Ohio | Public Utilities Commission

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

Case No.: 13-0152-EL-EEC

Mercantile Customer: Cuyahoga County Public Library

Electric Utility: The Cleveland Electric Illuminating Company

Program Title or Description: Renovations and new construction at branch libraries

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:Cuyahoga County Public Library

Principal address:2111 Snow Road Parma, OH 44134

Address of facility for which this energy efficiency program applies:See Exhibit 1

Name and telephone number for responses to questions:Dan Dumond, 614-949-5203

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. (Please attach documentation.)
- ☒ The customer is part of a national account involving multiple facilities in one or more states. (Please attach 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: The Cleveland Electric Illuminating Company

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)). **If Checked, Please see Exhibit 1 and Exhibit 2**

☐ 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):

See Exhibit 1.

☐ 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: 74624 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. **Please see Exhibit 1 if applicable**

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: 326847 kWh

Please describe the less efficient new equipment that was rejected in favor of the more efficient new equipment. **Please see Exhibit 1 if applicable**

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?

See Exhibit 1

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

8 kW

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 $21127 (Rebate shall not exceed 50% project cost. Attach documentation showing the methodology used to determine the cash rebate value and calculations showing how this payment amount was determined.)

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: **See Exhibit 3** (Skip to Subsection 2.)

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

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

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The 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 **See Exhibit 3**

The utility's program costs were **See Exhibit 3**

The utility's incentive costs/rebate costs were **See Exhibit 3**

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.
- 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.

Ohio | Public Utilities Commission

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

Case No.: 13-0152-EL-EEC

State of Ohio :

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

1. I am the duly authorized representative of:

   Cuyahoga County Public Library
   [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.

Adam A. Mory, Operations Director / Fiscal Officer
Signature of Affiant & Title

Sworn and subscribed before me this 15th day of January 2013 Month/Year

Martha M. Sheedy
Signature of official administering oath

MARTHA M. Sheedy, Notary
Print Name and Title

MARTHA M. SHEEDY, Notary Public
In and for the State of Ohio
My Commission Expires Dec. 2, 2015

My commission expires on _____

Docket Number	Site Name	Address	City	State	Zip	Utility
13-0152	Brecksville Branch	9089 Brecksville Road	Brecksville	OH	44141	CE
13-0152	Beachwood Branch	25501 Shaker Boulevard	Beachwood	OH	44122	CE
13-0152	Chagrin Falls Branch	100 East Orange Street	Chagrin Falls	OH	44022	CE
13-0152	Warrensville Heights Branch	4415 Northfield Road	Warrensville Heights	OH	44128	CE

Exhibit 1

Customer Legal Entity Name: Cuyahoga County Libraries

Site Address: Cuyahoga County Library Beachwood Branch
Principal Address: 25501 Shaker Boulevard

Project No.	Project Name	Narrative description of your program including, but not limited to, make, model, and year of any installed and replaced equipment:	Description of methodologies, protocols and practices used in measuring and verifying project results	What date would you have replaced your equipment if you had not replaced it early? Also, please explain briefly how you determined this future replacement date.	Please describe the less efficient new equipment that you rejected in favor of the more efficient new equipment.
1	Lighting Upgrade	This project includes the replacment of exisiting lighting fixtures with new more efficient fixtures and addition of occupancy sensors to control lighting in key areas.	Data was gathered from attachments E and F and then entered into the lighting rebate calcualtor to determine savings and reabte.	So specific timeframe. All equipment was fully functional when replaced with no set date of obsolescence, the equipment was replaced for greater energy efficiency.	N/A

Exhibit 2

Customer Legal Entity Name: Cuyahoga County Libraries
Site Address: Cuyahoga County Library Beachwood Branch
Principal Address: 25501 Shaker Boulevard

	Unadjusted Usage, kwh (A)	Weather Adjusted Usage, kwh (B)	Weather Adjusted Usage with Energy Efficiency Addbacks, kwh (c) *Note 1*
2011	269,920	269,920	269,920
Average	**269,920**	**269,920**	**269,920**

Project Number	Project Name	In-Service Date	Project Cost $	50% of Project Cost $	KWh Saved/Year (D) counting towards utility compliance	KWh Saved/Year (E) eligible for incentive	Utility Peak Demand Reduction Contribution, KW (F)	Prescriptive Rebate Amount (G) $	Eligible Rebate Amount (H) $ *Note 2*
1	Lighting Upgrade	07/18/2012	$66,300	$33,150	18,553	18,553	1	$364	$273
					-	-	-		
					-	-	-		
					-	-	-		
					-	-	-		
					-	-	-		
					-	-	-		
		Total	**$66,300**		**18,553**	**18,553**	**1**	**$364**	**$273**

Docket No. 13-0152
Site: 25501 Shaker Boulevard

Notes
(1) Customer's usage is adjusted to account for the effects of the energy efficiency programs included in this application. When applicable, such adjustments are prorated to the in-service date to account for partial year savings.

(2) The eligible rebate amount is based upon 75% of the rebates offered by the FirstEnergy Commercial and Industrial Energy Efficiency programs or 75% of $0.08/kWh for custom programs for all energy savings eligible for a cash rebate as defined in the PUCO order in Case NO.10-834-EL-EEC dated 9/15/2010, not to exceed the lesser of 50% of the project cost or $250,000 per project. The rebate also cannot exceed $500,000 per customer per year, per utility service territory.

Commitment Payment $
$0

Exhibit 3 Utility Cost Test

UCT = Utility Avoided Costs / Utility Costs

Project	Total Annual Savings, MWh (A)	Utility Avoided Cost $/MWh (B)	Utility Avoided Cost $ (C)	Utility Cost $ (D)	Cash Rebate $ (E)	Administrator Variable Fee $ (F)	Total Utility Cost $ (G)	UCT (H)
1	19	$ 308	$ 5,720	$ 4,050	$273	$186	$ 4,509	**1.3**
Total	**19**	**$ 308**	**5,720**	**4,050**	**$273**	**$186**	**4,509**	**1.3**

Notes

(A) From Exhibit 2, = kWh saved / 1000

(B) This value represents avoided energy costs (wholesale energy prices) from the Department of Energy, Energy Information Administration's 2009 Annual Energy Outlook (AEO) low oil prices case. The AEO represents a national average energy price, so for a better representation of the energy price that Ohio customers would see, a Cinergy Hub equivalent price was derived by applying a ratio based on three years of historic national average and Cinergy Hub prices.This value is consistent with avoided cost assumptions used in EE&PDR Program Portfolio and Initial Benchmark Report, filed Dec 15, 2009 (See Section 8.1, paragraph a).

(C) = (A) * (B)

(D) Represents the utility's costs incurred for self-directed mercantile applications for applications filed and applications in progress. Includes incremental costs of legal fees, fixed administrative expenses, etc.

(E) This is the amount of the cash rebate paid to the customer for this project.

(F) Based on approximate Administrator's variable compensation for purposes of calculating the UCT, actual compensation may be less.

(G) = (D) + (E) + (F)

(H) =(C) / (G)

Cuyahoga County Libraries ~ Cuyahoga County Library Beachwood Branch
Docket No. 13-0152

Site: 25501 Shaker Boulevard

Lighting Form

Lighting Inventory Form

Applicant Name: Cuyahoga County Libraries

Facility Name: Beachwood Branch

Date:

Instructions: Please use one line for each fixture type in a room or area

For existing or proposed control, choose OCC for Occupany Sensor, DAYLTG for photosensor, or NONE for none. Controls must save energy to qualify.

The total of Column S, the quantities of CFLs and exit signs in Column M, and the quantities of sensors in Column R, will be used to calculate your incentive on the NonStandard Lighting form.

PROJECT BASIC INFORMATION							PRE-INSTALLATION						POST-INSTALLATION						Energy Calculations																		Post Fixture Cut Sheet Number
Line Item	Building Address	Floor	Area Description	Interior or Exterior Fixture	Predominant Space Type	Area Cooling	Pre Fixture Qty	Pre Fixture Code	Pre Watts / Fixture (W)	Pre kW / Space (kW)	Existing Control drop down	Existing Sensor Quantity When applicable	Post Fixture Qty	Post Fixture Code	Post Watts/ Fixture (W)	Post kW / Space (kW)	Proposed Control Please enter DAYLTG, OCC or NONE.	Proposed Sensor Quantity When applicable	Interior Change in Connected Load (kW) excluding CFLs or Exit Signs	Exterior Change in Connected Load (kW) excluding CFLs or Exit Signs	Change in Connected Load (kW) CFL or LED exit sign	Applicant Coincidence Factor (CF) Estimate	Coincidence Factor	Interactive Factor (demand)	Interactive Factor (energy)	Pre Controls Factor	Post Controls Factor	Interior Demand Savings (kW) excluding CFLs or Exit Signs	Exterior Demand Savings (kW) excluding CFLs or Exit Signs	Demand Savings (kW) CFLs or LED Exit Signs	Applicant Equivalent Full Load Hours (EFLH) Estimate	Prescribed Equivalent Full Load Hours	Annual Interior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual Exterior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual kWh Saved (CFL or LED exit signs only)	Annual kWh Saved (Sensors only)	
e.g.	*400 North Street*	*2*	*Office*	*Interior*	*Office - Small*	*Cooled Space*	*3*	*F44ILL*	*112*	*0.34*	*NONE*		*3*	*CFT55/1-BX*	*56*	*0.17*	*OCC*	*3*			*0.17*	*84%*	*84%*	*34%*	*12%*		*30%*			*0.19*	*2,808*	3,435			*646*	*194*	*1*
e.g.	*Example*	*1*	*Restaurant*	*Exterior*	*Restaurant - Fast Food*	*Uncooled space*	*5*	*Example Cut Sheet 1*	*50*	*0.25*	*OCC*	*5*	*5*	*Example Cut Sheet 2*	*25*	*0.13*	*DAYLTG*	*5*		*0.13*		*88%*	*88%*			*30%*	*50%*		*0.11*		*8,760*	4,156		*208*		*260*	*1A*
1	haker Blv Beachwood O	1	Library	Interior	Office - Small	Cooled Space	1	Cut Sheet 1	13,485	13.49	NONE		1	Cut Sheet 2	12,375	12.38	OCC	6	1.11				84%	34%	12%		30%	1.25				3,435	4,270			14,283	
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Lighting Form

PROJECT BASIC INFORMATION							PRE-INSTALLATION						POST-INSTALLATION					Energy Calculations																				
Line Item	Building Address	Floor	Area Description	Interior or Exterior Fixture	Predominant Space Type	Area Cooling	Pre Fixture Qty	Pre Fixture Code	Pre Watts / Fixture (W)	Pre kW / Space (kW)	Existing Control drop down	Existing Sensor Quantity When applicable	Post Fixture Qty	Post Fixture Code	Post Watts/ Fixture (W)	Post kW / Space (kW)	Proposed Control Please enter 0,MTG,TS, OCC or NONE.	Proposed Sensor Quantity When applicable	Interior Change in Connected Load (kW) excluding CFLs or Exit Signs	Exterior Change in Connected Load (kW) excluding CFLs or Exit Signs	Change in Connected Load (kW) CFL or LED exit sign	Applicant Coincidence Factor (CF) Estimate	Coincidence Factor	Interactive Factor (demand)	Interactive Factor (energy)	Pre Controls Factor	Post Controls Factor	Interior Demand Savings (kW) excluding CFLs or Exit Signs	Exterior Demand Savings (kW) excluding CFLs or Exit Signs	Demand Savings (kW) CFLs or LED Exit Signs	Applicant Equivalent Full Load Hours (EFLH) Estimate	Prescribed Equivalent Full Load Hours	Annual Interior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual Exterior Fixture kWh Saved (excluding CFLs or Exit Signs)	Annual kWh Saved (CFL or LED exit signs only)	Annual kWh Saved (Sensors only)	Post Fixture Cut Sheet Number
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250											NONE						NONE																					
Totals							1			13.49			1			12.38			1.11									1.25						4,270				14,283	
																			1.11									1.25						18,553				

Note: If your total change in connected load is greater than or equal to 50 kW the cell above will be red. Please see row 4 on the Instructions tab for information on adjusting the predominant space type to "Other" and estimating CF and EFLH values.

