# HALO Commercial

## DESCRIPTION

Recessed 6 inch aperture open downlight for vertical 26W double twin tube or 26/32/42W triple twin tube compact fluorescent lamp. 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 # | | Type |
| 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 comfortable optic. 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 (1) 26W DTT or 26/32/42WTTT lamp.

**Socket Cap**
Galvanized steel socket housing attached securely to reflector with turn & lock mechanism, two mounting heights for 26W DTT/42W TTT and 26/32WTTT. Vents provide effective lamp thermal management.

**Control Gear**
Universal 120V- 277V UNV or 347V input electronic ballast for 26/32/42W compact fluorescent lamp.

**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: 26W 425lm, 32W 600lm, 42W 750lm

IEM option: 26W 810lm, 32W 910lm, 42W 1040lm

(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**
- ENERGY STAR® listed for commercial applications, reference database for current listings.
- Thermally protected and cULus listed for damp locations.
- IP20 rated for open trims
- NFPA Life Safety (Emergency Battery Pack).
- EMI/RFI per FCC Title 47 CFR, Part 18, non consumer limits.
- Peel down wattage label from 42W to 32W and 26W. Allows de-rating to set max relamp wattage per project specifications (muti-wattage housings only).
- DR - De-rated label housings are wattage specific for 26/32W or 26W.
- High efficacy luminaire may be used to meet IECC, ASHRAE, and Title 24 commercial standards.



**PD6V142**
**60V**

**26W DTT**
**26/32/42WTTT**

**Compact Fluorescent**

**6-Inch Aperture**
**Open Downlight**

**New Construction or Remodel**
**Non-IC**

ENERGY STAR

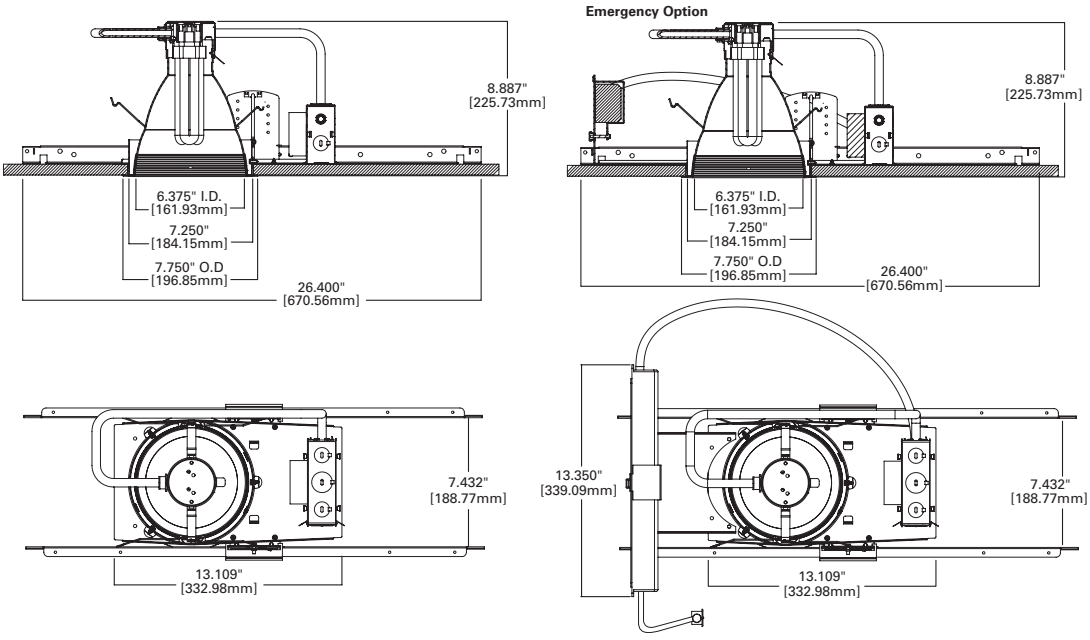
Cooper Lighting
by EATON

## ENERGY DATA

| PD6V142E, PD6CPV142E | |
|---|---|
| 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 | Power Factor > 0.98 |
| THD < 10% | Input Voltage 120V - 277V ±10% |
| Crest factor < 1.7 | |
| Operating Frequency > 40kHz | UL Listed Class P, Type 1 Outdoor, CSA or C/UL Certified |
| CFQ26W/G24Q | Input Power 28W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor 1.00 |
| CFTR26W/GX24Q | Input Power 28W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor 1.00 |
| CFTR32W/GX24Q | Input Power 35W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor .98 |
| CFTR42W/GX24Q | Input Power 45W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor .96 |

