

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: P151788

Luminaire Tested: **TLM-E02-LED-E1-SL4-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151788
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-E02-LED-E1-SL4-HSS-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3434.7 lumens
Efficiency: N/A
Efficacy: 65.9 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

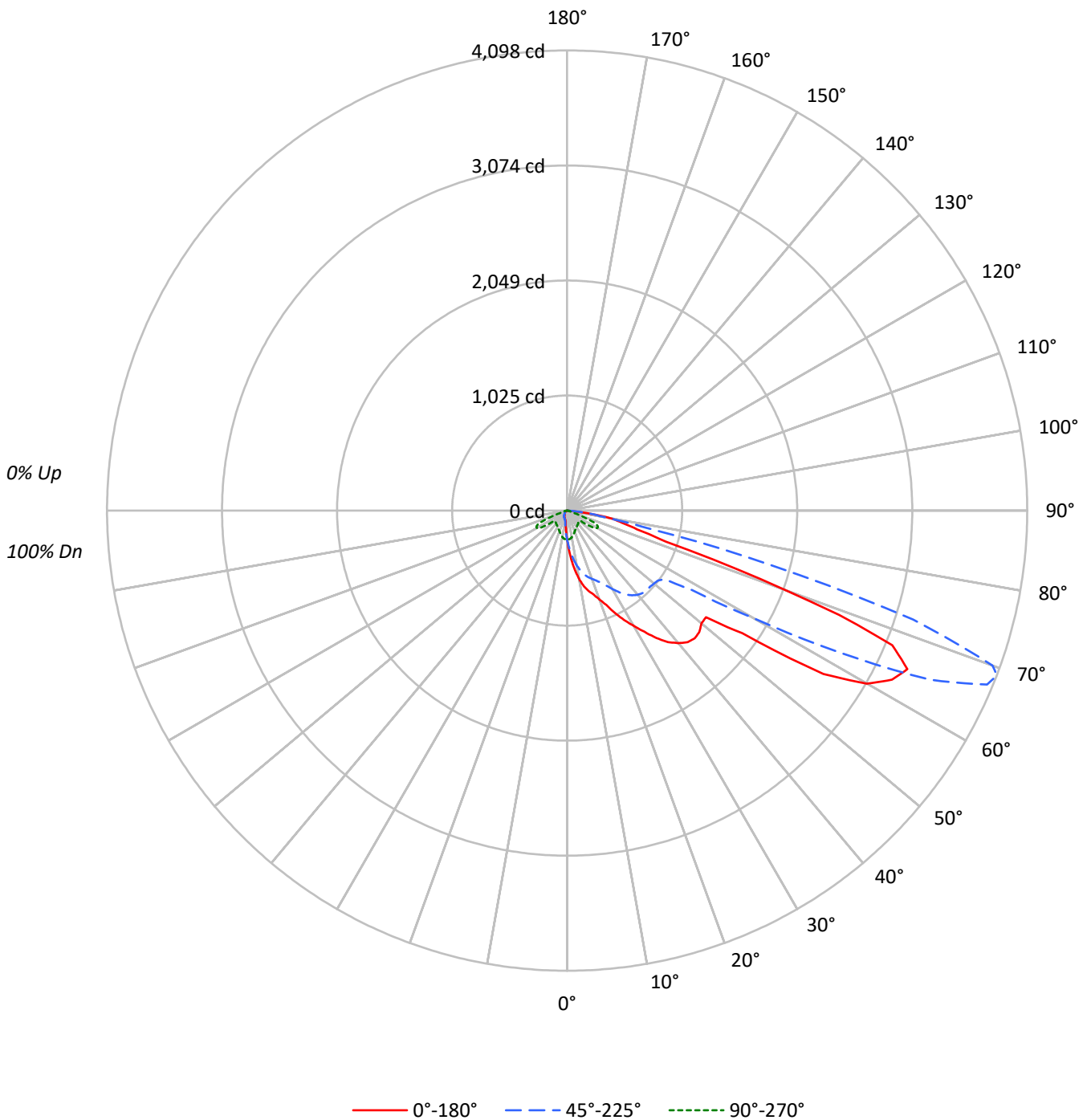
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8461	8461	8461
5°	14462	8346	4440
10°	20591	7976	2852
15°	25043	7335	2583
20°	29216	6835	2343
25°	36166	6539	2066
30°	44632	6399	1759
35°	55161	6339	1477
40°	65620	6447	1367
45°	74180	6721	1402
50°	79258	7393	1284
55°	108310	12801	768
60°	201109	20301	548
65°	258038	21927	525
70°	194838	9070	591
75°	81123	3478	706
80°	74084	3268	958
85°	6512	2957	1684



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.7	0.8
10°-20°	91.9	2.7
20°-30°	175.9	5.1
30°-40°	292.6	8.5
40°-50°	395.9	11.5
50°-60°	619.2	18.0
60°-70°	1273.0	37.1
70°-80°	512.2	14.9
80°-90°	47.4	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°	294.5	8.6
0°-40°	587.1	17.1
0°-60°	1602.1	46.6
0°-90°	3434.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3434.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	259	259	259	259	259	
5°	442	376	255	162	136	48
15°	742	588	217	80	76	212
25°	1005	708	182	64	57	471
35°	1385	914	159	46	37	869
45°	1608	1000	146	30	30	1229
55°	1905	1063	225	20	14	1920
65°	3343	3565	284	10	7	3063
75°	644	1877	28	4	6	863
85°	17	75	8	3	4	108
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°	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4
2.5°	346.0	342.1	337.6	337.6	332.0	332.0	328.6	319.6	318.5	313.4	308.3
5°	441.7	438.3	432.7	427.6	423.1	415.2	409.6	398.9	387.1	375.9	365.7
7.5°	535.1	533.4	523.3	521.6	514.3	501.3	490.1	474.3	454.1	438.3	419.7
10°	621.7	617.8	615.6	606.0	595.3	581.2	563.8	544.7	521.0	496.3	469.8
12.5°	690.4	688.1	678.0	674.1	662.8	648.7	626.8	602.0	578.4	546.3	515.4
15°	741.6	737.6	730.9	724.7	711.2	698.8	678.6	651.6	622.9	588.0	550.8
