

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: P238347

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238347
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
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" WALL WASH DISTRIBUTION, WW TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2858.2 lumens
Efficiency: N/A
Efficacy: 75.2 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

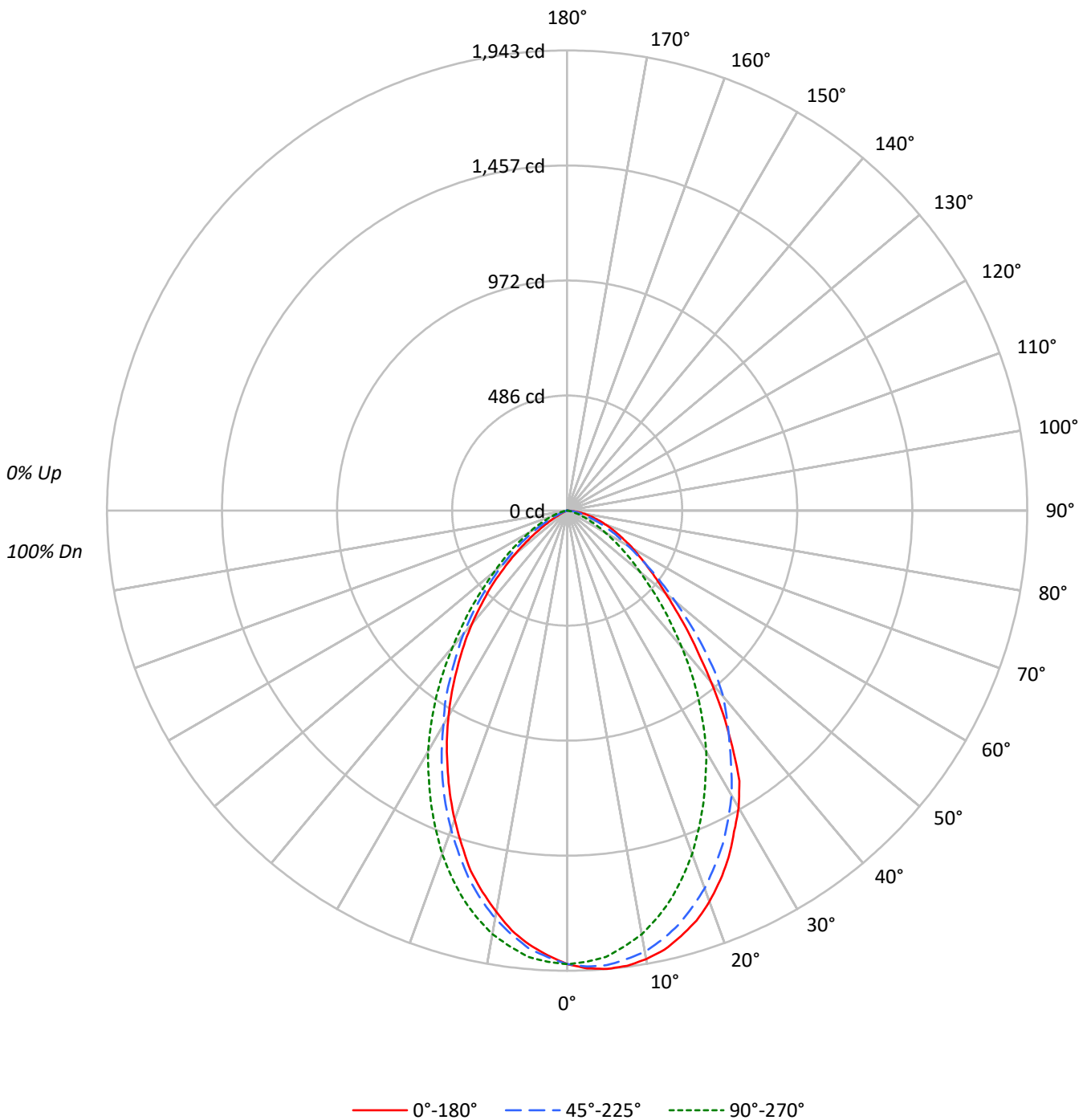
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	82447	82447	82447
5°	83959	81738	79516
10°	84069	79395	75246
15°	82891	75656	70191
20°	80490	70699	63629
25°	76690	64657	56766
30°	71994	58422	49766
35°	63841	50743	42422
40°	53148	42249	35134
45°	43847	34208	27461
50°	36305	26766	19345
55°	31182	21086	11583
60°	27599	16017	5106
65°	24186	11685	1610
70°	21917	7969	995
75°	19081	5273	665
80°	16687	2951	0
85°	11708	1976	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	178.1	6.2
10°-20°	478.3	16.7
20°-30°	637.5	22.3
30°-40°	629.2	22.0
40°-50°	471.9	16.5
50°-60°	276.9	9.7
60°-70°	128.9	4.5
70°-80°	48.4	1.7
80°-90°	9.1	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°	1293.8	45.3
0°-40°	1923.1	67.3
0°-60°	2671.8	93.5
0°-90°	2858.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2858.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1915	1915	1915	1915	1915	
5°	1943	1927	1891	1856	1840	185
15°	1860	1812	1697	1606	1575	523
25°	1614	1555	1361	1246	1195	740
35°	1215	1195	965	859	807	754
45°	720	807	562	506	451	559
55°	415	423	281	233	154	376
65°	237	206	115	55	16	239
75°	115	83	32	4	4	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°	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9
2.5°	1934.7	1934.7	1934.7	1934.7	1930.8	1930.8	1930.8	1930.8	1930.8	1926.8	1926.8
5°	1942.6	1942.6	1938.7	1938.7	1938.7	1938.7	1934.7	1934.7	1930.8	1930.8	1926.8
7.5°	1938.7	1934.7	1934.7	1934.7	1930.8	1930.8	1930.8	1926.8	1922.9	1918.9	1911.0
10°	1922.9	1922.9	1922.9	1918.9	1914.9	1914.9	1914.9	1907.0	1903.1	1895.2	1891.2
12.5°	1899.1	1895.2	1895.2	1891.2	1887.3	1887.3	1883.3	1875.4	1871.4	1863.5	1855.6
15°	1859.6	1859.6	1859.6	1855.6	1851.6	1847.7	1843.7	1839.8	1831.9	1824.0	1812.1
17.5°	1816.0	1812.1	1812.1	1808.1	1800.2	1800.2	1796.3	1788.3	1780.4	1772.5	1756.7
