

DESCRIPTION

The Halo PD6RX Retrofit Kit is designed to be installed into existing Halo Commercial PD6 Housings. Recessed 6-inch LED lens downlight retrofit is available in various distributions, lumen and CRI/CCT options. Installs from below the ceiling into existing open frame recessed housings. 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

Use to retrofit existing Halo Commercial PD6 series incandescent, compact fluorescent or metal halide recessed housings to LED.

Cooper Lighting Halo Commercial

- PD6H Series
- PD6V Series
- PD6P Series

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.

Reflector

One piece parabolic aluminum reflector provides cutoff for a visually comfortable optic. 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 Module Flex

Armored cable assembly attaches to junction box and provides tool-less connection to the LED module.

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. Mounted to a junction box cover to replace existing.

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 Classified for wet location
- IP66 Ingress Protection Rate
- 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.



PD6RX10
PD6RX15
PD6RX20
PD6RX30

PDM6A

61V

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

LED RETROFIT

**6-Inch Aperture
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	88 LPW	88 LPW
Inrush Current	0.37 A	0.77 A

Lumens	1500 Series	
Input Voltage	120V	277V
Input Current	.146 A	0.072 A
Input Power	17.1 W	17.9 W
Efficiency	87 LPW	87 LPW
Inrush Current	0.47 A	1.04 A

Lumens	2000 Series	
Input Voltage	120V	277V
Input Current	.175 A	0.086 A
Input Power	20.78 W	21.06 W
Efficiency	89 LPW	89 LPW
Inrush Current	0.54 A	1.21 A

Lumens	3000 Series	
Input Voltage	120V	277V
Input Current	.299 A	.145 A
Input Power	35.72 W	36.4 W
Efficiency	82 LPW	82 LPW
Inrush Current	0.85 A	2.0 A

ORDERING INFORMATION

SAMPLE NUMBER: PD6RX12ED010REM-PDM6827-61V

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

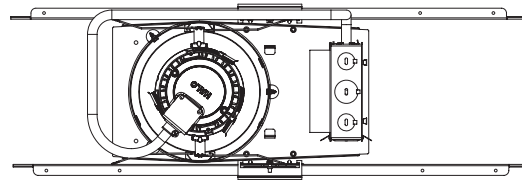
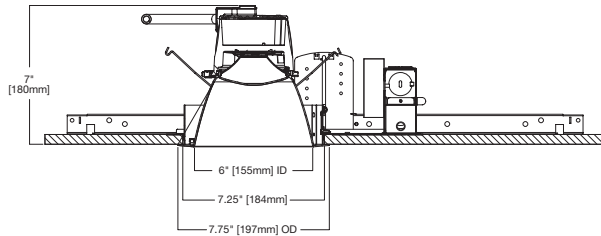
Housing	Lumens	Driver	Options	LED Module	CRI/CCT
PD6RX = 6" aperture LED downlight retrofit, less mounting frame	10 = 1,000 lumens (nominal) 15 = 1,500 lumens (nominal) 20 = 2,000 lumens (nominal)	ED010 = 120-277V 50/60Hz, 0-10V and LE/TE phase cut dimming	REM =Emergency operation with remote indicator and test switch (not available with PD6RXCP housing), 60Hz	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
PD6RXCP = 6" aperture LED downlight retrofit, less mounting frame, CCEA listed for City of Chicago plenum requirements	30 = 3,000 lumens (nominal)	D010 = 120-277V 50/60Hz, 0-10V dimming (3,000 lumen only)			

Reflector	Finish Option	Flange Option	Accessories
61V = 6" vertical parabolic reflector	C = Specular clear G = Specular gold H = Semi-specular clear W = White (white flange) BB = Black baffle (white flange) WB = White baffle (white flange)	Blank = Polished flange standard with C, G & H reflector finishes Blank = White flange standard with W, BB, & WB WF = White flange option available with C, G, & H reflector finishes	H347 = Step down transformer for 347V input, 75VA max H347200 = Step down transformer for 347V input, 200VA max PORLWTPD1 = LumaWatt Pro Wireless Sensor Kit (0-10V only)

UL Listed into Halo Commercial Housings:

