

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: P238342

Luminaire Tested: **PRS640D010-S6M24-61SWWH-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238342
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: PRS640D010-S6M24-61SWWH-3000K
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2578.9 lumens
Efficiency: N/A
Efficacy: 67.9 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

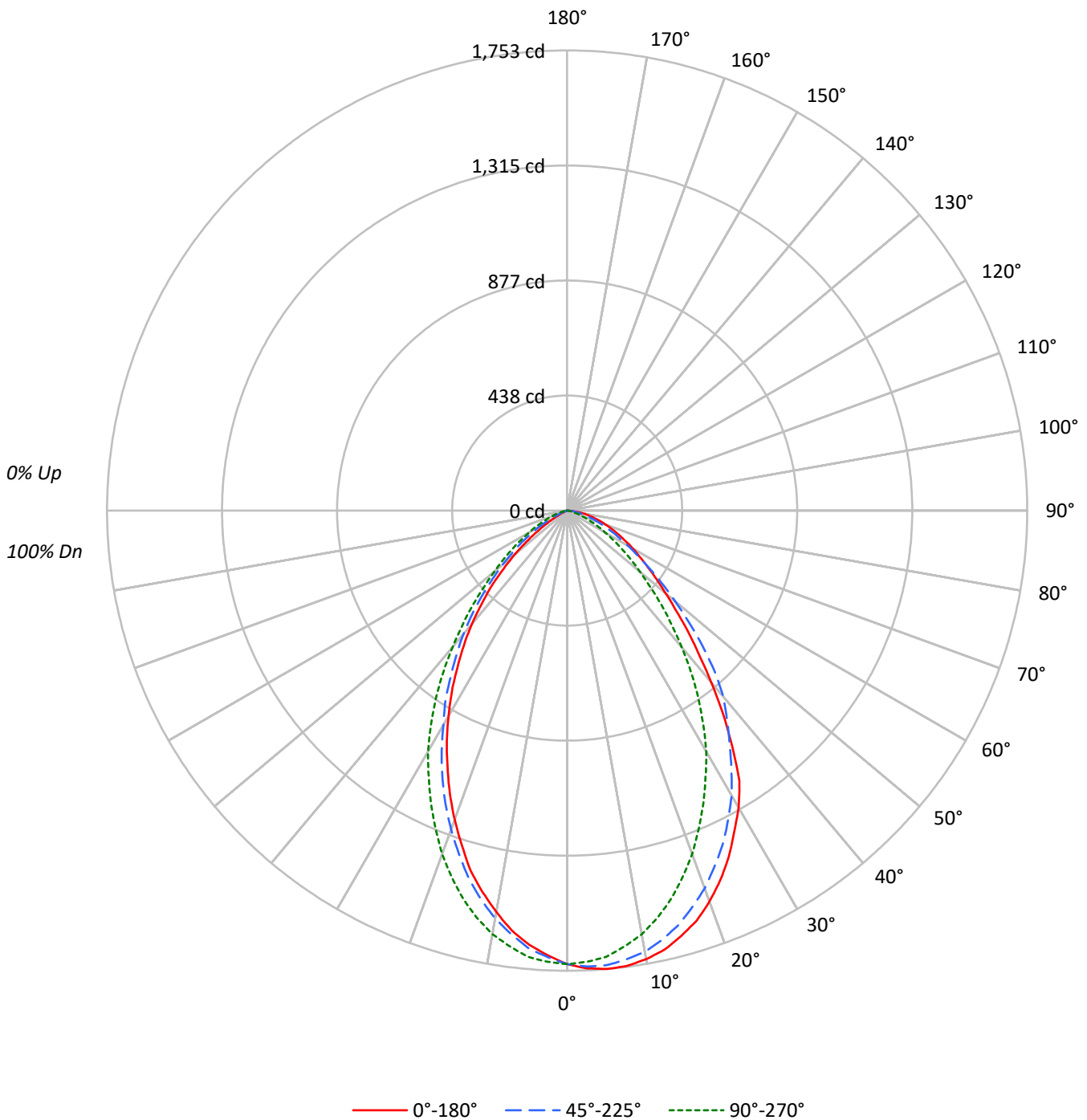
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	74392	74392	74392
5°	75756	73751	71745
10°	75850	71635	67893
15°	74787	68261	63331
20°	72623	63789	57411
25°	69193	58338	51217
30°	64959	52709	44904
35°	57602	45781	38275
40°	47954	38124	31700
45°	39560	30865	24782
50°	32761	24154	17456
55°	28134	19029	10449
60°	24903	14449	4607
65°	21822	10544	1457
70°	19777	7188	894
75°	17218	4758	599
80°	15050	2653	0
85°	10572	1778	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	6.2
10°-20°	431.5	16.7
20°-30°	575.2	22.3
30°-40°	567.7	22.0
40°-50°	425.7	16.5
50°-60°	249.8	9.7
60°-70°	116.3	4.5
70°-80°	43.6	1.7
80°-90°	8.2	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°	1167.4	45.3
0°-40°	1735.1	67.3
0°-60°	2410.7	93.5
0°-90°	2578.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2578.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1728	1728	1728	1728	1728	
5°	1753	1738	1706	1674	1660	167
15°	1678	1635	1531	1449	1421	472
25°	1456	1403	1228	1124	1078	668
35°	1096	1078	871	775	728	681
45°	650	728	507	457	407	504
55°	375	382	254	211	139	339
65°	214	186	104	50	14	216
75°	104	75	29	4	4	112
85°	21	11	4	0	0	26
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°	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8
2.5°	1745.6	1745.6	1745.6	1745.6	1742.1	1742.1	1742.1	1742.1	1742.1	1738.5	1738.5
5°	1752.8	1752.8	1749.2	1749.2	1749.2	1749.2	1745.6	1745.6	1742.1	1742.1	1738.5
7.5°	1749.2	1745.6	1745.6	1745.6	1742.1	1742.1	1742.1	1738.5	1734.9	1731.4	1724.2
10°	1734.9	1734.9	1734.9	1731.4	1727.8	1727.8	1727.8	1720.7	1717.1	1709.9	1706.4
12.5°	1713.5	1709.9	1709.9	1706.4	1702.8	1702.8	1699.2	1692.1	1688.5	1681.4	1674.2
15°	1677.8	1677.8	1677.8	1674.2	1670.7	1667.1	1663.5	1660.0	1652.8	1645.7	1635.0
17.5°	1638.5	1635.0	1635.0	1631.4	1624.3	1624.3	1620.7	1613.6	1606.4	1599.3	1585.0
