HALO Commercial

DESCRIPTION

Recessed 6 inch aperture open downlight for two horizontal 13W or 18W double twin tube compact fluorescent lamps. Fixture is suitable for commercial construction. Insulation must be kept 3" from top and sides of housing. Universal input electronic ballast with dimming and emergency options.

| Catalog # | Туре |
|-------------|------|
| | |
| Project | |
| Comments | Date |
| Prepared by | |

SPECIFICATION FEATURES

MECHANICAL

Frame

Boat shaped galvanized steel frame with 1/2" plaster lip accommodates ceilings up to 2" thick. May be used for new construction or remodeling installations. Provided with (2) remodel clips to secure frame when installed from below the ceiling.

Mounting Brackets

Bar hanger receivers adjusts 2" vertically from above the ceiling or thru the aperture. Use with No Fuss™ bar hangers or with 1/2" EMT. Removable to facilitate installation from below the ceiling.

No Fuss™ Bar Hangers

Pre-installed and centered bar hanger locks to tee grid with a screwdriver or pliers. Centering marks on the bar hanger mechanism allows consistent positioning of fixtures.

OPTICAL Reflector

Highly efficient one piece aluminum reflector provides for equal lamp and lamp image cutoff for a visually comfortableoptic. Optional cross blade louver provides sharper cutoff to lamp. Self flanged standard.

- Specular Reflectors Polished flange standard with white painted flange option.
- Baffles and White Reflector -White painted flange standard.

Trim Retention

Reflector is retained with two torsion springs and held tightly to the finished ceiling surface.

ELECTRICAL Junction Box

(6) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (12) #12 AWG (six in, six out) 90°C conductors and feed thru branch wiring.

Lamp Socket

4-pin G24q base accepts (2) 13W or 18W DTT lamps.

Socket Housing

Galvanized steel socket housing attached securely to reflector with captive thumbscrew. Vents provide effective lamp thermal management.

Control Gear

Universal 120V - 277V UNV or 347V input electronic ballast for 13W or 18W compact fluorescent lamps.

Emergency Battery Pack

REM – Remote emergency test switch. Housing includes 120V/277V, 60Hz dual-tap battery pack provides 90 minutes of emergency illumination. Long life maintenance free sealed nickel cadmium batteries recharge fully in 24 hours. REM configuration includes prewired and attached remote test switch plate and indicator light. REM option is the standard emergency configuration, and is compatible with all standard reflector options, ordered separately.

IEM – Integral emergency test switch. Housing includes 120V/277V, 60Hz dual-tap battery pack provides 90 minutes of emergency illumination. Long life maintenance free sealed nickel cadmium batteries recharge fully in 24 hours. IEM configuration includes a prewired integral emergency test switch and indicator light that are both accessible inside the reflector. The IEM option requires "EM" designated reflectors only, ordered separately.

Emergency Battery Pack - Average Lamp Lumen Ratings

REM option: (2) 13W 400lm, (2) 18W 550lm

IEM option: (2) 13W 900lm, (2) 18W 1010lm

(Note: average lamp lumens are based upon REM and IEM manufacturer ratings. Delivered lumens depend upon trim; refer to trim photometry to factor delivered lumens).

Code Compliance

- -Thermally protected and cULus listed for damp locations.
- IP20 rated for open trims.
- NFPA Life Safety (Emergency Battery Pack).
- EMI/RFI per FCCTitle 47 CFR, Part 18, non consumer limits.
- High efficacy luminaire may be used to meet IECC, ASHRAE, and Title 24 commercial standards.



