

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: P238348

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238348
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-26)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS610D010-S6M12-61SWWH-4000K
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 717.9 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 0.98 / 1.08
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

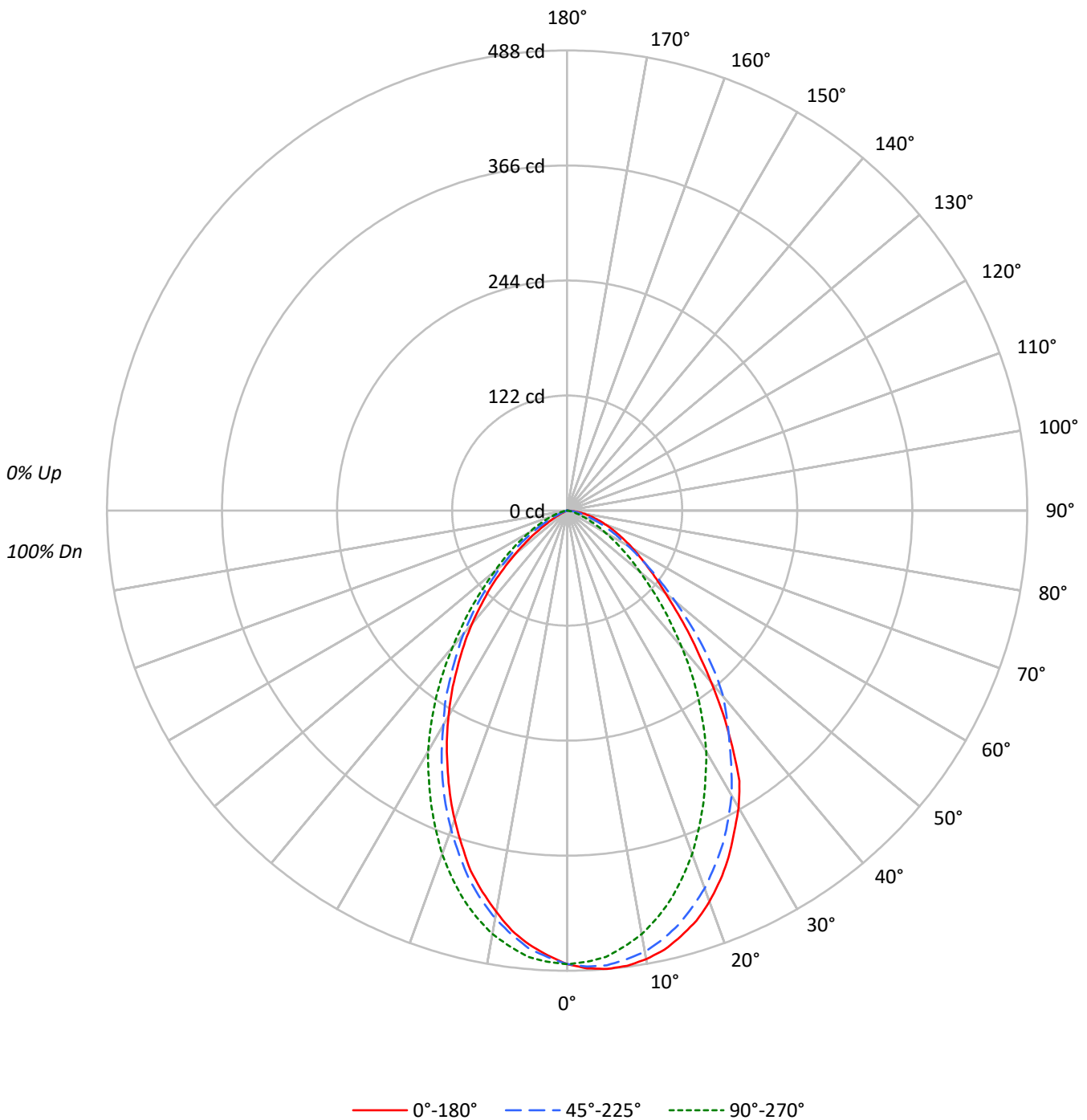
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	92	88	102	96	91	87	93	89	85	89	86	83	87	84	81	80					80			
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71					71			
4	90	81	73	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63					63			
5	84	74	66	61	82	73	66	60	71	64	60	69	63	59	67	62	59	57					57			
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51					51			
7	74	62	55	50	72	61	54	49	60	54	49	59	53	49	57	52	48	47					47			
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43					43			
9	65	54	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39					39			
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36					36			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	20710	20710	20710
5°	21087	20530	19972
10°	21117	19941	18900
15°	20821	19002	17629
20°	20215	17759	15982
25°	19259	16238	14257
30°	18082	14671	12499
35°	16036	12746	10654
40°	13349	10612	8824
45°	11015	8592	6899
50°	9116	6725	4856
55°	7829	5300	2913
60°	6932	4021	1283
65°	6072	2934	408
70°	5501	2002	252
75°	4791	1314	166
80°	4190	744	0
85°	2964	494	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.7	6.2
10°-20°	120.1	16.7
20°-30°	160.1	22.3
30°-40°	158.0	22.0
40°-50°	118.5	16.5
50°-60°	69.5	9.7
60°-70°	32.4	4.5
70°-80°	12.1	1.7
80°-90°	2.3	0.3
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°	325.0	45.3
0°-40°	483.0	67.3
0°-60°	671.1	93.5
0°-90°	717.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	481	481	481	481	481	
5°	488	484	475	466	462	46
15°	467	455	426	404	396	131
25°	405	390	342	313	300	186
35°	305	300	242	216	203	190
45°	181	203	141	127	113	140
55°	104	106	71	59	39	94
65°	60	52	29	14	4	60
75°	29	21	8	1	1	31
