

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: P191570

Luminaire Tested: **GAN-AF-02-LED-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191570
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24147)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-02-LED-U-T4W
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12371.6 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

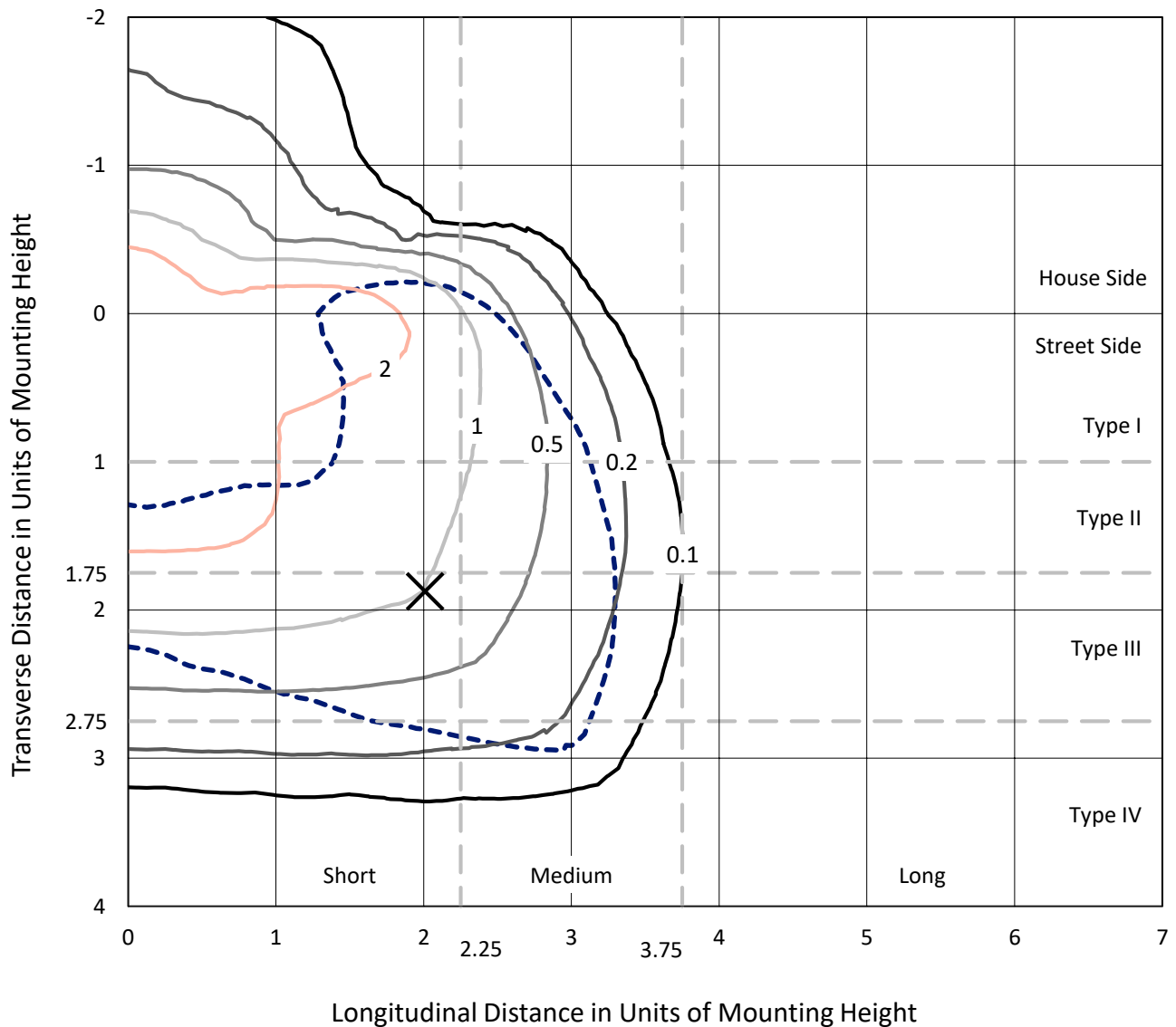
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

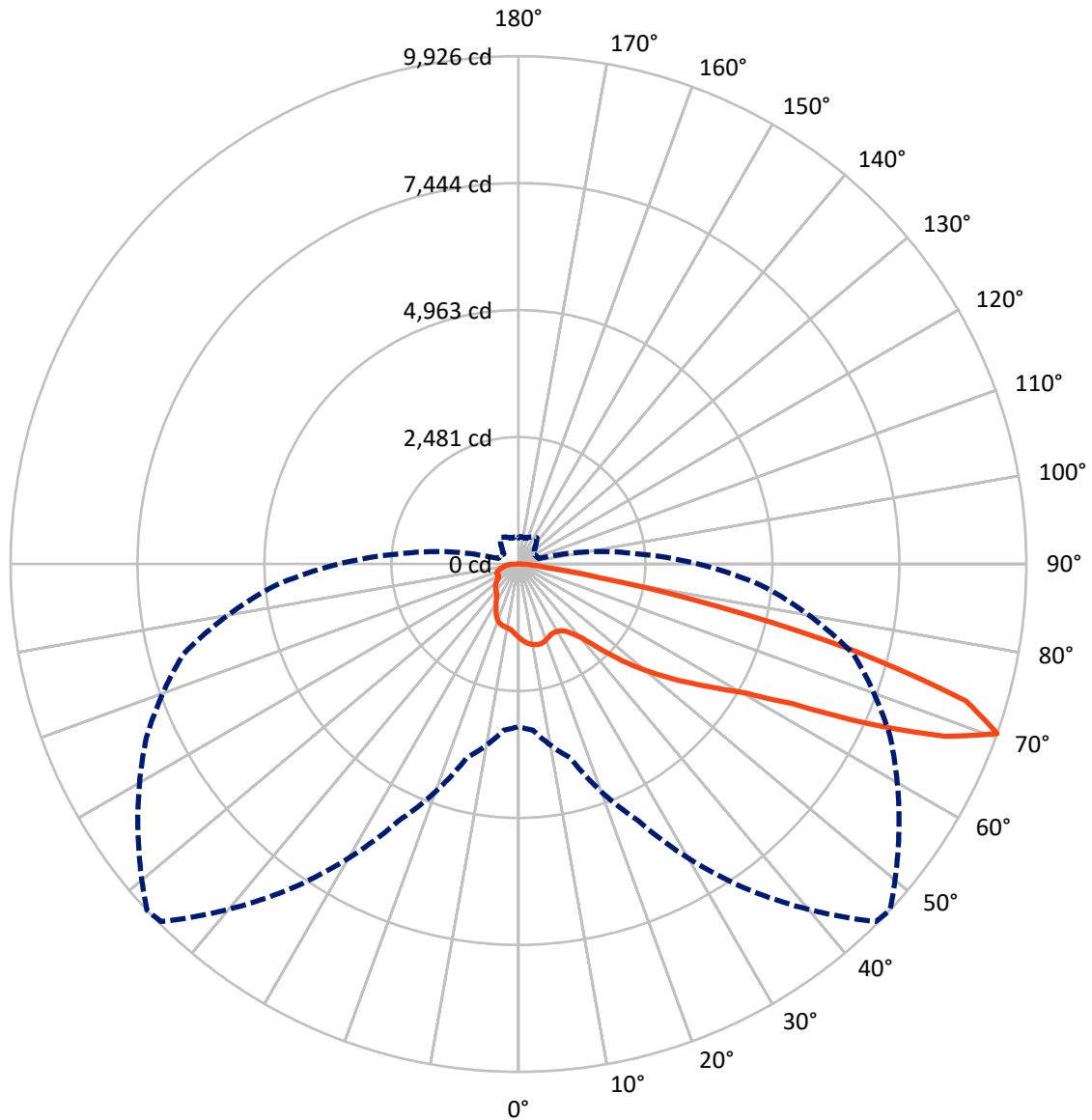
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2581.0 | 0.0 | 2581.0 |
| | % Fixture | 20.9 | 0.0 | 20.9 |
| Street Side | Lumens | 9790.6 | 0.0 | 9790.6 |
| | % Fixture | 79.1 | 0.0 | 79.1 |
| Total | Lumens | 12371.6 | 0.0 | 12371.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 137.5 | 1.1 |
| 10°-20° | 403.5 | 3.3 |
| 20°-30° | 595.9 | 4.8 |
| 30°-40° | 866.1 | 7.0 |
| 40°-50° | 1558.7 | 12.6 |
| 50°-60° | 2700.3 | 21.8 |
| 60°-70° | 3854.1 | 31.2 |
| 70°-80° | 1978.5 | 16.0 |
| 80°-90° | 277.0 | 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° | 12371.6 | 100.0 |
| 0°-180° | 12371.6 | 100.0 |

Coefficient of Utilization



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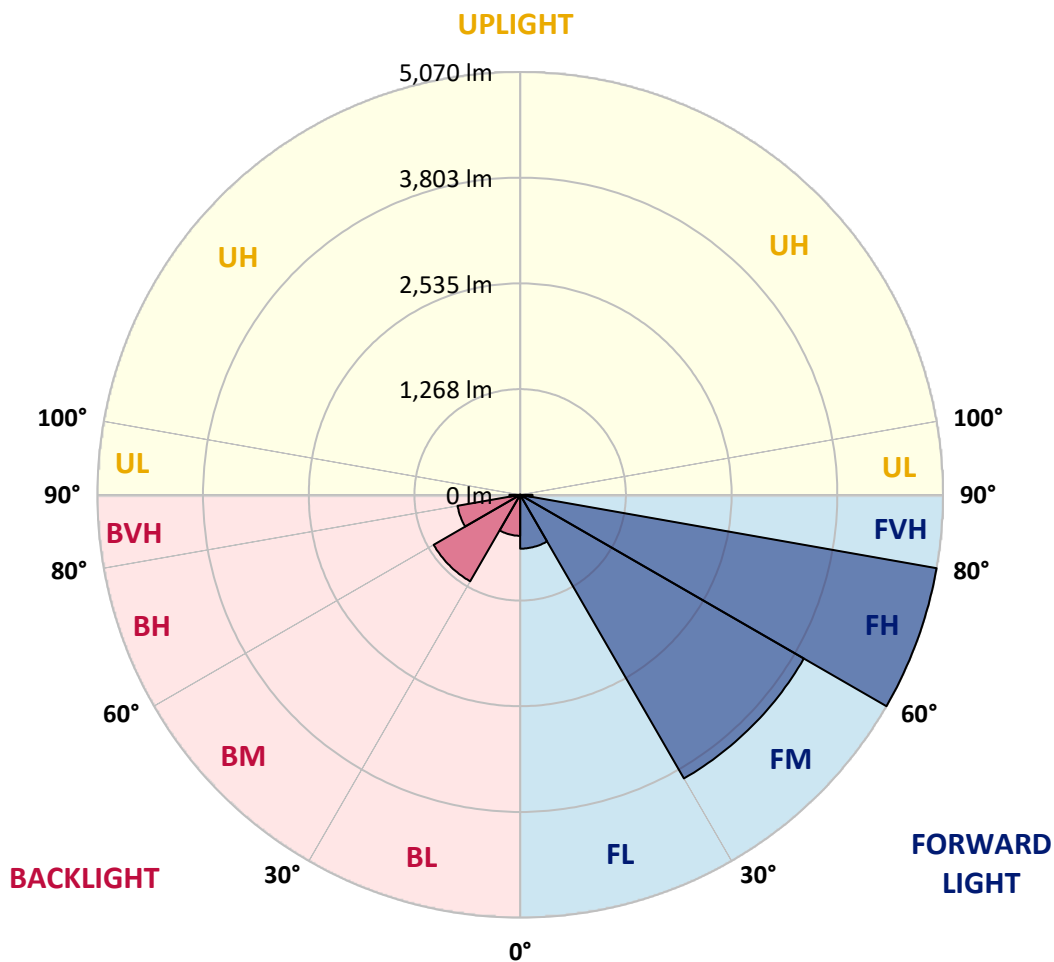
CATALOG NUMBER: GAN-AF-02-LED-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 645.5 | 5.2 | | | |
