

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: P151821

Luminaire Tested: **TLM-E05-LED-E1-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P151821
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-E05-LED-E1-SL4-HSS-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (105) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

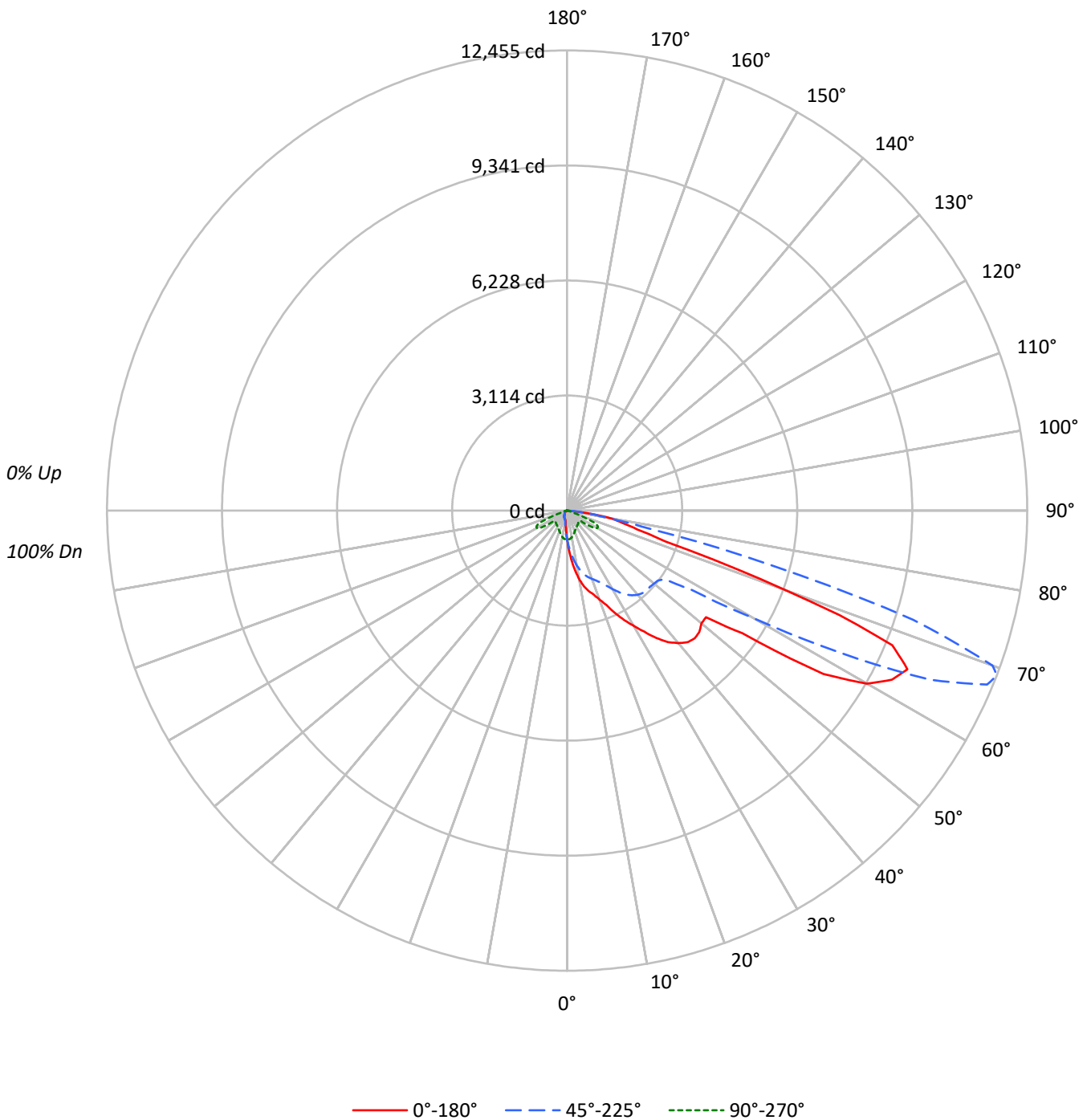
Lumens per Lamp: N/A
Luminaire Lumens: 10439.6 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 4.24 / 0.98 / 4.1
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 127.3
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°	10224	10224	10224
5°	17477	10085	5366
10°	24885	9639	3446
15°	30262	8863	3123
20°	35308	8261	2832
25°	43706	7904	2496
30°	53933	7734	2125
35°	66659	7663	1787
40°	79300	7787	1651
45°	89642	8123	1693
50°	95781	8936	1554
55°	130887	15468	927
60°	243034	24529	667
65°	311831	26501	629
70°	235453	10958	713
75°	98029	4199	857
80°	89530	3958	1150
85°	7886	3556	2039



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	0.8
10°-20°	279.4	2.7
20°-30°	534.7	5.1
30°-40°	889.3	8.5
40°-50°	1203.3	11.5
50°-60°	1881.9	18.0
60°-70°	3869.1	37.1
70°-80°	1556.9	14.9
80°-90°	144.0	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°	895.2	8.6
0°-40°	1784.4	17.1
0°-60°	4869.6	46.6
0°-90°	10439.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10439.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	788	788	788	788	788	
5°	1342	1142	775	492	412	145
15°	2254	1787	660	245	233	644
25°	3054	2151	552	195	174	1430
35°	4210	2777	484	138	113	2640
45°	4888	3041	443	91	92	3736
55°	5789	3232	684	60	41	5837
65°	10162	10836	864	29	20	9309
75°	1956	5705	84	12	17	2623
85°	53	229	24	9	14	328
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°	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4
2.5°	1051.8	1039.8	1026.1	1026.1	1009.0	1009.0	998.7	971.4	968.0	952.6	937.2
5°	1342.5	1332.2	1315.1	1299.7	1286.1	1262.1	1245.0	1212.5	1176.6	1142.4	1111.6
7.5°	1626.4	1621.2	1590.5	1585.3	1563.1	1523.8	1489.6	1441.7	1380.1	1332.2	1275.8
10°	1889.7	1877.8	1870.9	1841.9	1809.4	1766.6	1713.6	1655.5	1583.6	1508.4	1428.0
12.5°	2098.4	2091.5	2060.8	2048.8	2014.6	1971.8	1905.1	1829.9	1758.1	1660.6	1566.5
