

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: P152379

Luminaire Tested: **TLM-E04-LED-E1-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152379
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-E04-LED-E1-SL4-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10792.6 lumens
Efficiency: N/A
Efficacy: 111.0 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

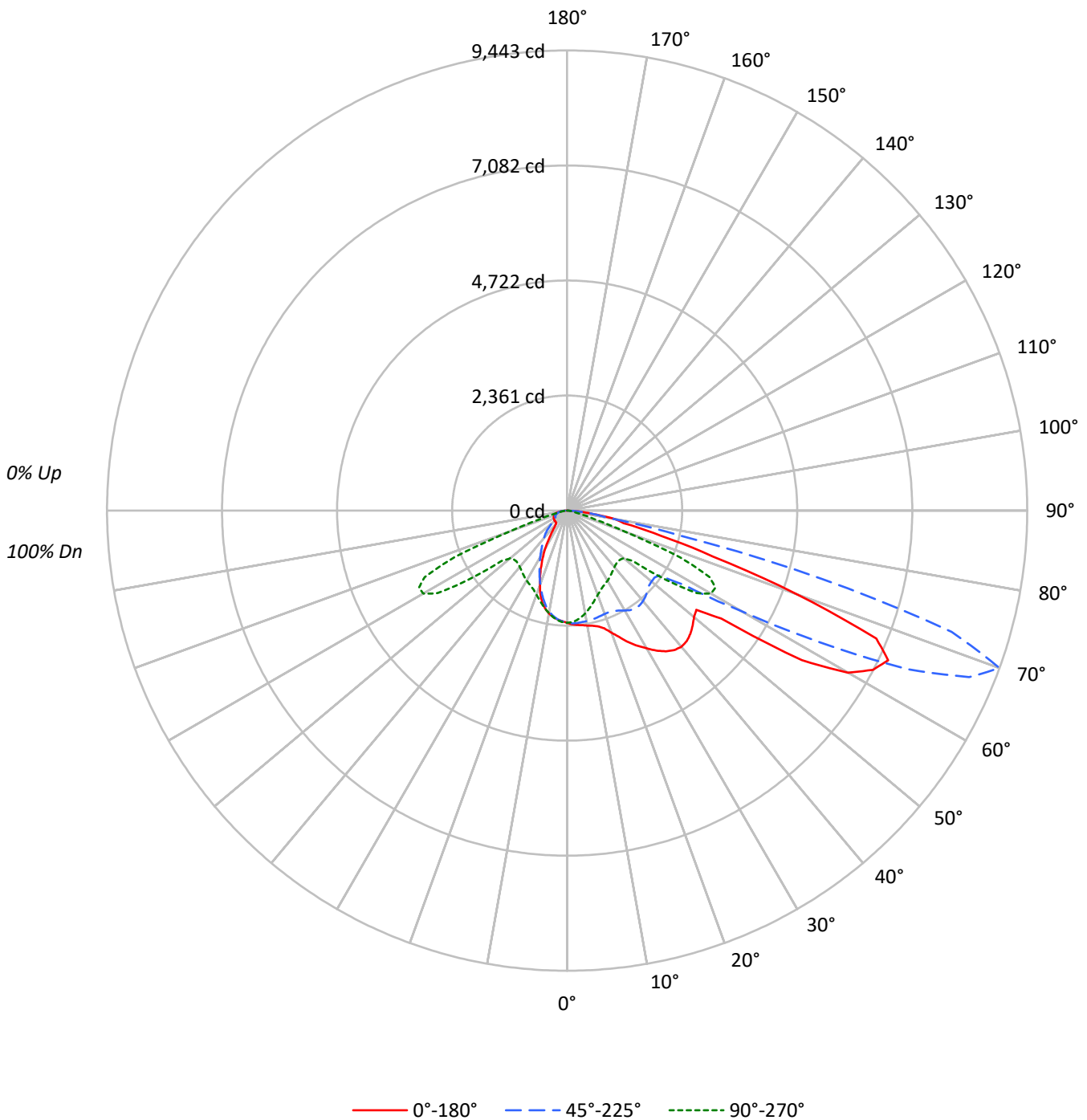
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	36997	36997	36997
5°	37982	36431	36195
10°	39097	34925	34984
15°	40935	33077	32589
20°	45554	31396	27920
25°	52825	30610	22321
30°	60545	30793	16672
35°	69120	31025	10844
40°	76491	31670	7483
45°	81263	33451	7470
50°	84981	38015	8310
55°	108128	69584	9072
60°	213762	109445	10173
65°	276330	122680	11435
70°	235107	58002	12870
75°	123593	21316	15872
80°	91935	11602	17236
85°	53198	11226	17290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.1	2.0
10°-20°	589.0	5.5
20°-30°	871.9	8.1
30°-40°	1101.8	10.2
40°-50°	1246.1	11.5
50°-60°	1773.2	16.4
60°-70°	3302.4	30.6
70°-80°	1513.5	14.0
80°-90°	179.7	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°	1675.9	15.5
0°-40°	2777.7	25.7
0°-60°	5797.0	53.7
0°-90°	10792.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10792.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2303	2303	2303	2303	2303	
5°	2355	2316	2259	2241	2244	226
15°	2461	2283	1989	1883	1959	708
25°	2980	2271	1727	1346	1259	1384
35°	3524	2453	1582	901	553	2203
45°	3577	2330	1472	589	329	2752
55°	3860	2316	2484	300	324	4056
65°	7269	7698	3227	268	301	6703
75°	1991	5412	343	211	256	2448
85°	289	253	61	96	94	363
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°	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9
2.5°	2338.2	2344.3	2337.0	2335.7	2335.7	2334.5	2327.2	2326.0	2316.3	2317.5	2319.9
5°	2355.2	2357.7	2352.8	2351.6	2349.1	2344.3	2338.2	2330.9	2323.6	2316.3	2310.2
7.5°	2372.3	2369.8	2366.2	2366.2	2362.5	2355.2	2343.0	2333.3	2317.5	2308.9	2298.0
10°	2396.6	2393.0	2388.1	2385.7	2379.6	2368.6	2351.6	2338.2	2318.7	2301.6	2283.4
12.5°	2419.8	2418.6	2411.2	2407.6	2397.8	2386.9	2366.2	2345.5	2319.9	2293.1	2268.8
15°	2461.2	2456.3	2449.0	2441.7	2425.9	2411.2	2379.6	2355.2	2318.7	2283.4	2245.6
17.5°	2533.0	2524.5	2517.2	2501.4	2481.9	2456.3	2410.0	2368.6	2318.7	2267.5	2224.9
