

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: P150653

Luminaire Tested: **TLM-F02-LED-E1-SL3-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150653
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-F02-LED-E1-SL3-HSS-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 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: 2416.0 lumens
Efficiency: N/A
Efficacy: 43.9 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

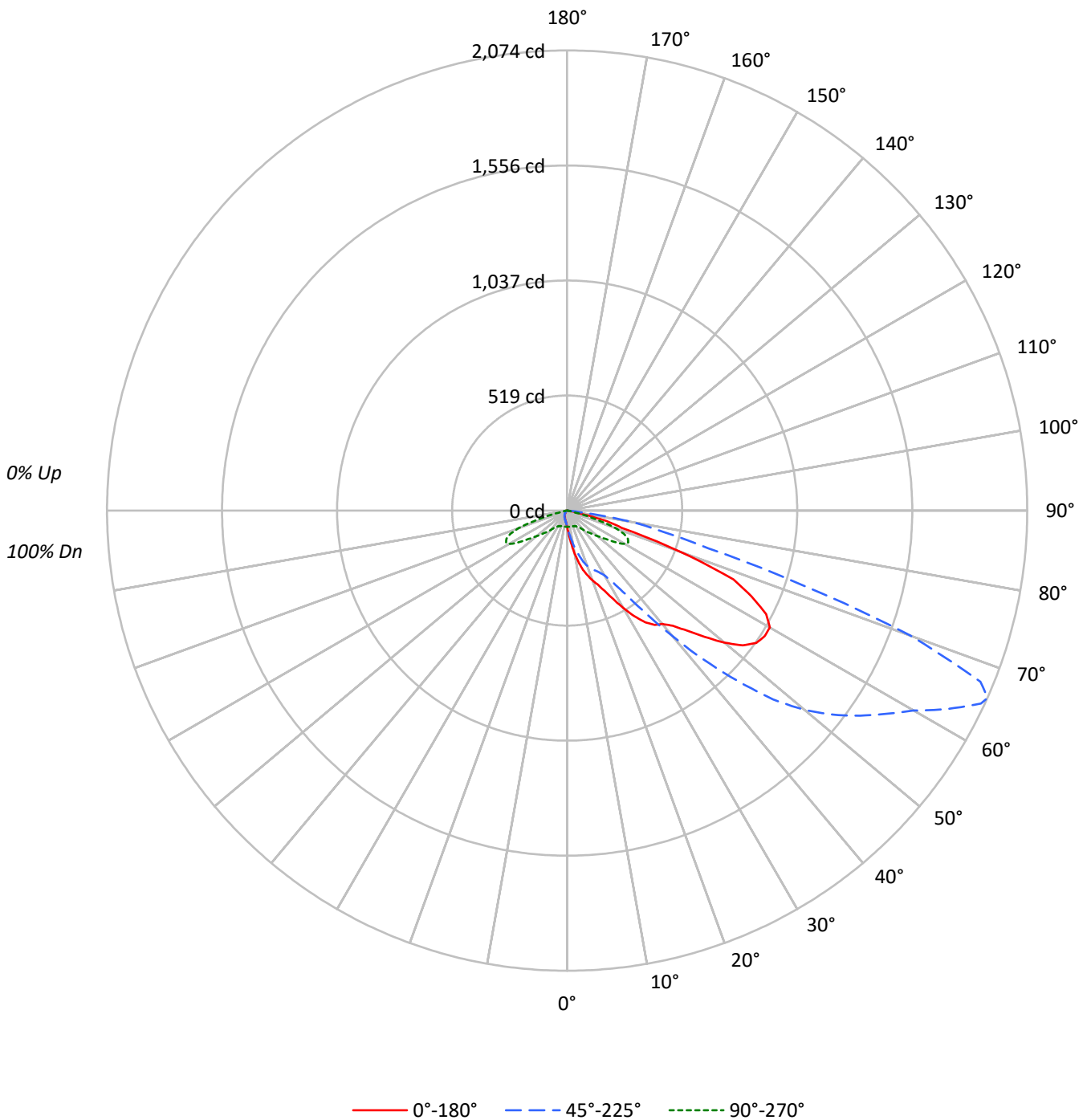
Input Watts (W): 55
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS-8030

