

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: P201322

Luminaire Tested: **8LBLED-LD4-10-SYMF-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P201322
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28138)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8LBLED-LD4-10-SYMF-UNV-L835-CD1-U
Description: 8 ft. Low Bay Linear, 10000 lm, Frst Sym lens, 3.5K
Light Source: (784) 3500K CCT, 80 CRI LEDS
2UT217098A8354C
Ballast/Driver: OSRAM
(OTi85W01600CC)

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10695.7 lumens
Efficiency: N/A
Efficacy: 148.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.99 / 1.87
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 8' x H: 0.21')
CIE Type: Semi-Direct

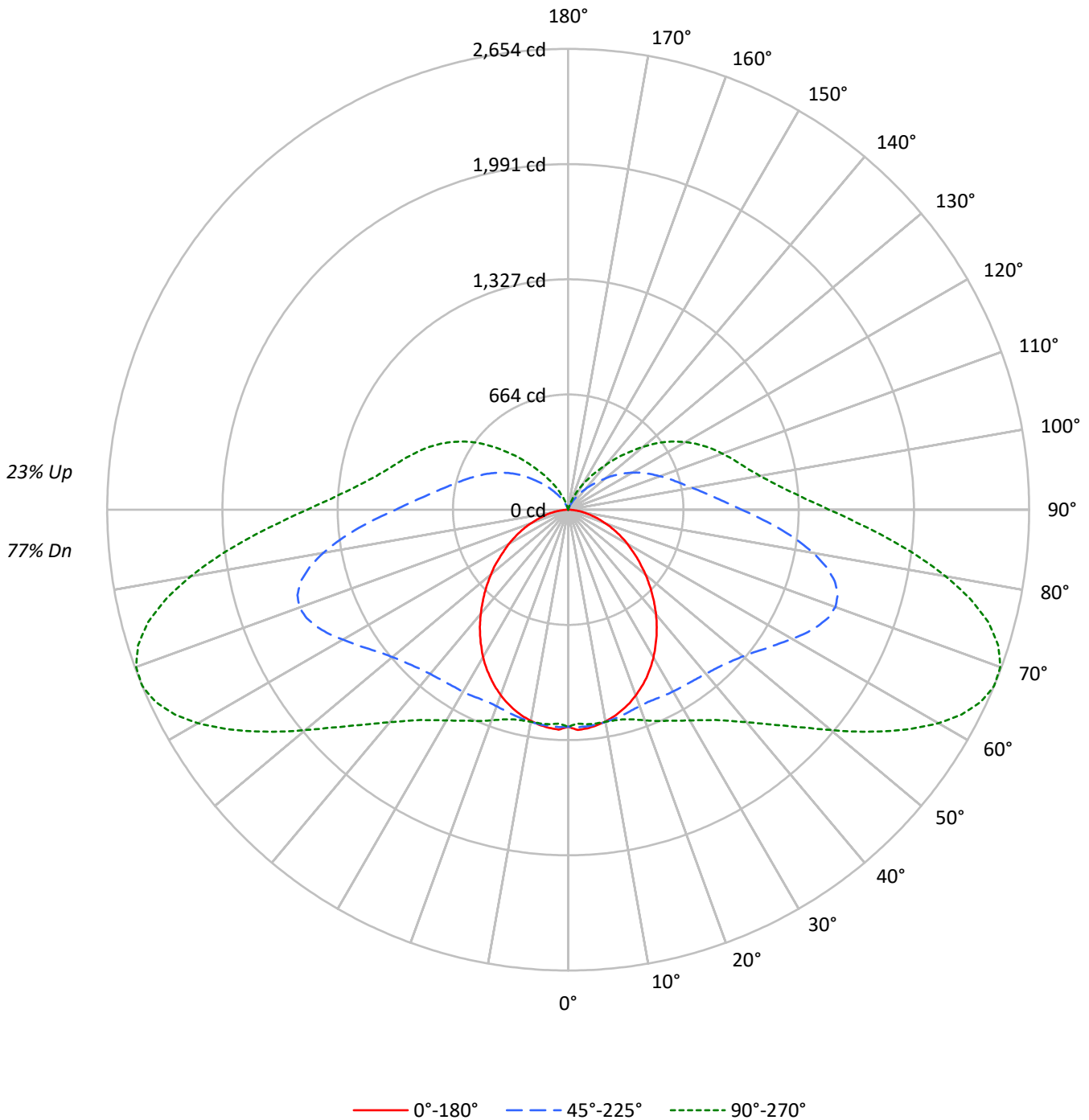
Input Watts (W): 71.96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	98	91	84	78	92	86	80	75	77	73	68	69	65	62	62	59	56	52
2	86	75	66	59	81	71	63	56	64	57	51	57	51	47	50	46	42	38
3	77	64	54	46	72	61	51	44	54	46	40	48	42	37	43	37	33	29
4	70	55	45	37	65	52	43	36	47	39	32	42	35	30	37	31	27	23
5	63	49	38	31	59	46	37	29	41	33	27	37	30	25	32	27	22	19
6	58	43	33	26	55	41	32	25	37	29	23	33	26	21	29	23	19	16
7	54	39	29	22	50	37	28	21	33	25	20	30	23	18	26	21	16	14
8	50	35	26	19	47	33	25	19	30	22	17	27	20	16	24	18	14	12
9	46	32	23	17	44	30	22	16	27	20	15	25	18	14	22	17	13	10
10	43	29	21	15	41	28	20	15	25	18	14	23	17	12	20	15	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10068	10068	10068
5°	10200	9047	10179
10°	10080	8321	10058
15°	9899	7815	9884
20°	9665	7618	9649
25°	9380	7543	9340
30°	8998	7583	8990
35°	8561	7767	8544
40°	8094	8210	8057
45°	7584	8921	7564
50°	7066	9961	7044
55°	6543	11247	6531
60°	6077	12555	6091
65°	5560	13610	5576
70°	5011	14102	5011
75°	4356	13799	4330
80°	3635	12697	3599
85°	2715	11152	2587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.6	1.1
10°-20°	345.1	3.2
20°-30°	554.6	5.2
30°-40°	751.0	7.0
40°-50°	964.8	9.0
50°-60°	1241.3	11.6
60°-70°	1518.5	14.2
70°-80°	1535.2	14.4
80°-90°	1187.2	11.1
90°-100°	824.8	7.7
100°-110°	616.1	5.8
110°-120°	461.7	4.3
120°-130°	310.9	2.9
130°-140°	170.5	1.6
140°-150°	72.7	0.7
150°-160°	20.8	0.2
160°-170°	1.8	0.0
170°-180°	0.0	0.0
0°-30°	1018.3	9.5
0°-40°	1769.3	16.5
0°-60°	3975.4	37.2
0°-90°	8216.4	76.8
90°-120°	1902.6	17.8
90°-150°	2456.8	23.0
90°-180°	2479.0	23.2
0°-180°	10695.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1250	1250	1250	1250	1250	
5°	1264	1252	1240	1250	1261	120
15°	1195	1223	1250	1223	1193	337
25°	1068	1200	1341	1201	1063	490
35°	886	1217	1478	1218	884	554
45°	683	1263	1758	1269	681	527
55°	483	1392	2225	1398	482	433
65°	308	1586	2621	1596	309	306
75°	154	1589	2504	1595	153	164
85°	38	1215	1838	1211	36	42
90°	1	998	1501	993	0	2
95°	1	842	1270	838	0	1
