

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: P152381

Luminaire Tested: **TLM-E04-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152381
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-SL4-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

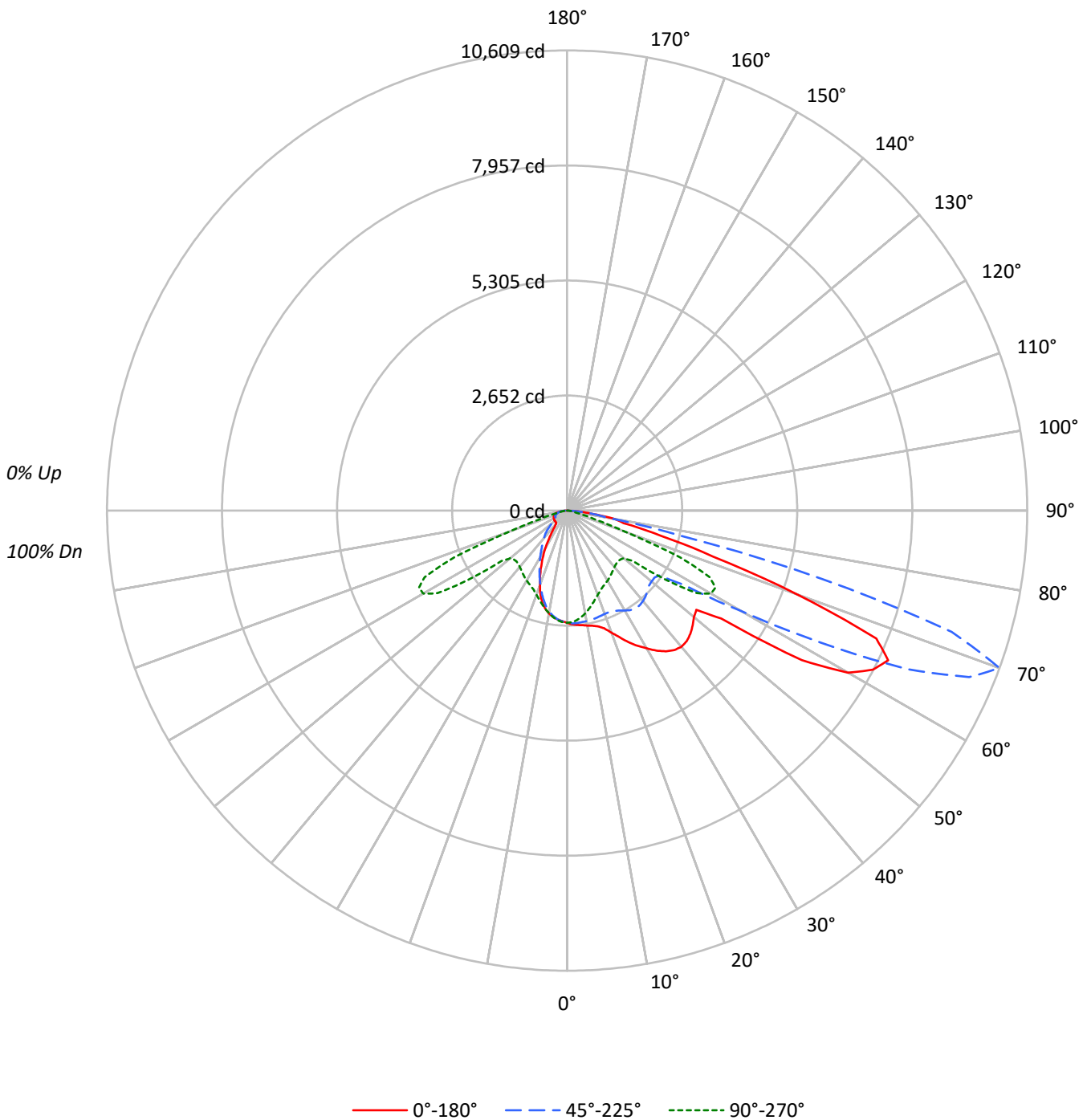
Lumens per Lamp: N/A
Luminaire Lumens: 12124.9 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

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°	41565	41565	41565
5°	42672	40928	40664
10°	43924	39237	39304
15°	45988	37160	36613
20°	51179	35274	31367
25°	59344	34389	25077
30°	68019	34594	18731
35°	77653	34855	12181
40°	85935	35579	8408
45°	91294	37581	8393
50°	95470	42709	9335
55°	121477	78174	10193
60°	240154	122956	11429
65°	310440	137825	12845
70°	264131	65165	14458
75°	138850	23948	17833
80°	103287	13036	19364
85°	59760	12608	19410



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.7	2.0
10°-20°	661.7	5.5
20°-30°	979.5	8.1
30°-40°	1237.8	10.2
40°-50°	1399.9	11.5
50°-60°	1992.1	16.4
60°-70°	3710.1	30.6
70°-80°	1700.4	14.0
80°-90°	201.8	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°	1882.8	15.5
0°-40°	3120.7	25.7
0°-60°	6512.7	53.7
0°-90°	12124.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12124.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2587	2587	2587	2587	2587	
5°	2646	2602	2538	2517	2522	254
15°	2765	2565	2234	2115	2201	796
25°	3348	2552	1940	1512	1415	1554
35°	3959	2755	1777	1012	621	2475
45°	4018	2617	1654	662	369	3091
55°	4337	2602	2791	337	364	4557
65°	8166	8648	3626	301	338	7530
75°	2237	6080	386	237	287	2750
85°	324	285	68	108	105	408
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°	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2
2.5°	2626.8	2633.7	2625.5	2624.1	2624.1	2622.7	2614.5	2613.1	2602.2	2603.6	2606.3
5°	2646.0	2648.7	2643.2	2641.9	2639.1	2633.7	2626.8	2618.6	2610.4	2602.2	2595.4
7.5°	2665.1	2662.4	2658.3	2658.3	2654.2	2646.0	2632.3	2621.4	2603.6	2594.0	2581.7
10°	2692.5	2688.4	2682.9	2680.2	2673.3	2661.0	2641.9	2626.8	2604.9	2585.8	2565.3
12.5°	2718.5	2717.1	2708.9	2704.8	2693.9	2681.6	2658.3	2635.0	2606.3	2576.2	2548.8
15°	2765.0	2759.5	2751.3	2743.1	2725.3	2708.9	2673.3	2646.0	2604.9	2565.3	2522.9
17.5°	2845.7	2836.2	2827.9	2810.2	2788.3	2759.5	2707.6	2661.0	2604.9	2547.5	2499.6
