

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: P156610

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P156610  
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  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (21) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

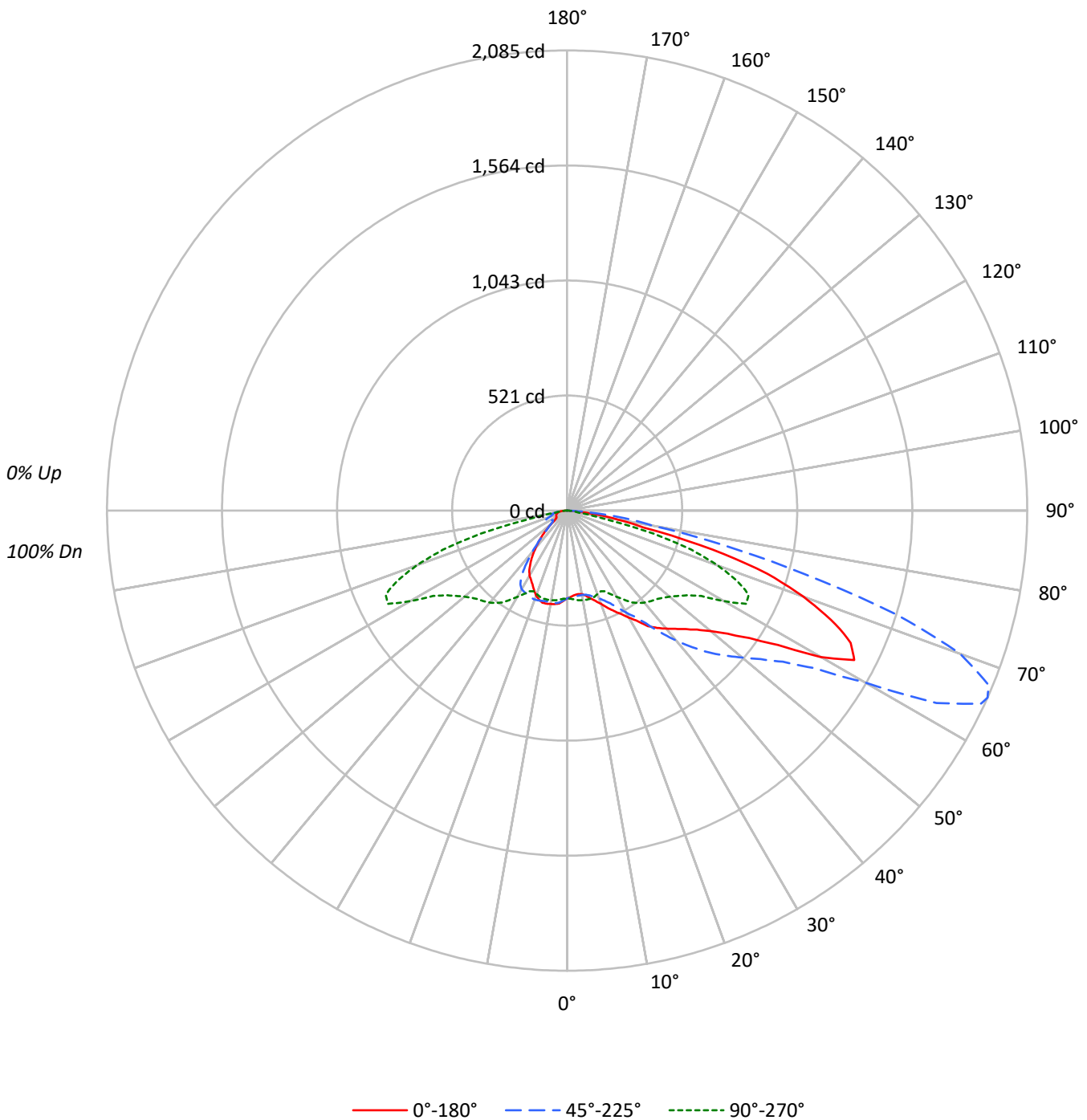
Lumens per Lamp: N/A  
Luminaire Lumens: 3022.0 lumens  
Efficiency: N/A  
Efficacy: 122.4 lumens/watt  
Spacing Criteria (0/90/45): 1.73 / 2.02 / 2.64  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P156610  
CATALOG NUMBER: TLM-E01-LED-E1-T4

