

DESCRIPTION

Recessed 6-inch LED shallow lens downlight is available in various distributions, lumen and CRI/CCT options. Suitable for shallow commercial construction and can be used for both new or renovation work. Insulation must be kept 3" from top and sides of housing. Use for general area lighting where high efficiency and visual comfort are required.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

MECHANICAL Frame

Boat shaped galvanized steel frame with adjustable plaster lip accommodates ceilings up to 1/2" - 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

Captive preinstalled bar hanger locks to tee grid with a screwdriver or pliers. Centering mechanism allows consistent positioning of fixtures.

OPTICAL LED Module

Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation. Available in 80 or 90 CRI minimum, accuracy within 3 SDCM provides color uniformity. See ordering information for available CRI / CCT options. Passive thermal management achieves L70 at 50,000 hours in non IC applications. Integral diffuse lens provides visual shielding. Integral connector allows quick connection to housing flex.

Beam Forming Optics

Optional beam forming optics replace diffuse lens and provide narrow flood or flood distribution for long throws of light.

Reflector

One piece parabolic aluminum reflector combines high optical efficiency with visual comfort. Attaches to LED module with (3) speed clamps minimizing light leaks to lens. Self-flanged standard with an optional white painted flange.

Trim Retention

Reflectors are retained with two torsion springs holding the flange 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.

Driver

Integral UNV 120 - 277V 50/60 Hz constant current driver provides noise free operation. For 347V input use Halo transformer H347 or H347200. Continuous, flicker-free dimming from 100% to 10% with leading or trailing edge phase cut at 120V or 0 -10V analog control.

Emergency Option

Provides 90 minutes of standby lighting meeting most life safety codes for egress lighting. Available with remote charge indicator and test switch.

Compliance

- cULus listed for wet location
- cCSAus listed for wet location
- IP66 Ingress Protection Rated
- Certified for wet locations, insulation must be kept 3" from top and sides.
- Airtight per ASTM-E283.
- Optional City of Chicago environmental air (CCEA) marking for plenum applications.
- EMI/RFI emissions per FCC 47CFR Part 18 non-consumer limits.
- Contains no mercury or lead and RoHS compliant.
- Photometric testing in accordance with IES LM-79-08.
- Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.
- Can be used to comply with California Title 24 Non-Residential Lighting Controls requirements as a LED Luminaire.
- ENERGY STAR® listed for commercial applications, reference database for current listings.



PD610
PD615
PD620
PD630

PDM6A

64V

**1000, 1500,
2000 & 3000
Lumen Series**

**LED
6-Inch Aperture
Shallow Lens
Downlight**

THD: ≤ 20%
PF: ≥ 0.90
T Ambient -30 - +40°C
Sound Rating ≤ 22dba

Lumens	1000 Series	
Input Voltage	120V	277V
Input Current	.103 A	.058 A
Input Power	12.1 W	13.2 W
Efficiency	95 LPW	95 LPW
Inrush Current	.048 A	.080 A

Lumens	1500 Series	
Input Voltage	120V	277V
Input Current	.146 A	.1 A
Input Power	17.1 W	17.9 W
Efficiency	87 LPW	87 LPW
Inrush Current	1.920 A	0.960 A

Lumens	2000 Series	
Input Voltage	120V	277V
Input Current	.175 A	.536 A
Input Power	20.78 W	21.06 W
Efficiency	96 LPW	96 LPW
Inrush Current	.064 A	.128 A

Lumens	3000 Series	
Input Voltage	120V	277V
Input Current	.299 A	.145 A
Input Power	35.72 W	36.4 W
Efficiency	89 LPW	89 LPW
Inrush Current	.096 A	.928 A

