

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P148511

Luminaire Tested: **TMU-E04-LED-E-U-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P148511
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33676)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TMU-E04-LED-E-U-5XQ-7050
Description: TALON MEDIUM LED AREA LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13053.6 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B4 - U0 - G3

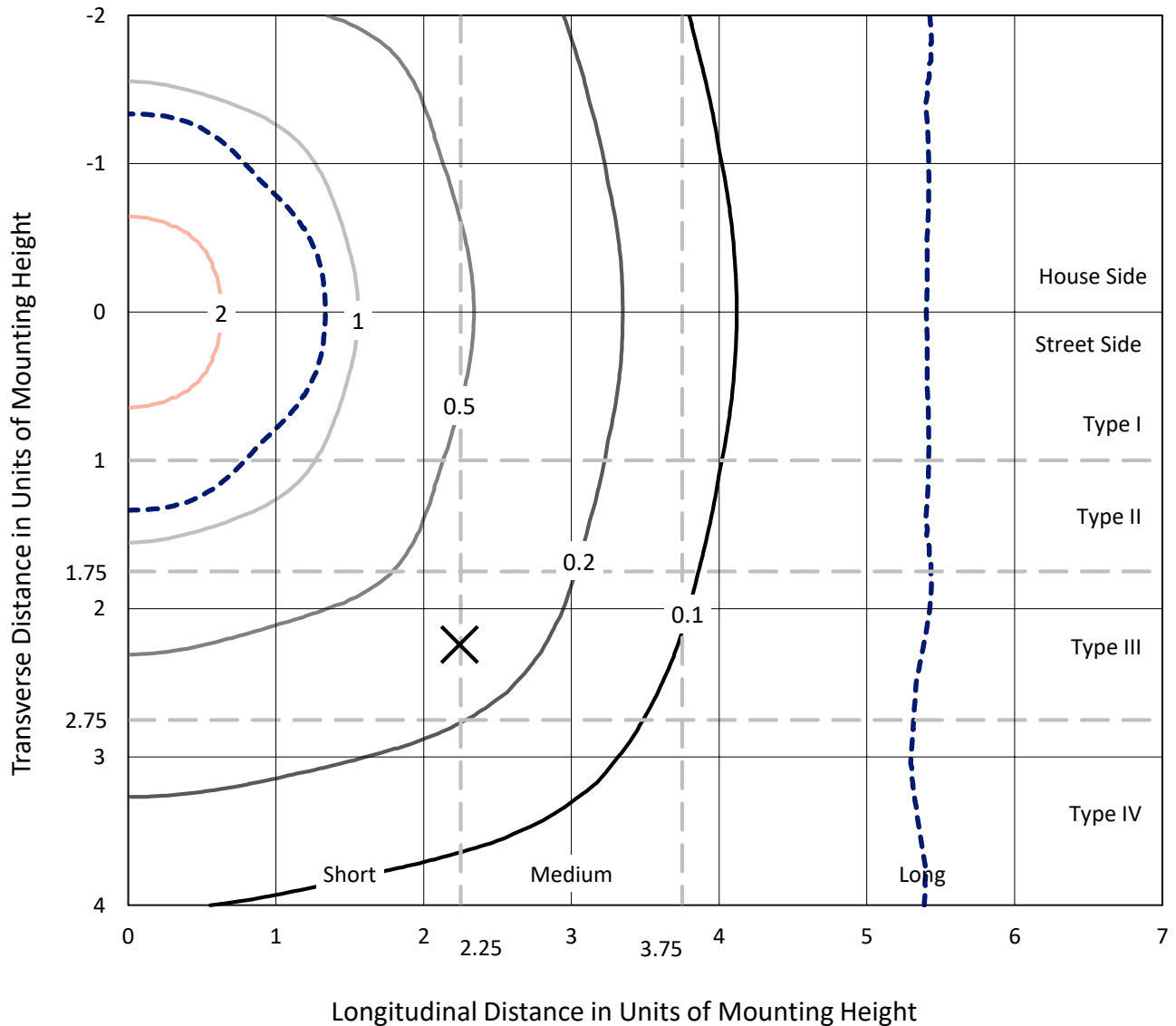
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

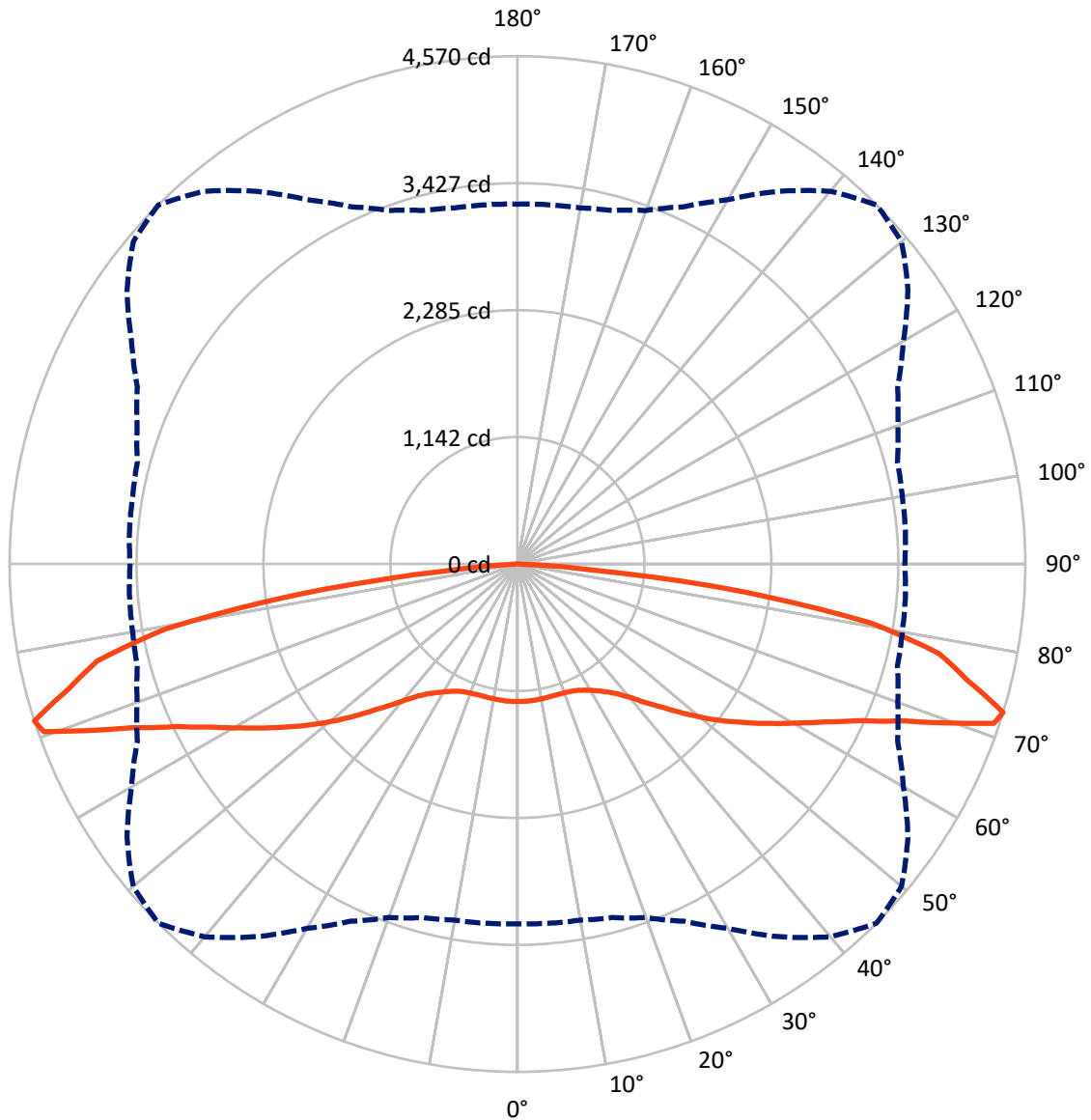
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6526.8 | 0.0 | 6526.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6526.8 | 0.0 | 6526.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 13053.6 | 0.0 | 13053.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 117.9 | 0.9 |
| 10°-20° | 348.7 | 2.7 |
| 20°-30° | 583.9 | 4.5 |
| 30°-40° | 890.1 | 6.8 |
| 40°-50° | 1421.3 | 10.9 |
| 50°-60° | 2185.4 | 16.7 |
| 60°-70° | 3181.9 | 24.4 |
| 70°-80° | 3584.4 | 27.5 |
| 80°-90° | 740.0 | 5.7 |
| 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°-90° | 13053.6 | 100.0 |
| 0°-180° | 13053.6 | 100.0 |



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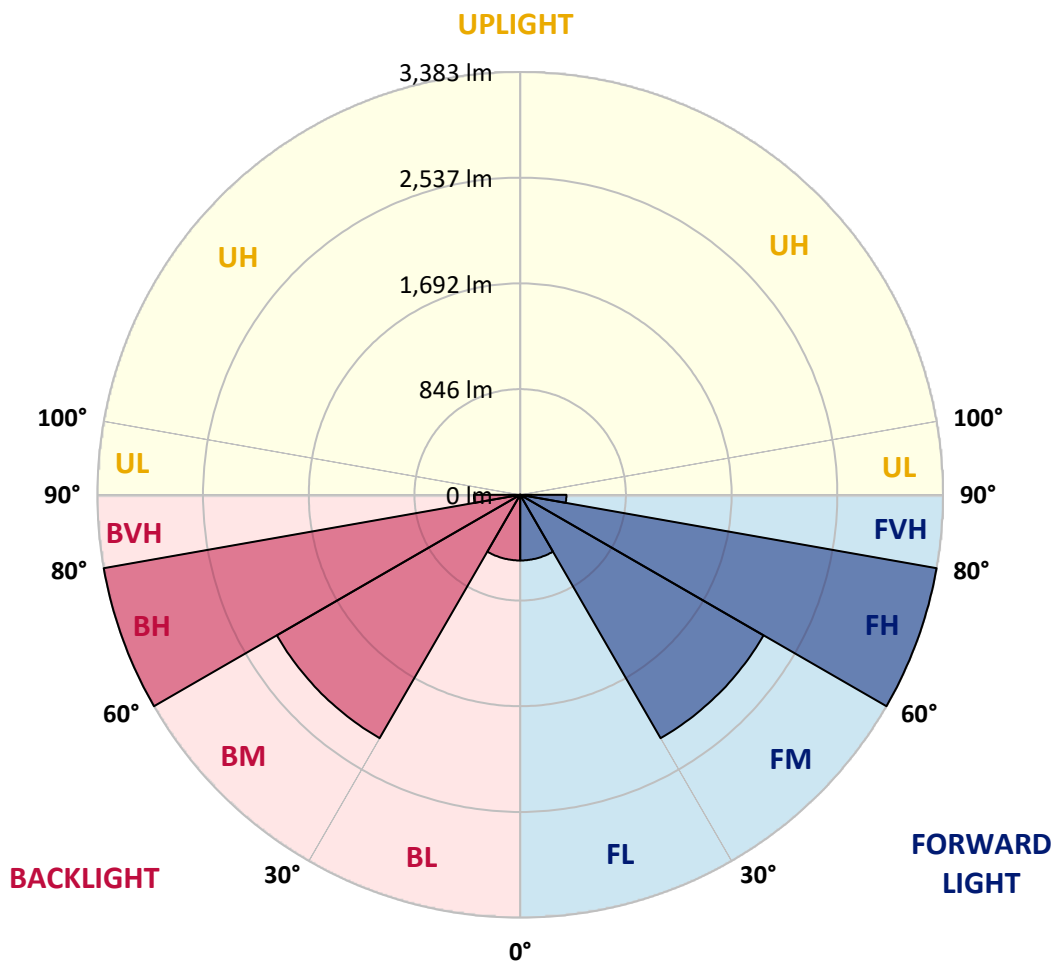
CATALOG NUMBER: TMU-E04-LED-E-U-5XQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 525.2 | 4.0 | | | |
| FM | (30°-60°) | 2248.4 | 17.2 | | | |
