WE Wheat Alzak <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> PW Pewter Alzak REFLECTOR FINISH <input type="checkbox"/> Blank Specular <input type="checkbox"/> SS Semi-Specular <input type="checkbox"/> MFC American Matte™	<input type="checkbox"/> WT Painted white self-flange <input type="checkbox"/> BC Painted black cone <input type="checkbox"/> WC Painted white cone <input type="checkbox"/> BB Painted black baffle <input type="checkbox"/> WB Painted white baffle <input type="checkbox"/> TRG Trim Ring Gasket (factory installed) REGRESSED LENS <input type="checkbox"/> DL Diffuse lens <input type="checkbox"/> FL Fresnel lens <input type="checkbox"/> CL Clear lens <input type="checkbox"/> PL Prismatic lens	<input type="checkbox"/> B24 Set of two (2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6 Set of two (2) bar hangers for ceiling joists up to 24" centers <input type="checkbox"/> FSDFI Fuse kit for field installation <input type="checkbox"/> SCA8D Sloped ceiling adapter (see note on back page) LAMP ACCESSORIES <input type="checkbox"/> LP -wattage=26, 32, or 42 -type=T (Triple 4-pin) -temp= 27K, 30K, 35K, 41K (Kelvin) *Example: LP32T41K

PHOTOMETRIC DATA

Architektür - 8" Horizontal Regressed Lensed Downlights - CFT832HEB

BALLAST DATA	26W Triple			32W Triple			42W Triple		
	120V	277V	347V	120V	277V	347V	120V	277V	347V
Total System Watts	28W	28W	38W	35W	35W	42W	44W	47W	48W
Input Current (Amps)	0.23	0.1	0.11	0.29	0.13	0.12	0.36	0.17	0.14
Input Frequency in Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Power Factor	>97%	>97%	>97%	>97%	>97%	>97%	>97%	>97%	>97%
Ballast Factor	>98%	>98%	>98%	>98%	>98%	>98%	>98%	>98%	>98%
Total Harmonic Distortion	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%
Total Harmonic Distortion	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)	-18°C (0°F)

LAMP DATA

	26W Triple	32W Triple	42W Triple
Rated Watts	1800	2400	3200
Rated Lumens	69	75	76
Efficacy (LPW)	10,000 hours	10,000 hours	10,000 hours
Rated Life	82	82	82
CRI	0° F	0° F	0° F
Minimum Starting Temp.			

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average 0°	Average 45°	Average 90°
45°	9428	9887	9944
55°	3228	3349	3150
65°	0	54	0
75°	0	0	0
85°	0	0	0

CFT832HEB-STF802H Clear Alzak Reflector with Prismatic Lens

Lamp: One 32W Triple

Spacing Criteria:

0° = 1.1

90° = 1.2

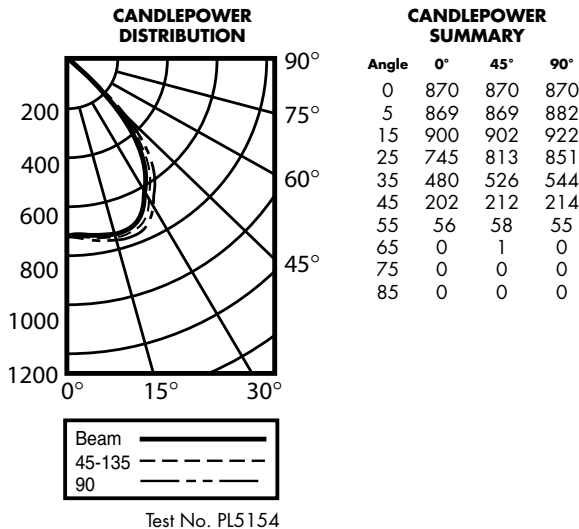
Efficiency: 52.0%

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array)