20°	1756.7	1756.7	1756.7	1752.7	1748.8	1740.9	1740.9	1729.0	1721.1	1709.2	1697.3
22.5°	1689.4	1689.4	1689.4	1685.5	1681.5	1677.6	1673.6	1665.7	1653.8	1642.0	1626.1
25°	1614.3	1610.3	1610.3	1610.3	1606.3	1602.4	1598.4	1590.5	1582.6	1570.7	1554.9
27.5°	1527.2	1523.3	1523.3	1523.3	1519.3	1515.3	1511.4	1511.4	1503.5	1487.6	1471.8
30°	1448.1	1448.1	1448.1	1440.2	1432.3	1428.3	1428.3	1420.4	1408.5	1400.6	1388.7
32.5°	1353.1	1353.1	1357.1	1353.1	1353.1	1353.1	1345.2	1337.3	1321.5	1309.6	1289.8
35°	1214.6	1222.6	1226.5	1234.4	1242.3	1250.3	1254.2	1254.2	1238.4	1218.6	1194.9
37.5°	1080.1	1084.1	1088.0	1103.9	1111.8	1119.7	1123.6	1139.5	1151.3	1131.6	1107.8
40°	945.6	949.6	961.4	965.4	985.2	989.1	1001.0	1016.8	1032.6	1036.6	1024.7
42.5°	823.0	826.9	834.8	842.7	862.5	874.4	878.3	890.2	910.0	925.8	921.9
45°	720.1	720.1	724.0	735.9	747.8	755.7	767.6	783.4	799.2	807.1	807.1
47.5°	621.2	621.2	625.1	637.0	652.8	652.8	660.7	676.6	696.3	696.3	696.3
50°	542.0	546.0	546.0	553.9	561.8	565.8	573.7	589.5	597.4	597.4	593.5
52.5°	474.8	474.8	478.7	482.7	486.7	494.6	494.6	502.5	510.4	510.4	502.5
55°	415.4	415.4	415.4	419.4	423.3	427.3	431.3	435.2	431.3	427.3	423.3
57.5°	364.0	364.0	364.0	364.0	368.0	371.9	371.9	371.9	368.0	364.0	352.1
60°	320.5	320.5	320.5	320.5	320.5	320.5	320.5	316.5	308.6	304.7	296.7
62.5°	277.0	277.0	277.0	277.0	277.0	277.0	273.0	269.0	265.1	253.2	245.3
65°	237.4	241.3	241.3	237.4	237.4	233.4	233.4	225.5	221.6	213.7	205.7
67.5°	205.7	205.7	205.7	205.7	201.8	197.8	197.8	189.9	186.0	178.0	166.2
70°	174.1	174.1	170.1	170.1	170.1	166.2	162.2	158.3	150.3	142.4	134.5
72.5°	142.4	142.4	142.4	142.4	134.5	134.5	130.6	126.6	118.7	114.7	106.8
75°	114.7	114.7	114.7	110.8	110.8	106.8	102.9	98.9	95.0	87.0	83.1
77.5°	91.0	91.0	91.0	87.0	83.1	83.1	79.1	75.2	71.2	67.3	59.3
80°	67.3	67.3	63.3	63.3	59.3	59.3	59.3	55.4	51.4	47.5	43.5
82.5°	43.5	43.5	43.5	43.5	39.6	39.6	35.6	35.6	31.7	27.7	27.7
85°	23.7	23.7	23.7	23.7	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	4.0	7.9	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°	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9
2.5°	1922.9	1922.9	1918.9	1918.9	1918.9	1914.9	1914.9	1911.0	1911.0	1907.0	1907.0
