

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: P301215

Luminaire Tested: **GAA-AF-03-LED-U-T3R-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301215  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAA-AF-03-LED-U-T3R-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

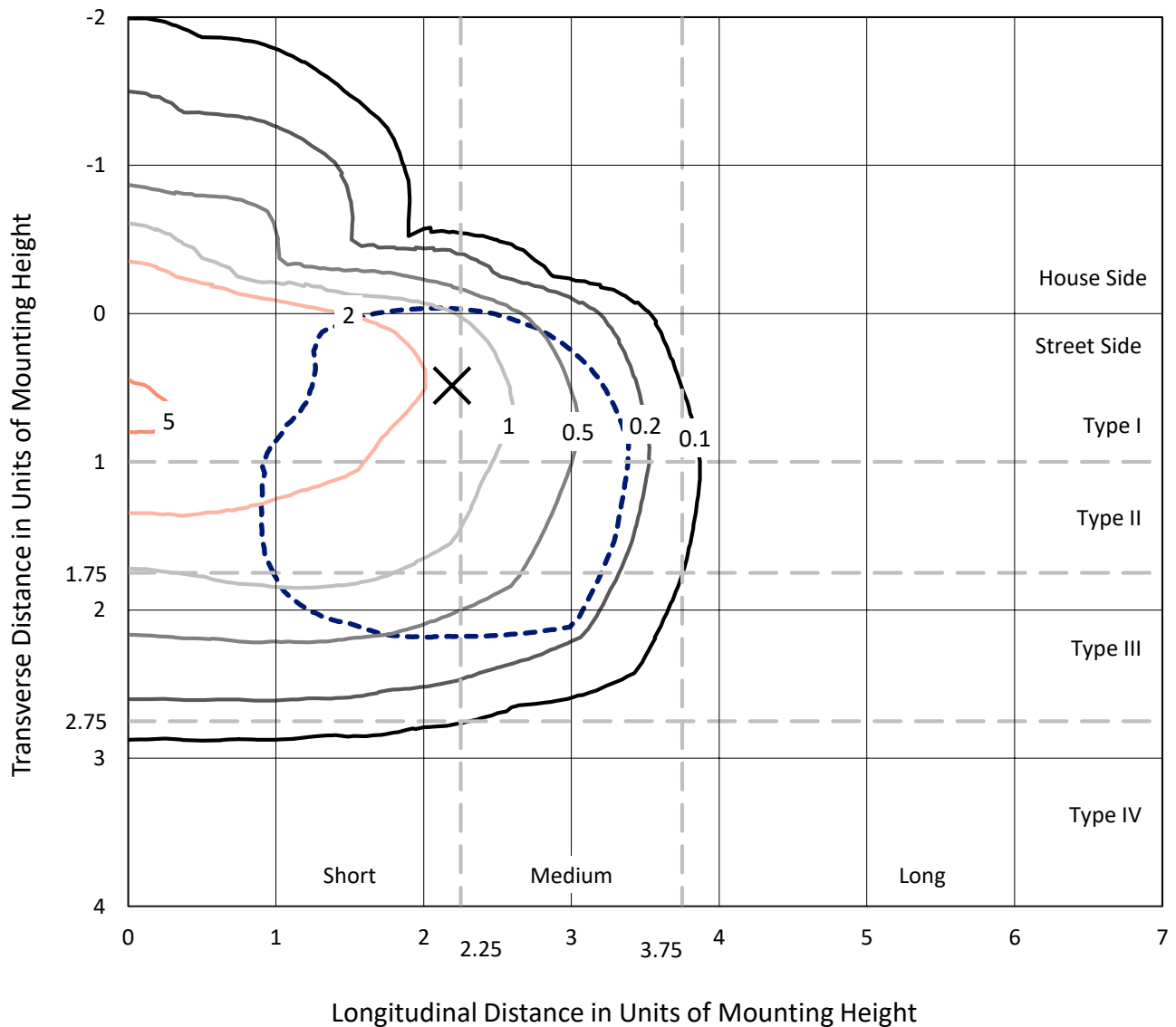
Lumens per Lamp: N/A  
Luminaire Lumens: 12196.9 lumens  
Efficiency: N/A  
Efficacy: 127.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (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



