

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: P156634

Luminaire Tested: **TLM-F03-LED-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P156634
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33673)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-F03-LED-E1-T4-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6835.8 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.73 / 2.02 / 2.64
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
CIE Type: Direct

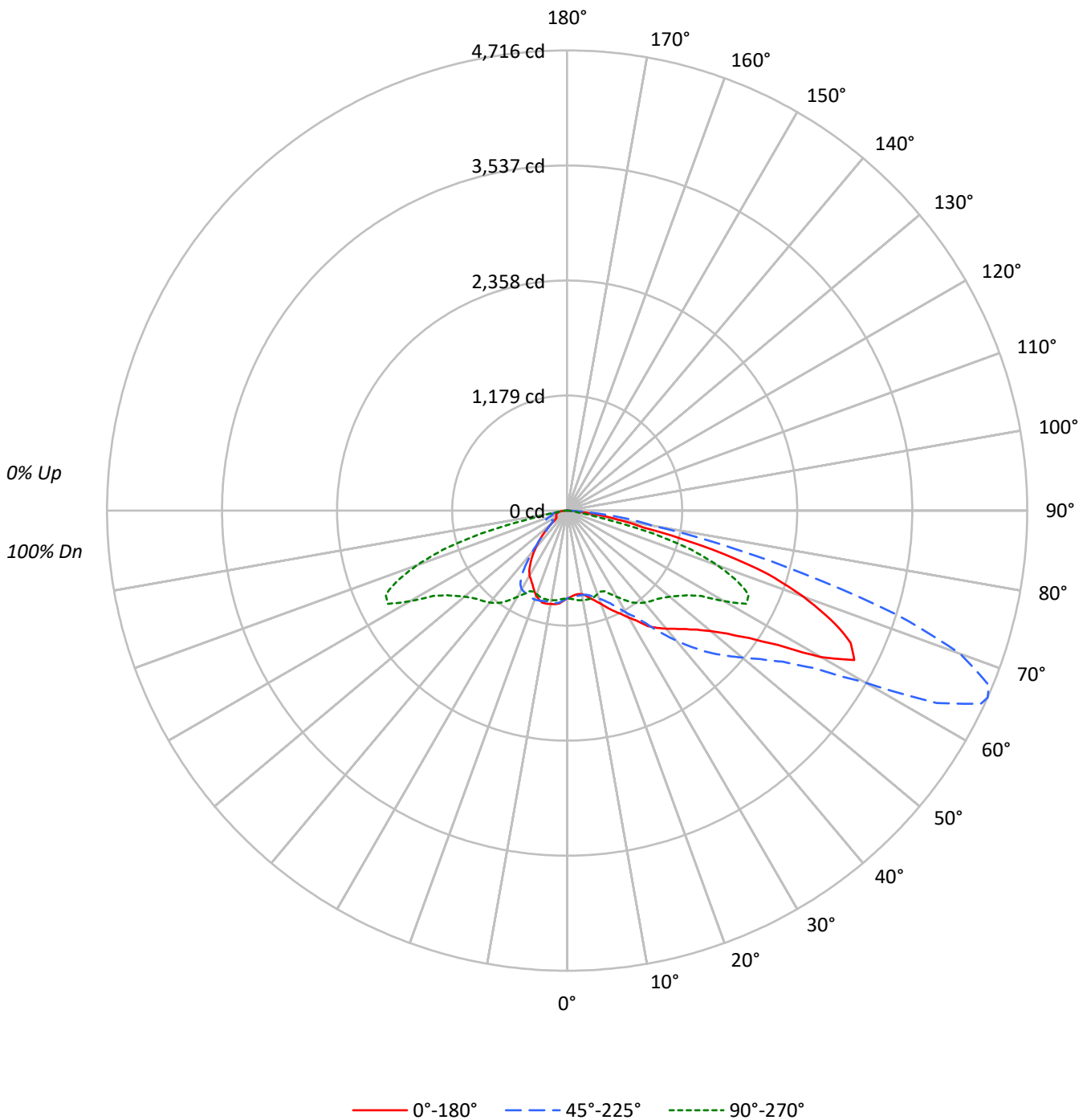
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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	87	92	88	84	88	84	81	84	81	79	76																												
2	92	81	72	65	89	79	71	64	76	69	62	72	66	61	69	64	59	57																												
3	82	68	58	49	79	66	57	49	63	55	48	60	53	47	57	51	46	43																												
4	73	58	47	39	70	57	46	38	54	45	38	51	43	37	49	42	36	34																												
5	66	50	39	31	64	49	39	31	47	38	31	45	36	30	42	35	30	27																												
6	60	44	34	26	58	43	33	26	41	32	25	39	31	25	38	30	25	22																												
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19																												
8	51	35	26	19	49	35	25	19	33	25	19	32	24	18	31	23	18	16																												
9	47	32	23	16	46	31	23	16	30	22	16	29	22	16	28	21	16	14																												
10	44	29	21	15	43	29	20	15	28	20	14	27	19	14	26	19	14	12																												

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	19397	19397	19397
5°	18771	19814	20661
10°	18988	20404	21246
15°	20803	20821	21795
20°	23320	20866	21246
25°	26991	21689	19898
30°	31488	25398	19136
35°	37986	30160	17219
40°	44391	34622	14217
45°	52317	39186	10811
50°	64317	45960	6919
55°	85548	56712	5180
60°	129171	79924	5455
65°	163347	104471	6301
70°	162022	103220	7497
75°	128500	76448	9216
80°	65148	16079	11492
85°	9510	13215	14721



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.5	1.3
10°-20°	265.6	3.9
20°-30°	457.6	6.7
30°-40°	692.3	10.1
40°-50°	897.3	13.1
50°-60°	1237.1	18.1
60°-70°	1922.0	28.1
70°-80°	1117.6	16.3
80°-90°	158.9	2.3
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°	810.7	11.9
0°-40°	1503.0	22.0
0°-60°	3637.3	53.2
0°-90°	6835.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6835.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	901	901	901	901	901	
5°	869	881	917	947	956	83
15°	933	901	934	958	978	267
25°	1136	1050	913	955	838	530
35°	1445	1412	1148	810	655	903
