

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: P238332

Luminaire Tested: **PRS640D010-S6M24-61SWWC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238332
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-25)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS640D010-S6M24-61SWWC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2921.6 lumens
Efficiency: N/A
Efficacy: 76.9 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.94 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

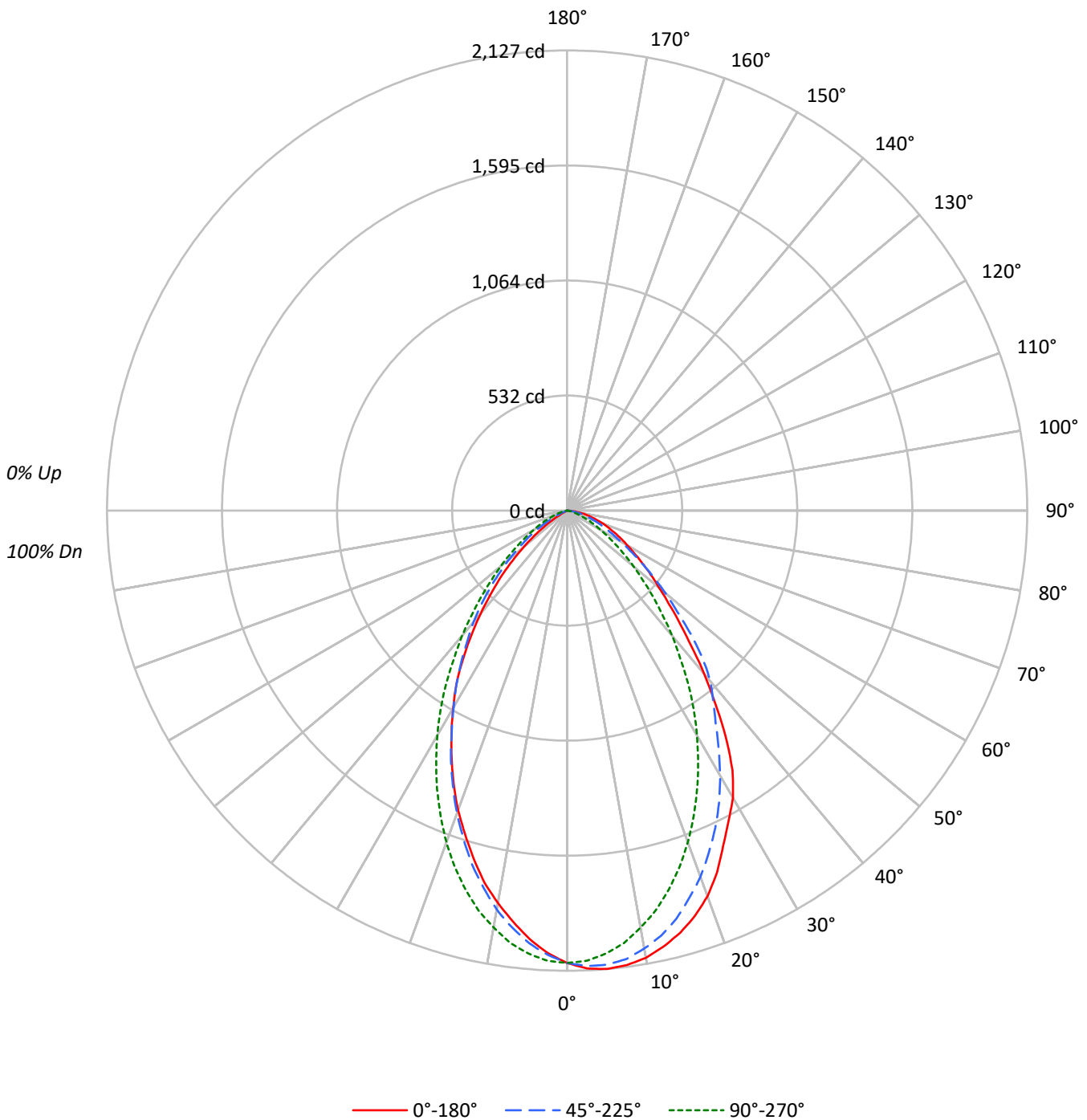
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	73	68	78	72	67	75	71	67	73	69	66	64					64			
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	68	63	60	58					58			
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52					52			
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	90029	90029	90029
5°	91916	88835	85926
10°	91768	85534	80510
15°	90032	80849	74319
20°	86918	74763	67500
25°	81089	67545	60015
30°	76195	59660	52371
35°	67236	51205	44130
40°	55424	42514	34948
45°	44851	34001	26286
50°	37135	26793	17509
55°	31813	20515	9511
60°	27625	15345	2730
65°	24614	11298	0
70°	22433	7478	0
75°	19097	4608	0
80°	16687	2951	0
85°	11757	1976	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	6.6
10°-20°	510.9	17.5
20°-30°	663.8	22.7
30°-40°	638.0	21.8
40°-50°	469.6	16.1
50°-60°	269.5	9.2
60°-70°	122.1	4.2
70°-80°	45.6	1.6
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°	1368.1	46.8
0°-40°	2006.1	68.7
0°-60°	2745.2	94.0
0°-90°	2921.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2921.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2091	2091	2091	2091	2091	
5°	2127	2107	2055	2008	1988	202
15°	2020	1952	1814	1695	1667	567
25°	1707	1620	1422	1271	1263	787
35°	1279	1196	974	852	840	792
45°	737	808	558	499	432	575
55°	424	416	273	222	127	383
65°	242	194	111	48	0	242
75°	115	79	28	0	0	124
85°	24	12	4	0	0	29
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°	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0
2.5°	2118.8	2118.8	2118.8	2114.8	2114.8	2118.8	2114.8	2114.8	2110.9	2110.9	2106.9
5°	2126.7	2126.7	2126.7	2126.7	2122.7	2122.7	2122.7	2118.8	2114.8	2110.9	2106.9
7.5°	2118.8	2118.8	2118.8	2118.8	2114.8	2114.8	2110.9	2106.9	2102.9	2095.0	2091.0