REPORT NUMBER: P301215  
 CATALOG NUMBER: GAA-AF-03-LED-U-T3R-600

### Iso-Footcandle Lines of Horizontal Illumination

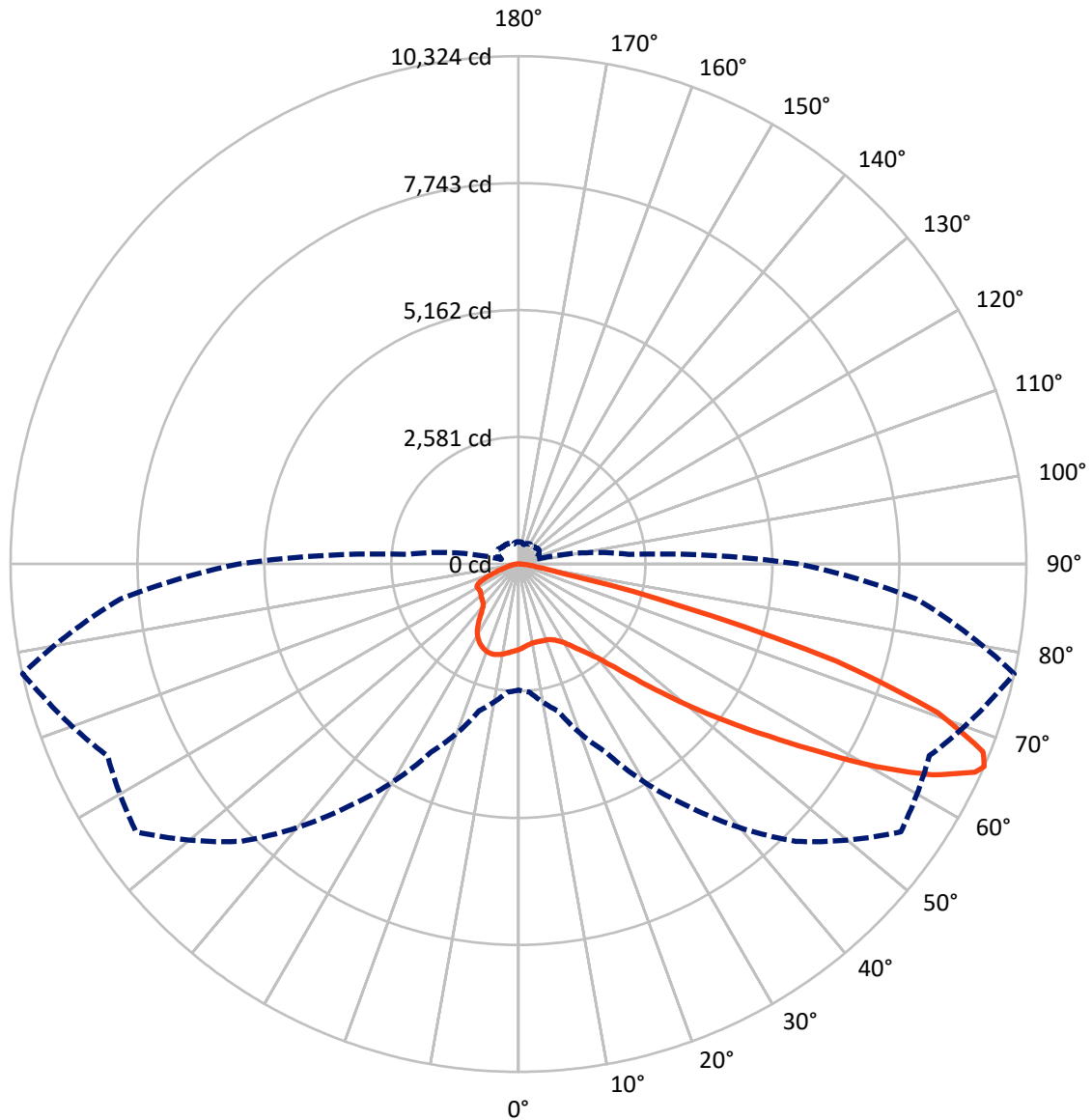
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.4 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P301215  
CATALOG NUMBER: GAA-AF-03-LED-U-T3R-600

### Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical



REPORT NUMBER: P301215

CATALOG NUMBER: GAA-AF-03-LED-U-T3R-600

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2083.8   | 0.0    | 2083.8  |
|                    | % Fixture | 17.1     | 0.0    | 17.1    |
| <b>Street Side</b> | Lumens    | 10113.2  | 0.0    | 10113.2 |
|                    | % Fixture | 82.9     | 0.0    | 82.9    |
| <b>Total</b>       | Lumens    | 12196.9  | 0.0    | 12196.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 155.3   | 1.3       |
| 10°-20°   | 438.1   | 3.6       |
| 20°-30°   | 747.7   | 6.1       |
| 30°-40°   | 1196.9  | 9.8       |
| 40°-50°   | 1849.1  | 15.2      |
| 50°-60°   | 2622.6  | 21.5      |
| 60°-70°   | 3508.4  | 28.8      |
| 70°-80°   | 1523.6  | 12.5      |
| 80°-90°   | 155.4   | 1.3       |
| 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°    | 12196.9 | 100.0     |
| 0°-180°   | 12196.9 | 100.0     |



REPORT NUMBER: P301215

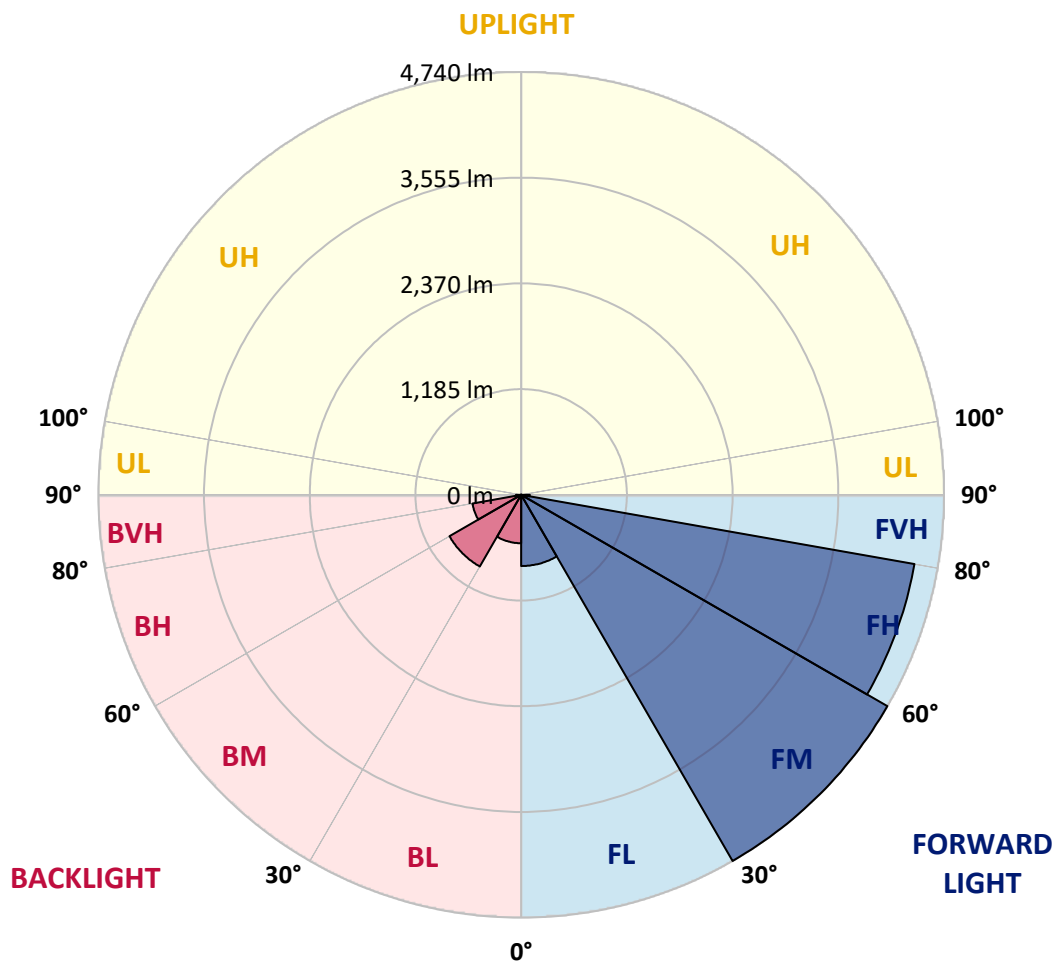
CATALOG NUMBER: GAA-AF-03-LED-U-T3R-600

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 798.3  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 4740.4 | 38.9      |                         |      |         |
| FH   | (60°-80°)   | 4477.0 | 36.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 97.4   | 0.8       |                         |      | G1/100  |
| BL   | (0°-30°)    | 542.7  | 4.4       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 928.2  | 7.6       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 555.0  | 4.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 57.9   | 0.5       |                         |      | 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 III Short





