

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: P242006

Luminaire Tested: **PRS430D010-S4M24-41SWWC-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P242006
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-61)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS430D010-S4M24-41SWWC-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WALL WASH DISTRIBUTION, WW TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1560.5 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 0.9 / 0.99
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

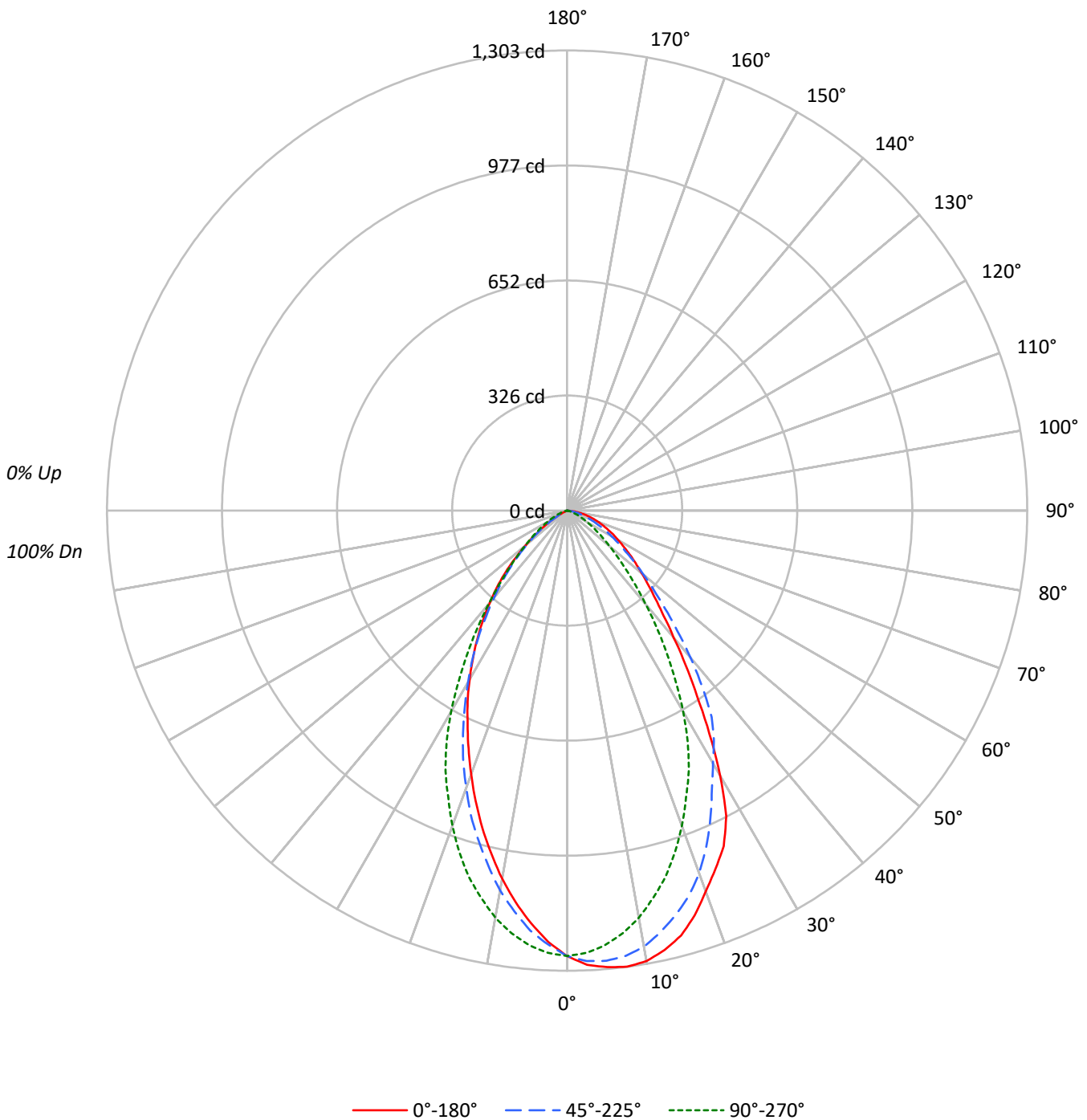
Input Watts (W): 25
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	92	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	58	53	63	57	52	62	56	52	60	55	52	50
8	72	60	53	49	70	60	53	48	59	53	48	58	52	48	56	51	48	46
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	96544	96544	96544
5°	99702	94915	90128
10°	100653	90976	82302
15°	98714	85139	73625
20°	93438	77375	64684
25°	88552	68823	56332
30°	76612	58033	48859
35°	59896	45833	41470
40°	46933	34492	33973
45°	38212	25287	26683
50°	32759	18541	18541
55°	28745	13852	11076
60°	25428	9935	5159
65°	23038	7045	942
70°	20903	4655	0
75°	18425	3076	0
80°	14855	1146	0
85°	9134	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.0	7.4
10°-20°	301.5	19.3
20°-30°	380.5	24.4
30°-40°	337.3	21.6
40°-50°	223.8	14.3
50°-60°	121.8	7.8
60°-70°	54.7	3.5
70°-80°	21.2	1.4
80°-90°	3.6	0.2
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°	798.0	51.1
0°-40°	1135.4	72.8
0°-60°	1481.0	94.9
0°-90°	1560.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1560.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1261	1261	1261	1261	1261	
5°	1298	1280	1235	1194	1173	124
15°	1246	1186	1074	968	929	348
25°	1048	960	815	698	667	474
35°	641	714	490	439	444	405
45°	353	392	234	226	246	277
55°	215	202	104	80	83	194
65°	127	99	39	3	5	127
75°	62	39	10	0	0	67
85°	10	5	0	0	0	14
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°	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3
2.5°	1287.2	1284.6	1284.6	1284.6	1282.0	1282.0	1282.0	1282.0	1279.5	1276.9	1276.9
