

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: P300305

Luminaire Tested: **GAA-AF-02-LED-U-T4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300305
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-T4FT
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12210.1 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

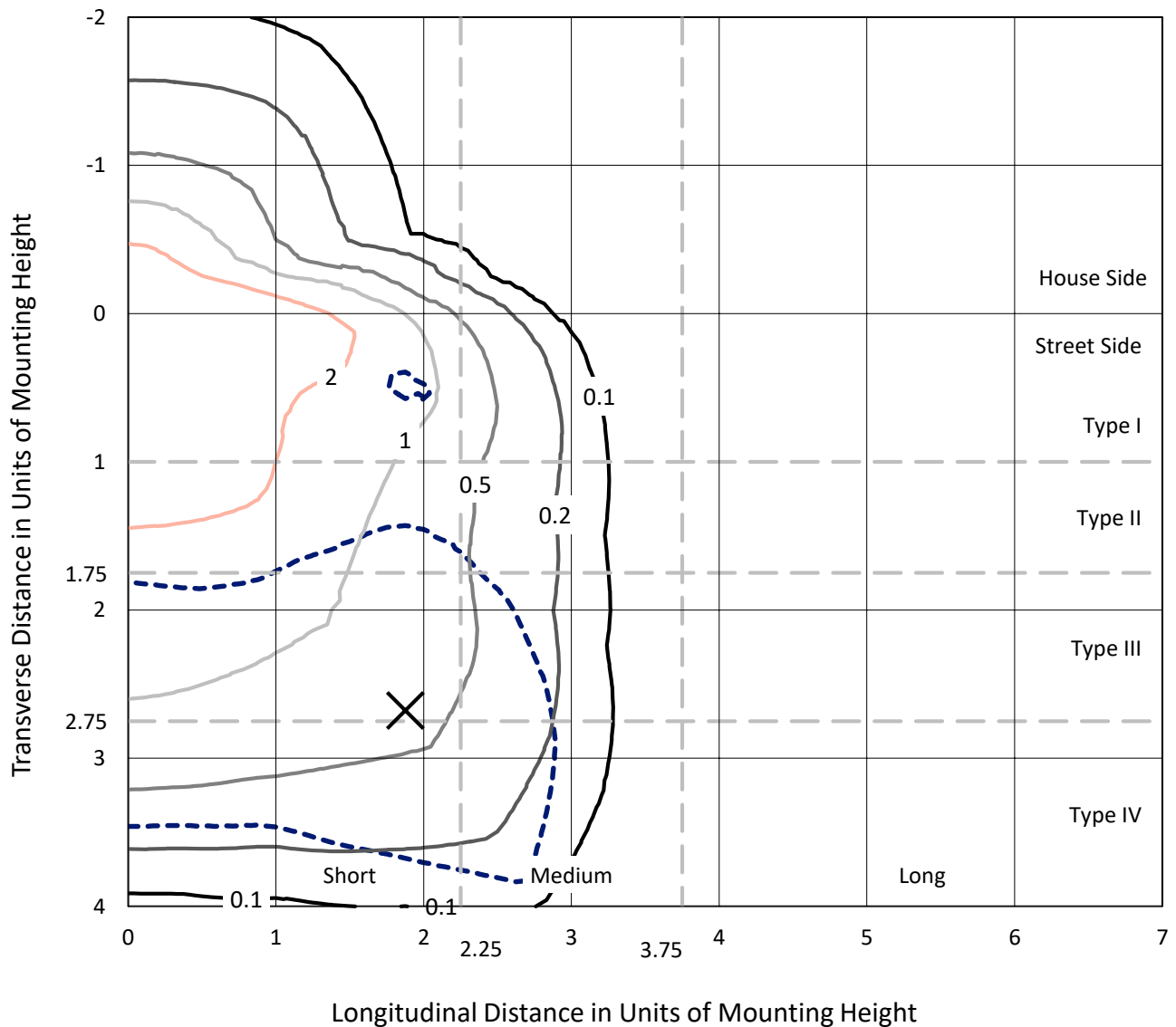
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

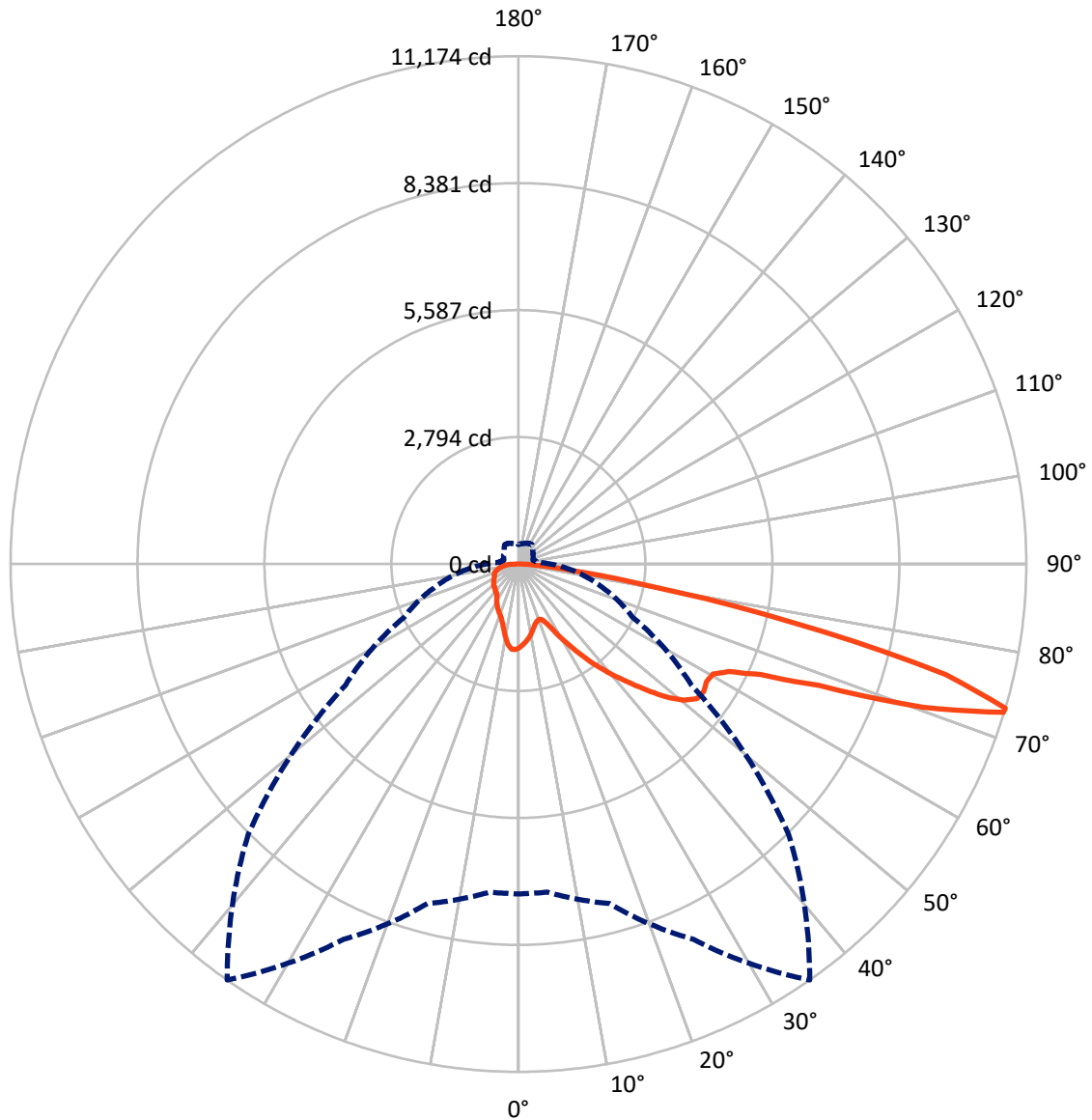


Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2328.8 | 0.0 | 2328.8 |
| | % Fixture | 19.1 | 0.0 | 19.1 |
| Street Side | Lumens | 9881.3 | 0.0 | 9881.3 |
| | % Fixture | 80.9 | 0.0 | 80.9 |
| Total | Lumens | 12210.1 | 0.0 | 12210.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 166.8 | 1.4 |
| 10°-20° | 416.4 | 3.4 |
| 20°-30° | 673.2 | 5.5 |
| 30°-40° | 1128.8 | 9.2 |
| 40°-50° | 1740.0 | 14.3 |
| 50°-60° | 2334.4 | 19.1 |
| 60°-70° | 3109.9 | 25.5 |
| 70°-80° | 2371.9 | 19.4 |
| 80°-90° | 268.8 | 2.2 |
| 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° | 12210.1 | 100.0 |
| 0°-180° | 12210.1 | 100.0 |



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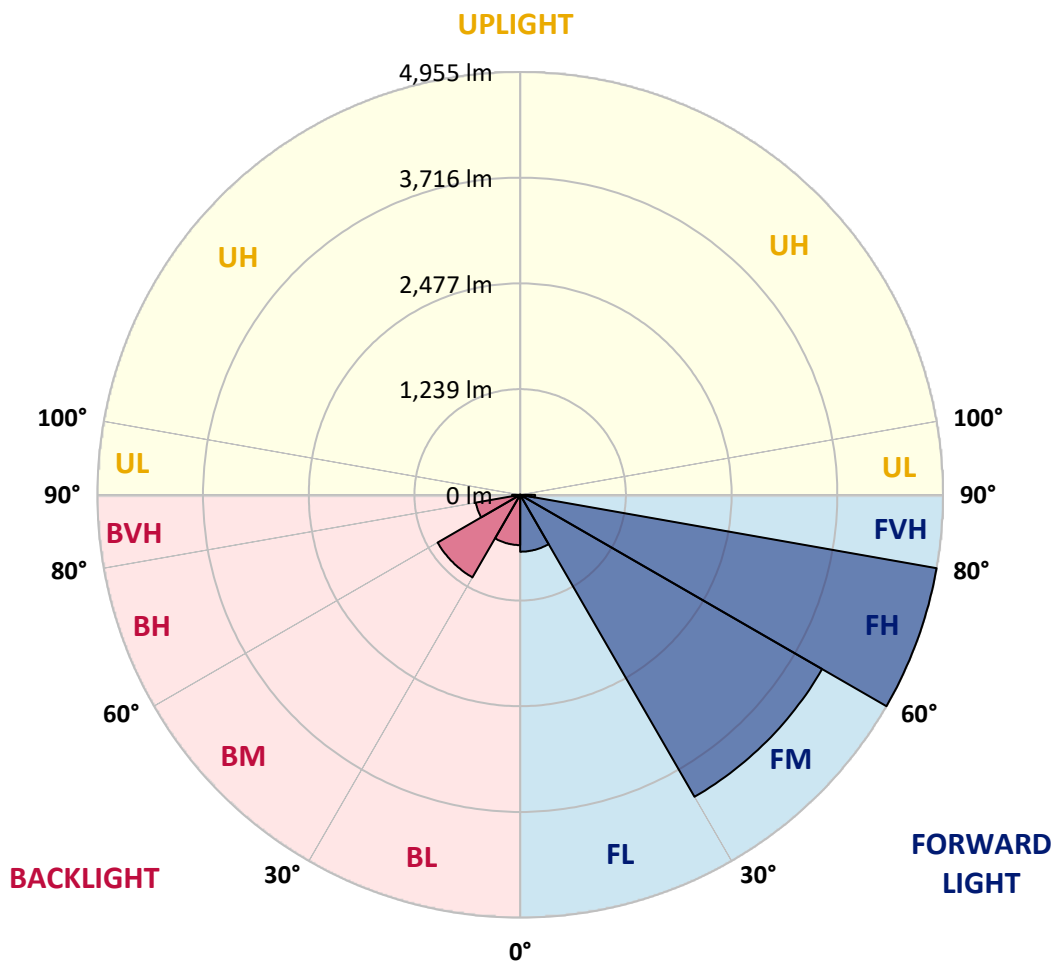
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 667.1 | 5.5 | | | |
| FM | (30°-60°) | 4085.6 | 33.5 | | | |
| FH | (60°-80°) | 4954.9 | 40.6 | | | G2/5000 |
| FVH | (80°-90°) | 173.8 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 589.3 | 4.8 | B2/1000 | | |
| BM | (30°-60°) | 1117.6 | 9.2 | B2/2500 | | |