20°	2664.5	2646.3	2636.5	2615.8	2581.7	2535.5	2463.6	2396.6	2322.3	2256.6	2199.3
22.5°	2813.1	2800.9	2787.5	2774.1	2720.6	2653.6	2556.2	2456.3	2344.3	2251.7	2178.6
25°	2980.0	2964.1	2956.8	2933.7	2883.8	2807.0	2674.3	2535.5	2394.2	2271.2	2178.6
27.5°	3128.5	3123.7	3122.4	3095.6	3048.2	2958.0	2800.9	2634.1	2462.4	2311.4	2196.9
30°	3263.7	3258.8	3256.4	3241.8	3187.0	3079.8	2909.3	2721.8	2536.7	2367.4	2231.0
32.5°	3407.4	3391.6	3384.3	3356.3	3294.2	3168.7	2973.9	2779.0	2595.1	2422.2	2268.8
35°	3524.3	3510.9	3496.3	3456.1	3368.4	3219.9	3001.9	2798.5	2618.3	2452.7	2288.2
37.5°	3609.6	3596.2	3575.5	3524.3	3415.9	3236.9	3000.7	2792.4	2609.7	2447.8	2291.9
40°	3647.3	3633.9	3612.0	3547.5	3424.5	3227.2	2977.5	2764.4	2584.2	2422.2	2277.3
42.5°	3632.7	3623.0	3594.9	3532.8	3397.7	3183.3	2931.2	2712.0	2535.5	2380.8	2244.4
45°	3576.7	3569.4	3542.6	3476.8	3336.8	3112.7	2863.0	2646.3	2477.0	2329.7	2200.6
47.5°	3492.7	3490.2	3463.4	3398.9	3260.1	3042.1	2792.4	2581.7	2418.6	2279.7	2164.0
50°	3400.1	3387.9	3374.5	3314.9	3188.2	2981.2	2741.3	2541.5	2385.7	2261.5	2148.2
52.5°	3341.6	3338.0	3325.8	3272.2	3150.4	2945.9	2718.1	2526.9	2383.2	2257.8	2139.7
55°	3860.4	3869.0	3756.9	3524.3	3319.7	3043.3	2787.5	2601.2	2442.9	2316.3	2229.8
57.5°	5710.3	5672.5	5480.1	5018.6	4497.3	3809.3	3313.6	3012.8	2816.8	2838.7	2882.5
60°	6652.8	6645.5	6610.2	6431.2	6084.1	5560.5	4979.6	4313.4	4101.6	4124.7	4141.7
62.5°	7074.2	7085.2	7112.0	7045.0	6953.6	6801.4	6511.6	6243.7	5959.9	5854.0	5570.2
65°	7269.1	7288.5	7349.4	7387.2	7422.5	7449.3	7563.8	7878.0	8085.0	7697.7	6796.5
67.5°	6866.0	6959.7	7160.7	7356.7	7532.1	7781.7	8169.0	8898.5	9406.3	8930.1	7623.4
70°	5005.2	5133.0	5363.2	5969.7	6617.5	7183.8	7934.0	9044.6	9810.6	9442.8	7828.0
72.5°	3138.3	3173.6	3275.9	3498.7	3979.8	4706.8	6018.4	7684.3	8568.4	8275.0	6616.3
75°	1991.1	2003.3	1999.6	2050.8	2132.4	2290.7	2809.5	4538.7	5869.8	5411.9	3687.5
77.5°	1186.1	1204.4	1211.7	1227.5	1266.5	1322.5	1365.2	1544.2	2461.2	2389.3	1338.4
80°	993.7	1008.3	996.2	992.5	968.2	951.1	971.8	951.1	882.9	850.0	783.0
82.5°	526.1	524.9	521.2	556.5	628.4	684.4	727.0	717.3	649.1	552.9	468.9
85°	288.6	298.4	298.4	310.5	299.6	300.8	310.5	327.6	303.2	253.3	207.0
87.5°	24.4	37.8	30.4	37.8	51.1	36.5	35.3	35.3	30.4	21.9	19.5
