

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: P156616

Luminaire Tested: **TLM-F01-LED-E1-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P156616
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-T4-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (7) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2559.9 lumens
Efficiency: N/A
Efficacy: 98.8 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

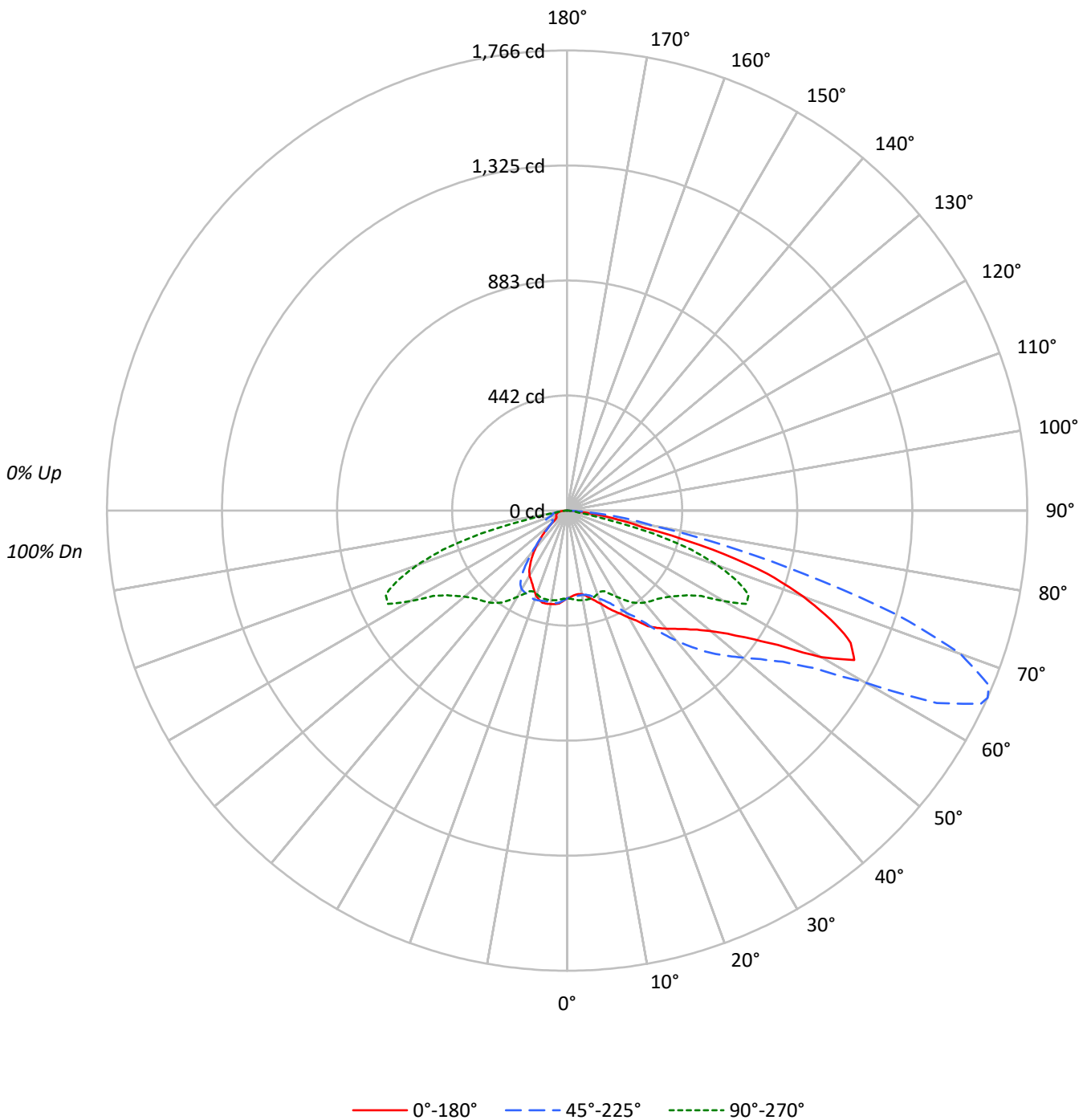
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P156616