105°	1	637	1024	637	0	1
115°	1	495	866	495	0	1
125°	1	355	679	353	0	1
135°	2	214	446	212	0	1
145°	2	109	245	104	0	1
155°	2	34	102	33	0	1
165°	2	2	10	4	0	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°	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6
2.5°	1269.6	1268.6	1263.2	1255.0	1251.4	1250.5	1249.6	1245.9	1245.0	1246.9	1254.1
5°	1264.1	1263.2	1257.7	1249.6	1246.9	1245.9	1245.0	1242.3	1242.3	1245.0	1252.3
7.5°	1253.2	1252.3	1246.9	1240.5	1237.8	1236.9	1236.9	1235.0	1235.0	1239.6	1247.8
10°	1237.8	1236.9	1232.3	1226.9	1225.1	1225.1	1225.1	1224.1	1226.0	1231.4	1240.5
12.5°	1219.6	1217.8	1214.2	1209.6	1209.6	1209.6	1210.5	1210.5	1213.2	1222.3	1233.2
15°	1195.1	1196.0	1192.4	1188.7	1190.5	1191.5	1193.3	1195.1	1199.6	1210.5	1223.2
17.5°	1169.7	1169.7	1166.9	1165.1	1168.8	1170.6	1173.3	1176.0	1184.2	1197.8	1212.3
20°	1137.9	1138.8	1137.9	1138.8	1143.3	1146.0	1149.7	1156.0	1166.9	1186.0	1203.3
22.5°	1103.4	1105.2	1105.2	1108.8	1116.1	1120.6	1125.2	1134.2	1149.7	1174.2	1198.7
25°	1068.0	1067.0	1071.6	1077.9	1085.2	1091.6	1097.0	1110.6	1133.3	1166.0	1200.5
27.5°	1025.3	1027.1	1033.4	1042.5	1053.4	1061.6	1069.8	1088.8	1121.5	1165.1	1205.1
30°	981.7	984.4	992.6	1005.3	1020.7	1031.6	1040.7	1070.7	1115.2	1165.1	1208.7
32.5°	934.5	939.0	949.9	966.2	988.0	1000.7	1015.3	1055.2	1109.7	1163.3	1212.3
35°	886.3	891.8	906.3	926.3	951.7	967.1	989.9	1043.4	1102.5	1161.5	1216.9
37.5°	837.3	843.6	860.0	885.4	918.1	941.7	969.0	1030.7	1097.0	1161.5	1223.2
40°	786.4	793.7	814.6	843.6	885.4	916.3	949.0	1018.0	1091.6	1162.4	1233.2
42.5°	734.7	742.8	768.3	802.8	857.3	893.6	929.9	1007.1	1087.9	1166.9	1245.9
45°	682.9	693.8	722.0	763.7	831.8	870.0	911.8	997.1	1086.1	1175.1	1263.2
47.5°	631.1	643.9	676.6	726.5	805.5	850.9	894.5	988.9	1087.9	1186.0	1285.9
50°	581.2	595.7	632.1	692.9	781.0	830.0	878.2	983.5	1091.6	1202.4	1313.1
52.5°	530.3	549.4	589.4	662.9	759.2	811.0	864.5	979.9	1098.8	1224.1	1348.6
55°	483.1	503.1	549.4	633.9	738.3	794.6	851.8	979.0	1111.5	1250.5	1392.1
57.5°	435.0	459.5	510.4	605.7	716.5	778.3	841.8	980.8	1127.0	1278.6	1436.6
60°	394.1	415.9	474.9	578.5	697.4	762.8	832.7	982.6	1143.3	1311.3	1488.4
62.5°	350.5	374.1	444.1	552.1	678.4	749.2	823.7	985.3	1160.6	1344.9	1541.1
65°	307.9	332.4	413.2	526.7	659.3	734.7	812.8	985.3	1174.2	1375.8	1586.5
67.5°	267.0	293.3	382.3	499.5	637.5	716.5	799.1	980.8	1182.4	1397.6	1621.9
70°	227.9	257.0	352.4	470.4	613.9	694.7	780.1	970.8	1181.5	1405.8	1637.3
72.5°	188.9	222.5	319.7	441.3	588.5	670.2	757.4	951.7	1168.8	1395.8	1627.4
75°	153.5	189.8	290.6	412.3	559.4	641.1	729.2	922.7	1140.6	1364.9	1589.2
77.5°	120.8	160.7	259.7	380.5	526.7	607.5	693.8	885.4	1096.1	1310.4	1522.0
80°	89.9	134.4	230.7	348.7	491.3	570.3	653.8	838.2	1038.0	1236.9	1432.1
