

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: P151814

Luminaire Tested: **TLM-F04-LED-E1-SL4-HSS-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P151814  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TLM-F04-LED-E1-SL4-HSS-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND  
HOUSE SIDE SHIELD  
Light Source: (28) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

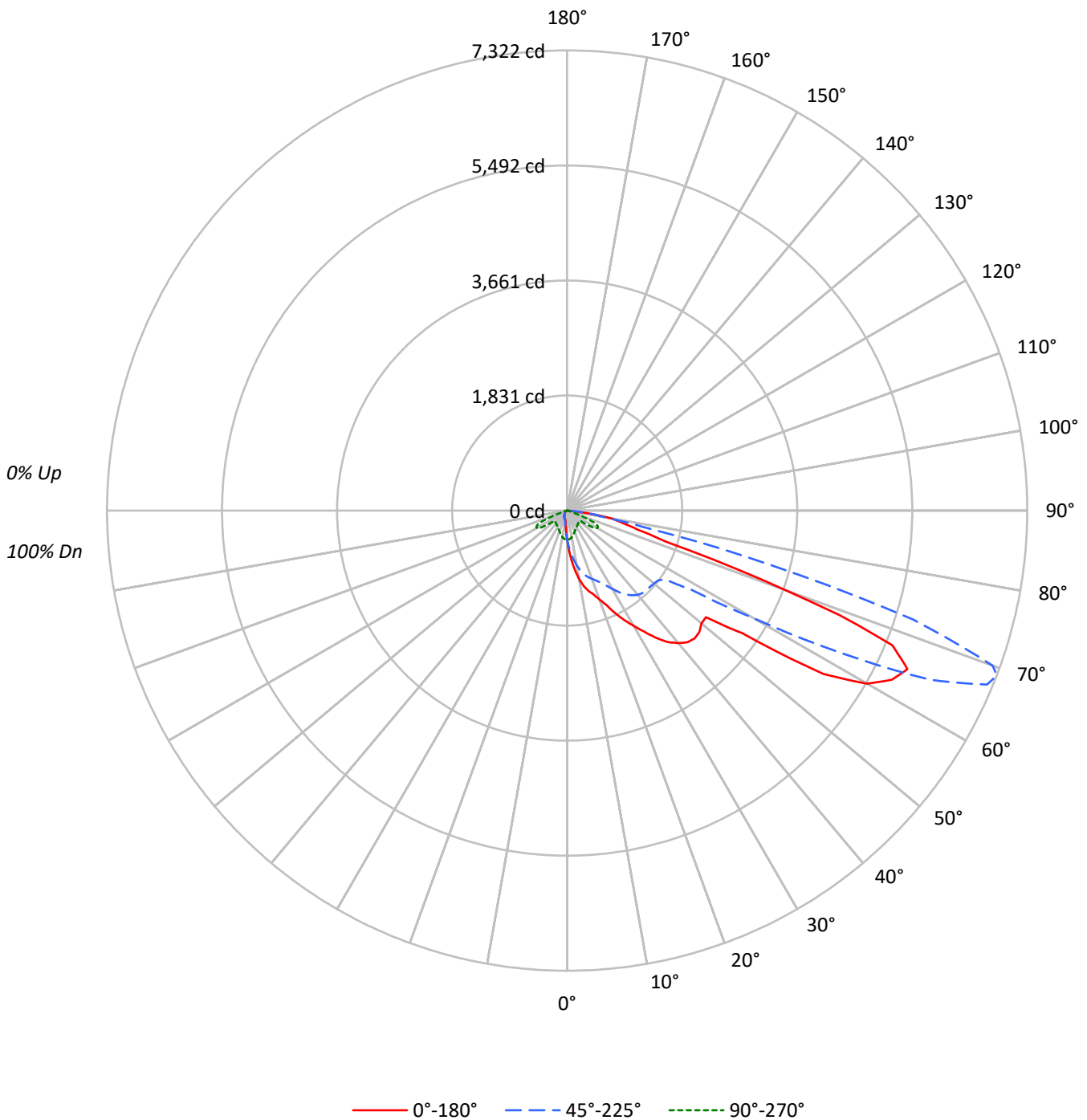
Lumens per Lamp: N/A  
Luminaire Lumens: 6136.9 lumens  
Efficiency: N/A  
Efficacy: 60.0 lumens/watt  
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 102.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: TLM-F04-LED-E1-SL4-HSS-7030

### 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	99	93	88	102	96	91	86	92	87	83	88	84	81	84	81	78	76
2	91	80	71	63	88	78	70	62	74	67	61	71	65	59	68	62	58	55
3	80	66	55	47	77	64	54	46	61	52	45	58	51	44	55	49	43	41
4	71	56	44	36	68	54	44	35	51	42	35	49	41	34	46	39	33	31
5	64	48	36	28	61	46	36	28	44	35	27	42	33	27	40	32	27	24
6	58	42	31	23	56	40	30	22	38	29	22	37	28	22	35	27	22	19
7	53	37	26	19	51	36	26	19	34	25	18	32	24	18	31	24	18	16
8	49	33	23	16	47	32	22	16	31	22	16	29	21	15	28	21	15	13
9	45	30	20	14	44	29	20	14	28	19	13	27	19	13	25	18	13	11
10	42	27	18	12	41	27	18	12	25	17	12	24	17	12	23	17	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	7446	7446	7446
5°	12727	7344	3908
10°	18123	7020	2509
15°	22038	6455	2274
20°	25713	6016	2062
25°	31828	5756	1817
30°	39276	5632	1547
35°	48543	5580	1302
40°	57749	5671	1202
45°	65279	5916	1234
50°	69752	6508	1130
55°	95316	11263	675
60°	176984	17862	485
65°	227082	19300	460
70°	171464	7981	521
75°	71390	3060	627
80°	65197	2887	833
85°	5751	2599	1475



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.6	0.8
10°-20°	164.2	2.7
20°-30°	314.3	5.1
30°-40°	522.8	8.5
40°-50°	707.4	11.5
50°-60°	1106.3	18.0
60°-70°	2274.5	37.1
70°-80°	915.2	14.9
80°-90°	84.6	1.4
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°	526.2	8.6
0°-40°	1049.0	17.1
0°-60°	2862.6	46.6
0°-90°	6136.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6136.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	464	464	464	464	464	
5°	789	672	455	290	242	85
15°	1325	1051	388	144	137	379
25°	1796	1265	325	115	102	841
35°	2475	1633	284	81	66	1552
