

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: P156608

Luminaire Tested: **TLM-E01-LED-E1-T4-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P156608  
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-E01-LED-E1-T4-8030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2550.6 lumens  
Efficiency: N/A  
Efficacy: 103.3 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

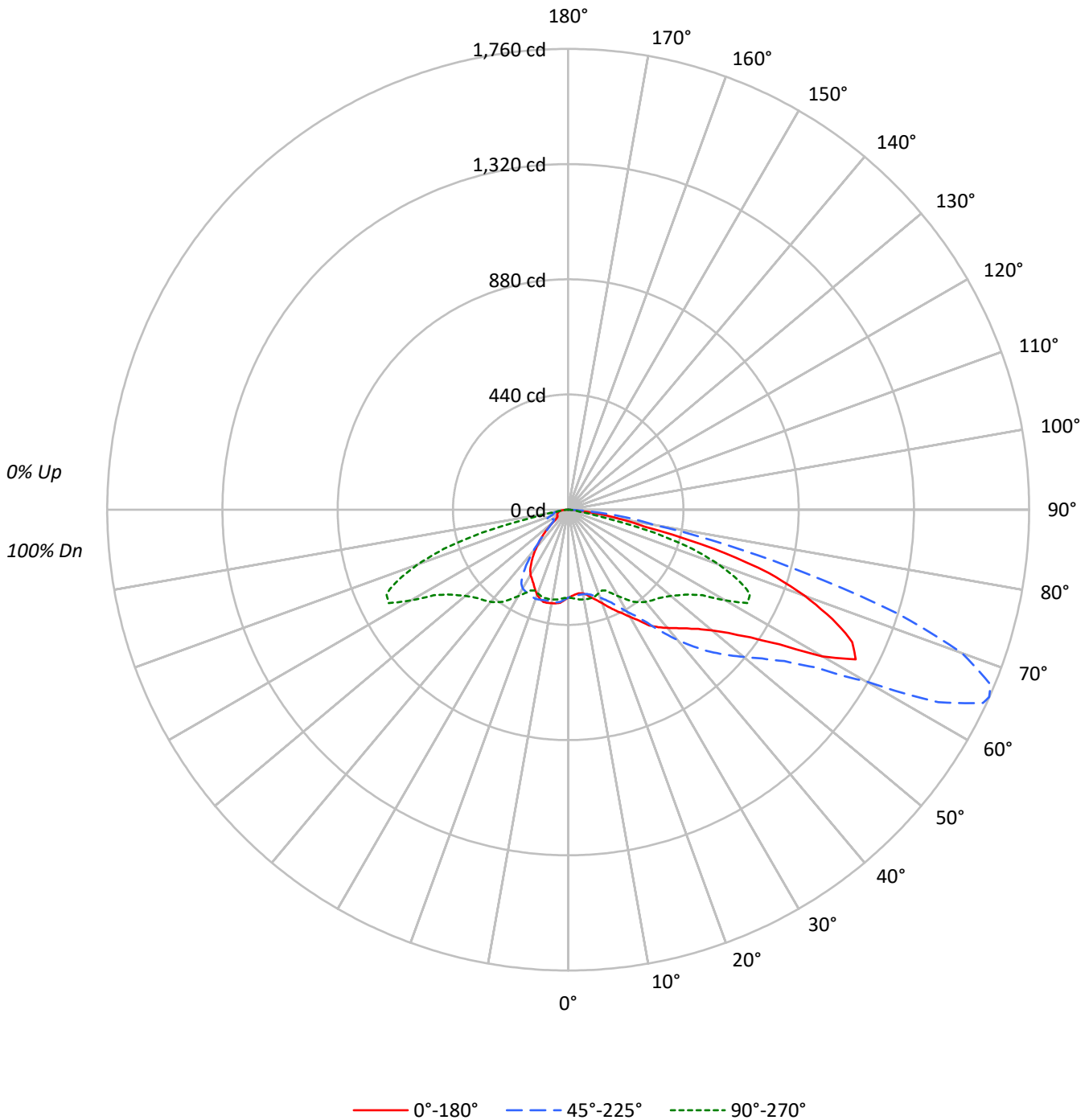
Input Watts (W): 24.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20																		
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	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°	21287	21287	21287
5°	20599	21744	22671
10°	20838	22394	23313
15°	22831	22851	23919
20°	25591	22896	23314
25°	29622	23802	21839
30°	34553	27870	20998
35°	41686	33098	18899
40°	48717	37996	15605
45°	57416	42999	11865
50°	70578	50434	7595
55°	93887	62238	5685
60°	141754	87707	5990
65°	179261	114643	6907
70°	177814	113279	8238
75°	141010	83887	10128
80°	71504	17648	12616
85°	10389	14530	16128



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.6	1.3
10°-20°	99.1	3.9
20°-30°	170.7	6.7
30°-40°	258.3	10.1
40°-50°	334.8	13.1
50°-60°	461.6	18.1
60°-70°	717.1	28.1
70°-80°	417.0	16.3
80°-90°	59.3	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°	302.5	11.9
0°-40°	560.8	22.0
0°-60°	1357.1	53.2
0°-90°	2550.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2550.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	336	336	336	336	336	
5°	324	329	342	353	357	31
15°	348	336	349	358	365	100
25°	424	392	341	356	313	198
35°	539	527	428	302	244	337
45°	641	768	480	127	132	501
55°	850	1007	564	65	52	788
65°	1196	1747	765	92	46	1132
75°	576	939	343	58	41	594
85°	14	98	20	24	22	62
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°	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2
2.5°	330.0	331.1	330.3	330.6	330.6	330.8	330.8	331.1	330.8	331.7	332.3
5°	324.1	324.7	324.4	324.9	325.5	326.6	326.3	327.7	328.0	328.9	330.3
7.5°	321.8	321.3	321.6	322.4	323.0	323.5	324.1	325.2	326.1	328.0	329.2
10°	324.1	323.8	324.1	324.7	324.7	324.9	324.4	325.5	326.1	327.7	328.9
12.5°	333.4	333.4	332.8	332.8	332.3	331.7	330.3	329.4	329.2	329.4	330.0