Project Estimated Annual Savings Summary

Estimated Annual kWh Savings	18,553
Total Change in Connected Load	1.11

Annual Estimated Cost Savings	$1,855.30
Annual Operating Hours	3,435

Interior Lighting Incentive @ $0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	$213.50
Exterior Lighting Incentive @ $0.05/kWh (excluding retrofit CFLs, sensors, or LED exit signs)	$0.00
Total retrofit CFL Incentive @ $1/screw-in CFL lamp; $15/hard-wired CFL lamp (includes all retrofit CFLs, both interior and exterior)	$0.00
Total retrofit LED Exit Incentive @ $10/exit sign	$0.00
Total Lighting Controls Incentive @ $25/sensor (includes all Lighting Controls, both interior and exterior)	$150.00

Total Calculated Incentive	$363.50

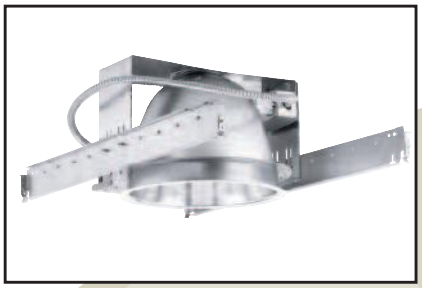
Total Fixture Quantity excluding retrofit CFLs and LED Exit Sign	1
Total Lamp Quantity for retrofit Screw-In CFLs	0
Total Lamp Quantity for retrofit Hard-Wired CFLs	0
Total Fixture Quantity for retrofit LED Exit Signs	0
Total Quantity for Occupancy Sensors	6
Total Quantity for Daylight Sensors	0

Please briefly describe how you estimated your coincidence factor (CF) and applicant equivalent full-load hours (EFLH) for facility type “Other” indicated on the Lighting Form tab

Demand Savings (For Internal Use Only)	1.25

OM102H42PLTWW

10" Open Reflector Horizontal Wall Wash



CAT. NO:

TYPE: D **PROJECT:**

PRODUCT INFORMATION

Applications

Open reflector wall wash for use with long-life energy efficient compact fluorescent lamps. Provides medium, uniform light distribution with excellent color rendition. Ideal for areas requiring long hours of continuous operation such as lobbies, corridors, reception areas and offices.

Specifications

Attachment E

1. **Ballast** - One (1) Type 1 Class P, high power factor universal voltage electronic compact fluorescent ballast. Offer both 1 or 2 lamp operation for 120 through 277 volt input voltage.

	(2) 32W 32W 120V	277V	(2) 42W 42W 120V	277V
Line current amps	.58	.26	.76	.32
Input watts including ballast loss	69	67	91	90
Ballast factor	1.00	1.00	.95	.95
Minimum starting temperature	0°F	0°F	0°F	0°F

2. **Mounting pan** - Precision die-stamped 16 gauge galvanized steel mounting pan and yoke assembly. Accommodates ceiling materials up to 1-3/8" thick.

3. **Installation** - Mounting pan has pre-installed C-channel with vertical and horizontal adjustments. Ballast and junction box are accessible from below ceiling. For 27" flat bar hanger pair, specify Q1031 accessory, ordered separately.

4. **Reflector** - Precision spun .050 aluminum one piece reflector, self flanged with clear specular low iridescent Alzak finish. Reflector is screw mounted for positive attachment to socket assembly. Standard flat flange is painted white. Optional polished flange matching reflector finish available, add FF to catalog number.

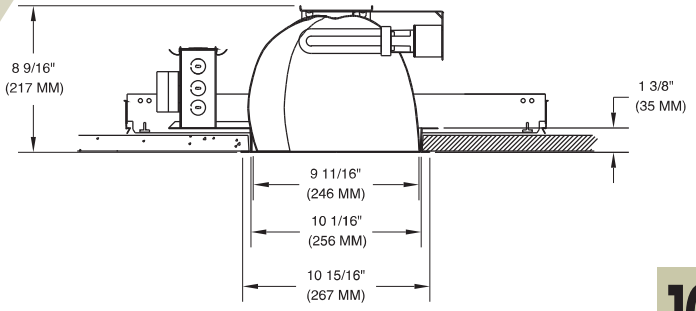
5. **Socket** - CFM42W/GX24q, CFM32W/G24q

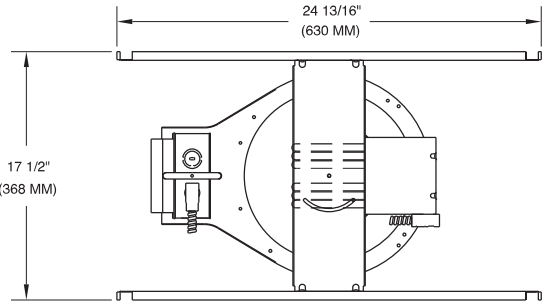
6. **Junction box** - Extra large 43.75-cubic inch 16 gauge galvanized steel with snap-on covers. Approved for through wiring with up to 8 #12 AWG conductors.

7. **Optional emergency system** - Emergency system includes battery, electronic circuitry, charger and test/monitor plate with test switch and charging indicator light. Test/monitor plate may be installed in the ceiling near fixture or other remote location. Operates appropriate wattage lamp for a minimum of of 90 minutes following power failure. Emergency system complies with NFPA life safety code, OSHA and NEC. Suitable for dry locations.

8. **U.L. Listed** - For use in damp locations and approved for Through Branch Circuit Wiring. I.B.E.W. union made.

Canadian Specifications may vary from these shown, consult Canadian Division.





10

CATALOG SYSTEM AND OPTIONS

EXAMPLE OF COMPLETE CATALOG NUMBER: **OM102H42PLTWW-CS-120/277**

OMEGA Aptr.	No. of Lamps	Lamps Position	Lamp (by others)	Reflector Type	Reflector Finish	Options	Supply Voltage
OM10	____	H	_____	WW	_____	_____	_____
	1	Horizontal	**42 PLT** - Triple Tube CFL	Wall Wash	**CS** Clear Specular	**EM** Emergency	**120/277**
	2		**32 PLT** - Triple Tube CFL		**CSS** Clear Semi-Specular	**IE** Integral Emergency	**347** ♣
					HZ Haze	**FZ120** Fusing	
					GS Gold Specular	**FZ277** Fusing	
					WT Wheat	**FZ347** Fusing	
					PW Pewter	**CP** Chicago Plenum	
					BK Black	**Q1031** Flat Bar Hangers	
					BZ Bronze	**SA6** Sloped Ceiling Adpt.	
					WH White	**DL1** Dimming, Lutron Compact SE, 120v	
					FF Finish Flange (as suffix to color)	**DL2** Dimming, Lutron Compact SE, 277v	
						DX1 Dimming, Advance Mark X, 120v	
						DX2 Dimming, Advance Mark X, 277v	

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FIVE YEAR Warranty

OMEGA LIGHTING: 776 South Green St., Tupelo, MS 38804 Phone 662.842.7212 FAX 662.841.5501

OM102H42PLTWW-CS

Photometric Data

Wall Washer with Clear Reflector

Source: Compact Fluorescent
Lamp: (2) CFM42W
Reflectances: 80% ceiling, 50% walls, 20% floor
Maintenance Factor: 1.0
IES File: F20243.IES

Distance from ceiling (ft)	2'6" from wall, 2'6" on center		2'6" from wall, 3' on center		3' from wall, 3' on center		3' from wall, 4' on center	
	Below Fixtures	Between Fixtures	Below Fixtures	Between Fixtures	Below Fixtures	Between Fixtures	Below Fixtures	Between Fixtures
1	23.9	26.0	20.7	22.3	17.9	17.5	14.4	14.6
2	53.7	37.3	49.8	29.8	22.2	22.1	18.0	17.1
3	114.1	99.6	104.7	77.7	70.1	47.9	64.6	28.7
4	109.4	106.6	91.1	91.7	83.2	79.3	69.8	56.8
5	91.2	88.1	77.0	75.3	78.6	75.8	58.4	60.3
6	72.9	71.8	62.6	60.9	67.5	65.0	51.2	51.2
7	59.7	59.3	51.2	50.5	56.8	55.6	44.2	43.2
8	50.9	50.8	44.2	43.9	49.4	48.9	38.6	38.0
9	44.1	44.5	39.2	39.0	43.7	43.3	34.0	33.8

OM102H32PLTWW-CS

Photometric Data

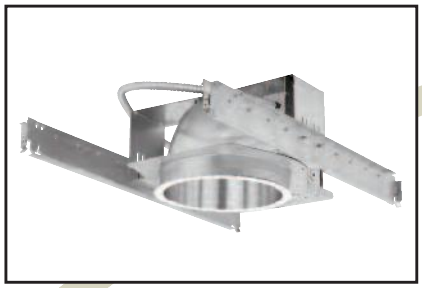
Wall Washer with Clear Reflector

Source: Compact Fluorescent
Lamp: (2) CFM32W
Reflectances: 80% ceiling, 50% walls, 20% floor
Maintenance Factor: 1.0
IES File: F20242.IES

Distance from ceiling (ft)	2'6" from wall, 2'6" on center		2'6" from wall, 3' on center		3' from wall, 3' on center		3' from wall, 4' on center	
	Below Fixtures	Between Fixtures	Below Fixtures	Between Fixtures	Below Fixtures	Between Fixtures	Below Fixtures	Between Fixtures
1	15.6	16.5	13.3	14.4	11.9	11.7	9.7	9.7
2	24.0	18.9	21.6	16.6	13.0	13.6	10.1	10.9
3	62.4	56.0	57.6	42.7	34.7	22.1	31.4	14.6
4	67.0	69.8	55.4	60.1	47.3	48.7	40.4	33.2
5	59.3	58.6	49.0	51.1	48.9	50.0	35.9	39.9
6	48.7	48.4	41.3	41.5	44.0	43.1	32.2	35.1
7	40.7	40.4	34.7	34.6	37.8	37.4	28.7	29.6
8	35.3	35.0	30.4	30.2	33.5	33.3	25.8	26.0
9	31.0	30.9	27.2	26.9	30.1	29.7	23.1	23.2

OM82H42PLT

8" Open Reflector Downlights



CAT. NO:

TYPE: DE

PROJECT:

PRODUCT INFORMATION

Applications

Open reflector downlight for use with long-life energy efficient compact fluorescent lamps. Provides medium, uniform light distribution with excellent color rendition. Ideal for areas requiring long hours of continuous operation such as lobbies, corridors, reception areas and offices.

Specifications

1. **Ballast** - One (1) Type 1 Class P, high power factor universal voltage electronic compact fluorescent ballast. Offer both 1 or 2 lamp operation for 120 through 277 volt input voltage.

	(2) 18W 120V	18W 277V	(2) 26W 120V	26W 277V	(2) 32W 120V	32W 277V	(2) 42W 120V	42W 277V
Line current amps	.34	.15	.49	.21	.58	.26	.76	.32
Input watts including ballast loss	40	40	56	56	69	67	91	90
Ballast factor	.98+	.98+	.98+	.98+	1.00	1.00	.98	.98
Minimum starting temperature	0°F	0°F	0°F	0°F	0°F	0°F	0°F	0°F

2. **Mounting pan** - Precision die-stamped 16 gauge galvanized steel. Accommodates ceiling materials up to 1-3/8" thick.

3. **Installation** - Mounting pan has pre-installed C-channel with vertical and horizontal adjustments. Ballasts and junction box are accessible from below ceiling. For 27" flat bar hanger pair, specify Q1031 accessory, ordered separately.

4. **Reflector** - Precision spun .050 aluminum, self flanged with clear specular low iridescent Alzak finish. Reflector is screw mounted for positive attachment to socket assembly. Standard flat flange is painted white. Optional polished flange matching reflector finish available, add FF to catalog number.

5. **Baffle** - Precision machined .051 aluminum with deep grooves to minimize aperture glare, anodized matte black or matte white finish. Standard flat flange is painted white. Optional black flange available, add FF to catalog number.

