

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P152384

Luminaire Tested: **TLM-F04-LED-E1-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152384
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-F04-LED-E1-SL4-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8909.5 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

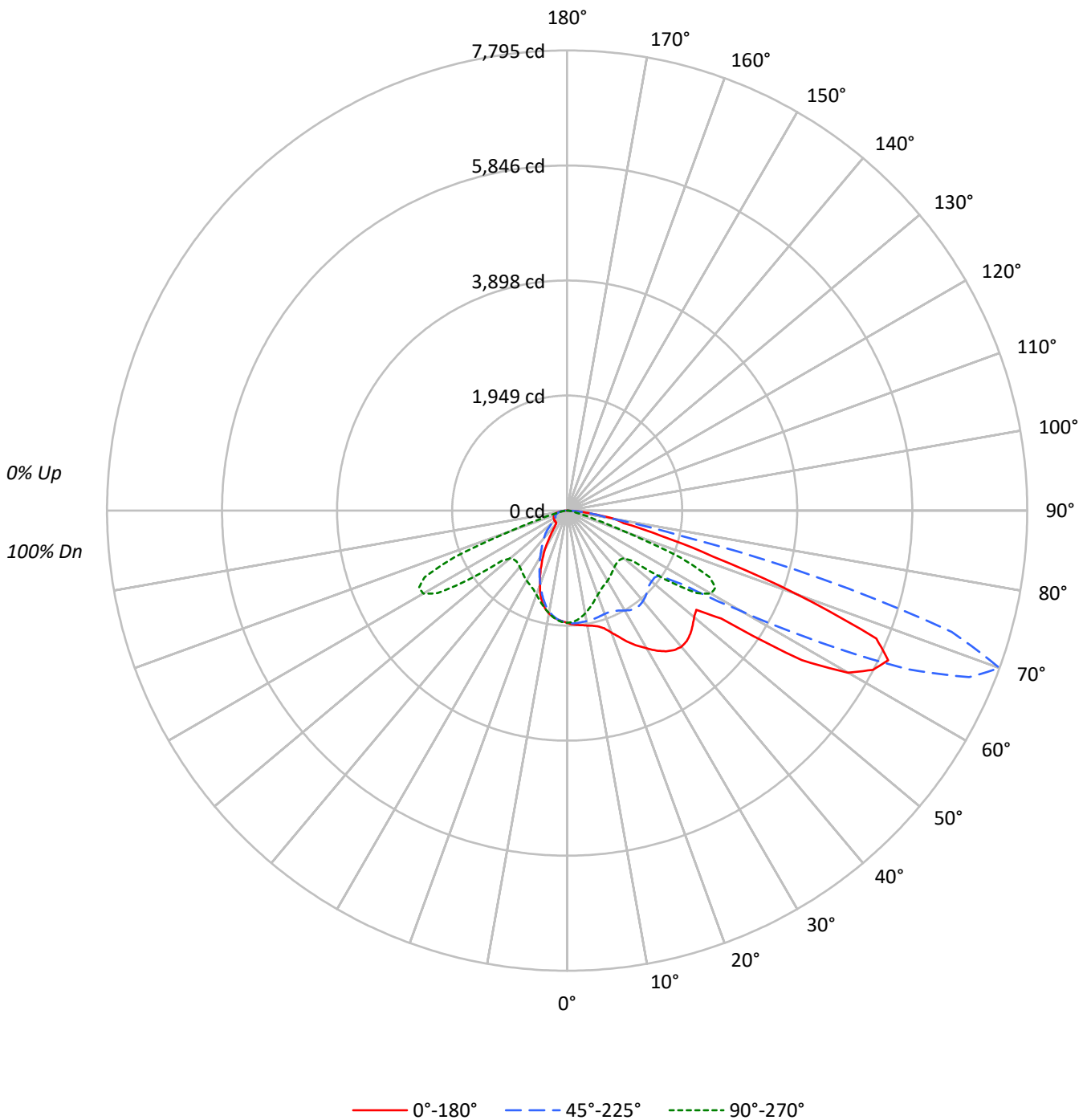
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: TLM-F04-LED-E1-SL4-7030

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	30542	30542	30542
5°	31356	30075	29880
10°	32276	28832	28881
15°	33793	27305	26904
20°	37607	25918	23048
25°	43607	25271	18427
30°	49982	25420	13763
35°	57060	25612	8951
40°	63145	26144	6178
45°	67083	27614	6166
50°	70154	31384	6861
55°	89263	57445	7490
60°	176467	90349	8399
65°	228116	101274	9439
70°	194086	47884	10625
75°	102029	17598	13104
80°	75892	9576	14229
85°	43926	9272	14267



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.6	2.0
10°-20°	486.2	5.5
20°-30°	719.7	8.1
30°-40°	909.6	10.2
40°-50°	1028.7	11.5
50°-60°	1463.8	16.4
60°-70°	2726.2	30.6
70°-80°	1249.4	14.0
80°-90°	148.3	1.7
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°	1383.5	15.5
0°-40°	2293.1	25.7
0°-60°	4785.6	53.7
0°-90°	8909.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8909.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1901	1901	1901	1901	1901	
5°	1944	1912	1865	1850	1853	187
15°	2032	1885	1642	1554	1618	585
25°	2460	1875	1426	1111	1040	1142
35°	2909	2025	1306	744	456	1819
45°	2953	1923	1215	487	271	2271
55°	3187	1912	2051	247	267	3349
65°	6001	6355	2664	221	248	5533
75°	1644	4468	284	174	211	2021
85°	238	209	50	79	77	300
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1
2.5°	1930.2	1935.2	1929.2	1928.2	1928.2	1927.2	1921.2	1920.2	1912.1	1913.1	1915.1
5°	1944.3	1946.3	1942.3	1941.3	1939.3	1935.2	1930.2	1924.2	1918.2	1912.1	1907.1
7.5°	1958.4	1956.4	1953.3	1953.3	1950.3	1944.3	1934.2	1926.2	1913.1	1906.1	1897.0
10°	1978.5	1975.5	1971.4	1969.4	1964.4	1955.4	1941.3	1930.2	1914.1	1900.1	1885.0
12.5°	1997.6	1996.6	1990.5	1987.5	1979.5	1970.4	1953.3	1936.3	1915.1	1893.0	1872.9
15°	2031.8	2027.7	2021.7	2015.7	2002.6	1990.5	1964.4	1944.3	1914.1	1885.0	1853.8
17.5°	2091.1	2084.0	2078.0	2064.9	2048.9	2027.7	1989.5	1955.4	1914.1	1871.9	1836.7
