

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: P155614

Luminaire Tested: **TLM-F05-LED-E1-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P155614
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-F05-LED-E1-T3-7030
Description: TALON MEDIUM LED SITE LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (35) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11626.3 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.97 / 4.22 / 2.62
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
CIE Type: Direct

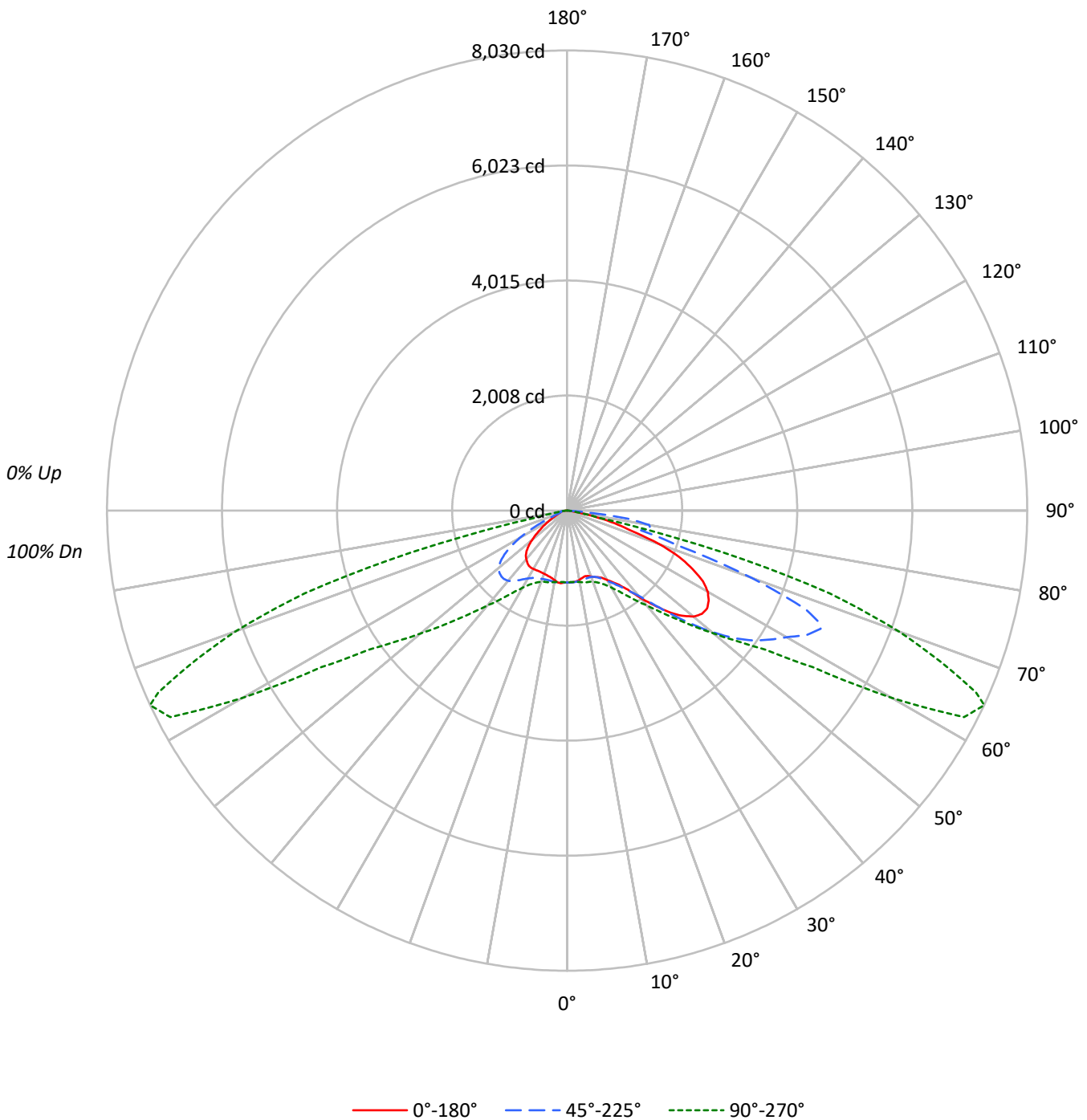
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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°	16248	16248	16248
5°	16310	16293	16555
10°	16168	16665	16267
15°	15927	17395	16028
20°	16909	18263	16182
25°	18342	20031	16687
30°	20906	23296	17633
35°	25068	28570	18542
40°	33571	36571	18764
45°	45864	48699	18370
50°	58035	67239	16151
55°	67423	95724	12842
60°	73467	169294	9745
65°	74153	246411	7365
70°	64995	233386	6146
75°	42941	141236	6298
80°	15676	14362	7416
85°	2619	9538	8229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.0	1.0
10°-20°	354.1	3.0
20°-30°	608.7	5.2
30°-40°	988.3	8.5
40°-50°	1650.0	14.2
50°-60°	2598.1	22.3
60°-70°	3542.8	30.5
70°-80°	1533.7	13.2
80°-90°	230.6	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°	1082.8	9.3
0°-40°	2071.1	17.8
0°-60°	6319.2	54.4
0°-90°	11626.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11626.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1253	1253	1253	1253	1253	
5°	1253	1255	1252	1267	1272	119
15°	1186	1235	1296	1258	1194	341
25°	1282	1289	1400	1299	1166	601
35°	1583	1619	1805	1485	1171	1026
45°	2501	2533	2655	1625	1002	1922
55°	2982	3950	4234	1338	568	2630
65°	2416	4882	8030	470	240	2346
75°	857	1335	2819	127	126	916
85°	18	297	64	88	55	46
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°	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9
2.5°	1257.9	1262.9	1257.9	1259.2	1260.4	1259.2	1257.9	1257.9	1254.1	1256.7	1259.2
