

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: P156609

Luminaire Tested: **TLM-E01-LED-E1-T4-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P156609  
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-T4-7030  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4  
Light Source: (21) 3000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2760.2 lumens  
Efficiency: N/A  
Efficacy: 111.7 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

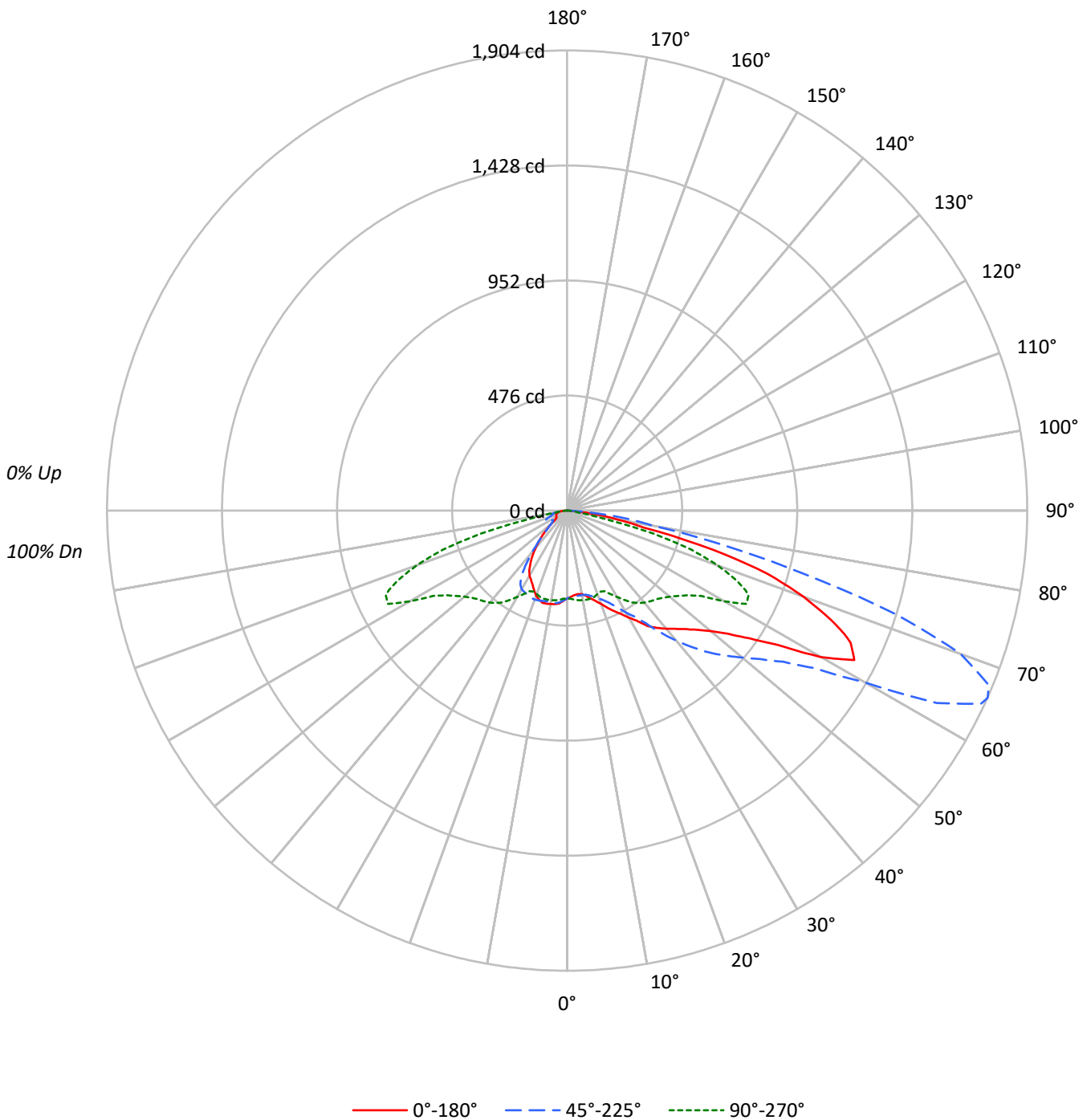
Input Watts (W): 24.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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°	23035	23035	23035
5°	22290	23530	24534
10°	22548	24232	25229
15°	24706	24726	25886
20°	27693	24783	25234
25°	32053	25758	23628
30°	37397	30159	22723
35°	45110	35819	20453
40°	52717	41121	16886
45°	62126	46536	12841
50°	76380	54581	8215
55°	101603	67349	6149
60°	153405	94925	6471
65°	193988	124067	7476
70°	192421	122591	8905
75°	152606	90785	10960
80°	77374	19107	13637
85°	11260	15692	17508



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.3	1.3
10°-20°	107.3	3.9
20°-30°	184.8	6.7
30°-40°	279.5	10.1
40°-50°	362.3	13.1
50°-60°	499.5	18.1
60°-70°	776.1	28.1
70°-80°	451.3	16.3
80°-90°	64.2	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°	327.3	11.9
0°-40°	606.9	22.0
0°-60°	1468.7	53.2
0°-90°	2760.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2760.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	364	364	364	364	364	
5°	351	356	370	382	386	34
15°	377	364	377	387	395	108
25°	459	424	369	385	338	214
35°	584	570	463	327	265	365
45°	694	830	520	137	143	542
55°	920	1090	610	71	56	852
65°	1295	1890	828	100	50	1225
75°	624	1016	371	63	45	642
85°	16	106	22	26	24	67
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°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	357.1	358.3	357.4	357.7	357.7	358.0	358.0	358.3	358.0	358.9	359.6
5°	350.7	351.3	351.0	351.6	352.2	353.5	353.2	354.7	355.0	355.9	357.4
7.5°	348.3	347.7	348.0	348.9	349.5	350.1	350.7	351.9	352.9	355.0	356.2
10°	350.7	350.4	350.7	351.3	351.3	351.6	351.0	352.2	352.9	354.7	355.9
12.5°	360.8	360.8	360.2	360.2	359.6	358.9	357.4	356.5	356.2	356.5	357.1
