

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: P156615

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P156615
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
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (7) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

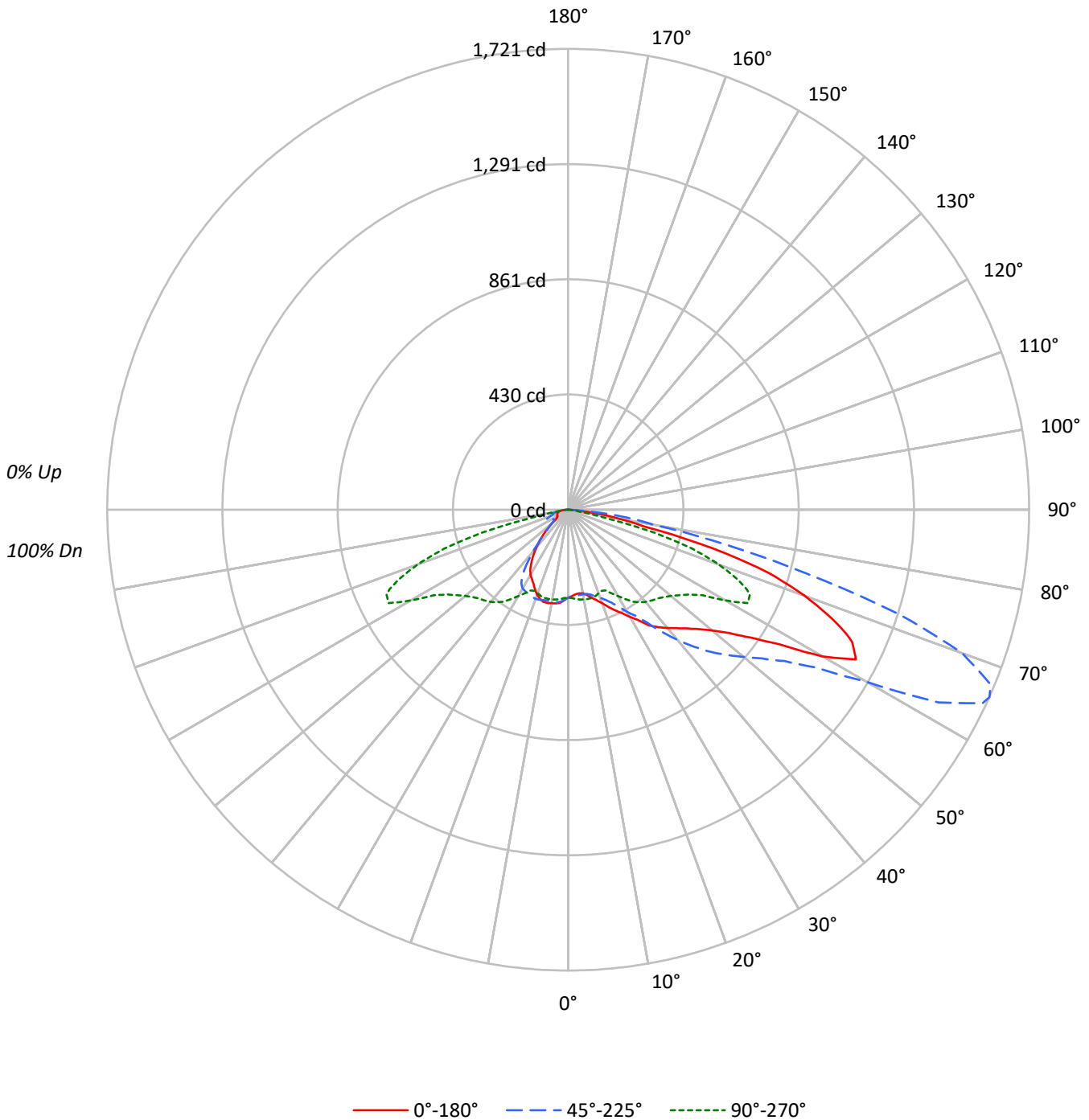
Lumens per Lamp: N/A
Luminaire Lumens: 2494.8 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.73 / 2.02 / 2.64
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P156615
CATALOG NUMBER: TLM-F01-LED-E1-T4

