

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: P151781

Luminaire Tested: **TLM-E01-LED-E1-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151781
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-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

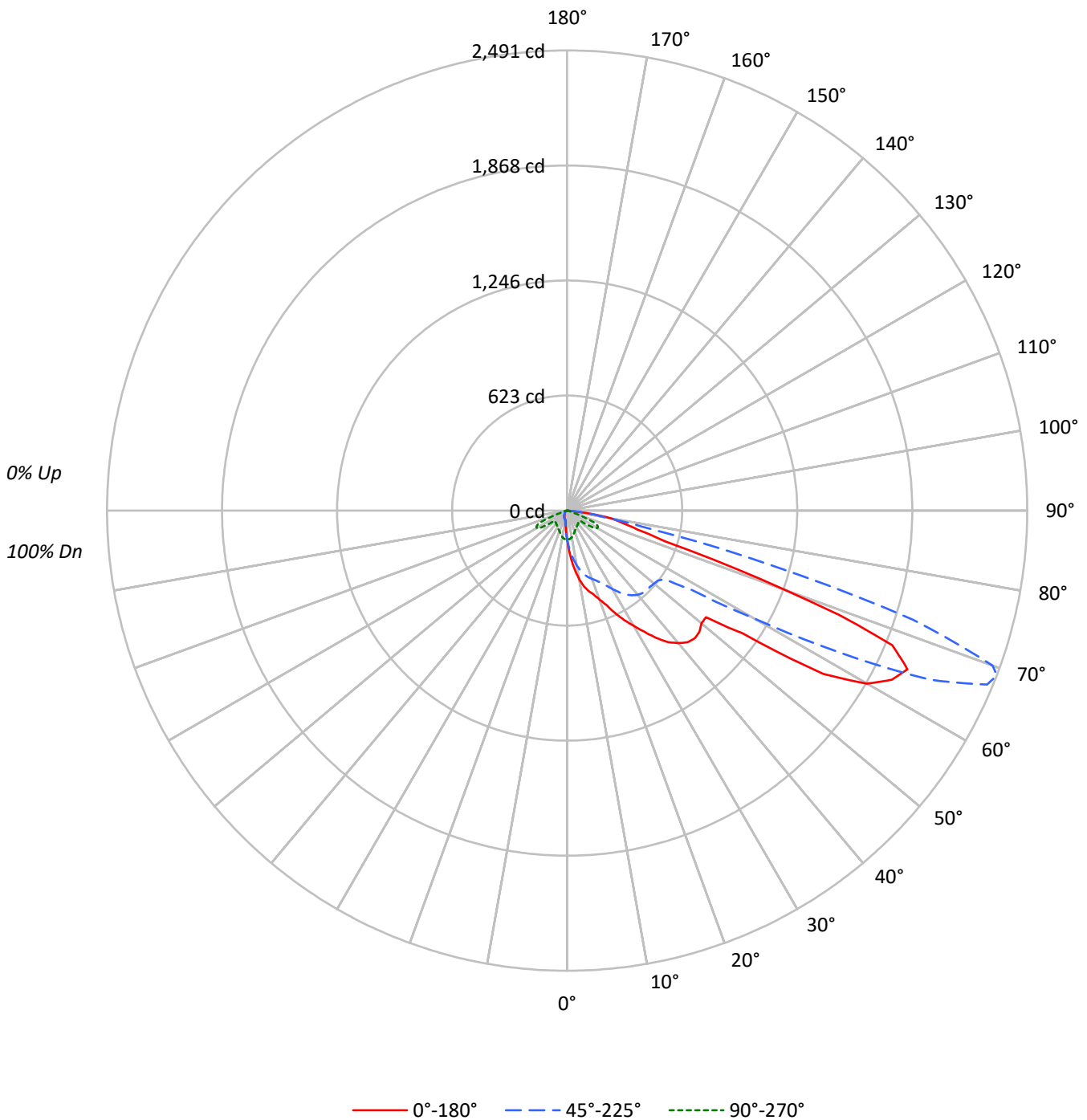
Lumens per Lamp: N/A
Luminaire Lumens: 2087.9 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
CIE Type: Direct

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



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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°	9985	9985	9985
5°	17066	9845	5237
10°	24297	9413	3363
15°	29550	8653	3048
20°	34479	8065	2763
25°	42679	7720	2438
30°	52663	7553	2076
35°	65091	7482	1747
40°	77431	7604	1612
45°	87529	7934	1657
50°	93530	8727	1517
55°	127810	15101	905
60°	237313	23947	646
65°	304496	25874	614
70°	229909	10700	703
75°	95727	4110	832
80°	87438	3865	1130
85°	7701	3487	1962



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.2	0.8
10°-20°	55.9	2.7
20°-30°	106.9	5.1
30°-40°	177.9	8.5
40°-50°	240.7	11.5
50°-60°	376.4	18.0
60°-70°	773.8	37.1
70°-80°	311.4	14.9
80°-90°	28.8	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°	179.0	8.6
0°-40°	356.9	17.1
0°-60°	973.9	46.6
0°-90°	2087.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2087.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	158	158	158	158	158	
5°	268	228	155	98	82	29
15°	451	357	132	49	46	129
25°	611	430	110	39	35	286
35°	842	556	97	28	23	528
45°	978	608	89	18	18	747
55°	1158	646	137	12	8	1167
65°	2032	2167	173	6	4	1862
75°	391	1141	17	2	3	525
85°	11	46	5	2	3	66
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°	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7
2.5°	210.4	208.0	205.2	205.2	201.8	201.8	199.7	194.3	193.6	190.5	187.4
5°	268.5	266.4	263.0	259.9	257.2	252.4	249.0	242.5	235.3	228.5	222.3
7.5°	325.3	324.2	318.1	317.1	312.6	304.8	297.9	288.3	276.0	266.4	255.2
10°	377.9	375.6	374.2	368.4	361.9	353.3	342.7	331.1	316.7	301.7	285.6
