

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: P150650

Luminaire Tested: **TLM-E02-LED-E1-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150650
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E02-LED-E1-SL3-HSS
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3467.6 lumens
Efficiency: N/A
Efficacy: 66.6 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.33
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
CIE Type: Direct

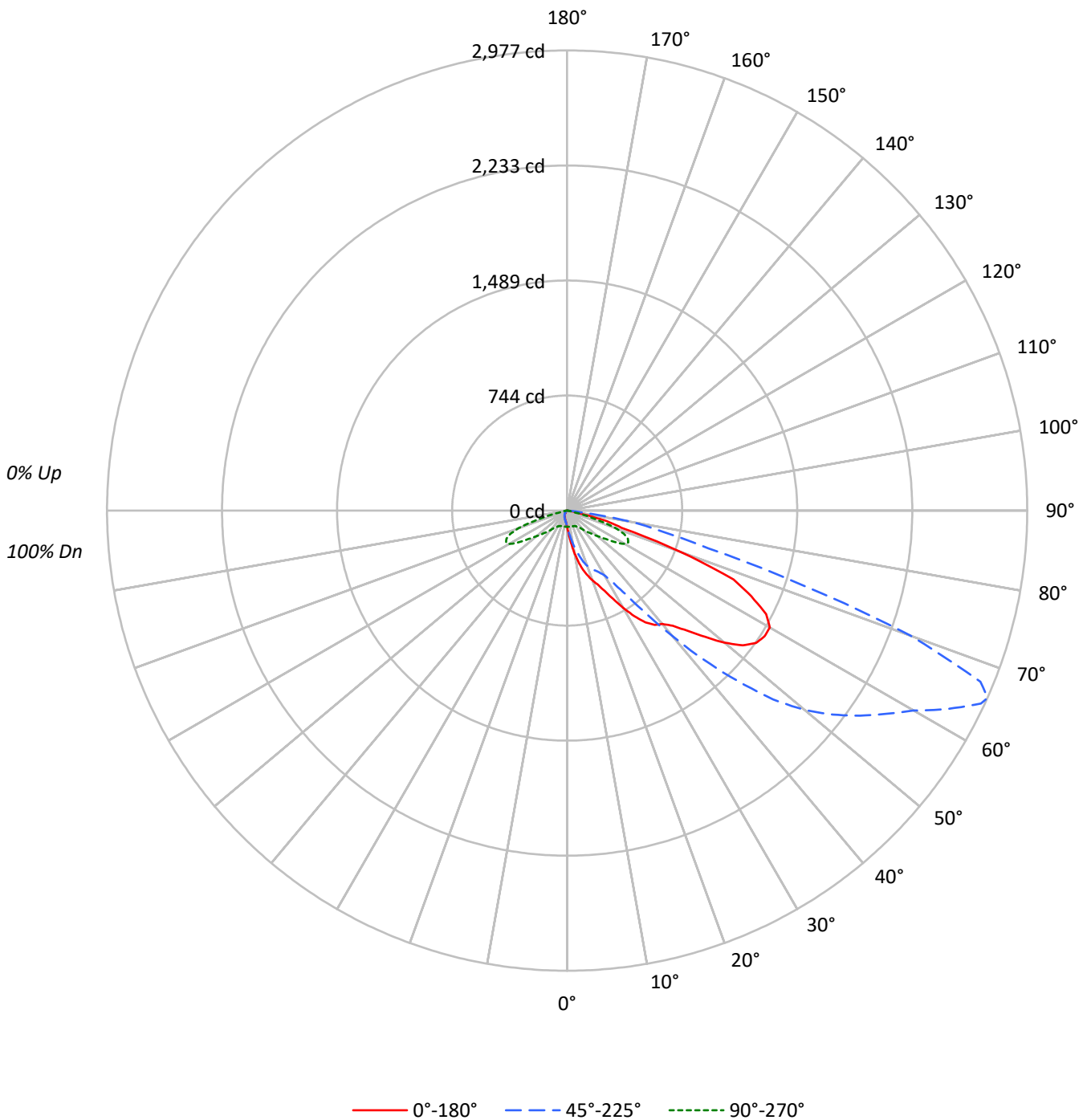
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3415	3415	3415
5°	5720	3438	2511
10°	9383	3466	2097
15°	13396	3613	1780
20°	16661	3738	1527
25°	20611	3959	1296
30°	27393	4433	1104
35°	35148	5242	928
40°	40762	6898	737
45°	50617	9318	554
50°	67424	12991	543
55°	84920	18994	608
60°	98767	28182	652
65°	101516	33469	718
70°	74197	32139	830
75°	33435	13989	1096
80°	6011	3503	1634
85°	487	3106	2994



TEST NUMBER: P150650

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.7	0.3
10°-20°	49.7	1.4
20°-30°	107.2	3.1
30°-40°	228.8	6.6
40°-50°	506.1	14.6
50°-60°	857.6	24.7
60°-70°	1144.4	33.0
70°-80°	504.1	14.5
80°-90°	58.1	1.7
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°	168.6	4.9
0°-40°	397.4	11.5
0°-60°	1761.1	50.8
0°-90°	3467.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3467.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	105	105	105	105	105	
5°	175	148	105	79	77	20
15°	397	303	107	57	53	113
25°	573	427	110	41	36	274
35°	883	661	132	28	23	547
45°	1097	1557	202	17	12	867
55°	1493	2313	334	8	11	1316
65°	1315	2953	434	6	9	1256
75°	265	945	111	5	9	293
85°	1	20	8	4	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7
2.5°	132.0	131.3	128.7	128.7	124.7	122.0	118.7	115.3	115.3	114.7	114.0
5°	174.7	170.7	170.0	162.7	156.7	148.0	140.0	129.3	128.0	126.7	126.0
7.5°	222.0	221.3	215.3	206.7	194.7	178.7	162.7	145.3	142.7	141.3	138.7
10°	283.3	280.0	272.0	257.3	239.3	218.0	192.0	164.7	161.3	158.7	157.3
12.5°	342.0	336.0	331.3	312.7	290.0	258.7	227.3	188.0	185.3	182.0	176.7
15°	396.7	391.3	383.3	367.3	342.0	302.7	266.0	218.0	211.3	206.7	202.7
17.5°	439.3	436.0	426.7	408.7	381.3	346.7	302.7	248.7	243.3	237.3	230.0
