

COOPER LIGHTING SOLUTIONS - METALUX®

DESCRIPTION

The Optica HP series is an energy saving solution for new construction applications. It uses a high performance T8 system that can save over 40% of energy costs when compared to standard 3-lamp, 12-cell parabolics. The Optica HP series incorporates a 2" high, 6-cell louver combined with a precision engineered cross blade to create a soft, even distribution while delivering a highly efficient T8 luminaire. The Optica HP is compatible with all of today's popular ceiling systems and is available with a number of options and accessories for increased application versatility. 2OP-IC is designed for installations when the housing will be in direct contact with insulation. The Optica HP series is an excellent choice for new commercial office spaces, schools, hospitals or retail merchandising areas.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

4-3/4" deep, para-contoured housing, die formed code gauge, prime cold rolled steel. Full length die formed stiffeners for added strength. Contoured ballast/wireway cover, easily removed without tools. Die formed captive lampholder bracket fully encloses lampholder wiring permitting easy lampholder replacement. Heavy end plates, securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. KOs for continuous row wiring. End plates have integral Grid-Lock feature for safety and convenience.

Electrical**

Ballasts are CBM/ETL Class "P" are positively secured by mounting bolts. Pressure lock lampholders. UL/CUL listed for Type IC Recessed Luminaire (Rated for direct contact with insulation) Suitable for damp locations.

Finish

Cold rolled steel w/multistage iron phosphate pretreatment for maximum bonding and a highly reflective matte white finish on reflective surfaces for increased efficiency.

Hinging/Latching

Positive cam action spring loaded, self locking, steel latches with safety lock-T-hinges allow hinging and latching from either side.

Optics

Die formed white louver w/faceted straight-blade cross-members are engineered for optimal efficiency and performance. True-cut mitered corners and interlocking features provide strength and durability. Louver is protected by polyethylene cover when shipped w/fixture.

Controls

Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Lighting Solutions (www.cooperlighting.com) to maximize energy savings.

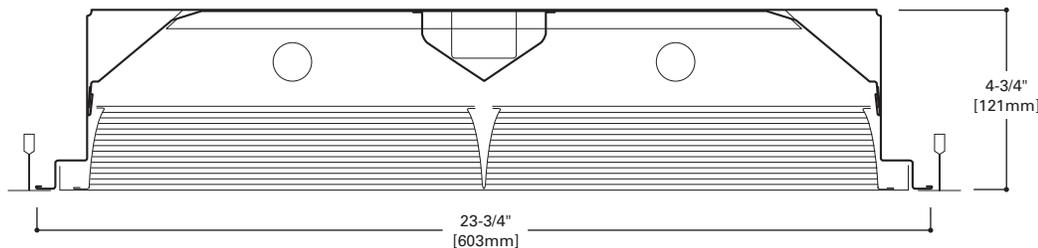


2OP-IC
217
2U1-5/8

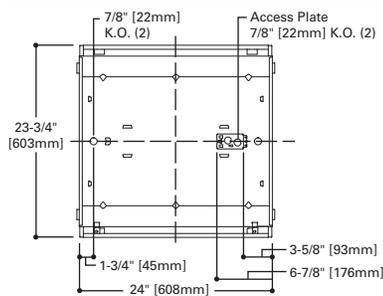
6 Cell

2' X 2'
2 LAMP
FOR USE IN
INSULATED CEILING

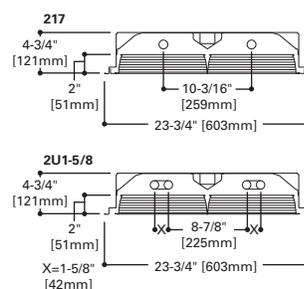
OPTICA™
ARCHITECTURAL LIGHTING MEDIA



MOUNTING DATA



LAMP CONFIGURATIONS



CEILING COMPATIBILITY

G	F	MZ	Ceiling Type	Trim Type
Grid/Lay-in Standard	Aluminum Flange Trim With Supporting Swing Gates	Modular Trim With Supporting Swing Gates	Exposed Grid	G
			Concealed T	G
			Slot Grid	G
			Flange	F
			Concealed "T" or "Z"	MZ
			Metal Pan	MZ

(Verify compatibility/ consult Pre Sales Technical Support.)

ENERGY DATA

Input Watts:
HB Ballast & HL Lamps
217 (32), 2U1-5/8 (61)

Luminaire Efficacy Rating
LER = FP-65
Catalog Number: 2OPG-IC-217

Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$3.69

*Convertibility applies to housing only. Appropriate shielding media assemblies must be utilized.

**Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

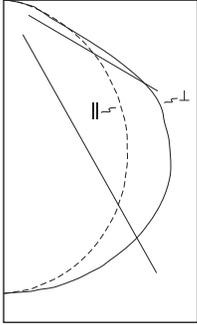
LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT

Safe and convenient means of disconnecting power.



PHOTOMETRICS



2OPG-IC-217FB23MW-UNV-EB81-U
Electronic Ballast

(2) F17T8 17W lamps
1450 lumens.

Spacing criterion:
(II) 1.2 x mounting height, (L) 1.4 x mounting height.

Efficiency = 82.5%.