| FM | (30°-60°) | 3927.1 | 31.7 | | | |
| FH | (60°-80°) | 5070.2 | 41.0 | | | G3/7500 |
| FVH | (80°-90°) | 147.8 | 1.2 | | | G2/225 |
| BL | (0°-30°) | 491.4 | 4.0 | B1/500 | | |
| BM | (30°-60°) | 1198.0 | 9.7 | B2/2500 | | |
| BH | (60°-80°) | 762.3 | 6.2 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 129.2 | 1.0 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 47° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 |
| 2.5° | 1519.8 | 1516.7 | 1515.5 | 1513.1 | 1510.1 | 1495.0 | 1492.1 | 1481.2 | 1466.2 | 1450.5 | 1434.3 |
| 5° | 1619.6 | 1619.0 | 1612.5 | 1600.4 | 1581.2 | 1548.0 | 1540.3 | 1513.8 | 1478.3 | 1443.9 | 1409.6 |
| 7.5° | 1707.5 | 1702.1 | 1689.5 | 1665.4 | 1631.7 | 1586.6 | 1575.8 | 1539.0 | 1490.2 | 1443.3 | 1396.9 |
| 10° | 1772.0 | 1768.9 | 1741.3 | 1708.1 | 1664.2 | 1614.2 | 1601.6 | 1560.7 | 1507.1 | 1447.5 | 1389.8 |
| 12.5° | 1808.7 | 1802.6 | 1770.7 | 1731.0 | 1678.7 | 1629.9 | 1617.3 | 1575.8 | 1515.5 | 1447.5 | 1379.6 |
| 15° | 1806.2 | 1802.0 | 1770.1 | 1726.8 | 1673.9 | 1631.1 | 1619.6 | 1578.1 | 1513.8 | 1441.5 | 1366.3 |
| 17.5° | 1758.1 | 1759.9 | 1732.8 | 1690.1 | 1646.7 | 1614.2 | 1604.0 | 1565.5 | 1501.7 | 1429.5 | 1350.6 |
| 20° | 1673.9 | 1682.2 | 1664.2 | 1626.3 | 1602.2 | 1579.9 | 1573.3 | 1540.8 | 1483.1 | 1412.0 | 1333.7 |