Ceiling 80% Wall 50% Floor 20%

SPACING	RCR1	RCR3	RCR7
7.0	15	13	10
8.0	12	10	7
9.0	10	8	6
10.0	8	7	5
11.0	7	6	4



COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Floor Cavity Reflectance																
	80%				70%				50%				30%			10%	
	20% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
1	.59	.58	.56	.55	.58	.57	.55	.54	.54	.53	.53	.52	.52	.51	.51	.50	.50
2	.56	.54	.52	.50	.55	.53	.51	.50	.51	.50	.48	.50	.49	.47	.48	.47	.46
3	.53	.50	.48	.46	.52	.49	.47	.45	.48	.46	.45	.47	.45	.44	.46	.45	.43
4	.51	.47	.44	.42	.50	.46	.44	.42	.45	.43	.41	.44	.42	.41	.43	.42	.40
5	.48	.44	.41	.39	.47	.43	.41	.39	.42	.40	.38	.42	.39	.38	.41	.39	.37
6	.46	.41	.38	.36	.45	.41	.38	.36	.40	.37	.35	.39	.37	.35	.38	.36	.35
7	.43	.38	.35	.33	.42	.38	.35	.33	.37	.34	.33	.36	.34	.32	.36	.34	.32
8	.41	.36	.32	.30	.40	.35	.32	.30	.35	.32	.30	.34	.32	.30	.34	.31	.30
9	.38	.33	.30	.28	.38	.33	.30	.28	.32	.29	.27	.32	.29	.27	.31	.29	.27
10	.36	.31	.28	.25	.35	.31	.28	.25	.30	.27	.25	.30	.27	.25	.29	.27	.25

CFT832HEB-STT1P

Test No. PL5154

NOTES

⊙vs Denotes a Virtual Source reflector.

Refer to www.prescolite.com for additional photometric tests (IES Files).

When ordering a sloped ceiling adapter, specify the degree of slope in 5° increments, max. of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.

Note: Use of horizontally-lamped open downlights with amalgam-based CFL lamps in air-handling plenums is not recommended because cool air flow over the lamps will result in reduced light output. Prescolite recommends vertical lamp downlights or use of the regressed lensed trim option for horizontal downlights in these applications to reduce this effect. Refer to Prescolite White Paper WP0003 at www.prescolite.com for more information.



Web: www.prescolite.com • Tech Support: (888) 777-4832
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Hubbell Lighting, Inc.

PHOTOMETRIC DATA

wiHUBB®

Fixture comes with a pre-installed In-Fixture Module (1 relay, 0-10V) compatible with the HBA wiHUBB system. Actual dimming requires the selection of 0-10V dimming ballast as well. Consult factory for compatibility with EM fixtures.



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Lighting, Inc.

Little Miami Joint Fire & Rescue District
New Fire Station - Newtown, Station #76
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Newtown, OH 45244THIS DRAWING AND THE DESIGN CONCEPTS REPRESENTED,
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DATE	ISSUED
09/07/10	60% PROGRESS SET
11/04/10	95% PROGRESS SET
12/21/10	BID/PERMIT ISSUE
1/06/11	ADDENDUM #1

