

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: P151793

Luminaire Tested: **TLM-F02-LED-E1-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151793
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-F02-LED-E1-SL4-HSS-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

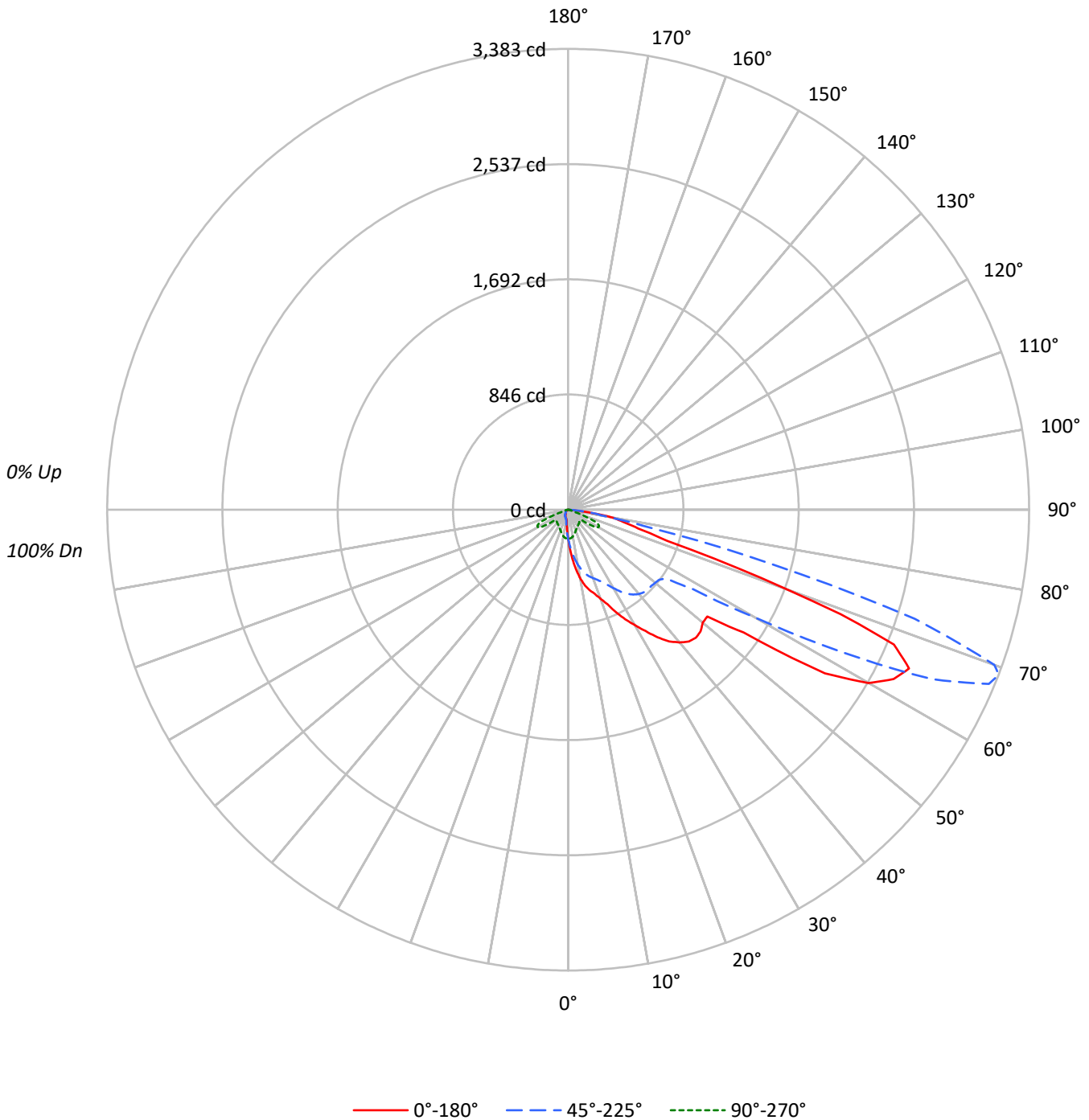
Lumens per Lamp: N/A
Luminaire Lumens: 2835.5 lumens
Efficiency: N/A
Efficacy: 51.6 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 55
Input Voltage (V): NR
Input Current (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



