

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: P151785

Luminaire Tested: **TLM-F01-LED-E1-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151785
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
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-SL4-HSS
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (7) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1679.8 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
CIE Type: Direct

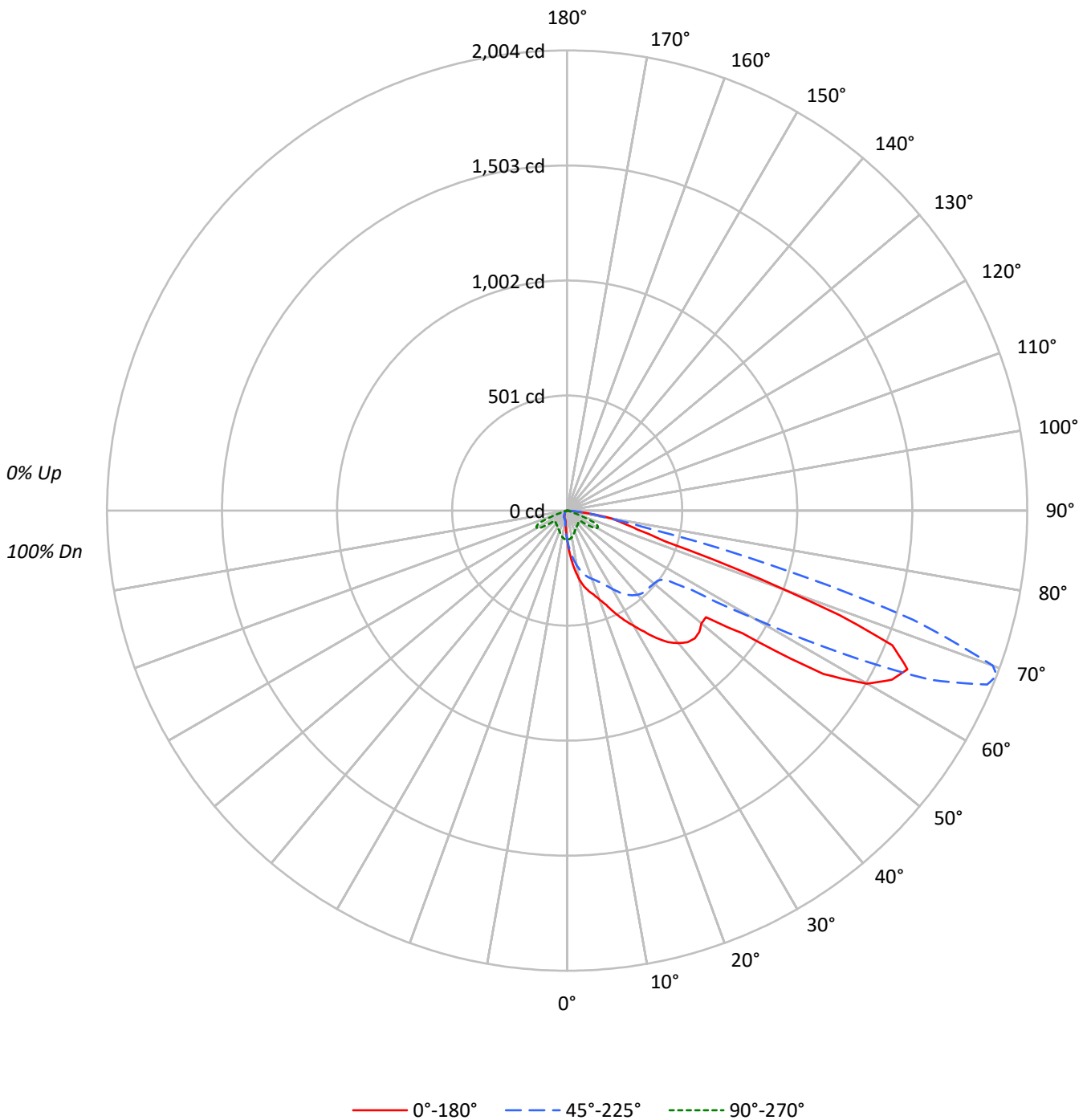
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	92	87	83	88	84	81	84	81	78	76
2	91	80	71	63	88	78	70	62	74	67	61	71	65	59	68	62	58	55
3	80	66	55	47	77	64	54	46	61	52	45	58	51	44	55	49	43	41
4	71	56	44	36	68	54	44	35	51	42	35	49	41	34	46	39	33	31
5	64	48	36	28	61	46	36	28	44	35	27	42	33	27	40	32	27	24
6	58	42	31	23	56	40	30	22	38	29	22	37	28	22	35	27	22	19
7	53	37	26	19	51	36	26	19	34	25	18	32	24	18	31	24	18	16
8	49	33	23	16	47	32	22	16	31	22	16	29	21	15	28	21	15	13
9	45	30	20	14	44	29	20	14	28	19	13	27	19	13	25	18	13	11
10	42	27	18	12	41	27	18	12	25	17	12	24	17	12	23	17	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8035	8035	8035
5°	13729	7926	4214
10°	19552	7574	2707
15°	23775	6961	2452
20°	27741	6489	2224
25°	34338	6211	1963
30°	42369	6076	1667
35°	52368	6021	1407
40°	62297	6116	1298
45°	70426	6384	1334
50°	75247	7023	1221
55°	102828	12154	729
60°	190927	19274	519
65°	244973	20825	494
70°	184979	8608	555
75°	77012	3303	685
80°	70337	3099	912
85°	6175	2833	1598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.0	0.8
10°-20°	45.0	2.7
20°-30°	86.0	5.1
30°-40°	143.1	8.5
40°-50°	193.6	11.5
50°-60°	302.8	18.0
60°-70°	622.6	37.1
70°-80°	250.5	14.9
80°-90°	23.2	1.4
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°	144.0	8.6
0°-40°	287.1	17.1
0°-60°	783.6	46.6
0°-90°	1679.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1679.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	127	127	127	127	127	
5°	216	184	125	79	66	23
15°	363	288	106	39	37	104
25°	492	346	89	31	28	230
35°	678	447	78	22	18	425
45°	786	489	71	15	15	601
