

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: P299101

Luminaire Tested: **GAA-AF-02-LED-U-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299101  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)  
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-T3-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10546.8 lumens  
Efficiency: N/A  
Efficacy: 93.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

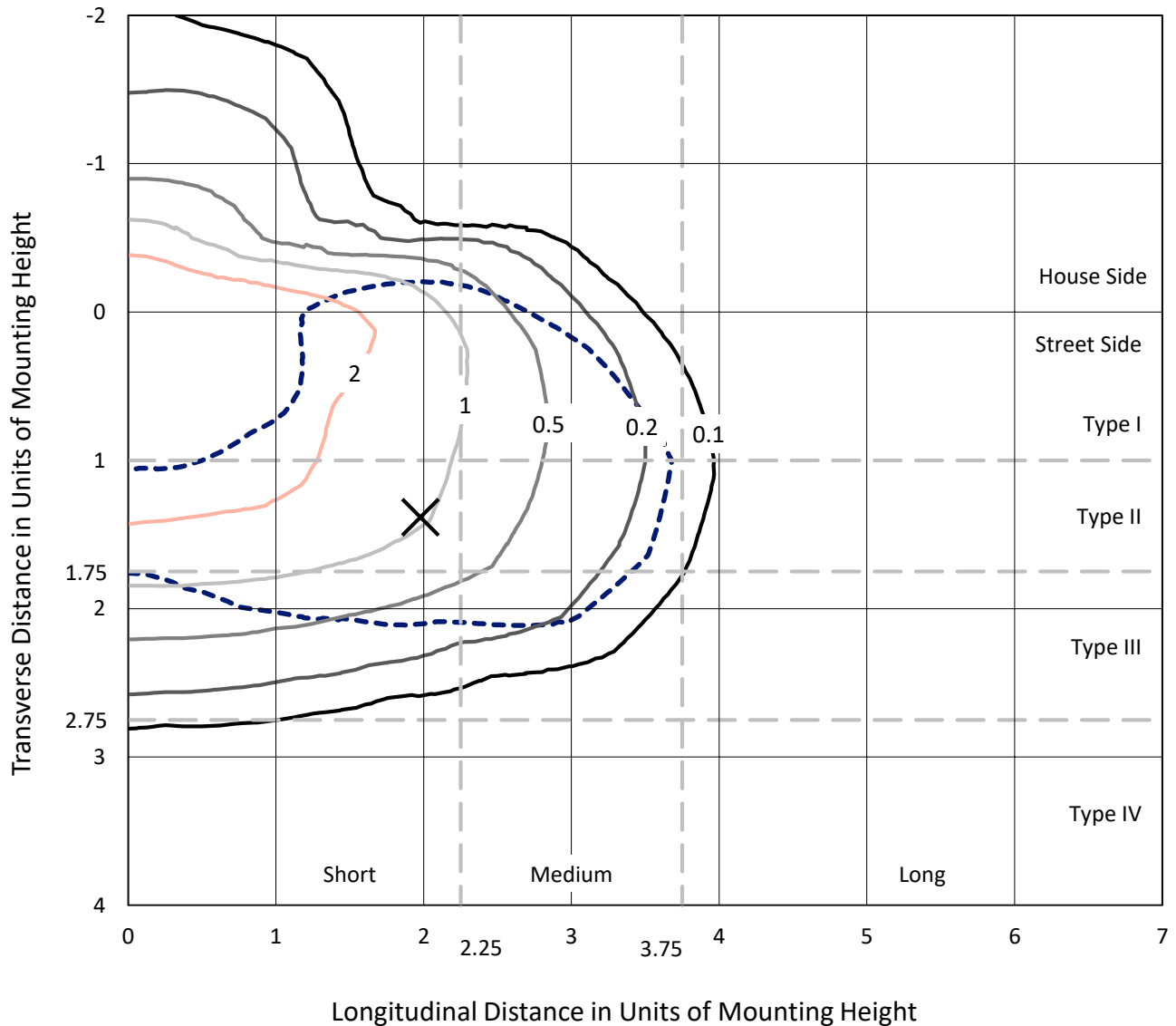
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P299101  
 CATALOG NUMBER: GAA-AF-02-LED-U-T3-7027