20°	2993.5	2973.0	2962.0	2938.8	2900.5	2848.5	2767.7	2692.5	2609.0	2535.2	2470.9
22.5°	3160.4	3146.7	3131.7	3116.6	3056.4	2981.2	2871.7	2759.5	2633.7	2529.7	2447.6
25°	3347.8	3330.1	3321.8	3295.9	3239.8	3153.6	3004.4	2848.5	2689.8	2551.6	2447.6
27.5°	3514.8	3509.3	3507.9	3477.8	3424.5	3323.2	3146.7	2959.3	2766.4	2596.7	2468.1
30°	3666.6	3661.1	3658.4	3642.0	3580.4	3460.0	3268.5	3057.8	2849.8	2659.7	2506.4
32.5°	3828.1	3810.3	3802.1	3770.6	3700.8	3559.9	3341.0	3122.1	2915.5	2721.2	2548.8
35°	3959.4	3944.3	3927.9	3882.8	3784.3	3617.4	3372.5	3144.0	2941.5	2755.4	2570.7
37.5°	4055.2	4040.1	4016.9	3959.4	3837.6	3636.5	3371.1	3137.1	2931.9	2750.0	2574.8
40°	4097.6	4082.5	4057.9	3985.4	3847.2	3625.6	3345.1	3105.7	2903.2	2721.2	2558.4
42.5°	4081.2	4070.2	4038.8	3969.0	3817.1	3576.3	3293.1	3046.8	2848.5	2674.7	2521.5
45°	4018.2	4010.0	3979.9	3906.0	3748.7	3497.0	3216.5	2973.0	2782.8	2617.3	2472.2
47.5°	3923.8	3921.1	3891.0	3818.5	3662.5	3417.6	3137.1	2900.5	2717.1	2561.2	2431.2
50°	3819.8	3806.2	3791.1	3724.1	3581.8	3349.2	3079.7	2855.3	2680.2	2540.6	2413.4
52.5°	3754.2	3750.1	3736.4	3676.2	3539.4	3309.5	3053.7	2838.9	2677.5	2536.5	2403.8
55°	4337.0	4346.6	4220.7	3959.4	3729.6	3419.0	3131.7	2922.3	2744.5	2602.2	2505.1
57.5°	6415.2	6372.8	6156.6	5638.1	5052.5	4279.5	3722.7	3384.8	3164.5	3189.1	3238.4
60°	7474.2	7465.9	7426.3	7225.2	6835.2	6246.9	5594.3	4846.0	4607.9	4633.9	4653.0
62.5°	7947.5	7959.8	7989.9	7914.7	7812.1	7641.1	7315.4	7014.5	6695.7	6576.7	6257.9
65°	8166.4	8188.3	8256.7	8299.1	8338.8	8368.9	8497.5	8850.5	9083.1	8648.0	7635.6
67.5°	7713.6	7818.9	8044.7	8264.9	8461.9	8742.4	9177.5	9997.0	10567.5	10032.6	8564.6
70°	5623.1	5766.7	6025.3	6706.6	7434.5	8070.7	8913.4	10161.2	11021.7	10608.6	8794.4
72.5°	3525.7	3565.4	3680.3	3930.7	4471.1	5287.9	6761.4	8633.0	9626.2	9296.5	7433.1
75°	2236.9	2250.6	2246.5	2303.9	2395.6	2573.5	3156.3	5099.1	6594.4	6080.0	4142.7
77.5°	1332.6	1353.1	1361.3	1379.1	1422.9	1485.8	1533.7	1734.8	2765.0	2684.3	1503.6
80°	1116.4	1132.8	1119.1	1115.0	1087.7	1068.5	1091.8	1068.5	991.9	955.0	879.7
82.5°	591.0	589.7	585.6	625.2	706.0	768.9	816.8	805.8	729.2	621.1	526.7
85°	324.2	335.2	335.2	348.9	336.6	337.9	348.9	368.0	340.7	284.6	232.6
87.5°	27.4	42.4	34.2	42.4	57.5	41.0	39.7	39.7	34.2	24.6	21.9
