

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: METALUX

Report Number: P201292

Luminaire Tested: **4LBLED-LD4-6-SYMW-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P201292  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28136)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4LBLED-LD4-6-SYMW-UNV-L850-CD1-U  
Description: 4 ft. Low Bay Linear, 6000 lm, Wht Sym lens, 5K  
Light Source: (392) 5000K CCT, 80 CRI LEDS  
2UT217098A8504C  
Ballast/Driver: OSRAM  
(OTI50W0960CC)

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6358.6 lumens  
Efficiency: N/A  
Efficacy: 148.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 2.12 / 1.93  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.21')  
CIE Type: Semi-Direct

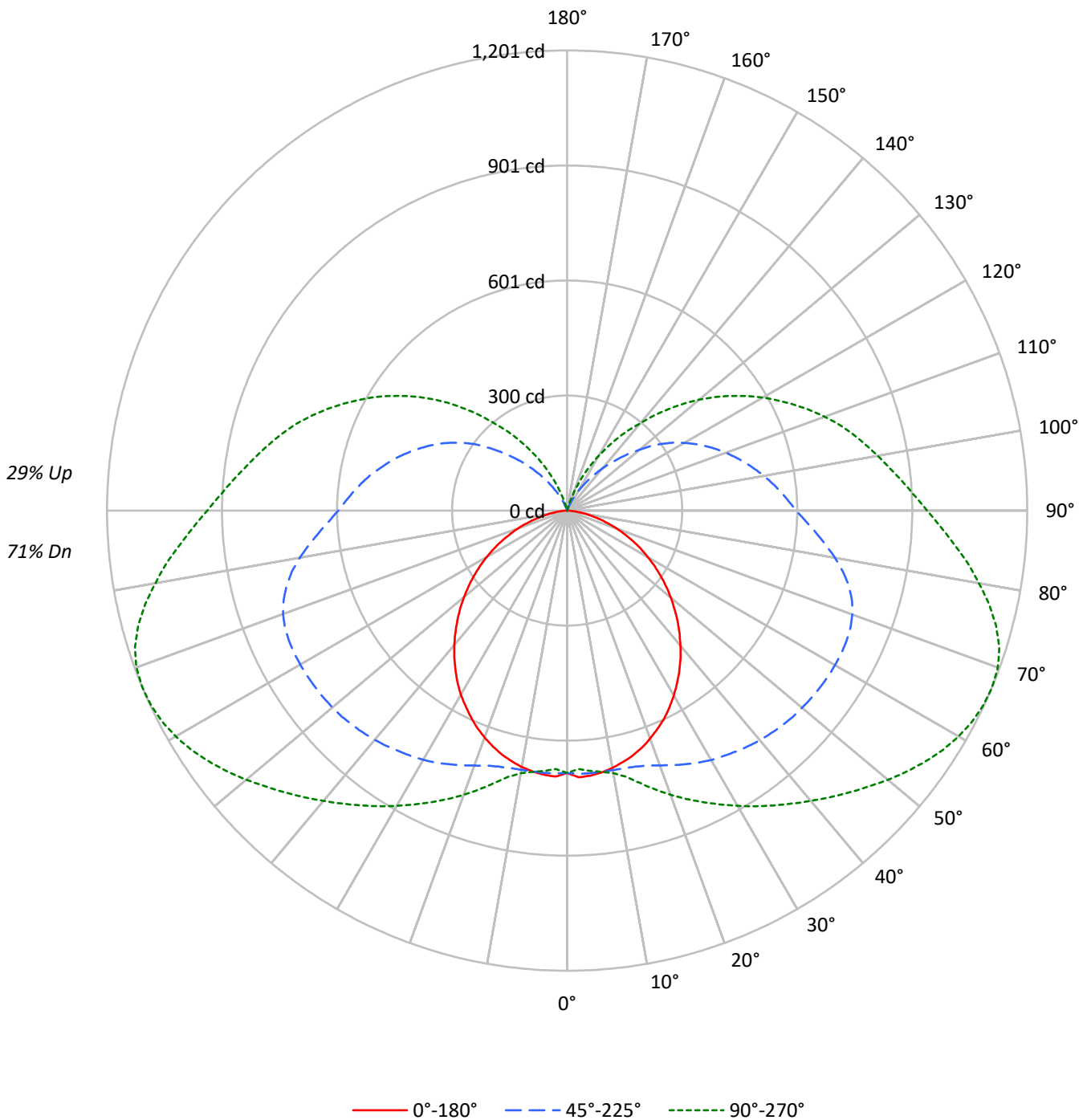
Input Watts (W): 42.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75	75	75	75	71	
1	97	90	84	79	91	85	80	75	75	71	67	66	63	60	58	55	53	53	53	53	49	
2	86	76	67	60	81	71	64	57	63	57	51	55	50	46	48	44	40	40	40	40	36	
3	77	65	55	48	72	61	52	45	54	47	41	47	41	36	41	36	32	32	32	32	28	
4	70	56	46	39	65	53	44	37	47	39	33	41	35	30	35	30	26	26	26	26	23	
5	64	50	40	32	60	47	38	31	41	34	28	36	30	25	31	26	22	22	22	22	19	
6	59	44	34	27	55	42	33	26	37	29	24	32	26	21	28	23	19	19	19	19	16	
7	54	40	30	24	50	37	29	23	33	26	20	29	23	18	25	20	16	16	16	16	14	
8	50	36	27	21	47	34	25	20	30	23	18	26	20	16	23	18	14	14	14	14	12	
9	47	33	24	18	44	31	23	17	27	21	16	24	18	14	21	16	13	13	13	13	10	
10	43	30	22	16	41	28	21	15	25	19	14	22	17	13	20	15	11	11	11	11	9	

