

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: P152390

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P152390  
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  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (105) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

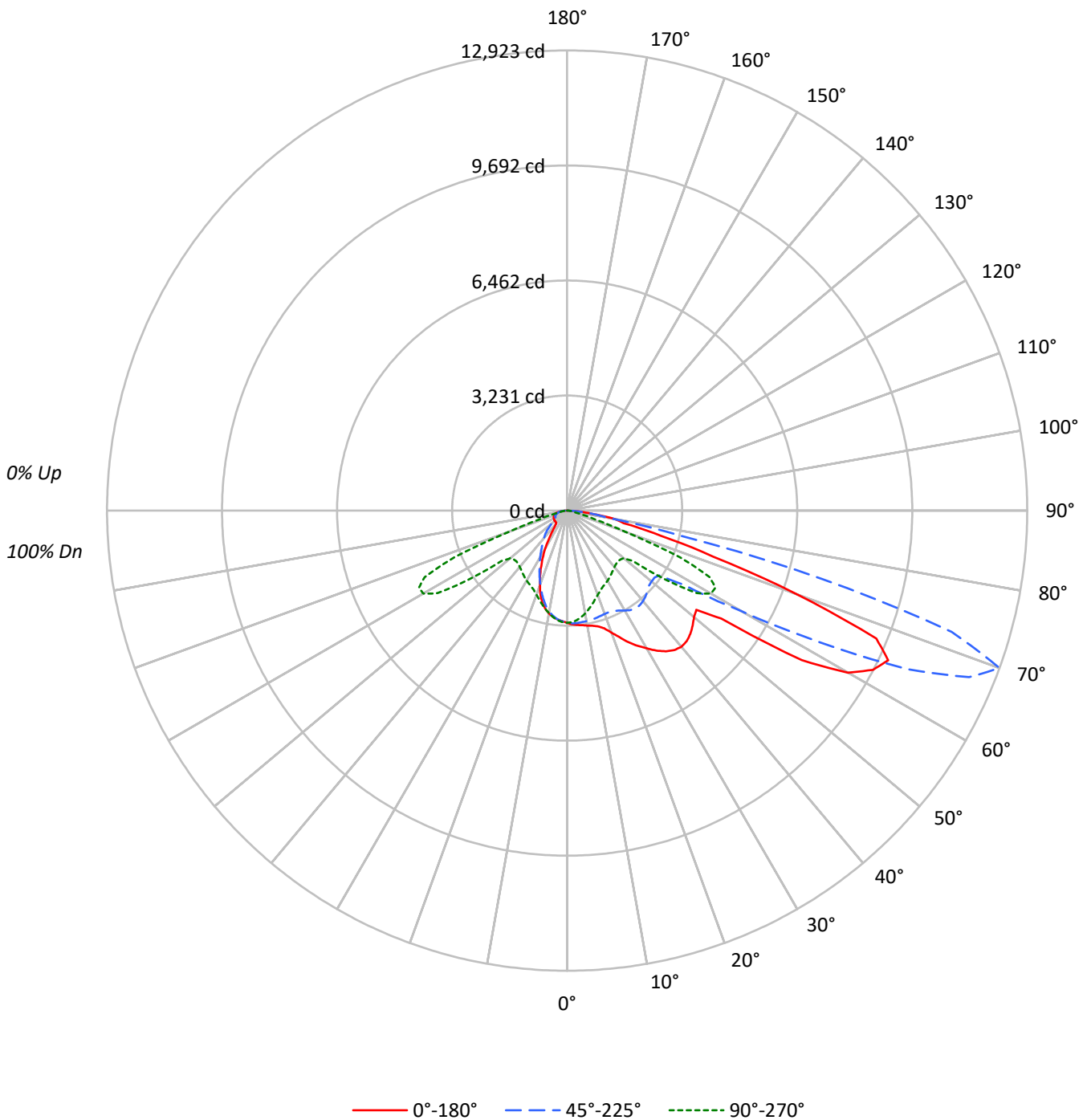
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14770.6 lumens  
Efficiency: N/A  
Efficacy: 116.0 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	40873	40873	40873
5°	41961	40248	39988
10°	43193	38584	38650
15°	45223	36542	36005
20°	50328	34686	30845
25°	58357	33817	24659
30°	66888	34018	18419
35°	76361	34276	11980
40°	84506	34988	8267
45°	89776	36956	8253
50°	93883	41999	9180
55°	119455	76874	10023
60°	236158	120911	11239
65°	305276	135532	12634
70°	259735	64081	14219
75°	136541	23550	17537
80°	101569	12823	19044
85°	58775	12395	19091



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	294.4	2.0
10°-20°	806.0	5.5
20°-30°	1193.2	8.1
30°-40°	1507.9	10.2
40°-50°	1705.4	11.5
50°-60°	2426.8	16.4
60°-70°	4519.6	30.6
70°-80°	2071.4	14.0
80°-90°	245.9	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°	2293.7	15.5
0°-40°	3801.6	25.7
0°-60°	7933.7	53.7
0°-90°	14770.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14770.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3152	3152	3152	3152	3152	
5°	3223	3170	3092	3067	3072	309
15°	3368	3125	2722	2577	2682	969
25°	4078	3108	2363	1842	1723	1894
35°	4823	3357	2165	1233	757	3015
45°	4895	3188	2015	807	450	3766
55°	5283	3170	3400	410	443	5551
65°	9948	10535	4417	367	412	9173
75°	2725	7407	470	288	350	3350
85°	395	347	83	132	128	497
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°	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7
2.5°	3200.0	3208.3	3198.3	3196.7	3196.7	3195.0	3185.0	3183.3	3170.0	3171.7	3175.0
5°	3223.3	3226.7	3220.0	3218.3	3215.0	3208.3	3200.0	3190.0	3180.0	3170.0	3161.7
7.5°	3246.7	3243.3	3238.3	3238.3	3233.3	3223.3	3206.7	3193.3	3171.7	3160.0	3145.0
10°	3280.0	3275.0	3268.3	3265.0	3256.7	3241.7	3218.3	3200.0	3173.3	3150.0	3125.0
12.5°	3311.7	3310.0	3300.0	3295.0	3281.7	3266.7	3238.3	3210.0	3175.0	3138.3	3105.0
15°	3368.3	3361.7	3351.7	3341.7	3320.0	3300.0	3256.7	3223.3	3173.3	3125.0	3073.3
17.5°	3466.7	3455.0	3445.0	3423.3	3396.7	3361.7	3298.3	3241.7	3173.3	3103.3	3045.0