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°	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2
2.5°	2599.5	2596.7	2591.3	2587.2	2587.2	2580.3	2576.2	2573.5	2572.1	2566.6	2566.6
5°	2591.3	2581.7	2572.1	2565.3	2561.2	2554.3	2543.4	2537.9	2531.1	2525.6	2522.9
7.5°	2573.5	2555.7	2540.6	2529.7	2516.0	2505.1	2491.4	2479.1	2466.8	2461.3	2458.5
10°	2546.1	2522.9	2499.6	2479.1	2459.9	2440.8	2423.0	2405.2	2390.1	2379.2	2368.3
12.5°	2520.1	2484.5	2454.4	2424.3	2394.2	2371.0	2346.4	2320.4	2298.5	2278.0	2272.5
15°	2484.5	2443.5	2405.2	2368.3	2331.3	2293.0	2262.9	2234.2	2198.6	2175.3	2157.6
17.5°	2451.7	2402.5	2355.9	2312.2	2267.0	2227.3	2182.2	2143.9	2108.3	2072.7	2046.7
20°	2416.1	2362.8	2313.5	2264.3	2215.0	2164.4	2112.4	2063.2	2019.4	1977.0	1934.6
22.5°	2384.7	2329.9	2282.1	2228.7	2174.0	2116.5	2056.3	1994.7	1944.1	1889.4	1840.1
25°	2365.5	2305.3	2256.1	2204.1	2143.9	2080.9	2012.5	1940.0	1878.5	1815.5	1756.7
27.5°	2365.5	2287.5	2236.9	2184.9	2123.4	2056.3	1981.1	1901.7	1831.9	1762.2	1689.7
30°	2386.0	2290.3	2221.9	2167.1	2104.2	2031.7	1948.2	1864.8	1788.2	1706.1	1636.3
32.5°	2405.2	2295.7	2210.9	2141.1	2068.6	1997.5	1912.7	1823.7	1738.9	1660.9	1587.0
35°	2417.5	2295.7	2190.4	2101.5	2019.4	1949.6	1866.1	1777.2	1691.0	1614.4	1546.0
37.5°	2418.9	2284.8	2157.6	2056.3	1970.1	1897.6	1818.3	1734.8	1652.7	1581.6	1524.1
40°	2405.2	2262.9	2124.7	2008.4	1918.1	1844.3	1771.7	1696.5	1622.6	1563.8	1514.5
42.5°	2380.6	2239.6	2093.3	1970.1	1875.7	1799.1	1732.1	1667.8	1603.5	1552.8	1511.8
45°	2343.6	2208.2	2064.5	1946.9	1853.8	1773.1	1707.4	1654.1	1599.4	1556.9	1515.9
47.5°	2310.8	2197.2	2074.1	1961.9	1864.8	1781.3	1714.3	1669.1	1626.7	1598.0	1541.9
50°	2303.9	2191.8	2078.2	1974.2	1875.7	1790.9	1732.1	1708.8	1696.5	1678.7	1592.5
52.5°	2284.8	2190.4	2108.3	2050.8	1987.9	1948.2	1886.7	1908.6	1894.9	1831.9	1676.0
55°	2485.9	2513.3	2589.9	2699.3	2800.6	2823.8	2817.0	2791.0	2652.8	2282.1	1877.1
57.5°	3417.6	3572.2	3717.2	3781.5	3773.3	3700.8	3648.8	3543.5	3343.7	2892.2	2273.8
60°	4711.9	4736.5	4659.9	4546.3	4354.8	4194.7	4023.7	3826.7	3536.6	3094.7	2517.4
62.5°	5903.5	5572.4	5231.8	4911.6	4620.2	4365.7	4127.7	3852.7	3475.1	3014.0	2485.9
65°	6744.9	6044.4	5506.8	5047.1	4635.3	4279.5	3982.7	3625.6	3200.1	2784.2	2303.9
67.5°	7178.6	6104.6	5279.7	4639.4	4055.2	3562.6	3167.2	2819.7	2503.7	2321.7	2016.6
