

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: P151804

Luminaire Tested: **TLM-F03-LED-E1-SL4-HSS-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P151804  
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-F03-LED-E1-SL4-HSS-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND  
HOUSE SIDE SHIELD  
Light Source: (21) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4602.7 lumens  
Efficiency: N/A  
Efficacy: 58.8 lumens/watt  
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

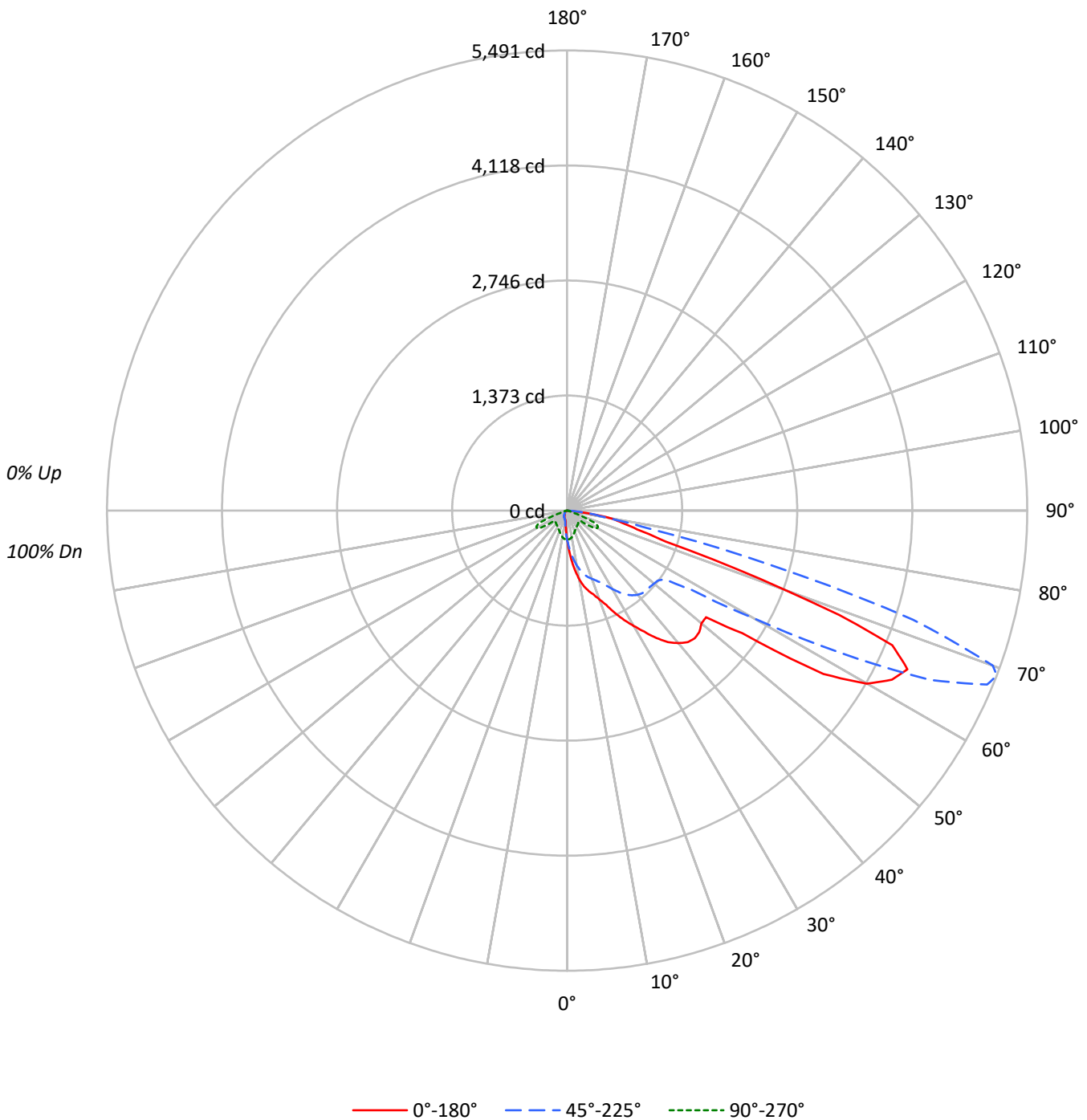
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: TLM-F03-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	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	99	93	88	102	96	91	86	92	87	83	88	84	81	84	81	78	76					76			
2	91	80	71	63	88	78	70	62	74	67	61	71	65	59	68	62	58	55					55			
3	80	66	55	47	77	64	54	46	61	52	45	58	51	44	55	49	43	41					41			
4	71	56	44	36	68	54	44	35	51	42	35	49	41	34	46	39	33	31					31			
5	64	48	36	28	61	46	36	28	44	35	27	42	33	27	40	32	27	24					24			
6	58	42	31	23	56	40	30	22	38	29	22	37	28	22	35	27	22	19					19			
7	53	37	26	19	51	36	26	19	34	25	18	32	24	18	31	24	18	16					16			
8	49	33	23	16	47	32	22	16	31	22	16	29	21	15	28	21	15	13					13			
9	45	30	20	14	44	29	20	14	28	19	13	27	19	13	25	18	13	11					11			
10	42	27	18	12	41	27	18	12	25	17	12	24	17	12	23	17	12	10					10			

