

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: P155599

Luminaire Tested: **TLM-E04-LED-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155599
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-E04-LED-E1-T3-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

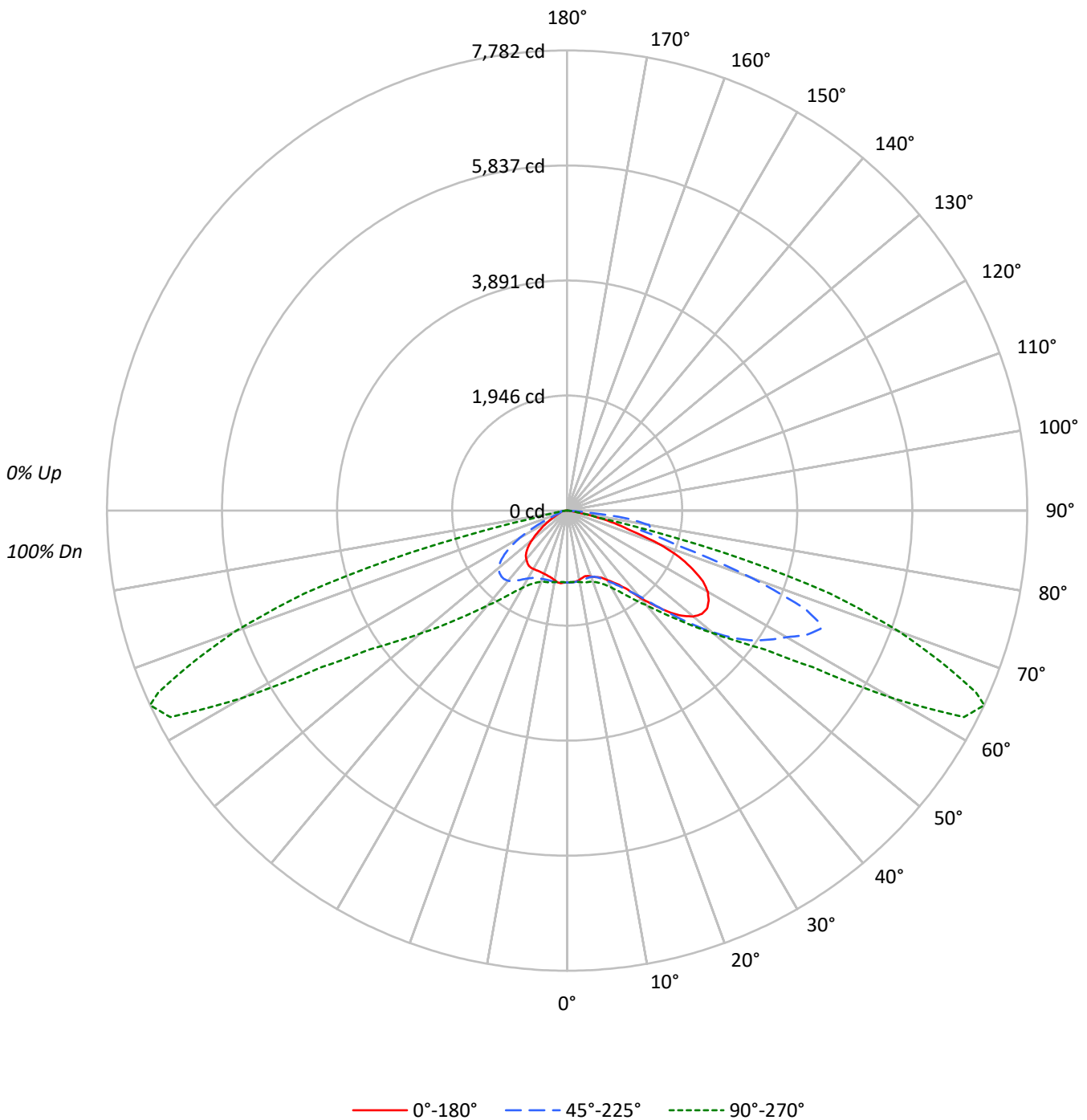
Lumens per Lamp: N/A
Luminaire Lumens: 11266.8 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 97.2
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°	19505	19505	19505
5°	19580	19560	19875
10°	19410	20005	19529
15°	19120	20883	19242
20°	20300	21923	19425
25°	22020	24048	20033
30°	25099	27967	21168
35°	30093	34298	22260
40°	40302	43903	22526
45°	55060	58463	22052
50°	69670	80719	19387
55°	80942	114917	15416
60°	88197	203239	11699
65°	89022	295816	8842
70°	78026	280182	7379
75°	51551	169551	7560
80°	18818	17236	8900
85°	3134	11447	9880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.3	1.0
10°-20°	343.2	3.0
20°-30°	589.9	5.2
30°-40°	957.7	8.5
40°-50°	1599.0	14.2
50°-60°	2517.8	22.3
60°-70°	3433.3	30.5
70°-80°	1486.2	13.2
80°-90°	223.5	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°	1049.3	9.3
0°-40°	2007.1	17.8
0°-60°	6123.8	54.4
0°-90°	11266.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11266.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1214	1214	1214	1214	1214	
5°	1214	1217	1213	1228	1232	115
15°	1150	1197	1256	1219	1157	330
25°	1242	1250	1357	1259	1130	582
35°	1534	1568	1749	1439	1135	994
45°	2423	2455	2573	1575	971	1863
55°	2890	3828	4103	1297	550	2549
65°	2342	4731	7782	456	233	2274
75°	830	1293	2732	123	122	888
85°	17	287	62	85	54	45
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°	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1
2.5°	1219.0	1223.9	1219.0	1220.2	1221.5	1220.2	1219.0	1219.0	1215.4	1217.8	1220.2
5°	1214.1	1217.8	1216.6	1217.8	1219.0	1217.8	1216.6	1217.8	1215.4	1216.6	1220.2
7.5°	1208.1	1206.8	1208.1	1210.5	1212.9	1212.9	1212.9	1214.1	1212.9	1212.9	1216.6