5°	1252.9	1256.7	1255.4	1256.7	1257.9	1256.7	1255.4	1256.7	1254.1	1255.4	1259.2
7.5°	1246.6	1245.3	1246.6	1249.1	1251.6	1251.6	1251.6	1252.9	1251.6	1251.6	1255.4
10°	1227.8	1229.0	1231.5	1235.3	1236.5	1240.3	1240.3	1244.1	1245.3	1247.9	1252.9
12.5°	1203.9	1205.1	1207.6	1210.2	1216.4	1222.7	1222.7	1231.5	1235.3	1241.6	1250.4
15°	1186.3	1187.5	1190.1	1192.6	1197.6	1203.9	1207.6	1217.7	1224.0	1235.3	1247.9
17.5°	1196.3	1195.1	1197.6	1198.8	1198.8	1203.9	1203.9	1211.4	1219.0	1229.0	1245.3
20°	1225.2	1225.2	1227.8	1227.8	1226.5	1229.0	1224.0	1224.0	1225.2	1230.3	1241.6
22.5°	1254.1	1252.9	1257.9	1260.4	1261.7	1265.5	1260.4	1259.2	1252.9	1249.1	1252.9
25°	1281.8	1280.5	1286.8	1290.6	1296.9	1300.6	1300.6	1300.6	1295.6	1289.3	1285.6
27.5°	1324.5	1324.5	1330.8	1334.6	1339.6	1347.1	1350.9	1350.9	1352.2	1343.4	1337.1
30°	1396.1	1397.4	1398.7	1403.7	1408.7	1411.2	1416.3	1420.0	1423.8	1418.8	1408.7
32.5°	1481.6	1474.1	1474.1	1481.6	1487.9	1495.4	1497.9	1503.0	1510.5	1506.7	1505.5
35°	1583.4	1580.9	1578.4	1580.9	1588.4	1597.2	1607.3	1616.1	1611.0	1618.6	1614.8
37.5°	1734.2	1736.7	1738.0	1738.0	1736.7	1739.2	1744.2	1753.0	1750.5	1753.0	1758.1
40°	1983.0	1974.2	1965.4	1966.7	1954.1	1956.6	1936.5	1945.3	1946.6	1937.8	1941.5
42.5°	2231.8	2236.8	2240.6	2250.7	2241.9	2236.8	2218.0	2218.0	2207.9	2199.1	2196.6
45°	2500.7	2510.8	2512.1	2532.2	2524.6	2541.0	2554.8	2551.0	2534.7	2533.4	2515.8
47.5°	2715.6	2732.0	2749.6	2773.4	2792.3	2828.7	2871.5	2892.8	2905.4	2915.4	2895.3
50°	2876.5	2884.0	2929.3	2967.0	3008.4	3068.8	3127.8	3204.5	3266.0	3295.0	3322.6
52.5°	2963.2	2982.0	3031.1	3090.1	3163.0	3253.5	3349.0	3470.9	3576.4	3646.8	3709.6
55°	2982.0	3000.9	3056.2	3131.6	3230.9	3352.8	3489.7	3655.6	3814.0	3949.7	4081.6
57.5°	2929.3	2950.6	3009.7	3096.4	3213.3	3361.6	3533.7	3751.1	3969.8	4189.7	4384.5
60°	2832.5	2858.9	2912.9	2998.4	3127.8	3295.0	3501.0	3773.7	4080.4	4417.1	4790.4
62.5°	2672.9	2700.6	2750.8	2845.1	2978.3	3163.0	3401.8	3741.1	4174.6	4704.9	5367.2
65°	2416.5	2429.1	2490.7	2586.2	2704.3	2907.9	3170.5	3580.2	4144.5	4882.1	5794.4
