

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P238363

Luminaire Tested: **PRS610D010-S6M12-61SWWMW-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238363
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-27)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS610D010-S6M12-61SWWMW-4000K
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 732.8 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 1.05 / 1.04 / 1.14
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

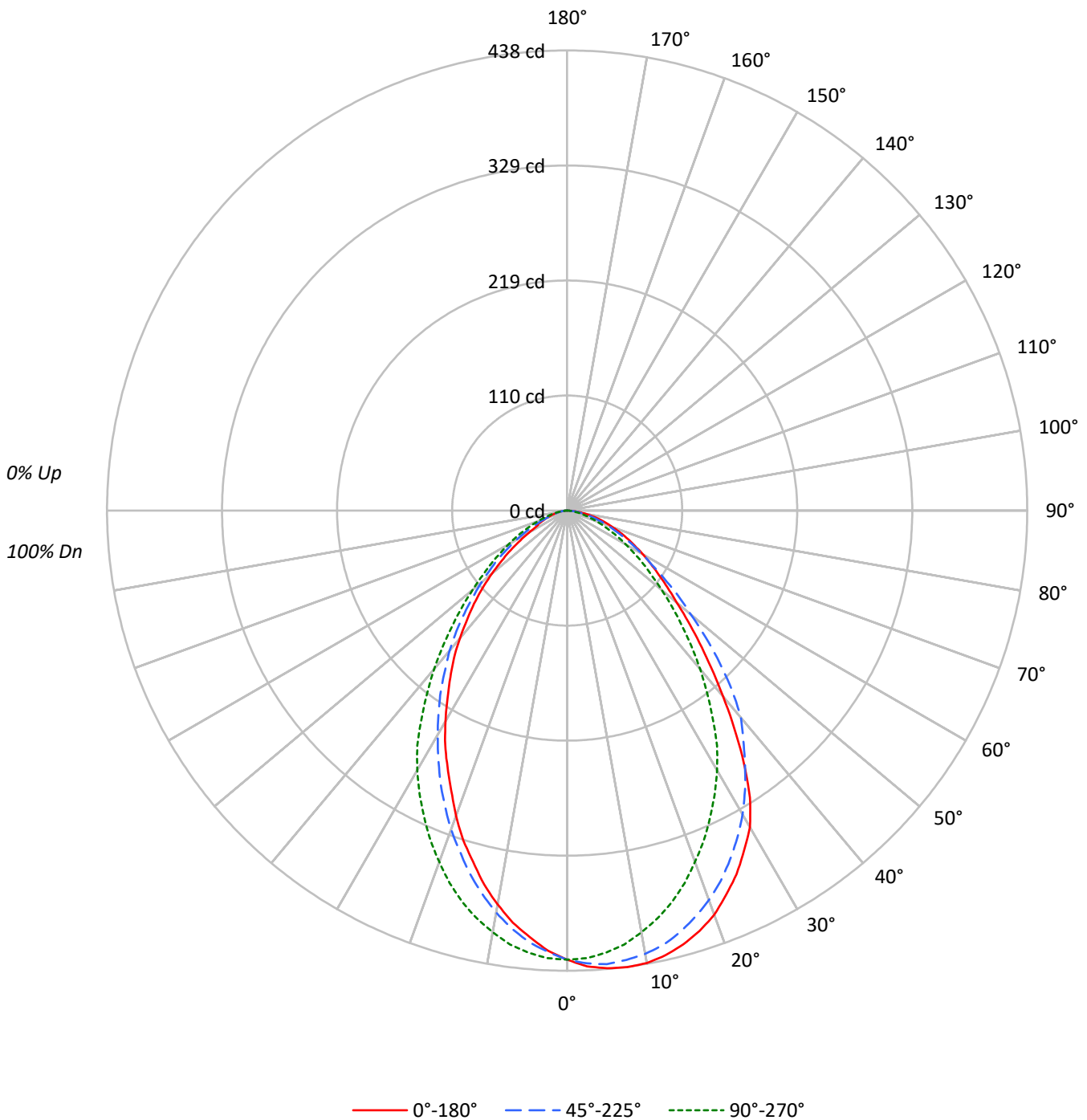
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90					88				
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79					77				
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70					68				
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	66	62					60				
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55					53				
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50					48				
7	71	59	52	46	70	59	51	46	57	51	46	56	50	45	55	49	45					43				
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41					39				
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38					36				
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	18402	18402	18402
5°	18900	18256	17612
10°	19119	17816	16644
15°	19051	17188	15418
20°	18763	16302	14163
25°	18133	15297	12798
30°	17296	14184	11514
35°	15411	12694	10186
40°	12961	11061	8937
45°	10832	9383	7623
50°	9123	7857	6256
55°	7987	6643	4924
60°	7190	5563	3591
65°	6479	4554	3036
70°	5753	3751	2631
75°	5290	2978	2312
80°	4438	2207	1984
85°	3458	1482	1482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.9	5.4
10°-20°	108.5	14.8
20°-30°	149.1	20.3
30°-40°	154.5	21.1
40°-50°	124.6	17.0
50°-60°	82.8	11.3
60°-70°	46.7	6.4
70°-80°	21.5	2.9
80°-90°	5.2	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	297.5	40.6
0°-40°	452.0	61.7
0°-60°	659.4	90.0
0°-90°	732.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	732.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	427	427	427	427	427	
5°	437	433	422	412	408	42
15°	427	416	386	358	346	120
25°	382	367	322	285	269	175
35°	293	295	242	210	194	182
45°	178	206	154	138	125	138
55°	106	112	88	80	66	96
65°	64	59	45	36	30	63
75°	32	26	18	13	14	34