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

	0°	90°	180°
0°	7483	7483	7483
5°	12791	7382	3927
10°	18214	7054	2523
15°	22149	6486	2284
20°	25842	6046	2073
25°	31986	5784	1827
30°	39472	5660	1556
35°	48785	5608	1309
40°	58037	5699	1208
45°	65606	5946	1239
50°	70101	6541	1135
55°	95795	11320	679
60°	177867	17954	487
65°	228218	19398	458
70°	172326	8019	522
75°	71749	3069	624
80°	65520	2901	843
85°	5780	2618	1482



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.7	0.8
10°-20°	123.2	2.7
20°-30°	235.8	5.1
30°-40°	392.1	8.5
40°-50°	530.5	11.5
50°-60°	829.7	18.0
60°-70°	1705.8	37.1
70°-80°	686.4	14.9
80°-90°	63.5	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°	394.7	8.6
0°-40°	786.7	17.1
0°-60°	2147.0	46.6
0°-90°	4602.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4602.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	348	348	348	348	348	
5°	592	504	342	217	182	64
15°	994	788	291	108	102	284
25°	1347	948	244	86	77	631
35°	1856	1224	213	61	50	1164
45°	2155	1341	195	40	41	1647
55°	2552	1425	302	26	18	2573
65°	4480	4777	381	13	9	4104
75°	863	2515	37	5	8	1156
85°	23	101	11	4	6	145
90°	0	0	0	0	0	