20°	2199.7	2184.6	2176.5	2159.4	2131.3	2093.1	2033.8	1978.5	1917.2	1862.9	1815.6
22.5°	2322.3	2312.2	2301.2	2290.1	2245.9	2190.6	2110.2	2027.7	1935.2	1858.8	1798.5
25°	2460.0	2447.0	2440.9	2421.8	2380.6	2317.3	2207.7	2093.1	1976.5	1874.9	1798.5
27.5°	2582.7	2578.7	2577.7	2555.5	2516.3	2441.9	2312.2	2174.5	2032.8	1908.1	1813.6
30°	2694.3	2690.2	2688.2	2676.2	2630.9	2542.5	2401.7	2246.9	2094.1	1954.4	1841.8
32.5°	2812.9	2799.8	2793.8	2770.7	2719.4	2615.9	2455.0	2294.2	2142.3	1999.6	1872.9
35°	2909.4	2898.4	2886.3	2853.1	2780.7	2658.1	2478.1	2310.2	2161.4	2024.7	1889.0
37.5°	2979.8	2968.7	2951.6	2909.4	2819.9	2672.2	2477.1	2305.2	2154.4	2020.7	1892.0
40°	3010.9	2999.9	2981.8	2928.5	2827.0	2664.1	2458.0	2282.1	2133.3	1999.6	1880.0
42.5°	2998.9	2990.8	2967.7	2916.4	2804.9	2627.9	2419.8	2238.9	2093.1	1965.4	1852.8
45°	2952.6	2946.6	2924.5	2870.2	2754.6	2569.6	2363.5	2184.6	2044.8	1923.2	1816.6
47.5°	2883.3	2881.3	2859.1	2805.9	2691.3	2511.3	2305.2	2131.3	1996.6	1882.0	1786.5
50°	2806.9	2796.8	2785.8	2736.5	2631.9	2461.0	2263.0	2098.1	1969.4	1866.9	1773.4
52.5°	2758.6	2755.6	2745.5	2701.3	2600.8	2431.9	2243.9	2086.0	1967.4	1863.9	1766.4
55°	3186.9	3193.9	3101.4	2909.4	2740.5	2512.3	2301.2	2147.4	2016.7	1912.1	1840.7
57.5°	4714.0	4682.8	4524.0	4142.9	3712.7	3144.7	2735.5	2487.2	2325.3	2343.4	2379.6
60°	5492.1	5486.1	5456.9	5309.1	5022.6	4590.3	4110.8	3560.9	3385.9	3405.0	3419.1
62.5°	5839.9	5849.0	5871.1	5815.8	5740.4	5614.7	5375.5	5154.3	4920.1	4832.6	4598.4
65°	6000.8	6016.9	6067.1	6098.3	6127.5	6149.6	6244.1	6503.4	6674.4	6354.7	5610.7
67.5°	5668.0	5745.4	5911.3	6073.2	6217.9	6424.0	6743.7	7345.9	7765.1	7372.0	6293.3
70°	4131.9	4237.4	4427.4	4928.1	5462.9	5930.4	6549.7	7466.5	8098.9	7795.3	6462.2
72.5°	2590.7	2619.9	2704.3	2888.3	3285.4	3885.6	4968.3	6343.6	7073.5	6831.2	5461.9
75°	1643.7	1653.8	1650.7	1693.0	1760.3	1891.0	2319.3	3746.8	4845.7	4467.7	3044.1
77.5°	979.2	994.3	1000.3	1013.4	1045.5	1091.8	1127.0	1274.8	2031.8	1972.4	1104.9
80°	820.3	832.4	822.4	819.3	799.2	785.2	802.2	785.2	728.9	701.7	646.4
82.5°	434.3	433.3	430.3	459.4	518.7	565.0	600.2	592.1	535.8	456.4	387.0
85°	238.3	246.3	246.3	256.4	247.3	248.3	256.4	270.4	250.3	209.1	170.9
87.5°	20.1	31.2	25.1	31.2	42.2	30.2	29.2	29.2	25.1	18.1	16.1