20°	480.0	475.3	460.7	436.0	406.7	380.0	346.0	288.7	281.3	274.0	266.0
22.5°	518.7	514.0	490.0	449.3	418.0	406.7	394.7	334.0	322.7	316.7	308.7
25°	572.7	562.7	525.3	460.7	418.7	427.3	448.0	392.7	382.0	373.3	360.7
27.5°	645.3	632.0	573.3	477.3	421.3	450.0	509.3	464.0	452.7	442.7	428.7
30°	727.3	718.7	648.7	517.3	440.7	483.3	578.0	554.7	541.3	529.3	512.7
32.5°	810.0	798.0	728.7	593.3	492.7	548.0	664.0	660.0	642.7	631.3	613.3
35°	882.7	876.7	825.3	718.0	611.3	661.3	778.7	783.3	768.0	756.0	736.0
37.5°	932.0	932.0	922.0	852.0	800.0	837.3	947.3	948.0	932.7	905.3	895.3
40°	957.3	964.7	1000.7	1014.0	1011.3	1059.3	1168.7	1156.7	1144.0	1130.0	1096.7
42.5°	1009.3	1016.0	1092.7	1184.7	1244.7	1308.0	1383.3	1379.3	1364.0	1338.7	1308.0
45°	1097.3	1106.0	1197.3	1343.3	1466.7	1556.7	1604.7	1586.0	1570.7	1546.7	1530.7
47.5°	1209.3	1226.0	1329.3	1510.0	1658.7	1807.3	1857.3	1808.0	1794.7	1776.0	1750.0
50°	1328.7	1344.7	1454.7	1661.3	1829.3	2006.7	2090.0	2006.7	1987.3	1981.3	1952.0
52.5°	1432.0	1445.3	1551.3	1778.0	1960.0	2168.0	2289.3	2179.3	2165.3	2145.3	2124.0
55°	1493.3	1504.0	1603.3	1834.0	2048.7	2313.3	2482.0	2385.3	2364.7	2356.7	2326.0
57.5°	1514.0	1524.7	1614.0	1841.3	2096.7	2446.0	2716.0	2719.3	2694.7	2666.0	2656.7
60°	1514.0	1526.0	1601.3	1823.3	2143.3	2587.3	3028.0	3306.0	3252.7	3247.3	3213.3
62.5°	1451.3	1462.7	1538.7	1768.0	2206.0	2778.0	3462.7	3953.3	3938.0	3903.3	3847.3
65°	1315.3	1322.0	1396.7	1626.7	2182.0	2953.3	3839.3	4384.0	4359.3	4291.3	4219.3
66°	1254.0	1259.3	1329.3	1546.0	2103.3	2977.3	3906.0	4438.0	4397.3	4340.0	4258.7
67.5°	1165.3	1174.7	1224.0	1396.0	1914.7	2894.0	3864.0	4400.0	4364.7	4295.3	4214.0
70°	778.0	771.3	945.3	1071.3	1458.7	2358.0	3466.7	3950.7	3951.3	3918.7	3886.0
72.5°	369.3	373.3	424.0	659.3	954.7	1575.3	2759.3	3153.3	3198.7	3140.0	3099.3
75°	265.3	271.3	302.0	403.3	569.3	945.3	1788.7	2205.3	2206.7	2102.7	2010.0
77.5°	77.3	80.7	113.3	248.7	426.7	638.0	1027.3	1226.0	1197.3	1122.7	1052.7
80°	32.0	32.0	33.3	79.3	171.3	433.3	718.7	944.0	940.7	912.0	870.7
82.5°	12.0	12.7	16.0	32.7	40.7	106.7	479.3	819.3	817.3	776.7	747.3
85°	1.3	1.3	4.0	14.0	15.3	20.0	96.0	361.3	359.3	361.3	316.7
87.5°	0.0	0.0	0.7	1.3	2.0	2.7	4.0	14.0	15.3	14.7	13.3