| FH | (60°-80°) | 3383.2 | 25.9 | | | G2/5000 |
| FVH | (80°-90°) | 370.0 | 2.8 | | | G3/500 |
| BL | (0°-30°) | 525.2 | 4.0 | B2/1000 | | |
| BM | (30°-60°) | 2248.4 | 17.2 | B2/2500 | | |
| BH | (60°-80°) | 3383.2 | 25.9 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 370.0 | 2.8 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 |
| 2.5° | 1238.8 | 1239.5 | 1239.2 | 1238.5 | 1238.8 | 1238.5 | 1237.8 | 1237.5 | 1235.1 | 1236.4 | 1238.5 |
| 5° | 1238.8 | 1238.2 | 1237.8 | 1237.5 | 1237.5 | 1238.5 | 1237.5 | 1236.5 | 1236.1 | 1236.8 | 1235.8 |
| 7.5° | 1238.2 | 1236.8 | 1236.1 | 1235.8 | 1236.1 | 1236.5 | 1235.4 | 1234.0 | 1235.1 | 1234.1 | 1232.7 |
| 10° | 1236.2 | 1235.1 | 1235.4 | 1234.0 | 1234.4 | 1234.0 | 1232.7 | 1231.7 | 1232.4 | 1231.3 | 1229.6 |
| 12.5° | 1236.8 | 1235.1 | 1234.8 | 1234.1 | 1233.7 | 1233.4 | 1231.6 | 1230.0 | 1230.3 | 1229.6 | 1227.9 |
| 15° | 1236.8 | 1235.8 | 1235.4 | 1234.1 | 1233.7 | 1233.0 | 1231.0 | 1230.3 | 1230.3 | 1229.2 | 1227.2 |
| 17.5° | 1237.4 | 1236.8 | 1236.8 | 1235.1 | 1234.4 | 1234.1 | 1231.6 | 1230.6 | 1231.7 | 1229.6 | 1228.2 |
| 20° | 1239.6 | 1238.8 | 1239.2 | 1238.2 | 1236.8 | 1236.8 | 1235.1 | 1234.4 | 1234.7 | 1234.4 | 1230.6 |
| 22.5° | 1243.6 | 1243.6 | 1244.3 | 1244.0 | 1243.6 | 1244.0 | 1242.6 | 1242.6 | 1243.0 | 1242.9 | 1239.9 |
| 25° | 1255.2 | 1254.9 | 1255.6 | 1255.6 | 1255.9 | 1258.3 | 1257.3 | 1257.0 | 1258.7 | 1258.7 | 1255.6 |