15°	376.9	376.3	375.1	374.2	373.0	370.8	368.7	366.9	365.6	363.8	363.2
17.5°	392.7	391.8	390.6	389.4	387.9	385.7	382.4	380.3	376.9	374.8	373.6
20°	411.0	409.2	407.7	406.1	403.1	402.5	399.1	395.5	391.5	386.7	386.0
22.5°	434.8	431.7	429.9	429.0	425.9	425.0	419.5	414.4	409.5	403.1	401.6
25°	458.8	455.8	454.8	453.6	451.5	450.3	445.1	439.3	432.9	424.1	422.3
27.5°	482.2	482.6	480.1	481.0	480.4	478.3	473.1	467.3	462.5	452.1	450.0
30°	511.5	509.6	508.4	510.3	508.1	508.4	503.9	500.8	492.9	486.8	482.6
32.5°	541.9	541.6	543.4	544.7	544.4	543.7	540.1	537.0	530.0	521.2	519.4
35°	583.6	585.5	587.0	592.5	592.5	596.4	592.8	589.1	580.9	570.2	566.6
37.5°	611.9	612.6	618.6	625.9	635.1	643.6	646.0	647.0	643.6	635.7	630.2
40°	637.8	639.0	648.8	660.0	673.4	690.2	700.2	704.8	705.7	702.1	690.2
42.5°	663.7	665.5	675.6	692.0	710.6	731.9	749.6	760.8	767.2	767.2	760.2
45°	693.8	696.3	707.2	725.2	746.8	773.6	798.0	819.6	829.9	830.5	823.8
47.5°	729.5	731.6	744.4	762.6	784.9	812.0	842.7	867.4	886.6	887.8	882.3
50°	775.4	778.5	789.1	805.6	828.4	855.8	886.6	921.0	941.1	945.9	940.1
52.5°	836.3	836.9	845.8	861.0	883.2	909.4	942.0	979.4	1005.9	1009.9	1000.4
55°	920.4	919.4	925.2	941.7	958.4	978.8	1012.6	1054.6	1084.1	1090.2	1080.5
57.5°	1034.5	1033.6	1038.5	1042.4	1073.8	1093.6	1126.8	1167.0	1195.6	1213.2	1196.5
60°	1211.4	1210.5	1218.4	1241.5	1265.0	1293.9	1326.2	1374.3	1414.5	1419.7	1403.2
62.5°	1339.6	1344.1	1361.5	1388.6	1436.1	1492.7	1551.8	1615.1	1697.6	1723.8	1715.9
65°	1294.8	1304.0	1328.0	1369.1	1432.4	1510.7	1603.2	1718.0	1828.5	1890.3	1888.5
66°	1254.6	1264.7	1294.2	1333.8	1400.8	1486.3	1587.4	1712.5	1836.1	1904.3	1908.6
67.5°	1181.6	1192.8	1221.8	1268.6	1333.8	1424.8	1533.5	1669.6	1809.3	1888.8	1900.1
70°	1039.4	1052.2	1073.2	1111.9	1176.1	1257.4	1371.9	1493.6	1640.1	1731.1	1744.8
72.5°	868.9	880.2	903.6	935.3	987.9	1039.1	1128.9	1218.7	1323.4	1427.3	1417.2
75°	623.8	628.7	642.7	677.1	705.4	751.4	823.5	897.2	968.8	1016.3	1023.0
77.5°	324.2	337.0	356.8	394.9	425.6	467.0	513.9	569.3	621.7	665.2	653.3
80°	212.2	217.7	235.3	254.8	277.4	303.8	335.2	355.9	362.6	359.9	362.6
82.5°	122.4	132.4	155.9	170.8	187.5	196.7	221.6	245.4	258.8	242.0	235.9
85°	15.5	20.1	63.3	79.8	91.3	105.0	112.6	127.0	118.4	105.9	129.1
