

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: P201262

Luminaire Tested: **8LBLED-LD4-14-SYMF-UNV-L850-CD2-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P201262  
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-LD4-14-SYMF-UNV-L850-CD2-U  
Description: 8 ft. Low Bay Linear, 14000 lm, Frst Sym lens, 5K  
Light Source: (784) 5000K CCT, 80 CRI LEDS  
2UT217098A8504C  
Ballast/Driver: OSRAM  
2x(OTi50W01120CC)

**Summary**

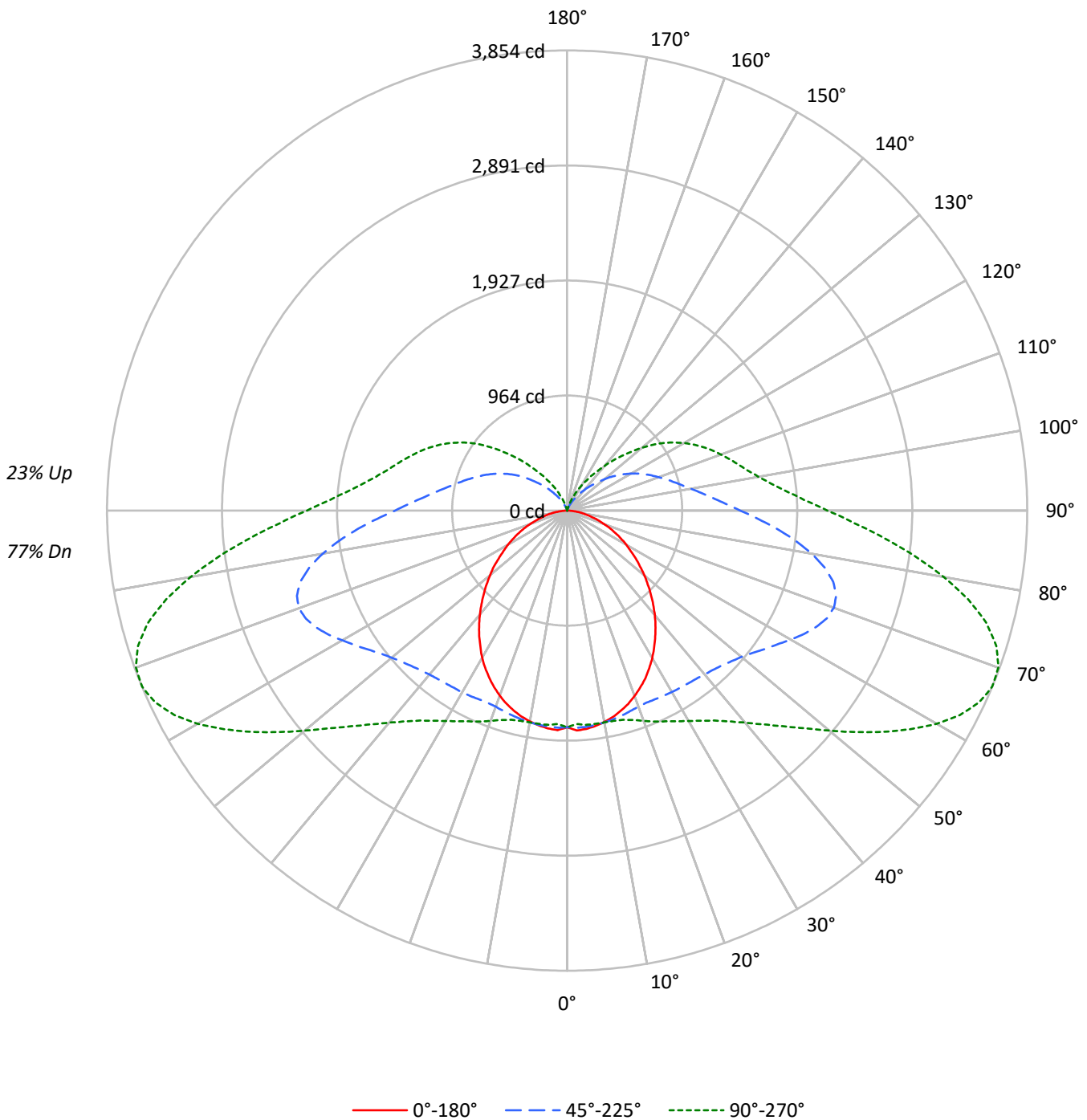
Lumens per Lamp: N/A  
Luminaire Lumens: 15529.4 lumens  
Efficiency: N/A  
Efficacy: 155.9 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.99 / 1.87  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 8' x H: 0.21')  
CIE Type: Semi-Direct  
  
Input Watts (W): 99.6  
Input Voltage (V): NR  
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°	14617	14617	14617
5°	14810	13135	14778
10°	14635	12082	14603
15°	14373	11346	14351
20°	14032	11061	14010
25°	13619	10952	13561
30°	13064	11010	13052
35°	12431	11278	12405
40°	11752	11921	11699
45°	11011	12953	10982
50°	10260	14462	10227
55°	9501	16330	9482
60°	8823	18230	8844
65°	8072	19761	8095
70°	7275	20475	7275
75°	6322	20034	6285
80°	5277	18436	5224
85°	3948	16192	3756