REPORT NUMBER: P301215

CATALOG NUMBER: GAA-AF-03-LED-U-T3R-600

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°     | 77.5°   | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 0°    | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1  | 1738.1  | 1738.1 |
| 2.5°  | 1537.6 | 1547.9 | 1556.6 | 1564.7 | 1580.7 | 1607.2 | 1637.8 | 1662.5 | 1698.3  | 1705.3  | 1724.3 |
| 5°    | 1396.4 | 1396.4 | 1403.3 | 1415.5 | 1437.3 | 1477.1 | 1518.6 | 1573.9 | 1651.7  | 1670.1  | 1720.8 |
| 7.5°  | 1327.9 | 1328.4 | 1332.4 | 1342.7 | 1361.7 | 1398.0 | 1443.6 | 1508.8 | 1614.2  | 1644.8  | 1731.1 |
| 10°   | 1353.2 | 1347.4 | 1338.7 | 1333.6 | 1336.4 | 1357.7 | 1401.0 | 1473.6 | 1591.2  | 1630.3  | 1754.3 |
| 12.5° | 1494.9 | 1484.0 | 1454.0 | 1414.2 | 1376.2 | 1360.7 | 1386.0 | 1456.8 | 1581.4  | 1627.0  | 1784.9 |
| 15°   | 1726.6 | 1722.0 | 1666.0 | 1583.7 | 1491.5 | 1414.2 | 1397.0 | 1450.5 | 1582.5  | 1631.0  | 1821.2 |
| 17.5° | 2017.1 | 2010.7 | 1937.0 | 1817.1 | 1666.7 | 1516.3 | 1435.5 | 1455.8 | 1586.5  | 1637.8  | 1856.2 |
| 20°   | 2310.4 | 2290.7 | 2211.3 | 2068.4 | 1875.3 | 1655.0 | 1499.6 | 1469.0 | 1591.7  | 1645.3  | 1893.2 |
| 22.5° | 2529.4 | 2513.2 | 2441.8 | 2302.9 | 2080.5 | 1815.9 | 1585.4 | 1492.1 | 1608.5  | 1667.3  | 1938.6 |
| 25°   | 2721.9 | 2722.9 | 2652.1 | 2517.9 | 2287.9 | 1986.6 | 1696.1 | 1553.7 | 1651.0  | 1712.1  | 2000.9 |
| 27.5° | 2959.9 | 2946.1 | 2879.8 | 2746.7 | 2493.1 | 2158.8 | 1829.7 | 1638.5 | 1714.5  | 1776.1  | 2082.7 |
| 30°   | 3244.5 | 3234.7 | 3158.1 | 3007.2 | 2720.7 | 2343.8 | 1982.4 | 1736.9 | 1796.4  | 1860.2  | 2189.9 |
| 32.5° | 3579.3 | 3574.8 | 3495.2 | 3301.0 | 2983.4 | 2561.7 | 2161.8 | 1867.2 | 1918.5  | 1984.8  | 2343.8 |
| 35°   | 3972.5 | 3973.0 | 3879.1 | 3645.6 | 3271.0 | 2815.2 | 2365.0 | 2034.9 | 2067.2  | 2136.3  | 2527.2 |
| 37.5° | 4214.5 | 4243.8 | 4208.7 | 3970.7 | 3596.6 | 3098.8 | 2629.1 | 2257.4 | 2236.6  | 2306.4  | 2723.6 |
| 40°   | 4266.3 | 4302.1 | 4413.2 | 4292.3 | 3960.9 | 3411.1 | 2863.0 | 2471.1 | 2445.3  | 2530.5  | 2976.6 |
| 42.5° | 4193.7 | 4243.3 | 4478.5 | 4563.6 | 4347.6 | 3796.0 | 3177.7 | 2788.7 | 2755.9  | 2870.5  | 3291.2 |