ORDERING INFORMATION

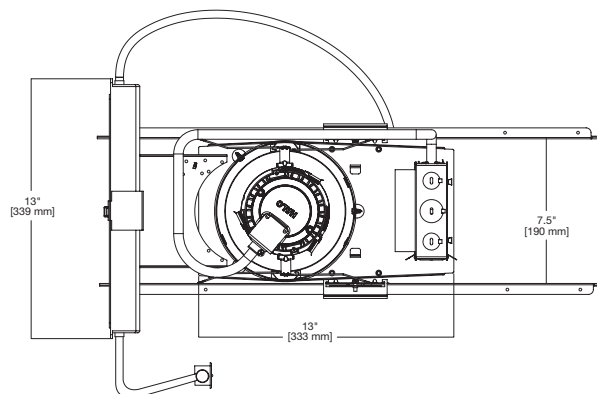
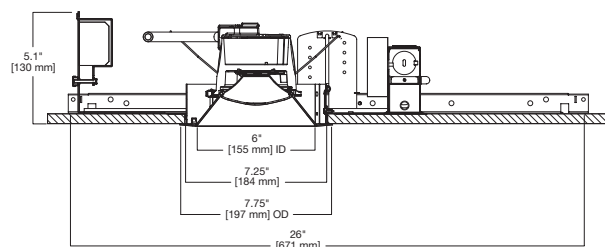
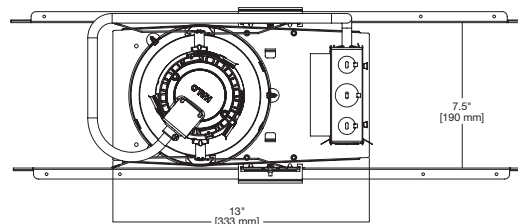
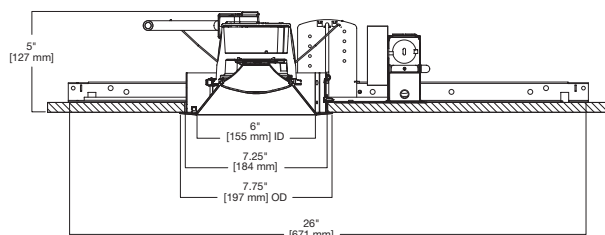
SAMPLE NUMBER: PD610ED010REM-PDM6A827-64VC

A complete luminaire consists of a housing, LED module and reflector, order separately.

Housing	Lumens	Driver	Options	LED Module	CRI/CCT
PD6 = 6" aperture LED downlight PD6CP = 6" aperture LED downlight, CCEA listed for City of Chicago plenum requirements	10 = 1,000 lumens (nominal) 15 = 1,500 lumens (nominal) 20 = 2,000 lumens (nominal)	ED010 = 120-277V 50/60Hz, 0-10V and LE/TE phase cut dimming	REM = Emergency operation with remote indicator and test switch (not available with PD6CP housing)	PDM6A = Downlight LED module for PD6 housing, provides 1,000, 1,500, 2,000, or 3,000 lumens (nominal) depending on connected housing type	827 = 80 CRI, 2700K CCT 927 = 90 CRI, 2700K CCT 830 = 80 CRI, 3000K CCT 930 = 90 CRI, 3000K CCT 835 = 80 CRI, 3500K CCT 935 = 90 CRI, 3500K CCT 840 = 80 CRI, 4000K CCT 940 = 90 CRI, 4000K CCT
	30 = 3,000 lumens (nominal)	D010 = 120-277V 50/60Hz, 0-10V dimming (3,000 lumen only)			

Reflector	Finish Option	Flange Option	Accessories
64V = 6" shallow parabolic reflector	C = Specular clear G = Specular gold H = Semi-specular clear W = White (white flange)	Blank = Polished flange standard with C, G, & H reflector finishes Blank = White flange standard with W WF = White flange option available with C, G, & H reflector finishes	HB128APK = L channel hanger bar, 26", 'No-Fuss', pair (replacement) RMB22 = 22" long wood joist mounting bars, pair BFR56NFL = Beam forming reflector kit, narrow flood distribution BFR56FL = Beam forming reflector kit, flood distribution BFR56MH = Media holder, accepts one 3.45" lens L345SF = 3.45" diameter soft focus lens H347 = Step down transformer for 347V input, 75VA max H347200 = Step down transformer for 347V input, 200VA max

