

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: P152397

Luminaire Tested: **TLM-F05-LED-E1-SL4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152397
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-F05-LED-E1-SL4-7060
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (35) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

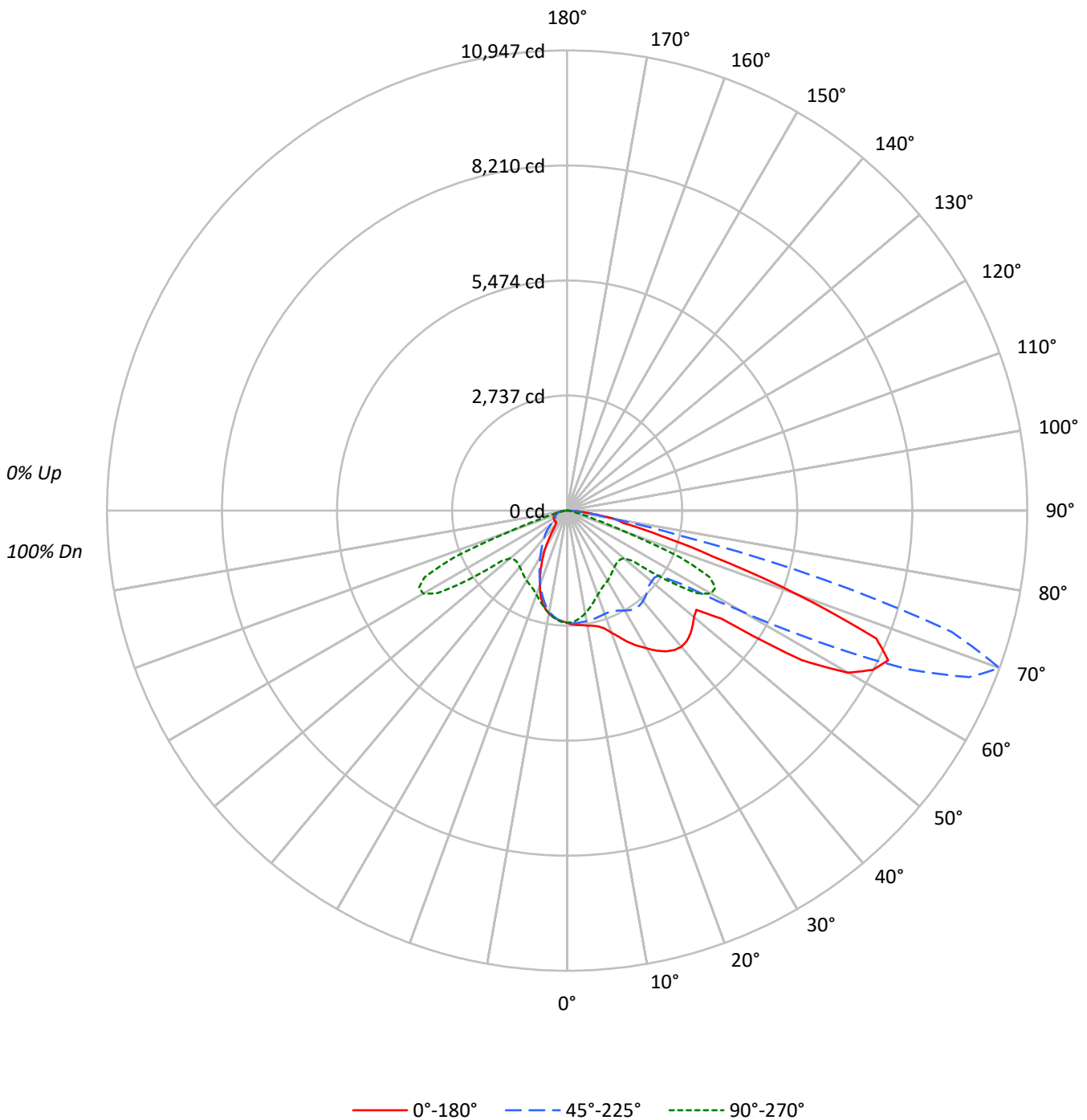
Lumens per Lamp: N/A
Luminaire Lumens: 12511.8 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 133.3
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



TEST NUMBER: P152397
CATALOG NUMBER: TLM-F05-LED-E1-SL4-7060

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°	34622	34622	34622
5°	35545	34093	33872
10°	36588	32683	32740
15°	38307	30954	30499
20°	42631	29382	26128
25°	49434	28646	20889
30°	56659	28816	15602
35°	64684	29034	10148
40°	71582	29636	7004
45°	76046	31305	6991
50°	79526	35575	7776
55°	101189	65119	8490
60°	200043	102421	9522
65°	258593	114806	10700
70°	220017	54283	12046
75°	115661	19947	14857
80°	86035	10859	16132
85°	49788	10505	16174



