

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: P151794

Luminaire Tested: **TLM-F02-LED-E1-SL4-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151794
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-F02-LED-E1-SL4-HSS-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

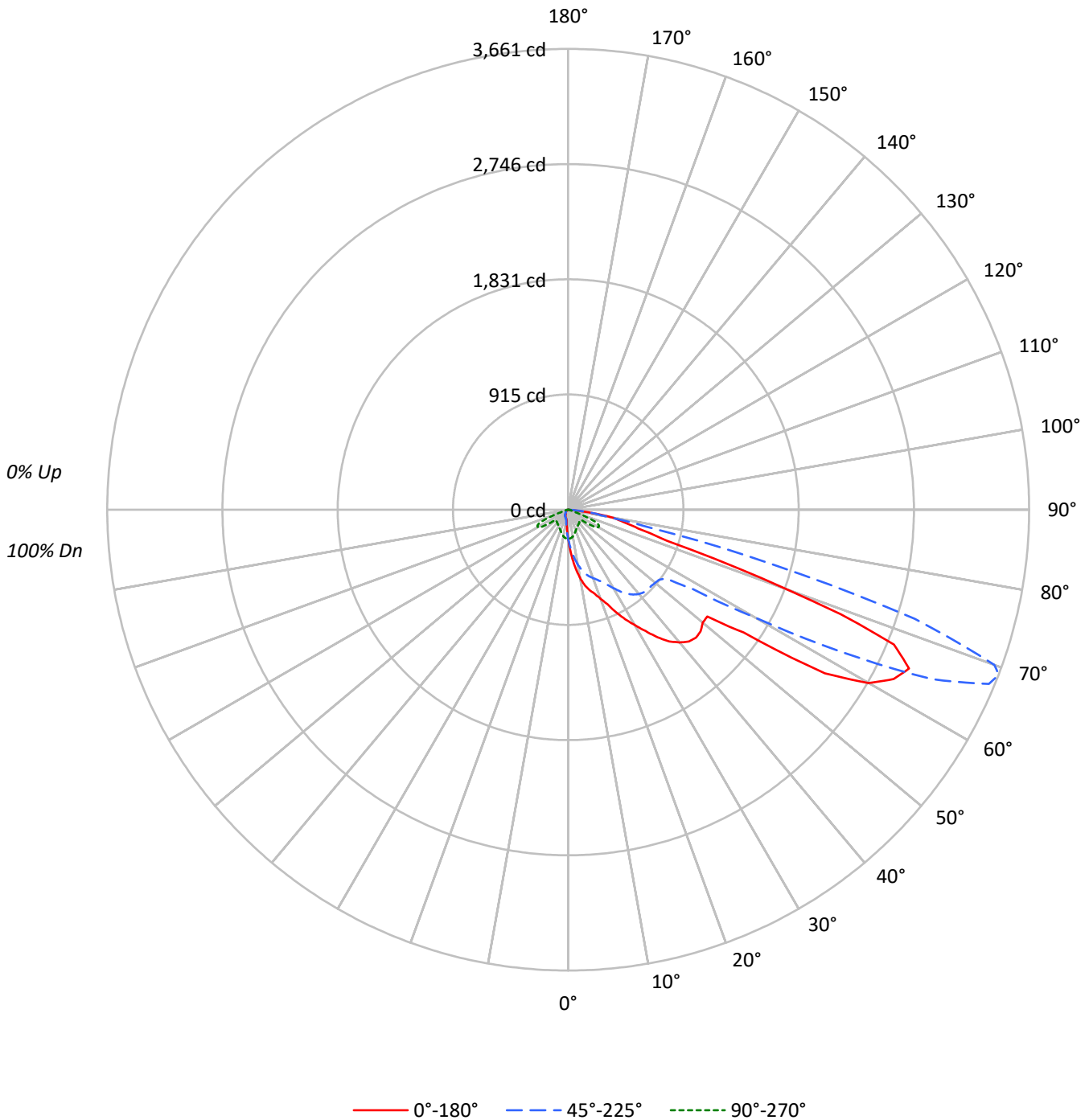
Lumens per Lamp: N/A
Luminaire Lumens: 3068.4 lumens
Efficiency: N/A
Efficacy: 55.8 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 55
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°	7558	7558	7558
5°	12920	7455	3965
10°	18395	7124	2547
15°	22372	6551	2310
20°	26103	6106	2093
25°	32312	5845	1846
30°	39871	5717	1571
35°	49280	5666	1322
40°	58624	5757	1222
45°	66269	6006	1250
50°	70809	6607	1147
55°	96760	11436	688
60°	179666	18136	489
65°	230523	19588	463
70°	174066	8097	525
75°	72465	3100	630
80°	66195	2930	845
85°	5838	2620	1497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.8	0.8
10°-20°	82.1	2.7
20°-30°	157.2	5.1
30°-40°	261.4	8.5
40°-50°	353.7	11.5
50°-60°	553.1	18.0
60°-70°	1137.2	37.1
70°-80°	457.6	14.9
80°-90°	42.3	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°	263.1	8.6
0°-40°	524.5	17.1
0°-60°	1431.3	46.6
0°-90°	3068.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3068.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	232	232	232	232	232	
5°	395	336	228	145	121	42
15°	662	525	194	72	68	189
25°	898	632	162	57	51	420
35°	1238	816	142	41	33	776
45°	1437	894	130	27	27	1098
55°	1702	950	201	18	12	1716
65°	2987	3185	254	8	6	2736
75°	575	1677	25	4	5	771
85°	16	67	7	2	4	97
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°	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7
2.5°	309.1	305.6	301.6	301.6	296.6	296.6	293.6	285.5	284.5	280.0	275.5
5°	394.6	391.6	386.5	382.0	378.0	371.0	365.9	356.4	345.8	335.8	326.7
7.5°	478.0	476.5	467.5	466.0	459.4	447.9	437.8	423.7	405.6	391.6	375.0
10°	555.4	551.9	549.9	541.4	531.8	519.3	503.7	486.6	465.5	443.3	419.7
12.5°	616.8	614.8	605.7	602.2	592.1	579.6	560.0	537.8	516.7	488.1	460.4