Luminous Intensity Polar Plot





TEST NUMBER: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-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	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°	2378	2378	2378
5°	3985	2395	1748
10°	6538	2415	1461
15°	9334	2517	1239
20°	11607	2603	1066
25°	14360	2757	903
30°	19088	3087	768
35°	24489	3653	649
40°	28401	4807	515
45°	35270	6490	387
50°	46974	9050	376
55°	59171	13236	421
60°	68817	19636	457
65°	70728	23320	502
70°	51699	22393	572
75°	23302	9748	756
80°	4189	2442	1127
85°	337	2171	2096



TEST NUMBER: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS-8030

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.2	0.3
10°-20°	34.6	1.4
20°-30°	74.7	3.1
30°-40°	159.4	6.6
40°-50°	352.6	14.6
50°-60°	597.5	24.7
60°-70°	797.3	33.0
70°-80°	351.2	14.5
80°-90°	40.5	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°	117.4	4.9
0°-40°	276.9	11.5
0°-60°	1227.0	50.8
0°-90°	2416.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2416.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	73	73	73	73	73	
5°	122	103	73	55	53	14
15°	276	211	75	40	37	79
25°	399	298	77	29	25	191
35°	615	461	92	20	16	381
45°	765	1085	141	12	8	604
55°	1040	1612	233	6	7	917
65°	916	2058	302	4	6	875
75°	185	659	77	3	6	204
85°	1	14	6	3	6	6
90°	0	0	0	0	0	



