

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: P155603

Luminaire Tested: **TLM-F04-LED-E1-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155603
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33672)
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-T3-8030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

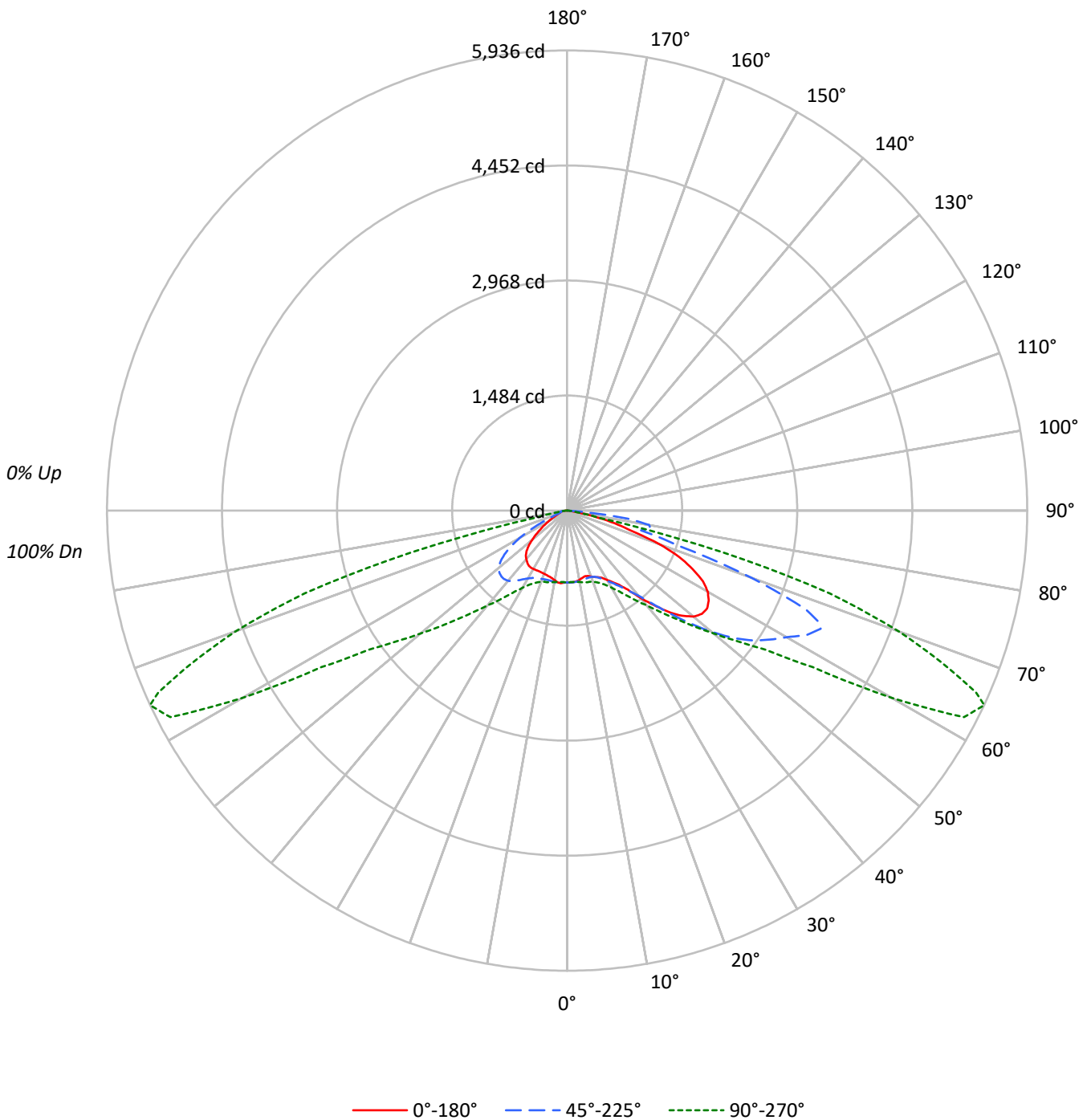
Lumens per Lamp: N/A
Luminaire Lumens: 8594.7 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (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				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	94	89	102	97	92	87	92	88	84		88	85	82		85	82	79	77
2	92	82	73	65	89	80	71	64	76	69	63		72	66	61		69	64	60	57
3	81	68	57	49	79	66	56	49	63	55	48		60	53	47		57	51	46	43
4	73	57	46	38	70	56	46	38	53	44	37		51	43	36		48	41	36	33
5	65	49	38	30	63	48	38	30	46	37	29		44	35	29		42	34	29	26
6	59	43	32	24	57	42	32	24	40	31	24		38	30	24		36	29	23	21
7	54	38	28	20	52	37	27	20	35	27	20		34	26	20		32	25	20	17
8	50	34	24	17	48	33	24	17	32	23	17		30	23	17		29	22	17	14
9	46	31	21	15	45	30	21	15	29	20	15		28	20	15		27	20	14	12
10	43	28	19	13	42	27	19	13	26	18	13		25	18	13		24	18	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14880	14880	14880
5°	14937	14922	15161
10°	14806	15261	14897
15°	14587	15930	14678
20°	15486	16724	14818
25°	16798	18345	15282
30°	19146	21335	16149
35°	22956	26163	16980
40°	30743	33490	17185
45°	42003	44597	16822
50°	53146	61577	14791
55°	61747	87661	11761
60°	67279	155036	8926
65°	67909	225661	6744
70°	59519	213730	5627
75°	39329	129340	5767
80°	14350	13147	6791
85°	2396	8737	7539



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	1.0
10°-20°	261.8	3.0
20°-30°	450.0	5.2
30°-40°	730.6	8.5
40°-50°	1219.7	14.2
50°-60°	1920.6	22.3
60°-70°	2619.0	30.5
70°-80°	1133.7	13.2
80°-90°	170.5	2.0
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°	800.5	9.3
0°-40°	1531.1	17.8
0°-60°	4671.5	54.4
0°-90°	8594.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8594.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	926	926	926	926	926	