TEST NUMBER: P152397

CATALOG NUMBER: TLM-F05-LED-E1-SL4-7060

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.4	2.0
10°-20°	682.8	5.5
20°-30°	1010.7	8.1
30°-40°	1277.3	10.2
40°-50°	1444.6	11.5
50°-60°	2055.6	16.4
60°-70°	3828.5	30.6
70°-80°	1754.6	14.0
80°-90°	208.3	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°	1942.9	15.5
0°-40°	3220.2	25.7
0°-60°	6720.5	53.7
0°-90°	12511.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12511.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2670	2670	2670	2670	2670	
5°	2730	2685	2619	2598	2602	262
15°	2853	2647	2306	2183	2272	821
25°	3455	2633	2002	1560	1460	1604
35°	4086	2843	1834	1045	641	2554
45°	4146	2701	1707	683	381	3190
55°	4475	2685	2880	347	376	4702
65°	8427	8924	3741	311	349	7770
75°	2308	6274	398	244	296	2838
85°	335	294	71	112	109	421
90°	0	0	0	0	0	



TEST NUMBER: P152397

CATALOG NUMBER: TLM-F05-LED-E1-SL4-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7
2.5°	2710.6	2717.7	2709.2	2707.8	2707.8	2706.4	2697.9	2696.5	2685.2	2686.6	2689.5
5°	2730.4	2733.2	2727.6	2726.2	2723.3	2717.7	2710.6	2702.2	2693.7	2685.2	2678.2
7.5°	2750.2	2747.3	2743.1	2743.1	2738.9	2730.4	2716.3	2705.0	2686.6	2676.8	2664.1
10°	2778.4	2774.2	2768.5	2765.7	2758.6	2745.9	2726.2	2710.6	2688.1	2668.3	2647.1
12.5°	2805.2	2803.8	2795.3	2791.1	2779.8	2767.1	2743.1	2719.1	2689.5	2658.4	2630.2
15°	2853.2	2847.6	2839.1	2830.6	2812.3	2795.3	2758.6	2730.4	2688.1	2647.1	2603.3
17.5°	2936.5	2926.6	2918.2	2899.8	2877.2	2847.6	2793.9	2745.9	2688.1	2628.8	2579.3
20°	3089.0	3067.8	3056.5	3032.5	2993.0	2939.4	2856.1	2778.4	2692.3	2616.1	2549.7
22.5°	3261.2	3247.1	3231.6	3216.1	3153.9	3076.3	2963.4	2847.6	2717.7	2610.4	2525.7
25°	3454.7	3436.3	3427.8	3401.0	3343.1	3254.2	3100.3	2939.4	2775.6	2633.0	2525.7
27.5°	3626.9	3621.2	3619.8	3588.8	3533.7	3429.2	3247.1	3053.7	2854.6	2679.6	2546.9
30°	3783.6	3778.0	3775.1	3758.2	3694.7	3570.4	3372.8	3155.4	2940.8	2744.5	2586.4
32.5°	3950.2	3931.8	3923.4	3890.9	3818.9	3673.5	3447.6	3221.7	3008.5	2808.1	2630.2
35°	4085.7	4070.2	4053.3	4006.7	3905.0	3732.8	3480.1	3244.3	3035.4	2843.4	2652.8
37.5°	4184.6	4169.0	4145.0	4085.7	3960.1	3752.5	3478.7	3237.2	3025.5	2837.7	2657.0
40°	4228.3	4212.8	4187.4	4112.6	3970.0	3741.3	3451.8	3204.8	2995.8	2808.1	2640.1
42.5°	4211.4	4200.1	4167.6	4095.6	3938.9	3690.4	3398.2	3144.1	2939.4	2760.1	2601.9
45°	4146.4	4138.0	4106.9	4030.7	3868.3	3608.5	3319.1	3067.8	2871.6	2700.8	2551.1
47.5°	4049.0	4046.2	4015.1	3940.3	3779.4	3526.7	3237.2	2993.0	2803.8	2642.9	2508.8
50°	3941.7	3927.6	3912.1	3842.9	3696.1	3456.1	3177.9	2946.4	2765.7	2621.7	2490.4
52.5°	3874.0	3869.7	3855.6	3793.5	3652.3	3415.1	3151.1	2929.5	2762.9	2617.5	2480.5
55°	4475.4	4485.3	4355.4	4085.7	3848.5	3528.1	3231.6	3015.6	2832.1	2685.2	2585.0
57.5°	6619.9	6576.1	6353.1	5818.0	5213.8	4416.1	3841.5	3492.8	3265.5	3290.9	3341.7
60°	7712.6	7704.2	7663.2	7455.7	7053.3	6446.2	5772.8	5000.6	4754.9	4781.7	4801.5
62.5°	8201.1	8213.8	8244.9	8167.2	8061.3	7884.9	7548.9	7238.3	6909.3	6786.5	6457.5
65°	8427.0	8449.6	8520.2	8563.9	8604.9	8635.9	8768.6	9132.9	9372.9	8923.9	7879.2
67.5°	7959.7	8068.4	8301.3	8528.6	8731.9	9021.4	9470.3	10316.0	10904.7	10352.7	8837.8
70°	5802.5	5950.7	6217.5	6920.6	7671.7	8328.2	9197.8	10485.4	11373.4	10947.0	9075.0
72.5°	3638.2	3679.1	3797.7	4056.1	4613.7	5456.6	6977.1	8908.4	9933.4	9593.1	7670.3
75°	2308.3	2322.4	2318.2	2377.5	2472.0	2655.6	3257.0	5261.8	6804.8	6274.0	4274.9
77.5°	1375.1	1396.3	1404.7	1423.1	1468.3	1533.2	1582.6	1790.2	2853.2	2769.9	1551.6
80°	1152.0	1169.0	1154.8	1150.6	1122.4	1102.6	1126.6	1102.6	1023.5	985.4	907.8
82.5°	609.9	608.5	604.2	645.2	728.5	793.4	842.8	831.5	752.5	641.0	543.5
85°	334.6	345.9	345.9	360.0	347.3	348.7	360.0	379.8	351.5	293.7	240.0
87.5°	28.2	43.8	35.3	43.8	59.3	42.4	40.9	40.9	35.3	25.4	22.6
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: P152397