55°	932	520	110	10	7	939
65°	1635	1744	139	5	3	1498
75°	315	918	14	2	3	422
85°	8	37	4	1	2	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9
2.5°	169.2	167.3	165.1	165.1	162.4	162.4	160.7	156.3	155.7	153.3	150.8
5°	216.0	214.4	211.6	209.1	206.9	203.1	200.3	195.1	189.3	183.8	178.9
7.5°	261.7	260.9	255.9	255.1	251.5	245.2	239.7	232.0	222.1	214.4	205.3
10°	304.1	302.1	301.0	296.4	291.1	284.3	275.7	266.4	254.8	242.7	229.8
12.5°	337.6	336.5	331.6	329.7	324.2	317.3	306.5	294.4	282.9	267.2	252.1
15°	362.7	360.8	357.5	354.4	347.8	341.8	331.9	318.7	304.6	287.6	269.4
17.5°	383.6	380.0	379.2	374.5	367.6	360.5	349.5	337.4	320.9	303.8	284.0
20°	411.7	406.7	405.1	398.2	390.2	380.3	367.6	352.5	335.2	316.5	296.1
22.5°	444.7	441.1	437.5	431.5	421.3	407.3	388.8	372.3	350.3	329.7	307.6
25°	491.5	488.4	482.7	474.4	461.7	445.0	422.7	398.5	372.6	346.2	320.3
27.5°	536.9	534.1	530.0	523.7	509.3	490.9	463.4	432.6	399.8	367.9	339.3
30°	579.5	577.0	572.9	566.6	553.9	535.8	504.7	471.6	430.9	393.8	359.4
32.5°	625.5	624.6	620.0	610.9	599.9	575.4	541.5	506.0	464.8	421.8	381.7
35°	677.5	671.2	666.7	657.7	639.0	612.8	573.2	534.4	490.9	446.9	402.0
37.5°	721.5	715.5	710.0	698.4	675.6	642.3	597.4	554.8	509.9	465.0	419.4
40°	753.7	750.7	744.1	728.9	703.3	663.7	615.3	568.8	523.7	478.5	433.4
42.5°	777.6	773.0	765.5	749.9	719.6	674.5	622.4	574.6	530.0	486.8	442.5
45°	786.5	782.6	775.7	758.7	725.9	677.5	622.2	572.9	530.3	489.3	448.5
47.5°	781.2	777.4	771.3	755.4	723.2	673.9	617.2	568.2	527.5	490.1	454.0
50°	763.9	761.7	757.0	743.5	714.6	667.0	612.8	565.8	527.0	494.2	461.7
52.5°	762.2	760.9	755.1	741.6	712.2	664.8	612.3	567.1	531.6	499.4	467.2
55°	931.5	911.9	868.2	831.0	769.9	697.3	640.1	589.4	551.5	520.1	497.5
57.5°	1323.9	1294.7	1237.2	1166.5	1026.1	888.3	777.9	698.1	658.8	644.5	653.0
60°	1507.7	1502.5	1493.4	1459.8	1388.0	1269.4	1137.3	994.5	937.2	932.3	949.6
62.5°	1594.9	1591.6	1594.4	1590.2	1567.9	1533.3	1495.3	1433.7	1377.0	1340.4	1262.8
65°	1635.1	1637.3	1653.0	1665.4	1668.1	1677.2	1705.0	1781.8	1837.9	1743.5	1528.0
67.5°	1533.0	1545.9	1582.0	1627.1	1679.9	1731.1	1813.7	1975.5	2090.8	1979.9	1673.9
