

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: P152380

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152380
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

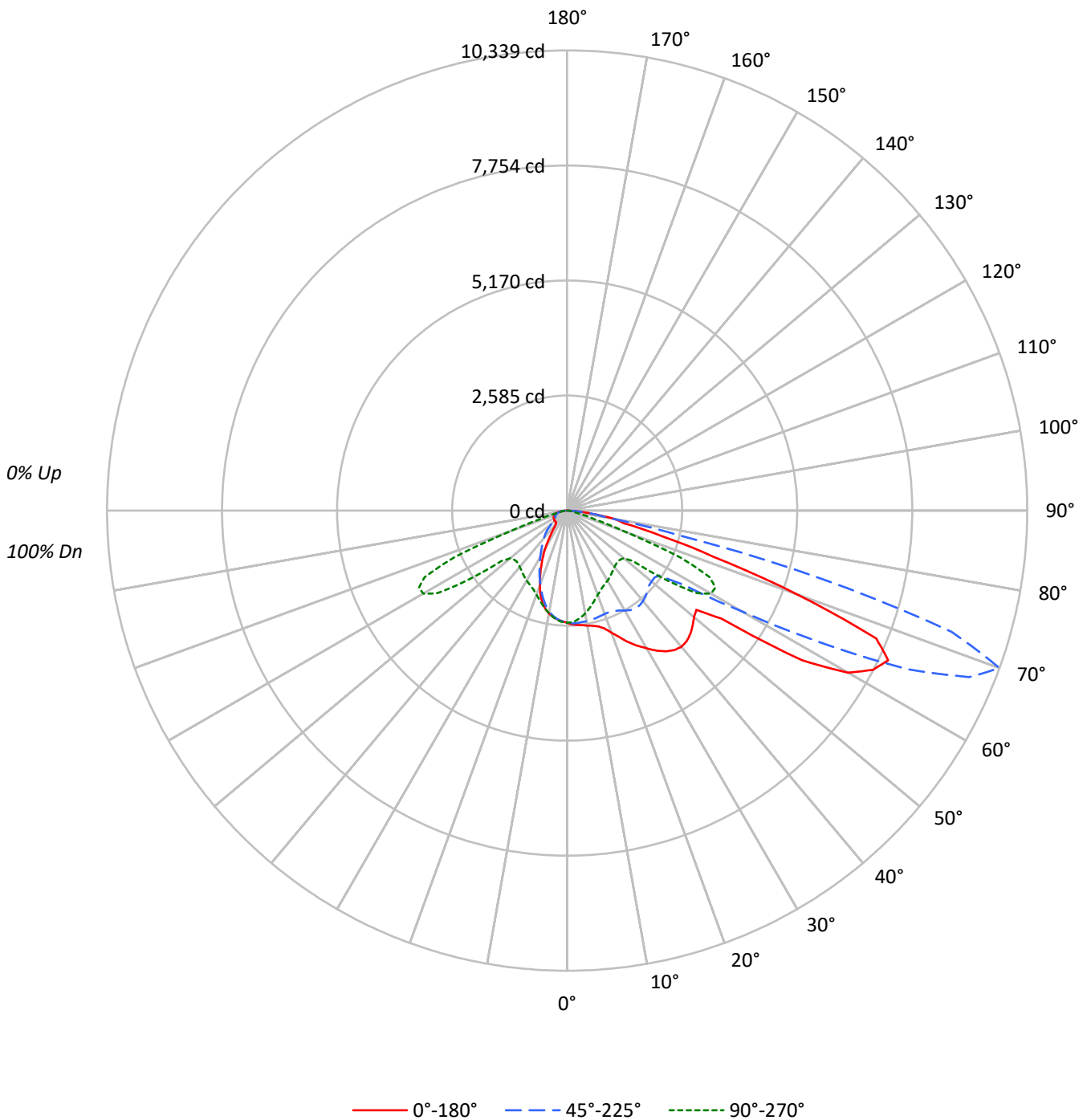
Lumens per Lamp: N/A
Luminaire Lumens: 11816.5 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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	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°	40506	40506	40506
5°	41586	39887	39629
10°	42806	38239	38304
15°	44819	36213	35681
20°	49876	34376	30569
25°	57836	33515	24439
30°	66288	33713	18254
35°	75678	33969	11871
40°	83748	34673	8194
45°	88972	36625	8179
50°	93043	41622	9098
55°	118387	76186	9935
60°	234043	119826	11140
65°	302545	134316	12518
70°	257409	63507	14092
75°	135318	23339	17380
80°	100659	12703	18874
85°	58249	12295	18931



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.6	2.0
10°-20°	644.8	5.5
20°-30°	954.6	8.1
30°-40°	1206.3	10.2
40°-50°	1364.3	11.5
50°-60°	1941.4	16.4
60°-70°	3615.7	30.6
70°-80°	1657.1	14.0
80°-90°	196.7	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°	1834.9	15.5
0°-40°	3041.3	25.7
0°-60°	6347.0	53.7
0°-90°	11816.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11816.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2521	2521	2521	2521	2521	
5°	2579	2536	2473	2453	2457	247
15°	2695	2500	2177	2061	2145	776
25°	3263	2487	1891	1473	1379	1515
35°	3859	2685	1732	987	605	2412
45°	3916	2551	1612	645	360	3013
55°	4227	2536	2720	328	355	4441
65°	7959	8428	3533	293	329	7339
75°	2180	5925	376	231	280	2680
85°	316	277	67	105	103	397
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°	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3
2.5°	2560.0	2566.7	2558.7	2557.3	2557.3	2556.0	2548.0	2546.7	2536.0	2537.3	2540.0
5°	2578.7	2581.3	2576.0	2574.7	2572.0	2566.7	2560.0	2552.0	2544.0	2536.0	2529.3
7.5°	2597.3	2594.7	2590.7	2590.7	2586.7	2578.7	2565.3	2554.7	2537.3	2528.0	2516.0
10°	2624.0	2620.0	2614.7	2612.0	2605.3	2593.3	2574.7	2560.0	2538.7	2520.0	2500.0
12.5°	2649.3	2648.0	2640.0	2636.0	2625.3	2613.3	2590.7	2568.0	2540.0	2510.7	2484.0
15°	2694.7	2689.3	2681.3	2673.3	2656.0	2640.0	2605.3	2578.7	2538.7	2500.0	2458.7
17.5°	2773.3	2764.0	2756.0	2738.7	2717.3	2689.3	2638.7	2593.3	2538.7	2482.7	2436.0