82.5°	62.7	109.9	202.5	316.9	455.0	530.3	610.3	781.9	970.8	1151.5	1328.6
85°	38.1	88.1	174.4	286.1	417.7	488.6	563.9	722.9	897.2	1058.9	1215.1
87.5°	16.3	68.1	149.8	256.1	380.5	447.7	516.7	666.6	819.1	962.6	1101.6
90°	0.9	50.9	128.0	227.9	345.1	407.7	472.2	606.6	747.4	874.5	998.0
92.5°	0.0	43.6	115.3	210.7	320.6	378.7	438.6	562.1	689.3	802.8	912.7
95°	0.9	36.3	104.4	191.6	296.0	351.4	406.8	522.2	636.6	741.0	841.8
97.5°	0.9	30.0	92.6	174.4	273.3	324.2	376.0	483.1	586.6	685.6	779.2
100°	0.9	23.6	81.7	158.0	249.7	297.0	346.0	446.8	544.0	636.6	724.7
102.5°	0.9	17.3	72.6	142.6	227.9	272.4	317.8	413.2	504.9	593.9	677.5
105°	0.9	11.8	63.6	128.0	208.0	249.7	292.4	382.3	469.5	554.9	636.6
107.5°	0.9	8.2	55.4	114.4	186.2	227.9	267.9	353.3	436.8	519.4	599.4
110°	0.9	7.3	48.1	102.6	168.9	207.1	245.2	326.0	405.9	484.9	563.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.9	6.4	40.9	91.7	151.7	186.2	223.4	299.7	377.8	454.1	528.5
115°	0.9	6.4	33.6	81.7	137.1	168.0	202.5	274.3	348.7	422.3	494.9
117.5°	0.9	6.4	27.2	72.6	123.5	151.7	181.6	250.6	319.7	391.4	462.2
120°	0.9	5.4	21.8	63.6	111.7	137.1	165.3	227.9	291.5	358.7	426.8
122.5°	0.9	5.4	18.2	55.4	99.9	123.5	148.9	204.3	265.2	326.9	390.5
125°	0.9	4.5	15.4	46.3	88.1	110.8	133.5	183.4	239.7	297.0	355.1
127.5°	1.8	4.5	12.7	38.1	76.3	96.3	118.1	163.5	212.5	264.3	319.7
130°	1.8	4.5	10.9	29.1	64.5	82.6	101.7	143.5	188.9	233.4	281.5
132.5°	1.8	3.6	10.0	22.7	53.6	69.9	87.2	124.4	164.4	204.3	246.1
135°	1.8	3.6	8.2	18.2	42.7	57.2	73.6	106.3	141.7	178.9	214.3
137.5°	1.8	2.7	7.3	14.5	32.7	46.3	60.8	89.9	120.8	152.6	185.3
140°	1.8	2.7	6.4	11.8	24.5	34.5	48.1	73.6	100.8	129.0	157.1
142.5°	1.8	2.7	5.4	10.0	19.1	26.3	36.3	59.9	83.5	107.2	131.7
145°	1.8	2.7	4.5	8.2	14.5	20.0	26.3	46.3	67.2	88.1	109.0
147.5°	1.8	2.7	4.5	7.3	11.8	15.4	20.0	33.6	52.7	69.9	88.1
150°	1.8	2.7	3.6	6.4	10.0	11.8	14.5	23.6	38.1	53.6	69.0
152.5°	1.8	1.8	3.6	5.4	7.3	9.1	10.9	17.3	26.3	38.1	51.8
155°	1.8	1.8	2.7	4.5	6.4	7.3	8.2	11.8	17.3	24.5	34.5
157.5°	1.8	1.8	2.7	3.6	4.5	5.4	6.4	8.2	11.8	15.4	20.9
160°	1.8	1.8	2.7	3.6	3.6	4.5	4.5	5.4	7.3	9.1	11.8
162.5°	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	4.5	4.5	5.4
165°	1.8	1.8	1.8	2.7	1.8	2.7	1.8	2.7	2.7	1.8	1.8
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°	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6
2.5°	1256.8	1250.5	1247.8	1244.1	1241.4	1239.6	1236.9	1235.0	1232.3	1232.3	1233.2
5°	1255.0	1248.7	1246.9	1243.2	1241.4	1240.5	1238.7	1239.6	1239.6	1240.5	1239.6
7.5°	1251.4	1245.9	1244.1	1242.3	1240.5	1239.6	1238.7	1240.5	1240.5	1241.4	1241.4
10°	1245.0	1241.4	1241.4	1239.6	1238.7	1237.8	1236.0	1238.7	1238.7	1240.5	1239.6
12.5°	1237.8	1236.9	1237.8	1238.7	1238.7	1237.8	1236.9	1240.5	1242.3	1242.3	1243.2
