

DESCRIPTION

The OpticaHP series is an energy saving solution for a multitude of applications. The OpticaHP 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 OpticaHP 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. 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.

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.

Hinging/Latching

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

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 Controls (www.cooperlighting.com) to maximize energy savings.

Compliance

Options to meet Buy American and other domestic preference requirements.



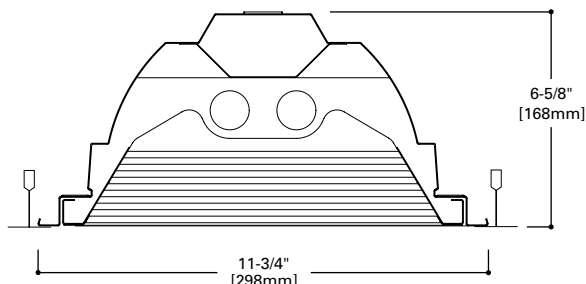
OPTICAHP SERIES

128T8
132
228T8
232

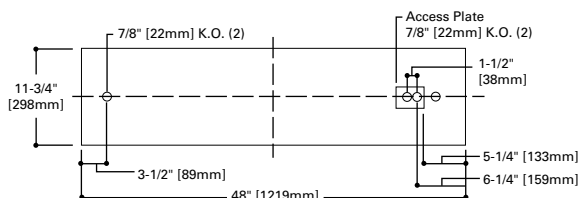
6 Cell

1' X 4'
1 OR 2 LAMPS

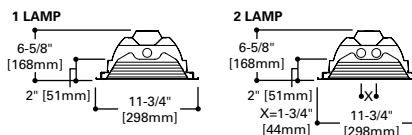
OPTICA™
ARCHITECTURAL LIGHTING MEDIA



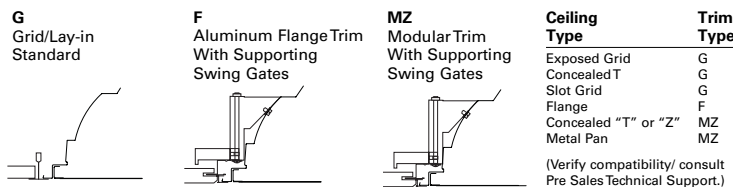
MOUNTING DATA



LAMP CONFIGURATIONS



CEILING COMPATIBILITY



ENERGY DATA

Input Watts:
HB Ballast & HL Lamps
128T8 (27), 132 (30)
228T8 (48), 232 (55)

Luminaire Efficacy Rating
LER = FP-79

Catalog Number: OPG-232FB16W
Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$3.04

*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.

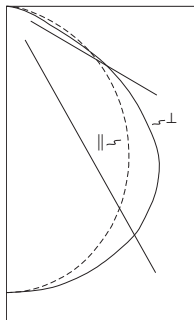
LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT

Safe and convenient means of disconnecting power.



PHOTOMETRICS



OPG-232FB16W
 Electronic Ballast
 F32T8/50K Lamps
 3100 Lumens
 Spacing criterion:
 (II) 1.2 x mounting
 height, (L) 1.3 x
 mounting height
 Efficiency 83.5%
 Test Report:
 OPG-232FB16W.IES
 LER = FP79
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$3.04

Candlepower

| Angle | Along II | 45° | Across L |
|-------|----------|-----|----------|
| 0 | 632 | 632 | 632 |
| 5 | 628 | 631 | 631 |
| 10 | 616 | 623 | 628 |
| 15 | 598 | 609 | 619 |
| 20 | 572 | 588 | 607 |
| 25 | 542 | 563 | 592 |
| 30 | 506 | 533 | 576 |
| 35 | 465 | 502 | 548 |
| 40 | 421 | 465 | 518 |
| 45 | 375 | 422 | 477 |
| 50 | 326 | 376 | 408 |
| 55 | 276 | 323 | 334 |
| 60 | 226 | 254 | 247 |
| 65 | 174 | 184 | 139 |
| 70 | 122 | 112 | 82 |
| 75 | 76 | 62 | 50 |
| 80 | 45 | 36 | 26 |
| 85 | 20 | 15 | 10 |
| 90 | 0 | 0 | 0 |

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 | 99 | 99 | 99 | 99 | 97 | 97 | 97 | 97 | 93 | 93 | 93 | 89 | 89 | 89 | 85 | 85 | 85 | 84 | | | | | |
| 1 | 92 | 88 | 85 | 82 | 89 | 86 | 83 | 80 | 83 | 80 | 78 | 79 | 77 | 76 | 76 | 75 | 73 | 72 | | | | | |
| 2 | 84 | 77 | 72 | 68 | 82 | 76 | 71 | 67 | 73 | 69 | 65 | 70 | 67 | 64 | 68 | 65 | 62 | 61 | | | | | |
| 3 | 77 | 68 | 62 | 57 | 75 | 67 | 61 | 56 | 65 | 59 | 55 | 62 | 58 | 54 | 60 | 57 | 53 | 52 | | | | | |
| 4 | 70 | 61 | 54 | 48 | 69 | 60 | 53 | 48 | 58 | 52 | 47 | 56 | 51 | 47 | 54 | 50 | 46 | 44 | | | | | |
| 5 | 65 | 54 | 47 | 42 | 63 | 54 | 47 | 42 | 52 | 46 | 41 | 50 | 45 | 41 | 49 | 44 | 40 | 39 | | | | | |
| 6 | 60 | 49 | 42 | 37 | 58 | 48 | 41 | 36 | 47 | 41 | 36 | 45 | 40 | 36 | 44 | 39 | 36 | 34 | | | | | |
| 7 | 56 | 45 | 37 | 32 | 54 | 44 | 37 | 32 | 43 | 36 | 32 | 41 | 36 | 32 | 40 | 35 | 32 | 30 | | | | | |
| 8 | 52 | 41 | 34 | 29 | 50 | 40 | 33 | 29 | 39 | 33 | 29 | 38 | 32 | 28 | 37 | 32 | 28 | 27 | | | | | |
| 9 | 48 | 37 | 31 | 26 | 47 | 37 | 30 | 26 | 36 | 30 | 26 | 35 | 30 | 26 | 34 | 29 | 26 | 24 | | | | | |
| 10 | 45 | 34 | 28 | 24 | 44 | 34 | 28 | 24 | 33 | 27 | 23 | 32 | 27 | 23 | 32 | 27 | 23 | 22 | | | | | |

