

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: P843553

Luminaire Tested: **LD4C25DE010B2750 EU4C25B50 4LBLWWLI**

Issue Date: 5/7/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843553  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C25DE010B2750 EU4C25B50 4LBLWWLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

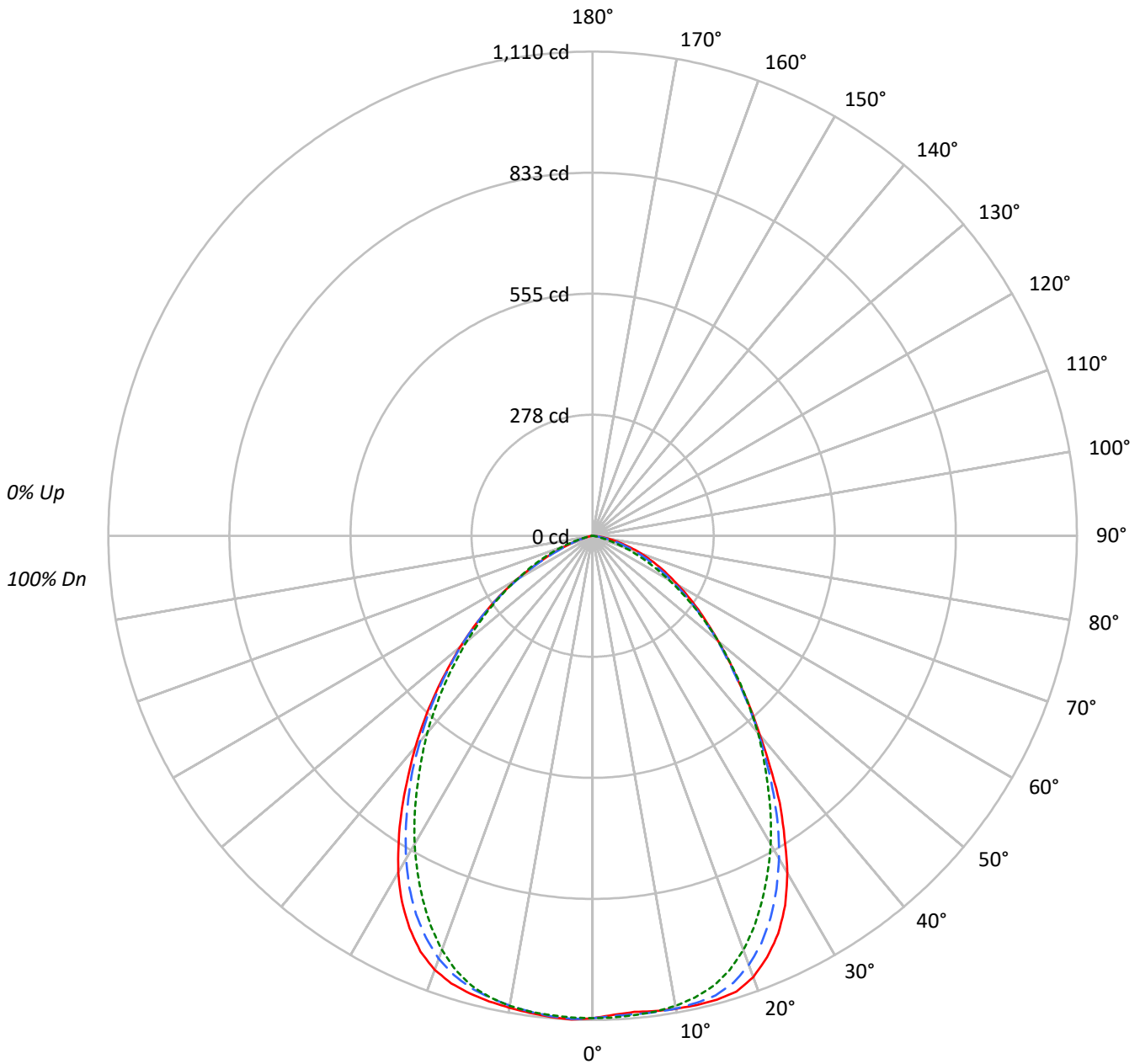
Lumens per Lamp: N/A  
Luminaire Lumens: 2120.5 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

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					
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								
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78								
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68								
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60								
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54								
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48								
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43								
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39								
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36								
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	135888	135888	135888
5°	135125	136050	136555
10°	137361	136525	137049
15°	140046	135925	138189
20°	140752	132124	138412
25°	136421	124777	134564
30°	126609	115785	126396
35°	112122	105028	114237
40°	95583	94588	101308
45°	82127	83066	88260
50°	71672	71844	75667
55°	63336	60658	62736
60°	55505	49510	49289
65°	49128	38401	34157
70°	41955	26401	20295
75°	33891	14193	9304
80°	23206	3537	2335
85°	7048	1128	1128



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.1	5.0
10°-20°	304.3	14.4
20°-30°	439.7	20.7
30°-40°	454.6	21.4
40°-50°	375.6	17.7
50°-60°	259.2	12.2
60°-70°	135.7	6.4
70°-80°	42.7	2.0
80°-90°	3.6	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°	849.1	40.0
0°-40°	1303.7	61.5
0°-60°	1938.5	91.4
0°-90°	2120.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2120.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1106	1106	1106	1106	1106	
5°	1096	1101	1103	1105	1107	105
15°	1101	1091	1069	1074	1086	311
25°	1006	966	920	957	993	459
35°	748	723	700	737	762	464
45°	473	470	478	500	508	368
55°	296	287	283	291	293	266
65°	169	153	132	110	118	167
75°	71	56	30	20	20	77
85°	5	2	1	1	1	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°	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1