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

	0°	90°	180°
0°	11033	11033	11033
5°	11181	9946	11146
10°	11056	9340	11019
15°	10890	9207	10842
20°	10658	9313	10601
25°	10399	9442	10320
30°	10058	9631	10027
35°	9691	9871	9648
40°	9265	10173	9231
45°	8821	10559	8771
50°	8330	11030	8290
55°	7796	11542	7751
60°	7211	12037	7158
65°	6524	12456	6466
70°	5697	12747	5627
75°	4646	12772	4468
80°	3440	12560	3189
85°	1786	12308	1589



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.4	1.0
10°-20°	197.0	3.1
20°-30°	333.4	5.2
30°-40°	466.2	7.3
40°-50°	587.4	9.2
50°-60°	689.7	10.8
60°-70°	754.2	11.9
70°-80°	745.1	11.7
80°-90°	654.6	10.3
90°-100°	557.2	8.8
100°-110°	464.7	7.3
110°-120°	359.9	5.7
120°-130°	250.5	3.9
130°-140°	146.2	2.3
140°-150°	66.7	1.0
150°-160°	19.0	0.3
160°-170°	1.4	0.0
170°-180°	0.0	0.0
0°-30°	595.8	9.4
0°-40°	1062.0	16.7
0°-60°	2339.1	36.8
0°-90°	4493.0	70.7
90°-120°	1381.8	21.7
90°-150°	1845.2	29.0
90°-180°	1866.0	29.3
0°-180°	6358.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	685	685	685	685	685	
5°	694	688	682	687	692	66
15°	662	692	736	692	659	186
25°	599	730	840	730	594	275
35°	511	768	939	766	508	319
45°	407	793	1040	792	405	314
55°	298	805	1142	803	296	267
65°	190	805	1199	802	188	188
75°	89	761	1159	758	86	96
85°	15	651	1014	649	14	19
90°	0	597	939	597	0	1
95°	0	560	878	560	0	0
105°	1	481	772	483	0	1
115°	1	398	654	399	1	1
125°	1	304	521	304	1	1
135°	1	193	374	193	1	1
145°	2	99	232	98	1	1
155°	2	28	103	26	1	1
165°	2	3	7	0	1	0
175°	0	0	0	0	0	0
180°	0	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°	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7
2.5°	696.7	696.2	693.3	688.7	687.0	685.9	685.3	683.6	683.0	684.2	687.6
5°	694.4	693.3	691.0	687.0	685.3	684.7	684.2	682.5	681.9	683.6	688.2
7.5°	689.3	688.7	686.5	682.5	681.9	680.7	680.7	679.6	679.6	682.5	687.6
10°	681.9	681.3	679.0	676.2	675.6	675.6	675.6	675.6	676.7	681.3	687.6
12.5°	672.2	672.2	670.5	668.2	668.7	668.7	669.3	670.5	673.9	680.7	688.7
15°	661.9	661.3	659.6	659.0	660.8	661.3	663.0	665.9	671.6	681.3	691.6
17.5°	648.8	648.8	647.0	647.6	651.0	652.8	655.6	660.8	669.9	683.0	697.9
20°	633.3	633.9	633.3	635.1	640.8	644.2	647.6	656.2	669.3	687.6	707.6
22.5°	616.2	617.4	617.4	621.9	629.3	634.5	639.6	651.6	670.5	695.6	719.0
25°	599.1	599.1	600.8	607.1	617.4	623.6	631.6	648.8	674.5	704.2	730.4
27.5°	578.5	580.2	583.1	591.7	605.9	614.5	624.2	648.8	679.0	712.7	741.8
30°	556.8	558.5	563.1	575.1	593.4	604.2	617.9	648.8	683.0	719.6	751.6
32.5°	534.0	536.8	543.1	558.5	580.8	595.6	613.4	648.2	686.5	725.3	759.6
35°	510.6	513.4	523.1	541.4	570.5	587.7	608.2	646.5	688.2	730.4	767.5
37.5°	486.0	491.1	502.0	524.8	560.2	580.8	602.5	644.8	689.9	734.4	775.5
40°	459.7	464.9	480.3	507.7	550.0	571.7	595.6	642.5	691.0	738.4	782.4
42.5°	434.0	440.9	458.6	491.7	539.7	563.7	588.8	639.1	690.5	741.3	788.1
45°	407.2	415.2	436.9	476.3	528.3	554.0	580.8	634.5	689.3	743.0	793.2
47.5°	379.8	389.5	415.2	460.9	516.8	543.7	572.8	629.9	687.6	744.1	797.8
50°	352.9	364.4	393.5	445.5	504.3	532.8	563.1	624.8	684.7	744.7	800.7
52.5°	326.1	338.7	372.9	430.0	491.1	521.4	553.4	618.5	681.3	744.1	803.5