85°	6	3	1	0	0	7
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°	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
2.5°	485.9	485.9	485.9	485.9	484.9	484.9	484.9	484.9	484.9	484.0	484.0
5°	487.9	487.9	486.9	486.9	486.9	486.9	485.9	485.9	484.9	484.9	484.0
7.5°	486.9	485.9	485.9	485.9	484.9	484.9	484.9	484.0	483.0	482.0	480.0
10°	483.0	483.0	483.0	482.0	481.0	481.0	481.0	479.0	478.0	476.0	475.0
12.5°	477.0	476.0	476.0	475.0	474.0	474.0	473.0	471.0	470.0	468.1	466.1
15°	467.1	467.1	467.1	466.1	465.1	464.1	463.1	462.1	460.1	458.1	455.1
17.5°	456.1	455.1	455.1	454.1	452.2	452.2	451.2	449.2	447.2	445.2	441.2
20°	441.2	441.2	441.2	440.2	439.2	437.2	437.2	434.3	432.3	429.3	426.3
22.5°	424.3	424.3	424.3	423.3	422.3	421.3	420.4	418.4	415.4	412.4	408.4
25°	405.4	404.5	404.5	404.5	403.5	402.5	401.5	399.5	397.5	394.5	390.5
27.5°	383.6	382.6	382.6	382.6	381.6	380.6	379.6	379.6	377.6	373.6	369.7
30°	363.7	363.7	363.7	361.7	359.7	358.7	358.7	356.8	353.8	351.8	348.8
32.5°	339.9	339.9	340.9	339.9	339.9	339.9	337.9	335.9	331.9	328.9	324.0
35°	305.1	307.1	308.1	310.0	312.0	314.0	315.0	315.0	311.0	306.1	300.1
37.5°	271.3	272.3	273.3	277.3	279.2	281.2	282.2	286.2	289.2	284.2	278.2
40°	237.5	238.5	241.5	242.5	247.4	248.4	251.4	255.4	259.4	260.4	257.4
42.5°	206.7	207.7	209.7	211.7	216.6	219.6	220.6	223.6	228.6	232.5	231.5
45°	180.9	180.9	181.9	184.8	187.8	189.8	192.8	196.8	200.7	202.7	202.7
47.5°	156.0	156.0	157.0	160.0	164.0	164.0	166.0	169.9	174.9	174.9	174.9
50°	136.1	137.1	137.1	139.1	141.1	142.1	144.1	148.1	150.1	150.1	149.1
52.5°	119.2	119.2	120.2	121.2	122.2	124.2	124.2	126.2	128.2	128.2	126.2
55°	104.3	104.3	104.3	105.3	106.3	107.3	108.3	109.3	108.3	107.3	106.3
57.5°	91.4	91.4	91.4	91.4	92.4	93.4	93.4	93.4	92.4	91.4	88.4
60°	80.5	80.5	80.5	80.5	80.5	80.5	80.5	79.5	77.5	76.5	74.5
62.5°	69.6	69.6	69.6	69.6	69.6	69.6	68.6	67.6	66.6	63.6	61.6
65°	59.6	60.6	60.6	59.6	59.6	58.6	58.6	56.6	55.6	53.7	51.7
67.5°	51.7	51.7	51.7	51.7	50.7	49.7	49.7	47.7	46.7	44.7	41.7
70°	43.7	43.7	42.7	42.7	42.7	41.7	40.7	39.7	37.8	35.8	33.8
72.5°	35.8	35.8	35.8	35.8	33.8	33.8	32.8	31.8	29.8	28.8	26.8
75°	28.8	28.8	28.8	27.8	27.8	26.8	25.8	24.8	23.8	21.9	20.9
