

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: P238378

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238378  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-28)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS610D010-S6M12-61SWWMB-4000K  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 670.2 lumens  
Efficiency: N/A  
Efficacy: 67.0 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.02 / 1.12  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

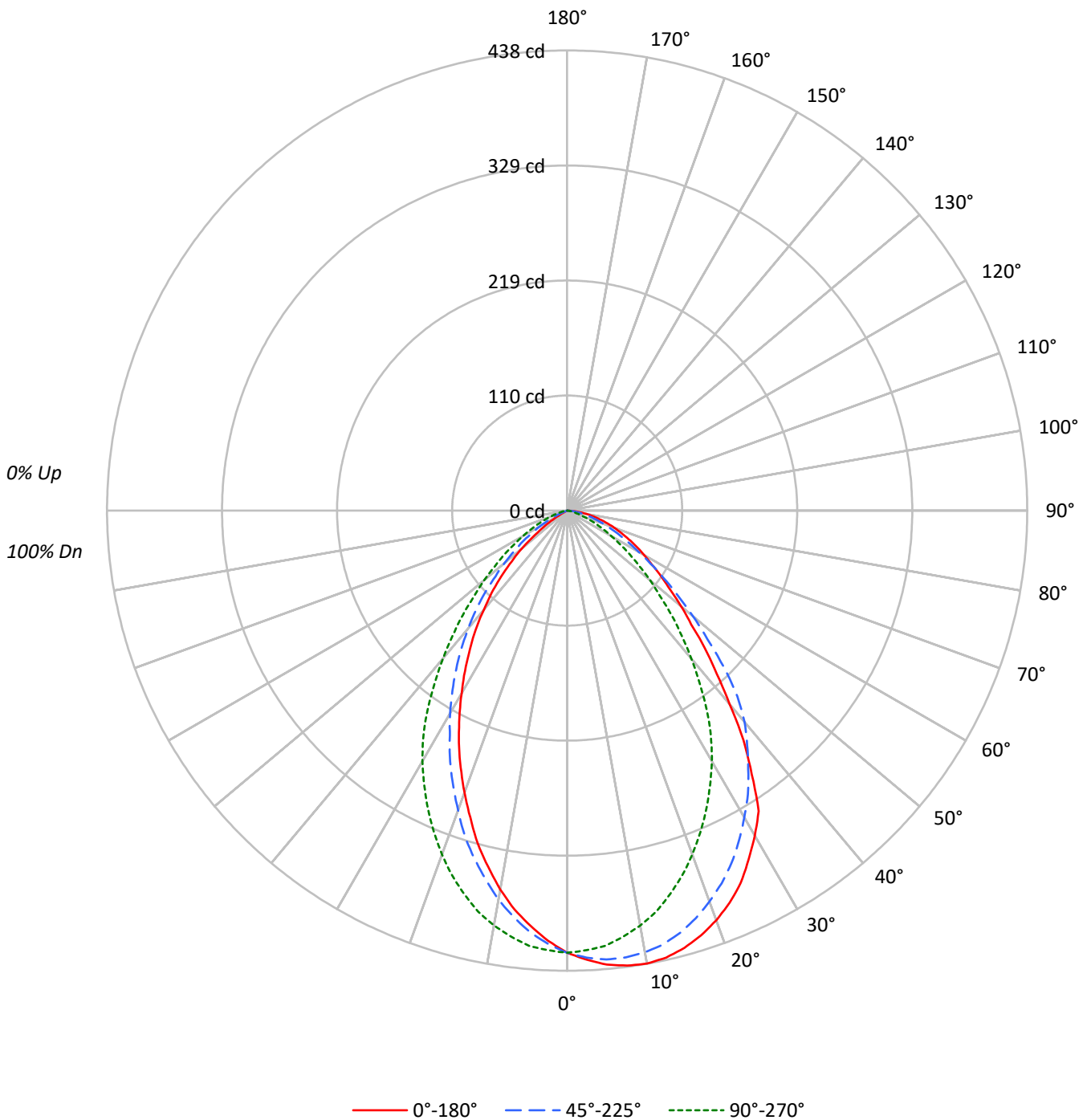
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	97	92	87	101	95	90	86	92	88	84	89	85	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	90	80	72	67	88	78	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50					50			
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46					46			
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42					42			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38					38			
10	61	49	42	37	60	48	42	37	47	41	37	47	41	37	46	40	37	35					35			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	18122	18122	18122
5°	18753	17975	17158
10°	19141	17532	16010
15°	19207	16854	14638
20°	19015	15959	13086
25°	18580	14893	11582
30°	17759	13702	9993
35°	16110	12189	8473
40°	13534	10347	6936
45°	11271	8543	5395
50°	9465	6866	3798
55°	8220	5450	2019
60°	7285	4202	517
65°	6592	3138	0
70°	6017	2127	0
75°	5290	1331	0
80°	4686	744	0
85°	3458	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.2	5.9
10°-20°	106.3	15.9
20°-30°	144.9	21.6
30°-40°	147.9	22.1
40°-50°	114.3	17.1
50°-60°	69.0	10.3
60°-70°	33.1	4.9
70°-80°	12.8	1.9
80°-90°	2.6	0.4
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°	290.4	43.3
0°-40°	438.3	65.4
0°-60°	621.7	92.8
0°-90°	670.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	670.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	421	421	421	421	421	
5°	434	429	416	403	397	41
15°	431	416	378	342	328	121
25°	391	370	314	264	244	179
35°	306	300	232	184	161	190
45°	185	211	140	110	89	144
55°	110	112	73	52	27	99
65°	65	55	31	12	0	65
75°	32	23	8	0	0	34
85°	7	4	0	0	0	9
