

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: P150666

Luminaire Tested: **TLM-F03-LED-E1-SL3-HSS-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P150666  
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-F03-LED-E1-SL3-HSS-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND  
HOUSE SIDE SHIELD  
Light Source: (21) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4406.0 lumens  
Efficiency: N/A  
Efficacy: 56.3 lumens/watt  
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

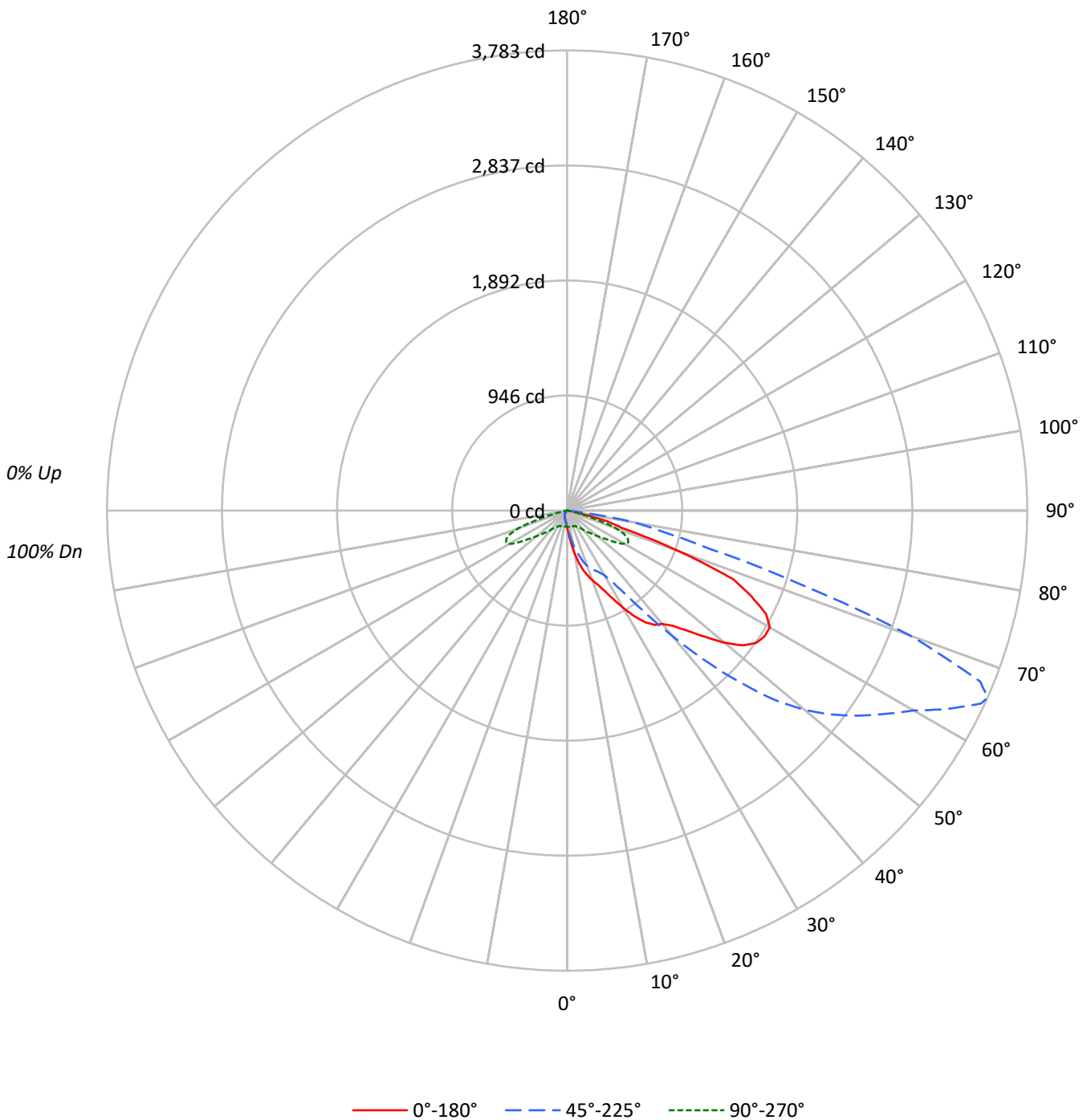
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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°	2863	2863	2863
5°	4795	2883	2105
10°	7870	2906	1760
15°	11233	3030	1491
20°	13972	3134	1281
25°	17283	3320	1086
30°	22974	3716	927
35°	29474	4397	778
40°	34184	5785	618
45°	42449	7814	463
50°	56540	10895	455
55°	71214	15929	510
60°	82826	23633	547
65°	85135	28070	606
70°	62219	26952	692
75°	28039	11728	915
80°	5046	2938	1364
85°	420	2606	2519