15°	662.5	659.0	653.0	647.4	635.4	624.3	606.2	582.1	556.4	525.3	492.1
17.5°	700.7	694.2	692.7	684.1	671.6	658.5	638.4	616.3	586.1	554.9	518.7
20°	752.0	742.9	739.9	727.4	712.8	694.7	671.6	643.9	612.2	578.1	540.9
22.5°	812.3	805.8	799.2	788.2	769.6	743.9	710.3	680.1	639.9	602.2	562.0
25°	897.8	892.2	881.7	866.6	843.5	812.8	772.1	727.9	680.6	632.3	585.1
27.5°	980.7	975.7	968.1	956.6	930.4	896.7	846.5	790.2	730.4	672.1	619.8
30°	1058.6	1054.1	1046.5	1035.0	1011.9	978.7	921.9	861.6	787.2	719.3	656.5
32.5°	1142.6	1141.0	1132.5	1115.9	1095.8	1051.1	989.2	924.4	849.0	770.6	697.2
35°	1237.6	1226.0	1218.0	1201.4	1167.2	1119.4	1047.0	976.2	896.7	816.3	734.4
37.5°	1318.0	1306.9	1296.9	1275.8	1234.0	1173.2	1091.3	1013.4	931.4	849.5	766.1
40°	1376.8	1371.3	1359.2	1331.6	1284.8	1212.4	1124.0	1039.0	956.6	874.1	791.7
42.5°	1420.5	1412.0	1398.4	1369.8	1314.5	1232.0	1137.0	1049.6	968.1	889.2	808.3
45°	1436.6	1429.6	1417.0	1385.8	1326.0	1237.6	1136.5	1046.5	968.6	893.7	819.3
47.5°	1427.1	1420.0	1409.0	1379.8	1321.0	1231.0	1127.5	1038.0	963.6	895.2	829.4
50°	1395.4	1391.4	1382.8	1358.2	1305.4	1218.5	1119.4	1033.5	962.6	902.8	843.5
52.5°	1392.4	1389.9	1379.3	1354.7	1300.9	1214.4	1118.4	1036.0	971.1	912.3	853.5
55°	1701.5	1665.8	1585.9	1518.0	1406.4	1273.7	1169.2	1076.7	1007.3	950.0	908.8
57.5°	2418.3	2365.0	2260.0	2130.8	1874.4	1622.6	1421.0	1275.3	1203.4	1177.2	1192.8
60°	2754.1	2744.5	2727.9	2666.6	2535.4	2318.8	2077.5	1816.6	1712.1	1703.0	1734.7
62.5°	2913.4	2907.4	2912.4	2904.9	2864.2	2800.8	2731.5	2618.9	2515.3	2448.5	2306.7
65°	2986.8	2990.8	3019.5	3042.1	3047.1	3063.7	3114.5	3254.7	3357.3	3184.9	2791.3
67.5°	2800.3	2824.0	2889.8	2972.2	3068.8	3162.2	3313.0	3608.6	3819.2	3616.7	3057.7
69°	2318.3	2329.8	2490.7	2646.0	2881.8	3046.6	3265.3	3652.8	3889.6	3660.9	3036.6
70°	1825.2	1835.7	2008.1	2219.3	2617.9	2830.0	3116.0	3578.0	3823.8	3602.1	2928.0
72.5°	823.4	808.3	869.1	982.2	1415.5	1752.3	2252.4	2898.9	3154.7	2885.8	2190.6
75°	575.0	568.5	575.0	575.5	642.9	829.4	1046.5	1571.3	1943.3	1676.9	1046.5
77.5°	445.4	440.8	436.3	431.3	439.3	492.1	513.2	557.5	723.8	684.6	399.1