20°	1585.0	1585.0	1585.0	1581.4	1577.9	1570.7	1570.7	1560.0	1552.9	1542.2	1531.4
22.5°	1524.3	1524.3	1524.3	1520.7	1517.2	1513.6	1510.0	1502.9	1492.2	1481.5	1467.2
25°	1456.5	1452.9	1452.9	1452.9	1449.3	1445.8	1442.2	1435.1	1427.9	1417.2	1402.9
27.5°	1377.9	1374.4	1374.4	1374.4	1370.8	1367.2	1363.7	1363.7	1356.5	1342.2	1328.0
30°	1306.6	1306.6	1306.6	1299.4	1292.3	1288.7	1288.7	1281.6	1270.9	1263.7	1253.0
32.5°	1220.9	1220.9	1224.4	1220.9	1220.9	1220.9	1213.7	1206.6	1192.3	1181.6	1163.8
35°	1095.9	1103.1	1106.6	1113.8	1120.9	1128.1	1131.6	1131.6	1117.4	1099.5	1078.1
37.5°	974.6	978.1	981.7	996.0	1003.1	1010.3	1013.8	1028.1	1038.8	1021.0	999.5
40°	853.2	856.8	867.5	871.0	888.9	892.5	903.2	917.4	931.7	935.3	924.6
42.5°	742.5	746.1	753.2	760.4	778.2	788.9	792.5	803.2	821.1	835.3	831.8
45°	649.7	649.7	653.3	664.0	674.7	681.8	692.5	706.8	721.1	728.2	728.2
47.5°	560.5	560.5	564.0	574.7	589.0	589.0	596.2	610.4	628.3	628.3	628.3
50°	489.1	492.6	492.6	499.8	506.9	510.5	517.6	531.9	539.0	539.0	535.5
52.5°	428.4	428.4	431.9	435.5	439.1	446.2	446.2	453.4	460.5	460.5	453.4
55°	374.8	374.8	374.8	378.4	382.0	385.5	389.1	392.7	389.1	385.5	382.0
57.5°	328.4	328.4	328.4	328.4	332.0	335.6	335.6	335.6	332.0	328.4	317.7
60°	289.2	289.2	289.2	289.2	289.2	289.2	289.2	285.6	278.4	274.9	267.7
62.5°	249.9	249.9	249.9	249.9	249.9	249.9	246.3	242.7	239.2	228.5	221.3
65°	214.2	217.8	217.8	214.2	214.2	210.6	210.6	203.5	199.9	192.8	185.6
67.5°	185.6	185.6	185.6	185.6	182.1	178.5	178.5	171.4	167.8	160.6	149.9
70°	157.1	157.1	153.5	153.5	153.5	149.9	146.4	142.8	135.7	128.5	121.4
72.5°	128.5	128.5	128.5	128.5	121.4	121.4	117.8	114.2	107.1	103.5	96.4
75°	103.5	103.5	103.5	100.0	100.0	96.4	92.8	89.2	85.7	78.5	75.0
77.5°	82.1	82.1	82.1	78.5	75.0	75.0	71.4	67.8	64.3	60.7	53.5
80°	60.7	60.7	57.1	57.1	53.5	53.5	53.5	50.0	46.4	42.8	39.3
82.5°	39.3	39.3	39.3	39.3	35.7	35.7	32.1	32.1	28.6	25.0	25.0
85°	21.4	21.4	21.4	21.4	17.8	17.8	17.8	17.8	14.3	14.3	10.7
87.5°	3.6	3.6	3.6	3.6	3.6	3.6	7.1	3.6	3.6	3.6	3.6
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°	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8
2.5°	1734.9	1734.9	1731.4	1731.4	1731.4	1727.8	1727.8	1724.2	1724.2	1720.7	1720.7