TEST NUMBER: P151793
CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

Luminous Intensity Polar Plot





TEST NUMBER: P151793

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

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°	6983	6983	6983
5°	11938	6889	3664
10°	17001	6584	2355
15°	20673	6055	2134
20°	24121	5644	1933
25°	29857	5398	1706
30°	36843	5284	1454
35°	45537	5236	1222
40°	54170	5318	1128
45°	61236	5549	1158
50°	65430	6105	1061
55°	89413	10566	631
60°	166019	16759	457
65°	213018	18107	432
70°	160848	7486	486
75°	66970	2873	580
80°	61160	2705	789
85°	5389	2433	1385



TEST NUMBER: P151793

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	0.8
10°-20°	75.9	2.7
20°-30°	145.2	5.1
30°-40°	241.5	8.5
40°-50°	326.8	11.5
50°-60°	511.1	18.0
60°-70°	1050.9	37.1
70°-80°	422.8	14.9
80°-90°	39.1	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°	243.1	8.6
0°-40°	484.7	17.1
0°-60°	1322.6	46.6
0°-90°	2835.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2835.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	214	214	214	214	214	
5°	365	310	210	134	112	39
15°	612	485	179	66	63	175
25°	830	584	150	53	47	389
35°	1144	754	132	38	31	717
45°	1328	826	120	25	25	1015
55°	1572	878	186	16	11	1585
65°	2760	2943	235	8	6	2528
75°	531	1550	23	3	5	712
85°	14	62	6	2	4	89
90°	0	0	0	0	0	



TEST NUMBER: P151793

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1
2.5°	285.7	282.4	278.7	278.7	274.0	274.0	271.3	263.8	262.9	258.7	254.5
5°	364.6	361.8	357.2	353.0	349.3	342.8	338.1	329.3	319.6	310.3	301.9
7.5°	441.7	440.3	432.0	430.6	424.5	413.9	404.6	391.6	374.8	361.8	346.5
10°	513.3	510.0	508.2	500.3	491.4	479.8	465.4	449.6	430.1	409.7	387.8
12.5°	569.9	568.1	559.7	556.5	547.2	535.6	517.4	497.0	477.5	451.0	425.5
15°	612.2	608.9	603.4	598.3	587.1	576.9	560.2	537.9	514.2	485.4	454.7
17.5°	647.5	641.5	640.1	632.2	620.6	608.5	589.9	569.5	541.6	512.8	479.4
20°	694.9	686.5	683.7	672.1	658.6	641.9	620.6	595.0	565.7	534.2	499.8
22.5°	750.6	744.6	738.5	728.3	711.1	687.4	656.3	628.5	591.3	556.5	519.3
