

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: P843551

Luminaire Tested: **LD4C25DE010B50 EU4C25B50 4LBLDWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25DE010B50 EU4C25B50 4LBDWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

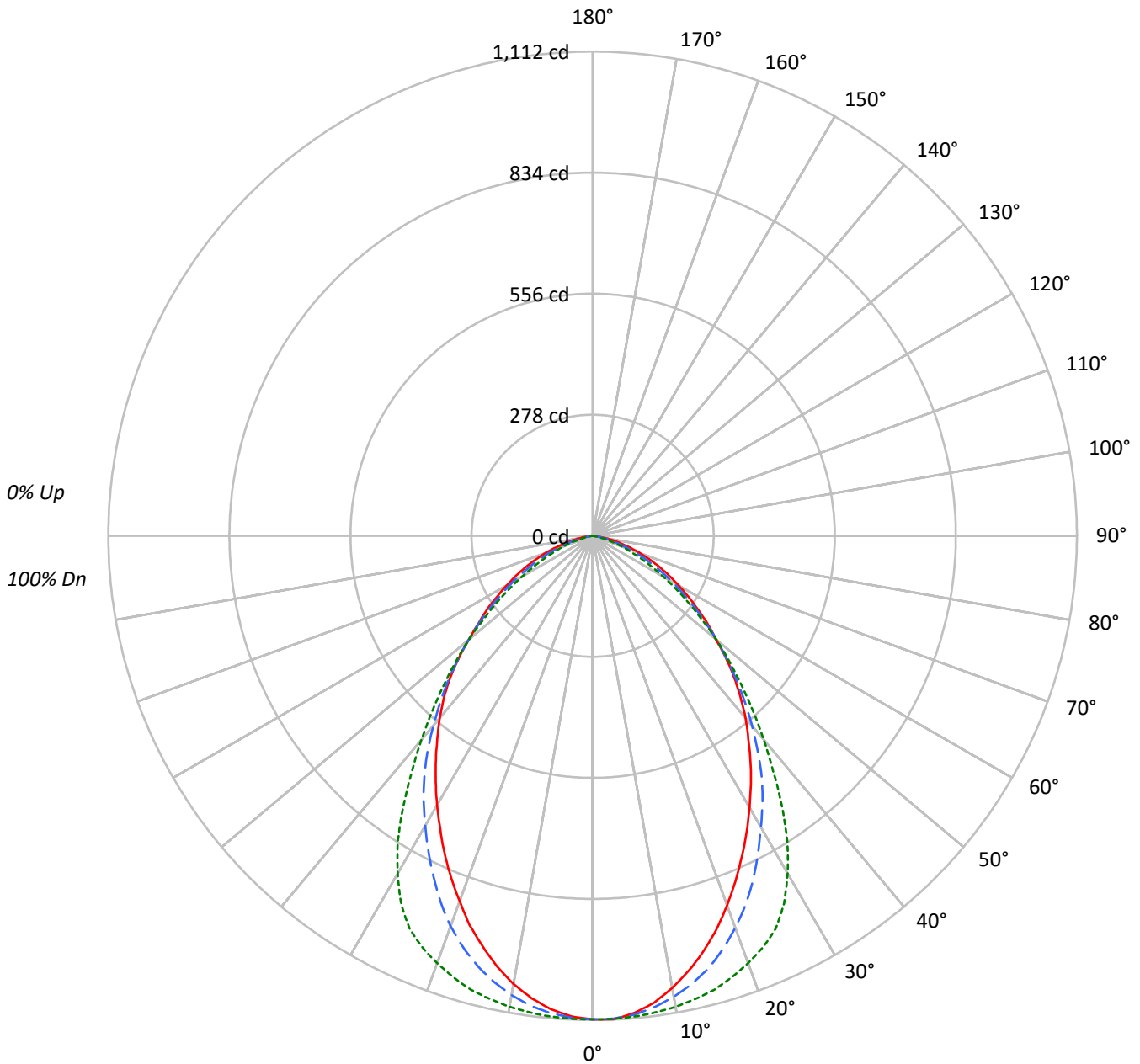
Lumens per Lamp: N/A
Luminaire Lumens: 2040.2 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 29.8
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				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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77				77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67				67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59				59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	136466	136466	136466
5°	135655	136691	134644
10°	131535	137024	130400
15°	125496	137324	124122
20°	118069	136543	116775
25°	109975	134917	109067
30°	102195	127063	101358
35°	94755	113652	94080
40°	87612	98004	87532
45°	79817	83639	80477
50°	70506	70755	70908
55°	63186	57831	63443
60°	55849	45947	55947
65°	49157	35029	48663
70°	40733	25072	40733
75°	31708	14430	30569
80°	20588	3537	19668
85°	7612	1128	5779



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	5.1
10°-20°	288.5	14.1
20°-30°	403.3	19.8
30°-40°	425.4	20.9
40°-50°	361.9	17.7
50°-60°	255.4	12.5
60°-70°	144.8	7.1
70°-80°	51.7	2.5
80°-90°	4.9	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°	796.1	39.0
0°-40°	1221.5	59.9
0°-60°	1838.8	90.1
0°-90°	2040.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2040.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1111	1111	1111	1111	1111	
5°	1100	1104	1108	1100	1092	104
15°	987	1028	1080	1022	976	277
25°	811	872	995	864	805	373
35°	632	678	758	674	627	395
45°	459	466	481	468	463	353
55°	295	285	270	286	296	265
65°	169	145	120	145	167	167
75°	67	46	30	45	64	72
85°	5	2	1	2	4	10
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°	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8
2.5°	1111.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1110.0	1110.0
5°	1100.0	1099.2	1098.8	1098.8	1098.8	1098.8	1099.2	1100.9	1101.7	1103.0	1103.9
7.5°	1081.7	1080.2	1080.9	1080.9	1081.7	1082.6	1083.9	1085.6	1088.0	1089.7	1091.8
10°	1054.4	1052.7	1054.8	1055.6	1058.1	1059.3	1061.4	1063.9	1069.0	1071.4	1074.8
