

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: P151805

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151805
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5039.4 lumens
Efficiency: N/A
Efficacy: 64.4 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

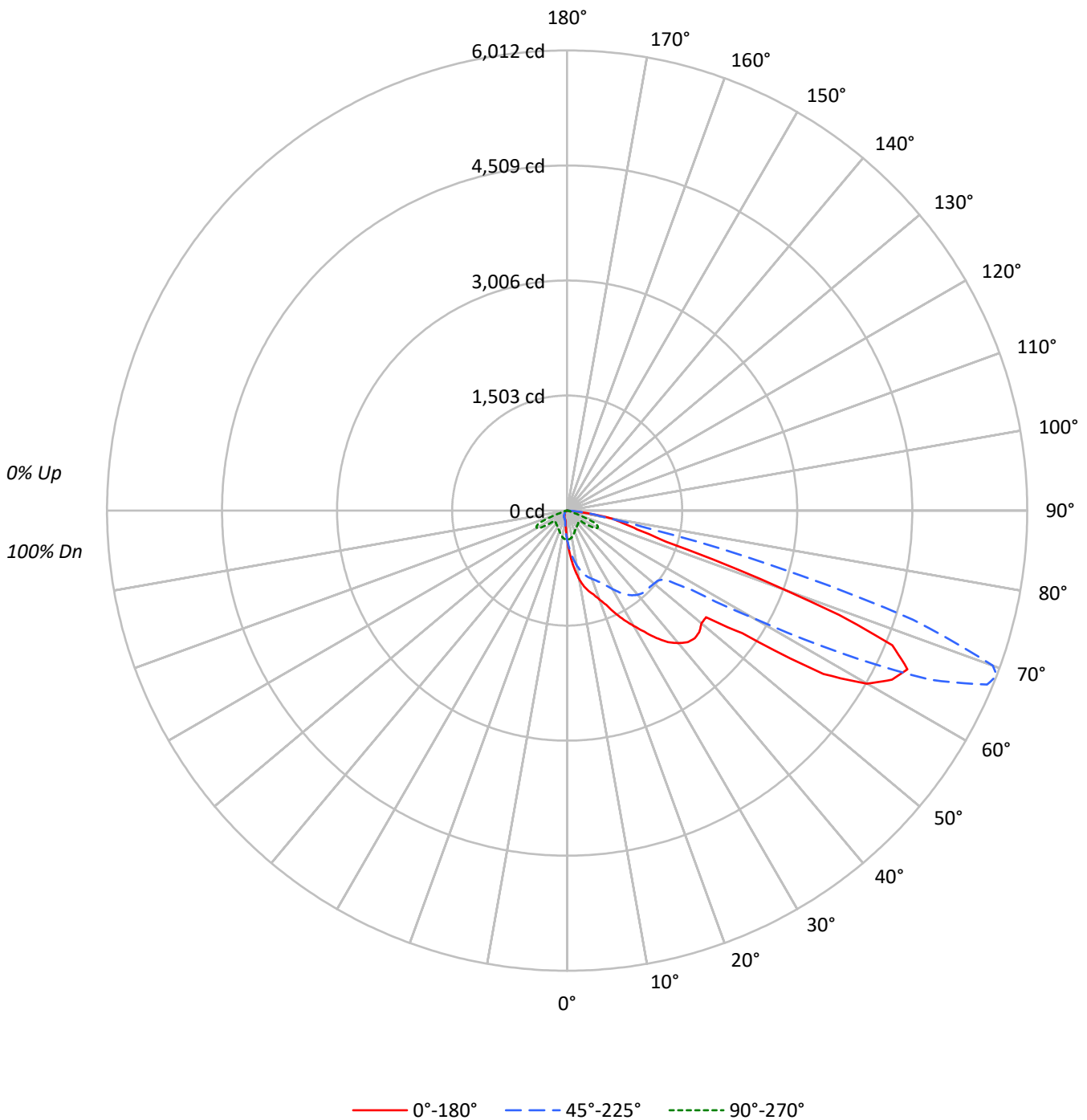
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8193	8193	8193
5°	14003	8082	4300
10°	19941	7723	2761
15°	24249	7103	2503
20°	28293	6619	2270
25°	35022	6333	2000
30°	43218	6197	1703
35°	53413	6139	1432
40°	63543	6242	1324
45°	71832	6509	1358
50°	76752	7160	1243
55°	104881	12393	743
60°	194745	19655	534
65°	249872	21237	504
70°	188672	8781	573
75°	78552	3369	690
80°	71744	3174	917
85°	6323	2865	1630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.1	0.8
10°-20°	134.9	2.7
20°-30°	258.1	5.1
30°-40°	429.3	8.5
40°-50°	580.9	11.5
50°-60°	908.4	18.0
60°-70°	1867.7	37.1
70°-80°	751.5	14.9
80°-90°	69.5	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°	432.1	8.6
0°-40°	861.4	17.1
0°-60°	2350.7	46.6
0°-90°	5039.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5039.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	381	381	381	381	381	
5°	648	552	374	238	199	70
15°	1088	863	319	118	112	311
25°	1474	1038	267	94	84	690
35°	2032	1341	234	67	54	1275
45°	2359	1468	214	44	45	1803
55°	2794	1560	330	29	20	2818
65°	4905	5230	417	14	10	4494
75°	944	2754	40	6	8	1266
85°	26	111	12	4	7	159
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°	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6
2.5°	507.7	501.9	495.3	495.3	487.1	487.1	482.1	468.9	467.2	459.8	452.4
5°	648.0	643.1	634.8	627.4	620.8	609.2	601.0	585.3	568.0	551.5	536.6
7.5°	785.1	782.6	767.7	765.3	754.5	735.5	719.0	695.9	666.2	643.1	615.8
10°	912.2	906.4	903.1	889.1	873.4	852.8	827.2	799.1	764.4	728.1	689.3
12.5°	1012.9	1009.6	994.8	989.0	972.5	951.8	919.6	883.3	848.6	801.6	756.2
15°	1088.0	1082.3	1072.4	1063.3	1043.5	1025.3	995.6	956.0	913.9	862.7	808.2
17.5°	1150.8	1140.0	1137.6	1123.5	1102.9	1081.4	1048.4	1012.1	962.6	911.4	851.9