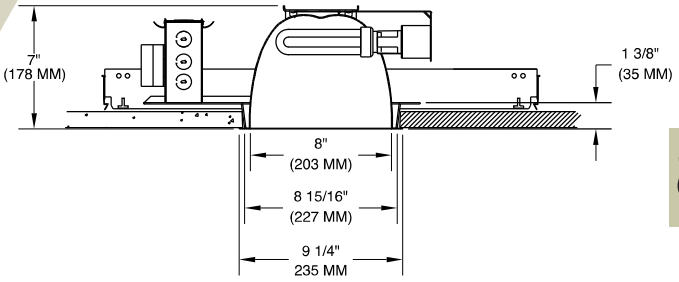
6. **Sockets** - CFM42W/GX24q, CFM32W/GX24q, CFM26W/GX24q, CFM18W/GX24q

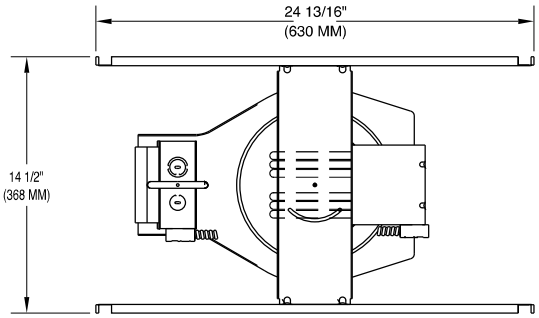
7. **Junction box** - Extra large 43.75-cubic inch 16 gauge galvanized steel with snap-on cover and ground wire riveted to frame. Approved for through wiring with up to 8 #12 AWG conductors.

8. **Optional emergency system** - Emergency system includes battery, electronic circuitry, charger, and test/monitor plate with test switch and charging indicator light. Test monitor plate may be installed in the ceiling near the fixture or other remote location. Operates appropriate lamp wattage for a minimum of 90 minutes following power failure. Battery is recharged automatically following restoration of power. Emergency system complies with NFPA life safety code, OSHA and NEC. Suitable for dry locations.

9. **U.L. Listed** - For use in damp locations and approved for Through Branch Circuit Wiring. I.B.E.W. union made.

♣ Canadian Specifications may vary from these shown, consult Canadian Division.





8

CATALOG SYSTEM AND OPTIONS

EXAMPLE OF COMPLETE CATALOG NUMBER: **OM82H42PLT-CS-120/277**

OMEGA Aptr.	No. of Lamps	Lamps Position	Lamp (by others)	Reflector Type	Reflector Finish	Options	Slope Ceiling Adapter Angle	Supply Voltage
OM8	____	H	_____	_____	_____	_____	_____	_____
	1	Horizontal	**42 PLT** Triple Tube CFL	**BB** Black Baffle	**CS** Clear Specular	**EM** Emergency	5	120/277
	2		**32 PLT** Triple Tube CFL		**CSS** Clear Semi-Specular	**IE** Integral Emergency	10	347 ♣
			26 PLT Triple Tube CFL		**HZ** Haze	**FZ120** Fusing	15	
			18 PLT Triple Tube CFL		**GS** Gold Specular	**FZ277** Fusing	20	
					WT Wheat	**FZ347** Fusing	25	
					PW Pewter	**CP** Chicago Plenum	30	
					BK Black	**Q1031** Flat Bar Hangers		
					BZ Bronze	**SA8** Sloped Ceiling Adpt.		
					WH White	**DL1** Dimming, Lutron Compact SE, 120v		
					FCS Faceted Clear Specular	**DL2** Dimming, Lutron Compact SE, 277v		
					FCSS Faceted Clear Semi Specular	**DX1** Dimming, Advance Mark X, 120v		
					FF Finish Flange (as suffix to color)	**DX2** Dimming, Advance Mark X, 277v		
						CL Clear Lens		
						PL Prismatic Lens		
						FL Fresnel Lens		

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FIVE YEAR Warranty

PHILIPS omega

PHILIPS OMEGA
776 South Green St., Tupelo, MS 38804
Phone 662.842.7212 FAX 662.841.5501

PHILIPS DAY-BRITE CANADA
189 Bullock Drive, Markham, Ontario, Canada L3P 1W4
Phone 905.294.9570 FAX 800.268.0003

REVELATION

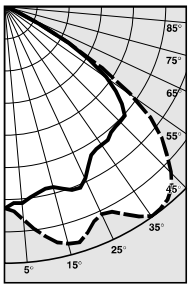
OM82H42PLT-CS — Photometric Data

Clear Specular Reflector
Report Number: 21033
Lamp: (2) CFM42W
Total Lumens: 6400
Fixture Efficiency: = 63.0%
IES File: 21033.IES
S/MH Ratio = 1.3, 1.8
Beam Angle: 104.86

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	40.0	17-6
10	21.5	23-10
12	13.4	30-3
14	9.1	36-7
16	6.6	42-11

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	0	0	
85	2	0	354
75	6	6	715
65	62	97	5801
55	738	911	44326
45	975	1403	51851
35	1011	1533	
25	1135	1372	
15	1120	1471	
5	1182	1284	
0	1209	1209	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	68	68	68	68	65	65
1	63	60	60	59	58	56
2	56	53	55	52	53	50
3	50	46	48	45	46	44
4	45	40	44	40	41	39
5	40	34	39	34	38	34
6	35	30	34	30	34	29
7	33	28	32	28	30	27
8	29	25	28	25	28	23
9	27	23	27	22	26	22
10	25	20	25	20	23	20

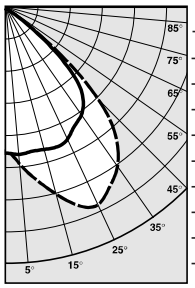
OM82H32PLT-CS — Photometric Data

Clear Specular Reflector
Report Number: 2827
Lamp: (2) CFM32W
Total Lumens: 4800
Fixture Efficiency: = 73.7%
IES File: EY5686.IES
S/MH Ratio = 1.8, 1.5
Beam Angle: 96.43

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	48.4	12-3
10	26.0	16-9
12	16.2	21-3
14	11.1	25-8
16	8.0	30-2

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	0	0	
85	0	0	0
75	0	0	0
65	2	2	43
55	240	268	4206
45	993	1359	17286
35	1244	1843	
25	1377	2070	
15	1366	1795	
5	1384	1468	
0	1268	1268	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	88	88	86	86	82	82
1	81	78	79	77	76	74
2	74	71	73	70	70	68
3	68	64	67	63	65	61
4	62	57	61	57	59	56
5	56	51	56	51	54	50
6	52	46	51	46	50	46
7	47	41	46	41	45	40
8	42	36	41	36	41	36
9	37	32	37	32	36	31
10	34	28	33	28	33	28

8

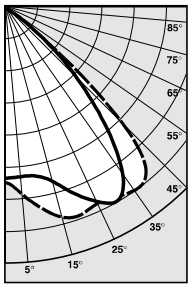
OM81H42PLT-CS — Photometric Data

Clear Specular Reflector
Report Number: 2775
Lamp: (1) CFM42W
Total Lumens: 3200
Fixture Efficiency: = 69.8%
IES File: EY5487.IES
S/MH Ratio = 1.8, 1.6
Beam Angle: 96.76

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	28.0	12-4
10	15.1	16-10
12	9.4	21-4
14	6.4	25-10
16	4.6	30-4

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	0	0	
85	0	0	0
75	0	0	0
65	2	1	36
55	131	104	2054
45	526	899	11438
35	988	1047	
25	996	1000	
15	827	1019	
5	790	874	
0	796	796	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	77	77	75	75	72	72
1	71	69	70	68	67	65
2	65	62	64	61	62	60
3	60	56	59	55	57	54
4	54	50	54	50	52	49
5	49	45	49	44	47	44
6	45	40	44	40	43	39
7	41	36	40	36	39	35
8	36	32	36	31	35	31
9	32	28	32	27	31	27
10	29	24	29	24	28	24

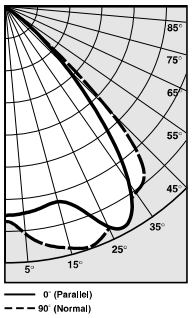
OM81H32PLT-CS — Photometric Data

Clear Specular Reflector
Report Number: 2777
Lamp: (1) 32W Triple
Total Lumens: 2400
Fixture Efficiency: = 69.8%
IES File: EY5486.IES
S/MH Ratio = 1.6, 1.5
Beam Angle: 92.72

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	26.9	11-6
10	14.5	15-8
12	9.0	19-11
14	6.2	24-1
16	4.5	28-3

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	0	0	
85	0	0	0
75	0	0	0
65	0	1	15
55	69	23	367
45	348	648	8240
35	826	839	
25	927	905	
15	739	928	
5	771	859	
0	777	777	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	82	82	80	80	77	77
1	76	74	74	73	72	70
2	70	67	69	66	67	64
3	64	61	63	60	62	59
4	59	55	58	54	57	53
5	54	49	53	49	52	48
6	50	45	49	45	48	44
7	45	40	45	40	44	40
8	41	36	40	36	40	35
9	37	32	36	32	36	31
10	33	28	33	28	32	28

*Readings at working plane, 2'6" above floor. Beam Angle and Diameter Cutoff at 50% of max.
Candlepower Coefficients used at effective reflectances of: 70% Ceiling, 50% Walls, 20% Floor

To convert values for optional reflector colors, multiply by:
Gold .90 Bronze .82 Pewter .87

Additional photometric test files are available @ omegalighting.com

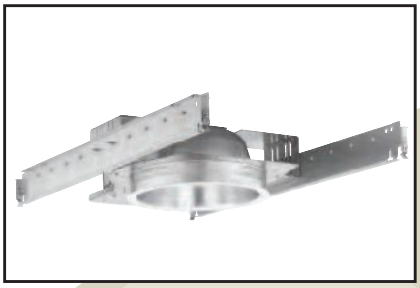
PHILIPS omega

PHILIPS OMEGA
776 South Green St., Tupelo, MS 38804
Phone 662.842.7212 FAX 662.841.5501

PHILIPS DAY-BRITE CANADA
189 Bullock Drive, Markham, Ontario, Canada L3P 1W4
Phone 905.294.9570 FAX 800.268.0003

OM82H42PLTSRD

8" Shallow Recessed Depth Downlights



CAT. NO:

TYPE: DL/DLE **PROJECT:**

PRODUCT INFORMATION

Applications

High efficiency shallow recessed fixture designed to accommodate limited mounting depths. Wide beam allows greater spacing between fixtures.

Specifications

1. **Ballast** - One (1) Type 1 Class P, high power factor universal voltage electronic compact fluorescent ballast. Offers 1 lamp operation for 120 through 277 volt input voltage.

	(2) 18W 120V	18W 277V	(2) 26W 120V	26W 277V	(2) 32W 120V	32W 277V	(2) 42W 120V	42W 277V
Line current amps	.34	.15	.49	.21	.58	.26	.76	.32
Input watts including ballast loss	40	40	56	56	69	67	91	90
Ballast factor	.98+	.98+	.98+	.98+	1.00	1.00	.98	.98
Minimum starting temperature	0°F	0°F	0°F	0°F	0°F	0°F	0°F	0°F

2. **Installation -** Mounting pan has pre-installed C-channel with vertical and horizontal adjustments. Ballasts and junction box are accessible from below ceiling. For 27" flat bar hanger pair, specify Q1031 accessory, ordered separately.

3. **Reflector** - Precision spun .050 aluminum one piece reflector, self flanged with clear specular low iridescent Alzak finish. Reflector is screw mounted for positive attachment to socket assembly. Standard flat flange is painted white. Optional polished flange matching reflector finish available, add FF to catalog number.

4. **Sockets** - CFM42W/GX24q, CFM32W/GX24q, CFM26W/GX24q, CFM18W/GX24q, CFQ26W/G24q, CFQ18W/G24q.