NO.	DATE	REVISION
6	03/28/11	BULLETIN 1

PROJECT NO. 10114.00

DRAWING TITLE
FIRST FLOOR
LIGHTING PLAN

E2.0

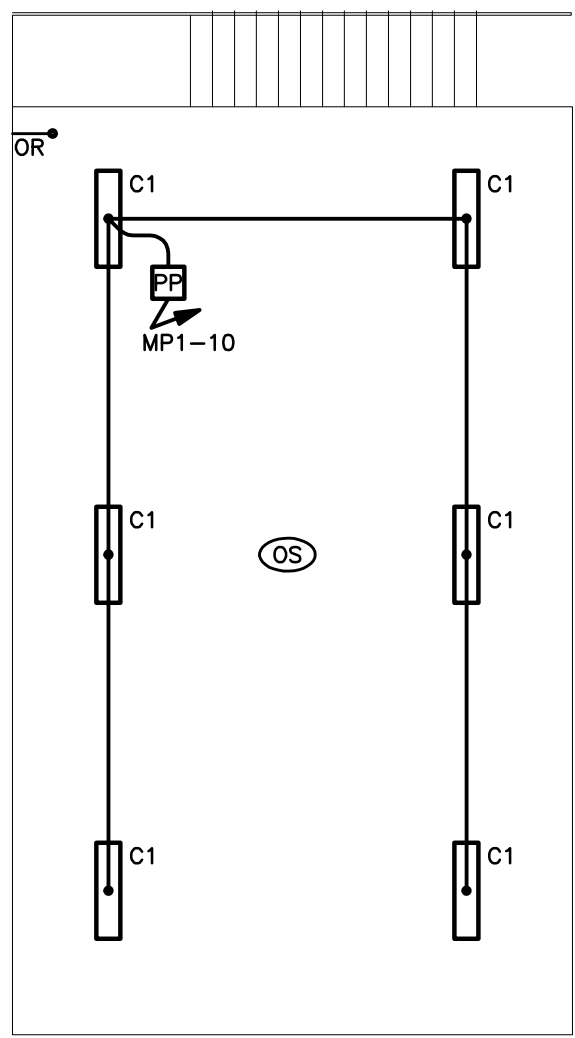
GENERAL NOTES

A REFER TO SEISMIC DETAIL SHEETS MEP1 AND MEP2 FOR TYPICAL SEISMIC
BRACING METHODS.

NOTES

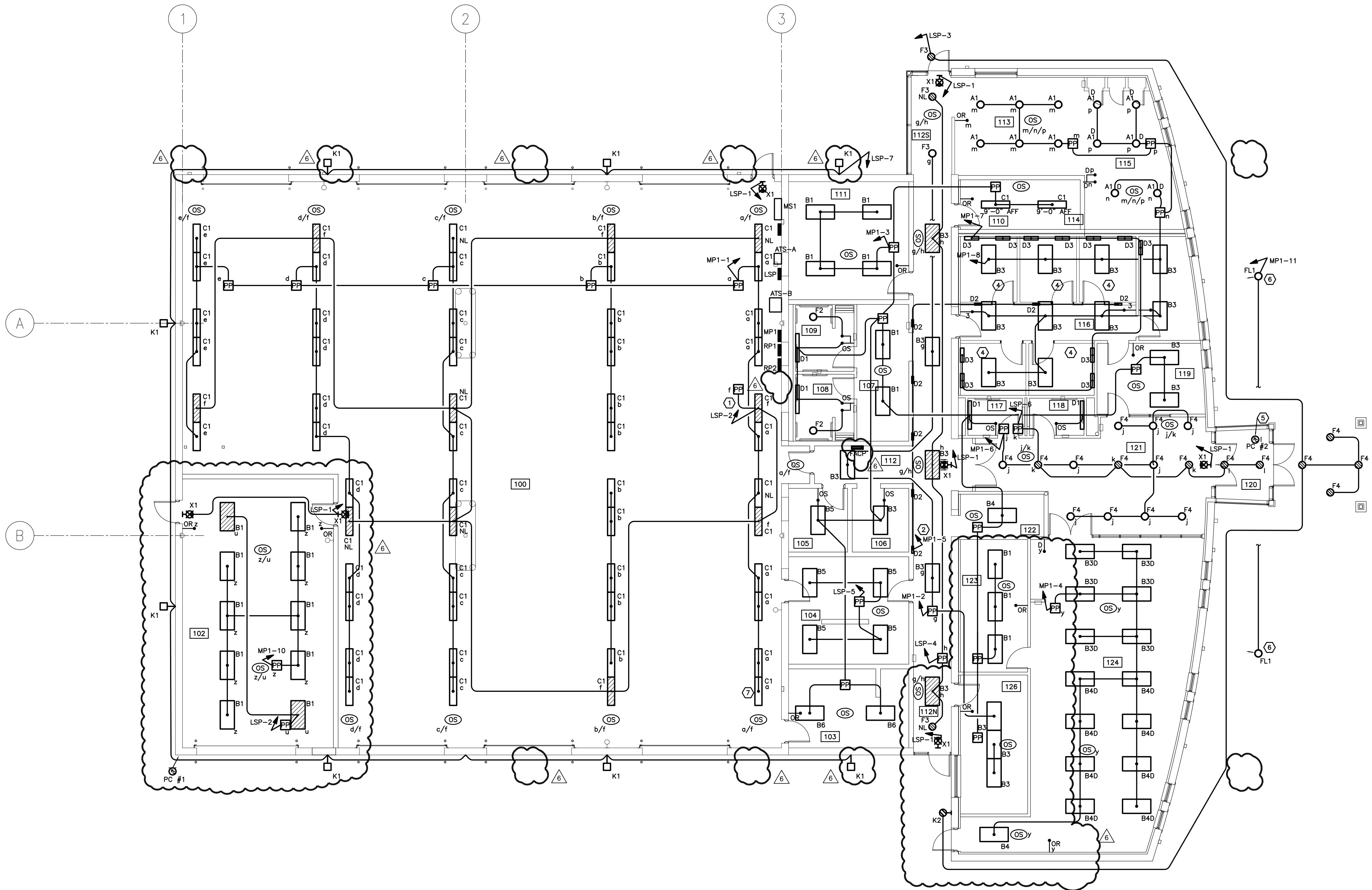
- POWER TO OCCUPANCY SENSOR DETECTOR MUST BE FROM PANEL "LSP".
- STEP LIGHTS TO BE CONTROLLED THROUGH "LC1". LIGHTS SHALL BE ACTIVE
UNDER ALERT CONDITIONS ONLY.
- THIS AREA PROVIDED UNDER ALTERNATE BID PRICING.
- LOW HEIGHT WALL PARTITIONS, ROUTE BRANCH CIRCUITING TO FULL HEIGHT
WALLS.
- PHOTOCELL FOR DIRECT CONTROL OF FIXTURES IN OUTER VESTIBULE. SET
PHOTOCELL AT 25 F.C.
- REFER TO DETAIL "J" ON SHEET E0.2 FOR MOUNTING REQUIREMENTS.
- MOUNT FIXTURES AT 13'. MOUNT LEVEL WITH FAN BLADES.