5°	1734.9	1731.4	1727.8	1724.2	1720.7	1720.7	1717.1	1709.9	1706.4	1706.4	1699.2
7.5°	1720.7	1717.1	1709.9	1706.4	1702.8	1699.2	1692.1	1688.5	1681.4	1674.2	1670.7
10°	1699.2	1692.1	1681.4	1674.2	1674.2	1667.1	1660.0	1652.8	1642.1	1638.5	1627.8
12.5°	1663.5	1652.8	1645.7	1638.5	1631.4	1627.8	1617.1	1610.0	1595.7	1588.6	1577.9
15°	1624.3	1613.6	1602.8	1588.6	1585.0	1577.9	1567.1	1552.9	1545.7	1531.4	1520.7
17.5°	1577.9	1560.0	1549.3	1535.0	1527.9	1520.7	1502.9	1492.2	1481.5	1463.6	1452.9
20°	1517.2	1502.9	1488.6	1470.8	1463.6	1452.9	1438.6	1420.8	1406.5	1392.2	1377.9
22.5°	1452.9	1438.6	1420.8	1402.9	1392.2	1381.5	1363.7	1345.8	1328.0	1310.1	1299.4
25°	1381.5	1363.7	1345.8	1328.0	1313.7	1306.6	1285.1	1267.3	1245.9	1228.0	1213.7
27.5°	1310.1	1292.3	1270.9	1245.9	1231.6	1224.4	1203.0	1178.0	1156.6	1142.3	1124.5
30°	1231.6	1210.2	1185.2	1163.8	1149.5	1138.8	1120.9	1095.9	1078.1	1060.2	1035.2
32.5°	1145.9	1124.5	1106.6	1078.1	1067.4	1056.7	1031.7	1006.7	981.7	963.8	949.6
35°	1060.2	1046.0	1024.5	996.0	978.1	963.8	931.7	910.3	888.9	871.0	856.8
37.5°	981.7	960.3	924.6	892.5	878.2	867.5	831.8	810.3	785.4	774.6	753.2
40°	896.0	863.9	831.8	799.6	785.4	771.1	746.1	714.0	696.1	678.3	664.0
42.5°	810.3	767.5	735.4	706.8	689.0	674.7	646.1	621.1	599.7	589.0	574.7
45°	714.0	681.8	646.1	614.0	603.3	585.4	560.5	539.0	521.2	506.9	496.2
47.5°	614.0	596.2	560.5	531.9	517.6	503.3	481.9	460.5	442.7	428.4	421.2
50°	524.8	510.5	485.5	453.4	442.7	428.4	407.0	392.7	374.8	360.6	353.4
52.5°	442.7	428.4	410.5	385.5	371.3	364.1	342.7	328.4	317.7	307.0	296.3
55°	371.3	357.0	342.7	321.3	310.6	299.9	285.6	271.3	260.6	253.5	246.3
57.5°	310.6	296.3	282.0	267.7	257.0	249.9	235.6	228.5	217.8	207.0	203.5
60°	257.0	246.3	235.6	221.3	214.2	203.5	192.8	182.1	174.9	167.8	160.6
62.5°	214.2	203.5	192.8	178.5	174.9	167.8	157.1	146.4	139.2	135.7	128.5
65°	174.9	164.2	157.1	146.4	139.2	135.7	124.9	117.8	110.7	103.5	96.4
67.5°	142.8	135.7	128.5	117.8	110.7	107.1	96.4	89.2	85.7	78.5	75.0
70°	114.2	107.1	100.0	92.8	85.7	82.1	75.0	67.8	64.3	57.1	53.5
72.5°	89.2	82.1	78.5	67.8	64.3	60.7	53.5	50.0	46.4	42.8	39.3
75°	67.8	64.3	57.1	50.0	46.4	46.4	39.3	35.7	32.1	28.6	25.0
77.5°	50.0	46.4	39.3	35.7	32.1	32.1	28.6	25.0	21.4	17.8	17.8
80°	35.7	28.6	25.0	21.4	21.4	17.8	17.8	14.3	10.7	10.7	7.1
