

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 EX4C259050 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 EX4C259050 4LBSQLWWH  
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

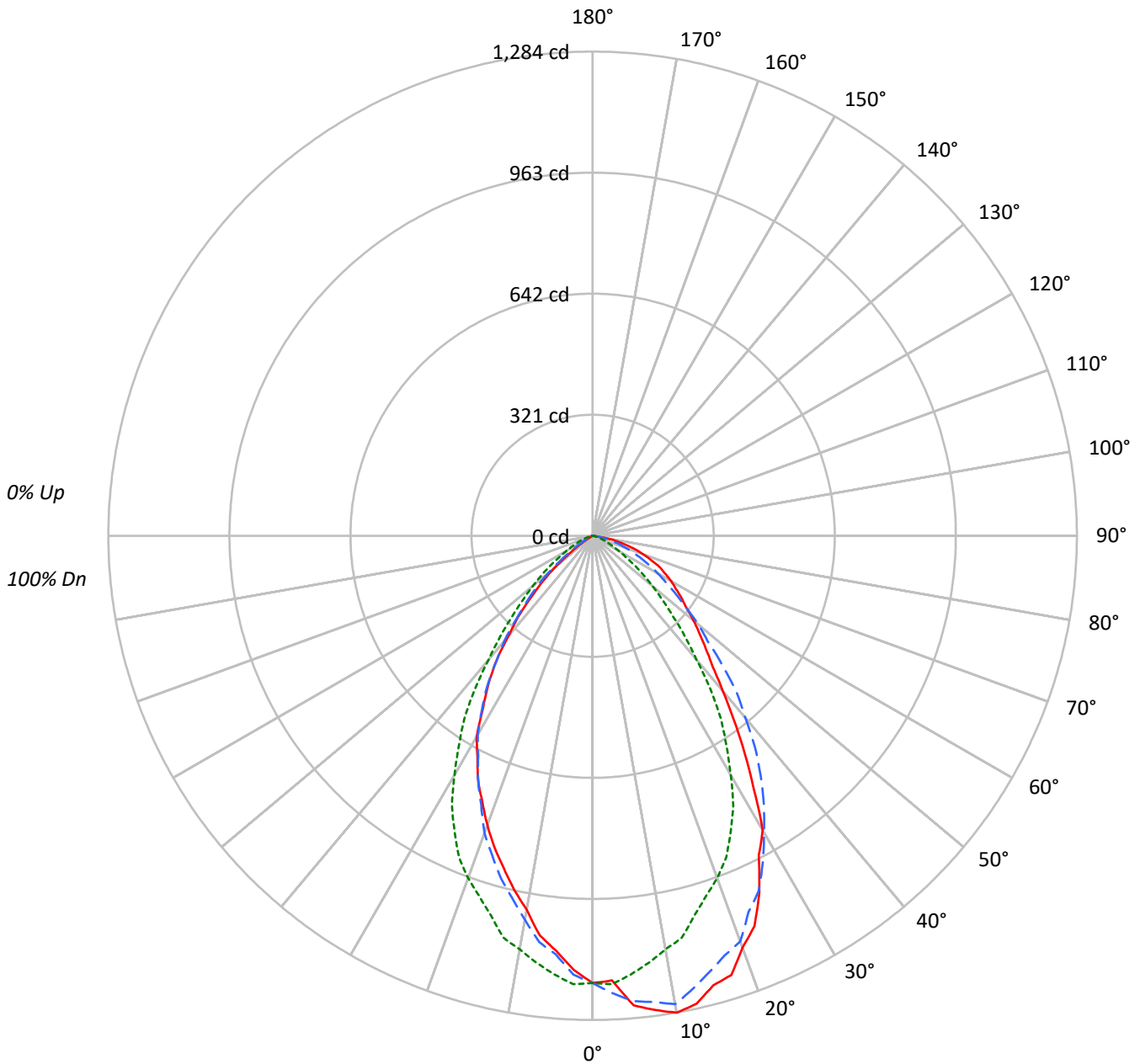
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1700.0 lumens  
Efficiency: N/A  
Efficacy: 54.0 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 (A<sub>in</sub>): 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									
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°	114436	114436	114436
5°	121072	113081	107027
10°	125813	109098	98644
15°	123298	104118	91052
20°	119295	99149	83809
25°	111276	92198	76452
30°	100452	81590	68443
35°	82748	69850	56787
40°	67526	53910	43707
45°	58021	40950	31439
50°	52509	31163	19860
55°	48331	22491	7183
60°	46373	15361	1100
65°	44795	10388	320
70°	40117	7222	395
75°	32881	3728	0
80°	20559	1556	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.1	6.5
10°-20°	299.4	17.6
20°-30°	399.8	23.5
30°-40°	379.5	22.3
40°-50°	262.3	15.4
50°-60°	144.9	8.5
60°-70°	72.0	4.2
70°-80°	28.4	1.7
80°-90°	2.7	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°	810.2	47.7
0°-40°	1189.7	70.0
0°-60°	1597.0	93.9
0°-90°	1700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1700.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1186	1186	1186	1186	1186	
5°	1250	1239	1168	1115	1105	120
15°	1234	1197	1042	940	912	349
25°	1045	1041	866	718	718	477
35°	702	776	593	488	482	440
45°	425	488	300	246	230	332
55°	287	270	134	68	43	259
65°	196	142	46	1	1	190
75°	88	54	10	0	0	94
85°	0	1	0	0	0	8
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C25D010 EX4C259050 4LBSQLWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0
2.5°	1180.3	1213.0	1215.8	1213.0	1217.3	1215.8	1223.0	1215.8	1224.4	1211.6	1214.4
5°	1250.0	1237.2	1264.2	1250.0	1250.0	1248.6	1244.3	1242.8	1248.6	1230.1	1238.6
7.5°	1268.5	1287.0	1311.1	1281.3	1282.7	1282.7	1274.2	1271.3	1271.3	1237.2	1247.1
10°	1284.1	1272.7	1285.5	1274.2	1284.1	1282.7	1288.4	1269.9	1282.7	1262.8	1261.3
12.5°	1271.3	1267.0	1284.1	1265.6	1259.9	1261.3	1254.3	1250.0	1254.3	1231.5	1230.1
