

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: P156614

Luminaire Tested: **TLM-F01-LED-E1-T4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P156614  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33673)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TLM-F01-LED-E1-T4-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (7) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2278.6 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Spacing Criteria (0/90/45): 1.73 / 2.02 / 2.64  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
CIE Type: Direct

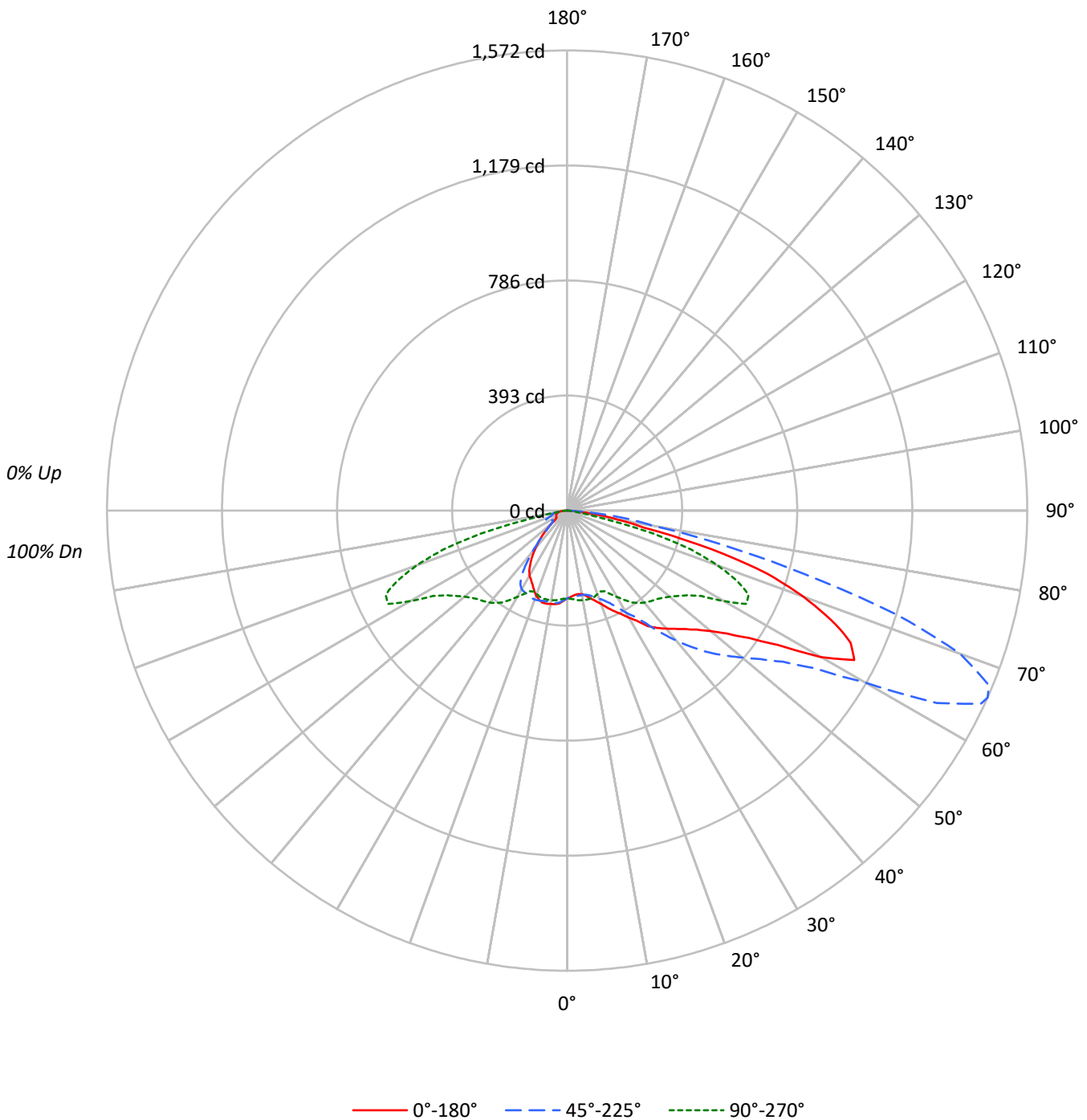
Input Watts (W): 25.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	87	92	88	84	88	84	81	84	81	79	76
2	92	81	72	65	89	79	71	64	76	69	62	72	66	61	69	64	59	57
3	82	68	58	49	79	66	57	49	63	55	48	60	53	47	57	51	46	43
4	73	58	47	39	70	57	46	38	54	45	38	51	43	37	49	42	36	34
5	66	50	39	31	64	49	39	31	47	38	31	45	36	30	42	35	30	27
6	60	44	34	26	58	43	33	26	41	32	25	39	31	25	38	30	25	22
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19
8	51	35	26	19	49	35	25	19	33	25	19	32	24	18	31	23	18	16
9	47	32	23	16	46	31	23	16	30	22	16	29	22	16	28	21	16	14
10	44	29	21	15	43	29	20	15	28	20	14	27	19	14	26	19	14	12

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

	0°	90°	180°
0°	19014	19014	19014
5°	18400	19424	20256
10°	18613	20002	20831
15°	20393	20412	21370
20°	22862	20457	20827
25°	26464	21266	19506
30°	30868	24902	18761
35°	37241	29566	16881
40°	43518	33946	13936
45°	51291	38414	10602
50°	63052	45056	6787
55°	83874	55603	5078
60°	126634	78361	5344
65°	160144	102418	6173
70°	158839	101190	7350
75°	125989	74957	9027
80°	63883	15752	11267
85°	9299	12931	14457



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.2	1.3
10°-20°	88.5	3.9
20°-30°	152.5	6.7
30°-40°	230.8	10.1
40°-50°	299.1	13.1
50°-60°	412.4	18.1
60°-70°	640.7	28.1
70°-80°	372.5	16.3
80°-90°	53.0	2.3
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°	270.2	11.9
0°-40°	501.0	22.0
0°-60°	1212.4	53.2
0°-90°	2278.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2278.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	300	300	300	300	300	
5°	290	294	306	316	319	28
15°	311	300	311	319	326	89
25°	379	350	304	318	279	177
35°	482	471	382	270	218	301
45°	573	686	429	113	118	448
55°	760	900	504	58	46	704
65°	1069	1560	684	82	41	1012