55°	298.1	311.8	352.4	413.5	477.4	508.8	542.5	610.5	676.2	741.8	805.2
57.5°	271.3	286.7	332.9	397.5	463.2	496.3	532.3	601.9	670.5	740.1	807.0
60°	243.9	261.6	313.0	379.2	448.3	482.6	519.7	592.2	663.6	736.1	807.0
62.5°	217.0	237.0	293.5	362.6	433.5	468.9	507.1	581.4	656.2	732.1	807.0
65°	190.2	213.0	273.6	344.4	416.9	454.0	492.9	570.0	647.0	726.4	804.7
67.5°	163.9	190.2	253.0	325.5	399.8	438.0	478.0	556.8	636.8	719.0	800.1
70°	138.2	167.3	232.4	305.5	382.1	419.8	461.4	542.5	624.8	709.3	792.1
72.5°	112.5	145.6	210.7	285.5	363.2	402.0	444.3	526.0	609.9	696.2	779.5
75°	89.1	123.9	190.2	265.0	343.8	383.2	425.5	507.7	592.2	679.0	761.3
77.5°	68.0	103.9	170.2	245.0	323.2	364.4	406.0	487.7	571.7	657.3	737.3
80°	48.0	84.5	150.2	224.4	302.7	343.2	384.3	466.0	550.0	631.6	709.9
82.5°	29.7	66.8	130.2	204.5	282.7	322.7	363.2	444.3	525.4	604.8	680.2
85°	15.4	50.3	111.4	185.6	263.3	302.7	342.7	422.0	500.3	577.4	651.0
87.5°	5.1	36.5	95.9	169.0	245.6	285.0	323.8	400.9	476.9	550.5	622.5
90°	0.0	27.4	84.5	155.9	230.7	269.0	307.8	382.1	456.3	528.8	597.4
92.5°	0.0	23.4	77.1	146.8	220.4	258.1	295.8	369.5	440.9	511.1	577.9
95°	0.0	18.8	70.8	137.6	209.6	246.7	283.8	355.8	426.0	494.6	559.7
97.5°	0.0	14.8	64.0	129.1	198.7	234.7	270.7	342.1	410.6	478.0	540.8
100°	0.6	11.4	56.5	118.2	187.3	222.7	257.6	327.2	394.1	459.2	521.4
102.5°	0.6	8.0	49.7	109.1	175.3	209.6	243.9	311.8	377.5	442.0	501.4
105°	0.6	5.7	42.8	99.4	163.9	197.0	230.7	297.0	360.9	423.2	481.4
107.5°	0.6	4.0	36.5	90.2	152.5	183.9	216.4	281.0	343.8	404.3	461.4
110°	0.6	2.9	30.8	80.5	139.9	171.3	202.7	265.0	326.1	384.9	440.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.6	2.3	25.1	71.4	127.4	158.2	188.5	249.0	308.4	365.5	419.8
115°	0.6	2.3	20.0	62.8	114.8	144.5	173.6	233.0	289.5	345.5	398.1
117.5°	0.6	1.7	15.4	54.3	103.4	130.8	158.8	215.3	271.3	325.5	376.4
120°	0.6	1.7	11.4	45.7	91.4	117.1	144.5	198.2	251.9	304.4	352.9
122.5°	1.1	1.7	8.6	38.3	80.5	103.9	130.2	181.0	231.3	282.1	330.1
125°	1.1	1.1	6.9	30.8	69.1	90.8	114.2	163.3	209.0	257.6	304.4
127.5°	1.1	1.1	5.1	23.4	57.7	77.7	98.8	144.5	189.0	232.4	277.0
130°	1.1	1.1	4.6	17.1	46.8	64.5	84.0	125.1	166.8	206.7	247.3
132.5°	1.1	1.1	3.4	12.6	37.1	53.1	70.2	106.8	145.1	183.9	220.4
135°	1.1	1.1	2.9	9.1	28.0	42.3	57.1	89.7	124.5	161.0	193.0
137.5°	1.1	1.1	2.9	6.9	20.6	32.0	45.1	74.8	105.7	138.2	167.3
140°	1.1	1.1	2.3	5.7	14.3	23.4	34.3	60.0	86.2	116.5	144.5
142.5°	1.1	1.1	1.7	4.6	10.3	16.6	24.6	46.3	69.7	95.9	120.5
145°	1.7	1.1	1.7	4.0	7.4	11.4	17.1	34.8	53.7	77.1	98.8
147.5°	1.1	1.1	1.1	2.9	5.7	8.0	11.4	24.0	40.5	60.0	78.2
150°	1.7	1.1	1.1	2.3	4.6	5.7	8.0	16.0	28.0	44.0	60.0
152.5°	1.7	1.1	1.1	2.3	3.4	4.6	5.7	10.3	18.3	29.7	42.8
155°	1.7	1.1	1.1	1.7	2.9	3.4	4.6	6.9	10.9	18.3	28.0
157.5°	1.7	1.7	1.7	1.7	2.3	2.9	3.4	5.1	6.3	10.3	16.0
160°	1.7	1.7	1.1	1.1	1.7	1.7	2.3	3.4	4.6	5.7	8.0
162.5°	1.7	1.7	1.7	1.1	1.1	1.1	1.7	2.3	2.9	4.0	5.1
165°	1.7	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.7	2.3	2.9
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7
2.5°	688.7	685.9	684.7	682.5	680.7	679.6	677.9	676.7	675.6	675.0	675.0
5°	689.3	686.5	685.3	683.6	683.0	681.9	680.7	681.9	681.3	681.9	681.3
