

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: P150668

Luminaire Tested: **TLM-E04-LED-E1-SL3-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150668
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5853.3 lumens
Efficiency: N/A
Efficacy: 60.2 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

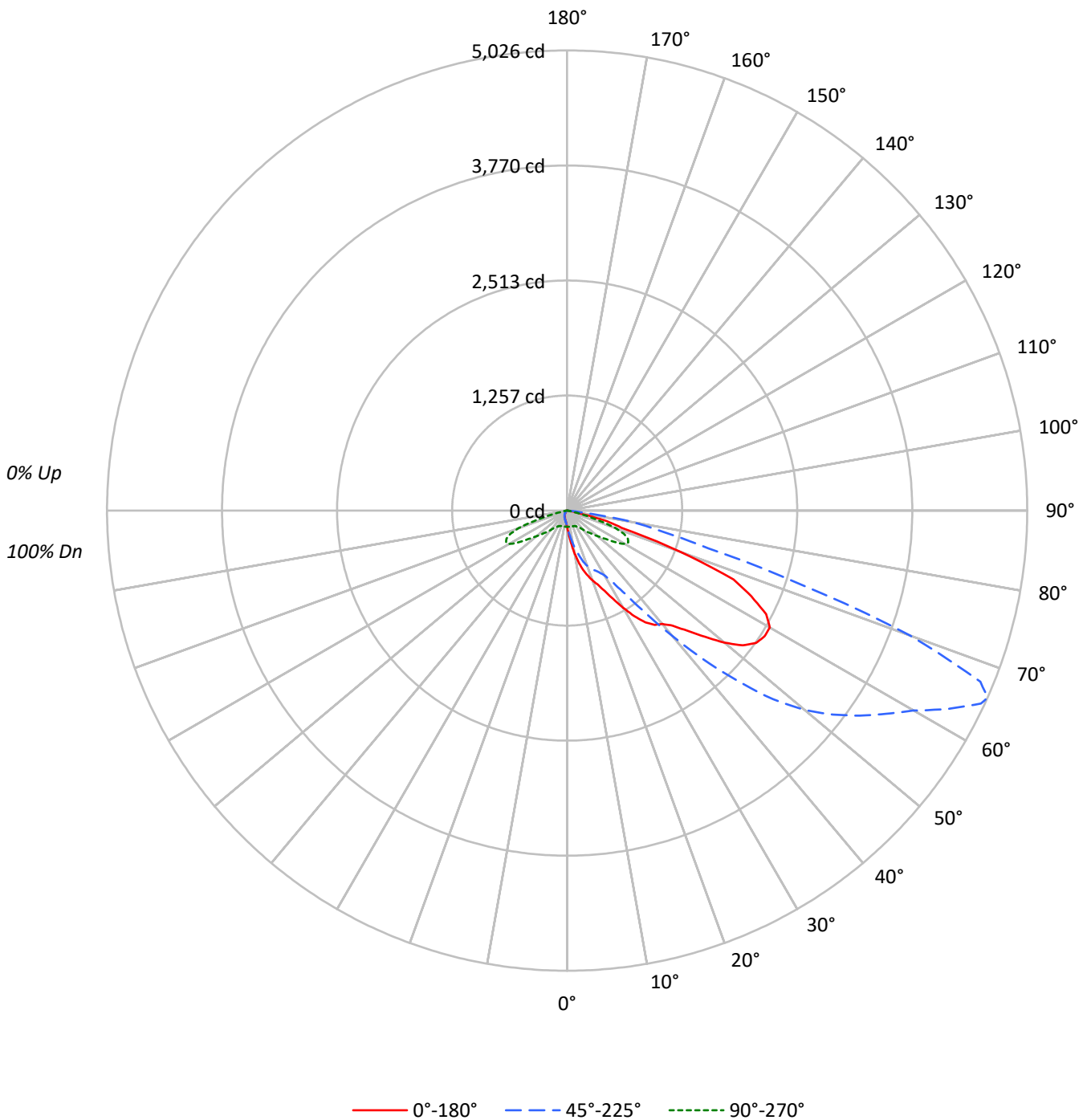
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76					76			
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55					55			
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40					40			
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30					30			
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23					23			
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17					17			
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14					14			
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11					11			
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9					9			
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7					7			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2839	2839	2839
5°	4754	2858	2087
10°	7803	2882	1744
15°	11137	3005	1479
20°	13852	3107	1270
25°	17136	3292	1078
30°	22775	3685	918
35°	29221	4359	773
40°	33891	5735	614
45°	42084	7748	461
50°	56056	10800	450
55°	70603	15792	504
60°	82114	23430	543
65°	84403	27826	601
70°	61684	26720	686
75°	27802	11629	906
80°	4996	2914	1351
85°	424	2590	2488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.8	0.3
10°-20°	83.9	1.4
20°-30°	180.9	3.1
30°-40°	386.3	6.6
40°-50°	854.2	14.6
50°-60°	1447.6	24.7
60°-70°	1931.8	33.0
70°-80°	850.9	14.5
80°-90°	98.0	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°	284.5	4.9
0°-40°	670.8	11.5
0°-60°	2972.6	50.8
0°-90°	5853.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5853.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	177	177	177	177	177	
5°	295	250	177	134	129	34
15°	670	511	181	96	89	191
25°	967	721	186	70	61	463
35°	1490	1116	222	47	39	924
45°	1852	2628	341	28	20	1464
55°	2521	3905	564	14	18	2221
65°	2220	4985	732	10	16	2120
75°	448	1596	187	8	15	494
85°	2	34	14	7	14	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	222.8	221.7	217.2	217.2	210.4	205.9	200.3	194.7	194.7	193.6	192.4
5°	294.8	288.1	287.0	274.6	264.5	249.8	236.3	218.3	216.1	213.8	212.7