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1
2.5°	1910.1	1908.1	1904.1	1901.1	1901.1	1896.0	1893.0	1891.0	1890.0	1886.0	1886.0
5°	1904.1	1897.0	1890.0	1885.0	1882.0	1876.9	1868.9	1864.9	1859.9	1855.8	1853.8
7.5°	1891.0	1877.9	1866.9	1858.8	1848.8	1840.7	1830.7	1821.6	1812.6	1808.6	1806.6
10°	1870.9	1853.8	1836.7	1821.6	1807.6	1793.5	1780.4	1767.4	1756.3	1748.3	1740.2
12.5°	1851.8	1825.7	1803.6	1781.4	1759.3	1742.2	1724.1	1705.0	1688.9	1673.9	1669.8
15°	1825.7	1795.5	1767.4	1740.2	1713.1	1684.9	1662.8	1641.7	1615.6	1598.5	1585.4
17.5°	1801.5	1765.4	1731.2	1699.0	1665.8	1636.7	1603.5	1575.3	1549.2	1523.1	1504.0
20°	1775.4	1736.2	1700.0	1663.8	1627.6	1590.4	1552.2	1516.0	1483.9	1452.7	1421.5
22.5°	1752.3	1712.1	1676.9	1637.7	1597.5	1555.2	1511.0	1465.8	1428.6	1388.4	1352.2
25°	1738.2	1694.0	1657.8	1619.6	1575.3	1529.1	1478.8	1425.6	1380.3	1334.1	1290.8
27.5°	1738.2	1680.9	1643.7	1605.5	1560.3	1511.0	1455.7	1397.4	1346.1	1294.9	1241.6
30°	1753.3	1682.9	1632.6	1592.4	1546.2	1492.9	1431.6	1370.3	1314.0	1253.6	1202.4
32.5°	1767.4	1686.9	1624.6	1573.3	1520.1	1467.8	1405.4	1340.1	1277.8	1220.5	1166.2
35°	1776.4	1686.9	1609.5	1544.2	1483.9	1432.6	1371.3	1305.9	1242.6	1186.3	1136.0
37.5°	1777.4	1678.9	1585.4	1511.0	1447.7	1394.4	1336.1	1274.8	1214.4	1162.2	1119.9
40°	1767.4	1662.8	1561.3	1475.8	1409.5	1355.2	1301.9	1246.6	1192.3	1149.1	1112.9
42.5°	1749.3	1645.7	1538.1	1447.7	1378.3	1322.0	1272.7	1225.5	1178.2	1141.0	1110.9
45°	1722.1	1622.6	1517.0	1430.6	1362.2	1302.9	1254.6	1215.4	1175.2	1144.1	1113.9
47.5°	1698.0	1614.6	1524.1	1441.6	1370.3	1308.9	1259.7	1226.5	1195.3	1174.2	1133.0
50°	1693.0	1610.5	1527.1	1450.7	1378.3	1316.0	1272.7	1255.7	1246.6	1233.5	1170.2
52.5°	1678.9	1609.5	1549.2	1507.0	1460.7	1431.6	1386.3	1402.4	1392.4	1346.1	1231.5
55°	1826.7	1846.8	1903.1	1983.5	2057.9	2075.0	2070.0	2050.9	1949.3	1676.9	1379.3
57.5°	2511.3	2624.9	2731.5	2778.7	2772.7	2719.4	2681.2	2603.8	2457.0	2125.3	1670.8
60°	3462.3	3480.4	3424.1	3340.7	3199.9	3082.3	2956.7	2811.9	2598.8	2274.0	1849.8
62.5°	4338.0	4094.7	3844.4	3609.1	3395.0	3208.0	3033.1	2831.0	2553.5	2214.7	1826.7
65°	4956.3	4441.5	4046.4	3708.6	3406.0	3144.7	2926.5	2664.1	2351.5	2045.8	1693.0
67.5°	5274.9	4485.8	3879.5	3409.1	2979.8	2617.9	2327.3	2072.0	1839.7	1706.0	1481.8
