

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: P151780

Luminaire Tested: **TLM-E01-LED-E1-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151780
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-E01-LED-E1-SL4-HSS
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2034.8 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
CIE Type: Direct

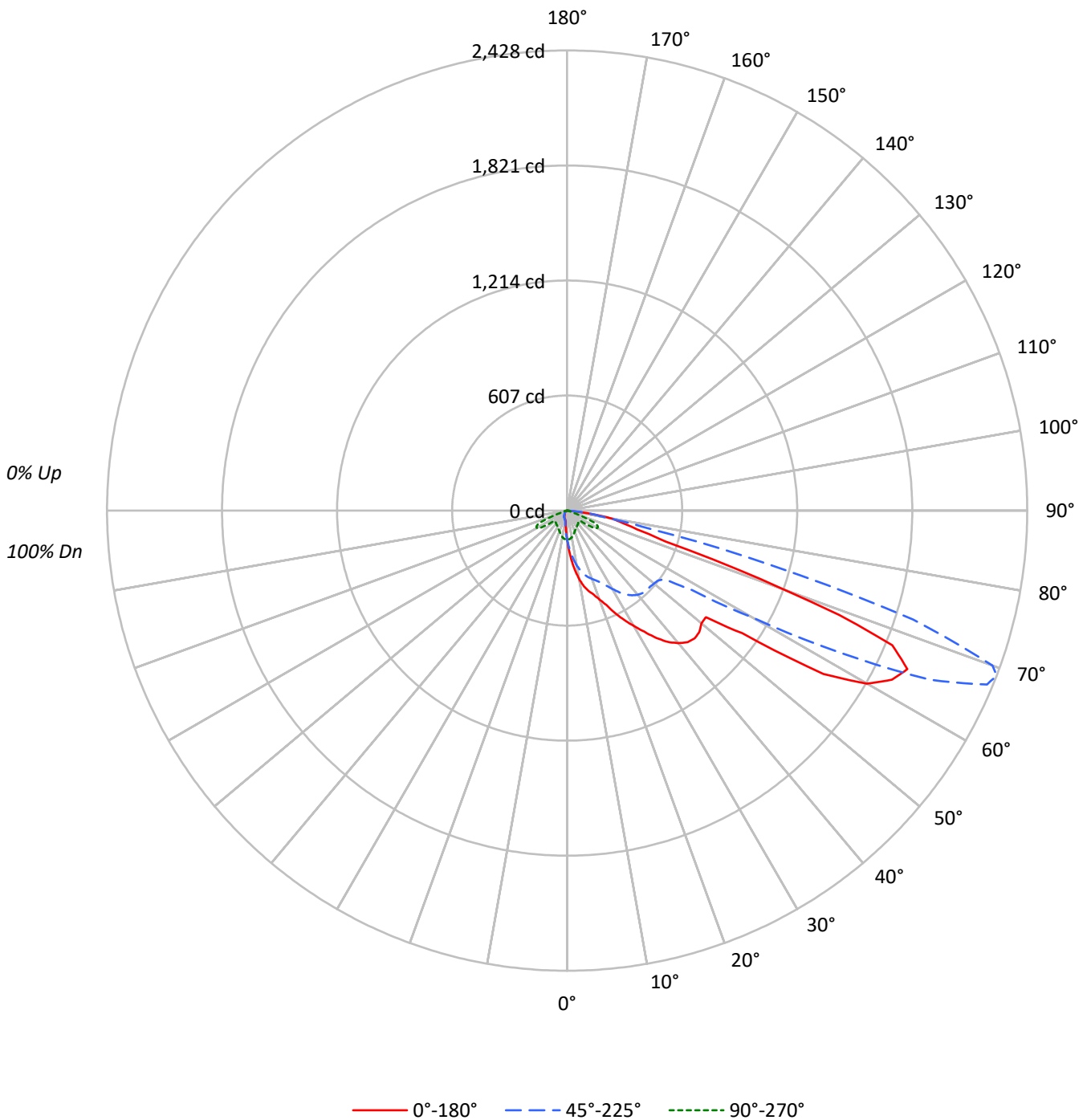
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P151780

CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS

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°	9732	9732	9732
5°	16633	9597	5104
10°	23679	9175	3279
15°	28796	8436	2969
20°	33603	7863	2695
25°	41589	7524	2375
30°	51325	7362	2025
35°	63437	7289	1701
40°	75464	7414	1570
45°	85309	7728	1612
50°	91146	8501	1478
55°	124553	14715	883
60°	231272	23339	633
65°	296751	25215	599
70°	224059	10423	685
75°	93281	3988	807
80°	85214	3756	1094
85°	7483	3414	1962



TEST NUMBER: P151780

CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.8	0.8
10°-20°	54.5	2.7
20°-30°	104.2	5.1
30°-40°	173.3	8.5
40°-50°	234.5	11.5
50°-60°	366.8	18.0
60°-70°	754.1	37.1
70°-80°	303.4	14.9
80°-90°	28.1	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°	174.5	8.6
0°-40°	347.8	17.1
0°-60°	949.2	46.6
0°-90°	2034.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2034.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	154	154	154	154	154	
5°	262	223	151	96	80	28
15°	439	348	129	48	45	126
25°	595	419	108	38	34	279
35°	821	541	94	27	22	515
45°	953	593	86	18	18	728
55°	1128	630	133	12	8	1138
65°	1981	2112	168	6	4	1815
75°	381	1112	16	2	3	511
85°	10	45	5	2	3	64
90°	0	0	0	0	0	