20°	3646.7	3621.7	3608.3	3580.0	3533.3	3470.0	3371.7	3280.0	3178.3	3088.3	3010.0
22.5°	3850.0	3833.3	3815.0	3796.7	3723.3	3631.7	3498.3	3361.7	3208.3	3081.7	2981.7
25°	4078.3	4056.7	4046.7	4015.0	3946.7	3841.7	3660.0	3470.0	3276.7	3108.3	2981.7
27.5°	4281.7	4275.0	4273.3	4236.7	4171.7	4048.3	3833.3	3605.0	3370.0	3163.3	3006.7
30°	4466.7	4460.0	4456.7	4436.7	4361.7	4215.0	3981.7	3725.0	3471.7	3240.0	3053.3
32.5°	4663.3	4641.7	4631.7	4593.3	4508.3	4336.7	4070.0	3803.3	3551.7	3315.0	3105.0
35°	4823.3	4805.0	4785.0	4730.0	4610.0	4406.7	4108.3	3830.0	3583.3	3356.7	3131.7
37.5°	4940.0	4921.7	4893.3	4823.3	4675.0	4430.0	4106.7	3821.7	3571.7	3350.0	3136.7
40°	4991.7	4973.3	4943.3	4855.0	4686.7	4416.7	4075.0	3783.3	3536.7	3315.0	3116.7
42.5°	4971.7	4958.3	4920.0	4835.0	4650.0	4356.7	4011.7	3711.7	3470.0	3258.3	3071.7
45°	4895.0	4885.0	4848.3	4758.3	4566.7	4260.0	3918.3	3621.7	3390.0	3188.3	3011.7
47.5°	4780.0	4776.7	4740.0	4651.7	4461.7	4163.3	3821.7	3533.3	3310.0	3120.0	2961.7
50°	4653.3	4636.7	4618.3	4536.7	4363.3	4080.0	3751.7	3478.3	3265.0	3095.0	2940.0
52.5°	4573.3	4568.3	4551.7	4478.3	4311.7	4031.7	3720.0	3458.3	3261.7	3090.0	2928.3
55°	5283.3	5295.0	5141.7	4823.3	4543.3	4165.0	3815.0	3560.0	3343.3	3170.0	3051.7
57.5°	7815.0	7763.3	7500.0	6868.3	6155.0	5213.3	4535.0	4123.3	3855.0	3885.0	3945.0
60°	9105.0	9095.0	9046.7	8801.7	8326.7	7610.0	6815.0	5903.3	5613.3	5645.0	5668.3
62.5°	9681.7	9696.7	9733.3	9641.7	9516.7	9308.3	8911.7	8545.0	8156.7	8011.7	7623.3
65°	9948.3	9975.0	10058.3	10110.0	10158.3	10195.0	10351.7	10781.7	11065.0	10535.0	9301.7
67.5°	9396.7	9525.0	9800.0	10068.3	10308.3	10650.0	11180.0	12178.3	12873.3	12221.7	10433.3
70°	6850.0	7025.0	7340.0	8170.0	9056.7	9831.7	10858.3	12378.3	13426.7	12923.3	10713.3
72.5°	4295.0	4343.3	4483.3	4788.3	5446.7	6441.7	8236.7	10516.7	11726.7	11325.0	9055.0
75°	2725.0	2741.7	2736.7	2806.7	2918.3	3135.0	3845.0	6211.7	8033.3	7406.7	5046.7
77.5°	1623.3	1648.3	1658.3	1680.0	1733.3	1810.0	1868.3	2113.3	3368.3	3270.0	1831.7
80°	1360.0	1380.0	1363.3	1358.3	1325.0	1301.7	1330.0	1301.7	1208.3	1163.3	1071.7
82.5°	720.0	718.3	713.3	761.7	860.0	936.7	995.0	981.7	888.3	756.7	641.7
85°	395.0	408.3	408.3	425.0	410.0	411.7	425.0	448.3	415.0	346.7	283.3
87.5°	33.3	51.7	41.7	51.7	70.0	50.0	48.3	48.3	41.7	30.0	26.7