15°	1229.6	1231.4	1236.0	1238.7	1240.5	1240.5	1242.3	1245.9	1248.7	1249.6	1249.6
17.5°	1223.2	1227.8	1236.0	1243.2	1246.9	1248.7	1253.2	1260.5	1265.0	1265.9	1265.9
20°	1218.7	1229.6	1244.1	1257.7	1262.3	1265.9	1275.0	1284.1	1290.4	1291.3	1291.3
22.5°	1222.3	1240.5	1260.5	1275.9	1282.3	1286.8	1296.8	1308.6	1315.9	1316.8	1316.8
25°	1231.4	1253.2	1275.9	1295.0	1302.2	1307.7	1318.6	1331.3	1338.6	1341.3	1340.4
27.5°	1239.6	1265.9	1292.3	1314.1	1322.2	1329.5	1343.1	1357.6	1366.7	1369.4	1367.6
30°	1246.9	1277.7	1307.7	1334.0	1344.9	1353.1	1369.4	1386.7	1398.5	1401.2	1398.5
32.5°	1254.1	1291.3	1326.8	1357.6	1368.5	1380.3	1401.2	1421.2	1433.0	1436.6	1434.8
35°	1264.1	1307.7	1349.5	1384.9	1399.4	1413.0	1437.6	1461.2	1475.7	1478.4	1475.7
37.5°	1277.7	1328.6	1374.9	1419.4	1434.8	1453.9	1483.0	1511.1	1528.4	1532.0	1528.4
40°	1295.0	1354.9	1409.4	1461.2	1482.1	1502.0	1537.4	1571.0	1590.1	1596.5	1593.8
42.5°	1317.7	1387.6	1451.2	1512.9	1536.5	1562.0	1603.7	1642.8	1664.6	1671.9	1664.6
45°	1345.8	1428.5	1502.0	1573.8	1601.0	1631.9	1681.8	1726.3	1751.8	1758.1	1751.8
47.5°	1383.1	1476.6	1562.0	1644.6	1677.3	1713.6	1772.7	1823.5	1850.8	1858.0	1851.7
50°	1423.0	1534.7	1632.8	1727.2	1768.1	1806.3	1875.3	1931.6	1960.6	1974.3	1962.4
52.5°	1473.0	1598.3	1713.6	1819.0	1868.0	1913.4	1989.7	2051.4	2086.9	2098.7	2082.3
55°	1532.9	1674.6	1803.5	1925.2	1974.3	2025.1	2109.6	2174.9	2212.2	2224.9	2213.1
57.5°	1599.2	1755.4	1898.0	2026.0	2083.2	2135.0	2229.4	2297.5	2330.2	2346.6	2332.1
60°	1668.2	1838.9	1993.3	2129.5	2192.2	2245.8	2342.0	2409.2	2443.8	2460.1	2446.5
62.5°	1735.4	1919.8	2082.3	2224.0	2283.9	2343.0	2439.2	2503.7	2539.1	2553.6	2540.9
65°	1793.5	1987.9	2155.0	2301.2	2362.9	2421.1	2511.9	2573.6	2610.8	2620.8	2611.8
67.5°	1837.1	2034.2	2203.1	2347.5	2407.4	2465.5	2551.8	2609.0	2645.4	2654.4	2646.3
70°	1857.1	2052.4	2219.4	2360.2	2419.2	2471.0	2552.7	2607.2	2641.7	2647.2	2640.8
72.5°	1844.4	2034.2	2195.8	2330.2	2386.5	2431.9	2507.3	2559.1	2591.8	2596.3	2591.8
75°	1797.2	1978.8	2131.4	2256.7	2309.4	2347.5	2419.2	2467.4	2500.1	2503.7	2498.2
77.5°	1717.3	1886.2	2026.0	2146.8	2190.4	2227.6	2295.7	2338.4	2364.7	2370.2	2363.8
80°	1610.1	1765.4	1890.7	1998.8	2040.5	2072.3	2138.6	2184.9	2199.5	2206.7	2197.7
82.5°	1487.5	1626.4	1738.1	1836.2	1873.5	1912.5	1955.2	1997.9	2018.8	2025.1	2017.8
85°	1355.8	1479.3	1578.3	1666.4	1699.1	1734.5	1771.7	1813.5	1831.7	1838.0	1830.8
87.5°	1224.1	1333.1	1420.3	1498.4	1528.4	1560.2	1604.6	1626.4	1651.0	1658.2	1650.1
90°	1106.1	1204.2	1282.3	1353.1	1381.3	1410.3	1444.8	1472.1	1494.8	1501.1	1493.9
92.5°	1010.7	1098.8	1170.6	1234.1	1258.7	1285.9	1319.5	1345.8	1365.8	1372.2	1364.9
95°	931.7	1012.6	1079.8	1138.8	1162.4	1187.8	1225.1	1245.9	1264.1	1269.6	1264.1
97.5°	864.5	940.8	1004.4	1061.6	1084.3	1107.9	1144.2	1165.1	1182.4	1186.9	1182.4