CATALOG NUMBER: TLM-F05-LED-E1-SL4-7060

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7
2.5°	2682.4	2679.6	2673.9	2669.7	2669.7	2662.6	2658.4	2655.6	2654.2	2648.5	2648.5
5°	2673.9	2664.1	2654.2	2647.1	2642.9	2635.8	2624.5	2618.9	2611.8	2606.2	2603.3
7.5°	2655.6	2637.2	2621.7	2610.4	2596.3	2585.0	2570.9	2558.2	2545.5	2539.8	2537.0
10°	2627.3	2603.3	2579.3	2558.2	2538.4	2518.6	2500.3	2481.9	2466.4	2455.1	2443.8
12.5°	2600.5	2563.8	2532.8	2501.7	2470.6	2446.6	2421.2	2394.4	2371.8	2350.6	2345.0
15°	2563.8	2521.5	2481.9	2443.8	2405.7	2366.2	2335.1	2305.5	2268.8	2244.8	2226.4
17.5°	2529.9	2479.1	2431.1	2385.9	2339.3	2298.4	2251.8	2212.3	2175.6	2138.9	2112.0
20°	2493.2	2438.2	2387.3	2336.5	2285.7	2233.5	2179.8	2129.0	2083.8	2040.0	1996.3
22.5°	2460.8	2404.3	2354.9	2299.8	2243.3	2184.0	2121.9	2058.4	2006.2	1949.7	1898.9
25°	2441.0	2378.9	2328.0	2274.4	2212.3	2147.3	2076.7	2001.9	1938.4	1873.4	1812.7
27.5°	2441.0	2360.5	2308.3	2254.6	2191.1	2121.9	2044.3	1962.4	1890.4	1818.4	1743.6
30°	2462.2	2363.3	2292.8	2236.3	2171.3	2096.5	2010.4	1924.3	1845.2	1760.5	1688.5
32.5°	2481.9	2369.0	2281.5	2209.5	2134.6	2061.2	1973.7	1881.9	1794.4	1713.9	1637.7
35°	2494.6	2369.0	2260.3	2168.5	2083.8	2011.8	1925.7	1833.9	1745.0	1665.9	1595.3
37.5°	2496.0	2357.7	2226.4	2121.9	2033.0	1958.2	1876.3	1790.2	1705.4	1632.0	1572.7
40°	2481.9	2335.1	2192.5	2072.5	1979.3	1903.1	1828.3	1750.6	1674.4	1613.7	1562.9
42.5°	2456.5	2311.1	2160.0	2033.0	1935.6	1856.5	1787.3	1721.0	1654.6	1602.4	1560.0
45°	2418.4	2278.6	2130.4	2009.0	1913.0	1829.7	1761.9	1706.9	1650.4	1606.6	1564.3
47.5°	2384.5	2267.3	2140.3	2024.5	1924.3	1838.2	1769.0	1722.4	1678.6	1649.0	1591.1
50°	2377.5	2261.7	2144.5	2037.2	1935.6	1848.0	1787.3	1763.3	1750.6	1732.3	1643.3
52.5°	2357.7	2260.3	2175.6	2116.3	2051.3	2010.4	1946.9	1969.5	1955.3	1890.4	1729.4
55°	2565.2	2593.5	2672.5	2785.5	2889.9	2913.9	2906.9	2880.1	2737.5	2354.9	1937.0
57.5°	3526.7	3686.2	3835.8	3902.2	3893.7	3818.9	3765.3	3656.5	3450.4	2984.5	2346.4
60°	4862.2	4887.6	4808.6	4691.4	4493.7	4328.6	4152.1	3948.8	3649.5	3193.5	2597.7
62.5°	6091.9	5750.2	5398.7	5068.3	4767.6	4505.0	4259.4	3975.6	3586.0	3110.2	2565.2
65°	6960.1	6237.3	5682.5	5208.1	4783.2	4416.1	4109.7	3741.3	3302.2	2873.0	2377.5
67.5°	7407.7	6299.4	5448.1	4787.4	4184.6	3676.3	3268.3	2909.7	2583.6	2395.8	2081.0
70°	6907.9	5346.5	4160.6	3413.7	2692.3	2158.6	1705.4	1431.6	1337.0	1514.9	1575.6
72.5°	5147.4	3480.1	2474.9	1914.4	1466.9	1169.0	896.5	704.5	573.2	601.4	780.7
75°	2433.9	1502.1	1061.7	807.5	642.4	532.2	434.8	398.1	333.2	276.7	259.8
77.5°	947.3	690.4	570.4	417.9	296.5	238.6	203.3	196.2	200.5	194.8	192.0
80°	721.4	488.5	306.4	224.5	193.4	170.8	151.1	145.4	148.2	155.3	162.4
82.5°	402.4	251.3	186.4	162.4	145.4	124.2	112.9	104.5	105.9	114.4	129.9
85°	155.3	121.4	111.5	107.3	100.2	80.5	69.2	70.6	80.5	96.0	96.0
87.5°	16.9	16.9	22.6	16.9	16.9	16.9	15.5	18.4	19.8	25.4	29.6
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: P152397