5°	1922.9	1918.9	1914.9	1911.0	1907.0	1907.0	1903.1	1895.2	1891.2	1891.2	1883.3
7.5°	1907.0	1903.1	1895.2	1891.2	1887.3	1883.3	1875.4	1871.4	1863.5	1855.6	1851.6
10°	1883.3	1875.4	1863.5	1855.6	1855.6	1847.7	1839.8	1831.9	1820.0	1816.0	1804.2
12.5°	1843.7	1831.9	1824.0	1816.0	1808.1	1804.2	1792.3	1784.4	1768.6	1760.6	1748.8
15°	1800.2	1788.3	1776.5	1760.6	1756.7	1748.8	1736.9	1721.1	1713.2	1697.3	1685.5
17.5°	1748.8	1729.0	1717.1	1701.3	1693.4	1685.5	1665.7	1653.8	1642.0	1622.2	1610.3
20°	1681.5	1665.7	1649.9	1630.1	1622.2	1610.3	1594.5	1574.7	1558.9	1543.0	1527.2
22.5°	1610.3	1594.5	1574.7	1554.9	1543.0	1531.2	1511.4	1491.6	1471.8	1452.0	1440.2
25°	1531.2	1511.4	1491.6	1471.8	1456.0	1448.1	1424.3	1404.6	1380.8	1361.0	1345.2
27.5°	1452.0	1432.3	1408.5	1380.8	1365.0	1357.1	1333.3	1305.6	1281.9	1266.1	1246.3
30°	1365.0	1341.3	1313.6	1289.8	1274.0	1262.1	1242.3	1214.6	1194.9	1175.1	1147.4
32.5°	1270.0	1246.3	1226.5	1194.9	1183.0	1171.1	1143.4	1115.7	1088.0	1068.3	1052.4
35°	1175.1	1159.3	1135.5	1103.9	1084.1	1068.3	1032.6	1008.9	985.2	965.4	949.6
37.5°	1088.0	1064.3	1024.7	989.1	973.3	961.4	921.9	898.1	870.4	858.6	834.8
40°	993.1	957.5	921.9	886.3	870.4	854.6	826.9	791.3	771.5	751.7	735.9
42.5°	898.1	850.6	815.0	783.4	763.6	747.8	716.1	688.4	664.7	652.8	637.0
45°	791.3	755.7	716.1	680.5	668.6	648.9	621.2	597.4	577.7	561.8	550.0
47.5°	680.5	660.7	621.2	589.5	573.7	557.9	534.1	510.4	490.6	474.8	466.9
50°	581.6	565.8	538.1	502.5	490.6	474.8	451.0	435.2	415.4	399.6	391.7
52.5°	490.6	474.8	455.0	427.3	411.5	403.6	379.8	364.0	352.1	340.3	328.4
55°	411.5	395.7	379.8	356.1	344.2	332.3	316.5	300.7	288.8	280.9	273.0
57.5°	344.2	328.4	312.6	296.7	284.9	277.0	261.1	253.2	241.3	229.5	225.5
60°	284.9	273.0	261.1	245.3	237.4	225.5	213.7	201.8	193.9	186.0	178.0
62.5°	237.4	225.5	213.7	197.8	193.9	186.0	174.1	162.2	154.3	150.3	142.4
65°	193.9	182.0	174.1	162.2	154.3	150.3	138.5	130.6	122.7	114.7	106.8
67.5°	158.3	150.3	142.4	130.6	122.7	118.7	106.8	98.9	95.0	87.0	83.1
70°	126.6	118.7	110.8	102.9	95.0	91.0	83.1	75.2	71.2	63.3	59.3
72.5°	98.9	91.0	87.0	75.2	71.2	67.3	59.3	55.4	51.4	47.5	43.5
75°	75.2	71.2	63.3	55.4	51.4	51.4	43.5	39.6	35.6	31.7	27.7
77.5°	55.4	51.4	43.5	39.6	35.6	35.6	31.7	27.7	23.7	19.8	19.8