12.5°	1022.4	1021.6	1022.4	1025.7	1028.2	1029.8	1032.4	1037.8	1042.7	1048.1	1053.9
15°	986.7	984.6	985.8	989.9	994.2	997.0	999.1	1006.1	1012.8	1021.1	1028.2
17.5°	946.8	943.8	947.2	950.5	955.9	958.4	961.3	969.2	978.3	987.5	995.3
20°	903.1	902.3	904.4	908.9	914.3	917.7	920.1	928.9	936.7	949.2	958.4
22.5°	857.8	858.7	860.4	865.4	869.1	873.6	877.4	885.2	894.4	906.1	917.7
25°	811.3	812.6	815.5	818.8	825.1	827.5	832.1	840.4	848.3	859.1	872.0
27.5°	766.5	766.9	770.2	771.9	777.7	783.1	785.2	793.9	803.1	811.3	822.5
30°	720.4	721.6	723.6	728.3	734.1	736.1	738.7	746.5	753.6	763.9	772.7
32.5°	676.4	675.5	677.9	680.5	687.1	690.8	692.1	701.2	707.5	717.8	726.2
35°	631.8	629.8	633.5	636.1	641.9	645.2	646.8	653.9	659.8	668.4	677.5
37.5°	587.4	589.1	590.8	592.8	595.8	596.6	601.6	603.2	610.7	617.3	622.3
40°	546.3	545.4	544.7	546.7	550.5	552.1	552.5	557.1	558.7	565.4	569.1
42.5°	502.3	502.7	502.3	502.7	504.7	504.7	506.0	508.9	510.2	512.2	516.8
45°	459.4	459.4	458.3	458.6	459.0	458.6	459.0	460.3	462.8	462.8	466.1
47.5°	415.0	414.2	415.9	414.6	413.7	413.3	414.6	413.3	415.9	415.9	416.7
50°	368.9	368.9	371.0	370.6	371.4	369.7	370.2	370.2	370.6	370.2	371.8
52.5°	333.2	332.3	331.5	329.5	330.3	328.6	328.6	329.0	327.8	327.3	325.3
55°	295.0	295.8	294.6	293.7	293.7	292.0	291.6	289.2	287.5	286.2	285.0
57.5°	260.5	261.3	260.9	258.8	256.4	256.7	255.9	253.4	249.7	247.2	245.1
60°	227.3	228.0	227.3	225.2	224.3	222.6	222.2	218.9	216.1	212.7	210.3
62.5°	197.4	197.4	196.9	194.0	192.0	192.4	190.3	187.7	184.0	179.5	175.8
65°	169.1	168.7	166.6	165.3	163.7	161.6	160.3	156.6	153.7	150.0	145.0
67.5°	140.9	139.6	138.8	137.5	133.8	133.4	131.7	128.4	124.2	121.3	117.2
70°	113.4	113.0	111.4	111.4	108.4	107.1	104.7	101.7	98.0	93.9	90.5
72.5°	89.7	88.9	87.3	85.6	83.1	82.3	80.2	77.3	73.9	69.8	65.7
75°	66.8	66.1	65.7	63.6	61.4	59.4	58.6	55.6	52.4	49.4	45.7
77.5°	47.0	46.1	44.8	43.6	42.4	41.1	39.9	37.4	34.5	31.9	28.7
80°	29.1	28.2	27.4	27.0	25.8	25.4	23.7	22.4	20.0	18.3	16.2
82.5°	14.9	14.9	14.2	13.7	12.9	12.5	12.1	10.8	9.5	8.4	7.1
85°	5.4	5.4	5.0	4.5	4.5	4.1	4.1	3.7	2.9	2.9	2.1
87.5°	0.4	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8
2.5°	1110.4	1110.0	1110.4	1110.4	1110.8	1110.8	1110.8	1110.4	1110.8	1110.4	1110.4
5°	1103.9	1105.0	1105.9	1106.7	1107.1	1107.6	1107.6	1108.0	1108.4	1108.4	1108.0