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.3	1.1
10°-20°	501.0	3.2
20°-30°	805.3	5.2
30°-40°	1090.4	7.0
40°-50°	1400.8	9.0
50°-60°	1802.2	11.6
60°-70°	2204.8	14.2
70°-80°	2229.1	14.4
80°-90°	1723.8	11.1
90°-100°	1197.6	7.7
100°-110°	894.5	5.8
110°-120°	670.4	4.3
120°-130°	451.5	2.9
130°-140°	247.6	1.6
140°-150°	105.5	0.7
150°-160°	30.2	0.2
160°-170°	2.6	0.0
170°-180°	0.0	0.0
0°-30°	1478.6	9.5
0°-40°	2568.9	16.5
0°-60°	5772.0	37.2
0°-90°	11929.6	76.8
90°-120°	2762.5	17.8
90°-150°	3567.0	23.0
90°-180°	3600.0	23.2
0°-180°	15529.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1814	1814	1814	1814	1814	
5°	1835	1818	1801	1816	1831	174
15°	1735	1776	1814	1776	1732	489
25°	1551	1743	1948	1744	1544	712
35°	1287	1767	2147	1768	1284	804
45°	992	1834	2553	1842	989	765
55°	702	2021	3230	2030	700	628
65°	447	2304	3805	2318	448	444
75°	223	2307	3635	2315	222	238
85°	55	1764	2669	1759	53	61
90°	1	1449	2180	1441	0	4
95°	1	1222	1843	1217	0	1
105°	1	924	1486	924	0	1
115°	1	719	1258	719	0	1
125°	1	516	986	513	0	2
135°	3	311	647	307	0	2
145°	3	158	356	152	0	2
155°	3	50	148	48	0	1
165°	3	3	14	7	0	1
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°	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3
2.5°	1843.3	1842.0	1834.1	1822.2	1816.9	1815.6	1814.3	1809.0	1807.7	1810.3	1820.9
5°	1835.4	1834.1	1826.2	1814.3	1810.3	1809.0	1807.7	1803.7	1803.7	1807.7	1818.2
7.5°	1819.6	1818.2	1810.3	1801.1	1797.1	1795.8	1795.8	1793.2	1793.2	1799.8	1811.7
10°	1797.1	1795.8	1789.2	1781.3	1778.7	1778.7	1778.7	1777.4	1780.0	1787.9	1801.1
12.5°	1770.8	1768.1	1762.9	1756.3	1756.3	1756.3	1757.6	1757.6	1761.5	1774.7	1790.6
15°	1735.2	1736.5	1731.2	1725.9	1728.6	1729.9	1732.5	1735.2	1741.8	1757.6	1776.1
17.5°	1698.3	1698.3	1694.3	1691.7	1696.9	1699.6	1703.5	1707.5	1719.4	1739.1	1760.2
20°	1652.1	1653.4	1652.1	1653.4	1660.0	1664.0	1669.3	1678.5	1694.3	1722.0	1747.0
22.5°	1602.0	1604.6	1604.6	1609.9	1620.5	1627.1	1633.7	1646.8	1669.3	1704.9	1740.5
25°	1550.6	1549.3	1555.9	1565.1	1575.6	1584.9	1592.8	1612.6	1645.5	1693.0	1743.1
27.5°	1488.6	1491.2	1500.5	1513.7	1529.5	1541.4	1553.2	1580.9	1628.4	1691.7	1749.7
30°	1425.3	1429.3	1441.1	1459.6	1482.0	1497.8	1511.0	1554.5	1619.1	1691.7	1755.0
32.5°	1356.8	1363.4	1379.2	1402.9	1434.6	1453.0	1474.1	1532.1	1611.2	1689.0	1760.2
35°	1286.9	1294.8	1315.9	1344.9	1381.8	1404.2	1437.2	1515.0	1600.7	1686.4	1766.8
37.5°	1215.7	1224.9	1248.6	1285.6	1333.0	1367.3	1406.9	1496.5	1592.8	1686.4	1776.1
40°	1141.8	1152.4	1182.7	1224.9	1285.6	1330.4	1377.9	1478.1	1584.9	1687.7	1790.6
42.5°	1066.7	1078.6	1115.5	1165.6	1244.7	1297.4	1350.2	1462.2	1579.6	1694.3	1809.0
45°	991.5	1007.4	1048.2	1108.9	1207.8	1263.1	1323.8	1447.7	1577.0	1706.2	1834.1
47.5°	916.4	934.8	982.3	1054.8	1169.5	1235.5	1298.7	1435.9	1579.6	1722.0	1867.0
50°	843.9	865.0	917.7	1006.0	1133.9	1205.1	1275.0	1428.0	1584.9	1745.7	1906.6
52.5°	770.0	797.7	855.7	962.5	1102.3	1177.4	1255.2	1422.7	1595.4	1777.4	1958.0
55°	701.5	730.5	797.7	920.3	1072.0	1153.7	1236.8	1421.4	1613.9	1815.6	2021.3
57.5°	631.6	667.2	741.0	879.5	1040.3	1130.0	1222.3	1424.0	1636.3	1856.5	2085.9
60°	572.2	603.9	689.6	839.9	1012.6	1107.6	1209.1	1426.6	1660.0	1903.9	2161.1
62.5°	508.9	543.2	644.8	801.7	984.9	1087.8	1195.9	1430.6	1685.1	1952.7	2237.5
