

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: P152389

Luminaire Tested: **TLM-E05-LED-E1-SL4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P152389  
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-E05-LED-E1-SL4-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (105) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

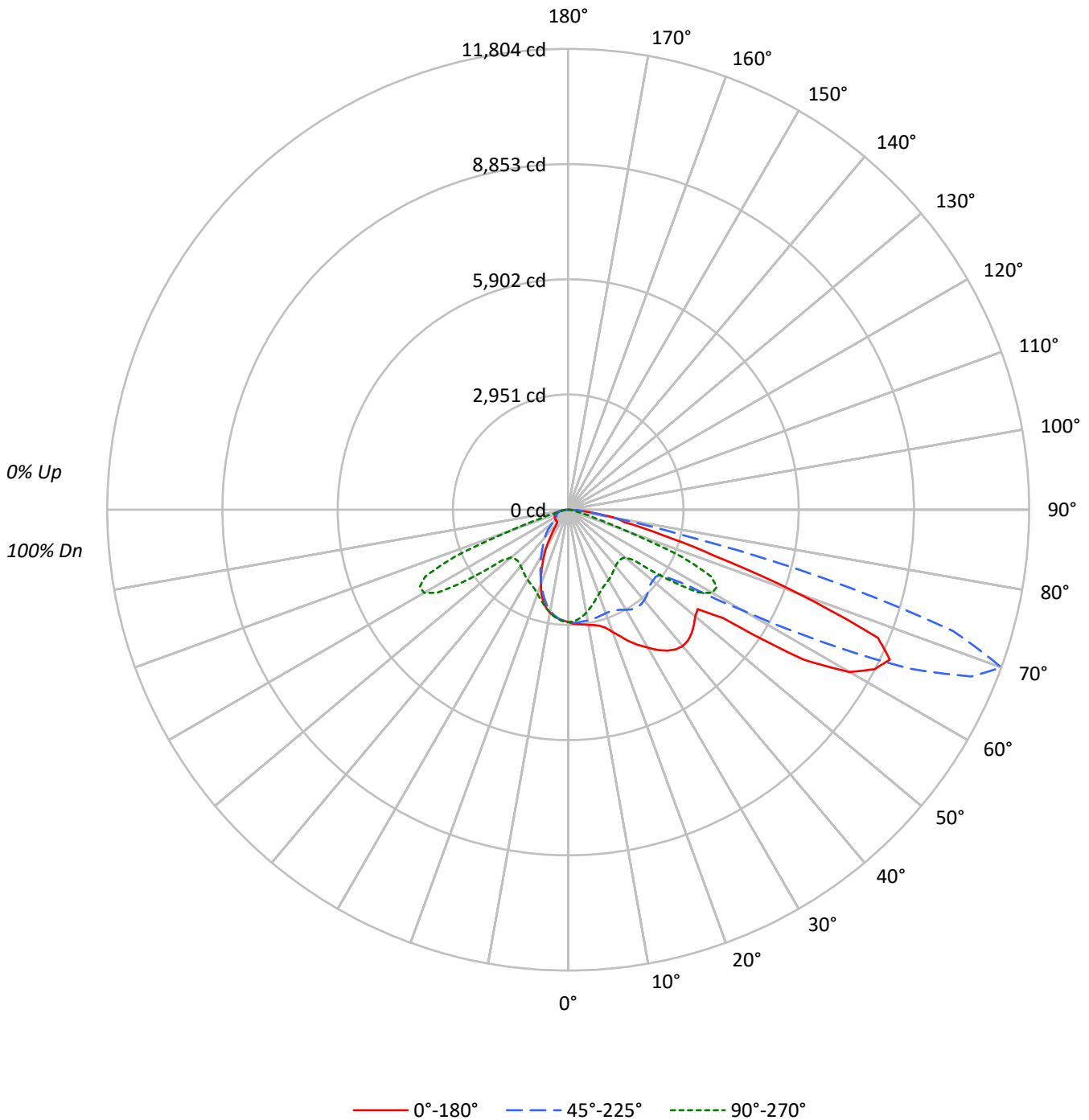
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13490.7 lumens  
Efficiency: N/A  
Efficacy: 106.0 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): 127.3  
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



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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°	37331	37331	37331
5°	38325	36761	36522
10°	39451	35241	35301
15°	41305	33374	32884
20°	45967	31681	28172
25°	53300	30888	22523
30°	61091	31070	16823
35°	69745	31306	10941
40°	77182	31956	7550
45°	81996	33754	7538
50°	85748	38360	8385
55°	109105	70213	9155
60°	215696	110433	10266
65°	278825	123788	11538
70°	237227	58530	12987
75°	124711	21511	16019
80°	92771	11710	17394
85°	53686	11324	17439



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.9	2.0
10°-20°	736.2	5.5
20°-30°	1089.8	8.1
30°-40°	1377.2	10.2
40°-50°	1557.6	11.5
50°-60°	2216.5	16.4
60°-70°	4128.0	30.6
70°-80°	1891.9	14.0
80°-90°	224.6	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°	2094.9	15.5
0°-40°	3472.2	25.7
0°-60°	7246.3	53.7
0°-90°	13490.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13490.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2879	2879	2879	2879	2879	
5°	2944	2895	2824	2801	2806	282
15°	3076	2854	2486	2353	2449	885
25°	3725	2839	2159	1682	1574	1730
35°	4405	3066	1977	1126	691	2754
45°	4471	2912	1840	737	411	3439
55°	4826	2895	3105	374	405	5070
65°	9086	9622	4034	335	376	8378
75°	2489	6765	429	263	320	3060
85°	361	317	76	120	117	454
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°	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6
2.5°	2922.7	2930.3	2921.2	2919.7	2919.7	2918.2	2909.0	2907.5	2895.3	2896.8	2899.9
5°	2944.0	2947.1	2941.0	2939.5	2936.4	2930.3	2922.7	2913.6	2904.5	2895.3	2887.7
7.5°	2965.3	2962.3	2957.7	2957.7	2953.2	2944.0	2928.8	2916.6	2896.8	2886.2	2872.5
10°	2995.8	2991.2	2985.1	2982.1	2974.5	2960.8	2939.5	2922.7	2898.4	2877.1	2854.2
12.5°	3024.7	3023.2	3014.1	3009.5	2997.3	2983.6	2957.7	2931.9	2899.9	2866.4	2836.0