20°	2917.3	2897.3	2886.7	2864.0	2826.7	2776.0	2697.3	2624.0	2542.7	2470.7	2408.0
22.5°	3080.0	3066.7	3052.0	3037.3	2978.7	2905.3	2798.7	2689.3	2566.7	2465.3	2385.3
25°	3262.7	3245.3	3237.3	3212.0	3157.3	3073.3	2928.0	2776.0	2621.3	2486.7	2385.3
27.5°	3425.3	3420.0	3418.7	3389.3	3337.3	3238.7	3066.7	2884.0	2696.0	2530.7	2405.3
30°	3573.3	3568.0	3565.3	3549.3	3489.3	3372.0	3185.3	2980.0	2777.3	2592.0	2442.7
32.5°	3730.7	3713.3	3705.3	3674.7	3606.7	3469.3	3256.0	3042.7	2841.3	2652.0	2484.0
35°	3858.7	3844.0	3828.0	3784.0	3688.0	3525.3	3286.7	3064.0	2866.7	2685.3	2505.3
37.5°	3952.0	3937.3	3914.7	3858.7	3740.0	3544.0	3285.3	3057.3	2857.3	2680.0	2509.3
40°	3993.3	3978.7	3954.7	3884.0	3749.3	3533.3	3260.0	3026.7	2829.3	2652.0	2493.3
42.5°	3977.3	3966.7	3936.0	3868.0	3720.0	3485.3	3209.3	2969.3	2776.0	2606.7	2457.3
45°	3916.0	3908.0	3878.7	3806.7	3653.3	3408.0	3134.7	2897.3	2712.0	2550.7	2409.3
47.5°	3824.0	3821.3	3792.0	3721.3	3569.3	3330.7	3057.3	2826.7	2648.0	2496.0	2369.3
50°	3722.7	3709.3	3694.7	3629.3	3490.7	3264.0	3001.3	2782.7	2612.0	2476.0	2352.0
52.5°	3658.7	3654.7	3641.3	3582.7	3449.3	3225.3	2976.0	2766.7	2609.3	2472.0	2342.7
55°	4226.7	4236.0	4113.3	3858.7	3634.7	3332.0	3052.0	2848.0	2674.7	2536.0	2441.3
57.5°	6252.0	6210.7	6000.0	5494.7	4924.0	4170.7	3628.0	3298.7	3084.0	3108.0	3156.0
60°	7284.0	7276.0	7237.3	7041.3	6661.3	6088.0	5452.0	4722.7	4490.7	4516.0	4534.7
62.5°	7745.3	7757.3	7786.7	7713.3	7613.3	7446.7	7129.3	6836.0	6525.3	6409.3	6098.7
65°	7958.7	7980.0	8046.7	8088.0	8126.7	8156.0	8281.3	8625.3	8852.0	8428.0	7441.3
67.5°	7517.3	7620.0	7840.0	8054.7	8246.7	8520.0	8944.0	9742.7	10298.7	9777.3	8346.7
70°	5480.0	5620.0	5872.0	6536.0	7245.3	7865.3	8686.7	9902.7	10741.3	10338.7	8570.7
72.5°	3436.0	3474.7	3586.7	3830.7	4357.3	5153.3	6589.3	8413.3	9381.3	9060.0	7244.0
75°	2180.0	2193.3	2189.3	2245.3	2334.7	2508.0	3076.0	4969.3	6426.7	5925.3	4037.3
77.5°	1298.7	1318.7	1326.7	1344.0	1386.7	1448.0	1494.7	1690.7	2694.7	2616.0	1465.3
80°	1088.0	1104.0	1090.7	1086.7	1060.0	1041.3	1064.0	1041.3	966.7	930.7	857.3
82.5°	576.0	574.7	570.7	609.3	688.0	749.3	796.0	785.3	710.7	605.3	513.3
85°	316.0	326.7	326.7	340.0	328.0	329.3	340.0	358.7	332.0	277.3	226.7
87.5°	26.7	41.3	33.3	41.3	56.0	40.0	38.7	38.7	33.3	24.0	21.3