7.5°	689.9	687.6	687.6	687.0	686.5	686.5	685.3	686.5	687.0	687.6	687.0
10°	691.6	691.0	692.2	692.7	692.7	692.7	692.7	693.9	696.2	696.2	695.6
12.5°	694.4	696.2	699.6	702.4	703.6	703.6	705.9	708.2	711.0	711.6	711.0
15°	700.2	705.3	712.7	719.0	721.9	723.6	728.1	732.1	735.0	736.1	735.0
17.5°	710.4	720.1	731.6	740.7	744.1	746.4	752.7	756.7	760.1	763.0	761.8
20°	724.1	737.3	751.0	761.8	766.4	769.3	776.1	783.5	787.0	789.3	788.7
22.5°	739.0	754.4	769.8	783.0	788.1	791.5	800.1	807.0	812.1	814.9	814.4
25°	753.3	771.0	789.8	804.1	810.4	814.4	823.5	831.5	837.2	839.5	838.9
27.5°	767.5	788.1	808.7	825.2	831.5	836.7	847.5	856.1	862.9	864.6	864.6
30°	779.0	803.0	825.2	844.1	850.9	857.8	869.8	881.2	887.5	889.8	889.2
32.5°	789.8	816.7	841.8	862.9	871.5	878.3	892.6	905.2	912.6	914.9	912.6
35°	800.7	830.4	858.4	881.2	890.3	898.9	914.9	929.2	937.2	939.4	938.3
37.5°	811.0	844.1	874.3	899.5	910.3	919.5	936.0	953.2	961.7	964.0	961.7
40°	820.7	856.6	889.8	917.2	929.2	940.0	959.4	976.6	986.3	989.1	988.0
42.5°	829.8	869.2	905.2	935.4	949.2	960.6	982.3	1001.1	1011.4	1014.8	1012.0
45°	837.8	881.8	920.6	953.2	968.0	981.1	1005.7	1026.3	1036.5	1040.5	1037.1
47.5°	845.8	893.2	934.9	970.9	988.0	1001.7	1029.1	1050.8	1062.8	1066.2	1062.8
50°	853.2	904.6	950.3	989.1	1007.4	1022.8	1052.5	1075.9	1087.9	1093.1	1088.5
52.5°	860.1	915.5	964.6	1006.3	1026.3	1043.4	1075.4	1100.5	1114.8	1118.2	1113.6
55°	866.9	925.7	977.1	1022.3	1044.0	1062.2	1097.1	1123.3	1137.6	1141.6	1137.0
57.5°	872.6	934.9	989.1	1037.7	1059.9	1081.1	1115.9	1143.3	1158.2	1162.7	1158.2
60°	876.6	942.3	1000.0	1050.2	1073.7	1095.4	1132.5	1159.9	1174.7	1179.3	1174.7
62.5°	879.5	948.0	1007.4	1059.9	1085.1	1107.3	1145.0	1171.9	1187.3	1191.9	1187.3
65°	880.1	950.3	1011.4	1066.2	1091.9	1114.2	1152.5	1179.3	1195.3	1199.3	1194.7
67.5°	876.6	948.0	1011.4	1067.4	1093.1	1115.9	1154.2	1181.0	1196.4	1201.0	1196.4
70°	869.8	941.2	1005.7	1062.8	1088.5	1111.3	1149.0	1176.5	1191.9	1196.4	1191.3
72.5°	856.6	929.2	993.7	1052.0	1076.5	1098.8	1135.9	1162.7	1177.6	1182.7	1177.0
75°	837.8	910.3	974.9	1030.8	1056.5	1077.1	1114.2	1140.5	1154.2	1158.7	1153.6
77.5°	813.2	886.3	948.6	1004.0	1029.7	1048.5	1084.5	1110.2	1123.9	1127.9	1122.8
80°	784.7	857.2	917.2	972.0	996.0	1013.7	1049.7	1074.2	1087.4	1091.4	1088.5
82.5°	753.3	824.1	882.3	936.0	958.9	976.6	1012.0	1036.0	1049.1	1054.8	1050.2
85°	721.3	789.3	846.4	898.3	921.2	940.0	972.6	996.6	1009.7	1014.3	1011.4
87.5°	689.3	755.0	810.4	860.6	881.8	901.2	933.7	957.7	970.9	975.4	972.0
90°	662.5	725.3	778.4	828.1	849.8	867.5	898.9	921.7	934.9	939.4	936.6
92.5°	640.8	700.7	752.1	797.8	818.4	837.2	867.5	889.8	902.9	906.9	904.0
95°	620.2	678.5	728.1	772.7	792.7	811.0	839.5	861.2	873.8	877.8	875.5
97.5°	600.8	656.8	704.7	748.1	768.7	785.3	812.7	833.2	845.8	849.2	845.8
100°	579.1	635.6	682.5	725.3	743.0	759.6	787.0	807.5	818.4	822.9	820.1
102.5°	558.5	612.8	659.0	701.3	720.1	736.7	761.8	781.8	794.4	797.2	794.4
105°	537.4	589.9	635.1	676.7	695.6	711.6	736.7	756.1	768.1	771.5	768.7
107.5°	515.7	566.5	611.6	651.0	669.3	684.2	709.9	728.7	739.0	745.3	740.7
110°	492.3	542.5	585.9	624.2	641.9	656.2	681.3	700.2	709.9	715.6	711.6





