

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: P150673

Luminaire Tested: **TLM-F04-LED-E1-SL3-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P150673
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-F04-LED-E1-SL3-HSS-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

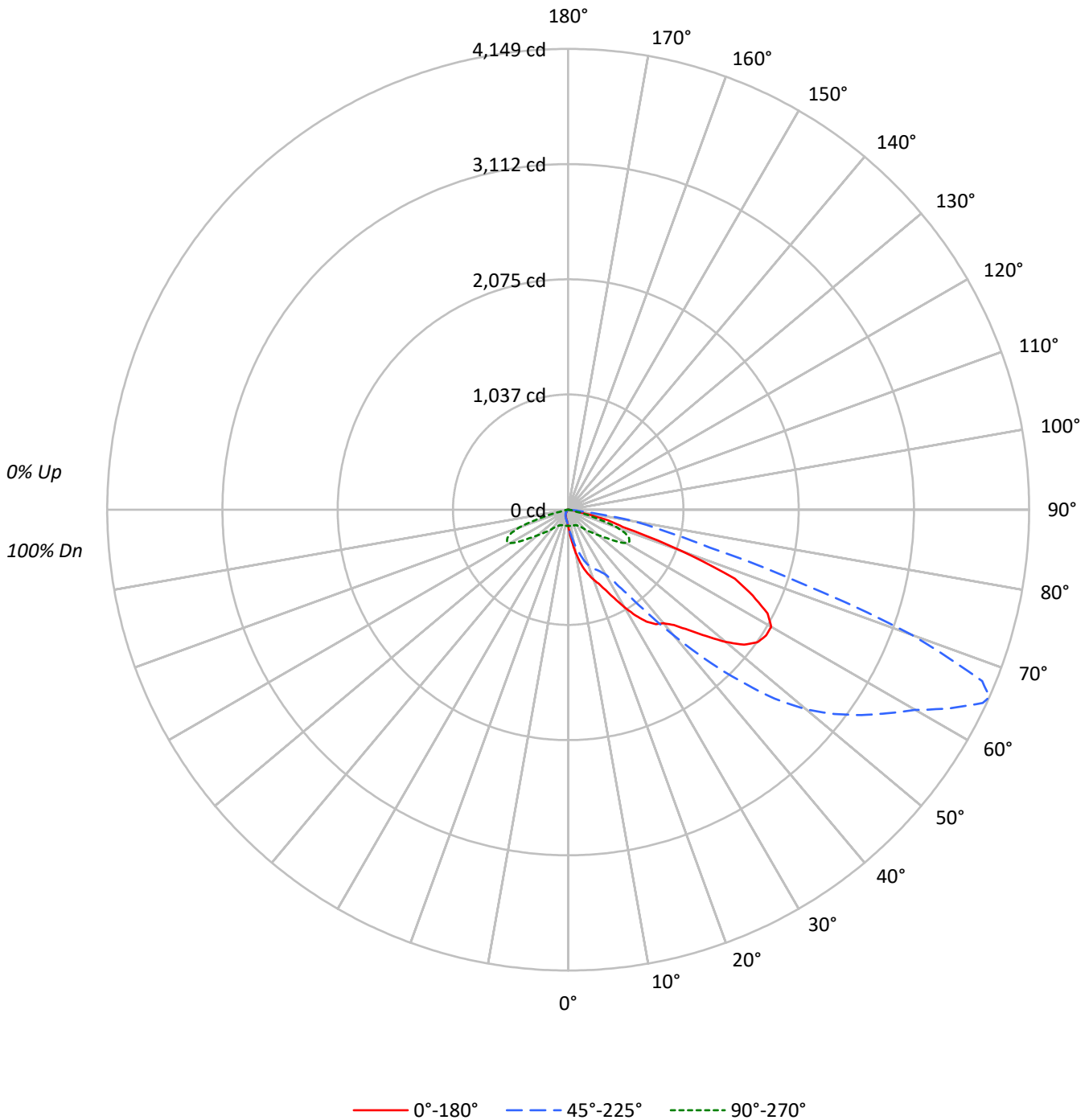
Lumens per Lamp: N/A
Luminaire Lumens: 4832.1 lumens
Efficiency: N/A
Efficacy: 47.3 lumens/watt
Spacing Criteria (0/90/45): 4.23 / 3.52 / 4.34
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 102.2
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: P150673
CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

