

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: P155585

Luminaire Tested: **TLM-F02-LED-E1-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155585
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33672)
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-T3
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

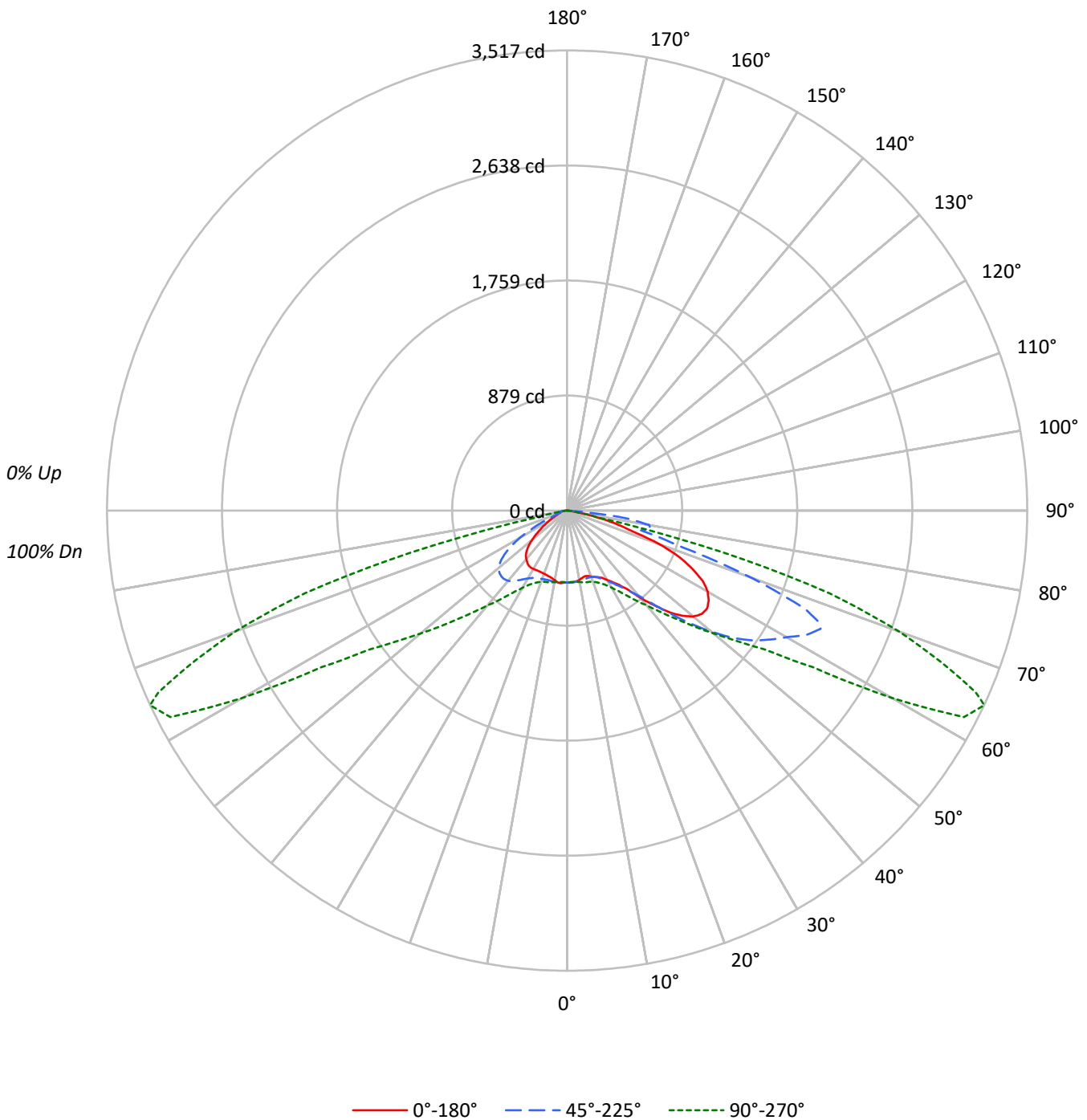
Lumens per Lamp: N/A
Luminaire Lumens: 5091.7 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 55
Input Voltage (V): NR
Input Current (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	105	99	94	89	102	97	92	87	92	88	84	88	85	82	85	82	79
2	92	82	73	65	89	80	71	64	76	69	63	72	66	61	69	64	60
3	81	68	57	49	79	66	56	49	63	55	48	60	53	47	57	51	46
4	73	57	46	38	70	56	46	38	53	44	37	51	43	36	48	41	36
5	65	49	38	30	63	48	38	30	46	37	29	44	35	29	42	34	29
6	59	43	32	24	57	42	32	24	40	31	24	38	30	24	36	29	23
7	54	38	28	20	52	37	27	20	35	27	20	34	26	20	32	25	20
8	50	34	24	17	48	33	24	17	32	23	17	30	23	17	29	22	17
9	46	31	21	15	45	30	21	15	29	20	15	28	20	15	27	20	14
10	43	28	19	13	42	27	19	13	26	18	13	25	18	13	24	18	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	17897	17897	17897
5°	17966	17946	18238
10°	17809	18356	17919
15°	17543	19160	17654
20°	18626	20115	17824
25°	20205	22065	18380
30°	23028	25660	19423
35°	27611	31469	20423
40°	36980	40285	20668
45°	50520	53643	20232
50°	63928	74062	17791
55°	74269	105438	14149
60°	80925	186477	10738
65°	81680	271421	8112
70°	71593	257075	6771
75°	47298	155566	6931
80°	17262	15816	8171
85°	2882	10516	9057



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	1.0
10°-20°	155.1	3.0
20°-30°	266.6	5.2
30°-40°	432.8	8.5
40°-50°	722.6	14.2
50°-60°	1137.8	22.3
60°-70°	1551.6	30.5
70°-80°	671.7	13.2
80°-90°	101.0	2.0
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°	474.2	9.3
0°-40°	907.0	17.8
0°-60°	2767.5	54.4
0°-90°	5091.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5091.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	549	549	549	549	549	
5°	549	550	548	555	557	52
15°	520	541	567	551	523	149
25°	561	565	613	569	511	263
35°	693	709	790	650	513	449
45°	1095	1110	1163	712	439	842
55°	1306	1730	1854	586	249	1152
65°	1058	2138	3517	206	105	1028
75°	375	584	1234	56	55	401
85°	8	130	28	38	24	20
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°	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7