75°	515	839	306	52	37	530
85°	13	88	18	21	20	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°	
0°	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3
2.5°	294.8	295.8	295.1	295.3	295.3	295.6	295.6	295.8	295.6	296.3	296.3	296.8
5°	289.5	290.0	289.8	290.3	290.8	291.8	291.5	292.8	293.1	293.8	293.8	295.1
7.5°	287.5	287.0	287.3	288.0	288.5	289.0	289.5	290.5	291.3	293.1	293.1	294.1
10°	289.5	289.3	289.5	290.0	290.0	290.3	289.8	290.8	291.3	292.8	292.8	293.8
12.5°	297.8	297.8	297.3	297.3	296.8	296.3	295.1	294.3	294.1	294.3	294.3	294.8
15°	311.1	310.6	309.6	308.9	307.9	306.1	304.4	302.9	301.8	300.3	300.3	299.8
17.5°	324.2	323.5	322.5	321.5	320.2	318.4	315.7	313.9	311.1	309.4	309.4	308.4
20°	339.3	337.8	336.5	335.3	332.8	332.3	329.5	326.5	323.2	319.2	319.2	318.7
22.5°	358.9	356.4	354.9	354.1	351.6	350.9	346.3	342.1	338.0	332.8	332.8	331.5
25°	378.8	376.2	375.5	374.5	372.7	371.7	367.4	362.7	357.4	350.1	350.1	348.6
27.5°	398.1	398.4	396.3	397.1	396.6	394.8	390.6	385.8	381.8	373.2	373.2	371.5
30°	422.2	420.7	419.7	421.2	419.5	419.7	416.0	413.4	406.9	401.9	401.9	398.4
32.5°	447.4	447.1	448.6	449.6	449.4	448.9	445.9	443.3	437.6	430.3	430.3	428.8
35°	481.8	483.3	484.6	489.1	489.1	492.4	489.3	486.3	479.5	470.7	470.7	467.7
37.5°	505.2	505.7	510.7	516.7	524.3	531.3	533.3	534.1	531.3	524.8	524.8	520.3
40°	526.5	527.5	535.6	544.9	555.9	569.8	578.1	581.8	582.6	579.6	579.6	569.8
42.5°	547.9	549.4	557.7	571.3	586.6	604.2	618.8	628.1	633.4	633.4	633.4	627.6
45°	572.8	574.8	583.8	598.7	616.5	638.6	658.7	676.6	685.1	685.6	685.6	680.1
47.5°	602.2	603.9	614.5	629.6	647.9	670.3	695.7	716.0	731.9	732.9	732.9	728.4
50°	640.1	642.7	651.5	665.0	683.9	706.5	731.9	760.3	776.9	780.9	780.9	776.1
52.5°	690.4	690.9	698.2	710.8	729.1	750.7	777.6	808.5	830.4	833.7	833.7	825.9
55°	759.8	759.0	763.8	777.4	791.2	808.0	835.9	870.6	895.0	900.0	900.0	892.0
57.5°	854.0	853.3	857.3	860.6	886.4	902.8	930.2	963.4	987.0	1001.6	1001.6	987.7
60°	1000.0	999.3	1005.8	1024.9	1044.3	1068.2	1094.8	1134.5	1167.7	1172.0	1172.0	1158.4
62.5°	1105.9	1109.6	1124.0	1146.3	1185.5	1232.3	1281.0	1333.3	1401.4	1423.0	1423.0	1416.5
65°	1068.9	1076.5	1096.3	1130.2	1182.5	1247.1	1323.5	1418.3	1509.5	1560.5	1560.5	1559.0
66°	1035.7	1044.0	1068.4	1101.1	1156.4	1227.0	1310.4	1413.7	1515.8	1572.1	1572.1	1575.6
67.5°	975.4	984.7	1008.6	1047.3	1101.1	1176.2	1266.0	1378.3	1493.7	1559.3	1559.3	1568.6