15°	3076.5	3070.4	3061.2	3052.1	3032.3	3014.1	2974.5	2944.0	2898.4	2854.2	2807.0
17.5°	3166.3	3155.6	3146.5	3126.7	3102.3	3070.4	3012.5	2960.8	2898.4	2834.4	2781.2
20°	3330.7	3307.9	3295.7	3269.8	3227.2	3169.3	3079.5	2995.8	2902.9	2820.7	2749.2
22.5°	3516.4	3501.2	3484.4	3467.7	3400.7	3317.0	3195.2	3070.4	2930.3	2814.6	2723.3
25°	3724.9	3705.2	3696.0	3667.1	3604.7	3508.8	3342.9	3169.3	2992.7	2839.0	2723.3
27.5°	3910.7	3904.6	3903.1	3869.6	3810.2	3697.5	3501.2	3292.6	3078.0	2889.2	2746.1
30°	4079.6	4073.5	4070.5	4052.2	3983.7	3849.8	3636.7	3402.2	3170.8	2959.3	2788.8
32.5°	4259.3	4239.5	4230.3	4195.3	4117.7	3960.9	3717.3	3473.8	3243.9	3027.8	2836.0
35°	4405.4	4388.6	4370.4	4320.1	4210.5	4024.8	3752.3	3498.1	3272.8	3065.8	2860.3
37.5°	4512.0	4495.2	4469.3	4405.4	4269.9	4046.1	3750.8	3490.5	3262.2	3059.7	2864.9
40°	4559.1	4542.4	4515.0	4434.3	4280.6	4034.0	3721.9	3455.5	3230.2	3027.8	2846.6
42.5°	4540.9	4528.7	4493.7	4416.0	4247.1	3979.2	3664.1	3390.1	3169.3	2976.0	2805.5
45°	4470.8	4461.7	4428.2	4346.0	4171.0	3890.9	3578.8	3307.9	3096.3	2912.1	2750.7
47.5°	4365.8	4362.8	4329.3	4248.6	4075.1	3802.6	3490.5	3227.2	3023.2	2849.7	2705.0
50°	4250.1	4234.9	4218.2	4143.6	3985.3	3726.5	3426.6	3176.9	2982.1	2826.8	2685.2
52.5°	4177.1	4172.5	4157.3	4090.3	3938.1	3682.3	3397.7	3158.7	2979.0	2822.3	2674.6
55°	4825.5	4836.2	4696.1	4405.4	4149.7	3804.1	3484.4	3251.5	3053.6	2895.3	2787.2
57.5°	7137.8	7090.6	6850.1	6273.2	5621.7	4761.6	4142.0	3766.0	3521.0	3548.4	3603.2
60°	8316.1	8306.9	8262.8	8039.0	7605.2	6950.6	6224.5	5391.8	5126.9	5155.9	5177.2
62.5°	8842.8	8856.5	8889.9	8806.2	8692.1	8501.8	8139.5	7804.6	7449.9	7317.5	6962.8
65°	9086.3	9110.7	9186.8	9234.0	9278.1	9311.6	9454.7	9847.4	10106.2	9622.1	8495.7
67.5°	8582.4	8699.7	8950.8	9195.9	9415.1	9727.2	10211.3	11123.1	11757.9	11162.7	9529.3
70°	6256.4	6416.3	6704.0	7462.1	8271.9	8979.8	9917.5	11305.8	12263.3	11803.5	9785.0
72.5°	3922.8	3967.0	4094.9	4373.4	4974.7	5883.5	7523.0	9605.4	10710.6	10343.7	8270.4
75°	2488.9	2504.1	2499.5	2563.5	2665.5	2863.4	3511.8	5673.4	7337.2	6764.9	4609.4
77.5°	1482.7	1505.5	1514.6	1534.4	1583.1	1653.2	1706.4	1930.2	3076.5	2986.7	1673.0
80°	1242.2	1260.4	1245.2	1240.6	1210.2	1188.9	1214.8	1188.9	1103.6	1062.5	978.8
82.5°	657.6	656.1	651.5	695.7	785.5	855.5	908.8	896.6	811.4	691.1	586.1