PD6H213 PD6H218 62H

(2) 13W or 18W DTT

Compact Fluorescent

6-Inch Aperture
Open Downlight

New Construction or Remodel Non-IC



HALO Commercial

ENERGY DATA

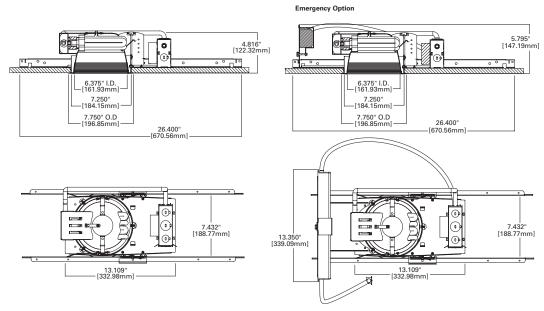
| PD6H213E, PD6CPH213E | | | |
|---|------------------------------------|--|--|
| Min. Starting Temp -5°F / -20°C Sound Rating Class A | | | |
| EMI/RFI EMISSIONS FCC 47CFR PART 18 NON-CONSUMER LIMITS | | | |
| INPUT FREQUENCY 50/60 Hz | JENCY 50/60 Hz POWER FACTOR > 0.98 | | |
| THD < 10% | INPUT VOLTAGE 120V - 277V ±10% | | |
| Crest factor < 1.7 Ballast factor 1.00 | | | |
| OPERATING FREQUENCY > 40kHz | | | |
| | INPUT POWER 29W | | |
| (2) CFQ13W/G24Q | INPUT CURRENT 0.25A @ 120V | | |
| | INPUT CURRENT 0.11A @ 277V | | |

| PD6H2133E | | |
|---|----------------------------|--|
| Min. Starting Temp 0°F / -18°C | Sound Rating Class A | |
| EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits | | |
| Input Frequency 50-60Hz Power Factor > 0.98 | | |
| THD < 10% | INPUT VOLTAGE 347VAC ±10% | |
| Crest factor < 1.7 BALLAST FACTOR .98 | | |
| Operating Frequency 62-72 kHz CULus Certified | | |
| (2) CEO12W/C24O | INPUT POWER 33W | |
| (2) CFQ13W/G24Q | INPUT CURRENT 0.10A @ 347V | |

| PD6H218E, PD6CPH218E | | |
|---|--|--|
| Min. Starting Temp 0°F / -18°C Sound Rating Class A | | |
| EMI/RFI Emissions FCC 47CFR Pa | art 18 Non-Consumer Limits | |
| Input Frequency 50/60 Hz Power Factor > 0.98 | | |
| THD < 10% | Input Voltage 120V - 277V ±10% | |
| Crest factor < 1.5 Ballast factor 0.95 | | |
| Operating Frequency 50-60kHz | cULus, Class P, Type 1 Outdoor, Type CC, Type HL | |
| | Input Power 35W | |
| (2) CFQ18W/G24Q | Input Current 0.30A @ 120V | |
| | Input Current 0.13A @ 277V | |

| PD6H2183E | | |
|---|----------------------------|--|
| Min. Starting Temp 0°F / -18°C Sound Rating Class A | | |
| EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits | | |
| Input Frequency 50-60Hz Power Factor > 0.98 | | |
| THD < 10% Input Voltage 347VAC ±10% | | |
| Crest factor < 1.5 Ballast factor 0.98 | | |
| Operating Frequency 60-70 kHz | | |
| (2) CFQ18W/G24Q | Input Power 38W | |
| (2) GFQ TOW/Q24Q | Input Current 0.11A @ 347V | |

DIMENSIONS





ORDERING INFORMATION

SAMPLE NUMBER: PD6H213E 62HC

Order housing, reflector and lamp separately for a complete luminaire.