82.5°	21.4	17.8	14.3	14.3	10.7	10.7	10.7	7.1	7.1	3.6	3.6
85°	10.7	7.1	7.1	7.1	3.6	3.6	3.6	3.6	3.6	3.6	3.6
87.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8
2.5°	1717.1	1713.5	1713.5	1713.5	1709.9	1709.9	1706.4	1706.4	1702.8	1702.8	1702.8
5°	1695.7	1692.1	1688.5	1685.0	1685.0	1681.4	1677.8	1677.8	1674.2	1670.7	1667.1
7.5°	1663.5	1660.0	1656.4	1649.3	1645.7	1642.1	1638.5	1631.4	1627.8	1624.3	1624.3
10°	1620.7	1613.6	1606.4	1602.8	1602.8	1592.1	1588.6	1585.0	1577.9	1574.3	1567.1
12.5°	1567.1	1560.0	1552.9	1545.7	1542.2	1535.0	1531.4	1524.3	1517.2	1510.0	1502.9
15°	1510.0	1499.3	1488.6	1485.0	1477.9	1474.3	1463.6	1452.9	1449.3	1442.2	1438.6
17.5°	1438.6	1424.4	1420.8	1413.6	1406.5	1399.4	1392.2	1381.5	1370.8	1367.2	1356.5
20°	1363.7	1353.0	1338.7	1335.1	1328.0	1320.8	1310.1	1299.4	1292.3	1285.1	1278.0
22.5°	1281.6	1274.4	1256.6	1253.0	1245.9	1235.2	1224.4	1213.7	1210.2	1199.5	1192.3
25°	1199.5	1181.6	1170.9	1163.8	1160.2	1149.5	1142.3	1131.6	1124.5	1113.8	1106.6
27.5°	1106.6	1095.9	1085.2	1074.5	1070.9	1063.8	1053.1	1042.4	1035.2	1024.5	1017.4
30°	1024.5	1010.3	996.0	988.8	985.3	971.0	963.8	956.7	942.4	935.3	931.7
32.5°	931.7	917.4	906.7	906.7	896.0	888.9	874.6	867.5	863.9	849.6	842.5
35°	838.9	828.2	821.1	817.5	813.9	799.6	792.5	785.4	774.6	771.1	760.4
37.5°	746.1	731.8	724.7	721.1	717.5	714.0	710.4	699.7	692.5	685.4	678.3
40°	649.7	642.6	635.4	635.4	631.9	628.3	621.1	617.6	614.0	606.9	599.7
42.5°	567.6	556.9	553.3	549.8	549.8	542.6	542.6	539.0	535.5	528.3	521.2
45°	485.5	478.4	474.8	467.6	467.6	464.1	464.1	464.1	456.9	453.4	449.8
47.5°	414.1	407.0	403.4	399.8	396.2	392.7	392.7	392.7	385.5	385.5	378.4
50°	346.3	339.1	339.1	339.1	335.6	332.0	328.4	321.3	321.3	317.7	314.1
52.5°	292.7	285.6	282.0	278.4	278.4	274.9	271.3	267.7	260.6	257.0	253.5
55°	239.2	235.6	228.5	228.5	224.9	221.3	217.8	214.2	210.6	199.9	196.3
57.5°	196.3	189.2	185.6	182.1	182.1	178.5	171.4	167.8	160.6	153.5	146.4
60°	157.1	149.9	146.4	142.8	142.8	135.7	132.1	124.9	117.8	110.7	103.5
62.5°	121.4	117.8	110.7	107.1	107.1	103.5	96.4	89.2	82.1	75.0	64.3
65°	92.8	89.2	82.1	82.1	78.5	71.4	64.3	57.1	50.0	42.8	35.7
67.5°	67.8	64.3	60.7	57.1	53.5	46.4	39.3	32.1	25.0	17.8	10.7
70°	50.0	46.4	39.3	39.3	35.7	28.6	21.4	14.3	10.7	7.1	7.1