77.5°	22.9	22.9	22.9	21.9	20.9	20.9	19.9	18.9	17.9	16.9	14.9
80°	16.9	16.9	15.9	15.9	14.9	14.9	14.9	13.9	12.9	11.9	10.9
82.5°	10.9	10.9	10.9	10.9	9.9	9.9	8.9	8.9	7.9	7.0	7.0
85°	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	4.0	4.0	3.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	1.0	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°	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
2.5°	483.0	483.0	482.0	482.0	482.0	481.0	481.0	480.0	480.0	479.0	479.0
5°	483.0	482.0	481.0	480.0	479.0	479.0	478.0	476.0	475.0	475.0	473.0
7.5°	479.0	478.0	476.0	475.0	474.0	473.0	471.0	470.0	468.1	466.1	465.1
10°	473.0	471.0	468.1	466.1	466.1	464.1	462.1	460.1	457.1	456.1	453.1
12.5°	463.1	460.1	458.1	456.1	454.1	453.1	450.2	448.2	444.2	442.2	439.2
15°	452.2	449.2	446.2	442.2	441.2	439.2	436.3	432.3	430.3	426.3	423.3
17.5°	439.2	434.3	431.3	427.3	425.3	423.3	418.4	415.4	412.4	407.4	404.5
20°	422.3	418.4	414.4	409.4	407.4	404.5	400.5	395.5	391.5	387.6	383.6
22.5°	404.5	400.5	395.5	390.5	387.6	384.6	379.6	374.6	369.7	364.7	361.7
25°	384.6	379.6	374.6	369.7	365.7	363.7	357.7	352.8	346.8	341.8	337.9
27.5°	364.7	359.7	353.8	346.8	342.8	340.9	334.9	327.9	322.0	318.0	313.0
30°	342.8	336.9	329.9	324.0	320.0	317.0	312.0	305.1	300.1	295.1	288.2
32.5°	319.0	313.0	308.1	300.1	297.1	294.1	287.2	280.2	273.3	268.3	264.3
35°	295.1	291.2	285.2	277.3	272.3	268.3	259.4	253.4	247.4	242.5	238.5
37.5°	273.3	267.3	257.4	248.4	244.5	241.5	231.5	225.6	218.6	215.6	209.7
40°	249.4	240.5	231.5	222.6	218.6	214.6	207.7	198.7	193.8	188.8	184.8
42.5°	225.6	213.7	204.7	196.8	191.8	187.8	179.9	172.9	166.9	164.0	160.0
45°	198.7	189.8	179.9	170.9	167.9	163.0	156.0	150.1	145.1	141.1	138.1
47.5°	170.9	166.0	156.0	148.1	144.1	140.1	134.2	128.2	123.2	119.2	117.3
50°	146.1	142.1	135.1	126.2	123.2	119.2	113.3	109.3	104.3	100.4	98.4
52.5°	123.2	119.2	114.3	107.3	103.3	101.4	95.4	91.4	88.4	85.5	82.5
55°	103.3	99.4	95.4	89.4	86.5	83.5	79.5	75.5	72.5	70.6	68.6
57.5°	86.5	82.5	78.5	74.5	71.5	69.6	65.6	63.6	60.6	57.6	56.6
60°	71.5	68.6	65.6	61.6	59.6	56.6	53.7	50.7	48.7	46.7	44.7
62.5°	59.6	56.6	53.7	49.7	48.7	46.7	43.7	40.7	38.8	37.8	35.8
