

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: P238381

Luminaire Tested: **PRS630D010-S6M24-61SWWMB-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238381
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: PRS630D010-S6M24-61SWWMB-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: 1776.5 lumens
Efficiency: N/A
Efficacy: 69.7 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

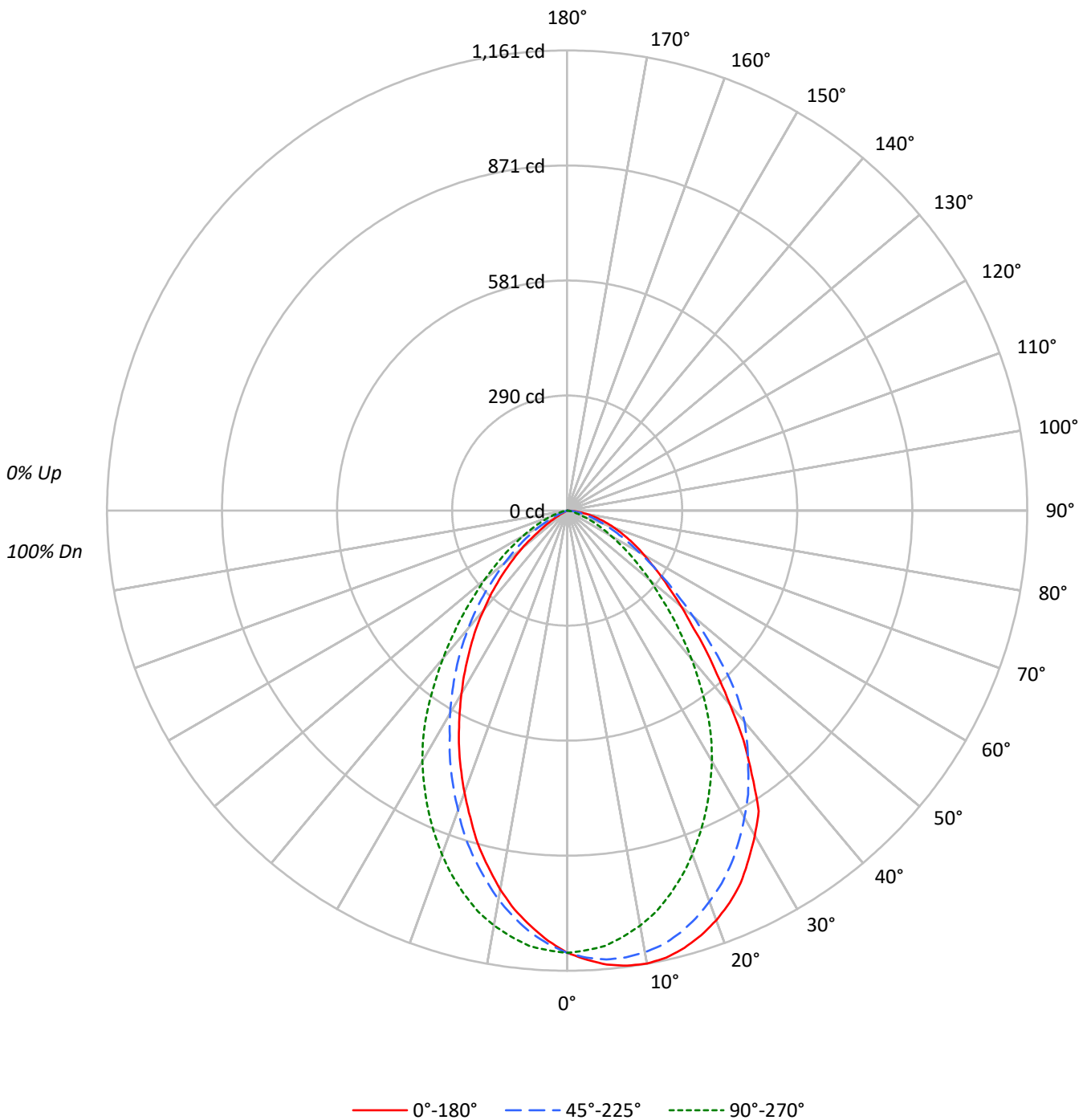
Input Watts (W): 25.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	48042	48042	48042
5°	49707	47655	45489
10°	50741	46474	42439
15°	50913	44681	38802
20°	50401	42300	34689
25°	49250	39473	30704
30°	47081	36328	26489
35°	42701	32304	22459
40°	35881	27428	18385
45°	29873	22645	14297
50°	25092	18199	10074
55°	21784	14458	5345
60°	19306	11134	1361
65°	17472	8334	0
70°	15937	5640	0
75°	14040	3510	0
80°	12422	1959	0
85°	9139	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	5.9
10°-20°	281.8	15.9
20°-30°	384.1	21.6
30°-40°	392.0	22.1
40°-50°	303.0	17.1
50°-60°	183.0	10.3
60°-70°	87.7	4.9
70°-80°	34.0	1.9
80°-90°	6.8	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°	769.9	43.3
0°-40°	1161.9	65.4
0°-60°	1648.0	92.8
0°-90°	1776.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1116	1116	1116	1116	1116	
5°	1150	1137	1103	1068	1052	110
15°	1142	1103	1002	907	870	322
25°	1037	981	831	699	646	475
35°	812	797	615	488	427	504
45°	491	559	372	293	235	381
55°	290	298	193	137	71	261
65°	172	145	82	32	0	171
75°	84	61	21	0	0	91
85°	18	11	0	0	0	23
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°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1134.3	1134.3	1134.3	1134.3	1134.3	1134.3	1134.3	1131.6	1131.6	1129.0	1129.0
5°	1150.1	1150.1	1150.1	1147.4	1147.4	1144.8	1144.8	1142.2	1142.2	1136.9	1136.9
7.5°	1158.0	1158.0	1158.0	1155.4	1155.4	1152.7	1152.7	1150.1	1144.8	1142.2	1136.9
10°	1160.6	1160.6	1158.0	1158.0	1152.7	1152.7	1152.7	1147.4	1142.2	1136.9	1131.6
12.5°	1155.4	1152.7	1152.7	1150.1	1147.4	1144.8	1142.2	1139.5	1134.3	1126.3	1121.1
15°	1142.2	1142.2	1142.2	1139.5	1134.3	1131.6	1131.6	1126.3	1118.4	1110.5	1102.6