| 22.5° | 1589.6 | 1597.4 | 1590.2 | 1558.3 | 1554.7 | 1541.4 | 1537.8 | 1514.4 | 1466.8 | 1401.1 | 1323.5 |
| 25° | 1527.6 | 1534.8 | 1533.6 | 1505.9 | 1516.7 | 1516.1 | 1513.1 | 1501.7 | 1463.1 | 1401.1 | 1325.3 |
| 27.5° | 1510.7 | 1513.1 | 1510.7 | 1485.4 | 1500.5 | 1512.5 | 1510.1 | 1508.3 | 1474.0 | 1418.6 | 1348.2 |
| 30° | 1568.5 | 1564.9 | 1546.2 | 1495.0 | 1509.0 | 1525.7 | 1523.4 | 1524.6 | 1506.5 | 1464.4 | 1399.4 |
| 32.5° | 1799.1 | 1782.8 | 1723.8 | 1579.9 | 1543.2 | 1552.2 | 1553.5 | 1573.3 | 1576.4 | 1534.8 | 1478.8 |
| 35° | 2143.9 | 2125.8 | 2049.4 | 1807.5 | 1649.7 | 1618.4 | 1618.4 | 1648.6 | 1666.6 | 1635.9 | 1602.2 |
| 37.5° | 2509.2 | 2489.4 | 2448.4 | 2122.8 | 1873.6 | 1733.4 | 1730.4 | 1751.5 | 1777.4 | 1784.5 | 1793.0 |
| 40° | 2924.5 | 2903.4 | 2914.9 | 2476.8 | 2186.0 | 1932.7 | 1889.9 | 1874.9 | 1944.6 | 1991.1 | 2058.5 |
| 42.5° | 3379.0 | 3369.3 | 3373.6 | 2871.0 | 2541.7 | 2230.5 | 2169.8 | 2092.1 | 2176.4 | 2258.9 | 2400.3 |
| 45° | 3799.6 | 3808.1 | 3803.8 | 3292.9 | 2937.8 | 2594.1 | 2529.8 | 2379.3 | 2461.7 | 2603.1 | 2833.7 |
| 47.5° | 4168.0 | 4133.1 | 4187.2 | 3753.9 | 3381.4 | 3001.0 | 2921.5 | 2719.9 | 2803.6 | 2978.1 | 3368.2 |
| 50° | 4615.2 | 4610.4 | 4531.0 | 4369.0 | 3917.6 | 3409.7 | 3305.6 | 3072.0 | 3202.0 | 3444.6 | 4041.7 |
