

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: P238352

Luminaire Tested: **PRS640D010-S6M24-61SWWH-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238352
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-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: 2725.7 lumens
Efficiency: N/A
Efficacy: 71.7 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

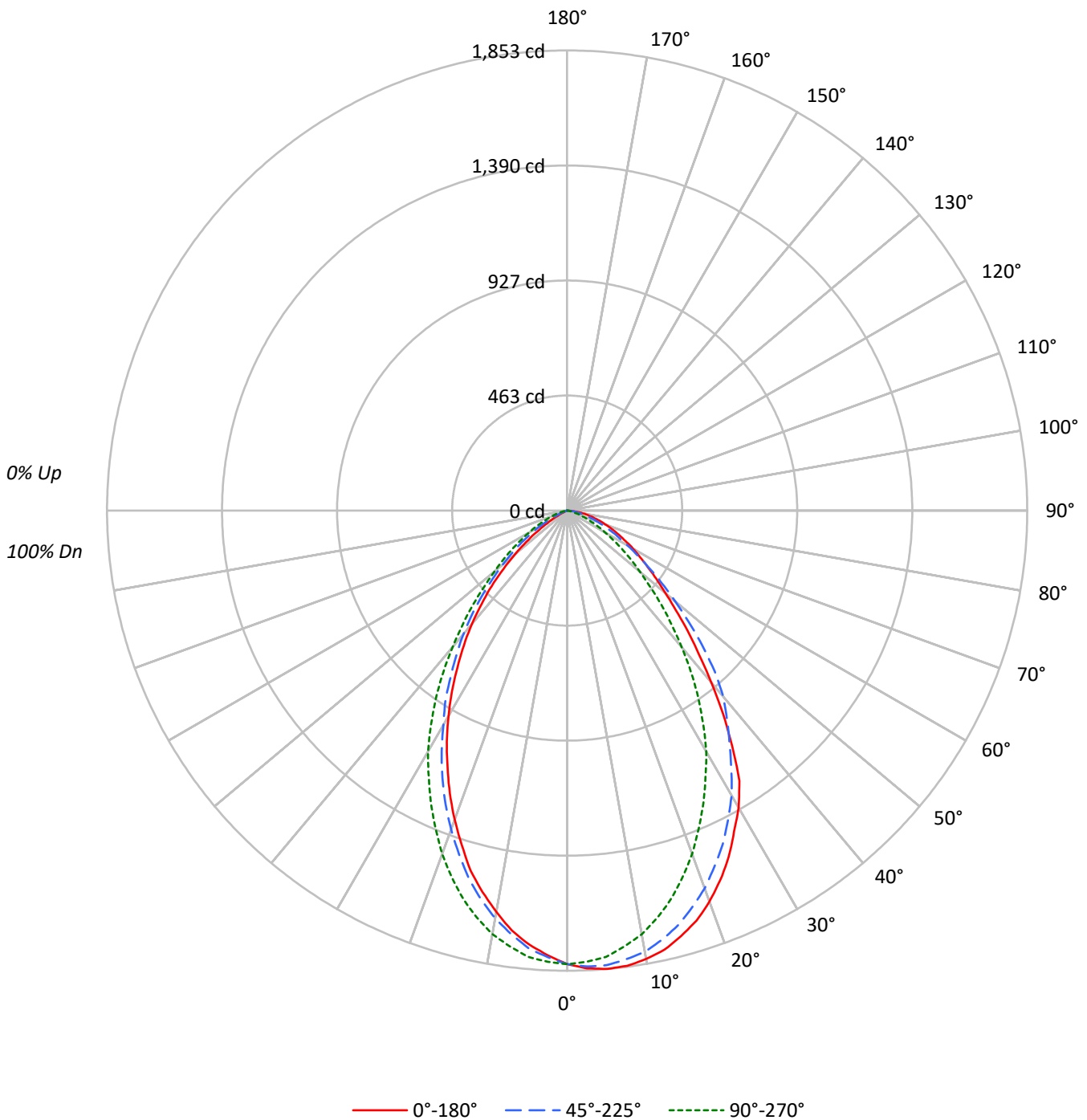
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	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°	78628	78628	78628
5°	80070	77947	75830
10°	80169	75718	71757
15°	79048	72153	66938
20°	76760	67422	60683
25°	73132	61664	54134
30°	68658	55712	47459
35°	60882	48388	40456
40°	50686	40293	33510
45°	41813	32625	26189
50°	34623	25527	18447
55°	29741	20110	11050
60°	26316	15268	4874
65°	23065	11145	1538
70°	20897	7604	944
75°	18199	5024	632
80°	15893	2802	0
85°	11165	1877	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.8	6.2
10°-20°	456.1	16.7
20°-30°	607.9	22.3
30°-40°	600.0	22.0
40°-50°	450.0	16.5
50°-60°	264.1	9.7
60°-70°	122.9	4.5
70°-80°	46.1	1.7
80°-90°	8.7	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°	1233.9	45.3
0°-40°	1833.9	67.3
0°-60°	2548.0	93.5
0°-90°	2725.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2725.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1826	1826	1826	1826	1826	
5°	1853	1838	1804	1770	1754	176
15°	1773	1728	1619	1532	1502	499
25°	1539	1483	1298	1188	1140	706
35°	1158	1140	921	819	770	720
45°	687	770	536	483	430	533
55°	396	404	268	223	147	359
65°	226	196	109	53	15	228
75°	109	79	30	4	4	118
85°	23	11	4	0	0	27
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°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1845.1	1845.1	1845.1	1845.1	1841.3	1841.3	1841.3	1841.3	1841.3	1837.5	1837.5
5°	1852.6	1852.6	1848.8	1848.8	1848.8	1848.8	1845.1	1845.1	1841.3	1841.3	1837.5
7.5°	1848.8	1845.1	1845.1	1845.1	1841.3	1841.3	1841.3	1837.5	1833.7	1830.0	1822.4
10°	1833.7	1833.7	1833.7	1830.0	1826.2	1826.2	1826.2	1818.6	1814.9	1807.3	1803.5
12.5°	1811.1	1807.3	1807.3	1803.5	1799.8	1799.8	1796.0	1788.5	1784.7	1777.1	1769.6
15°	1773.4	1773.4	1773.4	1769.6	1765.8	1762.0	1758.3	1754.5	1747.0	1739.4	1728.1
17.5°	1731.9	1728.1	1728.1	1724.3	1716.8	1716.8	1713.0	1705.4	1697.9	1690.4	1675.3