Luminous Intensity Polar Plot





TEST NUMBER: P156615

CATALOG NUMBER: TLM-F01-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	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					100			
1	105	99	93	88	102	96	91	87	92	88	84	88	84	81	84	81	79	76					76			
2	92	81	72	65	89	79	71	64	76	69	62	72	66	61	69	64	59	57					57			
3	82	68	58	49	79	66	57	49	63	55	48	60	53	47	57	51	46	43					43			
4	73	58	47	39	70	57	46	38	54	45	38	51	43	37	49	42	36	34					34			
5	66	50	39	31	64	49	39	31	47	38	31	45	36	30	42	35	30	27					27			
6	60	44	34	26	58	43	33	26	41	32	25	39	31	25	38	30	25	22					22			
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19					19			
8	51	35	26	19	49	35	25	19	33	25	19	32	24	18	31	23	18	16					16			
9	47	32	23	16	46	31	23	16	30	22	16	29	22	16	28	21	16	14					14			
10	44	29	21	15	43	29	20	15	28	20	14	27	19	14	26	19	14	12					12			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	20819	20819	20819
5°	20148	21267	22176
10°	20381	21905	22805
15°	22333	22346	23395
20°	25032	22397	22808
25°	28972	23278	21357
30°	33800	27264	20545
35°	40774	32372	18481
40°	47650	37162	15258
45°	56153	42059	11605
50°	69041	49331	7427
55°	91834	60880	5564
60°	138652	85795	5851
65°	175336	112141	6757
70°	173908	110798	8053
75°	137927	82052	9908
80°	69936	17247	12324
85°	10171	14166	15765



TEST NUMBER: P156615

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.9	1.3
10°-20°	96.9	3.9
20°-30°	167.0	6.7
30°-40°	252.6	10.1
40°-50°	327.5	13.1
50°-60°	451.5	18.1
60°-70°	701.4	28.1
70°-80°	407.9	16.3
80°-90°	58.0	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°	295.9	11.9
0°-40°	548.5	22.0
0°-60°	1327.4	53.2
0°-90°	2494.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2494.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	329	329	329	329	329	
5°	317	322	335	346	349	30
15°	341	329	341	350	357	98
25°	415	383	333	348	306	193
35°	528	515	419	296	239	330
45°	627	751	470	124	130	490
55°	832	985	552	64	50	770
65°	1170	1709	748	90	45	1108
75°	564	918	335	57	40	581
85°	14	96	20	23	22	61
90°	0	0	0	0	0	