15°	1234.3	1238.6	1264.2	1244.3	1241.4	1238.6	1230.1	1215.8	1227.2	1195.9	1197.4
17.5°	1221.6	1214.4	1218.7	1201.6	1205.9	1203.1	1201.6	1188.9	1186.0	1166.1	1166.1
20°	1161.8	1177.4	1177.4	1166.1	1166.1	1164.7	1146.2	1157.5	1144.7	1139.0	1144.7
22.5°	1120.6	1122.0	1122.0	1112.0	1113.5	1107.8	1097.8	1090.7	1097.8	1090.7	1079.3
25°	1045.2	1048.1	1065.1	1046.6	1043.8	1049.5	1040.9	1036.6	1035.3	1018.2	1040.9
27.5°	954.2	982.6	981.2	974.1	982.6	971.2	967.0	968.4	972.7	971.2	976.9
30°	901.6	905.8	910.1	904.4	905.8	901.6	901.6	903.0	914.4	910.1	908.7
32.5°	794.9	809.1	820.5	820.5	821.9	826.2	824.8	854.6	861.8	847.6	844.7
35°	702.5	712.5	722.4	723.8	742.3	743.7	745.2	753.7	773.6	777.9	776.4
37.5°	614.3	624.3	627.1	639.9	649.9	659.8	671.2	682.6	699.6	713.8	706.8
40°	536.1	540.4	547.5	553.2	573.1	573.1	578.7	601.5	620.0	631.4	629.9
42.5°	470.7	472.1	477.8	487.8	506.3	502.0	506.3	521.9	548.9	550.3	566.0
45°	425.2	423.8	428.0	429.4	440.9	446.5	449.4	460.7	483.5	486.3	487.8
47.5°	384.0	382.5	389.7	392.5	396.7	402.4	402.4	403.9	412.4	419.5	413.8
50°	349.8	349.8	349.8	352.7	359.8	358.3	359.8	365.5	369.7	366.9	365.5
52.5°	312.8	318.5	322.8	324.2	325.6	325.6	327.1	324.2	322.8	318.5	310.0
55°	287.3	292.9	292.9	292.9	292.9	298.6	291.5	292.9	292.9	281.6	270.2
57.5°	261.7	267.4	271.6	265.9	271.6	265.9	263.1	261.7	258.8	247.4	230.4
60°	240.3	243.2	241.7	240.3	243.2	238.9	236.1	230.4	227.5	211.9	200.5
62.5°	216.2	217.6	219.0	216.2	213.3	211.9	206.2	197.7	192.0	179.2	169.2
65°	196.2	192.0	190.5	189.1	186.3	182.0	177.8	167.8	163.5	152.2	142.2
67.5°	166.4	165.0	167.8	163.5	156.4	156.4	152.2	143.6	133.7	126.6	116.6
70°	142.2	140.8	137.9	133.7	132.3	126.6	126.6	116.6	113.8	101.0	92.4
72.5°	116.6	116.6	112.3	108.1	103.8	101.0	99.6	92.4	88.2	81.1	73.9
75°	88.2	88.2	86.7	82.5	79.6	76.8	75.4	69.7	65.4	58.3	54.0
77.5°	62.6	62.6	56.9	54.0	55.4	52.6	49.8	48.4	46.9	42.7	37.0
80°	37.0	35.5	31.3	32.7	31.3	31.3	29.9	28.4	25.6	22.7	19.9
82.5°	10.0	11.4	11.4	11.4	12.8	10.0	10.0	10.0	11.4	11.4	7.1
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	2.8	5.7	5.7	5.7	5.7	5.7	4.3	4.3	4.3	2.8
