

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 EX4C259040 4LBSQLWWH**

Issue Date: 2/18/2022



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 EX4C259040 4LBSQLWWH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

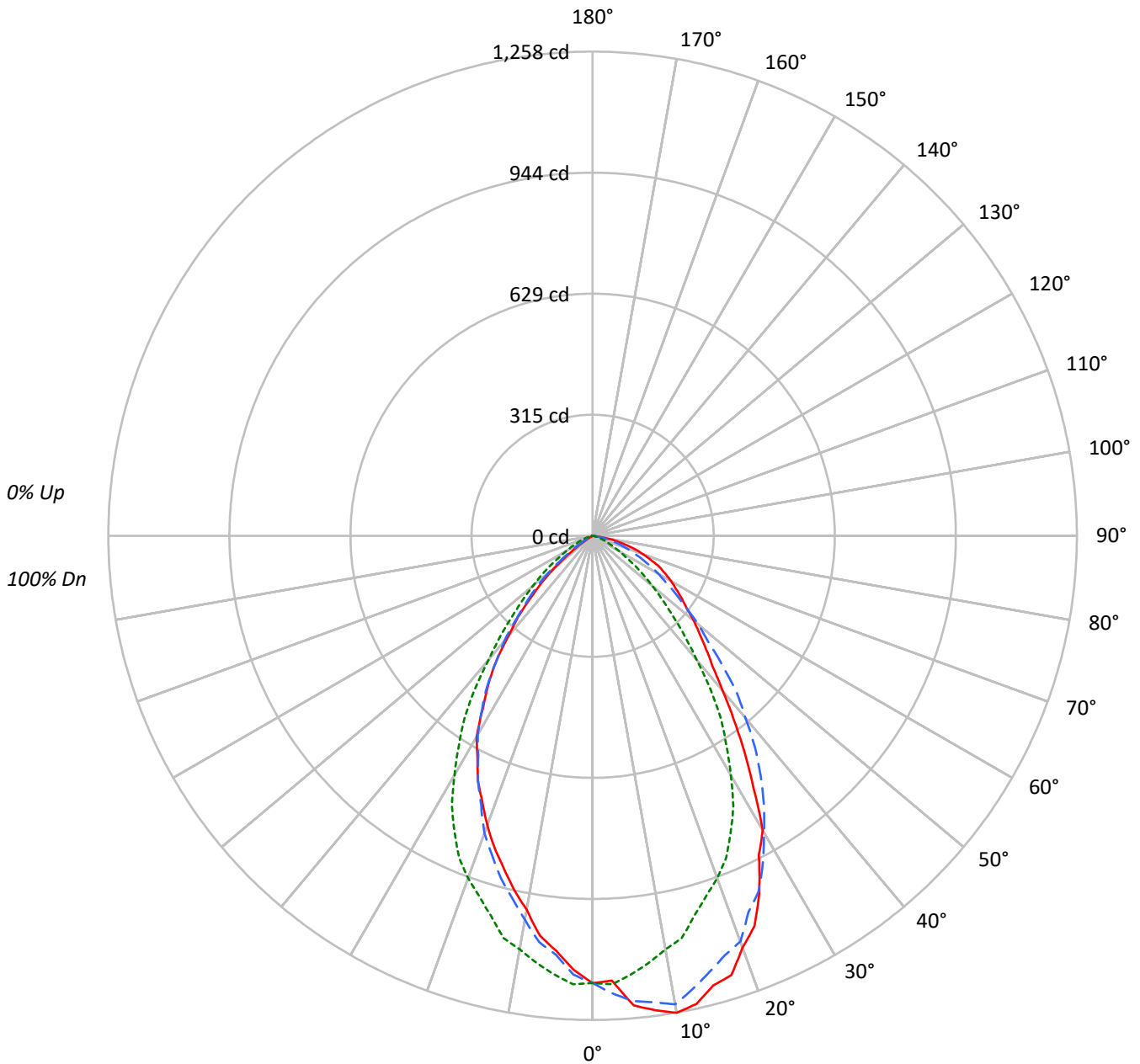
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1666.0 lumens
Efficiency: N/A
Efficacy: 52.9 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_{in}): 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°	112139	112139	112139
5°	118650	110824	104887
10°	123295	106913	96674
15°	120830	102040	89234
20°	116913	97157	82135
25°	109051	90356	74929
30°	98447	79963	67083
35°	81087	68448	55645
40°	66178	52839	42825
45°	56861	40132	30812
50°	51458	30547	19454
55°	47355	22037	7032
60°	45446	15052	1081
65°	43904	10183	320
70°	39299	7081	395
75°	32210	3653	0
80°	20170	1556	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	6.5
10°-20°	293.4	17.6
20°-30°	391.8	23.5
30°-40°	371.9	22.3
40°-50°	257.1	15.4
50°-60°	142.0	8.5
60°-70°	70.5	4.2
70°-80°	27.8	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°	794.0	47.7
0°-40°	1165.9	70.0
0°-60°	1565.0	93.9
0°-90°	1666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1666.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1162	1162	1162	1162	1162	
5°	1225	1214	1144	1093	1083	117
15°	1210	1173	1022	921	893	342
25°	1024	1020	849	704	704	467
35°	688	761	581	478	472	431
45°	417	478	294	241	226	325
55°	282	265	131	67	42	253
65°	192	139	45	1	1	187
75°	86	53	10	0	0	92
85°	0	1	0	0	0	8
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°	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2
2.5°	1156.7	1188.7	1191.5	1188.7	1192.9	1191.5	1198.5	1191.5	1199.9	1187.4	1190.1
5°	1225.0	1212.4	1238.9	1225.0	1225.0	1223.6	1219.4	1218.0	1223.6	1205.5	1213.8
7.5°	1243.1	1261.2	1284.9	1255.7	1257.0	1257.0	1248.7	1245.9	1245.9	1212.4	1222.2
10°	1258.4	1247.2	1259.8	1248.7	1258.4	1257.0	1262.6	1244.5	1257.0	1237.5	1236.1
12.5°	1245.9	1241.7	1258.4	1240.3	1234.7	1236.1	1229.2	1225.0	1229.2	1206.8	1205.5