66°	2300.9	2322.3	2360.0	2436.7	2549.8	2740.8	3004.7	3420.6	4030.1	4820.5	5783.1
67.5°	2120.0	2136.3	2161.4	2213.0	2282.1	2422.8	2672.9	3066.2	3680.7	4508.9	5543.1
70°	1714.1	1721.6	1755.5	1773.1	1797.0	1843.5	1934.0	2160.2	2639.0	3416.8	4473.7
72.5°	1168.7	1190.1	1226.5	1276.8	1342.1	1404.9	1447.7	1476.6	1579.6	2038.3	2980.8
75°	857.0	879.7	926.2	992.8	1107.1	1237.8	1373.5	1436.4	1393.6	1334.6	1660.0
77.5°	497.6	527.8	566.8	630.8	736.4	909.8	1142.3	1348.4	1487.9	1496.7	1421.3
80°	209.9	213.6	237.5	270.2	335.5	457.4	638.4	935.0	1244.1	1452.7	1501.7
82.5°	47.8	59.1	75.4	89.2	109.3	150.8	223.7	372.0	672.3	1054.3	1374.8
85°	17.6	17.6	23.9	35.2	40.2	45.2	59.1	94.2	160.9	296.6	618.3
87.5°	0.0	1.3	2.5	2.5	5.0	6.3	10.1	13.8	12.6	11.3	37.7
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9
2.5°	1256.7	1255.4	1252.9	1252.9	1252.9	1252.9	1250.4	1251.6	1249.1	1250.4	1250.4
5°	1255.4	1255.4	1254.1	1251.6	1252.9	1252.9	1254.1	1251.6	1251.6	1252.9	1251.6
7.5°	1255.4	1254.1	1254.1	1254.1	1255.4	1254.1	1255.4	1255.4	1255.4	1256.7	1256.7
10°	1255.4	1255.4	1257.9	1259.2	1259.2	1260.4	1264.2	1264.2	1265.5	1266.7	1269.2
12.5°	1256.7	1261.7	1265.5	1269.2	1270.5	1273.0	1279.3	1279.3	1281.8	1285.6	1286.8
15°	1257.9	1265.5	1273.0	1275.5	1278.0	1283.0	1289.3	1291.8	1295.6	1299.4	1301.9
17.5°	1256.7	1266.7	1275.5	1279.3	1283.0	1289.3	1296.9	1299.4	1304.4	1309.4	1314.5
20°	1255.4	1269.2	1283.0	1288.1	1293.1	1301.9	1311.9	1318.2	1323.3	1330.8	1335.8
22.5°	1262.9	1279.3	1298.1	1305.7	1314.5	1325.8	1339.6	1347.1	1353.4	1361.0	1364.7
25°	1286.8	1299.4	1322.0	1334.6	1345.9	1364.7	1383.6	1392.4	1399.9	1406.2	1407.5
27.5°	1327.0	1330.8	1358.4	1374.8	1391.1	1421.3	1443.9	1450.2	1464.0	1469.0	1467.8
30°	1392.4	1386.1	1408.7	1433.8	1457.7	1499.2	1526.8	1543.2	1555.7	1555.7	1545.7
32.5°	1486.6	1476.6	1482.9	1511.8	1539.4	1599.7	1632.4	1653.8	1662.6	1660.0	1638.7
35°	1609.8	1603.5	1599.7	1622.3	1666.3	1736.7	1779.4	1790.7	1804.6	1802.0	1774.4
37.5°	1755.5	1750.5	1750.5	1776.9	1819.6	1923.9	1970.4	1978.0	1976.7	1956.6	1905.1