CATALOG NUMBER: TLM-F05-LED-E1-SL4-7060

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7
2.5°	2645.7	2645.7	2645.7	2642.9	2644.3	2638.6	2638.6	2634.4	2641.5	2637.2	2635.8
5°	2604.8	2603.3	2597.7	2597.7	2597.7	2597.7	2601.9	2590.6	2599.1	2599.1	2594.9
7.5°	2535.6	2535.6	2520.0	2528.5	2525.7	2529.9	2535.6	2529.9	2538.4	2544.1	2539.8
10°	2439.6	2439.6	2426.9	2436.8	2432.5	2442.4	2452.3	2446.6	2452.3	2460.8	2463.6
12.5°	2333.7	2328.0	2316.8	2321.0	2321.0	2326.6	2330.9	2337.9	2345.0	2356.3	2361.9
15°	2210.9	2202.4	2188.3	2188.3	2179.8	2182.6	2191.1	2193.9	2208.0	2223.6	2241.9
17.5°	2085.2	2064.0	2048.5	2030.2	2016.0	2027.3	2037.2	2044.3	2055.6	2079.6	2092.3
20°	1966.6	1924.3	1894.6	1870.6	1855.1	1862.2	1874.9	1883.3	1893.2	1898.9	1903.1
22.5°	1849.4	1801.4	1760.5	1730.9	1705.4	1712.5	1706.9	1702.6	1709.7	1691.3	1689.9
25°	1747.8	1691.3	1636.3	1601.0	1569.9	1560.0	1530.4	1523.3	1503.6	1488.0	1476.7
27.5°	1674.4	1601.0	1540.3	1499.3	1449.9	1413.2	1375.1	1337.0	1315.8	1290.4	1277.7
30°	1616.5	1538.9	1466.9	1397.7	1332.7	1276.3	1225.4	1176.0	1142.1	1105.4	1081.4
32.5°	1562.9	1490.9	1403.3	1308.7	1221.2	1157.7	1091.3	1034.8	981.2	933.2	897.9
35°	1526.1	1445.7	1334.1	1218.4	1119.6	1044.7	974.1	893.7	828.7	766.6	728.5
37.5°	1506.4	1407.6	1270.6	1142.1	1032.0	947.3	859.8	766.6	687.5	629.7	571.8
40°	1490.9	1369.4	1214.1	1074.4	958.6	857.0	755.3	645.2	557.7	497.0	451.8
42.5°	1473.9	1327.1	1164.7	1020.7	892.3	773.7	650.8	533.7	450.4	408.0	388.2
45°	1455.6	1290.4	1118.1	969.9	827.3	683.3	542.1	433.4	384.0	369.9	369.9
47.5°	1451.3	1266.4	1084.3	920.5	753.9	578.8	441.9	374.1	360.0	362.8	368.5
50°	1468.3	1259.3	1054.6	862.6	656.5	468.7	374.1	351.5	354.4	362.8	371.3
52.5°	1509.2	1265.0	1023.5	782.1	540.7	386.8	345.9	344.5	352.9	365.7	374.1
55°	1578.4	1265.0	964.3	662.1	432.0	347.3	336.0	341.7	352.9	364.2	371.3
57.5°	1726.6	1252.3	859.8	529.4	361.4	333.2	333.2	340.2	350.1	361.4	367.1
60°	1903.1	1235.3	713.0	409.4	326.1	321.9	331.8	340.2	348.7	358.6	364.2
62.5°	1914.4	1191.6	564.7	338.8	307.8	314.8	330.4	341.7	344.5	351.5	358.6
