

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: P242001

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242001  
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  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" 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: 1640.8 lumens  
Efficiency: N/A  
Efficacy: 65.6 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

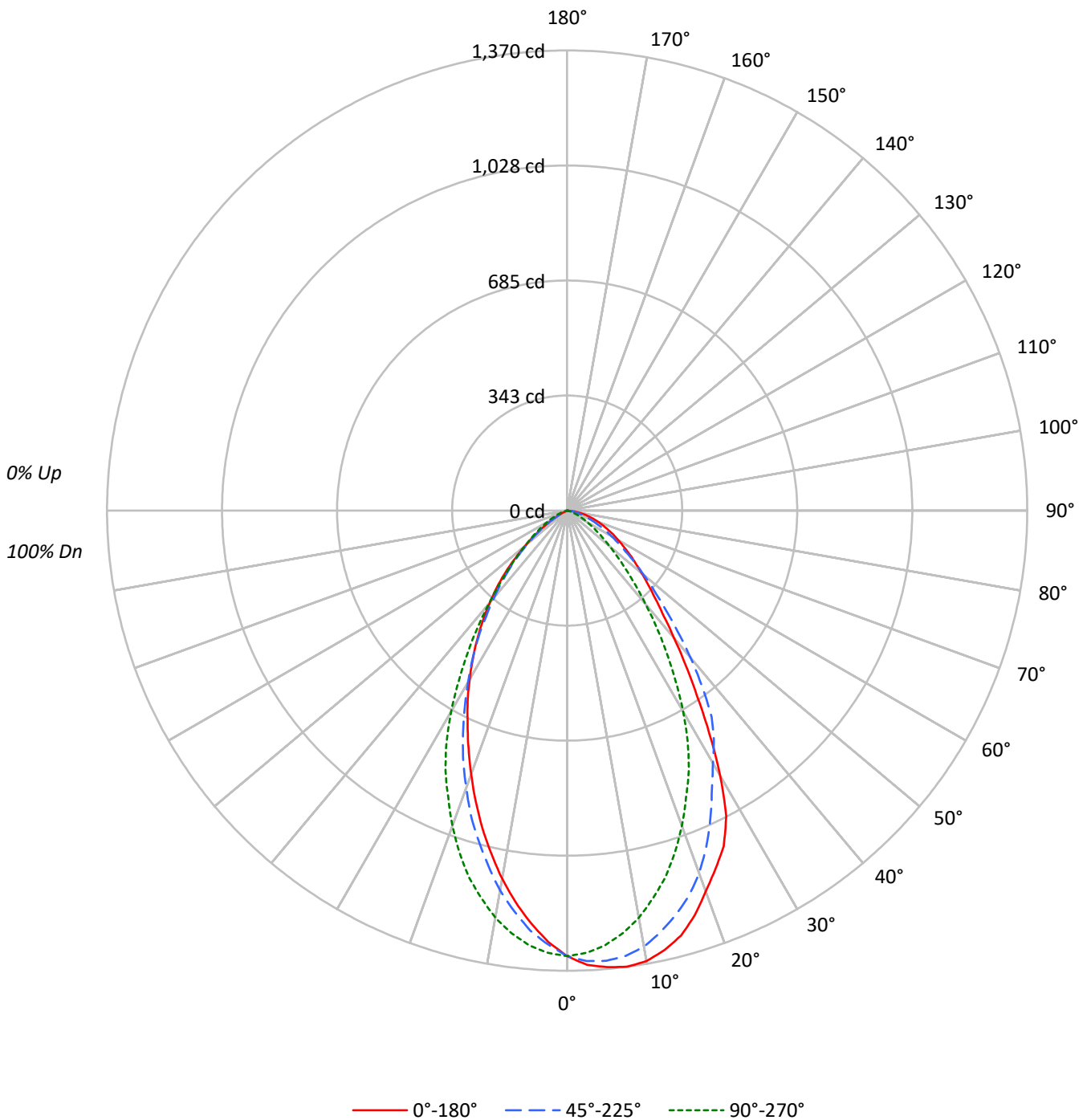
Input Watts (W): 25  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