72.5°	32.1	28.6	25.0	21.4	17.8	14.3	7.1	3.6	3.6	3.6	3.6
75°	21.4	17.8	14.3	10.7	10.7	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	14.3	10.7	7.1	3.6	3.6	0.0	3.6	3.6	0.0	3.6	3.6
80°	7.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.6	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°	3.6	3.6	3.6	3.6	3.6	0.0	3.6	0.0	3.6	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: P238342

CATALOG NUMBER: PRS640D010-S6M24-61SWWH-3000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8	1727.8
2.5°	1699.2	1699.2	1699.2	1699.2	1699.2	1699.2	1699.2	1695.7
5°	1663.5	1663.5	1663.5	1663.5	1660.0	1660.0	1660.0	1660.0
7.5°	1620.7	1617.1	1613.6	1613.6	1613.6	1610.0	1610.0	1613.6
10°	1563.6	1563.6	1560.0	1560.0	1556.4	1556.4	1556.4	1552.9
12.5°	1499.3	1495.8	1495.8	1488.6	1492.2	1488.6	1485.0	1488.6
15°	1427.9	1424.4	1420.8	1420.8	1420.8	1417.2	1417.2	1420.8
17.5°	1353.0	1345.8	1342.2	1345.8	1338.7	1338.7	1338.7	1335.1
20°	1270.9	1263.7	1260.1	1260.1	1256.6	1253.0	1253.0	1253.0
22.5°	1185.2	1181.6	1174.5	1174.5	1170.9	1170.9	1167.3	1167.3
25°	1103.1	1092.4	1092.4	1088.8	1081.7	1085.2	1078.1	1078.1
27.5°	1010.3	1006.7	1006.7	1003.1	996.0	992.4	988.8	992.4
30°	924.6	917.4	913.9	910.3	910.3	910.3	906.7	903.2
32.5°	838.9	831.8	824.6	824.6	824.6	817.5	817.5	817.5
35°	753.2	749.7	742.5	739.0	739.0	735.4	731.8	728.2
37.5°	671.1	664.0	660.4	653.3	653.3	646.1	642.6	646.1
40°	589.0	581.9	578.3	578.3	571.2	564.0	564.0	564.0
42.5°	514.1	503.3	503.3	496.2	489.1	485.5	478.4	481.9
45°	442.7	431.9	428.4	428.4	414.1	410.5	407.0	407.0
47.5°	371.3	367.7	360.6	353.4	342.7	332.0	328.4	328.4
50°	307.0	296.3	292.7	289.2	274.9	267.7	260.6	260.6
52.5°	246.3	235.6	228.5	224.9	214.2	203.5	199.9	196.3
55°	189.2	178.5	174.9	171.4	157.1	149.9	142.8	139.2
57.5°	139.2	132.1	124.9	117.8	107.1	100.0	92.8	89.2
60°	96.4	85.7	82.1	78.5	67.8	60.7	53.5	53.5
62.5°	60.7	50.0	46.4	42.8	35.7	28.6	28.6	28.6
65°	25.0	17.8	17.8	17.8	14.3	14.3	14.3	14.3
67.5°	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
70°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
72.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
75°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
77.5°	3.6	3.6	3.6	3.6	0.0	0.0	3.6	3.6
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)