

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: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C25D010 EX4C259030 4LBSQLWWH**

Issue Date: 2/18/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C25D010 EX4C259030 4LBSQLWWH  
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

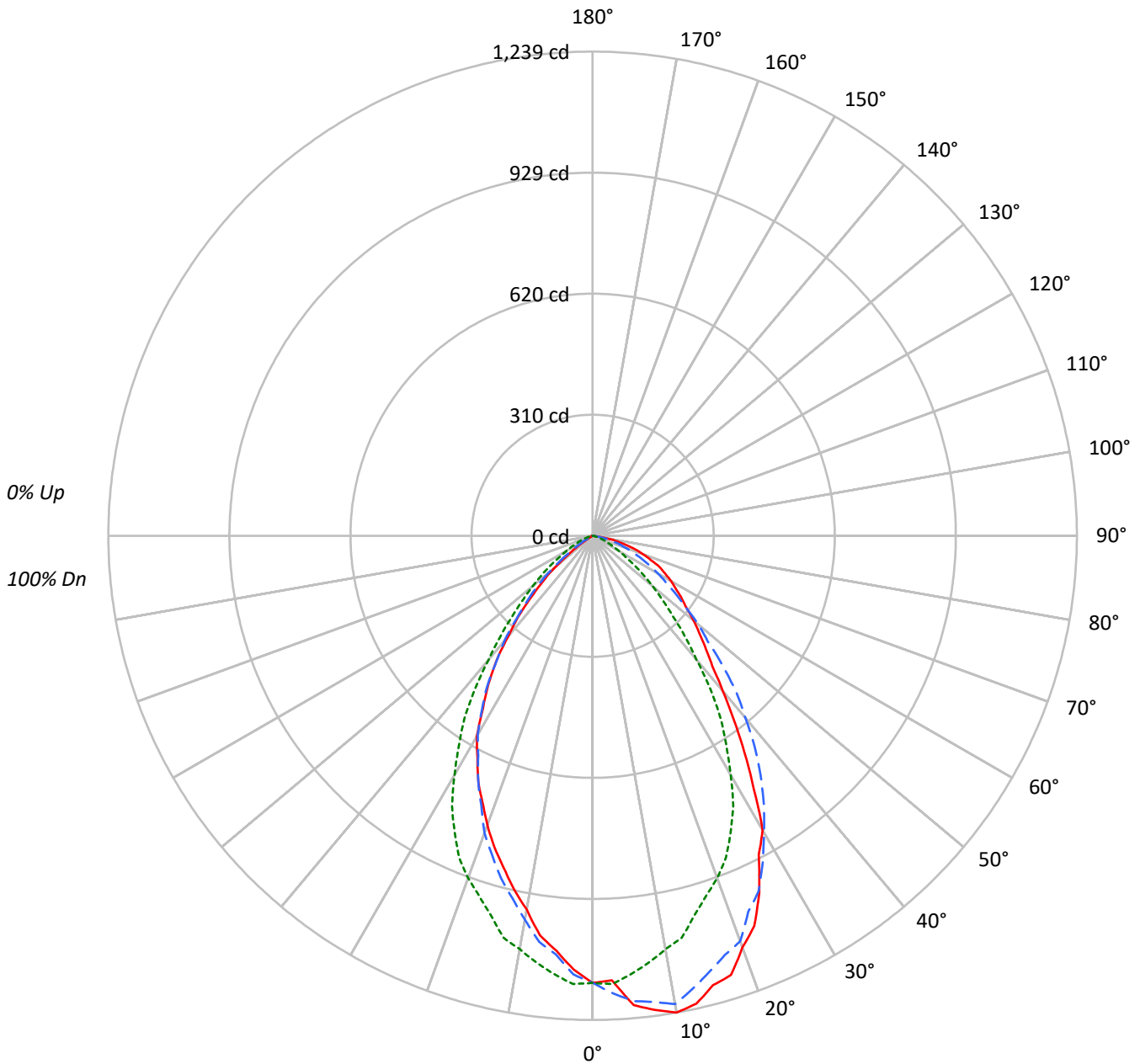
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1640.0 lumens  
Efficiency: N/A  
Efficacy: 52.1 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.5  
Input Voltage (V):  
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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CATALOG NUMBER: LD4C25D010 EX4C259030 4LBSQLWWH

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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																			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38																			

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

	0°	90°	180°
0°	110393	110393	110393
5°	116800	109091	103250
10°	121374	105247	95165
15°	118952	100442	87836
20°	115085	95648	80851
25°	107347	88940	73758
30°	96909	78715	66036
35°	79827	67388	54785
40°	65145	52008	42158
45°	55974	39504	30321
50°	50662	30067	19154
55°	46615	21684	6931
60°	44752	14821	1061
65°	43219	10023	320
70°	38706	6968	395
75°	31726	3579	0
80°	19837	1500	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	6.5
10°-20°	288.8	17.6
20°-30°	385.6	23.5
30°-40°	366.1	22.3
40°-50°	253.1	15.4
50°-60°	139.8	8.5
60°-70°	69.4	4.2
70°-80°	27.4	1.7
80°-90°	2.6	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°	781.6	47.7
0°-40°	1147.7	70.0
0°-60°	1540.6	93.9
0°-90°	1640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1640.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1144	1144	1144	1144	1144	
5°	1206	1195	1126	1076	1066	115
15°	1191	1155	1006	907	879	337
25°	1008	1004	835	693	693	460
35°	678	749	572	471	465	425
45°	410	471	290	237	222	320
55°	277	261	129	66	41	249
65°	189	137	44	1	1	184
75°	85	52	10	0	0	91
85°	0	1	0	0	0	8
90°	0	0	0	0	0	



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1138.6	1170.2	1172.9	1170.2	1174.3	1172.9	1179.8	1172.9	1181.2	1168.8	1171.6
5°	1205.9	1193.5	1219.6	1205.9	1205.9	1204.5	1200.4	1199.0	1204.5	1186.7	1194.9