5°	1297.6	1300.2	1297.6	1295.0	1295.0	1295.0	1292.4	1289.8	1287.2	1284.6	1279.5
7.5°	1302.8	1300.2	1300.2	1297.6	1295.0	1292.4	1289.8	1287.2	1282.0	1276.9	1271.7
10°	1295.0	1292.4	1289.8	1289.8	1282.0	1282.0	1279.5	1274.3	1266.5	1261.3	1253.5
12.5°	1274.3	1274.3	1271.7	1269.1	1261.3	1261.3	1256.1	1250.9	1243.1	1232.7	1222.4
15°	1245.7	1245.7	1240.5	1237.9	1232.7	1230.1	1225.0	1217.2	1209.4	1199.0	1186.0
17.5°	1201.6	1201.6	1199.0	1193.8	1191.2	1188.6	1180.8	1175.6	1165.3	1154.9	1144.5
20°	1147.1	1141.9	1141.9	1139.3	1134.1	1131.5	1128.9	1121.1	1113.4	1103.0	1092.6
22.5°	1097.8	1095.2	1087.4	1082.2	1074.4	1069.2	1066.6	1056.3	1051.1	1043.3	1030.3
25°	1048.5	1043.3	1040.7	1032.9	1022.5	1019.9	1012.1	996.6	986.2	973.2	960.2
27.5°	975.8	975.8	978.4	975.8	965.4	962.8	957.6	944.7	923.9	903.1	887.6
30°	866.8	864.2	866.8	872.0	879.8	882.4	887.6	885.0	869.4	846.0	825.3
32.5°	750.0	750.0	760.4	768.2	776.0	778.6	783.8	796.7	796.7	789.0	773.4
35°	641.0	646.2	654.0	661.8	672.2	674.8	687.7	690.3	705.9	716.3	713.7
37.5°	550.2	555.4	558.0	565.8	576.1	578.7	583.9	602.1	620.3	633.2	628.0
40°	469.7	469.7	477.5	485.3	495.7	498.3	506.1	516.5	537.2	542.4	542.4
42.5°	404.9	407.5	410.0	415.2	423.0	428.2	433.4	449.0	459.4	467.1	462.0
45°	353.0	355.5	358.1	363.3	368.5	371.1	376.3	386.7	394.5	394.5	391.9
47.5°	311.4	311.4	314.0	316.6	321.8	324.4	329.6	334.8	337.4	334.8	332.2
50°	275.1	277.7	277.7	280.3	282.9	288.1	290.7	290.7	290.7	288.1	282.9
52.5°	244.0	244.0	246.5	246.5	251.7	254.3	254.3	254.3	251.7	246.5	238.8
55°	215.4	215.4	215.4	218.0	223.2	223.2	223.2	220.6	218.0	210.2	202.4
57.5°	189.5	192.0	192.0	192.0	194.6	194.6	194.6	192.0	186.9	179.1	171.3
60°	166.1	168.7	168.7	168.7	171.3	171.3	168.7	166.1	160.9	150.5	145.3
62.5°	147.9	147.9	147.9	147.9	147.9	147.9	145.3	140.1	135.0	127.2	122.0
65°	127.2	127.2	127.2	129.8	127.2	124.6	124.6	119.4	114.2	106.4	98.6
67.5°	109.0	109.0	109.0	109.0	106.4	106.4	103.8	98.6	93.4	88.2	80.5
70°	93.4	93.4	93.4	90.8	88.2	88.2	85.6	80.5	75.3	70.1	64.9
72.5°	77.9	77.9	77.9	75.3	72.7	70.1	70.1	64.9	59.7	54.5	51.9
75°	62.3	62.3	62.3	59.7	57.1	54.5	54.5	49.3	46.7	44.1	38.9
77.5°	49.3	49.3	46.7	44.1	44.1	41.5	41.5	38.9	36.3	31.1	28.5