### Iso-Footcandle Lines of Horizontal Illumination

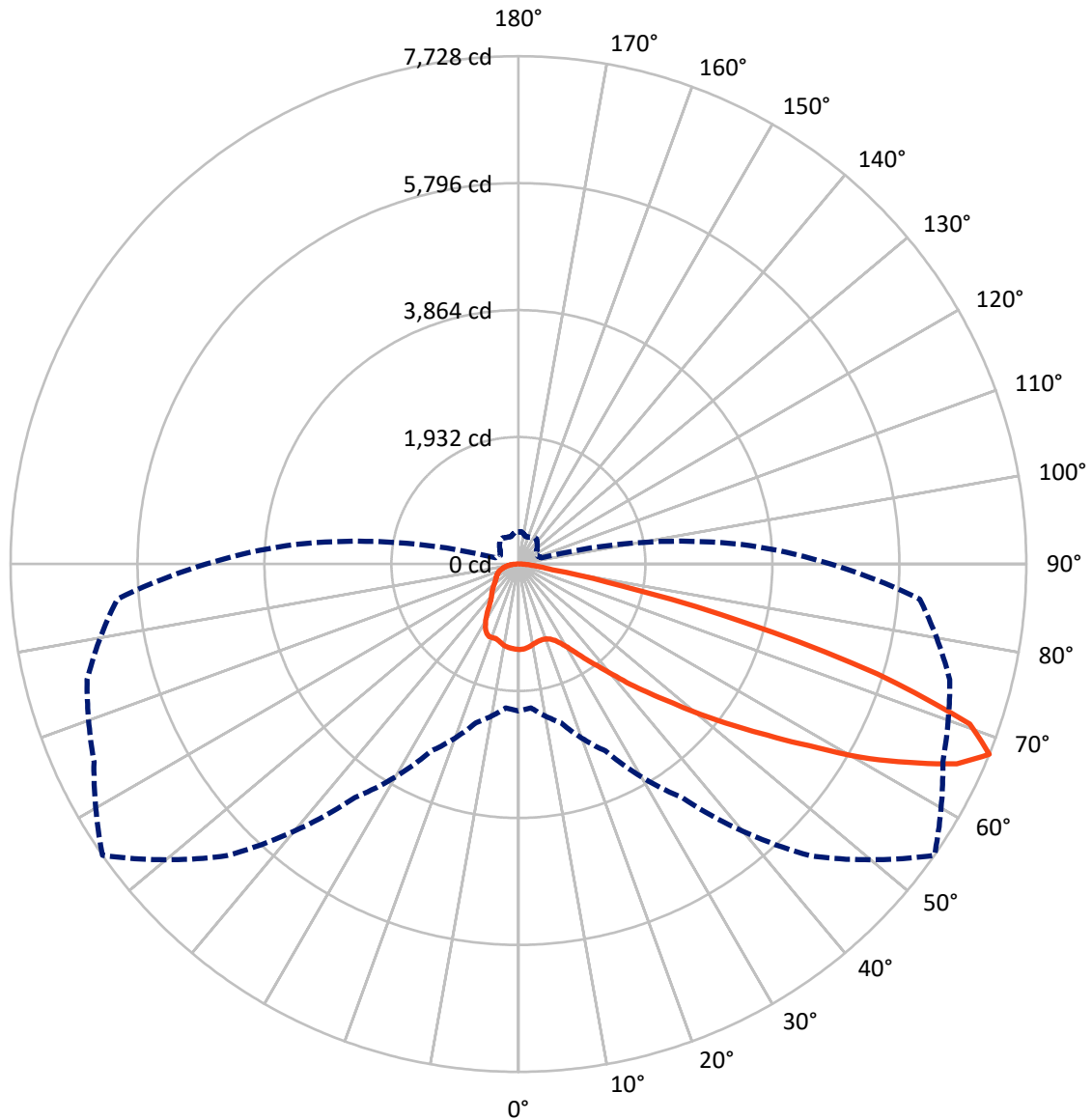
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.4 fc  
 Type III - Short - Full Cutoff