17.5°	1123.7	1123.7	1123.7	1121.1	1115.8	1113.2	1110.5	1105.2	1097.3	1089.4	1078.9
20°	1100.0	1100.0	1097.3	1094.7	1089.4	1089.4	1086.8	1078.9	1071.0	1060.4	1049.8
22.5°	1071.0	1071.0	1068.3	1065.7	1060.4	1057.8	1055.1	1047.2	1039.3	1028.7	1018.2
25°	1036.7	1034.0	1031.4	1028.7	1026.1	1020.8	1018.2	1012.9	1005.0	991.8	981.3
27.5°	991.8	991.8	989.2	986.5	983.9	981.3	978.6	970.7	962.8	949.6	939.1
30°	947.0	947.0	944.3	941.7	939.1	936.4	931.1	923.2	918.0	907.4	894.2
32.5°	899.5	896.9	896.9	896.9	891.6	891.6	886.3	878.4	867.8	859.9	849.4
35°	812.4	815.1	817.7	825.6	828.3	833.5	833.5	830.9	820.4	809.8	796.6
37.5°	730.7	725.4	733.3	738.6	749.1	754.4	757.1	767.6	772.9	759.7	746.5
40°	638.4	643.6	648.9	656.8	667.4	670.0	677.9	685.8	699.0	704.3	696.4
42.5°	559.2	559.2	567.1	575.0	583.0	590.9	598.8	609.3	625.2	633.1	635.7
45°	490.6	488.0	490.6	501.2	511.7	517.0	522.3	535.5	551.3	561.9	559.2
47.5°	424.7	427.3	432.6	437.9	443.2	448.4	453.7	469.5	480.1	482.7	480.1
50°	374.6	371.9	377.2	379.8	387.8	390.4	395.7	403.6	411.5	414.1	414.1
52.5°	327.1	329.7	329.7	332.4	337.6	340.3	342.9	350.8	350.8	353.5	350.8
55°	290.2	287.5	290.2	292.8	295.4	298.1	300.7	300.7	300.7	300.7	298.1
57.5°	253.2	253.2	255.9	255.9	258.5	261.1	261.1	258.5	258.5	253.2	250.6
60°	224.2	224.2	224.2	224.2	226.9	226.9	226.9	221.6	216.3	216.3	208.4
62.5°	197.8	195.2	197.8	197.8	197.8	195.2	192.6	187.3	184.6	179.4	174.1
65°	171.5	171.5	171.5	171.5	168.8	168.8	166.2	160.9	155.6	153.0	145.1
67.5°	147.7	147.7	147.7	147.7	145.1	142.4	139.8	134.5	129.3	126.6	118.7
70°	126.6	124.0	124.0	124.0	121.3	118.7	116.1	113.4	108.2	102.9	97.6
72.5°	105.5	105.5	102.9	102.9	100.2	97.6	95.0	92.3	87.0	81.8	76.5
75°	84.4	84.4	84.4	81.8	79.1	79.1	76.5	71.2	68.6	63.3	60.7
77.5°	68.6	65.9	65.9	63.3	60.7	60.7	58.0	55.4	52.8	50.1	44.8
80°	50.1	50.1	50.1	47.5	44.8	44.8	42.2	39.6	36.9	34.3	31.7
82.5°	34.3	34.3	34.3	31.7	31.7	29.0	29.0	26.4	26.4	23.7	21.1
85°	18.5	18.5	18.5	18.5	18.5	15.8	15.8	15.8	13.2	13.2	10.6
87.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	2.6	2.6