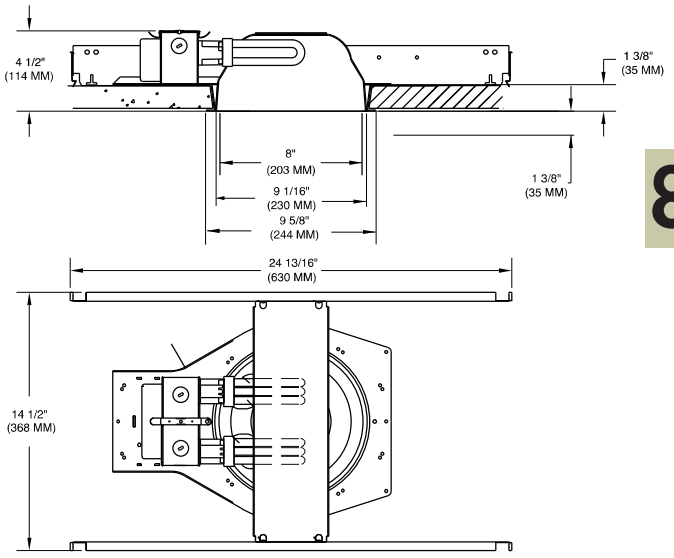
5. **Junction box** - Large 27.56 cubic inch 16 gauge galvanized steel with snap-on cover and ground wire riveted to frame. Approved for through wiring with up to 8 #12 AWG conductors.

6. **Optional emergency system** - Emergency system includes battery, electronic circuitry, charger and test/monitor plate with test switch and charging indicator light. Test/monitor plate may be installed in the ceiling near the fixture or other remote location. Emergency system operates appropriate lamp wattage for a minimum of 90 minutes following power failure. Battery is recharged automatically following restoration of power. Complies with NFPA life safety code, OSHA and NEC. Suitable for dry locations.

7. **U.L. Listed** - For use in damp locations and approved for Through Branch Circuit Wiring. I.B.E.W. union made.

♣ Canadian Specifications may vary from these shown, consult Canadian Division.

Shallow Recessed Depth **SRD**



8

CATALOG SYSTEM AND OPTIONS

EXAMPLE OF COMPLETE CATALOG NUMBER: **OM82H42PLTSRD-120/277**

OMEGA Aptr.	No. of Lamps	Lamps Position	Lamp (by others)	Fixture Type	Reflector Finish	Options	Supply Voltage
OM8	_____	H	_____	SRD	_____	_____	_____
	1	Horizontal	**42 PLT** Triple Tube CFL	Shallow	**CS** Clear Specular	**EM** Emergency	120/277
	2		**32 PLT** Triple Tube CFL	Recessed	**CSS** Clear Semi-Specular	**IE** Integral Emergency	347 ♣
			26 PLT Triple Tube CFL	Depth	**HZ** Haze	**FZ120** Fusing	
			18 PLT Triple Tube CFL		**GS** Gold Specular	**FZ277** Fusing	
					WT Wheat	**FZ347** Fusing	
			26 QPL Quad Tube CFL		**PW** Pewter	**CP** Chicago Plenum	
			18 QPL Quad Tube CFL		**BK** Black	**Q1031** Flat Bar Hangers	
			13 QPL Quad Tube CFL		**BZ** Bronze	**SA6** Sloped Ceiling Adpt.	
					WH White	**DL1** Dimming, Lutron Compact SE, 120v	
					FF Finish Flange (as suffix to color)	**DL2** Dimming, Lutron Compact SE, 277v	
						DX1 Dimming, Advance Mark X, 120v	
						DX2 Dimming, Advance Mark X, 277v	
						CL Clear Lens	
						PL Prismatic Lens	
						FL Fresnel Lens	

made with pride in the United States of America

FIVE YEAR Warranty

OMEGA LIGHTING: 776 South Green St., Tupelo, MS 38804 Phone 662.842.7212 FAX 662.841.5501

OM82H26QPLSRDCS

Photometric Data

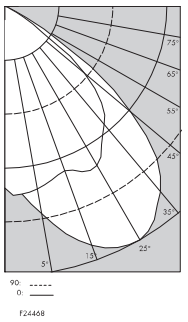
Decorative Shallow Recessed Depth

Report Number: 24468
Lamp: (2)CFQ26W
Total Lumens: 3600
Fixture Efficiency: = 58.1%
IES File: F24468.IES
S/MH Ratio = 1.4, 1.8
Beam Angle: 108.06

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	23.3	15 - 2
10	12.5	20 - 8
12	7.8	26 - 2
14	5.3	31 - 8
16	3.9	37 - 2

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
900	0		
85	0	0	0
75	3	3	104
65	27	41	724
55	177	406	4574
45	530	834	8680
35	654	1010	
25	708	1033	
15	697	914	
5	731	728	
0	705	705	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	68	68	68	68	68	68
1	65	63	60	58	63	61
2	59	56	53	51	58	55
3	56	51	46	44	54	50
4	52	46	40	38	50	45
5	47	40	36	33	46	40
6	44	36	33	28	42	36
7	40	34	28	26	40	33
8	38	30	26	23	36	30
9	35	28	23	20	34	28
10	33	26	22	19	33	26

OM82H32PLTSRDCS

Photometric Data

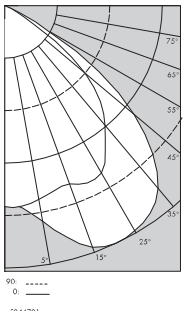
Decorative Shallow Recessed Depth

Report Number: 24470-1
Lamp: (2)CFT32W
Total Lumens: 4800
Fixture Efficiency: = 68.4%
IES File: F244701.IES
S/MH Ratio = 1.4, 1.7
Beam Angle: 107.45

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	39.1	14 - 12
10	21.0	20 - 5
12	13.1	25 - 11
14	8.9	31 - 4
16	6.5	36 - 10

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	1	0	
85	1	1	103
75	4	4	139
65	41	105	1555
55	364	676	8159
45	798	1232	12919
35	1032	1492	
25	1151	1545	
15	1127	1411	
5	1184	1196	
0	1183	1183	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	81	81	81	81	80	80
1	76	73	71	69	75	71
2	70	66	63	59	68	65
3	65	59	55	51	64	58
4	60	54	47	45	58	53
5	56	47	42	39	55	47
6	52	44	38	34	51	42
7	47	40	34	30	46	39
8	45	35	30	27	44	35
9	41	33	28	25	40	33
10	39	30	26	22	38	29

OM81H32PLTSRDCS

Photometric Data

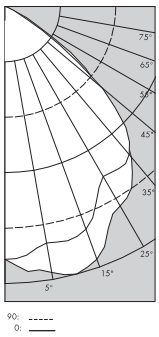
Decorative Shallow Recessed Depth

Report Number: 24458
Lamp: (1)CFT32W
Total Lumens: 2400
Fixture Efficiency: = 67.2%
IES File: F24458.IES
S/MH Ratio = 1.4, 1.2
Beam Angle: 98.35

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	16.9	7-1
10	9.1	9-8
12	5.7	12-3
14	3.9	14-10
16	2.8	17-5

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	0	1	
85	0	1	52
75	1	3	70
65	34	29	671
55	246	205	3538
45	485	525	6428
35	679	609	
25	752	664	
15	851	745	
5	817	767	
0	777	777	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	80	80	80	80	78	78
1	75	72	70	68	72	70
2	69	66	61	58	68	65
3	65	58	55	51	63	57
4	59	54	48	45	58	53
5	56	48	44	40	55	47
6	52	44	39	34	51	44
7	47	40	34	32	46	40
8	45	36	32	28	44	36
9	41	34	28	26	41	34
10	40	32	27	23	39	30

OM82H18QPLSRDCS

Photometric Data

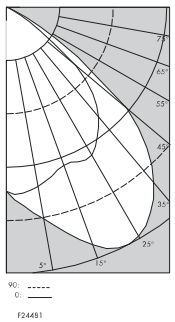
Decorative Shallow Recessed Depth

Report Number:24881
Lamp: (2)CFQ18W
Total Lumens: 2500
Fixture Efficiency: = 52.9%
IES File: F24481.IES
S/MH Ratio = 1.3, 1.8
Beam Angle: 104.86

LIGHTING PERFORMANCE DATA

CEILING HEIGHT* (FT.)	INITIAL FOOTCANDLES	BEAM DIAMETER (FT.-IN.)
8	16.0	14 - 4
10	8.6	19 - 6
12	5.4	24 - 8
14	3.7	29 - 11
16	2.7	35 - 1

DISTRIBUTION CURVE



DEGREES	CANDELA AT 0°	CANDELA AT 90°	FOOT-LAMBERTS
90	0	0	
85	0	0	0
75	2	2	70
65	14	27	437
55	109	229	2652
45	322	523	5378
35	417	661	
25	449	699	
15	461	615	
5	492	525	
0	485	485	

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80		70		50	
RW	50	30	50	30	50	30
0	63	63	63	63	60	60
1	58	56	56	54	57	56
2	55	52	48	46	54	51
3	51	46	42	40	50	46
4	46	41	38	34	46	40
5	44	38	34	30	42	36
6	40	34	29	27	40	34
7	38	30	27	23	36	30
8	34	28	25	22	34	28
9	33	26	22	20	32	26
10	30	23	20	17	29	23

*Readings at working plane, 2'6" above floor. Beam Angle and Diameter Cutoff at 50% of max.
Candlepower Coefficients used at effective reflectances of: 70% Ceiling, 50% Walls, 20% Floor
Additional photometric test files are available @ omegalighting.com

To convert values for optional reflector colors, multiply by:
Gold .90 Bronze .82 Pewter .87

OMEGA LIGHTING

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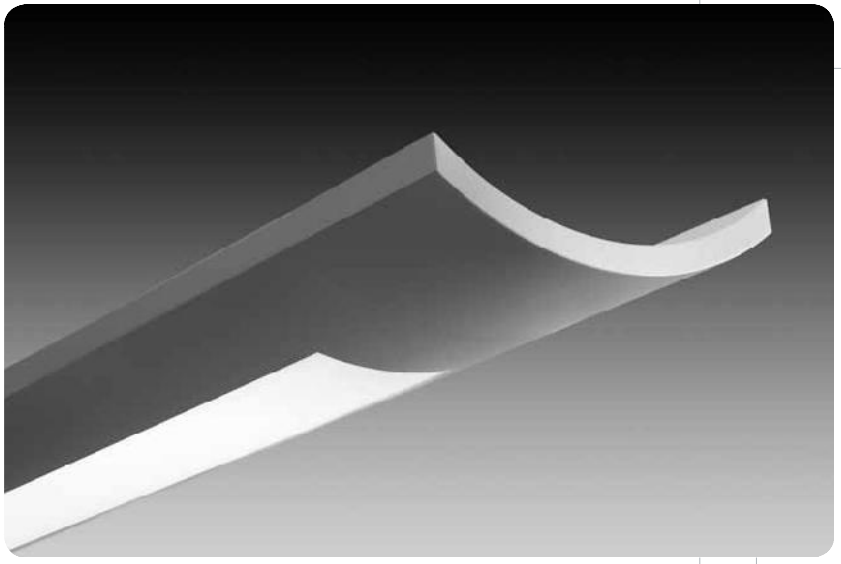
Phone 905.294.9570 FAX 800.268.0003

lens

verve™ IV

FOCAL POINT®



features

Suspended linear direct/indirect fluorescent with frosted acrylic, round patterned or squared patterned diffuser.

One-piece steel housing with 5" die-cast end caps.

Optional DR optics deliver light where you need it. Increased direct illumination suits ceiling heights from low to high, providing an opportunity to reduce lamps while maintaining light levels.

Internal Debris Shield keeps diffusers looking clean over the life of the project.

Practical and budget-friendly Verve™ IV is an excellent choice for commercial and educational applications.