45°	2873	1788	260	53	54	2196
55°	3403	1900	402	35	24	3431
65°	5974	6370	508	17	12	5473
75°	1150	3354	49	7	10	1542
85°	31	135	14	5	8	193
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°	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5
2.5°	618.3	611.2	603.2	603.2	593.1	593.1	587.1	571.0	569.0	560.0	550.9
5°	789.2	783.1	773.1	764.0	756.0	741.9	731.9	712.8	691.7	671.6	653.5
7.5°	956.1	953.0	935.0	931.9	918.9	895.7	875.6	847.5	811.3	783.1	750.0
10°	1110.9	1103.8	1099.8	1082.7	1063.6	1038.5	1007.3	973.2	930.9	886.7	839.4
12.5°	1233.5	1229.5	1211.4	1204.4	1184.3	1159.1	1119.9	1075.7	1033.5	976.2	920.9
15°	1325.0	1318.0	1305.9	1294.9	1270.7	1248.6	1212.4	1164.2	1112.9	1050.6	984.2
17.5°	1401.4	1388.4	1385.3	1368.2	1343.1	1317.0	1276.8	1232.5	1172.2	1109.9	1037.5
20°	1504.0	1485.9	1479.8	1454.7	1425.6	1389.4	1343.1	1287.8	1224.5	1156.1	1081.7
22.5°	1624.6	1611.5	1598.5	1576.3	1539.2	1487.9	1420.5	1360.2	1279.8	1204.4	1124.0
25°	1795.5	1784.5	1763.3	1733.2	1686.9	1625.6	1544.2	1455.7	1361.2	1264.7	1170.2
27.5°	1961.4	1951.3	1936.3	1913.1	1860.9	1793.5	1693.0	1580.4	1460.7	1344.1	1239.6
30°	2117.2	2108.2	2093.1	2070.0	2023.7	1957.4	1843.8	1723.1	1574.3	1438.6	1313.0
32.5°	2285.1	2282.1	2265.0	2231.8	2191.6	2102.1	1978.5	1848.8	1698.0	1541.2	1394.4
35°	2475.1	2452.0	2435.9	2402.7	2334.4	2238.9	2094.1	1952.3	1793.5	1632.6	1468.8
37.5°	2636.0	2613.8	2593.7	2551.5	2468.1	2346.4	2182.6	2026.7	1862.9	1699.0	1532.1
40°	2753.6	2742.5	2718.4	2663.1	2569.6	2424.8	2247.9	2078.0	1913.1	1748.3	1583.4
42.5°	2841.0	2824.0	2796.8	2739.5	2628.9	2464.1	2274.0	2099.1	1936.3	1778.4	1616.6
45°	2873.2	2859.1	2834.0	2771.7	2652.0	2475.1	2273.0	2093.1	1937.3	1787.5	1638.7
47.5°	2854.1	2840.0	2817.9	2759.6	2642.0	2462.0	2254.9	2076.0	1927.2	1790.5	1658.8
50°	2790.8	2782.7	2765.6	2716.4	2610.8	2436.9	2238.9	2066.9	1925.2	1805.6	1686.9
52.5°	2784.7	2779.7	2758.6	2709.3	2601.8	2428.9	2236.8	2072.0	1942.3	1824.7	1707.0
55°	3403.0	3331.6	3171.8	3036.1	2812.9	2547.5	2338.4	2153.4	2014.7	1900.1	1817.6
57.5°	4836.6	4730.1	4519.9	4261.6	3748.9	3245.2	2842.1	2550.5	2406.7	2354.5	2385.6
60°	5508.2	5489.1	5455.9	5333.2	5070.9	4637.6	4155.0	3633.2	3424.1	3406.0	3469.4
62.5°	5826.9	5814.8	5824.9	5809.8	5728.3	5601.7	5462.9	5237.7	5030.6	4896.9	4613.4