40°	1927.7	1925.2	1913.9	1929.0	1965.4	2101.1	2164.0	2174.0	2160.2	2127.5	2067.2
42.5°	2175.3	2160.2	2125.0	2133.8	2161.4	2293.4	2375.1	2402.7	2388.9	2356.2	2258.2
45°	2498.2	2481.9	2422.8	2415.3	2430.4	2546.0	2651.5	2657.8	2655.3	2613.8	2498.2
47.5°	2877.7	2852.6	2789.8	2769.7	2764.6	2871.5	2973.2	2983.3	2977.0	2915.4	2760.9
50°	3288.7	3252.2	3210.8	3196.9	3176.8	3253.5	3356.5	3357.8	3332.7	3247.2	3102.7
52.5°	3727.2	3714.7	3707.1	3693.3	3684.5	3751.1	3814.0	3776.3	3738.6	3649.3	3523.7
55°	4169.6	4221.1	4273.9	4278.9	4294.0	4365.6	4364.4	4261.3	4233.7	4184.7	4060.3
57.5°	4639.6	4830.6	4996.5	5048.0	5098.3	5231.5	5218.9	5117.1	5081.9	5021.6	4918.6
60°	5279.2	5794.4	6273.2	6387.6	6466.8	6626.3	6611.3	6454.2	6527.1	6522.0	6388.8
62.5°	6175.2	7032.2	7749.8	7925.7	7981.0	7998.6	7903.1	7733.5	7805.1	7885.5	7475.8
65°	6782.2	7790.0	8526.4	8662.1	8669.7	8459.8	8247.4	8047.6	8030.0	7960.9	7375.3
66°	6796.0	7827.7	8566.6	8698.6	8652.1	8365.6	8096.6	7895.6	7808.9	7656.8	7049.8
67.5°	6552.2	7592.7	8388.2	8527.7	8425.9	8020.0	7649.3	7390.4	7220.7	6974.4	6439.1
70°	5502.9	6534.6	7514.8	7774.9	7807.6	7201.9	6687.9	6383.8	6155.1	5817.1	5355.9
72.5°	4091.7	5024.1	5888.7	6137.5	6264.4	5780.6	5347.1	5115.8	4802.9	4447.3	4119.3
75°	2564.8	3223.3	3802.6	3977.3	3857.9	3483.4	3223.3	3126.6	2818.7	2606.3	2456.8
77.5°	1466.5	1672.6	1719.1	1652.5	1511.8	1157.4	823.1	609.5	529.1	585.6	645.9
80°	1431.3	1311.9	1045.5	919.9	833.2	573.0	336.8	231.2	192.3	197.3	213.6
82.5°	1550.7	1663.8	1369.8	1117.2	937.5	633.4	349.4	186.0	125.7	148.3	167.1
85°	1007.8	1402.4	1262.9	1064.4	862.1	541.6	287.8	96.8	64.1	84.2	115.6
87.5°	101.8	111.8	95.5	129.4	96.8	45.2	22.6	13.8	12.6	15.1	22.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9	1252.9
2.5°	1251.6	1251.6	1252.9	1254.1	1255.4	1256.7	1256.7	1256.7	1256.7	1259.2	1257.9
5°	1254.1	1256.7	1259.2	1260.4	1262.9	1262.9	1266.7	1265.5	1265.5	1269.2	1270.5
7.5°	1259.2	1262.9	1268.0	1266.7	1271.7	1270.5	1273.0	1273.0	1269.2	1270.5	1268.0
10°	1270.5	1275.5	1278.0	1274.2	1275.5	1270.5	1269.2	1262.9	1255.4	1251.6	1246.6