10°	1189.8	1191.0	1193.4	1197.1	1198.3	1202.0	1202.0	1205.6	1206.8	1209.3	1214.1
12.5°	1166.7	1167.9	1170.3	1172.7	1178.8	1184.9	1184.9	1193.4	1197.1	1203.2	1211.7
15°	1149.6	1150.8	1153.3	1155.7	1160.6	1166.7	1170.3	1180.0	1186.1	1197.1	1209.3
17.5°	1159.3	1158.1	1160.6	1161.8	1161.8	1166.7	1166.7	1174.0	1181.3	1191.0	1206.8
20°	1187.4	1187.4	1189.8	1189.8	1188.6	1191.0	1186.1	1186.1	1187.4	1192.2	1203.2
22.5°	1215.4	1214.1	1219.0	1221.5	1222.7	1226.3	1221.5	1220.2	1214.1	1210.5	1214.1
25°	1242.2	1240.9	1247.0	1250.7	1256.8	1260.4	1260.4	1260.4	1255.6	1249.5	1245.8
27.5°	1283.6	1283.6	1289.7	1293.3	1298.2	1305.5	1309.1	1309.1	1310.4	1301.8	1295.7
30°	1353.0	1354.2	1355.4	1360.3	1365.2	1367.6	1372.5	1376.1	1379.8	1374.9	1365.2
32.5°	1435.8	1428.5	1428.5	1435.8	1441.9	1449.2	1451.6	1456.5	1463.8	1460.1	1458.9
35°	1534.4	1532.0	1529.6	1532.0	1539.3	1547.8	1557.6	1566.1	1561.2	1568.5	1564.9
37.5°	1680.6	1683.0	1684.2	1684.2	1683.0	1685.4	1690.3	1698.8	1696.4	1698.8	1703.7
40°	1921.7	1913.2	1904.6	1905.9	1893.7	1896.1	1876.6	1885.2	1886.4	1877.8	1881.5
42.5°	2162.8	2167.7	2171.3	2181.1	2172.6	2167.7	2149.4	2149.4	2139.7	2131.2	2128.7
45°	2423.4	2433.2	2434.4	2453.9	2446.6	2462.4	2475.8	2472.1	2456.3	2455.1	2438.0
47.5°	2631.7	2647.5	2664.5	2687.7	2706.0	2741.3	2782.7	2803.4	2815.6	2825.3	2805.8
50°	2787.5	2794.9	2838.7	2875.2	2915.4	2973.9	3031.1	3105.4	3165.1	3193.1	3219.9
52.5°	2871.6	2889.8	2937.3	2994.6	3065.2	3152.9	3245.4	3363.6	3465.9	3534.1	3594.9
55°	2889.8	2908.1	2961.7	3034.8	3131.0	3249.1	3381.8	3542.6	3696.0	3827.5	3955.4
57.5°	2838.7	2859.4	2916.6	3000.7	3113.9	3257.6	3424.5	3635.1	3847.0	4060.1	4248.9
60°	2744.9	2770.5	2822.9	2905.7	3031.1	3193.1	3392.8	3657.1	3954.2	4280.6	4642.3
62.5°	2590.3	2617.1	2665.8	2757.1	2886.2	3065.2	3296.6	3625.4	4045.5	4559.4	5201.2
65°	2341.8	2354.0	2413.7	2506.2	2620.7	2818.0	3072.5	3469.5	4016.3	4731.2	5615.3
66°	2229.8	2250.5	2287.0	2361.3	2470.9	2656.0	2911.8	3314.9	3905.5	4671.5	5604.3
67.5°	2054.4	2070.3	2094.6	2144.5	2211.5	2347.9	2590.3	2971.4	3566.9	4369.5	5371.7
