

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: P152388

Luminaire Tested: **TLM-E05-LED-E1-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152388
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-SL4-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (105) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12466.2 lumens
Efficiency: N/A
Efficacy: 97.9 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

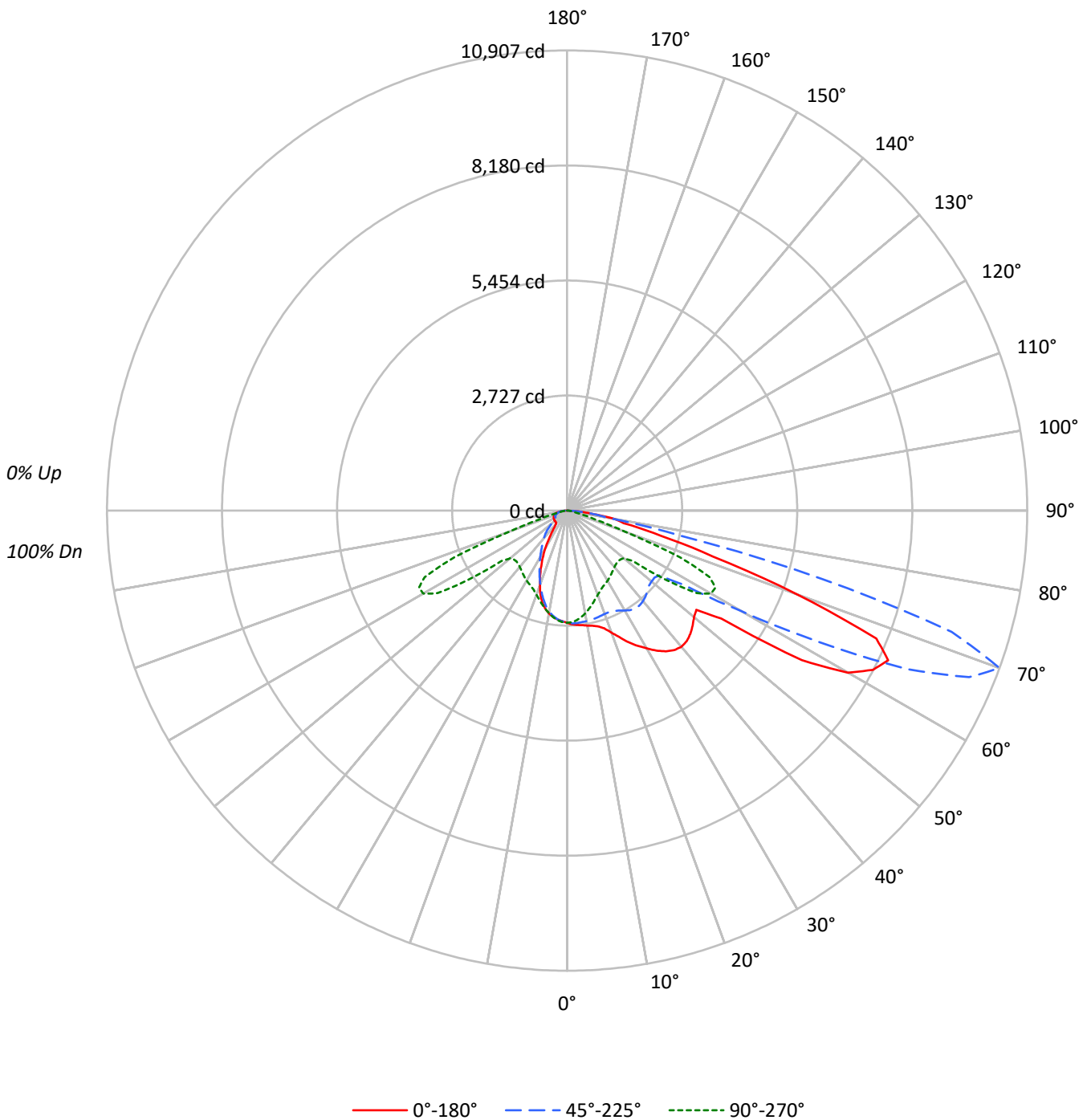
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	34496	34496	34496
5°	35416	33968	33749
10°	36455	32565	32620
15°	38168	30841	30387
20°	42476	29274	26033
25°	49254	28541	20813
30°	56452	28711	15545
35°	64448	28928	10110
40°	71321	29528	6977
45°	75769	31190	6966
50°	79237	35446	7747
55°	100820	64882	8461
60°	199314	102047	9485
65°	257651	114386	10660
70°	219213	54082	12001
75°	115240	19877	14802
80°	85721	10822	16072
85°	49609	10460	16115



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.5	2.0
10°-20°	680.3	5.5
20°-30°	1007.1	8.1
30°-40°	1272.7	10.2
40°-50°	1439.3	11.5
50°-60°	2048.2	16.4
60°-70°	3814.5	30.6
70°-80°	1748.2	14.0
80°-90°	207.5	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°	1935.8	15.5
0°-40°	3208.5	25.7
0°-60°	6696.0	53.7
0°-90°	12466.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12466.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2660	2660	2660	2660	2660	
5°	2720	2676	2609	2588	2592	261
15°	2843	2638	2297	2175	2263	818
25°	3442	2623	1995	1554	1454	1598
35°	4071	2833	1827	1041	639	2545
45°	4131	2691	1701	681	380	3178
55°	4459	2676	2870	346	374	4685
65°	8396	8891	3728	310	347	7742
75°	2300	6251	397	243	295	2828
85°	333	293	70	111	108	419
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°	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0
2.5°	2700.8	2707.8	2699.4	2698.0	2698.0	2696.6	2688.1	2686.7	2675.5	2676.9	2679.7
5°	2720.5	2723.3	2717.7	2716.2	2713.4	2707.8	2700.8	2692.3	2683.9	2675.5	2668.4
7.5°	2740.2	2737.3	2733.1	2733.1	2728.9	2720.5	2706.4	2695.1	2676.9	2667.0	2654.4
10°	2768.3	2764.1	2758.4	2755.6	2748.6	2735.9	2716.2	2700.8	2678.3	2658.6	2637.5
12.5°	2795.0	2793.6	2785.2	2781.0	2769.7	2757.0	2733.1	2709.2	2679.7	2648.7	2620.6
15°	2842.8	2837.2	2828.8	2820.3	2802.0	2785.2	2748.6	2720.5	2678.3	2637.5	2593.9