REPORT NUMBER: P299101  
CATALOG NUMBER: GAA-AF-02-LED-U-T3-7027

### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299101

CATALOG NUMBER: GAA-AF-02-LED-U-T3-7027

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2278.3   | 0.0    | 2278.3  |
|                    | % Fixture | 21.6     | 0.0    | 21.6    |
| <b>Street Side</b> | Lumens    | 8268.5   | 0.0    | 8268.5  |
|                    | % Fixture | 78.4     | 0.0    | 78.4    |
| <b>Total</b>       | Lumens    | 10546.8  | 0.0    | 10546.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 121.4   | 1.2       |
| 10°-20°   | 343.8   | 3.3       |
| 20°-30°   | 575.9   | 5.5       |
| 30°-40°   | 947.0   | 9.0       |
| 40°-50°   | 1594.2  | 15.1      |
| 50°-60°   | 2509.1  | 23.8      |
| 60°-70°   | 2994.3  | 28.4      |
| 70°-80°   | 1285.8  | 12.2      |
| 80°-90°   | 175.3   | 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°-90°    | 10546.8 | 100.0     |
| 0°-180°   | 10546.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P299101

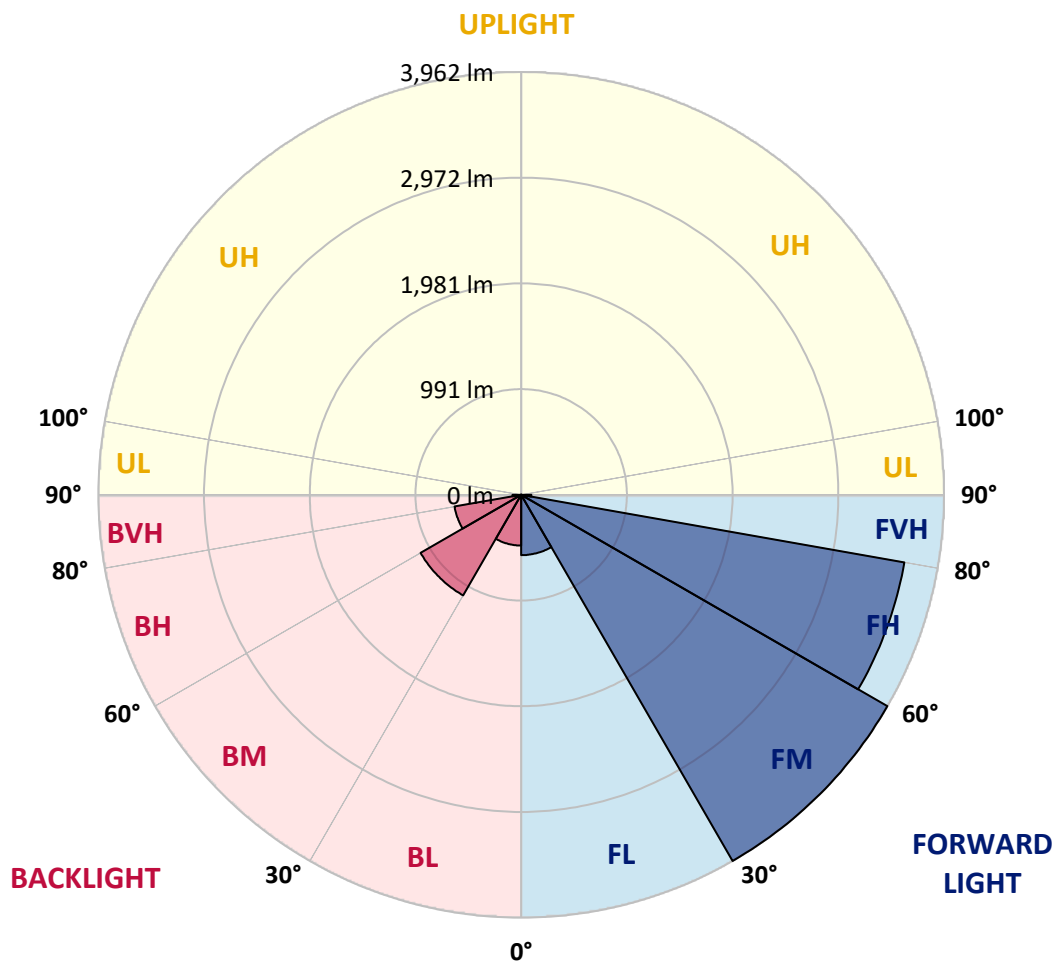
CATALOG NUMBER: GAA-AF-02-LED-U-T3-7027

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 565.3  | 5.4       |                         |      |         |
| FM (30°-60°)   | 3962.2 | 37.6      |                         |      |         |
| FH (60°-80°)   | 3646.1 | 34.6      |                         |      | G2/5000 |
| FVH (80°-90°)  | 94.9   | 0.9       |                         |      | G1/100  |
| BL (0°-30°)    | 475.8  | 4.5       | B1/500                  |      |         |
| BM (30°-60°)   | 1088.1 | 10.3      | B2/2500                 |      |         |
| BH (60°-80°)   | 634.1  | 6.0       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 80.4   | 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 III Short