65°	48.7	45.7	43.7	40.7	38.8	37.8	34.8	32.8	30.8	28.8	26.8
67.5°	39.7	37.8	35.8	32.8	30.8	29.8	26.8	24.8	23.8	21.9	20.9
70°	31.8	29.8	27.8	25.8	23.8	22.9	20.9	18.9	17.9	15.9	14.9
72.5°	24.8	22.9	21.9	18.9	17.9	16.9	14.9	13.9	12.9	11.9	10.9
75°	18.9	17.9	15.9	13.9	12.9	12.9	10.9	9.9	8.9	7.9	7.0
77.5°	13.9	12.9	10.9	9.9	8.9	8.9	7.9	7.0	6.0	5.0	5.0
80°	9.9	7.9	7.0	6.0	6.0	5.0	5.0	4.0	3.0	3.0	2.0
82.5°	6.0	5.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0	1.0	1.0
85°	3.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
2.5°	478.0	477.0	477.0	477.0	476.0	476.0	475.0	475.0	474.0	474.0	474.0
5°	472.0	471.0	470.0	469.0	469.0	468.1	467.1	467.1	466.1	465.1	464.1
7.5°	463.1	462.1	461.1	459.1	458.1	457.1	456.1	454.1	453.1	452.2	452.2
10°	451.2	449.2	447.2	446.2	446.2	443.2	442.2	441.2	439.2	438.2	436.3
12.5°	436.3	434.3	432.3	430.3	429.3	427.3	426.3	424.3	422.3	420.4	418.4
15°	420.4	417.4	414.4	413.4	411.4	410.4	407.4	404.5	403.5	401.5	400.5
17.5°	400.5	396.5	395.5	393.5	391.5	389.5	387.6	384.6	381.6	380.6	377.6
20°	379.6	376.6	372.7	371.7	369.7	367.7	364.7	361.7	359.7	357.7	355.8
22.5°	356.8	354.8	349.8	348.8	346.8	343.8	340.9	337.9	336.9	333.9	331.9
25°	333.9	328.9	325.9	324.0	323.0	320.0	318.0	315.0	313.0	310.0	308.1
27.5°	308.1	305.1	302.1	299.1	298.1	296.1	293.2	290.2	288.2	285.2	283.2
30°	285.2	281.2	277.3	275.3	274.3	270.3	268.3	266.3	262.3	260.4	259.4
32.5°	259.4	255.4	252.4	252.4	249.4	247.4	243.5	241.5	240.5	236.5	234.5
35°	233.5	230.5	228.6	227.6	226.6	222.6	220.6	218.6	215.6	214.6	211.7
37.5°	207.7	203.7	201.7	200.7	199.7	198.7	197.8	194.8	192.8	190.8	188.8
40°	180.9	178.9	176.9	176.9	175.9	174.9	172.9	171.9	170.9	168.9	166.9
42.5°	158.0	155.0	154.0	153.0	153.0	151.0	151.0	150.1	149.1	147.1	145.1
45°	135.1	133.2	132.2	130.2	130.2	129.2	129.2	129.2	127.2	126.2	125.2
47.5°	115.3	113.3	112.3	111.3	110.3	109.3	109.3	109.3	107.3	107.3	105.3
50°	96.4	94.4	94.4	94.4	93.4	92.4	91.4	89.4	89.4	88.4	87.4
52.5°	81.5	79.5	78.5	77.5	77.5	76.5	75.5	74.5	72.5	71.5	70.6
55°	66.6	65.6	63.6	63.6	62.6	61.6	60.6	59.6	58.6	55.6	54.7
57.5°	54.7	52.7	51.7	50.7	50.7	49.7	47.7	46.7	44.7	42.7	40.7