- Use to retrofit existing Halo Commercial PD6 series incandescent, compact fluorescent or metal halide recessed housings to LED
- Use PD6MA LED Light Engine: PD610x, PD620x, and PD630X
- Designed to work with Halo Commercial LED trim series: 61Vx, 64Vx, and 61WWx

DIMENSIONS



COMPLIANCE TABLE

1000 LUMEN

80 CRI																
Catalog #	PD6RX10ED010- PDM6A827				PD6RX10ED010- PDM6A830				PD6RX10ED010- PDM6A835				PD6RX10ED010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	1032	77			1109	83			1177	88			1187	89		
61VCWF	1005	75			1080	81			1146	86			1156	86		
61VG	1003	75			1078	80			1144	85			1154	86		
61VGWF	966	72			1039	78			1102	82			1111	83		
61VH	924	69			993	74			1053	79			1062	79		
61VHWF	921	69			990	74			1051	78			1060	79		
61VW	960	72			1032	77			1095	82			1104	82		
61VBB	897	67			964	72			1023	76			1031	77		
61VWB	980	73			1053	79			1118	83			1127	84		

90 CRI																
Catalog #	PD6RX10ED010- PDM6A927				PD6RX10ED010- PDM6A930				PD6RX10ED010- PDM6A935				PD6RX10ED010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	795	59			853	64			917	68			1017	76		
61VCWF	775	58			831	62			894	67			990	74		
61VG	773	58			829	62			892	67			988	74		
61VGWF	745	56			799	60			859	64			952	71		
61VH	712	53			763	57			821	61			910	68		
61VHWF	710	53			761	57			819	61			908	68		
61VW	740	55			794	59			854	64			946	71		
61VBB	691	52			741	55			797	59			884	66		
61VWB	755	56			810	60			871	65			966	72		

1500 LUMEN

80 CRI																
Catalog #	PD6RX15ED010- PDM6A827				PD6RX15ED010- PDM6A830				PD6RX15ED010- PDM6A835				PD6RX15ED010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	1417	77			1523	82			1616	87			1630	88		
61VCWF	1380	75			1483	80			1574	85			1587	86		
61VG	1377	74			1480	80			1570	85			1584	86		
61VGWF	1327	72			1426	77			1513	82			1526	82		
61VH	1268	69			1363	74			1446	78			1458	79		
61VHWF	1265	68			1359	73			1442	78			1455	79		
61VW	1318	71			1417	77			1503	81			1516	82		
61VBB	1231	67			1323	72			1404	76			1416	77		
61VWB	1346	73			1446	78			1534	83			1548	84		

90 CRI																
Catalog #	PD6RX15ED010- PDM6A927				PD6RX15ED010- PDM6A930				PD6RX15ED010- PDM6A935				PD6RX15ED010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	1092	59			1171	63			1260	68			1396	75		
61VCWF	1064	57			1141	62			1227	66			1360	74		
61VG	1061	57			1138	62			1224	66			1357	73		
61VGWF	1022	55			1096	59			1179	64			1307	71		
61VH	977	53			1048	57			1127	61			1249	68		
61VHWF	975	53			1045	57			1124	61			1246	67		
61VW	1016	55			1090	59			1172	63			1299	70		
61VBB	949	51			1018	55			1095	59			1213	66		
61VWB	1037	56			1112	60			1196	65			1326	72		

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 #	PD6RX20ED010- PDM6A827				PD6RX20ED010- PDM6A830				PD6RX20ED010- PDM6A835				PD6RX20ED010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	1724	78			1853	84			1966	89			1983	90		
61VCWF	1679	76			1805	82			1915	87			1931	88		
61VG	1675	76			1801	82			1910	87			1927	88		
61VGWF	1614	73			1735	79			1841	84			1856	84		
61VH	1543	70			1658	75			1759	80			1774	81		
61VHWF	1539	70			1654	75			1755	80			1770	80		
61VW	1604	73			1724	78			1829	83			1845	84		
61VBB	1498	68			1610	73			1708	78			1723	78		
61VWB	1637	74			1759	80			1867	85			1883	86		

