

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: P152376

Luminaire Tested: **TLM-F03-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P152376
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33680)
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-SL4-7050
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

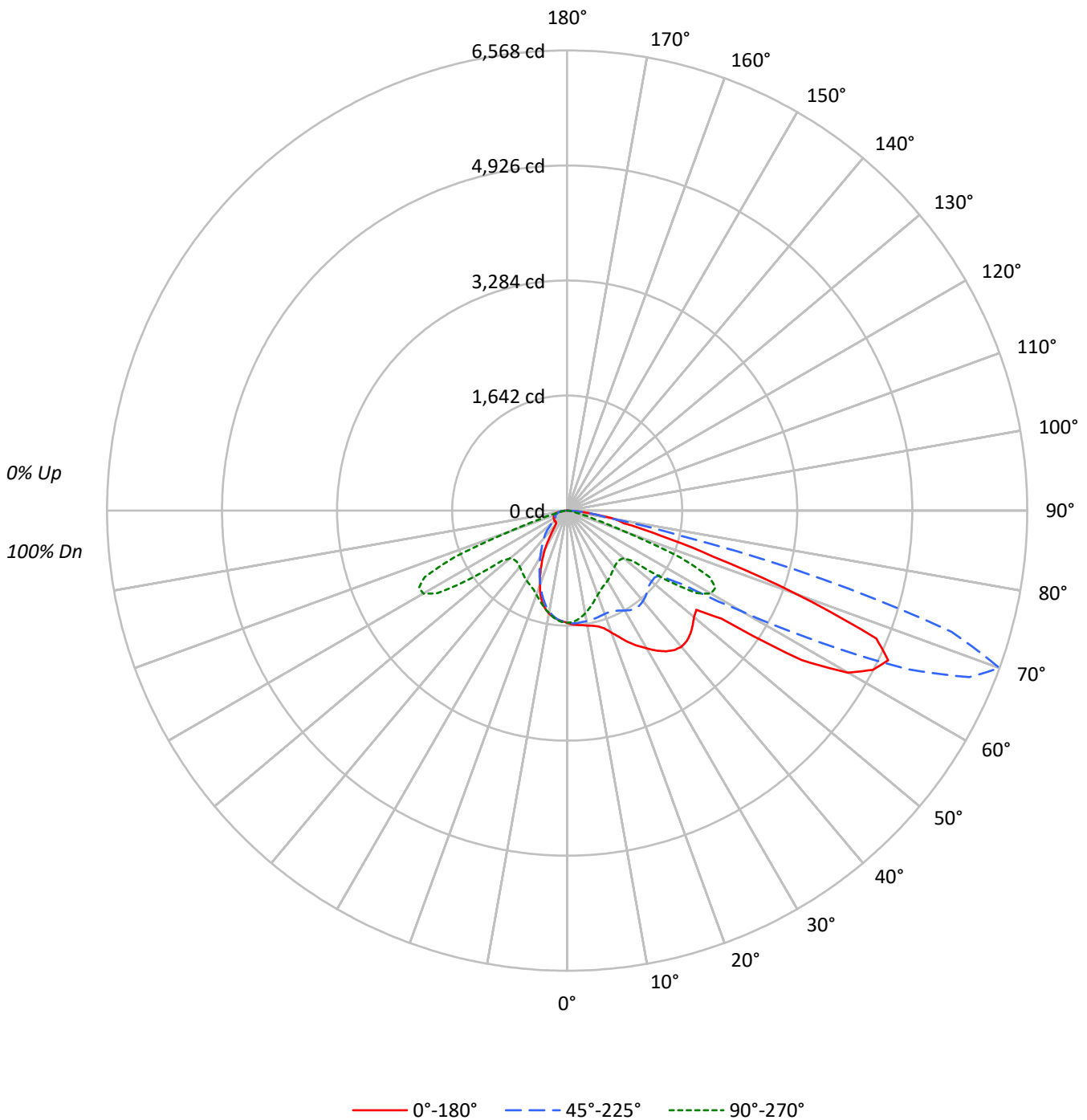
Lumens per Lamp: N/A
Luminaire Lumens: 7507.1 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.36 / 1.07 / 1.36
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
CIE Type: Direct

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					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	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	66	61	59					59			
3	83	70	59	51	80	68	58	51	65	57	50	62	55	49	59	53	48	45					45			
4	74	60	49	41	72	58	48	40	55	47	40	53	45	39	51	44	39	36					36			
5	67	52	41	33	65	51	41	33	48	40	33	46	38	32	44	37	32	29					29			
6	61	46	36	28	59	45	35	28	43	34	28	41	33	27	39	32	27	25					25			
7	57	41	31	24	55	40	31	24	39	30	24	37	29	23	36	29	23	21					21			
8	53	37	28	21	51	36	27	21	35	27	21	34	26	21	32	26	20	18					18			
9	49	34	25	19	47	33	25	19	32	24	18	31	24	18	30	23	18	16					16			
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	28	21	16	14					14			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	34483	34483	34483
5°	35402	33956	33738
10°	36441	32554	32608
15°	38154	30830	30375
20°	42460	29265	26023
25°	49236	28533	20806
30°	56433	28701	15539
35°	64424	28919	10108
40°	71296	29519	6975
45°	75744	31179	6963
50°	79207	35434	7747
55°	100783	64856	8456
60°	199244	102012	9481
65°	257559	114348	10656
70°	219137	54062	11997
75°	115200	19871	14797
80°	85691	10811	16067
85°	49598	10473	16105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.6	2.0
10°-20°	409.7	5.5
20°-30°	606.4	8.1
30°-40°	766.4	10.2
40°-50°	866.7	11.5
50°-60°	1233.4	16.4
60°-70°	2297.1	30.6
70°-80°	1052.8	14.0
80°-90°	125.0	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°	1165.8	15.5
0°-40°	1932.1	25.7
0°-60°	4032.3	53.7
0°-90°	7507.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7507.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1602	1602	1602	1602	1602	
5°	1638	1611	1571	1559	1561	157
15°	1712	1588	1383	1310	1363	493
25°	2073	1580	1201	936	876	962
35°	2451	1706	1100	627	385	1532
45°	2488	1620	1024	410	229	1914
55°	2685	1611	1728	208	225	2821
65°	5056	5354	2245	186	209	4662