80°	39.6	31.7	27.7	23.7	23.7	19.8	19.8	15.8	11.9	11.9	7.9
82.5°	23.7	19.8	15.8	15.8	11.9	11.9	11.9	7.9	7.9	4.0	4.0
85°	11.9	7.9	7.9	7.9	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°	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9
2.5°	1903.1	1899.1	1899.1	1899.1	1895.2	1895.2	1891.2	1891.2	1887.3	1887.3	1887.3
5°	1879.3	1875.4	1871.4	1867.5	1867.5	1863.5	1859.6	1859.6	1855.6	1851.6	1847.7
7.5°	1843.7	1839.8	1835.8	1827.9	1824.0	1820.0	1816.0	1808.1	1804.2	1800.2	1800.2
10°	1796.3	1788.3	1780.4	1776.5	1776.5	1764.6	1760.6	1756.7	1748.8	1744.8	1736.9
12.5°	1736.9	1729.0	1721.1	1713.2	1709.2	1701.3	1697.3	1689.4	1681.5	1673.6	1665.7
15°	1673.6	1661.7	1649.9	1645.9	1638.0	1634.0	1622.2	1610.3	1606.3	1598.4	1594.5
17.5°	1594.5	1578.6	1574.7	1566.8	1558.9	1551.0	1543.0	1531.2	1519.3	1515.3	1503.5
20°	1511.4	1499.5	1483.7	1479.7	1471.8	1463.9	1452.0	1440.2	1432.3	1424.3	1416.4
22.5°	1420.4	1412.5	1392.7	1388.7	1380.8	1369.0	1357.1	1345.2	1341.3	1329.4	1321.5
25°	1329.4	1309.6	1297.7	1289.8	1285.9	1274.0	1266.1	1254.2	1246.3	1234.4	1226.5
27.5°	1226.5	1214.6	1202.8	1190.9	1187.0	1179.0	1167.2	1155.3	1147.4	1135.5	1127.6
30°	1135.5	1119.7	1103.9	1096.0	1092.0	1076.2	1068.3	1060.3	1044.5	1036.6	1032.6
32.5°	1032.6	1016.8	1005.0	1005.0	993.1	985.2	969.3	961.4	957.5	941.6	933.7
35°	929.8	917.9	910.0	906.0	902.1	886.3	878.3	870.4	858.6	854.6	842.7
37.5°	826.9	811.1	803.2	799.2	795.3	791.3	787.3	775.5	767.6	759.6	751.7
40°	720.1	712.2	704.3	704.3	700.3	696.3	688.4	684.5	680.5	672.6	664.7
42.5°	629.1	617.2	613.3	609.3	609.3	601.4	601.4	597.4	593.5	585.6	577.7
45°	538.1	530.2	526.2	518.3	518.3	514.3	514.3	514.3	506.4	502.5	498.5
47.5°	459.0	451.0	447.1	443.1	439.2	435.2	435.2	435.2	427.3	427.3	419.4
50°	383.8	375.9	375.9	375.9	371.9	368.0	364.0	356.1	356.1	352.1	348.2
52.5°	324.4	316.5	312.6	308.6	308.6	304.7	300.7	296.7	288.8	284.9	280.9
55°	265.1	261.1	253.2	253.2	249.3	245.3	241.3	237.4	233.4	221.6	217.6
57.5°	217.6	209.7	205.7	201.8	201.8	197.8	189.9	186.0	178.0	170.1	162.2
60°	174.1	166.2	162.2	158.3	158.3	150.3	146.4	138.5	130.6	122.7	114.7
62.5°	134.5	130.6	122.7	118.7	118.7	114.7	106.8	98.9	91.0	83.1	71.2
65°	102.9	98.9	91.0	91.0	87.0	79.1	71.2	63.3	55.4	47.5	39.6
