

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: P152391

Luminaire Tested: **TLM-E05-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152391
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-SL4-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (105) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

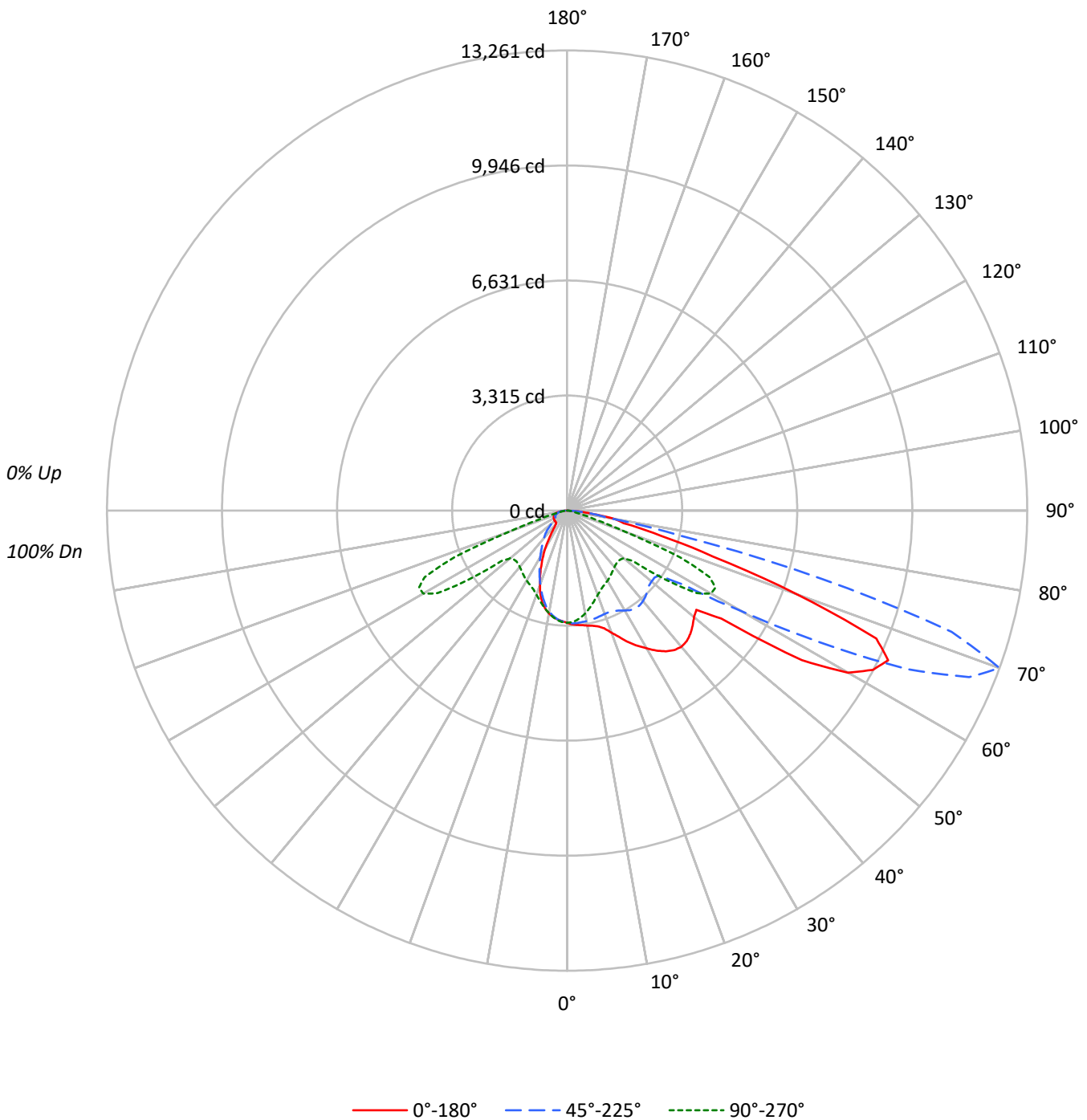
Lumens per Lamp: N/A
Luminaire Lumens: 15156.2 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

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	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°	41939	41939	41939
5°	43057	41299	41032
10°	44320	39591	39659
15°	46404	37495	36944
20°	51641	35591	31650
25°	59881	34700	25303
30°	68634	34906	18900
35°	78354	35170	12292
40°	86712	35900	8483
45°	92120	37920	8468
50°	96334	43095	9420
55°	122576	78882	10285
60°	242323	124068	11532
65°	313245	139070	12962
70°	266515	65753	14591
75°	140103	24166	17993
80°	104220	13152	19545
85°	60308	12722	19597



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.1	2.0
10°-20°	827.1	5.5
20°-30°	1224.4	8.1
30°-40°	1547.3	10.2
40°-50°	1749.9	11.5
50°-60°	2490.1	16.4
60°-70°	4637.6	30.6
70°-80°	2125.4	14.0
80°-90°	252.3	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°	2353.6	15.5
0°-40°	3900.8	25.7
0°-60°	8140.8	53.7
0°-90°	15156.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15156.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3234	3234	3234	3234	3234	
5°	3308	3253	3172	3147	3152	317
15°	3456	3207	2793	2644	2752	995
25°	4185	3190	2425	1890	1768	1943
35°	4949	3444	2222	1266	776	3094
45°	5023	3272	2068	828	462	3864
55°	5421	3253	3489	421	455	5696
65°	10208	10810	4532	376	422	9413
75°	2796	7600	482	296	359	3438
85°	405	356	86	135	132	510
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°	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9
2.5°	3283.5	3292.1	3281.8	3280.1	3280.1	3278.4	3268.1	3266.4	3252.8	3254.5	3257.9
5°	3307.5	3310.9	3304.1	3302.3	3298.9	3292.1	3283.5	3273.3	3263.0	3252.8	3244.2
7.5°	3331.4	3328.0	3322.9	3322.9	3317.7	3307.5	3290.4	3276.7	3254.5	3242.5	3227.1
10°	3365.6	3360.5	3353.7	3350.2	3341.7	3326.3	3302.3	3283.5	3256.2	3232.2	3206.6
12.5°	3398.1	3396.4	3386.1	3381.0	3367.3	3351.9	3322.9	3293.8	3257.9	3220.3	3186.1
15°	3456.3	3449.4	3439.2	3428.9	3406.7	3386.1	3341.7	3307.5	3256.2	3206.6	3153.6