LIGHTING CONTROL SCHEDULE		
DETAIL SHEET E0.3	TYPE	ROOMS
D	LOW VOLTAGE OVERRIDE ON/OFF SWITCHING	103, 111, 110, 119, 102,113
F	DIMMING WIRING DIAGRAM	124, 115
I	SWITCHED EGRESS LIGHTING	112N, 112S, 112, 121
J	BATHROOM OCCUPANCY W/ EXHAUST FAN CONTROL	108, 109
A	OCCUPANCY CONTROL	104, 105, 106, 107, 117, 118, 122, MEZZANINE
B	RELAY PANEL	100, EXTERIOR, D2 IN 112S
	NORMAL SWITCHING	116
	LOCAL PHOTO CONTROL	120

PROJECT NO. 2010-06026
Heapy Engineering

MEZZANINE PLAN

SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

ROOM NAMES
& NUMBERS

100	APPARATUS BAY
102	GARAGE
103	CLEAN / DECON
104	T.O.G.
105	EMS STORAGE
106	RADIO
107	LOCKERS
108	BATHROOM
109	BATHROOM
110	MECH. / LAUNDRY
111	FITNESS
112	CORRIDOR
113	KITCHEN
114	MECHANICAL
115	DAYROOM
116	BUNK ROOMS
117	RESTROOM
118	RESTROOM
119	LIUTENANT'S OFFICE
120	VESTIBULE
121	LOBBY
122	WORK ROOM
123	STORAGE
124	MEETING ROOM
126	OFFICE

DUAL LITE

LX Series

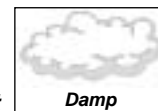
Low-profile, easy to install exit signs featuring
energy- saving, long-life LED lamps