65°	5973.6	5981.7	6039.0	6084.2	6094.3	6127.5	6229.0	6509.5	6714.6	6369.7	5582.6
67.5°	5600.7	5647.9	5779.6	5944.5	6137.5	6324.5	6626.1	7217.2	7638.5	7233.3	6115.4
69°	4636.6	4659.7	4981.4	5292.0	5763.5	6093.3	6530.6	7305.7	7779.2	7321.8	6073.2
70°	3650.3	3671.4	4016.3	4438.5	5235.7	5660.0	6232.0	7155.9	7647.5	7204.2	5856.0
72.5°	1646.7	1616.6	1738.2	1964.4	2831.0	3504.6	4504.9	5797.7	6309.4	5771.6	4381.2
75°	1150.1	1137.0	1150.1	1151.1	1285.8	1658.8	2093.1	3142.6	3886.6	3353.8	2093.1
77.5°	890.7	881.7	872.6	862.6	878.7	984.2	1026.4	1114.9	1447.7	1369.3	798.2
80°	704.7	696.7	718.8	711.8	711.8	723.8	715.8	682.6	620.3	575.0	514.7
82.5°	327.7	329.7	329.7	357.9	431.3	503.7	526.8	493.6	438.3	373.0	300.6
85°	31.2	35.2	59.3	91.5	182.0	205.1	206.1	170.9	170.9	134.7	108.6
87.5°	0.0	1.0	1.0	1.0	9.0	25.1	21.1	6.0	3.0	3.0	5.0
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5
2.5°	534.8	531.8	519.8	507.7	496.6	484.6	473.5	462.4	450.4	441.3	430.3
5°	625.3	603.2	578.1	553.9	529.8	504.7	478.5	455.4	431.3	409.2	388.1
7.5°	716.8	673.6	639.4	596.2	556.9	517.7	481.6	444.4	410.2	378.0	347.8
10°	794.2	741.9	688.6	633.4	577.1	524.8	474.5	430.3	385.0	345.8	308.6
12.5°	857.5	791.2	725.8	656.5	593.1	526.8	464.5	411.2	357.9	313.7	275.5
15°	914.8	838.4	760.0	679.6	599.2	523.8	454.4	388.1	333.8	283.5	240.3
17.5°	961.1	873.6	785.2	694.7	608.2	519.8	441.3	372.0	308.6	256.4	214.1
20°	1001.3	909.8	814.3	712.8	614.3	518.7	430.3	351.9	286.5	231.2	190.0
22.5°	1038.5	947.0	844.5	735.9	623.3	517.7	420.2	336.8	267.4	212.1	170.9
25°	1080.7	984.2	876.6	760.0	639.4	521.8	414.2	324.7	250.3	194.0	155.8
27.5°	1128.0	1026.4	914.8	790.2	660.5	529.8	412.2	311.7	235.2	176.9	143.8
30°	1194.3	1076.7	953.0	820.3	679.6	538.9	410.2	303.6	220.2	163.9	131.7
32.5°	1252.6	1126.0	995.3	851.5	700.7	547.9	409.2	292.5	206.1	150.8	122.6
35°	1314.0	1171.2	1031.5	881.7	718.8	558.0	408.2	284.5	193.0	137.7	113.6
37.5°	1367.2	1209.4	1059.6	907.8	738.9	567.0	409.2	277.5	181.0	126.7	105.6
40°	1412.5	1248.6	1090.8	931.9	760.0	581.1	410.2	270.4	168.9	116.6	98.5
42.5°	1452.7	1285.8	1124.0	959.1	784.2	597.2	416.2	264.4	158.8	107.6	91.5
45°	1483.9	1320.0	1160.1	997.3	823.4	623.3	427.3	260.4	148.8	99.5	85.5
47.5°	1516.0	1370.3	1221.5	1057.6	880.7	664.5	446.4	259.4	140.7	93.5	80.4
50°	1560.3	1420.5	1275.8	1118.9	932.9	706.7	469.5	260.4	130.7	87.5	75.4