TEST NUMBER: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
2.5°	92.0	91.5	89.6	89.6	86.9	85.0	82.7	80.4	80.4	79.9	79.4
5°	121.7	118.9	118.4	113.3	109.2	103.1	97.5	90.1	89.2	88.3	87.8
7.5°	154.7	154.2	150.0	144.0	135.6	124.5	113.3	101.3	99.4	98.5	96.6
10°	197.4	195.1	189.5	179.3	166.8	151.9	133.8	114.7	112.4	110.5	109.6
12.5°	238.3	234.1	230.9	217.8	202.1	180.2	158.4	131.0	129.1	126.8	123.1
15°	276.4	272.7	267.1	255.9	238.3	210.9	185.3	151.9	147.2	144.0	141.2
17.5°	306.1	303.8	297.3	284.7	265.7	241.5	210.9	173.3	169.5	165.4	160.2
20°	334.4	331.2	321.0	303.8	283.3	264.8	241.1	201.1	196.0	190.9	185.3
22.5°	361.4	358.1	341.4	313.1	291.2	283.3	275.0	232.7	224.8	220.6	215.1
25°	399.0	392.0	366.0	321.0	291.7	297.7	312.1	273.6	266.2	260.1	251.3
27.5°	449.6	440.3	399.5	332.6	293.6	313.5	354.9	323.3	315.4	308.4	298.7
30°	506.8	500.7	451.9	360.4	307.0	336.8	402.7	386.5	377.2	368.8	357.2
32.5°	564.4	556.0	507.7	413.4	343.3	381.8	462.6	459.8	447.8	439.9	427.3
35°	615.0	610.8	575.0	500.3	425.9	460.8	542.5	545.8	535.1	526.7	512.8
37.5°	649.4	649.4	642.4	593.6	557.4	583.4	660.0	660.5	649.8	630.8	623.8
40°	667.0	672.1	697.2	706.5	704.6	738.1	814.3	805.9	797.1	787.3	764.1
42.5°	703.2	707.9	761.3	825.4	867.2	911.3	963.8	961.0	950.3	932.7	911.3
45°	764.6	770.6	834.2	935.9	1021.9	1084.6	1118.0	1105.0	1094.3	1077.6	1066.5
47.5°	842.6	854.2	926.2	1052.1	1155.7	1259.2	1294.1	1259.7	1250.4	1237.4	1219.3
50°	925.7	936.9	1013.5	1157.5	1274.6	1398.1	1456.2	1398.1	1384.6	1380.5	1360.0
52.5°	997.7	1007.0	1080.9	1238.8	1365.6	1510.5	1595.1	1518.4	1508.7	1494.7	1479.9
55°	1040.5	1047.9	1117.1	1277.8	1427.4	1611.8	1729.3	1661.9	1647.5	1642.0	1620.6
57.5°	1054.9	1062.3	1124.5	1282.9	1460.8	1704.2	1892.3	1894.7	1877.5	1857.5	1851.0
60°	1054.9	1063.2	1115.7	1270.4	1493.3	1802.7	2109.7	2303.4	2266.2	2262.5	2238.8
62.5°	1011.2	1019.1	1072.0	1231.8	1537.0	1935.5	2412.6	2754.4	2743.7	2719.6	2680.6
65°	916.4	921.1	973.1	1133.4	1520.3	2057.7	2675.0	3054.5	3037.3	2989.9	2939.8
66°	873.7	877.4	926.2	1077.2	1465.5	2074.4	2721.4	3092.1	3063.8	3023.8	2967.2
67.5°	811.9	818.4	852.8	972.6	1334.0	2016.4	2692.2	3065.6	3041.0	2992.7	2936.0
70°	542.1	537.4	658.6	746.4	1016.3	1642.9	2415.3	2752.6	2753.0	2730.3	2707.5
72.5°	257.3	260.1	295.4	459.4	665.2	1097.6	1922.5	2197.0	2228.6	2187.7	2159.4
75°	184.9	189.0	210.4	281.0	396.7	658.6	1246.2	1536.5	1537.5	1465.0	1400.4
77.5°	53.9	56.2	79.0	173.3	297.3	444.5	715.8	854.2	834.2	782.2	733.4
80°	22.3	22.3	23.2	55.3	119.4	301.9	500.7	657.7	655.4	635.4	606.6
82.5°	8.4	8.8	11.1	22.8	28.3	74.3	334.0	570.9	569.5	541.1	520.7
85°	0.9	0.9	2.8	9.8	10.7	13.9	66.9	251.8	250.4	251.8	220.6
87.5°	0.0	0.0	0.5	0.9	1.4	1.9	2.8	9.8	10.7	10.2	9.3
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: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
2.5°	79.4	78.5	78.5	78.0	78.0	78.0	77.6	77.1	77.1	76.6	76.2
5°	86.9	85.9	85.5	84.5	84.1	83.6	82.7	82.2	81.3	80.8	80.4
7.5°	95.7	93.8	93.4	92.0	90.6	89.6	88.7	87.3	86.4	84.5	84.1
10°	106.8	104.5	102.7	100.8	99.4	97.1	95.7	93.8	92.0	90.6	89.2
12.5°	121.2	118.0	115.2	113.3	110.1	107.3	104.5	103.1	99.4	97.5	95.2
15°	137.0	133.3	130.1	126.3	124.0	119.4	115.7	111.5	109.6	106.4	102.7
17.5°	157.5	151.4	146.3	142.6	138.0	133.3	129.1	124.9	119.4	115.7	111.0
20°	179.3	174.2	167.2	160.7	155.1	149.6	143.5	138.0	132.8	126.8	121.2
22.5°	207.2	199.7	191.4	184.9	177.4	171.4	163.0	155.6	147.2	139.3	132.8
25°	242.5	232.7	224.8	215.5	206.7	197.4	187.2	177.9	167.2	159.8	148.6
27.5°	286.1	276.8	266.2	254.1	245.3	231.3	217.8	206.2	193.7	182.1	169.5
30°	341.9	328.4	317.2	305.6	288.0	274.5	258.7	242.9	225.7	214.1	195.1
32.5°	408.8	394.4	377.6	360.9	344.7	325.6	306.1	286.6	267.5	246.2	226.7
35°	490.5	473.3	454.3	436.2	411.1	390.6	366.0	339.1	317.7	293.1	268.5
37.5°	598.7	570.4	553.7	534.6	500.7	472.9	445.4	418.5	380.9	354.9	320.0
40°	734.4	717.6	690.2	659.6	628.9	592.2	555.1	519.3	475.6	439.4	399.0