| 52.5° | 5085.3 | 4998.0 | 4925.2 | 4847.6 | 4486.5 | 3828.6 | 3700.9 | 3422.9 | 3670.2 | 3975.4 | 4862.6 |
| 55° | 5181.6 | 5142.5 | 5232.8 | 5363.3 | 5034.8 | 4263.8 | 4115.0 | 3862.9 | 4197.5 | 4582.1 | 5809.3 |
| 57.5° | 5387.5 | 5386.9 | 5573.4 | 5806.4 | 5599.3 | 4725.4 | 4575.5 | 4394.3 | 4790.4 | 5277.3 | 6814.5 |
| 60° | 5526.5 | 5565.6 | 5912.2 | 6364.3 | 6153.7 | 5258.7 | 5120.8 | 5007.7 | 5464.5 | 6054.3 | 7751.0 |
| 62.5° | 5599.3 | 5652.3 | 6125.3 | 6590.6 | 6937.2 | 6146.4 | 6008.6 | 5845.4 | 6356.5 | 6906.6 | 8298.7 |
| 65° | 5296.5 | 5400.7 | 6092.3 | 6786.3 | 7623.4 | 7585.5 | 7523.5 | 7237.1 | 7471.7 | 7580.1 | 8100.7 |
| 67.5° | 4458.7 | 4565.2 | 5370.6 | 6603.9 | 8113.3 | 8973.4 | 8986.7 | 8497.3 | 8157.9 | 7637.9 | 6810.9 |
| 70° | 3176.8 | 3260.3 | 3926.7 | 5536.7 | 7740.2 | 9880.5 | 9925.6 | 9078.2 | 8021.3 | 6773.6 | 4758.5 |
| 72.5° | 1508.3 | 1559.5 | 2190.2 | 3603.4 | 6142.2 | 9052.9 | 9140.2 | 8336.6 | 6820.5 | 5014.9 | 2595.9 |
| 75° | 554.3 | 570.0 | 740.3 | 1533.0 | 3562.5 | 6676.1 | 6779.0 | 5976.1 | 4521.3 | 2496.6 | 988.9 |
| 77.5° | 332.3 | 342.5 | 415.3 | 647.0 | 1401.1 | 3815.9 | 3968.2 | 3250.1 | 1975.9 | 929.4 | 486.3 |
| 80° | 232.3 | 239.6 | 297.9 | 402.6 | 662.1 | 1454.1 | 1589.6 | 1326.6 | 787.3 | 588.0 | 353.9 |
| 82.5° | 157.1 | 160.7 | 209.5 | 272.0 | 440.0 | 519.5 | 560.4 | 589.8 | 530.8 | 437.6 | 224.5 |