7.5°	1223.7	1241.5	1264.9	1236.1	1237.4	1237.4	1229.2	1226.4	1226.4	1193.5	1203.1
10°	1238.8	1227.8	1240.1	1229.2	1238.8	1237.4	1242.9	1225.0	1237.4	1218.2	1216.8
12.5°	1226.4	1222.3	1238.8	1221.0	1215.5	1216.8	1210.0	1205.9	1210.0	1188.0	1186.7
15°	1190.8	1194.9	1219.6	1200.4	1197.6	1194.9	1186.7	1172.9	1183.9	1153.7	1155.1
17.5°	1178.4	1171.6	1175.7	1159.2	1163.3	1160.6	1159.2	1146.9	1144.1	1124.9	1124.9
20°	1120.8	1135.9	1135.9	1124.9	1124.9	1123.6	1105.7	1116.7	1104.3	1098.8	1104.3
22.5°	1081.0	1082.4	1082.4	1072.8	1074.2	1068.7	1059.1	1052.2	1059.1	1052.2	1041.2
25°	1008.3	1011.1	1027.5	1009.7	1006.9	1012.4	1004.2	1000.1	998.7	982.3	1004.2
27.5°	920.5	947.9	946.6	939.7	947.9	937.0	932.9	934.2	938.4	937.0	942.4
30°	869.8	873.9	878.0	872.5	873.9	869.8	869.8	871.1	882.1	878.0	876.6
32.5°	766.9	780.6	791.6	791.6	792.9	797.1	795.7	824.5	831.4	817.6	814.9
35°	677.7	687.3	696.9	698.3	716.1	717.5	718.9	727.1	746.3	750.4	749.0
37.5°	592.7	602.2	605.0	617.3	627.0	636.5	647.5	658.5	674.9	688.7	681.8
40°	517.2	521.3	528.2	533.6	552.8	552.8	558.3	580.3	598.1	609.1	607.7
42.5°	454.1	455.4	460.9	470.6	488.4	484.3	488.4	503.5	529.5	530.9	546.0
45°	410.2	408.8	412.9	414.3	425.3	430.8	433.5	444.5	466.4	469.2	470.6
47.5°	370.4	369.0	375.9	378.6	382.7	388.2	388.2	389.6	397.8	404.7	399.2
50°	337.5	337.5	337.5	340.2	347.1	345.7	347.1	352.6	356.7	353.9	352.6
52.5°	301.8	307.3	311.4	312.8	314.1	314.1	315.5	312.8	311.4	307.3	299.0
55°	277.1	282.6	282.6	282.6	282.6	288.1	281.3	282.6	282.6	271.6	260.7
57.5°	252.4	257.9	262.0	256.5	262.0	256.5	253.8	252.4	249.7	238.7	222.2
60°	231.9	234.6	233.2	231.9	234.6	230.5	227.7	222.2	219.5	204.4	193.4
62.5°	208.5	209.9	211.3	208.5	205.8	204.4	198.9	190.7	185.2	172.8	163.2
65°	189.3	185.2	183.8	182.5	179.7	175.6	171.5	161.9	157.7	146.8	137.2
67.5°	160.5	159.1	161.9	157.7	150.9	150.9	146.8	138.6	128.9	122.1	112.5
70°	137.2	135.8	133.1	128.9	127.6	122.1	122.1	112.5	109.8	97.4	89.2
72.5°	112.5	112.5	108.4	104.3	100.1	97.4	96.0	89.2	85.1	78.2	71.3
75°	85.1	85.1	83.7	79.5	76.8	74.1	72.7	67.2	63.1	56.3	52.1
77.5°	60.4	60.4	54.9	52.1	53.5	50.7	48.0	46.7	45.3	41.2	35.7
80°	35.7	34.3	30.2	31.5	30.2	30.2	28.8	27.4	24.7	21.9	19.2