20°	1675.3	1675.3	1675.3	1671.5	1667.7	1660.2	1660.2	1648.9	1641.3	1630.0	1618.7
22.5°	1611.1	1611.1	1611.1	1607.3	1603.6	1599.8	1596.0	1588.5	1577.2	1565.8	1550.7
25°	1539.4	1535.7	1535.7	1535.7	1531.9	1528.1	1524.3	1516.8	1509.2	1497.9	1482.8
27.5°	1456.4	1452.6	1452.6	1452.6	1448.9	1445.1	1441.3	1441.3	1433.8	1418.7	1403.6
30°	1381.0	1381.0	1381.0	1373.4	1365.9	1362.1	1362.1	1354.5	1343.2	1335.7	1324.4
32.5°	1290.4	1290.4	1294.2	1290.4	1290.4	1290.4	1282.9	1275.3	1260.2	1248.9	1230.0
35°	1158.3	1165.9	1169.7	1177.2	1184.8	1192.3	1196.1	1196.1	1181.0	1162.1	1139.5
37.5°	1030.1	1033.8	1037.6	1052.7	1060.2	1067.8	1071.6	1086.7	1098.0	1079.1	1056.5
40°	901.8	905.5	916.9	920.6	939.5	943.3	954.6	969.7	984.8	988.6	977.2
42.5°	784.8	788.6	796.1	803.7	822.5	833.9	837.6	849.0	867.8	882.9	879.1
45°	686.7	686.7	690.5	701.8	713.1	720.7	732.0	747.1	762.2	769.7	769.7
47.5°	592.4	592.4	596.2	607.5	622.6	622.6	630.1	645.2	664.1	664.1	664.1
50°	516.9	520.7	520.7	528.2	535.8	539.6	547.1	562.2	569.7	569.7	566.0
52.5°	452.8	452.8	456.5	460.3	464.1	471.6	471.6	479.2	486.7	486.7	479.2
55°	396.2	396.2	396.2	399.9	403.7	407.5	411.3	415.0	411.3	407.5	403.7
57.5°	347.1	347.1	347.1	347.1	350.9	354.7	354.7	354.7	350.9	347.1	335.8
60°	305.6	305.6	305.6	305.6	305.6	305.6	305.6	301.8	294.3	290.5	283.0
62.5°	264.1	264.1	264.1	264.1	264.1	264.1	260.3	256.6	252.8	241.5	233.9
65°	226.4	230.2	230.2	226.4	226.4	222.6	222.6	215.1	211.3	203.7	196.2
67.5°	196.2	196.2	196.2	196.2	192.4	188.7	188.7	181.1	177.3	169.8	158.5
70°	166.0	166.0	162.2	162.2	162.2	158.5	154.7	150.9	143.4	135.8	128.3
72.5°	135.8	135.8	135.8	135.8	128.3	128.3	124.5	120.7	113.2	109.4	101.9
75°	109.4	109.4	109.4	105.6	105.6	101.9	98.1	94.3	90.6	83.0	79.2
77.5°	86.8	86.8	86.8	83.0	79.2	79.2	75.5	71.7	67.9	64.1	56.6
80°	64.1	64.1	60.4	60.4	56.6	56.6	56.6	52.8	49.1	45.3	41.5
82.5°	41.5	41.5	41.5	41.5	37.7	37.7	34.0	34.0	30.2	26.4	26.4
85°	22.6	22.6	22.6	22.6	18.9	18.9	18.9	18.9	15.1	15.1	11.3
87.5°	3.8	3.8	3.8	3.8	3.8	3.8	7.5	3.8	3.8	3.8	3.8
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°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1833.7	1833.7	1830.0	1830.0	1830.0	1826.2	1826.2	1822.4	1822.4	1818.6	1818.6