| 45°   | 4150.4 | 4187.4 | 4459.5 | 4705.0 | 4683.0 | 4231.2 | 3578.3 | 3187.4 | 3175.4  | 3325.8  | 3654.4 |
| 47.5° | 4075.6 | 4109.1 | 4370.6 | 4737.8 | 4880.2 | 4629.9 | 4059.5 | 3675.1 | 3698.7  | 3895.9  | 4064.1 |
| 50°   | 4115.9 | 4129.7 | 4271.5 | 4654.2 | 4937.2 | 4922.2 | 4597.1 | 4239.8 | 4320.6  | 4566.6  | 4528.0 |
| 52.5° | 4110.1 | 4145.9 | 4260.0 | 4517.0 | 4944.7 | 5102.6 | 5126.7 | 4869.7 | 5039.8  | 5322.1  | 5042.6 |
| 55°   | 3323.0 | 3388.6 | 4124.6 | 4482.5 | 4971.1 | 5279.4 | 5598.2 | 5533.6 | 5850.5  | 6179.6  | 5623.5 |
| 57.5° | 3173.1 | 3214.6 | 3622.6 | 4555.1 | 5111.7 | 5617.2 | 6122.5 | 6264.4 | 6794.5  | 7176.6  | 6331.2 |
| 60°   | 3143.6 | 3194.9 | 3617.4 | 4643.9 | 5397.0 | 6167.6 | 6900.1 | 7149.1 | 7943.2  | 8361.6  | 7151.9 |
| 62.5° | 3052.0 | 3107.3 | 3583.3 | 4632.2 | 5802.2 | 6928.9 | 7895.4 | 8089.6 | 9032.3  | 9439.3  | 7838.3 |
| 65°   | 2761.7 | 2813.5 | 3306.3 | 4446.2 | 6075.4 | 7741.5 | 9073.2 | 8951.7 | 9892.2  | 10198.1 | 8180.5 |
| 66°   | 2562.7 | 2613.5 | 3087.8 | 4227.2 | 6011.9 | 7972.0 | 9490.6 | 9218.5 | 10084.7 | 10324.4 | 8113.6 |
| 67.5° | 2199.1 | 2238.9 | 2663.6 | 3736.7 | 5674.8 | 8036.5 | 9841.5 | 9419.0 | 10104.8 | 10189.6 | 7731.7 |
| 70°   | 1389.5 | 1401.0 | 1731.1 | 2579.5 | 4295.8 | 6969.7 | 9307.2 | 8921.2 | 9271.6  | 9042.1  | 6481.6 |
| 72.5° | 602.9  | 598.9  | 831.1  | 1312.2 | 2432.1 | 4676.7 | 7528.8 | 7361.1 | 7273.0  | 6749.7  | 4537.3 |
| 75°   | 335.4  | 340.1  | 431.7  | 609.1  | 988.3  | 2297.2 | 4925.0 | 4713.0 | 3979.3  | 3395.6  | 2057.4 |
| 77.5° | 269.1  | 275.5  | 357.9  | 432.2  | 443.7  | 801.1  | 2304.7 | 1875.3 | 1129.0  | 906.0   | 571.6  |
| 80°   | 212.7  | 224.2  | 312.3  | 336.6  | 299.1  | 330.1  | 744.6  | 595.4  | 446.7   | 409.7   | 296.3  |
| 82.5° | 168.2  | 176.4  | 268.0  | 254.8  | 209.2  | 222.5  | 356.7  | 347.6  | 290.5   | 264.5   | 171.2  |
| 85°   | 121.1  | 135.9  | 220.2  | 191.9  | 137.1  | 149.9  | 236.8  | 227.0  | 166.5   | 135.9   | 75.6   |
| 87.5° | 49.6   | 64.6   | 155.6  | 127.4  | 76.6   | 69.8   | 118.1  | 111.2  | 78.9    | 57.6    | 37.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0    |