12.5°	419.7	418.3	412.2	409.8	402.9	394.4	381.0	366.0	351.6	332.1	313.3
15°	450.8	448.4	444.3	440.5	432.3	424.8	412.5	396.1	378.6	357.4	334.9
17.5°	476.8	472.4	471.3	465.5	457.0	448.1	434.4	419.3	398.8	377.6	353.0
20°	511.7	505.5	503.5	494.9	485.0	472.7	457.0	438.1	416.6	393.3	368.0
22.5°	552.7	548.3	543.8	536.3	523.7	506.2	483.3	462.8	435.4	409.8	382.4
25°	610.9	607.1	599.9	589.7	573.9	553.1	525.4	495.3	463.1	430.3	398.1
27.5°	667.3	663.9	658.8	650.9	633.1	610.2	576.0	537.7	497.0	457.3	421.7
30°	720.3	717.2	712.1	704.3	688.5	665.9	627.3	586.2	535.6	489.5	446.7
32.5°	777.4	776.4	770.6	759.3	745.6	715.2	673.1	629.0	577.7	524.3	474.4
35°	842.1	834.2	828.8	817.5	794.2	761.7	712.5	664.2	610.2	555.5	499.7
37.5°	896.8	889.3	882.5	868.1	839.7	798.3	742.6	689.5	633.8	578.0	521.3
40°	936.8	933.1	924.9	906.1	874.2	825.0	764.8	707.0	650.9	594.8	538.7
42.5°	966.6	960.8	951.5	932.0	894.4	838.3	773.7	714.2	658.8	605.1	550.0
45°	977.5	972.7	964.2	943.0	902.3	842.1	773.3	712.1	659.1	608.1	557.5
47.5°	971.0	966.2	958.7	938.9	898.9	837.6	767.2	706.3	655.7	609.2	564.4
50°	949.5	946.8	940.9	924.2	888.3	829.1	761.7	703.2	655.0	614.3	573.9
52.5°	947.4	945.7	938.5	921.8	885.2	826.4	761.0	704.9	660.8	620.8	580.8
55°	1157.8	1133.5	1079.1	1032.9	957.0	866.7	795.6	732.6	685.4	646.4	618.4
57.5°	1645.5	1609.3	1537.8	1449.9	1275.4	1104.1	966.9	867.7	818.8	801.0	811.6
60°	1874.0	1867.5	1856.2	1814.5	1725.2	1577.8	1413.6	1236.1	1165.0	1158.8	1180.4
62.5°	1982.4	1978.3	1981.8	1976.6	1948.9	1905.8	1858.6	1782.0	1711.5	1666.1	1569.6
65°	2032.4	2035.1	2054.6	2070.0	2073.4	2084.7	2119.2	2214.7	2284.5	2167.1	1899.3
67.5°	1905.5	1921.6	1966.4	2022.5	2088.1	2151.7	2254.4	2455.5	2598.8	2460.9	2080.6
69°	1577.5	1585.3	1694.8	1800.5	1960.9	2073.1	2221.9	2485.6	2646.7	2491.0	2066.2
70°	1241.9	1249.1	1366.4	1510.1	1781.3	1925.7	2120.3	2434.6	2601.9	2451.0	1992.4
72.5°	560.3	550.0	591.4	668.3	963.2	1192.3	1532.7	1972.5	2146.6	1963.6	1490.6
75°	391.3	386.8	391.3	391.6	437.5	564.4	712.1	1069.2	1322.3	1141.0	712.1