10°	2099.0	2099.0	2099.0	2095.0	2091.0	2087.1	2087.1	2079.2	2071.2	2063.3	2055.4
12.5°	2063.3	2063.3	2059.4	2059.4	2051.4	2051.4	2047.5	2039.6	2031.6	2023.7	2011.8
15°	2019.8	2015.8	2015.8	2011.8	2003.9	2000.0	1996.0	1984.1	1972.2	1960.4	1952.4
17.5°	1964.3	1960.4	1956.4	1952.4	1940.6	1932.6	1928.7	1916.8	1904.9	1893.0	1877.2
20°	1897.0	1893.0	1889.1	1881.2	1873.2	1865.3	1857.4	1845.5	1829.7	1813.8	1801.9
22.5°	1809.9	1805.9	1801.9	1798.0	1786.1	1778.2	1774.2	1762.3	1746.5	1730.7	1710.9
25°	1706.9	1706.9	1710.9	1699.0	1691.1	1683.1	1683.1	1671.3	1655.4	1635.6	1619.8
27.5°	1615.8	1615.8	1607.9	1600.0	1588.1	1580.2	1576.2	1564.3	1556.4	1540.6	1520.8
30°	1532.6	1528.7	1520.8	1512.8	1501.0	1489.1	1477.2	1461.4	1445.5	1429.7	1413.8
32.5°	1421.8	1417.8	1417.8	1417.8	1405.9	1402.0	1394.0	1374.2	1354.4	1326.7	1302.9
35°	1279.2	1275.2	1271.3	1275.2	1283.1	1287.1	1291.1	1283.1	1263.3	1231.7	1196.0
37.5°	1124.7	1128.7	1132.7	1136.6	1148.5	1156.4	1152.5	1168.3	1164.3	1144.5	1108.9
40°	986.1	986.1	990.1	1002.0	1013.8	1017.8	1021.8	1037.6	1037.6	1041.6	1029.7
42.5°	847.5	859.4	863.4	871.3	883.2	891.1	899.0	914.8	918.8	934.6	926.7
45°	736.6	744.5	752.5	760.4	772.3	780.2	784.1	796.0	807.9	815.8	807.9
47.5°	637.6	641.6	645.5	653.5	665.3	669.3	677.2	689.1	701.0	697.0	689.1
50°	554.4	558.4	558.4	570.3	578.2	582.2	582.2	598.0	598.0	598.0	590.1
52.5°	487.1	487.1	491.1	495.0	503.0	503.0	510.9	518.8	510.9	506.9	499.0
55°	423.8	423.8	427.7	431.7	431.7	435.6	439.6	439.6	431.7	423.8	415.8
57.5°	368.3	372.3	372.3	376.2	380.2	376.2	380.2	372.3	364.3	356.4	344.5
60°	320.8	324.7	324.7	328.7	328.7	328.7	324.7	316.8	304.9	297.0	285.1
62.5°	281.2	281.2	281.2	281.2	281.2	281.2	277.2	269.3	257.4	249.5	237.6
65°	241.6	241.6	241.6	241.6	237.6	237.6	233.7	225.7	213.9	205.9	194.1
67.5°	205.9	205.9	205.9	205.9	202.0	198.0	194.1	190.1	178.2	170.3	162.4
70°	178.2	174.3	174.3	170.3	166.3	162.4	162.4	154.5	146.5	138.6	130.7
72.5°	142.6	142.6	142.6	142.6	134.7	134.7	130.7	122.8	114.8	110.9	103.0
75°	114.8	114.8	114.8	110.9	106.9	106.9	103.0	99.0	91.1	87.1	79.2
77.5°	91.1	91.1	91.1	87.1	83.2	79.2	79.2	75.2	67.3	63.4	59.4
80°	67.3	67.3	63.4	59.4	59.4	55.4	55.4	51.5	47.5	43.6	39.6
82.5°	43.6	43.6	43.6	39.6	39.6	35.6	35.6	35.6	31.7	27.7	23.8
85°	23.8	23.8	23.8	19.8	19.8	19.8	19.8	19.8	15.8	15.8	11.9