20°	1235.0	1220.1	1215.2	1194.5	1170.6	1140.9	1102.9	1057.5	1005.5	949.4	888.3
22.5°	1334.0	1323.3	1312.6	1294.4	1263.9	1221.8	1166.5	1116.9	1050.9	989.0	922.9
25°	1474.4	1465.3	1448.0	1423.2	1385.2	1334.9	1268.0	1195.4	1117.8	1038.5	960.9
27.5°	1610.6	1602.3	1590.0	1571.0	1528.0	1472.7	1390.2	1297.7	1199.5	1103.7	1017.9
30°	1738.6	1731.1	1718.7	1699.8	1661.8	1607.3	1514.0	1414.9	1292.8	1181.3	1078.1
32.5°	1876.4	1873.9	1859.9	1832.7	1799.6	1726.2	1624.6	1518.1	1394.3	1265.5	1145.0
35°	2032.4	2013.5	2000.2	1973.0	1916.9	1838.4	1719.6	1603.2	1472.7	1340.7	1206.1
37.5°	2164.5	2146.4	2129.9	2095.2	2026.7	1926.8	1792.2	1664.3	1529.7	1395.1	1258.1
40°	2261.1	2252.0	2232.2	2186.8	2110.0	1991.2	1845.9	1706.4	1571.0	1435.6	1300.2
42.5°	2332.9	2318.9	2296.6	2249.6	2158.7	2023.4	1867.3	1723.7	1590.0	1460.4	1327.4
45°	2359.4	2347.8	2327.2	2276.0	2177.7	2032.4	1866.5	1718.7	1590.8	1467.8	1345.6
47.5°	2343.7	2332.1	2313.9	2266.1	2169.5	2021.7	1851.7	1704.7	1582.5	1470.3	1362.1
50°	2291.7	2285.1	2271.0	2230.6	2143.9	2001.1	1838.4	1697.3	1580.9	1482.6	1385.2
52.5°	2286.7	2282.6	2265.2	2224.8	2136.5	1994.5	1836.8	1701.4	1594.9	1498.3	1401.7
55°	2794.4	2735.8	2604.5	2493.1	2309.8	2091.9	1920.2	1768.3	1654.4	1560.2	1492.5
57.5°	3971.6	3884.1	3711.6	3499.4	3078.4	2664.8	2333.8	2094.4	1976.3	1933.4	1959.0
60°	4523.1	4507.4	4480.1	4379.4	4163.9	3808.1	3411.9	2983.4	2811.7	2796.9	2848.9
62.5°	4784.7	4774.8	4783.1	4770.7	4703.8	4599.8	4485.9	4301.0	4130.9	4021.1	3788.3
65°	4905.3	4911.9	4958.9	4996.1	5004.3	5031.6	5115.0	5345.3	5513.7	5230.5	4584.1
67.5°	4599.0	4637.8	4745.9	4881.3	5039.8	5193.4	5441.0	5926.4	6272.3	5939.7	5021.7
69°	3807.3	3826.3	4090.5	4345.6	4732.7	5003.5	5362.6	5999.1	6387.9	6012.3	4987.0
70°	2997.5	3014.8	3298.0	3644.7	4299.3	4647.7	5117.4	5876.1	6279.8	5915.7	4808.7
72.5°	1352.2	1327.4	1427.3	1613.1	2324.7	2877.8	3699.2	4760.8	5181.0	4739.3	3597.6
75°	944.4	933.7	944.4	945.2	1055.8	1362.1	1718.7	2580.6	3191.5	2754.0	1718.7
77.5°	731.4	724.0	716.6	708.3	721.5	808.2	842.9	915.5	1188.8	1124.4	655.5
80°	578.7	572.1	590.3	584.5	584.5	594.4	587.8	560.5	509.3	472.2	422.7