2.5°	1099.0	1099.4	1099.4	1100.3	1100.3	1100.3	1100.7	1100.7	1101.1	1101.5	1101.9
5°	1095.7	1095.7	1096.6	1097.0	1097.8	1098.1	1099.0	1099.4	1100.3	1100.7	1101.1
7.5°	1099.0	1099.0	1099.4	1099.8	1099.8	1100.3	1100.3	1100.7	1101.1	1101.5	1101.5
10°	1101.1	1101.1	1101.1	1101.1	1101.5	1101.5	1101.5	1101.1	1101.1	1101.1	1100.7
12.5°	1101.9	1101.9	1101.5	1101.1	1101.5	1101.1	1101.1	1099.8	1099.0	1098.1	1097.0
15°	1101.1	1101.1	1100.7	1100.3	1099.8	1099.0	1098.6	1096.6	1094.9	1092.3	1090.7
17.5°	1095.7	1094.9	1094.0	1093.2	1091.6	1090.3	1089.5	1085.8	1082.8	1078.7	1074.1
20°	1076.6	1075.7	1074.6	1072.4	1070.3	1068.7	1066.2	1060.8	1057.8	1051.7	1047.1
22.5°	1045.5	1044.6	1045.0	1041.2	1037.1	1034.7	1033.0	1028.4	1023.5	1015.5	1010.6
25°	1006.4	1003.9	1003.9	998.1	996.0	994.4	992.3	986.9	979.4	972.4	965.7
27.5°	955.7	952.4	950.7	949.9	944.9	941.2	938.2	934.1	927.9	921.6	912.5
30°	892.5	892.2	890.1	886.4	882.6	881.0	877.6	870.5	864.7	860.2	854.4
32.5°	818.3	817.9	817.9	817.9	815.3	814.9	809.9	806.2	801.6	794.6	790.8
35°	747.6	747.2	747.6	741.4	739.7	738.5	738.1	735.6	729.3	726.1	722.7
37.5°	667.9	669.2	668.3	666.6	668.7	664.9	667.9	662.5	660.0	659.1	655.4
40°	596.0	599.4	596.0	596.4	598.5	594.8	594.8	594.0	592.3	591.4	590.6
42.5°	534.5	530.4	532.9	530.8	532.9	531.7	529.6	530.8	531.2	529.6	529.1
45°	472.7	473.5	474.3	473.1	473.1	471.8	475.2	473.1	473.1	473.5	470.5
47.5°	422.4	421.1	422.0	421.1	421.6	420.7	421.6	422.0	421.1	421.1	418.7
50°	375.0	374.2	377.2	374.6	374.6	374.2	374.6	373.8	372.6	372.6	373.5
52.5°	333.9	332.3	331.9	333.9	331.0	331.0	331.5	330.6	328.9	328.1	326.1
55°	295.7	295.3	295.7	294.0	293.3	293.3	291.2	290.3	289.9	287.9	286.6
57.5°	260.0	258.8	259.2	258.8	257.1	256.7	255.0	255.0	253.4	251.7	249.6
60°	225.9	225.9	227.2	225.5	224.3	223.5	222.6	221.8	218.9	216.0	213.5
62.5°	195.7	196.1	195.7	194.4	193.5	192.7	191.9	189.4	186.9	185.3	182.3
65°	169.0	168.6	167.4	166.6	164.5	164.5	162.8	161.6	158.6	156.2	153.3
67.5°	141.6	140.8	140.8	140.8	138.3	137.9	137.1	134.5	132.1	128.7	126.3
70°	116.8	117.5	116.3	115.1	113.8	113.4	112.1	109.7	106.7	103.4	101.3
72.5°	93.1	93.9	92.6	92.2	89.7	88.8	88.4	86.4	83.0	81.0	77.6
75°	71.4	71.8	71.1	70.2	68.5	68.1	66.0	64.4	62.3	59.0	56.1
77.5°	51.5	50.7	50.7	49.0	47.4	47.4	47.0	44.4	41.6	39.0	36.6
80°	32.8	32.4	31.2	30.4	29.1	28.7	28.2	26.1	24.1	22.4	20.7
82.5°	16.6	16.2	15.8	15.3	14.5	13.7	14.2	12.5	11.6	9.9	8.7