12.5°	1289.3	1294.4	1294.4	1288.1	1280.5	1269.2	1260.4	1246.6	1235.3	1229.0	1222.7
15°	1305.7	1310.7	1309.4	1299.4	1288.1	1270.5	1257.9	1241.6	1225.2	1215.2	1208.9
17.5°	1318.2	1320.7	1317.0	1303.2	1290.6	1274.2	1261.7	1244.1	1225.2	1212.7	1201.4
20°	1337.1	1334.6	1325.8	1308.2	1294.4	1279.3	1269.2	1254.1	1232.8	1216.4	1200.1
22.5°	1364.7	1354.7	1338.3	1319.5	1305.7	1291.8	1281.8	1265.5	1244.1	1224.0	1205.1
25°	1401.2	1381.1	1358.4	1338.3	1325.8	1310.7	1299.4	1281.8	1259.2	1236.5	1213.9
27.5°	1454.0	1418.8	1389.9	1372.3	1358.4	1339.6	1325.8	1303.2	1279.3	1252.9	1227.8
30°	1513.0	1465.3	1437.6	1423.8	1408.7	1388.6	1367.2	1338.3	1310.7	1281.8	1251.6
32.5°	1589.7	1531.9	1505.5	1491.7	1471.5	1446.4	1421.3	1388.6	1349.6	1311.9	1275.5
35°	1690.2	1631.1	1603.5	1582.1	1554.5	1521.8	1485.4	1441.4	1388.6	1338.3	1291.8
37.5°	1798.3	1734.2	1707.8	1685.2	1643.7	1601.0	1549.5	1485.4	1413.7	1347.1	1289.3
40°	1935.2	1876.2	1842.3	1803.3	1754.3	1680.1	1599.7	1506.7	1415.0	1333.3	1265.5
42.5°	2108.7	2049.6	1999.3	1937.8	1852.3	1738.0	1623.6	1503.0	1392.4	1299.4	1226.5
45°	2338.6	2267.0	2180.3	2072.2	1934.0	1774.4	1624.9	1479.1	1349.6	1246.6	1168.7
47.5°	2620.1	2510.8	2368.8	2186.6	1988.0	1784.5	1604.7	1431.3	1283.0	1171.2	1084.5
50°	2954.4	2782.2	2548.5	2280.8	2015.7	1769.4	1554.5	1359.7	1188.8	1069.4	966.4
52.5°	3336.4	3054.9	2710.6	2348.7	2014.4	1719.1	1469.0	1251.6	1065.6	932.4	834.4
55°	3785.0	3366.6	2877.7	2399.0	1979.2	1626.1	1338.3	1099.6	913.6	790.4	700.0
57.5°	4442.3	3871.8	3169.3	2476.9	1908.9	1482.9	1161.1	917.4	754.0	637.1	560.5
60°	5643.6	4715.0	3694.6	2634.0	1800.8	1273.0	953.8	722.6	585.6	491.4	439.8
62.5°	6548.4	5367.2	3978.6	2598.8	1583.4	1014.1	707.5	526.5	431.0	366.9	334.3
65°	6419.0	5164.9	3675.7	2238.1	1241.6	715.0	470.0	358.1	296.6	266.4	247.6
66°	6126.2	4901.0	3413.1	2014.4	1073.2	594.4	387.0	300.3	255.1	233.7	221.2
67.5°	5570.8	4410.9	2943.1	1651.2	824.4	431.0	291.5	237.5	207.3	198.6	189.8
70°	4630.8	3517.4	2065.9	961.3	421.0	240.0	184.7	165.9	158.3	157.1	154.6