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7
2.5°	3166.7	3163.3	3156.7	3151.7	3151.7	3143.3	3138.3	3135.0	3133.3	3126.7	3126.7
5°	3156.7	3145.0	3133.3	3125.0	3120.0	3111.7	3098.3	3091.7	3083.3	3076.7	3073.3
7.5°	3135.0	3113.3	3095.0	3081.7	3065.0	3051.7	3035.0	3020.0	3005.0	2998.3	2995.0
10°	3101.7	3073.3	3045.0	3020.0	2996.7	2973.3	2951.7	2930.0	2911.7	2898.3	2885.0
12.5°	3070.0	3026.7	2990.0	2953.3	2916.7	2888.3	2858.3	2826.7	2800.0	2775.0	2768.3
15°	3026.7	2976.7	2930.0	2885.0	2840.0	2793.3	2756.7	2721.7	2678.3	2650.0	2628.3
17.5°	2986.7	2926.7	2870.0	2816.7	2761.7	2713.3	2658.3	2611.7	2568.3	2525.0	2493.3
20°	2943.3	2878.3	2818.3	2758.3	2698.3	2636.7	2573.3	2513.3	2460.0	2408.3	2356.7
22.5°	2905.0	2838.3	2780.0	2715.0	2648.3	2578.3	2505.0	2430.0	2368.3	2301.7	2241.7
25°	2881.7	2808.3	2748.3	2685.0	2611.7	2535.0	2451.7	2363.3	2288.3	2211.7	2140.0
27.5°	2881.7	2786.7	2725.0	2661.7	2586.7	2505.0	2413.3	2316.7	2231.7	2146.7	2058.3
30°	2906.7	2790.0	2706.7	2640.0	2563.3	2475.0	2373.3	2271.7	2178.3	2078.3	1993.3
32.5°	2930.0	2796.7	2693.3	2608.3	2520.0	2433.3	2330.0	2221.7	2118.3	2023.3	1933.3
35°	2945.0	2796.7	2668.3	2560.0	2460.0	2375.0	2273.3	2165.0	2060.0	1966.7	1883.3
37.5°	2946.7	2783.3	2628.3	2505.0	2400.0	2311.7	2215.0	2113.3	2013.3	1926.7	1856.7
40°	2930.0	2756.7	2588.3	2446.7	2336.7	2246.7	2158.3	2066.7	1976.7	1905.0	1845.0
42.5°	2900.0	2728.3	2550.0	2400.0	2285.0	2191.7	2110.0	2031.7	1953.3	1891.7	1841.7
45°	2855.0	2690.0	2515.0	2371.7	2258.3	2160.0	2080.0	2015.0	1948.3	1896.7	1846.7
47.5°	2815.0	2676.7	2526.7	2390.0	2271.7	2170.0	2088.3	2033.3	1981.7	1946.7	1878.3
50°	2806.7	2670.0	2531.7	2405.0	2285.0	2181.7	2110.0	2081.7	2066.7	2045.0	1940.0
52.5°	2783.3	2668.3	2568.3	2498.3	2421.7	2373.3	2298.3	2325.0	2308.3	2231.7	2041.7
55°	3028.3	3061.7	3155.0	3288.3	3411.7	3440.0	3431.7	3400.0	3231.7	2780.0	2286.7
57.5°	4163.3	4351.7	4528.3	4606.7	4596.7	4508.3	4445.0	4316.7	4073.3	3523.3	2770.0
60°	5740.0	5770.0	5676.7	5538.3	5305.0	5110.0	4901.7	4661.7	4308.3	3770.0	3066.7
62.5°	7191.7	6788.3	6373.3	5983.3	5628.3	5318.3	5028.3	4693.3	4233.3	3671.7	3028.3
65°	8216.7	7363.3	6708.3	6148.3	5646.7	5213.3	4851.7	4416.7	3898.3	3391.7	2806.7
67.5°	8745.0	7436.7	6431.7	5651.7	4940.0	4340.0	3858.3	3435.0	3050.0	2828.3	2456.7
70°	8155.0	6311.7	4911.7	4030.0	3178.3	2548.3	2013.3	1690.0	1578.3	1788.3	1860.0