TEST NUMBER: P201292

CATALOG NUMBER: 4LBLED-LD4-6-SYMW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	470.6	518.0	559.7	596.8	613.4	627.6	652.2	670.5	679.6	685.3	681.3
115°	447.7	491.7	532.8	568.2	584.8	597.9	622.5	639.6	648.8	653.9	650.5
117.5°	423.2	466.0	504.8	539.7	555.1	568.2	591.7	608.8	617.4	621.3	617.9
120°	399.2	440.9	477.4	510.6	526.0	538.5	561.4	577.4	585.4	589.9	586.5
122.5°	374.1	414.6	447.7	480.9	495.1	507.1	527.7	544.8	552.2	556.2	554.0
125°	347.2	387.2	419.2	449.4	463.2	474.6	494.6	508.8	517.4	521.4	519.1
127.5°	319.2	357.5	390.1	418.0	431.2	443.7	460.3	476.3	482.0	486.6	484.3
130°	287.8	326.1	356.4	384.9	397.5	407.8	426.0	439.2	446.6	450.6	448.9
132.5°	257.0	292.4	324.4	350.1	362.1	372.9	389.5	402.0	412.3	412.9	410.6
135°	227.3	258.1	287.3	314.7	326.7	337.5	352.4	363.8	373.5	374.1	371.2
137.5°	198.7	227.3	252.4	278.1	290.7	302.1	315.8	326.7	335.8	337.5	333.5
140°	171.3	197.6	220.4	243.3	255.3	266.1	281.0	290.1	297.5	298.1	295.8
142.5°	145.1	169.0	189.0	210.2	221.0	230.7	247.3	256.4	263.3	265.0	261.6
145°	120.5	141.6	160.5	178.8	187.9	197.0	213.6	224.4	230.2	231.9	228.4
147.5°	97.1	114.8	131.4	147.9	155.9	164.5	178.2	191.9	197.0	198.2	195.3
150°	75.4	90.2	105.1	118.8	125.6	133.1	145.1	157.6	164.5	165.6	163.3
152.5°	55.4	68.0	80.0	91.4	97.1	102.8	113.1	125.1	133.6	134.2	131.9
155°	37.7	48.0	57.7	66.2	71.4	76.0	84.0	93.1	102.2	102.8	101.1
157.5°	22.8	29.7	37.7	44.5	48.0	52.0	57.7	64.5	72.5	74.2	72.5
160°	11.4	15.4	20.0	24.6	27.4	30.3	33.1	38.8	43.4	47.4	45.1
162.5°	5.7	6.9	8.0	10.3	11.4	13.1	15.4	17.7	20.0	24.0	21.1
165°	3.4	4.0	4.6	4.6	5.1	5.1	5.1	5.1	5.1	7.4	5.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P201292