87.5°	4.0	4.0	4.0	4.0	4.0	7.9	4.0	4.0	4.0	4.0	4.0
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°	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0
2.5°	2106.9	2102.9	2099.0	2099.0	2095.0	2095.0	2091.0	2087.1	2083.1	2083.1	2079.2
5°	2102.9	2099.0	2091.0	2087.1	2083.1	2079.2	2075.2	2067.3	2063.3	2055.4	2051.4
7.5°	2083.1	2075.2	2067.3	2059.4	2055.4	2051.4	2039.6	2031.6	2023.7	2015.8	2007.9
10°	2047.5	2039.6	2027.7	2019.8	2011.8	2003.9	1996.0	1980.2	1968.3	1956.4	1944.5
12.5°	2000.0	1988.1	1976.2	1960.4	1956.4	1948.5	1936.6	1920.8	1908.9	1893.0	1877.2
15°	1940.6	1920.8	1912.8	1893.0	1885.1	1877.2	1865.3	1849.5	1833.6	1813.8	1798.0
17.5°	1861.4	1841.5	1833.6	1813.8	1805.9	1798.0	1778.2	1762.3	1746.5	1726.7	1706.9
20°	1782.1	1766.3	1746.5	1726.7	1718.8	1710.9	1687.1	1671.3	1655.4	1631.7	1615.8
22.5°	1691.1	1671.3	1651.5	1635.6	1623.7	1615.8	1596.0	1576.2	1552.4	1528.7	1508.9
25°	1600.0	1576.2	1556.4	1536.6	1520.8	1512.8	1489.1	1465.3	1441.6	1421.8	1398.0
27.5°	1497.0	1477.2	1453.4	1425.7	1413.8	1402.0	1378.2	1350.5	1330.7	1310.9	1287.1
30°	1390.1	1370.3	1342.5	1318.8	1306.9	1295.0	1271.3	1247.5	1227.7	1200.0	1176.2
32.5°	1283.1	1263.3	1239.6	1215.8	1207.9	1192.1	1164.3	1144.5	1116.8	1089.1	1069.3
35°	1180.2	1164.3	1140.6	1112.9	1093.0	1077.2	1049.5	1017.8	994.0	974.2	954.4
37.5°	1085.1	1061.4	1029.7	994.0	974.2	958.4	922.8	899.0	879.2	855.4	847.5
40°	986.1	946.5	910.9	875.2	859.4	839.6	811.9	788.1	772.3	756.4	736.6
42.5°	891.1	839.6	800.0	768.3	748.5	736.6	704.9	689.1	669.3	649.5	641.6
45°	784.1	744.5	697.0	665.3	649.5	637.6	609.9	590.1	570.3	558.4	546.5
47.5°	677.2	645.5	602.0	566.3	554.4	542.6	522.8	499.0	483.2	471.3	459.4
50°	570.3	546.5	522.8	483.2	471.3	467.3	443.6	423.8	407.9	400.0	388.1
52.5°	483.2	463.4	439.6	411.9	400.0	388.1	372.3	352.5	344.5	332.7	324.7
55°	400.0	380.2	368.3	348.5	332.7	324.7	308.9	297.0	285.1	273.3	265.3
57.5°	328.7	316.8	304.9	289.1	281.2	273.3	257.4	245.5	233.7	221.8	213.9
60°	273.3	261.4	249.5	237.6	229.7	225.7	209.9	198.0	186.1	178.2	170.3
62.5°	225.7	217.8	205.9	194.1	186.1	182.2	170.3	158.4	146.5	142.6	134.7
65°	186.1	178.2	166.3	154.5	154.5	146.5	134.7	126.7	118.8	110.9	103.0
67.5°	154.5	142.6	134.7	126.7	118.8	114.8	106.9	99.0	91.1	83.2	79.2
70°	122.8	114.8	106.9	95.0	91.1	87.1	79.2	71.3	67.3	59.4	55.4