17.5°	3557.2	3545.2	3534.9	3512.7	3485.3	3449.4	3384.4	3326.3	3256.2	3184.3	3124.5
20°	3741.9	3716.2	3702.5	3673.5	3625.6	3560.6	3459.7	3365.6	3261.3	3169.0	3088.6
22.5°	3950.5	3933.4	3914.6	3895.8	3820.5	3726.5	3589.7	3449.4	3292.1	3162.1	3059.5
25°	4184.8	4162.6	4152.3	4119.8	4049.7	3942.0	3755.5	3560.6	3362.2	3189.5	3059.5
27.5°	4393.4	4386.6	4384.9	4347.3	4280.6	4154.0	3933.4	3699.1	3458.0	3245.9	3085.2
30°	4583.3	4576.4	4573.0	4552.5	4475.5	4325.0	4085.6	3822.2	3562.3	3324.6	3133.0
32.5°	4785.1	4762.8	4752.6	4713.2	4626.0	4449.9	4176.2	3902.6	3644.4	3401.5	3186.1
35°	4949.2	4930.4	4909.9	4853.5	4730.3	4521.7	4215.6	3930.0	3676.9	3444.3	3213.4
37.5°	5069.0	5050.1	5021.1	4949.2	4797.0	4545.6	4213.9	3921.4	3664.9	3437.5	3218.6
40°	5122.0	5103.2	5072.4	4981.7	4809.0	4532.0	4181.4	3882.1	3629.0	3401.5	3198.0
42.5°	5101.5	5087.8	5048.4	4961.2	4771.4	4470.4	4116.4	3808.6	3560.6	3343.4	3151.9
45°	5022.8	5012.5	4974.9	4882.6	4685.9	4371.2	4020.6	3716.2	3478.5	3271.6	3090.3
47.5°	4904.8	4901.4	4863.7	4773.1	4578.1	4272.0	3921.4	3625.6	3396.4	3201.4	3039.0
50°	4774.8	4757.7	4738.9	4655.1	4477.2	4186.5	3849.6	3569.1	3350.2	3175.8	3016.8
52.5°	4692.7	4687.6	4670.5	4595.2	4424.2	4136.9	3817.1	3548.6	3346.8	3170.7	3004.8
55°	5421.3	5433.2	5275.9	4949.2	4661.9	4273.7	3914.6	3652.9	3430.6	3252.8	3131.3
57.5°	8019.0	7966.0	7695.8	7047.6	6315.7	5349.4	4653.4	4231.0	3955.6	3986.4	4048.0
60°	9342.7	9332.4	9282.8	9031.4	8544.0	7808.7	6992.9	6057.4	5759.9	5792.4	5816.3
62.5°	9934.4	9949.8	9987.4	9893.4	9765.1	9551.3	9144.3	8768.1	8369.6	8220.8	7822.3
65°	10208.0	10235.4	10320.9	10373.9	10423.5	10461.1	10621.9	11063.1	11353.9	10810.0	9544.5
67.5°	9642.0	9773.7	10055.8	10331.2	10577.4	10928.0	11471.9	12496.3	13209.4	12540.7	10705.7
70°	7028.8	7208.4	7531.6	8383.3	9293.1	10088.3	11141.8	12701.5	13777.2	13260.7	10993.0
72.5°	4407.1	4456.7	4600.4	4913.3	5588.9	6609.8	8451.7	10791.2	12032.8	11620.6	9291.4
75°	2796.1	2813.2	2808.1	2879.9	2994.5	3216.8	3945.4	6373.8	8243.0	7600.0	5178.4
77.5°	1665.7	1691.4	1701.6	1723.9	1778.6	1857.3	1917.1	2168.5	3456.3	3355.4	1879.5
80°	1395.5	1416.0	1398.9	1393.8	1359.6	1335.6	1364.7	1335.6	1239.9	1193.7	1099.6
82.5°	738.8	737.1	732.0	781.6	882.5	961.1	1021.0	1007.3	911.5	776.4	658.4
85°	405.3	419.0	419.0	436.1	420.7	422.4	436.1	460.0	425.8	355.7	290.7