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	14.9	0.3
10°-20°	63.1	1.4
20°-30°	136.1	3.1
30°-40°	290.8	6.6
40°-50°	643.0	14.6
50°-60°	1089.7	24.7
60°-70°	1454.1	33.0
70°-80°	640.5	14.5
80°-90°	73.8	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°	214.2	4.9
0°-40°	504.9	11.5
0°-60°	2237.6	50.8
0°-90°	4406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4406.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	133	133	133	133	133	
5°	222	188	133	101	97	25
15°	504	385	136	72	67	144
25°	728	543	140	52	46	348
35°	1122	840	167	36	30	696
45°	1394	1978	257	21	15	1102
55°	1897	2939	424	10	14	1672
65°	1671	3752	551	8	12	1596
75°	337	1201	141	6	11	372
85°	2	25	11	5	10	10
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°	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0
2.5°	167.7	166.9	163.5	163.5	158.4	155.0	150.8	146.5	146.5	145.7	144.8
5°	221.9	216.9	216.0	206.7	199.1	188.1	177.9	164.3	162.6	160.9	160.1
7.5°	282.1	281.2	273.6	262.6	247.3	227.0	206.7	184.7	181.3	179.6	176.2
10°	360.0	355.8	345.6	327.0	304.1	277.0	244.0	209.2	205.0	201.6	199.9
12.5°	434.5	426.9	421.0	397.3	368.5	328.7	288.9	238.9	235.5	231.3	224.5
15°	504.0	497.2	487.1	466.7	434.5	384.6	338.0	277.0	268.5	262.6	257.5
17.5°	558.2	554.0	542.1	519.3	484.5	440.5	384.6	316.0	309.2	301.6	292.2
20°	609.9	604.0	585.3	554.0	516.7	482.8	439.6	366.8	357.5	348.1	338.0
22.5°	659.0	653.1	622.6	570.9	531.1	516.7	501.5	424.4	410.0	402.4	392.2
25°	727.6	714.9	667.5	585.3	532.0	543.0	569.2	498.9	485.4	474.4	458.3
27.5°	820.0	803.0	728.5	606.5	535.4	571.8	647.2	589.6	575.2	562.5	544.7
30°	924.2	913.1	824.2	657.3	559.9	614.1	734.4	704.8	687.8	672.6	651.4
32.5°	1029.2	1013.9	925.9	753.9	626.0	696.3	843.7	838.6	816.6	802.2	779.3
35°	1121.5	1113.9	1048.7	912.3	776.8	840.3	989.4	995.3	975.8	960.6	935.2
37.5°	1184.2	1184.2	1171.5	1082.6	1016.5	1063.9	1203.7	1204.5	1185.1	1150.3	1137.6
40°	1216.4	1225.7	1271.5	1288.4	1285.0	1346.0	1484.9	1469.7	1453.6	1435.8	1393.4
42.5°	1282.5	1290.9	1388.4	1505.3	1581.5	1662.0	1757.7	1752.6	1733.1	1700.9	1662.0
45°	1394.3	1405.3	1521.3	1706.9	1863.6	1977.9	2038.9	2015.2	1995.7	1965.2	1944.9
47.5°	1536.6	1557.8	1689.1	1918.6	2107.5	2296.4	2360.0	2297.3	2280.3	2256.6	2223.6
50°	1688.2	1708.6	1848.3	2110.9	2324.4	2549.7	2655.6	2549.7	2525.1	2517.5	2480.2
52.5°	1819.5	1836.5	1971.1	2259.2	2490.4	2754.7	2908.9	2769.1	2751.3	2725.9	2698.8
55°	1897.4	1911.0	2037.2	2330.3	2603.1	2939.4	3153.7	3030.8	3004.6	2994.4	2955.4
57.5°	1923.7	1937.3	2050.8	2339.6	2664.1	3107.9	3451.0	3455.2	3423.9	3387.5	3375.6
60°	1923.7	1939.0	2034.7	2316.8	2723.3	3287.5	3847.4	4200.6	4132.9	4126.1	4082.9
62.5°	1844.1	1858.5	1955.1	2246.4	2803.0	3529.8	4399.7	5023.2	5003.7	4959.6	4888.5
65°	1671.3	1679.8	1774.6	2066.9	2772.5	3752.5	4878.3	5570.4	5539.0	5452.6	5361.1
66°	1593.3	1600.1	1689.1	1964.4	2672.5	3783.0	4963.0	5639.0	5587.3	5514.5	5411.1
67.5°	1480.7	1492.5	1555.2	1773.8	2432.8	3677.2	4909.7	5590.7	5545.8	5457.7	5354.4
70°	988.5	980.1	1201.2	1361.3	1853.4	2996.1	4404.8	5019.8	5020.6	4979.1	4937.6
72.5°	469.3	474.4	538.7	837.8	1213.0	2001.6	3506.0	4006.7	4064.3	3989.7	3938.1
75°	337.1	344.8	383.7	512.5	723.4	1201.2	2272.7	2802.1	2803.8	2671.7	2553.9
77.5°	98.3	102.5	144.0	316.0	542.1	810.7	1305.3	1557.8	1521.3	1426.5	1337.5
80°	40.7	40.7	42.4	100.8	217.7	550.6	913.1	1199.5	1195.2	1158.8	1106.3
82.5°	15.2	16.1	20.3	41.5	51.7	135.5	609.0	1041.1	1038.5	986.8	949.6
85°	1.7	1.7	5.1	17.8	19.5	25.4	122.0	459.1	456.6	459.1	402.4
87.5°	0.0	0.0	0.8	1.7	2.5	3.4	5.1	17.8	19.5	18.6	16.9
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):**