87.5°	3.3	3.0	4.3	9.1	9.4	7.9	14.9	15.8	9.7	4.9	6.1
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°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	360.2	360.5	361.1	362.0	362.6	363.2	363.8	364.7	365.3	365.9	367.2
5°	358.6	359.9	361.1	362.3	363.8	366.3	367.8	369.0	370.2	372.6	373.6
7.5°	357.7	359.9	361.7	363.8	366.3	368.4	371.1	372.6	374.5	376.0	377.8
10°	357.1	360.2	362.0	365.0	367.8	369.9	373.0	374.8	376.9	378.7	379.6
12.5°	358.3	359.9	361.7	364.7	368.1	371.1	374.5	376.0	377.8	379.3	379.6
15°	363.5	363.5	363.8	366.3	369.6	372.0	374.8	376.3	377.2	378.1	378.1
17.5°	373.0	370.8	369.3	369.6	371.7	373.3	374.8	374.8	374.2	373.9	373.3
20°	383.9	381.2	378.1	376.0	375.4	374.2	373.3	370.2	367.8	365.6	364.1
22.5°	399.7	395.5	391.2	387.3	383.6	379.0	373.9	367.8	362.0	358.0	355.6
25°	419.2	415.9	410.7	404.6	400.0	391.5	384.8	376.0	368.7	363.5	359.3
27.5°	446.9	443.0	438.1	432.6	425.9	416.5	408.3	397.9	389.1	381.5	376.0
30°	481.3	476.2	472.5	465.8	461.2	450.6	442.4	429.6	412.5	400.4	392.7
32.5°	516.7	510.9	507.8	502.6	497.5	491.1	478.6	458.8	436.9	417.1	404.0
35°	563.8	557.8	552.3	547.7	540.1	528.2	517.3	493.5	463.4	435.7	413.7
37.5°	623.2	613.2	599.5	587.9	574.5	557.4	540.7	516.3	481.9	446.0	416.8
40°	686.5	668.9	649.4	627.8	604.6	580.0	560.8	536.1	497.5	454.8	414.7
42.5°	752.6	724.6	697.5	667.1	634.8	605.6	580.6	553.5	509.0	457.3	406.1
45°	818.1	786.7	745.6	705.7	664.9	628.7	600.7	570.2	519.7	458.2	394.9
47.5°	872.2	840.0	793.1	743.2	694.8	653.7	620.8	587.9	534.0	464.6	392.1
50°	929.5	890.2	838.2	779.1	724.3	678.3	643.3	609.2	554.1	481.0	401.0
52.5°	991.9	946.8	885.9	819.9	759.9	708.5	670.4	635.4	579.7	504.2	417.7
55°	1068.0	1012.9	946.8	872.2	808.0	751.1	709.1	667.7	610.1	531.6	438.7
57.5°	1184.3	1116.7	1042.4	957.5	886.3	819.0	768.7	720.9	657.3	572.4	467.3
60°	1394.7	1322.5	1226.0	1123.1	1039.4	960.8	887.2	827.8	749.6	652.7	530.7
62.5°	1696.1	1600.2	1471.4	1327.4	1217.8	1104.5	1021.4	933.1	836.0	731.6	605.2
65°	1863.5	1747.2	1574.9	1407.8	1266.8	1143.8	1038.2	935.9	828.1	728.2	622.6
66°	1884.2	1763.1	1584.1	1408.1	1260.1	1133.8	1022.6	916.7	806.5	711.2	615.3
67.5°	1875.7	1751.8	1567.3	1381.6	1231.2	1095.4	980.6	870.7	760.8	671.9	590.9