72.5°	95.0	87.1	79.2	71.3	67.3	63.4	59.4	51.5	47.5	43.6	39.6
75°	75.2	67.3	59.4	51.5	51.5	47.5	43.6	35.6	31.7	27.7	27.7
77.5°	51.5	47.5	43.6	35.6	35.6	31.7	27.7	23.8	23.8	19.8	15.8
80°	35.6	31.7	27.7	23.8	19.8	19.8	15.8	15.8	11.9	11.9	7.9
82.5°	23.8	19.8	15.8	11.9	11.9	11.9	7.9	7.9	7.9	4.0	4.0
85°	11.9	7.9	7.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
87.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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°	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0
2.5°	2075.2	2071.2	2067.3	2067.3	2067.3	2063.3	2059.4	2055.4	2055.4	2051.4	2051.4
5°	2043.5	2035.6	2031.6	2027.7	2027.7	2019.8	2015.8	2011.8	2007.9	2003.9	2000.0
7.5°	1996.0	1988.1	1980.2	1972.2	1972.2	1964.3	1956.4	1952.4	1944.5	1940.6	1936.6
10°	1936.6	1928.7	1916.8	1908.9	1901.0	1897.0	1885.1	1877.2	1873.2	1861.4	1857.4
12.5°	1861.4	1849.5	1837.6	1829.7	1825.7	1813.8	1801.9	1798.0	1786.1	1778.2	1774.2
15°	1782.1	1766.3	1750.5	1746.5	1738.6	1726.7	1714.8	1702.9	1695.0	1683.1	1683.1
17.5°	1691.1	1671.3	1659.4	1647.5	1643.5	1627.7	1611.9	1603.9	1592.0	1584.1	1580.2
20°	1592.0	1572.2	1556.4	1548.5	1536.6	1524.7	1508.9	1501.0	1489.1	1481.2	1477.2
22.5°	1485.1	1461.4	1445.5	1437.6	1429.7	1409.9	1398.0	1390.1	1378.2	1370.3	1366.3
25°	1374.2	1358.4	1338.6	1326.7	1318.8	1299.0	1287.1	1279.2	1271.3	1263.3	1259.4
27.5°	1263.3	1239.6	1219.8	1211.9	1203.9	1192.1	1172.3	1160.4	1156.4	1152.5	1148.5
30°	1152.5	1132.7	1112.9	1101.0	1089.1	1077.2	1065.3	1053.4	1049.5	1041.6	1033.6
32.5°	1049.5	1029.7	1009.9	1002.0	994.0	974.2	962.4	954.4	950.5	934.6	930.7
35°	942.6	926.7	914.8	906.9	903.0	887.1	879.2	859.4	851.5	843.5	839.6
37.5°	831.7	815.8	803.9	803.9	796.0	788.1	780.2	772.3	756.4	752.5	748.5
40°	724.7	712.9	704.9	697.0	697.0	693.1	685.1	685.1	673.3	665.3	653.5
42.5°	625.7	617.8	609.9	609.9	605.9	602.0	594.0	594.0	586.1	578.2	566.3
45°	534.6	522.8	518.8	518.8	514.8	510.9	506.9	506.9	499.0	491.1	483.2
47.5°	451.5	443.6	439.6	435.6	431.7	431.7	427.7	423.8	419.8	411.9	404.0
50°	380.2	372.3	368.3	364.3	364.3	360.4	356.4	348.5	348.5	336.6	328.7
52.5°	316.8	312.9	304.9	301.0	297.0	293.1	289.1	285.1	277.2	269.3	265.3
55°	257.4	249.5	245.5	241.6	237.6	233.7	229.7	225.7	221.8	209.9	202.0
57.5°	205.9	198.0	194.1	194.1	190.1	182.2	178.2	174.3	166.3	158.4	146.5