An

ULTREX

Severe Conditions Product



Liteforms®
Collection



Features

All Models

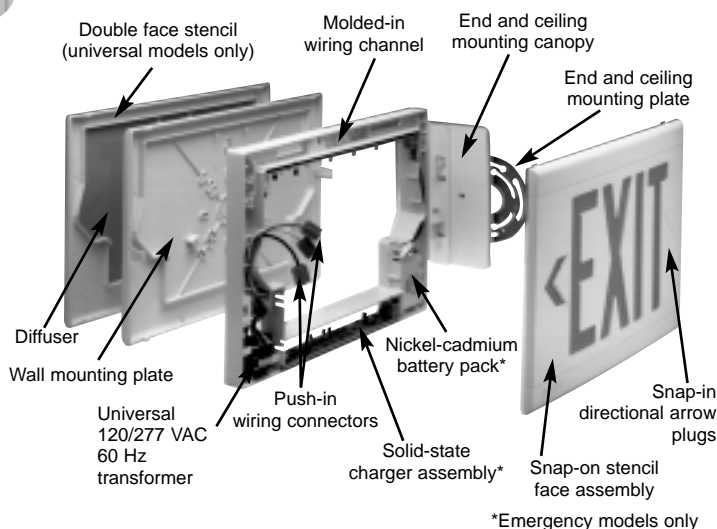
- Bright, even illumination
- Red and green letters
- Easy to install
- Long-life LED lamps provide over 20 years of service
- Energy-saving operation
- Compact, low-profile style
- UV stable thermoplastic housing
- Single face and universal single/double face models
- White or black finishes offered
- Snap-together design
- Push-in wiring connectors provided
- 120/277VAC, 60 Hz operation
- End, ceiling or wall mounting
- Snap-in, chevron type directional arrows
- Operating Temperature Range:
10° to 40°C (50°F to 104°F)
- Damp location listed (all models)

Emergency Models

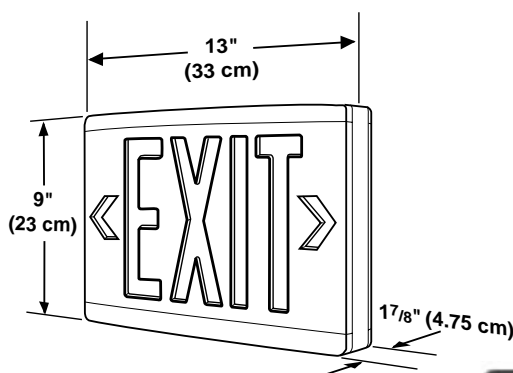
- Fully automatic, solid-state charger
- All emergency components mount inside exit housing
- Maintenance-free, nickel-cadmium battery
- Operates for a minimum of 2 hours
- Automatic battery protection
- Test switch
- AC-On indicator
- Available with Spectron self-diagnostic/
self-testing electronics option
- UL 924 Listed



Also available in black finish



Dimensions



Construction

Sign: Housing, exit face(s) and matching canopy constructed of flame-rated, UV stable thermoplastic

Sign Finish: Textured bright white or black

Diffuser: .030 Polystyrene

Diffuser Finish: Frequency-matched silkscreened coating provides optimized LED light output

Exit Face Design

Letters: 6" letters, 3/4" stroke

Directional Arrows: Snap-in chevron type

Illumination

All Models: 6 red or green high-output LEDs

Rated Lamp Life: In excess of 20 years

Brightness Index: 2x 1998 UL requirements

Illumination Uniformity: 10x1998 UL requirements

Installation

Mounting: Sign mounts to 3 1/2", 4" octagon, or 4" square outlet boxes and standard plaster rings.

Wall Installations: Back plate provides a knockout pattern for mounting to outlet box. Keyhole knockout provided for securing housing to wall surface.

Ceiling or End Installations: Mounting canopy provided with all models. Canopy mounts to outlet boxes by means of mounting plate supplied. Exit housing snaps to canopy.

Wiring: Pre-stripped AC input pigtail leads provided. Push-in wire connectors supplied for making AC connections. All wiring dresses into formed wireways in exit housing.

Operating Temperature Range: 10°C to 40°C (50°F to 104°F).

Electronics

Input: 120/277VAC, 60 Hz (all models)

Built-in Protection: Surge, transient and low battery voltage protection

Emergency Operation Module (Internally Mounted)

Charger: Solid-state, constant current type

Transfer: Solid-state design

Battery Recharge Cycle: Per UL time standards

Test Means: Integral test switch

Indicators: AC-On LED indicator

Battery

Type: Maintenance-free nickel-cadmium

Power Consumption*

	120VAC	277VAC
Red AC Only Models:	2.64 watts	2.70 watts
Green AC Only Models:	2.24 watts	2.24 watts
Red Emergency Models:	3.81 watts	3.80 watts
Green Emergency Models:	3.50 watts	3.50 watts

*Wattage figures include LED lamps, transformer and electronics power requirements.

LED lamp assemblies (red or green) consume less than 1 watt.

