

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 EX4C259035 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 EX4C259035 4LBSQLWWH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

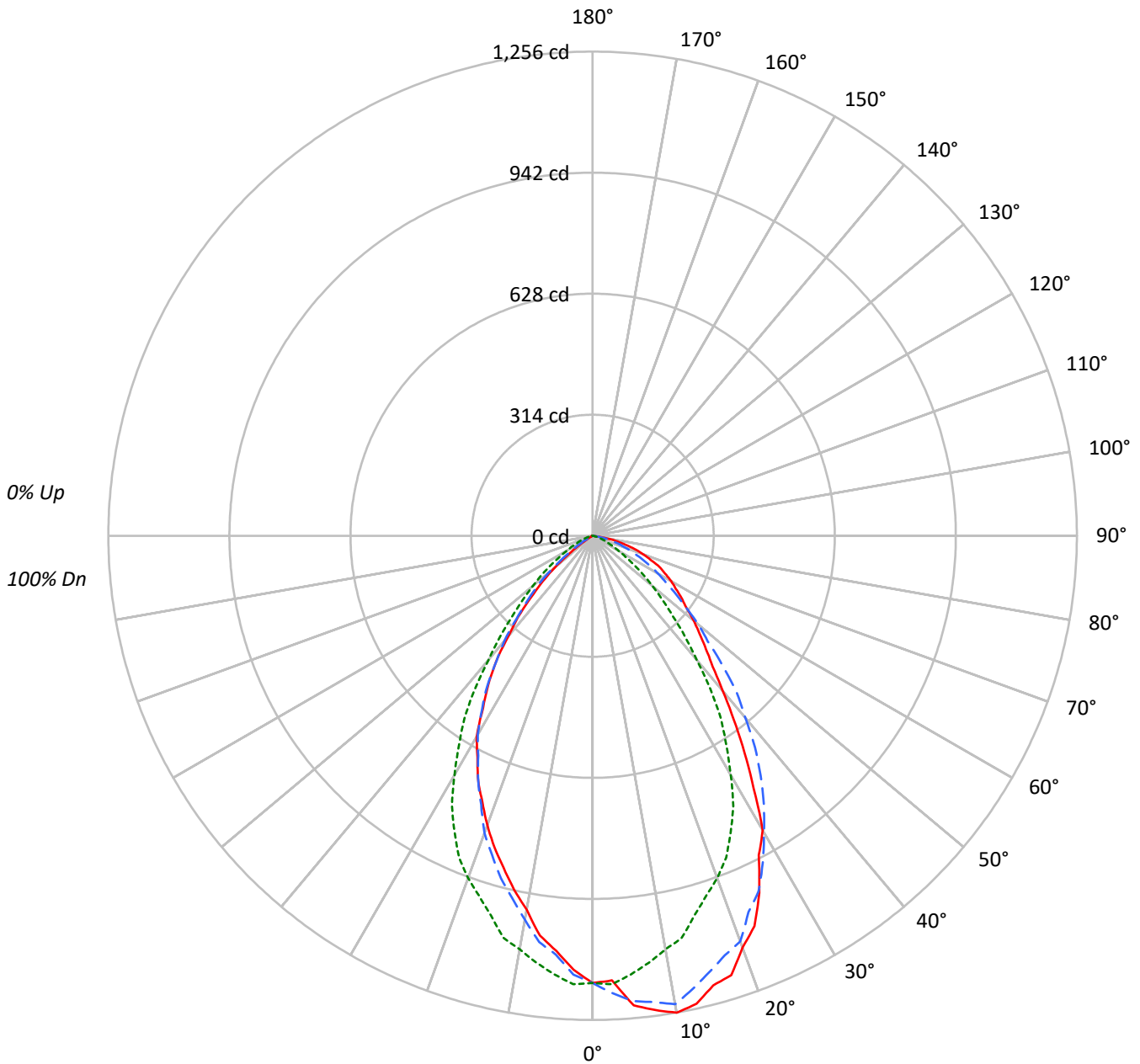
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1663.0 lumens
Efficiency: N/A
Efficacy: 52.8 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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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	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°	111937	111937	111937
5°	118437	110621	104693
10°	123079	106717	96498
15°	120620	101851	89074
20°	116697	96983	81991
25°	108859	90196	74791
30°	98269	79818	66961
35°	80946	68331	55550
40°	66065	52738	42750
45°	56752	40050	30757
50°	51368	30487	19424
55°	47271	21987	7015
60°	45369	15033	1081
65°	43813	10160	320
70°	39242	7053	395
75°	32173	3653	0
80°	20115	1556	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	6.5
10°-20°	292.9	17.6
20°-30°	391.1	23.5
30°-40°	371.2	22.3
40°-50°	256.6	15.4
50°-60°	141.8	8.5
60°-70°	70.4	4.2
70°-80°	27.7	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°	792.6	47.7
0°-40°	1163.8	70.0
0°-60°	1562.2	93.9
0°-90°	1663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1663.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1160	1160	1160	1160	1160	
5°	1223	1212	1142	1091	1081	117
15°	1208	1171	1020	920	892	342
25°	1022	1018	847	702	702	466
35°	687	760	580	477	472	431
45°	416	477	294	241	225	324
55°	281	264	131	67	42	253
65°	192	139	44	1	1	186
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°	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1
2.5°	1154.6	1186.6	1189.4	1186.6	1190.8	1189.4	1196.3	1189.4	1197.8	1185.2	1188.0
5°	1222.8	1210.2	1236.7	1222.8	1222.8	1221.4	1217.2	1215.8	1221.4	1203.3	1211.6
7.5°	1240.9	1259.0	1282.6	1253.4	1254.8	1254.8	1246.4	1243.6	1243.6	1210.2	1220.0
10°	1256.2	1245.0	1257.5	1246.4	1256.2	1254.8	1260.3	1242.2	1254.8	1235.3	1233.9
12.5°	1243.6	1239.4	1256.2	1238.1	1232.5	1233.9	1227.0	1222.8	1227.0	1204.7	1203.3
15°	1207.5	1211.6	1236.7	1217.2	1214.4	1211.6	1203.3	1189.4	1200.5	1169.9	1171.3
17.5°	1195.0	1188.0	1192.2	1175.5	1179.7	1176.9	1175.5	1163.0	1160.1	1140.7	1140.7
20°	1136.5	1151.8	1151.8	1140.7	1140.7	1139.3	1121.2	1132.4	1119.8	1114.3	1119.8
22.5°	1096.2	1097.6	1097.6	1087.8	1089.2	1083.7	1073.9	1067.0	1073.9	1067.0	1055.8
25°	1022.5	1025.3	1041.9	1023.8	1021.1	1026.6	1018.3	1014.1	1012.7	996.0	1018.3