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°	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9
2.5°	427.9	427.9	427.9	427.9	427.9	427.9	427.9	426.9	426.9	425.9	425.9
5°	433.9	433.9	433.9	432.9	432.9	431.9	431.9	430.9	430.9	428.9	428.9
7.5°	436.8	436.8	436.8	435.8	435.8	434.9	434.9	433.9	431.9	430.9	428.9
10°	437.8	437.8	436.8	436.8	434.9	434.9	434.9	432.9	430.9	428.9	426.9
12.5°	435.8	434.9	434.9	433.9	432.9	431.9	430.9	429.9	427.9	424.9	422.9
15°	430.9	430.9	430.9	429.9	427.9	426.9	426.9	424.9	421.9	418.9	415.9
17.5°	423.9	423.9	423.9	422.9	420.9	419.9	418.9	416.9	414.0	411.0	407.0
20°	415.0	415.0	414.0	413.0	411.0	411.0	410.0	407.0	404.0	400.0	396.0
22.5°	404.0	404.0	403.0	402.0	400.0	399.0	398.0	395.0	392.1	388.1	384.1
25°	391.1	390.1	389.1	388.1	387.1	385.1	384.1	382.1	379.1	374.2	370.2
27.5°	374.2	374.2	373.2	372.2	371.2	370.2	369.2	366.2	363.2	358.2	354.3
30°	357.2	357.2	356.2	355.2	354.3	353.3	351.3	348.3	346.3	342.3	337.3
32.5°	339.3	338.3	338.3	338.3	336.3	336.3	334.3	331.4	327.4	324.4	320.4
35°	306.5	307.5	308.5	311.5	312.5	314.4	314.4	313.5	309.5	305.5	300.5
37.5°	275.6	273.6	276.6	278.6	282.6	284.6	285.6	289.6	291.6	286.6	281.6
40°	240.8	242.8	244.8	247.8	251.8	252.8	255.7	258.7	263.7	265.7	262.7
42.5°	211.0	211.0	213.9	216.9	219.9	222.9	225.9	229.9	235.8	238.8	239.8
45°	185.1	184.1	185.1	189.1	193.0	195.0	197.0	202.0	208.0	212.0	211.0
47.5°	160.2	161.2	163.2	165.2	167.2	169.2	171.2	177.1	181.1	182.1	181.1
50°	141.3	140.3	142.3	143.3	146.3	147.3	149.3	152.2	155.2	156.2	156.2
52.5°	123.4	124.4	124.4	125.4	127.4	128.4	129.4	132.3	132.3	133.3	132.3
55°	109.5	108.5	109.5	110.5	111.4	112.4	113.4	113.4	113.4	113.4	112.4
57.5°	95.5	95.5	96.5	96.5	97.5	98.5	98.5	97.5	97.5	95.5	94.5
60°	84.6	84.6	84.6	84.6	85.6	85.6	85.6	83.6	81.6	81.6	78.6
62.5°	74.6	73.6	74.6	74.6	74.6	73.6	72.6	70.7	69.7	67.7	65.7
65°	64.7	64.7	64.7	64.7	63.7	63.7	62.7	60.7	58.7	57.7	54.7
67.5°	55.7	55.7	55.7	55.7	54.7	53.7	52.7	50.7	48.8	47.8	44.8
70°	47.8	46.8	46.8	46.8	45.8	44.8	43.8	42.8	40.8	38.8	36.8
72.5°	39.8	39.8	38.8	38.8	37.8	36.8	35.8	34.8	32.8	30.8	28.9