REPORT NUMBER: P299101

CATALOG NUMBER: GAA-AF-02-LED-U-T3-7027

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 |
| 2.5°  | 1289.3 | 1289.8 | 1290.9 | 1294.9 | 1298.5 | 1297.5 | 1298.0 | 1296.0 | 1295.4 | 1292.4 | 1295.4 |
| 5°    | 1273.0 | 1274.6 | 1275.1 | 1281.7 | 1285.8 | 1286.8 | 1285.3 | 1282.7 | 1279.7 | 1276.6 | 1278.1 |
| 7.5°  | 1235.8 | 1239.9 | 1240.4 | 1249.6 | 1256.2 | 1264.9 | 1265.4 | 1265.9 | 1264.4 | 1262.3 | 1265.4 |
| 10°   | 1212.4 | 1213.4 | 1212.9 | 1219.5 | 1224.6 | 1234.3 | 1239.9 | 1249.6 | 1253.7 | 1254.7 | 1256.7 |
| 12.5° | 1210.9 | 1209.9 | 1208.3 | 1208.3 | 1206.8 | 1210.9 | 1221.1 | 1234.8 | 1244.5 | 1247.6 | 1250.1 |
| 15°   | 1227.2 | 1226.7 | 1221.6 | 1213.9 | 1204.3 | 1201.2 | 1209.9 | 1225.1 | 1237.9 | 1244.5 | 1247.0 |
| 17.5° | 1263.9 | 1260.8 | 1252.7 | 1235.3 | 1214.4 | 1206.3 | 1207.3 | 1220.1 | 1234.8 | 1243.5 | 1246.0 |
| 20°   | 1331.1 | 1331.1 | 1313.8 | 1281.2 | 1244.0 | 1224.6 | 1215.5 | 1223.1 | 1237.4 | 1249.1 | 1252.7 |
| 22.5° | 1447.2 | 1448.3 | 1419.2 | 1365.7 | 1303.1 | 1261.8 | 1238.9 | 1237.4 | 1254.2 | 1267.4 | 1271.5 |
| 25°   | 1611.8 | 1607.7 | 1567.0 | 1490.5 | 1395.3 | 1327.0 | 1287.3 | 1278.1 | 1292.4 | 1307.2 | 1312.3 |
| 27.5° | 1803.3 | 1788.6 | 1740.2 | 1648.0 | 1524.7 | 1424.8 | 1363.7 | 1348.9 | 1362.7 | 1379.5 | 1384.6 |
| 30°   | 1992.8 | 1977.6 | 1920.0 | 1819.1 | 1682.1 | 1555.8 | 1468.1 | 1444.2 | 1463.6 | 1487.5 | 1490.5 |
| 32.5° | 2182.3 | 2182.3 | 2118.1 | 2000.5 | 1851.2 | 1712.1 | 1607.2 | 1578.7 | 1610.8 | 1639.8 | 1646.4 |
| 35°   | 2409.0 | 2410.0 | 2347.9 | 2206.3 | 2045.8 | 1898.6 | 1783.0 | 1762.1 | 1810.5 | 1830.8 | 1846.6 |
| 37.5° | 2687.7 | 2693.3 | 2613.3 | 2442.1 | 2266.4 | 2111.5 | 1974.0 | 1945.5 | 1993.9 | 2049.4 | 2100.3 |
| 40°   | 2988.7 | 2995.9 | 2907.7 | 2696.8 | 2521.1 | 2359.1 | 2210.4 | 2158.9 | 2239.4 | 2345.3 | 2411.1 |
| 42.5° | 3276.1 | 3312.7 | 3227.7 | 3010.6 | 2821.7 | 2654.1 | 2503.3 | 2428.4 | 2529.2 | 2689.2 | 2746.3 |