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°	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9
2.5°	2313.8	2311.4	2306.5	2302.9	2302.9	2296.8	2293.1	2290.7	2289.5	2284.6	2284.6
5°	2306.5	2298.0	2289.5	2283.4	2279.7	2273.6	2263.9	2259.0	2252.9	2248.1	2245.6
7.5°	2290.7	2274.9	2261.5	2251.7	2239.5	2229.8	2217.6	2206.7	2195.7	2190.8	2188.4
10°	2266.3	2245.6	2224.9	2206.7	2189.6	2172.6	2156.7	2140.9	2127.5	2117.8	2108.0
12.5°	2243.2	2211.5	2184.7	2157.9	2131.2	2110.4	2088.5	2065.4	2045.9	2027.6	2022.8
15°	2211.5	2175.0	2140.9	2108.0	2075.1	2041.0	2014.2	1988.7	1957.0	1936.3	1920.5
17.5°	2182.3	2138.5	2097.1	2058.1	2017.9	1982.6	1942.4	1908.3	1876.6	1845.0	1821.8
20°	2150.6	2103.1	2059.3	2015.5	1971.6	1926.6	1880.3	1836.4	1797.5	1759.7	1722.0
22.5°	2122.6	2073.9	2031.3	1983.8	1935.1	1883.9	1830.4	1775.6	1730.5	1681.8	1637.9
25°	2105.6	2052.0	2008.2	1961.9	1908.3	1852.3	1791.4	1726.8	1672.0	1616.0	1563.7
27.5°	2105.6	2036.2	1991.1	1944.8	1890.0	1830.4	1763.4	1692.7	1630.6	1568.5	1504.0
30°	2123.8	2038.6	1977.7	1929.0	1873.0	1808.4	1734.1	1659.9	1591.7	1518.6	1456.5
32.5°	2140.9	2043.5	1968.0	1905.9	1841.3	1778.0	1702.5	1623.3	1547.8	1478.4	1412.6
35°	2151.9	2043.5	1949.7	1870.5	1797.5	1735.4	1661.1	1581.9	1505.2	1437.0	1376.1
37.5°	2153.1	2033.7	1920.5	1830.4	1753.6	1689.1	1618.5	1544.2	1471.1	1407.8	1356.6
40°	2140.9	2014.2	1891.2	1787.7	1707.4	1641.6	1577.1	1510.1	1444.3	1391.9	1348.1
42.5°	2119.0	1993.5	1863.2	1753.6	1669.6	1601.4	1541.7	1484.5	1427.3	1382.2	1345.7
45°	2086.1	1965.5	1837.7	1732.9	1650.1	1578.3	1519.8	1472.3	1423.6	1385.9	1349.3
47.5°	2056.9	1955.8	1846.2	1746.3	1659.9	1585.6	1525.9	1485.7	1448.0	1422.4	1372.5
50°	2050.8	1950.9	1849.8	1757.3	1669.6	1594.1	1541.7	1521.0	1510.1	1494.2	1417.5
52.5°	2033.7	1949.7	1876.6	1825.5	1769.5	1734.1	1679.3	1698.8	1686.7	1630.6	1491.8
55°	2212.7	2237.1	2305.3	2402.7	2492.8	2513.5	2507.5	2484.3	2361.3	2031.3	1670.8
57.5°	3042.1	3179.7	3308.8	3366.0	3358.7	3294.2	3247.9	3154.1	2976.3	2574.4	2024.0
60°	4194.1	4216.0	4147.8	4046.8	3876.3	3733.8	3581.6	3406.2	3148.0	2754.7	2240.8
62.5°	5254.8	4960.1	4656.9	4371.9	4112.5	3886.0	3674.1	3429.3	3093.2	2682.8	2212.7
65°	6003.8	5380.2	4901.6	4492.5	4125.9	3809.3	3545.0	3227.2	2848.4	2478.2	2050.8
67.5°	6389.8	5433.8	4699.5	4129.6	3609.6	3171.2	2819.2	2509.9	2228.6	2066.6	1795.0