Test Report:
2OPG-IC-217IES

LER = FP-65

Yearly Cost of 1000 lumens, 3000 hrs at .08 KWH = \$3.69

Coefficients of Utilization

rc	Effective floor cavity reflectance																						
	80%				70%				50%				30%				10%				0%		
rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																							
0	98	98	98	98	96	96	96	96	92	92	92	88	88	88	84	84	84	82					
1	90	87	83	80	88	85	82	79	81	79	76	78	76	74	75	73	72	70					
2	82	76	70	66	80	74	69	65	71	67	64	69	65	62	66	63	61	59					
3	75	67	60	55	73	65	59	55	63	58	54	61	56	53	59	55	52	50					
4	69	59	52	47	67	58	51	46	56	50	46	54	49	45	52	48	44	43					
5	63	53	46	40	62	52	45	40	50	44	40	49	43	39	47	42	39	37					
6	58	48	40	35	57	47	40	35	45	39	35	44	38	34	43	38	34	32					
7	54	43	36	31	53	42	36	31	41	35	31	40	34	30	39	34	30	29					
8	50	39	32	28	49	39	32	27	38	32	27	37	31	27	36	31	27	25					
9	47	36	29	25	46	36	29	25	35	29	25	34	28	24	33	28	24	23					
10	44	33	27	22	43	33	27	22	32	26	22	31	26	22	30	26	22	21					

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	672	23.2	28.1
0-40	1108	38.2	46.3
0-60	1982	68.3	82.9
0-90	2392	82.5	100.0
90-180	0	0.0	0.0
0-180	2392	82.5	100.0

Luminance Data

Angle In Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2361	2772	3249
55	2121	2657	3285
65	1775	2339	2010
75	1315	1303	1328
85	986	986	910

Candela

Angle	Along II	45°	Across L
0	862	862	862
5	854	857	860
10	835	844	857
15	809	827	847
20	774	802	835
25	731	771	817
30	682	734	798
35	626	691	772
40	565	643	740
45	505	593	695
50	438	531	634
55	368	461	570
60	298	381	462
65	227	299	257
70	159	183	142
75	103	102	104
80	61	60	61
85	26	26	24
90	0	0	0

ORDERING INFORMATION

SAMPLE NUMBER: 2OPG-IC-217FB23W-UNV-HB81-U

Rating Blank=Standard	Number of Lamps 2=2 Lamps	Voltage ⁽²⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt UNV=Universal Voltage 120-277 ⁽³⁾	Ballast Type EB8 _ =T8 Electronic Start. Total Harmonic Distortion < 10% EB8 _ /PLUS= T8 Electronic Start. Total Harmonic Distortion < 10%. High Ballast Factor > 1.15. ER8 _ =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% High Performance T8 Ballasts HB8 _ =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 HB8 _ L= T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Low Ballast Factor .77 – .82 HB8 _ N= T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Normal Ballast Factor 1.0 HB8 _ H= T8 Electronic Instant Start. Total Harmonic Distortion < 10%. High Ballast Factor 1.15 – 1.20 HR8 _ T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 HR8 _ DIM= T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming. Ballast Factor .88 HR8 _ L= T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Low Ballast Factor .71 – .79 HR8 _ H= T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor 1.15 – 1.20 0-10V Dimming Ballasts ⁽⁹⁾ 5LTV8 _ =T8 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 5LTV8 _ S= T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 ⁽¹⁰⁾ Fifth Light DALI Ballasts ⁽⁷⁾ 5LT8 _ =T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	Options R =Internal Reflector (Not available for U1-5/8 lamp) ACCESSORIES EQ-CLIP-U =T-BAR Safety Earthquake Clips ⁽¹⁾	Packaging U =Unit Pack PAL =Job Pack, out of carton PALC =Job Pack, in carton
Width 2=2" Width	Wattage (Length) 17=17W T8 (24") U1-5/8=31W T8 (24") ⁽⁸⁾	Options GL =Single Element Fuse GM =Double Element Fuse Flex =Flex Installed (Reference Flex ordering information) EL =Emergency Installed ^{(4), (11)}			
OP =Optica HP Series	Cross Blade FB =Faceted Blade	Lamps Installed L8835 =T8 Lamp, 17W and 32W, 3500K L8841 =T8 Lamp, 17W and 32W, 4100K			
Trim Type G =Grid/Lay-in (Standard) ⁽⁶⁾ F =Aluminum Flange Trim ⁽⁶⁾ MZ =Modular Trim	Cell Configuration 23=2 Rows of 3, 6 Cell				
Type IC =IC Rated	Louver Finish W =Matte White				
	Option – Aluminum Flange Trim ⁽⁶⁾ Blank =SW (Single White) Type Color 'S' Single 'N' Natural 'R' In Row 'W' White 'E' End of Row				
			Number of Ballasts 1 =1 Ballast 2 =2 Ballasts 3 =3 Ballasts		

NOTES: ⁽¹⁾ An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. ⁽²⁾ Products also available in non-US voltages and frequencies for international markets. ⁽³⁾ Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾ Fixtures equipped with "EL" option may require a 5-1/2" housing depth. If installing in field, must use low profile battery pack. ⁽⁵⁾ Specify row configuration, type in catalog number when ordering complete fixture. ⁽⁶⁾ Louver is recessed by 5/16" in Concealed T or Slot Grid. ⁽⁷⁾ For a complete listing of Fifthlight Technology products and other solutions from Cooper Lighting Solutions, visit www.cooperlighting.com ⁽⁸⁾ Fifthlight ballast option not available. ⁽⁹⁾ 0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽¹⁰⁾ Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. ⁽¹¹⁾ Please specify required voltage, 120V or 277V.

For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Solutions Representative for availability and ordering information.

SHIPPING INFORMATION

Catalog No.	Wt.
2OPG-IC-217	18 lbs.
2OPG-IC-2U1-5/8	18 lbs.