17.5°	784.3	777.0	775.3	765.8	751.7	737.1	714.6	689.8	656.1	621.2	580.7
20°	841.7	831.6	828.2	814.2	797.9	777.6	751.7	720.8	685.3	647.1	605.4
22.5°	909.3	901.9	894.6	882.3	861.4	832.7	795.0	761.3	716.3	674.1	629.1
25°	1004.9	998.7	986.9	970.0	944.1	909.8	864.2	814.7	761.8	707.8	654.9
27.5°	1097.8	1092.1	1083.7	1070.7	1041.5	1003.8	947.5	884.5	817.5	752.3	693.8
30°	1185.0	1179.9	1171.5	1158.5	1132.6	1095.5	1031.9	964.4	881.1	805.2	734.8
32.5°	1278.9	1277.2	1267.7	1249.1	1226.6	1176.5	1107.3	1034.7	950.3	862.6	780.4
35°	1385.3	1372.3	1363.3	1344.8	1306.5	1253.0	1172.0	1092.7	1003.8	913.8	822.0
37.5°	1475.3	1462.9	1451.7	1428.0	1381.3	1313.2	1221.5	1134.3	1042.6	950.9	857.5
40°	1541.1	1534.9	1521.4	1490.5	1438.2	1357.1	1258.1	1163.0	1070.7	978.5	886.2
42.5°	1590.1	1580.5	1565.3	1533.3	1471.4	1379.1	1272.7	1174.8	1083.7	995.3	904.8
45°	1608.1	1600.2	1586.1	1551.3	1484.3	1385.3	1272.2	1171.5	1084.2	1000.4	917.1
47.5°	1597.4	1589.5	1577.1	1544.5	1478.7	1378.0	1262.0	1161.9	1078.6	1002.1	928.4
50°	1561.9	1557.4	1547.9	1520.3	1461.2	1363.9	1253.0	1156.8	1077.5	1010.5	944.1
52.5°	1558.6	1555.8	1543.9	1516.4	1456.2	1359.4	1251.9	1159.6	1087.1	1021.2	955.4
55°	1904.6	1864.7	1775.2	1699.2	1574.3	1425.8	1308.7	1205.2	1127.6	1063.4	1017.3
57.5°	2707.0	2647.3	2529.7	2385.1	2098.2	1816.3	1590.6	1427.5	1347.0	1317.8	1335.2
60°	3082.8	3072.1	3053.6	2984.9	2838.1	2595.6	2325.5	2033.5	1916.4	1906.3	1941.7
62.5°	3261.2	3254.4	3260.1	3251.6	3206.0	3135.1	3057.5	2931.5	2815.6	2740.7	2582.0
65°	3343.3	3347.8	3379.9	3405.2	3410.8	3429.4	3486.2	3643.2	3758.0	3565.0	3124.5
67.5°	3134.6	3161.0	3234.7	3327.0	3435.0	3539.7	3708.5	4039.3	4275.1	4048.3	3422.7
69°	2595.0	2607.9	2788.0	2961.8	3225.7	3410.3	3655.0	4088.9	4353.9	4097.9	3399.0
70°	2043.0	2054.8	2247.8	2484.1	2930.3	3167.8	3487.9	4005.0	4280.2	4032.0	3277.5
72.5°	921.6	904.8	972.8	1099.4	1584.5	1961.4	2521.3	3244.9	3531.3	3230.2	2452.1
75°	643.7	636.4	643.7	644.2	719.6	928.4	1171.5	1758.9	2175.2	1877.0	1171.5