17.5°	2925.8	2916.0	2907.5	2889.3	2866.8	2837.2	2783.8	2735.9	2678.3	2619.2	2570.0
20°	3077.8	3056.7	3045.4	3021.5	2982.1	2928.6	2845.7	2768.3	2682.5	2606.5	2540.4
22.5°	3249.4	3235.3	3219.8	3204.4	3142.5	3065.1	2952.6	2837.2	2707.8	2600.9	2516.5
25°	3442.1	3423.8	3415.3	3388.6	3331.0	3242.3	3089.0	2928.6	2765.5	2623.4	2516.5
27.5°	3613.7	3608.1	3606.7	3575.7	3520.8	3416.8	3235.3	3042.6	2844.2	2669.8	2537.6
30°	3769.8	3764.2	3761.4	3744.5	3681.2	3557.4	3360.5	3143.9	2930.1	2734.5	2577.0
32.5°	3935.8	3917.5	3909.1	3876.7	3805.0	3660.1	3435.0	3210.0	2997.6	2797.8	2620.6
35°	4070.8	4055.4	4038.5	3992.1	3890.8	3719.2	3467.4	3232.5	3024.3	2833.0	2643.1
37.5°	4169.3	4153.8	4129.9	4070.8	3945.7	3738.9	3466.0	3225.5	3014.5	2827.4	2647.3
40°	4212.9	4197.4	4172.1	4097.6	3955.5	3727.6	3439.3	3193.1	2984.9	2797.8	2630.4
42.5°	4196.0	4184.8	4152.4	4080.7	3924.6	3677.0	3385.8	3132.6	2928.6	2750.0	2592.5
45°	4131.3	4122.9	4091.9	4016.0	3854.2	3595.4	3307.0	3056.7	2861.1	2690.9	2541.8
47.5°	4034.3	4031.5	4000.5	3926.0	3765.6	3513.8	3225.5	2982.1	2793.6	2633.3	2499.6
50°	3927.4	3913.3	3897.8	3828.9	3682.6	3443.5	3166.4	2935.7	2755.6	2612.2	2481.3
52.5°	3859.9	3855.6	3841.6	3779.7	3639.0	3402.7	3139.6	2918.8	2752.8	2607.9	2471.5
55°	4459.1	4468.9	4339.5	4070.8	3834.5	3515.2	3219.8	3004.6	2821.7	2675.5	2575.6
57.5°	6595.8	6552.2	6329.9	5796.8	5194.8	4400.0	3827.5	3480.1	3253.6	3278.9	3329.5
60°	7684.5	7676.1	7635.3	7428.5	7027.6	6422.8	5751.8	4982.4	4737.6	4764.3	4784.0
62.5°	8171.2	8183.9	8214.8	8137.5	8032.0	7856.1	7521.4	7211.9	6884.2	6761.8	6434.0
65°	8396.3	8418.8	8489.1	8532.7	8573.5	8604.5	8736.7	9099.6	9338.8	8891.4	7850.5
67.5°	7930.7	8039.0	8271.1	8497.6	8700.1	8988.5	9435.8	10278.4	10865.0	10315.0	8805.6
70°	5781.3	5929.0	6194.9	6895.4	7643.7	8297.8	9164.3	10447.2	11332.0	10907.2	9042.0
72.5°	3624.9	3665.7	3783.9	4041.3	4596.9	5436.7	6951.7	8876.0	9897.2	9558.2	7642.3
75°	2299.9	2313.9	2309.7	2368.8	2463.0	2645.9	3245.1	5242.6	6780.1	6251.2	4259.3
77.5°	1370.1	1391.2	1399.6	1417.9	1462.9	1527.6	1576.9	1783.6	2842.8	2759.9	1545.9
80°	1147.8	1164.7	1150.6	1146.4	1118.3	1098.6	1122.5	1098.6	1019.8	981.8	904.5
82.5°	607.7	606.3	602.0	642.8	725.8	790.5	839.8	828.5	749.7	638.6	541.6
85°	333.4	344.6	344.6	358.7	346.0	347.4	358.7	378.4	350.3	292.6	239.1
87.5°	28.1	43.6	35.2	43.6	59.1	42.2	40.8	40.8	35.2	25.3	22.5