### Luminous Intensity Polar Plot





TEST NUMBER: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	101512	101512	101512
5°	104835	99802	94769
10°	105829	95655	86530
15°	103793	89521	77413
20°	98244	81350	68016
25°	93105	72362	59229
30°	80554	61021	51369
35°	62980	48188	43600
40°	49351	36261	35722
45°	40171	26586	28058
50°	34438	19493	19493
55°	30226	14559	11650
60°	26729	10441	5435
65°	24215	7408	996
70°	21977	4879	0
75°	19371	3224	0
80°	15648	1190	0
85°	9573	0	0



TEST NUMBER: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.0	7.4
10°-20°	317.0	19.3
20°-30°	400.1	24.4
30°-40°	354.7	21.6
40°-50°	235.3	14.3
50°-60°	128.1	7.8
60°-70°	57.5	3.5
70°-80°	22.3	1.4
80°-90°	3.7	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°	839.1	51.1
0°-40°	1193.8	72.8
0°-60°	1557.2	94.9
0°-90°	1640.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1640.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1326	1326	1326	1326	1326	
5°	1364	1345	1299	1255	1233	130
15°	1310	1247	1130	1018	977	366
25°	1102	1010	857	734	701	499
35°	674	750	516	461	467	426
45°	371	412	246	237	259	291
55°	226	213	109	85	87	204
65°	134	104	41	3	6	134
75°	66	41	11	0	0	70
85°	11	6	0	0	0	14
90°	0	0	0	0	0	