| 27.5° | 1277.2 | 1276.5 | 1277.1 | 1277.8 | 1279.6 | 1282.6 | 1282.0 | 1283.0 | 1285.7 | 1285.0 | 1282.3 |
| 30° | 1302.4 | 1301.8 | 1303.5 | 1305.6 | 1306.9 | 1311.7 | 1309.6 | 1314.8 | 1317.2 | 1319.2 | 1317.2 |
| 32.5° | 1339.4 | 1339.4 | 1342.5 | 1343.8 | 1346.9 | 1351.7 | 1352.4 | 1356.5 | 1359.6 | 1363.0 | 1360.6 |
| 35° | 1388.6 | 1388.0 | 1390.4 | 1392.8 | 1396.5 | 1401.0 | 1402.7 | 1408.2 | 1412.9 | 1415.4 | 1410.9 |
| 37.5° | 1463.9 | 1460.1 | 1464.6 | 1465.9 | 1469.0 | 1470.1 | 1474.8 | 1481.7 | 1486.8 | 1486.2 | 1483.0 |
| 40° | 1565.8 | 1565.1 | 1563.4 | 1561.4 | 1566.2 | 1567.9 | 1567.9 | 1577.1 | 1585.4 | 1583.9 | 1583.6 |
| 42.5° | 1684.8 | 1681.8 | 1679.7 | 1679.7 | 1682.5 | 1683.2 | 1693.7 | 1700.6 | 1706.4 | 1707.8 | 1706.4 |
| 45° | 1812.8 | 1809.7 | 1810.4 | 1809.0 | 1810.1 | 1814.5 | 1820.6 | 1833.3 | 1844.2 | 1844.6 | 1838.8 |
| 47.5° | 1950.3 | 1940.7 | 1948.2 | 1937.6 | 1944.1 | 1947.6 | 1963.0 | 1981.4 | 2000.6 | 2004.0 | 1998.8 |
| 50° | 2089.8 | 2088.8 | 2088.2 | 2086.1 | 2089.1 | 2096.7 | 2115.4 | 2144.6 | 2163.0 | 2175.4 | 2167.1 |
| 52.5° | 2242.4 | 2237.3 | 2234.9 | 2231.4 | 2234.5 | 2249.2 | 2275.6 | 2300.8 | 2334.0 | 2348.1 | 2336.8 |
| 55° | 2390.8 | 2389.1 | 2380.2 | 2379.9 | 2386.4 | 2409.3 | 2438.0 | 2469.2 | 2505.0 | 2520.8 | 2516.7 |
| 57.5° | 2543.4 | 2533.4 | 2530.7 | 2526.6 | 2539.6 | 2561.2 | 2596.4 | 2652.5 | 2689.8 | 2707.5 | 2697.3 |
| 60° | 2692.5 | 2685.0 | 2679.2 | 2677.8 | 2686.7 | 2716.8 | 2767.4 | 2834.8 | 2881.0 | 2904.2 | 2887.8 |