2.5°	550.9	553.1	550.9	551.5	552.0	551.5	550.9	550.9	549.2	550.3	551.5
5°	548.7	550.3	549.8	550.3	550.9	550.3	549.8	550.3	549.2	549.8	551.5
7.5°	545.9	545.4	545.9	547.0	548.1	548.1	548.1	548.7	548.1	548.1	549.8
10°	537.7	538.2	539.3	541.0	541.5	543.2	543.2	544.8	545.4	546.5	548.7
12.5°	527.2	527.8	528.9	530.0	532.7	535.5	535.5	539.3	541.0	543.7	547.6
15°	519.5	520.1	521.2	522.3	524.5	527.2	528.9	533.3	536.0	541.0	546.5
17.5°	523.9	523.4	524.5	525.0	525.0	527.2	527.2	530.5	533.8	538.2	545.4
20°	536.6	536.6	537.7	537.7	537.1	538.2	536.0	536.0	536.6	538.8	543.7
22.5°	549.2	548.7	550.9	552.0	552.6	554.2	552.0	551.5	548.7	547.0	548.7
25°	561.4	560.8	563.6	565.2	568.0	569.6	569.6	569.6	567.4	564.7	563.0
27.5°	580.1	580.1	582.8	584.5	586.7	590.0	591.6	591.6	592.2	588.3	585.6
30°	611.4	612.0	612.5	614.7	616.9	618.0	620.2	621.9	623.5	621.3	616.9
32.5°	648.9	645.6	645.6	648.9	651.6	654.9	656.0	658.2	661.5	659.9	659.3
35°	693.4	692.3	691.2	692.3	695.6	699.5	703.9	707.8	705.5	708.9	707.2
37.5°	759.5	760.6	761.1	761.1	760.6	761.7	763.9	767.7	766.6	767.7	769.9
40°	868.5	864.6	860.7	861.3	855.8	856.9	848.1	851.9	852.5	848.6	850.3
42.5°	977.4	979.6	981.3	985.7	981.8	979.6	971.4	971.4	967.0	963.1	962.0
45°	1095.2	1099.6	1100.1	1109.0	1105.7	1112.8	1118.9	1117.2	1110.1	1109.5	1101.8
47.5°	1189.3	1196.5	1204.2	1214.6	1222.9	1238.8	1257.5	1266.9	1272.4	1276.8	1268.0
50°	1259.8	1263.1	1282.9	1299.4	1317.5	1344.0	1369.8	1403.4	1430.4	1443.0	1455.1
52.5°	1297.7	1306.0	1327.4	1353.3	1385.2	1424.9	1466.7	1520.1	1566.3	1597.1	1624.6
55°	1306.0	1314.2	1338.5	1371.5	1414.9	1468.3	1528.3	1601.0	1670.3	1729.7	1787.5
57.5°	1282.9	1292.2	1318.1	1356.1	1407.2	1472.2	1547.6	1642.8	1738.6	1834.9	1920.2
60°	1240.5	1252.0	1275.7	1313.1	1369.8	1443.0	1533.3	1652.7	1787.0	1934.5	2097.9
62.5°	1170.6	1182.7	1204.7	1246.0	1304.3	1385.2	1489.8	1638.4	1828.3	2060.5	2350.5
65°	1058.3	1063.8	1090.8	1132.6	1184.4	1273.5	1388.5	1567.9	1815.1	2138.1	2537.7
66°	1007.7	1017.0	1033.6	1067.1	1116.7	1200.3	1315.9	1498.1	1765.0	2111.1	2532.7
67.5°	928.4	935.6	946.6	969.2	999.4	1061.1	1170.6	1342.9	1612.0	1974.7	2427.6
70°	750.7	754.0	768.8	776.5	787.0	807.4	847.0	946.1	1155.7	1496.4	1959.2
72.5°	511.8	521.2	537.1	559.2	587.8	615.3	634.0	646.7	691.8	892.7	1305.4
75°	375.3	385.2	405.6	434.8	484.9	542.1	601.5	629.0	610.3	584.5	727.0