75°	31.8	31.8	31.8	30.8	29.9	29.9	28.9	26.9	25.9	23.9	22.9
77.5°	25.9	24.9	24.9	23.9	22.9	22.9	21.9	20.9	19.9	18.9	16.9
80°	18.9	18.9	18.9	17.9	16.9	16.9	15.9	14.9	13.9	12.9	11.9
82.5°	12.9	12.9	12.9	11.9	11.9	10.9	10.9	10.0	10.0	9.0	8.0
85°	7.0	7.0	7.0	7.0	7.0	6.0	6.0	6.0	5.0	5.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0
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°	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9
2.5°	424.9	424.9	423.9	422.9	422.9	421.9	420.9	420.9	419.9	418.9	417.9
5°	426.9	425.9	423.9	422.9	421.9	421.9	419.9	417.9	416.9	415.9	414.0
7.5°	426.9	424.9	422.9	420.9	419.9	418.9	415.9	414.0	412.0	409.0	407.0
10°	424.9	421.9	418.9	415.9	415.0	413.0	410.0	408.0	404.0	401.0	398.0
12.5°	419.9	416.9	413.0	409.0	407.0	405.0	401.0	398.0	394.1	391.1	387.1
15°	413.0	409.0	405.0	401.0	398.0	397.0	392.1	387.1	383.1	378.1	373.2
17.5°	403.0	399.0	394.1	390.1	387.1	385.1	379.1	374.2	369.2	364.2	359.2
20°	392.1	387.1	382.1	376.1	374.2	371.2	365.2	359.2	353.3	348.3	342.3
22.5°	379.1	374.2	368.2	363.2	359.2	356.2	350.3	343.3	337.3	331.4	325.4
25°	364.2	359.2	353.3	347.3	343.3	340.3	333.4	326.4	320.4	313.5	307.5
27.5°	349.3	343.3	337.3	329.4	326.4	322.4	315.4	308.5	301.5	294.5	287.6
30°	332.4	325.4	319.4	311.5	308.5	304.5	296.5	289.6	282.6	275.6	267.7
32.5°	314.4	307.5	300.5	293.6	289.6	285.6	278.6	270.7	261.7	254.7	248.8
35°	294.5	288.6	281.6	273.6	268.7	264.7	254.7	246.8	237.8	231.9	224.9
37.5°	276.6	268.7	259.7	249.8	244.8	239.8	229.9	221.9	214.9	207.0	201.0
40°	254.7	245.8	235.8	223.9	220.9	215.9	207.0	198.0	191.1	184.1	178.1
42.5°	230.9	220.9	212.0	202.0	197.0	192.1	183.1	174.1	167.2	161.2	155.2
45°	207.0	198.0	188.1	178.1	173.1	169.2	160.2	152.2	146.3	140.3	135.3
47.5°	180.1	174.1	165.2	156.2	150.3	146.3	139.3	132.3	125.4	119.4	116.4
50°	154.2	150.3	143.3	134.3	130.4	126.4	118.4	112.4	107.5	102.5	98.5
52.5°	130.4	127.4	122.4	114.4	111.4	106.5	100.5	95.5	90.6	86.6	83.6
55°	110.5	106.5	102.5	97.5	93.5	91.5	84.6	80.6	76.6	72.6	69.7
57.5°	91.5	89.6	85.6	81.6	78.6	75.6	70.7	66.7	63.7	59.7	57.7
60°	77.6	73.6	70.7	66.7	64.7	62.7	58.7	54.7	51.7	48.8	46.8