DIMENSIONS



COMPLIANCE TABLE

1000 LUMEN

80 CRI																
Catalog #	PD610ED010- PDM6A827				PD610ED010- PDM6A830				PD610ED010- PDM6A835				PD610ED010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	1111	83			1194	89			1267	95			1277	95		
64VCWF	1090	81			1172	87			1243	93			1254	94		
64VG	1092	81			1173	88			1245	93			1256	94		
64VGWF	1079	80			1159	87			1230	92			1241	93		
64VH	1069	80			1149	86			1219	91			1229	92		
64VHWF	1063	79			1143	85			1213	90			1223	91		
64VW	1110	83			1193	89			1266	94			1277	95		

90 CRI																
Catalog #	PD610ED010- PDM6A927				PD610ED010- PDM6A930				PD610ED010- PDM6A935				PD610ED010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	856	64			918	69			987	74			1094	82		
64VCWF	840	63			901	67			969	72			1074	80		
64VG	841	63			902	67			970	72			1075	80		
64VGWF	831	62			891	67			959	72			1063	79		
64VH	824	61			883	66			950	71			1053	79		
64VHWF	819	61			879	66			945	71			1048	78		
64VW	855	64			917	68			987	74			1094	82		

1500 LUMEN

80 CRI																
Catalog #	PD615ED010- PDM6A827				PD615ED010- PDM6A830				PD615ED010- PDM6A835				PD615ED010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	1525	82			1639	89			1739	94			1754	95		
64VCWF	1497	81			1609	87			1707	92			1721	93		
64VG	1499	81			1611	87			1709	92			1724	93		
64VGWF	1481	80			1592	86			1689	91			1703	92		
64VH	1467	79			1577	85			1673	90			1688	91		
64VHWF	1460	79			1569	85			1665	90			1679	91		
64VW	1524	82			1638	89			1738	94			1753	95		

90 CRI																
Catalog #	PD615ED010- PDM6A927				PD615ED010- PDM6A930				PD615ED010- PDM6A935				PD615ED010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	1175	64			1260	68			1356	73			1502	81		
64VCWF	1153	62			1237	67			1331	72			1475	80		
64VG	1155	62			1239	67			1332	72			1477	80		
64VGWF	1141	62			1224	66			1317	71			1459	79		
64VH	1131	61			1213	66			1304	71			1446	78		
64VHWF	1125	61			1207	65			1298	70			1438	78		
64VW	1174	63			1259	68			1355	73			1501	81		

ES

ES = ENERGY STAR® Compliant

T24

T24 = Can be used to comply with
California Title 24 Non-Residential

COMPLIANCE TABLE continued

2000 LUMEN

80 CRI																
Catalog #	PD620ED010- PDM6A827				PD620ED010- PDM6A830				PD620ED010- PDM6A835				PD620ED010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	1855	84			1994	91			2116	96			2134	97		
64VCWF	1821	83			1957	89			2076	94			2094	95		
64VG	1823	83			1960	89			2079	95			2097	95		
64VGWF	1802	82			1936	88			2054	93			2072	94		
64VH	1785	81			1918	87			2036	93			2053	93		
64VHWF	1776	81			1909	87			2025	92			2043	93		
64VW	1854	84			1992	91			2114	96			2132	97		

90 CRI																
Catalog #	PD620ED010- PDM6A927				PD620ED010- PDM6A930				PD620ED010- PDM6A935				PD620ED010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	1430	65			1533	70			1649	75			1828	83		
64VCWF	1403	64			1505	68			1619	74			1794	82		
64VG	1405	64			1507	68			1621	74			1796	82		
64VGWF	1388	63			1489	68			1602	73			1775	81		
64VH	1376	63			1475	67			1587	72			1759	80		
64VHWF	1369	62			1468	67			1579	72			1750	80		
64VW	1429	65			1532	70			1648	75			1827	83		