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°	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0
2.5°	2672.6	2669.8	2664.2	2660.0	2660.0	2652.9	2648.7	2645.9	2644.5	2638.9	2638.9
5°	2664.2	2654.4	2644.5	2637.5	2633.3	2626.2	2615.0	2609.3	2602.3	2596.7	2593.9
7.5°	2645.9	2627.6	2612.2	2600.9	2586.8	2575.6	2561.5	2548.9	2536.2	2530.6	2527.8
10°	2617.8	2593.9	2570.0	2548.9	2529.2	2509.5	2491.2	2472.9	2457.4	2446.2	2434.9
12.5°	2591.1	2554.5	2523.5	2492.6	2461.6	2437.7	2412.4	2385.7	2363.2	2342.1	2336.4
15°	2554.5	2512.3	2472.9	2434.9	2396.9	2357.5	2326.6	2297.1	2260.5	2236.6	2218.3
17.5°	2520.7	2470.1	2422.3	2377.2	2330.8	2290.0	2243.6	2204.2	2167.7	2131.1	2104.4
20°	2484.1	2429.3	2378.6	2328.0	2277.4	2225.3	2171.9	2121.2	2076.2	2032.6	1989.0
22.5°	2451.8	2395.5	2346.3	2291.4	2235.2	2176.1	2114.2	2050.9	1998.9	1942.6	1891.9
25°	2432.1	2370.2	2319.6	2266.1	2204.2	2139.5	2069.2	1994.6	1931.3	1866.6	1806.1
27.5°	2432.1	2351.9	2299.9	2246.4	2183.1	2114.2	2036.8	1955.2	1883.5	1811.8	1737.2
30°	2453.2	2354.7	2284.4	2228.1	2163.4	2088.9	2003.1	1917.3	1838.5	1754.1	1682.4
32.5°	2472.9	2360.4	2273.1	2201.4	2126.9	2053.7	1966.5	1875.1	1787.9	1707.7	1631.7
35°	2485.6	2360.4	2252.0	2160.6	2076.2	2004.5	1918.7	1827.2	1738.6	1659.8	1589.5
37.5°	2487.0	2349.1	2218.3	2114.2	2025.6	1951.0	1869.4	1783.6	1699.2	1626.1	1567.0
40°	2472.9	2326.6	2184.5	2065.0	1972.1	1896.2	1821.6	1744.2	1668.3	1607.8	1557.2
42.5°	2447.6	2302.7	2152.2	2025.6	1928.5	1849.7	1780.8	1714.7	1648.6	1596.5	1554.3
45°	2409.6	2270.3	2122.6	2001.7	1906.0	1823.0	1755.5	1700.6	1644.4	1600.8	1558.6
47.5°	2375.8	2259.1	2132.5	2017.1	1917.3	1831.5	1762.5	1716.1	1672.5	1643.0	1585.3
50°	2368.8	2253.5	2136.7	2029.8	1928.5	1841.3	1780.8	1756.9	1744.2	1726.0	1637.3
52.5°	2349.1	2252.0	2167.7	2108.6	2043.9	2003.1	1939.8	1962.3	1948.2	1883.5	1723.1
55°	2555.9	2584.0	2662.8	2775.3	2879.4	2903.3	2896.3	2869.6	2727.5	2346.3	1929.9
57.5°	3513.8	3672.8	3821.9	3888.0	3879.5	3805.0	3751.5	3643.2	3437.9	2973.7	2337.9
60°	4844.5	4869.8	4791.1	4674.3	4477.4	4312.8	4137.0	3934.4	3636.2	3181.8	2588.2
62.5°	6069.7	5729.3	5379.0	5049.9	4750.3	4488.6	4243.9	3961.1	3572.9	3098.9	2555.9
65°	6934.8	6214.6	5661.8	5189.1	4765.7	4400.0	4094.8	3727.6	3290.2	2862.5	2368.8
67.5°	7380.7	6276.5	5428.3	4770.0	4169.3	3662.9	3256.4	2899.1	2574.2	2387.1	2073.4