7.5°	374.7	373.6	363.5	348.8	328.6	301.6	274.6	245.3	240.8	238.6	234.1
10°	478.3	472.6	459.1	434.4	404.0	368.0	324.1	278.0	272.3	267.8	265.6
12.5°	577.3	567.2	559.3	527.8	489.5	436.6	383.7	317.3	312.8	307.2	298.2
15°	669.6	660.6	647.1	620.1	577.3	510.9	449.0	368.0	356.7	348.8	342.1
17.5°	741.6	736.0	720.2	689.8	643.7	585.2	510.9	419.7	410.7	400.6	388.2
20°	810.2	802.4	777.6	736.0	686.4	641.4	584.0	487.3	474.9	462.5	449.0
22.5°	875.5	867.6	827.1	758.5	705.6	686.4	666.2	563.8	544.7	534.5	521.0
25°	966.7	949.8	886.8	777.6	706.7	721.3	756.2	662.8	644.8	630.2	608.8
27.5°	1089.3	1066.8	967.8	805.7	711.2	759.6	859.7	783.2	764.1	747.2	723.6
30°	1227.7	1213.1	1094.9	873.2	743.8	815.9	975.7	936.3	913.8	893.5	865.4
32.5°	1367.3	1347.0	1230.0	1001.5	831.6	925.0	1120.8	1114.1	1084.8	1065.7	1035.3
35°	1489.9	1479.8	1393.1	1212.0	1031.9	1116.3	1314.4	1322.3	1296.4	1276.1	1242.4
37.5°	1573.2	1573.2	1556.3	1438.2	1350.4	1413.4	1599.1	1600.2	1574.3	1528.2	1511.3
40°	1616.0	1628.3	1689.1	1711.6	1707.1	1788.1	1972.7	1952.4	1931.1	1907.4	1851.2
42.5°	1703.7	1715.0	1844.4	1999.7	2101.0	2207.9	2335.0	2328.3	2302.4	2259.6	2207.9
45°	1852.3	1866.9	2021.1	2267.5	2475.7	2627.6	2708.6	2677.1	2651.3	2610.7	2583.7
47.5°	2041.3	2069.5	2243.9	2548.9	2799.8	3050.7	3135.1	3051.9	3029.4	2997.9	2954.0
50°	2242.8	2269.8	2455.5	2804.3	3087.9	3387.2	3527.9	3387.2	3354.6	3344.5	3294.9
52.5°	2417.2	2439.7	2618.6	3001.2	3308.4	3659.5	3864.4	3678.7	3655.0	3621.3	3585.3
55°	2520.7	2538.7	2706.4	3095.8	3458.1	3904.9	4189.6	4026.4	3991.5	3978.0	3926.2
57.5°	2555.6	2573.6	2724.4	3108.1	3539.1	4128.8	4584.6	4590.2	4548.5	4500.2	4484.4
60°	2555.6	2575.9	2703.0	3077.8	3617.9	4367.4	5111.2	5580.5	5490.4	5481.4	5424.0
62.5°	2449.8	2469.0	2597.2	2984.4	3723.7	4689.2	5844.9	6673.2	6647.3	6588.8	6494.2
65°	2220.3	2231.5	2357.5	2745.8	3683.2	4985.2	6480.7	7400.1	7358.5	7243.7	7122.2
66°	2116.7	2125.7	2243.9	2609.6	3550.4	5025.7	6593.3	7491.3	7422.6	7325.8	7188.6
67.5°	1967.1	1982.8	2066.1	2356.4	3231.9	4885.0	6522.4	7427.1	7367.5	7250.4	7113.2
70°	1313.2	1302.0	1595.7	1808.4	2462.2	3980.3	5851.7	6668.7	6669.8	6614.6	6559.5
72.5°	623.4	630.2	715.7	1112.9	1611.5	2659.1	4657.7	5322.8	5399.3	5300.3	5231.6
75°	447.9	458.0	509.8	680.8	961.0	1595.7	3019.2	3722.6	3724.8	3549.3	3392.8
77.5°	130.5	136.2	191.3	419.7	720.2	1076.9	1734.1	2069.5	2021.1	1895.0	1776.9