| 85° | 102.9 | 106.5 | 142.1 | 179.3 | 279.9 | 268.4 | 274.5 | 347.3 | 387.6 | 297.4 | 124.6 |
| 87.5° | 59.0 | 61.4 | 85.4 | 95.7 | 137.3 | 113.8 | 115.0 | 183.0 | 248.0 | 200.4 | 75.8 |
| 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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CATALOG NUMBER: GAN-AF-02-LED-U-T4W

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 | 1435.5 |
| 2.5° | 1430.1 | 1422.2 | 1404.8 | 1394.0 | 1383.7 | 1381.3 | 1377.1 | 1376.5 | 1375.9 | 1375.9 | 1374.1 |
| 5° | 1398.2 | 1385.0 | 1357.9 | 1342.8 | 1330.1 | 1328.9 | 1328.3 | 1331.4 | 1332.6 | 1333.7 | 1332.0 |
| 7.5° | 1377.7 | 1359.6 | 1325.9 | 1304.3 | 1289.2 | 1285.6 | 1291.7 | 1305.5 | 1314.5 | 1318.1 | 1316.3 |
| 10° | 1365.0 | 1342.8 | 1303.6 | 1280.2 | 1267.5 | 1265.8 | 1273.6 | 1289.8 | 1308.5 | 1315.7 | 1315.1 |
| 12.5° | 1350.6 | 1325.3 | 1283.8 | 1259.2 | 1251.9 | 1255.6 | 1265.8 | 1280.8 | 1300.1 | 1311.5 | 1312.1 |
| 15° | 1336.2 | 1306.7 | 1264.0 | 1242.3 | 1239.3 | 1244.1 | 1253.7 | 1265.2 | 1280.2 | 1291.7 | 1292.8 |
| 17.5° | 1318.7 | 1288.0 | 1245.3 | 1223.0 | 1220.6 | 1223.0 | 1223.7 | 1229.7 | 1239.3 | 1250.1 | 1253.1 |
| 20° | 1300.1 | 1268.8 | 1224.3 | 1202.0 | 1191.1 | 1181.5 | 1170.7 | 1171.9 | 1174.9 | 1185.7 | 1188.2 |
| 22.5° | 1286.9 | 1255.6 | 1208.0 | 1177.3 | 1148.4 | 1119.5 | 1097.8 | 1094.9 | 1096.0 | 1105.1 | 1108.1 |