70°	6882.7	5327.0	4145.4	3401.3	2682.5	2150.8	1699.2	1426.3	1332.1	1509.3	1569.8
72.5°	5128.7	3467.4	2465.9	1907.4	1461.5	1164.7	893.2	701.9	571.1	599.2	777.9
75°	2425.1	1496.7	1057.8	804.6	640.0	530.3	433.2	396.7	332.0	275.7	258.8
77.5°	943.9	687.9	568.3	416.4	295.4	237.7	202.6	195.5	199.7	194.1	191.3
80°	718.8	486.7	305.2	223.7	192.7	170.2	150.5	144.9	147.7	154.7	161.8
82.5°	400.9	250.4	185.7	161.8	144.9	123.8	112.5	104.1	105.5	113.9	129.4
85°	154.7	121.0	111.1	106.9	99.9	80.2	68.9	70.3	80.2	95.7	95.7
87.5°	16.9	16.9	22.5	16.9	16.9	16.9	15.5	18.3	19.7	25.3	29.5
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°	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0	2660.0
2.5°	2636.1	2636.1	2636.1	2633.3	2634.7	2629.0	2629.0	2624.8	2631.8	2627.6	2626.2
5°	2595.3	2593.9	2588.2	2588.2	2588.2	2588.2	2592.5	2581.2	2589.6	2589.6	2585.4
7.5°	2526.3	2526.3	2510.9	2519.3	2516.5	2520.7	2526.3	2520.7	2529.2	2534.8	2530.6
10°	2430.7	2430.7	2418.0	2427.9	2423.7	2433.5	2443.4	2437.7	2443.4	2451.8	2454.6
12.5°	2325.2	2319.6	2308.3	2312.5	2312.5	2318.2	2322.4	2329.4	2336.4	2347.7	2353.3
15°	2202.8	2194.4	2180.3	2180.3	2171.9	2174.7	2183.1	2185.9	2200.0	2215.5	2233.8
17.5°	2077.6	2056.5	2041.1	2022.8	2008.7	2020.0	2029.8	2036.8	2048.1	2072.0	2084.7
20°	1959.5	1917.3	1887.7	1863.8	1848.3	1855.4	1868.0	1876.5	1886.3	1891.9	1896.2
22.5°	1842.7	1794.9	1754.1	1724.6	1699.2	1706.3	1700.6	1696.4	1703.5	1685.2	1683.8
25°	1741.4	1685.2	1630.3	1595.1	1564.2	1554.3	1524.8	1517.8	1498.1	1482.6	1471.4
27.5°	1668.3	1595.1	1534.7	1493.9	1444.6	1408.1	1370.1	1332.1	1311.0	1285.7	1273.0
30°	1610.6	1533.3	1461.5	1392.6	1327.9	1271.6	1221.0	1171.7	1138.0	1101.4	1077.5
32.5°	1557.2	1485.4	1398.2	1304.0	1216.8	1153.5	1087.3	1031.1	977.6	929.8	894.6
35°	1520.6	1440.4	1329.3	1213.9	1115.5	1040.9	970.6	890.4	825.7	763.8	725.8
37.5°	1500.9	1402.4	1266.0	1138.0	1028.3	943.9	856.7	763.8	685.0	627.4	569.7
40°	1485.4	1364.5	1209.7	1070.5	955.1	853.8	752.6	642.8	555.6	495.1	450.1
42.5°	1468.5	1322.3	1160.5	1017.0	889.0	770.8	648.5	531.7	448.7	406.5	386.8
45°	1450.3	1285.7	1114.1	966.4	824.3	680.8	540.2	431.8	382.6	368.5	368.5
47.5°	1446.0	1261.8	1080.3	917.1	751.2	576.7	440.3	372.8	358.7	361.5	367.1
50°	1462.9	1254.7	1050.8	859.5	654.1	467.0	372.8	350.3	353.1	361.5	369.9
52.5°	1503.7	1260.4	1019.8	779.3	538.7	385.4	344.6	343.2	351.7	364.3	372.8