82.5°	9.6	11.0	11.0	11.0	12.4	9.6	9.6	9.6	11.0	11.0	6.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4
87.5°	1.4	2.7	5.5	5.5	5.5	5.5	5.5	4.1	4.1	4.1	2.7
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°	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1157.9	1156.5	1157.9	1148.2	1170.2	1153.7	1151.0	1148.2	1157.9	1148.2	1134.5
5°	1182.5	1168.8	1164.7	1160.6	1172.9	1153.7	1149.6	1151.0	1144.1	1126.3	1127.7
7.5°	1190.8	1178.4	1166.1	1140.0	1151.0	1146.9	1135.9	1127.7	1116.7	1101.6	1098.8
10°	1193.5	1179.8	1161.9	1153.7	1137.3	1131.8	1127.7	1113.9	1100.2	1074.2	1067.3
12.5°	1185.3	1168.8	1146.9	1140.0	1127.7	1109.8	1100.2	1086.5	1074.2	1053.6	1038.5
15°	1149.6	1135.9	1129.1	1105.7	1100.2	1089.2	1070.0	1050.9	1033.0	1005.5	997.3
17.5°	1108.5	1103.0	1096.1	1078.3	1076.9	1066.0	1048.1	1031.6	1008.3	965.8	952.1
20°	1066.0	1066.0	1044.0	1037.1	1050.9	1028.9	1015.2	1000.1	952.1	931.5	906.8
22.5°	1034.4	1019.3	1006.9	996.0	997.3	983.6	964.4	934.2	916.4	891.7	862.9
25°	972.7	978.1	950.7	946.6	950.7	919.1	909.6	884.8	858.8	835.4	813.5
27.5°	934.2	919.1	901.3	886.2	886.2	873.9	846.5	841.0	801.1	779.2	751.8
30°	876.6	865.6	850.5	828.6	825.9	816.2	794.3	780.6	739.4	706.5	691.4
32.5°	803.9	799.8	787.4	762.8	754.5	743.5	716.1	692.8	673.6	636.5	618.7
35°	751.8	736.7	710.6	690.1	683.2	664.0	642.0	625.6	605.0	572.1	548.8
37.5°	673.6	658.5	633.8	609.1	609.1	589.9	559.7	543.3	514.5	495.2	476.0
40°	605.0	585.8	561.1	532.3	528.2	500.7	488.4	460.9	443.1	412.9	410.2
42.5°	528.2	510.3	488.4	466.4	450.0	436.3	404.7	384.1	364.9	349.8	345.7
45°	458.2	434.9	415.7	388.2	371.8	355.3	334.7	321.0	305.9	289.5	279.9
47.5°	397.8	378.6	351.2	326.5	310.1	301.8	278.5	263.4	251.0	240.1	233.2
50°	336.1	312.8	297.7	270.2	267.5	248.3	229.1	216.8	209.9	200.3	190.7
52.5°	289.5	267.5	246.9	226.4	215.4	208.5	190.7	178.3	168.8	161.9	156.4
55°	244.2	225.0	208.5	188.0	181.1	171.5	150.9	148.2	138.6	128.9	122.1
57.5°	209.9	192.0	172.8	159.1	146.8	140.0	123.5	112.5	107.0	98.8	91.9
60°	178.3	159.1	144.0	127.6	122.1	112.5	100.1	90.6	83.7	76.8	70.0
62.5°	149.5	133.1	116.6	102.9	94.6	89.2	79.5	71.3	64.5	59.0	53.5
65°	123.5	108.4	94.6	80.9	76.8	70.0	63.1	56.3	50.7	43.9	38.4