15°	2254.0	2242.0	2221.5	2202.7	2161.7	2124.0	2062.5	1980.4	1893.2	1787.1	1674.3
17.5°	2384.0	2361.8	2356.6	2327.5	2284.8	2240.3	2171.9	2096.7	1994.1	1888.0	1764.9
20°	2558.4	2527.6	2517.4	2474.6	2425.0	2363.5	2284.8	2190.7	2083.0	1966.7	1840.1
22.5°	2763.6	2741.4	2719.2	2681.6	2618.3	2531.1	2416.5	2313.9	2177.1	2048.8	1912.0
25°	3054.4	3035.6	2999.6	2948.3	2869.7	2765.4	2626.8	2476.3	2315.6	2151.4	1990.6
27.5°	3336.6	3319.5	3293.8	3254.5	3165.5	3051.0	2879.9	2688.4	2484.9	2286.5	2108.6
30°	3601.6	3586.2	3560.6	3521.3	3442.6	3329.7	3136.5	2931.2	2678.1	2447.3	2233.5
32.5°	3887.2	3882.1	3853.0	3796.6	3728.2	3576.0	3365.6	3145.0	2888.5	2621.7	2372.0
35°	4210.5	4171.1	4143.8	4087.3	3971.0	3808.6	3562.3	3321.2	3051.0	2777.3	2498.6
37.5°	4484.1	4446.5	4412.3	4340.4	4198.5	3991.6	3712.8	3447.7	3169.0	2890.2	2606.3
40°	4684.2	4665.4	4624.3	4530.3	4371.2	4124.9	3824.0	3534.9	3254.5	2974.0	2693.5
42.5°	4833.0	4803.9	4757.7	4660.2	4472.1	4191.6	3868.4	3570.8	3293.8	3025.3	2750.0
45°	4887.7	4863.7	4821.0	4715.0	4511.4	4210.5	3866.7	3560.6	3295.5	3040.7	2787.6
47.5°	4855.2	4831.2	4793.6	4694.4	4494.3	4188.2	3835.9	3531.5	3278.4	3045.8	2821.8
50°	4747.4	4733.8	4704.7	4620.9	4441.3	4145.5	3808.6	3516.1	3275.0	3071.5	2869.7
52.5°	4737.2	4728.6	4692.7	4608.9	4425.9	4131.8	3805.1	3524.7	3304.1	3104.0	2903.9
55°	5788.9	5667.5	5395.6	5164.7	4785.1	4333.6	3977.9	3663.2	3427.2	3232.2	3092.0
57.5°	8227.7	8046.4	7689.0	7249.4	6377.2	5520.4	4834.7	4338.7	4094.2	4005.2	4058.2
60°	9370.1	9337.6	9281.1	9072.5	8626.1	7889.0	7068.2	6180.6	5824.9	5794.1	5901.8
62.5°	9912.2	9891.7	9908.8	9883.1	9744.6	9529.1	9293.1	8910.0	8557.7	8330.3	7848.0
65°	10161.9	10175.5	10273.0	10350.0	10367.1	10423.5	10596.2	11073.4	11422.3	10835.7	9496.6
67.5°	9527.4	9607.8	9831.8	10112.3	10440.6	10758.7	11271.8	12277.4	12993.9	12304.7	10403.0
69°	7887.3	7926.7	8473.9	9002.4	9804.4	10365.4	11109.3	12427.8	13233.3	12455.2	10331.2
70°	6209.6	6245.6	6832.2	7550.4	8906.6	9628.3	10601.4	12173.0	13009.3	12255.1	9961.8
72.5°	2801.3	2750.0	2956.9	3341.7	4815.9	5961.7	7663.3	9862.6	10733.1	9818.1	7452.9
75°	1956.4	1934.2	1956.4	1958.2	2187.3	2821.8	3560.6	5346.0	6611.5	5705.1	3560.6
77.5°	1515.2	1499.8	1484.4	1467.3	1494.7	1674.3	1746.1	1896.6	2462.7	2329.3	1357.9