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°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1126.3	1126.3	1123.7	1121.1	1121.1	1118.4	1115.8	1115.8	1113.2	1110.5	1107.9
5°	1131.6	1129.0	1123.7	1121.1	1118.4	1118.4	1113.2	1107.9	1105.2	1102.6	1097.3
7.5°	1131.6	1126.3	1121.1	1115.8	1113.2	1110.5	1102.6	1097.3	1092.1	1084.1	1078.9
10°	1126.3	1118.4	1110.5	1102.6	1100.0	1094.7	1086.8	1081.5	1071.0	1063.0	1055.1
12.5°	1113.2	1105.2	1094.7	1084.1	1078.9	1073.6	1063.0	1055.1	1044.6	1036.7	1026.1
15°	1094.7	1084.1	1073.6	1063.0	1055.1	1052.5	1039.3	1026.1	1015.6	1002.4	989.2
17.5°	1068.3	1057.8	1044.6	1034.0	1026.1	1020.8	1005.0	991.8	978.6	965.4	952.3
20°	1039.3	1026.1	1012.9	997.1	991.8	983.9	968.1	952.3	936.4	923.2	907.4
22.5°	1005.0	991.8	976.0	962.8	952.3	944.3	928.5	910.0	894.2	878.4	862.6
25°	965.4	952.3	936.4	920.6	910.0	902.1	883.7	865.2	849.4	830.9	815.1
27.5°	925.9	910.0	894.2	873.1	865.2	854.7	836.2	817.7	799.3	780.8	762.3
30°	881.0	862.6	846.7	825.6	817.7	807.2	786.1	767.6	749.1	730.7	709.6
32.5°	833.5	815.1	796.6	778.2	767.6	757.1	738.6	717.5	693.7	675.3	659.5
35°	780.8	765.0	746.5	725.4	712.2	701.7	675.3	654.2	630.4	614.6	596.1
37.5°	733.3	712.2	688.5	662.1	648.9	635.7	609.3	588.2	569.8	548.7	532.8
40°	675.3	651.5	625.2	593.5	585.6	572.4	548.7	524.9	506.5	488.0	472.2
42.5°	612.0	585.6	561.9	535.5	522.3	509.1	485.4	461.6	443.2	427.3	411.5
45°	548.7	524.9	498.5	472.2	459.0	448.4	424.7	403.6	387.8	371.9	358.7
47.5°	477.4	461.6	437.9	414.1	398.3	387.8	369.3	350.8	332.4	316.5	308.6
50°	408.9	398.3	379.8	356.1	345.6	335.0	313.9	298.1	284.9	271.7	261.1
52.5°	345.6	337.6	324.5	303.3	295.4	282.2	266.4	253.2	240.0	229.5	221.6
55°	292.8	282.2	271.7	258.5	248.0	242.7	224.2	213.7	203.1	192.6	184.6
57.5°	242.7	237.4	226.9	216.3	208.4	200.5	187.3	176.7	168.8	158.3	153.0
60°	205.7	195.2	187.3	176.7	171.5	166.2	155.6	145.1	137.2	129.3	124.0
62.5°	168.8	160.9	153.0	142.4	139.8	134.5	126.6	116.1	110.8	102.9	97.6
65°	139.8	131.9	126.6	116.1	113.4	108.2	100.2	92.3	87.0	81.8	76.5
67.5°	113.4	108.2	100.2	92.3	89.7	84.4	76.5	71.2	65.9	60.7	58.0
70°	92.3	87.0	79.1	71.2	68.6	65.9	58.0	55.4	50.1	44.8	42.2
72.5°	73.9	68.6	60.7	55.4	52.8	50.1	44.8	39.6	36.9	31.7	29.0