CATALOG NUMBER: 4LBLED-LD4-6-SYMW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7
2.5°	676.7	677.9	680.2	681.3	682.5	683.6	685.9	689.3	686.5	683.6	684.2
5°	681.3	681.3	681.9	683.6	683.6	684.2	686.5	689.9	687.0	683.0	683.0
7.5°	687.0	686.5	687.0	687.6	687.0	687.0	688.2	689.9	686.5	681.9	680.7
10°	695.0	693.3	692.7	693.3	692.7	691.0	691.6	691.6	687.0	680.2	677.3
12.5°	709.3	706.4	704.2	703.6	701.9	699.0	697.3	695.0	688.2	680.2	674.5
15°	732.7	728.1	723.6	721.9	719.0	712.2	706.4	701.3	691.6	680.2	672.2
17.5°	759.0	753.3	747.0	744.7	740.7	731.0	721.3	711.6	697.9	681.9	670.5
20°	784.1	777.3	769.8	765.8	761.8	749.8	738.4	725.9	708.2	687.0	669.9
22.5°	809.2	801.2	791.0	787.5	782.4	768.7	755.0	740.7	719.6	694.4	671.0
25°	833.8	824.7	814.9	809.2	803.5	788.1	771.5	754.4	730.4	703.0	675.0
27.5°	858.4	848.1	836.1	829.8	824.1	807.0	788.1	768.7	741.8	711.0	680.2
30°	882.3	870.9	856.6	849.8	842.9	823.5	801.8	780.1	751.0	717.9	683.6
32.5°	906.3	893.8	877.8	869.8	861.8	839.5	815.5	791.0	759.0	724.1	686.5
35°	929.7	916.0	898.3	888.6	880.1	856.1	829.2	801.8	766.4	729.3	688.2
37.5°	953.7	938.3	918.9	908.0	898.3	872.1	842.4	811.5	774.4	733.3	689.9
40°	977.7	961.1	939.4	928.0	916.0	887.5	855.5	821.2	781.3	737.3	690.5
42.5°	1002.3	984.0	960.0	947.4	934.9	902.9	867.5	829.8	787.0	740.1	689.9
45°	1026.8	1006.3	980.6	966.3	952.6	917.7	879.5	837.2	792.1	741.8	688.7
47.5°	1051.4	1029.7	1001.7	986.3	969.7	932.6	890.9	845.2	796.7	742.4	687.6
50°	1076.5	1053.1	1022.8	1005.7	988.6	946.9	902.3	852.1	799.5	743.0	684.7
52.5°	1101.1	1075.9	1043.4	1025.1	1005.1	961.1	913.2	858.9	801.8	742.4	680.7
55°	1123.3	1097.1	1062.8	1043.4	1021.1	974.3	922.9	864.6	803.0	740.7	675.6
57.5°	1143.9	1117.1	1081.1	1059.4	1037.7	986.8	932.0	870.9	804.1	737.9	669.9
60°	1159.9	1133.0	1095.4	1073.7	1050.2	997.1	939.4	874.3	804.1	733.9	662.5
62.5°	1171.9	1145.0	1107.3	1084.5	1059.9	1005.7	945.2	877.8	804.1	729.9	655.0
65°	1179.3	1153.0	1114.2	1091.4	1066.2	1009.7	948.0	878.3	801.8	724.1	645.9
67.5°	1180.4	1154.2	1115.3	1093.1	1067.4	1009.7	946.3	875.5	797.2	716.7	635.6
70°	1175.3	1149.0	1110.8	1087.9	1062.8	1004.6	940.0	868.6	789.3	707.0	623.6
72.5°	1162.2	1135.3	1098.2	1074.8	1050.2	992.6	926.9	856.1	776.1	693.3	609.4
75°	1139.3	1113.1	1076.5	1054.8	1029.7	973.1	906.9	837.8	757.8	676.2	591.7
77.5°	1109.1	1083.4	1047.4	1025.7	1002.3	946.9	881.8	813.2	735.6	655.0	571.1
80°	1073.1	1048.5	1013.1	992.0	969.1	915.5	851.5	784.7	708.2	629.9	548.2
82.5°	1034.8	1010.8	976.6	954.9	933.2	881.2	820.1	753.8	679.0	603.1	523.7
85°	997.7	972.0	937.7	917.7	896.0	845.2	787.5	721.9	649.3	575.7	499.7
87.5°	958.9	933.7	900.0	881.2	860.6	809.2	754.4	690.5	621.3	551.1	476.3
90°	923.5	898.9	866.3	847.5	828.1	778.4	724.7	664.2	597.4	529.4	456.9
92.5°	890.9	868.1	837.2	818.9	800.1	752.7	701.3	642.5	577.9	512.3	441.5
95°	862.9	840.6	812.1	794.4	775.0	729.9	679.6	621.9	560.2	496.3	427.2
97.5°	834.9	813.8	785.8	768.7	750.4	706.4	657.9	602.5	542.0	478.6	411.8
100°	809.2	788.7	760.1	744.7	727.0	684.7	636.8	582.5	523.1	460.9	395.2
102.5°	784.1	763.6	736.1	720.7	703.6	661.3	614.5	560.8	503.1	443.2	379.2
105°	758.4	738.4	711.0	695.6	678.5	637.3	591.7	539.7	483.1	424.9	362.6
107.5°	730.4	711.0	684.7	669.3	653.3	612.2	568.2	517.4	463.2	406.0	345.5
110°	701.9	682.5	658.5	641.9	626.5	586.5	543.7	495.1	442.0	386.6	327.8