80°	1198.8	1185.2	1222.8	1210.8	1210.8	1231.3	1217.6	1161.2	1055.2	978.2	875.6
82.5°	557.5	560.9	560.9	608.8	733.7	856.8	896.1	839.7	745.6	634.5	511.3
85°	53.0	59.9	100.9	155.6	309.5	348.9	350.6	290.7	290.7	229.2	184.7
87.5°	0.0	1.7	1.7	1.7	15.4	42.8	35.9	10.3	5.1	5.1	8.6
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°	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4
2.5°	909.8	904.7	884.2	863.6	844.8	824.3	805.5	786.7	766.2	750.8	732.0
5°	1063.7	1026.1	983.4	942.3	901.3	858.5	814.0	774.7	733.7	696.0	660.1
7.5°	1219.4	1145.8	1087.7	1014.1	947.4	880.7	819.2	755.9	697.8	643.0	591.7
10°	1351.0	1262.1	1171.5	1077.4	981.6	892.7	807.2	732.0	655.0	588.3	525.0
12.5°	1458.8	1345.9	1234.7	1116.7	1009.0	896.1	790.1	699.5	608.8	533.6	468.6
15°	1556.3	1426.3	1292.9	1156.1	1019.3	891.0	773.0	660.1	567.8	482.3	408.7
17.5°	1634.9	1486.1	1335.6	1181.7	1034.7	884.2	750.8	632.8	525.0	436.1	364.3
20°	1703.3	1547.7	1385.2	1212.5	1044.9	882.5	732.0	598.6	487.4	393.3	323.2
22.5°	1766.6	1611.0	1436.5	1251.8	1060.3	880.7	714.9	572.9	454.9	360.8	290.7
25°	1838.4	1674.3	1491.3	1292.9	1087.7	887.6	704.6	552.4	425.8	330.1	265.1
27.5°	1918.8	1746.1	1556.3	1344.2	1123.6	901.3	701.2	530.2	400.2	301.0	244.6
30°	2031.7	1831.6	1621.2	1395.5	1156.1	916.7	697.8	516.5	374.5	278.8	224.0
32.5°	2130.9	1915.4	1693.1	1448.5	1192.0	932.0	696.0	497.7	350.6	256.5	208.6
35°	2235.2	1992.4	1754.6	1499.8	1222.8	949.1	694.3	484.0	328.4	234.3	193.2
37.5°	2325.8	2057.3	1802.5	1544.3	1257.0	964.5	696.0	472.0	307.8	215.5	179.6
40°	2402.8	2124.0	1855.5	1585.3	1292.9	988.5	697.8	460.0	287.3	198.4	167.6
42.5°	2471.2	2187.3	1912.0	1631.5	1333.9	1015.8	708.0	449.8	270.2	183.0	155.6
45°	2524.2	2245.5	1973.5	1696.5	1400.6	1060.3	726.8	442.9	253.1	169.3	145.4
47.5°	2578.9	2331.0	2077.9	1799.1	1498.1	1130.4	759.3	441.2	239.4	159.0	136.8
50°	2654.2	2416.5	2170.2	1903.4	1587.0	1202.3	798.7	442.9	222.3	148.8	128.3
52.5°	2708.9	2503.7	2289.9	2084.7	1799.1	1421.2	950.9	473.7	213.8	140.2	118.0
55°	3032.1	2996.2	3001.4	3035.6	2814.9	2418.2	1590.5	684.1	251.4	159.0	116.3
57.5°	4275.4	4402.0	4475.5	4473.8	4109.6	3408.4	2136.0	879.0	280.5	184.7	138.5
60°	5910.4	5814.6	5679.5	5346.0	4862.0	3890.6	2389.1	945.7	242.8	147.1	126.6