15°	1209.6	1213.8	1238.9	1219.4	1216.6	1213.8	1205.5	1191.5	1202.7	1172.0	1173.4
17.5°	1197.1	1190.1	1194.3	1177.6	1181.8	1179.0	1177.6	1165.1	1162.2	1142.7	1142.7
20°	1138.6	1153.9	1153.9	1142.7	1142.7	1141.4	1123.3	1134.4	1121.8	1116.3	1121.8
22.5°	1098.1	1099.6	1099.6	1089.8	1091.2	1085.6	1075.9	1068.9	1075.9	1068.9	1057.7
25°	1024.3	1027.1	1043.8	1025.7	1022.9	1028.5	1020.1	1015.9	1014.6	997.8	1020.1
27.5°	935.1	963.0	961.6	954.6	963.0	951.8	947.7	949.0	953.2	951.8	957.4
30°	883.6	887.7	891.9	886.4	887.7	883.6	883.6	884.9	896.1	891.9	890.5
32.5°	779.0	792.9	804.1	804.1	805.5	809.7	808.3	837.5	844.5	830.6	827.8
35°	688.4	698.2	707.9	709.3	727.5	728.8	730.3	738.6	758.1	762.3	760.9
37.5°	602.1	611.8	614.6	627.1	636.9	646.6	657.8	668.9	685.6	699.6	692.6
40°	525.4	529.6	536.5	542.1	561.6	561.6	567.2	589.5	607.6	618.8	617.3
42.5°	461.3	462.7	468.2	478.0	496.1	491.9	496.1	511.5	537.9	539.3	554.7
45°	416.7	415.3	419.5	420.8	432.0	437.6	440.4	451.5	473.8	476.6	478.0
47.5°	376.3	374.9	381.9	384.6	388.8	394.4	394.4	395.8	404.1	411.1	405.6
50°	342.8	342.8	342.8	345.6	352.6	351.2	352.6	358.2	362.3	359.5	358.2
52.5°	306.6	312.1	316.3	317.8	319.1	319.1	320.5	317.8	316.3	312.1	303.8
55°	281.5	287.1	287.1	287.1	287.1	292.6	285.7	287.1	287.1	275.9	264.8
57.5°	256.4	262.0	266.2	260.6	266.2	260.6	257.8	256.4	253.6	242.5	225.8
60°	235.5	238.3	236.9	235.5	238.3	234.1	231.3	225.8	223.0	207.6	196.5
62.5°	211.8	213.2	214.6	211.8	209.1	207.6	202.1	193.7	188.1	175.6	165.8
65°	192.3	188.1	186.7	185.4	182.6	178.4	174.2	164.5	160.2	149.1	139.3
67.5°	163.0	161.7	164.5	160.2	153.3	153.3	149.1	140.8	131.0	124.0	114.3
70°	139.3	138.0	135.2	131.0	129.6	124.0	124.0	114.3	111.5	98.9	90.6
72.5°	114.3	114.3	110.1	105.9	101.7	98.9	97.6	90.6	86.4	79.4	72.5
75°	86.4	86.4	85.0	80.8	78.0	75.2	73.9	68.3	64.1	57.2	53.0
77.5°	61.3	61.3	55.7	53.0	54.3	51.5	48.8	47.4	46.0	41.8	36.3
80°	36.3	34.8	30.7	32.0	30.7	30.7	29.3	27.8	25.1	22.3	19.5
82.5°	9.8	11.1	11.1	11.1	12.6	9.8	9.8	9.8	11.1	11.1	7.0