75°	1385	3764	239	146	178	1703
85°	201	176	42	67	65	253
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°	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8
2.5°	1626.4	1630.6	1625.5	1624.7	1624.7	1623.8	1618.8	1617.9	1611.1	1612.0	1613.7
5°	1638.2	1639.9	1636.6	1635.7	1634.0	1630.6	1626.4	1621.3	1616.2	1611.1	1606.9
7.5°	1650.1	1648.4	1645.9	1645.9	1643.3	1638.2	1629.8	1623.0	1612.0	1606.1	1598.4
10°	1667.0	1664.5	1661.1	1659.4	1655.2	1647.6	1635.7	1626.4	1612.8	1601.0	1588.3
12.5°	1683.1	1682.3	1677.2	1674.7	1667.9	1660.3	1645.9	1631.5	1613.7	1595.0	1578.1
15°	1711.9	1708.6	1703.5	1698.4	1687.4	1677.2	1655.2	1638.2	1612.8	1588.3	1562.0
17.5°	1761.9	1756.0	1750.9	1739.9	1726.3	1708.6	1676.4	1647.6	1612.8	1577.3	1547.6
20°	1853.4	1840.7	1833.9	1819.5	1795.8	1763.6	1713.6	1667.0	1615.4	1569.6	1529.8
22.5°	1956.7	1948.3	1939.0	1929.6	1892.4	1845.8	1778.0	1708.6	1630.6	1566.2	1515.4
25°	2072.8	2061.8	2056.7	2040.6	2005.9	1952.5	1860.2	1763.6	1665.4	1579.8	1515.4
27.5°	2176.1	2172.7	2171.9	2153.3	2120.2	2057.5	1948.3	1832.2	1712.8	1607.7	1528.1
30°	2270.2	2266.8	2265.1	2254.9	2216.8	2142.3	2023.7	1893.2	1764.5	1646.7	1551.8
32.5°	2370.1	2359.1	2354.0	2334.5	2291.3	2204.1	2068.6	1933.0	1805.1	1684.8	1578.1
35°	2451.4	2442.1	2432.0	2404.0	2343.0	2239.7	2088.0	1946.6	1821.2	1706.0	1591.7
37.5°	2510.7	2501.4	2487.0	2451.4	2376.0	2251.5	2087.2	1942.3	1815.3	1702.6	1594.2
40°	2537.0	2527.7	2512.4	2467.5	2382.0	2244.8	2071.1	1922.9	1797.5	1684.8	1584.0
42.5°	2526.8	2520.0	2500.6	2457.4	2363.3	2214.3	2038.9	1886.4	1763.6	1656.0	1561.2
45°	2487.9	2482.8	2464.1	2418.4	2321.0	2165.1	1991.5	1840.7	1723.0	1620.5	1530.7
47.5°	2429.4	2427.7	2409.1	2364.2	2267.6	2116.0	1942.3	1795.8	1682.3	1585.7	1505.3
50°	2365.0	2356.6	2347.2	2305.7	2217.6	2073.6	1906.8	1767.8	1659.4	1573.0	1494.2
52.5°	2324.4	2321.8	2313.4	2276.1	2191.4	2049.1	1890.7	1757.7	1657.7	1570.5	1488.3
55°	2685.2	2691.2	2613.2	2451.4	2309.1	2116.8	1939.0	1809.4	1699.2	1611.1	1551.0
57.5°	3971.9	3945.7	3811.8	3490.8	3128.3	2649.7	2304.9	2095.7	1959.3	1974.5	2005.0
60°	4627.6	4622.5	4597.9	4473.4	4232.0	3867.7	3463.7	3000.3	2853.0	2869.0	2880.9
62.5°	4920.7	4928.3	4946.9	4900.3	4836.8	4730.9	4529.3	4343.0	4145.6	4071.9	3874.5
65°	5056.2	5069.7	5112.1	5138.4	5162.9	5181.6	5261.2	5479.7	5623.7	5354.4	4727.5
67.5°	4775.8	4841.0	4980.8	5117.2	5239.2	5412.8	5682.2	6189.6	6542.8	6211.6	5302.7