5°	926	928	925	936	940	88
15°	877	913	958	930	882	252
25°	948	953	1035	961	862	444
35°	1170	1196	1334	1098	866	758
45°	1849	1873	1963	1201	740	1421
55°	2204	2920	3130	989	420	1944
65°	1786	3609	5936	347	177	1735
75°	634	987	2084	94	93	677
85°	13	219	47	65	41	34
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°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2
2.5°	929.9	933.6	929.9	930.8	931.8	930.8	929.9	929.9	927.1	929.0	930.8
5°	926.2	929.0	928.1	929.0	929.9	929.0	928.1	929.0	927.1	928.1	930.8
7.5°	921.5	920.6	921.5	923.4	925.3	925.3	925.3	926.2	925.3	925.3	928.1
10°	907.6	908.5	910.4	913.2	914.1	916.9	916.9	919.7	920.6	922.5	926.2
12.5°	890.0	890.9	892.8	894.6	899.3	903.9	903.9	910.4	913.2	917.8	924.3
15°	877.0	877.9	879.7	881.6	885.3	890.0	892.8	900.2	904.8	913.2	922.5
17.5°	884.4	883.5	885.3	886.2	886.2	890.0	890.0	895.5	901.1	908.5	920.6
20°	905.8	905.8	907.6	907.6	906.7	908.5	904.8	904.8	905.8	909.5	917.8
22.5°	927.1	926.2	929.9	931.8	932.7	935.5	931.8	930.8	926.2	923.4	926.2
25°	947.6	946.6	951.3	954.1	958.7	961.5	961.5	961.5	957.8	953.1	950.3
27.5°	979.1	979.1	983.8	986.6	990.3	995.9	998.7	998.7	999.6	993.1	988.4
30°	1032.1	1033.0	1034.0	1037.7	1041.4	1043.2	1047.0	1049.7	1052.5	1048.8	1041.4
32.5°	1095.3	1089.7	1089.7	1095.3	1099.9	1105.5	1107.3	1111.1	1116.6	1113.8	1112.9
35°	1170.5	1168.7	1166.8	1168.7	1174.2	1180.7	1188.2	1194.7	1191.0	1196.5	1193.7
37.5°	1282.0	1283.9	1284.8	1284.8	1283.9	1285.7	1289.4	1295.9	1294.1	1295.9	1299.6
40°	1465.9	1459.4	1452.9	1453.9	1444.6	1446.4	1431.6	1438.1	1439.0	1432.5	1435.3
42.5°	1649.9	1653.6	1656.4	1663.8	1657.3	1653.6	1639.7	1639.7	1632.2	1625.7	1623.9
45°	1848.7	1856.1	1857.0	1871.9	1866.3	1878.4	1888.6	1885.8	1873.8	1872.8	1859.8
47.5°	2007.5	2019.6	2032.6	2050.3	2064.2	2091.1	2122.7	2138.5	2147.8	2155.2	2140.4
50°	2126.4	2132.0	2165.5	2193.3	2224.0	2268.6	2312.2	2368.9	2414.4	2435.8	2456.2
52.5°	2190.5	2204.5	2240.7	2284.4	2338.2	2405.1	2475.7	2565.8	2643.9	2695.9	2742.4