5°	1833.7	1830.0	1826.2	1822.4	1818.6	1818.6	1814.9	1807.3	1803.5	1803.5	1796.0
7.5°	1818.6	1814.9	1807.3	1803.5	1799.8	1796.0	1788.5	1784.7	1777.1	1769.6	1765.8
10°	1796.0	1788.5	1777.1	1769.6	1769.6	1762.0	1754.5	1747.0	1735.6	1731.9	1720.5
12.5°	1758.3	1747.0	1739.4	1731.9	1724.3	1720.5	1709.2	1701.7	1686.6	1679.0	1667.7
15°	1716.8	1705.4	1694.1	1679.0	1675.3	1667.7	1656.4	1641.3	1633.8	1618.7	1607.3
17.5°	1667.7	1648.9	1637.5	1622.4	1614.9	1607.3	1588.5	1577.2	1565.8	1547.0	1535.7
20°	1603.6	1588.5	1573.4	1554.5	1547.0	1535.7	1520.6	1501.7	1486.6	1471.5	1456.4
22.5°	1535.7	1520.6	1501.7	1482.8	1471.5	1460.2	1441.3	1422.5	1403.6	1384.7	1373.4
25°	1460.2	1441.3	1422.5	1403.6	1388.5	1381.0	1358.3	1339.5	1316.8	1298.0	1282.9
27.5°	1384.7	1365.9	1343.2	1316.8	1301.7	1294.2	1271.5	1245.1	1222.5	1207.4	1188.5
30°	1301.7	1279.1	1252.7	1230.0	1214.9	1203.6	1184.8	1158.3	1139.5	1120.6	1094.2
32.5°	1211.2	1188.5	1169.7	1139.5	1128.2	1116.8	1090.4	1064.0	1037.6	1018.7	1003.6
35°	1120.6	1105.5	1082.9	1052.7	1033.8	1018.7	984.8	962.1	939.5	920.6	905.5
37.5°	1037.6	1015.0	977.2	943.3	928.2	916.9	879.1	856.5	830.1	818.8	796.1
40°	947.1	913.1	879.1	845.2	830.1	815.0	788.6	754.6	735.8	716.9	701.8
42.5°	856.5	811.2	777.3	747.1	728.2	713.1	682.9	656.5	633.9	622.6	607.5
45°	754.6	720.7	682.9	649.0	637.7	618.8	592.4	569.7	550.9	535.8	524.5
47.5°	649.0	630.1	592.4	562.2	547.1	532.0	509.4	486.7	467.9	452.8	445.2
50°	554.6	539.6	513.1	479.2	467.9	452.8	430.1	415.0	396.2	381.1	373.5
52.5°	467.9	452.8	433.9	407.5	392.4	384.9	362.2	347.1	335.8	324.5	313.2
55°	392.4	377.3	362.2	339.6	328.3	316.9	301.8	286.8	275.4	267.9	260.3
57.5°	328.3	313.2	298.1	283.0	271.7	264.1	249.0	241.5	230.2	218.8	215.1
60°	271.7	260.3	249.0	233.9	226.4	215.1	203.7	192.4	184.9	177.3	169.8
62.5°	226.4	215.1	203.7	188.7	184.9	177.3	166.0	154.7	147.2	143.4	135.8
65°	184.9	173.6	166.0	154.7	147.2	143.4	132.1	124.5	117.0	109.4	101.9
67.5°	150.9	143.4	135.8	124.5	117.0	113.2	101.9	94.3	90.6	83.0	79.2
70°	120.7	113.2	105.6	98.1	90.6	86.8	79.2	71.7	67.9	60.4	56.6
72.5°	94.3	86.8	83.0	71.7	67.9	64.1	56.6	52.8	49.1	45.3	41.5
75°	71.7	67.9	60.4	52.8	49.1	49.1	41.5	37.7	34.0	30.2	26.4
77.5°	52.8	49.1	41.5	37.7	34.0	34.0	30.2	26.4	22.6	18.9	18.9
80°	37.7	30.2	26.4	22.6	22.6	18.9	18.9	15.1	11.3	11.3	7.5