67.5°	101.5	87.8	74.1	64.5	60.4	57.6	49.4	42.5	38.4	34.3	28.8
70°	79.5	70.0	59.0	50.7	46.7	42.5	37.0	32.9	27.4	24.7	20.6
72.5°	61.8	53.5	43.9	37.0	34.3	31.5	26.1	21.9	19.2	16.4	13.7
75°	43.9	37.0	31.5	24.7	23.3	21.9	17.8	15.1	12.4	9.6	8.2
77.5°	30.2	24.7	19.2	16.4	15.1	12.4	11.0	8.2	6.9	5.5	4.1
80°	16.4	12.4	9.6	8.2	6.9	5.5	5.5	4.1	2.7	2.7	1.4
82.5°	5.5	4.1	2.7	1.4	1.4	1.4	1.4	1.4	1.4	0.0	1.4
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°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	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°	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1142.8	1127.7	1131.8	1131.8	1129.1	1129.1	1126.3	1122.2	1123.6	1115.3	1097.5
5°	1130.4	1111.2	1108.5	1111.2	1100.2	1097.5	1092.0	1100.2	1075.5	1085.1	1074.2
7.5°	1094.8	1076.9	1072.8	1082.4	1068.7	1060.4	1059.1	1070.0	1048.1	1037.1	1024.8
10°	1054.9	1048.1	1035.7	1028.9	1024.8	1026.1	1015.2	1001.5	997.3	994.6	983.6
12.5°	1019.3	1004.2	993.2	985.0	982.3	982.3	964.4	961.7	949.3	946.6	930.1
15°	976.7	958.9	952.1	941.1	931.5	937.0	916.4	910.9	906.8	889.0	891.7
17.5°	939.7	920.5	904.1	897.2	889.0	880.7	861.5	865.6	856.0	856.0	831.4
20°	891.7	871.1	858.8	845.1	845.1	834.1	820.4	821.7	809.4	797.1	775.1
22.5°	841.0	819.0	803.9	798.4	784.7	782.0	765.5	761.4	744.9	746.3	727.1
25°	787.4	765.5	744.9	746.3	734.0	728.5	718.9	699.7	692.8	684.6	679.1
27.5°	724.3	709.2	691.4	690.1	666.7	668.1	655.8	650.3	633.8	637.9	625.6
30°	666.7	644.8	628.3	624.2	614.6	611.9	592.7	584.4	587.2	576.2	569.3
32.5°	607.7	574.8	567.9	559.7	554.2	547.4	533.6	539.1	526.8	529.5	518.5
35°	529.5	515.8	498.0	498.0	492.5	487.0	477.4	482.9	470.6	465.1	454.1
37.5°	463.7	451.4	433.5	439.0	429.4	421.2	412.9	414.3	403.3	402.0	391.0
40°	392.3	385.5	373.2	373.2	366.3	366.3	362.1	358.1	351.2	343.0	330.6
42.5°	325.1	319.6	314.1	315.5	305.9	314.1	303.2	310.1	288.1	286.7	278.5
45°	275.7	263.4	264.8	259.3	253.8	256.5	246.9	249.7	237.3	234.6	226.4
47.5°	223.6	219.5	211.3	208.5	208.5	204.4	200.3	198.9	193.4	186.6	175.6
50°	183.8	168.8	166.0	161.9	159.1	159.1	153.7	145.4	146.8	140.0	128.9
52.5°	144.0	131.7	126.2	124.9	119.4	116.6	109.8	104.3	100.1	97.4	90.6
55°	111.1	100.1	93.3	93.3	85.1	85.1	75.5	71.3	65.8	60.4	56.3