70°	1736.0	1618.5	1437.3	1257.4	1114.6	980.6	871.0	763.0	662.2	586.1	526.4
72.5°	1441.6	1341.1	1183.7	1042.4	930.4	819.9	727.0	623.8	538.6	482.2	446.9
75°	1040.6	979.7	836.3	755.3	657.0	583.6	493.5	432.3	371.1	343.7	337.6
77.5°	657.3	575.4	484.4	398.8	327.9	271.9	211.6	179.6	149.8	146.7	177.2
80°	332.8	299.6	230.8	183.9	154.7	125.1	98.9	74.9	52.4	63.0	75.5
82.5°	218.0	181.8	142.5	117.2	102.0	84.6	65.8	45.7	33.5	37.8	51.8
85°	117.8	100.5	81.0	63.9	51.8	46.3	31.1	21.9	21.6	23.1	29.5
87.5°	8.5	8.5	6.7	6.1	7.3	6.1	5.5	5.5	5.2	5.5	7.3
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°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	367.8	368.7	369.0	370.5	371.4	372.0	372.6	372.6	373.0	373.9	374.2
5°	374.8	376.3	378.1	379.3	380.0	381.8	382.4	382.4	383.0	384.2	385.1
7.5°	379.0	381.2	383.0	383.6	384.8	385.4	386.3	387.0	387.0	388.2	388.8
10°	380.6	381.8	383.6	383.6	384.8	384.8	385.7	386.0	386.0	387.3	388.2
12.5°	380.6	381.2	382.7	382.7	383.6	383.9	385.1	386.0	386.3	387.9	389.1
15°	378.7	379.3	380.6	380.9	383.0	384.2	387.0	388.8	388.8	390.3	390.9
17.5°	373.6	375.1	377.5	380.0	383.9	386.7	390.0	391.5	390.3	389.4	388.5
20°	365.0	367.8	373.6	379.6	386.7	390.3	392.1	390.6	386.3	382.1	379.3
22.5°	356.5	362.0	371.7	380.9	388.8	391.2	390.3	384.8	377.8	372.6	369.0
25°	360.5	366.9	376.3	384.5	389.7	389.1	385.4	377.8	370.2	363.5	357.4
27.5°	376.9	383.9	389.1	391.8	391.2	387.0	381.2	372.6	363.5	354.7	346.2
30°	392.4	396.1	397.3	395.2	390.3	383.3	376.0	366.3	354.1	343.1	333.4
32.5°	399.4	395.8	390.0	384.2	376.3	370.2	360.2	349.5	334.3	321.2	311.5
35°	399.4	384.8	370.2	358.0	346.2	338.5	327.0	312.7	298.7	287.7	280.1
37.5°	390.6	362.6	338.5	318.8	303.8	295.6	278.3	265.5	253.6	250.0	245.1
40°	374.5	333.1	298.4	272.5	253.6	241.4	224.1	215.2	210.7	208.9	207.9
42.5°	352.9	300.2	253.9	221.9	201.5	187.8	176.3	170.8	170.5	170.2	170.2
45°	329.7	264.9	210.7	172.6	154.7	142.5	137.0	134.9	136.7	136.4	136.7
47.5°	315.4	238.1	171.1	130.6	116.9	109.0	106.3	107.2	108.7	108.1	108.1
50°	313.6	224.4	144.6	101.7	91.3	87.4	86.8	86.8	87.7	87.1	86.8
52.5°	320.3	222.2	130.9	87.4	79.2	75.8	75.2	74.9	74.6	72.8	71.2
55°	331.9	227.1	127.0	83.7	75.2	71.5	70.6	70.0	68.8	66.4	63.6
57.5°	355.0	242.3	130.6	85.6	76.4	73.4	72.5	72.5	70.0	66.1	62.1