45°	1718	2057	1287	339	355	1343
55°	2279	2700	1511	175	138	2111
65°	3207	4682	2051	247	124	3035
75°	1545	2517	919	155	111	1591
85°	38	262	54	63	60	166
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0
2.5°	884.4	887.5	885.2	885.9	885.9	886.7	886.7	887.5	886.7	889.0	890.5
5°	868.6	870.1	869.4	870.9	872.4	875.4	874.6	878.4	879.2	881.4	885.2
7.5°	862.6	861.1	861.8	864.1	865.6	867.1	868.6	871.6	873.9	879.2	882.2
10°	868.6	867.8	868.6	870.1	870.1	870.9	869.4	872.4	873.9	878.4	881.4
12.5°	893.5	893.5	892.0	892.0	890.5	889.0	885.2	882.9	882.2	882.9	884.4
15°	933.4	931.9	928.9	926.7	923.6	918.4	913.1	908.6	905.5	901.0	899.5
17.5°	972.7	970.4	967.4	964.4	960.6	955.3	947.0	941.7	933.4	928.2	925.1
20°	1017.9	1013.4	1009.6	1005.8	998.3	996.8	988.5	979.4	969.6	957.6	956.1
22.5°	1076.7	1069.2	1064.6	1062.4	1054.8	1052.6	1039.0	1026.2	1014.1	998.3	994.5
25°	1136.3	1128.7	1126.5	1123.5	1118.2	1115.2	1102.3	1088.0	1072.2	1050.3	1045.8
27.5°	1194.3	1195.1	1189.0	1191.3	1189.8	1184.5	1171.7	1157.4	1145.3	1119.7	1114.4
30°	1266.7	1262.2	1259.2	1263.7	1258.4	1259.2	1247.9	1240.3	1220.7	1205.6	1195.1
32.5°	1342.1	1341.4	1345.9	1348.9	1348.1	1346.6	1337.6	1330.0	1312.7	1290.8	1286.3
35°	1445.4	1449.9	1453.7	1467.3	1467.3	1477.1	1468.0	1459.0	1438.6	1412.2	1403.2
37.5°	1515.5	1517.0	1532.1	1550.2	1572.8	1593.9	1600.0	1602.2	1593.9	1574.3	1560.8
40°	1579.6	1582.6	1606.8	1634.7	1667.8	1709.3	1734.2	1745.5	1747.8	1738.7	1709.3
42.5°	1643.7	1648.2	1673.1	1713.8	1759.8	1812.6	1856.3	1884.2	1900.1	1900.1	1882.7
45°	1718.4	1724.4	1751.5	1796.0	1849.5	1915.9	1976.2	2029.8	2055.4	2056.9	2040.3
47.5°	1806.6	1811.8	1843.5	1888.8	1943.8	2010.9	2087.1	2148.1	2195.6	2198.6	2185.1
50°	1920.4	1928.0	1954.4	1995.1	2051.6	2119.5	2195.6	2280.8	2330.6	2342.7	2328.3
52.5°	2071.2	2072.7	2094.6	2132.3	2187.3	2252.2	2332.9	2425.6	2491.2	2501.0	2477.6
55°	2279.3	2277.1	2291.4	2332.1	2373.6	2424.1	2507.8	2611.8	2685.0	2700.1	2675.9
57.5°	2562.1	2559.8	2571.9	2581.7	2659.3	2708.3	2790.5	2890.1	2960.9	3004.7	2963.2
60°	3000.1	2997.9	3017.5	3074.8	3132.8	3204.5	3284.4	3403.5	3503.1	3515.9	3475.2
62.5°	3317.6	3328.9	3371.9	3439.0	3556.6	3696.8	3843.1	3999.9	4204.3	4269.1	4249.5
65°	3206.7	3229.4	3288.9	3390.7	3547.5	3741.3	3970.5	4254.8	4528.5	4681.5	4677.0
66°	3107.2	3132.1	3205.2	3303.2	3469.1	3681.0	3931.3	4241.2	4547.3	4716.2	4726.8
67.5°	2926.2	2954.1	3025.8	3141.9	3303.2	3528.7	3797.9	4134.9	4481.0	4677.8	4705.7
70°	2574.1	2605.8	2657.8	2753.6	2912.7	3114.0	3397.5	3699.1	4061.8	4287.2	4321.1