70°	3481.5	3570.4	3730.5	4152.4	4603.0	4996.9	5518.7	6291.2	6824.0	6568.2	5445.0
72.5°	2182.9	2207.5	2278.6	2433.6	2768.2	3273.9	4186.2	5345.0	5960.0	5755.9	4602.2
75°	1385.0	1393.4	1390.9	1426.5	1483.2	1593.3	1954.2	3157.1	4082.9	3764.4	2564.9
77.5°	825.1	837.8	842.8	853.9	881.0	919.9	949.6	1074.1	1711.9	1662.0	930.9
80°	691.2	701.4	692.9	690.4	673.4	661.6	676.0	661.6	614.1	591.3	544.7
82.5°	365.9	365.1	362.5	387.1	437.1	476.1	505.7	498.9	451.5	384.6	326.1
85°	200.8	207.5	207.5	216.0	208.4	209.2	216.0	227.9	210.9	176.2	144.0
87.5°	16.9	26.3	21.2	26.3	35.6	25.4	24.6	24.6	21.2	15.2	13.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8
2.5°	1609.4	1607.7	1604.4	1601.8	1601.8	1597.6	1595.0	1593.3	1592.5	1589.1	1589.1
5°	1604.4	1598.4	1592.5	1588.3	1585.7	1581.5	1574.7	1571.3	1567.1	1563.7	1562.0
7.5°	1593.3	1582.3	1573.0	1566.2	1557.8	1551.0	1542.5	1534.9	1527.3	1523.9	1522.2
10°	1576.4	1562.0	1547.6	1534.9	1523.0	1511.2	1500.2	1489.2	1479.8	1473.1	1466.3
12.5°	1560.3	1538.3	1519.7	1501.0	1482.4	1468.0	1452.7	1436.6	1423.1	1410.4	1407.0
15°	1538.3	1512.9	1489.2	1466.3	1443.4	1419.7	1401.1	1383.3	1361.3	1346.9	1335.8
17.5°	1518.0	1487.5	1458.7	1431.6	1403.6	1379.0	1351.1	1327.4	1305.3	1283.3	1267.2
20°	1495.9	1462.9	1432.4	1401.9	1371.4	1340.1	1307.9	1277.4	1250.3	1224.0	1197.8
22.5°	1476.5	1442.6	1412.9	1379.9	1346.0	1310.4	1273.2	1235.0	1203.7	1169.8	1139.3
25°	1464.6	1427.3	1396.8	1364.6	1327.4	1288.4	1246.0	1201.2	1163.0	1124.1	1087.6
27.5°	1464.6	1416.3	1385.0	1352.8	1314.7	1273.2	1226.6	1177.4	1134.2	1091.0	1046.1
30°	1477.3	1418.0	1375.7	1341.8	1302.8	1257.9	1206.2	1154.6	1107.1	1056.3	1013.1
32.5°	1489.2	1421.4	1368.9	1325.7	1280.8	1236.7	1184.2	1129.2	1076.6	1028.3	982.6
35°	1496.8	1421.4	1356.2	1301.1	1250.3	1207.1	1155.4	1100.4	1047.0	999.5	957.2
37.5°	1497.6	1414.6	1335.8	1273.2	1219.8	1174.9	1125.8	1074.1	1023.3	979.2	943.6
40°	1489.2	1401.1	1315.5	1243.5	1187.6	1141.9	1097.0	1050.4	1004.6	968.2	937.7
42.5°	1473.9	1386.7	1296.0	1219.8	1161.3	1113.9	1072.4	1032.6	992.8	961.4	936.0
45°	1451.0	1367.2	1278.2	1205.4	1147.8	1097.8	1057.2	1024.1	990.2	964.0	938.6
47.5°	1430.7	1360.4	1284.2	1214.7	1154.6	1102.9	1061.4	1033.4	1007.2	989.4	954.7
50°	1426.5	1357.0	1286.7	1222.3	1161.3	1108.8	1072.4	1058.0	1050.4	1039.4	986.0
52.5°	1414.6	1356.2	1305.3	1269.8	1230.8	1206.2	1168.1	1181.7	1173.2	1134.2	1037.7
55°	1539.1	1556.1	1603.5	1671.3	1734.0	1748.4	1744.1	1728.0	1642.5	1412.9	1162.2