70°	1661.1	1668.4	1701.3	1718.3	1741.5	1786.5	1874.2	2093.4	2557.4	3311.2	4335.4
72.5°	1132.6	1153.3	1188.6	1237.3	1300.6	1361.5	1402.9	1430.9	1530.8	1975.3	2888.6
75°	830.5	852.5	897.5	962.1	1072.9	1199.5	1331.1	1391.9	1350.5	1293.3	1608.7
77.5°	482.2	511.5	549.2	611.3	713.6	881.7	1107.0	1306.7	1441.9	1450.4	1377.3
80°	203.4	207.0	230.2	261.8	325.2	443.3	618.6	906.0	1205.6	1407.8	1455.3
82.5°	46.3	57.2	73.1	86.5	105.9	146.1	216.8	360.5	651.5	1021.7	1332.3
85°	17.0	17.0	23.1	34.1	39.0	43.8	57.2	91.3	155.9	287.4	599.2
87.5°	0.0	1.2	2.4	2.4	4.9	6.1	9.7	13.4	12.2	11.0	36.5
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°	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1
2.5°	1217.8	1216.6	1214.1	1214.1	1214.1	1214.1	1211.7	1212.9	1210.5	1211.7	1211.7
5°	1216.6	1216.6	1215.4	1212.9	1214.1	1214.1	1215.4	1212.9	1212.9	1214.1	1212.9
7.5°	1216.6	1215.4	1215.4	1215.4	1216.6	1215.4	1216.6	1216.6	1216.6	1217.8	1217.8
10°	1216.6	1216.6	1219.0	1220.2	1220.2	1221.5	1225.1	1225.1	1226.3	1227.5	1230.0
12.5°	1217.8	1222.7	1226.3	1230.0	1231.2	1233.6	1239.7	1239.7	1242.2	1245.8	1247.0
15°	1219.0	1226.3	1233.6	1236.1	1238.5	1243.4	1249.5	1251.9	1255.6	1259.2	1261.6
17.5°	1217.8	1227.5	1236.1	1239.7	1243.4	1249.5	1256.8	1259.2	1264.1	1268.9	1273.8
20°	1216.6	1230.0	1243.4	1248.2	1253.1	1261.6	1271.4	1277.5	1282.3	1289.7	1294.5
22.5°	1223.9	1239.7	1258.0	1265.3	1273.8	1284.8	1298.2	1305.5	1311.6	1318.9	1322.5
25°	1247.0	1259.2	1281.1	1293.3	1304.3	1322.5	1340.8	1349.3	1356.6	1362.7	1363.9
27.5°	1286.0	1289.7	1316.4	1332.3	1348.1	1377.3	1399.3	1405.3	1418.7	1423.6	1422.4
30°	1349.3	1343.2	1365.2	1389.5	1412.6	1452.8	1479.6	1495.5	1507.6	1507.6	1497.9
32.5°	1440.7	1430.9	1437.0	1465.0	1491.8	1550.3	1581.9	1602.6	1611.2	1608.7	1588.0
35°	1560.0	1553.9	1550.3	1572.2	1614.8	1683.0	1724.4	1735.4	1748.8	1746.3	1719.5
37.5°	1701.3	1696.4	1696.4	1722.0	1763.4	1864.5	1909.5	1916.8	1915.6	1896.1	1846.2
40°	1868.1	1865.7	1854.7	1869.3	1904.6	2036.2	2097.1	2106.8	2093.4	2061.7	2003.3