87.5°	34.2	53.0	42.8	53.0	71.8	51.3	49.6	49.6	42.8	30.8	27.4
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°	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9
2.5°	3249.3	3245.9	3239.1	3233.9	3233.9	3225.4	3220.3	3216.8	3215.1	3208.3	3208.3
5°	3239.1	3227.1	3215.1	3206.6	3201.4	3192.9	3179.2	3172.4	3163.8	3157.0	3153.6
7.5°	3216.8	3194.6	3175.8	3162.1	3145.0	3131.3	3114.2	3098.8	3083.4	3076.6	3073.2
10°	3182.6	3153.6	3124.5	3098.8	3074.9	3051.0	3028.7	3006.5	2987.7	2974.0	2960.3
12.5°	3150.1	3105.7	3068.1	3030.4	2992.8	2963.7	2933.0	2900.5	2873.1	2847.4	2840.6
15°	3105.7	3054.4	3006.5	2960.3	2914.1	2866.3	2828.6	2792.7	2748.3	2719.2	2696.9
17.5°	3064.6	3003.1	2944.9	2890.2	2833.8	2784.2	2727.7	2679.8	2635.4	2590.9	2558.4
20°	3020.2	2953.5	2891.9	2830.3	2768.8	2705.5	2640.5	2578.9	2524.2	2471.2	2418.2
22.5°	2980.8	2912.4	2852.6	2785.9	2717.5	2645.6	2570.4	2493.4	2430.2	2361.8	2300.2
25°	2956.9	2881.6	2820.1	2755.1	2679.8	2601.2	2515.7	2425.0	2348.1	2269.4	2195.9
27.5°	2956.9	2859.4	2796.1	2731.2	2654.2	2570.4	2476.3	2377.1	2289.9	2202.7	2112.1
30°	2982.5	2862.8	2777.3	2708.9	2630.3	2539.6	2435.3	2331.0	2235.2	2132.6	2045.4
32.5°	3006.5	2869.7	2763.6	2676.4	2585.8	2496.9	2390.8	2279.7	2173.6	2076.2	1983.8
35°	3021.9	2869.7	2738.0	2626.8	2524.2	2437.0	2332.7	2221.5	2113.8	2018.0	1932.5
37.5°	3023.6	2856.0	2696.9	2570.4	2462.7	2372.0	2272.8	2168.5	2065.9	1977.0	1905.1
40°	3006.5	2828.6	2655.9	2510.5	2397.7	2305.3	2214.7	2120.6	2028.3	1954.7	1893.2
42.5°	2975.7	2799.6	2616.6	2462.7	2344.7	2248.9	2165.1	2084.7	2004.3	1941.0	1889.7
45°	2929.5	2760.2	2580.7	2433.6	2317.3	2216.4	2134.3	2067.6	1999.2	1946.2	1894.9
47.5°	2888.5	2746.5	2592.6	2452.4	2331.0	2226.6	2142.9	2086.4	2033.4	1997.5	1927.4
50°	2879.9	2739.7	2597.8	2467.8	2344.7	2238.6	2165.1	2136.0	2120.6	2098.4	1990.6
52.5°	2856.0	2738.0	2635.4	2563.6	2484.9	2435.3	2358.3	2385.7	2368.6	2289.9	2095.0
55°	3107.4	3141.6	3237.4	3374.2	3500.7	3529.8	3521.3	3488.8	3316.0	2852.6	2346.4
57.5°	4272.0	4465.3	4646.5	4726.9	4716.7	4626.0	4561.0	4429.4	4179.7	3615.3	2842.3
60°	5889.8	5920.6	5824.9	5682.9	5443.5	5243.4	5029.6	4783.4	4420.8	3868.4	3146.7
62.5°	7379.4	6965.5	6539.7	6139.5	5775.3	5457.2	5159.6	4815.9	4343.8	3767.5	3107.4
65°	8431.2	7555.6	6883.5	6308.8	5794.1	5349.4	4978.3	4532.0	4000.1	3480.2	2879.9