15°	348.3	347.7	346.6	345.8	344.6	342.7	340.7	339.0	337.9	336.2	335.6
17.5°	362.9	362.1	360.9	359.8	358.4	356.4	353.4	351.4	348.3	346.3	345.2
20°	379.8	378.1	376.7	375.3	372.5	371.9	368.8	365.4	361.8	357.3	356.7
22.5°	401.7	398.9	397.2	396.4	393.6	392.7	387.7	382.9	378.4	372.5	371.1
25°	424.0	421.2	420.3	419.2	417.2	416.1	411.3	406.0	400.1	391.9	390.2
27.5°	445.6	445.9	443.7	444.5	443.9	442.0	437.2	431.8	427.3	417.8	415.8
30°	472.6	470.9	469.8	471.5	469.5	469.8	465.6	462.8	455.5	449.8	445.9
32.5°	500.8	500.5	502.2	503.3	503.0	502.5	499.1	496.3	489.8	481.6	479.9
35°	539.3	541.0	542.4	547.5	547.5	551.1	547.8	544.4	536.8	526.9	523.6
37.5°	565.5	566.0	571.7	578.4	586.9	594.7	597.0	597.8	594.7	587.4	582.4
40°	589.4	590.5	599.5	609.9	622.3	637.8	647.1	651.3	652.1	648.7	637.8
42.5°	613.3	615.0	624.3	639.5	656.6	676.3	692.6	703.0	709.0	709.0	702.5
45°	641.2	643.4	653.5	670.1	690.1	714.9	737.4	757.3	766.9	767.5	761.3
47.5°	674.1	676.0	687.9	704.7	725.3	750.3	778.7	801.5	819.2	820.4	815.3
50°	716.5	719.4	729.2	744.4	765.5	790.8	819.2	851.0	869.6	874.1	868.7
52.5°	772.8	773.4	781.5	795.6	816.1	840.3	870.4	905.0	929.5	933.2	924.5
55°	850.5	849.6	855.0	870.2	885.6	904.5	935.7	974.5	1001.8	1007.4	998.4
57.5°	956.0	955.1	959.6	963.3	992.3	1010.5	1041.2	1078.3	1104.8	1121.1	1105.6
60°	1119.4	1118.6	1125.9	1147.3	1168.9	1195.7	1225.5	1269.9	1307.1	1311.8	1296.7
62.5°	1237.9	1242.1	1258.1	1283.1	1327.0	1379.4	1433.9	1492.5	1568.7	1592.9	1585.6
65°	1196.5	1204.9	1227.2	1265.1	1323.7	1396.0	1481.5	1587.5	1689.7	1746.8	1745.1
66°	1159.4	1168.6	1195.9	1232.5	1294.4	1373.5	1466.9	1582.5	1696.7	1759.7	1763.7
67.5°	1091.8	1102.3	1129.0	1172.3	1232.5	1316.6	1417.1	1542.8	1671.9	1745.4	1755.8
70°	960.5	972.3	991.7	1027.4	1086.8	1161.9	1267.7	1380.2	1515.5	1599.6	1612.3
72.5°	802.9	813.3	835.0	864.2	912.9	960.2	1043.2	1126.2	1222.9	1318.9	1309.6
75°	576.4	580.9	593.9	625.7	651.8	694.3	761.0	829.1	895.2	939.1	945.3
77.5°	299.6	311.4	329.7	364.9	393.3	431.6	474.9	526.1	574.5	614.7	603.7
80°	196.1	201.2	217.5	235.5	256.3	280.8	309.7	328.9	335.1	332.5	335.1
82.5°	113.1	122.4	144.0	157.8	173.3	181.7	204.8	226.8	239.1	223.7	218.0
85°	14.3	18.6	58.5	73.7	84.4	97.1	104.1	117.3	109.4	97.9	119.3