80°	352.4	348.3	359.4	355.9	355.9	361.9	357.9	341.3	310.1	287.5	257.4
82.5°	163.9	164.9	164.9	178.9	215.6	251.8	263.4	246.8	219.2	186.5	150.3
85°	15.6	17.6	29.7	45.7	91.0	102.5	103.0	85.5	85.5	67.4	54.3
87.5°	0.0	0.5	0.5	0.5	4.5	12.6	10.6	3.0	1.5	1.5	2.5
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°	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7
2.5°	267.4	265.9	259.9	253.8	248.3	242.3	236.8	231.2	225.2	220.7	215.1
5°	312.7	301.6	289.0	277.0	264.9	252.3	239.3	227.7	215.6	204.6	194.0
7.5°	358.4	336.8	319.7	298.1	278.5	258.9	240.8	222.2	205.1	189.0	173.9
10°	397.1	371.0	344.3	316.7	288.5	262.4	237.3	215.1	192.5	172.9	154.3
12.5°	428.8	395.6	362.9	328.2	296.6	263.4	232.2	205.6	178.9	156.8	137.7
15°	457.4	419.2	380.0	339.8	299.6	261.9	227.2	194.0	166.9	141.8	120.1
17.5°	480.5	436.8	392.6	347.3	304.1	259.9	220.7	186.0	154.3	128.2	107.1
20°	500.7	454.9	407.2	356.4	307.1	259.4	215.1	175.9	143.3	115.6	95.0
22.5°	519.3	473.5	422.2	367.9	311.7	258.9	210.1	168.4	133.7	106.1	85.5
25°	540.4	492.1	438.3	380.0	319.7	260.9	207.1	162.4	125.2	97.0	77.9
27.5°	564.0	513.2	457.4	395.1	330.2	264.9	206.1	155.8	117.6	88.5	71.9
30°	597.2	538.4	476.5	410.2	339.8	269.4	205.1	151.8	110.1	81.9	65.8
32.5°	626.3	563.0	497.6	425.8	350.4	274.0	204.6	146.3	103.0	75.4	61.3
35°	657.0	585.6	515.7	440.8	359.4	279.0	204.1	142.3	96.5	68.9	56.8
37.5°	683.6	604.7	529.8	453.9	369.5	283.5	204.6	138.7	90.5	63.3	52.8
40°	706.2	624.3	545.4	466.0	380.0	290.5	205.1	135.2	84.4	58.3	49.3
42.5°	726.3	642.9	562.0	479.5	392.1	298.6	208.1	132.2	79.4	53.8	45.7
45°	741.9	660.0	580.1	498.6	411.7	311.7	213.6	130.2	74.4	49.8	42.7
47.5°	758.0	685.1	610.7	528.8	440.3	332.3	223.2	129.7	70.4	46.7	40.2
50°	780.1	710.3	637.9	559.5	466.5	353.4	234.7	130.2	65.3	43.7	37.7
52.5°	796.2	735.9	673.1	612.7	528.8	417.7	279.5	139.2	62.8	41.2	34.7
55°	891.2	880.7	882.2	892.2	827.4	710.8	467.5	201.1	73.9	46.7	34.2
57.5°	1256.7	1293.9	1315.5	1315.0	1207.9	1001.8	627.8	258.4	82.4	54.3	40.7
60°	1737.2	1709.1	1669.3	1571.3	1429.1	1143.6	702.2	278.0	71.4	43.2	37.2