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0
2.5°	144.8	143.2	143.2	142.3	142.3	142.3	141.5	140.6	140.6	139.8	138.9
5°	158.4	156.7	155.9	154.2	153.3	152.5	150.8	149.9	148.2	147.4	146.5
7.5°	174.5	171.1	170.3	167.7	165.2	163.5	161.8	159.3	157.6	154.2	153.3
10°	194.8	190.6	187.2	183.8	181.3	177.0	174.5	171.1	167.7	165.2	162.6
12.5°	221.1	215.2	210.1	206.7	200.8	195.7	190.6	188.1	181.3	177.9	173.7
15°	249.9	243.1	237.2	230.4	226.2	217.7	210.9	203.3	199.9	194.0	187.2
17.5°	287.2	276.1	266.8	260.1	251.6	243.1	235.5	227.9	217.7	210.9	202.5
20°	327.0	317.7	304.9	293.1	282.9	272.8	261.7	251.6	242.3	231.3	221.1
22.5°	377.8	364.2	349.0	337.1	323.6	312.6	297.3	283.8	268.5	254.1	242.3
25°	442.2	424.4	410.0	393.0	376.9	360.0	341.4	324.4	304.9	291.4	271.1
27.5°	521.8	504.9	485.4	463.4	447.3	421.8	397.3	376.1	353.2	332.1	309.2
30°	623.4	598.9	578.6	557.4	525.2	500.6	471.8	443.0	411.7	390.5	355.8
32.5°	745.4	719.2	688.7	658.2	628.5	593.8	558.2	522.6	487.9	449.0	413.4
35°	894.5	863.2	828.4	795.4	749.7	712.4	667.5	618.4	579.4	534.5	489.6
37.5°	1091.9	1040.2	1009.7	975.0	913.1	862.3	812.3	763.2	694.6	647.2	583.6
40°	1339.2	1308.7	1258.8	1202.8	1146.9	1080.0	1012.3	947.0	867.4	801.3	727.6
42.5°	1629.8	1584.9	1534.1	1453.6	1396.8	1318.0	1241.0	1154.6	1057.2	972.4	886.0
45°	1902.5	1849.2	1810.2	1729.7	1670.4	1577.3	1484.1	1392.6	1279.9	1170.7	1070.7
47.5°	2197.3	2153.3	2088.9	2023.7	1963.5	1858.5	1757.7	1646.7	1528.1	1398.5	1268.9
50°	2456.5	2421.8	2377.7	2299.0	2232.0	2143.9	2025.4	1904.2	1754.3	1625.5	1478.1
52.5°	2676.8	2649.7	2587.8	2531.9	2471.8	2388.8	2282.9	2166.8	2005.0	1863.6	1695.8
55°	2936.8	2917.3	2863.1	2828.4	2775.0	2695.4	2596.3	2488.7	2317.6	2163.4	1973.7
57.5°	3362.9	3347.6	3300.2	3285.8	3233.3	3163.8	3041.8	2926.6	2726.7	2535.3	2318.4
60°	4068.5	4038.0	3968.5	3933.0	3822.0	3728.8	3570.4	3412.0	3170.6	2926.6	2665.7
62.5°	4824.1	4738.5	4606.4	4492.9	4335.3	4173.5	3961.8	3719.5	3436.6	3146.9	2847.0
65°	5231.5	5085.8	4919.0	4738.5	4534.4	4296.4	4029.5	3739.0	3434.9	3129.1	2812.3
66°	5278.1	5113.8	4936.8	4736.0	4509.0	4255.7	3984.6	3679.7	3363.7	3065.6	2748.8
67.5°	5219.7	5047.7	4860.5	4637.7	4392.1	4129.5	3844.9	3528.1	3224.0	2921.6	2613.2
70°	4810.5	4639.4	4472.6	4237.9	3976.2	3711.9	3442.5	3088.4	2800.4	2522.6	2248.1
72.5°	3841.5	3725.4	3560.3	3359.5	3104.5	2794.5	2570.0	2253.2	2003.3	1734.0	1521.3
75°	2400.6	2237.1	2033.0	1777.2	1582.3	1330.8	1199.5	958.9	816.6	692.1	571.8
77.5°	1227.4	1104.6	961.4	817.4	679.4	542.1	419.3	296.5	199.9	138.9	103.3
80°	1013.9	905.5	786.9	655.6	533.7	414.2	298.2	203.3	129.6	84.7	66.1
82.5°	837.8	746.3	640.4	518.4	412.5	325.3	226.2	147.4	91.5	59.3	46.6
85°	356.6	323.6	249.9	198.2	149.1	110.1	77.1	51.7	36.4	29.6	27.1
87.5°	15.2	16.9	16.1	12.7	9.3	9.3	8.5	6.8	6.8	6.8	6.8
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):**