75°	55.4	50.1	44.8	39.6	36.9	36.9	31.7	29.0	26.4	21.1	18.5
77.5°	42.2	36.9	31.7	29.0	26.4	23.7	21.1	18.5	15.8	13.2	10.6
80°	29.0	26.4	21.1	18.5	18.5	15.8	13.2	13.2	10.6	7.9	5.3
82.5°	18.5	15.8	13.2	10.6	10.6	10.6	7.9	5.3	5.3	5.3	2.6
85°	7.9	7.9	5.3	5.3	5.3	5.3	2.6	2.6	2.6	0.0	0.0
87.5°	2.6	2.6	0.0	2.6	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°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1107.9	1105.2	1102.6	1102.6	1100.0	1100.0	1097.3	1097.3	1094.7	1094.7	1092.1
5°	1092.1	1089.4	1084.1	1084.1	1081.5	1078.9	1073.6	1071.0	1068.3	1065.7	1063.0
7.5°	1073.6	1065.7	1060.4	1057.8	1055.1	1049.8	1044.6	1039.3	1034.0	1031.4	1026.1
10°	1044.6	1036.7	1031.4	1028.7	1023.5	1015.6	1010.3	1002.4	997.1	991.8	986.5
12.5°	1015.6	1005.0	994.5	991.8	986.5	976.0	970.7	960.2	952.3	947.0	941.7
15°	978.6	968.1	954.9	949.6	947.0	933.8	925.9	918.0	907.4	899.5	894.2
17.5°	936.4	925.9	912.7	904.8	899.5	888.9	875.8	867.8	859.9	846.7	841.5
20°	894.2	878.4	865.2	859.9	852.0	838.8	828.3	817.7	804.5	796.6	786.1
22.5°	844.1	830.9	815.1	807.2	801.9	786.1	775.5	762.3	751.8	743.9	730.7
25°	799.3	780.8	765.0	757.1	749.1	735.9	720.1	709.6	699.0	688.5	677.9
27.5°	746.5	728.0	712.2	706.9	699.0	680.6	670.0	654.2	641.0	633.1	622.5
30°	693.7	675.3	659.5	651.5	643.6	627.8	614.6	601.4	590.9	580.3	569.8
32.5°	641.0	625.2	609.3	601.4	593.5	577.7	564.5	548.7	538.1	524.9	514.4
35°	580.3	564.5	551.3	543.4	538.1	524.9	511.7	498.5	488.0	474.8	464.3
37.5°	517.0	501.2	493.3	485.4	480.1	469.5	459.0	448.4	437.9	427.3	414.1
40°	456.3	448.4	432.6	430.0	424.7	414.1	406.2	395.7	387.8	377.2	366.7
42.5°	400.9	387.8	377.2	374.6	369.3	361.4	353.5	345.6	340.3	329.7	321.8
45°	348.2	337.6	327.1	321.8	319.2	311.3	303.3	298.1	292.8	284.9	277.0
47.5°	298.1	287.5	279.6	277.0	271.7	266.4	258.5	253.2	245.3	240.0	232.1
50°	253.2	245.3	237.4	234.8	229.5	226.9	218.9	213.7	205.7	197.8	192.6
52.5°	213.7	205.7	200.5	197.8	195.2	187.3	182.0	176.7	168.8	163.5	155.6
55°	176.7	171.5	166.2	163.5	160.9	155.6	150.4	142.4	137.2	129.3	121.3
57.5°	145.1	139.8	134.5	131.9	129.3	124.0	118.7	113.4	105.5	97.6	89.7