62.5°	2162.0	1997.1	1850.8	1692.0	1505.5	1192.8	717.3	276.5	62.3	32.7	26.1
65°	2426.9	2130.3	1894.0	1695.0	1475.3	1151.6	678.6	253.8	52.8	26.6	21.6
67.5°	2490.2	2058.4	1724.1	1470.3	1232.5	896.2	498.1	191.0	41.2	22.1	19.1
69°	2352.0	1829.7	1428.6	1140.5	896.7	594.6	308.1	120.6	31.7	20.1	17.6
70°	2163.5	1591.4	1163.7	915.3	664.0	417.7	215.6	84.9	25.6	18.6	16.1
72.5°	1391.9	835.9	572.0	398.1	274.0	166.4	84.4	38.2	19.6	15.6	13.1
75°	539.9	309.1	224.2	170.4	133.2	92.5	51.3	24.6	16.6	13.1	10.1
77.5°	265.9	203.6	166.4	114.1	66.4	41.2	27.6	19.1	13.6	9.6	6.5
80°	210.1	139.7	83.4	51.8	39.2	29.7	21.1	15.6	10.1	6.0	4.5
82.5°	107.6	58.8	43.2	35.2	29.2	23.1	17.1	11.1	6.5	4.0	3.5
85°	33.7	24.6	22.1	21.6	20.1	16.6	12.1	7.0	4.0	2.5	2.5
87.5°	2.5	3.5	4.5	3.5	4.0	3.5	4.5	3.0	2.0	2.0	1.5
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°	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7	231.7
2.5°	211.1	205.1	199.6	196.0	189.5	187.0	184.5	183.5	178.9	180.0	175.9
5°	184.5	173.9	165.9	157.8	150.3	144.8	140.2	134.7	130.2	128.2	124.2
7.5°	160.3	146.8	136.2	127.7	118.6	111.6	105.6	101.5	97.5	93.5	91.5
10°	139.2	124.7	112.6	104.1	95.5	89.5	84.9	81.9	79.4	77.9	77.4
12.5°	119.6	105.6	94.5	87.0	80.4	77.4	75.4	73.9	73.4	72.9	72.9
15°	104.6	90.5	81.9	76.4	73.4	71.9	71.4	70.4	69.4	68.9	68.9
17.5°	90.5	79.9	73.9	70.9	69.4	68.4	67.4	66.4	65.3	64.8	64.8
20°	80.9	72.4	69.4	67.4	65.8	64.8	63.3	62.3	61.8	61.3	60.8
22.5°	73.4	67.9	65.8	64.3	62.3	60.8	59.8	58.8	57.8	57.3	56.8
25°	67.9	64.3	62.8	60.8	58.8	57.3	55.8	54.3	53.3	52.8	51.8
27.5°	63.8	61.3	59.3	56.8	54.8	53.3	51.8	50.3	49.3	48.3	47.8
30°	60.3	57.8	55.3	53.3	50.8	49.3	47.3	45.7	45.2	44.2	43.2
32.5°	56.8	54.3	51.8	49.3	46.7	44.7	43.7	41.7	40.7	40.2	39.2
35°	52.8	50.3	47.3	45.2	42.7	40.7	39.2	37.7	36.7	35.7	35.2
37.5°	49.3	46.2	43.2	40.7	38.7	36.7	35.2	33.7	32.7	31.7	31.2
40°	45.2	42.2	39.2	36.7	34.7	33.2	31.7	30.2	29.2	28.7	28.7
42.5°	41.7	38.2	35.2	33.2	31.7	29.7	28.1	26.6	26.1	25.6	26.1
45°	38.2	34.7	32.2	30.2	28.7	26.6	25.1	24.1	23.6	24.1	24.6
