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

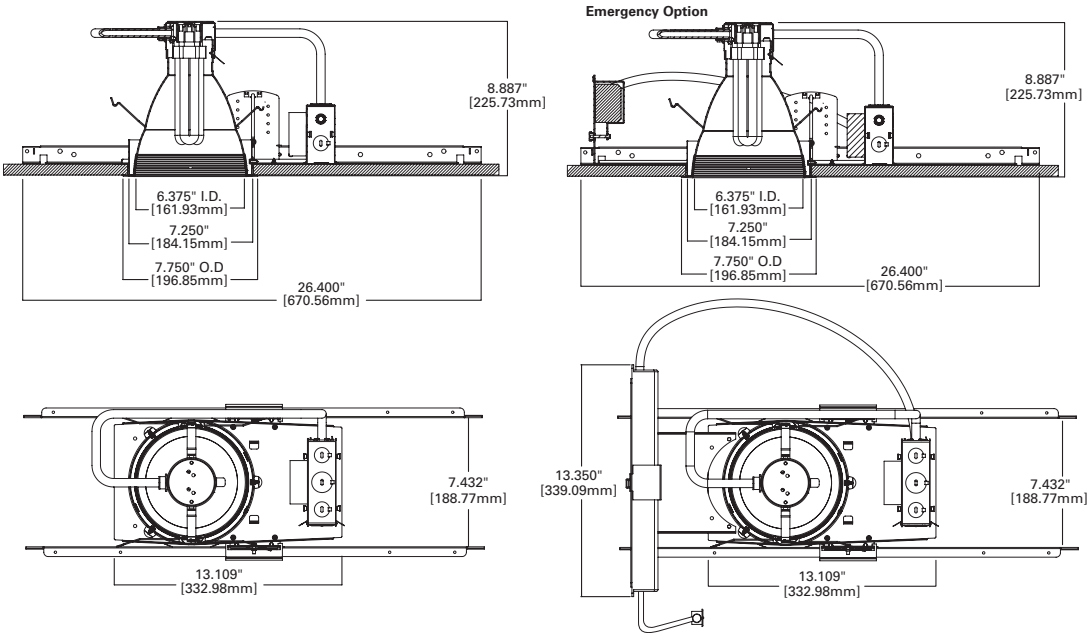
Cooper Lighting
by EATON

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

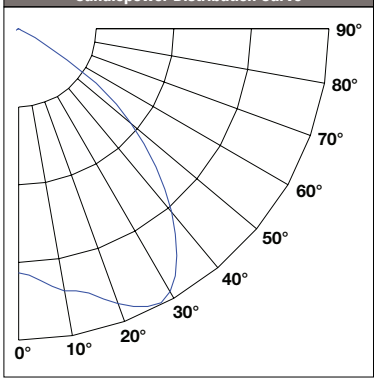
Integral Emergency Ballast Option
IEM = 120/277V 60Hz dual-tap, Integral Emergency battery ballast with test switch through reflector*
1DMARKXIEM = 5% two-wire (26/32/42W) dimming, 120V; with IEM emergency option*
2DMARKXIEM = 5% two-wire (26/32/42W) dimming, 277V; with IEM emergency option*
EDMARK7IEM = 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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February 2014

Specifications and dimensions subject to change without notice.

HALO Commercial

DESCRIPTION

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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

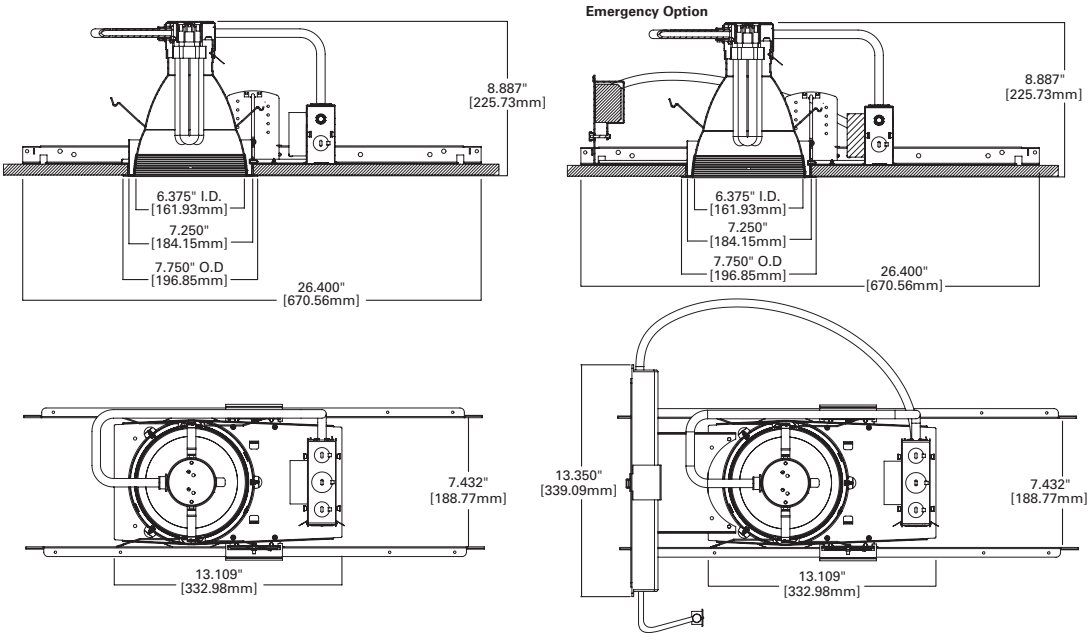
Cooper Lighting
by EATON

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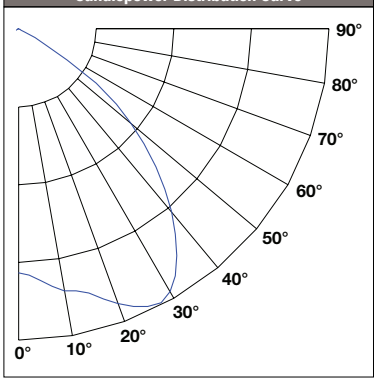
Integral Emergency Ballast Option
IEM = 120/277V 60Hz dual-tap, Integral Emergency battery ballast with test switch through reflector*
1DMARKXIEM = 5% two-wire (26/32/42W) dimming, 120V; with IEM emergency option*
2DMARKXIEM = 5% two-wire (26/32/42W) dimming, 277V; with IEM emergency option*
EDMARK7IEM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