CATALOG NUMBER: TLM-F01-LED-E1-T4-7050

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°	21363	21363	21363
5°	20676	21820	22754
10°	20915	22477	23403
15°	22917	22930	24005
20°	25686	22984	23401
25°	29727	23886	21916
30°	34684	27973	21078
35°	41840	33214	18968
40°	48890	38137	15663
45°	57622	43160	11909
50°	70844	50621	7624
55°	94229	62459	5707
60°	142274	88036	6002
65°	179920	115063	6937
70°	178462	113686	8257
75°	141548	84205	10153
80°	71759	17721	12653
85°	10461	14530	16201



TEST NUMBER: P156616

CATALOG NUMBER: TLM-F01-LED-E1-T4-7050

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.8	1.3
10°-20°	99.5	3.9
20°-30°	171.3	6.7
30°-40°	259.2	10.1
40°-50°	336.0	13.1
50°-60°	463.3	18.1
60°-70°	719.7	28.1
70°-80°	418.5	16.3
80°-90°	59.5	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°	303.6	11.9
0°-40°	562.8	22.0
0°-60°	1362.1	53.2
0°-90°	2559.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2559.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	337	337	337	337	337	
5°	325	330	343	355	358	31
15°	350	337	350	359	366	100
25°	426	393	342	358	314	198
35°	541	529	430	303	245	338
45°	644	770	482	127	133	503
55°	854	1011	566	66	52	791
65°	1201	1753	768	93	46	1137
75°	579	942	344	58	42	596
85°	14	98	20	24	22	62
90°	0	0	0	0	0	



TEST NUMBER: P156616

CATALOG NUMBER: TLM-F01-LED-E1-T4-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4
2.5°	331.2	332.3	331.5	331.8	331.8	332.1	332.1	332.3	332.1	332.9	333.5
5°	325.3	325.8	325.6	326.1	326.7	327.8	327.5	328.9	329.2	330.1	331.5
7.5°	323.0	322.5	322.7	323.6	324.1	324.7	325.3	326.4	327.3	329.2	330.4
10°	325.3	325.0	325.3	325.8	325.8	326.1	325.6	326.7	327.3	328.9	330.1
12.5°	334.6	334.6	334.0	334.0	333.5	332.9	331.5	330.6	330.4	330.6	331.2
15°	349.6	349.0	347.9	347.0	345.9	343.9	341.9	340.2	339.1	337.4	336.9
17.5°	364.2	363.4	362.3	361.1	359.7	357.7	354.6	352.7	349.6	347.6	346.5
20°	381.2	379.5	378.1	376.7	373.8	373.3	370.2	366.8	363.1	358.6	358.0
22.5°	403.2	400.4	398.7	397.8	395.0	394.2	389.1	384.3	379.8	373.8	372.4
25°	425.5	422.7	421.8	420.7	418.7	417.6	412.8	407.4	401.5	393.3	391.6
27.5°	447.3	447.5	445.3	446.1	445.6	443.6	438.8	433.4	428.9	419.3	417.3
30°	474.4	472.7	471.5	473.2	471.3	471.5	467.3	464.5	457.1	451.5	447.5
32.5°	502.6	502.3	504.0	505.1	504.9	504.3	500.9	498.1	491.6	483.4	481.7
35°	541.3	543.0	544.4	549.5	549.5	553.1	549.8	546.4	538.7	528.9	525.5
37.5°	567.5	568.1	573.8	580.5	589.0	596.9	599.2	600.0	596.9	589.6	584.5
40°	591.5	592.7	601.7	612.2	624.6	640.1	649.4	653.7	654.5	651.1	640.1
42.5°	615.5	617.2	626.6	641.8	659.0	678.8	695.2	705.6	711.5	711.5	705.0
45°	643.5	645.8	655.9	672.6	692.6	717.5	740.1	760.1	769.7	770.3	764.1
47.5°	676.5	678.5	690.4	707.3	727.9	753.1	781.6	804.4	822.2	823.4	818.3
50°	719.2	722.0	731.9	747.1	768.3	793.7	822.2	854.1	872.8	877.3	871.9
52.5°	775.6	776.2	784.4	798.5	819.1	843.4	873.6	908.3	932.9	936.6	927.8
55°	853.6	852.7	858.1	873.3	888.9	907.8	939.1	978.1	1005.5	1011.1	1002.1
57.5°	959.5	958.6	963.1	966.8	995.9	1014.2	1045.0	1082.3	1108.8	1125.2	1109.7
60°	1123.5	1122.7	1130.0	1151.5	1173.2	1200.0	1230.0	1274.6	1311.8	1316.6	1301.4
62.5°	1242.4	1246.6	1262.7	1287.8	1331.9	1384.4	1439.2	1497.9	1574.4	1598.7	1591.4
65°	1200.9	1209.3	1231.6	1269.8	1328.5	1401.1	1486.9	1593.3	1695.8	1753.2	1751.5
66°	1163.6	1172.9	1200.3	1237.0	1299.1	1378.5	1472.2	1588.3	1702.9	1766.2	1770.1
67.5°	1095.8	1106.3	1133.1	1176.6	1237.0	1321.4	1422.2	1548.5	1678.1	1751.8	1762.2
70°	964.0	975.8	995.3	1031.2	1090.8	1166.1	1272.3	1385.3	1521.1	1605.5	1618.2
72.5°	805.9	816.3	838.0	867.4	916.3	963.7	1047.0	1130.3	1227.4	1323.7	1314.4
75°	578.6	583.1	596.1	628.0	654.2	696.9	763.8	832.1	898.5	942.5	948.7
77.5°	300.7	312.6	330.9	366.2	394.7	433.1	476.6	528.0	576.6	617.0	605.9
80°	196.8	201.9	218.3	236.3	257.2	281.8	310.9	330.1	336.3	333.7	336.3
82.5°	113.5	122.8	144.6	158.4	173.9	182.4	205.6	227.6	240.0	224.5	218.8
85°	14.4	18.6	58.7	74.0	84.7	97.4	104.5	117.7	109.8	98.3	119.7
87.5°	3.1	2.8	4.0	8.5	8.8	7.3	13.8	14.7	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