72.5°	2151.9	2179.8	2237.9	2316.3	2446.7	2573.4	2795.8	3018.2	3277.6	3534.7	3509.8
75°	1544.9	1557.0	1591.7	1676.9	1747.0	1860.9	2039.6	2222.0	2399.2	2516.8	2533.4
77.5°	803.0	834.7	883.7	977.9	1054.1	1156.6	1272.7	1410.0	1539.7	1647.5	1618.1
80°	525.5	539.1	582.8	631.1	686.9	752.5	830.1	881.4	898.0	891.2	898.0
82.5°	303.1	328.0	386.0	423.0	464.5	487.1	548.9	607.7	640.9	599.4	584.3
85°	38.5	49.8	156.8	197.5	226.2	260.1	279.0	314.4	293.3	262.4	319.7
87.5°	8.3	7.5	10.6	22.6	23.4	19.6	36.9	39.2	24.1	12.1	15.1
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0
2.5°	892.0	892.7	894.2	896.5	898.0	899.5	901.0	903.3	904.8	906.3	909.3
5°	888.2	891.2	894.2	897.3	901.0	907.1	910.8	913.8	916.9	922.9	925.1
7.5°	885.9	891.2	895.7	901.0	907.1	912.3	919.1	922.9	927.4	931.2	935.7
10°	884.4	892.0	896.5	904.0	910.8	916.1	923.6	928.2	933.4	938.0	940.2
12.5°	887.5	891.2	895.7	903.3	911.6	919.1	927.4	931.2	935.7	939.5	940.2
15°	900.3	900.3	901.0	907.1	915.3	921.4	928.2	931.9	934.2	936.5	936.5
17.5°	923.6	918.4	914.6	915.3	920.6	924.4	928.2	928.2	926.7	925.9	924.4
20°	950.8	944.0	936.5	931.2	929.7	926.7	924.4	916.9	910.8	905.5	901.8
22.5°	990.0	979.4	968.9	959.1	950.0	938.7	925.9	910.8	896.5	886.7	880.7
25°	1038.2	1030.0	1017.1	1002.1	990.7	969.6	953.0	931.2	913.1	900.3	889.7
27.5°	1106.9	1097.1	1085.0	1071.4	1054.8	1031.5	1011.1	985.5	963.6	944.8	931.2
30°	1192.1	1179.2	1170.2	1153.6	1142.3	1115.9	1095.6	1063.9	1021.7	991.5	972.7
32.5°	1279.5	1265.2	1257.7	1244.8	1232.0	1216.2	1185.3	1136.3	1082.0	1033.0	1000.5
35°	1396.4	1381.3	1367.7	1356.4	1337.6	1308.2	1281.0	1222.2	1147.6	1079.0	1024.7
37.5°	1543.4	1518.5	1484.6	1456.0	1422.8	1380.6	1339.1	1278.8	1193.6	1104.6	1032.2
40°	1700.3	1656.5	1608.3	1554.7	1497.4	1436.4	1388.9	1327.8	1232.0	1126.5	1026.9
42.5°	1863.9	1794.5	1727.4	1652.0	1572.1	1499.7	1437.9	1370.8	1260.7	1132.5	1005.8
45°	2026.0	1948.3	1846.5	1747.8	1646.7	1557.0	1487.6	1412.2	1287.1	1134.8	977.9
47.5°	2160.2	2080.3	1964.2	1840.5	1720.6	1618.8	1537.4	1456.0	1322.5	1150.6	971.1
50°	2301.9	2204.7	2075.7	1929.5	1793.8	1679.9	1593.2	1508.7	1372.3	1191.3	993.0
52.5°	2456.5	2344.9	2194.1	2030.5	1882.0	1754.5	1660.3	1573.6	1435.6	1248.6	1034.5
55°	2645.0	2508.5	2344.9	2160.2	2001.1	1860.1	1756.1	1653.5	1511.0	1316.5	1086.5
57.5°	2933.0	2765.6	2581.7	2371.3	2194.9	2028.2	1903.8	1785.5	1627.9	1417.5	1157.4
60°	3454.0	3275.3	3036.3	2781.5	2574.1	2379.6	2197.1	2050.1	1856.3	1616.6	1314.2