25°	829.6	824.5	814.7	800.8	779.4	751.1	713.5	672.6	628.9	584.3	540.7
27.5°	906.2	901.6	894.6	883.9	859.8	828.7	782.2	730.2	674.9	621.0	572.7
30°	978.2	974.0	967.1	956.4	935.0	904.4	851.9	796.1	727.4	664.7	606.6
32.5°	1055.8	1054.4	1046.5	1031.2	1012.6	971.2	914.1	854.2	784.5	712.1	644.2
35°	1143.6	1132.9	1125.5	1110.1	1078.5	1034.4	967.5	902.0	828.7	754.3	678.6
37.5°	1217.9	1207.7	1198.4	1178.9	1140.3	1084.1	1008.4	936.4	860.7	785.0	707.9
40°	1272.2	1267.1	1256.0	1230.4	1187.2	1120.4	1038.6	960.1	883.9	807.7	731.6
42.5°	1312.6	1304.8	1292.2	1265.7	1214.6	1138.5	1050.7	969.9	894.6	821.7	746.9
45°	1327.5	1321.0	1309.4	1280.6	1225.3	1143.6	1050.2	967.1	895.1	825.9	757.1
47.5°	1318.7	1312.2	1302.0	1275.0	1220.7	1137.5	1041.9	959.2	890.4	827.3	766.4
50°	1289.4	1285.7	1277.8	1255.1	1206.3	1125.9	1034.4	955.0	889.5	834.2	779.4
52.5°	1286.6	1284.3	1274.6	1251.8	1202.1	1122.2	1033.5	957.3	897.4	843.1	788.7
55°	1572.3	1539.3	1465.5	1402.8	1299.6	1177.0	1080.4	994.9	930.8	877.9	839.8
57.5°	2234.7	2185.4	2088.3	1969.0	1732.1	1499.4	1313.1	1178.4	1112.0	1087.8	1102.2
60°	2544.9	2536.1	2520.8	2464.1	2342.9	2142.7	1919.7	1678.7	1582.1	1573.7	1603.0
62.5°	2692.2	2686.6	2691.3	2684.3	2646.7	2588.1	2524.0	2420.0	2324.3	2262.5	2131.5
65°	2760.0	2763.7	2790.2	2811.1	2815.7	2831.1	2878.0	3007.6	3102.3	2943.0	2579.3
67.5°	2587.7	2609.5	2670.4	2746.5	2835.7	2922.1	3061.5	3334.6	3529.2	3342.0	2825.5
69°	2142.2	2152.9	2301.5	2445.1	2662.9	2815.3	3017.3	3375.5	3594.2	3382.9	2806.0
70°	1686.6	1696.3	1855.6	2050.7	2419.1	2615.1	2879.4	3306.2	3533.4	3328.5	2705.7
72.5°	760.8	746.9	803.1	907.6	1308.0	1619.2	2081.4	2678.7	2915.1	2666.6	2024.2
75°	531.4	525.3	531.4	531.8	594.1	766.4	967.1	1452.0	1795.7	1549.5	967.1
77.5°	411.5	407.4	403.2	398.5	406.0	454.7	474.2	515.1	668.9	632.6	368.8
80°	325.6	321.9	332.1	328.9	328.9	334.4	330.7	315.4	286.6	265.7	237.8
82.5°	151.4	152.4	152.4	165.4	199.3	232.7	243.4	228.1	202.5	172.3	138.9
85°	14.4	16.3	27.4	42.3	84.1	94.8	95.2	79.0	79.0	62.2	50.2
87.5°	0.0	0.5	0.5	0.5	4.2	11.6	9.8	2.8	1.4	1.4	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