TEST NUMBER: P156615

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8
2.5°	322.8	323.9	323.1	323.3	323.3	323.6	323.6	323.9	323.6	324.4	325.0
5°	317.0	317.6	317.3	317.8	318.4	319.5	319.2	320.6	320.9	321.7	323.1
7.5°	314.8	314.2	314.5	315.4	315.9	316.5	317.0	318.1	318.9	320.9	322.0
10°	317.0	316.7	317.0	317.6	317.6	317.8	317.3	318.4	318.9	320.6	321.7
12.5°	326.1	326.1	325.5	325.5	325.0	324.4	323.1	322.2	322.0	322.2	322.8
15°	340.7	340.1	339.0	338.2	337.1	335.2	333.2	331.6	330.5	328.8	328.3
17.5°	355.0	354.2	353.0	351.9	350.6	348.6	345.6	343.7	340.7	338.7	337.6
20°	371.5	369.8	368.5	367.1	364.3	363.8	360.8	357.5	353.9	349.5	348.9
22.5°	392.9	390.2	388.5	387.7	385.0	384.1	379.2	374.5	370.1	364.3	363.0
25°	414.7	411.9	411.1	410.0	408.1	407.0	402.3	397.1	391.3	383.3	381.7
27.5°	435.9	436.2	434.0	434.8	434.2	432.3	427.6	422.4	418.0	408.6	406.7
30°	462.3	460.6	459.5	461.2	459.3	459.5	455.4	452.7	445.5	440.0	436.2
32.5°	489.8	489.5	491.2	492.3	492.0	491.5	488.2	485.4	479.1	471.1	469.4
35°	527.5	529.2	530.5	535.5	535.5	539.1	535.8	532.5	525.0	515.4	512.1
37.5°	553.1	553.7	559.2	565.8	574.0	581.7	583.9	584.7	581.7	574.6	569.6
40°	576.5	577.6	586.4	596.6	608.7	623.8	632.9	637.0	637.9	634.6	623.8
42.5°	599.9	601.5	610.6	625.5	642.3	661.5	677.5	687.7	693.4	693.4	687.1
45°	627.1	629.3	639.2	655.5	675.0	699.2	721.2	740.8	750.1	750.7	744.6
47.5°	659.3	661.2	672.8	689.3	709.4	733.9	761.7	784.0	801.3	802.4	797.5
50°	700.9	703.6	713.3	728.1	748.8	773.5	801.3	832.4	850.6	855.0	849.7
52.5°	755.9	756.5	764.4	778.2	798.3	821.9	851.4	885.2	909.2	912.8	904.2
55°	831.9	831.0	836.3	851.1	866.3	884.7	915.2	953.2	979.9	985.4	976.6
57.5°	935.0	934.2	938.6	942.2	970.5	988.4	1018.4	1054.7	1080.6	1096.6	1081.4
60°	1094.9	1094.1	1101.3	1122.2	1143.4	1169.5	1198.7	1242.1	1278.5	1283.1	1268.3
62.5°	1210.8	1214.9	1230.6	1255.1	1298.0	1349.2	1402.6	1459.8	1534.4	1558.0	1550.9
65°	1170.3	1178.6	1200.3	1237.5	1294.7	1365.4	1449.1	1552.8	1652.7	1708.6	1706.9
66°	1134.0	1143.1	1169.8	1205.5	1266.1	1343.4	1434.8	1547.9	1659.6	1721.2	1725.1
67.5°	1068.0	1078.1	1104.3	1146.7	1205.5	1287.8	1386.1	1509.1	1635.4	1707.2	1717.4
70°	939.4	951.0	970.0	1004.9	1063.0	1136.5	1239.9	1350.0	1482.4	1564.6	1577.0
72.5°	785.3	795.5	816.7	845.3	892.9	939.2	1020.3	1101.5	1196.2	1290.0	1280.9
75°	563.8	568.2	580.9	612.0	637.6	679.1	744.3	810.9	875.6	918.5	924.6
77.5°	293.1	304.6	322.5	356.9	384.7	422.1	464.5	514.6	561.9	601.3	590.5
80°	191.8	196.8	212.7	230.3	250.7	274.6	303.0	321.7	327.7	325.3	327.7
82.5°	110.6	119.7	140.9	154.4	169.5	177.8	200.3	221.8	233.9	218.8	213.3
85°	14.0	18.2	57.2	72.1	82.6	94.9	101.8	114.7	107.0	95.8	116.7
87.5°	3.0	2.8	3.9	8.3	8.5	7.2	13.5	14.3	8.8	4.4	5.5
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: P156615