100°	805.5	880.0	942.6	997.1	1019.8	1042.5	1077.9	1098.8	1115.2	1120.6	1115.2
102.5°	756.5	828.2	890.0	945.4	967.1	989.9	1023.5	1048.0	1060.7	1067.0	1061.6
105°	713.8	783.7	845.5	899.9	922.7	944.4	979.0	1001.7	1016.2	1023.5	1017.1
107.5°	674.7	743.8	806.4	859.1	881.8	903.6	939.0	961.7	975.3	983.5	976.2
110°	637.5	705.6	765.5	820.0	842.7	865.4	900.9	923.6	937.2	944.4	938.1



TEST NUMBER: P201322

CATALOG NUMBER: 8LBLED-LD4-10-SYMF-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	601.2	667.5	729.2	781.9	803.7	826.4	862.7	886.3	899.0	907.2	899.9
115°	564.9	630.2	690.2	741.0	762.8	786.4	821.8	846.4	860.0	866.3	859.1
117.5°	529.4	592.1	649.3	699.3	721.0	743.8	778.3	802.8	817.3	823.7	816.4
120°	493.1	553.0	609.3	654.8	677.5	698.3	733.8	757.4	771.9	778.3	771.0
122.5°	454.1	513.1	566.7	611.2	633.0	652.9	687.4	711.1	724.7	731.0	724.7
125°	414.1	469.5	521.3	565.8	583.9	603.0	636.6	659.3	673.8	679.3	673.8
127.5°	374.1	425.0	473.1	512.2	532.2	550.3	582.1	603.9	616.6	623.0	618.4
130°	334.2	382.3	425.9	461.3	478.6	495.8	524.9	544.9	557.6	563.0	558.5
132.5°	291.5	337.8	380.5	411.4	427.7	442.3	468.6	485.8	496.7	503.1	497.7
135°	253.4	291.5	331.5	363.2	379.6	392.3	415.9	430.4	440.4	445.9	440.4
137.5°	218.9	251.5	284.2	312.4	327.8	341.5	364.2	377.8	386.9	392.3	386.9
140°	187.1	215.2	244.3	267.0	280.6	291.5	312.4	324.2	332.4	336.9	331.5
142.5°	156.2	181.6	206.1	227.0	238.8	247.9	267.9	277.0	283.3	286.1	283.3
145°	129.9	150.7	171.6	190.7	199.8	207.1	227.0	237.0	242.5	245.2	242.5
147.5°	105.3	122.6	139.9	155.3	163.5	172.5	186.2	198.0	202.5	204.3	202.5
150°	82.6	98.1	111.7	124.4	130.8	137.1	148.9	160.7	165.3	168.0	165.3
152.5°	62.7	75.4	86.3	96.3	101.7	107.2	117.1	128.0	132.6	134.4	132.6
155°	45.4	54.5	64.5	71.7	76.3	79.9	87.2	94.4	101.7	101.7	101.7
157.5°	28.2	35.4	43.6	49.9	52.7	56.3	61.8	68.1	73.6	76.3	76.3
160°	14.5	19.1	24.5	29.1	31.8	34.5	38.1	43.6	47.2	49.9	48.1
162.5°	6.4	8.2	10.9	12.7	14.5	15.4	18.2	20.9	22.7	27.2	23.6
165°	1.8	1.8	2.7	3.6	3.6	3.6	4.5	5.4	6.4	10.0	7.3
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: P201322

CATALOG NUMBER: 8LBLELD4-10-SYMF-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6
2.5°	1235.0	1237.8	1241.4	1243.2	1245.9	1247.8	1252.3	1257.7	1253.2	1246.9	1247.8
5°	1239.6	1238.7	1241.4	1243.2	1245.0	1245.9	1250.5	1255.9	1250.5	1244.1	1244.1
7.5°	1241.4	1240.5	1241.4	1242.3	1243.2	1243.2	1247.8	1252.3	1246.9	1238.7	1236.9
10°	1238.7	1237.8	1238.7	1240.5	1240.5	1240.5	1243.2	1246.9	1240.5	1230.5	1226.9
12.5°	1240.5	1237.8	1237.8	1238.7	1238.7	1236.9	1237.8	1240.5	1232.3	1221.4	1216.0
15°	1246.9	1242.3	1240.5	1240.5	1238.7	1234.1	1232.3	1232.3	1223.2	1208.7	1201.4
17.5°	1262.3	1255.0	1249.6	1246.9	1243.2	1235.0	1228.7	1225.1	1213.2	1196.9	1185.1