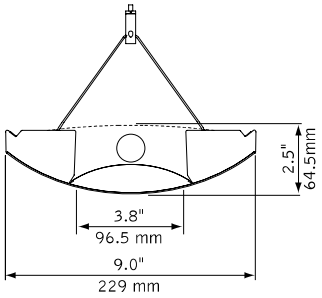
sheilding options

Round Patterned Diffuser | Square Patterned Diffuser | Frosted Acrylic Diffuser

sensor option companion luminaire

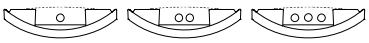
daylight/ occupancy sensor | Radial or Flat Blade Baffle | Louver

dimensional data



PDR | DR0, DR1, DR2 & DR4

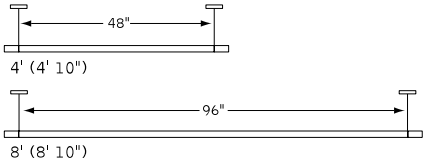
lamping options



T5HO LAMP | T5/T5HO LAMPS

T8 LAMPS

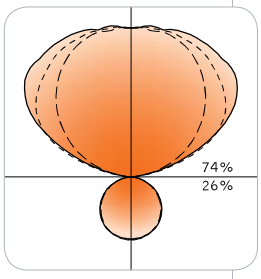
fixture information



performance

2–Lamp T5
Frosted Acrylic Lens
96.5% Efficiency
1066 cd @ 155°

everGreen™



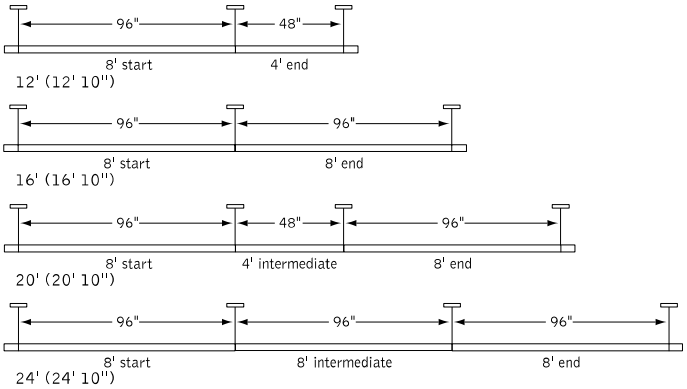
Visit focalpointlights.com for complete photometric data.

february 2011 C

fixture:

project: L/LE

suspension information



Consult factory for additional row length information.

specifications

construction

One-piece 20 Ga. steel housing.
Die-cast 5" end cap fastened to housing.
For row installation, internal brackets form hairline joint.
Standard lengths are available in 4' and 8',
All luminaires are provided with Y-cable suspension mounted on 48" or 96" centers.

4' unit weight: 20 lbs.
8' unit weight: 30 lbs.

optic

Frosted Acrylic Diffuser is 0.20" thick.
Patterned Acrylic Duffusers are 0.20" thick combined with additional 0.20" acrylic lens.
Clear acrylic internal debris shield supplied standard.
Optional Downlight Reflector optics fabricated of die-formed aluminum.
PDR reflector separates center lamp for direct distribution and two outer lamps for indirect distribution.

electrical

Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects.
Factory installed SJT power cord at feed location is included.
Electronic ballasts are thermally protected and have a Class "P" rating.
Optional dimming ballasts available.
UL and cUL listed.

sensors

Lutron daylight sensor is a directional sensor that operates with a Lutron EcoSystem ballast (DB). The sensor has an integrated IR receiver for EcoSystem programming.

Philips Luxsense daylight sensor measures reflected light from the surface below and dims lamp output when the light level exceeds required level. Output may be adjusted by turning the dial. A 0-10V dimming ballast is required (T5 - DS, T5HO - D7 standard).

Wattstopper daylight sensor is a closed loop system that measures total light level from daylight and electric light. A 0-10V dimming ballast is required (T5 - DS, T5HO - D7 standard).

Wattstopper occupancy sensor is a passive infrared sensor designed for cubicles and small offices. It has built-in daylight sensing that will hold lights off when adequate ambient light exists. One sensor controls multiple fixtures.

finish

Polyester powder coat applied over a 5-stage pretreatment.
Canopy finished in Matte Satin White.

ordering

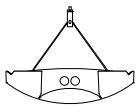
		FV4S
fixture series		
Verve IV	FV4S	
shielding		_____
Frosted Acrylic Diffuser	AC	
Round Patterned Diffuser	RA	
Square Patterned Diffuser	SA	
optional downlight accessories**		_____
Downlight Reflector - isolates center lamp (3-lamp & dual circuit options only)	PDR	
100% downlight	DR0	
up to 75% downlight	DR1	
up to 60% downlight	DR2	
up to 50% downlight	DR4	
lamping		_____
2 Lamp T5	2T5	
3 Lamp T5	3T5	
1 Lamp T5HO	1T5HO	
2 Lamp T5HO	2T5HO	
3 Lamp T5HO	3T5HO	
2 Lamp T8	2T8	
3 Lamp T8	3T8	
circuit		_____
Single Circuit	1C	
Dual Circuit (Multiple lamp luminaires only)	2C	
voltage		_____
120 Volt	120	
277 Volt	277	
347 Volt	347	
ballast		_____
Electronic Instant Start <20% THD (T8 Only)	E	
Electronic Program Start <10% THD	S	
Electronic Dimming Ballast*	D	
mounting		_____
24" Cable Suspension	C24	
48" Cable Suspension	C48	
96" Cable Suspension (Specify "J" in place of "C" for 5" dia. canopies at power feed and 2" dia. canopies at non-feed locations) (Consult factory for sloped ceiling applications)	C96	
factory options		
Dust Cover (Consult factory for compatibility)	DC	_____
Emergency Circuit*	EC	_____
Emergency Battery Pack*	EM	
HLR/GLR Fuse	FU	_____
Include 3000K Lamp*	L830	_____
Include 3500K Lamp*	L835	
Include 4100K Lamp*	L841	
Lutron™ Daylight Sensor* (EcoSystem ballast required)	LY1	_____
Lutron™ Sensor Feed* (EcoSystem ballast required)	SF	_____
Philips® Daylight Sensor* (0-10V dimming ballast required)	PY1	_____
WattStopper™ Daylight Sensor* (0-10V dimming ballast required)	WY1	_____
WattStopper™ Occupancy Sensor*	WO1	
finish		_____
Matte Satin White	WH	
Titanium Silver	TS	
luminaire length		
4'	4'	
8'	8'	
12' (8'+4')	12'	
16' (8'+8')	16'	
20' (8'+8'+4')	20'	
24' (8'+8'+8')	24'	
integrator options		_____
90-degree Corner	FV4-90	
remotes (specify quantity)		_____
WattStopper™ Daylight Setup Remote* (required for daylight programming, one included per order)	WYSR	
WattStopper™ Occupant Controller*	WOR	

* for more information see Reference section. **lamp type will effect actual percentage values. See IES file for exact uplight/downlight %.

Focal Point LLC | 4141 S. Pulaski Rd, Chicago, IL 60632 | T: 773.247.9494 | F: 773.247.8484 | info@focalpointlights.com | www.focalpointlights.com.

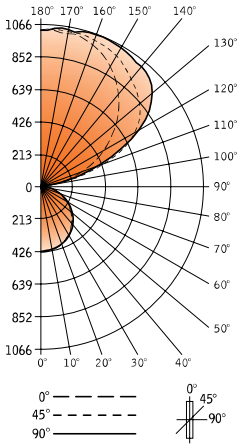
frosted acrylic lens

verve™ IV



Filename: FV4SAC2T5.IES
Catalog #: FV4S-AC-2T5-1C-120-S-WH-4
Efficiency: 96.5%
Test #: 26371

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle 0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	433	433	433	433	433	
5°	435	432	431	432	429	42
15°	420	417	417	420	419	118
25°	390	389	390	393	393	180
35°	347	346	348	352	352	218
45°	292	292	295	299	299	228
55°	228	228	232	236	236	207
65°	159	159	164	167	168	161
75°	88	90	94	96	97	99
85°	24	25	33	38	40	36
90°	0	6	13	18	20	
95°	35	64	50	49	49	67
105°	212	328	305	374	361	301
115°	398	513	615	599	588	545
125°	567	655	797	860	873	674
135°	728	786	892	982	101	679
145°	859	890	964	1021	1044	599
155°	962	974	1018	1051	1066	468
165°	1023	1030	1043	1055	1061	294
175°	1036	1032	1044	1050	1050	101
180°	1035	1035	1035	1035	1035	

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	339	6.5	6.8
	0°-90°	1288	24.8	25.7
	90°-180°	3728	71.7	74.32
Total Luminaire	0°-180°	5017	96.5	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	4044	4098	4155
55°	3890	3973	4047
65°	3669	3818	3894
75°	3322	3558	3692
85°	2638	3658	4485

CO-EFFICIENTS OF UTILIZATION

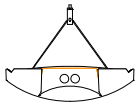
Floor		80				70			20 50		30		10		00
Ceiling															
Wall	70	50	30	10	70	50	10	50	10	50	10	50	10	00	
RCR 0	98	98	98	98	87	87	87	67	67	49	49	33	33	25	
1	89	85	81	78	79	76	70	59	55	43	41	29	27	21	
2	81	74	69	64	72	66	57	52	45	38	34	25	23	18	
3	74	65	59	53	66	59	49	46	38	34	29	23	20	15	
4	68	58	50	45	60	52	41	40	33	30	5	20	17	13	
5	62	50	43	38	55	46	34	36	28	26	21	18	15	11	
6	57	45	38	33	50	41	30	32	24	24	18	16	13	9	
7	52	41	33	28	46	35	25	29	21	21	16	14	11	8	
8	48	37	29	24	43	33	22	26	18	19	14	13	9	7	
9	44	33	26	21	39	30	19	23	16	17	12	12	8	6	
10	41	30	23	19	37	27	17	21	14	16	10	11	7	5	

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

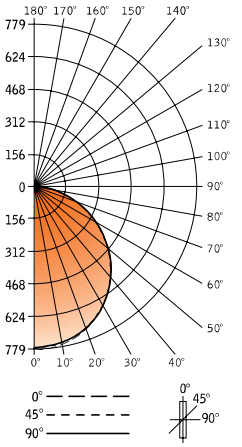
frosted acrylic lens

verve™ IV



Filename: FV4SACDR02T5.IES
Catalog #: FV4S-AC-DR0-2T5-1C-120-S-WH-4
Efficiency: 44.1%
Test #: 26372

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle 0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	775	775	775	775	775	
5°	779	772	770	771	767	74
15°	751	747	745	748	746	210
25°	697	695	693	696	695	320
35°	619	616	615	6158	617	385
45°	520	518	516	520	518	399
55°	404	401	402	405	403	359
65°	279	277	279	282	281	276
75°	151	151	156	159	161	164
85°	37	40	53	63	66	60
90°	0	9	22	32	35	
95°	2	1	6	12	14	9
105°	5	4	3	3	2	4
115°	7	6	6	5	4	5
125°	8	7	7	6	5	6
135°	8	10	9	8	7	7
145°	9	11	11	9	8	6
155°	10	13	13	12	10	5
165°	10	14	13	13	12	4
175°	10	12	13	13	13	1
180°	10	10	10	10	10	

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	604	11.6	26.3
	0°-90°	2248	43.2	97.9
	90°-180°	47	0.9	2.1
Total Luminaire	0°-180°	2295	44.1	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	7187	7171	7200
55°	6882	6880	6907
65°	6450	6470	6528
75°	5726	5887	6091
85°	4153	4998	7483

CO-EFFICIENTS OF UTILIZATION

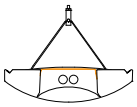
Floor		80				70			20 50		30		10		00
Ceiling															
Wall	70	50	30	10	70	50	10	50	10	50	10	50	10	00	
RCR 0	52	52	52	52	51	51	51	49	49	46	46	44	44	43	
1	48	46	44	42	47	45	42	43	40	41	39	39	37	37	
2	44	40	37	35	43	39	34	38	34	36	33	35	32	31	
3	40	36	32	29	39	35	29	33	28	32	28	31	27	26	
4	37	32	28	25	36	31	25	30	24	29	24	28	24	23	
5	34	28	24	21	33	27	21	26	21	25	20	25	20	19	
6	31	25	21	18	30	25	18	24	18	23	18	22	17	17	
7	28	22	19	16	28	22	16	21	16	21	15	20	15	14	
8	26	20	16	14	26	20	14	19	14	19	13	18	13	12	
9	24	18	14	12	26	18	12	17	12	17	12	16	11	11	
10	22	17	13	11	22	16	10	16	10	15	10	15	10	9	

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

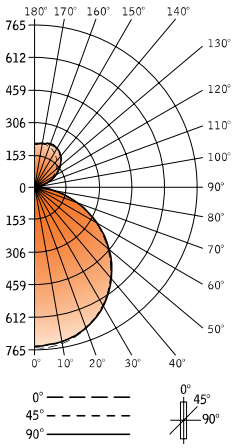
frosted acrylic lens

verve™ IV



Filename: FV4SACDR12T5.IES
Catalog #: FV4S-AC-DR1-2T5-1C-120-S-WH-4
Efficiency: 56.2%
Test #: 26373