TEST NUMBER: P156616

CATALOG NUMBER: TLM-F01-LED-E1-T4-7050

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4
2.5°	334.0	334.3	334.9	335.7	336.3	336.9	337.4	338.3	338.8	339.4	340.5
5°	332.6	333.7	334.9	336.0	337.4	339.7	341.1	342.2	343.3	345.6	346.5
7.5°	331.8	333.7	335.4	337.4	339.7	341.7	344.2	345.6	347.3	348.7	350.4
10°	331.2	334.0	335.7	338.5	341.1	343.1	345.9	347.6	349.6	351.3	352.1
12.5°	332.3	333.7	335.4	338.3	341.4	344.2	347.3	348.7	350.4	351.8	352.1
15°	337.1	337.1	337.4	339.7	342.8	345.0	347.6	349.0	349.8	350.7	350.7
17.5°	345.9	343.9	342.5	342.8	344.8	346.2	347.6	347.6	347.0	346.7	346.2
20°	356.1	353.5	350.7	348.7	348.1	347.0	346.2	343.3	341.1	339.1	337.7
22.5°	370.7	366.8	362.8	359.2	355.8	351.5	346.7	341.1	335.7	332.1	329.8
25°	388.8	385.7	380.9	375.3	371.0	363.1	356.9	348.7	341.9	337.1	333.2
27.5°	414.5	410.8	406.3	401.2	395.0	386.3	378.6	369.0	360.9	353.8	348.7
30°	446.4	441.6	438.2	432.0	427.8	417.9	410.3	398.4	382.6	371.3	364.2
32.5°	479.2	473.8	471.0	466.2	461.4	455.4	443.9	425.5	405.2	386.8	374.7
35°	522.9	517.3	512.2	508.0	500.9	489.9	479.7	457.7	429.7	404.1	383.7
37.5°	578.0	568.7	556.0	545.2	532.8	517.0	501.5	478.9	447.0	413.7	386.5
40°	636.7	620.3	602.3	582.2	560.8	537.9	520.1	497.2	461.4	421.8	384.6
42.5°	698.0	672.0	646.9	618.6	588.7	561.6	538.5	513.3	472.1	424.1	376.7
45°	758.7	729.6	691.5	654.5	616.7	583.1	557.1	528.9	482.0	424.9	366.2
47.5°	809.0	779.0	735.5	689.2	644.3	606.2	575.7	545.2	495.3	430.9	363.7
50°	862.0	825.6	777.3	722.6	671.7	629.1	596.6	565.0	513.9	446.1	371.9
52.5°	919.9	878.1	821.7	760.4	704.8	657.0	621.8	589.3	537.6	467.6	387.4
55°	990.5	939.4	878.1	809.0	749.4	696.6	657.6	619.2	565.8	493.0	406.9
57.5°	1098.4	1035.7	966.8	888.0	821.9	759.5	713.0	668.6	609.6	530.8	433.4
60°	1293.5	1226.6	1137.1	1041.6	964.0	891.1	822.8	767.7	695.2	605.4	492.2
62.5°	1573.0	1484.1	1364.6	1231.1	1129.4	1024.4	947.3	865.4	775.4	678.5	561.3
65°	1728.3	1620.5	1460.6	1305.6	1174.9	1060.8	962.8	868.0	768.0	675.4	577.4
66°	1747.5	1635.1	1469.1	1305.9	1168.7	1051.5	948.4	850.2	748.0	659.6	570.6
67.5°	1739.6	1624.7	1453.6	1281.3	1141.9	1015.9	909.5	807.5	705.6	623.2	548.1
70°	1610.0	1501.0	1333.0	1166.1	1033.7	909.5	807.8	707.6	614.1	543.5	488.2
72.5°	1337.0	1243.8	1097.8	966.8	862.9	760.4	674.3	578.6	499.5	447.3	414.5
75°	965.1	908.6	775.6	700.5	609.3	541.3	457.7	400.9	344.2	318.8	313.1
77.5°	609.6	533.7	449.2	369.9	304.1	252.1	196.2	166.6	138.9	136.1	164.3
80°	308.6	277.8	214.0	170.5	143.4	116.0	91.8	69.5	48.6	58.4	70.0
82.5°	202.2	168.6	132.1	108.7	94.6	78.5	61.0	42.4	31.1	35.0	48.0
85°	109.3	93.2	75.1	59.3	48.0	42.9	28.8	20.3	20.0	21.5	27.4
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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CATALOG NUMBER: TLM-F01-LED-E1-T4-7050