70°	6694.3	5181.1	4031.9	3308.2	2609.0	2091.9	1652.7	1387.3	1295.6	1468.0	1526.8
72.5°	4988.2	3372.5	2398.4	1855.2	1421.5	1132.8	868.8	682.7	555.5	582.8	756.6
75°	2358.7	1455.7	1028.8	782.6	622.5	515.8	421.4	385.8	322.9	268.2	251.7
77.5°	918.0	669.0	552.7	405.0	287.3	231.2	197.0	190.2	194.3	188.8	186.1
80°	699.1	473.4	296.9	217.5	187.4	165.5	146.4	140.9	143.7	150.5	157.3
82.5°	389.9	243.5	180.6	157.3	140.9	120.4	109.5	101.2	102.6	110.8	125.9
85°	150.5	117.7	108.1	104.0	97.1	78.0	67.0	68.4	78.0	93.0	93.0
87.5°	16.4	16.4	21.9	16.4	16.4	16.4	15.0	17.8	19.2	24.6	28.7
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°	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2	2587.2
2.5°	2563.9	2563.9	2563.9	2561.2	2562.5	2557.1	2557.1	2553.0	2559.8	2555.7	2554.3
5°	2524.2	2522.9	2517.4	2517.4	2517.4	2517.4	2521.5	2510.5	2518.7	2518.7	2514.6
7.5°	2457.2	2457.2	2442.1	2450.3	2447.6	2451.7	2457.2	2451.7	2459.9	2465.4	2461.3
10°	2364.1	2364.1	2351.8	2361.4	2357.3	2366.9	2376.5	2371.0	2376.5	2384.7	2387.4
12.5°	2261.5	2256.1	2245.1	2249.2	2249.2	2254.7	2258.8	2265.6	2272.5	2283.4	2288.9
15°	2142.5	2134.3	2120.6	2120.6	2112.4	2115.1	2123.4	2126.1	2139.8	2154.8	2172.6
17.5°	2020.7	2000.2	1985.2	1967.4	1953.7	1964.6	1974.2	1981.1	1992.0	2015.3	2027.6
20°	1905.8	1864.8	1836.0	1812.8	1797.7	1804.6	1816.9	1825.1	1834.7	1840.1	1844.3
22.5°	1792.3	1745.7	1706.1	1677.3	1652.7	1659.6	1654.1	1650.0	1656.8	1639.0	1637.7
25°	1693.8	1639.0	1585.7	1551.5	1521.4	1511.8	1483.1	1476.2	1457.1	1442.0	1431.1
27.5°	1622.6	1551.5	1492.6	1453.0	1405.1	1369.5	1332.6	1295.6	1275.1	1250.5	1238.2
30°	1566.5	1491.3	1421.5	1354.5	1291.5	1236.8	1187.5	1139.7	1106.8	1071.3	1048.0
32.5°	1514.5	1444.8	1359.9	1268.3	1183.4	1121.9	1057.6	1002.8	950.9	904.3	870.1
35°	1479.0	1401.0	1292.9	1180.7	1084.9	1012.4	944.0	866.0	803.1	742.9	706.0
37.5°	1459.8	1364.0	1231.3	1106.8	1000.1	918.0	833.2	742.9	666.3	610.2	554.1
40°	1444.8	1327.1	1176.6	1041.2	929.0	830.5	732.0	625.2	540.4	481.6	437.8
42.5°	1428.3	1286.1	1128.7	989.2	864.7	749.7	630.7	517.2	436.4	395.4	376.2
45°	1410.6	1250.5	1083.6	939.9	801.7	662.2	525.4	420.0	372.1	358.5	358.5
47.5°	1406.4	1227.2	1050.7	892.0	730.6	560.9	428.2	362.6	348.9	351.6	357.1
50°	1422.9	1220.4	1022.0	835.9	636.2	454.2	362.6	340.7	343.4	351.6	359.8
52.5°	1462.5	1225.9	991.9	757.9	524.0	374.9	335.2	333.8	342.0	354.3	362.6