85°	360.8	373.0	373.0	388.2	374.5	376.0	388.2	409.5	379.0	316.6	258.8
87.5°	30.4	47.2	38.1	47.2	63.9	45.7	44.1	44.1	38.1	27.4	24.4
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°	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6
2.5°	2892.3	2889.2	2883.1	2878.6	2878.6	2871.0	2866.4	2863.4	2861.8	2855.7	2855.7
5°	2883.1	2872.5	2861.8	2854.2	2849.7	2842.0	2829.9	2823.8	2816.2	2810.1	2807.0
7.5°	2863.4	2843.6	2826.8	2814.6	2799.4	2787.2	2772.0	2758.3	2744.6	2738.5	2735.5
10°	2832.9	2807.0	2781.2	2758.3	2737.0	2715.7	2695.9	2676.1	2659.4	2647.2	2635.0
12.5°	2804.0	2764.4	2730.9	2697.4	2663.9	2638.1	2610.7	2581.7	2557.4	2534.5	2528.5
15°	2764.4	2718.7	2676.1	2635.0	2593.9	2551.3	2517.8	2485.8	2446.3	2420.4	2400.6
17.5°	2727.9	2673.1	2621.3	2572.6	2522.4	2478.2	2428.0	2385.4	2345.8	2306.2	2277.3
20°	2688.3	2628.9	2574.1	2519.3	2464.5	2408.2	2350.4	2295.6	2246.8	2199.7	2152.5
22.5°	2653.3	2592.4	2539.1	2479.7	2418.9	2354.9	2287.9	2219.4	2163.1	2102.2	2047.4
25°	2632.0	2565.0	2510.2	2452.3	2385.4	2315.3	2239.2	2158.6	2090.1	2020.0	1954.6
27.5°	2632.0	2545.2	2488.9	2431.0	2362.5	2287.9	2204.2	2115.9	2038.3	1960.7	1880.0
30°	2654.8	2548.2	2472.1	2411.2	2341.2	2260.5	2167.7	2074.8	1989.6	1898.2	1820.6
32.5°	2676.1	2554.3	2460.0	2382.3	2301.6	2222.5	2128.1	2029.2	1934.8	1848.0	1765.8
35°	2689.8	2554.3	2437.1	2338.2	2246.8	2169.2	2076.3	1977.4	1881.5	1796.3	1720.1
37.5°	2691.3	2542.2	2400.6	2287.9	2192.0	2111.4	2023.1	1930.2	1838.9	1759.7	1695.8
40°	2676.1	2517.8	2364.1	2234.7	2134.2	2052.0	1971.3	1887.6	1805.4	1739.9	1685.1
42.5°	2648.7	2491.9	2329.0	2192.0	2087.0	2001.8	1927.2	1855.6	1784.1	1727.8	1682.1
45°	2607.6	2456.9	2297.1	2166.2	2062.6	1972.8	1899.8	1840.4	1779.5	1732.3	1686.7
47.5°	2571.1	2444.7	2307.7	2182.9	2074.8	1982.0	1907.4	1857.1	1810.0	1778.0	1715.6
50°	2563.5	2438.6	2312.3	2196.6	2087.0	1992.6	1927.2	1901.3	1887.6	1867.8	1771.9
52.5°	2542.2	2437.1	2345.8	2281.9	2211.8	2167.7	2099.2	2123.5	2108.3	2038.3	1864.8
55°	2765.9	2796.4	2881.6	3003.4	3116.0	3141.9	3134.3	3105.4	2951.6	2539.1	2088.5
57.5°	3802.6	3974.6	4136.0	4207.5	4198.4	4117.7	4059.8	3942.6	3720.4	3218.0	2530.0
60°	5242.6	5270.0	5184.8	5058.4	4845.3	4667.2	4476.9	4257.7	3935.0	3443.3	2800.9
62.5°	6568.5	6200.1	5821.1	5464.9	5140.6	4857.5	4592.6	4286.7	3866.5	3353.5	2765.9
65°	7504.7	6725.3	6127.1	5615.6	5157.4	4761.6	4431.3	4034.0	3560.5	3097.8	2563.5