| BH | (60°-80°) | 526.9 | 4.3 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 95.1 | 0.8 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|
| 0° | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 |
| 2.5° | 1770.2 | 1773.7 | 1769.6 | 1774.9 | 1783.7 | 1793.0 | 1799.5 | 1808.9 | 1819.4 | 1834.1 | 1837.6 |
| 5° | 1686.9 | 1692.2 | 1692.2 | 1701.6 | 1718.6 | 1733.8 | 1747.9 | 1763.1 | 1785.4 | 1810.6 | 1820.6 |
| 7.5° | 1595.5 | 1598.4 | 1603.7 | 1617.7 | 1642.4 | 1664.1 | 1684.0 | 1708.6 | 1739.1 | 1772.5 | 1790.1 |
| 10° | 1485.2 | 1489.3 | 1497.5 | 1517.5 | 1550.9 | 1580.8 | 1609.5 | 1643.5 | 1682.2 | 1723.9 | 1746.1 |
| 12.5° | 1407.2 | 1406.1 | 1409.6 | 1424.2 | 1453.6 | 1489.9 | 1531.5 | 1574.9 | 1622.4 | 1671.1 | 1698.1 |
| 15° | 1380.8 | 1374.4 | 1360.9 | 1357.4 | 1373.2 | 1409.6 | 1457.7 | 1511.0 | 1567.9 | 1626.5 | 1659.9 |
| 17.5° | 1397.3 | 1386.1 | 1349.2 | 1322.2 | 1319.9 | 1347.4 | 1398.4 | 1458.2 | 1523.9 | 1595.5 | 1637.1 |
| 20° | 1500.5 | 1474.1 | 1383.2 | 1320.5 | 1298.8 | 1312.2 | 1356.8 | 1420.1 | 1497.5 | 1592.5 | 1645.9 |
| 22.5° | 1747.3 | 1708.6 | 1515.7 | 1399.0 | 1325.7 | 1309.3 | 1342.7 | 1410.2 | 1500.5 | 1628.9 | 1696.9 |
| 25° | 2106.7 | 2051.6 | 1743.2 | 1594.9 | 1443.6 | 1356.2 | 1363.8 | 1433.0 | 1542.1 | 1713.3 | 1795.4 |
| 27.5° | 2390.5 | 2354.8 | 2040.5 | 1871.0 | 1658.2 | 1482.9 | 1432.4 | 1490.5 | 1627.1 | 1851.7 | 1935.5 |
| 30° | 2559.4 | 2537.7 | 2358.3 | 2184.1 | 1932.0 | 1684.6 | 1563.8 | 1598.4 | 1760.2 | 2043.4 | 2112.6 |