80°	54.0	54.0	56.3	133.9	289.2	731.5	1213.1	1593.5	1587.8	1539.4	1469.7
82.5°	20.3	21.4	27.0	55.1	68.6	180.1	809.1	1383.0	1379.6	1311.0	1261.5
85°	2.3	2.3	6.8	23.6	25.9	33.8	162.0	609.9	606.5	609.9	534.5
87.5°	0.0	0.0	1.1	2.3	3.4	4.5	6.8	23.6	25.9	24.8	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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	192.4	190.2	190.2	189.1	189.1	189.1	187.9	186.8	186.8	185.7	184.6
5°	210.4	208.2	207.1	204.8	203.7	202.6	200.3	199.2	196.9	195.8	194.7
7.5°	231.8	227.3	226.2	222.8	219.4	217.2	214.9	211.6	209.3	204.8	203.7
10°	258.8	253.2	248.7	244.2	240.8	235.2	231.8	227.3	222.8	219.4	216.1
12.5°	293.7	285.8	279.1	274.6	266.7	259.9	253.2	249.8	240.8	236.3	230.7
15°	332.0	323.0	315.1	306.1	300.5	289.2	280.2	270.1	265.6	257.7	248.7
17.5°	381.5	366.9	354.5	345.5	334.2	323.0	312.8	302.7	289.2	280.2	269.0
20°	434.4	422.0	405.1	389.4	375.9	362.4	347.7	334.2	321.8	307.2	293.7
22.5°	501.9	483.9	463.6	447.9	429.9	415.2	395.0	377.0	356.7	337.6	321.8
25°	587.4	563.8	544.7	522.1	500.8	478.3	453.5	431.0	405.1	387.1	360.1
27.5°	693.2	670.7	644.8	615.6	594.2	560.4	527.8	499.6	469.3	441.1	410.7
30°	828.2	795.6	768.6	740.5	697.7	665.1	626.8	588.5	546.9	518.8	472.6
32.5°	990.3	955.4	914.9	874.4	835.0	788.9	741.6	694.3	648.2	596.4	549.2
35°	1188.3	1146.7	1100.6	1056.7	995.9	946.4	886.8	821.5	769.7	710.1	650.4
37.5°	1450.5	1381.9	1341.4	1295.2	1213.1	1145.6	1079.2	1013.9	922.8	859.7	775.3
40°	1779.1	1738.6	1672.2	1598.0	1523.7	1434.8	1344.8	1258.1	1152.3	1064.6	966.7
42.5°	2165.1	2105.5	2038.0	1931.1	1855.7	1751.0	1648.6	1533.8	1404.4	1291.9	1177.1
45°	2527.5	2456.6	2404.8	2297.9	2219.1	2095.3	1971.6	1850.0	1700.4	1555.2	1422.4
47.5°	2919.1	2860.6	2775.0	2688.4	2608.5	2469.0	2335.0	2187.6	2030.1	1857.9	1685.7
50°	3263.4	3217.3	3158.8	3054.1	2965.2	2848.2	2690.6	2529.7	2330.5	2159.5	1963.7
52.5°	3556.0	3520.0	3437.9	3363.6	3283.7	3173.4	3032.7	2878.6	2663.6	2475.7	2252.9
55°	3901.5	3875.6	3803.6	3757.4	3686.6	3580.8	3449.1	3306.2	3078.9	2874.1	2622.0
57.5°	4467.5	4447.3	4384.3	4365.1	4295.4	4203.1	4041.0	3888.0	3622.4	3368.1	3080.0
60°	5404.9	5364.4	5272.1	5224.9	5077.4	4953.7	4743.2	4532.8	4212.1	3888.0	3541.4
62.5°	6408.7	6295.0	6119.5	5968.7	5759.4	5544.5	5263.1	4941.3	4565.4	4180.6	3782.2