70°	5958.7	4611.8	3588.9	2944.6	2322.3	1862.0	1471.1	1234.8	1153.3	1306.7	1359.1
72.5°	4440.1	3001.9	2134.8	1651.3	1265.3	1008.3	773.3	607.7	494.4	518.8	673.4
75°	2099.5	1295.7	915.8	696.6	554.1	459.1	375.1	343.4	287.4	238.7	224.1
77.5°	817.1	595.5	492.0	360.5	255.7	205.8	175.4	169.3	172.9	168.1	165.6
80°	622.3	421.4	264.3	193.6	166.8	147.4	130.3	125.4	127.9	134.0	140.0
82.5°	347.1	216.8	160.7	140.0	125.4	107.2	97.4	90.1	91.3	98.6	112.0
85°	134.0	104.7	96.2	92.6	86.5	69.4	59.7	60.9	69.4	82.8	82.8
87.5°	14.6	14.6	19.5	14.6	14.6	14.6	13.4	15.8	17.0	21.9	25.6
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°	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9	2302.9
2.5°	2282.2	2282.2	2282.2	2279.7	2280.9	2276.1	2276.1	2272.4	2278.5	2274.9	2273.6
5°	2246.8	2245.6	2240.8	2240.8	2240.8	2240.8	2244.4	2234.7	2242.0	2242.0	2238.3
7.5°	2187.2	2187.2	2173.8	2181.1	2178.6	2182.3	2187.2	2182.3	2189.6	2194.5	2190.8
10°	2104.4	2104.4	2093.4	2101.9	2098.3	2106.8	2115.3	2110.4	2115.3	2122.6	2125.1
12.5°	2013.0	2008.2	1998.4	2002.1	2002.1	2006.9	2010.6	2016.7	2022.8	2032.5	2037.4
15°	1907.1	1899.8	1887.6	1887.6	1880.3	1882.7	1890.0	1892.5	1904.6	1918.0	1933.9
17.5°	1798.7	1780.4	1767.0	1751.2	1739.0	1748.8	1757.3	1763.4	1773.1	1793.8	1804.8
20°	1696.4	1659.9	1634.3	1613.6	1600.2	1606.3	1617.2	1624.5	1633.1	1637.9	1641.6
22.5°	1595.3	1553.9	1518.6	1493.0	1471.1	1477.2	1472.3	1468.7	1474.8	1458.9	1457.7
25°	1507.6	1458.9	1411.4	1381.0	1354.2	1345.7	1320.1	1314.0	1297.0	1283.6	1273.8
27.5°	1444.3	1381.0	1328.6	1293.3	1250.7	1219.0	1186.1	1153.3	1135.0	1113.1	1102.1
30°	1394.4	1327.4	1265.3	1205.6	1149.6	1100.9	1057.1	1014.4	985.2	953.5	932.8
32.5°	1348.1	1286.0	1210.5	1128.9	1053.4	998.6	941.4	892.6	846.4	805.0	774.5
35°	1316.4	1247.0	1150.8	1051.0	965.7	901.2	840.3	770.9	714.8	661.3	628.4
37.5°	1299.4	1214.1	1096.0	985.2	890.2	817.1	741.6	661.3	593.1	543.1	493.2
40°	1286.0	1181.3	1047.3	926.7	826.9	739.2	651.5	556.5	481.0	428.7	389.7
42.5°	1271.4	1144.7	1004.7	880.5	769.6	667.4	561.4	460.3	388.5	351.9	334.9
45°	1255.6	1113.1	964.5	836.6	713.6	589.4	467.6	373.9	331.2	319.1	319.1
47.5°	1251.9	1092.4	935.3	794.0	650.3	499.3	381.2	322.7	310.5	313.0	317.8
50°	1266.5	1086.3	909.7	744.1	566.3	404.3	322.7	303.2	305.7	313.0	320.3
52.5°	1301.8	1091.1	882.9	674.7	466.4	333.7	298.4	297.1	304.5	315.4	322.7