| 62.5° | 2852.6 | 2847.8 | 2841.0 | 2833.1 | 2851.9 | 2890.6 | 2953.5 | 3028.0 | 3096.1 | 3124.8 | 3099.9 |
| 65° | 3051.6 | 3041.7 | 3034.2 | 3024.2 | 3039.7 | 3088.2 | 3167.2 | 3272.2 | 3363.6 | 3397.1 | 3379.3 |
| 67.5° | 3261.6 | 3252.4 | 3253.1 | 3247.0 | 3274.3 | 3341.7 | 3443.6 | 3586.2 | 3708.7 | 3765.8 | 3732.3 |
| 70° | 3445.0 | 3450.1 | 3451.5 | 3476.4 | 3523.6 | 3626.2 | 3795.9 | 4019.3 | 4205.0 | 4292.2 | 4256.3 |
| 71° | 3390.9 | 3402.2 | 3419.6 | 3445.6 | 3527.1 | 3648.5 | 3880.0 | 4150.6 | 4372.2 | 4520.0 | 4470.4 |
| 72.5° | 3237.7 | 3244.6 | 3253.4 | 3293.1 | 3385.1 | 3545.9 | 3784.3 | 4093.5 | 4378.4 | 4569.6 | 4512.1 |
| 75° | 3016.0 | 3022.6 | 3025.6 | 3053.4 | 3137.1 | 3277.4 | 3495.6 | 3769.9 | 4021.3 | 4184.1 | 4168.0 |
| 77.5° | 2681.6 | 2682.6 | 2706.5 | 2749.3 | 2843.4 | 3003.7 | 3233.6 | 3518.2 | 3754.5 | 3881.1 | 3800.7 |
| 80° | 1925.7 | 1912.6 | 1937.3 | 1992.4 | 2108.6 | 2292.7 | 2528.0 | 2852.9 | 3115.3 | 3233.6 | 3109.1 |
| 82.5° | 732.6 | 772.3 | 834.9 | 925.9 | 965.2 | 1169.8 | 1389.4 | 1580.2 | 1801.2 | 2048.1 | 1986.2 |
| 85° | 78.6 | 88.6 | 111.2 | 137.8 | 174.1 | 240.8 | 332.8 | 454.2 | 559.9 | 658.1 | 584.2 |
| 87.5° | 29.4 | 30.1 | 33.5 | 38.6 | 39.3 | 41.0 | 43.8 | 51.0 | 47.6 | 41.1 | 33.2 |
| 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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CATALOG NUMBER: TMU-E04-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 | 1236.8 |