62.5°	4200.5	3963.0	3644.1	3287.4	3016.0	2735.5	2529.6	2311.0	2070.5	1811.8	1498.9
65°	4615.2	4327.2	3900.4	3486.5	3137.4	2832.8	2571.1	2317.8	2050.9	1803.6	1541.9
66°	4666.5	4366.4	3923.0	3487.2	3120.8	2807.9	2532.7	2270.3	1997.3	1761.3	1523.8
67.5°	4645.4	4338.5	3881.6	3421.6	3049.1	2712.9	2428.6	2156.4	1884.2	1664.1	1463.5
70°	4299.3	4008.2	3559.6	3114.0	2760.4	2428.6	2157.2	1889.5	1639.9	1451.4	1303.7
72.5°	3570.2	3321.3	2931.5	2581.7	2304.2	2030.5	1800.5	1544.9	1333.8	1194.3	1106.9
75°	2577.1	2426.4	2071.2	1870.7	1627.1	1445.4	1222.2	1070.7	919.1	851.3	836.2
77.5°	1627.9	1425.0	1199.6	987.7	812.1	673.3	524.0	444.9	371.0	363.4	438.8
80°	824.1	741.9	571.5	455.4	383.0	309.9	245.0	185.5	129.7	156.1	187.0
82.5°	539.9	450.1	352.9	290.3	252.6	209.6	162.9	113.1	82.9	93.5	128.2
85°	291.8	248.8	200.6	158.3	128.2	114.6	76.9	54.3	53.5	57.3	73.1
87.5°	21.1	21.1	16.6	15.1	18.1	15.1	13.6	13.6	12.8	13.6	18.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0	901.0
2.5°	910.8	913.1	913.8	917.6	919.9	921.4	922.9	922.9	923.6	925.9	926.7
5°	928.2	931.9	936.5	939.5	941.0	945.5	947.0	947.0	948.5	951.5	953.8
7.5°	938.7	944.0	948.5	950.0	953.0	954.6	956.8	958.3	958.3	961.3	962.8
10°	942.5	945.5	950.0	950.0	953.0	953.0	955.3	956.1	956.1	959.1	961.3
12.5°	942.5	944.0	947.8	947.8	950.0	950.8	953.8	956.1	956.8	960.6	963.6
15°	938.0	939.5	942.5	943.2	948.5	951.5	958.3	962.8	962.8	966.6	968.1
17.5°	925.1	928.9	935.0	941.0	950.8	957.6	965.9	969.6	966.6	964.4	962.1
20°	904.0	910.8	925.1	940.2	957.6	966.6	971.1	967.4	956.8	946.3	939.5
22.5°	882.9	896.5	920.6	943.2	962.8	968.9	966.6	953.0	935.7	922.9	913.8
25°	892.7	908.6	931.9	952.3	965.1	963.6	954.6	935.7	916.9	900.3	885.2
27.5°	933.4	950.8	963.6	970.4	968.9	958.3	944.0	922.9	900.3	878.4	857.3
30°	971.9	980.9	984.0	978.7	966.6	949.3	931.2	907.1	876.9	849.8	825.6
32.5°	989.2	980.2	965.9	951.5	931.9	916.9	892.0	865.6	827.9	795.5	771.3
35°	989.2	953.0	916.9	886.7	857.3	838.4	809.8	774.4	739.7	712.5	693.7
37.5°	967.4	898.0	838.4	789.4	752.5	732.1	689.2	657.5	628.1	619.0	607.0
40°	927.4	824.9	738.9	674.8	628.1	597.9	554.9	533.1	521.8	517.2	515.0
42.5°	873.9	743.4	628.8	549.7	499.1	465.2	436.6	423.0	422.2	421.5	421.5
45°	816.6	656.0	521.8	427.5	383.0	352.9	339.3	334.0	338.5	337.8	338.5
47.5°	781.1	589.6	423.7	323.5	289.5	269.9	263.1	265.4	269.2	267.7	267.7
50°	776.6	555.7	358.1	251.8	226.2	216.4	214.9	214.9	217.2	215.6	214.9
52.5°	793.2	550.4	324.2	216.4	196.0	187.7	186.2	185.5	184.7	180.2	176.4
55°	821.9	562.5	314.4	207.3	186.2	177.2	174.9	173.4	170.4	164.4	157.6