7.5°	1093.4	1095.9	1098.4	1100.0	1100.9	1101.7	1103.0	1103.9	1104.6	1104.2	1103.9
10°	1079.7	1083.9	1087.1	1090.5	1092.2	1093.4	1095.5	1097.2	1098.0	1098.4	1097.2
12.5°	1060.2	1066.0	1071.4	1076.8	1079.3	1080.9	1085.1	1088.0	1089.7	1089.7	1088.4
15°	1035.6	1044.0	1051.9	1058.9	1063.1	1065.6	1071.8	1075.9	1078.5	1079.7	1077.6
17.5°	1006.1	1015.8	1025.3	1034.5	1038.6	1042.3	1051.1	1056.9	1062.3	1063.1	1060.6
20°	968.4	980.4	991.2	1002.4	1007.0	1012.8	1022.8	1032.4	1040.6	1044.4	1037.3
22.5°	926.0	939.3	949.2	963.0	969.2	975.5	988.4	1000.3	1014.9	1022.8	1010.4
25°	882.0	893.2	905.2	918.6	927.2	933.9	948.8	964.2	983.7	995.3	977.9
27.5°	834.6	844.5	859.1	873.6	880.3	888.6	906.5	923.1	941.8	952.2	939.3
30°	785.6	798.1	811.7	825.1	834.6	842.5	857.0	871.2	886.9	895.7	886.1
32.5°	737.0	749.0	760.7	775.2	780.6	787.6	800.5	812.6	824.6	832.6	821.4
35°	685.9	696.7	707.5	717.5	719.9	728.3	738.7	745.7	751.6	757.8	750.3
37.5°	630.2	638.5	643.9	654.7	658.9	660.1	668.4	673.4	679.6	680.9	680.5
40°	573.7	581.2	585.7	592.4	595.8	595.8	601.6	606.1	610.7	611.1	610.7
42.5°	521.0	524.7	528.4	532.6	531.8	536.7	539.2	541.3	544.7	544.7	545.4
45°	467.8	470.6	474.0	474.9	478.2	478.2	480.3	481.1	482.7	481.4	479.8
47.5°	418.3	419.6	420.0	423.7	424.5	421.7	424.1	424.5	424.1	424.1	423.4
50°	371.4	372.2	371.8	370.6	371.0	372.2	371.0	369.3	370.2	370.2	371.0
52.5°	325.6	324.1	323.2	323.2	321.5	321.5	319.5	318.7	318.2	316.5	318.7
55°	283.8	281.2	277.5	276.7	275.4	275.0	272.6	270.4	269.6	270.0	269.6
57.5°	243.5	239.7	237.2	236.4	235.1	232.7	229.7	227.7	227.3	226.4	226.4
60°	206.9	202.7	198.9	195.2	195.7	194.0	191.1	189.8	188.6	187.0	188.2
62.5°	173.7	169.1	164.9	161.2	158.6	157.5	155.4	153.3	152.1	150.8	152.5
65°	140.9	137.1	132.5	128.8	127.6	126.3	124.2	120.9	120.5	120.5	121.3
67.5°	111.4	107.1	103.0	100.6	98.9	97.2	96.4	94.8	93.5	92.6	93.1
70°	85.6	81.4	78.1	75.6	74.4	73.9	71.1	70.6	70.2	69.8	69.4
72.5°	62.3	59.0	56.1	54.5	52.8	51.5	50.7	49.4	49.0	49.0	49.0
75°	42.8	40.3	37.0	34.9	34.1	32.8	31.6	30.8	29.9	30.4	30.4
77.5°	25.8	23.3	21.2	19.6	19.1	17.9	16.6	15.8	14.5	14.5	14.9
80°	14.2	12.1	10.4	9.1	8.4	7.9	6.7	6.2	5.4	5.0	5.0
82.5°	6.2	5.0	4.1	3.7	3.3	2.9	2.5	2.1	2.1	1.7	2.1
85°	2.1	1.7	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.4	0.0	0.0	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	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°	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8