85°	5.0	5.4	5.4	5.0	4.5	4.5	4.5	4.1	3.3	2.9	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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1
2.5°	1102.4	1102.8	1103.2	1103.5	1103.5	1104.0	1104.4	1104.8	1105.2	1105.2	1105.7
5°	1101.5	1102.4	1102.4	1102.8	1102.8	1102.8	1103.2	1103.2	1103.2	1103.2	1103.5
7.5°	1101.9	1101.9	1101.9	1101.5	1101.5	1101.1	1101.1	1101.1	1100.3	1100.3	1100.3
10°	1099.8	1099.4	1099.0	1098.1	1097.8	1097.4	1096.6	1095.7	1094.9	1094.4	1093.6
12.5°	1095.7	1094.0	1092.3	1090.7	1089.9	1089.5	1087.8	1086.5	1085.3	1084.1	1083.2
15°	1087.4	1084.9	1082.0	1078.7	1077.8	1077.0	1074.1	1071.6	1069.9	1068.7	1066.6
17.5°	1070.7	1065.8	1062.5	1057.5	1055.4	1054.6	1050.0	1047.5	1044.6	1043.8	1042.1
20°	1041.2	1036.7	1030.5	1025.9	1023.5	1020.9	1017.2	1013.8	1010.6	1010.6	1008.5
22.5°	1004.3	998.5	990.6	984.8	984.3	979.4	976.1	972.4	971.1	968.6	968.6
25°	957.8	952.8	944.0	939.1	936.6	935.4	930.0	925.0	922.5	920.5	922.0
27.5°	906.3	898.8	892.2	886.0	883.9	881.3	876.4	874.3	869.7	869.4	869.0
30°	847.3	839.9	833.2	830.2	826.1	824.1	820.3	817.9	816.2	816.2	815.3
32.5°	785.4	778.7	775.5	769.2	767.1	764.2	761.7	759.3	760.1	759.3	759.7
35°	718.6	716.9	710.6	706.9	706.9	706.5	702.4	700.7	699.8	700.3	702.4
37.5°	655.0	650.0	645.9	643.4	645.5	642.9	642.5	642.5	645.1	643.4	646.7
40°	587.3	586.9	585.2	586.0	586.5	583.6	584.4	584.8	586.5	589.8	590.3
42.5°	528.3	527.9	527.9	527.9	527.1	525.4	527.1	530.0	529.6	532.1	534.1
45°	471.4	470.5	472.2	471.0	473.5	474.3	473.1	473.9	476.4	478.1	481.4
47.5°	419.5	419.5	419.9	420.7	418.3	420.3	421.1	422.8	424.1	424.9	426.5
50°	371.3	371.3	370.5	370.5	370.5	371.8	370.1	372.2	372.6	375.9	378.0
52.5°	326.9	324.8	326.1	325.2	323.5	322.7	323.5	324.0	326.5	327.3	329.8
55°	284.5	284.5	281.2	280.4	281.6	281.2	280.8	280.8	282.1	283.2	285.3
57.5°	247.2	244.6	242.2	241.8	240.5	240.9	240.9	240.5	239.7	240.1	240.5
60°	211.8	210.2	206.5	206.5	206.0	205.6	203.5	203.1	201.1	201.5	199.8
62.5°	179.5	178.6	173.7	172.0	172.0	170.7	168.6	168.3	165.3	165.3	163.6
65°	150.4	147.9	145.0	142.0	142.0	140.3	139.2	135.4	133.4	132.1	129.6
67.5°	123.7	120.0	117.1	114.6	113.0	112.5	109.7	107.1	103.9	101.7	98.0
70°	98.0	95.1	92.2	89.7	88.1	86.4	83.4	79.7	77.2	73.5	71.1
72.5°	73.9	71.4	69.0	65.6	63.6	62.3	59.4	56.1	51.9	49.4	46.1
75°	53.2	50.2	47.0	44.0	42.7	41.6	38.2	35.7	32.8	29.9	26.5