72.5°	6076.7	4108.3	2921.7	2260.0	1731.7	1380.0	1058.3	831.7	676.7	710.0	921.7
75°	2873.3	1773.3	1253.3	953.3	758.3	628.3	513.3	470.0	393.3	326.7	306.7
77.5°	1118.3	815.0	673.3	493.3	350.0	281.7	240.0	231.7	236.7	230.0	226.7
80°	851.7	576.7	361.7	265.0	228.3	201.7	178.3	171.7	175.0	183.3	191.7
82.5°	475.0	296.7	220.0	191.7	171.7	146.7	133.3	123.3	125.0	135.0	153.3
85°	183.3	143.3	131.7	126.7	118.3	95.0	81.7	83.3	95.0	113.3	113.3
87.5°	20.0	20.0	26.7	20.0	20.0	20.0	18.3	21.7	23.3	30.0	35.0
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°	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7	3151.7
2.5°	3123.3	3123.3	3123.3	3120.0	3121.7	3115.0	3115.0	3110.0	3118.3	3113.3	3111.7
5°	3075.0	3073.3	3066.7	3066.7	3066.7	3066.7	3071.7	3058.3	3068.3	3068.3	3063.3
7.5°	2993.3	2993.3	2975.0	2985.0	2981.7	2986.7	2993.3	2986.7	2996.7	3003.3	2998.3
10°	2880.0	2880.0	2865.0	2876.7	2871.7	2883.3	2895.0	2888.3	2895.0	2905.0	2908.3
12.5°	2755.0	2748.3	2735.0	2740.0	2740.0	2746.7	2751.7	2760.0	2768.3	2781.7	2788.3
15°	2610.0	2600.0	2583.3	2583.3	2573.3	2576.7	2586.7	2590.0	2606.7	2625.0	2646.7
17.5°	2461.7	2436.7	2418.3	2396.7	2380.0	2393.3	2405.0	2413.3	2426.7	2455.0	2470.0
20°	2321.7	2271.7	2236.7	2208.3	2190.0	2198.3	2213.3	2223.3	2235.0	2241.7	2246.7
22.5°	2183.3	2126.7	2078.3	2043.3	2013.3	2021.7	2015.0	2010.0	2018.3	1996.7	1995.0
25°	2063.3	1996.7	1931.7	1890.0	1853.3	1841.7	1806.7	1798.3	1775.0	1756.7	1743.3
27.5°	1976.7	1890.0	1818.3	1770.0	1711.7	1668.3	1623.3	1578.3	1553.3	1523.3	1508.3
30°	1908.3	1816.7	1731.7	1650.0	1573.3	1506.7	1446.7	1388.3	1348.3	1305.0	1276.7
32.5°	1845.0	1760.0	1656.7	1545.0	1441.7	1366.7	1288.3	1221.7	1158.3	1101.7	1060.0
35°	1801.7	1706.7	1575.0	1438.3	1321.7	1233.3	1150.0	1055.0	978.3	905.0	860.0
37.5°	1778.3	1661.7	1500.0	1348.3	1218.3	1118.3	1015.0	905.0	811.7	743.3	675.0
40°	1760.0	1616.7	1433.3	1268.3	1131.7	1011.7	891.7	761.7	658.3	586.7	533.3
42.5°	1740.0	1566.7	1375.0	1205.0	1053.3	913.3	768.3	630.0	531.7	481.7	458.3
45°	1718.3	1523.3	1320.0	1145.0	976.7	806.7	640.0	511.7	453.3	436.7	436.7
47.5°	1713.3	1495.0	1280.0	1086.7	890.0	683.3	521.7	441.7	425.0	428.3	435.0
50°	1733.3	1486.7	1245.0	1018.3	775.0	553.3	441.7	415.0	418.3	428.3	438.3
52.5°	1781.7	1493.3	1208.3	923.3	638.3	456.7	408.3	406.7	416.7	431.7	441.7