65°	447.0	482.6	599.9	764.7	957.2	1066.7	1180.1	1430.6	1704.9	1997.6	2303.5
67.5°	387.6	425.9	555.1	725.2	925.6	1040.3	1160.3	1424.0	1716.7	2029.2	2354.9
70°	330.9	373.1	511.6	683.0	891.3	1008.7	1132.6	1409.5	1715.4	2041.1	2377.3
72.5°	274.3	323.0	464.1	640.8	854.4	973.1	1099.6	1381.8	1696.9	2026.6	2362.8
75°	222.8	275.6	421.9	598.6	812.2	930.9	1058.8	1339.6	1656.1	1981.7	2307.4
77.5°	175.4	233.4	377.1	552.5	764.7	882.1	1007.4	1285.6	1591.5	1902.6	2209.8
80°	130.5	195.1	334.9	506.3	713.3	828.0	949.3	1217.0	1507.1	1795.8	2079.3
82.5°	91.0	159.5	294.0	460.2	660.6	770.0	886.0	1135.2	1409.5	1671.9	1929.0
85°	55.4	127.9	253.2	415.3	606.5	709.4	818.8	1049.5	1302.7	1537.4	1764.2
87.5°	23.7	98.9	217.6	371.8	552.5	650.0	750.2	967.8	1189.3	1397.6	1599.4
90°	1.3	73.8	185.9	330.9	501.0	592.0	685.6	880.8	1085.1	1269.7	1449.1
92.5°	0.0	63.3	167.5	305.9	465.4	549.8	636.8	816.2	1000.8	1165.6	1325.1
95°	1.3	52.7	151.6	278.2	429.8	510.3	590.7	758.2	924.3	1075.9	1222.3
97.5°	1.3	43.5	134.5	253.2	396.9	470.7	545.9	701.5	851.8	995.5	1131.3
100°	1.3	34.3	118.7	229.4	362.6	431.2	502.4	648.7	789.8	924.3	1052.2
102.5°	1.3	25.1	105.5	207.0	330.9	395.6	461.5	599.9	733.1	862.3	983.6
105°	1.3	17.1	92.3	185.9	301.9	362.6	424.6	555.1	681.7	805.6	924.3
107.5°	1.3	11.9	80.4	166.1	270.3	330.9	389.0	512.9	634.2	754.2	870.2
110°	1.3	10.5	69.9	149.0	245.2	300.6	356.0	473.3	589.4	704.1	817.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	1.3	9.2	59.3	133.2	220.2	270.3	324.4	435.1	548.5	659.3	767.4
115°	1.3	9.2	48.8	118.7	199.1	243.9	294.0	398.2	506.3	613.1	718.6
117.5°	1.3	9.2	39.6	105.5	179.3	220.2	263.7	363.9	464.1	568.3	671.1
120°	1.3	7.9	31.6	92.3	162.2	199.1	240.0	330.9	423.2	520.8	619.7
122.5°	1.3	7.9	26.4	80.4	145.0	179.3	216.2	296.7	385.0	474.7	567.0
125°	1.3	6.6	22.4	67.2	127.9	160.9	193.8	266.3	348.1	431.2	515.5
127.5°	2.6	6.6	18.5	55.4	110.8	139.8	171.4	237.3	308.5	383.7	464.1
130°	2.6	6.6	15.8	42.2	93.6	120.0	147.7	208.3	274.3	338.9	408.7
132.5°	2.6	5.3	14.5	33.0	77.8	101.5	126.6	180.6	238.7	296.7	357.3
135°	2.6	5.3	11.9	26.4	62.0	83.1	106.8	154.3	205.7	259.7	311.2
137.5°	2.6	4.0	10.5	21.1	47.5	67.2	88.3	130.5	175.4	221.5	269.0
140°	2.6	4.0	9.2	17.1	35.6	50.1	69.9	106.8	146.4	187.2	228.1
142.5°	2.6	4.0	7.9	14.5	27.7	38.2	52.7	87.0	121.3	155.6	191.2
145°	2.6	4.0	6.6	11.9	21.1	29.0	38.2	67.2	97.6	127.9	158.2
147.5°	2.6	4.0	6.6	10.5	17.1	22.4	29.0	48.8	76.5	101.5	127.9
150°	2.6	4.0	5.3	9.2	14.5	17.1	21.1	34.3	55.4	77.8	100.2
152.5°	2.6	2.6	5.3	7.9	10.5	13.2	15.8	25.1	38.2	55.4	75.2
155°	2.6	2.6	4.0	6.6	9.2	10.5	11.9	17.1	25.1	35.6	50.1
157.5°	2.6	2.6	4.0	5.3	6.6	7.9	9.2	11.9	17.1	22.4	30.3
160°	2.6	2.6	4.0	5.3	5.3	6.6	6.6	7.9	10.5	13.2	17.1
162.5°	2.6	2.6	4.0	4.0	4.0	5.3	5.3	5.3	6.6	6.6	7.9
165°	2.6	2.6	2.6	4.0	2.6	4.0	2.6	4.0	4.0	2.6	2.6
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3
2.5°	1824.8	1815.6	1811.7	1806.4	1802.4	1799.8	1795.8	1793.2	1789.2	1789.2	1790.6
5°	1822.2	1813.0	1810.3	1805.1	1802.4	1801.1	1798.5	1799.8	1799.8	1801.1	1799.8
7.5°	1816.9	1809.0	1806.4	1803.7	1801.1	1799.8	1798.5	1801.1	1801.1	1802.4	1802.4
10°	1807.7	1802.4	1802.4	1799.8	1798.5	1797.1	1794.5	1798.5	1798.5	1801.1	1799.8
12.5°	1797.1	1795.8	1797.1	1798.5	1798.5	1797.1	1795.8	1801.1	1803.7	1803.7	1805.1