77.5°	217.9	231.1	248.2	276.3	322.5	398.5	500.3	590.5	651.6	655.5	622.4
80°	91.9	93.6	104.0	118.3	146.9	200.3	279.6	409.5	544.8	636.2	657.7
82.5°	20.9	25.9	33.0	39.1	47.9	66.0	98.0	162.9	294.4	461.7	602.1
85°	7.7	7.7	10.5	15.4	17.6	19.8	25.9	41.3	70.4	129.9	270.8
87.5°	0.0	0.6	1.1	1.1	2.2	2.8	4.4	6.1	5.5	5.0	16.5
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7
2.5°	550.3	549.8	548.7	548.7	548.7	548.7	547.6	548.1	547.0	547.6	547.6
5°	549.8	549.8	549.2	548.1	548.7	548.7	549.2	548.1	548.1	548.7	548.1
7.5°	549.8	549.2	549.2	549.2	549.8	549.2	549.8	549.8	549.8	550.3	550.3
10°	549.8	549.8	550.9	551.5	551.5	552.0	553.7	553.7	554.2	554.8	555.9
12.5°	550.3	552.6	554.2	555.9	556.4	557.5	560.3	560.3	561.4	563.0	563.6
15°	550.9	554.2	557.5	558.6	559.7	561.9	564.7	565.8	567.4	569.1	570.2
17.5°	550.3	554.8	558.6	560.3	561.9	564.7	568.0	569.1	571.3	573.5	575.7
20°	549.8	555.9	561.9	564.1	566.3	570.2	574.6	577.3	579.5	582.8	585.0
22.5°	553.1	560.3	568.5	571.8	575.7	580.6	586.7	590.0	592.7	596.0	597.7
25°	563.6	569.1	579.0	584.5	589.4	597.7	605.9	609.8	613.1	615.8	616.4
27.5°	581.2	582.8	594.9	602.1	609.2	622.4	632.4	635.1	641.2	643.4	642.8
30°	609.8	607.0	616.9	627.9	638.4	656.6	668.7	675.8	681.3	681.3	676.9
32.5°	651.1	646.7	649.4	662.1	674.2	700.6	714.9	724.3	728.1	727.0	717.7
35°	705.0	702.2	700.6	710.5	729.8	760.6	779.3	784.2	790.3	789.2	777.1
37.5°	768.8	766.6	766.6	778.2	796.9	842.6	862.9	866.3	865.7	856.9	834.3
40°	844.2	843.1	838.2	844.8	860.7	920.2	947.7	952.1	946.1	931.7	905.3
42.5°	952.7	946.1	930.6	934.5	946.6	1004.4	1040.2	1052.3	1046.2	1031.9	989.0
45°	1094.1	1086.9	1061.1	1057.8	1064.4	1115.0	1161.2	1164.0	1162.9	1144.7	1094.1
47.5°	1260.3	1249.3	1221.8	1213.0	1210.8	1257.5	1302.1	1306.5	1303.8	1276.8	1209.1
50°	1440.3	1424.3	1406.1	1400.1	1391.3	1424.9	1470.0	1470.5	1459.5	1422.1	1358.8
52.5°	1632.3	1626.8	1623.5	1617.5	1613.6	1642.8	1670.3	1653.8	1637.3	1598.2	1543.2
55°	1826.1	1848.6	1871.7	1873.9	1880.5	1911.9	1911.4	1866.2	1854.1	1832.7	1778.2
57.5°	2031.9	2115.5	2188.2	2210.8	2232.8	2291.1	2285.6	2241.0	2225.6	2199.2	2154.1
60°	2312.0	2537.7	2747.3	2797.4	2832.1	2902.0	2895.4	2826.6	2858.5	2856.3	2798.0
62.5°	2704.4	3079.8	3394.0	3471.1	3495.3	3503.0	3461.2	3386.9	3418.2	3453.4	3274.0
65°	2970.2	3411.6	3734.1	3793.6	3796.9	3705.0	3611.9	3524.4	3516.7	3486.5	3230.0
66°	2976.3	3428.1	3751.7	3809.5	3789.2	3663.7	3545.9	3457.8	3419.9	3353.3	3087.5