| PD6V1423E | |
|---|---|
| Min. Starting Temp 0°F / -18°C | Sound Rating Class A |
| EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits | |
| Input Frequency 60 Hz | Power Factor > 0.98 |
| THD < 10% | Input Voltage 347VAC ±10% |
| Operating Frequency 50-60 kHz | cULus Listed Class P, Type 1 Outdoor, Type CC |
| CFQ26W/G24Q | Input Power 31W |
| | Input Current 0.09A @ 347V |
| | Ballast factor 1.02 |
| | Crest factor < 1.6 |
| CFTR26W/GX24Q | Input Power 31W |
| | Input Current 0.09A @ 347V |
| | Ballast factor 1.02 |
| | Crest factor < 1.6 |
| CFTR32W/GX24Q | Input Power 36W |
| | Input Current 0.11A @ 347V |
| | Ballast factor 0.98 |
| | Crest factor < 1.5 |
| CFTR42W/GX24Q | Input Power 50W |
| | Input Current 0.15A @ 347V |
| | Ballast factor 1.00 |
| | Crest factor < 1.5 |

## DIMENSIONS



## ORDERING INFORMATION

**SAMPLE NUMBER: : PD6V142E 60VC**

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

**Housing**
**Multi-Wattage**
**PD6V142** = 6 Inch vertical (1) 26/32/42W DTT/TTT CFL
**PD6CPV142** = 6 Inch vertical (1) 26/32/42W DTT/TTT CFL, CCEA listed (Chicago Plenum)

**De-Rated Label**
**PD6V132** = 6 Inch vertical (1) 26/32W DTT/TTT CFL
**PD6CPV132** = 6 Inch vertical (1) 26/32W DTT/TTT CFL, CCEA listed (Chicago Plenum)
**PD6V126** = 6 Inch vertical (1) 26W DTT/TTT CFL
**PD6CPV126** = 6 Inch vertical (1) 26W DTT/TTT CFL, CCEA listed (Chicago Plenum)

**Reflector**
**60V** = 6" vertical
**60VEM** = 6" Vertical, Emergency (required with IEM ballast option)

**Finish Option**
**C**=Specular Clear
**G**=Specular Gold
**H**=Semi Specular Clear
**W**=White (White Flange)
**BB**=Black Baffle (White Flange)
**WB**=White Baffle (White Flange)

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

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

**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 (26/32/42W) dimming, 120V
**2DMARKX** = 5% two-wire (26/32/42W) dimming, 277V
**EDMARK7** = 5% 0-10V discrete two-wire (26/32/42W) dimming, 120-277V
**1DMARKXREM** = 5% two-wire (26/32/42W) dimming, 120V; with REM emergency option
**2DMARKXREM** = 5% two-wire (26/32/42W) dimming, 277V; with REM emergency option
**EDMARK7REM** = 5% 0-10V discrete two-wire (26/32/42W) dimming, 120-277V; with REM emergency option

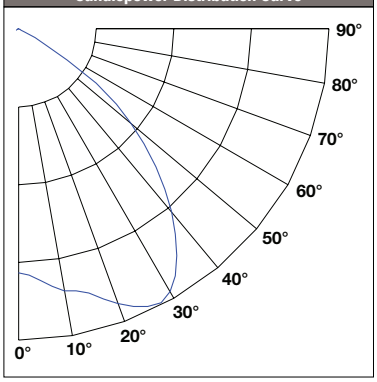
**Integral Emergency Ballast Option**
**IEM** = 120/277V 60Hz dual-tap, Integral Emergency battery ballast with test switch through reflector*
**1DMARKXIEM** = 5% two-wire (26/32/42W) dimming, 120V; with IEM emergency option*
**2DMARKXIEM** = 5% two-wire (26/32/42W) dimming, 277V; with IEM emergency option*
**EDMARK7IEM** = 5% 0-10V discrete two-wire (26/32/42W) dimming, 120-277V; with IEM emergency option*
*Requires "EM" reflectors only, ordered separately