60°	162.4	158.4	150.5	150.5	146.5	138.6	134.7	126.7	118.8	106.9	99.0
62.5°	126.7	122.8	114.8	110.9	110.9	103.0	95.0	87.1	79.2	71.3	59.4
65°	95.0	91.1	87.1	83.2	79.2	71.3	63.4	55.4	47.5	35.6	23.8
67.5°	71.3	67.3	59.4	59.4	55.4	47.5	39.6	31.7	19.8	11.9	4.0
70°	51.5	47.5	39.6	35.6	35.6	27.7	19.8	11.9	0.0	0.0	0.0
72.5°	35.6	31.7	23.8	19.8	19.8	11.9	4.0	0.0	0.0	0.0	0.0
75°	23.8	19.8	11.9	11.9	7.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	11.9	7.9	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.0	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°	4.0	0.0	0.0	0.0	4.0	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: P238332

CATALOG NUMBER: PRS640D010-S6M24-61SWWC

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0	2091.0
2.5°	2051.4	2047.5	2047.5	2047.5	2043.5	2047.5	2047.5	2047.5
5°	1996.0	1996.0	1992.0	1992.0	1992.0	1988.1	1988.1	1988.1
7.5°	1928.7	1928.7	1924.7	1924.7	1924.7	1920.8	1916.8	1916.8
10°	1853.4	1853.4	1849.5	1849.5	1849.5	1845.5	1841.5	1841.5
12.5°	1766.3	1766.3	1766.3	1762.3	1762.3	1762.3	1758.4	1762.3
15°	1679.2	1675.2	1675.2	1671.3	1667.3	1667.3	1667.3	1667.3
17.5°	1576.2	1572.2	1572.2	1568.3	1572.2	1568.3	1568.3	1568.3
20°	1469.3	1469.3	1469.3	1469.3	1469.3	1469.3	1473.2	1473.2
22.5°	1366.3	1362.4	1366.3	1362.4	1362.4	1366.3	1366.3	1370.3
25°	1259.4	1255.4	1255.4	1259.4	1259.4	1259.4	1263.3	1263.3
27.5°	1140.6	1148.5	1148.5	1152.5	1152.5	1156.4	1160.4	1156.4
30°	1037.6	1037.6	1037.6	1041.6	1045.5	1049.5	1053.4	1053.4
32.5°	926.7	930.7	934.6	930.7	934.6	942.6	950.5	954.4
35°	835.6	827.7	823.7	823.7	827.7	831.7	835.6	839.6
37.5°	736.6	732.7	728.7	720.8	724.7	728.7	728.7	728.7
40°	645.5	637.6	633.7	629.7	625.7	621.8	621.8	621.8
42.5°	558.4	550.5	542.6	542.6	530.7	526.7	526.7	522.8
45°	475.2	467.3	459.4	459.4	447.5	435.6	431.7	431.7
47.5°	396.0	384.2	380.2	376.2	364.3	352.5	344.5	340.6
50°	320.8	308.9	304.9	301.0	289.1	273.3	265.3	261.4
52.5°	253.5	241.6	233.7	229.7	213.9	202.0	194.1	190.1
55°	190.1	182.2	174.3	170.3	154.5	138.6	126.7	126.7
57.5°	138.6	122.8	118.8	114.8	99.0	87.1	75.2	71.3
60°	91.1	75.2	71.3	67.3	51.5	39.6	35.6	31.7
62.5°	47.5	35.6	31.7	27.7	19.8	11.9	7.9	7.9
65°	15.8	4.0	4.0	0.0	0.0	0.0	0.0	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)