90 CRI																
Catalog #	PD6RX20ED010- PDM6A927				PD6RX20ED010- PDM6A930				PD6RX20ED010- PDM6A935				PD6RX20ED010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	1328	60			1425	65			1532	70			1698	77		
61VCWF	1294	59			1388	63			1493	68			1654	75		
61VG	1291	59			1385	63			1489	68			1651	75		
61VGWF	1244	57			1334	61			1435	65			1590	72		
61VH	1189	54			1275	58			1371	62			1520	69		
61VHWF	1186	54			1272	58			1368	62			1516	69		
61VW	1236	56			1325	60			1426	65			1580	72		
61VBB	1154	52			1238	56			1332	61			1476	67		
61VWB	1262	57			1353	61			1455	66			1613	73		

3000 LUMEN

80 CRI																
Catalog #	PD6RX30D010- PDM6A827				PD6RX30D010- PDM6A830				PD6RX30D010- PDM6A835				PD6RX30D010- PDM6A840			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	2576	72			2768	78			2937	82			2963	83		
61VCWF	2509	70			2697	76			2861	80			2886	81		
61VG	2503	70			2691	75			2855	80			2879	81		
61VGWF	2412	68			2592	73			2750	77			2774	78		
61VH	2305	65			2477	69			2629	74			2651	74		
61VHWF	2299	64			2471	69			2622	73			2645	74		
61VW	2397	67			2576	72			2733	77			2757	77		
61VBB	2238	63			2406	67			2553	72			2575	72		
61VWB	2446	69			2629	74			2790	78			2814	79		

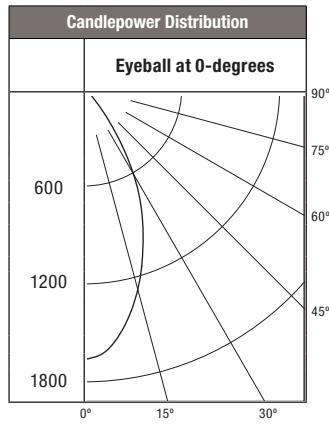
90 CRI																
Catalog #	PD6RX30D010- PDM6A927				PD6RX30D010- PDM6A930				PD6RX30D010- PDM6A935				PD6RX30D010- PDM6A940			
	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24	LUMENS	LPW	ES	T24
61VC	1985	56			2129	60			2290	64			2538	71		
61VCWF	1934	54			2074	58			2231	62			2472	69		
61VG	1929	54			2069	58			2226	62			2466	69		
61VGWF	1859	52			1993	56			2144	60			2376	67		
61VH	1776	50			1905	53			2049	57			2271	64		
61VHWF	1772	50			1900	53			2044	57			2265	63		
61VW	1847	52			1981	55			2131	60			2361	66		
61VBB	1725	48			1850	52			1990	56			2205	62		
61VWB	1885	53			2022	57			2175	61			2410	68		

ES ES = ENERGY STAR® Compliant

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

PHOTOMETRY - 1000 lumen / 80 CRI

<p>PD6RX10ED010- PDM6A835-61VC</p> <p>Spacing Criteria = 0.76 Lumens per Watt = 97.3 Lm/W Test No. P137045 Test Model: PD6RX10ED010- PDM6A835-61VC</p>



Candela Distribution	
Degrees Vertical	Candela
0*	1665
5	1614
10	1469
20	1057
30	609
40	166
50	18
60	3
70	1
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	4791
55	497
65	221
75	191
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	55.1	4	4
7	34	5.2	5.2
8	26	6	6
9	20.6	6.8	6.8
10	16.7	7.6	7.6
12	11.6	9	9

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.

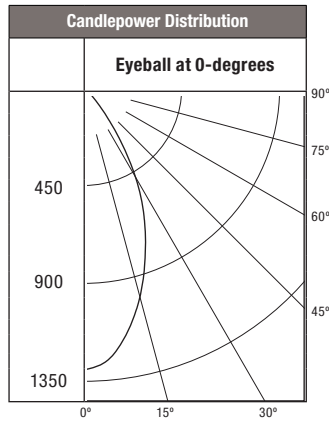
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	886	75.3
0-40	1113	94.6
0-60	1175	99.8
0-90	1177	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 1000 lumen / 90 CRI

<p>PD6RX10ED010- PDM6A935-61VC</p> <p>Spacing Criteria = 0.76 Lumens per Watt = 75.8 Lm/W Test No. P137049 Test Model: PD6RX10ED010- PDM6A935-61VC</p>



Candela Distribution	
Degrees Vertical	Candela
0*	1298
5	1258
10	1146
20	824
30	475
40	130
50	14
60	2
70	1
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	3737
55	392
65	182
75	148
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5'	52	4.4	4.4
7'	32.1	5.8	5.8
8'	24.6	6.6	6.6
9'	19.4	7.4	7.4
10'	15.7	8.2	8.2
12'	10.9	10	10

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.