## PHOTOMETRY

**PD6V142E-60VC_32TTT**

**Spacing Criteria = 1.56**
**Lumens per Watt = 52 LpW**
**Test No. P31192**
**Test Model: PD6V142E-60VC_32TTT**

**Candlepower Distribution Curve**




| Candela Distribution | |
|---|---|
| Degrees Vertical | Candela |
| 0* | 628 |
| 5 | 653 |
| 15 | 718 |
| 25 | 770 |
| 35 | 691 |
| 45 | 497 |
| 55 | 255 |
| 65 | 16 |
| 75 | 2 |
| 85 | 0 |
| 90 | 0 |

*CBCP

| Luminance | |
|---|---|
| (Average Candela/M²) | |
| Degree | Avg. 0° Luminance |
| 45 | 27507 |
| 55 | 16069 |
| 65 | 1213 |
| 75 | 198 |
| 85 | 0 |

| Cone of Light Footcandles | | | |
|---|---|---|---|
| Distance to Illuminated Plane | Initial Nadir Footcandles | Beam (ft.) | |
| | | L Length | W Width |
| 5.5' | 23 | 8.2 | 8.4 |
| 7' | 14 | 10.5 | 10.6 |
| 8' | 11 | 12 | 12.2 |
| 9' | 8 | 13.5 | 13.7 |
| 10' | 7 | 15 | 15.2 |
| 12' | 5 | 18 | 18.3 |
| 14' | 3 | 20.9 | 21.3 |

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 | 623.76 | 26.00 | 36.90 |
| 0-40 | 1061.04 | 44.20 | 62.70 |
| 0-60 | 1660.55 | 69.20 | 98.10 |
| 0-90 | 1692.25 | 70.50 | 100.00 |




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Specifications and dimensions subject to change without notice.

# HALO Commercial

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| | | |
|---|---|---|
| Catalog # | | Type |
| 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 comfortable optic. 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 (1) 26W DTT or 26/32/42WTTT lamp.

**Socket Cap**
Galvanized steel socket housing attached securely to reflector with turn & lock mechanism, two mounting heights for 26W DTT/42W TTT and 26/32WTTT. Vents provide effective lamp thermal management.

**Control Gear**
Universal 120V- 277V UNV or 347V input electronic ballast for 26/32/42W compact fluorescent lamp.

**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
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IEM option: 26W 810lm, 32W 910lm, 42W 1040lm

(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**
- ENERGY STAR® listed for commercial applications, reference database for current listings.
- Thermally protected and cULus listed for damp locations.
- IP20 rated for open trims
- NFPA Life Safety (Emergency Battery Pack).
- EMI/RFI per FCC Title 47 CFR, Part 18, non consumer limits.
- Peel down wattage label from 42W to 32W and 26W. Allows de-rating to set max relamp wattage per project specifications (muti-wattage housings only).
- DR - De-rated label housings are wattage specific for 26/32W or 26W.
- High efficacy luminaire may be used to meet IECC, ASHRAE, and Title 24 commercial standards.