82.5°	269.1	270.8	270.8	293.9	354.2	413.6	432.6	405.3	359.9	306.3	246.8
85°	25.6	28.9	48.7	75.1	149.4	168.4	169.2	140.3	140.3	110.6	89.2
87.5°	0.0	0.8	0.8	0.8	7.4	20.6	17.3	5.0	2.5	2.5	4.1
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°	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6
2.5°	439.2	436.7	426.8	416.9	407.8	397.9	388.8	379.7	369.8	362.4	353.3
5°	513.5	495.3	474.7	454.9	435.1	414.4	392.9	374.0	354.2	336.0	318.7
7.5°	588.6	553.1	525.0	489.5	457.3	425.1	395.4	364.9	336.8	310.4	285.6
10°	652.2	609.2	565.5	520.1	473.9	430.9	389.6	353.3	316.2	284.0	253.4
12.5°	704.2	649.7	596.0	539.1	487.1	432.6	381.4	337.6	293.9	257.6	226.2
15°	751.2	688.5	624.1	558.1	492.0	430.1	373.1	318.7	274.1	232.8	197.3
17.5°	789.2	717.4	644.7	570.4	499.4	426.8	362.4	305.4	253.4	210.5	175.8
20°	822.2	747.1	668.7	585.3	504.4	426.0	353.3	288.9	235.3	189.9	156.0
22.5°	852.8	777.6	693.4	604.3	511.8	425.1	345.1	276.6	219.6	174.2	140.3
25°	887.4	808.2	719.9	624.1	525.0	428.4	340.1	266.6	205.6	159.3	128.0
27.5°	926.2	842.9	751.2	648.9	542.4	435.1	338.5	255.9	193.2	145.3	118.1
30°	980.7	884.1	782.6	673.6	558.1	442.5	336.8	249.3	180.8	134.6	108.1
32.5°	1028.6	924.6	817.3	699.2	575.4	449.9	336.0	240.2	169.2	123.8	100.7
35°	1079.0	961.7	847.0	724.0	590.3	458.2	335.2	233.6	158.5	113.1	93.3
37.5°	1122.7	993.1	870.1	745.4	606.8	465.6	336.0	227.8	148.6	104.0	86.7
40°	1159.9	1025.3	895.7	765.3	624.1	477.2	336.8	222.1	138.7	95.8	80.9
42.5°	1192.9	1055.8	922.9	787.6	643.9	490.4	341.8	217.1	130.4	88.3	75.1
45°	1218.5	1083.9	952.7	818.9	676.1	511.8	350.8	213.8	122.2	81.7	70.2
47.5°	1244.9	1125.2	1003.0	868.5	723.2	545.7	366.5	213.0	115.6	76.8	66.0
50°	1281.2	1166.5	1047.6	918.8	766.1	580.3	385.5	213.8	107.3	71.8	61.9
52.5°	1307.6	1208.6	1105.4	1006.3	868.5	686.0	459.0	228.7	103.2	67.7	57.0
55°	1463.7	1446.3	1448.8	1465.3	1358.8	1167.3	767.7	330.2	121.4	76.8	56.1
57.5°	2063.8	2124.9	2160.4	2159.6	1983.7	1645.3	1031.1	424.3	135.4	89.2	66.9
60°	2853.0	2806.8	2741.6	2580.6	2347.0	1878.1	1153.3	456.5	117.2	71.0	61.1