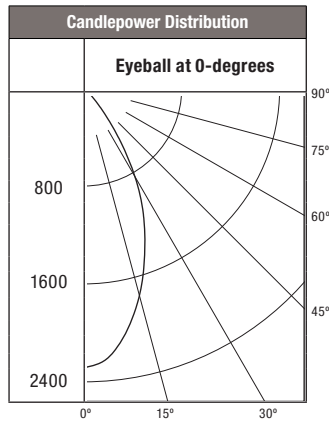
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	691	75.3
0-40	868	94.6
0-60	916	99.8
0-90	917	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 1500 lumen / 80 CRI

PD6RX15ED010- PDM6A835-61VC
Spacing Criteria = 0.76
Lumens per Watt = 87.3 Lm/W
Test No. P166946
Test Model: PD6RX15ED010- PDM6A835-61VC



Candela Distribution	
Degrees Vertical	Candela
0*	2287
5	2216
10	2018
20	1452
30	836
40	228
50	25
60	4
70	1
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	6582
55	688
65	311
75	254
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	75.6	4	4
7	46.7	5.2	5.2
8	35.7	6	6
9	28.2	6.8	6.8
10	22.9	7.6	7.6
12	15.9	9	9

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.

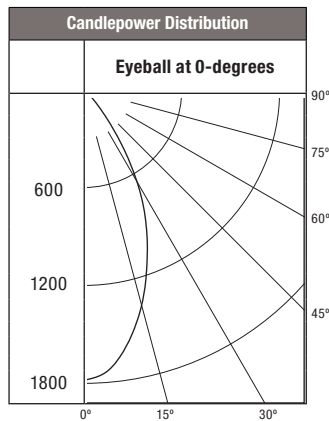
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	1217	75.3
0-40	1529	94.6
0-60	1613	99.8
0-90	1616	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 1500 lumen / 90 CRI

PD6RX15ED010- PDM6A935-61VC
Spacing Criteria = 0.76
Lumens per Watt = 68.1 Lm/W
Test No. P166950
Test Model: PD6RX15ED010- PDM6A935-61VC



Candela Distribution	
Degrees Vertical	Candela
0*	1783
5	1728
10	1573
20	1132
30	652
40	178
50	20
60	3
70	1
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	5132
55	535
65	246
75	191
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	58.9	4	4
7	36.4	5.2	5.2
8	27.9	6	6
9	22	6.8	6.8
10	17.8	7.6	7.6
12	12.4	9	9

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.

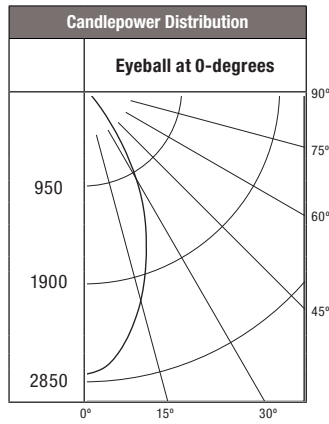
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	948	75.3
0-40	1192	94.6
0-60	1257	99.8
0-90	1260	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 2000 lumen / 80 CRI

PD6RX20ED010- PDM6A835-61VC Spacing Criteria = 0.76 Lumens per Watt = 89.4 Lm/W Test No. P137029 Test Model: PD6RX20ED010- PDM6A835-61VC



Candela Distribution	
Degrees Vertical	Candela
0*	2782
5	2696
10	2454
20	1766
30	1017
40	278
50	31
60	4
70	2
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	8009
55	832
65	376
75	318
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	92	4	4
7	56.8	5.2	5.2
8	43.5	6	6
9	34.3	6.8	6.8
10	27.8	7.6	7.6
12	19.3	9	9

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.