85°	7	5	3	4	3	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4
2.5°	434.3	433.4	433.4	433.4	433.4	433.4	433.4	433.4	432.4	432.4	431.4
5°	437.3	437.3	437.3	437.3	436.3	436.3	436.3	435.3	434.3	433.4	433.4
7.5°	438.3	438.3	438.3	437.3	437.3	437.3	436.3	435.3	434.3	433.4	431.4
10°	437.3	437.3	436.3	436.3	435.3	434.3	434.3	433.4	432.4	430.4	428.4
12.5°	433.4	433.4	433.4	432.4	431.4	431.4	430.4	428.4	427.4	425.4	423.4
15°	427.4	427.4	427.4	426.4	425.4	424.4	424.4	422.4	420.4	418.4	415.5
17.5°	419.4	419.4	419.4	418.4	416.5	416.5	415.5	413.5	411.5	409.5	405.5
20°	409.5	408.5	408.5	407.5	405.5	405.5	404.5	402.5	400.6	397.6	394.6
22.5°	395.6	396.6	395.6	394.6	393.6	392.6	391.6	389.6	387.6	384.7	381.7
25°	381.7	380.7	380.7	380.7	379.7	377.7	376.7	375.7	372.7	369.7	366.8
27.5°	364.8	362.8	362.8	363.8	362.8	361.8	360.8	358.8	356.8	353.8	350.9
30°	347.9	346.9	346.9	345.9	343.9	342.9	342.9	340.9	339.9	336.9	334.0
32.5°	324.0	325.0	326.0	327.0	326.0	326.0	326.0	323.0	320.0	318.1	315.1
35°	293.2	294.2	296.2	298.2	302.2	303.1	304.1	305.1	302.2	299.2	295.2
37.5°	261.4	263.4	264.4	267.4	270.3	273.3	274.3	278.3	281.3	280.3	275.3
40°	230.6	231.6	234.6	235.6	240.5	243.5	245.5	249.5	255.4	257.4	257.4
42.5°	202.8	203.8	204.7	207.7	211.7	215.7	216.7	220.7	227.6	230.6	232.6
45°	177.9	178.9	180.9	181.9	185.9	187.9	189.8	195.8	199.8	204.7	205.7
47.5°	156.0	156.0	157.0	160.0	163.0	165.0	166.0	171.0	174.9	177.9	178.9
50°	136.2	137.2	138.2	139.2	141.1	143.1	145.1	149.1	152.1	154.1	153.1
52.5°	120.3	121.3	121.3	122.3	124.2	126.2	127.2	129.2	131.2	132.2	133.2
55°	106.4	106.4	107.3	108.3	109.3	110.3	110.3	112.3	112.3	113.3	112.3
57.5°	94.4	94.4	94.4	95.4	95.4	96.4	96.4	96.4	96.4	96.4	95.4
60°	83.5	82.5	83.5	83.5	84.5	84.5	84.5	83.5	82.5	82.5	81.5
62.5°	72.6	72.6	72.6	73.6	73.6	72.6	72.6	72.6	70.6	70.6	69.6
65°	63.6	62.6	63.6	63.6	63.6	62.6	62.6	61.6	60.6	59.6	58.6
67.5°	54.7	54.7	54.7	54.7	53.7	53.7	53.7	51.7	50.7	49.7	48.7
70°	45.7	46.7	45.7	45.7	45.7	44.7	44.7	43.7	42.7	41.7	40.8
72.5°	38.8	38.8	38.8	37.8	37.8	36.8	36.8	35.8	34.8	33.8	32.8
75°	31.8	31.8	31.8	30.8	29.8	29.8	29.8	28.8	27.8	26.8	25.8
77.5°	24.8	24.8	23.9	23.9	22.9	22.9	22.9	21.9	20.9	19.9	19.9
80°	17.9	17.9	17.9	17.9	16.9	16.9	16.9	15.9	14.9	14.9	13.9