2.5°	1110.0	1110.0	1109.7	1109.7	1109.7	1108.8	1108.8	1108.4	1108.0	1107.6	1106.7
5°	1107.1	1106.7	1105.9	1105.4	1105.0	1103.9	1102.6	1101.7	1100.5	1098.8	1098.0
7.5°	1103.0	1101.7	1100.0	1099.2	1098.0	1095.1	1093.0	1090.9	1088.8	1086.0	1082.6
10°	1095.9	1093.4	1090.9	1089.3	1087.1	1083.4	1079.3	1075.9	1071.4	1067.3	1062.7
12.5°	1086.0	1083.0	1078.0	1075.5	1073.1	1067.7	1062.3	1055.2	1049.0	1043.1	1037.8
15°	1073.5	1068.1	1062.3	1058.9	1055.2	1046.4	1038.2	1030.7	1022.4	1015.3	1006.5
17.5°	1055.2	1047.3	1039.0	1035.2	1030.2	1020.3	1010.4	1000.0	990.4	981.7	970.9
20°	1027.8	1019.0	1008.2	1002.4	998.3	985.0	975.5	963.8	953.9	943.0	930.9
22.5°	995.8	983.7	971.6	963.4	958.9	945.5	932.6	922.3	911.5	899.0	890.3
25°	959.7	944.7	930.2	921.8	914.7	900.7	888.2	877.4	864.1	853.3	844.5
27.5°	919.0	902.0	884.8	876.6	869.9	854.6	841.2	830.0	817.1	807.6	798.4
30°	870.3	855.0	838.7	832.1	824.2	808.5	793.0	783.1	769.0	759.0	749.0
32.5°	809.7	799.7	786.9	777.7	773.6	759.0	746.2	734.1	722.0	714.1	704.2
35°	743.2	734.5	723.6	718.7	713.3	704.2	693.8	683.3	673.8	666.3	657.2
37.5°	675.9	667.2	660.5	655.1	651.8	643.5	637.2	629.4	622.7	615.6	610.7
40°	606.1	603.6	596.6	594.1	593.2	584.1	578.7	572.5	568.3	564.1	561.3
42.5°	544.3	540.0	534.6	535.1	532.6	527.5	523.8	519.7	516.8	514.8	511.8
45°	483.1	479.8	477.3	479.4	475.3	473.6	470.6	470.2	468.2	464.4	463.2
47.5°	425.0	424.5	425.0	423.7	422.9	422.1	422.5	420.4	418.3	417.1	415.4
50°	371.8	372.2	373.0	374.3	371.4	372.6	372.2	371.8	371.8	370.6	371.4
52.5°	320.3	320.7	321.5	322.8	323.2	323.2	324.5	325.3	326.9	329.0	329.0
55°	271.7	274.6	276.3	278.4	277.1	279.5	280.8	284.6	285.8	285.8	287.5
57.5°	228.4	231.4	232.7	235.1	236.0	238.1	241.4	243.5	246.3	248.9	251.3
60°	189.0	190.3	193.5	197.4	196.5	201.5	204.0	207.3	211.0	212.7	216.1
62.5°	153.7	155.4	157.9	159.1	162.0	164.5	170.3	173.7	176.9	181.2	184.5
65°	122.2	123.8	126.3	128.8	130.0	133.8	136.6	142.5	145.4	150.0	153.7
67.5°	93.5	95.9	98.0	99.7	100.6	104.3	108.8	111.4	116.8	121.3	124.2
70°	69.8	71.9	74.4	73.9	75.6	78.5	81.9	85.6	89.7	93.9	97.2
72.5°	48.7	50.7	52.4	52.8	54.5	56.5	59.0	61.9	65.3	69.4	73.9
75°	30.8	31.2	32.8	33.6	34.5	37.0	39.0	42.0	44.8	48.2	51.1