Luminous Intensity Polar Plot





TEST NUMBER: P150673

CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

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	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					100			
1	105	98	93	87	102	96	91	86	92	87	83	88	84	81	84	81	78	76					76			
2	91	80	71	63	88	78	69	62	74	67	61	71	64	59	67	62	58	55					55			
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40					40			
4	71	55	43	35	68	53	43	34	51	41	34	48	40	33	45	38	32	30					30			
5	63	47	35	27	61	45	34	26	43	33	26	41	32	26	39	31	25	23					23			
6	57	40	29	21	55	39	29	21	37	28	21	35	27	20	33	26	20	17					17			
7	52	35	24	17	50	34	24	17	33	23	17	31	23	16	29	22	16	14					14			
8	48	31	21	14	46	30	21	14	29	20	14	28	19	13	26	19	13	11					11			
9	44	28	18	12	42	27	18	12	26	17	11	25	17	11	24	16	11	9					9			
10	41	25	16	10	39	25	16	10	24	15	10	23	15	10	22	15	10	7					7			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2342	2342	2342
5°	3925	2360	1722
10°	6441	2379	1440
15°	9193	2480	1221
20°	11436	2565	1048
25°	14146	2717	890
30°	18801	3042	759
35°	24123	3598	637
40°	27977	4734	508
45°	34741	6396	379
50°	46276	8916	372
55°	58285	13036	417
60°	67787	19341	447
65°	69676	22972	494
70°	50923	22058	568
75°	22948	9603	751
80°	4126	2405	1119
85°	350	2138	2046



TEST NUMBER: P150673

CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	16.3	0.3
10°-20°	69.2	1.4
20°-30°	149.3	3.1
30°-40°	318.9	6.6
40°-50°	705.2	14.6
50°-60°	1195.1	24.7
60°-70°	1594.7	33.0
70°-80°	702.4	14.5
80°-90°	80.9	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°	234.9	4.9
0°-40°	553.7	11.5
0°-60°	2454.0	50.8
0°-90°	4832.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4832.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	146	146	146	146	146	
5°	243	206	146	110	107	28
15°	553	422	149	79	73	158
25°	798	596	153	58	50	382
35°	1230	922	183	39	32	763
45°	1529	2169	282	23	17	1209
55°	2081	3224	465	11	15	1834
65°	1833	4115	604	8	13	1750
75°	370	1317	155	6	12	408
85°	2	28	12	6	11	11
90°	0	0	0	0	0	