15°	1785.3	1787.9	1794.5	1798.5	1801.1	1801.1	1803.7	1809.0	1813.0	1814.3	1814.3
17.5°	1776.1	1782.6	1794.5	1805.1	1810.3	1813.0	1819.6	1830.1	1836.7	1838.0	1838.0
20°	1769.5	1785.3	1806.4	1826.2	1832.7	1838.0	1851.2	1864.4	1873.6	1874.9	1874.9
22.5°	1774.7	1801.1	1830.1	1852.5	1861.8	1868.3	1882.9	1900.0	1910.5	1911.9	1911.9
25°	1787.9	1819.6	1852.5	1880.2	1890.8	1898.7	1914.5	1933.0	1943.5	1947.5	1946.1
27.5°	1799.8	1838.0	1876.3	1907.9	1919.8	1930.3	1950.1	1971.2	1984.4	1988.3	1985.7
30°	1810.3	1855.2	1898.7	1936.9	1952.7	1964.6	1988.3	2013.4	2030.5	2034.5	2030.5
32.5°	1820.9	1874.9	1926.4	1971.2	1987.0	2004.2	2034.5	2063.5	2080.6	2085.9	2083.3
35°	1835.4	1898.7	1959.3	2010.7	2031.8	2051.6	2087.2	2121.5	2142.6	2146.6	2142.6
37.5°	1855.2	1929.0	1996.2	2060.9	2083.3	2111.0	2153.1	2194.0	2219.1	2224.3	2219.1
40°	1880.2	1967.2	2046.3	2121.5	2151.8	2180.8	2232.3	2281.0	2308.7	2318.0	2314.0
42.5°	1913.2	2014.7	2107.0	2196.7	2230.9	2267.9	2328.5	2385.2	2416.9	2427.4	2416.9
45°	1954.1	2074.0	2180.8	2285.0	2324.6	2369.4	2441.9	2506.5	2543.4	2552.7	2543.4
47.5°	2008.1	2143.9	2267.9	2387.8	2435.3	2488.1	2573.8	2647.6	2687.2	2697.7	2688.5
50°	2066.1	2228.3	2370.7	2507.8	2567.2	2622.5	2722.8	2804.5	2846.7	2866.5	2849.3
52.5°	2138.6	2320.6	2488.1	2641.0	2712.2	2778.1	2888.9	2978.5	3030.0	3047.1	3023.4
55°	2225.7	2431.4	2618.6	2795.3	2866.5	2940.3	3062.9	3157.9	3211.9	3230.4	3213.2
57.5°	2321.9	2548.7	2755.7	2941.6	3024.7	3099.8	3237.0	3335.9	3383.3	3407.1	3386.0
60°	2422.1	2670.0	2894.2	3091.9	3182.9	3260.7	3400.5	3498.0	3548.1	3571.9	3552.1
62.5°	2519.7	2787.4	3023.4	3229.1	3316.1	3401.8	3541.6	3635.2	3686.6	3707.7	3689.2
65°	2604.1	2886.2	3128.9	3341.1	3430.8	3515.2	3647.0	3736.7	3790.8	3805.3	3792.1
67.5°	2667.4	2953.5	3198.7	3408.4	3495.4	3579.8	3705.1	3788.1	3840.9	3854.0	3842.2
70°	2696.4	2979.9	3222.5	3426.8	3512.5	3587.7	3706.4	3785.5	3835.6	3843.5	3834.3
72.5°	2677.9	2953.5	3188.2	3383.3	3465.1	3531.0	3640.4	3715.6	3763.1	3769.7	3763.1
75°	2609.4	2873.1	3094.6	3276.5	3353.0	3408.4	3512.5	3582.4	3629.9	3635.2	3627.3
77.5°	2493.3	2738.6	2941.6	3117.0	3180.3	3234.3	3333.2	3395.2	3433.4	3441.3	3432.1
80°	2337.7	2563.2	2745.2	2902.1	2962.7	3008.9	3105.1	3172.4	3193.5	3204.0	3190.8
82.5°	2159.7	2361.5	2523.7	2666.1	2720.1	2776.8	2838.8	2900.8	2931.1	2940.3	2929.8
85°	1968.6	2147.9	2291.6	2419.5	2467.0	2518.4	2572.4	2633.1	2659.5	2668.7	2658.1
87.5°	1777.4	1935.6	2062.2	2175.6	2219.1	2265.2	2329.8	2361.5	2397.1	2407.6	2395.8
90°	1606.0	1748.4	1861.8	1964.6	2005.5	2047.7	2097.8	2137.3	2170.3	2179.5	2169.0
92.5°	1467.5	1595.4	1699.6	1791.9	1827.5	1867.0	1915.8	1954.1	1983.1	1992.3	1981.7
95°	1352.8	1470.2	1567.7	1653.4	1687.7	1724.6	1778.7	1809.0	1835.4	1843.3	1835.4
97.5°	1255.2	1366.0	1458.3	1541.4	1574.3	1608.6	1661.3	1691.7	1716.7	1723.3	1716.7
100°	1169.5	1277.6	1368.6	1447.7	1480.7	1513.7	1565.1	1595.4	1619.1	1627.1	1619.1
102.5°	1098.3	1202.5	1292.2	1372.6	1404.2	1437.2	1486.0	1521.6	1540.0	1549.3	1541.4
105°	1036.4	1137.9	1227.5	1306.7	1339.6	1371.3	1421.4	1454.3	1475.4	1486.0	1476.7
107.5°	979.7	1079.9	1170.8	1247.3	1280.3	1311.9	1363.4	1396.3	1416.1	1428.0	1417.4
110°	925.6	1024.5	1111.5	1190.6	1223.6	1256.6	1308.0	1340.9	1360.7	1371.3	1362.0