REPORT NUMBER: P301215

CATALOG NUMBER: GAA-AF-03-LED-U-T3R-600

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 | 1738.1 |
| 2.5°  | 1736.4 | 1750.1 | 1768.1 | 1779.1 | 1784.9 | 1788.9 | 1795.2 | 1794.6 | 1796.4 | 1796.9 | 1799.2 |
| 5°    | 1747.9 | 1770.9 | 1796.9 | 1803.9 | 1803.9 | 1797.4 | 1791.1 | 1780.7 | 1776.7 | 1775.6 | 1776.7 |
| 7.5°  | 1777.9 | 1803.2 | 1825.7 | 1817.7 | 1800.4 | 1774.9 | 1742.1 | 1713.3 | 1697.8 | 1692.6 | 1691.5 |
| 10°   | 1815.9 | 1846.5 | 1855.7 | 1825.2 | 1774.4 | 1713.3 | 1648.2 | 1601.0 | 1573.9 | 1566.4 | 1564.1 |
| 12.5° | 1862.0 | 1890.8 | 1878.2 | 1813.7 | 1719.6 | 1621.2 | 1531.2 | 1455.8 | 1399.2 | 1381.4 | 1380.2 |
| 15°   | 1912.8 | 1935.3 | 1890.8 | 1777.9 | 1637.8 | 1492.6 | 1332.4 | 1202.2 | 1131.9 | 1109.4 | 1107.7 |
| 17.5° | 1960.1 | 1971.6 | 1883.3 | 1715.6 | 1517.4 | 1282.3 | 1069.6 | 969.3  | 945.2  | 951.0  | 952.0  |
| 20°   | 2000.4 | 2000.4 | 1858.0 | 1626.3 | 1327.9 | 1005.1 | 870.7  | 869.1  | 886.4  | 903.7  | 907.2  |
| 22.5° | 2044.7 | 2018.2 | 1813.7 | 1500.1 | 1059.2 | 822.4  | 802.8  | 818.9  | 838.4  | 857.4  | 860.4  |
| 25°   | 2099.5 | 2032.6 | 1751.9 | 1308.9 | 832.7  | 746.8  | 754.3  | 767.6  | 777.4  | 789.6  | 791.3  |
| 27.5° | 2160.5 | 2051.0 | 1670.7 | 1045.4 | 722.7  | 699.7  | 705.5  | 710.0  | 708.8  | 713.5  | 714.5  |
| 30°   | 2233.7 | 2072.4 | 1559.4 | 817.1  | 677.2  | 659.2  | 648.9  | 644.9  | 644.9  | 652.4  | 655.2  |
| 32.5° | 2331.7 | 2104.0 | 1399.8 | 700.2  | 655.2  | 630.4  | 597.1  | 582.1  | 587.9  | 613.2  | 618.9  |
| 35°   | 2439.6 | 2138.0 | 1183.7 | 660.4  | 650.7  | 617.2  | 565.4  | 537.6  | 538.3  | 561.9  | 569.4  |
| 37.5° | 2557.0 | 2181.3 | 946.8  | 652.9  | 661.0  | 617.9  | 548.6  | 510.6  | 495.0  | 495.0  | 498.0  |
| 40°   | 2707.4 | 2225.6 | 766.5  | 658.2  | 683.0  | 624.7  | 540.0  | 489.3  | 445.5  | 446.7  | 449.0  |
| 42.5° | 2903.4 | 2263.7 | 669.7  | 669.0  | 709.5  | 633.9  | 539.4  | 461.0  | 423.0  | 449.0  | 472.5  |
| 45°   | 3121.3 | 2282.7 | 626.9  | 678.9  | 730.8  | 639.7  | 530.3  | 456.5  | 425.9  | 503.1  | 548.1  |