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: P150650

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CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7
2.5°	114.0	112.7	112.7	112.0	112.0	112.0	111.3	110.7	110.7	110.0	109.3
5°	124.7	123.3	122.7	121.3	120.7	120.0	118.7	118.0	116.7	116.0	115.3
7.5°	137.3	134.7	134.0	132.0	130.0	128.7	127.3	125.3	124.0	121.3	120.7
10°	153.3	150.0	147.3	144.7	142.7	139.3	137.3	134.7	132.0	130.0	128.0
12.5°	174.0	169.3	165.3	162.7	158.0	154.0	150.0	148.0	142.7	140.0	136.7
15°	196.7	191.3	186.7	181.3	178.0	171.3	166.0	160.0	157.3	152.7	147.3
17.5°	226.0	217.3	210.0	204.7	198.0	191.3	185.3	179.3	171.3	166.0	159.3
20°	257.3	250.0	240.0	230.7	222.7	214.7	206.0	198.0	190.7	182.0	174.0
22.5°	297.3	286.7	274.7	265.3	254.7	246.0	234.0	223.3	211.3	200.0	190.7
25°	348.0	334.0	322.7	309.3	296.7	283.3	268.7	255.3	240.0	229.3	213.3
27.5°	410.7	397.3	382.0	364.7	352.0	332.0	312.7	296.0	278.0	261.3	243.3
30°	490.7	471.3	455.3	438.7	413.3	394.0	371.3	348.7	324.0	307.3	280.0
32.5°	586.7	566.0	542.0	518.0	494.7	467.3	439.3	411.3	384.0	353.3	325.3
35°	704.0	679.3	652.0	626.0	590.0	560.7	525.3	486.7	456.0	420.7	385.3
37.5°	859.3	818.7	794.7	767.3	718.7	678.7	639.3	600.7	546.7	509.3	459.3
40°	1054.0	1030.0	990.7	946.7	902.7	850.0	796.7	745.3	682.7	630.7	572.7
42.5°	1282.7	1247.3	1207.3	1144.0	1099.3	1037.3	976.7	908.7	832.0	765.3	697.3
45°	1497.3	1455.3	1424.7	1361.3	1314.7	1241.3	1168.0	1096.0	1007.3	921.3	842.7
47.5°	1729.3	1694.7	1644.0	1592.7	1545.3	1462.7	1383.3	1296.0	1202.7	1100.7	998.7
50°	1933.3	1906.0	1871.3	1809.3	1756.7	1687.3	1594.0	1498.7	1380.7	1279.3	1163.3
52.5°	2106.7	2085.3	2036.7	1992.7	1945.3	1880.0	1796.7	1705.3	1578.0	1466.7	1334.7
55°	2311.3	2296.0	2253.3	2226.0	2184.0	2121.3	2043.3	1958.7	1824.0	1702.7	1553.3
57.5°	2646.7	2634.7	2597.3	2586.0	2544.7	2490.0	2394.0	2303.3	2146.0	1995.3	1824.7
60°	3202.0	3178.0	3123.3	3095.3	3008.0	2934.7	2810.0	2685.3	2495.3	2303.3	2098.0
62.5°	3796.7	3729.3	3625.3	3536.0	3412.0	3284.7	3118.0	2927.3	2704.7	2476.7	2240.7
65°	4117.3	4002.7	3871.3	3729.3	3568.7	3381.3	3171.3	2942.7	2703.3	2462.7	2213.3
