

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 EX4C259027 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 EX4C259027 4LBSQLWWH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

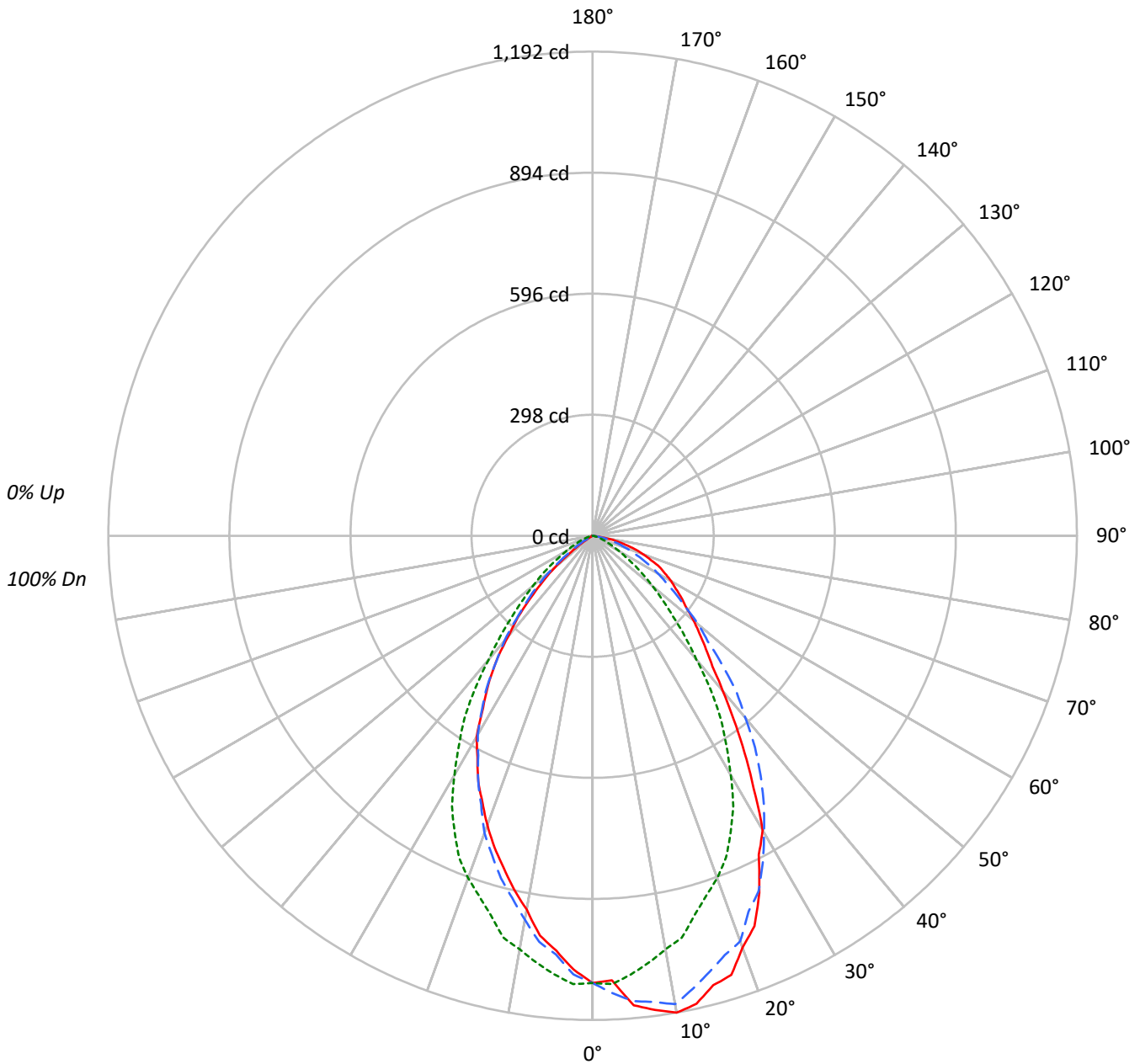
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1578.0 lumens
Efficiency: N/A
Efficacy: 50.1 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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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°	106215	106215	106215
5°	112384	104964	99347
10°	116789	101269	91560
15°	114447	96646	84519
20°	110742	92033	77802
25°	103291	85586	70969
30°	93244	75740	63540
35°	76812	64844	52712
40°	62676	50043	40571
45°	53859	38003	29174
50°	48741	28926	18434
55°	44848	20877	6662
60°	43053	14261	1023
65°	41576	9658	297
70°	37239	6686	367
75°	30533	3467	0
80°	19059	1445	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.1	6.5
10°-20°	277.9	17.6
20°-30°	371.1	23.5
30°-40°	352.2	22.3
40°-50°	243.5	15.4
50°-60°	134.5	8.5
60°-70°	66.8	4.2
70°-80°	26.3	1.7
80°-90°	2.5	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°	752.1	47.7
0°-40°	1104.3	70.0
0°-60°	1482.4	93.9
0°-90°	1578.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1578.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1101	1101	1101	1101	1101	
5°	1160	1150	1084	1035	1026	111
15°	1146	1112	968	872	846	324
25°	970	966	804	667	667	442
35°	652	721	550	453	448	409
45°	395	453	278	228	214	308
55°	267	251	124	63	40	240
65°	182	132	42	1	1	177
75°	82	50	9	0	0	87
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°	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8
2.5°	1095.6	1125.9	1128.6	1125.9	1129.9	1128.6	1135.2	1128.6	1136.5	1124.6	1127.3
5°	1160.3	1148.4	1173.5	1160.3	1160.3	1159.0	1155.0	1153.6	1159.0	1141.8	1149.7
7.5°	1177.4	1194.6	1217.1	1189.3	1190.6	1190.6	1182.7	1180.1	1180.1	1148.4	1157.6
10°	1192.0	1181.4	1193.3	1182.7	1192.0	1190.6	1195.9	1178.7	1190.6	1172.2	1170.8
12.5°	1180.1	1176.1	1192.0	1174.8	1169.5	1170.8	1164.3	1160.3	1164.3	1143.1	1141.8