42.5°	2108.0	2093.4	2059.3	2067.8	2094.6	2222.5	2301.6	2328.4	2315.0	2283.4	2188.4
45°	2421.0	2405.2	2347.9	2340.6	2355.2	2467.3	2569.6	2575.6	2573.2	2533.0	2421.0
47.5°	2788.8	2764.4	2703.5	2684.0	2679.2	2782.7	2881.3	2891.1	2885.0	2825.3	2675.5
50°	3187.0	3151.7	3111.5	3098.1	3078.6	3152.9	3252.7	3254.0	3229.6	3146.8	3006.7
52.5°	3612.0	3599.8	3592.5	3579.1	3570.6	3635.1	3696.0	3659.5	3623.0	3536.5	3414.7
55°	4040.7	4090.6	4141.7	4146.6	4161.2	4230.6	4229.4	4129.6	4102.8	4055.3	3934.7
57.5°	4496.1	4681.2	4842.0	4891.9	4940.6	5069.7	5057.5	4958.9	4924.8	4866.3	4766.5
60°	5116.0	5615.3	6079.3	6190.1	6266.8	6421.5	6406.8	6254.6	6325.3	6320.4	6191.3
62.5°	5984.3	6814.8	7510.2	7680.7	7734.3	7751.3	7658.7	7494.3	7563.8	7641.7	7244.7
65°	6572.5	7549.1	8262.8	8394.3	8401.6	8198.2	7992.4	7798.8	7781.7	7714.8	7147.3
66°	6585.9	7585.7	8301.7	8429.6	8384.6	8106.9	7846.3	7651.4	7567.4	7420.1	6831.9
67.5°	6349.6	7358.0	8128.8	8264.0	8165.4	7772.0	7412.8	7161.9	6997.5	6758.8	6240.0
70°	5332.7	6332.6	7282.4	7534.5	7566.2	6979.2	6481.1	6186.4	5964.8	5637.2	5190.3
72.5°	3965.2	4868.8	5706.6	5947.7	6070.7	5601.9	5181.7	4957.7	4654.4	4309.8	3991.9
75°	2485.5	3123.7	3685.1	3854.3	3738.6	3375.7	3123.7	3029.9	2731.5	2525.7	2380.8
77.5°	1421.2	1620.9	1666.0	1601.4	1465.0	1121.6	797.7	590.6	512.7	567.5	625.9
80°	1387.1	1271.4	1013.2	891.4	807.4	555.3	326.4	224.1	186.3	191.2	207.0
82.5°	1502.8	1612.4	1327.4	1082.6	908.5	613.8	338.5	180.2	121.8	143.7	162.0
85°	976.7	1359.1	1223.9	1031.5	835.4	524.9	278.9	93.8	62.1	81.6	112.0
87.5°	98.6	108.4	92.6	125.4	93.8	43.8	21.9	13.4	12.2	14.6	21.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1	1214.1
2.5°	1212.9	1212.9	1214.1	1215.4	1216.6	1217.8	1217.8	1217.8	1217.8	1220.2	1219.0
5°	1215.4	1217.8	1220.2	1221.5	1223.9	1223.9	1227.5	1226.3	1226.3	1230.0	1231.2
7.5°	1220.2	1223.9	1228.8	1227.5	1232.4	1231.2	1233.6	1233.6	1230.0	1231.2	1228.8
10°	1231.2	1236.1	1238.5	1234.8	1236.1	1231.2	1230.0	1223.9	1216.6	1212.9	1208.1