82.5°	11.9	12.9	11.9	11.9	10.9	10.9	10.9	10.9	9.9	9.9	9.9
85°	7.0	7.0	7.0	7.0	6.0	7.0	6.0	6.0	6.0	6.0	5.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4
2.5°	431.4	430.4	430.4	429.4	429.4	428.4	428.4	427.4	427.4	426.4	425.4
5°	431.4	430.4	429.4	429.4	428.4	427.4	426.4	425.4	423.4	422.4	421.4
7.5°	430.4	429.4	427.4	425.4	424.4	423.4	422.4	420.4	418.4	416.5	414.5
10°	427.4	425.4	422.4	420.4	419.4	417.5	415.5	413.5	410.5	407.5	405.5
12.5°	421.4	418.4	415.5	412.5	411.5	409.5	406.5	403.5	400.6	397.6	394.6
15°	412.5	409.5	406.5	403.5	401.5	400.6	396.6	392.6	389.6	385.6	381.7
17.5°	402.5	399.6	395.6	391.6	389.6	387.6	384.7	379.7	376.7	371.7	368.7
20°	391.6	387.6	382.7	378.7	376.7	374.7	369.7	365.8	360.8	355.8	352.8
22.5°	377.7	372.7	368.7	364.8	361.8	359.8	354.8	349.9	344.9	339.9	335.0
25°	361.8	357.8	352.8	348.9	345.9	342.9	337.9	333.0	327.0	322.0	317.1
27.5°	346.9	341.9	336.9	331.0	329.0	325.0	320.0	315.1	309.1	304.1	298.2
30°	329.0	324.0	318.1	313.1	311.1	308.1	302.2	296.2	291.2	285.3	280.3
32.5°	311.1	306.1	301.2	295.2	292.2	288.2	282.3	276.3	270.3	265.4	259.4
35°	292.2	287.2	281.3	275.3	271.3	267.4	260.4	253.5	247.5	241.5	238.5
37.5°	272.3	266.4	260.4	251.5	247.5	243.5	236.6	230.6	224.6	218.7	215.7
40°	250.5	243.5	236.6	228.6	224.6	219.7	213.7	207.7	201.8	196.8	192.8
42.5°	228.6	219.7	212.7	203.8	200.8	196.8	190.8	183.9	178.9	174.9	171.0
45°	203.8	197.8	189.8	181.9	177.9	174.9	169.0	163.0	158.0	154.1	151.1
47.5°	177.9	174.9	167.0	159.0	157.0	153.1	147.1	142.1	138.2	135.2	132.2
50°	154.1	152.1	147.1	139.2	136.2	133.2	128.2	124.2	120.3	117.3	115.3
52.5°	132.2	130.2	127.2	121.3	118.3	115.3	111.3	107.3	104.4	101.4	100.4
55°	112.3	110.3	107.3	103.4	101.4	98.4	95.4	92.4	89.5	88.5	86.5
57.5°	95.4	92.4	90.4	87.5	86.5	84.5	81.5	79.5	77.5	75.5	73.6
60°	80.5	78.5	76.5	74.5	73.6	72.6	69.6	67.6	65.6	64.6	62.6
62.5°	68.6	66.6	64.6	62.6	61.6	60.6	58.6	56.7	54.7	54.7	52.7
65°	57.6	55.7	54.7	52.7	51.7	50.7	48.7	47.7	45.7	44.7	43.7
67.5°	47.7	46.7	45.7	42.7	42.7	41.7	39.8	38.8	37.8	36.8	35.8
70°	38.8	37.8	36.8	35.8	34.8	33.8	32.8	31.8	29.8	29.8	28.8
72.5°	31.8	30.8	28.8	27.8	27.8	26.8	25.8	24.8	23.9	22.9	22.9
75°	24.8	23.9	22.9	21.9	20.9	20.9	19.9	18.9	18.9	17.9	16.9
77.5°	18.9	17.9	16.9	15.9	15.9	14.9	14.9	13.9	13.9	12.9	12.9