15°	1145.7	1149.7	1173.5	1155.0	1152.4	1149.7	1141.8	1128.6	1139.2	1110.1	1111.5
17.5°	1133.9	1127.3	1131.3	1115.4	1119.4	1116.7	1115.4	1103.5	1100.8	1082.4	1082.4
20°	1078.5	1092.9	1092.9	1082.4	1082.4	1081.1	1063.9	1074.5	1062.6	1057.3	1062.6
22.5°	1040.1	1041.5	1041.5	1032.2	1033.6	1028.3	1019.0	1012.4	1019.0	1012.4	1001.9
25°	970.2	972.9	988.7	971.5	968.9	974.1	966.2	962.3	961.0	945.1	966.2
27.5°	885.7	912.1	910.8	904.2	912.1	901.5	897.6	898.9	902.9	901.5	906.8
30°	836.9	840.8	844.8	839.5	840.8	836.9	836.9	838.2	848.7	844.8	843.5
32.5°	737.9	751.1	761.7	761.7	762.9	766.9	765.6	793.3	799.9	786.7	784.1
35°	652.1	661.3	670.5	671.9	689.0	690.3	691.7	699.6	718.1	722.0	720.7
37.5°	570.3	579.5	582.1	594.0	603.3	612.5	623.1	633.6	649.4	662.6	656.1
40°	497.6	501.6	508.2	513.5	531.9	531.9	537.2	558.4	575.5	586.1	584.7
42.5°	436.9	438.2	443.5	452.8	469.9	465.9	469.9	484.5	509.5	510.8	525.4
45°	394.7	393.3	397.3	398.6	409.2	414.5	417.1	427.7	448.8	451.4	452.8
47.5°	356.4	355.1	361.7	364.3	368.3	373.5	373.5	374.9	382.8	389.4	384.1
50°	324.7	324.7	324.7	327.4	334.0	332.6	334.0	339.2	343.2	340.5	339.2
52.5°	290.4	295.7	299.6	301.0	302.3	302.3	303.6	301.0	299.6	295.7	287.7
55°	266.6	271.9	271.9	271.9	271.9	277.2	270.6	271.9	271.9	261.4	250.8
57.5°	242.9	248.2	252.1	246.8	252.1	246.8	244.2	242.9	240.2	229.7	213.8
60°	223.1	225.7	224.4	223.1	225.7	221.8	219.1	213.8	211.2	196.7	186.1
62.5°	200.7	201.9	203.3	200.7	198.0	196.7	191.4	183.5	178.2	166.3	157.1
65°	182.1	178.2	176.9	175.6	172.9	169.0	165.0	155.8	151.8	141.2	132.0
67.5°	154.4	153.1	155.8	151.8	145.2	145.2	141.2	133.3	124.1	117.5	108.2
70°	132.0	130.7	128.0	124.1	122.8	117.5	117.5	108.2	105.6	93.7	85.8
72.5°	108.2	108.2	104.3	100.3	96.3	93.7	92.4	85.8	81.9	75.2	68.6
75°	81.9	81.9	80.5	76.5	73.9	71.3	70.0	64.7	60.7	54.1	50.2
77.5°	58.1	58.1	52.8	50.2	51.5	48.8	46.2	44.9	43.5	39.6	34.3
80°	34.3	33.0	29.1	30.4	29.1	29.1	27.7	26.4	23.7	21.1	18.5
82.5°	9.3	10.5	10.5	10.5	11.9	9.3	9.3	9.3	10.5	10.5	6.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
87.5°	1.3	2.6	5.3	5.3	5.3	5.3	5.3	4.0	4.0	4.0	2.6