Reflector 62H = 6" horizontal **Finish Option** Flange Option Accessories

Housing PD6H213 = 6 Inch horizontal (2) 13W DTT CFL PD6CPH213 = 6 Inch horizontal (2) 13W DTT CFL, CCEA listed (Chicago Plenum)

62HEM = 6" horizontal, Emergency (required with IEM ballast option) Shielding Media

[Blank] = none CB = Cross blade louvers (blade finish matches reflector, not available with baffle)

C=Specular Clear G=Specular Gold H=Semi Specular Clear W=White (White Flange)

BB=Black Baffle (White Flange) WB=White Baffle (White Flange)

G=Specular Gold

W=Gloss White

BB=Black Baffle

WB=White Baffle

H=Semi Specular Clear

(White Flange)

(White Flange)

(White Flange)

Blank=Polished Flange (C, G, H)

Blank=White flange (W, BB, WB) WF=White Flange (C, G, H)

(C, G, H)
Blank=White flange

WF=White Flange

(C, G, H)

(W, BB, WB)

HB128APK = L channel hanger bar, 26", 'No-Fuss', pair (replacement) RMB22 = 22" long wood joist mounting bars

26", 'No-Fuss',

RMB22 = 22" long wood joist

mounting bars

pair (replacement)

Ballast Option

E = 120V – 277V 50/60Hz UNV **REM** = 120V/277V 60Hz dual-tap emergency battery ballast with remote test switch

3E = 347V, 50/60Hz

EDMARK7 = 5% 0-10V discrete two-wire (13W) dimming, 120-277V

EDMARK7REM = 5% 0-10V discrete two-wire (13W) dimming, 120-277V; with REM emergency option

Integral Emergency Ballast Option IEM = 120/277V 60Hz dual-tap, Integral Emergency battery ballast

with test switch through reflector3

EDMARK7IEM = 5% 0-10V discrete two-wire (13W) dimming, 120-277V; with IEM emergency option*

*Requires "EM" reflectors only, ordered separately

SAMPLE NUMBER: PD6H218E 62HC

Order housing, reflector and lamp separately for a complete luminaire.



62HEM = 6" horizontal,

Emergency (required with IEM ballast option)

= Cross blade louvers

(blade finish matches reflector, not available with baffle)

Shielding Media

[Blank] = none

(2) 18W DTT CFL PD6CPH218 = 6 Inch horizontal (2) 18W DTT CFL, CCEA listed (Chicago Plenum)

Ballast Option

E = 120V - 277V 50/60Hz UNV

REM = 120V/277V 60Hz dual-tap emergency battery ballast with remote test switch plate

3E = 347V.50/60Hz

1DMARKX = 5% two-wire (18W) dimming, 120V

2DMARKX = 5% two-wire (18W) dimming, 277V

EDMARK7 = 5% 0-10V discrete two-wire (18W) dimming, 120-277V

1DMARKXREM = 5% two-wire (18W) dimming, 120V; with REM emergency option

2DMARKXREM = 5% two-wire (18W) dimming, 277V; with REM emergency option

EDMARK7REM = 5% 0-10V discrete two-wire (18W) dimming, 120-277V; with REM emergency option

Integral Emergency Ballast Option

IEM = 120/277V 60Hz dual-tap, Integral Emergency battery ballast with test switch through reflector*

1DMARKXIEM = 5% two-wire (18W) dimming, 120V; with IEM emergency option*
2DMARKXIEM = 5% two-wire (18W) dimming, 277V; with IEM emergency option*
EDMARK7IEM = 5% 0-10V discrete two-wire (18W) dimming, 120-277V; with IEM emergency option*

*Requires "EM" reflectors only, ordered separately

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PHOTOMETRY

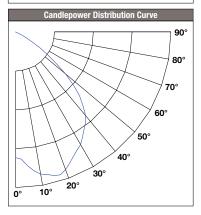
PD6H213E-62HC_13DTT

Spacing Criteria = 1.04

Lumens per Watt = 36 LpW

Test No. P31219

Test Model: PD6H213E-62HC_13DTT



| Candela Distribution | | |
|----------------------|---------|--|
| Degrees Vertical | Candela | |
| 0* | 466 | |
| 5 | 447 | |
| 15 | 453 | |
| 25 | 366 | |
| 35 | 297 | |
| 45 | 237 | |
| 55 | 89 | |
| 65 | 8 | |
| 75 | 1 | |
| 85 | 0 | |
| 90 | 0 | |
| | *CBCP | |

