

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: P150655

Luminaire Tested: **TLM-F02-LED-E1-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150655
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-F02-LED-E1-SL3-HSS
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2862.7 lumens
Efficiency: N/A
Efficacy: 52.0 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

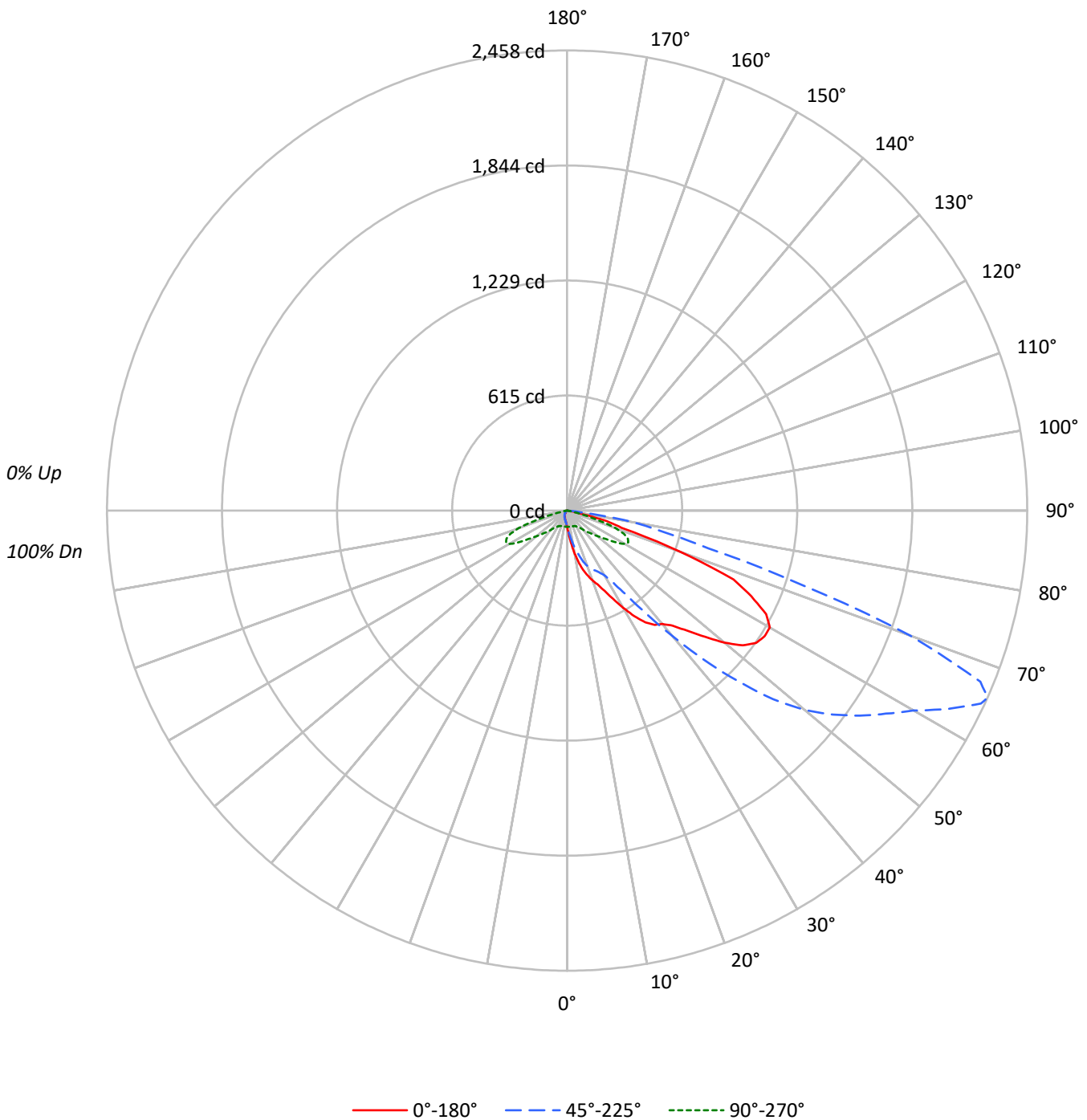
Input Watts (W): 55
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	105	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2818	2818	2818
5°	4721	2839	2073
10°	7747	2862	1732
15°	11059	2983	1469
20°	13756	3086	1260
25°	17016	3268	1069
30°	22613	3659	911
35°	29016	4328	769
40°	33651	5693	609
45°	41788	7692	457
50°	55657	10722	447
55°	70106	15678	500
60°	81532	23263	541
65°	83803	27631	594
70°	61255	26531	687
75°	27600	11550	907
80°	4959	2902	1352
85°	412	2582	2470



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.7	0.3
10°-20°	41.0	1.4
20°-30°	88.5	3.1
30°-40°	188.9	6.6
40°-50°	417.8	14.6
50°-60°	708.0	24.7
60°-70°	944.8	33.0
70°-80°	416.2	14.5
80°-90°	48.0	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°	139.1	4.9
0°-40°	328.1	11.5
0°-60°	1453.8	50.8
0°-90°	2862.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2862.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	86	86	86	86	86	
5°	144	122	87	66	63	16
15°	328	250	88	47	44	94
25°	473	353	91	34	30	226
35°	729	546	109	23	19	452
45°	906	1285	167	14	10	716
55°	1233	1910	276	7	9	1086
65°	1086	2438	358	5	8	1037
75°	219	780	92	4	7	242
85°	1	16	7	3	7	7
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°	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
2.5°	109.0	108.4	106.2	106.2	102.9	100.7	98.0	95.2	95.2	94.7	94.1
5°	144.2	140.9	140.3	134.3	129.3	122.2	115.6	106.8	105.7	104.6	104.0
7.5°	183.3	182.7	177.8	170.6	160.7	147.5	134.3	120.0	117.8	116.7	114.5
10°	233.9	231.1	224.5	212.4	197.6	180.0	158.5	135.9	133.2	131.0	129.9
12.5°	282.3	277.4	273.5	258.1	239.4	213.5	187.7	155.2	153.0	150.2	145.8
15°	327.5	323.1	316.5	303.2	282.3	249.9	219.6	180.0	174.5	170.6	167.3