42.5°	893.7	869.1	841.2	797.1	765.9	722.7	680.5	633.1	579.7	533.2	485.9
45°	1043.2	1014.0	992.6	948.5	916.0	864.9	813.8	763.6	701.8	641.9	587.1
47.5°	1204.9	1180.7	1145.4	1109.7	1076.7	1019.1	963.8	903.0	837.9	766.9	695.8
50°	1347.0	1328.0	1303.8	1260.6	1223.9	1175.6	1110.6	1044.2	962.0	891.4	810.5
52.5°	1467.8	1452.9	1419.0	1388.4	1355.4	1309.9	1251.8	1188.2	1099.4	1021.9	929.9
55°	1610.4	1599.7	1570.0	1550.9	1521.7	1478.0	1423.7	1364.7	1270.8	1186.3	1082.3
57.5°	1844.0	1835.7	1809.7	1801.8	1773.0	1734.9	1668.0	1604.8	1495.2	1390.2	1271.3
60°	2230.9	2214.2	2176.1	2156.6	2095.8	2044.7	1957.8	1871.0	1738.6	1604.8	1461.8
62.5°	2645.3	2598.4	2525.9	2463.7	2377.3	2288.5	2172.4	2039.6	1884.4	1725.6	1561.2
65°	2868.7	2788.8	2697.3	2598.4	2486.4	2355.9	2209.6	2050.3	1883.5	1715.8	1542.1
66°	2894.2	2804.1	2707.0	2597.0	2472.5	2333.6	2185.0	2017.7	1844.5	1681.0	1507.3
67.5°	2862.2	2767.9	2665.2	2543.1	2408.4	2264.4	2108.3	1934.6	1767.9	1602.0	1433.0
70°	2637.8	2544.0	2452.5	2323.8	2180.3	2035.4	1887.7	1693.5	1535.6	1383.3	1232.8
72.5°	2106.5	2042.8	1952.3	1842.2	1702.4	1532.4	1409.3	1235.5	1098.5	950.8	834.2
75°	1316.4	1226.7	1114.8	974.5	867.7	729.7	657.7	525.8	447.8	379.5	313.5
77.5°	673.0	605.7	527.2	448.2	372.5	297.3	229.9	162.6	109.6	76.2	56.7
80°	556.0	496.5	431.5	359.5	292.6	227.1	163.5	111.5	71.1	46.4	36.2
82.5°	459.4	409.2	351.2	284.3	226.2	178.4	124.0	80.8	50.2	32.5	25.5
85°	195.6	177.4	137.0	108.7	81.8	60.4	42.3	28.3	20.0	16.3	14.9
87.5°	8.4	9.3	8.8	7.0	5.1	5.1	4.6	3.7	3.7	3.7	3.7
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: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9	72.9
2.5°	76.2	75.7	75.2	75.2	74.8	74.3	71.5	69.2	66.4	64.6	62.7
5°	79.4	79.0	78.0	77.6	76.6	76.2	70.1	65.0	60.8	57.6	55.3
7.5°	82.7	82.2	80.8	79.4	79.0	78.0	68.3	61.8	56.2	52.5	50.2
10°	86.9	85.5	84.1	82.2	80.8	79.4	66.4	58.1	52.0	48.8	46.4
12.5°	92.9	90.6	88.3	85.9	84.1	81.8	65.5	54.8	48.8	45.1	42.7
15°	99.9	96.6	93.8	91.0	87.8	85.5	63.6	52.0	46.0	42.3	39.5
17.5°	106.4	102.7	98.5	94.3	91.0	87.8	61.8	49.2	43.2	39.5	36.7
20°	115.7	110.1	105.0	99.9	95.2	91.0	59.0	46.4	40.9	36.7	33.9
22.5°	125.9	119.4	112.9	105.9	99.9	94.3	56.7	44.1	38.6	34.4	31.1
25°	138.9	131.0	122.2	113.3	106.4	98.9	54.3	41.8	36.2	32.0	28.8
27.5°	157.0	145.8	136.1	124.9	114.3	105.9	52.5	39.9	33.9	29.7	26.5
30°	181.6	165.4	150.0	138.0	125.4	113.3	50.6	37.6	32.0	27.4	23.7
32.5°	209.0	190.0	172.3	154.2	138.4	124.5	48.8	35.8	29.7	25.1	21.8
35°	242.9	218.8	195.1	174.2	155.1	136.6	46.9	33.9	27.9	22.8	19.5
37.5°	291.7	261.5	230.4	203.4	178.8	154.2	45.5	32.0	25.5	20.4	17.2
40°	358.6	319.6	281.5	244.8	212.7	182.1	43.7	30.2	23.7	18.6	15.3
42.5°	431.0	383.7	333.5	292.2	248.0	209.5	41.8	28.3	21.8	16.7	13.5
45°	521.2	462.2	401.3	345.1	291.2	241.5	39.9	26.5	19.5	14.9	11.6
47.5°	619.6	544.4	475.6	405.0	340.9	281.5	37.6	25.1	17.7	13.0	10.2
50°	720.9	641.5	554.6	474.2	398.1	321.4	35.3	22.8	15.8	11.6	8.4
52.5°	830.0	736.2	647.5	547.6	458.9	373.9	33.0	20.9	14.4	10.2	7.0
55°	968.9	864.0	759.9	648.0	541.1	434.8	30.7	18.6	12.5	8.8	5.6
57.5°	1143.6	1019.1	891.4	765.0	635.4	514.7	28.8	16.3	10.7	7.4	4.6
60°	1308.5	1163.1	1008.4	863.0	716.7	576.0	26.0	14.4	9.3	6.0	4.6
62.5°	1393.9	1228.1	1061.4	901.1	745.0	597.8	23.2	12.1	7.9	5.1	4.2
65°	1373.0	1204.0	1042.3	880.7	727.9	583.9	20.4	10.7	7.0	4.6	4.2
66°	1342.8	1175.6	1013.1	859.3	713.5	569.0	19.0	10.2	6.5	4.6	3.7
67.5°	1276.9	1115.2	960.1	817.0	674.0	540.7	17.2	9.3	6.0	4.2	3.7
70°	1090.6	943.8	819.8	692.6	576.0	455.7	13.9	7.9	5.1	3.7	3.7
72.5°	721.8	622.0	539.3	464.0	387.8	301.0	11.6	6.5	4.2	3.7	3.3
75°	272.2	246.2	211.3	190.0	165.8	145.4	9.3	4.2	3.3	3.3	3.3
77.5°	48.3	44.6	39.5	36.2	33.4	30.7	7.4	2.8	2.8	3.3	3.3
80°	32.5	30.2	27.4	25.1	23.2	20.9	5.1	2.3	2.8	2.8	3.3
82.5°	23.2	21.8	20.4	18.6	17.2	15.3	3.3	2.3	2.8	2.8	2.8
85°	13.9	13.0	12.1	11.1	9.8	9.3	2.3	2.3	2.3	2.8	2.8
87.5°	3.7	3.3	3.7	3.7	2.8	3.3	1.9	1.9	1.9	2.3	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: P150653