3000 LUMEN

80 CRI																
Catalog #	PD630D010- PDM6A827				PD630D010- PDM6A830				PD630D010- PDM6A835				PD630D010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
64VC	2772	78			2979	83			3161	89			3189	89		
64VCWF	2721	76			2924	82			3103	87			3129	88		
64VG	2724	76			2928	82			3107	87			3134	88		
64VGWF	2692	75			2893	81			3070	86			3096	87		
64VH	2667	75			2867	80			3042	85			3068	86		
64VHWF	2654	74			2852	80			3027	85			3053	86		
64VW	2770	78			2977	83			3159	88			3186	89		

90 CRI																	
Catalog #	PD630D010- PDM6A927				PD630D010- PDM6A930				PD630D010- PDM6A935				PD630D010- PDM6A940				
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	
64VC	2136	60			2291	64			2464	69			2731	77			
64VCWF	2097	59			2249	63			2419	68			2681	75			
64VG	2100	59			2252	63			2422	68			2684	75			
64VGWF	2075	58			2225	62			2393	67			2652	74			
64VH	2056	58			2204	62			2371	66			2628	74			
64VHWF	2045	57			2193	61			2359	66			2615	73			
64VW	2135	60			2290	64			2463	69			2729	76			

ES

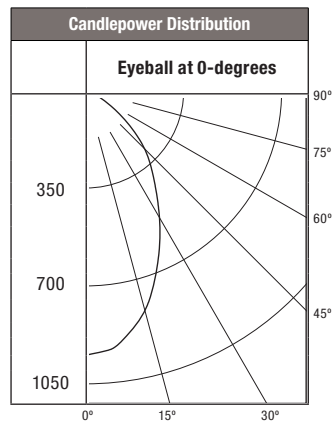
ES = ENERGY STAR® Compliant

T24

T24 = Can be used to comply with California Title 24 Non-Residential

PHOTOMETRY - 1000 lumen / 80 CRI

PD610ED010- PDM6A835-64VC Spacing Criteria = 0.92 Lumens per Watt = 104.7 Lm/W Test No. P137469 Test Model: PD610ED010- PDM6A835-64VC
--



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	947
5	933
10	883
20	720
30	526
40	364
50	218
60	78
70	6
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	23033
55	13486
65	4410
75	0
85	0

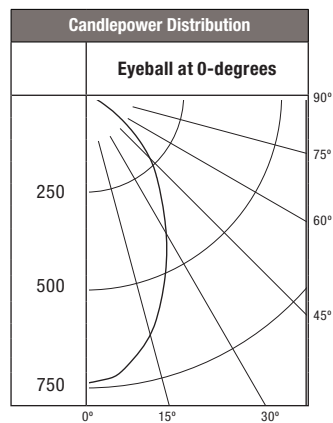
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	31.3	5	5
7	19.3	6.4	6.4
8	14.8	7.2	7.2
9	11.7	8.2	8.2
10	9.5	9	9
12	6.6	10.8	10.8

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	% Fixture
0-30	600	47.4
0-40	875	69.1
0-60	1229	97.1
0-90	1267	100

PHOTOMETRY - 1000 lumen / 90 CRI

PD610ED010- PDM6A935-64VC Spacing Criteria = 0.92 Lumens per Watt = 81.6 Lm/W Test No. P137473 Test Model: PD610ED010- PDM6A935-64VC



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	738
5	727
10	689
20	562
30	410
40	284
50	170
60	61
70	5
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	17955
55	10513
65	3437
75	0
85	0