70°	4919.1	3807.2	2962.7	2430.9	1917.2	1537.1	1214.4	1019.4	952.0	1078.7	1121.9
72.5°	3665.4	2478.1	1762.3	1363.2	1044.5	832.4	638.4	501.7	408.2	428.3	555.9
75°	1733.2	1069.7	756.0	575.0	457.4	379.0	309.6	283.5	237.3	197.0	185.0
77.5°	674.6	491.6	406.2	297.6	211.1	169.9	144.8	139.7	142.8	138.7	136.7
80°	513.7	347.8	218.2	159.8	137.7	121.6	107.6	103.5	105.6	110.6	115.6
82.5°	286.5	178.9	132.7	115.6	103.5	88.5	80.4	74.4	75.4	81.4	92.5
85°	110.6	86.5	79.4	76.4	71.4	57.3	49.3	50.3	57.3	68.4	68.4
87.5°	12.1	12.1	16.1	12.1	12.1	12.1	11.1	13.1	14.1	18.1	21.1
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1	1901.1
2.5°	1884.0	1884.0	1884.0	1882.0	1883.0	1879.0	1879.0	1875.9	1881.0	1877.9	1876.9
5°	1854.8	1853.8	1849.8	1849.8	1849.8	1849.8	1852.8	1844.8	1850.8	1850.8	1847.8
7.5°	1805.6	1805.6	1794.5	1800.5	1798.5	1801.5	1805.6	1801.5	1807.6	1811.6	1808.6
10°	1737.2	1737.2	1728.2	1735.2	1732.2	1739.2	1746.2	1742.2	1746.2	1752.3	1754.3
12.5°	1661.8	1657.8	1649.7	1652.8	1652.8	1656.8	1659.8	1664.8	1669.8	1677.9	1681.9
15°	1574.3	1568.3	1558.3	1558.3	1552.2	1554.2	1560.3	1562.3	1572.3	1583.4	1596.5
17.5°	1484.9	1469.8	1458.7	1445.7	1435.6	1443.6	1450.7	1455.7	1463.8	1480.8	1489.9
20°	1400.4	1370.3	1349.1	1332.1	1321.0	1326.0	1335.1	1341.1	1348.1	1352.2	1355.2
22.5°	1317.0	1282.8	1253.6	1232.5	1214.4	1219.5	1215.4	1212.4	1217.4	1204.4	1203.4
25°	1244.6	1204.4	1165.2	1140.0	1117.9	1110.9	1089.8	1084.7	1070.7	1059.6	1051.6
27.5°	1192.3	1140.0	1096.8	1067.7	1032.5	1006.3	979.2	952.0	937.0	918.9	909.8
30°	1151.1	1095.8	1044.5	995.3	949.0	908.8	872.6	837.4	813.3	787.2	770.1
32.5°	1112.9	1061.6	999.3	931.9	869.6	824.4	777.1	736.9	698.7	664.5	639.4
35°	1086.8	1029.5	950.0	867.6	797.2	743.9	693.7	636.4	590.1	545.9	518.7
37.5°	1072.7	1002.3	904.8	813.3	734.9	674.6	612.2	545.9	489.6	448.4	407.2
40°	1061.6	975.2	864.6	765.1	682.6	610.2	537.8	459.4	397.1	353.9	321.7
42.5°	1049.6	945.0	829.4	726.8	635.4	550.9	463.5	380.0	320.7	290.5	276.5
45°	1036.5	918.9	796.2	690.7	589.1	486.6	386.0	308.6	273.4	263.4	263.4
47.5°	1033.5	901.8	772.1	655.5	536.8	412.2	314.7	266.4	256.4	258.4	262.4
50°	1045.5	896.7	751.0	614.3	467.5	333.8	266.4	250.3	252.3	258.4	264.4
52.5°	1074.7	900.8	728.9	556.9	385.0	275.5	246.3	245.3	251.3	260.4	266.4