55°	1361.5	1091.1	831.8	571.1	372.6	299.6	289.8	294.7	304.5	314.2	320.3
57.5°	1489.4	1080.2	741.6	456.7	311.8	287.4	287.4	293.5	302.0	311.8	316.6
60°	1641.6	1065.6	615.0	353.2	281.3	277.7	286.2	293.5	300.8	309.3	314.2
62.5°	1651.3	1027.8	487.1	292.3	265.5	271.6	285.0	294.7	297.1	303.2	309.3
65°	1517.4	896.3	387.3	261.8	258.2	267.9	281.3	288.6	289.8	292.3	298.4
67.5°	1328.6	730.7	313.0	247.2	250.9	261.8	269.1	275.2	278.9	285.0	286.2
70°	1091.1	587.0	267.9	232.6	236.3	248.4	254.5	260.6	267.9	275.2	271.6
72.5°	773.3	456.7	235.0	216.8	221.6	232.6	239.9	244.8	250.9	258.2	253.3
75°	328.8	319.1	203.4	196.1	203.4	210.7	218.0	225.3	231.4	235.0	235.0
77.5°	168.1	187.5	175.4	175.4	180.2	187.5	193.6	200.9	204.6	208.2	213.1
80°	142.5	144.9	147.4	152.2	157.1	164.4	170.5	176.6	177.8	179.0	181.5
82.5°	118.1	123.0	125.4	132.7	136.4	138.8	142.5	142.5	144.9	144.9	141.3
85°	85.2	91.3	95.0	96.2	95.0	96.2	97.4	99.9	105.9	105.9	101.1
87.5°	24.4	23.1	29.2	30.4	32.9	37.8	42.6	51.1	53.6	56.0	56.0
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: P152379

CATALOG NUMBER: TLM-E04-LED-E1-SL4-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2302.9	2302.9	2302.9	2302.9
2.5°	2272.4	2274.9	2270.0	2271.2
5°	2238.3	2243.2	2237.1	2244.4
7.5°	2194.5	2201.8	2200.6	2199.3
10°	2131.2	2140.9	2140.9	2144.5
12.5°	2050.8	2056.9	2061.7	2064.2
15°	1942.4	1953.4	1959.4	1959.4
17.5°	1812.1	1819.4	1823.0	1818.2
20°	1646.5	1644.0	1645.2	1633.1
22.5°	1455.3	1458.9	1448.0	1450.4
25°	1267.7	1261.6	1266.5	1259.2
27.5°	1086.3	1087.5	1074.1	1080.2
30°	913.4	907.3	890.2	898.7
32.5°	746.5	730.7	712.4	701.5
35°	589.4	565.1	556.5	552.9
37.5°	462.8	436.0	427.4	417.7
40°	367.8	358.0	354.4	356.8
42.5°	330.0	330.0	332.5	333.7
45°	320.3	323.9	327.6	328.8
47.5°	321.5	325.2	330.0	331.2
50°	323.9	327.6	331.2	332.5
52.5°	325.2	325.2	327.6	328.8
55°	322.7	321.5	322.7	323.9
57.5°	317.8	315.4	316.6	320.3
60°	315.4	311.8	314.2	316.6
62.5°	309.3	308.1	310.5	311.8
65°	295.9	297.1	300.8	300.8
67.5°	283.7	285.0	286.2	287.4
70°	269.1	270.4	272.8	274.0
72.5°	252.1	257.0	260.6	265.5
75°	238.7	243.6	250.9	255.7
77.5°	215.6	219.2	227.7	233.8
80°	182.7	181.5	182.7	186.3
82.5°	140.0	140.0	138.8	137.6
85°	98.6	97.4	93.8	93.8
87.5°	53.6	52.4	51.1	48.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)