77.5°	303.0	300.0	296.9	293.5	298.9	334.9	349.2	379.3	492.5	465.9	271.6
80°	239.8	237.0	244.6	242.2	242.2	246.3	243.5	232.2	211.0	195.6	175.1
82.5°	111.5	112.2	112.2	121.8	146.7	171.4	179.2	167.9	149.1	126.9	102.3
85°	10.6	12.0	20.2	31.1	61.9	69.8	70.1	58.1	58.1	45.8	36.9
87.5°	0.0	0.3	0.3	0.3	3.1	8.6	7.2	2.1	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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7
2.5°	182.0	180.9	176.8	172.7	169.0	164.9	161.1	157.3	153.2	150.2	146.4
5°	212.7	205.2	196.7	188.5	180.3	171.7	162.8	154.9	146.7	139.2	132.0
7.5°	243.9	229.2	217.5	202.8	189.5	176.1	163.8	151.2	139.6	128.6	118.3
10°	270.2	252.4	234.3	215.5	196.3	178.5	161.4	146.4	131.0	117.7	105.0
12.5°	291.8	269.2	246.9	223.3	201.8	179.2	158.0	139.9	121.8	106.7	93.7
15°	311.3	285.3	258.6	231.2	203.9	178.2	154.6	132.0	113.6	96.5	81.7
17.5°	327.0	297.2	267.1	236.3	206.9	176.8	150.2	126.6	105.0	87.2	72.9
20°	340.7	309.5	277.0	242.5	209.0	176.5	146.4	119.7	97.5	78.7	64.6
22.5°	353.3	322.2	287.3	250.4	212.1	176.1	143.0	114.6	91.0	72.2	58.1
25°	367.7	334.9	298.3	258.6	217.5	177.5	140.9	110.5	85.2	66.0	53.0
27.5°	383.8	349.2	311.3	268.8	224.7	180.3	140.2	106.0	80.0	60.2	48.9
30°	406.3	366.3	324.2	279.1	231.2	183.3	139.6	103.3	74.9	55.8	44.8
32.5°	426.2	383.1	338.6	289.7	238.4	186.4	139.2	99.5	70.1	51.3	41.7
35°	447.0	398.5	350.9	300.0	244.6	189.8	138.9	96.8	65.7	46.9	38.6
37.5°	465.2	411.5	360.5	308.9	251.4	192.9	139.2	94.4	61.6	43.1	35.9
40°	480.6	424.8	371.1	317.1	258.6	197.7	139.6	92.0	57.5	39.7	33.5
42.5°	494.2	437.5	382.4	326.3	266.8	203.2	141.6	90.0	54.0	36.6	31.1
45°	504.8	449.1	394.7	339.3	280.1	212.1	145.4	88.6	50.6	33.9	29.1
47.5°	515.8	466.2	415.6	359.8	299.6	226.1	151.9	88.2	47.9	31.8	27.4
50°	530.8	483.3	434.0	380.7	317.4	240.5	159.7	88.6	44.5	29.8	25.7
52.5°	541.8	500.7	458.0	416.9	359.8	284.2	190.2	94.7	42.8	28.0	23.6
55°	606.4	599.2	600.3	607.1	563.0	483.6	318.1	136.8	50.3	31.8	23.3
57.5°	855.1	880.4	895.1	894.8	821.9	681.7	427.2	175.8	56.1	36.9	27.7