TEST NUMBER: P150673

CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8
2.5°	183.9	183.0	179.3	179.3	173.7	170.0	165.4	160.7	160.7	159.8	158.9
5°	243.4	237.8	236.9	226.7	218.3	206.2	195.1	180.2	178.4	176.5	175.6
7.5°	309.4	308.4	300.1	288.0	271.3	249.0	226.7	202.5	198.8	196.9	193.2
10°	394.8	390.2	379.0	358.6	333.5	303.8	267.5	229.5	224.8	221.1	219.2
12.5°	476.6	468.2	461.7	435.7	404.1	360.4	316.8	262.0	258.3	253.6	246.2
15°	552.7	545.3	534.2	511.9	476.6	421.8	370.7	303.8	294.5	288.0	282.4
17.5°	612.2	607.6	594.5	569.5	531.4	483.1	421.8	346.5	339.1	330.7	320.5
20°	668.9	662.4	641.9	607.6	566.7	529.5	482.1	402.2	392.0	381.8	370.7
22.5°	722.7	716.2	682.8	626.1	582.5	566.7	550.0	465.4	449.6	441.3	430.1
25°	798.0	784.1	732.0	641.9	583.4	595.5	624.3	547.2	532.3	520.2	502.6
27.5°	899.3	880.7	798.9	665.2	587.1	627.1	709.7	646.6	630.8	616.8	597.3
30°	1013.5	1001.4	903.9	720.9	614.1	673.5	805.4	772.9	754.3	737.6	714.4
32.5°	1128.7	1112.0	1015.4	826.8	686.5	763.6	925.3	919.7	895.5	879.7	854.7
35°	1230.0	1221.6	1150.1	1000.5	851.9	921.5	1085.0	1091.6	1070.2	1053.5	1025.6
37.5°	1298.7	1298.7	1284.8	1187.2	1114.8	1166.8	1320.1	1321.0	1299.6	1261.6	1247.6
40°	1334.0	1344.2	1394.4	1413.0	1409.3	1476.2	1628.5	1611.8	1594.1	1574.6	1528.2
42.5°	1406.5	1415.8	1522.6	1650.8	1734.4	1822.7	1927.6	1922.1	1900.7	1865.4	1822.7
45°	1529.1	1541.2	1668.4	1871.9	2043.8	2169.2	2236.1	2210.0	2188.7	2155.2	2132.9
47.5°	1685.2	1708.4	1852.4	2104.1	2311.3	2518.5	2588.1	2519.4	2500.8	2474.8	2438.6
50°	1851.5	1873.8	2027.0	2315.0	2549.1	2796.2	2912.4	2796.2	2769.3	2760.9	2720.1
52.5°	1995.5	2014.0	2161.7	2477.6	2731.2	3021.0	3190.1	3036.8	3017.3	2989.5	2959.7
55°	2080.9	2095.8	2234.2	2555.6	2854.8	3223.6	3458.6	3323.9	3295.1	3283.9	3241.2
57.5°	2109.7	2124.6	2249.1	2565.8	2921.6	3408.4	3784.7	3789.3	3754.9	3715.0	3702.0
60°	2109.7	2126.4	2231.4	2540.8	2986.7	3605.4	4219.4	4606.8	4532.5	4525.1	4477.7
62.5°	2022.4	2038.2	2144.1	2463.7	3074.0	3871.1	4825.1	5508.9	5487.5	5439.2	5361.1
65°	1832.9	1842.2	1946.2	2266.7	3040.6	4115.4	5350.0	6109.0	6074.6	5979.8	5879.5
66°	1747.4	1754.8	1852.4	2154.3	2930.9	4148.8	5442.9	6184.2	6127.6	6047.7	5934.3
67.5°	1623.9	1636.9	1705.6	1945.3	2668.0	4032.7	5384.4	6131.3	6082.0	5985.4	5872.1
70°	1084.1	1074.8	1317.3	1492.9	2032.6	3285.8	4830.7	5505.1	5506.1	5460.5	5415.0
72.5°	514.7	520.2	590.8	918.8	1330.3	2195.2	3845.1	4394.1	4457.2	4375.5	4318.8
75°	369.7	378.1	420.8	562.0	793.3	1317.3	2492.5	3073.1	3074.9	2930.0	2800.9
77.5°	107.8	112.4	157.9	346.5	594.5	889.0	1431.6	1708.4	1668.4	1564.4	1466.9
80°	44.6	44.6	46.4	110.5	238.7	603.8	1001.4	1315.4	1310.8	1270.8	1213.2
82.5°	16.7	17.7	22.3	45.5	56.7	148.6	667.9	1141.7	1138.9	1082.3	1041.4
85°	1.9	1.9	5.6	19.5	21.4	27.9	133.8	503.5	500.7	503.5	441.3
87.5°	0.0	0.0	0.9	1.9	2.8	3.7	5.6	19.5	21.4	20.4	18.6
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: P150673

CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8
2.5°	158.9	157.0	157.0	156.1	156.1	156.1	155.1	154.2	154.2	153.3	152.4
5°	173.7	171.9	170.9	169.1	168.1	167.2	165.4	164.4	162.6	161.6	160.7
7.5°	191.4	187.7	186.7	183.9	181.2	179.3	177.4	174.6	172.8	169.1	168.1
10°	213.7	209.0	205.3	201.6	198.8	194.2	191.4	187.7	183.9	181.2	178.4
12.5°	242.5	236.0	230.4	226.7	220.2	214.6	209.0	206.2	198.8	195.1	190.4
15°	274.0	266.6	260.1	252.7	248.0	238.7	231.3	223.0	219.2	212.7	205.3
17.5°	314.9	302.8	292.6	285.2	275.9	266.6	258.3	249.9	238.7	231.3	222.0
20°	358.6	348.4	334.4	321.4	310.3	299.1	287.1	275.9	265.7	253.6	242.5
22.5°	414.3	399.5	382.7	369.7	354.9	342.8	326.1	311.2	294.5	278.7	265.7
25°	484.9	465.4	449.6	431.0	413.4	394.8	374.4	355.8	334.4	319.6	297.3
27.5°	572.3	553.7	532.3	508.2	490.5	462.6	435.7	412.5	387.4	364.2	339.1
30°	683.7	656.8	634.5	611.3	576.0	549.0	517.4	485.9	451.5	428.3	390.2
32.5°	817.5	788.7	755.3	721.8	689.3	651.2	612.2	573.2	535.1	492.4	453.3
35°	981.0	946.6	908.5	872.3	822.1	781.3	732.0	678.2	635.4	586.2	537.0
37.5°	1197.5	1140.8	1107.3	1069.3	1001.4	945.7	890.9	837.0	761.8	709.7	640.1
40°	1468.7	1435.3	1380.5	1319.2	1257.8	1184.5	1110.1	1038.6	951.3	878.8	798.0
42.5°	1787.4	1738.1	1682.4	1594.1	1531.9	1445.5	1361.0	1266.2	1159.4	1066.5	971.7
45°	2086.5	2028.0	1985.2	1897.0	1832.0	1729.8	1627.6	1527.2	1403.7	1283.9	1174.2
47.5°	2409.8	2361.5	2290.9	2219.3	2153.4	2038.2	1927.6	1805.9	1675.9	1533.7	1391.6
50°	2694.0	2656.0	2607.6	2521.3	2447.9	2351.3	2221.2	2088.3	1923.9	1782.7	1621.1
52.5°	2935.6	2905.9	2838.0	2776.7	2710.8	2619.7	2503.6	2376.3	2198.9	2043.8	1859.8
55°	3220.8	3199.4	3140.0	3101.9	3043.3	2956.0	2847.3	2729.3	2541.7	2372.6	2164.5
57.5°	3688.1	3671.3	3619.3	3603.5	3545.9	3469.7	3336.0	3209.6	2990.4	2780.4	2542.6
60°	4461.9	4428.5	4352.3	4313.3	4191.6	4089.4	3915.7	3741.9	3477.2	3209.6	2923.5
62.5°	5290.5	5196.7	5051.8	4927.3	4754.5	4577.1	4344.8	4079.2	3768.9	3451.2	3122.3
65°	5737.4	5577.6	5394.6	5196.7	4972.8	4711.8	4419.2	4100.5	3767.0	3431.7	3084.2
66°	5788.5	5608.3	5414.1	5193.9	4945.0	4667.2	4369.9	4035.5	3689.0	3362.0	3014.5
67.5°	5724.4	5535.8	5330.5	5086.2	4816.8	4528.8	4216.6	3869.2	3535.7	3204.1	2865.9
70°	5275.7	5088.0	4905.0	4647.7	4360.6	4070.8	3775.4	3387.1	3071.2	2766.5	2465.5
72.5°	4212.9	4085.7	3904.5	3684.3	3404.7	3064.7	2818.5	2471.1	2197.0	1901.6	1668.4
75°	2632.7	2453.4	2229.6	1949.0	1735.3	1459.4	1315.4	1051.6	895.5	759.0	627.1
77.5°	1346.1	1211.4	1054.4	896.5	745.0	594.5	459.8	325.1	219.2	152.4	113.3
80°	1112.0	993.1	863.0	719.0	585.3	454.3	327.0	223.0	142.1	92.9	72.5
82.5°	918.8	818.4	702.3	568.5	452.4	356.7	248.0	161.6	100.3	65.0	51.1
85°	391.1	354.9	274.0	217.4	163.5	120.8	84.5	56.7	39.9	32.5	29.7
87.5°	16.7	18.6	17.7	13.9	10.2	10.2	9.3	7.4	7.4	7.4	7.4
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: P150673

CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8	145.8
2.5°	152.4	151.4	150.5	150.5	149.6	148.6	143.1	138.4	132.8	129.1	125.4
5°	158.9	157.9	156.1	155.1	153.3	152.4	140.3	130.1	121.7	115.2	110.5
7.5°	165.4	164.4	161.6	158.9	157.9	156.1	136.6	123.6	112.4	105.0	100.3
10°	173.7	170.9	168.1	164.4	161.6	158.9	132.8	116.1	104.0	97.5	92.9
12.5°	185.8	181.2	176.5	171.9	168.1	163.5	131.0	109.6	97.5	90.1	85.5
15°	199.7	193.2	187.7	182.1	175.6	170.9	127.3	104.0	92.0	84.5	79.0
17.5°	212.7	205.3	196.9	188.6	182.1	175.6	123.6	98.5	86.4	79.0	73.4
20°	231.3	220.2	209.9	199.7	190.4	182.1	118.0	92.9	81.8	73.4	67.8
22.5°	251.8	238.7	225.7	211.8	199.7	188.6	113.3	88.3	77.1	68.7	62.2
25°	277.8	262.0	244.3	226.7	212.7	197.9	108.7	83.6	72.5	64.1	57.6
27.5°	314.0	291.7	272.2	249.9	228.5	211.8	105.0	79.9	67.8	59.5	53.0
30°	363.2	330.7	300.1	275.9	250.8	226.7	101.3	75.2	64.1	54.8	47.4
32.5°	418.0	380.0	344.7	308.4	276.8	249.0	97.5	71.5	59.5	50.2	43.7
35°	485.9	437.5	390.2	348.4	310.3	273.1	93.8	67.8	55.7	45.5	39.0
37.5°	583.4	523.0	460.8	406.9	357.7	308.4	91.0	64.1	51.1	40.9	34.4
40°	717.2	639.1	563.0	489.6	425.5	364.2	87.3	60.4	47.4	37.2	30.7
42.5°	862.1	767.3	667.0	584.3	496.1	419.0	83.6	56.7	43.7	33.4	26.9
45°	1042.3	924.3	802.6	690.2	582.5	483.1	79.9	53.0	39.0	29.7	23.2
47.5°	1239.3	1088.8	951.3	810.1	681.9	563.0	75.2	50.2	35.3	26.0	20.4
50°	1441.8	1282.9	1109.2	948.5	796.1	642.9	70.6	45.5	31.6	23.2	16.7
52.5°	1660.1	1472.4	1295.0	1095.3	917.8	747.8	66.0	41.8	28.8	20.4	13.9
55°	1937.9	1727.9	1519.8	1295.9	1082.3	869.5	61.3	37.2	25.1	17.7	11.1
57.5°	2287.2	2038.2	1782.7	1530.0	1270.8	1029.3	57.6	32.5	21.4	14.9	9.3
60°	2616.9	2326.2	2016.8	1726.0	1433.4	1151.9	52.0	28.8	18.6	12.1	9.3
62.5°	2787.9	2456.2	2122.7	1802.2	1490.1	1195.6	46.4	24.2	15.8	10.2	8.4
65°	2746.1	2407.9	2084.6	1761.3	1455.7	1167.7	40.9	21.4	13.9	9.3	8.4
66°	2685.7	2351.3	2026.1	1718.6	1426.9	1138.0	38.1	20.4	13.0	9.3	7.4
67.5°	2553.8	2230.5	1920.2	1634.1	1348.0	1081.3	34.4	18.6	12.1	8.4	7.4
70°	2181.2	1887.7	1639.7	1385.1	1151.9	911.3	27.9	15.8	10.2	7.4	7.4
72.5°	1443.6	1243.9	1078.5	928.1	775.7	602.0	23.2	13.0	8.4	7.4	6.5
75°	544.4	492.4	422.7	380.0	331.6	290.8	18.6	8.4	6.5	6.5	6.5
77.5°	96.6	89.2	79.0	72.5	66.9	61.3	14.9	5.6	5.6	6.5	6.5
80°	65.0	60.4	54.8	50.2	46.4	41.8	10.2	4.6	5.6	5.6	6.5
82.5°	46.4	43.7	40.9	37.2	34.4	30.7	6.5	4.6	5.6	5.6	5.6
85°	27.9	26.0	24.2	22.3	19.5	18.6	4.6	4.6	4.6	5.6	5.6
87.5°	7.4	6.5	7.4	7.4	5.6	6.5	3.7	3.7	3.7	4.6	4.6
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: P150673