82.5°	22.6	18.9	15.1	15.1	11.3	11.3	11.3	7.5	7.5	3.8	3.8
85°	11.3	7.5	7.5	7.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8
87.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1814.9	1811.1	1811.1	1811.1	1807.3	1807.3	1803.5	1803.5	1799.8	1799.8	1799.8
5°	1792.2	1788.5	1784.7	1780.9	1780.9	1777.1	1773.4	1773.4	1769.6	1765.8	1762.0
7.5°	1758.3	1754.5	1750.7	1743.2	1739.4	1735.6	1731.9	1724.3	1720.5	1716.8	1716.8
10°	1713.0	1705.4	1697.9	1694.1	1694.1	1682.8	1679.0	1675.3	1667.7	1663.9	1656.4
12.5°	1656.4	1648.9	1641.3	1633.8	1630.0	1622.4	1618.7	1611.1	1603.6	1596.0	1588.5
15°	1596.0	1584.7	1573.4	1569.6	1562.1	1558.3	1547.0	1535.7	1531.9	1524.3	1520.6
17.5°	1520.6	1505.5	1501.7	1494.2	1486.6	1479.1	1471.5	1460.2	1448.9	1445.1	1433.8
20°	1441.3	1430.0	1414.9	1411.1	1403.6	1396.1	1384.7	1373.4	1365.9	1358.3	1350.8
22.5°	1354.5	1347.0	1328.1	1324.4	1316.8	1305.5	1294.2	1282.9	1279.1	1267.8	1260.2
25°	1267.8	1248.9	1237.6	1230.0	1226.3	1214.9	1207.4	1196.1	1188.5	1177.2	1169.7
27.5°	1169.7	1158.3	1147.0	1135.7	1131.9	1124.4	1113.1	1101.7	1094.2	1082.9	1075.3
30°	1082.9	1067.8	1052.7	1045.2	1041.4	1026.3	1018.7	1011.2	996.1	988.6	984.8
32.5°	984.8	969.7	958.4	958.4	947.1	939.5	924.4	916.9	913.1	898.0	890.5
35°	886.7	875.4	867.8	864.0	860.3	845.2	837.6	830.1	818.8	815.0	803.7
37.5°	788.6	773.5	765.9	762.2	758.4	754.6	750.8	739.5	732.0	724.4	716.9
40°	686.7	679.2	671.6	671.6	667.8	664.1	656.5	652.7	649.0	641.4	633.9
42.5°	599.9	588.6	584.8	581.1	581.1	573.5	573.5	569.7	566.0	558.4	550.9
45°	513.1	505.6	501.8	494.3	494.3	490.5	490.5	490.5	483.0	479.2	475.4
47.5°	437.7	430.1	426.4	422.6	418.8	415.0	415.0	415.0	407.5	407.5	399.9
50°	366.0	358.4	358.4	358.4	354.7	350.9	347.1	339.6	339.6	335.8	332.0
52.5°	309.4	301.8	298.1	294.3	294.3	290.5	286.8	283.0	275.4	271.7	267.9
55°	252.8	249.0	241.5	241.5	237.7	233.9	230.2	226.4	222.6	211.3	207.5
57.5°	207.5	200.0	196.2	192.4	192.4	188.7	181.1	177.3	169.8	162.2	154.7
60°	166.0	158.5	154.7	150.9	150.9	143.4	139.6	132.1	124.5	117.0	109.4
62.5°	128.3	124.5	117.0	113.2	113.2	109.4	101.9	94.3	86.8	79.2	67.9
65°	98.1	94.3	86.8	86.8	83.0	75.5	67.9	60.4	52.8	45.3	37.7
67.5°	71.7	67.9	64.1	60.4	56.6	49.1	41.5	34.0	26.4	18.9	11.3
70°	52.8	49.1	41.5	41.5	37.7	30.2	22.6	15.1	11.3	7.5	7.5