87.5°	3.1	2.8	3.9	8.4	8.7	7.3	13.8	14.6	9.0	4.5	5.6
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):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2
2.5°	332.8	333.1	333.7	334.5	335.1	335.6	336.2	337.0	337.6	338.2	339.3
5°	331.4	332.5	333.7	334.8	336.2	338.4	339.8	341.0	342.1	344.3	345.2
7.5°	330.6	332.5	334.2	336.2	338.4	340.4	342.9	344.3	346.0	347.4	349.1
10°	330.0	332.8	334.5	337.3	339.8	341.8	344.6	346.3	348.3	350.0	350.8
12.5°	331.1	332.5	334.2	337.0	340.1	342.9	346.0	347.4	349.1	350.5	350.8
15°	335.9	335.9	336.2	338.4	341.5	343.8	346.3	347.7	348.6	349.4	349.4
17.5°	344.6	342.7	341.3	341.5	343.5	344.9	346.3	346.3	345.8	345.5	344.9
20°	354.8	352.2	349.4	347.4	346.9	345.8	344.9	342.1	339.8	337.9	336.5
22.5°	369.4	365.4	361.5	357.9	354.5	350.3	345.5	339.8	334.5	330.8	328.6
25°	387.4	384.3	379.5	373.9	369.7	361.8	355.6	347.4	340.7	335.9	332.0
27.5°	413.0	409.3	404.8	399.8	393.6	384.9	377.3	367.7	359.5	352.5	347.4
30°	444.8	440.0	436.6	430.4	426.2	416.4	408.8	397.0	381.2	369.9	362.9
32.5°	477.4	472.1	469.3	464.5	459.7	453.8	442.3	424.0	403.7	385.4	373.3
35°	521.0	515.4	510.3	506.1	499.1	488.1	478.0	456.0	428.2	402.6	382.3
37.5°	575.9	566.6	553.9	543.2	530.9	515.1	499.6	477.1	445.3	412.1	385.1
40°	634.4	618.1	600.1	580.1	558.7	535.9	518.2	495.4	459.7	420.3	383.2
42.5°	695.4	669.6	644.5	616.4	586.6	559.6	536.5	511.5	470.4	422.6	375.3
45°	755.9	727.0	689.0	652.1	614.4	580.9	555.1	526.9	480.2	423.4	364.9
47.5°	806.0	776.2	732.9	686.7	642.0	604.0	573.6	543.2	493.5	429.3	362.4
50°	858.9	822.6	774.5	719.9	669.3	626.8	594.5	562.9	512.0	444.5	370.5
52.5°	916.6	874.9	818.7	757.6	702.2	654.7	619.5	587.1	535.7	465.9	386.0
55°	986.9	936.0	874.9	806.0	746.7	694.0	655.2	617.0	563.8	491.2	405.4
57.5°	1094.4	1031.9	963.3	884.8	819.0	756.8	710.4	666.2	607.4	528.9	431.8
60°	1288.8	1222.1	1132.9	1037.8	960.5	887.9	819.8	764.9	692.6	603.2	490.4
62.5°	1567.3	1478.7	1359.7	1226.6	1125.3	1020.7	943.9	862.3	772.5	676.0	559.3
65°	1722.0	1614.6	1455.3	1300.9	1170.6	1057.0	959.3	864.8	765.2	672.9	575.3
66°	1741.2	1629.2	1463.8	1301.2	1164.4	1047.7	945.0	847.1	745.2	657.2	568.6
67.5°	1733.3	1618.8	1448.3	1276.7	1137.7	1012.2	906.2	804.6	703.0	620.9	546.1