17.5°	362.7	359.9	352.2	337.4	314.8	286.2	249.9	205.3	200.9	195.9	189.9
20°	396.3	392.4	380.3	359.9	335.7	313.7	285.6	238.3	232.2	226.2	219.6
22.5°	428.2	424.3	404.5	370.9	345.1	335.7	325.8	275.7	266.4	261.4	254.8
25°	472.8	464.5	433.7	380.3	345.6	352.8	369.8	324.2	315.4	308.2	297.7
27.5°	532.7	521.7	473.3	394.1	347.8	371.5	420.5	383.0	373.7	365.4	353.9
30°	600.4	593.3	535.5	427.1	363.8	399.0	477.2	457.9	446.9	437.0	423.2
32.5°	668.7	658.8	601.5	489.8	406.7	452.4	548.1	544.8	530.5	521.2	506.3
35°	728.7	723.7	681.3	592.7	504.7	545.9	642.8	646.7	634.0	624.1	607.6
37.5°	769.4	769.4	761.1	703.3	660.4	691.2	782.0	782.6	769.9	747.4	739.1
40°	790.3	796.4	826.1	837.1	834.9	874.5	964.8	954.9	944.4	932.8	905.3
42.5°	833.2	838.7	902.0	978.0	1027.5	1079.8	1142.0	1138.7	1126.0	1105.1	1079.8
45°	905.9	913.0	988.4	1109.0	1210.8	1285.1	1324.7	1309.3	1296.6	1276.8	1263.6
47.5°	998.3	1012.1	1097.4	1246.5	1369.3	1492.0	1533.3	1492.5	1481.5	1466.1	1444.7
50°	1096.8	1110.1	1200.9	1371.5	1510.2	1656.6	1725.3	1656.6	1640.6	1635.6	1611.4
52.5°	1182.2	1193.2	1280.7	1467.8	1618.0	1789.7	1889.9	1799.1	1787.5	1771.0	1753.4
55°	1232.8	1241.6	1323.6	1514.0	1691.2	1909.7	2049.0	1969.2	1952.1	1945.5	1920.2
57.5°	1249.8	1258.7	1332.4	1520.1	1730.9	2019.2	2242.1	2244.9	2224.5	2200.8	2193.1
60°	1249.8	1259.8	1321.9	1505.2	1769.4	2135.9	2499.7	2729.2	2685.2	2680.8	2652.7
62.5°	1198.1	1207.5	1270.2	1459.5	1821.1	2293.3	2858.5	3263.6	3250.9	3222.3	3176.1
65°	1085.8	1091.3	1153.0	1342.9	1801.3	2438.1	3169.5	3619.1	3598.7	3542.6	3483.2
66°	1035.2	1039.6	1097.4	1276.3	1736.4	2457.9	3224.5	3663.7	3630.1	3582.8	3515.6
67.5°	962.0	969.7	1010.4	1152.4	1580.6	2389.1	3189.8	3632.3	3603.1	3545.9	3478.8
70°	642.3	636.8	780.4	884.4	1204.2	1946.6	2861.8	3261.4	3261.9	3235.0	3208.0
72.5°	304.9	308.2	350.0	544.3	788.1	1300.5	2277.9	2603.2	2640.6	2592.1	2558.6
75°	219.0	224.0	249.3	333.0	470.0	780.4	1476.6	1820.6	1821.7	1735.8	1659.3
77.5°	63.8	66.6	93.6	205.3	352.2	526.7	848.1	1012.1	988.4	926.8	869.0
80°	26.4	26.4	27.5	65.5	141.4	357.7	593.3	779.3	776.5	752.9	718.8
82.5°	9.9	10.5	13.2	27.0	33.6	88.1	395.7	676.4	674.7	641.2	616.9