70°	858.0	868.6	885.9	917.9	970.9	1038.0	1132.5	1233.0	1353.9	1429.1	1429.1	1440.4
72.5°	717.3	726.6	746.0	772.1	815.6	857.8	931.9	1006.1	1092.5	1178.2	1178.2	1169.9
75°	515.0	519.0	530.6	559.0	582.3	620.3	679.9	740.7	799.7	838.9	838.9	844.5
77.5°	267.7	278.2	294.6	326.0	351.4	385.5	424.2	470.0	513.2	549.2	549.2	539.4
80°	175.2	179.7	194.3	210.4	229.0	250.8	276.7	293.8	299.3	297.1	297.1	299.3
82.5°	101.0	109.3	128.7	141.0	154.8	162.4	183.0	202.6	213.6	199.8	199.8	194.8
85°	12.8	16.6	52.3	65.8	75.4	86.7	93.0	104.8	97.8	87.5	87.5	106.6
87.5°	2.8	2.5	3.5	7.5	7.8	6.5	12.3	13.1	8.0	4.0	4.0	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	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3
2.5°	297.3	297.6	298.1	298.8	299.3	299.8	300.3	301.1	301.6	302.1	303.1
5°	296.1	297.1	298.1	299.1	300.3	302.4	303.6	304.6	305.6	307.6	308.4
7.5°	295.3	297.1	298.6	300.3	302.4	304.1	306.4	307.6	309.1	310.4	311.9
10°	294.8	297.3	298.8	301.3	303.6	305.4	307.9	309.4	311.1	312.7	313.4
12.5°	295.8	297.1	298.6	301.1	303.9	306.4	309.1	310.4	311.9	313.2	313.4
15°	300.1	300.1	300.3	302.4	305.1	307.1	309.4	310.6	311.4	312.2	312.2
17.5°	307.9	306.1	304.9	305.1	306.9	308.1	309.4	309.4	308.9	308.6	308.1
20°	316.9	314.7	312.2	310.4	309.9	308.9	308.1	305.6	303.6	301.8	300.6
22.5°	330.0	326.5	323.0	319.7	316.7	312.9	308.6	303.6	298.8	295.6	293.6
25°	346.1	343.3	339.0	334.0	330.2	323.2	317.7	310.4	304.4	300.1	296.6
27.5°	369.0	365.7	361.7	357.1	351.6	343.8	337.0	328.5	321.2	314.9	310.4
30°	397.4	393.1	390.1	384.5	380.8	372.0	365.2	354.6	340.6	330.5	324.2
32.5°	426.5	421.7	419.2	414.9	410.7	405.4	395.1	378.8	360.7	344.3	333.5
35°	465.5	460.4	455.9	452.1	445.9	436.1	427.0	407.4	382.5	359.7	341.6
37.5°	514.5	506.2	494.9	485.3	474.3	460.2	446.4	426.3	397.9	368.2	344.1
40°	566.8	552.2	536.1	518.2	499.1	478.8	463.0	442.6	410.7	375.5	342.3
42.5°	621.3	598.2	575.8	550.7	524.0	499.9	479.3	456.9	420.2	377.5	335.3
45°	675.3	649.4	615.5	582.6	548.9	519.0	495.9	470.7	429.0	378.3	326.0
47.5°	720.1	693.4	654.7	613.5	573.5	539.6	512.5	485.3	440.8	383.5	323.7
50°	767.3	734.9	691.9	643.2	597.9	560.0	531.1	502.9	457.4	397.1	331.0
52.5°	818.8	781.6	731.4	676.8	627.3	584.8	553.4	524.5	478.5	416.2	344.8
55°	881.7	836.2	781.6	720.1	667.0	620.0	585.4	551.2	503.7	438.8	362.2
57.5°	977.7	921.9	860.6	790.4	731.6	676.1	634.6	595.2	542.6	472.5	385.8