77.5°	498.5	493.5	488.4	482.8	491.8	550.8	574.5	624.0	810.2	766.3	446.8
80°	394.4	389.9	402.3	398.4	398.4	405.1	400.6	382.0	347.2	321.8	288.1
82.5°	183.4	184.6	184.6	200.3	241.4	281.9	294.8	276.3	245.3	208.7	168.2
85°	17.4	19.7	33.2	51.2	101.8	114.8	115.3	95.7	95.7	75.4	60.8
87.5°	0.0	0.6	0.6	0.6	5.1	14.1	11.8	3.4	1.7	1.7	2.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4
2.5°	299.3	297.6	290.9	284.1	278.0	271.2	265.0	258.8	252.1	247.0	240.8
5°	350.0	337.6	323.5	310.0	296.5	282.5	267.8	254.9	241.4	229.0	217.2
7.5°	401.2	377.0	357.9	333.7	311.7	289.8	269.5	248.7	229.6	211.6	194.7
10°	444.5	415.2	385.4	354.5	323.0	293.7	265.6	240.8	215.5	193.6	172.7
12.5°	479.9	442.8	406.2	367.4	332.0	294.8	259.9	230.1	200.3	175.6	154.2
15°	512.0	469.3	425.4	380.4	335.3	293.1	254.3	217.2	186.8	158.7	134.5
17.5°	537.9	489.0	439.4	388.8	340.4	290.9	247.0	208.2	172.7	143.5	119.8
20°	560.4	509.2	455.8	398.9	343.8	290.3	240.8	196.9	160.4	129.4	106.3
22.5°	581.2	530.0	472.6	411.9	348.8	289.8	235.2	188.5	149.7	118.7	95.7
25°	604.9	550.8	490.6	425.4	357.9	292.0	231.8	181.7	140.1	108.6	87.2
27.5°	631.3	574.5	512.0	442.3	369.7	296.5	230.7	174.4	131.7	99.0	80.5
30°	668.4	602.6	533.4	459.1	380.4	301.6	229.6	169.9	123.2	91.7	73.7
32.5°	701.1	630.2	557.0	476.6	392.2	306.7	229.0	163.7	115.3	84.4	68.6
35°	735.4	655.5	577.3	493.5	402.3	312.3	228.4	159.2	108.0	77.1	63.6
37.5°	765.2	676.9	593.0	508.1	413.6	317.3	229.0	155.3	101.3	70.9	59.1
40°	790.5	698.8	610.5	521.6	425.4	325.2	229.6	151.4	94.5	65.3	55.1
42.5°	813.0	719.6	629.1	536.8	438.9	334.2	232.9	148.0	88.9	60.2	51.2
45°	830.5	738.8	649.3	558.2	460.8	348.8	239.1	145.7	83.3	55.7	47.8
47.5°	848.5	766.9	683.6	591.9	492.9	371.9	249.8	145.2	78.8	52.3	45.0
50°	873.2	795.0	714.0	626.2	522.1	395.6	262.8	145.7	73.1	49.0	42.2
52.5°	891.3	823.7	753.4	685.9	591.9	467.6	312.8	155.9	70.3	46.1	38.8
55°	997.6	985.8	987.5	998.7	926.1	795.6	523.3	225.1	82.7	52.3	38.3
57.5°	1406.7	1448.3	1472.5	1471.9	1352.1	1121.4	702.8	289.2	92.3	60.8	45.6
60°	1944.6	1913.0	1868.6	1758.9	1599.6	1280.1	786.0	311.2	79.9	48.4	41.6