55°	1529.6	1225.9	934.4	641.7	418.7	336.6	325.6	331.1	342.0	353.0	359.8
57.5°	1673.2	1213.5	833.2	513.1	350.2	322.9	322.9	329.7	339.3	350.2	355.7
60°	1844.3	1197.1	690.9	396.8	316.0	311.9	321.5	329.7	337.9	347.5	353.0
62.5°	1855.2	1154.7	547.3	328.4	298.3	305.1	320.1	331.1	333.8	340.7	347.5
65°	1704.7	1007.0	435.1	294.2	290.0	301.0	316.0	324.2	325.6	328.4	335.2
67.5°	1492.6	820.9	351.6	277.7	281.8	294.2	302.4	309.2	313.3	320.1	321.5
70°	1225.9	659.4	301.0	261.3	265.4	279.1	285.9	292.8	301.0	309.2	305.1
72.5°	868.8	513.1	264.1	243.5	249.0	261.3	269.5	275.0	281.8	290.0	284.6
75°	369.4	358.5	228.5	220.3	228.5	236.7	244.9	253.1	259.9	264.1	264.1
77.5°	188.8	210.7	197.0	197.0	202.5	210.7	217.5	225.7	229.8	234.0	239.4
80°	160.1	162.8	165.5	171.0	176.5	184.7	191.5	198.4	199.7	201.1	203.9
82.5°	132.7	138.2	140.9	149.1	153.2	156.0	160.1	160.1	162.8	162.8	158.7
85°	95.8	102.6	106.7	108.1	106.7	108.1	109.5	112.2	119.0	119.0	113.6
87.5°	27.4	26.0	32.8	34.2	36.9	42.4	47.9	57.5	60.2	62.9	62.9
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: P152381

CATALOG NUMBER: TLM-E04-LED-E1-SL4-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2587.2	2587.2	2587.2	2587.2
2.5°	2553.0	2555.7	2550.2	2551.6
5°	2514.6	2520.1	2513.3	2521.5
7.5°	2465.4	2473.6	2472.2	2470.9
10°	2394.2	2405.2	2405.2	2409.3
12.5°	2303.9	2310.8	2316.3	2319.0
15°	2182.2	2194.5	2201.3	2201.3
17.5°	2035.8	2044.0	2048.1	2042.6
20°	1849.7	1847.0	1848.4	1834.7
22.5°	1634.9	1639.0	1626.7	1629.5
25°	1424.2	1417.4	1422.9	1414.7
27.5°	1220.4	1221.7	1206.7	1213.5
30°	1026.1	1019.3	1000.1	1009.7
32.5°	838.7	820.9	800.4	788.0
35°	662.2	634.8	625.2	621.1
37.5°	519.9	489.8	480.2	469.3
40°	413.2	402.2	398.1	400.9
42.5°	370.8	370.8	373.5	374.9
45°	359.8	363.9	368.0	369.4
47.5°	361.2	365.3	370.8	372.1
50°	363.9	368.0	372.1	373.5
52.5°	365.3	365.3	368.0	369.4
55°	362.6	361.2	362.6	363.9
57.5°	357.1	354.3	355.7	359.8
60°	354.3	350.2	353.0	355.7
62.5°	347.5	346.1	348.9	350.2
65°	332.5	333.8	337.9	337.9
67.5°	318.8	320.1	321.5	322.9
70°	302.4	303.7	306.5	307.8
72.5°	283.2	288.7	292.8	298.3
75°	268.2	273.6	281.8	287.3
77.5°	242.2	246.3	255.8	262.7
80°	205.2	203.9	205.2	209.3
82.5°	157.3	157.3	156.0	154.6
85°	110.8	109.5	105.3	105.3
87.5°	60.2	58.8	57.5	54.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)