TEST NUMBER: P201262

CATALOG NUMBER: 8LBLED-LD4-14-SYMF-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	872.9	969.1	1058.8	1135.2	1166.9	1199.9	1252.6	1286.9	1305.3	1317.2	1306.7
115°	820.1	915.1	1002.1	1075.9	1107.6	1141.8	1193.3	1228.9	1248.6	1257.9	1247.3
117.5°	768.7	859.7	942.7	1015.3	1046.9	1079.9	1130.0	1165.6	1186.7	1195.9	1185.4
120°	716.0	803.0	884.7	950.7	983.6	1013.9	1065.4	1099.6	1120.7	1130.0	1119.4
122.5°	659.3	745.0	822.8	887.4	919.0	948.0	998.1	1032.4	1052.2	1061.4	1052.2
125°	601.2	681.7	756.8	821.4	847.8	875.5	924.3	957.2	978.3	986.3	978.3
127.5°	543.2	617.1	687.0	743.6	772.7	799.0	845.2	876.8	895.3	904.5	897.9
130°	485.2	555.1	618.4	669.8	694.9	719.9	762.1	791.1	809.6	817.5	810.9
132.5°	423.2	490.5	552.5	597.3	621.0	642.1	680.4	705.4	721.2	730.5	722.6
135°	367.9	423.2	481.3	527.4	551.1	569.6	603.9	625.0	639.5	647.4	639.5
137.5°	317.8	365.2	412.7	453.6	476.0	495.8	528.7	548.5	561.7	569.6	561.7
140°	271.6	312.5	354.7	387.6	407.4	423.2	453.6	470.7	482.6	489.2	481.3
142.5°	226.8	263.7	299.3	329.6	346.8	360.0	389.0	402.1	411.4	415.3	411.4
145°	188.5	218.9	249.2	276.9	290.1	300.6	329.6	344.1	352.0	356.0	352.0
147.5°	152.9	178.0	203.1	225.5	237.3	250.5	270.3	287.4	294.0	296.7	294.0
150°	120.0	142.4	162.2	180.6	189.9	199.1	216.2	233.4	240.0	243.9	240.0
152.5°	91.0	109.4	125.3	139.8	147.7	155.6	170.1	185.9	192.5	195.1	192.5
155°	65.9	79.1	93.6	104.2	110.8	116.0	126.6	137.1	147.7	147.7	147.7
157.5°	40.9	51.4	63.3	72.5	76.5	81.7	89.7	98.9	106.8	110.8	110.8
160°	21.1	27.7	35.6	42.2	46.1	50.1	55.4	63.3	68.6	72.5	69.9
162.5°	9.2	11.9	15.8	18.5	21.1	22.4	26.4	30.3	33.0	39.6	34.3
165°	2.6	2.6	4.0	5.3	5.3	5.3	6.6	7.9	9.2	14.5	10.5
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: P201262