62.5°	2420.0	2235.5	2071.7	1893.9	1685.2	1335.2	802.9	309.5	69.8	36.6	29.3
65°	2716.5	2384.6	2120.1	1897.3	1651.4	1289.1	759.6	284.1	59.1	29.8	24.2
67.5°	2787.4	2304.1	1929.9	1645.8	1379.6	1003.2	557.6	213.8	46.1	24.8	21.4
69°	2632.7	2048.1	1599.1	1276.7	1003.8	665.6	344.9	135.0	35.4	22.5	19.7
70°	2421.7	1781.4	1302.6	1024.6	743.3	467.6	241.4	95.1	28.7	20.8	18.0
72.5°	1558.0	935.7	640.3	445.6	306.7	186.2	94.5	42.8	21.9	17.4	14.6
75°	604.3	346.0	250.9	190.7	149.1	103.5	57.4	27.6	18.6	14.6	11.3
77.5°	297.6	227.9	186.2	127.7	74.3	46.1	30.9	21.4	15.2	10.7	7.3
80°	235.2	156.4	93.4	58.0	43.9	33.2	23.6	17.4	11.3	6.8	5.1
82.5°	120.4	65.8	48.4	39.4	32.6	25.9	19.1	12.4	7.3	4.5	3.9
85°	37.7	27.6	24.8	24.2	22.5	18.6	13.5	7.9	4.5	2.8	2.8
87.5°	2.8	3.9	5.1	3.9	4.5	3.9	5.1	3.4	2.3	2.3	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4	259.4
2.5°	236.3	229.6	223.4	219.4	212.1	209.3	206.5	205.4	200.3	201.4	196.9
5°	206.5	194.7	185.7	176.7	168.2	162.0	157.0	150.8	145.7	143.5	139.0
7.5°	179.5	164.3	152.5	142.9	132.8	124.9	118.2	113.7	109.2	104.7	102.4
10°	155.9	139.5	126.0	116.5	106.9	100.2	95.1	91.7	88.9	87.2	86.6
12.5°	133.9	118.2	105.8	97.3	90.0	86.6	84.4	82.7	82.1	81.6	81.6
15°	117.0	101.3	91.7	85.5	82.1	80.5	79.9	78.8	77.6	77.1	77.1
17.5°	101.3	89.5	82.7	79.3	77.6	76.5	75.4	74.3	73.1	72.6	72.6
20°	90.6	81.0	77.6	75.4	73.7	72.6	70.9	69.8	69.2	68.6	68.1
22.5°	82.1	76.0	73.7	72.0	69.8	68.1	67.0	65.8	64.7	64.1	63.6
25°	76.0	72.0	70.3	68.1	65.8	64.1	62.5	60.8	59.6	59.1	58.0
27.5°	71.5	68.6	66.4	63.6	61.3	59.6	58.0	56.3	55.1	54.0	53.5
30°	67.5	64.7	61.9	59.6	56.8	55.1	52.9	51.2	50.6	49.5	48.4
32.5°	63.6	60.8	58.0	55.1	52.3	50.1	49.0	46.7	45.6	45.0	43.9
35°	59.1	56.3	52.9	50.6	47.8	45.6	43.9	42.2	41.1	39.9	39.4
37.5°	55.1	51.8	48.4	45.6	43.3	41.1	39.4	37.7	36.6	35.4	34.9
40°	50.6	47.3	43.9	41.1	38.8	37.1	35.4	33.8	32.6	32.1	32.1
42.5°	46.7	42.8	39.4	37.1	35.4	33.2	31.5	29.8	29.3	28.7	29.3
45°	42.8	38.8	36.0	33.8	32.1	29.8	28.1	27.0	26.4	27.0	27.6
47.5°	39.4	35.4	32.6	30.9	29.3	27.6	25.9	24.8	24.8	25.9	27.0