55°	1863.3	1493.3	1138.3	781.7	510.0	410.0	396.7	403.3	416.7	430.0	438.3
57.5°	2038.3	1478.3	1015.0	625.0	426.7	393.3	393.3	401.7	413.3	426.7	433.3
60°	2246.7	1458.3	841.7	483.3	385.0	380.0	391.7	401.7	411.7	423.3	430.0
62.5°	2260.0	1406.7	666.7	400.0	363.3	371.7	390.0	403.3	406.7	415.0	423.3
65°	2076.7	1226.7	530.0	358.3	353.3	366.7	385.0	395.0	396.7	400.0	408.3
67.5°	1818.3	1000.0	428.3	338.3	343.3	358.3	368.3	376.7	381.7	390.0	391.7
70°	1493.3	803.3	366.7	318.3	323.3	340.0	348.3	356.7	366.7	376.7	371.7
72.5°	1058.3	625.0	321.7	296.7	303.3	318.3	328.3	335.0	343.3	353.3	346.7
75°	450.0	436.7	278.3	268.3	278.3	288.3	298.3	308.3	316.7	321.7	321.7
77.5°	230.0	256.7	240.0	240.0	246.7	256.7	265.0	275.0	280.0	285.0	291.7
80°	195.0	198.3	201.7	208.3	215.0	225.0	233.3	241.7	243.3	245.0	248.3
82.5°	161.7	168.3	171.7	181.7	186.7	190.0	195.0	195.0	198.3	198.3	193.3
85°	116.7	125.0	130.0	131.7	130.0	131.7	133.3	136.7	145.0	145.0	138.3
87.5°	33.3	31.7	40.0	41.7	45.0	51.7	58.3	70.0	73.3	76.7	76.7
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: P152390

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

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3151.7	3151.7	3151.7	3151.7
2.5°	3110.0	3113.3	3106.7	3108.3
5°	3063.3	3070.0	3061.7	3071.7
7.5°	3003.3	3013.3	3011.7	3010.0
10°	2916.7	2930.0	2930.0	2935.0
12.5°	2806.7	2815.0	2821.7	2825.0
15°	2658.3	2673.3	2681.7	2681.7
17.5°	2480.0	2490.0	2495.0	2488.3
20°	2253.3	2250.0	2251.7	2235.0
22.5°	1991.7	1996.7	1981.7	1985.0
25°	1735.0	1726.7	1733.3	1723.3
27.5°	1486.7	1488.3	1470.0	1478.3
30°	1250.0	1241.7	1218.3	1230.0
32.5°	1021.7	1000.0	975.0	960.0
35°	806.7	773.3	761.7	756.7
37.5°	633.3	596.7	585.0	571.7
40°	503.3	490.0	485.0	488.3
42.5°	451.7	451.7	455.0	456.7
45°	438.3	443.3	448.3	450.0
47.5°	440.0	445.0	451.7	453.3
50°	443.3	448.3	453.3	455.0
52.5°	445.0	445.0	448.3	450.0
55°	441.7	440.0	441.7	443.3
57.5°	435.0	431.7	433.3	438.3
60°	431.7	426.7	430.0	433.3
62.5°	423.3	421.7	425.0	426.7
65°	405.0	406.7	411.7	411.7
67.5°	388.3	390.0	391.7	393.3
70°	368.3	370.0	373.3	375.0
72.5°	345.0	351.7	356.7	363.3
75°	326.7	333.3	343.3	350.0
77.5°	295.0	300.0	311.7	320.0
80°	250.0	248.3	250.0	255.0
82.5°	191.7	191.7	190.0	188.3
85°	135.0	133.3	128.3	128.3
87.5°	73.3	71.7	70.0	66.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)