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°	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8
2.5°	1114.1	1112.7	1114.1	1104.8	1125.9	1110.1	1107.5	1104.8	1114.1	1104.8	1091.6
5°	1137.8	1124.6	1120.7	1116.7	1128.6	1110.1	1106.2	1107.5	1100.8	1083.7	1085.0
7.5°	1145.7	1133.9	1122.0	1096.9	1107.5	1103.5	1092.9	1085.0	1074.5	1059.9	1057.3
10°	1148.4	1135.2	1118.0	1110.1	1094.3	1089.0	1085.0	1071.8	1058.6	1033.6	1026.9
12.5°	1140.5	1124.6	1103.5	1096.9	1085.0	1067.9	1058.6	1045.4	1033.6	1013.8	999.2
15°	1106.2	1092.9	1086.4	1063.9	1058.6	1048.0	1029.6	1011.1	994.0	967.5	959.6
17.5°	1066.6	1061.3	1054.7	1037.5	1036.2	1025.7	1008.5	992.6	970.2	929.3	916.1
20°	1025.7	1025.7	1004.5	997.9	1011.1	990.0	976.8	962.3	916.1	896.3	872.5
22.5°	995.3	980.8	968.9	958.3	959.6	946.4	928.0	898.9	881.7	858.0	830.3
25°	935.9	941.2	914.8	910.8	914.8	884.4	875.2	851.4	826.3	803.9	782.8
27.5°	898.9	884.4	867.3	852.7	852.7	840.8	814.5	809.2	770.9	749.8	723.3
30°	843.5	832.9	818.4	797.3	794.6	785.4	764.3	751.1	711.5	679.8	665.3
32.5°	773.5	769.6	757.7	733.9	726.0	715.4	689.0	666.6	648.1	612.5	595.3
35°	723.3	708.9	683.8	664.0	657.3	638.9	617.7	601.9	582.1	550.5	528.0
37.5°	648.1	633.6	609.8	586.1	586.1	567.6	538.6	522.7	495.0	476.5	458.0
40°	582.1	563.6	539.9	512.2	508.2	481.8	469.9	443.5	426.3	397.3	394.7
42.5°	508.2	491.0	469.9	448.8	433.0	419.8	389.4	369.6	351.1	336.6	332.6
45°	440.9	418.4	400.0	373.5	357.7	341.9	322.1	308.9	294.4	278.5	269.3
47.5°	382.8	364.3	337.9	314.2	298.3	290.4	267.9	253.5	241.6	231.0	224.4
50°	323.4	301.0	286.4	260.0	257.4	238.9	220.5	208.6	201.9	192.7	183.5
52.5°	278.5	257.4	237.6	217.8	207.2	200.7	183.5	171.6	162.4	155.8	150.5
55°	234.9	216.5	200.7	180.8	174.2	165.0	145.2	142.6	133.3	124.1	117.5
57.5°	201.9	184.8	166.3	153.1	141.2	134.7	118.8	108.2	103.0	95.1	88.4
60°	171.6	153.1	138.6	122.8	117.5	108.2	96.3	87.1	80.5	73.9	67.3
62.5°	143.9	128.0	112.2	99.0	91.1	85.8	76.5	68.6	62.1	56.8	51.5
65°	118.8	104.3	91.1	77.9	73.9	67.3	60.7	54.1	48.8	42.3	37.0
67.5°	97.7	84.5	71.3	62.1	58.1	55.4	47.5	40.9	37.0	33.0	27.7
70°	76.5	67.3	56.8	48.8	44.9	40.9	35.6	31.7	26.4	23.7	19.8