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle 0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	762	762	762	762	762	
5°	765	759	757	759	755	73
15°	738	734	733	737	735	207
25°	685	683	682	686	686	315
35°	608	607	606	610	609	379
45°	511	509	510	513	513	393
55°	398	395	397	400	401	355
65°	274	273	276	279	279	273
75°	149	150	154	158	160	163
85°	37	41	53	63	66	59
90°	0	9	21	31	34	
95°	8	7	11	20	26	18
105°	44	48	42	38	43	46
115°	82	94	90	88	86	88
125°	117	134	137	133	130	118
135°	150	168	176	176	173	131
145°	177	188	201	205	204	122
155°	198	203	216	221	220	98
165°	210	211	217	220	220	61
175°	211	209	212	212	212	21
180°	210	210	210	210	210	

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	595	11.4	20.4
	0°-90°	2218	42.7	76.0
	90°-180°	702	16.5	24.0
Total Luminaire	0°-180°	2920	56.2	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	7065	7078	7123
55°	6783	6797	6861
65°	6349	6415	6493
75°	5627	5837	6073
85°	4126	5966	7445

CO-EFFICIENTS OF UTILIZATION

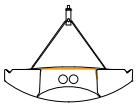
Floor		80				70			20	50		30		10		00
Ceiling																
Wall	70	50	30	10		70	50	10		50	10	50	10	50	10	00
RCR 0	64	64	64	64		61	61	61		55	55	50	50	45	45	43
1	58	56	53	51		55	53	49		48	45	44	42	40	38	36
2	53	49	45	42		51	47	41		42	38	39	35	35	32	30
3	49	43	39	35		46	41	34		38	32	34	30	31	28	26
4	45	38	34	30		42	37	29		34	27	31	26	28	24	22
5	41	34	29	24		38	32	25		30	23	27	22	25	20	19
6	37	30	25	22		35	29	21		27	20	24	19	22	18	16
7	34	27	22	19		33	26	17		24	18	22	16	20	15	14
8	32	24	20	19		30	23	16		21	15	20	14	18	13	12
9	29	2	17	14		228	21	14		19	13	18	12	16	12	10
10	27	20	15	13		26	19	12		18	12	16	11	15	10	9

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

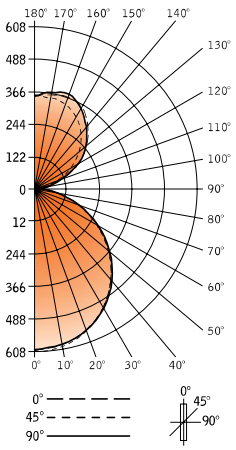
frosted acrylic lens

verve™ IV



Filename: FV4SACDR22T5.IES
Catalog #: FV4S-AC-DR2-2T5-1C-120-S-WH-4
Efficiency: 56.4%
Test #: 26374

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle 0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	605	605	605	605	605	
5°	608	603	601	602	599	58
15°	586	583	582	585	583	164
25°	544	542	542	545	544	250
35°	483	481	481	485	485	302
45°	406	405	406	409	409	313
55°	316	315	318	320	320	283
65°	219	218	222	224	224	219
75°	120	120	125	128	129	131
85°	30	33	42	50	53	48
90°	0	8	19	29	35	
95°	12	15	20	25	34	27
105°	67	85	74	67	79	79
115°	128	153	158	150	150	148
125°	188	220	224	224	227	195
135°	244	280	284	281	280	213
145°	291	317	334	330	327	201
155°	325	340	363	368	366	163
165°	345	353	364	371	373	102
175°	348	349	354	356	357	34
180°	347	347	347	347	347	

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	472	9.1	16.1
	0°-90°	1769	34.0	60.3
	90°-180°	1162	22.4	39.7
Total Luminaire	0°-180°	2931	56.4	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	5623	5635	5681
55°	5391	5438	5481
65°	5066	5156	5209
75°	4534	4719	4889
85°	3404	4779	5919

CO-EFFICIENTS OF UTILIZATION

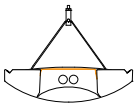
Floor		80				70			20	50		30		10		00
Ceiling																
Wall	70	50	30	10		70	50	10		50	10	50	10	50	10	00
RCR 0	62	62	62	62		58	58	58		50	50	43	43	37	37	34
1	56	54	52	50		53	51	47		44	41	38	36	33	31	29
2	51	47	44	41		48	44	39		39	34	34	30	29	26	24
3	47	42	37	34		44	39	32		34	29	30	26	26	23	21
4	43	37	32	29		40	35	28		30	25	27	22	23	20	18
5	39	32	28	24		37	21	23		27	21	24	19	20	17	15
6	36	29	24	21		34	27	20		24	18	21	16	18	14	13
7	33	26	22	18		31	25	17		22	16	19	14	17	13	11
8	31	23	19	16		29	22	15		20	14	17	12	15	11	10
9	28	21	17	14		26	20	13		18	12	15	11	13	9	8
10	26	19	15	12		25	18	12		16	11	14	9	12	8	7

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

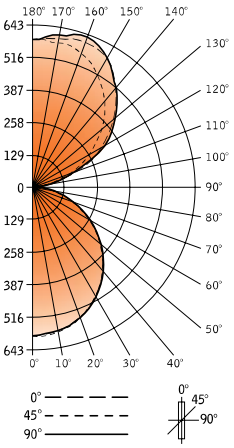
frosted acrylic lens

verve™ IV



Filename: FV4SACDR42T5.IES
Catalog #: FV4S-AC-DR4-2T5-1C-120-S-WH-4
Efficiency: 71.3%
Test #: 26375

CANDLEPOWER DISTRIBUTION



Vertical Angle	Horizontal Angle 0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	600	600	600	600	600	
5°	603	598	596	598	594	58
15°	581	578	577	580	579	163
25°	540	538	538	541	541	248
35°	479	478	478	482	482	299
45°	402	402	403	406	406	311
55°	313	312	316	318	318	281
65°	217	216	220	222	223	217
75°	118	119	124	126	128	130
85°	30	33	43	50	53	47
90°	0	7	16	23	26	
95°	20	23	24	33	15	36
105°	110	139	123	104	122	129
115°	213	255	266	256	258	249
125°	311	368	373	380	389	328
135°	410	467	474	479	481	359
145°	489	532	565	564	562	341
155°	555	579	620	631	632	278
165°	593	603	623	638	643	175
175°	600	599	607	612	613	59
180°	600	600	600	600	600	

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	469	9.0	12.6
	0°-90°	1756	33.8	47.3
	90°-180°	1954	37.6	52.7
Total Luminaire	0°-180°	3710	71.3	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	5566	5595	5641
55°	5341	5403	5447
65°	5018	5121	5183
75°	4475	4695	4867
85°	3371	4784	5924

CO-EFFICIENTS OF UTILIZATION

Floor		80				70			20						
Ceiling									50		30		10		00
Wall	70	50	30	10	70	50	10	50	10	50	10	50	10	00	
RCR 0	76	76	76	76	70	70	70	58	58	48	48	38	38	34	
1	69	66	64	61	64	61	56	51	48	42	40	34	32	28	
2	63	58	54	50	58	53	46	45	40	37	33	30	27	24	
3	58	51	46	42	53	47	39	40	34	33	28	27	23	21	
4	53	45	40	35	48	42	33	35	29	29	24	24	20	18	
5	48	40	34	30	44	37	28	31	24	26	21	21	17	15	
6	44	36	30	26	41	33	24	28	21	26	18	19	15	13	
7	41	32	26	22	37	30	21	25	18	21	16	17	13	11	
8	38	29	3	19	34	27	18	23	16	19	14	15	11	10	
9	35	26	20	19	32	24	16	20	14	17	12	14	10	8	
10	32	23	18	15	30	22	14	19	12	16	10	13	9	7	

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

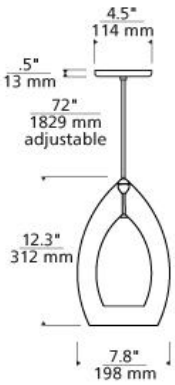
Fire Grande Pendant

DESCRIPTION
Rich translucent glass surrounds a frost glass diffuser. Black, satin nickel, and white finish options highlighted with a satin nickel detail and clear cable; antique bronze finish includes antique bronze detail and brown cable. Includes 120 volt, 60 watt G9 base halogen lamp or 120 volt GU24 base 27 watt self-ballasted compact fluorescent lamp. Fixture provided with six feet of field-cuttable cable Incandescent version dimmable with standard incandescent dimmer.

INSTALLATION
This product can mount to either a 4" square electrical box with round plaster ring or an octagon electrical box.

WEIGHT
3.56lb / 1.61kg ±

steel blue



COLOR OPTIONS

amber | clear | havana brown | smoke | steel blue

ORDERING INFORMATION

700 SYSTEM	FIRGP	COLOR	FINISH	LAMP
TD LINE-VOLTAGE PENDANTS		A AMBER C CLEAR N HAVANA BROWN K SMOKE U STEEL BLUE	Z ANTIQUE BRONZE B BLACK S SATIN NICKEL W WHITE	INCANDESCENT 120V -CF COMPACT FLUORESCENT 120V

For use on Halo*, Juno* or Lightolier* 120 volt single-circuit track, Order pendant as **700TD** and order appropriate 120V Track Adapter).

*Tech Lighting is not affiliated, nor is it endorsed by any of the companies listed nor does Tech Lighting distribute any of their products.

TECH LIGHTING®
7400 Linder Avenue
Skokie, Illinois 60077
T 847.410.4400
F 847.410.4500
www.techlighting.com

700 ____ FIRGP ____ ____ ____

FIXTURE TYPE: _____

JOB NAME: _____

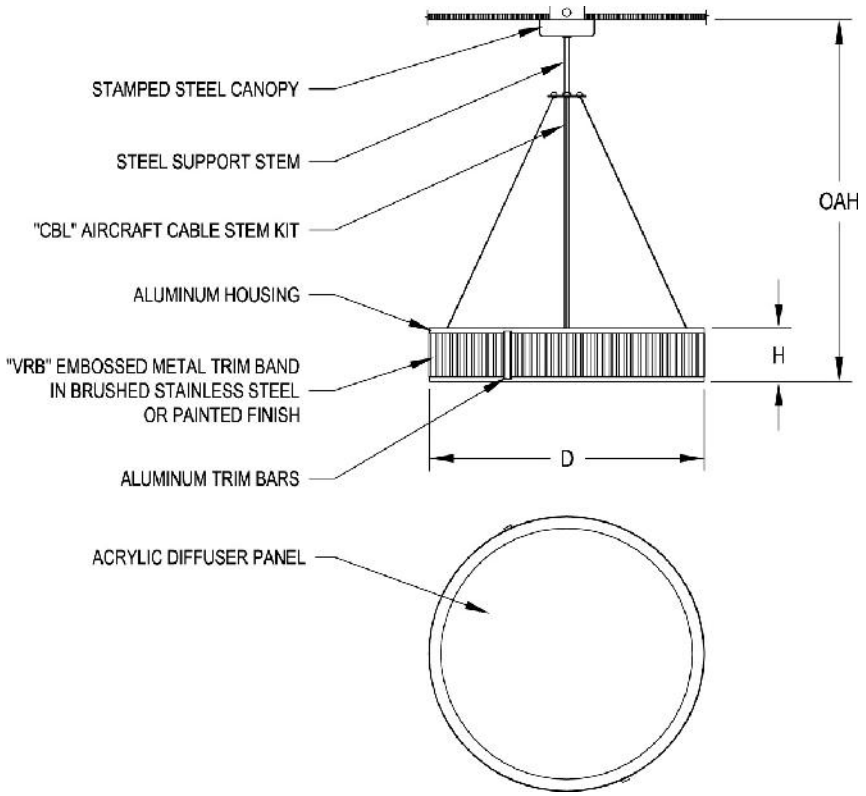
NOTES: _____

_____

_____

FIXTURE NO.: DP-890 - PT(WHT) - SS - 4F39 - 120 - VRB - WH - CBL		
JOB NAME:		JOB TYPE:
DRAWN BY:	DATE DRAWN: 11/20/12	QUANTITY:
REVISED BY:	DATE REVISED:	REVISION:

MANNING LIGHTING, INC. 1810 NORTH AVENUE, P.O. BOX 1063 SHEBOYGAN, WI 53082-1063, PH.920-458-2184, FX.920-458-2491,manningltg.com



SPECIFICATIONS

PLEASE NOTE: INDICATE ANY CHANGES TO THE FIXTURE AS SHOWN. BE AWARE THAT ANY CHANGES SPECIFIED MAY AFFECT COST, SCHEDULE AND REQUIRE AN UPDATED SUBMITTAL DRAWING. IF NO CHANGES ARE NOTED, MANNING LIGHTING WILL PRODUCE THE PRODUCT WITH THESE SPECIFICATIONS.