### Luminous Intensity Polar Plot





TEST NUMBER: P156610

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

**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°	25219	25219	25219
5°	24407	25760	26866
10°	24689	26534	27627
15°	27053	27072	28338
20°	30321	27134	27626
25°	35092	28204	25870
30°	40943	33025	24880
35°	49392	39212	22393
40°	57718	45022	18490
45°	68027	50951	14058
50°	83630	59762	8993
55°	111240	73741	6734
60°	167955	103929	7092
65°	212401	135843	8195
70°	210674	134217	9756
75°	167088	99397	11987
80°	84703	20893	14950
85°	12350	17218	19106



TEST NUMBER: P156610

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	1.3
10°-20°	117.4	3.9
20°-30°	202.3	6.7
30°-40°	306.0	10.1
40°-50°	396.7	13.1
50°-60°	546.9	18.1
60°-70°	849.7	28.1
70°-80°	494.1	16.3
80°-90°	70.3	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°	358.4	11.9
0°-40°	664.4	22.0
0°-60°	1608.0	53.2
0°-90°	3022.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3022.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	398	398	398	398	398	
5°	384	390	405	419	423	37
15°	413	398	413	424	432	118
25°	502	464	404	422	370	234
35°	639	624	507	358	290	399
45°	760	909	569	150	157	594
55°	1008	1194	668	77	61	933
65°	1418	2070	907	109	55	1342
75°	683	1113	406	69	49	703
85°	17	116	24	28	26	74
90°	0	0	0	0	0	



TEST NUMBER: P156610

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

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3
2.5°	391.0	392.3	391.3	391.7	391.7	392.0	392.0	392.3	392.0	393.0	393.7
5°	384.0	384.7	384.3	385.0	385.7	387.0	386.7	388.3	388.7	389.7	391.3
7.5°	381.3	380.7	381.0	382.0	382.7	383.3	384.0	385.3	386.3	388.7	390.0
10°	384.0	383.7	384.0	384.7	384.7	385.0	384.3	385.7	386.3	388.3	389.7
12.5°	395.0	395.0	394.3	394.3	393.7	393.0	391.3	390.3	390.0	390.3	391.0
15°	412.7	412.0	410.7	409.7	408.3	406.0	403.7	401.7	400.3	398.3	397.7
17.5°	430.0	429.0	427.7	426.3	424.7	422.3	418.7	416.3	412.7	410.3	409.0
20°	450.0	448.0	446.3	444.7	441.3	440.7	437.0	433.0	428.7	423.3	422.7
22.5°	476.0	472.7	470.7	469.7	466.3	465.3	459.3	453.7	448.3	441.3	439.7
25°	502.3	499.0	498.0	496.7	494.3	493.0	487.3	481.0	474.0	464.3	462.3
27.5°	528.0	528.3	525.7	526.7	526.0	523.7	518.0	511.7	506.3	495.0	492.7
30°	560.0	558.0	556.7	558.7	556.3	556.7	551.7	548.3	539.7	533.0	528.3
32.5°	593.3	593.0	595.0	596.3	596.0	595.3	591.3	588.0	580.3	570.7	568.7
35°	639.0	641.0	642.7	648.7	648.7	653.0	649.0	645.0	636.0	624.3	620.3
37.5°	670.0	670.7	677.3	685.3	695.3	704.7	707.3	708.3	704.7	696.0	690.0
40°	698.3	699.7	710.3	722.7	737.3	755.7	766.7	771.7	772.7	768.7	755.7
42.5°	726.7	728.7	739.7	757.7	778.0	801.3	820.7	833.0	840.0	840.0	832.3
45°	759.7	762.3	774.3	794.0	817.7	847.0	873.7	897.3	908.7	909.3	902.0
47.5°	798.7	801.0	815.0	835.0	859.3	889.0	922.7	949.7	970.7	972.0	966.0
50°	849.0	852.3	864.0	882.0	907.0	937.0	970.7	1008.3	1030.3	1035.7	1029.3
52.5°	915.7	916.3	926.0	942.7	967.0	995.7	1031.3	1072.3	1101.3	1105.7	1095.3
55°	1007.7	1006.7	1013.0	1031.0	1049.3	1071.7	1108.7	1154.7	1187.0	1193.7	1183.0
57.5°	1132.7	1131.7	1137.0	1141.3	1175.7	1197.3	1233.7	1277.7	1309.0	1328.3	1310.0
60°	1326.3	1325.3	1334.0	1359.3	1385.0	1416.7	1452.0	1504.7	1548.7	1554.3	1536.3
62.5°	1466.7	1471.7	1490.7	1520.3	1572.3	1634.3	1699.0	1768.3	1858.7	1887.3	1878.7
65°	1417.7	1427.7	1454.0	1499.0	1568.3	1654.0	1755.3	1881.0	2002.0	2069.7	2067.7
66°	1373.7	1384.7	1417.0	1460.3	1533.7	1627.3	1738.0	1875.0	2010.3	2085.0	2089.7
67.5°	1293.7	1306.0	1337.7	1389.0	1460.3	1560.0	1679.0	1828.0	1981.0	2068.0	2080.3
70°	1138.0	1152.0	1175.0	1217.3	1287.7	1376.7	1502.0	1635.3	1795.7	1895.3	1910.3
72.5°	951.3	963.7	989.3	1024.0	1081.7	1137.7	1236.0	1334.3	1449.0	1562.7	1551.7
75°	683.0	688.3	703.7	741.3	772.3	822.7	901.7	982.3	1060.7	1112.7	1120.0
77.5°	355.0	369.0	390.7	432.3	466.0	511.3	562.7	623.3	680.7	728.3	715.3
80°	232.3	238.3	257.7	279.0	303.7	332.7	367.0	389.7	397.0	394.0	397.0
82.5°	134.0	145.0	170.7	187.0	205.3	215.3	242.7	268.7	283.3	265.0	258.3
85°	17.0	22.0	69.3	87.3	100.0	115.0	123.3	139.0	129.7	116.0	141.3
87.5°	3.7	3.3	4.7	10.0	10.3	8.7	16.3	17.3	10.7	5.3	6.7
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: P156610