80°	33.7	33.7	33.7	33.7	31.1	28.5	28.5	26.0	23.4	20.8	18.2
82.5°	23.4	23.4	20.8	20.8	18.2	18.2	18.2	15.6	15.6	13.0	10.4
85°	10.4	10.4	10.4	10.4	7.8	7.8	7.8	7.8	7.8	5.2	5.2
87.5°	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.6	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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3
2.5°	1274.3	1271.7	1271.7	1266.5	1266.5	1263.9	1261.3	1258.7	1256.1	1253.5	1250.9
5°	1276.9	1271.7	1266.5	1261.3	1261.3	1256.1	1250.9	1245.7	1243.1	1235.3	1230.1
7.5°	1266.5	1258.7	1253.5	1245.7	1243.1	1237.9	1230.1	1222.4	1214.6	1206.8	1199.0
10°	1245.7	1235.3	1227.5	1219.8	1212.0	1209.4	1199.0	1191.2	1178.2	1170.5	1162.7
12.5°	1214.6	1204.2	1193.8	1180.8	1178.2	1173.0	1160.1	1147.1	1136.7	1123.7	1113.4
15°	1175.6	1165.3	1149.7	1139.3	1131.5	1123.7	1113.4	1100.4	1084.8	1074.4	1061.5
17.5°	1131.5	1116.0	1100.4	1087.4	1077.0	1071.8	1053.7	1038.1	1027.7	1014.7	1001.8
20°	1079.6	1061.5	1043.3	1025.1	1017.3	1007.0	991.4	975.8	960.2	949.9	931.7
22.5°	1017.3	999.2	981.0	960.2	955.0	944.7	926.5	910.9	898.0	879.8	864.2
25°	947.3	931.7	918.7	900.5	890.2	879.8	864.2	846.0	827.9	814.9	796.7
27.5°	877.2	866.8	853.8	835.7	825.3	814.9	794.1	776.0	752.6	739.6	718.9
30°	809.7	801.9	783.8	765.6	747.4	739.6	711.1	690.3	669.6	656.6	641.0
32.5°	750.0	726.7	703.3	677.4	667.0	656.6	628.0	607.3	589.1	571.0	555.4
35°	682.5	646.2	620.3	596.9	583.9	573.5	550.2	526.8	511.3	490.5	480.1
37.5°	609.9	578.7	547.6	519.0	508.7	493.1	474.9	449.0	433.4	415.2	399.7
40°	532.0	511.3	477.5	449.0	436.0	425.6	402.3	381.5	360.7	345.2	334.8
42.5°	451.6	438.6	412.6	384.1	371.1	360.7	340.0	316.6	298.5	285.5	272.5
45°	384.1	373.7	353.0	327.0	311.4	301.0	280.3	259.5	244.0	233.6	225.8
47.5°	324.4	314.0	295.9	272.5	259.5	249.1	228.4	210.2	199.8	192.0	186.9
50°	272.5	259.5	244.0	228.4	215.4	205.0	186.9	173.9	163.5	155.7	153.1
52.5°	228.4	218.0	202.4	186.9	176.5	168.7	150.5	140.1	135.0	127.2	122.0
55°	192.0	181.7	168.7	153.1	145.3	137.5	124.6	116.8	109.0	103.8	98.6
57.5°	160.9	150.5	137.5	124.6	116.8	111.6	101.2	93.4	88.2	83.0	77.9
60°	135.0	124.6	114.2	101.2	96.0	90.8	83.0	75.3	70.1	64.9	59.7
62.5°	111.6	101.2	90.8	80.5	77.9	72.7	67.5	59.7	54.5	51.9	46.7