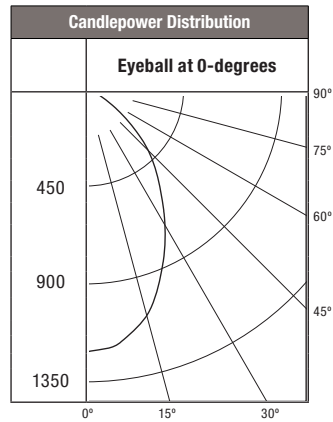
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	24.4	5	5
7	15.1	6.4	6.4
8	11.5	7.2	7.2
9	9.1	8.2	8.2
10	7.4	9	9
12	5.1	10.8	10.8

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	% Fixture
0-30	468	47.4
0-40	682	69.1
0-60	958	97.1
0-90	987	100

PHOTOMETRY - 1500 lumen / 80 CRI

PD615ED010- PDM6A835-64VG Spacing Criteria = 0.97 Lumens per Watt = 92.4 Lm/W Test No. P167114 Test Model: PD615ED010- PDM6A835-64VG



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	1212
5	1200
10	1152
20	972
30	727
40	505
50	292
60	100
70	6
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	31422
55	17710
65	5279
75	0
85	0

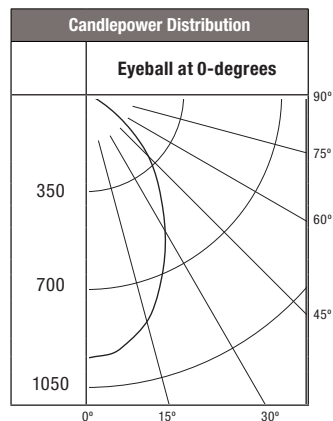
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	40.1	5.2	5.2
7	24.7	6.6	6.6
8	18.9	7.6	7.6
9	15	8.6	8.6
10	12.1	9.6	9.6
12	8.4	11.6	11.6

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	% Fixture
0-30	805	47.1
0-40	1186	69.4
0-60	1664	97.3
0-90	1709	100

PHOTOMETRY - 1500 lumen / 90 CRI

PD615ED010- PDM6A935-64VG Spacing Criteria = 0.97 Lumens per Watt = 72 Lm/W Test No. P167118 Test Model: PD615ED010- PDM6A935-64VG



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	945
5	936
10	898
20	758
30	567
40	393
50	227
60	78
70	5
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	24499
55	13811
65	4112
75	0
85	0

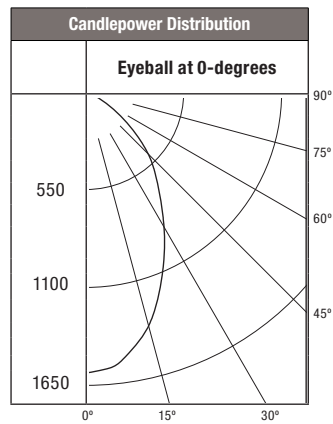
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	31.2	5.2	5.2
7	19.3	6.6	6.6
8	14.8	7.6	7.6
9	11.7	8.6	8.6
10	9.5	9.6	9.6
12	6.6	11.6	11.6

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	% Fixture
0-30	627	47.1
0-40	925	69.4
0-60	1297	97.3
0-90	1332	100

PHOTOMETRY - 2000 lumen / 80 CRI

PD620ED010- PDM6A835-64VC Spacing Criteria = 0.92 Lumens per Watt = 96.2 Lm/W Test No. P137453 Test Model: PD620ED010- PDM6A835-64VC



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	1582
5	1558
10	1476
20	1203
30	879
40	608
50	364
60	131
70	10
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	38469
55	22527
65	7355
75	0
85	0

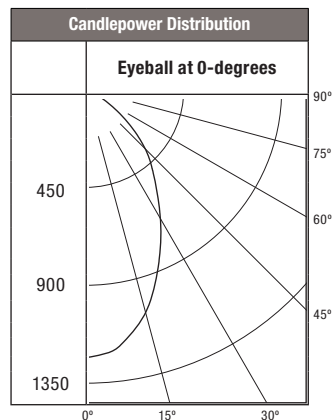
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	52.3	5	5
7	32.3	6.4	6.4
8	24.7	7.2	7.2
9	19.5	8.2	8.2
10	15.8	9	9
12	11	10.8	10.8