| 45°   | 3691.2 | 3717.7 | 3569.5 | 3372.8 | 3195.1 | 3007.6 | 2807.9 | 2728.9 | 2870.0 | 3071.8 | 3083.5 |
| 47.5° | 3967.8 | 3948.0 | 3872.6 | 3750.3 | 3637.7 | 3462.5 | 3161.9 | 3075.3 | 3262.8 | 3500.2 | 3434.5 |
| 50°   | 4115.1 | 4121.2 | 4111.0 | 4118.1 | 4122.2 | 4012.2 | 3596.0 | 3477.3 | 3700.9 | 3987.7 | 3836.4 |
| 52.5° | 4252.6 | 4211.8 | 4245.5 | 4412.6 | 4614.3 | 4573.5 | 4068.2 | 3944.4 | 4170.6 | 4528.7 | 4261.3 |
| 55°   | 4249.5 | 4187.4 | 4296.9 | 4591.9 | 5029.5 | 5076.3 | 4598.5 | 4455.9 | 4667.3 | 5108.9 | 4711.6 |
| 57.5° | 4099.3 | 4102.3 | 4270.9 | 4657.1 | 5318.8 | 5549.1 | 5213.9 | 4999.9 | 5194.0 | 5696.8 | 5122.7 |
| 60°   | 3892.4 | 3920.5 | 4163.5 | 4646.4 | 5550.6 | 5936.7 | 5968.8 | 5586.3 | 5710.0 | 6231.2 | 5463.0 |
| 62.5° | 3558.8 | 3588.3 | 3923.5 | 4535.3 | 5515.4 | 6310.1 | 6651.4 | 6251.5 | 6249.5 | 6555.2 | 5562.8 |
| 65°   | 3032.6 | 3023.9 | 3375.9 | 4120.2 | 5220.5 | 6586.2 | 7329.5 | 6826.7 | 6656.0 | 6560.3 | 5362.1 |
| 67.5° | 2236.3 | 2197.6 | 2499.7 | 3138.0 | 4339.2 | 6277.0 | 7728.3 | 7126.2 | 6794.6 | 6128.8 | 4748.8 |
| 70°   | 1160.4 | 1121.7 | 1366.3 | 1832.4 | 2853.7 | 4899.0 | 7286.7 | 6971.4 | 6488.4 | 5137.5 | 3720.3 |
| 72.5° | 496.2  | 489.5  | 588.9  | 803.9  | 1380.5 | 2825.7 | 5713.6 | 6034.0 | 5567.4 | 3827.7 | 2557.8 |
| 75°   | 333.7  | 331.6  | 368.8  | 438.1  | 621.0  | 1146.7 | 3575.6 | 4283.2 | 4073.3 | 2373.4 | 1438.6 |
| 77.5° | 261.8  | 259.3  | 281.2  | 314.8  | 402.4  | 452.4  | 1586.8 | 2299.5 | 2128.3 | 1033.1 | 629.6  |
| 80°   | 204.8  | 202.7  | 216.5  | 234.8  | 289.3  | 285.3  | 522.2  | 914.9  | 708.1  | 395.8  | 306.2  |
| 82.5° | 161.5  | 161.5  | 172.7  | 173.2  | 205.3  | 194.6  | 272.5  | 402.9  | 353.5  | 230.8  | 187.5  |
| 85°   | 147.7  | 147.7  | 159.4  | 129.4  | 134.0  | 122.8  | 169.1  | 238.9  | 224.1  | 94.8   | 81.5   |
| 87.5° | 74.4   | 72.3   | 134.0  | 114.6  | 72.8   | 65.2   | 82.5   | 115.6  | 124.3  | 52.5   | 40.8   |
| 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: P299101