CATALOG NUMBER: 8LBLELD4-14-SYMF-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3
2.5°	1793.2	1797.1	1802.4	1805.1	1809.0	1811.7	1818.2	1826.2	1819.6	1810.3	1811.7
5°	1799.8	1798.5	1802.4	1805.1	1807.7	1809.0	1815.6	1823.5	1815.6	1806.4	1806.4
7.5°	1802.4	1801.1	1802.4	1803.7	1805.1	1805.1	1811.7	1818.2	1810.3	1798.5	1795.8
10°	1798.5	1797.1	1798.5	1801.1	1801.1	1801.1	1805.1	1810.3	1801.1	1786.6	1781.3
12.5°	1801.1	1797.1	1797.1	1798.5	1798.5	1795.8	1797.1	1801.1	1789.2	1773.4	1765.5
15°	1810.3	1803.7	1801.1	1801.1	1798.5	1791.9	1789.2	1789.2	1776.1	1755.0	1744.4
17.5°	1832.7	1822.2	1814.3	1810.3	1805.1	1793.2	1784.0	1778.7	1761.5	1737.8	1720.7
20°	1867.0	1852.5	1840.7	1832.7	1826.2	1805.1	1786.6	1772.1	1748.4	1719.4	1696.9
22.5°	1901.3	1885.5	1868.3	1860.4	1851.2	1827.5	1802.4	1777.4	1741.8	1702.2	1671.9
25°	1934.3	1918.5	1898.7	1890.8	1878.9	1851.2	1819.6	1790.6	1744.4	1690.3	1646.8
27.5°	1972.5	1952.7	1931.6	1919.8	1906.6	1874.9	1839.3	1803.7	1752.3	1690.3	1629.7
30°	2016.0	1992.3	1964.6	1951.4	1935.6	1898.7	1855.2	1813.0	1757.6	1690.3	1620.5
32.5°	2066.1	2038.4	2005.5	1987.0	1968.6	1925.0	1873.6	1824.8	1761.5	1689.0	1612.6
35°	2124.1	2092.5	2052.9	2031.8	2009.4	1958.0	1897.4	1838.0	1768.1	1687.7	1602.0
37.5°	2196.7	2159.7	2112.3	2085.9	2059.5	1998.9	1929.0	1857.8	1778.7	1689.0	1594.1
40°	2283.7	2240.2	2184.8	2151.8	2120.2	2050.3	1967.2	1882.9	1793.2	1691.7	1586.2
42.5°	2386.5	2333.8	2271.8	2233.6	2196.7	2109.6	2014.7	1914.5	1813.0	1696.9	1582.2
45°	2509.1	2453.8	2374.7	2327.2	2286.3	2184.8	2075.4	1956.7	1842.0	1710.1	1580.9
47.5°	2650.2	2580.3	2494.6	2439.3	2390.5	2273.1	2146.6	2009.4	1874.9	1727.3	1583.5
50°	2808.5	2729.3	2630.5	2572.4	2511.8	2377.3	2230.9	2071.4	1917.1	1752.3	1590.1
52.5°	2982.5	2895.5	2788.7	2720.1	2652.9	2497.3	2325.9	2150.5	1965.9	1784.0	1602.0
55°	3163.1	3069.5	2950.9	2875.7	2800.5	2629.1	2437.9	2236.2	2030.5	1823.5	1621.8
57.5°	3338.5	3242.2	3111.7	3035.2	2950.9	2768.9	2557.9	2329.8	2100.4	1869.7	1644.2
60°	3500.7	3404.4	3272.6	3194.8	3102.5	2907.3	2680.6	2432.7	2172.9	1918.5	1670.6
62.5°	3637.8	3545.5	3413.7	3334.5	3239.6	3037.9	2797.9	2532.9	2252.0	1969.9	1695.6
65°	3739.3	3652.3	3524.4	3442.7	3351.7	3142.0	2896.8	2621.2	2318.0	2014.7	1718.0
67.5°	3790.8	3709.0	3585.1	3507.3	3417.6	3209.3	2964.0	2680.6	2368.1	2046.3	1732.5
70°	3785.5	3707.7	3591.7	3515.2	3429.5	3229.1	2987.8	2704.3	2390.5	2058.2	1729.9
72.5°	3716.9	3639.1	3535.0	3461.1	3379.4	3192.1	2954.8	2683.2	2373.3	2039.8	1708.8
75°	3581.1	3509.9	3404.4	3343.8	3269.9	3095.9	2869.1	2605.4	2315.3	1991.0	1665.3
77.5°	3386.0	3331.9	3229.1	3172.4	3099.8	2939.0	2725.4	2488.1	2213.8	1909.2	1598.1
80°	3147.3	3102.5	3002.3	2952.2	2881.0	2741.2	2556.6	2327.2	2079.3	1798.5	1511.0
82.5°	2886.2	2834.8	2755.7	2709.6	2642.3	2517.1	2341.7	2154.5	1923.7	1671.9	1409.5
85°	2616.0	2568.5	2496.0	2456.4	2397.1	2285.0	2128.1	1963.3	1758.9	1532.1	1300.1
87.5°	2358.8	2312.7	2244.1	2208.5	2154.5	2054.3	1917.1	1772.1	1591.5	1397.6	1184.0
90°	2136.0	2092.5	2027.9	1994.9	1946.1	1855.2	1731.2	1600.7	1441.1	1263.1	1079.9
92.5°	1952.7	1913.2	1852.5	1820.9	1777.4	1694.3	1582.2	1463.6	1319.8	1165.6	995.5
95°	1807.7	1769.5	1715.4	1685.1	1644.2	1558.5	1459.6	1348.8	1217.0	1075.9	919.0
97.5°	1690.3	1658.7	1599.4	1570.4	1537.4	1450.4	1360.7	1251.3	1128.7	996.8	850.4
100°	1595.4	1559.8	1505.8	1478.1	1443.8	1362.0	1271.1	1168.2	1049.5	924.3	788.5
102.5°	1521.6	1484.7	1434.6	1402.9	1369.9	1286.9	1197.2	1097.0	983.6	862.3	731.8
105°	1455.6	1420.0	1369.9	1338.3	1305.3	1223.6	1137.9	1036.4	924.3	806.9	680.4
107.5°	1393.7	1362.0	1311.9	1280.3	1247.3	1165.6	1079.9	979.7	870.2	755.5	632.9
110°	1340.9	1306.7	1253.9	1223.6	1188.0	1110.2	1024.5	926.9	817.5	705.4	588.1