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4	337.4
2.5°	341.1	341.9	342.2	343.6	344.5	345.0	345.6	345.6	345.9	346.7	347.0
5°	347.6	349.0	350.7	351.8	352.4	354.1	354.6	354.6	355.2	356.3	357.2
7.5°	351.5	353.5	355.2	355.8	356.9	357.5	358.3	358.9	358.9	360.0	360.6
10°	352.9	354.1	355.8	355.8	356.9	356.9	357.7	358.0	358.0	359.2	360.0
12.5°	352.9	353.5	354.9	354.9	355.8	356.1	357.2	358.0	358.3	359.7	360.9
15°	351.3	351.8	352.9	353.2	355.2	356.3	358.9	360.6	360.6	362.0	362.5
17.5°	346.5	347.9	350.1	352.4	356.1	358.6	361.7	363.1	362.0	361.1	360.3
20°	338.5	341.1	346.5	352.1	358.6	362.0	363.7	362.3	358.3	354.4	351.8
22.5°	330.6	335.7	344.8	353.2	360.6	362.8	362.0	356.9	350.4	345.6	342.2
25°	334.3	340.2	349.0	356.6	361.4	360.9	357.5	350.4	343.3	337.1	331.5
27.5°	349.6	356.1	360.9	363.4	362.8	358.9	353.5	345.6	337.1	328.9	321.0
30°	364.0	367.3	368.5	366.5	362.0	355.5	348.7	339.7	328.4	318.2	309.2
32.5°	370.5	367.1	361.7	356.3	349.0	343.3	334.0	324.1	310.0	297.9	288.9
35°	370.5	356.9	343.3	332.1	321.0	314.0	303.3	290.0	277.0	266.8	259.8
37.5°	362.3	336.3	314.0	295.6	281.8	274.2	258.1	246.2	235.2	231.8	227.3
40°	347.3	308.9	276.7	252.7	235.2	223.9	207.8	199.6	195.4	193.7	192.9
42.5°	327.3	278.4	235.5	205.8	186.9	174.2	163.5	158.4	158.1	157.8	157.8
45°	305.8	245.7	195.4	160.1	143.4	132.1	127.1	125.1	126.8	126.5	126.8
47.5°	292.5	220.8	158.7	121.1	108.4	101.1	98.5	99.4	100.8	100.2	100.2
50°	290.8	208.1	134.1	94.3	84.7	81.0	80.5	80.5	81.3	80.8	80.5
52.5°	297.0	206.1	121.4	81.0	73.4	70.3	69.7	69.5	69.2	67.5	66.1
55°	307.8	210.6	117.7	77.6	69.7	66.4	65.5	64.9	63.8	61.6	59.0
57.5°	329.2	224.8	121.1	79.3	70.9	68.0	67.2	67.2	64.9	61.3	57.6
60°	380.9	260.6	135.0	85.8	76.2	73.4	74.0	73.7	70.3	64.9	59.3
62.5°	447.5	307.5	153.0	94.9	83.0	82.4	85.3	84.7	79.1	70.9	62.7
65°	478.3	329.5	158.1	96.8	84.4	87.0	92.6	92.0	85.0	73.7	63.2
66°	478.9	329.5	155.9	95.2	82.4	85.6	91.2	90.9	83.9	72.6	62.1
67.5°	467.3	320.5	149.4	91.8	78.5	80.8	85.8	85.6	79.1	69.7	59.9
70°	423.8	286.9	132.7	85.8	73.1	72.0	73.7	72.6	68.3	61.8	55.1
72.5°	363.1	240.9	115.8	81.3	69.5	64.9	63.8	63.0	59.6	55.9	51.7
75°	286.0	190.6	101.6	77.9	66.1	60.1	58.2	57.0	54.8	52.2	48.8
77.5°	176.5	136.4	88.7	73.4	63.5	57.6	56.2	54.5	51.1	48.0	45.5
80°	78.8	84.4	72.8	64.1	56.8	51.4	49.1	46.6	43.2	41.2	39.8
82.5°	52.5	54.5	52.8	48.0	42.9	38.7	35.3	35.3	34.7	33.0	32.5
85°	33.6	33.9	32.8	29.6	27.7	25.1	23.7	24.0	25.1	24.8	24.6
87.5°	7.6	7.6	9.0	8.5	9.9	10.4	11.3	12.1	13.8	13.8	14.7
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: P156616