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°	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3
2.5°	2533.3	2530.7	2525.3	2521.3	2521.3	2514.7	2510.7	2508.0	2506.7	2501.3	2501.3
5°	2525.3	2516.0	2506.7	2500.0	2496.0	2489.3	2478.7	2473.3	2466.7	2461.3	2458.7
7.5°	2508.0	2490.7	2476.0	2465.3	2452.0	2441.3	2428.0	2416.0	2404.0	2398.7	2396.0
10°	2481.3	2458.7	2436.0	2416.0	2397.3	2378.7	2361.3	2344.0	2329.3	2318.7	2308.0
12.5°	2456.0	2421.3	2392.0	2362.7	2333.3	2310.7	2286.7	2261.3	2240.0	2220.0	2214.7
15°	2421.3	2381.3	2344.0	2308.0	2272.0	2234.7	2205.3	2177.3	2142.7	2120.0	2102.7
17.5°	2389.3	2341.3	2296.0	2253.3	2209.3	2170.7	2126.7	2089.3	2054.7	2020.0	1994.7
20°	2354.7	2302.7	2254.7	2206.7	2158.7	2109.3	2058.7	2010.7	1968.0	1926.7	1885.3
22.5°	2324.0	2270.7	2224.0	2172.0	2118.7	2062.7	2004.0	1944.0	1894.7	1841.3	1793.3
25°	2305.3	2246.7	2198.7	2148.0	2089.3	2028.0	1961.3	1890.7	1830.7	1769.3	1712.0
27.5°	2305.3	2229.3	2180.0	2129.3	2069.3	2004.0	1930.7	1853.3	1785.3	1717.3	1646.7
30°	2325.3	2232.0	2165.3	2112.0	2050.7	1980.0	1898.7	1817.3	1742.7	1662.7	1594.7
32.5°	2344.0	2237.3	2154.7	2086.7	2016.0	1946.7	1864.0	1777.3	1694.7	1618.7	1546.7
35°	2356.0	2237.3	2134.7	2048.0	1968.0	1900.0	1818.7	1732.0	1648.0	1573.3	1506.7
37.5°	2357.3	2226.7	2102.7	2004.0	1920.0	1849.3	1772.0	1690.7	1610.7	1541.3	1485.3
40°	2344.0	2205.3	2070.7	1957.3	1869.3	1797.3	1726.7	1653.3	1581.3	1524.0	1476.0
42.5°	2320.0	2182.7	2040.0	1920.0	1828.0	1753.3	1688.0	1625.3	1562.7	1513.3	1473.3
45°	2284.0	2152.0	2012.0	1897.3	1806.7	1728.0	1664.0	1612.0	1558.7	1517.3	1477.3
47.5°	2252.0	2141.3	2021.3	1912.0	1817.3	1736.0	1670.7	1626.7	1585.3	1557.3	1502.7
50°	2245.3	2136.0	2025.3	1924.0	1828.0	1745.3	1688.0	1665.3	1653.3	1636.0	1552.0
52.5°	2226.7	2134.7	2054.7	1998.7	1937.3	1898.7	1838.7	1860.0	1846.7	1785.3	1633.3
55°	2422.7	2449.3	2524.0	2630.7	2729.3	2752.0	2745.3	2720.0	2585.3	2224.0	1829.3
57.5°	3330.7	3481.3	3622.7	3685.3	3677.3	3606.7	3556.0	3453.3	3258.7	2818.7	2216.0
60°	4592.0	4616.0	4541.3	4430.7	4244.0	4088.0	3921.3	3729.3	3446.7	3016.0	2453.3
62.5°	5753.3	5430.7	5098.7	4786.7	4502.7	4254.7	4022.7	3754.7	3386.7	2937.3	2422.7
65°	6573.3	5890.7	5366.7	4918.7	4517.3	4170.7	3881.3	3533.3	3118.7	2713.3	2245.3
67.5°	6996.0	5949.3	5145.3	4521.3	3952.0	3472.0	3086.7	2748.0	2440.0	2262.7	1965.3