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

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3
2.5°	394.3	394.7	395.3	396.3	397.0	397.7	398.3	399.3	400.0	400.7	402.0
5°	392.7	394.0	395.3	396.7	398.3	401.0	402.7	404.0	405.3	408.0	409.0
7.5°	391.7	394.0	396.0	398.3	401.0	403.3	406.3	408.0	410.0	411.7	413.7
10°	391.0	394.3	396.3	399.7	402.7	405.0	408.3	410.3	412.7	414.7	415.7
12.5°	392.3	394.0	396.0	399.3	403.0	406.3	410.0	411.7	413.7	415.3	415.7
15°	398.0	398.0	398.3	401.0	404.7	407.3	410.3	412.0	413.0	414.0	414.0
17.5°	408.3	406.0	404.3	404.7	407.0	408.7	410.3	410.3	409.7	409.3	408.7
20°	420.3	417.3	414.0	411.7	411.0	409.7	408.7	405.3	402.7	400.3	398.7
22.5°	437.7	433.0	428.3	424.0	420.0	415.0	409.3	402.7	396.3	392.0	389.3
25°	459.0	455.3	449.7	443.0	438.0	428.7	421.3	411.7	403.7	398.0	393.3
27.5°	489.3	485.0	479.7	473.7	466.3	456.0	447.0	435.7	426.0	417.7	411.7
30°	527.0	521.3	517.3	510.0	505.0	493.3	484.3	470.3	451.7	438.3	430.0
32.5°	565.7	559.3	556.0	550.3	544.7	537.7	524.0	502.3	478.3	456.7	442.3
35°	617.3	610.7	604.7	599.7	591.3	578.3	566.3	540.3	507.3	477.0	453.0
37.5°	682.3	671.3	656.3	643.7	629.0	610.3	592.0	565.3	527.7	488.3	456.3
40°	751.7	732.3	711.0	687.3	662.0	635.0	614.0	587.0	544.7	498.0	454.0
42.5°	824.0	793.3	763.7	730.3	695.0	663.0	635.7	606.0	557.3	500.7	444.7
45°	895.7	861.3	816.3	772.7	728.0	688.3	657.7	624.3	569.0	501.7	432.3
47.5°	955.0	919.7	868.3	813.7	760.7	715.7	679.7	643.7	584.7	508.7	429.3
50°	1017.7	974.7	917.7	853.0	793.0	742.7	704.3	667.0	606.7	526.7	439.0
52.5°	1086.0	1036.7	970.0	897.7	832.0	775.7	734.0	695.7	634.7	552.0	457.3
55°	1169.3	1109.0	1036.7	955.0	884.7	822.3	776.3	731.0	668.0	582.0	480.3
57.5°	1296.7	1222.7	1141.3	1048.3	970.3	896.7	841.7	789.3	719.7	626.7	511.7
60°	1527.0	1448.0	1342.3	1229.7	1138.0	1052.0	971.3	906.3	820.7	714.7	581.0
62.5°	1857.0	1752.0	1611.0	1453.3	1333.3	1209.3	1118.3	1021.7	915.3	801.0	662.7
65°	2040.3	1913.0	1724.3	1541.3	1387.0	1252.3	1136.7	1024.7	906.7	797.3	681.7
66°	2063.0	1930.3	1734.3	1541.7	1379.7	1241.3	1119.7	1003.7	883.0	778.7	673.7
67.5°	2053.7	1918.0	1716.0	1512.7	1348.0	1199.3	1073.7	953.3	833.0	735.7	647.0
70°	1900.7	1772.0	1573.7	1376.7	1220.3	1073.7	953.7	835.3	725.0	641.7	576.3
72.5°	1578.3	1468.3	1296.0	1141.3	1018.7	897.7	796.0	683.0	589.7	528.0	489.3
75°	1139.3	1072.7	915.7	827.0	719.3	639.0	540.3	473.3	406.3	376.3	369.7
77.5°	719.7	630.0	530.3	436.7	359.0	297.7	231.7	196.7	164.0	160.7	194.0
80°	364.3	328.0	252.7	201.3	169.3	137.0	108.3	82.0	57.3	69.0	82.7
82.5°	238.7	199.0	156.0	128.3	111.7	92.7	72.0	50.0	36.7	41.3	56.7
85°	129.0	110.0	88.7	70.0	56.7	50.7	34.0	24.0	23.7	25.3	32.3
87.5°	9.3	9.3	7.3	6.7	8.0	6.7	6.0	6.0	5.7	6.0	8.0
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: P156610