50°	36.0	32.1	29.8	28.7	27.0	25.3	23.1	22.5	23.1	24.2	25.3
52.5°	32.6	28.1	26.4	25.9	24.2	22.5	20.8	20.3	20.8	21.9	21.4
55°	29.3	24.8	24.2	23.6	21.9	19.7	18.0	18.0	18.0	17.4	16.3
57.5°	28.1	21.9	21.4	20.8	19.1	16.9	15.8	14.6	14.1	12.4	11.8
60°	29.3	19.7	19.7	18.6	16.9	14.6	12.9	11.3	10.1	9.0	9.0
62.5°	23.6	18.0	17.4	16.3	14.1	11.8	10.1	8.4	7.9	7.3	7.3
65°	19.1	16.3	15.2	13.5	11.8	9.6	7.9	6.8	6.2	6.2	6.8
67.5°	17.4	14.6	12.9	11.3	9.6	7.3	6.2	5.6	5.6	6.2	6.2
69°	16.3	13.5	11.8	10.1	8.4	6.8	5.6	5.6	5.6	5.6	6.2
70°	15.2	12.9	11.3	9.6	7.3	5.6	5.1	5.1	5.6	5.6	6.2
72.5°	11.8	10.1	9.6	7.9	5.6	5.1	4.5	5.1	5.1	5.6	5.6
75°	9.0	7.3	7.3	6.2	4.5	3.9	3.9	4.5	4.5	5.1	5.1
77.5°	6.2	5.1	5.1	4.5	3.9	3.4	3.4	3.9	4.5	4.5	5.1
80°	4.5	3.9	3.4	3.9	3.4	2.8	3.4	3.9	3.9	4.5	4.5
82.5°	3.4	3.4	3.4	3.4	2.8	2.8	3.4	3.4	3.9	4.5	4.5
85°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3.4	3.4	3.9	3.9
87.5°	1.7	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8	3.4	3.4
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: P151788

CATALOG NUMBER: TLM-E02-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	259.4	259.4	259.4	259.4
2.5°	195.8	195.2	193.0	193.6
5°	137.3	133.9	136.2	135.6
7.5°	100.7	100.2	99.6	100.7
10°	86.1	86.1	85.5	86.1
12.5°	81.0	81.0	81.0	81.0
15°	77.1	77.1	76.5	76.5
17.5°	72.6	72.6	72.6	72.0
20°	68.1	67.5	67.5	67.5
22.5°	63.0	62.5	62.5	62.5
25°	58.0	57.4	57.4	57.4
27.5°	52.9	52.3	51.8	51.8
30°	47.8	47.3	46.7	46.7
32.5°	42.8	42.2	41.6	41.6
35°	38.3	38.3	37.7	37.1
37.5°	34.3	34.3	34.3	34.3
40°	31.5	32.1	32.1	32.1
42.5°	29.8	30.4	30.9	31.5
45°	28.7	29.8	30.4	30.4
47.5°	28.1	28.7	29.3	29.3
50°	25.9	25.3	25.3	25.3
52.5°	20.8	19.7	19.1	18.6
55°	15.2	14.6	13.5	13.5
57.5°	10.7	10.7	10.1	10.1
60°	8.4	8.4	7.9	8.4
62.5°	7.3	7.3	7.3	7.3
65°	6.8	6.8	6.8	6.8
67.5°	6.8	6.8	6.8	6.8
69°	6.2	6.2	6.2	6.2
70°	6.2	6.2	6.2	6.2
72.5°	5.6	5.6	5.6	5.6
75°	5.1	5.6	5.6	5.6
77.5°	5.1	5.1	5.1	5.1
80°	4.5	4.5	5.1	5.1
82.5°	4.5	4.5	4.5	4.5
85°	3.9	3.9	4.5	4.5
87.5°	3.4	3.4	3.9	3.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)