TEST NUMBER: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2
2.5°	1353.5	1350.7	1350.7	1350.7	1348.0	1348.0	1348.0	1348.0	1345.3	1342.5	1342.5
5°	1364.4	1367.1	1364.4	1361.6	1361.6	1361.6	1358.9	1356.2	1353.5	1350.7	1345.3
7.5°	1369.8	1367.1	1367.1	1364.4	1361.6	1358.9	1356.2	1353.5	1348.0	1342.5	1337.1
10°	1361.6	1358.9	1356.2	1356.2	1348.0	1348.0	1345.3	1339.8	1331.6	1326.2	1318.0
12.5°	1339.8	1339.8	1337.1	1334.3	1326.2	1326.2	1320.7	1315.2	1307.1	1296.1	1285.2
15°	1309.8	1309.8	1304.3	1301.6	1296.1	1293.4	1288.0	1279.8	1271.6	1260.7	1247.0
17.5°	1263.4	1263.4	1260.7	1255.2	1252.5	1249.8	1241.6	1236.1	1225.2	1214.3	1203.4
20°	1206.1	1200.6	1200.6	1197.9	1192.5	1189.7	1187.0	1178.8	1170.6	1159.7	1148.8
22.5°	1154.3	1151.5	1143.3	1137.9	1129.7	1124.2	1121.5	1110.6	1105.1	1096.9	1083.3
25°	1102.4	1096.9	1094.2	1086.0	1075.1	1072.4	1064.2	1047.8	1036.9	1023.3	1009.6
27.5°	1026.0	1026.0	1028.7	1026.0	1015.1	1012.4	1006.9	993.3	971.4	949.6	933.2
30°	911.4	908.7	911.4	916.9	925.0	927.8	933.2	930.5	914.1	889.6	867.7
32.5°	788.6	788.6	799.5	807.7	815.9	818.6	824.1	837.7	837.7	829.5	813.2
35°	674.0	679.5	687.6	695.8	706.7	709.5	723.1	725.8	742.2	753.1	750.4
37.5°	578.5	583.9	586.7	594.9	605.8	608.5	614.0	633.1	652.2	665.8	660.4
40°	493.9	493.9	502.1	510.3	521.2	523.9	532.1	543.0	564.8	570.3	570.3
42.5°	425.7	428.4	431.1	436.6	444.8	450.2	455.7	472.1	483.0	491.2	485.7
45°	371.1	373.8	376.6	382.0	387.5	390.2	395.7	406.6	414.8	414.8	412.0
47.5°	327.4	327.4	330.2	332.9	338.4	341.1	346.5	352.0	354.7	352.0	349.3
50°	289.2	292.0	292.0	294.7	297.4	302.9	305.6	305.6	305.6	302.9	297.4
52.5°	256.5	256.5	259.2	259.2	264.7	267.4	267.4	267.4	264.7	259.2	251.0
55°	226.5	226.5	226.5	229.2	234.7	234.7	234.7	231.9	229.2	221.0	212.8
57.5°	199.2	201.9	201.9	201.9	204.7	204.7	204.7	201.9	196.5	188.3	180.1
60°	174.6	177.4	177.4	177.4	180.1	180.1	177.4	174.6	169.2	158.3	152.8
62.5°	155.5	155.5	155.5	155.5	155.5	155.5	152.8	147.4	141.9	133.7	128.3
65°	133.7	133.7	133.7	136.4	133.7	131.0	131.0	125.5	120.1	111.9	103.7
67.5°	114.6	114.6	114.6	114.6	111.9	111.9	109.1	103.7	98.2	92.8	84.6
70°	98.2	98.2	98.2	95.5	92.8	92.8	90.0	84.6	79.1	73.7	68.2
72.5°	81.9	81.9	81.9	79.1	76.4	73.7	73.7	68.2	62.8	57.3	54.6
75°	65.5	65.5	65.5	62.8	60.0	57.3	57.3	51.8	49.1	46.4	40.9
77.5°	51.8	51.8	49.1	46.4	46.4	43.7	43.7	40.9	38.2	32.7	30.0
80°	35.5	35.5	35.5	35.5	32.7	30.0	30.0	27.3	24.6	21.8	19.1
82.5°	24.6	24.6	21.8	21.8	19.1	19.1	19.1	16.4	16.4	13.6	10.9
85°	10.9	10.9	10.9	10.9	8.2	8.2	8.2	8.2	8.2	5.5	5.5
87.5°	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	2.7	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: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2
2.5°	1339.8	1337.1	1337.1	1331.6	1331.6	1328.9	1326.2	1323.4	1320.7	1318.0	1315.2
5°	1342.5	1337.1	1331.6	1326.2	1326.2	1320.7	1315.2	1309.8	1307.1	1298.9	1293.4
7.5°	1331.6	1323.4	1318.0	1309.8	1307.1	1301.6	1293.4	1285.2	1277.0	1268.9	1260.7
10°	1309.8	1298.9	1290.7	1282.5	1274.3	1271.6	1260.7	1252.5	1238.8	1230.7	1222.5
12.5°	1277.0	1266.1	1255.2	1241.6	1238.8	1233.4	1219.7	1206.1	1195.2	1181.5	1170.6
15°	1236.1	1225.2	1208.8	1197.9	1189.7	1181.5	1170.6	1157.0	1140.6	1129.7	1116.1
17.5°	1189.7	1173.4	1157.0	1143.3	1132.4	1127.0	1107.9	1091.5	1080.6	1066.9	1053.3
20°	1135.2	1116.1	1096.9	1077.8	1069.7	1058.7	1042.4	1026.0	1009.6	998.7	979.6
22.5°	1069.7	1050.6	1031.5	1009.6	1004.2	993.3	974.2	957.8	944.1	925.0	908.7
25°	996.0	979.6	966.0	946.9	936.0	925.0	908.7	889.6	870.5	856.8	837.7
27.5°	922.3	911.4	897.8	878.7	867.7	856.8	835.0	815.9	791.3	777.7	755.9
30°	851.4	843.2	824.1	805.0	785.9	777.7	747.7	725.8	704.0	690.4	674.0