69°	1269.1	1275.4	1363.5	1448.5	1577.6	1667.8	1787.5	1999.7	2129.3	2004.1	1662.3
70°	999.2	1004.9	1099.3	1214.9	1433.1	1549.2	1705.8	1958.7	2093.3	1971.9	1602.9
72.5°	450.7	442.5	475.8	537.7	774.9	959.3	1233.1	1586.9	1727.0	1579.8	1199.2
75°	314.8	311.2	314.8	315.1	351.9	454.0	572.9	860.2	1063.8	918.0	572.9
77.5°	243.8	241.3	238.9	236.1	240.5	269.4	281.0	305.2	396.3	374.8	218.5
80°	192.9	190.7	196.8	194.8	194.8	198.1	195.9	186.8	169.8	157.4	140.9
82.5°	89.7	90.3	90.3	98.0	118.1	137.9	144.2	135.1	120.0	102.1	82.3
85°	8.5	9.6	16.2	25.0	49.8	56.1	56.4	46.8	46.8	36.9	29.7
87.5°	0.0	0.3	0.3	0.3	2.5	6.9	5.8	1.7	0.8	0.8	1.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9
2.5°	146.4	145.6	142.3	139.0	135.9	132.6	129.6	126.6	123.3	120.8	117.8
5°	171.2	165.1	158.2	151.6	145.0	138.1	131.0	124.7	118.1	112.0	106.2
7.5°	196.2	184.4	175.0	163.2	152.4	141.7	131.8	121.6	112.3	103.5	95.2
10°	217.4	203.1	188.5	173.4	158.0	143.6	129.9	117.8	105.4	94.7	84.5
12.5°	234.7	216.6	198.7	179.7	162.4	144.2	127.1	112.5	98.0	85.9	75.4
15°	250.4	229.5	208.0	186.0	164.0	143.4	124.4	106.2	91.4	77.6	65.8
17.5°	263.1	239.1	214.9	190.1	166.5	142.3	120.8	101.8	84.5	70.2	58.6
20°	274.1	249.0	222.9	195.1	168.1	142.0	117.8	96.3	78.4	63.3	52.0
22.5°	284.3	259.2	231.1	201.4	170.6	141.7	115.0	92.2	73.2	58.1	46.8
25°	295.8	269.4	240.0	208.0	175.0	142.8	113.4	88.9	68.5	53.1	42.7
27.5°	308.7	281.0	250.4	216.3	180.8	145.0	112.8	85.3	64.4	48.4	39.4
30°	326.9	294.7	260.9	224.5	186.0	147.5	112.3	83.1	60.3	44.9	36.0
32.5°	342.9	308.2	272.4	233.1	191.8	150.0	112.0	80.1	56.4	41.3	33.6
35°	359.7	320.6	282.3	241.3	196.8	152.7	111.7	77.9	52.8	37.7	31.1
37.5°	374.2	331.0	290.0	248.5	202.3	155.2	112.0	75.9	49.5	34.7	28.9
40°	386.6	341.8	298.6	255.1	208.0	159.1	112.3	74.0	46.2	31.9	27.0
42.5°	397.6	351.9	307.6	262.5	214.6	163.5	113.9	72.4	43.5	29.4	25.0
45°	406.2	361.3	317.6	273.0	225.4	170.6	116.9	71.3	40.7	27.2	23.4
47.5°	415.0	375.1	334.3	289.5	241.1	181.9	122.2	71.0	38.5	25.6	22.0
50°	427.1	388.8	349.2	306.3	255.4	193.4	128.5	71.3	35.8	23.9	20.6