77.5°	15.3	16.6	17.5	18.3	18.7	20.7	22.8	25.4	27.8	31.2	34.1
80°	5.8	6.2	7.5	7.9	8.7	9.9	11.6	12.9	14.9	17.5	19.1
82.5°	2.1	2.5	2.9	2.9	3.3	4.1	4.5	5.8	7.1	7.9	8.7
85°	0.8	0.8	0.8	0.8	0.8	1.3	1.3	1.7	2.1	2.5	2.5
87.5°	0.0	0.0	0.0	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	0.0	0.0	0.0



TEST NUMBER: P843551

CATALOG NUMBER: LD4C25DE010B50 EU4C25B50 4LBDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8	1110.8
2.5°	1106.3	1106.3	1105.9	1105.4	1105.4	1105.4	1105.0	1105.0
5°	1096.3	1095.1	1094.7	1093.8	1093.4	1093.0	1091.8	1091.8
7.5°	1080.2	1078.5	1077.2	1075.9	1074.3	1073.1	1073.1	1071.4
10°	1058.5	1055.2	1053.5	1051.9	1049.8	1047.3	1046.4	1045.3
12.5°	1032.4	1025.7	1024.0	1021.1	1017.8	1016.2	1013.2	1013.2
15°	1000.0	992.9	989.1	987.5	983.3	980.4	979.2	975.9
17.5°	962.1	956.7	950.9	948.4	943.8	940.1	938.4	938.0
20°	923.9	915.2	911.5	907.8	902.3	899.0	896.5	893.2
22.5°	879.8	872.0	866.6	864.1	859.5	853.7	849.6	849.6
25°	833.3	826.3	823.4	818.0	812.6	810.5	805.5	804.6
27.5°	788.9	781.8	776.0	773.1	766.9	763.9	759.8	758.1
30°	742.8	734.5	730.3	729.9	722.5	719.5	716.2	714.5
32.5°	696.7	689.6	685.5	683.0	679.6	674.7	671.7	670.1
35°	651.0	646.4	642.7	639.8	634.4	631.8	629.4	627.3
37.5°	603.2	599.0	597.4	594.9	592.4	587.8	587.0	585.3
40°	557.1	551.7	551.7	550.1	547.5	547.1	545.8	545.8
42.5°	508.9	506.4	506.0	506.4	504.7	504.0	502.7	505.5
45°	461.1	462.4	460.3	460.7	459.9	461.6	461.6	463.2
47.5°	417.1	415.4	416.3	417.1	418.3	418.3	417.9	417.6
50°	370.2	371.8	373.5	371.4	372.2	372.6	370.6	371.0
52.5°	329.9	330.3	331.5	330.3	331.5	331.1	331.9	330.3
55°	290.8	290.8	292.4	292.9	293.3	294.6	295.0	296.2
57.5°	253.0	255.1	257.1	256.7	258.4	260.1	258.8	260.1
60°	220.2	221.9	223.9	224.7	226.0	226.9	226.9	227.7
62.5°	187.0	190.3	192.0	193.5	193.5	195.2	196.9	197.4
65°	157.1	160.8	162.0	163.3	164.1	165.7	167.8	167.4
67.5°	128.8	131.3	132.9	133.8	136.2	137.1	138.8	140.5
70°	100.9	104.3	105.6	107.1	109.3	110.9	112.5	113.4
72.5°	77.3	79.7	80.6	82.3	84.3	86.0	86.8	88.1
75°	54.0	58.2	58.6	59.9	61.4	63.6	64.8	64.4
77.5°	35.7	38.6	39.0	40.7	42.4	44.0	44.4	44.8
80°	21.2	22.8	23.3	24.1	25.4	26.1	27.0	27.8
82.5°	9.9	10.8	11.6	11.6	12.5	13.3	13.3	13.7
85°	3.3	3.3	3.7	3.7	4.1	4.1	4.5	4.1
87.5°	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4
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)