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8
2.5°	325.5	325.8	326.4	327.2	327.7	328.3	328.8	329.7	330.2	330.8	331.9
5°	324.2	325.3	326.4	327.5	328.8	331.0	332.4	333.5	334.6	336.8	337.6
7.5°	323.3	325.3	326.9	328.8	331.0	333.0	335.4	336.8	338.5	339.8	341.5
10°	322.8	325.5	327.2	329.9	332.4	334.3	337.1	338.7	340.7	342.3	343.1
12.5°	323.9	325.3	326.9	329.7	332.7	335.4	338.5	339.8	341.5	342.9	343.1
15°	328.6	328.6	328.8	331.0	334.1	336.3	338.7	340.1	340.9	341.8	341.8
17.5°	337.1	335.2	333.8	334.1	336.0	337.4	338.7	338.7	338.2	337.9	337.4
20°	347.0	344.5	341.8	339.8	339.3	338.2	337.4	334.6	332.4	330.5	329.1
22.5°	361.3	357.5	353.6	350.0	346.7	342.6	337.9	332.4	327.2	323.6	321.4
25°	378.9	375.9	371.2	365.7	361.6	353.9	347.8	339.8	333.2	328.6	324.7
27.5°	404.0	400.4	396.0	391.0	385.0	376.4	369.0	359.7	351.7	344.8	339.8
30°	435.1	430.4	427.1	421.0	416.9	407.3	399.8	388.3	372.9	361.9	355.0
32.5°	467.0	461.7	459.0	454.3	449.6	443.9	432.6	414.7	394.9	377.0	365.2
35°	509.6	504.1	499.2	495.0	488.2	477.4	467.5	446.1	418.8	393.8	374.0
37.5°	563.3	554.2	541.8	531.4	519.3	503.8	488.7	466.7	435.6	403.1	376.7
40°	620.5	604.6	586.9	567.4	546.5	524.2	506.9	484.6	449.6	411.1	374.8
42.5°	680.2	654.9	630.4	602.9	573.7	547.3	524.8	500.3	460.1	413.3	367.1
45°	739.4	711.1	673.9	637.9	601.0	568.2	542.9	515.4	469.7	414.1	356.9
47.5°	788.4	759.2	716.8	671.7	627.9	590.8	561.1	531.4	482.7	419.9	354.4
50°	840.1	804.6	757.6	704.2	654.6	613.1	581.4	550.6	500.8	434.8	362.4
52.5°	896.5	855.8	800.8	741.0	686.8	640.3	605.9	574.3	523.9	455.7	377.5
55°	965.3	915.5	855.8	788.4	730.3	678.9	640.9	603.5	551.5	480.5	396.5
57.5°	1070.4	1009.3	942.2	865.4	801.0	740.2	694.8	651.6	594.1	517.3	422.4
60°	1260.6	1195.4	1108.1	1015.1	939.4	868.5	801.9	748.2	677.5	590.0	479.6
62.5°	1533.0	1446.3	1329.9	1199.8	1100.7	998.3	923.2	843.4	755.6	661.2	547.0
65°	1684.3	1579.2	1423.5	1272.4	1145.0	1033.8	938.3	845.9	748.5	658.2	562.7
66°	1703.1	1593.5	1431.7	1272.7	1138.9	1024.8	924.3	828.6	728.9	642.8	556.1
67.5°	1695.4	1583.4	1416.6	1248.7	1112.8	990.1	886.3	787.0	687.7	607.3	534.1
70°	1569.0	1462.8	1299.1	1136.5	1007.4	886.3	787.3	689.6	598.5	529.7	475.8
72.5°	1303.0	1212.1	1069.9	942.2	840.9	741.0	657.1	563.8	486.8	435.9	404.0
75°	940.5	885.5	755.9	682.7	593.8	527.5	446.1	390.7	335.4	310.7	305.2
77.5°	594.1	520.1	437.8	360.5	296.4	245.7	191.2	162.4	135.4	132.6	160.2
80°	300.8	270.8	208.6	166.2	139.8	113.1	89.4	67.7	47.3	57.0	68.2
82.5°	197.0	164.3	128.8	105.9	92.2	76.5	59.4	41.3	30.3	34.1	46.8
85°	106.5	90.8	73.2	57.8	46.8	41.8	28.1	19.8	19.5	20.9	26.7
87.5°	7.7	7.7	6.1	5.5	6.6	5.5	5.0	5.0	4.7	5.0	6.6
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: P156615