TEST NUMBER: P201262

CATALOG NUMBER: 8LBLED-LD4-14-SYMF-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
112.5°	1288.2	1251.3	1198.5	1168.2	1132.6	1054.8	970.4	874.2	767.4	659.3	545.9
115°	1230.2	1194.6	1139.2	1108.9	1073.3	996.8	915.1	821.4	718.6	613.1	503.7
117.5°	1168.2	1132.6	1077.2	1048.2	1013.9	938.8	861.0	770.0	669.8	568.3	461.5
120°	1101.0	1066.7	1013.9	984.9	952.0	879.5	804.3	713.3	618.4	520.8	421.9
122.5°	1032.4	999.4	948.0	919.0	887.4	818.8	745.0	656.6	565.6	474.7	383.7
125°	958.6	925.6	876.8	849.1	817.5	751.6	680.4	597.3	512.9	431.2	344.1
127.5°	872.9	846.5	799.0	771.3	742.3	684.3	615.8	540.6	462.8	383.7	305.9
130°	791.1	763.4	718.6	693.5	668.5	615.8	555.1	482.6	406.1	337.5	267.7
132.5°	705.4	680.4	642.1	621.0	598.6	551.1	489.2	418.0	353.4	294.0	232.1
135°	625.0	603.9	569.6	551.1	528.7	478.6	420.6	361.3	307.2	254.5	199.1
137.5°	549.8	528.7	497.1	477.3	453.6	408.7	361.3	312.5	262.4	217.6	168.8
140°	470.7	453.6	424.6	407.4	386.3	348.1	308.5	262.4	222.8	182.0	139.8
142.5°	403.5	389.0	360.0	344.1	325.7	294.0	257.1	221.5	185.9	150.3	114.7
145°	345.5	330.9	299.3	287.4	270.3	242.6	212.3	180.6	151.6	121.3	92.3
147.5°	288.8	271.6	243.9	233.4	220.2	196.5	172.7	147.7	122.6	96.3	71.2
150°	236.0	216.2	193.8	187.2	174.0	155.6	135.8	114.7	94.9	73.8	51.4
152.5°	185.9	168.8	150.3	143.7	133.2	121.3	104.2	87.0	71.2	51.4	35.6
155°	138.4	125.3	110.8	106.8	98.9	89.7	75.2	62.0	47.5	34.3	25.1
157.5°	97.6	87.0	76.5	73.8	68.6	60.7	48.8	38.2	30.3	22.4	17.1
160°	60.7	54.1	46.1	43.5	39.6	34.3	26.4	22.4	18.5	14.5	10.5
162.5°	29.0	25.1	22.4	21.1	18.5	15.8	14.5	11.9	10.5	9.2	7.9
165°	10.5	10.5	10.5	9.2	9.2	9.2	9.2	7.9	6.6	6.6	5.3
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: P201262