| 2.5° | 1236.8 | 1237.2 | 1236.8 | 1237.2 | 1237.2 | 1235.8 | 1236.1 | 1235.4 |
| 5° | 1236.5 | 1235.4 | 1235.8 | 1236.1 | 1235.8 | 1236.4 | 1235.4 | 1236.1 |
| 7.5° | 1234.8 | 1232.7 | 1233.4 | 1233.4 | 1232.7 | 1233.8 | 1233.0 | 1232.7 |
| 10° | 1231.3 | 1228.6 | 1230.0 | 1229.3 | 1228.9 | 1229.2 | 1229.3 | 1229.2 |
| 12.5° | 1228.3 | 1226.6 | 1226.9 | 1226.5 | 1226.2 | 1227.2 | 1226.8 | 1227.2 |
| 15° | 1227.6 | 1224.8 | 1224.5 | 1223.8 | 1224.2 | 1224.8 | 1224.8 | 1225.8 |
| 17.5° | 1226.9 | 1223.5 | 1223.1 | 1222.4 | 1222.8 | 1224.2 | 1224.5 | 1223.8 |
| 20° | 1229.0 | 1226.2 | 1225.5 | 1224.8 | 1224.5 | 1226.2 | 1225.8 | 1225.8 |
| 22.5° | 1238.5 | 1235.1 | 1234.7 | 1232.0 | 1231.0 | 1232.0 | 1231.4 | 1231.3 |
| 25° | 1253.9 | 1249.8 | 1248.4 | 1244.6 | 1242.0 | 1241.9 | 1240.9 | 1240.2 |
| 27.5° | 1281.6 | 1275.4 | 1274.1 | 1271.0 | 1267.2 | 1267.9 | 1265.9 | 1265.5 |
| 30° | 1313.8 | 1308.3 | 1303.5 | 1299.0 | 1294.6 | 1292.9 | 1290.5 | 1290.2 |
| 32.5° | 1355.8 | 1349.7 | 1343.8 | 1338.4 | 1332.2 | 1329.8 | 1325.8 | 1323.6 |
| 35° | 1407.5 | 1399.2 | 1392.4 | 1388.7 | 1382.5 | 1379.4 | 1376.7 | 1379.8 |
| 37.5° | 1479.6 | 1469.8 | 1466.3 | 1461.8 | 1457.7 | 1452.9 | 1454.0 | 1453.0 |
| 40° | 1579.6 | 1570.6 | 1567.2 | 1559.3 | 1558.3 | 1552.8 | 1556.3 | 1552.8 |
| 42.5° | 1703.0 | 1686.6 | 1684.2 | 1678.0 | 1676.0 | 1672.9 | 1674.2 | 1671.9 |
| 45° | 1837.4 | 1822.7 | 1820.0 | 1810.1 | 1810.4 | 1803.2 | 1806.0 | 1805.9 |