65°	1759.1	1039.1	449.0	303.5	299.3	310.6	326.1	334.6	336.0	338.8	345.9
67.5°	1540.3	847.1	362.8	286.6	290.8	303.5	312.0	319.1	323.3	330.4	331.8
70°	1265.0	680.5	310.6	269.7	273.9	288.0	295.1	302.1	310.6	319.1	314.8
72.5°	896.5	529.4	272.5	251.3	256.9	269.7	278.1	283.8	290.8	299.3	293.7
75°	381.2	369.9	235.8	227.3	235.8	244.2	252.7	261.2	268.2	272.5	272.5
77.5°	194.8	217.4	203.3	203.3	208.9	217.4	224.5	232.9	237.2	241.4	247.1
80°	165.2	168.0	170.8	176.5	182.1	190.6	197.7	204.7	206.1	207.5	210.4
82.5°	136.9	142.6	145.4	153.9	158.1	160.9	165.2	165.2	168.0	168.0	163.8
85°	98.8	105.9	110.1	111.5	110.1	111.5	112.9	115.8	122.8	122.8	117.2
87.5°	28.2	26.8	33.9	35.3	38.1	43.8	49.4	59.3	62.1	64.9	64.9
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: P152397

CATALOG NUMBER: TLM-F05-LED-E1-SL4-7060

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2669.7	2669.7	2669.7	2669.7
2.5°	2634.4	2637.2	2631.6	2633.0
5°	2594.9	2600.5	2593.5	2601.9
7.5°	2544.1	2552.5	2551.1	2549.7
10°	2470.6	2481.9	2481.9	2486.2
12.5°	2377.5	2384.5	2390.2	2393.0
15°	2251.8	2264.5	2271.6	2271.6
17.5°	2100.7	2109.2	2113.5	2107.8
20°	1908.7	1905.9	1907.3	1893.2
22.5°	1687.1	1691.3	1678.6	1681.4
25°	1469.7	1462.6	1468.3	1459.8
27.5°	1259.3	1260.7	1245.2	1252.3
30°	1058.8	1051.8	1032.0	1041.9
32.5°	865.4	847.1	825.9	813.2
35°	683.3	655.1	645.2	641.0
37.5°	536.5	505.4	495.5	484.2
40°	426.4	415.1	410.8	413.7
42.5°	382.6	382.6	385.4	386.8
45°	371.3	375.5	379.8	381.2
47.5°	372.7	376.9	382.6	384.0
50°	375.5	379.8	384.0	385.4
52.5°	376.9	376.9	379.8	381.2
55°	374.1	372.7	374.1	375.5
57.5°	368.5	365.7	367.1	371.3
60°	365.7	361.4	364.2	367.1
62.5°	358.6	357.2	360.0	361.4
65°	343.1	344.5	348.7	348.7
67.5°	328.9	330.4	331.8	333.2
70°	312.0	313.4	316.2	317.7
72.5°	292.2	297.9	302.1	307.8
75°	276.7	282.4	290.8	296.5
77.5°	249.9	254.1	264.0	271.1
80°	211.8	210.4	211.8	216.0
82.5°	162.4	162.4	160.9	159.5
85°	114.4	112.9	108.7	108.7
87.5°	62.1	60.7	59.3	56.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)