72.5°	59.4	51.5	42.3	35.6	33.0	30.4	25.1	21.1	18.5	15.8	13.2
75°	42.3	35.6	30.4	23.7	22.4	21.1	17.2	14.5	11.9	9.3	7.9
77.5°	29.1	23.7	18.5	15.8	14.5	11.9	10.5	7.9	6.6	5.3	4.0
80°	15.8	11.9	9.3	7.9	6.6	5.3	5.3	4.0	2.6	2.6	1.3
82.5°	5.3	4.0	2.6	1.3	1.3	1.3	1.3	1.3	1.3	0.0	1.3
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°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	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°	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8
2.5°	1099.6	1085.0	1089.0	1089.0	1086.4	1086.4	1083.7	1079.7	1081.1	1073.1	1056.0
5°	1087.7	1069.2	1066.6	1069.2	1058.6	1056.0	1050.7	1058.6	1034.9	1044.1	1033.6
7.5°	1053.4	1036.2	1032.2	1041.5	1028.3	1020.3	1019.0	1029.6	1008.5	997.9	986.0
10°	1015.1	1008.5	996.6	990.0	986.0	987.3	976.8	963.6	959.6	957.0	946.4
12.5°	980.8	966.2	955.7	947.8	945.1	945.1	928.0	925.3	913.4	910.8	895.0
15°	939.8	922.7	916.1	905.5	896.3	901.5	881.7	876.5	872.5	855.4	858.0
17.5°	904.2	885.7	869.9	863.3	855.4	847.4	828.9	832.9	823.7	823.7	799.9
20°	858.0	838.2	826.3	813.1	813.1	802.6	789.4	790.7	778.8	766.9	745.8
22.5°	809.2	788.0	773.5	768.2	755.0	752.4	736.6	732.6	716.8	718.1	699.6
25°	757.7	736.6	716.8	718.1	706.2	700.9	691.7	673.2	666.6	658.7	653.4
27.5°	697.0	682.4	665.3	664.0	641.5	642.8	631.0	625.7	609.8	613.8	601.9
30°	641.5	620.4	604.5	600.6	591.4	588.7	570.3	562.3	565.0	554.4	547.8
32.5°	584.7	553.1	546.5	538.6	533.3	526.7	513.5	518.7	506.9	509.5	498.9
35°	509.5	496.3	479.1	479.1	473.9	468.6	459.4	464.7	452.8	447.5	436.9
37.5°	446.1	434.3	417.1	422.4	413.1	405.2	397.3	398.6	388.1	386.8	376.2
40°	377.5	370.9	359.1	359.1	352.4	352.4	348.5	344.5	337.9	330.0	318.1
42.5°	312.8	307.5	302.3	303.6	294.4	302.3	291.7	298.3	277.2	275.9	267.9
45°	265.3	253.5	254.7	249.5	244.2	246.8	237.6	240.2	228.4	225.7	217.8
47.5°	215.2	211.2	203.3	200.7	200.7	196.7	192.7	191.4	186.1	179.5	169.0
50°	176.9	162.4	159.7	155.8	153.1	153.1	147.9	139.9	141.2	134.7	124.1
52.5°	138.6	126.7	121.4	120.1	114.9	112.2	105.6	100.3	96.3	93.7	87.1
55°	106.9	96.3	89.8	89.8	81.9	81.9	72.6	68.6	63.4	58.1	54.1