| 47.5° | 3371.9 | 2271.7 | 603.4  | 682.3  | 736.0  | 639.7  | 519.8  | 467.5  | 446.0  | 582.6  | 635.1  |
| 50°   | 3646.9 | 2240.1 | 580.4  | 675.5  | 734.3  | 638.5  | 529.6  | 478.3  | 453.5  | 596.4  | 632.7  |
| 52.5° | 3970.2 | 2213.6 | 556.1  | 660.4  | 722.0  | 632.2  | 541.1  | 473.7  | 429.9  | 542.3  | 567.6  |
| 55°   | 4338.9 | 2221.1 | 529.1  | 639.2  | 703.0  | 620.1  | 537.1  | 455.2  | 405.2  | 477.8  | 493.3  |
| 57.5° | 4810.4 | 2310.4 | 496.8  | 612.1  | 677.2  | 599.9  | 522.8  | 446.7  | 397.7  | 433.4  | 442.7  |
| 60°   | 5336.5 | 2465.9 | 456.5  | 584.9  | 644.9  | 567.6  | 511.8  | 450.7  | 401.2  | 429.9  | 434.5  |
| 62.5° | 5722.6 | 2556.5 | 421.9  | 545.1  | 601.1  | 531.8  | 498.0  | 455.8  | 410.4  | 442.0  | 440.9  |
| 65°   | 5827.5 | 2407.8 | 378.6  | 487.0  | 541.8  | 494.5  | 480.5  | 461.5  | 414.4  | 451.8  | 446.7  |
| 66°   | 5680.5 | 2247.6 | 359.6  | 460.0  | 511.8  | 476.0  | 472.0  | 461.0  | 412.7  | 453.0  | 444.3  |
| 67.5° | 5323.9 | 1919.0 | 326.8  | 420.2  | 464.0  | 448.4  | 458.2  | 455.8  | 408.0  | 451.8  | 439.7  |
| 70°   | 4341.9 | 1309.4 | 279.5  | 349.9  | 386.1  | 394.7  | 431.7  | 437.4  | 393.0  | 431.7  | 405.2  |
| 72.5° | 3033.7 | 797.6  | 247.3  | 271.5  | 312.3  | 336.6  | 395.4  | 412.0  | 372.9  | 376.9  | 351.6  |
| 75°   | 1466.1 | 423.7  | 224.2  | 210.4  | 242.5  | 281.3  | 351.6  | 377.4  | 341.1  | 315.3  | 306.1  |
| 77.5° | 457.0  | 258.8  | 190.2  | 169.4  | 190.2  | 227.0  | 293.8  | 330.8  | 303.8  | 264.0  | 260.5  |
| 80°   | 245.5  | 190.2  | 146.4  | 135.9  | 150.4  | 178.2  | 231.0  | 276.0  | 261.0  | 236.8  | 211.5  |
| 82.5° | 161.9  | 123.4  | 108.4  | 105.4  | 114.6  | 135.9  | 171.7  | 228.8  | 228.8  | 202.9  | 147.6  |
| 85°   | 83.6   | 75.6   | 74.3   | 74.3   | 80.1   | 90.6   | 116.9  | 176.4  | 187.9  | 107.1  | 88.8   |
| 87.5° | 41.5   | 43.3   | 40.3   | 42.1   | 45.0   | 44.3   | 55.8   | 88.8   | 106.1  | 65.1   | 54.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)