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CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7
2.5°	205.0	202.7	200.0	200.0	196.7	196.7	194.7	189.3	188.7	185.7	182.7
5°	261.7	259.7	256.3	253.3	250.7	246.0	242.7	236.3	229.3	222.7	216.7
7.5°	317.0	316.0	310.0	309.0	304.7	297.0	290.3	281.0	269.0	259.7	248.7
10°	368.3	366.0	364.7	359.0	352.7	344.3	334.0	322.7	308.7	294.0	278.3
12.5°	409.0	407.7	401.7	399.3	392.7	384.3	371.3	356.7	342.7	323.7	305.3
15°	439.3	437.0	433.0	429.3	421.3	414.0	402.0	386.0	369.0	348.3	326.3
17.5°	464.7	460.3	459.3	453.7	445.3	436.7	423.3	408.7	388.7	368.0	344.0
20°	498.7	492.7	490.7	482.3	472.7	460.7	445.3	427.0	406.0	383.3	358.7
22.5°	538.7	534.3	530.0	522.7	510.3	493.3	471.0	451.0	424.3	399.3	372.7
25°	595.3	591.7	584.7	574.7	559.3	539.0	512.0	482.7	451.3	419.3	388.0
27.5°	650.3	647.0	642.0	634.3	617.0	594.7	561.3	524.0	484.3	445.7	411.0
30°	702.0	699.0	694.0	686.3	671.0	649.0	611.3	571.3	522.0	477.0	435.3
32.5°	757.7	756.7	751.0	740.0	726.7	697.0	656.0	613.0	563.0	511.0	462.3
35°	820.7	813.0	807.7	796.7	774.0	742.3	694.3	647.3	594.7	541.3	487.0
37.5°	874.0	866.7	860.0	846.0	818.3	778.0	723.7	672.0	617.7	563.3	508.0
40°	913.0	909.3	901.3	883.0	852.0	804.0	745.3	689.0	634.3	579.7	525.0
42.5°	942.0	936.3	927.3	908.3	871.7	817.0	754.0	696.0	642.0	589.7	536.0
45°	952.7	948.0	939.7	919.0	879.3	820.7	753.7	694.0	642.3	592.7	543.3
47.5°	946.3	941.7	934.3	915.0	876.0	816.3	747.7	688.3	639.0	593.7	550.0
50°	925.3	922.7	917.0	900.7	865.7	808.0	742.3	685.3	638.3	598.7	559.3
52.5°	923.3	921.7	914.7	898.3	862.7	805.3	741.7	687.0	644.0	605.0	566.0
55°	1128.3	1104.7	1051.7	1006.7	932.7	844.7	775.3	714.0	668.0	630.0	602.7
57.5°	1603.7	1568.3	1498.7	1413.0	1243.0	1076.0	942.3	845.7	798.0	780.7	791.0
60°	1826.3	1820.0	1809.0	1768.3	1681.3	1537.7	1377.7	1204.7	1135.3	1129.3	1150.3
62.5°	1932.0	1928.0	1931.3	1926.3	1899.3	1857.3	1811.3	1736.7	1668.0	1623.7	1529.7
65°	1980.7	1983.3	2002.3	2017.3	2020.7	2031.7	2065.3	2158.3	2226.3	2112.0	1851.0
67.5°	1857.0	1872.7	1916.3	1971.0	2035.0	2097.0	2197.0	2393.0	2532.7	2398.3	2027.7
69°	1537.3	1545.0	1651.7	1754.7	1911.0	2020.3	2165.3	2422.3	2579.3	2427.7	2013.7
70°	1210.3	1217.3	1331.7	1471.7	1736.0	1876.7	2066.3	2372.7	2535.7	2388.7	1941.7
72.5°	546.0	536.0	576.3	651.3	938.7	1162.0	1493.7	1922.3	2092.0	1913.7	1452.7
75°	381.3	377.0	381.3	381.7	426.3	550.0	694.0	1042.0	1288.7	1112.0	694.0
77.5°	295.3	292.3	289.3	286.0	291.3	326.3	340.3	369.7	480.0	454.0	264.7
80°	233.7	231.0	238.3	236.0	236.0	240.0	237.3	226.3	205.7	190.7	170.7
82.5°	108.7	109.3	109.3	118.7	143.0	167.0	174.7	163.7	145.3	123.7	99.7
85°	10.3	11.7	19.7	30.3	60.3	68.0	68.3	56.7	56.7	44.7	36.0
87.5°	0.0	0.3	0.3	0.3	3.0	8.3	7.0	2.0	1.0	1.0	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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CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7
2.5°	177.3	176.3	172.3	168.3	164.7	160.7	157.0	153.3	149.3	146.3	142.7
5°	207.3	200.0	191.7	183.7	175.7	167.3	158.7	151.0	143.0	135.7	128.7
7.5°	237.7	223.3	212.0	197.7	184.7	171.7	159.7	147.3	136.0	125.3	115.3
10°	263.3	246.0	228.3	210.0	191.3	174.0	157.3	142.7	127.7	114.7	102.3
12.5°	284.3	262.3	240.7	217.7	196.7	174.7	154.0	136.3	118.7	104.0	91.3
15°	303.3	278.0	252.0	225.3	198.7	173.7	150.7	128.7	110.7	94.0	79.7
17.5°	318.7	289.7	260.3	230.3	201.7	172.3	146.3	123.3	102.3	85.0	71.0
20°	332.0	301.7	270.0	236.3	203.7	172.0	142.7	116.7	95.0	76.7	63.0
22.5°	344.3	314.0	280.0	244.0	206.7	171.7	139.3	111.7	88.7	70.3	56.7
25°	358.3	326.3	290.7	252.0	212.0	173.0	137.3	107.7	83.0	64.3	51.7
27.5°	374.0	340.3	303.3	262.0	219.0	175.7	136.7	103.3	78.0	58.7	47.7
30°	396.0	357.0	316.0	272.0	225.3	178.7	136.0	100.7	73.0	54.3	43.7
32.5°	415.3	373.3	330.0	282.3	232.3	181.7	135.7	97.0	68.3	50.0	40.7
35°	435.7	388.3	342.0	292.3	238.3	185.0	135.3	94.3	64.0	45.7	37.7
37.5°	453.3	401.0	351.3	301.0	245.0	188.0	135.7	92.0	60.0	42.0	35.0
40°	468.3	414.0	361.7	309.0	252.0	192.7	136.0	89.7	56.0	38.7	32.7
42.5°	481.7	426.3	372.7	318.0	260.0	198.0	138.0	87.7	52.7	35.7	30.3
45°	492.0	437.7	384.7	330.7	273.0	206.7	141.7	86.3	49.3	33.0	28.3
47.5°	502.7	454.3	405.0	350.7	292.0	220.3	148.0	86.0	46.7	31.0	26.7
50°	517.3	471.0	423.0	371.0	309.3	234.3	155.7	86.3	43.3	29.0	25.0
52.5°	528.0	488.0	446.3	406.3	350.7	277.0	185.3	92.3	41.7	27.3	23.0
55°	591.0	584.0	585.0	591.7	548.7	471.3	310.0	133.3	49.0	31.0	22.7
57.5°	833.3	858.0	872.3	872.0	801.0	664.3	416.3	171.3	54.7	36.0	27.0
60°	1152.0	1133.3	1107.0	1042.0	947.7	758.3	465.7	184.3	47.3	28.7	24.7
62.5°	1433.7	1324.3	1227.3	1122.0	998.3	791.0	475.7	183.3	41.3	21.7	17.3
65°	1609.3	1412.7	1256.0	1124.0	978.3	763.7	450.0	168.3	35.0	17.7	14.3
67.5°	1651.3	1365.0	1143.3	975.0	817.3	594.3	330.3	126.7	27.3	14.7	12.7
69°	1559.7	1213.3	947.3	756.3	594.7	394.3	204.3	80.0	21.0	13.3	11.7
70°	1434.7	1055.3	771.7	607.0	440.3	277.0	143.0	56.3	17.0	12.3	10.7
72.5°	923.0	554.3	379.3	264.0	181.7	110.3	56.0	25.3	13.0	10.3	8.7
75°	358.0	205.0	148.7	113.0	88.3	61.3	34.0	16.3	11.0	8.7	6.7
77.5°	176.3	135.0	110.3	75.7	44.0	27.3	18.3	12.7	9.0	6.3	4.3
80°	139.3	92.7	55.3	34.3	26.0	19.7	14.0	10.3	6.7	4.0	3.0
82.5°	71.3	39.0	28.7	23.3	19.3	15.3	11.3	7.3	4.3	2.7	2.3
85°	22.3	16.3	14.7	14.3	13.3	11.0	8.0	4.7	2.7	1.7	1.7
87.5°	1.7	2.3	3.0	2.3	2.7	2.3	3.0	2.0	1.3	1.3	1.0
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: P151780

CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7	153.7
2.5°	140.0	136.0	132.3	130.0	125.7	124.0	122.3	121.7	118.7	119.3	116.7
5°	122.3	115.3	110.0	104.7	99.7	96.0	93.0	89.3	86.3	85.0	82.3
7.5°	106.3	97.3	90.3	84.7	78.7	74.0	70.0	67.3	64.7	62.0	60.7
10°	92.3	82.7	74.7	69.0	63.3	59.3	56.3	54.3	52.7	51.7	51.3
12.5°	79.3	70.0	62.7	57.7	53.3	51.3	50.0	49.0	48.7	48.3	48.3
15°	69.3	60.0	54.3	50.7	48.7	47.7	47.3	46.7	46.0	45.7	45.7
17.5°	60.0	53.0	49.0	47.0	46.0	45.3	44.7	44.0	43.3	43.0	43.0
20°	53.7	48.0	46.0	44.7	43.7	43.0	42.0	41.3	41.0	40.7	40.3
22.5°	48.7	45.0	43.7	42.7	41.3	40.3	39.7	39.0	38.3	38.0	37.7
25°	45.0	42.7	41.7	40.3	39.0	38.0	37.0	36.0	35.3	35.0	34.3
27.5°	42.3	40.7	39.3	37.7	36.3	35.3	34.3	33.3	32.7	32.0	31.7
30°	40.0	38.3	36.7	35.3	33.7	32.7	31.3	30.3	30.0	29.3	28.7
32.5°	37.7	36.0	34.3	32.7	31.0	29.7	29.0	27.7	27.0	26.7	26.0
35°	35.0	33.3	31.3	30.0	28.3	27.0	26.0	25.0	24.3	23.7	23.3
37.5°	32.7	30.7	28.7	27.0	25.7	24.3	23.3	22.3	21.7	21.0	20.7
40°	30.0	28.0	26.0	24.3	23.0	22.0	21.0	20.0	19.3	19.0	19.0
42.5°	27.7	25.3	23.3	22.0	21.0	19.7	18.7	17.7	17.3	17.0	17.3
45°	25.3	23.0	21.3	20.0	19.0	17.7	16.7	16.0	15.7	16.0	16.3
47.5°	23.3	21.0	19.3	18.3	17.3	16.3	15.3	14.7	14.7	15.3	16.0
50°	21.3	19.0	17.7	17.0	16.0	15.0	13.7	13.3	13.7	14.3	15.0
52.5°	19.3	16.7	15.7	15.3	14.3	13.3	12.3	12.0	12.3	13.0	12.7
55°	17.3	14.7	14.3	14.0	13.0	11.7	10.7	10.7	10.7	10.3	9.7
57.5°	16.7	13.0	12.7	12.3	11.3	10.0	9.3	8.7	8.3	7.3	7.0
60°	17.3	11.7	11.7	11.0	10.0	8.7	7.7	6.7	6.0	5.3	5.3
62.5°	14.0	10.7	10.3	9.7	8.3	7.0	6.0	5.0	4.7	4.3	4.3
65°	11.3	9.7	9.0	8.0	7.0	5.7	4.7	4.0	3.7	3.7	4.0
67.5°	10.3	8.7	7.7	6.7	5.7	4.3	3.7	3.3	3.3	3.7	3.7
69°	9.7	8.0	7.0	6.0	5.0	4.0	3.3	3.3	3.3	3.3	3.7
70°	9.0	7.7	6.7	5.7	4.3	3.3	3.0	3.0	3.3	3.3	3.7
72.5°	7.0	6.0	5.7	4.7	3.3	3.0	2.7	3.0	3.0	3.3	3.3
75°	5.3	4.3	4.3	3.7	2.7	2.3	2.3	2.7	2.7	3.0	3.0
77.5°	3.7	3.0	3.0	2.7	2.3	2.0	2.0	2.3	2.7	2.7	3.0
80°	2.7	2.3	2.0	2.3	2.0	1.7	2.0	2.3	2.3	2.7	2.7
82.5°	2.0	2.0	2.0	2.0	1.7	1.7	2.0	2.0	2.3	2.7	2.7
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.3	2.3
87.5°	1.0	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7	2.0	2.0
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: P151780

CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	153.7	153.7	153.7	153.7
2.5°	116.0	115.7	114.3	114.7
5°	81.3	79.3	80.7	80.3
7.5°	59.7	59.3	59.0	59.7
10°	51.0	51.0	50.7	51.0
12.5°	48.0	48.0	48.0	48.0
15°	45.7	45.7	45.3	45.3
17.5°	43.0	43.0	43.0	42.7
20°	40.3	40.0	40.0	40.0
22.5°	37.3	37.0	37.0	37.0
25°	34.3	34.0	34.0	34.0
27.5°	31.3	31.0	30.7	30.7
30°	28.3	28.0	27.7	27.7
32.5°	25.3	25.0	24.7	24.7
35°	22.7	22.7	22.3	22.0
37.5°	20.3	20.3	20.3	20.3
40°	18.7	19.0	19.0	19.0
42.5°	17.7	18.0	18.3	18.7
45°	17.0	17.7	18.0	18.0
47.5°	16.7	17.0	17.3	17.3
50°	15.3	15.0	15.0	15.0
52.5°	12.3	11.7	11.3	11.0
55°	9.0	8.7	8.0	8.0
57.5°	6.3	6.3	6.0	6.0
60°	5.0	5.0	4.7	5.0
62.5°	4.3	4.3	4.3	4.3
65°	4.0	4.0	4.0	4.0
67.5°	4.0	4.0	4.0	4.0
69°	3.7	3.7	3.7	3.7
70°	3.7	3.7	3.7	3.7
72.5°	3.3	3.3	3.3	3.3
75°	3.0	3.3	3.3	3.3
77.5°	3.0	3.0	3.0	3.0
80°	2.7	2.7	3.0	3.0
82.5°	2.7	2.7	2.7	2.7
85°	2.3	2.3	2.7	2.7
87.5°	2.0	2.0	2.3	2.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)