CATALOG NUMBER: 8LBLED-LD4-14-SYMF-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3	1814.3
2.5°	1813.0	1815.6	1815.6	1816.9	1820.9	1828.8	1839.3	1840.7
5°	1807.7	1809.0	1809.0	1809.0	1813.0	1819.6	1830.1	1831.4
7.5°	1795.8	1795.8	1795.8	1795.8	1799.8	1805.1	1814.3	1815.6
10°	1780.0	1778.7	1778.7	1777.4	1780.0	1784.0	1794.5	1793.2
12.5°	1760.2	1757.6	1756.3	1756.3	1755.0	1758.9	1765.5	1766.8
15°	1737.8	1732.5	1729.9	1727.3	1725.9	1725.9	1733.9	1732.5
17.5°	1711.4	1703.5	1699.6	1695.6	1690.3	1690.3	1695.6	1694.3
20°	1681.1	1670.6	1664.0	1658.7	1650.8	1648.2	1650.8	1649.5
22.5°	1650.8	1633.7	1627.1	1619.1	1607.3	1602.0	1600.7	1599.4
25°	1615.2	1594.1	1584.9	1577.0	1559.8	1553.2	1546.6	1544.0
27.5°	1583.5	1553.2	1541.4	1528.2	1508.4	1499.2	1488.6	1486.0
30°	1555.9	1511.0	1492.6	1479.4	1454.3	1439.8	1426.6	1424.0
32.5°	1534.8	1472.8	1447.7	1431.9	1397.6	1377.9	1360.7	1352.8
35°	1516.3	1437.2	1404.2	1379.2	1338.3	1314.6	1290.8	1284.2
37.5°	1499.2	1406.9	1363.4	1329.1	1282.9	1248.6	1222.3	1211.7
40°	1482.0	1379.2	1326.4	1282.9	1222.3	1182.7	1149.8	1136.6
42.5°	1466.2	1351.5	1294.8	1242.0	1162.9	1115.5	1079.9	1061.4
45°	1451.7	1326.4	1264.5	1206.4	1104.9	1049.5	1006.0	988.9
47.5°	1441.1	1302.7	1234.1	1170.8	1050.9	982.3	937.5	915.1
50°	1433.2	1280.3	1205.1	1135.2	1003.4	917.7	867.6	841.2
52.5°	1429.3	1260.5	1178.8	1103.6	959.9	855.7	796.4	776.6
55°	1430.6	1244.7	1156.3	1074.6	919.0	796.4	730.5	700.1
57.5°	1433.2	1230.2	1133.9	1045.6	878.1	738.4	664.5	632.9
60°	1438.5	1218.3	1114.2	1017.9	839.9	688.3	603.9	573.6
62.5°	1443.8	1207.8	1094.4	991.5	803.0	642.1	543.2	508.9
65°	1445.1	1191.9	1073.3	965.2	766.1	596.0	481.3	448.3
67.5°	1439.8	1172.2	1046.9	934.8	727.8	551.1	423.2	389.0
70°	1424.0	1145.8	1016.6	900.6	685.6	507.6	367.9	330.9
72.5°	1395.0	1111.5	981.0	862.3	644.8	461.5	317.8	272.9
75°	1354.1	1069.3	938.8	818.8	601.2	418.0	271.6	221.5
77.5°	1298.7	1015.3	888.7	770.0	553.8	373.1	232.1	174.0
80°	1227.5	958.6	833.3	717.3	507.6	332.3	193.8	129.2
82.5°	1143.2	894.0	774.0	663.2	464.1	290.1	158.2	89.7
85°	1056.1	824.1	712.0	606.5	418.0	250.5	127.9	52.7
87.5°	970.4	754.2	652.7	555.1	370.5	214.9	98.9	21.1
90°	886.0	687.0	590.7	499.7	329.6	182.0	73.8	0.0
92.5°	816.2	636.8	549.8	462.8	303.3	164.8	63.3	0.0
95°	754.2	589.4	506.3	425.9	275.6	149.0	52.7	0.0
97.5°	697.5	544.6	468.1	391.6	250.5	131.9	43.5	0.0
100°	643.4	499.7	428.5	360.0	226.8	117.3	33.0	0.0
102.5°	596.0	460.2	392.9	325.7	203.1	102.8	23.7	0.0
105°	549.8	421.9	360.0	295.3	182.0	89.7	14.5	0.0
107.5°	508.9	386.3	327.0	267.7	162.2	77.8	9.2	0.0
110°	469.4	353.4	295.3	241.3	145.0	67.2	7.9	0.0



TEST NUMBER: P201262

CATALOG NUMBER: 8LBLED-LD4-14-SYMF-UNV-L850-CD2-U

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
112.5°	432.5	321.7	267.7	216.2	130.5	56.7	7.9	0.0
115°	394.2	291.4	241.3	195.1	116.0	46.1	6.6	0.0
117.5°	361.3	262.4	217.6	178.0	101.5	36.9	6.6	0.0
120°	328.3	237.3	197.8	159.5	88.3	27.7	6.6	0.0
122.5°	295.3	214.9	176.7	142.4	76.5	22.4	5.3	0.0
125°	265.0	191.2	156.9	123.9	63.3	19.8	5.3	0.0
127.5°	234.7	167.5	135.8	106.8	50.1	17.1	4.0	0.0
130°	204.4	143.7	116.0	89.7	38.2	14.5	4.0	0.0
132.5°	176.7	121.3	97.6	73.8	30.3	11.9	2.6	0.0
135°	149.0	101.5	80.4	58.0	23.7	10.5	2.6	0.0
137.5°	125.3	83.1	63.3	43.5	19.8	7.9	2.6	0.0
140°	102.8	65.9	47.5	33.0	15.8	6.6	1.3	0.0
142.5°	81.7	48.8	35.6	25.1	13.2	5.3	1.3	0.0
145°	63.3	35.6	26.4	19.8	11.9	4.0	1.3	0.0
147.5°	46.1	27.7	21.1	17.1	9.2	4.0	1.3	0.0
150°	33.0	21.1	17.1	13.2	6.6	2.6	1.3	0.0
152.5°	25.1	15.8	13.2	10.5	5.3	2.6	1.3	0.0
155°	18.5	11.9	10.5	7.9	4.0	2.6	1.3	0.0
157.5°	13.2	9.2	7.9	5.3	4.0	2.6	1.3	0.0
160°	7.9	6.6	5.3	4.0	2.6	1.3	1.3	0.0
162.5°	6.6	4.0	4.0	4.0	2.6	1.3	1.3	0.0
165°	4.0	2.6	2.6	2.6	1.3	1.3	1.3	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)