Power Factor, Average: .8 (lagging)

Compliances

UL 924 (meets 1998 brightness and uniformity requirements)

UL Damp Location Listed

NFPA-101

EPA/DEP ENERGY STAR® compliant

Warranty

LED Illumination Strip: Lifetime

Unit and Electronics: 5-years full

Battery: 1 year full, 9 years pro-rata (10 years total)

Product Selector

AC Model Numbers	Emergency Model Numbers	Colors		Description
		Letters	Stencil/Housing	
Single Face Models				
LXSRW	LXSRWE	Red	White	Single face with canopy
LXSGW	LXSGWE	Green	White	Single face with canopy
LXSRB	LXSRBE	Red	Black	Single face with canopy
LXSGB	LXSGBE	Green	Black	Single face with canopy
Universal Models				
LXURW	LXURWE	Red	White	Single/Double face with canopy
LXUGW	LXUGWE	Green	White	Single/Double face with canopy
LXURB	LXURBE	Red	Black	Single/Double face with canopy
LXUGB	LXUGBE	Green	Black	Single/Double face with canopy
Options and Accessory Items				
Option Descriptions		Factory Equipped Add Suffix To Model		Field Conversion Kit Order Part Number
Emergency operation module		— ⁽¹⁾		(Red) FX2-E (Green) FX-E
Spectron self-diagnostic/self-testing electronics ⁽²⁾⁽³⁾		I		—
2-circuit operation ⁽⁴⁾⁽⁸⁾		-2C		—
Fire alarm panel interface ⁽⁵⁾⁽⁷⁾⁽⁸⁾		-FAP		—
Flasher module ⁽²⁾⁽⁷⁾		-FM		—
Audible/Flasher module ⁽²⁾⁽⁷⁾		-AF		—
Remote DC operation ⁽⁶⁾⁽⁷⁾		-DC		—
220/240 VAC, 50 Hz operation		-24K		—
"SALIDA" stencil face		-SA		—
Pendant mounting kit (white)		—		PMLXW
Pendant mounting kit (black)		—		PMLXB
Wire guard (Wall mount)		—		WGLX
Wire guard (Ceiling mount)		—		WGLXC
Wire guard (End mount)		—		WGLXE
Wire guard (Wall mount)		—		WG-MLT
Wire guard (End mount)		—		F-44G
Vandal Resistant shield		—		VRS3

(1) For factory equipped emergency models, see Product Selector above.

(2) For specification with emergency models only.

(3) Add "I" option suffix immediately after base emergency model number. Example: LXURWEI.

(4) For use with AC models only.

(5) Operates with 24-volt AC or DC fire alarm panels.

(6) For emergency illumination of sign from remote 6-24 VDC power sources.

(7) -FAP, -FM, -AF or -DC options may not be specified together.

(8) -2C and -FAP options may be specified together.

Suggested Specification

Exit sign construction will be flame-rated, UV stable thermoplastic in textured (white)(black) finish. Exit face will provide 6" high letters with 3/4" stroke and snap-in, chevron type directional arrows. Exit sign design will allow universal 120/277VAC, 60 Hz operation. Normal AC illumination will be provided by 6 red or green high-output LEDs consuming less than (3)(4) watts at 120 or 277VAC. Normal LED lamp life will be in excess of 20 years. Exit letters will provide twice the lumen output and 10 times the illumination uniformity required by 1998 UL specifications. Exits will be (single face) (universal single/double face) and provided with all necessary components for wall, ceiling or end mounting applications. Mounting canopies will be provided with all models and will be of identical construction and color to match the exit frame. Exits will be designed to mount to 3 1/2" or 4" octagon, 4" square or standard plaster rings. Emergency exit models will be achieved through a (factory)(field) installed fully automatic emergency operation module. All emergency module components will mount inside the exit housing and will include a solid-state constant current type battery charger, a maintenance-free nickel-cadmium battery, an AC-On indicator light and a test switch. The unit charger will be capable of recharging the battery within acceptable UL time standards. The emergency operation module must be capable of providing a minimum of 2 hours of emergency operation. Exit signs must comply with all UL 924, (UL Damp Location) and NFPA 101 Life Safety Code requirements.

Optional equipment will include: _____
Dimensions to be 9" (23 cm) high x 13" (33 cm) wide x 1 7/8" (4.75 cm) deep.