TEST NUMBER: P151804

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6
2.5°	463.7	458.4	452.4	452.4	444.9	444.9	440.3	428.3	426.8	420.0	413.2
5°	591.9	587.4	579.8	573.0	567.0	556.4	548.9	534.6	518.7	503.7	490.1
7.5°	717.0	714.8	701.2	699.0	689.2	671.8	656.7	635.6	608.5	587.4	562.5
10°	833.2	827.9	824.9	812.1	797.7	778.9	755.5	729.9	698.2	665.0	629.6
12.5°	925.1	922.1	908.6	903.3	888.2	869.4	839.9	806.8	775.1	732.1	690.7
15°	993.8	988.5	979.4	971.1	953.0	936.5	909.3	873.1	834.7	787.9	738.2
17.5°	1051.1	1041.3	1039.0	1026.2	1007.3	987.7	957.6	924.4	879.2	832.4	778.1
20°	1128.0	1114.4	1109.9	1091.0	1069.2	1042.0	1007.3	965.9	918.4	867.1	811.3
22.5°	1218.5	1208.7	1198.8	1182.3	1154.4	1115.9	1065.4	1020.2	959.8	903.3	843.0
25°	1346.6	1338.3	1322.5	1299.9	1265.2	1219.2	1158.1	1091.8	1020.9	948.5	877.6
27.5°	1471.0	1463.5	1452.2	1434.8	1395.6	1345.1	1269.7	1185.3	1095.6	1008.1	929.7
30°	1587.9	1581.1	1569.8	1552.5	1517.8	1468.0	1382.8	1292.3	1180.8	1079.0	984.7
32.5°	1713.8	1711.6	1698.7	1673.9	1643.7	1576.6	1483.9	1386.6	1273.5	1155.9	1045.8
35°	1856.3	1839.0	1826.9	1802.0	1750.8	1679.1	1570.6	1464.3	1345.1	1224.5	1101.6
37.5°	1977.0	1960.4	1945.3	1913.6	1851.1	1759.8	1636.9	1520.1	1397.1	1274.2	1149.1
40°	2065.2	2056.9	2038.8	1997.3	1927.2	1818.6	1685.9	1558.5	1434.8	1311.2	1187.5
42.5°	2130.8	2118.0	2097.6	2054.6	1971.7	1848.0	1705.5	1574.3	1452.2	1333.8	1212.4
45°	2154.9	2144.4	2125.5	2078.8	1989.0	1856.3	1704.8	1569.8	1452.9	1340.6	1229.0
47.5°	2140.6	2130.0	2113.4	2069.7	1981.5	1846.5	1691.2	1557.0	1445.4	1342.9	1244.1
50°	2093.1	2087.1	2074.2	2037.3	1958.1	1827.7	1679.1	1550.2	1443.9	1354.2	1265.2
52.5°	2088.6	2084.8	2069.0	2032.0	1951.3	1821.6	1677.6	1554.0	1456.7	1368.5	1280.3
55°	2552.3	2498.7	2378.8	2277.1	2109.7	1910.6	1753.8	1615.1	1511.0	1425.0	1363.2
57.5°	3627.5	3547.5	3390.0	3196.2	2811.6	2433.9	2131.5	1912.9	1805.1	1765.9	1789.2
60°	4131.1	4116.8	4091.9	3999.9	3803.1	3478.2	3116.3	2724.9	2568.1	2554.5	2602.0
62.5°	4370.1	4361.1	4368.6	4357.3	4296.3	4201.3	4097.2	3928.3	3773.0	3672.7	3460.1
65°	4480.2	4486.3	4529.2	4563.2	4570.7	4595.6	4671.7	4882.1	5035.9	4777.3	4186.9
67.5°	4200.5	4235.9	4334.7	4458.4	4603.1	4743.4	4969.6	5412.9	5728.8	5425.0	4586.5
69°	3477.4	3494.8	3736.0	3969.0	4322.6	4570.0	4897.9	5479.3	5834.4	5491.3	4554.9
70°	2737.8	2753.6	3012.2	3328.9	3926.8	4245.0	4674.0	5366.9	5735.6	5403.1	4392.0
72.5°	1235.0	1212.4	1303.7	1473.3	2123.2	2628.4	3378.6	4348.3	4732.1	4328.7	3285.9
75°	862.6	852.8	862.6	863.3	964.4	1244.1	1569.8	2357.0	2914.9	2515.3	1569.8
77.5°	668.0	661.3	654.5	646.9	659.0	738.2	769.8	836.2	1085.8	1026.9	598.7
80°	528.5	522.5	539.1	533.8	533.8	542.9	536.8	512.0	465.2	431.3	386.0
82.5°	245.8	247.3	247.3	268.4	323.5	377.8	395.1	370.2	328.7	279.7	225.4
85°	23.4	26.4	44.5	68.6	136.5	153.8	154.6	128.2	128.2	101.0	81.4
87.5°	0.0	0.8	0.8	0.8	6.8	18.8	15.8	4.5	2.3	2.3	3.8
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°	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6
2.5°	401.1	398.9	389.8	380.8	372.5	363.4	355.1	346.8	337.8	331.0	322.7
5°	469.0	452.4	433.5	415.5	397.4	378.5	358.9	341.6	323.5	306.9	291.0
7.5°	537.6	505.2	479.5	447.1	417.7	388.3	361.2	333.3	307.6	283.5	260.9
10°	595.7	556.4	516.5	475.0	432.8	393.6	355.9	322.7	288.8	259.4	231.5
12.5°	643.2	593.4	544.4	492.4	444.9	395.1	348.3	308.4	268.4	235.2	206.6
15°	686.1	628.8	570.0	509.7	449.4	392.8	340.8	291.0	250.3	212.6	180.2
17.5°	720.8	655.2	588.9	521.0	456.2	389.8	331.0	279.0	231.5	192.3	160.6
20°	751.0	682.4	610.7	534.6	460.7	389.1	322.7	263.9	214.9	173.4	142.5
22.5°	778.9	710.3	633.4	551.9	467.5	388.3	315.2	252.6	200.6	159.1	128.2
25°	810.5	738.2	657.5	570.0	479.5	391.3	310.6	243.5	187.7	145.5	116.9
27.5°	846.0	769.8	686.1	592.6	495.4	397.4	309.1	233.7	176.4	132.7	107.8
30°	895.7	807.5	714.8	615.3	509.7	404.1	307.6	227.7	165.1	122.9	98.8
32.5°	939.5	844.5	746.5	638.6	525.5	410.9	306.9	219.4	154.6	113.1	92.0