32.5°	788.6	764.0	739.5	712.2	701.3	690.4	660.4	638.5	619.4	600.3	583.9
35°	717.7	679.5	652.2	627.6	614.0	603.0	578.5	553.9	537.6	515.7	504.8
37.5°	641.3	608.5	575.8	545.7	534.8	518.5	499.4	472.1	455.7	436.6	420.2
40°	559.4	537.6	502.1	472.1	458.4	447.5	423.0	401.1	379.3	362.9	352.0
42.5°	474.8	461.2	433.9	403.9	390.2	379.3	357.5	332.9	313.8	300.2	286.5
45°	403.9	392.9	371.1	343.8	327.4	316.5	294.7	272.9	256.5	245.6	237.4
47.5°	341.1	330.2	311.1	286.5	272.9	262.0	240.1	221.0	210.1	201.9	196.5
50°	286.5	272.9	256.5	240.1	226.5	215.6	196.5	182.8	171.9	163.7	161.0
52.5°	240.1	229.2	212.8	196.5	185.6	177.4	158.3	147.4	141.9	133.7	128.3
55°	201.9	191.0	177.4	161.0	152.8	144.6	131.0	122.8	114.6	109.1	103.7
57.5°	169.2	158.3	144.6	131.0	122.8	117.3	106.4	98.2	92.8	87.3	81.9
60°	141.9	131.0	120.1	106.4	101.0	95.5	87.3	79.1	73.7	68.2	62.8
62.5°	117.3	106.4	95.5	84.6	81.9	76.4	70.9	62.8	57.3	54.6	49.1
65°	98.2	87.3	76.4	68.2	65.5	60.0	54.6	49.1	43.7	40.9	38.2
67.5°	79.1	68.2	60.0	54.6	51.8	49.1	43.7	38.2	35.5	30.0	27.3
70°	62.8	54.6	46.4	40.9	38.2	35.5	32.7	30.0	24.6	21.8	19.1
72.5°	46.4	40.9	35.5	30.0	30.0	27.3	24.6	21.8	19.1	16.4	13.6
75°	35.5	30.0	27.3	21.8	21.8	19.1	16.4	13.6	10.9	10.9	8.2
77.5°	24.6	21.8	19.1	16.4	13.6	13.6	10.9	8.2	8.2	5.5	5.5
80°	16.4	13.6	10.9	8.2	8.2	8.2	5.5	5.5	5.5	2.7	2.7
82.5°	10.9	8.2	5.5	5.5	5.5	2.7	2.7	2.7	2.7	2.7	0.0
85°	2.7	2.7	2.7	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: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2
2.5°	1312.5	1309.8	1307.1	1304.3	1304.3	1298.9	1298.9	1296.1	1293.4	1293.4	1290.7
5°	1288.0	1282.5	1277.0	1274.3	1274.3	1266.1	1260.7	1257.9	1255.2	1252.5	1247.0
7.5°	1252.5	1247.0	1238.8	1233.4	1230.7	1222.5	1217.0	1208.8	1203.4	1200.6	1192.5
10°	1211.6	1203.4	1189.7	1187.0	1181.5	1173.4	1165.2	1157.0	1148.8	1140.6	1135.2
12.5°	1159.7	1146.1	1137.9	1129.7	1124.2	1116.1	1102.4	1091.5	1083.3	1077.8	1069.7
15°	1102.4	1088.8	1077.8	1069.7	1064.2	1053.3	1036.9	1028.7	1017.8	1006.9	1004.2
17.5°	1036.9	1020.5	1009.6	1001.4	993.3	985.1	968.7	960.5	952.3	941.4	933.2
20°	966.0	949.6	938.7	927.8	919.6	911.4	900.5	886.8	878.7	873.2	862.3
22.5°	892.3	878.7	862.3	856.8	851.4	832.3	824.1	813.2	807.7	799.5	794.1
25°	821.3	802.2	791.3	783.1	775.0	761.3	747.7	739.5	734.0	728.6	720.4
27.5°	742.2	731.3	717.7	706.7	704.0	690.4	676.7	668.5	660.4	654.9	646.7
30°	657.6	644.0	633.1	633.1	627.6	616.7	611.2	600.3	589.4	586.7	583.9
32.5°	570.3	562.1	553.9	548.5	548.5	540.3	532.1	529.4	523.9	518.5	518.5
35°	491.2	483.0	474.8	472.1	472.1	466.6	463.9	461.2	461.2	458.4	455.7
37.5°	414.8	403.9	395.7	395.7	395.7	395.7	395.7	395.7	395.7	401.1	398.4
40°	343.8	338.4	335.6	332.9	332.9	332.9	335.6	335.6	338.4	343.8	346.5
42.5°	281.1	281.1	278.3	278.3	275.6	278.3	281.1	283.8	286.5	286.5	292.0
45°	234.7	231.9	229.2	229.2	231.9	229.2	231.9	237.4	237.4	240.1	242.9
47.5°	191.0	188.3	188.3	188.3	188.3	188.3	188.3	191.0	193.7	193.7	196.5
50°	155.5	152.8	150.1	152.8	150.1	150.1	152.8	152.8	152.8	155.5	155.5
52.5°	122.8	120.1	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3	117.3
55°	95.5	92.8	90.0	90.0	87.3	87.3	84.6	84.6	84.6	84.6	84.6
57.5°	76.4	70.9	68.2	65.5	65.5	60.0	57.3	57.3	54.6	54.6	54.6
60°	57.3	54.6	49.1	49.1	46.4	40.9	38.2	32.7	32.7	30.0	30.0
62.5°	43.7	40.9	38.2	35.5	32.7	27.3	21.8	16.4	10.9	10.9	13.6
65°	32.7	30.0	24.6	21.8	21.8	16.4	10.9	5.5	2.7	2.7	5.5
67.5°	24.6	21.8	16.4	13.6	10.9	8.2	2.7	0.0	0.0	0.0	0.0
70°	16.4	13.6	8.2	8.2	5.5	2.7	0.0	0.0	0.0	0.0	0.0
72.5°	10.9	8.2	5.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.7	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: P242001