72.5°	34.0	30.2	26.4	22.6	18.9	15.1	7.5	3.8	3.8	3.8	3.8
75°	22.6	18.9	15.1	11.3	11.3	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	15.1	11.3	7.5	3.8	3.8	0.0	3.8	3.8	0.0	3.8	3.8
80°	7.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.8	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°	3.8	3.8	3.8	3.8	3.8	0.0	3.8	0.0	3.8	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: P238352

CATALOG NUMBER: PRS640D010-S6M24-61SWWH-4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2	1826.2
2.5°	1796.0	1796.0	1796.0	1796.0	1796.0	1796.0	1796.0	1792.2
5°	1758.3	1758.3	1758.3	1758.3	1754.5	1754.5	1754.5	1754.5
7.5°	1713.0	1709.2	1705.4	1705.4	1705.4	1701.7	1701.7	1705.4
10°	1652.6	1652.6	1648.9	1648.9	1645.1	1645.1	1645.1	1641.3
12.5°	1584.7	1580.9	1580.9	1573.4	1577.2	1573.4	1569.6	1573.4
15°	1509.2	1505.5	1501.7	1501.7	1501.7	1497.9	1497.9	1501.7
17.5°	1430.0	1422.5	1418.7	1422.5	1414.9	1414.9	1414.9	1411.1
20°	1343.2	1335.7	1331.9	1331.9	1328.1	1324.4	1324.4	1324.4
22.5°	1252.7	1248.9	1241.4	1241.4	1237.6	1237.6	1233.8	1233.8
25°	1165.9	1154.6	1154.6	1150.8	1143.3	1147.0	1139.5	1139.5
27.5°	1067.8	1064.0	1064.0	1060.2	1052.7	1048.9	1045.2	1048.9
30°	977.2	969.7	965.9	962.1	962.1	962.1	958.4	954.6
32.5°	886.7	879.1	871.6	871.6	871.6	864.0	864.0	864.0
35°	796.1	792.4	784.8	781.0	781.0	777.3	773.5	769.7
37.5°	709.3	701.8	698.0	690.5	690.5	682.9	679.2	682.9
40°	622.6	615.0	611.2	611.2	603.7	596.2	596.2	596.2
42.5°	543.3	532.0	532.0	524.5	516.9	513.1	505.6	509.4
45°	467.9	456.5	452.8	452.8	437.7	433.9	430.1	430.1
47.5°	392.4	388.6	381.1	373.5	362.2	350.9	347.1	347.1
50°	324.5	313.2	309.4	305.6	290.5	283.0	275.4	275.4
52.5°	260.3	249.0	241.5	237.7	226.4	215.1	211.3	207.5
55°	200.0	188.7	184.9	181.1	166.0	158.5	150.9	147.2
57.5°	147.2	139.6	132.1	124.5	113.2	105.6	98.1	94.3
60°	101.9	90.6	86.8	83.0	71.7	64.1	56.6	56.6
62.5°	64.1	52.8	49.1	45.3	37.7	30.2	30.2	30.2
65°	26.4	18.9	18.9	18.9	15.1	15.1	15.1	15.1
67.5°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
70°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
72.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
75°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
77.5°	3.8	3.8	3.8	3.8	0.0	0.0	3.8	3.8
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)