52.5°	1592.4	1471.8	1346.1	1225.5	1057.6	835.4	559.0	278.5	125.7	82.4	69.4
55°	1782.4	1761.3	1764.3	1784.5	1654.8	1421.5	935.0	402.1	147.8	93.5	68.4
57.5°	2513.3	2587.7	2630.9	2629.9	2415.8	2003.6	1255.7	516.7	164.9	108.6	81.4
60°	3474.4	3418.1	3338.7	3142.6	2858.1	2287.1	1404.4	555.9	142.8	86.5	74.4
62.5°	4323.9	3994.2	3701.6	3383.9	3010.9	2385.6	1434.6	552.9	124.7	65.3	52.3
65°	4853.7	4260.6	3788.1	3390.0	2950.6	2303.2	1357.2	507.7	105.6	53.3	43.2
67.5°	4980.4	4116.8	3448.3	2940.6	2465.1	1792.5	996.3	382.0	82.4	44.2	38.2
69°	4703.9	3659.4	2857.1	2281.1	1793.5	1189.3	616.3	241.3	63.3	40.2	35.2
70°	4326.9	3182.9	2327.3	1830.7	1328.0	835.4	431.3	169.9	51.3	37.2	32.2
72.5°	2783.7	1671.9	1144.1	796.2	547.9	332.8	168.9	76.4	39.2	31.2	26.1
75°	1079.7	618.3	448.4	340.8	266.4	185.0	102.5	49.3	33.2	26.1	20.1
77.5°	531.8	407.2	332.8	228.2	132.7	82.4	55.3	38.2	27.1	19.1	13.1
80°	420.2	279.5	166.9	103.5	78.4	59.3	42.2	31.2	20.1	12.1	9.0
82.5°	215.1	117.6	86.5	70.4	58.3	46.2	34.2	22.1	13.1	8.0	7.0
85°	67.4	49.3	44.2	43.2	40.2	33.2	24.1	14.1	8.0	5.0	5.0
87.5°	5.0	7.0	9.0	7.0	8.0	7.0	9.0	6.0	4.0	4.0	3.0
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5	463.5
2.5°	422.2	410.2	399.1	392.1	379.0	374.0	369.0	366.9	357.9	359.9	351.9
5°	369.0	347.8	331.8	315.7	300.6	289.5	280.5	269.4	260.4	256.4	248.3
7.5°	320.7	293.6	272.4	255.4	237.3	223.2	211.1	203.1	195.0	187.0	183.0
10°	278.5	249.3	225.2	208.1	191.0	178.9	169.9	163.9	158.8	155.8	154.8
12.5°	239.3	211.1	189.0	173.9	160.9	154.8	150.8	147.8	146.8	145.8	145.8
15°	209.1	181.0	163.9	152.8	146.8	143.8	142.8	140.7	138.7	137.7	137.7
17.5°	181.0	159.8	147.8	141.8	138.7	136.7	134.7	132.7	130.7	129.7	129.7
20°	161.9	144.8	138.7	134.7	131.7	129.7	126.7	124.7	123.7	122.6	121.6
22.5°	146.8	135.7	131.7	128.7	124.7	121.6	119.6	117.6	115.6	114.6	113.6
25°	135.7	128.7	125.7	121.6	117.6	114.6	111.6	108.6	106.6	105.6	103.5
27.5°	127.7	122.6	118.6	113.6	109.6	106.6	103.5	100.5	98.5	96.5	95.5
30°	120.6	115.6	110.6	106.6	101.5	98.5	94.5	91.5	90.5	88.5	86.5
32.5°	113.6	108.6	103.5	98.5	93.5	89.5	87.5	83.4	81.4	80.4	78.4
35°	105.6	100.5	94.5	90.5	85.5	81.4	78.4	75.4	73.4	71.4	70.4
37.5°	98.5	92.5	86.5	81.4	77.4	73.4	70.4	67.4	65.3	63.3	62.3
40°	90.5	84.4	78.4	73.4	69.4	66.4	63.3	60.3	58.3	57.3	57.3
42.5°	83.4	76.4	70.4	66.4	63.3	59.3	56.3	53.3	52.3	51.3	52.3