CATALOG NUMBER: TLM-F02-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	72.9	72.9	72.9	72.9	72.9
2.5°	61.8	61.8	60.8	62.2	62.2
5°	53.4	53.4	53.0	53.4	53.4
7.5°	48.8	48.3	48.3	48.3	48.8
10°	44.6	44.1	44.1	44.1	44.1
12.5°	40.9	40.4	39.9	40.4	40.4
15°	37.6	36.7	36.7	36.7	36.7
17.5°	34.8	33.9	33.4	33.4	33.4
20°	32.0	30.7	30.7	30.7	30.7
22.5°	29.3	27.9	27.9	27.9	27.9
25°	26.5	25.1	25.1	25.1	25.1
27.5°	24.2	22.8	22.8	22.8	22.8
30°	21.4	20.4	20.4	20.9	20.4
32.5°	19.5	18.1	18.1	18.6	18.6
35°	17.2	16.3	16.3	16.3	16.3
37.5°	14.9	13.9	13.9	13.9	13.9
40°	13.0	12.1	11.6	12.1	12.1
42.5°	11.1	10.2	9.8	9.8	9.8
45°	9.8	8.4	7.9	8.4	8.4
47.5°	7.9	7.0	7.0	7.4	7.4
50°	6.0	6.0	6.5	7.4	7.4
52.5°	5.6	5.6	6.5	7.4	7.4
55°	5.1	5.6	6.5	7.0	7.4
57.5°	4.6	5.6	6.5	7.0	7.0
60°	4.6	5.1	6.0	7.0	7.0
62.5°	4.2	4.6	5.6	6.5	6.5
65°	4.2	4.6	5.6	6.5	6.5
66°	4.2	4.6	5.6	6.5	6.5
67.5°	4.2	4.6	5.6	6.5	6.5
70°	4.2	4.6	5.6	6.0	6.0
72.5°	3.7	4.2	5.1	6.0	6.0
75°	3.7	4.2	5.1	6.0	6.0
77.5°	3.7	4.2	5.1	6.0	6.0
80°	3.7	4.2	5.1	5.6	6.0
82.5°	3.3	4.2	4.6	5.6	5.6
85°	3.3	3.7	4.6	5.1	5.6
87.5°	2.8	3.3	3.7	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)