Height	Diameter	OAH
5"	23.5"	29"

HOUSING: Consists of spun aluminum housing clad with stainless steel or aluminum textured metal trim. Opal white acrylic diffuser.

MOUNTING: Fixture mounts to a standard octagonal junction box.

PANEL: (VRB) Vertical Rib Textured Metal. Vertical Rib texture on aluminum or stainless steel material.

FINISHES: HOUSING - PT (WHT) White. All metal surfaces are coated with a low VOC, thermo-cure, automotive quality lacquer. TEXTURED METAL ACCENT TRIM - SS Stainless steel material.

LAMPING: [4F39] Provisions for (4) 39 watt twin tube 2G11 base compact fluorescent lamps supplied by others. Powered by integral electronic high power factor class A ballasts, 120 or 277 volt, 60Hz.

VOLTAGE: 120

DIFFUSER: (WH) Opal White Acrylic. 1/8" thick opal virgin acrylic with gloss surface finish.

STEM: (CBL) Aircraft Cable.

STD. OPTIONS:

APPROVED: _____ DATE: _____

2', 3' and 4' diameter

skydome™

FOCAL POINT®

RSD/RSDE

features

2', 3' and 4' diameter recessed direct fluorescent with frosted acrylic lens.

Lens options include concave, convex, or high performance flat.

Frosted acrylic lens provides smooth distribution and eliminates lamp image.

Universal ceiling trim rings are suitable for both grid & drywall applications.

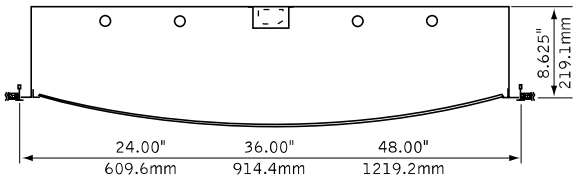
Skydome™ is an excellent choice for open public spaces such as airport concourses, large lobbies, reception areas and meeting rooms.

companion luminaire

surface/pendant mount

5' and 6' recessed

dimensional data



lamping options

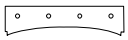
2' diameter

BIAX LAMPS

T8 LAMPS

T5/T5HO LAMPS

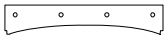
3' diameter



T8 LAMPS

T5/T5HO LAMPS

4' diameter

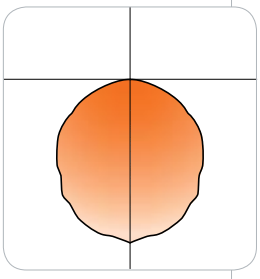


T8 LAMPS

T5/T5HO LAMPS

performance

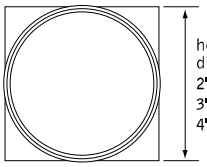
4' Diameter	4' Diameter
6–Lamp T8	6–Lamp T8
Concave Lens	High Pefrormance
49% Efficiency	Flat Lens
3055 cd @ 10°	59% Efficiency
	2839 cd @ 0°

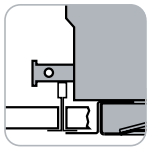


Visit focalpointlights.com for complete photometric data.

march 2010 C

mounting information





square housing installs easily into grid ceiling.

fixture must be installed prior to drywall ceiling.

specifications

construction

Two-piece 20 Ga. steel reflector and housing.
Spun steel trim ring and doorframe.
Bottom access 20 Ga. steel ballast compartment.

2' unit weight:	37 lbs.
3' unit weight:	53 lbs.
4' unit weight:	78 lbs.

optic

One-piece 20 Ga. steel reflector finished in High Reflectance White powder coat.
.125" white acrylic is held by one-piece spun steel doorframe and secured to the housing by torsion springs.
Lens available in concave, convex or high performance flat.

electrical

Electronic ballasts are thermally protected and have a Class "P" rating.
Optional dimming ballasts available.
Consult factory for dimming specifications and availability.
UL and cUL listed.

finish

Polyester powder coat applied over a 5-stage pre–treatment.

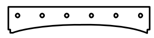
ordering

luminaire series		FSD
Skydome	FSD	
nominal size		_____
2' Diameter	22	
3' Diameter	33	
4' Diameter	44	
distribution		D
Direct Symmetrical	D	
lamp quantity		_____
Two Lamp (2' Diameter Only)	2	
Four Lamp (Not recommended for 4' luminaires with Concave Lens due to lamp image)	4	
Six Lamp	6	
Eight Lamp (4' Diameter Only)	8	
lamp type		_____
40 Watt Biax (2' Diameter Only)	BX40	
50 Watt Biax (2' Diameter Only)	BX50	
55 Watt Biax (2' Diameter Only)	BX55	
T8	T8	
T5	T5	
T5HO	T5HO	
ballast		_____
Electronic Instant Start <20% THD	E	
Electronic Program Start <10% THD	S	
Electronic Dimming Ballast*	D	
voltage		_____
120 Volt	120	
277 Volt	277	
347 Volt	347	
mounting		U
Universal	U	
shielding		_____
Concave Lens	CR	
Convex Lens	CX	
High Performance Flat Lens	FLXP	
factory options		
Chicago Plenum	CP	_____
Emergency Battery Pack*	EM	_____
HLR/GLR Fuse	FU	_____
Flex Whip*	FW	_____
Include 3000K Lamp	L830	_____
Include 3500K Lamp	L835	
Include 4100K Lamp	L841	
Separate Circuit* (may cause loss of uniformity)	SC	_____
Lutron™ Sensor Feed* (EcoSystem ballast required)	SF	_____
finish		WH
Matte Satin White	WH	

* for more information see Reference section.

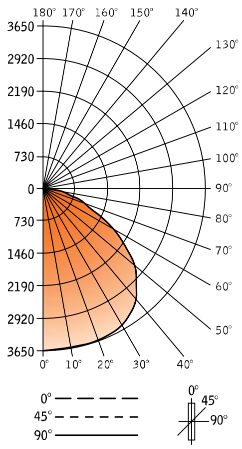
Focal Point LLC | 4141 S. Pulaski Rd, Chicago, IL 60632 | T: 773.247.9494 | F: 773.247.8484 | info@focalpointlights.com | www.focalpointlights.com.

skydome™



Filename:	FSD446T8CR.IES
Catalog #:	FSD-44-D-6-T8-E-120-U-CR-WH
Efficiency:	49%
Test #:	14296.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	3020	3020	3020	3020	3020	
5°	3036	3038	3036	3033	3029	290
15°	2690	2958	2958	2960	2960	839
25°	2716	2716	2717	2719	2717	1258
35°	2377	2380	2380	2382	2382	1495
45°	1992	1990	1992	1995	1993	1543
55°	1579	1579	1582	1582	1582	1418
65°	1086	1087	1091	1092	1091	1082
75°	589	589	591	593	594	625
85°	174	174	174	172	174	189
90°	0	0	0	0	0	
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

Spacing Criterion: 1.2 1.2

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	2386	13.5	27.3
	0°-40°	3881	21.9	44.4
	0°-60°	6843	38.7	78.3
	0°-90°	8739	49.4	100.0
Total Luminaire	0°-180°	8739	49.4	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	2882	2882	2884
55°	2817	2822	2822
65°	2629	2641	2641
75°	2328	2336	2348
85°	2043	2043	2043

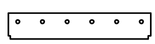
CO–EFFICIENTS OF UTILIZATION

Floor	20														
Ceiling	80				70			50		30		10		00
Wall	70	50	30	10	70	50	10	50	10	50	10	50	10	00
RCR 0	59	59	59	59	57	57	57	55	55	53	53	50	50	49
1	54	52	50	48	53	51	47	49	46	47	44	45	43	42
2	49	45	42	40	48	45	39	43	38	41	37	40	36	35
3	45	40	36	33	44	40	33	38	35	37	34	35	31	30
4	41	36	32	28	40	35	28	34	28	33	27	32	27	26
5	38	32	27	24	37	31	24	30	24	29	23	28	23	22
6	35	28	24	21	34	28	21	27	20	26	20	25	20	19
7	32	25	21	18	31	25	18	24	18	23	18	23	18	17
8	30	23	19	16	29	22	16	22	15	21	15	21	15	14
9	27	20	16	13	26	20	13	20	13	19	13	18	13	12
10	25	19	15	12	25	18	12	18	12	17	12	17	12	11

Numbers indicate percentage values of reflectivity.

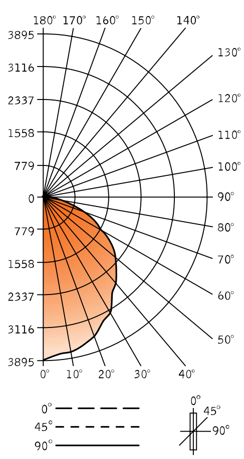
Go to www.focalpointlights.com for additional photometric data.

skydome™



Filename:	FSD446T8FLXP.IES
Catalog #:	FSD-44-D-6-T8-E-120-U-FLXP-WH
Efficiency:	59%
Test #:	15279.0

CANDLEPOWER DISTRIBUTION



Vertical Angle	0°	22.5°	45°	67.5°	90°	Zonal Lumens
0°	3895	3895	3895	3895	3895	
5°	3788	3787	3787	3784	3784	361
15°	3651	3654	3659	3665	3666	1037
25°	3305	3311	3325	3331	3331	1537
35°	2807	2817	2833	2847	2846	1778
45°	2397	2411	2427	2441	2440	1878
55°	1889	1902	1917	1932	1931	1718
65°	1255	1265	1279	1288	1287	1267
75°	604	606	615	620	622	649
85°	129	129	132	134	137	144
90°	0	0	0	0	0	
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	

Spacing Criterion: 1.2 1.2

LUMEN SUMMARY

	Zone	Lumens	% Lamp	% Fixt
	0°-30°	2936	16.6	28.3
	0°-40°	4714	26.6	45.5
	0°-60°	8310	46.9	80.1
	0°-90°	10370	58.6	100.0
Total Luminaire	0°-180°	10370	58.6	100.0

LUMINANCE DATA (CD/M²)

Vertical Angle	0°	45°	90°
45°	2740	2774	2788
55°	2662	2701	2720
65°	2401	2446	2461
75°	1885	1919	1941
85°	1196	1221	1272

CO–EFFICIENTS OF UTILIZATION

Floor	20														
Ceiling	80				70			50		30		10		00
Wall	70	50	30	10	70	50	10	50	10	50	10	50	10	00
RCR 0	70	70	70	70	68	68	68	65	65	62	62	60	60	59
1	64	62	59	57	63	60	56	58	55	56	53	54	52	50
2	59	55	51	48	57	53	47	51	46	49	45	48	44	43
3	54	48	44	40	53	47	40	46	39	44	39	43	38	37
4	50	43	38	34	48	42	34	41	34	39	33	38	33	32
5	45	38	33	29	44	37	29	36	29	35	28	34	28	27
6	42	34	29	25	41	33	25	31	25	31	25	31	24	23
7	38	31	25	22	37	30	22	29	22	28	22	28	21	20
8	35	27	22	19	34	27	19	26	19	25	19	25	19	17
9	33	25	20	16	32	24	16	24	16	23	16	22	16	15
10	30	22	18	15	29	22	14	21	14	21	14	20	14	13

Numbers indicate percentage values of reflectivity.

Go to www.focalpointlights.com for additional photometric data.

note: Photometric testing performed in an independent lab with standard lamps and ballasts. Lamp and ballast type and configuration will affect photometric performance.