60°	1182.1	1162.9	1135.9	1069.2	972.4	778.1	477.8	189.1	48.6	29.4	25.3
62.5°	1471.1	1358.9	1259.4	1151.3	1024.4	811.6	488.1	188.1	42.4	22.2	17.8
65°	1651.3	1449.5	1288.8	1153.3	1003.9	783.6	461.7	172.7	35.9	18.1	14.7
67.5°	1694.4	1400.6	1173.2	1000.5	838.7	609.8	339.0	130.0	28.0	15.0	13.0
69°	1600.4	1245.0	972.1	776.1	610.2	404.6	209.7	82.1	21.5	13.7	12.0
70°	1472.1	1082.9	791.8	622.8	451.8	284.2	146.7	57.8	17.4	12.7	10.9
72.5°	947.1	568.8	389.2	270.9	186.4	113.2	57.5	26.0	13.3	10.6	8.9
75°	367.3	210.4	152.5	115.9	90.6	62.9	34.9	16.8	11.3	8.9	6.8
77.5°	180.9	138.5	113.2	77.6	45.1	28.0	18.8	13.0	9.2	6.5	4.4
80°	143.0	95.1	56.8	35.2	26.7	20.2	14.4	10.6	6.8	4.1	3.1
82.5°	73.2	40.0	29.4	23.9	19.8	15.7	11.6	7.5	4.4	2.7	2.4
85°	22.9	16.8	15.0	14.7	13.7	11.3	8.2	4.8	2.7	1.7	1.7
87.5°	1.7	2.4	3.1	2.4	2.7	2.4	3.1	2.1	1.4	1.4	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7	157.7
2.5°	143.7	139.6	135.8	133.4	128.9	127.2	125.5	124.8	121.8	122.4	119.7
5°	125.5	118.3	112.9	107.4	102.3	98.5	95.4	91.7	88.6	87.2	84.5
7.5°	109.1	99.9	92.7	86.9	80.7	75.9	71.8	69.1	66.4	63.6	62.3
10°	94.7	84.8	76.6	70.8	65.0	60.9	57.8	55.8	54.0	53.0	52.7
12.5°	81.4	71.8	64.3	59.2	54.7	52.7	51.3	50.3	49.9	49.6	49.6
15°	71.1	61.6	55.8	52.0	49.9	48.9	48.6	47.9	47.2	46.9	46.9
17.5°	61.6	54.4	50.3	48.2	47.2	46.5	45.8	45.1	44.5	44.1	44.1
20°	55.1	49.3	47.2	45.8	44.8	44.1	43.1	42.4	42.1	41.7	41.4
22.5°	49.9	46.2	44.8	43.8	42.4	41.4	40.7	40.0	39.3	39.0	38.6
25°	46.2	43.8	42.8	41.4	40.0	39.0	38.0	36.9	36.3	35.9	35.2
27.5°	43.4	41.7	40.4	38.6	37.3	36.3	35.2	34.2	33.5	32.8	32.5
30°	41.0	39.3	37.6	36.3	34.5	33.5	32.2	31.1	30.8	30.1	29.4
32.5°	38.6	36.9	35.2	33.5	31.8	30.4	29.8	28.4	27.7	27.4	26.7
35°	35.9	34.2	32.2	30.8	29.1	27.7	26.7	25.7	25.0	24.3	23.9
37.5°	33.5	31.5	29.4	27.7	26.3	25.0	23.9	22.9	22.2	21.5	21.2
40°	30.8	28.7	26.7	25.0	23.6	22.6	21.5	20.5	19.8	19.5	19.5
42.5°	28.4	26.0	23.9	22.6	21.5	20.2	19.2	18.1	17.8	17.4	17.8
45°	26.0	23.6	21.9	20.5	19.5	18.1	17.1	16.4	16.1	16.4	16.8
47.5°	23.9	21.5	19.8	18.8	17.8	16.8	15.7	15.0	15.0	15.7	16.4