TEST NUMBER: P151793

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1
2.5°	247.1	245.7	240.1	234.6	229.5	223.9	218.8	213.7	208.1	203.9	198.8
5°	288.9	278.7	267.1	255.9	244.8	233.2	221.1	210.4	199.3	189.0	179.3
7.5°	331.2	311.2	295.4	275.4	257.3	239.2	222.5	205.3	189.5	174.6	160.7
10°	366.9	342.8	318.2	292.6	266.6	242.5	219.2	198.8	177.9	159.8	142.6
12.5°	396.2	365.6	335.4	303.3	274.0	243.4	214.6	190.0	165.4	144.9	127.3
15°	422.7	387.4	351.2	314.0	276.8	242.0	209.9	179.3	154.2	131.0	111.0
17.5°	444.1	403.6	362.8	321.0	281.0	240.1	203.9	171.9	142.6	118.4	98.9
20°	462.6	420.4	376.2	329.3	283.8	239.7	198.8	162.6	132.4	106.8	87.8
22.5°	479.8	437.5	390.2	340.0	288.0	239.2	194.2	155.6	123.6	98.0	79.0
25°	499.3	454.7	405.0	351.2	295.4	241.1	191.4	150.0	115.7	89.6	72.0
27.5°	521.2	474.2	422.7	365.1	305.2	244.8	190.4	144.0	108.7	81.8	66.4
30°	551.8	497.5	440.3	379.0	314.0	249.0	189.5	140.3	101.7	75.7	60.8
32.5°	578.8	520.2	459.8	393.4	323.7	253.1	189.0	135.2	95.2	69.7	56.7
35°	607.1	541.1	476.6	407.4	332.1	257.8	188.6	131.5	89.2	63.6	52.5
37.5°	631.7	558.8	489.6	419.4	341.4	262.0	189.0	128.2	83.6	58.5	48.8
40°	652.6	576.9	504.0	430.6	351.2	268.5	189.5	124.9	78.0	53.9	45.5
42.5°	671.2	594.1	519.3	443.1	362.3	275.9	192.3	122.2	73.4	49.7	42.3
45°	685.6	609.9	536.0	460.8	380.4	288.0	197.4	120.3	68.7	46.0	39.5
47.5°	700.5	633.1	564.4	488.6	406.9	307.0	206.2	119.8	65.0	43.2	37.2
50°	720.9	656.3	589.4	517.0	431.0	326.5	216.9	120.3	60.4	40.4	34.8
52.5°	735.8	680.0	622.0	566.2	488.6	386.0	258.3	128.7	58.1	38.1	32.0
55°	823.5	813.8	815.2	824.5	764.6	656.8	432.0	185.8	68.3	43.2	31.6
57.5°	1161.2	1195.6	1215.6	1215.1	1116.2	925.7	580.1	238.7	76.2	50.2	37.6
60°	1605.3	1579.3	1542.6	1452.0	1320.5	1056.7	648.9	256.9	66.0	39.9	34.4
62.5°	1997.8	1845.4	1710.3	1563.5	1391.1	1102.2	662.8	255.5	57.6	30.2	24.2
65°	2242.6	1968.5	1750.2	1566.3	1363.3	1064.1	627.1	234.6	48.8	24.6	20.0
67.5°	2301.1	1902.1	1593.2	1358.6	1138.9	828.2	460.3	176.5	38.1	20.4	17.7
69°	2173.4	1690.7	1320.1	1053.9	828.7	549.5	284.7	111.5	29.3	18.6	16.3
70°	1999.2	1470.6	1075.3	845.8	613.6	386.0	199.3	78.5	23.7	17.2	14.9
72.5°	1286.2	772.4	528.6	367.9	253.1	153.7	78.0	35.3	18.1	14.4	12.1
75°	498.9	285.7	207.2	157.5	123.1	85.5	47.4	22.8	15.3	12.1	9.3
77.5°	245.7	188.1	153.7	105.4	61.3	38.1	25.5	17.7	12.5	8.8	6.0
80°	194.2	129.1	77.1	47.8	36.2	27.4	19.5	14.4	9.3	5.6	4.2
82.5°	99.4	54.3	39.9	32.5	26.9	21.4	15.8	10.2	6.0	3.7	3.3
85°	31.1	22.8	20.4	20.0	18.6	15.3	11.1	6.5	3.7	2.3	2.3
87.5°	2.3	3.3	4.2	3.3	3.7	3.3	4.2	2.8	1.9	1.9	1.4
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: P151793