66°	4154.0	4024.7	3885.3	3727.3	3548.7	3349.3	3136.0	2896.0	2647.3	2412.7	2163.3
67.5°	4108.0	3972.7	3825.3	3650.0	3456.7	3250.0	3026.0	2776.7	2537.3	2299.3	2056.7
70°	3786.0	3651.3	3520.0	3335.3	3129.3	2921.3	2709.3	2430.7	2204.0	1985.3	1769.3
72.5°	3023.3	2932.0	2802.0	2644.0	2443.3	2199.3	2022.7	1773.3	1576.7	1364.7	1197.3
75°	1889.3	1760.7	1600.0	1398.7	1245.3	1047.3	944.0	754.7	642.7	544.7	450.0
77.5°	966.0	869.3	756.7	643.3	534.7	426.7	330.0	233.3	157.3	109.3	81.3
80°	798.0	712.7	619.3	516.0	420.0	326.0	234.7	160.0	102.0	66.7	52.0
82.5°	659.3	587.3	504.0	408.0	324.7	256.0	178.0	116.0	72.0	46.7	36.7
85°	280.7	254.7	196.7	156.0	117.3	86.7	60.7	40.7	28.7	23.3	21.3
87.5°	12.0	13.3	12.7	10.0	7.3	7.3	6.7	5.3	5.3	5.3	5.3
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7
2.5°	109.3	108.7	108.0	108.0	107.3	106.7	102.7	99.3	95.3	92.7	90.0
5°	114.0	113.3	112.0	111.3	110.0	109.3	100.7	93.3	87.3	82.7	79.3
7.5°	118.7	118.0	116.0	114.0	113.3	112.0	98.0	88.7	80.7	75.3	72.0
10°	124.7	122.7	120.7	118.0	116.0	114.0	95.3	83.3	74.7	70.0	66.7
12.5°	133.3	130.0	126.7	123.3	120.7	117.3	94.0	78.7	70.0	64.7	61.3
15°	143.3	138.7	134.7	130.7	126.0	122.7	91.3	74.7	66.0	60.7	56.7
17.5°	152.7	147.3	141.3	135.3	130.7	126.0	88.7	70.7	62.0	56.7	52.7
20°	166.0	158.0	150.7	143.3	136.7	130.7	84.7	66.7	58.7	52.7	48.7
22.5°	180.7	171.3	162.0	152.0	143.3	135.3	81.3	63.3	55.3	49.3	44.7
25°	199.3	188.0	175.3	162.7	152.7	142.0	78.0	60.0	52.0	46.0	41.3
27.5°	225.3	209.3	195.3	179.3	164.0	152.0	75.3	57.3	48.7	42.7	38.0
30°	260.7	237.3	215.3	198.0	180.0	162.7	72.7	54.0	46.0	39.3	34.0
32.5°	300.0	272.7	247.3	221.3	198.7	178.7	70.0	51.3	42.7	36.0	31.3
35°	348.7	314.0	280.0	250.0	222.7	196.0	67.3	48.7	40.0	32.7	28.0
37.5°	418.7	375.3	330.7	292.0	256.7	221.3	65.3	46.0	36.7	29.3	24.7
40°	514.7	458.7	404.0	351.3	305.3	261.3	62.7	43.3	34.0	26.7	22.0
42.5°	618.7	550.7	478.7	419.3	356.0	300.7	60.0	40.7	31.3	24.0	19.3
45°	748.0	663.3	576.0	495.3	418.0	346.7	57.3	38.0	28.0	21.3	16.7
47.5°	889.3	781.3	682.7	581.3	489.3	404.0	54.0	36.0	25.3	18.7	14.7
50°	1034.7	920.7	796.0	680.7	571.3	461.3	50.7	32.7	22.7	16.7	12.0
52.5°	1191.3	1056.7	929.3	786.0	658.7	536.7	47.3	30.0	20.7	14.7	10.0