12.5°	1249.5	1254.3	1254.3	1248.2	1240.9	1230.0	1221.5	1208.1	1197.1	1191.0	1184.9
15°	1265.3	1270.2	1268.9	1259.2	1248.2	1231.2	1219.0	1203.2	1187.4	1177.6	1171.5
17.5°	1277.5	1279.9	1276.3	1262.9	1250.7	1234.8	1222.7	1205.6	1187.4	1175.2	1164.2
20°	1295.7	1293.3	1284.8	1267.7	1254.3	1239.7	1230.0	1215.4	1194.7	1178.8	1163.0
22.5°	1322.5	1312.8	1297.0	1278.7	1265.3	1251.9	1242.2	1226.3	1205.6	1186.1	1167.9
25°	1357.8	1338.4	1316.4	1297.0	1284.8	1270.2	1259.2	1242.2	1220.2	1198.3	1176.4
27.5°	1409.0	1374.9	1346.9	1329.8	1316.4	1298.2	1284.8	1262.9	1239.7	1214.1	1189.8
30°	1466.2	1420.0	1393.2	1379.8	1365.2	1345.7	1325.0	1297.0	1270.2	1242.2	1212.9
32.5°	1540.5	1484.5	1458.9	1445.5	1426.0	1401.7	1377.3	1345.7	1307.9	1271.4	1236.1
35°	1637.9	1580.7	1553.9	1533.2	1506.4	1474.8	1439.4	1396.8	1345.7	1297.0	1251.9
37.5°	1742.7	1680.6	1655.0	1633.1	1592.9	1551.5	1501.5	1439.4	1370.0	1305.5	1249.5
40°	1875.4	1818.2	1785.3	1747.5	1700.0	1628.2	1550.3	1460.1	1371.2	1292.1	1226.3
42.5°	2043.5	1986.2	1937.5	1877.8	1795.0	1684.2	1573.4	1456.5	1349.3	1259.2	1188.6
45°	2266.3	2196.9	2112.9	2008.2	1874.2	1719.5	1574.6	1433.4	1307.9	1208.1	1132.6
47.5°	2539.1	2433.2	2295.6	2119.0	1926.6	1729.3	1555.1	1387.1	1243.4	1135.0	1051.0
50°	2863.0	2696.2	2469.7	2210.3	1953.4	1714.7	1506.4	1317.7	1152.0	1036.3	936.5
52.5°	3233.3	2960.5	2626.8	2276.1	1952.1	1666.0	1423.6	1212.9	1032.7	903.6	808.6
55°	3668.0	3262.5	2788.8	2324.8	1918.0	1575.8	1297.0	1065.6	885.3	766.0	678.3
57.5°	4304.9	3752.0	3071.3	2400.3	1849.8	1437.0	1125.2	889.0	730.7	617.4	543.1
60°	5469.1	4569.2	3580.3	2552.5	1745.1	1233.6	924.3	700.2	567.5	476.2	426.2
62.5°	6346.0	5201.2	3855.6	2518.4	1534.4	982.8	685.6	510.3	417.7	355.6	323.9
65°	6220.5	5005.2	3562.1	2168.9	1203.2	692.9	455.5	347.1	287.4	258.2	239.9
66°	5936.8	4749.4	3307.5	1952.1	1040.0	576.0	375.1	291.1	247.2	226.5	214.3
67.5°	5398.5	4274.5	2852.1	1600.2	798.9	417.7	282.5	230.2	200.9	192.4	183.9
70°	4487.6	3408.6	2002.1	931.6	408.0	232.6	179.0	160.7	153.4	152.2	149.8