85°	1.1	1.1	3.3	11.6	12.7	16.5	79.3	298.3	296.6	298.3	261.4
87.5°	0.0	0.0	0.6	1.1	1.7	2.2	3.3	11.6	12.7	12.1	11.0
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
2.5°	94.1	93.0	93.0	92.5	92.5	92.5	91.9	91.4	91.4	90.8	90.3
5°	102.9	101.8	101.3	100.2	99.6	99.1	98.0	97.4	96.3	95.8	95.2
7.5°	113.4	111.2	110.6	109.0	107.3	106.2	105.1	103.5	102.4	100.2	99.6
10°	126.6	123.8	121.6	119.4	117.8	115.0	113.4	111.2	109.0	107.3	105.7
12.5°	143.6	139.8	136.5	134.3	130.4	127.1	123.8	122.2	117.8	115.6	112.8
15°	162.4	158.0	154.1	149.7	146.9	141.4	137.0	132.1	129.9	126.0	121.6
17.5°	186.6	179.4	173.4	169.0	163.5	158.0	153.0	148.0	141.4	137.0	131.5
20°	212.4	206.4	198.1	190.4	183.8	177.2	170.1	163.5	157.4	150.2	143.6
22.5°	245.5	236.7	226.7	219.0	210.2	203.1	193.2	184.4	174.5	165.1	157.4
25°	287.3	275.7	266.4	255.4	244.9	233.9	221.8	210.8	198.1	189.3	176.1
27.5°	339.0	328.0	315.4	301.0	290.6	274.1	258.1	244.4	229.5	215.7	200.9
30°	405.1	389.1	375.9	362.1	341.2	325.3	306.5	287.8	267.5	253.7	231.1
32.5°	484.3	467.2	447.4	427.6	408.4	385.8	362.7	339.6	317.0	291.7	268.6
35°	581.2	560.8	538.2	516.8	487.1	462.8	433.7	401.8	376.4	347.3	318.1
37.5°	709.4	675.8	656.0	633.5	593.3	560.3	527.8	495.9	451.3	420.5	379.2
40°	870.1	850.3	817.8	781.5	745.2	701.7	657.7	615.3	563.6	520.6	472.8
42.5°	1058.9	1029.7	996.7	944.4	907.5	856.3	806.3	750.1	686.8	631.8	575.7
45°	1236.1	1201.4	1176.1	1123.8	1085.3	1024.8	964.2	904.8	831.6	760.6	695.6
47.5°	1427.6	1399.0	1357.2	1314.8	1275.7	1207.5	1142.0	1069.9	992.8	908.6	824.4
50°	1596.0	1573.5	1544.8	1493.6	1450.2	1392.9	1315.9	1237.2	1139.8	1056.1	960.4
52.5°	1739.1	1721.5	1681.3	1645.0	1605.9	1552.0	1483.2	1407.8	1302.7	1210.8	1101.8
55°	1908.1	1895.4	1860.2	1837.6	1802.9	1751.2	1686.8	1616.9	1505.8	1405.6	1282.3
57.5°	2184.9	2175.0	2144.2	2134.8	2100.7	2055.6	1976.3	1901.5	1771.6	1647.2	1506.3
60°	2643.3	2623.5	2578.4	2555.3	2483.2	2422.6	2319.7	2216.8	2060.0	1901.5	1732.0
62.5°	3134.2	3078.7	2992.8	2919.1	2816.7	2711.6	2574.0	2416.6	2232.8	2044.6	1849.7
65°	3399.0	3304.3	3195.9	3078.7	2946.0	2791.4	2618.0	2429.2	2231.7	2033.0	1827.2