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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CATALOG NUMBER: LD4C25D010 EX4C259050 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0
2.5°	1200.2	1198.8	1200.2	1190.2	1213.0	1195.9	1193.1	1190.2	1200.2	1190.2	1176.0
5°	1225.8	1211.6	1207.3	1203.1	1215.8	1195.9	1191.7	1193.1	1186.0	1167.5	1168.9
7.5°	1234.3	1221.6	1208.7	1181.7	1193.1	1188.9	1177.4	1168.9	1157.5	1141.9	1139.0
10°	1237.2	1223.0	1204.5	1195.9	1178.9	1173.2	1168.9	1154.7	1140.5	1113.5	1106.3
12.5°	1228.6	1211.6	1188.9	1181.7	1168.9	1150.4	1140.5	1126.2	1113.5	1092.1	1076.5
15°	1191.7	1177.4	1170.4	1146.2	1140.5	1129.1	1109.2	1089.3	1070.8	1042.3	1033.8
17.5°	1149.0	1143.3	1136.2	1117.7	1116.3	1105.0	1086.5	1069.4	1045.2	1001.1	986.9
20°	1105.0	1105.0	1082.2	1075.1	1089.3	1066.5	1052.3	1036.6	986.9	965.6	940.0
22.5°	1072.2	1056.6	1043.8	1032.4	1033.8	1019.6	999.7	968.4	949.9	924.3	894.5
25°	1008.2	1013.9	985.5	981.2	985.5	952.7	942.8	917.2	890.2	866.0	843.3
27.5°	968.4	952.7	934.3	918.6	918.6	905.8	877.4	871.7	830.5	807.7	779.3
30°	908.7	897.3	881.7	858.9	856.1	846.1	823.4	809.1	766.5	732.3	716.7
32.5°	833.3	829.1	816.2	790.7	782.2	770.7	742.3	718.1	698.2	659.8	641.4
35°	779.3	763.7	736.6	715.3	708.2	688.3	665.5	648.4	627.1	593.0	568.8
37.5°	698.2	682.6	657.0	631.4	631.4	611.5	580.2	563.1	533.3	513.3	493.4
40°	627.1	607.2	581.6	551.8	547.5	519.0	506.3	477.8	459.3	428.0	425.2
42.5°	547.5	529.0	506.3	483.5	466.4	452.2	419.5	398.2	378.3	362.6	358.3
45°	475.0	450.8	430.9	402.4	385.4	368.3	347.0	332.8	317.1	300.1	290.1
47.5°	412.4	392.5	364.0	338.5	321.4	312.8	288.6	273.0	260.2	248.9	241.7
50°	348.4	324.2	308.6	280.1	277.3	257.4	237.5	224.7	217.6	207.6	197.7
52.5°	300.1	277.3	255.9	234.7	223.2	216.2	197.7	184.9	174.9	167.8	162.1
55°	253.1	233.2	216.2	194.8	187.7	177.8	156.4	153.6	143.6	133.7	126.6
57.5°	217.6	199.1	179.2	165.0	152.2	145.1	128.0	116.6	110.9	102.4	95.3
60°	184.9	165.0	149.3	132.3	126.6	116.6	103.8	93.9	86.7	79.6	72.5
62.5°	155.0	137.9	120.9	106.6	98.1	92.4	82.5	73.9	66.9	61.2	55.4