20°	1285.9	1275.9	1267.7	1262.3	1257.7	1243.2	1230.5	1220.5	1204.2	1184.2	1168.8
22.5°	1309.5	1298.6	1286.8	1281.4	1275.0	1258.7	1241.4	1224.1	1199.6	1172.4	1151.5
25°	1332.2	1321.3	1307.7	1302.2	1294.1	1275.0	1253.2	1233.2	1201.4	1164.2	1134.2
27.5°	1358.5	1344.9	1330.4	1322.2	1313.1	1291.3	1266.8	1242.3	1206.9	1164.2	1122.4
30°	1388.5	1372.2	1353.1	1344.0	1333.1	1307.7	1277.7	1248.7	1210.5	1164.2	1116.1
32.5°	1423.0	1404.0	1381.3	1368.5	1355.8	1325.9	1290.4	1256.8	1213.2	1163.3	1110.6
35°	1463.0	1441.2	1413.9	1399.4	1384.0	1348.6	1306.8	1265.9	1217.8	1162.4	1103.4
37.5°	1512.9	1487.5	1454.8	1436.6	1418.5	1376.7	1328.6	1279.5	1225.1	1163.3	1097.9
40°	1572.9	1542.9	1504.8	1482.1	1460.3	1412.1	1354.9	1296.8	1235.0	1165.1	1092.5
42.5°	1643.7	1607.4	1564.7	1538.4	1512.9	1453.0	1387.6	1318.6	1248.7	1168.8	1089.7
45°	1728.2	1690.0	1635.5	1602.8	1574.7	1504.8	1429.4	1347.7	1268.6	1177.8	1088.8
47.5°	1825.3	1777.2	1718.2	1680.0	1646.4	1565.6	1478.4	1384.0	1291.3	1189.6	1090.7
50°	1934.3	1879.8	1811.7	1771.7	1730.0	1637.3	1536.5	1426.7	1320.4	1206.9	1095.2
52.5°	2054.2	1994.2	1920.7	1873.5	1827.1	1720.0	1601.9	1481.1	1354.0	1228.7	1103.4
55°	2178.6	2114.1	2032.4	1980.6	1928.8	1810.8	1679.1	1540.2	1398.5	1255.9	1117.0
57.5°	2299.4	2233.1	2143.2	2090.5	2032.4	1907.1	1761.8	1604.6	1446.6	1287.7	1132.4
60°	2411.1	2344.8	2254.0	2200.4	2136.8	2002.4	1846.2	1675.5	1496.6	1321.3	1150.6
62.5°	2505.5	2441.9	2351.1	2296.6	2231.3	2092.3	1927.0	1744.5	1551.1	1356.7	1167.8
65°	2575.4	2515.5	2427.4	2371.1	2308.4	2164.1	1995.1	1805.3	1596.5	1387.6	1183.3
67.5°	2610.8	2554.5	2469.2	2415.6	2353.8	2210.4	2041.5	1846.2	1631.0	1409.4	1193.3
70°	2607.2	2553.6	2473.7	2421.1	2362.0	2224.0	2057.8	1862.6	1646.4	1417.6	1191.5
72.5°	2560.0	2506.4	2434.7	2383.8	2327.5	2198.6	2035.1	1848.0	1634.6	1404.9	1176.9
75°	2466.5	2417.4	2344.8	2303.0	2252.1	2132.3	1976.1	1794.4	1594.7	1371.3	1147.0
77.5°	2332.1	2294.8	2224.0	2184.9	2135.0	2024.2	1877.1	1713.6	1524.7	1315.0	1100.6
80°	2167.7	2136.8	2067.8	2033.3	1984.2	1888.0	1760.8	1602.8	1432.1	1238.7	1040.7
82.5°	1987.9	1952.5	1898.0	1866.2	1819.9	1733.6	1612.8	1483.9	1324.9	1151.5	970.8
85°	1801.7	1769.0	1719.1	1691.8	1651.0	1573.8	1465.7	1352.2	1211.4	1055.2	895.4
87.5°	1624.6	1592.8	1545.6	1521.1	1483.9	1414.9	1320.4	1220.5	1096.1	962.6	815.5
90°	1471.2	1441.2	1396.7	1374.0	1340.4	1277.7	1192.4	1102.5	992.6	870.0	743.8
92.5°	1344.9	1317.7	1275.9	1254.1	1224.1	1166.9	1089.7	1008.0	909.0	802.8	685.6
95°	1245.0	1218.7	1181.5	1160.6	1132.4	1073.4	1005.3	929.0	838.2	741.0	633.0
97.5°	1164.2	1142.4	1101.6	1081.6	1058.9	998.9	937.2	861.8	777.4	686.5	585.7
100°	1098.8	1074.3	1037.1	1018.0	994.4	938.1	875.4	804.6	722.9	636.6	543.1
102.5°	1048.0	1022.5	988.0	966.2	943.5	886.3	824.6	755.6	677.5	593.9	504.0