62.5°	7355.5	6794.5	6296.9	5756.5	5122.0	4058.2	2440.4	940.6	212.1	111.2	88.9
65°	8256.7	7247.7	6443.9	5766.7	5019.4	3918.0	2308.7	863.6	179.6	90.6	73.5
67.5°	8472.2	7003.2	5865.9	5002.3	4193.4	3049.2	1694.8	649.9	140.2	75.2	65.0
69°	8001.9	6225.0	4860.3	3880.4	3051.0	2023.1	1048.3	410.4	107.7	68.4	59.9
70°	7360.6	5414.4	3959.1	3114.2	2259.1	1421.2	733.7	289.0	87.2	63.3	54.7
72.5°	4735.5	2844.0	1946.2	1354.5	932.0	566.1	287.3	130.0	66.7	53.0	44.5
75°	1836.7	1051.8	762.7	579.7	453.2	314.7	174.4	83.8	56.4	44.5	34.2
77.5°	904.7	692.6	566.1	388.2	225.7	140.2	94.1	65.0	46.2	32.5	22.2
80°	714.9	475.4	283.9	176.1	133.4	100.9	71.8	53.0	34.2	20.5	15.4
82.5°	366.0	200.1	147.1	119.7	99.2	78.7	58.1	37.6	22.2	13.7	12.0
85°	114.6	83.8	75.2	73.5	68.4	56.4	41.0	23.9	13.7	8.6	8.6
87.5°	8.6	12.0	15.4	12.0	13.7	12.0	15.4	10.3	6.8	6.8	5.1
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°	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4	788.4
2.5°	718.3	697.8	678.9	667.0	644.7	636.2	627.6	624.2	608.8	612.2	598.6
5°	627.6	591.7	564.4	537.0	511.3	492.5	477.1	458.3	442.9	436.1	422.4
7.5°	545.5	499.4	463.5	434.4	403.6	379.7	359.1	345.5	331.8	318.1	311.3
10°	473.7	424.1	383.1	354.0	324.9	304.4	289.0	278.8	270.2	265.1	263.4
12.5°	407.0	359.1	321.5	295.9	273.6	263.4	256.5	251.4	249.7	248.0	248.0
15°	355.7	307.8	278.8	259.9	249.7	244.6	242.8	239.4	236.0	234.3	234.3
17.5°	307.8	271.9	251.4	241.1	236.0	232.6	229.2	225.7	222.3	220.6	220.6
20°	275.3	246.3	236.0	229.2	224.0	220.6	215.5	212.1	210.4	208.6	206.9
22.5°	249.7	230.9	224.0	218.9	212.1	206.9	203.5	200.1	196.7	195.0	193.2
25°	230.9	218.9	213.8	206.9	200.1	195.0	189.8	184.7	181.3	179.6	176.1
27.5°	217.2	208.6	201.8	193.2	186.4	181.3	176.1	171.0	167.6	164.2	162.5
30°	205.2	196.7	188.1	181.3	172.7	167.6	160.8	155.6	153.9	150.5	147.1
32.5°	193.2	184.7	176.1	167.6	159.0	152.2	148.8	141.9	138.5	136.8	133.4
35°	179.6	171.0	160.8	153.9	145.4	138.5	133.4	128.3	124.8	121.4	119.7
37.5°	167.6	157.3	147.1	138.5	131.7	124.8	119.7	114.6	111.2	107.7	106.0
40°	153.9	143.7	133.4	124.8	118.0	112.9	107.7	102.6	99.2	97.5	97.5
42.5°	141.9	130.0	119.7	112.9	107.7	100.9	95.8	90.6	88.9	87.2	88.9
45°	130.0	118.0	109.5	102.6	97.5	90.6	85.5	82.1	80.4	82.1	83.8
47.5°	119.7	107.7	99.2	94.1	88.9	83.8	78.7	75.2	75.2	78.7	82.1