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	% Fixture
0-30	1003	47.4
0-40	1461	69.1
0-60	2053	97.1
0-90	2116	100

PHOTOMETRY - 2000 lumen / 90 CRI

PD620ED010- PDM6A935-64VC Spacing Criteria = 0.92 Lumens per Watt = 75 Lm/W Test No. P137457 Test Model: PD620ED010- PDM6A935-64VC



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	1233
5	1215
10	1150
20	938
30	685
40	474
50	284
60	102
70	8
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	29988
55	17567
65	5733
75	0
85	0

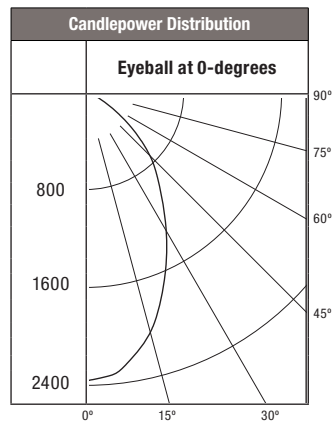
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	40.8	5	5
7	25.2	6.4	6.4
8	19.3	7.2	7.2
9	15.2	8.2	8.2
10	12.3	9	9
12	8.6	10.8	10.8

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	% Fixture
0-30	782	47.4
0-40	1139	69.1
0-60	1601	97.1
0-90	1649	100

PHOTOMETRY - 3000 lumen / 80 CRI

PD630ED010- PDM6A835-64VC
Spacing Criteria = 0.92
Lumens per Watt = 88.6 Lm/W
Test No. P137485
Test Model: PD630ED010- PDM6A835-64VC



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	2364
5	2329
10	2205
20	1798
30	1313
40	909
50	544
60	196
70	15
80	0
90	0

*CBCP

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	57487
55	33671
65	11000
75	0
85	0

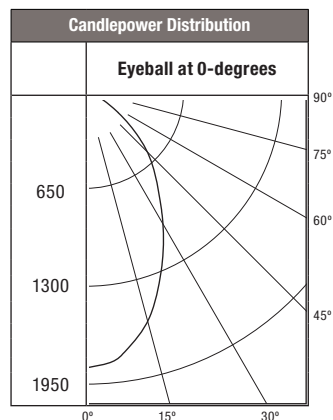
Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	78.1	5	5
7	48.2	6.4	6.4
8	36.9	7.2	7.2
9	29.2	8.2	8.2
10	23.6	9	9
12	16.4	10.8	10.8

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	% Fixture
0-30	1498	47.4
0-40	2184	69.1
0-60	3069	97.1
0-90	3161	100

PHOTOMETRY - 3000 lumen / 90 CRI

PD630ED010- PDM6A935-64VC
Spacing Criteria = 0.92
Lumens per Watt = 69 Lm/W
Test No. P137489
Test Model: PD630ED010- PDM6A935-64VC



Scaling factor for the Battery back up:

- 1000 Lumen = 0.55
- 1500 Lumen = 0.40
- 2000 Lumen = 0.33
- 3000 Lumen = 0.22

Candela Distribution	
Degrees Vertical	Candela
0*	1843
5	1816
10	1719
20	1402
30	1024
40	709
50	424
60	153
70	12
80	0
90	0

Luminance	
(Average Candela/M²)	
Degree	Avg. 0° Luminance
45	44811
55	26245
65	8574
75	0
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	60.9	5	5
7	37.6	6.4	6.4
8	28.8	7.2	7.2
9	22.7	8.2	8.2
10	18.4	9	9
12	12.8	10.8	10.8

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	% Fixture
0-30	1168	47.4
0-40	1702	69.1
0-60	2392	97.1
0-90	2465	100