| 32.5° | 2755.2 | 2742.3 | 2654.4 | 2494.3 | 2227.5 | 1949.6 | 1771.9 | 1759.6 | 1938.5 | 2273.9 | 2305.5 |
| 35° | 2958.1 | 2954.0 | 2902.4 | 2787.5 | 2544.7 | 2299.1 | 2048.1 | 1964.8 | 2132.5 | 2513.1 | 2493.1 |
| 37.5° | 3146.9 | 3139.9 | 3110.0 | 3043.1 | 2876.6 | 2674.3 | 2329.6 | 2175.3 | 2341.9 | 2741.8 | 2653.2 |
| 40° | 3494.6 | 3439.5 | 3336.9 | 3286.5 | 3212.0 | 2990.4 | 2553.0 | 2371.8 | 2558.8 | 2959.9 | 2791.6 |
| 42.5° | 3918.6 | 3828.8 | 3637.7 | 3568.5 | 3558.0 | 3239.6 | 2705.4 | 2562.3 | 2777.5 | 3176.2 | 2927.6 |
| 45° | 4252.2 | 4167.8 | 4003.0 | 3915.6 | 3954.3 | 3465.3 | 2858.4 | 2765.8 | 3002.7 | 3403.2 | 3067.8 |
| 47.5° | 4608.1 | 4475.6 | 4257.5 | 4283.9 | 4368.3 | 3678.7 | 3014.4 | 2984.5 | 3249.5 | 3657.0 | 3241.9 |
| 50° | 4621.0 | 4519.6 | 4424.0 | 4581.7 | 4713.1 | 3875.2 | 3209.7 | 3213.8 | 3551.5 | 3976.6 | 3473.5 |
| 52.5° | 4353.0 | 4331.3 | 4483.2 | 4731.2 | 4920.6 | 4030.5 | 3431.9 | 3450.7 | 3937.9 | 4343.7 | 3728.0 |
| 55° | 4259.2 | 4234.6 | 4409.9 | 4679.0 | 4948.8 | 4159.0 | 3672.9 | 3706.9 | 4405.2 | 4730.6 | 3976.0 |
| 57.5° | 4487.9 | 4433.4 | 4445.1 | 4654.4 | 4880.2 | 4299.7 | 3935.6 | 4004.2 | 4913.0 | 5069.0 | 4135.5 |
| 60° | 5127.0 | 5010.3 | 4788.7 | 4783.4 | 4917.1 | 4510.8 | 4239.3 | 4323.1 | 5440.7 | 5230.8 | 4073.4 |
| 62.5° | 6023.5 | 5906.9 | 5491.7 | 5221.4 | 5201.5 | 4859.1 | 4612.2 | 4634.5 | 5745.6 | 5011.5 | 3694.0 |
| 65° | 6993.9 | 6889.6 | 6425.8 | 6044.1 | 5860.0 | 5436.0 | 5045.5 | 4773.5 | 5645.9 | 4408.2 | 3030.2 |