62.5°	3550.6	3279.8	3039.6	2778.7	2472.4	1959.0	1178.0	454.0	102.4	53.7	42.9
65°	3985.6	3498.6	3110.6	2783.7	2422.9	1891.3	1114.5	416.9	86.7	43.8	35.5
67.5°	4089.7	3380.5	2831.6	2414.7	2024.2	1471.9	818.1	313.7	67.7	36.3	31.4
69°	3862.6	3004.9	2346.1	1873.1	1472.7	976.6	506.0	198.1	52.0	33.0	28.9
70°	3553.1	2613.6	1911.1	1503.3	1090.5	686.0	354.2	139.5	42.1	30.5	26.4
72.5°	2285.9	1372.8	939.4	653.8	449.9	273.2	138.7	62.7	32.2	25.6	21.5
75°	886.6	507.7	368.2	279.9	218.8	151.9	84.2	40.5	27.2	21.5	16.5
77.5°	436.7	334.3	273.2	187.4	109.0	67.7	45.4	31.4	22.3	15.7	10.7
80°	345.1	229.5	137.0	85.0	64.4	48.7	34.7	25.6	16.5	9.9	7.4
82.5°	176.7	96.6	71.0	57.8	47.9	38.0	28.1	18.2	10.7	6.6	5.8
85°	55.3	40.5	36.3	35.5	33.0	27.2	19.8	11.6	6.6	4.1	4.1
87.5°	4.1	5.8	7.4	5.8	6.6	5.8	7.4	5.0	3.3	3.3	2.5
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6	380.6
2.5°	346.7	336.8	327.7	322.0	311.2	307.1	303.0	301.3	293.9	295.5	288.9
5°	303.0	285.6	272.4	259.2	246.8	237.8	230.3	221.2	213.8	210.5	203.9
7.5°	263.3	241.1	223.7	209.7	194.8	183.3	173.4	166.8	160.2	153.5	150.2
10°	228.7	204.7	184.9	170.9	156.8	146.9	139.5	134.6	130.4	128.0	127.1
12.5°	196.5	173.4	155.2	142.8	132.1	127.1	123.8	121.4	120.5	119.7	119.7
15°	171.7	148.6	134.6	125.5	120.5	118.1	117.2	115.6	113.9	113.1	113.1
17.5°	148.6	131.3	121.4	116.4	113.9	112.3	110.6	109.0	107.3	106.5	106.5
20°	132.9	118.9	113.9	110.6	108.1	106.5	104.0	102.4	101.5	100.7	99.9
22.5°	120.5	111.4	108.1	105.7	102.4	99.9	98.2	96.6	94.9	94.1	93.3
25°	111.4	105.7	103.2	99.9	96.6	94.1	91.6	89.2	87.5	86.7	85.0
27.5°	104.8	100.7	97.4	93.3	90.0	87.5	85.0	82.6	80.9	79.3	78.4
30°	99.1	94.9	90.8	87.5	83.4	80.9	77.6	75.1	74.3	72.6	71.0
32.5°	93.3	89.2	85.0	80.9	76.8	73.5	71.8	68.5	66.9	66.0	64.4
35°	86.7	82.6	77.6	74.3	70.2	66.9	64.4	61.9	60.3	58.6	57.8
37.5°	80.9	75.9	71.0	66.9	63.6	60.3	57.8	55.3	53.7	52.0	51.2
40°	74.3	69.3	64.4	60.3	57.0	54.5	52.0	49.5	47.9	47.1	47.1
42.5°	68.5	62.7	57.8	54.5	52.0	48.7	46.2	43.8	42.9	42.1	42.9
45°	62.7	57.0	52.8	49.5	47.1	43.8	41.3	39.6	38.8	39.6	40.5
47.5°	57.8	52.0	47.9	45.4	42.9	40.5	38.0	36.3	36.3	38.0	39.6