**PD6V142**
**60V**

**26W DTT**
**26/32/42WTTT**

**Compact Fluorescent**

**6-Inch Aperture**
**Open Downlight**

**New Construction or Remodel**
**Non-IC**

ENERGY STAR

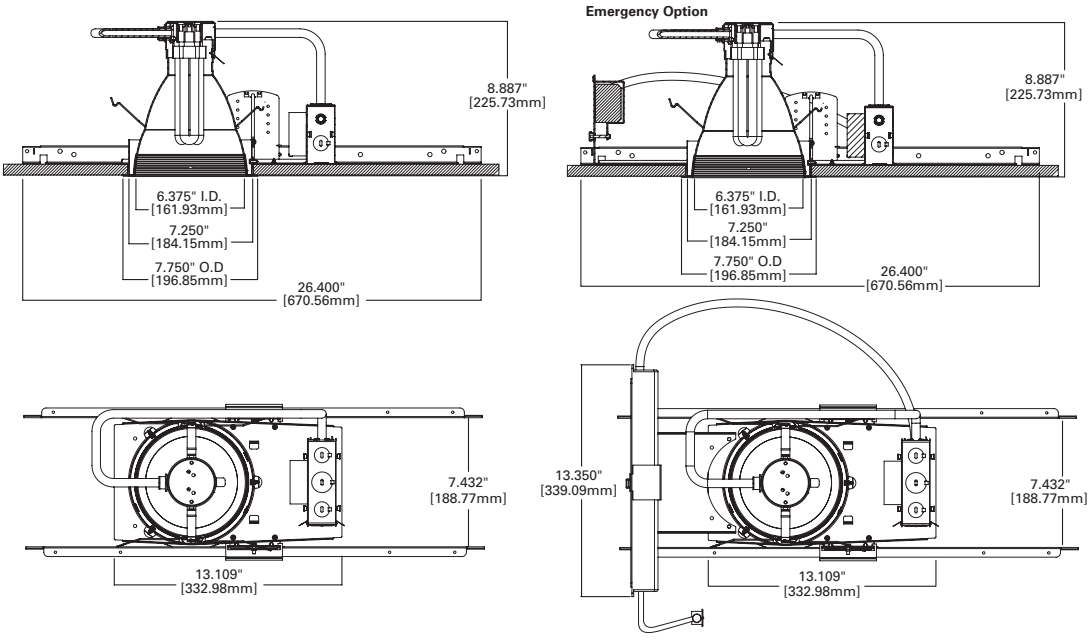
Cooper Lighting
by EATON

## ENERGY DATA

| PD6V142E, PD6CPV142E | |
|---|---|
| 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 | Power Factor > 0.98 |
| THD < 10% | Input Voltage 120V - 277V ±10% |
| Crest factor < 1.7 | |
| Operating Frequency > 40kHz | UL Listed Class P, Type 1 Outdoor, CSA or C/UL Certified |
| CFQ26W/G24Q | Input Power 28W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor 1.00 |
| CFTR26W/GX24Q | Input Power 28W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor 1.00 |
| CFTR32W/GX24Q | Input Power 35W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor .98 |
| CFTR42W/GX24Q | Input Power 45W |
| | Input Current 0.50A @ 120V |
| | Input Current 0.22A @ 277V |
| | Ballast factor .96 |

| PD6V1423E | |
|---|---|
| Min. Starting Temp 0°F / -18°C | Sound Rating Class A |
| EMI/RFI Emissions FCC 47CFR Part 18 Non-Consumer Limits | |
| Input Frequency 60 Hz | Power Factor > 0.98 |
| THD < 10% | Input Voltage 347VAC ±10% |
| Operating Frequency 50-60 kHz | cULus Listed Class P, Type 1 Outdoor, Type CC |
| CFQ26W/G24Q | Input Power 31W |
| | Input Current 0.09A @ 347V |
| | Ballast factor 1.02 |
| | Crest factor < 1.6 |
| CFTR26W/GX24Q | Input Power 31W |
| | Input Current 0.09A @ 347V |
| | Ballast factor 1.02 |
| | Crest factor < 1.6 |
| CFTR32W/GX24Q | Input Power 36W |
| | Input Current 0.11A @ 347V |
| | Ballast factor 0.98 |
| | Crest factor < 1.5 |
| CFTR42W/GX24Q | Input Power 50W |
| | Input Current 0.15A @ 347V |
| | Ballast factor 1.00 |
| | Crest factor < 1.5 |

## DIMENSIONS



## ORDERING INFORMATION

**SAMPLE NUMBER: : PD6V142E 60VC**

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

**Housing**
**Multi-Wattage**
**PD6V142** = 6 Inch vertical (1) 26/32/42W DTT/TTT CFL
**PD6CPV142** = 6 Inch vertical (1) 26/32/42W DTT/TTT CFL, CCEA listed (Chicago Plenum)