57.5°	83.7	78.2	71.3	65.8	63.1	56.3	50.7	43.9	39.8	31.5	26.1
60°	63.1	57.6	50.7	46.7	43.9	37.0	30.2	24.7	15.1	12.4	11.0
62.5°	46.7	41.2	34.3	31.5	28.8	23.3	16.4	8.2	4.1	4.1	4.1
65°	34.3	27.4	21.9	19.2	16.4	12.4	5.5	2.7	1.4	1.4	1.4
67.5°	23.3	17.8	12.4	11.0	8.2	4.1	1.4	1.4	1.4	1.4	1.4
70°	15.1	11.0	5.5	4.1	2.7	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	9.6	5.5	2.7	1.4	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	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.4	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	1.4	1.4	1.4
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: P#

CATALOG NUMBER: LD4C25D010 EX4C259030 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1	1144.1
2.5°	1116.7	1107.1	1112.6	1100.2	1105.7	1115.3	1108.5	1111.2
5°	1078.3	1072.8	1066.0	1048.1	1061.8	1072.8	1067.3	1066.0
7.5°	1037.1	1017.9	1027.5	1022.0	1019.3	1030.3	1017.9	1031.6
10°	994.6	980.9	979.5	969.9	969.9	978.1	979.5	971.3
12.5°	931.5	924.7	924.7	923.3	921.9	930.1	931.5	927.4
15°	886.2	883.5	876.6	875.3	867.0	879.3	880.7	879.3
17.5°	831.4	832.7	825.9	825.9	831.4	835.4	824.5	835.4
20°	794.3	787.4	784.7	772.3	779.2	786.1	786.1	787.4
22.5°	740.8	729.8	734.0	727.1	722.9	732.6	732.6	736.7
25°	680.4	680.4	683.2	679.1	681.8	687.3	683.2	692.8
27.5°	622.8	628.3	628.3	622.8	625.6	642.0	648.9	637.9
30°	569.3	570.7	574.8	572.1	580.3	585.8	584.4	592.7
32.5°	509.0	515.8	518.5	514.5	517.2	529.5	522.7	521.3
35°	462.3	450.0	448.6	450.0	455.4	458.2	455.4	465.1
37.5°	395.1	391.0	385.5	386.9	391.0	396.5	399.2	406.1
40°	330.6	325.1	325.1	323.8	319.6	334.7	334.7	334.7
42.5°	274.4	273.0	266.2	266.2	271.6	275.7	273.0	282.6
45°	225.0	219.5	215.4	215.4	219.5	219.5	223.6	222.2
47.5°	177.0	171.5	172.8	168.8	172.8	178.3	171.5	172.8
50°	133.1	133.1	130.3	133.1	131.7	133.1	130.3	127.6
52.5°	90.6	102.9	104.3	98.8	86.4	75.5	68.6	74.1
55°	52.1	46.7	46.7	45.3	42.5	41.2	37.0	41.2
57.5°	26.1	23.3	23.3	23.3	21.9	20.6	17.8	17.8
60°	11.0	9.6	9.6	8.2	6.9	5.5	4.1	5.5
62.5°	4.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7
65°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
67.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
70°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)