35°	985.5	878.4	773.6	661.3	539.1	418.5	306.1	213.4	144.8	103.3	85.2
37.5°	1025.4	907.1	794.7	680.9	554.2	425.3	306.9	208.1	135.7	95.0	79.2
40°	1059.4	936.5	818.1	699.0	570.0	435.8	307.6	202.8	126.7	87.5	73.9
42.5°	1089.5	964.4	843.0	719.3	588.1	447.9	312.2	198.3	119.1	80.7	68.6
45°	1112.9	990.0	870.1	748.0	617.5	467.5	320.4	195.3	111.6	74.6	64.1
47.5°	1137.0	1027.7	916.1	793.2	660.5	498.4	334.8	194.5	105.6	70.1	60.3
50°	1170.2	1065.4	956.8	839.2	699.7	530.1	352.1	195.3	98.0	65.6	56.5
52.5°	1194.3	1103.8	1009.6	919.1	793.2	626.6	419.2	208.9	94.2	61.8	52.0
55°	1336.8	1321.0	1323.3	1338.3	1241.1	1066.1	701.2	301.6	110.8	70.1	51.3
57.5°	1885.0	1940.8	1973.2	1972.4	1811.8	1502.7	941.7	387.6	123.7	81.4	61.1
60°	2605.8	2563.6	2504.0	2357.0	2143.6	1715.3	1053.3	417.0	107.1	64.8	55.8
62.5°	3242.9	2995.6	2776.2	2537.9	2258.2	1789.2	1075.9	414.7	93.5	49.0	39.2
65°	3640.3	3195.4	2841.0	2542.5	2213.0	1727.4	1017.9	380.8	79.2	40.0	32.4
67.5°	3735.3	3087.6	2586.2	2205.4	1848.8	1344.4	747.2	286.5	61.8	33.2	28.7
69°	3527.9	2744.5	2142.8	1710.8	1345.1	892.0	462.2	181.0	47.5	30.2	26.4
70°	3245.2	2387.1	1745.5	1373.0	996.0	626.6	323.5	127.4	38.5	27.9	24.1
72.5°	2087.8	1253.9	858.0	597.2	410.9	249.6	126.7	57.3	29.4	23.4	19.6
75°	809.8	463.7	336.3	255.6	199.8	138.7	76.9	36.9	24.9	19.6	15.1
77.5°	398.9	305.4	249.6	171.2	99.5	61.8	41.5	28.7	20.4	14.3	9.8
80°	315.2	209.6	125.2	77.7	58.8	44.5	31.7	23.4	15.1	9.0	6.8
82.5°	161.4	88.2	64.8	52.8	43.7	34.7	25.6	16.6	9.8	6.0	5.3
85°	50.5	36.9	33.2	32.4	30.2	24.9	18.1	10.6	6.0	3.8	3.8
87.5°	3.8	5.3	6.8	5.3	6.0	5.3	6.8	4.5	3.0	3.0	2.3
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°	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6	347.6
2.5°	316.7	307.6	299.3	294.1	284.3	280.5	276.7	275.2	268.4	269.9	263.9
5°	276.7	260.9	248.8	236.8	225.4	217.2	210.4	202.1	195.3	192.3	186.2
7.5°	240.5	220.2	204.3	191.5	177.9	167.4	158.3	152.3	146.3	140.2	137.2
10°	208.9	187.0	168.9	156.1	143.3	134.2	127.4	122.9	119.1	116.9	116.1
12.5°	179.5	158.3	141.8	130.4	120.6	116.1	113.1	110.8	110.1	109.3	109.3
15°	156.8	135.7	122.9	114.6	110.1	107.8	107.1	105.6	104.1	103.3	103.3
17.5°	135.7	119.9	110.8	106.3	104.1	102.5	101.0	99.5	98.0	97.3	97.3
20°	121.4	108.6	104.1	101.0	98.8	97.3	95.0	93.5	92.7	92.0	91.2
22.5°	110.1	101.8	98.8	96.5	93.5	91.2	89.7	88.2	86.7	86.0	85.2
25°	101.8	96.5	94.2	91.2	88.2	86.0	83.7	81.4	79.9	79.2	77.7
27.5°	95.8	92.0	89.0	85.2	82.2	79.9	77.7	75.4	73.9	72.4	71.6
30°	90.5	86.7	82.9	79.9	76.2	73.9	70.9	68.6	67.9	66.4	64.8
32.5°	85.2	81.4	77.7	73.9	70.1	67.1	65.6	62.6	61.1	60.3	58.8
35°	79.2	75.4	70.9	67.9	64.1	61.1	58.8	56.5	55.0	53.5	52.8
37.5°	73.9	69.4	64.8	61.1	58.1	55.0	52.8	50.5	49.0	47.5	46.7
40°	67.9	63.3	58.8	55.0	52.0	49.8	47.5	45.2	43.7	43.0	43.0
42.5°	62.6	57.3	52.8	49.8	47.5	44.5	42.2	40.0	39.2	38.5	39.2
45°	57.3	52.0	48.3	45.2	43.0	40.0	37.7	36.2	35.4	36.2	36.9
47.5°	52.8	47.5	43.7	41.5	39.2	36.9	34.7	33.2	33.2	34.7	36.2
50°	48.3	43.0	40.0	38.5	36.2	33.9	30.9	30.2	30.9	32.4	33.9
52.5°	43.7	37.7	35.4	34.7	32.4	30.2	27.9	27.1	27.9	29.4	28.7
55°	39.2	33.2	32.4	31.7	29.4	26.4	24.1	24.1	24.1	23.4	21.9
57.5°	37.7	29.4	28.7	27.9	25.6	22.6	21.1	19.6	18.8	16.6	15.8
60°	39.2	26.4	26.4	24.9	22.6	19.6	17.3	15.1	13.6	12.1	12.1
62.5°	31.7	24.1	23.4	21.9	18.8	15.8	13.6	11.3	10.6	9.8	9.8
65°	25.6	21.9	20.4	18.1	15.8	12.8	10.6	9.0	8.3	8.3	9.0
67.5°	23.4	19.6	17.3	15.1	12.8	9.8	8.3	7.5	7.5	8.3	8.3
69°	21.9	18.1	15.8	13.6	11.3	9.0	7.5	7.5	7.5	7.5	8.3
70°	20.4	17.3	15.1	12.8	9.8	7.5	6.8	6.8	7.5	7.5	8.3
72.5°	15.8	13.6	12.8	10.6	7.5	6.8	6.0	6.8	6.8	7.5	7.5
75°	12.1	9.8	9.8	8.3	6.0	5.3	5.3	6.0	6.0	6.8	6.8
77.5°	8.3	6.8	6.8	6.0	5.3	4.5	4.5	5.3	6.0	6.0	6.8
80°	6.0	5.3	4.5	5.3	4.5	3.8	4.5	5.3	5.3	6.0	6.0
82.5°	4.5	4.5	4.5	4.5	3.8	3.8	4.5	4.5	5.3	6.0	6.0
85°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.5	4.5	5.3	5.3
87.5°	2.3	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8	4.5	4.5
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: P151804