67.5°	8973.3	7630.8	6599.6	5799.2	5069.0	4453.3	3959.1	3524.7	3129.6	2902.2	2520.8
70°	8367.9	6476.4	5039.9	4135.2	3261.3	2614.9	2065.9	1734.1	1619.5	1835.0	1908.6
72.5°	6235.3	4215.6	2997.9	2319.0	1776.9	1416.0	1086.0	853.4	694.3	728.5	945.7
75°	2948.3	1819.6	1286.1	978.2	778.1	644.7	526.7	482.3	403.6	335.2	314.7
77.5°	1147.5	836.3	690.9	506.2	359.1	289.0	246.3	237.7	242.8	236.0	232.6
80°	873.9	591.7	371.1	271.9	234.3	206.9	183.0	176.1	179.6	188.1	196.7
82.5°	487.4	304.4	225.7	196.7	176.1	150.5	136.8	126.6	128.3	138.5	157.3
85°	188.1	147.1	135.1	130.0	121.4	97.5	83.8	85.5	97.5	116.3	116.3
87.5°	20.5	20.5	27.4	20.5	20.5	20.5	18.8	22.2	23.9	30.8	35.9
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9	3233.9
2.5°	3204.9	3204.9	3204.9	3201.4	3203.2	3196.3	3196.3	3191.2	3199.7	3194.6	3192.9
5°	3155.3	3153.6	3146.7	3146.7	3146.7	3146.7	3151.9	3138.2	3148.4	3148.4	3143.3
7.5°	3071.5	3071.5	3052.7	3062.9	3059.5	3064.6	3071.5	3064.6	3074.9	3081.7	3076.6
10°	2955.2	2955.2	2939.8	2951.8	2946.6	2958.6	2970.6	2963.7	2970.6	2980.8	2984.3
12.5°	2826.9	2820.1	2806.4	2811.5	2811.5	2818.4	2823.5	2832.1	2840.6	2854.3	2861.1
15°	2678.1	2667.9	2650.8	2650.8	2640.5	2643.9	2654.2	2657.6	2674.7	2693.5	2715.8
17.5°	2525.9	2500.3	2481.5	2459.2	2442.1	2455.8	2467.8	2476.3	2490.0	2519.1	2534.5
20°	2382.3	2331.0	2295.1	2266.0	2247.2	2255.7	2271.1	2281.4	2293.3	2300.2	2305.3
22.5°	2240.3	2182.2	2132.6	2096.7	2065.9	2074.4	2067.6	2062.5	2071.0	2048.8	2047.1
25°	2117.2	2048.8	1982.1	1939.3	1901.7	1889.7	1853.8	1845.3	1821.3	1802.5	1788.8
27.5°	2028.3	1939.3	1865.8	1816.2	1756.4	1711.9	1665.7	1619.5	1593.9	1563.1	1547.7
30°	1958.2	1864.1	1776.9	1693.1	1614.4	1546.0	1484.4	1424.6	1383.5	1339.1	1310.0
32.5°	1893.2	1805.9	1699.9	1585.3	1479.3	1402.3	1322.0	1253.6	1188.6	1130.4	1087.7
35°	1848.7	1751.2	1616.1	1475.9	1356.2	1265.5	1180.0	1082.5	1003.9	928.6	882.5
37.5°	1824.8	1705.0	1539.2	1383.5	1250.1	1147.5	1041.5	928.6	832.9	762.7	692.6
40°	1805.9	1658.9	1470.8	1301.4	1161.2	1038.1	914.9	781.6	675.5	602.0	547.3
42.5°	1785.4	1607.6	1410.9	1236.5	1080.8	937.2	788.4	646.4	545.5	494.2	470.3
45°	1763.2	1563.1	1354.5	1174.9	1002.2	827.7	656.7	525.0	465.2	448.1	448.1
47.5°	1758.1	1534.0	1313.4	1115.0	913.2	701.2	535.3	453.2	436.1	439.5	446.4
50°	1778.6	1525.5	1277.5	1044.9	795.2	567.8	453.2	425.8	429.3	439.5	449.8
52.5°	1828.2	1532.3	1239.9	947.4	655.0	468.6	419.0	417.3	427.5	442.9	453.2