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0
2.5°	138.9	138.1	137.2	137.2	136.4	135.5	130.4	126.2	121.1	117.7	114.4
5°	144.8	144.0	142.3	141.5	139.8	138.9	127.9	118.6	111.0	105.0	100.8
7.5°	150.8	149.9	147.4	144.8	144.0	142.3	124.5	112.7	102.5	95.7	91.5
10°	158.4	155.9	153.3	149.9	147.4	144.8	121.1	105.9	94.9	88.9	84.7
12.5°	169.4	165.2	160.9	156.7	153.3	149.1	119.4	100.0	88.9	82.2	77.9
15°	182.1	176.2	171.1	166.0	160.1	155.9	116.0	94.9	83.9	77.1	72.0
17.5°	194.0	187.2	179.6	172.0	166.0	160.1	112.7	89.8	78.8	72.0	66.9
20°	210.9	200.8	191.4	182.1	173.7	166.0	107.6	84.7	74.5	66.9	61.8
22.5°	229.6	217.7	205.8	193.1	182.1	172.0	103.3	80.5	70.3	62.7	56.8
25°	253.3	238.9	222.8	206.7	194.0	180.4	99.1	76.2	66.1	58.4	52.5
27.5°	286.3	266.0	248.2	227.9	208.4	193.1	95.7	72.8	61.8	54.2	48.3
30°	331.2	301.6	273.6	251.6	228.7	206.7	92.3	68.6	58.4	50.0	43.2
32.5°	381.2	346.5	314.3	281.2	252.4	227.0	88.9	65.2	54.2	45.7	39.8
35°	443.0	399.0	355.8	317.7	282.9	249.0	85.6	61.8	50.8	41.5	35.6
37.5°	532.0	476.9	420.1	371.0	326.1	281.2	83.0	58.4	46.6	37.3	31.3
40°	653.9	582.8	513.3	446.4	388.0	332.1	79.6	55.1	43.2	33.9	28.0
42.5°	786.1	699.7	608.2	532.8	452.3	382.0	76.2	51.7	39.8	30.5	24.6
45°	950.4	842.8	731.9	629.4	531.1	440.5	72.8	48.3	35.6	27.1	21.2
47.5°	1130.0	992.8	867.4	738.6	621.8	513.3	68.6	45.7	32.2	23.7	18.6
50°	1314.7	1169.8	1011.4	864.9	725.9	586.2	64.4	41.5	28.8	21.2	15.2
52.5°	1513.7	1342.6	1180.8	998.7	836.9	681.9	60.1	38.1	26.3	18.6	12.7
55°	1767.0	1575.6	1385.8	1181.7	986.8	792.9	55.9	33.9	22.9	16.1	10.2
57.5°	2085.5	1858.5	1625.5	1395.1	1158.8	938.6	52.5	29.6	19.5	13.6	8.5
60°	2386.2	2121.1	1839.0	1573.9	1307.0	1050.4	47.4	26.3	16.9	11.0	8.5
62.5°	2542.1	2239.7	1935.6	1643.3	1358.7	1090.2	42.4	22.0	14.4	9.3	7.6
65°	2504.0	2195.6	1900.8	1606.1	1327.4	1064.8	37.3	19.5	12.7	8.5	7.6
66°	2448.9	2143.9	1847.5	1567.1	1301.1	1037.7	34.7	18.6	11.9	8.5	6.8
67.5°	2328.6	2033.8	1750.9	1490.0	1229.1	986.0	31.3	16.9	11.0	7.6	6.8
70°	1988.9	1721.3	1495.1	1263.0	1050.4	831.0	25.4	14.4	9.3	6.8	6.8
72.5°	1316.4	1134.2	983.5	846.2	707.3	548.9	21.2	11.9	7.6	6.8	5.9
75°	496.4	449.0	385.4	346.5	302.4	265.1	16.9	7.6	5.9	5.9	5.9
77.5°	88.1	81.3	72.0	66.1	61.0	55.9	13.6	5.1	5.1	5.9	5.9
80°	59.3	55.1	50.0	45.7	42.4	38.1	9.3	4.2	5.1	5.1	5.9
82.5°	42.4	39.8	37.3	33.9	31.3	28.0	5.9	4.2	5.1	5.1	5.1
85°	25.4	23.7	22.0	20.3	17.8	16.9	4.2	4.2	4.2	5.1	5.1
87.5°	6.8	5.9	6.8	6.8	5.1	5.9	3.4	3.4	3.4	4.2	4.2
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: P150666