57.5°	879.2	600.2	323.5	211.9	189.3	181.7	179.5	179.5	173.4	163.6	153.8
60°	1017.1	695.9	360.4	229.2	203.6	196.0	197.5	196.8	187.7	173.4	158.3
62.5°	1195.1	821.1	408.7	253.3	221.7	220.2	227.7	226.2	211.1	189.3	167.4
65°	1277.3	879.9	422.2	258.6	225.4	232.2	247.3	245.8	227.0	196.8	168.9
66°	1278.8	879.9	416.2	254.1	220.2	228.5	243.5	242.8	223.9	193.8	165.9
67.5°	1247.9	855.8	398.9	245.0	209.6	215.6	229.2	228.5	211.1	186.2	159.8
70°	1131.7	766.1	354.4	229.2	195.3	192.3	196.8	193.8	182.5	165.1	147.0
72.5°	969.6	643.2	309.1	217.2	185.5	173.4	170.4	168.1	159.1	149.3	138.0
75°	763.8	508.9	271.4	208.1	176.4	160.6	155.3	152.3	146.3	139.5	130.4
77.5°	471.2	364.2	236.8	196.0	169.6	153.8	150.0	145.5	136.5	128.2	121.4
80°	210.4	225.4	194.5	171.2	151.6	137.2	131.2	124.4	115.4	110.1	106.3
82.5°	140.2	145.5	141.0	128.2	114.6	103.3	94.2	94.2	92.7	88.2	86.7
85°	89.7	90.5	87.5	79.2	73.9	67.1	63.3	64.1	67.1	66.4	65.6
87.5°	20.4	20.4	24.1	22.6	26.4	27.9	30.2	32.4	36.9	36.9	39.2
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: P156634

CATALOG NUMBER: TLM-F03-LED-E1-T4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	901.0	901.0	901.0	901.0	901.0
2.5°	927.4	928.9	930.4	928.2	928.9
5°	953.8	953.0	956.8	954.6	956.1
7.5°	962.1	962.8	965.9	965.9	966.6
10°	962.8	964.4	968.1	970.4	971.9
12.5°	966.6	969.6	975.7	977.2	977.2
15°	969.6	971.1	974.9	976.4	977.9
17.5°	959.1	956.1	957.6	958.3	957.6
20°	932.7	929.7	928.9	925.9	927.4
22.5°	904.0	895.7	890.5	884.4	884.4
25°	869.4	856.5	846.0	835.4	837.7
27.5°	836.9	820.3	809.8	803.0	801.5
30°	805.3	787.9	778.1	769.8	769.8
32.5°	752.5	740.4	727.6	722.3	721.6
35°	679.3	671.8	661.3	659.0	655.2
37.5°	597.2	594.9	585.9	585.1	581.3
40°	511.2	512.7	509.7	508.2	505.9
42.5°	425.3	432.8	431.3	430.5	429.0
45°	343.1	348.3	349.1	351.4	355.1
47.5°	269.9	271.4	272.9	272.2	272.9
50°	211.1	207.3	206.6	204.3	206.6
52.5°	170.4	164.4	161.4	158.3	156.8
55°	150.0	144.0	141.0	139.5	138.0
57.5°	144.8	138.7	134.2	131.2	130.4
60°	146.3	137.2	131.2	127.4	126.7
62.5°	150.0	138.0	129.7	125.9	125.2
65°	149.3	136.5	128.9	124.4	123.7
66°	147.0	135.0	127.4	123.7	122.9
67.5°	143.3	132.7	125.9	122.9	121.4
70°	136.5	129.7	124.4	120.6	119.1
72.5°	130.4	125.2	120.6	116.9	116.1
75°	123.7	119.1	114.6	111.6	110.8
77.5°	115.4	110.8	107.8	105.6	104.8
80°	101.8	98.8	95.8	92.7	92.7
82.5°	84.4	82.2	79.2	76.9	76.2
85°	64.8	64.8	62.6	60.3	59.6
87.5°	38.5	37.7	37.7	35.4	35.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)