52.5°	435.9	402.9	368.5	335.4	289.5	228.7	153.0	76.2	34.4	22.6	19.0
55°	487.9	482.1	482.9	488.4	452.9	389.1	255.9	110.1	40.5	25.6	18.7
57.5°	687.9	708.3	720.1	719.9	661.2	548.4	343.7	141.4	45.1	29.7	22.3
60°	951.0	935.6	913.9	860.2	782.3	626.0	384.4	152.2	39.1	23.7	20.4
62.5°	1183.5	1093.3	1013.2	926.2	824.1	653.0	392.7	151.3	34.1	17.9	14.3
65°	1328.5	1166.2	1036.9	927.9	807.6	630.4	371.5	139.0	28.9	14.6	11.8
67.5°	1363.2	1126.8	943.9	804.9	674.7	490.6	272.7	104.6	22.6	12.1	10.5
69°	1287.5	1001.6	782.0	624.4	490.9	325.5	168.7	66.0	17.3	11.0	9.6
70°	1184.4	871.2	637.0	501.1	363.5	228.7	118.1	46.5	14.0	10.2	8.8
72.5°	762.0	457.6	313.1	217.9	150.0	91.1	46.2	20.9	10.7	8.5	7.2
75°	295.5	169.2	122.7	93.3	72.9	50.6	28.1	13.5	9.1	7.2	5.5
77.5°	145.6	111.4	91.1	62.5	36.3	22.6	15.1	10.5	7.4	5.2	3.6
80°	115.0	76.5	45.7	28.3	21.5	16.2	11.6	8.5	5.5	3.3	2.5
82.5°	58.9	32.2	23.7	19.3	16.0	12.7	9.4	6.1	3.6	2.2	1.9
85°	18.4	13.5	12.1	11.8	11.0	9.1	6.6	3.9	2.2	1.4	1.4
87.5°	1.4	1.9	2.5	1.9	2.2	1.9	2.5	1.7	1.1	1.1	0.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9	126.9
2.5°	115.6	112.3	109.2	107.3	103.7	102.4	101.0	100.4	98.0	98.5	96.3
5°	101.0	95.2	90.8	86.4	82.3	79.3	76.8	73.7	71.3	70.2	68.0
7.5°	87.8	80.4	74.6	69.9	64.9	61.1	57.8	55.6	53.4	51.2	50.1
10°	76.2	68.2	61.6	57.0	52.3	49.0	46.5	44.9	43.5	42.7	42.4
12.5°	65.5	57.8	51.7	47.6	44.0	42.4	41.3	40.5	40.2	39.9	39.9
15°	57.2	49.5	44.9	41.8	40.2	39.4	39.1	38.5	38.0	37.7	37.7
17.5°	49.5	43.8	40.5	38.8	38.0	37.4	36.9	36.3	35.8	35.5	35.5
20°	44.3	39.6	38.0	36.9	36.0	35.5	34.7	34.1	33.8	33.6	33.3
22.5°	40.2	37.1	36.0	35.2	34.1	33.3	32.7	32.2	31.6	31.4	31.1
25°	37.1	35.2	34.4	33.3	32.2	31.4	30.5	29.7	29.2	28.9	28.3
27.5°	34.9	33.6	32.5	31.1	30.0	29.2	28.3	27.5	27.0	26.4	26.1
30°	33.0	31.6	30.3	29.2	27.8	27.0	25.9	25.0	24.8	24.2	23.7
32.5°	31.1	29.7	28.3	27.0	25.6	24.5	23.9	22.8	22.3	22.0	21.5
35°	28.9	27.5	25.9	24.8	23.4	22.3	21.5	20.6	20.1	19.5	19.3
37.5°	27.0	25.3	23.7	22.3	21.2	20.1	19.3	18.4	17.9	17.3	17.1
40°	24.8	23.1	21.5	20.1	19.0	18.2	17.3	16.5	16.0	15.7	15.7
42.5°	22.8	20.9	19.3	18.2	17.3	16.2	15.4	14.6	14.3	14.0	14.3