50°	52.8	47.1	43.8	42.1	39.6	37.1	33.8	33.0	33.8	35.5	37.1
52.5°	47.9	41.3	38.8	38.0	35.5	33.0	30.5	29.7	30.5	32.2	31.4
55°	42.9	36.3	35.5	34.7	32.2	28.9	26.4	26.4	26.4	25.6	23.9
57.5°	41.3	32.2	31.4	30.5	28.1	24.8	23.1	21.5	20.6	18.2	17.3
60°	42.9	28.9	28.9	27.2	24.8	21.5	19.0	16.5	14.9	13.2	13.2
62.5°	34.7	26.4	25.6	23.9	20.6	17.3	14.9	12.4	11.6	10.7	10.7
65°	28.1	23.9	22.3	19.8	17.3	14.0	11.6	9.9	9.1	9.1	9.9
67.5°	25.6	21.5	19.0	16.5	14.0	10.7	9.1	8.3	8.3	9.1	9.1
69°	23.9	19.8	17.3	14.9	12.4	9.9	8.3	8.3	8.3	8.3	9.1
70°	22.3	19.0	16.5	14.0	10.7	8.3	7.4	7.4	8.3	8.3	9.1
72.5°	17.3	14.9	14.0	11.6	8.3	7.4	6.6	7.4	7.4	8.3	8.3
75°	13.2	10.7	10.7	9.1	6.6	5.8	5.8	6.6	6.6	7.4	7.4
77.5°	9.1	7.4	7.4	6.6	5.8	5.0	5.0	5.8	6.6	6.6	7.4
80°	6.6	5.8	5.0	5.8	5.0	4.1	5.0	5.8	5.8	6.6	6.6
82.5°	5.0	5.0	5.0	5.0	4.1	4.1	5.0	5.0	5.8	6.6	6.6
85°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.0	5.0	5.8	5.8
87.5°	2.5	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1	5.0	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



TEST NUMBER: P151805

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	380.6	380.6	380.6	380.6
2.5°	287.3	286.5	283.2	284.0
5°	201.4	196.5	199.8	199.0
7.5°	147.8	146.9	146.1	147.8
10°	126.3	126.3	125.5	126.3
12.5°	118.9	118.9	118.9	118.9
15°	113.1	113.1	112.3	112.3
17.5°	106.5	106.5	106.5	105.7
20°	99.9	99.1	99.1	99.1
22.5°	92.5	91.6	91.6	91.6
25°	85.0	84.2	84.2	84.2
27.5°	77.6	76.8	75.9	75.9
30°	70.2	69.3	68.5	68.5
32.5°	62.7	61.9	61.1	61.1
35°	56.1	56.1	55.3	54.5
37.5°	50.4	50.4	50.4	50.4
40°	46.2	47.1	47.1	47.1
42.5°	43.8	44.6	45.4	46.2
45°	42.1	43.8	44.6	44.6
47.5°	41.3	42.1	42.9	42.9
50°	38.0	37.1	37.1	37.1
52.5°	30.5	28.9	28.1	27.2
55°	22.3	21.5	19.8	19.8
57.5°	15.7	15.7	14.9	14.9
60°	12.4	12.4	11.6	12.4
62.5°	10.7	10.7	10.7	10.7
65°	9.9	9.9	9.9	9.9
67.5°	9.9	9.9	9.9	9.9
69°	9.1	9.1	9.1	9.1
70°	9.1	9.1	9.1	9.1
72.5°	8.3	8.3	8.3	8.3
75°	7.4	8.3	8.3	8.3
77.5°	7.4	7.4	7.4	7.4
80°	6.6	6.6	7.4	7.4
82.5°	6.6	6.6	6.6	6.6
85°	5.8	5.8	6.6	6.6
87.5°	5.0	5.0	5.8	5.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)