77.5°	34.5	31.2	28.7	25.4	25.0	24.1	20.7	18.3	16.2	14.5	12.5
80°	18.3	16.6	14.5	12.5	11.6	10.4	8.7	7.5	6.2	5.0	4.1
82.5°	7.9	6.7	5.4	4.5	4.1	3.7	2.9	2.5	2.1	2.1	1.7
85°	2.1	1.7	1.7	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.0	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1
2.5°	1106.1	1106.5	1106.9	1106.9	1107.3	1107.8	1107.8	1108.2	1108.6	1109.0	1109.0
5°	1104.0	1104.0	1104.0	1104.4	1104.4	1104.4	1104.4	1105.2	1105.2	1105.7	1106.1
7.5°	1099.8	1099.8	1099.8	1099.8	1099.4	1099.8	1099.4	1099.4	1100.3	1100.7	1101.1
10°	1093.2	1092.7	1092.7	1092.3	1092.3	1092.3	1092.7	1093.2	1093.6	1094.0	1095.3
12.5°	1082.8	1082.4	1082.4	1082.0	1082.0	1082.4	1082.8	1083.7	1085.3	1086.2	1087.8
15°	1066.2	1065.8	1066.2	1066.6	1067.5	1068.7	1069.9	1071.2	1073.7	1075.7	1077.8
17.5°	1042.1	1042.5	1042.9	1043.8	1045.0	1046.6	1050.0	1053.3	1056.3	1059.5	1062.9
20°	1008.9	1010.6	1011.0	1013.8	1014.7	1018.4	1022.2	1027.2	1031.7	1035.8	1040.5
22.5°	969.0	970.3	972.0	975.2	977.4	982.3	986.9	992.7	997.7	1003.1	1009.7
25°	923.7	924.2	929.1	929.1	934.1	938.2	943.7	949.9	957.4	964.5	969.0
27.5°	872.2	874.3	878.0	879.7	883.4	890.1	894.7	902.2	909.6	915.8	920.9
30°	818.3	819.9	826.1	827.0	829.8	835.6	841.9	849.0	854.8	861.9	866.4
32.5°	761.3	765.9	769.6	772.6	773.3	782.1	785.4	790.4	797.0	804.1	808.7
35°	706.1	708.2	713.6	715.3	717.7	722.7	729.3	733.5	736.9	741.4	746.8
37.5°	647.5	653.7	655.0	660.0	660.8	665.4	668.7	673.7	677.8	682.0	682.8
40°	593.1	595.2	599.8	601.1	601.8	608.0	612.3	613.4	615.5	619.2	624.3
42.5°	537.9	539.9	544.9	543.7	547.4	550.3	552.4	557.4	559.5	560.8	560.8
45°	483.4	484.3	487.6	489.3	491.4	493.1	496.8	499.2	500.0	503.9	505.0
47.5°	431.5	432.4	434.9	437.8	436.9	439.0	443.1	444.4	444.8	447.4	448.5
50°	380.4	382.5	385.8	385.0	387.5	388.8	392.5	393.3	393.3	393.8	394.2
52.5°	332.7	334.3	335.2	336.0	337.3	339.3	341.0	340.1	341.8	343.5	342.3
55°	285.3	286.6	288.6	289.5	289.5	289.9	289.1	292.9	291.2	290.7	291.2
57.5°	242.2	240.5	240.1	242.2	242.9	242.5	241.4	242.9	242.9	242.2	240.9
60°	200.2	198.9	198.5	198.9	197.2	196.1	196.8	196.1	194.0	193.1	193.5
62.5°	162.0	160.8	157.4	157.4	156.6	156.2	152.8	153.3	151.6	149.1	150.0
65°	126.7	123.3	121.7	121.3	118.3	115.9	115.1	112.1	109.7	109.3	109.7
67.5°	95.1	91.4	88.4	87.3	85.6	83.4	80.6	78.1	78.9	78.5	80.2
70°	66.0	63.6	60.6	58.6	59.4	56.9	55.2	55.2	55.6	56.1	56.9
72.5°	44.0	40.7	39.4	38.2	37.3	35.7	36.6	36.6	36.2	36.6	35.7