57.5°	2116.0	2211.7	2301.5	2341.3	2336.2	2291.3	2259.2	2193.9	2070.3	1790.7	1407.8
60°	2917.3	2932.6	2885.1	2814.8	2696.2	2597.1	2491.2	2369.3	2189.7	1916.1	1558.6
62.5°	3655.1	3450.1	3239.2	3041.0	2860.6	2703.0	2555.6	2385.4	2151.6	1866.1	1539.1
65°	4176.1	3742.4	3409.5	3124.9	2869.9	2649.7	2465.8	2244.8	1981.3	1723.8	1426.5
67.5°	4444.6	3779.7	3268.9	2872.4	2510.7	2205.8	1961.0	1745.8	1550.1	1437.5	1248.6
70°	4144.7	3207.9	2496.3	2048.2	1615.4	1295.2	1023.3	858.9	802.2	908.9	945.3
72.5°	3088.4	2088.0	1484.9	1148.6	880.1	701.4	537.9	422.7	343.9	360.9	468.4
75°	1460.4	901.3	637.0	484.5	385.4	319.3	260.9	238.9	199.9	166.0	155.9
77.5°	568.4	414.2	342.2	250.7	177.9	143.2	122.0	117.7	120.3	116.9	115.2
80°	432.9	293.1	183.8	134.7	116.0	102.5	90.6	87.2	88.9	93.2	97.4
82.5°	241.4	150.8	111.8	97.4	87.2	74.5	67.8	62.7	63.5	68.6	77.9
85°	93.2	72.8	66.9	64.4	60.1	48.3	41.5	42.4	48.3	57.6	57.6
87.5°	10.2	10.2	13.6	10.2	10.2	10.2	9.3	11.0	11.9	15.2	17.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8	1601.8
2.5°	1587.4	1587.4	1587.4	1585.7	1586.6	1583.2	1583.2	1580.6	1584.9	1582.3	1581.5
5°	1562.9	1562.0	1558.6	1558.6	1558.6	1558.6	1561.2	1554.4	1559.5	1559.5	1556.9
7.5°	1521.3	1521.3	1512.0	1517.1	1515.4	1518.0	1521.3	1518.0	1523.0	1526.4	1523.9
10°	1463.7	1463.7	1456.1	1462.1	1459.5	1465.4	1471.4	1468.0	1471.4	1476.5	1478.1
12.5°	1400.2	1396.8	1390.1	1392.6	1392.6	1396.0	1398.5	1402.8	1407.0	1413.8	1417.2
15°	1326.5	1321.4	1313.0	1313.0	1307.9	1309.6	1314.7	1316.4	1324.8	1334.1	1345.2
17.5°	1251.1	1238.4	1229.1	1218.1	1209.6	1216.4	1222.3	1226.6	1233.3	1247.7	1255.4
20°	1180.0	1154.6	1136.8	1122.4	1113.1	1117.3	1124.9	1130.0	1135.9	1139.3	1141.9
22.5°	1109.7	1080.9	1056.3	1038.5	1023.3	1027.5	1024.1	1021.6	1025.8	1014.8	1013.9
25°	1048.7	1014.8	981.8	960.6	941.9	936.0	918.2	914.0	902.1	892.8	886.0
27.5°	1004.6	960.6	924.2	899.6	869.9	847.9	825.1	802.2	789.5	774.2	766.6
30°	969.9	923.3	880.1	838.6	799.6	765.8	735.3	705.6	685.3	663.3	648.9
32.5°	937.7	894.5	842.0	785.2	732.7	694.6	654.8	620.9	588.7	559.9	538.7
35°	915.7	867.4	800.5	731.0	671.7	626.8	584.5	536.2	497.2	460.0	437.1
37.5°	903.8	844.5	762.4	685.3	619.2	568.4	515.9	460.0	412.5	377.8	343.1
40°	894.5	821.7	728.5	644.6	575.2	514.2	453.2	387.1	334.6	298.2	271.1
42.5°	884.3	796.3	698.8	612.4	535.4	464.2	390.5	320.2	270.2	244.8	232.9
45°	873.3	774.2	670.9	581.9	496.4	410.0	325.3	260.1	230.4	221.9	221.9