80°	12.9	12.9	11.9	11.9	10.9	10.9	9.9	9.9	9.9	8.9	8.9
82.5°	8.9	8.0	8.0	8.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0
85°	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4
2.5°	425.4	424.4	423.4	423.4	423.4	422.4	422.4	421.4	420.4	420.4	419.4
5°	419.4	418.4	417.5	416.5	416.5	414.5	414.5	413.5	412.5	411.5	410.5
7.5°	412.5	410.5	409.5	407.5	407.5	406.5	403.5	402.5	401.5	399.6	398.6
10°	403.5	400.6	398.6	397.6	395.6	394.6	391.6	390.6	388.6	387.6	385.6
12.5°	391.6	388.6	385.6	384.7	383.7	380.7	378.7	375.7	373.7	371.7	369.7
15°	378.7	375.7	371.7	370.7	369.7	365.8	362.8	360.8	357.8	355.8	353.8
17.5°	363.8	359.8	355.8	354.8	352.8	348.9	346.9	343.9	339.9	337.9	335.9
20°	347.9	343.9	339.9	338.9	336.9	333.0	329.0	326.0	323.0	321.0	318.1
22.5°	330.0	326.0	321.0	319.1	318.1	313.1	310.1	307.1	304.1	300.2	298.2
25°	313.1	308.1	304.1	301.2	299.2	295.2	292.2	287.2	285.3	281.3	279.3
27.5°	294.2	289.2	285.3	282.3	280.3	277.3	272.3	268.4	265.4	262.4	260.4
30°	275.3	270.3	266.4	263.4	261.4	257.4	252.5	250.5	246.5	243.5	240.5
32.5°	255.4	250.5	245.5	244.5	241.5	237.5	234.6	230.6	227.6	224.6	221.6
35°	232.6	229.6	225.6	224.6	222.6	218.7	215.7	212.7	209.7	205.7	202.8
37.5°	210.7	206.7	204.7	202.8	201.8	199.8	196.8	193.8	190.8	187.9	186.9
40°	188.8	185.9	182.9	182.9	181.9	179.9	177.9	175.9	173.9	171.0	169.0
42.5°	168.0	165.0	164.0	162.0	161.0	160.0	158.0	157.0	156.0	154.1	152.1
45°	148.1	146.1	144.1	143.1	142.1	141.1	141.1	139.2	138.2	137.2	135.2
47.5°	129.2	128.2	127.2	126.2	125.2	125.2	123.2	122.3	121.3	121.3	119.3
50°	113.3	112.3	111.3	110.3	109.3	109.3	108.3	107.3	106.4	105.4	103.4
52.5°	99.4	98.4	96.4	96.4	96.4	95.4	94.4	93.4	92.4	91.4	90.4
55°	85.5	84.5	83.5	83.5	82.5	82.5	81.5	80.5	79.5	78.5	77.5
57.5°	73.6	72.6	71.6	71.6	70.6	70.6	69.6	68.6	66.6	65.6	64.6
60°	62.6	61.6	60.6	60.6	59.6	58.6	58.6	56.7	55.7	54.7	52.7
62.5°	51.7	50.7	50.7	49.7	49.7	49.7	48.7	46.7	45.7	43.7	42.7
65°	42.7	41.7	41.7	40.8	40.8	39.8	38.8	37.8	35.8	34.8	32.8
67.5°	34.8	34.8	33.8	32.8	32.8	31.8	30.8	28.8	27.8	25.8	24.8
70°	27.8	26.8	26.8	25.8	24.8	23.9	22.9	21.9	20.9	20.9	20.9
72.5°	21.9	20.9	20.9	19.9	19.9	17.9	16.9	16.9	16.9	16.9	16.9
75°	16.9	15.9	14.9	14.9	13.9	13.9	12.9	12.9	12.9	12.9	13.9