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

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3	398.3
2.5°	402.7	403.7	404.0	405.7	406.7	407.3	408.0	408.0	408.3	409.3	409.7
5°	410.3	412.0	414.0	415.3	416.0	418.0	418.7	418.7	419.3	420.7	421.7
7.5°	415.0	417.3	419.3	420.0	421.3	422.0	423.0	423.7	423.7	425.0	425.7
10°	416.7	418.0	420.0	420.0	421.3	421.3	422.3	422.7	422.7	424.0	425.0
12.5°	416.7	417.3	419.0	419.0	420.0	420.3	421.7	422.7	423.0	424.7	426.0
15°	414.7	415.3	416.7	417.0	419.3	420.7	423.7	425.7	425.7	427.3	428.0
17.5°	409.0	410.7	413.3	416.0	420.3	423.3	427.0	428.7	427.3	426.3	425.3
20°	399.7	402.7	409.0	415.7	423.3	427.3	429.3	427.7	423.0	418.3	415.3
22.5°	390.3	396.3	407.0	417.0	425.7	428.3	427.3	421.3	413.7	408.0	404.0
25°	394.7	401.7	412.0	421.0	426.7	426.0	422.0	413.7	405.3	398.0	391.3
27.5°	412.7	420.3	426.0	429.0	428.3	423.7	417.3	408.0	398.0	388.3	379.0
30°	429.7	433.7	435.0	432.7	427.3	419.7	411.7	401.0	387.7	375.7	365.0
32.5°	437.3	433.3	427.0	420.7	412.0	405.3	394.3	382.7	366.0	351.7	341.0
35°	437.3	421.3	405.3	392.0	379.0	370.7	358.0	342.3	327.0	315.0	306.7
37.5°	427.7	397.0	370.7	349.0	332.7	323.7	304.7	290.7	277.7	273.7	268.3
40°	410.0	364.7	326.7	298.3	277.7	264.3	245.3	235.7	230.7	228.7	227.7
42.5°	386.3	328.7	278.0	243.0	220.7	205.7	193.0	187.0	186.7	186.3	186.3
45°	361.0	290.0	230.7	189.0	169.3	156.0	150.0	147.7	149.7	149.3	149.7
47.5°	345.3	260.7	187.3	143.0	128.0	119.3	116.3	117.3	119.0	118.3	118.3
50°	343.3	245.7	158.3	111.3	100.0	95.7	95.0	95.0	96.0	95.3	95.0
52.5°	350.7	243.3	143.3	95.7	86.7	83.0	82.3	82.0	81.7	79.7	78.0
55°	363.3	248.7	139.0	91.7	82.3	78.3	77.3	76.7	75.3	72.7	69.7
57.5°	388.7	265.3	143.0	93.7	83.7	80.3	79.3	79.3	76.7	72.3	68.0
60°	449.7	307.7	159.3	101.3	90.0	86.7	87.3	87.0	83.0	76.7	70.0
62.5°	528.3	363.0	180.7	112.0	98.0	97.3	100.7	100.0	93.3	83.7	74.0
65°	564.7	389.0	186.7	114.3	99.7	102.7	109.3	108.7	100.3	87.0	74.7
66°	565.3	389.0	184.0	112.3	97.3	101.0	107.7	107.3	99.0	85.7	73.3
67.5°	551.7	378.3	176.3	108.3	92.7	95.3	101.3	101.0	93.3	82.3	70.7
70°	500.3	338.7	156.7	101.3	86.3	85.0	87.0	85.7	80.7	73.0	65.0
72.5°	428.7	284.3	136.7	96.0	82.0	76.7	75.3	74.3	70.3	66.0	61.0
75°	337.7	225.0	120.0	92.0	78.0	71.0	68.7	67.3	64.7	61.7	57.7
77.5°	208.3	161.0	104.7	86.7	75.0	68.0	66.3	64.3	60.3	56.7	53.7
80°	93.0	99.7	86.0	75.7	67.0	60.7	58.0	55.0	51.0	48.7	47.0
82.5°	62.0	64.3	62.3	56.7	50.7	45.7	41.7	41.7	41.0	39.0	38.3
85°	39.7	40.0	38.7	35.0	32.7	29.7	28.0	28.3	29.7	29.3	29.0
87.5°	9.0	9.0	10.7	10.0	11.7	12.3	13.3	14.3	16.3	16.3	17.3
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: P156610