66°	3429.2	3322.5	3207.4	3077.0	2929.5	2765.0	2588.8	2390.7	2185.4	1991.7	1785.9
67.5°	3391.3	3279.5	3157.9	3013.2	2853.6	2683.0	2498.0	2292.2	2094.6	1898.2	1697.8
70°	3125.4	3014.3	2905.8	2753.4	2583.3	2411.6	2236.6	2006.6	1819.5	1638.9	1460.6
72.5°	2495.8	2420.4	2313.1	2182.7	2017.0	1815.6	1669.8	1463.9	1301.6	1126.6	988.4
75°	1559.7	1453.5	1320.8	1154.6	1028.1	864.6	779.3	623.0	530.5	449.6	371.5
77.5°	797.5	717.7	624.6	531.1	441.4	352.2	272.4	192.6	129.9	90.3	67.1
80°	658.8	588.3	511.3	426.0	346.7	269.1	193.7	132.1	84.2	55.0	42.9
82.5°	544.3	484.9	416.1	336.8	268.0	211.3	146.9	95.8	59.4	38.5	30.3
85°	231.7	210.2	162.4	128.8	96.9	71.5	50.1	33.6	23.7	19.3	17.6
87.5°	9.9	11.0	10.5	8.3	6.1	6.1	5.5	4.4	4.4	4.4	4.4
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4	86.4
2.5°	90.3	89.7	89.2	89.2	88.6	88.1	84.8	82.0	78.7	76.5	74.3
5°	94.1	93.6	92.5	91.9	90.8	90.3	83.1	77.0	72.1	68.2	65.5
7.5°	98.0	97.4	95.8	94.1	93.6	92.5	80.9	73.2	66.6	62.2	59.4
10°	102.9	101.3	99.6	97.4	95.8	94.1	78.7	68.8	61.6	57.8	55.0
12.5°	110.1	107.3	104.6	101.8	99.6	96.9	77.6	64.9	57.8	53.4	50.6
15°	118.3	114.5	111.2	107.9	104.0	101.3	75.4	61.6	54.5	50.1	46.8
17.5°	126.0	121.6	116.7	111.7	107.9	104.0	73.2	58.3	51.2	46.8	43.5
20°	137.0	130.4	124.4	118.3	112.8	107.9	69.9	55.0	48.4	43.5	40.2
22.5°	149.1	141.4	133.7	125.5	118.3	111.7	67.1	52.3	45.7	40.7	36.9
25°	164.6	155.2	144.7	134.3	126.0	117.2	64.4	49.5	42.9	38.0	34.1
27.5°	186.0	172.8	161.3	148.0	135.4	125.5	62.2	47.3	40.2	35.2	31.4
30°	215.2	195.9	177.8	163.5	148.6	134.3	60.0	44.6	38.0	32.5	28.1
32.5°	247.7	225.1	204.2	182.7	164.0	147.5	57.8	42.4	35.2	29.7	25.9
35°	287.8	259.2	231.1	206.4	183.8	161.8	55.6	40.2	33.0	27.0	23.1
37.5°	345.6	309.8	273.0	241.1	211.9	182.7	53.9	38.0	30.3	24.2	20.4
40°	424.9	378.6	333.5	290.0	252.1	215.7	51.7	35.8	28.1	22.0	18.2
42.5°	510.7	454.6	395.2	346.2	293.9	248.2	49.5	33.6	25.9	19.8	16.0
45°	617.5	547.6	475.5	408.9	345.1	286.2	47.3	31.4	23.1	17.6	13.8
47.5°	734.2	645.0	563.6	479.9	404.0	333.5	44.6	29.7	20.9	15.4	12.1
50°	854.1	760.0	657.1	561.9	471.6	380.8	41.8	27.0	18.7	13.8	9.9
52.5°	983.5	872.3	767.2	648.9	543.7	443.0	39.1	24.8	17.1	12.1	8.3