77.5°	11.9	11.9	10.9	10.9	9.9	9.9	9.9	9.9	9.9	9.9	10.9
80°	8.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
82.5°	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0
85°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.0	3.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: PRS610D010-S6M12-61SWWMW-4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	427.4	427.4	427.4	427.4	427.4	427.4	427.4	427.4
2.5°	419.4	419.4	419.4	419.4	419.4	418.4	419.4	419.4
5°	410.5	409.5	409.5	408.5	408.5	408.5	408.5	407.5
7.5°	397.6	396.6	396.6	396.6	395.6	395.6	394.6	395.6
10°	383.7	382.7	381.7	382.7	380.7	380.7	380.7	380.7
12.5°	368.7	367.8	366.8	365.8	365.8	364.8	364.8	364.8
15°	351.9	350.9	349.9	348.9	348.9	346.9	346.9	345.9
17.5°	334.0	333.0	332.0	331.0	329.0	329.0	328.0	329.0
20°	315.1	313.1	312.1	312.1	311.1	310.1	309.1	309.1
22.5°	296.2	294.2	294.2	292.2	291.2	290.2	289.2	288.2
25°	276.3	274.3	274.3	272.3	271.3	270.3	270.3	269.4
27.5°	257.4	254.4	254.4	253.5	251.5	250.5	250.5	251.5
30°	238.5	236.6	235.6	233.6	232.6	231.6	230.6	231.6
32.5°	219.7	216.7	215.7	215.7	214.7	213.7	212.7	211.7
35°	200.8	199.8	197.8	196.8	194.8	194.8	193.8	193.8
37.5°	183.9	180.9	179.9	178.9	177.9	176.9	175.9	176.9
40°	166.0	164.0	162.0	162.0	160.0	159.0	158.0	159.0
42.5°	150.1	148.1	147.1	145.1	143.1	142.1	142.1	141.1
45°	134.2	131.2	131.2	128.2	127.2	126.2	125.2	125.2
47.5°	118.3	116.3	114.3	114.3	111.3	110.3	109.3	109.3
50°	103.4	100.4	99.4	98.4	96.4	94.4	93.4	93.4
52.5°	88.5	86.5	84.5	84.5	82.5	80.5	79.5	78.5
55°	75.5	73.6	72.6	70.6	69.6	66.6	65.6	65.6
57.5°	62.6	60.6	59.6	58.6	56.7	54.7	52.7	52.7
60°	51.7	49.7	49.7	47.7	45.7	43.7	41.7	41.7
62.5°	40.8	38.8	38.8	37.8	35.8	34.8	33.8	32.8
65°	31.8	29.8	29.8	29.8	29.8	29.8	28.8	29.8
67.5°	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
70°	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9
72.5°	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
75°	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
77.5°	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
80°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
82.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
85°	3.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)