70°	1604.1	1495.6	1328.2	1161.9	1030.0	906.2	804.9	705.0	611.9	541.6	486.4
72.5°	1332.1	1239.3	1093.8	963.3	859.7	757.6	671.8	576.4	497.7	445.6	413.0
75°	961.6	905.3	772.8	698.0	607.1	539.3	456.0	399.5	342.9	317.6	312.0
77.5°	607.4	531.7	447.6	368.5	303.0	251.2	195.5	166.0	138.4	135.6	163.7
80°	307.5	276.8	213.2	169.9	142.9	115.6	91.4	69.2	48.4	58.2	69.8
82.5°	201.4	168.0	131.7	108.3	94.2	78.2	60.8	42.2	30.9	34.9	47.8
85°	108.9	92.8	74.8	59.1	47.8	42.8	28.7	20.3	20.0	21.4	27.3
87.5°	7.9	7.9	6.2	5.6	6.8	5.6	5.1	5.1	4.8	5.1	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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2	336.2
2.5°	339.8	340.7	341.0	342.4	343.2	343.8	344.3	344.3	344.6	345.5	345.8
5°	346.3	347.7	349.4	350.5	351.1	352.8	353.4	353.4	353.9	355.0	355.9
7.5°	350.3	352.2	353.9	354.5	355.6	356.2	357.0	357.6	357.6	358.7	359.3
10°	351.7	352.8	354.5	354.5	355.6	355.6	356.4	356.7	356.7	357.9	358.7
12.5°	351.7	352.2	353.6	353.6	354.5	354.8	355.9	356.7	357.0	358.4	359.5
15°	350.0	350.5	351.7	351.9	353.9	355.0	357.6	359.3	359.3	360.7	361.2
17.5°	345.2	346.6	348.8	351.1	354.8	357.3	360.4	361.8	360.7	359.8	359.0
20°	337.3	339.8	345.2	350.8	357.3	360.7	362.4	360.9	357.0	353.1	350.5
22.5°	329.4	334.5	343.5	351.9	359.3	361.5	360.7	355.6	349.1	344.3	341.0
25°	333.1	339.0	347.7	355.3	360.1	359.5	356.2	349.1	342.1	335.9	330.3
27.5°	348.3	354.8	359.5	362.1	361.5	357.6	352.2	344.3	335.9	327.7	319.9
30°	362.6	366.0	367.1	365.2	360.7	354.2	347.4	338.4	327.2	317.1	308.1
32.5°	369.1	365.7	360.4	355.0	347.7	342.1	332.8	323.0	308.9	296.8	287.8
35°	369.1	355.6	342.1	330.8	319.9	312.8	302.1	288.9	276.0	265.9	258.8
37.5°	360.9	335.1	312.8	294.6	280.8	273.2	257.1	245.3	234.3	231.0	226.5
40°	346.0	307.8	275.7	251.8	234.3	223.1	207.1	198.9	194.7	193.0	192.1
42.5°	326.1	277.4	234.6	205.1	186.2	173.6	162.9	157.8	157.5	157.3	157.3
45°	304.7	244.8	194.7	159.5	142.9	131.7	126.6	124.6	126.3	126.0	126.3
47.5°	291.5	220.0	158.1	120.7	108.0	100.7	98.2	99.0	100.4	99.9	99.9
50°	289.8	207.3	133.6	94.0	84.4	80.7	80.2	80.2	81.0	80.5	80.2
52.5°	296.0	205.4	121.0	80.7	73.1	70.1	69.5	69.2	68.9	67.2	65.8
55°	306.7	209.9	117.3	77.4	69.5	66.1	65.3	64.7	63.6	61.3	58.8
57.5°	328.0	223.9	120.7	79.1	70.6	67.8	67.0	67.0	64.7	61.0	57.4