CATALOG NUMBER: GAA-AF-02-LED-U-T3-7027

**CANDELA DISTRIBUTION (continued):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 | 1300.5 |
| 2.5°  | 1294.4 | 1293.9 | 1294.9 | 1295.4 | 1299.5 | 1305.1 | 1307.7 | 1311.2 | 1313.3 | 1312.3 |
| 5°    | 1279.1 | 1280.2 | 1284.2 | 1287.3 | 1294.4 | 1303.6 | 1308.7 | 1312.8 | 1316.3 | 1314.8 |
| 7.5°  | 1266.4 | 1269.0 | 1275.1 | 1277.6 | 1281.7 | 1284.2 | 1283.7 | 1285.3 | 1288.3 | 1284.7 |
| 10°   | 1259.3 | 1262.3 | 1266.9 | 1263.4 | 1253.7 | 1239.9 | 1227.2 | 1220.6 | 1222.6 | 1220.1 |
| 12.5° | 1252.1 | 1256.2 | 1252.7 | 1235.8 | 1208.8 | 1191.0 | 1181.3 | 1182.4 | 1186.9 | 1188.0 |
| 15°   | 1248.1 | 1249.6 | 1234.3 | 1202.7 | 1175.2 | 1172.7 | 1177.8 | 1176.7 | 1177.3 | 1177.3 |
| 17.5° | 1248.1 | 1244.0 | 1215.5 | 1183.9 | 1172.2 | 1167.6 | 1151.8 | 1131.9 | 1123.3 | 1120.2 |
| 20°   | 1254.7 | 1244.0 | 1209.4 | 1188.5 | 1163.0 | 1123.8 | 1082.0 | 1045.3 | 1029.0 | 1024.4 |
| 22.5° | 1274.6 | 1256.2 | 1226.7 | 1190.5 | 1118.2 | 1052.5 | 986.2  | 942.4  | 912.9  | 907.8  |
| 25°   | 1314.8 | 1294.4 | 1260.8 | 1163.5 | 1046.8 | 953.1  | 877.7  | 828.8  | 799.3  | 795.2  |
| 27.5° | 1385.1 | 1371.9 | 1279.1 | 1103.9 | 952.1  | 851.7  | 782.0  | 744.3  | 722.4  | 720.8  |
| 30°   | 1491.1 | 1484.4 | 1270.0 | 1015.8 | 835.4  | 753.4  | 719.8  | 697.9  | 681.6  | 681.1  |
| 32.5° | 1660.2 | 1606.7 | 1239.9 | 908.3  | 729.0  | 683.6  | 669.9  | 656.6  | 643.9  | 643.9  |
| 35°   | 1877.7 | 1705.5 | 1182.9 | 793.2  | 664.3  | 644.9  | 627.6  | 606.7  | 589.9  | 588.9  |
| 37.5° | 2133.4 | 1766.7 | 1080.5 | 700.4  | 633.7  | 618.9  | 593.5  | 562.4  | 532.8  | 527.8  |
| 40°   | 2391.7 | 1785.0 | 936.3  | 643.4  | 614.4  | 593.0  | 561.9  | 525.2  | 496.7  | 495.2  |
| 42.5° | 2628.6 | 1749.8 | 783.5  | 604.2  | 595.0  | 566.5  | 533.9  | 501.3  | 478.9  | 478.3  |