45°	20.9	19.0	17.6	16.5	15.7	14.6	13.8	13.2	12.9	13.2	13.5
47.5°	19.3	17.3	16.0	15.1	14.3	13.5	12.7	12.1	12.1	12.7	13.2
50°	17.6	15.7	14.6	14.0	13.2	12.4	11.3	11.0	11.3	11.8	12.4
52.5°	16.0	13.8	12.9	12.7	11.8	11.0	10.2	9.9	10.2	10.7	10.5
55°	14.3	12.1	11.8	11.6	10.7	9.6	8.8	8.8	8.8	8.5	8.0
57.5°	13.8	10.7	10.5	10.2	9.4	8.3	7.7	7.2	6.9	6.1	5.8
60°	14.3	9.6	9.6	9.1	8.3	7.2	6.3	5.5	5.0	4.4	4.4
62.5°	11.6	8.8	8.5	8.0	6.9	5.8	5.0	4.1	3.9	3.6	3.6
65°	9.4	8.0	7.4	6.6	5.8	4.7	3.9	3.3	3.0	3.0	3.3
67.5°	8.5	7.2	6.3	5.5	4.7	3.6	3.0	2.8	2.8	3.0	3.0
69°	8.0	6.6	5.8	5.0	4.1	3.3	2.8	2.8	2.8	2.8	3.0
70°	7.4	6.3	5.5	4.7	3.6	2.8	2.5	2.5	2.8	2.8	3.0
72.5°	5.8	5.0	4.7	3.9	2.8	2.5	2.2	2.5	2.5	2.8	2.8
75°	4.4	3.6	3.6	3.0	2.2	1.9	1.9	2.2	2.2	2.5	2.5
77.5°	3.0	2.5	2.5	2.2	1.9	1.7	1.7	1.9	2.2	2.2	2.5
80°	2.2	1.9	1.7	1.9	1.7	1.4	1.7	1.9	1.9	2.2	2.2
82.5°	1.7	1.7	1.7	1.7	1.4	1.4	1.7	1.7	1.9	2.2	2.2
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.7	1.7	1.9	1.9
87.5°	0.8	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4	1.7	1.7
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: P151785

CATALOG NUMBER: TLM-F01-LED-E1-SL4-HSS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	126.9	126.9	126.9	126.9
2.5°	95.8	95.5	94.4	94.7
5°	67.1	65.5	66.6	66.3
7.5°	49.3	49.0	48.7	49.3
10°	42.1	42.1	41.8	42.1
12.5°	39.6	39.6	39.6	39.6
15°	37.7	37.7	37.4	37.4
17.5°	35.5	35.5	35.5	35.2
20°	33.3	33.0	33.0	33.0
22.5°	30.8	30.5	30.5	30.5
25°	28.3	28.1	28.1	28.1
27.5°	25.9	25.6	25.3	25.3
30°	23.4	23.1	22.8	22.8
32.5°	20.9	20.6	20.4	20.4
35°	18.7	18.7	18.4	18.2
37.5°	16.8	16.8	16.8	16.8
40°	15.4	15.7	15.7	15.7
42.5°	14.6	14.9	15.1	15.4
45°	14.0	14.6	14.9	14.9
47.5°	13.8	14.0	14.3	14.3
50°	12.7	12.4	12.4	12.4
52.5°	10.2	9.6	9.4	9.1
55°	7.4	7.2	6.6	6.6
57.5°	5.2	5.2	5.0	5.0
60°	4.1	4.1	3.9	4.1
62.5°	3.6	3.6	3.6	3.6
65°	3.3	3.3	3.3	3.3
67.5°	3.3	3.3	3.3	3.3
69°	3.0	3.0	3.0	3.0
70°	3.0	3.0	3.0	3.0
72.5°	2.8	2.8	2.8	2.8
75°	2.5	2.8	2.8	2.8
77.5°	2.5	2.5	2.5	2.5
80°	2.2	2.2	2.5	2.5
82.5°	2.2	2.2	2.2	2.2
85°	1.9	1.9	2.2	2.2
87.5°	1.7	1.7	1.9	1.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)