65°	128.0	112.3	98.1	83.9	79.6	72.5	65.4	58.3	52.6	45.5	39.8
67.5°	105.2	91.0	76.8	66.9	62.6	59.7	51.2	44.1	39.8	35.5	29.9
70°	82.5	72.5	61.2	52.6	48.4	44.1	38.4	34.2	28.4	25.6	21.3
72.5°	64.0	55.4	45.5	38.4	35.5	32.7	27.0	22.7	19.9	17.0	14.2
75°	45.5	38.4	32.7	25.6	24.2	22.7	18.5	15.7	12.8	10.0	8.5
77.5°	31.3	25.6	19.9	17.0	15.7	12.8	11.4	8.5	7.1	5.7	4.3
80°	17.0	12.8	10.0	8.5	7.1	5.7	5.7	4.3	2.8	2.8	1.4
82.5°	5.7	4.3	2.8	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C25D010 EX4C259050 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0
2.5°	1184.6	1168.9	1173.2	1173.2	1170.4	1170.4	1167.5	1163.2	1164.7	1156.1	1137.7
5°	1171.8	1151.9	1149.0	1151.9	1140.5	1137.7	1132.0	1140.5	1114.9	1124.8	1113.5
7.5°	1134.8	1116.3	1112.0	1122.0	1107.8	1099.2	1097.8	1109.2	1086.5	1075.1	1062.3
10°	1093.5	1086.5	1073.6	1066.5	1062.3	1063.7	1052.3	1038.1	1033.8	1031.0	1019.6
12.5°	1056.6	1040.9	1029.6	1021.0	1018.2	1018.2	999.7	996.9	984.1	981.2	964.2
15°	1012.5	994.0	986.9	975.5	965.6	971.2	949.9	944.2	940.0	921.5	924.3
17.5°	974.1	954.2	937.1	930.0	921.5	913.0	893.0	897.3	887.3	887.3	861.8
20°	924.3	903.0	890.2	876.0	876.0	864.6	850.4	851.8	839.0	826.2	803.4
22.5°	871.7	849.0	833.3	827.6	813.4	810.6	793.5	789.2	772.2	773.6	753.7
25°	816.2	793.5	772.2	773.6	760.8	755.1	745.2	725.3	718.1	709.6	703.9
27.5°	750.8	735.2	716.7	715.3	691.1	692.5	679.8	674.1	657.0	661.3	648.4
30°	691.1	668.4	651.3	647.0	637.1	634.2	614.3	605.8	608.7	597.2	590.2
32.5°	629.9	595.8	588.7	580.2	574.5	567.4	553.2	558.9	546.0	548.9	537.5
35°	548.9	534.7	516.2	516.2	510.5	504.8	494.9	500.6	487.8	482.1	470.7
37.5°	480.6	467.9	449.4	455.1	445.1	436.6	428.0	429.4	418.1	416.7	405.3
40°	406.7	399.6	386.8	386.8	379.7	379.7	375.4	371.2	364.0	355.5	342.7
42.5°	337.0	331.3	325.6	327.1	317.1	325.6	314.3	321.4	298.6	297.2	288.6
45°	285.8	273.0	274.4	268.8	263.1	265.9	255.9	258.8	246.0	243.2	234.7
47.5°	231.8	227.5	219.0	216.2	216.2	211.9	207.6	206.2	200.5	193.4	182.0
50°	190.5	174.9	172.0	167.8	165.0	165.0	159.3	150.8	152.2	145.1	133.7
52.5°	149.3	136.5	130.8	129.4	123.7	120.9	113.8	108.1	103.8	101.0	93.9