55°	2204.5	2218.4	2259.3	2315.0	2388.4	2478.5	2579.8	2702.4	2819.5	2919.8	3017.3
57.5°	2165.5	2181.2	2224.9	2289.0	2375.4	2485.0	2612.3	2773.0	2934.7	3097.2	3241.2
60°	2093.9	2113.4	2153.4	2216.5	2312.2	2435.8	2588.1	2789.7	3016.4	3265.4	3541.3
62.5°	1975.9	1996.4	2033.5	2103.2	2201.7	2338.2	2514.8	2765.6	3086.1	3478.1	3967.7
65°	1786.4	1795.7	1841.2	1911.8	1999.2	2149.7	2343.8	2646.7	3063.8	3609.1	4283.5
66°	1701.0	1716.8	1744.6	1801.3	1884.9	2026.1	2221.2	2528.7	2979.2	3563.6	4275.2
67.5°	1567.2	1579.3	1597.8	1635.9	1687.0	1791.1	1975.9	2266.7	2721.0	3333.2	4097.7
70°	1267.1	1272.7	1297.8	1310.8	1328.4	1362.8	1429.7	1596.9	1950.9	2525.9	3307.2
72.5°	864.0	879.7	906.7	943.8	992.2	1038.6	1070.2	1091.6	1167.7	1506.8	2203.5
75°	633.6	650.3	684.7	733.9	818.4	915.0	1015.4	1061.8	1030.2	986.6	1227.2
77.5°	367.9	390.2	419.0	466.3	544.4	672.6	844.4	996.8	1099.9	1106.4	1050.7
80°	155.1	157.9	175.6	199.7	248.0	338.1	471.9	691.2	919.7	1073.9	1110.1
82.5°	35.3	43.7	55.7	66.0	80.8	111.5	165.4	275.0	497.0	779.4	1016.3
85°	13.0	13.0	17.7	26.0	29.7	33.4	43.7	69.7	118.9	219.2	457.1
87.5°	0.0	0.9	1.9	1.9	3.7	4.6	7.4	10.2	9.3	8.4	27.9
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2
2.5°	929.0	928.1	926.2	926.2	926.2	926.2	924.3	925.3	923.4	924.3	924.3
5°	928.1	928.1	927.1	925.3	926.2	926.2	927.1	925.3	925.3	926.2	925.3
7.5°	928.1	927.1	927.1	927.1	928.1	927.1	928.1	928.1	928.1	929.0	929.0
10°	928.1	928.1	929.9	930.8	930.8	931.8	934.6	934.6	935.5	936.4	938.3
12.5°	929.0	932.7	935.5	938.3	939.2	941.1	945.7	945.7	947.6	950.3	951.3
15°	929.9	935.5	941.1	942.9	944.8	948.5	953.1	955.0	957.8	960.6	962.4
17.5°	929.0	936.4	942.9	945.7	948.5	953.1	958.7	960.6	964.3	968.0	971.7
20°	928.1	938.3	948.5	952.2	955.9	962.4	969.9	974.5	978.2	983.8	987.5
22.5°	933.6	945.7	959.6	965.2	971.7	980.1	990.3	995.9	1000.5	1006.1	1008.9
25°	951.3	960.6	977.3	986.6	994.9	1008.9	1022.8	1029.3	1034.9	1039.5	1040.5
27.5°	981.0	983.8	1004.2	1016.3	1028.4	1050.7	1067.4	1072.0	1082.3	1086.0	1085.0
30°	1029.3	1024.7	1041.4	1060.0	1077.6	1108.3	1128.7	1140.8	1150.1	1150.1	1142.6