65°	93.4	83.0	72.7	64.9	62.3	57.1	51.9	46.7	41.5	38.9	36.3
67.5°	75.3	64.9	57.1	51.9	49.3	46.7	41.5	36.3	33.7	28.5	26.0
70°	59.7	51.9	44.1	38.9	36.3	33.7	31.1	28.5	23.4	20.8	18.2
72.5°	44.1	38.9	33.7	28.5	28.5	26.0	23.4	20.8	18.2	15.6	13.0
75°	33.7	28.5	26.0	20.8	20.8	18.2	15.6	13.0	10.4	10.4	7.8
77.5°	23.4	20.8	18.2	15.6	13.0	13.0	10.4	7.8	7.8	5.2	5.2
80°	15.6	13.0	10.4	7.8	7.8	7.8	5.2	5.2	5.2	2.6	2.6
82.5°	10.4	7.8	5.2	5.2	5.2	2.6	2.6	2.6	2.6	2.6	0.0
85°	2.6	2.6	2.6	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3
2.5°	1248.3	1245.7	1243.1	1240.5	1240.5	1235.3	1235.3	1232.7	1230.1	1230.1	1227.5
5°	1225.0	1219.8	1214.6	1212.0	1212.0	1204.2	1199.0	1196.4	1193.8	1191.2	1186.0
7.5°	1191.2	1186.0	1178.2	1173.0	1170.5	1162.7	1157.5	1149.7	1144.5	1141.9	1134.1
10°	1152.3	1144.5	1131.5	1128.9	1123.7	1116.0	1108.2	1100.4	1092.6	1084.8	1079.6
12.5°	1103.0	1090.0	1082.2	1074.4	1069.2	1061.5	1048.5	1038.1	1030.3	1025.1	1017.3
15°	1048.5	1035.5	1025.1	1017.3	1012.1	1001.8	986.2	978.4	968.0	957.6	955.0
17.5°	986.2	970.6	960.2	952.5	944.7	936.9	921.3	913.5	905.7	895.4	887.6
20°	918.7	903.1	892.8	882.4	874.6	866.8	856.4	843.5	835.7	830.5	820.1
22.5°	848.6	835.7	820.1	814.9	809.7	791.5	783.8	773.4	768.2	760.4	755.2
25°	781.2	763.0	752.6	744.8	737.0	724.1	711.1	703.3	698.1	692.9	685.1
27.5°	705.9	695.5	682.5	672.2	669.6	656.6	643.6	635.8	628.0	622.9	615.1
30°	625.5	612.5	602.1	602.1	596.9	586.5	581.3	571.0	560.6	558.0	555.4
32.5°	542.4	534.6	526.8	521.6	521.6	513.9	506.1	503.5	498.3	493.1	493.1
35°	467.1	459.4	451.6	449.0	449.0	443.8	441.2	438.6	438.6	436.0	433.4
37.5°	394.5	384.1	376.3	376.3	376.3	376.3	376.3	376.3	376.3	381.5	378.9
40°	327.0	321.8	319.2	316.6	316.6	316.6	319.2	319.2	321.8	327.0	329.6
42.5°	267.3	267.3	264.7	264.7	262.1	264.7	267.3	269.9	272.5	272.5	277.7
45°	223.2	220.6	218.0	218.0	220.6	218.0	220.6	225.8	225.8	228.4	231.0
47.5°	181.7	179.1	179.1	179.1	179.1	179.1	179.1	181.7	184.3	184.3	186.9
50°	147.9	145.3	142.7	145.3	142.7	142.7	145.3	145.3	145.3	147.9	147.9
52.5°	116.8	114.2	111.6	111.6	111.6	111.6	111.6	111.6	111.6	111.6	111.6
55°	90.8	88.2	85.6	85.6	83.0	83.0	80.5	80.5	80.5	80.5	80.5