60°	410.7	281.0	145.5	92.6	82.2	79.2	79.8	79.5	75.8	70.0	63.9
62.5°	482.6	331.5	165.0	102.3	89.5	88.9	91.9	91.3	85.2	76.4	67.6
65°	515.7	355.3	170.5	104.4	91.0	93.8	99.9	99.3	91.6	79.5	68.2
66°	516.3	355.3	168.1	102.6	88.9	92.2	98.3	98.0	90.4	78.2	67.0
67.5°	503.9	345.6	161.1	98.9	84.6	87.1	92.6	92.2	85.2	75.2	64.5
70°	457.0	309.3	143.1	92.6	78.9	77.6	79.5	78.2	73.7	66.7	59.4
72.5°	391.5	259.7	124.8	87.7	74.9	70.0	68.8	67.9	64.2	60.3	55.7
75°	308.4	205.5	109.6	84.0	71.2	64.8	62.7	61.5	59.1	56.3	52.7
77.5°	190.3	147.0	95.6	79.2	68.5	62.1	60.6	58.8	55.1	51.8	49.0
80°	84.9	91.0	78.5	69.1	61.2	55.4	53.0	50.2	46.6	44.4	42.9
82.5°	56.6	58.8	56.9	51.8	46.3	41.7	38.1	38.1	37.4	35.6	35.0
85°	36.2	36.5	35.3	32.0	29.8	27.1	25.6	25.9	27.1	26.8	26.5
87.5°	8.2	8.2	9.7	9.1	10.7	11.3	12.2	13.1	14.9	14.9	15.8
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: P156609

CATALOG NUMBER: TLM-E01-LED-E1-T4-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	363.8	363.8	363.8	363.8	363.8
2.5°	374.5	375.1	375.7	374.8	375.1
5°	385.1	384.8	386.3	385.4	386.0
7.5°	388.5	388.8	390.0	390.0	390.3
10°	388.8	389.4	390.9	391.8	392.4
12.5°	390.3	391.5	394.0	394.6	394.6
15°	391.5	392.1	393.7	394.3	394.9
17.5°	387.3	386.0	386.7	387.0	386.7
20°	376.6	375.4	375.1	373.9	374.5
22.5°	365.0	361.7	359.6	357.1	357.1
25°	351.0	345.9	341.6	337.3	338.2
27.5°	337.9	331.2	327.0	324.2	323.6
30°	325.2	318.2	314.2	310.8	310.8
32.5°	303.8	299.0	293.8	291.7	291.4
35°	274.3	271.3	267.0	266.1	264.6
37.5°	241.1	240.2	236.6	236.3	234.7
40°	206.4	207.0	205.8	205.2	204.3
42.5°	171.7	174.8	174.1	173.8	173.2
45°	138.5	140.7	141.0	141.9	143.4
47.5°	109.0	109.6	110.2	109.9	110.2
50°	85.2	83.7	83.4	82.5	83.4
52.5°	68.8	66.4	65.2	63.9	63.3
55°	60.6	58.1	56.9	56.3	55.7
57.5°	58.5	56.0	54.2	53.0	52.7
60°	59.1	55.4	53.0	51.5	51.1
62.5°	60.6	55.7	52.4	50.8	50.5
65°	60.3	55.1	52.1	50.2	49.9
66°	59.4	54.5	51.5	49.9	49.6
67.5°	57.8	53.6	50.8	49.6	49.0
70°	55.1	52.4	50.2	48.7	48.1
72.5°	52.7	50.5	48.7	47.2	46.9
75°	49.9	48.1	46.3	45.1	44.8
77.5°	46.6	44.8	43.5	42.6	42.3
80°	41.1	39.9	38.7	37.4	37.4
82.5°	34.1	33.2	32.0	31.1	30.7
85°	26.2	26.2	25.3	24.4	24.1
87.5°	15.5	15.2	15.2	14.3	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)