47.5°	35.2	31.7	29.2	27.6	26.1	24.6	23.1	22.1	22.1	23.1	24.1
50°	32.2	28.7	26.6	25.6	24.1	22.6	20.6	20.1	20.6	21.6	22.6
52.5°	29.2	25.1	23.6	23.1	21.6	20.1	18.6	18.1	18.6	19.6	19.1
55°	26.1	22.1	21.6	21.1	19.6	17.6	16.1	16.1	16.1	15.6	14.6
57.5°	25.1	19.6	19.1	18.6	17.1	15.1	14.1	13.1	12.6	11.1	10.6
60°	26.1	17.6	17.6	16.6	15.1	13.1	11.6	10.1	9.0	8.0	8.0
62.5°	21.1	16.1	15.6	14.6	12.6	10.6	9.0	7.5	7.0	6.5	6.5
65°	17.1	14.6	13.6	12.1	10.6	8.5	7.0	6.0	5.5	5.5	6.0
67.5°	15.6	13.1	11.6	10.1	8.5	6.5	5.5	5.0	5.0	5.5	5.5
69°	14.6	12.1	10.6	9.0	7.5	6.0	5.0	5.0	5.0	5.0	5.5
70°	13.6	11.6	10.1	8.5	6.5	5.0	4.5	4.5	5.0	5.0	5.5
72.5°	10.6	9.0	8.5	7.0	5.0	4.5	4.0	4.5	4.5	5.0	5.0
75°	8.0	6.5	6.5	5.5	4.0	3.5	3.5	4.0	4.0	4.5	4.5
77.5°	5.5	4.5	4.5	4.0	3.5	3.0	3.0	3.5	4.0	4.0	4.5
80°	4.0	3.5	3.0	3.5	3.0	2.5	3.0	3.5	3.5	4.0	4.0
82.5°	3.0	3.0	3.0	3.0	2.5	2.5	3.0	3.0	3.5	4.0	4.0
85°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.5	3.5
87.5°	1.5	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5	3.0	3.0
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: P151794

CATALOG NUMBER: TLM-F02-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	231.7	231.7	231.7	231.7
2.5°	174.9	174.4	172.4	172.9
5°	122.6	119.6	121.6	121.1
7.5°	90.0	89.5	89.0	90.0
10°	76.9	76.9	76.4	76.9
12.5°	72.4	72.4	72.4	72.4
15°	68.9	68.9	68.4	68.4
17.5°	64.8	64.8	64.8	64.3
20°	60.8	60.3	60.3	60.3
22.5°	56.3	55.8	55.8	55.8
25°	51.8	51.3	51.3	51.3
27.5°	47.3	46.7	46.2	46.2
30°	42.7	42.2	41.7	41.7
32.5°	38.2	37.7	37.2	37.2
35°	34.2	34.2	33.7	33.2
37.5°	30.7	30.7	30.7	30.7
40°	28.1	28.7	28.7	28.7
42.5°	26.6	27.1	27.6	28.1
45°	25.6	26.6	27.1	27.1
47.5°	25.1	25.6	26.1	26.1
50°	23.1	22.6	22.6	22.6
52.5°	18.6	17.6	17.1	16.6
55°	13.6	13.1	12.1	12.1
57.5°	9.6	9.6	9.0	9.0
60°	7.5	7.5	7.0	7.5
62.5°	6.5	6.5	6.5	6.5
65°	6.0	6.0	6.0	6.0
67.5°	6.0	6.0	6.0	6.0
69°	5.5	5.5	5.5	5.5
70°	5.5	5.5	5.5	5.5
72.5°	5.0	5.0	5.0	5.0
75°	4.5	5.0	5.0	5.0
77.5°	4.5	4.5	4.5	4.5
80°	4.0	4.0	4.5	4.5
82.5°	4.0	4.0	4.0	4.0
85°	3.5	3.5	4.0	4.0
87.5°	3.0	3.0	3.5	3.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)