27.5°	933.4	961.2	959.9	952.9	961.2	950.1	946.0	947.3	951.5	950.1	955.7
30°	882.0	886.1	890.3	884.8	886.1	882.0	882.0	883.3	894.5	890.3	888.9
32.5°	777.6	791.5	802.7	802.7	804.0	808.2	806.8	836.0	843.0	829.1	826.3
35°	687.2	696.9	706.7	708.1	726.2	727.5	728.9	737.3	756.7	760.9	759.5
37.5°	601.0	610.7	613.5	626.0	635.7	645.4	656.6	667.7	684.4	698.3	691.4
40°	524.5	528.6	535.6	541.1	560.6	560.6	566.1	588.4	606.5	617.7	616.2
42.5°	460.5	461.8	467.4	477.1	495.2	491.0	495.2	510.6	536.9	538.4	553.7
45°	415.9	414.5	418.7	420.1	431.3	436.8	439.6	450.7	473.0	475.7	477.1
47.5°	375.6	374.2	381.2	384.0	388.1	393.7	393.7	395.1	403.4	410.4	404.8
50°	342.2	342.2	342.2	345.0	352.0	350.5	352.0	357.5	361.7	358.9	357.5
52.5°	306.0	311.6	315.8	317.2	318.6	318.6	320.0	317.2	315.8	311.6	303.2
55°	281.0	286.6	286.6	286.6	286.6	292.1	285.2	286.6	286.6	275.4	264.3
57.5°	256.0	261.5	265.7	260.1	265.7	260.1	257.4	256.0	253.2	242.0	225.4
60°	235.1	237.9	236.5	235.1	237.9	233.7	230.9	225.4	222.6	207.3	196.1
62.5°	211.5	212.8	214.2	211.5	208.7	207.3	201.7	193.4	187.8	175.3	165.5
65°	191.9	187.8	186.4	185.0	182.2	178.1	173.9	164.2	160.0	148.8	139.1
67.5°	162.7	161.4	164.2	160.0	153.0	153.0	148.8	140.5	130.7	123.8	114.1
70°	139.1	137.7	134.9	130.7	129.4	123.8	123.8	114.1	111.3	98.8	90.4
72.5°	114.1	114.1	109.9	105.7	101.5	98.8	97.4	90.4	86.3	79.3	72.3
75°	86.3	86.3	84.9	80.7	77.9	75.1	73.7	68.2	64.0	57.1	52.9
77.5°	61.2	61.2	55.6	52.9	54.2	51.4	48.7	47.3	45.9	41.7	36.2
80°	36.2	34.8	30.6	32.0	30.6	30.6	29.2	27.8	25.0	22.2	19.5
82.5°	9.8	11.1	11.1	11.1	12.5	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°	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1
2.5°	1174.1	1172.7	1174.1	1164.3	1186.6	1169.9	1167.1	1164.3	1174.1	1164.3	1150.4
5°	1199.1	1185.2	1181.0	1176.9	1189.4	1169.9	1165.8	1167.1	1160.1	1142.1	1143.5
7.5°	1207.5	1195.0	1182.4	1156.0	1167.1	1163.0	1151.8	1143.5	1132.4	1117.0	1114.3
10°	1210.2	1196.3	1178.2	1169.9	1153.2	1147.7	1143.5	1129.6	1115.7	1089.2	1082.3
12.5°	1201.9	1185.2	1163.0	1156.0	1143.5	1125.4	1115.7	1101.7	1089.2	1068.4	1053.1
15°	1165.8	1151.8	1144.9	1121.2	1115.7	1104.5	1085.0	1065.6	1047.5	1019.6	1011.3
17.5°	1124.0	1118.5	1111.5	1093.4	1092.0	1080.9	1062.8	1046.1	1022.5	979.3	965.4
20°	1080.9	1080.9	1058.6	1051.7	1065.6	1043.3	1029.4	1014.1	965.4	944.5	919.5
22.5°	1048.9	1033.6	1021.1	1009.9	1011.3	997.4	978.0	947.3	929.2	904.2	875.0