60°	379.5	259.7	134.5	85.5	76.0	73.1	73.7	73.4	70.1	64.7	59.1
62.5°	445.9	306.4	152.5	94.5	82.7	82.1	85.0	84.4	78.8	70.6	62.5
65°	476.6	328.3	157.5	96.5	84.1	86.6	92.3	91.7	84.7	73.4	63.0
66°	477.1	328.3	155.3	94.8	82.1	85.2	90.9	90.6	83.6	72.3	61.9
67.5°	465.6	319.3	148.8	91.4	78.2	80.5	85.5	85.2	78.8	69.5	59.6
70°	422.3	285.8	132.2	85.5	72.9	71.7	73.4	72.3	68.1	61.6	54.9
72.5°	361.8	240.0	115.3	81.0	69.2	64.7	63.6	62.7	59.4	55.7	51.5
75°	285.0	189.9	101.3	77.6	65.8	59.9	58.0	56.8	54.6	52.0	48.7
77.5°	175.8	135.9	88.3	73.1	63.3	57.4	56.0	54.3	50.9	47.8	45.3
80°	78.5	84.1	72.6	63.9	56.5	51.2	49.0	46.4	43.0	41.1	39.7
82.5°	52.3	54.3	52.6	47.8	42.8	38.5	35.2	35.2	34.6	32.9	32.4
85°	33.5	33.8	32.6	29.5	27.6	25.0	23.6	23.9	25.0	24.8	24.5
87.5°	7.6	7.6	9.0	8.4	9.8	10.4	11.3	12.1	13.8	13.8	14.6
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: P156608

CATALOG NUMBER: TLM-E01-LED-E1-T4-8030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	336.2	336.2	336.2	336.2	336.2
2.5°	346.0	346.6	347.2	346.3	346.6
5°	355.9	355.6	357.0	356.2	356.7
7.5°	359.0	359.3	360.4	360.4	360.7
10°	359.3	359.8	361.2	362.1	362.6
12.5°	360.7	361.8	364.0	364.6	364.6
15°	361.8	362.4	363.8	364.3	364.9
17.5°	357.9	356.7	357.3	357.6	357.3
20°	348.0	346.9	346.6	345.5	346.0
22.5°	337.3	334.2	332.3	330.0	330.0
25°	324.4	319.6	315.7	311.7	312.6
27.5°	312.3	306.1	302.1	299.6	299.1
30°	300.5	294.0	290.3	287.2	287.2
32.5°	280.8	276.3	271.5	269.5	269.2
35°	253.5	250.7	246.7	245.9	244.5
37.5°	222.8	222.0	218.6	218.3	216.9
40°	190.7	191.3	190.2	189.6	188.8
42.5°	158.7	161.5	160.9	160.6	160.1
45°	128.0	130.0	130.3	131.1	132.5
47.5°	100.7	101.3	101.8	101.6	101.8
50°	78.8	77.4	77.1	76.2	77.1
52.5°	63.6	61.3	60.2	59.1	58.5
55°	56.0	53.7	52.6	52.0	51.5
57.5°	54.0	51.8	50.1	49.0	48.7
60°	54.6	51.2	49.0	47.5	47.3
62.5°	56.0	51.5	48.4	47.0	46.7
65°	55.7	50.9	48.1	46.4	46.1
66°	54.9	50.4	47.5	46.1	45.9
67.5°	53.5	49.5	47.0	45.9	45.3
70°	50.9	48.4	46.4	45.0	44.5
72.5°	48.7	46.7	45.0	43.6	43.3
75°	46.1	44.5	42.8	41.6	41.4
77.5°	43.0	41.4	40.2	39.4	39.1
80°	38.0	36.9	35.7	34.6	34.6
82.5°	31.5	30.7	29.5	28.7	28.4
85°	24.2	24.2	23.4	22.5	22.2
87.5°	14.3	14.1	14.1	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)