45°	76.4	69.4	64.3	60.3	57.3	53.3	50.3	48.3	47.3	48.3	49.3
47.5°	70.4	63.3	58.3	55.3	52.3	49.3	46.2	44.2	44.2	46.2	48.3
50°	64.3	57.3	53.3	51.3	48.3	45.2	41.2	40.2	41.2	43.2	45.2
52.5°	58.3	50.3	47.3	46.2	43.2	40.2	37.2	36.2	37.2	39.2	38.2
55°	52.3	44.2	43.2	42.2	39.2	35.2	32.2	32.2	32.2	31.2	29.2
57.5°	50.3	39.2	38.2	37.2	34.2	30.2	28.1	26.1	25.1	22.1	21.1
60°	52.3	35.2	35.2	33.2	30.2	26.1	23.1	20.1	18.1	16.1	16.1
62.5°	42.2	32.2	31.2	29.2	25.1	21.1	18.1	15.1	14.1	13.1	13.1
65°	34.2	29.2	27.1	24.1	21.1	17.1	14.1	12.1	11.1	11.1	12.1
67.5°	31.2	26.1	23.1	20.1	17.1	13.1	11.1	10.1	10.1	11.1	11.1
69°	29.2	24.1	21.1	18.1	15.1	12.1	10.1	10.1	10.1	10.1	11.1
70°	27.1	23.1	20.1	17.1	13.1	10.1	9.0	9.0	10.1	10.1	11.1
72.5°	21.1	18.1	17.1	14.1	10.1	9.0	8.0	9.0	9.0	10.1	10.1
75°	16.1	13.1	13.1	11.1	8.0	7.0	7.0	8.0	8.0	9.0	9.0
77.5°	11.1	9.0	9.0	8.0	7.0	6.0	6.0	7.0	8.0	8.0	9.0
80°	8.0	7.0	6.0	7.0	6.0	5.0	6.0	7.0	7.0	8.0	8.0
82.5°	6.0	6.0	6.0	6.0	5.0	5.0	6.0	6.0	7.0	8.0	8.0
85°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	7.0	7.0
87.5°	3.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0	6.0	6.0
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: P151814

CATALOG NUMBER: TLM-F04-LED-E1-SL4-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	463.5	463.5	463.5	463.5
2.5°	349.9	348.8	344.8	345.8
5°	245.3	239.3	243.3	242.3
7.5°	180.0	178.9	177.9	180.0
10°	153.8	153.8	152.8	153.8
12.5°	144.8	144.8	144.8	144.8
15°	137.7	137.7	136.7	136.7
17.5°	129.7	129.7	129.7	128.7
20°	121.6	120.6	120.6	120.6
22.5°	112.6	111.6	111.6	111.6
25°	103.5	102.5	102.5	102.5
27.5°	94.5	93.5	92.5	92.5
30°	85.5	84.4	83.4	83.4
32.5°	76.4	75.4	74.4	74.4
35°	68.4	68.4	67.4	66.4
37.5°	61.3	61.3	61.3	61.3
40°	56.3	57.3	57.3	57.3
42.5°	53.3	54.3	55.3	56.3
45°	51.3	53.3	54.3	54.3
47.5°	50.3	51.3	52.3	52.3
50°	46.2	45.2	45.2	45.2
52.5°	37.2	35.2	34.2	33.2
55°	27.1	26.1	24.1	24.1
57.5°	19.1	19.1	18.1	18.1
60°	15.1	15.1	14.1	15.1
62.5°	13.1	13.1	13.1	13.1
65°	12.1	12.1	12.1	12.1
67.5°	12.1	12.1	12.1	12.1
69°	11.1	11.1	11.1	11.1
70°	11.1	11.1	11.1	11.1
72.5°	10.1	10.1	10.1	10.1
75°	9.0	10.1	10.1	10.1
77.5°	9.0	9.0	9.0	9.0
80°	8.0	8.0	9.0	9.0
82.5°	8.0	8.0	8.0	8.0
85°	7.0	7.0	8.0	8.0
87.5°	6.0	6.0	7.0	7.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)