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	5.6	5.6	5.6	5.6	5.6	4.2	4.2	4.2	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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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2
2.5°	1176.2	1174.8	1176.2	1166.4	1188.7	1172.0	1169.2	1166.4	1176.2	1166.4	1152.5
5°	1201.3	1187.4	1183.2	1179.0	1191.5	1172.0	1167.9	1169.2	1162.2	1144.2	1145.5
7.5°	1209.6	1197.1	1184.6	1158.1	1169.2	1165.1	1153.9	1145.5	1134.4	1119.1	1116.3
10°	1212.4	1198.5	1180.4	1172.0	1155.3	1149.7	1145.5	1131.6	1117.7	1091.2	1084.2
12.5°	1204.1	1187.4	1165.1	1158.1	1145.5	1127.4	1117.7	1103.7	1091.2	1070.3	1055.0
15°	1167.9	1153.9	1147.0	1123.3	1117.7	1106.5	1087.0	1067.5	1049.4	1021.5	1013.1
17.5°	1126.0	1120.5	1113.5	1095.4	1094.0	1082.9	1064.7	1048.0	1024.3	981.1	967.2
20°	1082.9	1082.9	1060.5	1053.6	1067.5	1045.2	1031.3	1015.9	967.2	946.2	921.2
22.5°	1050.8	1035.5	1022.9	1011.8	1013.1	999.2	979.7	949.0	930.9	905.8	876.6
25°	988.1	993.6	965.8	961.6	965.8	933.7	924.0	898.9	872.4	848.7	826.4
27.5°	949.0	933.7	915.6	900.3	900.3	887.7	859.9	854.3	813.8	791.6	763.7
30°	890.5	879.4	864.0	841.7	839.0	829.2	806.9	792.9	751.2	717.7	702.4
32.5°	816.6	812.5	799.9	774.9	766.5	755.3	727.5	703.8	684.3	646.6	628.5
35°	763.7	748.4	721.9	701.0	694.0	674.5	652.2	635.5	614.6	581.1	557.5
37.5°	684.3	668.9	643.8	618.8	618.8	599.3	568.6	551.9	522.6	503.1	483.6
40°	614.6	595.1	570.0	540.7	536.5	508.6	496.1	468.2	450.1	419.5	416.7
42.5°	536.5	518.4	496.1	473.8	457.1	443.2	411.1	390.2	370.7	355.4	351.2
45°	465.5	441.8	422.3	394.4	377.7	361.0	340.0	326.1	310.8	294.1	284.3
47.5°	404.1	384.6	356.7	331.7	315.0	306.6	282.9	267.6	255.0	243.9	236.9
50°	341.5	317.8	302.4	274.5	271.7	252.2	232.8	220.2	213.2	203.5	193.7
52.5°	294.1	271.7	250.8	230.0	218.8	211.8	193.7	181.2	171.4	164.5	158.9
55°	248.0	228.5	211.8	190.9	183.9	174.2	153.3	150.5	140.8	131.0	124.0
57.5°	213.2	195.1	175.6	161.7	149.1	142.2	125.4	114.3	108.7	100.4	93.4
60°	181.2	161.7	146.3	129.6	124.0	114.3	101.7	92.0	85.0	78.0	71.1