32.5°	1099.0	1091.6	1096.2	1117.6	1138.0	1182.6	1206.7	1222.5	1229.0	1227.2	1211.4
35°	1190.0	1185.4	1182.6	1199.3	1231.8	1283.9	1315.4	1323.8	1334.0	1332.2	1311.7
37.5°	1297.8	1294.1	1294.1	1313.6	1345.2	1422.3	1456.6	1462.2	1461.3	1446.4	1408.3
40°	1425.1	1423.2	1414.8	1426.0	1452.9	1553.3	1599.7	1607.1	1596.9	1572.8	1528.2
42.5°	1608.1	1596.9	1570.9	1577.4	1597.8	1695.4	1755.8	1776.2	1766.0	1741.8	1669.4
45°	1846.8	1834.7	1791.1	1785.5	1796.6	1882.1	1960.1	1964.8	1962.9	1932.3	1846.8
47.5°	2127.4	2108.8	2062.3	2047.5	2043.8	2122.7	2198.0	2205.4	2200.8	2155.2	2041.0
50°	2431.1	2404.2	2373.5	2363.3	2348.5	2405.1	2481.3	2482.2	2463.7	2400.5	2293.7
52.5°	2755.4	2746.1	2740.5	2730.3	2723.8	2773.0	2819.5	2791.6	2763.7	2697.8	2604.9
55°	3082.4	3120.4	3159.5	3163.2	3174.3	3227.3	3226.4	3150.2	3129.7	3093.5	3001.5
57.5°	3429.8	3571.0	3693.6	3731.7	3768.9	3867.3	3858.1	3782.8	3756.8	3712.2	3636.0
60°	3902.6	4283.5	4637.5	4722.0	4780.5	4898.5	4887.4	4771.2	4825.1	4821.4	4722.9
62.5°	4565.0	5198.6	5729.0	5859.1	5900.0	5913.0	5842.4	5716.9	5769.9	5829.4	5526.5
65°	5013.7	5758.8	6303.1	6403.5	6409.0	6253.9	6096.9	5949.2	5936.2	5885.1	5452.2
66°	5023.9	5786.6	6332.9	6430.4	6396.0	6184.2	5985.4	5836.8	5772.7	5660.3	5211.6
67.5°	4843.7	5612.9	6200.9	6304.1	6228.8	5928.8	5654.7	5463.3	5337.9	5155.8	4760.1
70°	4068.0	4830.7	5555.3	5747.6	5771.8	5324.0	4944.0	4719.2	4550.1	4300.3	3959.3
72.5°	3024.8	3714.1	4353.2	4537.1	4631.0	4273.3	3952.8	3781.9	3550.6	3287.7	3045.2
75°	1896.0	2382.8	2811.1	2940.2	2852.0	2575.1	2382.8	2311.3	2083.7	1926.7	1816.2
77.5°	1084.1	1236.5	1270.8	1221.6	1117.6	855.6	608.5	450.6	391.1	432.9	477.5
80°	1058.1	969.9	772.9	680.0	615.9	423.6	249.0	170.9	142.1	145.8	157.9
82.5°	1146.4	1230.0	1012.6	825.9	693.0	468.2	258.3	137.5	92.9	109.6	123.6
85°	745.0	1036.7	933.6	786.8	637.3	400.4	212.7	71.5	47.4	62.2	85.5
87.5°	75.2	82.7	70.6	95.7	71.5	33.4	16.7	10.2	9.3	11.1	16.7
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2	926.2
2.5°	925.3	925.3	926.2	927.1	928.1	929.0	929.0	929.0	929.0	930.8	929.9