105°	1002.6	978.0	943.5	921.7	899.0	842.7	783.7	713.8	636.6	555.8	468.6
107.5°	959.9	938.1	903.6	881.8	859.1	802.8	743.8	674.7	599.4	520.4	435.9
110°	923.6	899.9	863.6	842.7	818.2	764.6	705.6	638.4	563.0	485.8	405.0



TEST NUMBER: P201322

CATALOG NUMBER: 8LBLED-LD4-10-SYMF-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	887.2	861.8	825.5	804.6	780.1	726.5	668.4	602.1	528.5	454.1	376.0
115°	847.3	822.8	784.6	763.7	739.2	686.5	630.2	565.8	494.9	422.3	346.9
117.5°	804.6	780.1	741.9	722.0	698.3	646.6	593.0	530.3	461.3	391.4	317.8
120°	758.3	734.7	698.3	678.4	655.7	605.7	554.0	491.3	425.9	358.7	290.6
122.5°	711.1	688.4	652.9	633.0	611.2	563.9	513.1	452.2	389.6	326.9	264.3
125°	660.2	637.5	603.9	584.8	563.0	517.6	468.6	411.4	353.3	297.0	237.0
127.5°	601.2	583.0	550.3	531.3	511.3	471.3	424.1	372.3	318.8	264.3	210.7
130°	544.9	525.8	494.9	477.7	460.4	424.1	382.3	332.4	279.7	232.5	184.3
132.5°	485.8	468.6	442.3	427.7	412.3	379.6	336.9	287.9	243.4	202.5	159.8
135°	430.4	415.9	392.3	379.6	364.2	329.6	289.7	248.8	211.6	175.3	137.1
137.5°	378.7	364.2	342.4	328.7	312.4	281.5	248.8	215.2	180.7	149.8	116.2
140°	324.2	312.4	292.4	280.6	266.1	239.7	212.5	180.7	153.5	125.3	96.3
142.5°	277.9	267.9	247.9	237.0	224.3	202.5	177.1	152.6	128.0	103.5	79.0
145°	237.9	227.9	206.1	198.0	186.2	167.1	146.2	124.4	104.4	83.5	63.6
147.5°	198.9	187.1	168.0	160.7	151.7	135.3	119.0	101.7	84.5	66.3	49.0
150°	162.6	148.9	133.5	129.0	119.9	107.2	93.5	79.0	65.4	50.9	35.4
152.5°	128.0	116.2	103.5	99.0	91.7	83.5	71.7	59.9	49.0	35.4	24.5
155°	95.4	86.3	76.3	73.6	68.1	61.8	51.8	42.7	32.7	23.6	17.3
157.5°	67.2	59.9	52.7	50.9	47.2	41.8	33.6	26.3	20.9	15.4	11.8
160°	41.8	37.2	31.8	30.0	27.2	23.6	18.2	15.4	12.7	10.0	7.3
162.5°	20.0	17.3	15.4	14.5	12.7	10.9	10.0	8.2	7.3	6.4	5.4
165°	7.3	7.3	7.3	6.4	6.4	6.4	6.4	5.4	4.5	4.5	3.6
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: P201322

CATALOG NUMBER: 8LBLED-LD4-10-SYMF-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6	1249.6
2.5°	1248.7	1250.5	1250.5	1251.4	1254.1	1259.6	1266.8	1267.7
5°	1245.0	1245.9	1245.9	1245.9	1248.7	1253.2	1260.5	1261.4
7.5°	1236.9	1236.9	1236.9	1236.9	1239.6	1243.2	1249.6	1250.5
10°	1226.0	1225.1	1225.1	1224.1	1226.0	1228.7	1236.0	1235.0
12.5°	1212.3	1210.5	1209.6	1209.6	1208.7	1211.4	1216.0	1216.9
15°	1196.9	1193.3	1191.5	1189.6	1188.7	1188.7	1194.2	1193.3
17.5°	1178.7	1173.3	1170.6	1167.8	1164.2	1164.2	1167.8	1166.9
20°	1157.9	1150.6	1146.0	1142.4	1137.0	1135.2	1137.0	1136.1
22.5°	1137.0	1125.2	1120.6	1115.2	1107.0	1103.4	1102.5	1101.6
25°	1112.4	1097.9	1091.6	1086.1	1074.3	1069.8	1065.2	1063.4
27.5°	1090.7	1069.8	1061.6	1052.5	1038.9	1032.5	1025.3	1023.5
30°	1071.6	1040.7	1028.0	1018.9	1001.7	991.7	982.6	980.8
32.5°	1057.1	1014.4	997.1	986.2	962.6	949.0	937.2	931.7