| 45°   | 2827.3 | 1658.7 | 655.1  | 567.0  | 574.6  | 542.5  | 513.5  | 487.0  | 469.7  | 466.1  |
| 47.5° | 3014.2 | 1529.8 | 564.9  | 527.8  | 554.2  | 529.3  | 504.8  | 479.9  | 463.1  | 460.5  |
| 50°   | 3231.2 | 1390.7 | 501.8  | 489.5  | 536.4  | 524.7  | 512.0  | 486.0  | 458.0  | 454.9  |
| 52.5° | 3494.1 | 1270.5 | 452.4  | 455.9  | 522.7  | 530.8  | 530.3  | 503.3  | 454.4  | 450.3  |
| 55°   | 3787.5 | 1137.0 | 415.2  | 428.4  | 517.1  | 542.0  | 534.9  | 519.6  | 457.5  | 451.3  |
| 57.5° | 4076.3 | 981.1  | 389.2  | 407.5  | 508.9  | 541.0  | 513.0  | 491.1  | 464.6  | 455.9  |
| 60°   | 4292.8 | 771.8  | 369.3  | 389.2  | 491.1  | 524.2  | 489.0  | 460.0  | 463.1  | 456.4  |
| 62.5° | 4307.1 | 596.5  | 345.4  | 373.4  | 464.1  | 507.4  | 473.2  | 446.2  | 469.7  | 463.6  |
| 65°   | 4053.9 | 450.8  | 322.5  | 354.6  | 435.0  | 496.7  | 458.0  | 438.6  | 483.4  | 476.8  |
| 67.5° | 3413.1 | 362.7  | 303.1  | 335.2  | 406.0  | 474.3  | 444.2  | 431.5  | 495.7  | 483.9  |
| 70°   | 2464.0 | 309.2  | 284.3  | 311.8  | 380.0  | 448.8  | 432.0  | 418.7  | 462.5  | 444.2  |
| 72.5° | 1517.0 | 268.0  | 262.9  | 280.7  | 360.2  | 422.3  | 413.6  | 394.8  | 416.7  | 401.9  |
| 75°   | 757.5  | 232.3  | 238.9  | 250.1  | 332.1  | 392.2  | 383.1  | 364.2  | 367.3  | 364.2  |
| 77.5° | 362.7  | 198.7  | 210.9  | 219.6  | 296.0  | 358.1  | 348.4  | 329.1  | 325.5  | 326.0  |
| 80°   | 229.7  | 166.1  | 177.8  | 183.9  | 264.4  | 318.4  | 308.7  | 289.3  | 330.1  | 306.2  |
| 82.5° | 143.7  | 135.0  | 138.1  | 149.3  | 230.3  | 277.1  | 264.4  | 247.1  | 297.5  | 235.3  |
| 85°   | 79.5   | 94.2   | 98.3   | 108.0  | 177.3  | 231.8  | 219.0  | 197.1  | 176.8  | 173.7  |
| 87.5° | 47.4   | 56.0   | 57.6   | 64.7   | 119.2  | 167.6  | 148.2  | 140.6  | 116.7  | 116.1  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)