60°	1151.3	1091.8	1012.1	927.2	858.0	793.2	732.4	683.4	618.8	538.9	438.1
62.5°	1400.2	1321.0	1214.7	1095.8	1005.3	911.8	843.2	770.3	690.2	603.9	499.6
65°	1538.4	1442.4	1300.1	1162.2	1045.8	944.3	857.0	772.6	683.6	601.2	514.0
66°	1555.5	1455.5	1307.7	1162.4	1040.3	936.0	844.2	756.8	665.8	587.1	507.9
67.5°	1548.5	1446.2	1293.9	1140.5	1016.4	904.3	809.5	718.8	628.1	554.7	487.8
70°	1433.1	1336.1	1186.5	1038.0	920.1	809.5	719.1	629.8	546.6	483.8	434.6
72.5°	1190.1	1107.1	977.2	860.6	768.1	676.8	600.2	515.0	444.6	398.1	369.0
75°	859.0	808.8	690.4	623.6	542.4	481.8	407.4	356.9	306.4	283.8	278.7
77.5°	542.6	475.0	399.9	329.2	270.7	224.4	174.7	148.3	123.7	121.1	146.3
80°	274.7	247.3	190.5	151.8	127.7	103.3	81.7	61.8	43.2	52.0	62.3
82.5°	180.0	150.0	117.6	96.8	84.2	69.9	54.3	37.7	27.6	31.2	42.7
85°	97.3	82.9	66.9	52.8	42.7	38.2	25.6	18.1	17.8	19.1	24.4
87.5°	7.0	7.0	5.5	5.0	6.0	5.0	4.5	4.5	4.3	4.5	6.0
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3	300.3
2.5°	303.6	304.4	304.6	305.9	306.6	307.1	307.6	307.6	307.9	308.6	308.9
5°	309.4	310.6	312.2	313.2	313.7	315.2	315.7	315.7	316.2	317.2	317.9
7.5°	312.9	314.7	316.2	316.7	317.7	318.2	318.9	319.4	319.4	320.4	320.9
10°	314.2	315.2	316.7	316.7	317.7	317.7	318.4	318.7	318.7	319.7	320.4
12.5°	314.2	314.7	315.9	315.9	316.7	316.9	317.9	318.7	318.9	320.2	321.2
15°	312.7	313.2	314.2	314.4	316.2	317.2	319.4	320.9	320.9	322.2	322.7
17.5°	308.4	309.6	311.7	313.7	316.9	319.2	322.0	323.2	322.2	321.5	320.7
20°	301.3	303.6	308.4	313.4	319.2	322.2	323.7	322.5	318.9	315.4	313.2
22.5°	294.3	298.8	306.9	314.4	320.9	323.0	322.2	317.7	311.9	307.6	304.6
25°	297.6	302.9	310.6	317.4	321.7	321.2	318.2	311.9	305.6	300.1	295.1
27.5°	311.1	316.9	321.2	323.5	323.0	319.4	314.7	307.6	300.1	292.8	285.8
30°	324.0	327.0	328.0	326.2	322.2	316.4	310.4	302.4	292.3	283.3	275.2
32.5°	329.7	326.7	322.0	317.2	310.6	305.6	297.3	288.5	276.0	265.2	257.1
35°	329.7	317.7	305.6	295.6	285.8	279.5	269.9	258.1	246.6	237.5	231.2
37.5°	322.5	299.3	279.5	263.1	250.8	244.0	229.7	219.2	209.4	206.3	202.3
40°	309.1	275.0	246.3	224.9	209.4	199.3	185.0	177.7	173.9	172.4	171.7
42.5°	291.3	247.8	209.6	183.2	166.4	155.1	145.5	141.0	140.7	140.5	140.5
45°	272.2	218.7	173.9	142.5	127.7	117.6	113.1	111.3	112.8	112.6	112.8
47.5°	260.4	196.5	141.2	107.8	96.5	90.0	87.7	88.5	89.7	89.2	89.2
50°	258.9	185.2	119.4	83.9	75.4	72.1	71.6	71.6	72.4	71.9	71.6