62.5°	151.9	135.2	118.5	104.5	96.1	90.6	80.8	72.5	65.5	59.9	54.3
65°	125.4	110.1	96.1	82.2	78.0	71.1	64.1	57.2	51.5	44.6	39.0
67.5°	103.1	89.2	75.2	65.5	61.3	58.5	50.2	43.2	39.0	34.8	29.3
70°	80.8	71.1	59.9	51.5	47.4	43.2	37.6	33.5	27.8	25.1	20.9
72.5°	62.7	54.3	44.6	37.6	34.8	32.0	26.5	22.3	19.5	16.7	13.9
75°	44.6	37.6	32.0	25.1	23.7	22.3	18.1	15.3	12.6	9.8	8.4
77.5°	30.7	25.1	19.5	16.7	15.3	12.6	11.1	8.4	7.0	5.6	4.2
80°	16.7	12.6	9.8	8.4	7.0	5.6	5.6	4.2	2.8	2.8	1.4
82.5°	5.6	4.2	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2
2.5°	1160.9	1145.5	1149.7	1149.7	1147.0	1147.0	1144.2	1140.0	1141.4	1133.0	1114.9
5°	1148.3	1128.8	1126.0	1128.8	1117.7	1114.9	1109.3	1117.7	1092.6	1102.3	1091.2
7.5°	1112.1	1094.0	1089.8	1099.6	1085.6	1077.2	1075.9	1087.0	1064.7	1053.6	1041.0
10°	1071.7	1064.7	1052.2	1045.2	1041.0	1042.4	1031.3	1017.3	1013.1	1010.3	999.2
12.5°	1035.5	1020.1	1009.0	1000.6	997.8	997.8	979.7	976.9	964.4	961.6	944.9
15°	992.2	974.1	967.2	956.0	946.2	951.8	930.9	925.3	921.2	903.1	905.8
17.5°	954.6	935.1	918.4	911.4	903.1	894.7	875.2	879.4	869.6	869.6	844.5
20°	905.8	884.9	872.4	858.5	858.5	847.3	833.4	834.8	822.2	809.7	787.4
22.5°	854.3	832.0	816.6	811.1	797.1	794.4	777.6	773.4	756.7	758.1	738.6
25°	799.9	777.6	756.7	758.1	745.6	740.0	730.3	710.8	703.8	695.4	689.9
27.5°	735.8	720.5	702.4	701.0	677.3	678.7	666.2	660.6	643.8	648.0	635.5
30°	677.3	655.0	638.3	634.1	624.3	621.6	602.1	593.7	596.5	585.3	578.4
32.5°	617.3	583.9	576.9	568.6	563.0	556.0	542.1	547.7	535.1	537.9	526.8
35°	537.9	524.0	505.9	505.9	500.3	494.7	485.0	490.6	478.0	472.4	461.3
37.5°	471.0	458.5	440.4	446.0	436.2	427.8	419.5	420.8	409.7	408.3	397.1
40°	398.6	391.6	379.1	379.1	372.1	372.1	367.9	363.7	356.7	348.4	335.8
42.5°	330.3	324.7	319.1	320.5	310.8	319.1	308.0	315.0	292.6	291.3	282.9
45°	280.1	267.6	269.0	263.4	257.8	260.6	250.8	253.6	241.1	238.3	230.0
47.5°	227.2	223.0	214.6	211.8	211.8	207.6	203.5	202.1	196.5	189.5	178.4
50°	186.7	171.4	168.6	164.5	161.7	161.7	156.1	147.7	149.1	142.2	131.0