| 25° | 1288.0 | 1255.0 | 1203.8 | 1150.8 | 1087.6 | 1041.3 | 1012.4 | 1007.5 | 1007.0 | 1013.5 | 1017.7 |
| 27.5° | 1311.5 | 1278.4 | 1219.5 | 1123.7 | 1021.4 | 952.8 | 922.1 | 918.5 | 913.7 | 915.4 | 920.2 |
| 30° | 1363.9 | 1333.2 | 1257.3 | 1096.0 | 949.8 | 866.1 | 834.2 | 830.6 | 824.0 | 820.9 | 824.6 |
| 32.5° | 1449.3 | 1424.0 | 1312.8 | 1069.5 | 878.1 | 792.1 | 759.5 | 751.8 | 747.6 | 743.9 | 747.0 |
| 35° | 1591.4 | 1580.6 | 1386.7 | 1040.6 | 815.0 | 734.9 | 705.4 | 693.4 | 687.3 | 694.0 | 698.8 |
| 37.5° | 1814.1 | 1820.1 | 1483.7 | 995.5 | 766.2 | 696.9 | 672.3 | 658.5 | 649.5 | 654.9 | 660.3 |
| 40° | 2129.5 | 2133.7 | 1590.8 | 931.7 | 724.0 | 674.7 | 648.2 | 635.6 | 623.0 | 613.4 | 612.7 |
| 42.5° | 2543.6 | 2500.8 | 1696.1 | 862.4 | 675.4 | 660.8 | 631.4 | 615.7 | 596.5 | 570.0 | 564.6 |
| 45° | 3034.7 | 2884.8 | 1776.1 | 783.1 | 620.5 | 644.0 | 612.7 | 591.1 | 561.0 | 532.0 | 529.1 |
| 47.5° | 3600.5 | 3297.1 | 1815.2 | 700.6 | 569.4 | 619.3 | 589.8 | 555.6 | 517.6 | 503.2 | 501.3 |
| 50° | 4291.4 | 3786.5 | 1833.9 | 620.5 | 524.9 | 586.9 | 556.7 | 516.4 | 484.5 | 481.5 | 479.7 |
| 52.5° | 5078.0 | 4375.1 | 1840.0 | 555.0 | 488.2 | 544.7 | 529.7 | 490.5 | 465.2 | 467.7 | 467.7 |
| 55° | 5901.4 | 4983.0 | 1758.1 | 507.4 | 454.4 | 501.3 | 511.6 | 480.3 | 459.2 | 468.8 | 472.5 |