70°	6524.0	5049.3	3929.3	3224.0	2542.7	2038.7	1610.7	1352.0	1262.7	1430.7	1488.0
72.5°	4861.3	3286.7	2337.3	1808.0	1385.3	1104.0	846.7	665.3	541.3	568.0	737.3
75°	2298.7	1418.7	1002.7	762.7	606.7	502.7	410.7	376.0	314.7	261.3	245.3
77.5°	894.7	652.0	538.7	394.7	280.0	225.3	192.0	185.3	189.3	184.0	181.3
80°	681.3	461.3	289.3	212.0	182.7	161.3	142.7	137.3	140.0	146.7	153.3
82.5°	380.0	237.3	176.0	153.3	137.3	117.3	106.7	98.7	100.0	108.0	122.7
85°	146.7	114.7	105.3	101.3	94.7	76.0	65.3	66.7	76.0	90.7	90.7
87.5°	16.0	16.0	21.3	16.0	16.0	16.0	14.7	17.3	18.7	24.0	28.0
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°	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3	2521.3
2.5°	2498.7	2498.7	2498.7	2496.0	2497.3	2492.0	2492.0	2488.0	2494.7	2490.7	2489.3
5°	2460.0	2458.7	2453.3	2453.3	2453.3	2453.3	2457.3	2446.7	2454.7	2454.7	2450.7
7.5°	2394.7	2394.7	2380.0	2388.0	2385.3	2389.3	2394.7	2389.3	2397.3	2402.7	2398.7
10°	2304.0	2304.0	2292.0	2301.3	2297.3	2306.7	2316.0	2310.7	2316.0	2324.0	2326.7
12.5°	2204.0	2198.7	2188.0	2192.0	2192.0	2197.3	2201.3	2208.0	2214.7	2225.3	2230.7
15°	2088.0	2080.0	2066.7	2066.7	2058.7	2061.3	2069.3	2072.0	2085.3	2100.0	2117.3
17.5°	1969.3	1949.3	1934.7	1917.3	1904.0	1914.7	1924.0	1930.7	1941.3	1964.0	1976.0
20°	1857.3	1817.3	1789.3	1766.7	1752.0	1758.7	1770.7	1778.7	1788.0	1793.3	1797.3
22.5°	1746.7	1701.3	1662.7	1634.7	1610.7	1617.3	1612.0	1608.0	1614.7	1597.3	1596.0
25°	1650.7	1597.3	1545.3	1512.0	1482.7	1473.3	1445.3	1438.7	1420.0	1405.3	1394.7
27.5°	1581.3	1512.0	1454.7	1416.0	1369.3	1334.7	1298.7	1262.7	1242.7	1218.7	1206.7
30°	1526.7	1453.3	1385.3	1320.0	1258.7	1205.3	1157.3	1110.7	1078.7	1044.0	1021.3
32.5°	1476.0	1408.0	1325.3	1236.0	1153.3	1093.3	1030.7	977.3	926.7	881.3	848.0
35°	1441.3	1365.3	1260.0	1150.7	1057.3	986.7	920.0	844.0	782.7	724.0	688.0
37.5°	1422.7	1329.3	1200.0	1078.7	974.7	894.7	812.0	724.0	649.3	594.7	540.0
40°	1408.0	1293.3	1146.7	1014.7	905.3	809.3	713.3	609.3	526.7	469.3	426.7
42.5°	1392.0	1253.3	1100.0	964.0	842.7	730.7	614.7	504.0	425.3	385.3	366.7
45°	1374.7	1218.7	1056.0	916.0	781.3	645.3	512.0	409.3	362.7	349.3	349.3
47.5°	1370.7	1196.0	1024.0	869.3	712.0	546.7	417.3	353.3	340.0	342.7	348.0
50°	1386.7	1189.3	996.0	814.7	620.0	442.7	353.3	332.0	334.7	342.7	350.7