TEST NUMBER: P201292

CATALOG NUMBER: 4LBLELD4-6-SYMW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	672.2	653.3	629.9	614.5	598.5	560.2	519.1	472.3	420.9	366.6	309.5
115°	641.9	623.1	599.6	584.2	570.0	533.4	493.4	448.9	399.2	346.7	291.3
117.5°	608.8	592.2	570.0	556.2	541.4	504.8	467.7	424.9	377.5	325.5	272.4
120°	577.9	562.0	540.3	525.4	512.3	477.4	442.0	400.3	353.5	305.0	253.0
122.5°	545.4	528.3	508.3	495.7	481.4	449.4	415.2	375.2	329.5	281.5	231.9
125°	511.1	495.1	475.7	463.7	450.6	420.3	387.8	347.8	304.4	258.1	210.2
127.5°	476.3	461.4	442.6	431.7	419.2	389.5	358.1	319.2	275.8	232.4	187.9
130°	440.9	426.0	408.9	397.5	385.5	357.5	326.7	288.4	247.3	206.7	166.2
132.5°	403.8	389.5	372.4	362.1	351.2	324.4	293.0	255.8	219.3	182.7	145.1
135°	365.5	352.4	336.9	327.2	316.4	289.0	259.3	225.6	193.0	159.3	124.5
137.5°	328.4	316.4	301.5	291.8	279.8	254.1	227.9	197.6	167.9	136.5	103.9
140°	291.8	281.0	266.7	255.8	245.6	221.6	197.6	170.2	143.3	114.8	85.7
142.5°	257.6	247.9	231.9	221.6	211.9	190.7	169.6	143.9	119.9	94.2	69.1
145°	223.9	215.3	197.6	188.5	180.5	161.6	140.5	119.4	97.7	75.4	53.7
147.5°	191.3	181.0	164.5	156.5	149.1	132.5	114.8	95.4	77.7	58.3	39.4
150°	159.9	147.3	133.1	126.2	119.9	105.7	90.2	74.2	58.8	42.3	27.4
152.5°	127.4	114.2	104.5	97.7	91.9	80.5	68.0	54.3	41.7	28.6	17.1
155°	94.2	85.1	76.0	72.5	67.4	57.7	47.4	36.5	26.3	17.1	9.7
157.5°	65.1	58.3	52.5	49.1	45.1	37.7	29.1	21.1	14.8	9.1	4.6
160°	39.4	34.8	30.8	28.0	25.1	20.0	14.3	9.7	6.3	2.9	1.7
162.5°	17.7	14.8	13.1	11.4	9.7	7.4	4.6	2.3	1.1	0.6	0.6
165°	3.4	2.3	1.7	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P201292