Zonal Lumen Summary

| Zone | Lumens | %Lamp | %Fixture |
|-------|--------|-------|----------|
| 0-30 | 493 | 24.6 | 29.5 |
| 0-40 | 809 | 40.4 | 48.4 |
| 0-60 | 1412 | 70.6 | 84.6 |
| 0-90 | 1669 | 83.5 | 100.0 |
| 0-180 | 1669 | 83.5 | 100.0 |

Luminance Data

| Angle in Deg | Average 0-Deg cd/sm | Average 45-Deg cd/sm | Average 90-Deg cd/sm |
|--------------|---------------------|----------------------|----------------------|
| 45 | 1427 | 1605 | 1815 |
| 55 | 1294 | 1515 | 1666 |
| 65 | 1108 | 1171 | 885 |
| 75 | 790 | 644 | 520 |
| 85 | 617 | 463 | 309 |

ORDERING INFORMATION

SAMPLE NUMBER: OPG-232FB16W-UNV-HB81-U

| Domestic Preferences ⁽¹¹⁾ [Blank] =Standard BAA =Buy American Act TAA =Trade Agreements Act | Number of Lamps 1 =1 Lamp 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⁾ SLTV8 _ =T8 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 SLTVS8 _ =T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 ⁽¹⁰⁾ Fifth Light DALI Ballasts ⁽⁸⁾ 5LT8 _ =T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 | Packaging U =Unit Pack PAL =Job Pack, out of carton PALC =Job Pack, in carton | | | | | | | | |
|---|--|--|--|--|-------------|------------|-----------|----------------|--|--|--|--|
| Width Blank =1' Width | Wattage 28T8 =28WT8 (48") ⁽⁷⁾ 32 =32WT8 (48") | Options GL =Single Element Fuse GM =Double Element Fuse Flex =Flex Installed (Reference Flex ordering information) EL =Emergency Installed ^{(4), (11)} | ACCESSORIES ⁽¹²⁾ EQ-CLIP-U =T-BAR Safety Earthquake Clips ⁽¹⁾ | | | | | | | | | |
| Series OP =Optica | Cross-Blade FB =Faceted Blade | Lamps Installed Blank =No Lamps Installed L8835 =T8 Lamp, 28W and 32W, 3500K ⁽⁷⁾ L8841 =T8 Lamp, 28W and 32W, 4100K ⁽⁷⁾ L8835HL =T8 Lamp, 32W, 3500K, 3100 Lumens L8841HL =T8 Lamp, 32W, 4100K, 3100 Lumens | | | | | | | | | | |
| Trim Type G =Grid/Lay-in – Standard ⁽⁶⁾ F =Aluminum Flange Trim ⁽⁵⁾ MZ =Modular Trim | Cell Configuration 16 =1 Row of 6, 6 Cell (1'x4') | Number of Ballasts 1 =1 Ballast 2 =2 Ballasts 3 =3 Ballasts | | | | | | | | | | |
| | Louver Finish W =Matte White | | | | | | | | | | | |
| | Option – Aluminum Flange Trim ⁽⁵⁾ Blank =SW (Single White) <table border="1"> <thead> <tr> <th>Type</th> <th>Color</th> </tr> </thead> <tbody> <tr> <td>'S' Single</td> <td>'N' Natural</td> </tr> <tr> <td>'R' In Row</td> <td>'W' White</td> </tr> <tr> <td>'E' End of Row</td> <td></td> </tr> </tbody> </table> | Type | Color | 'S' Single | 'N' Natural | 'R' In Row | 'W' White | 'E' End of Row | | | | |
| Type | Color | | | | | | | | | | | |
| 'S' Single | 'N' Natural | | | | | | | | | | | |
| 'R' In Row | 'W' White | | | | | | | | | | | |
| 'E' End of Row | | | | | | | | | | | | |

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⁾ When utilizing 28W T8 lamps, HBT8 ballast must be specified. ⁽⁸⁾ For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽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.

⁽¹¹⁾ Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to **DOMESTIC PREFERENCES** website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. ⁽¹²⁾ Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Solutions Representative for availability and ordering information.

SHIPPING DATA

| Catalog No. | Wt. |
|--------------|---------|
| OPG-132FB16W | 29 lbs. |
| OPG-232FB16W | 29 lbs. |