CATALOG NUMBER: PRS430D010-S4M24-41SWWC

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2	1326.2
2.5°	1288.0	1288.0	1288.0	1288.0	1285.2	1285.2	1285.2	1285.2
5°	1247.0	1238.8	1238.8	1238.8	1238.8	1238.8	1236.1	1233.4
7.5°	1189.7	1184.3	1184.3	1181.5	1181.5	1178.8	1178.8	1176.1
10°	1129.7	1124.2	1124.2	1118.8	1118.8	1116.1	1113.3	1113.3
12.5°	1061.5	1056.0	1056.0	1056.0	1050.6	1050.6	1045.1	1045.1
15°	993.3	987.8	985.1	985.1	979.6	979.6	976.9	976.9
17.5°	922.3	919.6	914.1	914.1	911.4	905.9	905.9	905.9
20°	856.8	848.6	845.9	845.9	837.7	837.7	835.0	835.0
22.5°	785.9	780.4	777.7	775.0	769.5	772.2	766.8	766.8
25°	714.9	714.9	709.5	709.5	706.7	704.0	701.3	701.3
27.5°	646.7	646.7	644.0	644.0	641.3	638.5	638.5	641.3
30°	581.2	581.2	581.2	583.9	581.2	578.5	581.2	581.2
32.5°	518.5	518.5	521.2	518.5	521.2	521.2	521.2	521.2
35°	458.4	458.4	461.2	461.2	463.9	463.9	466.6	466.6
37.5°	398.4	403.9	403.9	403.9	409.3	409.3	412.0	412.0
40°	346.5	346.5	349.3	352.0	354.7	357.5	360.2	357.5
42.5°	294.7	294.7	297.4	300.2	302.9	305.6	308.3	308.3
45°	242.9	245.6	248.3	248.3	253.8	256.5	256.5	259.2
47.5°	196.5	201.9	201.9	201.9	204.7	207.4	210.1	207.4
50°	155.5	158.3	158.3	158.3	161.0	163.7	163.7	163.7
52.5°	117.3	120.1	120.1	120.1	122.8	122.8	122.8	125.5
55°	84.6	84.6	84.6	87.3	87.3	87.3	87.3	87.3
57.5°	54.6	54.6	54.6	57.3	60.0	60.0	57.3	57.3
60°	30.0	32.7	35.5	35.5	35.5	38.2	35.5	35.5
62.5°	16.4	19.1	19.1	19.1	19.1	19.1	19.1	19.1
65°	5.5	8.2	8.2	8.2	8.2	8.2	5.5	5.5
67.5°	2.7	2.7	2.7	2.7	2.7	0.0	2.7	2.7
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)