60°	43.7	41.7	40.7	39.7	39.7	37.8	36.8	34.8	32.8	30.8	28.8
62.5°	33.8	32.8	30.8	29.8	29.8	28.8	26.8	24.8	22.9	20.9	17.9
65°	25.8	24.8	22.9	22.9	21.9	19.9	17.9	15.9	13.9	11.9	9.9
67.5°	18.9	17.9	16.9	15.9	14.9	12.9	10.9	8.9	7.0	5.0	3.0
70°	13.9	12.9	10.9	10.9	9.9	7.9	6.0	4.0	3.0	2.0	2.0
72.5°	8.9	7.9	7.0	6.0	5.0	4.0	2.0	1.0	1.0	1.0	1.0
75°	6.0	5.0	4.0	3.0	3.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	4.0	3.0	2.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0
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°	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	1.0	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-S6M12-61SWWH-4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	481.0	481.0	481.0	481.0	481.0	481.0	481.0	481.0
2.5°	473.0	473.0	473.0	473.0	473.0	473.0	473.0	472.0
5°	463.1	463.1	463.1	463.1	462.1	462.1	462.1	462.1
7.5°	451.2	450.2	449.2	449.2	449.2	448.2	448.2	449.2
10°	435.3	435.3	434.3	434.3	433.3	433.3	433.3	432.3
12.5°	417.4	416.4	416.4	414.4	415.4	414.4	413.4	414.4
15°	397.5	396.5	395.5	395.5	395.5	394.5	394.5	395.5
17.5°	376.6	374.6	373.6	374.6	372.7	372.7	372.7	371.7
20°	353.8	351.8	350.8	350.8	349.8	348.8	348.8	348.8
22.5°	329.9	328.9	326.9	326.9	325.9	325.9	325.0	325.0
25°	307.1	304.1	304.1	303.1	301.1	302.1	300.1	300.1
27.5°	281.2	280.2	280.2	279.2	277.3	276.3	275.3	276.3
30°	257.4	255.4	254.4	253.4	253.4	253.4	252.4	251.4
32.5°	233.5	231.5	229.6	229.6	229.6	227.6	227.6	227.6
35°	209.7	208.7	206.7	205.7	205.7	204.7	203.7	202.7
37.5°	186.8	184.8	183.8	181.9	181.9	179.9	178.9	179.9
40°	164.0	162.0	161.0	161.0	159.0	157.0	157.0	157.0
42.5°	143.1	140.1	140.1	138.1	136.1	135.1	133.2	134.2
45°	123.2	120.2	119.2	119.2	115.3	114.3	113.3	113.3
47.5°	103.3	102.4	100.4	98.4	95.4	92.4	91.4	91.4
50°	85.5	82.5	81.5	80.5	76.5	74.5	72.5	72.5
52.5°	68.6	65.6	63.6	62.6	59.6	56.6	55.6	54.7
55°	52.7	49.7	48.7	47.7	43.7	41.7	39.7	38.8
57.5°	38.8	36.8	34.8	32.8	29.8	27.8	25.8	24.8
60°	26.8	23.8	22.9	21.9	18.9	16.9	14.9	14.9
62.5°	16.9	13.9	12.9	11.9	9.9	7.9	7.9	7.9
65°	7.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0
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)