57.5°	72.7	67.5	64.9	62.3	62.3	57.1	54.5	54.5	51.9	51.9	51.9
60°	54.5	51.9	46.7	46.7	44.1	38.9	36.3	31.1	31.1	28.5	28.5
62.5°	41.5	38.9	36.3	33.7	31.1	26.0	20.8	15.6	10.4	10.4	13.0
65°	31.1	28.5	23.4	20.8	20.8	15.6	10.4	5.2	2.6	2.6	5.2
67.5°	23.4	20.8	15.6	13.0	10.4	7.8	2.6	0.0	0.0	0.0	0.0
70°	15.6	13.0	7.8	7.8	5.2	2.6	0.0	0.0	0.0	0.0	0.0
72.5°	10.4	7.8	5.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.6	0.0	0.0	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	0.0	0.0	0.0
82.5°	0.0	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°	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: P242006

CATALOG NUMBER: PRS430D010-S4M24-41SWWC-4000K

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3	1261.3
2.5°	1225.0	1225.0	1225.0	1225.0	1222.4	1222.4	1222.4	1222.4
5°	1186.0	1178.2	1178.2	1178.2	1178.2	1178.2	1175.6	1173.0
7.5°	1131.5	1126.3	1126.3	1123.7	1123.7	1121.1	1121.1	1118.5
10°	1074.4	1069.2	1069.2	1064.0	1064.0	1061.5	1058.9	1058.9
12.5°	1009.5	1004.4	1004.4	1004.4	999.2	999.2	994.0	994.0
15°	944.7	939.5	936.9	936.9	931.7	931.7	929.1	929.1
17.5°	877.2	874.6	869.4	869.4	866.8	861.6	861.6	861.6
20°	814.9	807.1	804.5	804.5	796.7	796.7	794.1	794.1
22.5°	747.4	742.2	739.6	737.0	731.9	734.5	729.3	729.3
25°	680.0	680.0	674.8	674.8	672.2	669.6	667.0	667.0
27.5°	615.1	615.1	612.5	612.5	609.9	607.3	607.3	609.9
30°	552.8	552.8	552.8	555.4	552.8	550.2	552.8	552.8
32.5°	493.1	493.1	495.7	493.1	495.7	495.7	495.7	495.7
35°	436.0	436.0	438.6	438.6	441.2	441.2	443.8	443.8
37.5°	378.9	384.1	384.1	384.1	389.3	389.3	391.9	391.9
40°	329.6	329.6	332.2	334.8	337.4	340.0	342.6	340.0
42.5°	280.3	280.3	282.9	285.5	288.1	290.7	293.3	293.3
45°	231.0	233.6	236.2	236.2	241.4	244.0	244.0	246.5
47.5°	186.9	192.0	192.0	192.0	194.6	197.2	199.8	197.2
50°	147.9	150.5	150.5	150.5	153.1	155.7	155.7	155.7
52.5°	111.6	114.2	114.2	114.2	116.8	116.8	116.8	119.4
55°	80.5	80.5	80.5	83.0	83.0	83.0	83.0	83.0
57.5°	51.9	51.9	51.9	54.5	57.1	57.1	54.5	54.5
60°	28.5	31.1	33.7	33.7	33.7	36.3	33.7	33.7
62.5°	15.6	18.2	18.2	18.2	18.2	18.2	18.2	18.2
65°	5.2	7.8	7.8	7.8	7.8	7.8	5.2	5.2
67.5°	2.6	2.6	2.6	2.6	2.6	0.0	2.6	2.6
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)