| 57.5° | 6657.4 | 5521.7 | 1500.5 | 470.7 | 422.5 | 468.3 | 504.9 | 489.9 | 475.5 | 514.6 | 517.0 |
| 60° | 7237.6 | 5840.0 | 1120.7 | 437.6 | 399.1 | 456.8 | 522.4 | 526.6 | 530.3 | 623.6 | 636.2 |
| 62.5° | 7359.2 | 5734.2 | 770.4 | 411.7 | 388.2 | 466.5 | 554.3 | 555.0 | 550.8 | 615.7 | 623.6 |
| 65° | 6801.3 | 5064.2 | 560.4 | 397.2 | 379.2 | 484.0 | 581.4 | 568.8 | 541.1 | 590.4 | 576.0 |
| 67.5° | 5401.3 | 3815.3 | 466.5 | 386.4 | 365.9 | 482.7 | 610.3 | 581.4 | 535.7 | 578.4 | 555.0 |
| 70° | 3506.0 | 2307.1 | 415.3 | 377.4 | 350.3 | 459.8 | 627.2 | 580.2 | 520.1 | 538.1 | 510.4 |
| 72.5° | 1710.6 | 1031.6 | 380.9 | 364.2 | 334.0 | 427.9 | 626.6 | 569.4 | 503.8 | 502.6 | 487.5 |
| 75° | 669.3 | 472.5 | 349.6 | 344.3 | 306.4 | 391.8 | 609.7 | 553.7 | 484.5 | 465.2 | 459.8 |
| 77.5° | 391.8 | 337.1 | 310.0 | 314.8 | 273.2 | 355.7 | 585.0 | 526.6 | 458.1 | 435.2 | 429.1 |
| 80° | 285.3 | 252.2 | 264.2 | 272.0 | 233.5 | 319.6 | 551.9 | 493.6 | 428.5 | 440.0 | 431.6 |
| 82.5° | 183.0 | 162.5 | 214.3 | 222.1 | 194.4 | 282.8 | 515.8 | 458.6 | 387.0 | 351.5 | 343.1 |
| 85° | 93.3 | 102.9 | 159.5 | 169.1 | 149.9 | 232.3 | 471.9 | 412.2 | 340.0 | 292.6 | 297.4 |
| 87.5° | 52.4 | 70.4 | 101.7 | 113.8 | 106.0 | 178.7 | 382.8 | 340.0 | 277.4 | 225.7 | 198.7 |
| 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)