**De-Rated Label**
**PD6V132** = 6 Inch vertical (1) 26/32W DTT/TTT CFL
**PD6CPV132** = 6 Inch vertical (1) 26/32W DTT/TTT CFL, CCEA listed (Chicago Plenum)
**PD6V126** = 6 Inch vertical (1) 26W DTT/TTT CFL
**PD6CPV126** = 6 Inch vertical (1) 26W DTT/TTT CFL, CCEA listed (Chicago Plenum)

**Reflector**
**60V** = 6" vertical
**60VEM** = 6" Vertical, Emergency (required with IEM ballast option)

**Finish Option**
**C**=Specular Clear
**G**=Specular Gold
**H**=Semi Specular Clear
**W**=White (White Flange)
**BB**=Black Baffle (White Flange)
**WB**=White Baffle (White Flange)

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

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

**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 (26/32/42W) dimming, 120V
**2DMARKX** = 5% two-wire (26/32/42W) dimming, 277V
**EDMARK7** = 5% 0-10V discrete two-wire (26/32/42W) dimming, 120-277V
**1DMARKXREM** = 5% two-wire (26/32/42W) dimming, 120V; with REM emergency option
**2DMARKXREM** = 5% two-wire (26/32/42W) dimming, 277V; with REM emergency option
**EDMARK7REM** = 5% 0-10V discrete two-wire (26/32/42W) dimming, 120-277V; with REM emergency option

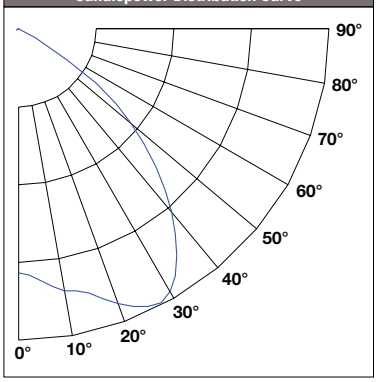
**Integral Emergency Ballast Option**
**IEM** = 120/277V 60Hz dual-tap, Integral Emergency battery ballast with test switch through reflector*
**1DMARKXIEM** = 5% two-wire (26/32/42W) dimming, 120V; with IEM emergency option*
**2DMARKXIEM** = 5% two-wire (26/32/42W) dimming, 277V; with IEM emergency option*
**EDMARK7IEM** = 5% 0-10V discrete two-wire (26/32/42W) dimming, 120-277V; with IEM emergency option*
*Requires "EM" reflectors only, ordered separately

## PHOTOMETRY

**PD6V142E-60VC_32TTT**

**Spacing Criteria = 1.56**
**Lumens per Watt = 52 LpW**
**Test No. P31192**
**Test Model: PD6V142E-60VC_32TTT**

**Candlepower Distribution Curve**




| Candela Distribution | |
|---|---|
| Degrees Vertical | Candela |
| 0* | 628 |
| 5 | 653 |
| 15 | 718 |
| 25 | 770 |
| 35 | 691 |
| 45 | 497 |
| 55 | 255 |
| 65 | 16 |
| 75 | 2 |
| 85 | 0 |
| 90 | 0 |

*CBCP

| Luminance | |
|---|---|
| (Average Candela/M²) | |
| Degree | Avg. 0° Luminance |
| 45 | 27507 |
| 55 | 16069 |
| 65 | 1213 |
| 75 | 198 |
| 85 | 0 |

| Cone of Light Footcandles | | | |
|---|---|---|---|
| Distance to Illuminated Plane | Initial Nadir Footcandles | Beam (ft.) | |
| | | L Length | W Width |
| 5.5' | 23 | 8.2 | 8.4 |
| 7' | 14 | 10.5 | 10.6 |
| 8' | 11 | 12 | 12.2 |
| 9' | 8 | 13.5 | 13.7 |
| 10' | 7 | 15 | 15.2 |
| 12' | 5 | 18 | 18.3 |
| 14' | 3 | 20.9 | 21.3 |

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 | 623.76 | 26.00 | 36.90 |
| 0-40 | 1061.04 | 44.20 | 62.70 |
| 0-60 | 1660.55 | 69.20 | 98.10 |
| 0-90 | 1692.25 | 70.50 | 100.00 |




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