65°	6950.0	6756.4	6534.7	6295.0	6023.8	5707.6	5353.2	4967.2	4563.2	4156.9	3736.1
66°	7011.9	6793.6	6558.4	6291.7	5990.1	5653.6	5293.5	4888.4	4468.7	4072.5	3651.7
67.5°	6934.2	6705.8	6457.1	6161.1	5834.8	5485.9	5107.8	4687.0	4283.0	3881.2	3471.6
70°	6390.7	6163.4	5941.7	5630.0	5282.3	4931.2	4573.3	4102.9	3720.3	3351.2	2986.6
72.5°	5103.3	4949.2	4729.7	4463.0	4124.3	3712.4	3414.2	2993.4	2661.4	2303.5	2021.1
75°	3189.2	2972.0	2700.8	2360.9	2102.1	1767.9	1593.5	1273.9	1084.8	919.4	759.6
77.5°	1630.6	1467.4	1277.2	1085.9	902.5	720.2	557.0	393.9	265.6	184.6	137.3
80°	1347.0	1203.0	1045.4	871.0	709.0	550.3	396.1	270.1	172.2	112.5	87.8
82.5°	1112.9	991.4	850.7	688.7	548.0	432.1	300.5	195.8	121.5	78.8	61.9
85°	473.8	429.9	332.0	263.3	198.1	146.3	102.4	68.6	48.4	39.4	36.0
87.5°	20.3	22.5	21.4	16.9	12.4	12.4	11.3	9.0	9.0	9.0	9.0
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7	176.7
2.5°	184.6	183.4	182.3	182.3	181.2	180.1	173.3	167.7	160.9	156.4	151.9
5°	192.4	191.3	189.1	187.9	185.7	184.6	169.9	157.5	147.4	139.5	133.9
7.5°	200.3	199.2	195.8	192.4	191.3	189.1	165.4	149.7	136.2	127.2	121.5
10°	210.4	207.1	203.7	199.2	195.8	192.4	160.9	140.7	126.0	118.2	112.5
12.5°	225.1	219.4	213.8	208.2	203.7	198.1	158.7	132.8	118.2	109.2	103.5
15°	241.9	234.1	227.3	220.6	212.7	207.1	154.2	126.0	111.4	102.4	95.7
17.5°	257.7	248.7	238.6	228.4	220.6	212.7	149.7	119.3	104.7	95.7	88.9
20°	280.2	266.7	254.3	241.9	230.7	220.6	142.9	112.5	99.0	88.9	82.1
22.5°	305.0	289.2	273.5	256.6	241.9	228.4	137.3	106.9	93.4	83.3	75.4
25°	336.5	317.3	296.0	274.6	257.7	239.7	131.7	101.3	87.8	77.6	69.8
27.5°	380.4	353.4	329.7	302.7	276.8	256.6	127.2	96.8	82.1	72.0	64.1
30°	440.0	400.6	363.5	334.2	303.8	274.6	122.7	91.2	77.6	66.4	57.4
32.5°	506.4	460.3	417.5	373.6	335.3	301.6	118.2	86.6	72.0	60.8	52.9
35°	588.5	530.0	472.6	422.0	375.9	330.8	113.7	82.1	67.5	55.1	47.3
37.5°	706.7	633.6	558.2	492.9	433.2	373.6	110.3	77.6	61.9	49.5	41.6
40°	868.7	774.2	681.9	593.0	515.4	441.1	105.8	73.1	57.4	45.0	37.1
42.5°	1044.3	929.5	808.0	707.8	600.9	507.5	101.3	68.6	52.9	40.5	32.6
45°	1262.6	1119.7	972.3	836.1	705.6	585.2	96.8	64.1	47.3	36.0	28.1
47.5°	1501.2	1318.9	1152.3	981.3	826.0	681.9	91.2	60.8	42.8	31.5	24.8
50°	1746.5	1554.1	1343.6	1149.0	964.4	778.7	85.5	55.1	38.3	28.1	20.3
52.5°	2010.9	1783.6	1568.7	1326.8	1111.8	905.9	79.9	50.6	34.9	24.8	16.9