CATALOG NUMBER: TLM-F01-LED-E1-T4-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	337.4	337.4	337.4	337.4	337.4
2.5°	347.3	347.9	348.4	347.6	347.9
5°	357.2	356.9	358.3	357.5	358.0
7.5°	360.3	360.6	361.7	361.7	362.0
10°	360.6	361.1	362.5	363.4	364.0
12.5°	362.0	363.1	365.4	365.9	365.9
15°	363.1	363.7	365.1	365.7	366.2
17.5°	359.2	358.0	358.6	358.9	358.6
20°	349.3	348.1	347.9	346.7	347.3
22.5°	338.5	335.4	333.5	331.2	331.2
25°	325.6	320.8	316.8	312.9	313.7
27.5°	313.4	307.2	303.3	300.7	300.1
30°	301.6	295.1	291.4	288.3	288.3
32.5°	281.8	277.3	272.5	270.5	270.2
35°	254.4	251.6	247.6	246.8	245.4
37.5°	223.6	222.8	219.4	219.1	217.7
40°	191.4	192.0	190.9	190.3	189.5
42.5°	159.3	162.1	161.5	161.2	160.7
45°	128.5	130.4	130.7	131.6	133.0
47.5°	101.1	101.6	102.2	101.9	102.2
50°	79.1	77.6	77.4	76.5	77.4
52.5°	63.8	61.6	60.4	59.3	58.7
55°	56.2	53.9	52.8	52.2	51.7
57.5°	54.2	52.0	50.3	49.1	48.8
60°	54.8	51.4	49.1	47.7	47.4
62.5°	56.2	51.7	48.6	47.2	46.9
65°	55.9	51.1	48.3	46.6	46.3
66°	55.1	50.5	47.7	46.3	46.0
67.5°	53.6	49.7	47.2	46.0	45.5
70°	51.1	48.6	46.6	45.2	44.6
72.5°	48.8	46.9	45.2	43.8	43.5
75°	46.3	44.6	42.9	41.8	41.5
77.5°	43.2	41.5	40.4	39.5	39.2
80°	38.1	37.0	35.9	34.7	34.7
82.5°	31.6	30.8	29.6	28.8	28.5
85°	24.3	24.3	23.4	22.6	22.3
87.5°	14.4	14.1	14.1	13.3	13.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)