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

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	398.3	398.3	398.3	398.3	398.3
2.5°	410.0	410.7	411.3	410.3	410.7
5°	421.7	421.3	423.0	422.0	422.7
7.5°	425.3	425.7	427.0	427.0	427.3
10°	425.7	426.3	428.0	429.0	429.7
12.5°	427.3	428.7	431.3	432.0	432.0
15°	428.7	429.3	431.0	431.7	432.3
17.5°	424.0	422.7	423.3	423.7	423.3
20°	412.3	411.0	410.7	409.3	410.0
22.5°	399.7	396.0	393.7	391.0	391.0
25°	384.3	378.7	374.0	369.3	370.3
27.5°	370.0	362.7	358.0	355.0	354.3
30°	356.0	348.3	344.0	340.3	340.3
32.5°	332.7	327.3	321.7	319.3	319.0
35°	300.3	297.0	292.3	291.3	289.7
37.5°	264.0	263.0	259.0	258.7	257.0
40°	226.0	226.7	225.3	224.7	223.7
42.5°	188.0	191.3	190.7	190.3	189.7
45°	151.7	154.0	154.3	155.3	157.0
47.5°	119.3	120.0	120.7	120.3	120.7
50°	93.3	91.7	91.3	90.3	91.3
52.5°	75.3	72.7	71.3	70.0	69.3
55°	66.3	63.7	62.3	61.7	61.0
57.5°	64.0	61.3	59.3	58.0	57.7
60°	64.7	60.7	58.0	56.3	56.0
62.5°	66.3	61.0	57.3	55.7	55.3
65°	66.0	60.3	57.0	55.0	54.7
66°	65.0	59.7	56.3	54.7	54.3
67.5°	63.3	58.7	55.7	54.3	53.7
70°	60.3	57.3	55.0	53.3	52.7
72.5°	57.7	55.3	53.3	51.7	51.3
75°	54.7	52.7	50.7	49.3	49.0
77.5°	51.0	49.0	47.7	46.7	46.3
80°	45.0	43.7	42.3	41.0	41.0
82.5°	37.3	36.3	35.0	34.0	33.7
85°	28.7	28.7	27.7	26.7	26.3
87.5°	17.0	16.7	16.7	15.7	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)