55°	2347.4	2093.1	1841.0	1569.8	1311.0	1053.3	74.3	45.0	30.4	21.4	13.5
57.5°	2770.5	2469.0	2159.5	1853.4	1539.4	1246.9	69.8	39.4	25.9	18.0	11.3
60°	3170.0	2817.8	2443.1	2090.8	1736.4	1395.4	63.0	34.9	22.5	14.6	11.3
62.5°	3377.1	2975.3	2571.4	2183.1	1805.0	1448.3	56.3	29.3	19.1	12.4	10.1
65°	3326.4	2916.8	2525.2	2133.6	1763.4	1414.5	49.5	25.9	16.9	11.3	10.1
66°	3253.3	2848.2	2454.3	2081.8	1728.5	1378.5	46.1	24.8	15.8	11.3	9.0
67.5°	3093.5	2701.9	2326.0	1979.4	1632.8	1309.9	41.6	22.5	14.6	10.1	9.0
70°	2642.3	2286.7	1986.2	1677.9	1395.4	1103.9	33.8	19.1	12.4	9.0	9.0
72.5°	1748.7	1506.8	1306.5	1124.2	939.6	729.2	28.1	15.8	10.1	9.0	7.9
75°	659.4	596.4	512.0	460.3	401.7	352.2	22.5	10.1	7.9	7.9	7.9
77.5°	117.0	108.0	95.7	87.8	81.0	74.3	18.0	6.8	6.8	7.9	7.9
80°	78.8	73.1	66.4	60.8	56.3	50.6	12.4	5.6	6.8	6.8	7.9
82.5°	56.3	52.9	49.5	45.0	41.6	37.1	7.9	5.6	6.8	6.8	6.8
85°	33.8	31.5	29.3	27.0	23.6	22.5	5.6	5.6	5.6	6.8	6.8
87.5°	9.0	7.9	9.0	9.0	6.8	7.9	4.5	4.5	4.5	5.6	5.6
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: P150668

CATALOG NUMBER: TLM-E04-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	176.7	176.7	176.7	176.7	176.7
2.5°	149.7	149.7	147.4	150.8	150.8
5°	129.4	129.4	128.3	129.4	129.4
7.5°	118.2	117.0	117.0	117.0	118.2
10°	108.0	106.9	106.9	106.9	106.9
12.5°	99.0	97.9	96.8	97.9	97.9
15°	91.2	88.9	88.9	88.9	88.9
17.5°	84.4	82.1	81.0	81.0	81.0
20°	77.6	74.3	74.3	74.3	74.3
22.5°	70.9	67.5	67.5	67.5	67.5
25°	64.1	60.8	60.8	60.8	60.8
27.5°	58.5	55.1	55.1	55.1	55.1
30°	51.8	49.5	49.5	50.6	49.5
32.5°	47.3	43.9	43.9	45.0	45.0
35°	41.6	39.4	39.4	39.4	39.4
37.5°	36.0	33.8	33.8	33.8	33.8
40°	31.5	29.3	28.1	29.3	29.3
42.5°	27.0	24.8	23.6	23.6	23.6
45°	23.6	20.3	19.1	20.3	20.3
47.5°	19.1	16.9	16.9	18.0	18.0
50°	14.6	14.6	15.8	18.0	18.0
52.5°	13.5	13.5	15.8	18.0	18.0
55°	12.4	13.5	15.8	16.9	18.0
57.5°	11.3	13.5	15.8	16.9	16.9
60°	11.3	12.4	14.6	16.9	16.9
62.5°	10.1	11.3	13.5	15.8	15.8
65°	10.1	11.3	13.5	15.8	15.8
66°	10.1	11.3	13.5	15.8	15.8
67.5°	10.1	11.3	13.5	15.8	15.8
70°	10.1	11.3	13.5	14.6	14.6
72.5°	9.0	10.1	12.4	14.6	14.6
75°	9.0	10.1	12.4	14.6	14.6
77.5°	9.0	10.1	12.4	14.6	14.6
80°	9.0	10.1	12.4	13.5	14.6
82.5°	7.9	10.1	11.3	13.5	13.5
85°	7.9	9.0	11.3	12.4	13.5
87.5°	6.8	7.9	9.0	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)