67.5°	7987.2	6792.3	5874.4	5162.0	4512.0	3963.9	3524.0	3137.4	2785.7	2583.3	2243.8
70°	7448.4	5764.8	4486.1	3680.8	2902.9	2327.5	1838.9	1543.6	1441.6	1633.4	1698.8
72.5°	5550.1	3752.3	2668.5	2064.2	1581.6	1260.4	966.6	759.6	618.0	648.5	841.8
75°	2624.4	1619.7	1144.7	870.7	692.6	573.9	468.9	429.3	359.3	298.4	280.1
77.5°	1021.4	744.4	615.0	450.6	319.7	257.3	219.2	211.6	216.2	210.1	207.0
80°	777.9	526.7	330.3	242.0	208.5	184.2	162.9	156.8	159.8	167.4	175.1
82.5°	433.8	271.0	200.9	175.1	156.8	134.0	121.8	112.6	114.2	123.3	140.0
85°	167.4	130.9	120.3	115.7	108.1	86.8	74.6	76.1	86.8	103.5	103.5
87.5°	18.3	18.3	24.4	18.3	18.3	18.3	16.7	19.8	21.3	27.4	32.0
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°	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6	2878.6
2.5°	2852.7	2852.7	2852.7	2849.7	2851.2	2845.1	2845.1	2840.5	2848.1	2843.6	2842.0
5°	2808.6	2807.0	2800.9	2800.9	2800.9	2800.9	2805.5	2793.3	2802.5	2802.5	2797.9
7.5°	2734.0	2734.0	2717.2	2726.4	2723.3	2727.9	2734.0	2727.9	2737.0	2743.1	2738.5
10°	2630.4	2630.4	2616.7	2627.4	2622.8	2633.5	2644.1	2638.1	2644.1	2653.3	2656.3
12.5°	2516.3	2510.2	2498.0	2502.6	2502.6	2508.7	2513.2	2520.8	2528.5	2540.6	2546.7
15°	2383.8	2374.7	2359.5	2359.5	2350.4	2353.4	2362.5	2365.6	2380.8	2397.5	2417.3
17.5°	2248.4	2225.5	2208.8	2189.0	2173.8	2186.0	2196.6	2204.2	2216.4	2242.3	2256.0
20°	2120.5	2074.8	2042.9	2017.0	2000.2	2007.8	2021.5	2030.7	2041.3	2047.4	2052.0
22.5°	1994.1	1942.4	1898.2	1866.3	1838.9	1846.5	1840.4	1835.8	1843.4	1823.7	1822.1
25°	1884.5	1823.7	1764.3	1726.2	1692.7	1682.1	1650.1	1642.5	1621.2	1604.5	1592.3
27.5°	1805.4	1726.2	1660.8	1616.6	1563.4	1523.8	1482.7	1441.6	1418.7	1391.3	1377.6
30°	1743.0	1659.3	1581.6	1507.0	1437.0	1376.1	1321.3	1268.0	1231.5	1191.9	1166.0
32.5°	1685.1	1607.5	1513.1	1411.1	1316.7	1248.2	1176.7	1115.8	1058.0	1006.2	968.2
35°	1645.6	1558.8	1438.5	1313.7	1207.1	1126.5	1050.4	963.6	893.6	826.6	785.5
37.5°	1624.2	1517.7	1370.0	1231.5	1112.8	1021.4	927.1	826.6	741.3	678.9	616.5
40°	1607.5	1476.6	1309.1	1158.4	1033.6	924.0	814.4	695.7	601.3	535.8	487.1
42.5°	1589.2	1430.9	1255.9	1100.6	962.1	834.2	701.8	575.4	485.6	439.9	418.6
45°	1569.4	1391.3	1205.6	1045.8	892.0	736.8	584.5	467.3	414.1	398.8	398.8
47.5°	1564.9	1365.5	1169.1	992.5	812.9	624.1	476.5	403.4	388.2	391.2	397.3
50°	1583.1	1357.8	1137.1	930.1	707.8	505.4	403.4	379.0	382.1	391.2	400.4