62.5°	63.7	60.7	57.7	53.7	52.7	50.7	47.8	43.8	41.8	38.8	36.8
65°	52.7	49.8	47.8	43.8	42.8	40.8	37.8	34.8	32.8	30.8	28.9
67.5°	42.8	40.8	37.8	34.8	33.8	31.8	28.9	26.9	24.9	22.9	21.9
70°	34.8	32.8	29.9	26.9	25.9	24.9	21.9	20.9	18.9	16.9	15.9
72.5°	27.9	25.9	22.9	20.9	19.9	18.9	16.9	14.9	13.9	11.9	10.9
75°	20.9	18.9	16.9	14.9	13.9	13.9	11.9	10.9	10.0	8.0	7.0
77.5°	15.9	13.9	11.9	10.9	10.0	9.0	8.0	7.0	6.0	5.0	4.0
80°	10.9	10.0	8.0	7.0	7.0	6.0	5.0	5.0	4.0	3.0	2.0
82.5°	7.0	6.0	5.0	4.0	4.0	4.0	3.0	2.0	2.0	2.0	1.0
85°	3.0	3.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	0.0	0.0
87.5°	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9
2.5°	417.9	416.9	415.9	415.9	415.0	415.0	414.0	414.0	413.0	413.0	412.0
5°	412.0	411.0	409.0	409.0	408.0	407.0	405.0	404.0	403.0	402.0	401.0
7.5°	405.0	402.0	400.0	399.0	398.0	396.0	394.1	392.1	390.1	389.1	387.1
10°	394.1	391.1	389.1	388.1	386.1	383.1	381.1	378.1	376.1	374.2	372.2
12.5°	383.1	379.1	375.1	374.2	372.2	368.2	366.2	362.2	359.2	357.2	355.2
15°	369.2	365.2	360.2	358.2	357.2	352.3	349.3	346.3	342.3	339.3	337.3
17.5°	353.3	349.3	344.3	341.3	339.3	335.3	330.4	327.4	324.4	319.4	317.4
20°	337.3	331.4	326.4	324.4	321.4	316.4	312.5	308.5	303.5	300.5	296.5
22.5°	318.4	313.5	307.5	304.5	302.5	296.5	292.6	287.6	283.6	280.6	275.6
25°	301.5	294.5	288.6	285.6	282.6	277.6	271.7	267.7	263.7	259.7	255.7
27.5°	281.6	274.6	268.7	266.7	263.7	256.7	252.8	246.8	241.8	238.8	234.8
30°	261.7	254.7	248.8	245.8	242.8	236.8	231.9	226.9	222.9	218.9	214.9
32.5°	241.8	235.8	229.9	226.9	223.9	217.9	212.9	207.0	203.0	198.0	194.0
35°	218.9	212.9	208.0	205.0	203.0	198.0	193.0	188.1	184.1	179.1	175.1
37.5°	195.0	189.1	186.1	183.1	181.1	177.1	173.1	169.2	165.2	161.2	156.2
40°	172.1	169.2	163.2	162.2	160.2	156.2	153.2	149.3	146.3	142.3	138.3
42.5°	151.3	146.3	142.3	141.3	139.3	136.3	133.3	130.4	128.4	124.4	121.4
45°	131.4	127.4	123.4	121.4	120.4	117.4	114.4	112.4	110.5	107.5	104.5
47.5°	112.4	108.5	105.5	104.5	102.5	100.5	97.5	95.5	92.5	90.6	87.6
50°	95.5	92.5	89.6	88.6	86.6	85.6	82.6	80.6	77.6	74.6	72.6
52.5°	80.6	77.6	75.6	74.6	73.6	70.7	68.7	66.7	63.7	61.7	58.7