72.5°	3439.1	2412.5	1178.8	440.8	211.9	154.7	138.8	132.7	130.3	130.3	131.5
75°	2108.0	1355.4	521.2	215.6	148.6	130.3	123.0	120.6	119.3	120.6	119.3
77.5°	703.9	431.1	222.9	163.2	135.2	120.6	115.7	113.3	113.3	113.3	113.3
80°	215.6	187.5	170.5	151.0	127.9	114.5	107.2	105.9	107.2	108.4	104.7
82.5°	162.0	153.4	143.7	134.0	115.7	102.3	99.9	99.9	99.9	96.2	91.3
85°	119.3	118.1	97.4	91.3	85.2	85.2	85.2	85.2	81.6	75.5	70.6
87.5°	21.9	20.7	21.9	23.1	34.1	36.5	36.5	39.0	42.6	40.2	40.2
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: P155599

CATALOG NUMBER: TLM-E04-LED-E1-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1214.1	1214.1	1214.1	1214.1	1214.1
2.5°	1219.0	1217.8	1221.5	1219.0	1220.2
5°	1230.0	1228.8	1231.2	1228.8	1232.4
7.5°	1226.3	1223.9	1222.7	1223.9	1225.1
10°	1200.8	1198.3	1197.1	1195.9	1197.1
12.5°	1178.8	1174.0	1174.0	1171.5	1172.7
15°	1163.0	1159.3	1158.1	1155.7	1156.9
17.5°	1155.7	1149.6	1147.2	1144.7	1144.7
20°	1150.8	1143.5	1139.9	1137.4	1136.2
22.5°	1150.8	1139.9	1135.0	1132.6	1131.3
25°	1155.7	1142.3	1135.0	1131.3	1130.1
27.5°	1165.4	1148.4	1139.9	1135.0	1135.0
30°	1182.5	1160.6	1148.4	1142.3	1141.1
32.5°	1199.5	1170.3	1153.3	1146.0	1143.5
35°	1208.1	1170.3	1149.6	1137.4	1135.0
37.5°	1198.3	1154.5	1128.9	1110.6	1107.0
40°	1167.9	1121.6	1093.6	1076.5	1074.1
42.5°	1127.7	1082.6	1049.7	1037.6	1033.9
45°	1072.9	1019.3	986.4	969.4	970.6
47.5°	979.1	924.3	895.1	879.3	881.7
50°	868.3	814.7	789.1	772.1	775.7
52.5°	746.5	697.8	673.4	664.9	662.5
55°	618.6	580.9	563.8	554.1	550.4
57.5°	501.7	474.9	462.8	450.6	451.8
60°	395.8	382.4	378.7	365.3	364.1
62.5°	311.8	303.2	299.6	289.8	291.1
65°	236.3	233.8	236.3	230.2	232.6
66°	213.1	214.3	214.3	210.7	213.1
67.5°	183.9	186.3	190.0	186.3	188.8
70°	152.2	154.7	157.1	157.1	157.1
72.5°	132.7	135.2	136.4	136.4	136.4
75°	121.8	123.0	124.2	121.8	121.8
77.5°	114.5	114.5	112.0	110.8	109.6
80°	103.5	102.3	98.6	96.2	96.2
82.5°	86.5	84.0	81.6	77.9	77.9
85°	65.8	63.3	60.9	56.0	53.6
87.5°	34.1	35.3	34.1	28.0	24.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)