35°	1044.3	989.9	967.1	949.9	921.7	905.4	889.1	884.5
37.5°	1032.5	969.0	939.0	915.4	883.6	860.0	841.8	834.6
40°	1020.7	949.9	913.6	883.6	841.8	814.6	791.9	782.8
42.5°	1009.8	930.8	891.8	855.5	801.0	768.3	743.8	731.0
45°	999.8	913.6	870.9	830.9	761.0	722.9	692.9	681.1
47.5°	992.6	897.2	850.0	806.4	723.8	676.6	645.7	630.2
50°	987.1	881.8	830.0	781.9	691.1	632.1	597.5	579.4
52.5°	984.4	868.2	811.9	760.1	661.1	589.4	548.5	534.9
55°	985.3	857.3	796.4	740.1	633.0	548.5	503.1	482.2
57.5°	987.1	847.3	781.0	720.1	604.8	508.5	457.7	435.9
60°	990.8	839.1	767.4	701.1	578.5	474.0	415.9	395.0
62.5°	994.4	831.8	753.7	682.9	553.0	442.3	374.1	350.5
65°	995.3	820.9	739.2	664.7	527.6	410.5	331.5	308.8
67.5°	991.7	807.3	721.0	643.9	501.3	379.6	291.5	267.9
70°	980.8	789.2	700.2	620.2	472.2	349.6	253.4	227.9
72.5°	960.8	765.5	675.6	593.9	444.1	317.8	218.9	188.0
75°	932.6	736.5	646.6	563.9	414.1	287.9	187.1	152.6
77.5°	894.5	699.3	612.1	530.3	381.4	257.0	159.8	119.9
80°	845.5	660.2	573.9	494.0	349.6	228.8	133.5	89.0
82.5°	787.3	615.7	533.1	456.8	319.7	199.8	109.0	61.8
85°	727.4	567.6	490.4	417.7	287.9	172.5	88.1	36.3
87.5°	668.4	519.4	449.5	382.3	255.2	148.0	68.1	14.5
90°	610.3	473.1	406.8	344.2	227.0	125.3	50.9	0.0
92.5°	562.1	438.6	378.7	318.8	208.9	113.5	43.6	0.0
95°	519.4	405.9	348.7	293.3	189.8	102.6	36.3	0.0
97.5°	480.4	375.1	322.4	269.7	172.5	90.8	30.0	0.0
100°	443.2	344.2	295.1	247.9	156.2	80.8	22.7	0.0
102.5°	410.5	316.9	270.6	224.3	139.9	70.8	16.3	0.0
105°	378.7	290.6	247.9	203.4	125.3	61.8	10.0	0.0
107.5°	350.5	266.1	225.2	184.3	111.7	53.6	6.4	0.0
110°	323.3	243.4	203.4	166.2	99.9	46.3	5.4	0.0



TEST NUMBER: P201322

CATALOG NUMBER: 8LBLED-LD4-10-SYMF-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	297.9	221.6	184.3	148.9	89.9	39.0	5.4	0.0
115°	271.5	200.7	166.2	134.4	79.9	31.8	4.5	0.0
117.5°	248.8	180.7	149.8	122.6	69.9	25.4	4.5	0.0
120°	226.1	163.5	136.2	109.9	60.8	19.1	4.5	0.0
122.5°	203.4	148.0	121.7	98.1	52.7	15.4	3.6	0.0
125°	182.5	131.7	108.1	85.4	43.6	13.6	3.6	0.0
127.5°	161.6	115.3	93.5	73.6	34.5	11.8	2.7	0.0
130°	140.8	99.0	79.9	61.8	26.3	10.0	2.7	0.0
132.5°	121.7	83.5	67.2	50.9	20.9	8.2	1.8	0.0
135°	102.6	69.9	55.4	40.0	16.3	7.3	1.8	0.0
137.5°	86.3	57.2	43.6	30.0	13.6	5.4	1.8	0.0
140°	70.8	45.4	32.7	22.7	10.9	4.5	0.9	0.0
142.5°	56.3	33.6	24.5	17.3	9.1	3.6	0.9	0.0
145°	43.6	24.5	18.2	13.6	8.2	2.7	0.9	0.0
147.5°	31.8	19.1	14.5	11.8	6.4	2.7	0.9	0.0
150°	22.7	14.5	11.8	9.1	4.5	1.8	0.9	0.0
152.5°	17.3	10.9	9.1	7.3	3.6	1.8	0.9	0.0
155°	12.7	8.2	7.3	5.4	2.7	1.8	0.9	0.0
157.5°	9.1	6.4	5.4	3.6	2.7	1.8	0.9	0.0
160°	5.4	4.5	3.6	2.7	1.8	0.9	0.9	0.0
162.5°	4.5	2.7	2.7	2.7	1.8	0.9	0.9	0.0
165°	2.7	1.8	1.8	1.8	0.9	0.9	0.9	0.0
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)