5°	927.1	929.0	930.8	931.8	933.6	933.6	936.4	935.5	935.5	938.3	939.2
7.5°	930.8	933.6	937.3	936.4	940.1	939.2	941.1	941.1	938.3	939.2	937.3
10°	939.2	942.9	944.8	942.0	942.9	939.2	938.3	933.6	928.1	925.3	921.5
12.5°	953.1	956.9	956.9	952.2	946.6	938.3	931.8	921.5	913.2	908.5	903.9
15°	965.2	968.9	968.0	960.6	952.2	939.2	929.9	917.8	905.8	898.3	893.7
17.5°	974.5	976.4	973.6	963.4	954.1	942.0	932.7	919.7	905.8	896.5	888.1
20°	988.4	986.6	980.1	967.1	956.9	945.7	938.3	927.1	911.3	899.3	887.2
22.5°	1008.9	1001.4	989.4	975.4	965.2	955.0	947.6	935.5	919.7	904.8	890.9
25°	1035.8	1020.9	1004.2	989.4	980.1	968.9	960.6	947.6	930.8	914.1	897.4
27.5°	1074.8	1048.8	1027.5	1014.4	1004.2	990.3	980.1	963.4	945.7	926.2	907.6
30°	1118.5	1083.2	1062.8	1052.5	1041.4	1026.5	1010.7	989.4	968.9	947.6	925.3
32.5°	1175.2	1132.4	1112.9	1102.7	1087.8	1069.3	1050.7	1026.5	997.7	969.9	942.9
35°	1249.5	1205.8	1185.4	1169.6	1149.1	1125.0	1098.1	1065.5	1026.5	989.4	955.0
37.5°	1329.4	1282.0	1262.5	1245.8	1215.1	1183.5	1145.4	1098.1	1045.1	995.9	953.1
40°	1430.6	1387.0	1361.9	1333.1	1296.9	1242.0	1182.6	1113.8	1046.0	985.6	935.5
42.5°	1558.8	1515.2	1478.0	1432.5	1369.3	1284.8	1200.2	1111.1	1029.3	960.6	906.7
45°	1728.8	1675.9	1611.8	1531.9	1429.7	1311.7	1201.2	1093.4	997.7	921.5	864.0
47.5°	1936.9	1856.1	1751.1	1616.4	1469.6	1319.2	1186.3	1058.1	948.5	865.8	801.7
50°	2184.0	2056.8	1884.0	1686.1	1490.1	1308.0	1149.1	1005.2	878.8	790.6	714.4
52.5°	2466.4	2258.4	2003.8	1736.3	1489.2	1270.8	1086.0	925.3	787.8	689.3	616.8
55°	2798.1	2488.7	2127.4	1773.4	1463.1	1202.1	989.4	812.9	675.4	584.3	517.4
57.5°	3283.9	2862.2	2342.9	1831.0	1411.1	1096.2	858.4	678.2	557.4	471.0	414.3
60°	4172.1	3485.5	2731.2	1947.1	1331.2	941.1	705.1	534.2	432.9	363.2	325.1
62.5°	4840.9	3967.7	2941.2	1921.1	1170.5	749.7	523.0	389.2	318.6	271.3	247.1
65°	4745.2	3818.1	2717.3	1654.5	917.8	528.6	347.4	264.8	219.2	196.9	183.0
66°	4528.8	3623.0	2523.1	1489.2	793.3	439.4	286.1	222.0	188.6	172.8	163.5