John Head

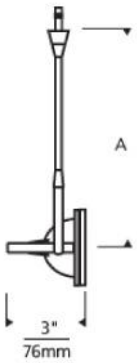
T

DESCRIPTION
Adjustable head tilts and rotates infinitely. Integral louver lens holder can hold a single glass lens (sold separately) or an eggcrate louver (included). Low-voltage, MR16 lamp of up to 50 watts (not included).

INSTALLATION
Socket terminates with FreeJack male connector, which may be installed into a system connector. Elements ordered with a system prefix include a connector for that system. For use on T~TRAK, order FreeJack version and T~TRAK FreeJack Connector (sold separately).

ACCESSORIES & OPTICAL CONTROLS
Colored Lens, Dichroic Lens, Diffuser Lens, Eggcrate Louver, Linear Spread Lens, Soft Focus Lens, UV Filter

WEIGHT
0.2lb / 0.09kg ±



ORDERING INFORMATION

700 SYSTEM	JON	LENGTH	FINISH
	FJ FREEJACK (MONO POINT)	**03** 3"	**Z** ANTIQUE BRONZE
	MO MONORAIL	**06** 6"	**C** CHROME
	MO2 TWO-CIRCUIT MONORAIL	**12** 12"	**S** SATIN NICKEL
	WMO WALL MONORAIL	**18** 18"	
		24 24"	

TECH LIGHTING®
7400 Linder Avenue
Skokie, Illinois 60077
T 847.410.4400
F 847.410.4500
www.techlighting.com

700 ____ JON ____ ____

FIXTURE TYPE: _____

JOB NAME: _____

NOTES: _____

_____

_____

Shaper
shaperlighting.com

DESCRIPTION

605 Luminous Wall Sconce features a variety of decorative options such as perforated metal, colored acrylic trim bars and is ADA compliant.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

Material
Painted or plated solid aluminum with a 1/8" matte white extruded acrylic panel.

Finish
Standard: Natural Aluminum (NA). [Sustainable Design]
Premium: Aluminum Paint (ALP), Bronze Metallic Paint (BM), Gold Metallic Paint (GM), Gun Metal (GNM), Matte White (MW), Satin Chrome (SC), Polished Chrome (PC), Satin Brass (SB), Polished Brass (PB), Oxidized Brass (OBRS), Lacquered Satin Aluminum (SAL), Satin Copper (SCP), Polished Copper (PCP), Oxidized Copper (OCP), Satin Nickel (SN), Polished Nickel (PN) or Custom Color (CC).

Optics
Refer to www.shaperlighting.com for complete photometrics.

Ballast
Integral electronic HPF, multi-volt 120/277V (347V Canada), thermally protected with end-of-life circuitry to accommodate the specified lamp wattage.

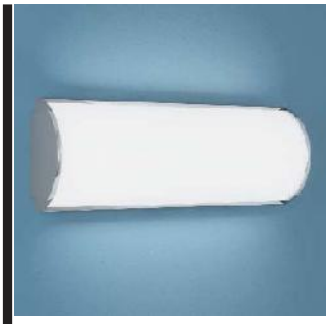
Lamp/Socket
25": Two (2) 14W T-5 liner fluorescent lamps.
30": Two (2) 40W (2G11) high lumen CFL lamps.
37": Two (2) 21W T-5 or 25W T-8 linear fluorescent lamps.
49": Two (2) 28W T-5 or 32W T-8 linear fluorescent lamps.
CFL socket injection molded plastic. Lamps furnished by others.

Installation
Supplied with a universal circular strap for a standard 4" J-box or plaster ring. Horizontal or vertical mount. Shaper luminaires are designed for interior installations only.

Options
Hand Painted Faux Alabaster Acrylic Panel (FP), Hand Painted Faux Linen Acrylic Panel (LNP), Integral Emergency Ballast (IEM), Dimming Ballast: Lutron (DML) - Available with (2) 21W T5 (25" & 37") and (2) 28W T5 (49") only, Two Horizontal Trim Bars with Cobalt Blue Center (2HTB/CBC), Two Vertical Trim Bars with Perf Ends (2VTB/PE), Two Horizontal Trim Bars with Perf Center (2HTB/PC), Two Horizontal Trim Bars (2HTB), Two Horizontal and Center Vertical Trim Bars (2HTB/2CTVB), Two Vertical Trim Bars (2VTB), Two Vertical Trim Bars with Cobalt Blue Panel 2VTB/CBP. Damp Locations (DL): All painted finishes. Energy Star Rating - Contact factory.

Labels
U.L. and C.U.L approved for indoor and damp location. See options for damp location finishing requirements. Shaper's DL option is for interior applications (only) that have more than average moisture (i.e. bathroom, laundry room, etc.) but are not UL listed for pool, sauna, shower, whirlpool and any exterior applications (i.e. covered garage or building entrance) with exposure to weather elements such as rain, wind, etc. ADA compliant.

Modifications
Shaper's skilled craftspeople with their depth of experience offer the designer the flexibility to modify standard wall luminaires for project specific solutions. Contact the factory regarding scale options, unique finishes, mounting, additional materials/colors, or decorative detailing.



605 SERIES

Interior Wall Luminaire
Luminous Sconce

ARRA

Shaper Lighting certifies that its products satisfy the requirements of Section 1605 of the American Recovery and Reinvestment Act (also known as the ARRA Buy American provision).

AMERICAN DISABILITIES ACT (ADA)

Shaper offers a large selection of ADA interior and exterior wall luminaires. ADA requires all fixtures below 68" to have a maximum projection of 4".

QUICK SHIP (QS)

Shaper's Quick Ship program features over thirty-four fixtures with finish options such as Satin Chrome, Natural Aluminum and Satin Brass and a wide variety of lamp selections. All products ship in five days from receipt of order.

SUSTAINABLE DESIGN

Shaper has a long-standing history of offering environmentally-friendly fixtures. The copper and bronze alloys used in our exterior luminaires feature up to 98% recycled content, contribute less undesirable air emissions compared to painted aluminum and are easy to recycle.

Specifications and dimensions subject to change without notice.
Consult your representative for additional options and finishes.

ADS042651
2012-02-29 14:45:58

ORDERING INFORMATION

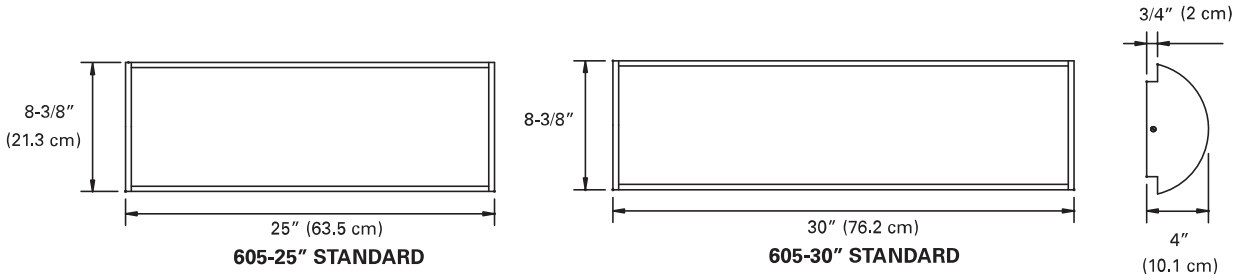
Sample Number: 605-37-W-T5/2/21-277V-OCP-LNP

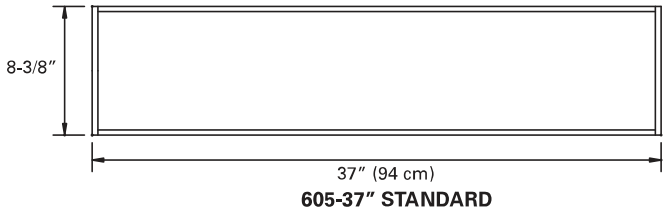
Series	Size	Mounting Type	Lamp	Voltage	Finish	Options
605 =Luminous Sconce	25" 30" 37" 49"	**W** = Wall	CFL/2/40 [2] T5/2/14 [1] T5/2/21 [3] T5/2/28 [4] T8/2/25 [3] T8/2/32 [4]	120V 277V 347V	**Standard** **NA** =Natural Aluminum **Premium** **ALP**= Aluminum Paint **BM** = Bronze Metallic Paint **CC** =Custom Color **GM** = Gold Metallic Paint **GNM** =Gun Metal **MW**=Matte White **OBRS** =Oxidized Brass **OCP** =Oxidized Copper **PB** =Polished Brass **PC** =Polished Chrome **PCP** =Polished Copper **PN** =Polished Nickel **SAL** =Lacquered Satin Aluminum **SB** =Satin Brass **SC** =Satin Chrome **SCP** =Satin Copper **SN**=Satin Nickel	**2HTB** =Two Horizontal Trim Bars **2HTB/2CTVB** =Two Horizontal & Center Vertical Trim Bars **2HTB/CBC** =Two Horizontal Trim Bars w/ Cobalt Blue Center **2HTB/PC** =Two Horizontal Trim Bars w/ Perforated Center **2VTB** =Two Vertical Trim Bars **2VTB/CBP** =Two Vertical Trim Bars w/ Cobalt Blue Panel **2VTB/PE** =Two Vertical Trim Bars w/ Perforated Ends **DL** = Damp Location [5] **DML** = Dimming Ballast (Lutron) [6] **IEM** = Integral Emergency Ballast **FP** = Hand Painted Faux Alabaster Panels **LNP** = Hand Painted Faux Linen Panels

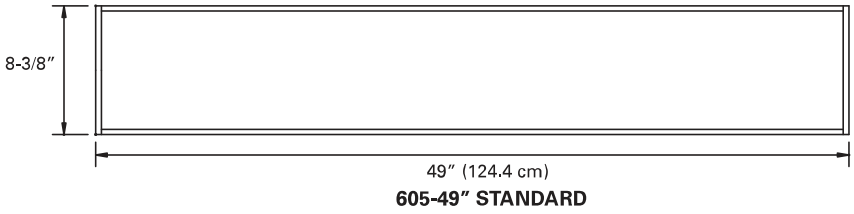
Notes:

1 Available in 25".
2 Available in 30".
3 Available in 37".
4 Available in 49".
5 Interior applications only.
6 Available with T5/2/21W (25" & 37") and T5/2/28W (49") only.

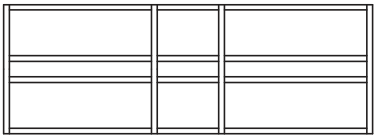
MOUNTING TYPE



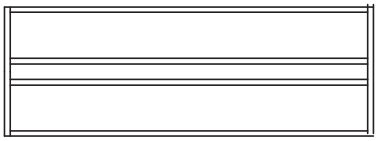




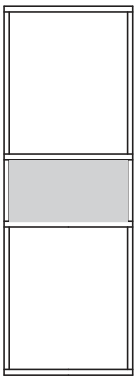
OPTIONS



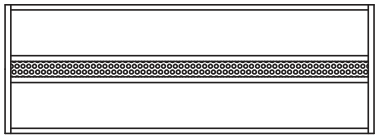
TWO HORIZONTAL & VERTICAL TRIM BARS (2HTB/2CTVB)



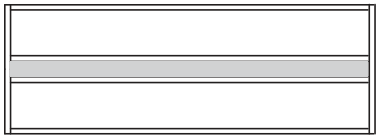
TWO HORIZONTAL TRIM BARS (2HTB)



TWO & VERTICAL TRIM BARS W/ COBALT BLUE PANEL (2VTB/CBP)



TWO HORIZONTAL TRIM BARS W/ PERF CENTER (2HTB/PC)



TWO HORIZONTAL TRIM BARS W/ COBALT BLUE CENTER (2HTB/CBC)

TWO VERTICAL TRIM BARS W/ PERF ENDS (2VTB/PE)

TWO VERTICAL TRIM BARS (2VTB)

COMPANION PRODUCTS

273

415

474

673

Specifications and dimensions subject to change without notice.
Consult your representative for additional options and finishes.

Summary: Application - Part 1 of 10 - Application to Commit Energy Efficiency/Peak Demand Reduction Programs of The Cleveland Electric Illuminating Company and Cuyahoga County Public Library electronically filed by Ms. Jennifer M. Sybyl on behalf of The Cleveland Electric Illuminating Company and Cuyahoga County Public Library