50°	21.9	19.5	18.1	17.4	16.4	15.4	14.0	13.7	14.0	14.7	15.4
52.5°	19.8	17.1	16.1	15.7	14.7	13.7	12.7	12.3	12.7	13.3	13.0
55°	17.8	15.0	14.7	14.4	13.3	12.0	10.9	10.9	10.9	10.6	9.9
57.5°	17.1	13.3	13.0	12.7	11.6	10.3	9.6	8.9	8.6	7.5	7.2
60°	17.8	12.0	12.0	11.3	10.3	8.9	7.9	6.8	6.2	5.5	5.5
62.5°	14.4	10.9	10.6	9.9	8.6	7.2	6.2	5.1	4.8	4.4	4.4
65°	11.6	9.9	9.2	8.2	7.2	5.8	4.8	4.1	3.8	3.8	4.1
67.5°	10.6	8.9	7.9	6.8	5.8	4.4	3.8	3.4	3.4	3.8	3.8
69°	9.9	8.2	7.2	6.2	5.1	4.1	3.4	3.4	3.4	3.4	3.8
70°	9.2	7.9	6.8	5.8	4.4	3.4	3.1	3.1	3.4	3.4	3.8
72.5°	7.2	6.2	5.8	4.8	3.4	3.1	2.7	3.1	3.1	3.4	3.4
75°	5.5	4.4	4.4	3.8	2.7	2.4	2.4	2.7	2.7	3.1	3.1
77.5°	3.8	3.1	3.1	2.7	2.4	2.1	2.1	2.4	2.7	2.7	3.1
80°	2.7	2.4	2.1	2.4	2.1	1.7	2.1	2.4	2.4	2.7	2.7
82.5°	2.1	2.1	2.1	2.1	1.7	1.7	2.1	2.1	2.4	2.7	2.7
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.1	2.1	2.4	2.4
87.5°	1.0	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7	2.1	2.1
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: P151781

CATALOG NUMBER: TLM-E01-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	157.7	157.7	157.7	157.7
2.5°	119.0	118.7	117.3	117.7
5°	83.5	81.4	82.8	82.4
7.5°	61.2	60.9	60.5	61.2
10°	52.3	52.3	52.0	52.3
12.5°	49.3	49.3	49.3	49.3
15°	46.9	46.9	46.5	46.5
17.5°	44.1	44.1	44.1	43.8
20°	41.4	41.0	41.0	41.0
22.5°	38.3	38.0	38.0	38.0
25°	35.2	34.9	34.9	34.9
27.5°	32.2	31.8	31.5	31.5
30°	29.1	28.7	28.4	28.4
32.5°	26.0	25.7	25.3	25.3
35°	23.3	23.3	22.9	22.6
37.5°	20.9	20.9	20.9	20.9
40°	19.2	19.5	19.5	19.5
42.5°	18.1	18.5	18.8	19.2
45°	17.4	18.1	18.5	18.5
47.5°	17.1	17.4	17.8	17.8
50°	15.7	15.4	15.4	15.4
52.5°	12.7	12.0	11.6	11.3
55°	9.2	8.9	8.2	8.2
57.5°	6.5	6.5	6.2	6.2
60°	5.1	5.1	4.8	5.1
62.5°	4.4	4.4	4.4	4.4
65°	4.1	4.1	4.1	4.1
67.5°	4.1	4.1	4.1	4.1
69°	3.8	3.8	3.8	3.8
70°	3.8	3.8	3.8	3.8
72.5°	3.4	3.4	3.4	3.4
75°	3.1	3.4	3.4	3.4
77.5°	3.1	3.1	3.1	3.1
80°	2.7	2.7	3.1	3.1
82.5°	2.7	2.7	2.7	2.7
85°	2.4	2.4	2.7	2.7
87.5°	2.1	2.1	2.4	2.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)