60°	116.1	113.4	108.2	105.5	102.9	97.6	92.3	84.4	79.1	68.6	63.3
62.5°	92.3	89.7	84.4	81.8	79.1	71.2	65.9	60.7	52.8	44.8	36.9
65°	71.2	65.9	60.7	60.7	58.0	52.8	44.8	36.9	31.7	23.7	15.8
67.5°	52.8	47.5	42.2	42.2	39.6	34.3	26.4	21.1	13.2	7.9	0.0
70°	36.9	34.3	29.0	26.4	23.7	18.5	13.2	7.9	2.6	0.0	0.0
72.5°	26.4	21.1	18.5	15.8	13.2	7.9	2.6	0.0	0.0	0.0	0.0
75°	15.8	13.2	7.9	7.9	5.3	2.6	0.0	0.0	0.0	0.0	0.0
77.5°	7.9	7.9	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	5.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.6	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



TEST NUMBER: P238381

CATALOG NUMBER: PRS630D010-S6M24-61SWWMB-4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1092.1	1089.4	1089.4	1089.4	1089.4	1089.4	1086.8	1086.8
5°	1060.4	1057.8	1057.8	1055.1	1055.1	1055.1	1052.5	1052.5
7.5°	1023.5	1020.8	1018.2	1018.2	1015.6	1015.6	1012.9	1015.6
10°	981.3	976.0	976.0	976.0	973.4	970.7	970.7	970.7
12.5°	936.4	931.1	928.5	925.9	923.2	923.2	920.6	920.6
15°	886.3	881.0	878.4	875.8	873.1	870.5	867.8	870.5
17.5°	833.5	828.3	825.6	823.0	817.7	817.7	815.1	812.4
20°	778.2	772.9	770.2	767.6	765.0	762.3	759.7	757.1
22.5°	722.8	720.1	712.2	712.2	706.9	704.3	701.7	701.7
25°	667.4	662.1	659.5	654.2	648.9	646.3	646.3	646.3
27.5°	612.0	606.7	601.4	598.8	596.1	593.5	588.2	588.2
30°	559.2	551.3	546.0	546.0	540.8	535.5	535.5	532.8
32.5°	506.5	498.5	493.3	490.6	488.0	482.7	480.1	480.1
35°	453.7	445.8	443.2	437.9	432.6	432.6	424.7	427.3
37.5°	406.2	395.7	393.0	390.4	382.5	379.8	377.2	379.8
40°	356.1	348.2	342.9	340.3	335.0	329.7	327.1	327.1
42.5°	308.6	303.3	298.1	295.4	287.5	282.2	279.6	282.2
45°	266.4	258.5	255.9	250.6	242.7	237.4	234.8	234.8
47.5°	224.2	218.9	211.0	208.4	200.5	195.2	189.9	189.9
50°	184.6	176.7	171.5	166.2	160.9	153.0	147.7	150.4
52.5°	147.7	137.2	134.5	129.3	121.3	113.4	108.2	108.2
55°	113.4	105.5	100.2	97.6	87.0	79.1	73.9	71.2
57.5°	81.8	73.9	71.2	65.9	58.0	50.1	42.2	42.2
60°	55.4	47.5	42.2	39.6	31.7	26.4	18.5	15.8
62.5°	29.0	23.7	18.5	15.8	10.6	5.3	5.3	2.6
65°	7.9	2.6	2.6	2.6	2.6	2.6	2.6	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)