55°	1912.0	1532.3	1168.1	802.1	523.3	420.7	407.0	413.9	427.5	441.2	449.8
57.5°	2091.5	1516.9	1041.5	641.3	437.8	403.6	403.6	412.2	424.1	437.8	444.6
60°	2305.3	1496.4	863.6	496.0	395.1	389.9	401.9	412.2	422.4	434.4	441.2
62.5°	2319.0	1443.4	684.1	410.4	372.8	381.4	400.2	413.9	417.3	425.8	434.4
65°	2130.9	1258.7	543.8	367.7	362.6	376.2	395.1	405.3	407.0	410.4	419.0
67.5°	1865.8	1026.1	439.5	347.2	352.3	367.7	377.9	386.5	391.6	400.2	401.9
70°	1532.3	824.3	376.2	326.6	331.8	348.9	357.4	366.0	376.2	386.5	381.4
72.5°	1086.0	641.3	330.1	304.4	311.3	326.6	336.9	343.7	352.3	362.6	355.7
75°	461.7	448.1	285.6	275.3	285.6	295.9	306.1	316.4	324.9	330.1	330.1
77.5°	236.0	263.4	246.3	246.3	253.1	263.4	271.9	282.2	287.3	292.4	299.3
80°	200.1	203.5	206.9	213.8	220.6	230.9	239.4	248.0	249.7	251.4	254.8
82.5°	165.9	172.7	176.1	186.4	191.5	195.0	200.1	200.1	203.5	203.5	198.4
85°	119.7	128.3	133.4	135.1	133.4	135.1	136.8	140.2	148.8	148.8	141.9
87.5°	34.2	32.5	41.0	42.8	46.2	53.0	59.9	71.8	75.2	78.7	78.7
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: P152391

CATALOG NUMBER: TLM-E05-LED-E1-SL4-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3233.9	3233.9	3233.9	3233.9
2.5°	3191.2	3194.6	3187.8	3189.5
5°	3143.3	3150.1	3141.6	3151.9
7.5°	3081.7	3092.0	3090.3	3088.6
10°	2992.8	3006.5	3006.5	3011.6
12.5°	2879.9	2888.5	2895.3	2898.7
15°	2727.7	2743.1	2751.7	2751.7
17.5°	2544.7	2555.0	2560.1	2553.3
20°	2312.2	2308.7	2310.4	2293.3
22.5°	2043.7	2048.8	2033.4	2036.8
25°	1780.3	1771.7	1778.6	1768.3
27.5°	1525.5	1527.2	1508.4	1516.9
30°	1282.6	1274.1	1250.1	1262.1
32.5°	1048.3	1026.1	1000.5	985.1
35°	827.7	793.5	781.6	776.4
37.5°	649.9	612.2	600.3	586.6
40°	516.5	502.8	497.7	501.1
42.5°	463.5	463.5	466.9	468.6
45°	449.8	454.9	460.0	461.7
47.5°	451.5	456.6	463.5	465.2
50°	454.9	460.0	465.2	466.9
52.5°	456.6	456.6	460.0	461.7
55°	453.2	451.5	453.2	454.9
57.5°	446.4	442.9	444.6	449.8
60°	442.9	437.8	441.2	444.6
62.5°	434.4	432.7	436.1	437.8
65°	415.6	417.3	422.4	422.4
67.5°	398.5	400.2	401.9	403.6
70°	377.9	379.7	383.1	384.8
72.5°	354.0	360.8	366.0	372.8
75°	335.2	342.0	352.3	359.1
77.5°	302.7	307.8	319.8	328.4
80°	256.5	254.8	256.5	261.7
82.5°	196.7	196.7	195.0	193.2
85°	138.5	136.8	131.7	131.7
87.5°	75.2	73.5	71.8	68.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)