67.5°	75.2	71.2	67.3	63.3	59.3	51.4	43.5	35.6	27.7	19.8	11.9
70°	55.4	51.4	43.5	43.5	39.6	31.7	23.7	15.8	11.9	7.9	7.9
72.5°	35.6	31.7	27.7	23.7	19.8	15.8	7.9	4.0	4.0	4.0	4.0
75°	23.7	19.8	15.8	11.9	11.9	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	15.8	11.9	7.9	4.0	4.0	0.0	4.0	4.0	0.0	4.0	4.0
80°	7.9	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	4.0	4.0	4.0	4.0	0.0	4.0	0.0	4.0	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: P238347

CATALOG NUMBER: PRS640D010-S6M24-61SWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9	1914.9
2.5°	1883.3	1883.3	1883.3	1883.3	1883.3	1883.3	1883.3	1879.3
5°	1843.7	1843.7	1843.7	1843.7	1839.8	1839.8	1839.8	1839.8
7.5°	1796.3	1792.3	1788.3	1788.3	1788.3	1784.4	1784.4	1788.3
10°	1733.0	1733.0	1729.0	1729.0	1725.0	1725.0	1725.0	1721.1
12.5°	1661.7	1657.8	1657.8	1649.9	1653.8	1649.9	1645.9	1649.9
15°	1582.6	1578.6	1574.7	1574.7	1574.7	1570.7	1570.7	1574.7
17.5°	1499.5	1491.6	1487.6	1491.6	1483.7	1483.7	1483.7	1479.7
20°	1408.5	1400.6	1396.6	1396.6	1392.7	1388.7	1388.7	1388.7
22.5°	1313.6	1309.6	1301.7	1301.7	1297.7	1297.7	1293.8	1293.8
25°	1222.6	1210.7	1210.7	1206.7	1198.8	1202.8	1194.9	1194.9
27.5°	1119.7	1115.7	1115.7	1111.8	1103.9	1099.9	1096.0	1099.9
30°	1024.7	1016.8	1012.9	1008.9	1008.9	1008.9	1005.0	1001.0
32.5°	929.8	921.9	914.0	914.0	914.0	906.0	906.0	906.0
35°	834.8	830.9	823.0	819.0	819.0	815.0	811.1	807.1
37.5°	743.8	735.9	732.0	724.0	724.0	716.1	712.2	716.1
40°	652.8	644.9	641.0	641.0	633.0	625.1	625.1	625.1
42.5°	569.7	557.9	557.9	550.0	542.0	538.1	530.2	534.1
45°	490.6	478.7	474.8	474.8	459.0	455.0	451.0	451.0
47.5°	411.5	407.5	399.6	391.7	379.8	368.0	364.0	364.0
50°	340.3	328.4	324.4	320.5	304.7	296.7	288.8	288.8
52.5°	273.0	261.1	253.2	249.3	237.4	225.5	221.6	217.6
55°	209.7	197.8	193.9	189.9	174.1	166.2	158.3	154.3
57.5°	154.3	146.4	138.5	130.6	118.7	110.8	102.9	98.9
60°	106.8	95.0	91.0	87.0	75.2	67.3	59.3	59.3
62.5°	67.3	55.4	51.4	47.5	39.6	31.7	31.7	31.7
65°	27.7	19.8	19.8	19.8	15.8	15.8	15.8	15.8
67.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9
70°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	4.0	4.0	4.0	4.0	0.0	0.0	4.0	4.0
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)