| 67.5° | 8171.9 | 8059.9 | 7661.2 | 7308.8 | 7131.7 | 6367.1 | 5349.8 | 4640.3 | 5013.3 | 3414.9 | 2178.3 |
| 70° | 8995.7 | 8881.4 | 8724.3 | 9009.8 | 9443.1 | 7710.5 | 5389.1 | 4099.2 | 3744.4 | 2269.7 | 1311.1 |
| 72.5° | 7921.0 | 7867.6 | 8154.3 | 9356.9 | 11161.7 | 8525.5 | 4871.4 | 2984.5 | 2174.8 | 1204.9 | 758.7 |
| 73° | 7257.2 | 7245.5 | 7734.5 | 9113.6 | 11174.0 | 8400.0 | 4644.5 | 2774.0 | 1865.2 | 1066.0 | 693.6 |
| 75° | 3277.1 | 3371.5 | 4443.3 | 6961.1 | 9708.1 | 6921.8 | 3268.9 | 1591.3 | 1053.7 | 736.5 | 523.6 |
| 77.5° | 787.5 | 820.3 | 1390.2 | 3305.8 | 6130.8 | 4125.0 | 1481.1 | 786.9 | 673.7 | 520.1 | 382.3 |
| 80° | 335.4 | 346.5 | 535.3 | 1221.4 | 2886.6 | 1661.1 | 682.5 | 527.1 | 466.1 | 362.9 | 268.0 |
| 82.5° | 186.5 | 198.2 | 303.7 | 554.1 | 1165.1 | 566.4 | 416.3 | 367.1 | 306.7 | 218.7 | 174.1 |
| 85° | 105.5 | 112.0 | 177.7 | 309.6 | 493.7 | 227.5 | 249.2 | 243.9 | 173.0 | 112.6 | 85.6 |
| 87.5° | 49.8 | 53.9 | 85.6 | 143.7 | 193.5 | 89.1 | 126.7 | 139.6 | 108.5 | 68.6 | 44.6 |
| 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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CATALOG NUMBER: GAA-AF-02-LED-U-T4FT

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 | 1842.9 |
| 2.5° | 1841.7 | 1852.3 | 1864.6 | 1871.0 | 1876.9 | 1883.9 | 1891.0 | 1891.0 | 1892.1 | 1892.7 |
| 5° | 1828.8 | 1850.5 | 1869.9 | 1878.1 | 1879.8 | 1879.8 | 1878.1 | 1868.7 | 1860.5 | 1864.0 |
| 7.5° | 1801.8 | 1833.5 | 1849.9 | 1847.0 | 1824.7 | 1798.9 | 1777.2 | 1750.8 | 1737.3 | 1735.0 |