55°	1124.0	900.8	686.6	471.5	307.6	247.3	239.3	243.3	251.3	259.4	264.4
57.5°	1229.5	891.7	612.2	377.0	257.4	237.3	237.3	242.3	249.3	257.4	261.4
60°	1355.2	879.7	507.7	291.5	232.2	229.2	236.3	242.3	248.3	255.4	259.4
62.5°	1363.2	848.5	402.1	241.3	219.2	224.2	235.2	243.3	245.3	250.3	255.4
65°	1252.6	739.9	319.7	216.1	213.1	221.2	232.2	238.3	239.3	241.3	246.3
67.5°	1096.8	603.2	258.4	204.1	207.1	216.1	222.2	227.2	230.2	235.2	236.3
70°	900.8	484.6	221.2	192.0	195.0	205.1	210.1	215.1	221.2	227.2	224.2
72.5°	638.4	377.0	194.0	178.9	183.0	192.0	198.0	202.1	207.1	213.1	209.1
75°	271.4	263.4	167.9	161.9	167.9	173.9	180.0	186.0	191.0	194.0	194.0
77.5°	138.7	154.8	144.8	144.8	148.8	154.8	159.8	165.9	168.9	171.9	175.9
80°	117.6	119.6	121.6	125.7	129.7	135.7	140.7	145.8	146.8	147.8	149.8
82.5°	97.5	101.5	103.5	109.6	112.6	114.6	117.6	117.6	119.6	119.6	116.6
85°	70.4	75.4	78.4	79.4	78.4	79.4	80.4	82.4	87.5	87.5	83.4
87.5°	20.1	19.1	24.1	25.1	27.1	31.2	35.2	42.2	44.2	46.2	46.2
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: P152384

CATALOG NUMBER: TLM-F04-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1901.1	1901.1	1901.1	1901.1
2.5°	1875.9	1877.9	1873.9	1874.9
5°	1847.8	1851.8	1846.8	1852.8
7.5°	1811.6	1817.6	1816.6	1815.6
10°	1759.3	1767.4	1767.4	1770.4
12.5°	1693.0	1698.0	1702.0	1704.0
15°	1603.5	1612.5	1617.6	1617.6
17.5°	1495.9	1502.0	1505.0	1500.9
20°	1359.2	1357.2	1358.2	1348.1
22.5°	1201.4	1204.4	1195.3	1197.3
25°	1046.5	1041.5	1045.5	1039.5
27.5°	896.7	897.8	886.7	891.7
30°	754.0	749.0	734.9	741.9
32.5°	616.3	603.2	588.1	579.1
35°	486.6	466.5	459.4	456.4
37.5°	382.0	359.9	352.9	344.8
40°	303.6	295.6	292.5	294.6
42.5°	272.4	272.4	274.5	275.5
45°	264.4	267.4	270.4	271.4
47.5°	265.4	268.4	272.4	273.4
50°	267.4	270.4	273.4	274.5
52.5°	268.4	268.4	270.4	271.4
55°	266.4	265.4	266.4	267.4
57.5°	262.4	260.4	261.4	264.4
60°	260.4	257.4	259.4	261.4
62.5°	255.4	254.3	256.4	257.4
65°	244.3	245.3	248.3	248.3
67.5°	234.2	235.2	236.3	237.3
70°	222.2	223.2	225.2	226.2
72.5°	208.1	212.1	215.1	219.2
75°	197.0	201.1	207.1	211.1
77.5°	177.9	181.0	188.0	193.0
80°	150.8	149.8	150.8	153.8
82.5°	115.6	115.6	114.6	113.6
85°	81.4	80.4	77.4	77.4
87.5°	44.2	43.2	42.2	40.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)