55°	1572.6	1260.4	960.7	659.7	430.4	346.0	334.8	340.4	351.7	362.9	369.9
57.5°	1720.3	1247.7	856.7	527.5	360.1	332.0	332.0	339.0	348.8	360.1	365.7
60°	1896.2	1230.8	710.4	407.9	324.9	320.7	330.6	339.0	347.4	357.3	362.9
62.5°	1907.4	1187.2	562.7	337.6	306.7	313.7	329.2	340.4	343.2	350.3	357.3
65°	1752.7	1035.3	447.3	302.4	298.2	309.5	324.9	333.4	334.8	337.6	344.6
67.5°	1534.7	844.0	361.5	285.6	289.8	302.4	310.9	317.9	322.1	329.2	330.6
70°	1260.4	678.0	309.5	268.7	272.9	287.0	294.0	301.0	309.5	317.9	313.7
72.5°	893.2	527.5	271.5	250.4	256.0	268.7	277.1	282.7	289.8	298.2	292.6
75°	379.8	368.5	234.9	226.5	234.9	243.4	251.8	260.2	267.3	271.5	271.5
77.5°	194.1	216.6	202.6	202.6	208.2	216.6	223.7	232.1	236.3	240.5	246.2
80°	164.6	167.4	170.2	175.8	181.5	189.9	196.9	204.0	205.4	206.8	209.6
82.5°	136.4	142.1	144.9	153.3	157.5	160.4	164.6	164.6	167.4	167.4	163.2
85°	98.5	105.5	109.7	111.1	109.7	111.1	112.5	115.3	122.4	122.4	116.8
87.5°	28.1	26.7	33.8	35.2	38.0	43.6	49.2	59.1	61.9	64.7	64.7
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: P152388

CATALOG NUMBER: TLM-E05-LED-E1-SL4-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2660.0	2660.0	2660.0	2660.0
2.5°	2624.8	2627.6	2622.0	2623.4
5°	2585.4	2591.1	2584.0	2592.5
7.5°	2534.8	2543.2	2541.8	2540.4
10°	2461.6	2472.9	2472.9	2477.1
12.5°	2368.8	2375.8	2381.5	2384.3
15°	2243.6	2256.3	2263.3	2263.3
17.5°	2093.1	2101.5	2105.8	2100.1
20°	1901.8	1899.0	1900.4	1886.3
22.5°	1680.9	1685.2	1672.5	1675.3
25°	1464.3	1457.3	1462.9	1454.5
27.5°	1254.7	1256.1	1240.7	1247.7
30°	1055.0	1048.0	1028.3	1038.1
32.5°	862.3	844.0	822.9	810.2
35°	680.8	652.7	642.8	638.6
37.5°	534.5	503.6	493.7	482.5
40°	424.8	413.6	409.3	412.1
42.5°	381.2	381.2	384.0	385.4
45°	369.9	374.2	378.4	379.8
47.5°	371.4	375.6	381.2	382.6
50°	374.2	378.4	382.6	384.0
52.5°	375.6	375.6	378.4	379.8
55°	372.8	371.4	372.8	374.2
57.5°	367.1	364.3	365.7	369.9
60°	364.3	360.1	362.9	365.7
62.5°	357.3	355.9	358.7	360.1
65°	341.8	343.2	347.4	347.4
67.5°	327.7	329.2	330.6	332.0
70°	310.9	312.3	315.1	316.5
72.5°	291.2	296.8	301.0	306.7
75°	275.7	281.3	289.8	295.4
77.5°	249.0	253.2	263.0	270.1
80°	211.0	209.6	211.0	215.2
82.5°	161.8	161.8	160.4	159.0
85°	113.9	112.5	108.3	108.3
87.5°	61.9	60.5	59.1	56.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)