55°	1390.7	1240.0	1090.7	930.0	776.7	624.0	44.0	26.7	18.0	12.7	8.0
57.5°	1641.3	1462.7	1279.3	1098.0	912.0	738.7	41.3	23.3	15.3	10.7	6.7
60°	1878.0	1669.3	1447.3	1238.7	1028.7	826.7	37.3	20.7	13.3	8.7	6.7
62.5°	2000.7	1762.7	1523.3	1293.3	1069.3	858.0	33.3	17.3	11.3	7.3	6.0
65°	1970.7	1728.0	1496.0	1264.0	1044.7	838.0	29.3	15.3	10.0	6.7	6.0
66°	1927.3	1687.3	1454.0	1233.3	1024.0	816.7	27.3	14.7	9.3	6.7	5.3
67.5°	1832.7	1600.7	1378.0	1172.7	967.3	776.0	24.7	13.3	8.7	6.0	5.3
70°	1565.3	1354.7	1176.7	994.0	826.7	654.0	20.0	11.3	7.3	5.3	5.3
72.5°	1036.0	892.7	774.0	666.0	556.7	432.0	16.7	9.3	6.0	5.3	4.7
75°	390.7	353.3	303.3	272.7	238.0	208.7	13.3	6.0	4.7	4.7	4.7
77.5°	69.3	64.0	56.7	52.0	48.0	44.0	10.7	4.0	4.0	4.7	4.7
80°	46.7	43.3	39.3	36.0	33.3	30.0	7.3	3.3	4.0	4.0	4.7
82.5°	33.3	31.3	29.3	26.7	24.7	22.0	4.7	3.3	4.0	4.0	4.0
85°	20.0	18.7	17.3	16.0	14.0	13.3	3.3	3.3	3.3	4.0	4.0
87.5°	5.3	4.7	5.3	5.3	4.0	4.7	2.7	2.7	2.7	3.3	3.3
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: P150650

CATALOG NUMBER: TLM-E02-LED-E1-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	104.7	104.7	104.7	104.7	104.7
2.5°	88.7	88.7	87.3	89.3	89.3
5°	76.7	76.7	76.0	76.7	76.7
7.5°	70.0	69.3	69.3	69.3	70.0
10°	64.0	63.3	63.3	63.3	63.3
12.5°	58.7	58.0	57.3	58.0	58.0
15°	54.0	52.7	52.7	52.7	52.7
17.5°	50.0	48.7	48.0	48.0	48.0
20°	46.0	44.0	44.0	44.0	44.0
22.5°	42.0	40.0	40.0	40.0	40.0
25°	38.0	36.0	36.0	36.0	36.0
27.5°	34.7	32.7	32.7	32.7	32.7
30°	30.7	29.3	29.3	30.0	29.3
32.5°	28.0	26.0	26.0	26.7	26.7
35°	24.7	23.3	23.3	23.3	23.3
37.5°	21.3	20.0	20.0	20.0	20.0
40°	18.7	17.3	16.7	17.3	17.3
42.5°	16.0	14.7	14.0	14.0	14.0
45°	14.0	12.0	11.3	12.0	12.0
47.5°	11.3	10.0	10.0	10.7	10.7
50°	8.7	8.7	9.3	10.7	10.7
52.5°	8.0	8.0	9.3	10.7	10.7
55°	7.3	8.0	9.3	10.0	10.7
57.5°	6.7	8.0	9.3	10.0	10.0
60°	6.7	7.3	8.7	10.0	10.0
62.5°	6.0	6.7	8.0	9.3	9.3
65°	6.0	6.7	8.0	9.3	9.3
66°	6.0	6.7	8.0	9.3	9.3
67.5°	6.0	6.7	8.0	9.3	9.3
70°	6.0	6.7	8.0	8.7	8.7
72.5°	5.3	6.0	7.3	8.7	8.7
75°	5.3	6.0	7.3	8.7	8.7
77.5°	5.3	6.0	7.3	8.7	8.7
80°	5.3	6.0	7.3	8.0	8.7
82.5°	4.7	6.0	6.7	8.0	8.0
85°	4.7	5.3	6.7	7.3	8.0
87.5°	4.0	4.7	5.3	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)