CATALOG NUMBER: TLM-F03-LED-E1-SL3-HSS-7050

**CANDELA DISTRIBUTION (continued):**

	145°	155°	165°	175°	180°
0°	133.0	133.0	133.0	133.0	133.0
2.5°	112.7	112.7	111.0	113.5	113.5
5°	97.4	97.4	96.6	97.4	97.4
7.5°	88.9	88.1	88.1	88.1	88.9
10°	81.3	80.5	80.5	80.5	80.5
12.5°	74.5	73.7	72.8	73.7	73.7
15°	68.6	66.9	66.9	66.9	66.9
17.5°	63.5	61.8	61.0	61.0	61.0
20°	58.4	55.9	55.9	55.9	55.9
22.5°	53.4	50.8	50.8	50.8	50.8
25°	48.3	45.7	45.7	45.7	45.7
27.5°	44.0	41.5	41.5	41.5	41.5
30°	39.0	37.3	37.3	38.1	37.3
32.5°	35.6	33.0	33.0	33.9	33.9
35°	31.3	29.6	29.6	29.6	29.6
37.5°	27.1	25.4	25.4	25.4	25.4
40°	23.7	22.0	21.2	22.0	22.0
42.5°	20.3	18.6	17.8	17.8	17.8
45°	17.8	15.2	14.4	15.2	15.2
47.5°	14.4	12.7	12.7	13.6	13.6
50°	11.0	11.0	11.9	13.6	13.6
52.5°	10.2	10.2	11.9	13.6	13.6
55°	9.3	10.2	11.9	12.7	13.6
57.5°	8.5	10.2	11.9	12.7	12.7
60°	8.5	9.3	11.0	12.7	12.7
62.5°	7.6	8.5	10.2	11.9	11.9
65°	7.6	8.5	10.2	11.9	11.9
66°	7.6	8.5	10.2	11.9	11.9
67.5°	7.6	8.5	10.2	11.9	11.9
70°	7.6	8.5	10.2	11.0	11.0
72.5°	6.8	7.6	9.3	11.0	11.0
75°	6.8	7.6	9.3	11.0	11.0
77.5°	6.8	7.6	9.3	11.0	11.0
80°	6.8	7.6	9.3	10.2	11.0
82.5°	5.9	7.6	8.5	10.2	10.2
85°	5.9	6.8	8.5	9.3	10.2
87.5°	5.1	5.9	6.8	8.5	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)