52.5°	1425.3	1194.7	966.7	738.7	510.7	365.3	326.7	325.3	333.3	345.3	353.3
55°	1490.7	1194.7	910.7	625.3	408.0	328.0	317.3	322.7	333.3	344.0	350.7
57.5°	1630.7	1182.7	812.0	500.0	341.3	314.7	314.7	321.3	330.7	341.3	346.7
60°	1797.3	1166.7	673.3	386.7	308.0	304.0	313.3	321.3	329.3	338.7	344.0
62.5°	1808.0	1125.3	533.3	320.0	290.7	297.3	312.0	322.7	325.3	332.0	338.7
65°	1661.3	981.3	424.0	286.7	282.7	293.3	308.0	316.0	317.3	320.0	326.7
67.5°	1454.7	800.0	342.7	270.7	274.7	286.7	294.7	301.3	305.3	312.0	313.3
70°	1194.7	642.7	293.3	254.7	258.7	272.0	278.7	285.3	293.3	301.3	297.3
72.5°	846.7	500.0	257.3	237.3	242.7	254.7	262.7	268.0	274.7	282.7	277.3
75°	360.0	349.3	222.7	214.7	222.7	230.7	238.7	246.7	253.3	257.3	257.3
77.5°	184.0	205.3	192.0	192.0	197.3	205.3	212.0	220.0	224.0	228.0	233.3
80°	156.0	158.7	161.3	166.7	172.0	180.0	186.7	193.3	194.7	196.0	198.7
82.5°	129.3	134.7	137.3	145.3	149.3	152.0	156.0	156.0	158.7	158.7	154.7
85°	93.3	100.0	104.0	105.3	104.0	105.3	106.7	109.3	116.0	116.0	110.7
87.5°	26.7	25.3	32.0	33.3	36.0	41.3	46.7	56.0	58.7	61.3	61.3
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: P152380

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2521.3	2521.3	2521.3	2521.3
2.5°	2488.0	2490.7	2485.3	2486.7
5°	2450.7	2456.0	2449.3	2457.3
7.5°	2402.7	2410.7	2409.3	2408.0
10°	2333.3	2344.0	2344.0	2348.0
12.5°	2245.3	2252.0	2257.3	2260.0
15°	2126.7	2138.7	2145.3	2145.3
17.5°	1984.0	1992.0	1996.0	1990.7
20°	1802.7	1800.0	1801.3	1788.0
22.5°	1593.3	1597.3	1585.3	1588.0
25°	1388.0	1381.3	1386.7	1378.7
27.5°	1189.3	1190.7	1176.0	1182.7
30°	1000.0	993.3	974.7	984.0
32.5°	817.3	800.0	780.0	768.0
35°	645.3	618.7	609.3	605.3
37.5°	506.7	477.3	468.0	457.3
40°	402.7	392.0	388.0	390.7
42.5°	361.3	361.3	364.0	365.3
45°	350.7	354.7	358.7	360.0
47.5°	352.0	356.0	361.3	362.7
50°	354.7	358.7	362.7	364.0
52.5°	356.0	356.0	358.7	360.0
55°	353.3	352.0	353.3	354.7
57.5°	348.0	345.3	346.7	350.7
60°	345.3	341.3	344.0	346.7
62.5°	338.7	337.3	340.0	341.3
65°	324.0	325.3	329.3	329.3
67.5°	310.7	312.0	313.3	314.7
70°	294.7	296.0	298.7	300.0
72.5°	276.0	281.3	285.3	290.7
75°	261.3	266.7	274.7	280.0
77.5°	236.0	240.0	249.3	256.0
80°	200.0	198.7	200.0	204.0
82.5°	153.3	153.3	152.0	150.7
85°	108.0	106.7	102.7	102.7
87.5°	58.7	57.3	56.0	53.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)