75°	25.0	23.3	22.0	21.6	20.7	20.7	20.7	20.7	20.3	20.0	20.0
77.5°	11.2	10.4	9.9	9.5	9.5	9.5	9.1	8.7	8.7	8.7	8.4
80°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
82.5°	1.7	1.7	2.1	2.1	2.1	1.7	2.1	2.1	1.7	1.7	2.1
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.0	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





TEST NUMBER: P843553

CATALOG NUMBER: LD4C25DE010B2750 EU4C25B50 4LBLWWLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1	1106.1
2.5°	1109.4	1109.8	1109.8	1109.8	1110.2	1110.2	1110.2	1110.2
5°	1106.5	1106.9	1106.9	1106.9	1107.3	1107.3	1107.3	1107.3
7.5°	1101.5	1101.9	1101.9	1102.4	1102.4	1102.8	1102.8	1103.2
10°	1095.7	1096.6	1097.0	1097.4	1097.8	1098.1	1098.1	1098.6
12.5°	1089.5	1090.3	1090.7	1091.6	1092.3	1092.7	1093.2	1093.6
15°	1080.4	1082.0	1082.8	1083.2	1084.9	1085.8	1086.2	1086.5
17.5°	1065.8	1069.2	1070.3	1071.2	1072.9	1074.6	1075.7	1076.1
20°	1045.0	1048.7	1050.4	1052.5	1055.0	1057.1	1057.8	1058.7
22.5°	1016.0	1020.1	1022.6	1025.1	1027.2	1029.3	1032.6	1031.3
25°	974.4	981.5	984.3	985.6	990.2	992.7	994.4	992.7
27.5°	927.9	932.1	934.5	937.5	940.8	943.3	944.0	946.6
30°	871.8	878.9	878.5	881.3	885.6	888.0	888.8	891.0
32.5°	813.6	817.0	819.5	819.0	820.7	825.3	823.7	827.4
35°	751.8	752.2	756.3	755.9	759.3	759.3	759.3	761.7
37.5°	685.8	690.7	688.6	693.6	692.0	693.2	693.2	694.0
40°	625.5	627.2	627.2	628.9	630.1	628.9	629.7	631.7
42.5°	563.2	564.9	565.3	564.5	565.7	569.4	566.6	569.0
45°	505.0	506.3	508.0	506.7	508.8	507.6	508.8	508.0
47.5°	450.2	449.8	449.4	452.8	449.8	450.2	451.9	449.0
50°	394.2	396.6	395.0	396.3	397.0	397.0	395.9	395.9
52.5°	344.4	343.9	342.7	343.9	343.1	343.5	344.4	343.5
55°	292.9	294.4	293.7	293.3	293.7	293.7	296.1	292.9
57.5°	242.2	241.4	242.5	245.5	242.5	244.6	245.9	246.3
60°	194.0	194.0	196.5	195.2	197.7	199.8	201.5	200.6
62.5°	147.9	150.0	150.8	151.1	153.7	155.4	155.4	154.9
65°	109.7	112.5	112.5	114.2	115.1	115.1	115.9	117.5
67.5°	81.0	81.0	81.4	82.3	81.9	81.9	82.7	83.0
70°	56.5	55.6	56.9	56.5	56.5	56.1	56.5	56.5
72.5°	35.7	35.7	36.2	35.7	34.9	35.3	35.3	36.2
75°	19.1	20.0	19.1	19.1	19.6	18.7	19.1	19.6
77.5°	7.9	7.9	7.9	7.9	7.9	7.5	7.5	7.5
80°	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3
82.5°	1.7	2.1	1.7	2.1	1.7	1.7	1.7	1.7
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.0	0.4	0.0	0.4	0.0	0.0	0.0	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)