72.5°	3548.8	2489.4	1216.4	454.9	218.7	159.6	143.3	137.0	134.5	134.5	135.7
75°	2175.3	1398.7	537.8	222.4	153.3	134.5	126.9	124.4	123.2	124.4	123.2
77.5°	726.3	444.9	230.0	168.4	139.5	124.4	119.4	116.9	116.9	116.9	116.9
80°	222.4	193.5	175.9	155.8	131.9	118.1	110.6	109.3	110.6	111.8	108.1
82.5°	167.1	158.3	148.3	138.2	119.4	105.6	103.0	103.0	103.0	99.3	94.2
85°	123.2	121.9	100.5	94.2	88.0	88.0	88.0	88.0	84.2	77.9	72.9
87.5°	22.6	21.4	22.6	23.9	35.2	37.7	37.7	40.2	44.0	41.5	41.5
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: P155614

CATALOG NUMBER: TLM-F05-LED-E1-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1252.9	1252.9	1252.9	1252.9	1252.9
2.5°	1257.9	1256.7	1260.4	1257.9	1259.2
5°	1269.2	1268.0	1270.5	1268.0	1271.7
7.5°	1265.5	1262.9	1261.7	1262.9	1264.2
10°	1239.1	1236.5	1235.3	1234.0	1235.3
12.5°	1216.4	1211.4	1211.4	1208.9	1210.2
15°	1200.1	1196.3	1195.1	1192.6	1193.8
17.5°	1192.6	1186.3	1183.8	1181.3	1181.3
20°	1187.5	1180.0	1176.2	1173.7	1172.5
22.5°	1187.5	1176.2	1171.2	1168.7	1167.4
25°	1192.6	1178.7	1171.2	1167.4	1166.2
27.5°	1202.6	1185.0	1176.2	1171.2	1171.2
30°	1220.2	1197.6	1185.0	1178.7	1177.5
32.5°	1237.8	1207.6	1190.1	1182.5	1180.0
35°	1246.6	1207.6	1186.3	1173.7	1171.2
37.5°	1236.5	1191.3	1164.9	1146.1	1142.3
40°	1205.1	1157.4	1128.5	1110.9	1108.4
42.5°	1163.7	1117.2	1083.2	1070.7	1066.9
45°	1107.1	1051.8	1017.9	1000.3	1001.6
47.5°	1010.4	953.8	923.6	907.3	909.8
50°	896.0	840.7	814.3	796.7	800.5
52.5°	770.3	720.1	694.9	686.1	683.6
55°	638.4	599.4	581.8	571.8	568.0
57.5°	517.7	490.1	477.5	465.0	466.2
60°	408.4	394.6	390.8	377.0	375.7
62.5°	321.7	312.9	309.1	299.1	300.3
65°	243.8	241.3	243.8	237.5	240.0
66°	219.9	221.2	221.2	217.4	219.9
67.5°	189.8	192.3	196.0	192.3	194.8
70°	157.1	159.6	162.1	162.1	162.1
72.5°	137.0	139.5	140.7	140.7	140.7
75°	125.7	126.9	128.2	125.7	125.7
77.5°	118.1	118.1	115.6	114.4	113.1
80°	106.8	105.6	101.8	99.3	99.3
82.5°	89.2	86.7	84.2	80.4	80.4
85°	67.9	65.3	62.8	57.8	55.3
87.5°	35.2	36.4	35.2	28.9	25.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)