25°	986.3	991.9	964.1	959.9	964.1	932.0	922.3	897.2	870.8	847.2	824.9
27.5°	947.3	932.0	914.0	898.7	898.7	886.1	858.3	852.8	812.4	790.1	762.3
30°	888.9	877.8	862.5	840.2	837.5	827.7	805.5	791.5	749.8	716.4	701.1
32.5°	815.2	811.0	798.5	773.5	765.1	754.0	726.2	702.5	683.1	645.4	627.4
35°	762.3	747.0	720.6	699.7	692.8	673.3	651.0	634.3	613.5	580.1	556.4
37.5°	683.1	667.7	642.7	617.7	617.7	598.2	567.6	550.9	521.7	502.2	482.7
40°	613.5	594.0	569.0	539.8	535.6	507.7	495.2	467.4	449.3	418.7	415.9
42.5°	535.6	517.5	495.2	473.0	456.3	442.4	410.4	389.5	370.1	354.7	350.5
45°	464.6	441.0	421.5	393.7	377.0	360.3	339.4	325.5	310.2	293.5	283.8
47.5°	403.4	384.0	356.1	331.1	314.4	306.0	282.4	267.1	254.6	243.5	236.5
50°	340.8	317.2	301.9	274.0	271.2	251.8	232.3	219.8	212.8	203.1	193.4
52.5°	293.5	271.2	250.4	229.6	218.4	211.5	193.4	180.8	171.1	164.2	158.6
55°	247.6	228.1	211.5	190.6	183.6	173.9	153.0	150.3	140.5	130.7	123.8
57.5°	212.8	194.7	175.3	161.4	148.8	141.9	125.2	114.1	108.5	100.2	93.2
60°	180.8	161.4	146.1	129.4	123.8	114.1	101.5	91.8	84.9	77.9	71.0
62.5°	151.6	134.9	118.3	104.3	96.0	90.4	80.7	72.3	65.4	59.8	54.2
65°	125.2	109.9	96.0	82.1	77.9	71.0	64.0	57.1	51.4	44.5	39.0
67.5°	103.0	89.1	75.1	65.4	61.2	58.4	50.1	43.1	39.0	34.8	29.2
70°	80.7	71.0	59.8	51.4	47.3	43.1	37.6	33.4	27.8	25.0	20.9
72.5°	62.6	54.2	44.5	37.6	34.8	32.0	26.4	22.2	19.5	16.7	13.9
75°	44.5	37.6	32.0	25.0	23.7	22.2	18.1	15.3	12.5	9.8	8.3
77.5°	30.6	25.0	19.5	16.7	15.3	12.5	11.1	8.3	7.0	5.6	4.2
80°	16.7	12.5	9.8	8.3	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°	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1
2.5°	1158.8	1143.5	1147.7	1147.7	1144.9	1144.9	1142.1	1137.9	1139.3	1130.9	1112.9
5°	1146.2	1126.8	1124.0	1126.8	1115.7	1112.9	1107.3	1115.7	1090.6	1100.4	1089.2
7.5°	1110.1	1092.0	1087.8	1097.6	1083.7	1075.3	1073.9	1085.0	1062.8	1051.7	1039.2
10°	1069.7	1062.8	1050.3	1043.3	1039.2	1040.5	1029.4	1015.5	1011.3	1008.5	997.4
12.5°	1033.6	1018.3	1007.2	998.8	996.0	996.0	978.0	975.2	962.6	959.9	943.2
15°	990.4	972.4	965.4	954.3	944.5	950.1	929.2	923.7	919.5	901.4	904.2
17.5°	952.9	933.4	916.7	909.8	901.4	893.1	873.6	877.8	868.0	868.0	843.0
20°	904.2	883.3	870.8	856.9	856.9	845.8	831.9	833.3	820.7	808.2	785.9
22.5°	852.8	830.5	815.2	809.6	795.7	792.9	776.2	772.1	755.4	756.7	737.3
25°	798.5	776.2	755.4	756.7	744.3	738.7	728.9	709.5	702.5	694.2	688.6
27.5°	734.5	719.2	701.1	699.7	676.1	677.4	665.0	659.4	642.7	646.9	634.3