57.5°	80.5	75.2	68.6	63.4	60.7	54.1	48.8	42.3	38.3	30.4	25.1
60°	60.7	55.4	48.8	44.9	42.3	35.6	29.1	23.7	14.5	11.9	10.5
62.5°	44.9	39.6	33.0	30.4	27.7	22.4	15.8	7.9	4.0	4.0	4.0
65°	33.0	26.4	21.1	18.5	15.8	11.9	5.3	2.6	1.3	1.3	1.3
67.5°	22.4	17.2	11.9	10.5	7.9	4.0	1.3	1.3	1.3	1.3	1.3
70°	14.5	10.5	5.3	4.0	2.6	1.3	1.3	1.3	1.3	1.3	1.3
72.5°	9.3	5.3	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	5.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.3	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	1.3	1.3	1.3
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 EX4C259027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8	1100.8
2.5°	1074.5	1065.2	1070.5	1058.6	1063.9	1073.1	1066.6	1069.2
5°	1037.5	1032.2	1025.7	1008.5	1021.7	1032.2	1026.9	1025.7
7.5°	997.9	979.4	988.7	983.4	980.8	991.3	979.4	992.6
10°	957.0	943.8	942.5	933.2	933.2	941.2	942.5	934.5
12.5°	896.3	889.7	889.7	888.4	887.0	895.0	896.3	892.3
15°	852.7	850.1	843.5	842.2	834.3	846.1	847.4	846.1
17.5°	799.9	801.2	794.6	794.6	799.9	803.9	793.3	803.9
20°	764.3	757.7	755.0	743.1	749.8	756.4	756.4	757.7
22.5°	712.8	702.2	706.2	699.6	695.6	704.9	704.9	708.9
25°	654.7	654.7	657.3	653.4	656.1	661.3	657.3	666.6
27.5°	599.3	604.5	604.5	599.3	601.9	617.7	624.4	613.8
30°	547.8	549.1	553.1	550.5	558.4	563.6	562.3	570.3
32.5°	489.7	496.3	498.9	495.0	497.6	509.5	502.9	501.6
35°	444.8	433.0	431.7	433.0	438.2	440.9	438.2	447.5
37.5°	380.2	376.2	370.9	372.2	376.2	381.5	384.1	390.7
40°	318.1	312.8	312.8	311.5	307.5	322.1	322.1	322.1
42.5°	264.0	262.7	256.1	256.1	261.4	265.3	262.7	271.9
45°	216.5	211.2	207.2	207.2	211.2	211.2	215.2	213.8
47.5°	170.3	165.0	166.3	162.4	166.3	171.6	165.0	166.3
50°	128.0	128.0	125.4	128.0	126.7	128.0	125.4	122.8
52.5°	87.1	99.0	100.3	95.1	83.2	72.6	66.0	71.3
55°	50.2	44.9	44.9	43.5	40.9	39.6	35.6	39.6
57.5°	25.1	22.4	22.4	22.4	21.1	19.8	17.2	17.2
60°	10.5	9.3	9.3	7.9	6.6	5.3	4.0	5.3
62.5°	4.0	2.6	2.6	2.6	2.6	2.6	2.6	2.6
65°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
70°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)