67.5°	4118.2	3260.7	2175.7	1220.7	609.4	318.6	215.5	175.6	153.3	146.8	140.3
70°	3423.3	2600.2	1527.2	710.7	311.2	177.4	136.6	122.6	117.1	116.1	114.3
72.5°	2623.4	1840.3	899.3	336.3	161.6	118.0	105.9	101.3	99.4	99.4	100.3
75°	1608.1	1034.0	397.6	164.4	113.3	99.4	93.8	92.0	91.0	92.0	91.0
77.5°	537.0	328.9	170.0	124.5	103.1	92.0	88.3	86.4	86.4	86.4	86.4
80°	164.4	143.1	130.1	115.2	97.5	87.3	81.8	80.8	81.8	82.7	79.9
82.5°	123.6	117.1	109.6	102.2	88.3	78.0	76.2	76.2	76.2	73.4	69.7
85°	91.0	90.1	74.3	69.7	65.0	65.0	65.0	65.0	62.2	57.6	53.9
87.5°	16.7	15.8	16.7	17.7	26.0	27.9	27.9	29.7	32.5	30.7	30.7
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: P155603

CATALOG NUMBER: TLM-F04-LED-E1-T3-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	926.2	926.2	926.2	926.2	926.2
2.5°	929.9	929.0	931.8	929.9	930.8
5°	938.3	937.3	939.2	937.3	940.1
7.5°	935.5	933.6	932.7	933.6	934.6
10°	916.0	914.1	913.2	912.3	913.2
12.5°	899.3	895.5	895.5	893.7	894.6
15°	887.2	884.4	883.5	881.6	882.5
17.5°	881.6	877.0	875.1	873.2	873.2
20°	877.9	872.3	869.5	867.7	866.7
22.5°	877.9	869.5	865.8	864.0	863.0
25°	881.6	871.4	865.8	863.0	862.1
27.5°	889.0	876.0	869.5	865.8	865.8
30°	902.0	885.3	876.0	871.4	870.5
32.5°	915.0	892.8	879.7	874.2	872.3
35°	921.5	892.8	877.0	867.7	865.8
37.5°	914.1	880.7	861.2	847.2	844.4
40°	890.9	855.6	834.2	821.2	819.4
42.5°	860.2	825.9	800.8	791.5	788.7
45°	818.4	777.6	752.5	739.5	740.4
47.5°	746.9	705.1	682.8	670.7	672.6
50°	662.4	621.5	602.0	589.0	591.8
52.5°	569.5	532.3	513.7	507.2	505.4
55°	471.9	443.1	430.1	422.7	419.9
57.5°	382.7	362.3	353.0	343.7	344.7
60°	301.9	291.7	288.9	278.7	277.8
62.5°	237.8	231.3	228.5	221.1	222.0
65°	180.2	178.4	180.2	175.6	177.4
66°	162.6	163.5	163.5	160.7	162.6
67.5°	140.3	142.1	144.9	142.1	144.0
70°	116.1	118.0	119.8	119.8	119.8
72.5°	101.3	103.1	104.0	104.0	104.0
75°	92.9	93.8	94.8	92.9	92.9
77.5°	87.3	87.3	85.5	84.5	83.6
80°	79.0	78.0	75.2	73.4	73.4
82.5°	66.0	64.1	62.2	59.5	59.5
85°	50.2	48.3	46.4	42.7	40.9
87.5°	26.0	26.9	26.0	21.4	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)