50°	109.5	97.5	90.6	87.2	82.1	77.0	70.1	68.4	70.1	73.5	77.0
52.5°	99.2	85.5	80.4	78.7	73.5	68.4	63.3	61.6	63.3	66.7	65.0
55°	88.9	75.2	73.5	71.8	66.7	59.9	54.7	54.7	54.7	53.0	49.6
57.5°	85.5	66.7	65.0	63.3	58.1	51.3	47.9	44.5	42.8	37.6	35.9
60°	88.9	59.9	59.9	56.4	51.3	44.5	39.3	34.2	30.8	27.4	27.4
62.5°	71.8	54.7	53.0	49.6	42.8	35.9	30.8	25.7	23.9	22.2	22.2
65°	58.1	49.6	46.2	41.0	35.9	29.1	23.9	20.5	18.8	18.8	20.5
67.5°	53.0	44.5	39.3	34.2	29.1	22.2	18.8	17.1	17.1	18.8	18.8
69°	49.6	41.0	35.9	30.8	25.7	20.5	17.1	17.1	17.1	17.1	18.8
70°	46.2	39.3	34.2	29.1	22.2	17.1	15.4	15.4	17.1	17.1	18.8
72.5°	35.9	30.8	29.1	23.9	17.1	15.4	13.7	15.4	15.4	17.1	17.1
75°	27.4	22.2	22.2	18.8	13.7	12.0	12.0	13.7	13.7	15.4	15.4
77.5°	18.8	15.4	15.4	13.7	12.0	10.3	10.3	12.0	13.7	13.7	15.4
80°	13.7	12.0	10.3	12.0	10.3	8.6	10.3	12.0	12.0	13.7	13.7
82.5°	10.3	10.3	10.3	10.3	8.6	8.6	10.3	10.3	12.0	13.7	13.7
85°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	10.3	10.3	12.0	12.0
87.5°	5.1	5.1	5.1	6.8	6.8	8.6	8.6	8.6	8.6	10.3	10.3
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: P151821

CATALOG NUMBER: TLM-E05-LED-E1-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	788.4	788.4	788.4	788.4
2.5°	595.1	593.4	586.6	588.3
5°	417.3	407.0	413.9	412.2
7.5°	306.1	304.4	302.7	306.1
10°	261.7	261.7	259.9	261.7
12.5°	246.3	246.3	246.3	246.3
15°	234.3	234.3	232.6	232.6
17.5°	220.6	220.6	220.6	218.9
20°	206.9	205.2	205.2	205.2
22.5°	191.5	189.8	189.8	189.8
25°	176.1	174.4	174.4	174.4
27.5°	160.8	159.0	157.3	157.3
30°	145.4	143.7	141.9	141.9
32.5°	130.0	128.3	126.6	126.6
35°	116.3	116.3	114.6	112.9
37.5°	104.3	104.3	104.3	104.3
40°	95.8	97.5	97.5	97.5
42.5°	90.6	92.3	94.1	95.8
45°	87.2	90.6	92.3	92.3
47.5°	85.5	87.2	88.9	88.9
50°	78.7	77.0	77.0	77.0
52.5°	63.3	59.9	58.1	56.4
55°	46.2	44.5	41.0	41.0
57.5°	32.5	32.5	30.8	30.8
60°	25.7	25.7	23.9	25.7
62.5°	22.2	22.2	22.2	22.2
65°	20.5	20.5	20.5	20.5
67.5°	20.5	20.5	20.5	20.5
69°	18.8	18.8	18.8	18.8
70°	18.8	18.8	18.8	18.8
72.5°	17.1	17.1	17.1	17.1
75°	15.4	17.1	17.1	17.1
77.5°	15.4	15.4	15.4	15.4
80°	13.7	13.7	15.4	15.4
82.5°	13.7	13.7	13.7	13.7
85°	12.0	12.0	13.7	13.7
87.5°	10.3	10.3	12.0	12.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)