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

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8
2.5°	332.4	333.2	333.5	334.9	335.7	336.3	336.8	336.8	337.1	337.9	338.2
5°	338.7	340.1	341.8	342.9	343.4	345.1	345.6	345.6	346.2	347.3	348.1
7.5°	342.6	344.5	346.2	346.7	347.8	348.4	349.2	349.7	349.7	350.8	351.4
10°	344.0	345.1	346.7	346.7	347.8	347.8	348.6	348.9	348.9	350.0	350.8
12.5°	344.0	344.5	345.9	345.9	346.7	347.0	348.1	348.9	349.2	350.6	351.7
15°	342.3	342.9	344.0	344.2	346.2	347.3	349.7	351.4	351.4	352.8	353.3
17.5°	337.6	339.0	341.2	343.4	347.0	349.5	352.5	353.9	352.8	351.9	351.1
20°	329.9	332.4	337.6	343.1	349.5	352.8	354.4	353.0	349.2	345.3	342.9
22.5°	322.2	327.2	336.0	344.2	351.4	353.6	352.8	347.8	341.5	336.8	333.5
25°	325.8	331.6	340.1	347.5	352.2	351.7	348.4	341.5	334.6	328.6	323.1
27.5°	340.7	347.0	351.7	354.2	353.6	349.7	344.5	336.8	328.6	320.6	312.9
30°	354.7	358.0	359.1	357.2	352.8	346.4	339.8	331.0	320.0	310.1	301.3
32.5°	361.0	357.7	352.5	347.3	340.1	334.6	325.5	315.9	302.1	290.3	281.5
35°	361.0	347.8	334.6	323.6	312.9	306.0	295.5	282.6	269.9	260.0	253.2
37.5°	353.0	327.7	306.0	288.1	274.6	267.2	251.5	240.0	229.2	225.9	221.5
40°	338.5	301.0	269.7	246.3	229.2	218.2	202.5	194.5	190.4	188.8	187.9
42.5°	318.9	271.3	229.5	200.6	182.2	169.8	159.3	154.4	154.1	153.8	153.8
45°	298.0	239.4	190.4	156.0	139.8	128.8	123.8	121.9	123.6	123.3	123.6
47.5°	285.1	215.2	154.6	118.1	105.7	98.5	96.0	96.9	98.2	97.7	97.7
50°	283.4	202.8	130.7	91.9	82.6	79.0	78.4	78.4	79.3	78.7	78.4
52.5°	289.5	200.9	118.3	79.0	71.5	68.5	68.0	67.7	67.4	65.8	64.4
55°	299.9	205.3	114.7	75.7	68.0	64.7	63.8	63.3	62.2	60.0	57.5
57.5°	320.9	219.0	118.1	77.3	69.1	66.3	65.5	65.5	63.3	59.7	56.1
60°	371.2	254.0	131.5	83.7	74.3	71.5	72.1	71.8	68.5	63.3	57.8
62.5°	436.2	299.7	149.1	92.5	80.9	80.4	83.1	82.6	77.0	69.1	61.1
65°	466.1	321.1	154.1	94.4	82.3	84.8	90.3	89.7	82.8	71.8	61.6
66°	466.7	321.1	151.9	92.7	80.4	83.4	88.9	88.6	81.7	70.7	60.5
67.5°	455.4	312.3	145.6	89.4	76.5	78.7	83.7	83.4	77.0	68.0	58.3
70°	413.0	279.6	129.3	83.7	71.3	70.2	71.8	70.7	66.6	60.3	53.7
72.5°	353.9	234.7	112.8	79.3	67.7	63.3	62.2	61.4	58.1	54.5	50.4
75°	278.8	185.7	99.1	75.9	64.4	58.6	56.7	55.6	53.4	50.9	47.6
77.5°	172.0	132.9	86.4	71.5	61.9	56.1	54.8	53.1	49.8	46.8	44.3
80°	76.8	82.3	71.0	62.5	55.3	50.1	47.9	45.4	42.1	40.2	38.8
82.5°	51.2	53.1	51.5	46.8	41.8	37.7	34.4	34.4	33.8	32.2	31.6
85°	32.7	33.0	31.9	28.9	27.0	24.5	23.1	23.4	24.5	24.2	23.9
87.5°	7.4	7.4	8.8	8.3	9.6	10.2	11.0	11.8	13.5	13.5	14.3
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: P156615

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

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	328.8	328.8	328.8	328.8	328.8
2.5°	338.5	339.0	339.6	338.7	339.0
5°	348.1	347.8	349.2	348.4	348.9
7.5°	351.1	351.4	352.5	352.5	352.8
10°	351.4	351.9	353.3	354.2	354.7
12.5°	352.8	353.9	356.1	356.6	356.6
15°	353.9	354.4	355.8	356.4	356.9
17.5°	350.0	348.9	349.5	349.7	349.5
20°	340.4	339.3	339.0	337.9	338.5
22.5°	329.9	326.9	325.0	322.8	322.8
25°	317.3	312.6	308.7	304.9	305.7
27.5°	305.4	299.4	295.5	293.1	292.5
30°	293.9	287.6	284.0	281.0	281.0
32.5°	274.6	270.2	265.5	263.6	263.3
35°	247.9	245.2	241.3	240.5	239.1
37.5°	217.9	217.1	213.8	213.5	212.2
40°	186.6	187.1	186.0	185.5	184.6
42.5°	155.2	158.0	157.4	157.1	156.6
45°	125.2	127.1	127.4	128.2	129.6
47.5°	98.5	99.1	99.6	99.3	99.6
50°	77.0	75.7	75.4	74.6	75.4
52.5°	62.2	60.0	58.9	57.8	57.2
55°	54.8	52.6	51.5	50.9	50.4
57.5°	52.8	50.6	49.0	47.9	47.6
60°	53.4	50.1	47.9	46.5	46.2
62.5°	54.8	50.4	47.3	46.0	45.7
65°	54.5	49.8	47.1	45.4	45.1
66°	53.7	49.3	46.5	45.1	44.9
67.5°	52.3	48.4	46.0	44.9	44.3
70°	49.8	47.3	45.4	44.0	43.5
72.5°	47.6	45.7	44.0	42.7	42.4
75°	45.1	43.5	41.8	40.7	40.5
77.5°	42.1	40.5	39.4	38.5	38.2
80°	37.1	36.0	34.9	33.8	33.8
82.5°	30.8	30.0	28.9	28.1	27.8
85°	23.7	23.7	22.8	22.0	21.7
87.5°	14.0	13.8	13.8	12.9	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)