55°	115.2	103.8	96.7	96.7	88.2	88.2	78.2	73.9	68.2	62.6	58.3
57.5°	86.7	81.1	73.9	68.2	65.4	58.3	52.6	45.5	41.2	32.7	27.0
60°	65.4	59.7	52.6	48.4	45.5	38.4	31.3	25.6	15.7	12.8	11.4
62.5°	48.4	42.7	35.5	32.7	29.9	24.2	17.0	8.5	4.3	4.3	4.3
65°	35.5	28.4	22.7	19.9	17.0	12.8	5.7	2.8	1.4	1.4	1.4
67.5°	24.2	18.5	12.8	11.4	8.5	4.3	1.4	1.4	1.4	1.4	1.4
70°	15.7	11.4	5.7	4.3	2.8	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	10.0	5.7	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.7	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.8	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 EX4C259050 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0	1186.0
2.5°	1157.5	1147.6	1153.3	1140.5	1146.2	1156.1	1149.0	1151.9
5°	1117.7	1112.0	1105.0	1086.5	1100.7	1112.0	1106.3	1105.0
7.5°	1075.1	1055.1	1065.1	1059.4	1056.6	1068.0	1055.1	1069.4
10°	1031.0	1016.8	1015.4	1005.4	1005.4	1013.9	1015.4	1006.8
12.5°	965.6	958.5	958.5	957.0	955.6	964.2	965.6	961.3
15°	918.6	915.8	908.7	907.3	898.8	911.5	913.0	911.5
17.5°	861.8	863.2	856.1	856.1	861.8	866.0	854.6	866.0
20°	823.4	816.2	813.4	800.6	807.7	814.9	814.9	816.2
22.5°	767.9	756.5	760.8	753.7	749.4	759.4	759.4	763.7
25°	705.3	705.3	708.2	703.9	706.8	712.5	708.2	718.1
27.5°	645.6	651.3	651.3	645.6	648.4	665.5	672.6	661.3
30°	590.2	591.6	595.8	593.0	601.5	607.2	605.8	614.3
32.5°	527.6	534.7	537.5	533.3	536.1	548.9	541.8	540.4
35°	479.2	466.4	465.0	466.4	472.1	475.0	472.1	482.1
37.5°	409.5	405.3	399.6	401.0	405.3	411.0	413.8	420.9
40°	342.7	337.0	337.0	335.6	331.3	347.0	347.0	347.0
42.5°	284.4	283.0	275.9	275.9	281.6	285.8	283.0	292.9
45°	233.2	227.5	223.2	223.2	227.5	227.5	231.8	230.4
47.5°	183.5	177.8	179.2	174.9	179.2	184.9	177.8	179.2
50°	137.9	137.9	135.1	137.9	136.5	137.9	135.1	132.3
52.5°	93.9	106.6	108.1	102.4	89.6	78.2	71.1	76.8
55°	54.0	48.4	48.4	46.9	44.1	42.7	38.4	42.7
57.5°	27.0	24.2	24.2	24.2	22.7	21.3	18.5	18.5
60°	11.4	10.0	10.0	8.5	7.1	5.7	4.3	5.7
62.5°	4.3	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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)