52.5°	264.4	183.5	108.1	72.1	65.3	62.6	62.1	61.8	61.6	60.1	58.8
55°	274.0	187.5	104.8	69.1	62.1	59.1	58.3	57.8	56.8	54.8	52.5
57.5°	293.1	200.1	107.8	70.6	63.1	60.6	59.8	59.8	57.8	54.5	51.3
60°	339.0	232.0	120.1	76.4	67.9	65.3	65.8	65.6	62.6	57.8	52.8
62.5°	398.4	273.7	136.2	84.4	73.9	73.4	75.9	75.4	70.4	63.1	55.8
65°	425.8	293.3	140.7	86.2	75.1	77.4	82.4	81.9	75.7	65.6	56.3
66°	426.3	293.3	138.7	84.7	73.4	76.2	81.2	80.9	74.6	64.6	55.3
67.5°	416.0	285.3	133.0	81.7	69.9	71.9	76.4	76.2	70.4	62.1	53.3
70°	377.2	255.4	118.1	76.4	65.1	64.1	65.6	64.6	60.8	55.0	49.0
72.5°	323.2	214.4	103.0	72.4	61.8	57.8	56.8	56.0	53.0	49.8	46.0
75°	254.6	169.6	90.5	69.4	58.8	53.5	51.8	50.8	48.8	46.5	43.5
77.5°	157.1	121.4	78.9	65.3	56.5	51.3	50.0	48.5	45.5	42.7	40.5
80°	70.1	75.1	64.8	57.1	50.5	45.7	43.7	41.5	38.5	36.7	35.4
82.5°	46.7	48.5	47.0	42.7	38.2	34.4	31.4	31.4	30.9	29.4	28.9
85°	29.9	30.2	29.2	26.4	24.6	22.4	21.1	21.4	22.4	22.1	21.9
87.5°	6.8	6.8	8.0	7.5	8.8	9.3	10.1	10.8	12.3	12.3	13.1
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: P156614

CATALOG NUMBER: TLM-F01-LED-E1-T4-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	300.3	300.3	300.3	300.3	300.3
2.5°	309.1	309.6	310.1	309.4	309.6
5°	317.9	317.7	318.9	318.2	318.7
7.5°	320.7	320.9	322.0	322.0	322.2
10°	320.9	321.5	322.7	323.5	324.0
12.5°	322.2	323.2	325.2	325.7	325.7
15°	323.2	323.7	325.0	325.5	326.0
17.5°	319.7	318.7	319.2	319.4	319.2
20°	310.9	309.9	309.6	308.6	309.1
22.5°	301.3	298.6	296.8	294.8	294.8
25°	289.8	285.5	282.0	278.5	279.2
27.5°	279.0	273.4	269.9	267.7	267.2
30°	268.4	262.6	259.4	256.6	256.6
32.5°	250.8	246.8	242.5	240.8	240.5
35°	226.4	223.9	220.4	219.7	218.4
37.5°	199.1	198.3	195.3	195.0	193.8
40°	170.4	170.9	169.9	169.4	168.6
42.5°	141.8	144.3	143.8	143.5	143.0
45°	114.4	116.1	116.4	117.1	118.4
47.5°	90.0	90.5	91.0	90.7	91.0
50°	70.4	69.1	68.9	68.1	68.9
52.5°	56.8	54.8	53.8	52.8	52.3
55°	50.0	48.0	47.0	46.5	46.0
57.5°	48.3	46.2	44.7	43.7	43.5
60°	48.8	45.7	43.7	42.5	42.2
62.5°	50.0	46.0	43.2	42.0	41.7
65°	49.8	45.5	43.0	41.5	41.2
66°	49.0	45.0	42.5	41.2	41.0
67.5°	47.8	44.2	42.0	41.0	40.5
70°	45.5	43.2	41.5	40.2	39.7
72.5°	43.5	41.7	40.2	39.0	38.7
75°	41.2	39.7	38.2	37.2	36.9
77.5°	38.5	36.9	35.9	35.2	34.9
80°	33.9	32.9	31.9	30.9	30.9
82.5°	28.1	27.4	26.4	25.6	25.4
85°	21.6	21.6	20.9	20.1	19.9
87.5°	12.8	12.6	12.6	11.8	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)