| 47.5° | 1988.6 | 1973.2 | 1960.6 | 1953.4 | 1950.6 | 1946.2 | 1948.6 | 1948.2 |
| 50° | 2144.6 | 2123.7 | 2109.6 | 2095.6 | 2089.5 | 2091.2 | 2086.4 | 2094.6 |
| 52.5° | 2312.2 | 2281.0 | 2261.2 | 2247.9 | 2236.2 | 2238.6 | 2239.3 | 2241.7 |
| 55° | 2485.6 | 2445.9 | 2417.2 | 2399.7 | 2389.1 | 2389.8 | 2392.9 | 2395.6 |
| 57.5° | 2660.0 | 2610.4 | 2571.4 | 2545.4 | 2538.6 | 2541.6 | 2541.7 | 2541.3 |
| 60° | 2840.9 | 2781.4 | 2731.1 | 2701.8 | 2695.6 | 2693.9 | 2707.2 | 2702.8 |
| 62.5° | 3035.2 | 2963.7 | 2911.8 | 2874.1 | 2865.2 | 2871.4 | 2883.4 | 2880.6 |
| 65° | 3292.7 | 3193.9 | 3126.9 | 3089.6 | 3074.6 | 3080.7 | 3096.8 | 3096.1 |
| 67.5° | 3624.9 | 3486.7 | 3398.1 | 3350.2 | 3339.3 | 3346.8 | 3355.7 | 3364.2 |
| 70° | 4121.5 | 3924.2 | 3797.6 | 3694.0 | 3649.5 | 3641.0 | 3649.8 | 3650.2 |
| 71° | 4296.3 | 4069.5 | 3868.1 | 3741.5 | 3668.6 | 3637.9 | 3640.2 | 3624.9 |
| 72.5° | 4289.1 | 4009.7 | 3774.0 | 3641.6 | 3540.4 | 3515.8 | 3503.8 | 3485.4 |
| 75° | 4000.1 | 3748.3 | 3543.8 | 3399.5 | 3302.0 | 3272.9 | 3251.7 | 3250.7 |
| 77.5° | 3627.6 | 3441.9 | 3216.5 | 3063.6 | 2944.9 | 2896.7 | 2875.2 | 2874.4 |
| 80° | 2916.2 | 2638.1 | 2473.3 | 2381.2 | 2238.0 | 2196.6 | 2152.7 | 2136.4 |
| 82.5° | 1763.5 | 1378.1 | 1120.5 | 995.7 | 926.6 | 763.1 | 684.8 | 647.8 |
| 85° | 410.8 | 291.8 | 201.1 | 132.0 | 95.1 | 75.6 | 58.1 | 51.3 |
| 87.5° | 27.7 | 21.9 | 19.5 | 15.7 | 12.0 | 11.6 | 7.2 | 6.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)