47.5°	870.8	759.8	650.6	552.3	452.3	347.3	265.1	224.5	216.0	217.7	221.1
50°	881.0	755.6	632.8	517.6	393.9	281.2	224.5	210.9	212.6	217.7	222.8
52.5°	905.5	759.0	614.1	469.3	324.4	232.1	207.5	206.7	211.8	219.4	224.5
55°	947.0	759.0	578.6	397.3	259.2	208.4	201.6	205.0	211.8	218.5	222.8
57.5°	1036.0	751.4	515.9	317.7	216.9	199.9	199.9	204.1	210.1	216.9	220.2
60°	1141.9	741.2	427.8	245.7	195.7	193.1	199.1	204.1	209.2	215.2	218.5
62.5°	1148.6	714.9	338.8	203.3	184.7	188.9	198.2	205.0	206.7	210.9	215.2
65°	1055.5	623.4	269.4	182.1	179.6	186.4	195.7	200.8	201.6	203.3	207.5
67.5°	924.2	508.2	217.7	172.0	174.5	182.1	187.2	191.4	194.0	198.2	199.1
70°	759.0	408.3	186.4	161.8	164.3	172.8	177.0	181.3	186.4	191.4	188.9
72.5°	537.9	317.7	163.5	150.8	154.2	161.8	166.9	170.3	174.5	179.6	176.2
75°	228.7	221.9	141.5	136.4	141.5	146.5	151.6	156.7	160.9	163.5	163.5
77.5°	116.9	130.4	122.0	122.0	125.4	130.4	134.7	139.8	142.3	144.8	148.2
80°	99.1	100.8	102.5	105.9	109.3	114.4	118.6	122.8	123.7	124.5	126.2
82.5°	82.2	85.6	87.2	92.3	94.9	96.6	99.1	99.1	100.8	100.8	98.3
85°	59.3	63.5	66.1	66.9	66.1	66.9	67.8	69.5	73.7	73.7	70.3
87.5°	16.9	16.1	20.3	21.2	22.9	26.3	29.6	35.6	37.3	39.0	39.0
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: P152376

CATALOG NUMBER: TLM-F03-LED-E1-SL4-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1601.8	1601.8	1601.8	1601.8
2.5°	1580.6	1582.3	1578.9	1579.8
5°	1556.9	1560.3	1556.1	1561.2
7.5°	1526.4	1531.5	1530.7	1529.8
10°	1482.4	1489.2	1489.2	1491.7
12.5°	1426.5	1430.7	1434.1	1435.8
15°	1351.1	1358.7	1362.9	1362.9
17.5°	1260.4	1265.5	1268.1	1264.7
20°	1145.2	1143.6	1144.4	1135.9
22.5°	1012.3	1014.8	1007.2	1008.9
25°	881.8	877.6	881.0	875.9
27.5°	755.6	756.4	747.1	751.4
30°	635.3	631.1	619.2	625.1
32.5°	519.3	508.2	495.5	487.9
35°	410.0	393.0	387.1	384.6
37.5°	321.9	303.3	297.3	290.5
40°	255.8	249.0	246.5	248.2
42.5°	229.6	229.6	231.3	232.1
45°	222.8	225.3	227.9	228.7
47.5°	223.6	226.2	229.6	230.4
50°	225.3	227.9	230.4	231.3
52.5°	226.2	226.2	227.9	228.7
55°	224.5	223.6	224.5	225.3
57.5°	221.1	219.4	220.2	222.8
60°	219.4	216.9	218.5	220.2
62.5°	215.2	214.3	216.0	216.9
65°	205.8	206.7	209.2	209.2
67.5°	197.4	198.2	199.1	199.9
70°	187.2	188.1	189.7	190.6
72.5°	175.3	178.7	181.3	184.7
75°	166.0	169.4	174.5	177.9
77.5°	149.9	152.5	158.4	162.6
80°	127.1	126.2	127.1	129.6
82.5°	97.4	97.4	96.6	95.7
85°	68.6	67.8	65.2	65.2
87.5°	37.3	36.4	35.6	33.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)