55°	66.7	64.7	62.7	61.7	60.7	58.7	56.7	53.7	51.7	48.8	45.8
57.5°	54.7	52.7	50.7	49.8	48.8	46.8	44.8	42.8	39.8	36.8	33.8
60°	43.8	42.8	40.8	39.8	38.8	36.8	34.8	31.8	29.9	25.9	23.9
62.5°	34.8	33.8	31.8	30.8	29.9	26.9	24.9	22.9	19.9	16.9	13.9
65°	26.9	24.9	22.9	22.9	21.9	19.9	16.9	13.9	11.9	9.0	6.0
67.5°	19.9	17.9	15.9	15.9	14.9	12.9	10.0	8.0	5.0	3.0	0.0
70°	13.9	12.9	10.9	10.0	9.0	7.0	5.0	3.0	1.0	0.0	0.0
72.5°	10.0	8.0	7.0	6.0	5.0	3.0	1.0	0.0	0.0	0.0	0.0
75°	6.0	5.0	3.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	3.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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-S6M12-61SWWMB-4000K

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	420.9	420.9	420.9	420.9	420.9	420.9	420.9	420.9
2.5°	412.0	411.0	411.0	411.0	411.0	411.0	410.0	410.0
5°	400.0	399.0	399.0	398.0	398.0	398.0	397.0	397.0
7.5°	386.1	385.1	384.1	384.1	383.1	383.1	382.1	383.1
10°	370.2	368.2	368.2	368.2	367.2	366.2	366.2	366.2
12.5°	353.3	351.3	350.3	349.3	348.3	348.3	347.3	347.3
15°	334.3	332.4	331.4	330.4	329.4	328.4	327.4	328.4
17.5°	314.4	312.5	311.5	310.5	308.5	308.5	307.5	306.5
20°	293.6	291.6	290.6	289.6	288.6	287.6	286.6	285.6
22.5°	272.7	271.7	268.7	268.7	266.7	265.7	264.7	264.7
25°	251.8	249.8	248.8	246.8	244.8	243.8	243.8	243.8
27.5°	230.9	228.9	226.9	225.9	224.9	223.9	221.9	221.9
30°	211.0	208.0	206.0	206.0	204.0	202.0	202.0	201.0
32.5°	191.1	188.1	186.1	185.1	184.1	182.1	181.1	181.1
35°	171.2	168.2	167.2	165.2	163.2	163.2	160.2	161.2
37.5°	153.2	149.3	148.3	147.3	144.3	143.3	142.3	143.3
40°	134.3	131.4	129.4	128.4	126.4	124.4	123.4	123.4
42.5°	116.4	114.4	112.4	111.4	108.5	106.5	105.5	106.5
45°	100.5	97.5	96.5	94.5	91.5	89.6	88.6	88.6
47.5°	84.6	82.6	79.6	78.6	75.6	73.6	71.6	71.6
50°	69.7	66.7	64.7	62.7	60.7	57.7	55.7	56.7
52.5°	55.7	51.7	50.7	48.8	45.8	42.8	40.8	40.8
55°	42.8	39.8	37.8	36.8	32.8	29.9	27.9	26.9
57.5°	30.8	27.9	26.9	24.9	21.9	18.9	15.9	15.9
60°	20.9	17.9	15.9	14.9	11.9	10.0	7.0	6.0
62.5°	10.9	9.0	7.0	6.0	4.0	2.0	2.0	1.0
65°	3.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)