| 10° | 1763.1 | 1799.5 | 1802.4 | 1773.1 | 1718.0 | 1662.9 | 1617.1 | 1572.6 | 1551.5 | 1546.2 |
| 12.5° | 1720.3 | 1753.8 | 1735.0 | 1674.6 | 1586.1 | 1505.7 | 1447.7 | 1402.5 | 1382.6 | 1377.3 |
| 15° | 1685.7 | 1708.6 | 1661.1 | 1566.1 | 1454.7 | 1369.7 | 1321.6 | 1288.2 | 1274.1 | 1270.0 |
| 17.5° | 1667.6 | 1672.3 | 1585.5 | 1457.1 | 1338.6 | 1267.7 | 1237.8 | 1221.9 | 1216.7 | 1213.7 |
| 20° | 1676.4 | 1643.5 | 1513.4 | 1355.6 | 1243.6 | 1193.8 | 1186.8 | 1182.7 | 1181.5 | 1179.7 |
| 22.5° | 1720.3 | 1634.7 | 1447.1 | 1259.5 | 1160.4 | 1138.7 | 1144.5 | 1144.0 | 1142.8 | 1141.6 |
| 25° | 1798.9 | 1642.4 | 1382.6 | 1168.0 | 1090.6 | 1085.9 | 1096.5 | 1096.5 | 1091.8 | 1091.8 |
| 27.5° | 1902.7 | 1658.2 | 1310.5 | 1081.2 | 1027.3 | 1027.9 | 1036.1 | 1033.7 | 1028.5 | 1024.9 |
| 30° | 2029.3 | 1668.2 | 1226.1 | 1003.2 | 968.1 | 965.7 | 968.1 | 958.1 | 942.3 | 941.1 |
| 32.5° | 2158.9 | 1655.8 | 1128.1 | 934.1 | 905.3 | 900.0 | 898.3 | 884.2 | 866.0 | 860.8 |
| 35° | 2276.2 | 1610.7 | 1028.5 | 878.9 | 845.5 | 833.8 | 842.0 | 837.3 | 820.9 | 816.8 |
| 37.5° | 2361.8 | 1526.8 | 938.7 | 830.3 | 802.7 | 799.8 | 805.1 | 806.8 | 787.5 | 783.4 |
| 40° | 2419.3 | 1413.1 | 861.9 | 789.2 | 794.5 | 783.4 | 765.8 | 753.5 | 747.6 | 745.8 |
| 42.5° | 2465.6 | 1294.7 | 797.4 | 769.9 | 796.3 | 764.0 | 725.9 | 706.0 | 716.5 | 721.2 |
| 45° | 2518.9 | 1179.1 | 743.5 | 745.8 | 787.5 | 741.7 | 698.3 | 679.0 | 683.1 | 684.3 |
| 47.5° | 2592.2 | 1038.4 | 685.4 | 707.1 | 758.1 | 726.5 | 681.3 | 653.8 | 634.4 | 625.6 |