67.5°	2869.5	3325.2	3673.6	3734.7	3690.1	3512.3	3350.0	3236.6	3162.3	3054.4	2820.0
70°	2410.0	2861.8	3291.1	3405.0	3419.3	3154.1	2929.0	2795.8	2695.6	2547.6	2345.6
72.5°	1791.9	2200.3	2578.9	2687.9	2743.5	2531.6	2341.7	2240.5	2103.4	1947.7	1804.0
75°	1123.3	1411.6	1665.4	1741.9	1689.6	1525.6	1411.6	1369.3	1234.4	1141.4	1075.9
77.5°	642.3	732.5	752.9	723.7	662.1	506.9	360.5	266.9	231.7	256.5	282.9
80°	626.8	574.6	457.9	402.9	364.9	251.0	147.5	101.3	84.2	86.4	93.6
82.5°	679.1	728.7	599.9	489.3	410.6	277.4	153.0	81.5	55.0	64.9	73.2
85°	441.4	614.2	553.1	466.1	377.5	237.2	126.0	42.4	28.1	36.9	50.6
87.5°	44.6	49.0	41.8	56.7	42.4	19.8	9.9	6.1	5.5	6.6	9.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7	548.7
2.5°	548.1	548.1	548.7	549.2	549.8	550.3	550.3	550.3	550.3	551.5	550.9
5°	549.2	550.3	551.5	552.0	553.1	553.1	554.8	554.2	554.2	555.9	556.4
7.5°	551.5	553.1	555.3	554.8	557.0	556.4	557.5	557.5	555.9	556.4	555.3
10°	556.4	558.6	559.7	558.1	558.6	556.4	555.9	553.1	549.8	548.1	545.9
12.5°	564.7	566.9	566.9	564.1	560.8	555.9	552.0	545.9	541.0	538.2	535.5
15°	571.8	574.0	573.5	569.1	564.1	556.4	550.9	543.7	536.6	532.2	529.4
17.5°	577.3	578.4	576.8	570.7	565.2	558.1	552.6	544.8	536.6	531.1	526.1
20°	585.6	584.5	580.6	572.9	566.9	560.3	555.9	549.2	539.9	532.7	525.6
22.5°	597.7	593.3	586.1	577.9	571.8	565.8	561.4	554.2	544.8	536.0	527.8
25°	613.6	604.8	594.9	586.1	580.6	574.0	569.1	561.4	551.5	541.5	531.6
27.5°	636.8	621.3	608.7	601.0	594.9	586.7	580.6	570.7	560.3	548.7	537.7
30°	662.6	641.7	629.6	623.5	616.9	608.1	598.8	586.1	574.0	561.4	548.1
32.5°	696.2	670.9	659.3	653.3	644.5	633.5	622.4	608.1	591.1	574.6	558.6
35°	740.2	714.4	702.2	692.9	680.8	666.5	650.5	631.3	608.1	586.1	565.8
37.5°	787.6	759.5	747.9	738.0	719.9	701.1	678.6	650.5	619.1	590.0	564.7
40°	847.5	821.7	806.8	789.8	768.3	735.8	700.6	659.9	619.7	583.9	554.2
42.5°	923.5	897.6	875.6	848.6	811.2	761.1	711.1	658.2	609.8	569.1	537.1
45°	1024.2	992.8	954.9	907.5	847.0	777.1	711.6	647.8	591.1	545.9	511.8
47.5°	1147.5	1099.6	1037.4	957.6	870.7	781.5	702.8	626.8	561.9	512.9	475.0
50°	1293.9	1218.5	1116.1	998.9	882.8	774.9	680.8	595.5	520.6	468.3	423.2
52.5°	1461.2	1337.9	1187.1	1028.6	882.2	752.9	643.4	548.1	466.7	408.4	365.4
55°	1657.7	1474.4	1260.3	1050.6	866.8	712.2	586.1	481.6	400.1	346.2	306.5