52.5°	1627.3	1363.9	1103.6	843.3	583.0	417.1	373.0	371.4	380.6	394.3	403.4
55°	1701.9	1363.9	1039.7	713.9	465.8	374.5	362.3	368.4	380.6	392.7	400.4
57.5°	1861.7	1350.2	927.1	570.8	389.7	359.3	359.3	366.9	377.5	389.7	395.8
60°	2052.0	1332.0	768.7	441.5	351.6	347.1	357.7	366.9	376.0	386.7	392.7
62.5°	2064.2	1284.8	608.9	365.3	331.9	339.5	356.2	368.4	371.4	379.0	386.7
65°	1896.7	1120.4	484.1	327.3	322.7	334.9	351.6	360.8	362.3	365.3	373.0
67.5°	1660.8	913.4	391.2	309.0	313.6	327.3	336.4	344.0	348.6	356.2	357.7
70°	1363.9	733.7	334.9	290.7	295.3	310.5	318.2	325.8	334.9	344.0	339.5
72.5°	966.6	570.8	293.8	271.0	277.0	290.7	299.9	306.0	313.6	322.7	316.6
75°	411.0	398.8	254.2	245.1	254.2	263.3	272.5	281.6	289.2	293.8	293.8
77.5°	210.1	234.4	219.2	219.2	225.3	234.4	242.0	251.2	255.7	260.3	266.4
80°	178.1	181.1	184.2	190.3	196.4	205.5	213.1	220.7	222.2	223.8	226.8
82.5°	147.7	153.7	156.8	165.9	170.5	173.5	178.1	178.1	181.1	181.1	176.6
85°	106.6	114.2	118.7	120.3	118.7	120.3	121.8	124.8	132.4	132.4	126.3
87.5°	30.4	28.9	36.5	38.1	41.1	47.2	53.3	63.9	67.0	70.0	70.0
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: P152389

CATALOG NUMBER: TLM-E05-LED-E1-SL4-7030

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2878.6	2878.6	2878.6	2878.6
2.5°	2840.5	2843.6	2837.5	2839.0
5°	2797.9	2804.0	2796.4	2805.5
7.5°	2743.1	2752.2	2750.7	2749.2
10°	2663.9	2676.1	2676.1	2680.7
12.5°	2563.5	2571.1	2577.2	2580.2
15°	2428.0	2441.7	2449.3	2449.3
17.5°	2265.1	2274.2	2278.8	2272.7
20°	2058.1	2055.0	2056.6	2041.3
22.5°	1819.1	1823.7	1810.0	1813.0
25°	1584.7	1577.1	1583.1	1574.0
27.5°	1357.8	1359.4	1342.6	1350.2
30°	1141.7	1134.1	1112.8	1123.4
32.5°	933.1	913.4	890.5	876.8
35°	736.8	706.3	695.7	691.1
37.5°	578.5	545.0	534.3	522.1
40°	459.7	447.5	443.0	446.0
42.5°	412.5	412.5	415.6	417.1
45°	400.4	404.9	409.5	411.0
47.5°	401.9	406.4	412.5	414.1
50°	404.9	409.5	414.1	415.6
52.5°	406.4	406.4	409.5	411.0
55°	403.4	401.9	403.4	404.9
57.5°	397.3	394.3	395.8	400.4
60°	394.3	389.7	392.7	395.8
62.5°	386.7	385.1	388.2	389.7
65°	369.9	371.4	376.0	376.0
67.5°	354.7	356.2	357.7	359.3
70°	336.4	337.9	341.0	342.5
72.5°	315.1	321.2	325.8	331.9
75°	298.4	304.5	313.6	319.7
77.5°	269.4	274.0	284.7	292.3
80°	228.3	226.8	228.3	232.9
82.5°	175.1	175.1	173.5	172.0
85°	123.3	121.8	117.2	117.2
87.5°	67.0	65.5	63.9	60.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)