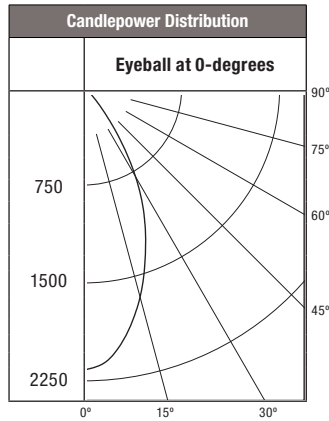
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	1480	75.3
0-40	1860	94.6
0-60	1962	99.8
0-90	1966	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 2000 lumen / 90 CRI

PD6RX20ED010- PDM6A935-61VC Spacing Criteria = 0.76 Lumens per Watt = 69.7 Lm/W Test No. P137033 Test Model: PD6RX20ED010- PDM6A935-61VC



Candela Distribution	
Degrees Vertical	Candela
0*	2168
5	2102
10	1913
20	1377
30	793
40	217
50	24
60	3
70	1
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	6241
55	650
65	298
75	233
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	71.7	4	4
7	44.3	5.2	5.2
8	33.9	6	6
9	26.8	6.8	6.8
10	21.7	7.6	7.6
12	15.1	9	9

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.

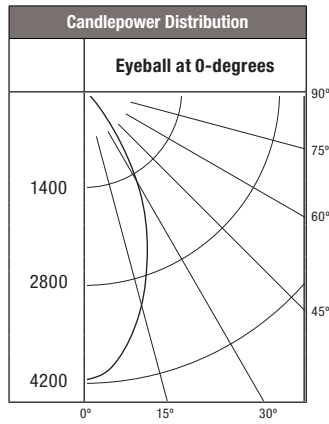
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	1154	75.3
0-40	1450	94.6
0-60	1530	99.8
0-90	1532	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 3000 lumen / 80 CRI

PD6RX30ED010- PDM6A835-61VC
Spacing Criteria = 0.76
Lumens per Watt = 82.3 Lm/W
Test No. P137061
Test Model: PD6RX30ED010- PDM6A835-61VC



Candela Distribution	
Degrees Vertical	Candela
0*	4157
5	4028
10	3668
20	2639
30	1520
40	415
50	46
60	6
70	2
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	11970
55	1242
65	558
75	466
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	137.4	4	4
7	84.8	5.2	5.2
8	65	6	6
9	51.3	6.8	6.8
10	41.6	7.6	7.6
12	28.9	9	9

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.

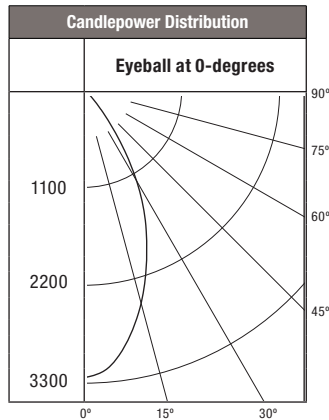
Zonal Lumen Summary		
Zone	Lumens	% Fixture
0-30	2212	75.3
0-40	2779	94.6
0-60	2932	99.8
0-90	2937	100

Scaling factor for the Battery back up:

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

PHOTOMETRY - 3000 lumen / 90 CRI

PD6RX30ED010- PDM6A935-61VC
Spacing Criteria = 0.76
Lumens per Watt = 64.1 Lm/W
Test No. P137065
Test Model: PD6RX30ED010- PDM6A935-61VC



Candela Distribution	
Degrees Vertical	Candela
0*	3240
5	3140
10	2859
20	2058
30	1185
40	324
50	36
60	5
70	2
80	0
90	0

*CBCP

Luminance	
(Average Candela/M ²)	
Degree	Avg. 0° Luminance
45	9327
55	975
65	441
75	360
85	0

Cone of Light Footcandles			
Distance to Illuminated Plane	Initial Nadir Footcandles	Beam (ft.)	
		L Length	W Width
5.5	107.1	4	4
7	66.1	5.2	5.2
8	50.6	6	6
9	40	6.8	6.8
10	32.4	7.6	7.6
12	22.5	9	9

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	1724	75.3
0-40	2166	94.6
0-60	2286	99.8
0-90	2290	100

Scaling factor for the Battery back up:

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