CATALOG NUMBER: TLM-F04-LED-E1-SL3-HSS-8030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	145.8	145.8	145.8	145.8	145.8
2.5°	123.6	123.6	121.7	124.5	124.5
5°	106.8	106.8	105.9	106.8	106.8
7.5°	97.5	96.6	96.6	96.6	97.5
10°	89.2	88.3	88.3	88.3	88.3
12.5°	81.8	80.8	79.9	80.8	80.8
15°	75.2	73.4	73.4	73.4	73.4
17.5°	69.7	67.8	66.9	66.9	66.9
20°	64.1	61.3	61.3	61.3	61.3
22.5°	58.5	55.7	55.7	55.7	55.7
25°	53.0	50.2	50.2	50.2	50.2
27.5°	48.3	45.5	45.5	45.5	45.5
30°	42.7	40.9	40.9	41.8	40.9
32.5°	39.0	36.2	36.2	37.2	37.2
35°	34.4	32.5	32.5	32.5	32.5
37.5°	29.7	27.9	27.9	27.9	27.9
40°	26.0	24.2	23.2	24.2	24.2
42.5°	22.3	20.4	19.5	19.5	19.5
45°	19.5	16.7	15.8	16.7	16.7
47.5°	15.8	13.9	13.9	14.9	14.9
50°	12.1	12.1	13.0	14.9	14.9
52.5°	11.1	11.1	13.0	14.9	14.9
55°	10.2	11.1	13.0	13.9	14.9
57.5°	9.3	11.1	13.0	13.9	13.9
60°	9.3	10.2	12.1	13.9	13.9
62.5°	8.4	9.3	11.1	13.0	13.0
65°	8.4	9.3	11.1	13.0	13.0
66°	8.4	9.3	11.1	13.0	13.0
67.5°	8.4	9.3	11.1	13.0	13.0
70°	8.4	9.3	11.1	12.1	12.1
72.5°	7.4	8.4	10.2	12.1	12.1
75°	7.4	8.4	10.2	12.1	12.1
77.5°	7.4	8.4	10.2	12.1	12.1
80°	7.4	8.4	10.2	11.1	12.1
82.5°	6.5	8.4	9.3	11.1	11.1
85°	6.5	7.4	9.3	10.2	11.1
87.5°	5.6	6.5	7.4	9.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)