55°	1148.0	1023.7	900.4	767.7	641.2	515.1	36.3	22.0	14.9	10.5	6.6
57.5°	1355.0	1207.5	1056.1	906.4	752.9	609.8	34.1	19.3	12.7	8.8	5.5
60°	1550.3	1378.1	1194.8	1022.6	849.2	682.4	30.8	17.1	11.0	7.2	5.5
62.5°	1651.6	1455.1	1257.5	1067.7	882.8	708.3	27.5	14.3	9.4	6.1	5.0
65°	1626.8	1426.5	1235.0	1043.5	862.4	691.8	24.2	12.7	8.3	5.5	5.0
66°	1591.1	1392.9	1200.3	1018.1	845.3	674.2	22.6	12.1	7.7	5.5	4.4
67.5°	1512.9	1321.4	1137.6	968.1	798.6	640.6	20.4	11.0	7.2	5.0	4.4
70°	1292.2	1118.3	971.4	820.6	682.4	539.9	16.5	9.4	6.1	4.4	4.4
72.5°	855.2	736.9	639.0	549.8	459.5	356.6	13.8	7.7	5.0	4.4	3.9
75°	322.5	291.7	250.4	225.1	196.5	172.3	11.0	5.0	3.9	3.9	3.9
77.5°	57.2	52.8	46.8	42.9	39.6	36.3	8.8	3.3	3.3	3.9	3.9
80°	38.5	35.8	32.5	29.7	27.5	24.8	6.1	2.8	3.3	3.3	3.9
82.5°	27.5	25.9	24.2	22.0	20.4	18.2	3.9	2.8	3.3	3.3	3.3
85°	16.5	15.4	14.3	13.2	11.6	11.0	2.8	2.8	2.8	3.3	3.3
87.5°	4.4	3.9	4.4	4.4	3.3	3.9	2.2	2.2	2.2	2.8	2.8
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: P150655

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	86.4	86.4	86.4	86.4	86.4
2.5°	73.2	73.2	72.1	73.7	73.7
5°	63.3	63.3	62.7	63.3	63.3
7.5°	57.8	57.2	57.2	57.2	57.8
10°	52.8	52.3	52.3	52.3	52.3
12.5°	48.4	47.9	47.3	47.9	47.9
15°	44.6	43.5	43.5	43.5	43.5
17.5°	41.3	40.2	39.6	39.6	39.6
20°	38.0	36.3	36.3	36.3	36.3
22.5°	34.7	33.0	33.0	33.0	33.0
25°	31.4	29.7	29.7	29.7	29.7
27.5°	28.6	27.0	27.0	27.0	27.0
30°	25.3	24.2	24.2	24.8	24.2
32.5°	23.1	21.5	21.5	22.0	22.0
35°	20.4	19.3	19.3	19.3	19.3
37.5°	17.6	16.5	16.5	16.5	16.5
40°	15.4	14.3	13.8	14.3	14.3
42.5°	13.2	12.1	11.6	11.6	11.6
45°	11.6	9.9	9.4	9.9	9.9
47.5°	9.4	8.3	8.3	8.8	8.8
50°	7.2	7.2	7.7	8.8	8.8
52.5°	6.6	6.6	7.7	8.8	8.8
55°	6.1	6.6	7.7	8.3	8.8
57.5°	5.5	6.6	7.7	8.3	8.3
60°	5.5	6.1	7.2	8.3	8.3
62.5°	5.0	5.5	6.6	7.7	7.7
65°	5.0	5.5	6.6	7.7	7.7
66°	5.0	5.5	6.6	7.7	7.7
67.5°	5.0	5.5	6.6	7.7	7.7
70°	5.0	5.5	6.6	7.2	7.2
72.5°	4.4	5.0	6.1	7.2	7.2
75°	4.4	5.0	6.1	7.2	7.2
77.5°	4.4	5.0	6.1	7.2	7.2
80°	4.4	5.0	6.1	6.6	7.2
82.5°	3.9	5.0	5.5	6.6	6.6
85°	3.9	4.4	5.5	6.1	6.6
87.5°	3.3	3.9	4.4	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)