CATALOG NUMBER: 4LBLED-LD4-6-SYMW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	684.7	684.7	684.7	684.7	684.7	684.7	684.7	684.7
2.5°	684.7	685.3	685.9	685.9	687.6	690.5	694.4	695.0
5°	683.0	683.6	683.6	684.2	685.9	688.2	691.6	692.2
7.5°	680.2	680.2	680.2	680.2	681.3	683.6	686.5	687.0
10°	676.2	675.0	674.5	673.9	674.5	676.7	679.0	679.6
12.5°	671.6	668.7	667.6	667.0	667.0	667.6	669.9	669.9
15°	666.5	661.9	660.2	659.0	656.8	656.8	659.0	659.0
17.5°	661.3	655.0	651.6	649.3	645.9	645.3	646.5	645.3
20°	656.8	647.0	642.5	638.5	633.3	631.6	631.6	629.9
22.5°	652.2	639.1	632.8	627.1	619.1	616.2	614.5	613.4
25°	649.3	630.5	622.5	615.6	604.8	598.5	596.8	594.5
27.5°	648.8	623.6	612.8	604.2	589.4	581.9	577.4	574.5
30°	648.8	616.8	602.5	590.5	572.2	560.8	556.2	555.1
32.5°	648.2	611.6	594.5	579.1	555.7	540.8	534.0	532.3
35°	646.5	606.5	586.5	567.7	539.1	520.3	510.6	508.3
37.5°	644.2	600.2	579.1	557.4	522.0	499.1	487.1	483.7
40°	641.9	593.9	570.0	546.5	504.8	477.4	462.0	458.0
42.5°	637.9	587.1	562.0	536.3	488.9	455.7	438.0	431.7
45°	633.9	579.1	552.2	524.8	472.9	433.5	411.2	404.9
47.5°	628.8	570.5	542.5	512.3	458.0	411.8	386.6	378.6
50°	623.1	562.0	531.7	500.3	442.0	390.6	359.8	351.2
52.5°	616.8	552.2	520.8	487.7	426.0	370.6	334.7	323.8
55°	608.8	541.4	508.3	473.4	409.5	350.1	309.0	296.4
57.5°	600.2	530.5	496.3	460.3	392.9	330.7	283.8	269.6
60°	589.9	518.0	481.4	445.5	375.8	310.7	258.7	242.1
62.5°	579.1	505.4	468.3	430.0	358.6	291.3	234.1	215.3
65°	567.7	491.1	453.4	414.0	340.4	270.7	210.2	188.5
67.5°	554.0	475.7	436.9	396.9	321.5	250.1	186.7	162.2
70°	540.3	459.2	418.6	378.6	302.1	229.6	164.5	136.5
72.5°	523.7	441.5	400.3	359.8	282.1	209.6	142.8	110.8
75°	505.4	423.2	381.5	340.4	261.6	188.5	121.1	85.7
77.5°	486.0	403.2	362.1	320.4	242.1	168.5	101.1	64.5
80°	465.4	382.1	341.5	299.8	221.6	148.5	81.7	44.5
82.5°	442.6	361.5	321.0	279.3	202.2	129.1	64.0	27.4
85°	420.9	340.9	301.5	260.4	183.3	109.6	48.0	13.7
87.5°	399.8	322.1	283.8	243.3	167.3	94.8	34.8	4.0
90°	382.6	306.7	269.0	229.6	154.8	84.0	26.3	0.0
92.5°	368.9	294.7	257.6	219.3	145.6	76.5	22.3	0.0
95°	355.8	282.1	246.7	208.4	136.5	70.2	17.7	0.0
97.5°	341.5	270.1	234.7	197.6	127.4	63.4	14.3	0.0
100°	327.2	257.0	222.7	186.7	117.1	56.5	10.3	0.0
102.5°	311.8	243.3	209.6	174.8	107.9	49.1	6.9	0.0
105°	297.0	229.6	197.0	162.8	98.2	42.8	4.6	0.0
107.5°	281.0	215.9	183.9	151.3	88.5	36.0	2.9	0.0
110°	265.0	202.2	170.8	139.3	79.4	29.7	2.3	0.0



TEST NUMBER: P201292

CATALOG NUMBER: 4LBLED-LD4-6-SYMW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	249.0	187.9	157.6	126.8	70.2	24.0	1.7	0.6
115°	231.9	173.0	143.9	114.2	61.1	18.8	1.7	0.6
117.5°	214.7	157.6	130.8	102.2	52.5	14.3	1.1	0.6
120°	197.0	143.9	116.5	90.8	44.5	10.3	1.1	0.6
122.5°	179.9	129.6	103.4	78.8	36.5	8.0	1.1	0.6
125°	162.2	113.1	90.2	68.0	29.1	6.3	1.1	0.6
127.5°	143.3	97.7	76.5	56.0	22.3	4.6	1.1	0.6
130°	123.9	82.2	63.4	45.7	16.0	3.4	1.1	0.6
132.5°	105.7	69.1	51.4	36.0	11.4	2.9	1.1	0.6
135°	89.1	56.0	40.5	26.8	8.0	2.3	0.6	0.6
137.5°	73.1	44.5	30.8	19.4	5.7	1.7	1.1	0.6
140°	58.8	33.7	22.3	13.7	4.0	1.1	1.1	0.6
142.5°	45.7	24.0	15.4	9.1	2.9	1.1	0.6	0.6
145°	33.7	16.0	10.3	5.7	2.3	1.1	1.1	1.1
147.5°	22.8	10.9	6.3	4.0	1.7	1.1	1.1	0.6
150°	14.8	6.9	4.0	2.9	1.1	1.1	1.1	0.6
152.5°	9.1	4.0	2.3	1.7	1.1	1.1	1.1	0.6
155°	4.6	2.3	1.7	1.1	1.1	1.1	1.1	1.1
157.5°	2.3	1.7	1.1	1.1	1.1	1.1	1.1	1.1
160°	1.1	1.1	0.6	0.6	1.1	1.1	1.1	1.1
162.5°	0.6	0.6	0.6	0.6	1.1	1.1	1.1	1.1
165°	0.0	0.6	0.6	0.6	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)