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1	214.1
2.5°	195.1	189.5	184.4	181.2	175.1	172.8	170.5	169.5	165.4	166.3	162.6
5°	170.5	160.7	153.3	145.8	138.9	133.8	129.6	124.5	120.3	118.4	114.7
7.5°	148.2	135.6	125.9	118.0	109.6	103.1	97.5	93.8	90.1	86.4	84.5
10°	128.7	115.2	104.0	96.1	88.3	82.7	78.5	75.7	73.4	72.0	71.5
12.5°	110.5	97.5	87.3	80.4	74.3	71.5	69.7	68.3	67.8	67.4	67.4
15°	96.6	83.6	75.7	70.6	67.8	66.4	66.0	65.0	64.1	63.6	63.6
17.5°	83.6	73.9	68.3	65.5	64.1	63.2	62.2	61.3	60.4	59.9	59.9
20°	74.8	66.9	64.1	62.2	60.8	59.9	58.5	57.6	57.1	56.7	56.2
22.5°	67.8	62.7	60.8	59.5	57.6	56.2	55.3	54.3	53.4	53.0	52.5
25°	62.7	59.5	58.1	56.2	54.3	53.0	51.6	50.2	49.2	48.8	47.8
27.5°	59.0	56.7	54.8	52.5	50.6	49.2	47.8	46.4	45.5	44.6	44.1
30°	55.7	53.4	51.1	49.2	46.9	45.5	43.7	42.3	41.8	40.9	39.9
32.5°	52.5	50.2	47.8	45.5	43.2	41.3	40.4	38.6	37.6	37.2	36.2
35°	48.8	46.4	43.7	41.8	39.5	37.6	36.2	34.8	33.9	33.0	32.5
37.5°	45.5	42.7	39.9	37.6	35.8	33.9	32.5	31.1	30.2	29.3	28.8
40°	41.8	39.0	36.2	33.9	32.0	30.7	29.3	27.9	26.9	26.5	26.5
42.5°	38.6	35.3	32.5	30.7	29.3	27.4	26.0	24.6	24.2	23.7	24.2
45°	35.3	32.0	29.7	27.9	26.5	24.6	23.2	22.3	21.8	22.3	22.8
47.5°	32.5	29.3	26.9	25.5	24.2	22.8	21.4	20.4	20.4	21.4	22.3
50°	29.7	26.5	24.6	23.7	22.3	20.9	19.0	18.6	19.0	20.0	20.9
52.5°	26.9	23.2	21.8	21.4	20.0	18.6	17.2	16.7	17.2	18.1	17.7
55°	24.2	20.4	20.0	19.5	18.1	16.3	14.9	14.9	14.9	14.4	13.5
57.5°	23.2	18.1	17.7	17.2	15.8	13.9	13.0	12.1	11.6	10.2	9.8
60°	24.2	16.3	16.3	15.3	13.9	12.1	10.7	9.3	8.4	7.4	7.4
62.5°	19.5	14.9	14.4	13.5	11.6	9.8	8.4	7.0	6.5	6.0	6.0
65°	15.8	13.5	12.5	11.1	9.8	7.9	6.5	5.6	5.1	5.1	5.6
67.5°	14.4	12.1	10.7	9.3	7.9	6.0	5.1	4.6	4.6	5.1	5.1
69°	13.5	11.1	9.8	8.4	7.0	5.6	4.6	4.6	4.6	4.6	5.1
70°	12.5	10.7	9.3	7.9	6.0	4.6	4.2	4.2	4.6	4.6	5.1
72.5°	9.8	8.4	7.9	6.5	4.6	4.2	3.7	4.2	4.2	4.6	4.6
75°	7.4	6.0	6.0	5.1	3.7	3.3	3.3	3.7	3.7	4.2	4.2
77.5°	5.1	4.2	4.2	3.7	3.3	2.8	2.8	3.3	3.7	3.7	4.2
80°	3.7	3.3	2.8	3.3	2.8	2.3	2.8	3.3	3.3	3.7	3.7
82.5°	2.8	2.8	2.8	2.8	2.3	2.3	2.8	2.8	3.3	3.7	3.7
85°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.8	2.8	3.3	3.3
87.5°	1.4	1.4	1.4	1.9	1.9	2.3	2.3	2.3	2.3	2.8	2.8
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: P151793

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	214.1	214.1	214.1	214.1
2.5°	161.6	161.2	159.3	159.8
5°	113.3	110.5	112.4	111.9
7.5°	83.1	82.7	82.2	83.1
10°	71.1	71.1	70.6	71.1
12.5°	66.9	66.9	66.9	66.9
15°	63.6	63.6	63.2	63.2
17.5°	59.9	59.9	59.9	59.5
20°	56.2	55.7	55.7	55.7
22.5°	52.0	51.6	51.6	51.6
25°	47.8	47.4	47.4	47.4
27.5°	43.7	43.2	42.7	42.7
30°	39.5	39.0	38.6	38.6
32.5°	35.3	34.8	34.4	34.4
35°	31.6	31.6	31.1	30.7
37.5°	28.3	28.3	28.3	28.3
40°	26.0	26.5	26.5	26.5
42.5°	24.6	25.1	25.5	26.0
45°	23.7	24.6	25.1	25.1
47.5°	23.2	23.7	24.2	24.2
50°	21.4	20.9	20.9	20.9
52.5°	17.2	16.3	15.8	15.3
55°	12.5	12.1	11.1	11.1
57.5°	8.8	8.8	8.4	8.4
60°	7.0	7.0	6.5	7.0
62.5°	6.0	6.0	6.0	6.0
65°	5.6	5.6	5.6	5.6
67.5°	5.6	5.6	5.6	5.6
69°	5.1	5.1	5.1	5.1
70°	5.1	5.1	5.1	5.1
72.5°	4.6	4.6	4.6	4.6
75°	4.2	4.6	4.6	4.6
77.5°	4.2	4.2	4.2	4.2
80°	3.7	3.7	4.2	4.2
82.5°	3.7	3.7	3.7	3.7
85°	3.3	3.3	3.7	3.7
87.5°	2.8	2.8	3.3	3.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)