57.5°	1945.5	1695.6	1388.0	1084.7	836.0	649.4	508.5	401.8	330.2	279.0	245.5
60°	2471.6	2064.9	1618.0	1153.5	788.7	557.5	417.7	316.5	256.5	215.2	192.6
62.5°	2867.9	2350.5	1742.4	1138.1	693.4	444.1	309.8	230.6	188.8	160.7	146.4
65°	2811.2	2261.9	1609.8	980.2	543.7	313.1	205.8	156.8	129.9	116.7	108.4
66°	2683.0	2146.4	1494.8	882.2	470.0	260.3	169.5	131.5	111.7	102.4	96.9
67.5°	2439.7	1931.7	1288.9	723.2	361.0	188.8	127.7	104.0	90.8	87.0	83.1
70°	2028.0	1540.4	904.8	421.0	184.4	105.1	80.9	72.6	69.3	68.8	67.7
72.5°	1554.2	1090.2	532.7	199.2	95.8	69.9	62.7	60.0	58.9	58.9	59.4
75°	952.7	612.5	235.5	97.4	67.1	58.9	55.6	54.5	53.9	54.5	53.9
77.5°	318.1	194.8	100.7	73.7	61.1	54.5	52.3	51.2	51.2	51.2	51.2
80°	97.4	84.8	77.0	68.2	57.8	51.7	48.4	47.9	48.4	49.0	47.3
82.5°	73.2	69.3	64.9	60.5	52.3	46.2	45.1	45.1	45.1	43.5	41.3
85°	53.9	53.4	44.0	41.3	38.5	38.5	38.5	38.5	36.9	34.1	31.9
87.5°	9.9	9.4	9.9	10.5	15.4	16.5	16.5	17.6	19.3	18.2	18.2
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: P155585

CATALOG NUMBER: TLM-F02-LED-E1-T3

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	548.7	548.7	548.7	548.7	548.7
2.5°	550.9	550.3	552.0	550.9	551.5
5°	555.9	555.3	556.4	555.3	557.0
7.5°	554.2	553.1	552.6	553.1	553.7
10°	542.6	541.5	541.0	540.4	541.0
12.5°	532.7	530.5	530.5	529.4	530.0
15°	525.6	523.9	523.4	522.3	522.8
17.5°	522.3	519.5	518.4	517.3	517.3
20°	520.1	516.8	515.1	514.0	513.5
22.5°	520.1	515.1	512.9	511.8	511.3
25°	522.3	516.2	512.9	511.3	510.7
27.5°	526.7	519.0	515.1	512.9	512.9
30°	534.4	524.5	519.0	516.2	515.7
32.5°	542.1	528.9	521.2	517.9	516.8
35°	545.9	528.9	519.5	514.0	512.9
37.5°	541.5	521.7	510.2	501.9	500.3
40°	527.8	506.9	494.2	486.5	485.4
42.5°	509.6	489.3	474.4	468.9	467.2
45°	484.9	460.6	445.8	438.1	438.6
47.5°	442.5	417.7	404.5	397.4	398.5
50°	392.4	368.2	356.6	348.9	350.6
52.5°	337.4	315.4	304.3	300.5	299.4
55°	279.6	262.5	254.8	250.4	248.8
57.5°	226.7	214.6	209.1	203.6	204.2
60°	178.9	172.8	171.2	165.1	164.6
62.5°	140.9	137.0	135.4	131.0	131.5
65°	106.8	105.7	106.8	104.0	105.1
66°	96.3	96.9	96.9	95.2	96.3
67.5°	83.1	84.2	85.9	84.2	85.3
70°	68.8	69.9	71.0	71.0	71.0
72.5°	60.0	61.1	61.6	61.6	61.6
75°	55.0	55.6	56.1	55.0	55.0
77.5°	51.7	51.7	50.6	50.1	49.5
80°	46.8	46.2	44.6	43.5	43.5
82.5°	39.1	38.0	36.9	35.2	35.2
85°	29.7	28.6	27.5	25.3	24.2
87.5°	15.4	16.0	15.4	12.7	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)