52.5°	146.3	133.8	128.2	126.8	121.3	118.5	111.5	105.9	101.7	98.9	92.0
55°	112.9	101.7	94.8	94.8	86.4	86.4	76.7	72.5	66.9	61.3	57.2
57.5°	85.0	79.4	72.5	66.9	64.1	57.2	51.5	44.6	40.4	32.0	26.5
60°	64.1	58.5	51.5	47.4	44.6	37.6	30.7	25.1	15.3	12.6	11.1
62.5°	47.4	41.8	34.8	32.0	29.3	23.7	16.7	8.4	4.2	4.2	4.2
65°	34.8	27.8	22.3	19.5	16.7	12.6	5.6	2.8	1.4	1.4	1.4
67.5°	23.7	18.1	12.6	11.1	8.4	4.2	1.4	1.4	1.4	1.4	1.4
70°	15.3	11.1	5.6	4.2	2.8	1.4	1.4	1.4	1.4	1.4	1.4
72.5°	9.8	5.6	2.8	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.6	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 EX4C259040 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2	1162.2
2.5°	1134.4	1124.6	1130.2	1117.7	1123.3	1133.0	1126.0	1128.8
5°	1095.4	1089.8	1082.9	1064.7	1078.6	1089.8	1084.2	1082.9
7.5°	1053.6	1034.0	1043.8	1038.2	1035.5	1046.6	1034.0	1048.0
10°	1010.3	996.4	995.1	985.3	985.3	993.6	995.1	986.7
12.5°	946.2	939.3	939.3	937.9	936.5	944.9	946.2	942.1
15°	900.3	897.5	890.5	889.1	880.8	893.3	894.7	893.3
17.5°	844.5	845.9	839.0	839.0	844.5	848.7	837.5	848.7
20°	806.9	799.9	797.1	784.6	791.6	798.6	798.6	799.9
22.5°	752.5	741.4	745.6	738.6	734.4	744.2	744.2	748.4
25°	691.2	691.2	694.0	689.9	692.6	698.2	694.0	703.8
27.5°	632.7	638.3	638.3	632.7	635.5	652.2	659.2	648.0
30°	578.4	579.7	583.9	581.1	589.5	595.1	593.7	602.1
32.5°	517.0	524.0	526.8	522.6	525.4	537.9	531.0	529.6
35°	469.7	457.1	455.7	457.1	462.7	465.5	462.7	472.4
37.5°	401.4	397.1	391.6	393.0	397.1	402.8	405.6	412.5
40°	335.8	330.3	330.3	328.9	324.7	340.0	340.0	340.0
42.5°	278.7	277.3	270.4	270.4	275.9	280.1	277.3	287.1
45°	228.5	223.0	218.8	218.8	223.0	223.0	227.2	225.8
47.5°	179.8	174.2	175.6	171.4	175.6	181.2	174.2	175.6
50°	135.2	135.2	132.4	135.2	133.8	135.2	132.4	129.6
52.5°	92.0	104.5	105.9	100.4	87.8	76.7	69.7	75.2
55°	53.0	47.4	47.4	46.0	43.2	41.8	37.6	41.8
57.5°	26.5	23.7	23.7	23.7	22.3	20.9	18.1	18.1
60°	11.1	9.8	9.8	8.4	7.0	5.6	4.2	5.6
62.5°	4.2	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)