30°	676.1	653.8	637.1	633.0	623.2	620.4	601.0	592.6	595.4	584.2	577.3
32.5°	616.2	582.9	575.9	567.6	562.0	555.0	541.1	546.7	534.2	536.9	525.8
35°	536.9	523.0	504.9	504.9	499.4	493.8	484.1	489.7	477.1	471.6	460.5
37.5°	470.2	457.7	439.6	445.2	435.4	427.1	418.7	420.1	409.0	407.6	396.4
40°	397.9	390.9	378.4	378.4	371.4	371.4	367.2	363.1	356.1	347.8	335.2
42.5°	329.7	324.1	318.6	320.0	310.2	318.6	307.4	314.4	292.1	290.8	282.4
45°	279.6	267.1	268.5	262.9	257.4	260.1	250.4	253.2	240.7	237.9	229.6
47.5°	226.8	222.6	214.2	211.5	211.5	207.3	203.1	201.7	196.1	189.2	178.1
50°	186.4	171.1	168.3	164.2	161.4	161.4	155.8	147.5	148.8	141.9	130.7
52.5°	146.1	133.5	128.0	126.6	121.0	118.3	111.3	105.7	101.5	98.8	91.8
55°	112.7	101.5	94.6	94.6	86.3	86.3	76.5	72.3	66.8	61.2	57.1
57.5°	84.9	79.3	72.3	66.8	64.0	57.1	51.4	44.5	40.3	32.0	26.4
60°	64.0	58.4	51.4	47.3	44.5	37.6	30.6	25.0	15.3	12.5	11.1
62.5°	47.3	41.7	34.8	32.0	29.2	23.7	16.7	8.3	4.2	4.2	4.2
65°	34.8	27.8	22.2	19.5	16.7	12.5	5.6	2.8	1.4	1.4	1.4
67.5°	23.7	18.1	12.5	11.1	8.3	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 EX4C259035 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1	1160.1
2.5°	1132.4	1122.6	1128.2	1115.7	1121.2	1130.9	1124.0	1126.8
5°	1093.4	1087.8	1080.9	1062.8	1076.7	1087.8	1082.3	1080.9
7.5°	1051.7	1032.2	1041.9	1036.4	1033.6	1044.7	1032.2	1046.1
10°	1008.5	994.6	993.3	983.5	983.5	991.9	993.3	984.9
12.5°	944.5	937.6	937.6	936.2	934.8	943.2	944.5	940.4
15°	898.7	895.9	888.9	887.5	879.2	891.7	893.1	891.7
17.5°	843.0	844.4	837.5	837.5	843.0	847.2	836.0	847.2
20°	805.5	798.5	795.7	783.2	790.1	797.1	797.1	798.5
22.5°	751.2	740.1	744.3	737.3	733.1	742.8	742.8	747.0
25°	690.0	690.0	692.8	688.6	691.4	696.9	692.8	702.5
27.5°	631.5	637.1	637.1	631.5	634.3	651.0	658.0	646.9
30°	577.3	578.7	582.9	580.1	588.4	594.0	592.6	601.0
32.5°	516.1	523.0	525.8	521.7	524.5	536.9	530.0	528.6
35°	468.8	456.3	454.9	456.3	461.8	464.6	461.8	471.6
37.5°	400.6	396.4	390.9	392.3	396.4	402.0	404.8	411.7
40°	335.2	329.7	329.7	328.3	324.1	339.4	339.4	339.4
42.5°	278.2	276.8	269.9	269.9	275.4	279.6	276.8	286.6
45°	228.1	222.6	218.4	218.4	222.6	222.6	226.8	225.4
47.5°	179.5	173.9	175.3	171.1	175.3	180.8	173.9	175.3
50°	134.9	134.9	132.2	134.9	133.5	134.9	132.2	129.4
52.5°	91.8	104.3	105.7	100.2	87.6	76.5	69.5	75.1
55°	52.9	47.3	47.3	45.9	43.1	41.7	37.6	41.7
57.5°	26.4	23.7	23.7	23.7	22.2	20.9	18.1	18.1
60°	11.1	9.8	9.8	8.3	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)