| 50° | 2693.7 | 871.9 | 625.0 | 663.7 | 729.4 | 715.3 | 654.9 | 625.6 | 589.9 | 581.7 |
| 52.5° | 2764.0 | 716.5 | 575.2 | 627.4 | 703.6 | 693.1 | 633.8 | 595.7 | 558.2 | 551.2 |
| 55° | 2725.9 | 595.1 | 531.8 | 586.9 | 669.6 | 665.5 | 616.3 | 565.2 | 535.9 | 530.1 |
| 57.5° | 2535.4 | 518.3 | 498.4 | 548.8 | 628.0 | 642.0 | 592.8 | 539.4 | 518.3 | 514.2 |
| 60° | 2171.8 | 470.3 | 477.3 | 523.0 | 594.0 | 618.6 | 569.3 | 525.4 | 511.3 | 508.4 |
| 62.5° | 1685.2 | 438.0 | 461.5 | 504.3 | 567.6 | 602.2 | 556.4 | 523.6 | 518.3 | 514.8 |
| 65° | 1207.3 | 412.2 | 444.5 | 485.5 | 543.5 | 586.9 | 551.8 | 521.3 | 522.4 | 519.5 |
| 67.5° | 820.3 | 389.3 | 423.9 | 464.4 | 520.1 | 573.4 | 545.3 | 513.1 | 527.7 | 524.2 |
| 70° | 574.0 | 367.1 | 399.9 | 437.4 | 490.8 | 554.7 | 533.6 | 500.7 | 499.6 | 485.5 |
| 72.5° | 448.0 | 337.7 | 367.1 | 399.9 | 453.2 | 528.3 | 510.1 | 473.2 | 453.8 | 439.2 |
| 73° | 427.4 | 330.7 | 358.8 | 391.7 | 445.0 | 521.8 | 503.7 | 465.6 | 443.9 | 430.4 |
| 75° | 353.6 | 300.2 | 326.0 | 355.3 | 409.9 | 491.4 | 472.0 | 431.0 | 403.4 | 395.2 |
| 77.5° | 277.9 | 256.8 | 281.4 | 307.8 | 361.2 | 446.8 | 425.1 | 385.8 | 370.6 | 363.5 |
| 80° | 205.8 | 212.8 | 234.5 | 258.0 | 313.1 | 399.3 | 380.0 | 340.7 | 408.7 | 391.7 |
| 82.5° | 144.8 | 161.2 | 181.2 | 202.3 | 262.7 | 353.0 | 329.5 | 289.1 | 299.0 | 248.6 |
| 85° | 85.6 | 105.5 | 124.3 | 142.5 | 189.4 | 292.6 | 272.1 | 230.4 | 188.8 | 180.0 |
| 87.5° | 49.8 | 58.6 | 63.9 | 82.7 | 130.2 | 220.5 | 191.7 | 170.6 | 97.9 | 66.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)