| Luminance | | | |
|-----------------------------|----------------------|--|--|
| (Average (| (Average Candela/M²) | | |
| Degree Avg. 0° Luminance | | | |
| 45 | 13594 | | |
| 55 | 5805 | | |
| 65 | 627 | | |
| 75 | 102 | | |
| 85 | 0 | | |

| Cone of Light Footcandles | | | |
|---------------------------|------------------------------|-------------|-------------------|
| Distance to | Initial Nadir Footcandles | Bean | n (ft.) |
| Illuminated Plane | | L Length | W Width |
| 5.5' | 17 | 6.2 | 7.7 |
| 7' | 11 | 8 | 9.8 |
| 8' | 8 | 9.1 | 11.2 |
| 9' | 6 | 10.2 | 12.6 |
| 10' | 5 | 11.4 | 14 |
| 12' | 4 | 13.6 | 16.8 |
| 14' | 3 | 15.9 | 19.6 |

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot. Footcandle values are initial, apply appropriate light loss factors where necessary.

| Zonal Lumen Summary | | | |
|------------------------------|---------|-------|--------|
| Zone Lumens % Lamp % Fixture | | | |
| 0-30 | 422.82 | 23.50 | 39.60 |
| 0-40 | 689.05 | 38.30 | 64.60 |
| 0-60 | 1050.75 | 58.40 | 98.50 |
| 0-90 | 1067.1 | 59.30 | 100.00 |

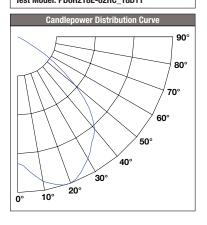
PD6H218E-62HC_18DTT

Spacing Criteria = 1.38

Lumens per Watt = 35 LpW

Test No. P31220

Test Model: PD6H218E-62HC_18DTT



| Candela Distribution | | |
|----------------------|---------|--|
| Degrees Vertical | Candela | |
| 0* | 577 | |
| 5 | 583 | |
| 15 | 590 | |
| 25 | 563 | |
| 35 | 512 | |
| 45 | 382 | |
| 55 | 156 | |
| 65 | 10 | |
| 75 | 1 | |
| 85 | 0 | |
| 90 | 0 | |

*CBCP

| Luminance | | |
|------------|----------------------|--|
| (Average C | (Average Candela/M²) | |
| Degree | Avg. 0° Luminance | |
| 45 | 21912 | |
| 55 | 10176 | |
| 65 | 784 | |
| 75 | 102 | |
| 85 | 0 | |
| | | |

| Cone of Light Footcandles | | | |
|---------------------------|---------------|--------------------|-------------------|
| Distance to | Initial Nadir | Bean | n (ft.) |
| Illuminated Plane | Footcandles | L Length | W Width |
| 5.5' | 21 | 6.8 | 7.8 |
| 7' | 13 | 8.6 | 9.9 |
| 8' | 10 | 9.9 | 11.3 |
| 9' | 8 | 11.1 | 12.8 |
| 10' | 6 | 12.3 | 14.2 |
| 12' | 4 | 14.8 | 17 |
| 14' | 3 | 17.3 | 19.8 |

Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot. Footcandle values are initial, apply appropriate light loss factors where necessary.

| Zonal Lumen Summary | | | |
|---------------------|---------|--------|-----------|
| Zone | Lumens | % Lamp | % Fixture |
| 0-30 | 533.31 | 22.20 | 38.30 |
| 0-40 | 880.39 | 36.70 | 63.20 |
| 0-60 | 1370.63 | 57.10 | 98.30 |
| 0-90 | 1393.75 | 58.10 | 100.00 |

Note: Specifications and Dimensions subject to change without notice.