CATALOG NUMBER: TLM-F03-LED-E1-SL4-HSS-7030

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	347.6	347.6	347.6	347.6
2.5°	262.4	261.6	258.6	259.4
5°	184.0	179.5	182.5	181.7
7.5°	135.0	134.2	133.5	135.0
10°	115.4	115.4	114.6	115.4
12.5°	108.6	108.6	108.6	108.6
15°	103.3	103.3	102.5	102.5
17.5°	97.3	97.3	97.3	96.5
20°	91.2	90.5	90.5	90.5
22.5°	84.4	83.7	83.7	83.7
25°	77.7	76.9	76.9	76.9
27.5°	70.9	70.1	69.4	69.4
30°	64.1	63.3	62.6	62.6
32.5°	57.3	56.5	55.8	55.8
35°	51.3	51.3	50.5	49.8
37.5°	46.0	46.0	46.0	46.0
40°	42.2	43.0	43.0	43.0
42.5°	40.0	40.7	41.5	42.2
45°	38.5	40.0	40.7	40.7
47.5°	37.7	38.5	39.2	39.2
50°	34.7	33.9	33.9	33.9
52.5°	27.9	26.4	25.6	24.9
55°	20.4	19.6	18.1	18.1
57.5°	14.3	14.3	13.6	13.6
60°	11.3	11.3	10.6	11.3
62.5°	9.8	9.8	9.8	9.8
65°	9.0	9.0	9.0	9.0
67.5°	9.0	9.0	9.0	9.0
69°	8.3	8.3	8.3	8.3
70°	8.3	8.3	8.3	8.3
72.5°	7.5	7.5	7.5	7.5
75°	6.8	7.5	7.5	7.5
77.5°	6.8	6.8	6.8	6.8
80°	6.0	6.0	6.8	6.8
82.5°	6.0	6.0	6.0	6.0
85°	5.3	5.3	6.0	6.0
87.5°	4.5	4.5	5.3	5.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)