

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: P191257

Luminaire Tested: **GAN-AF-09-LED-U-SL4-ADJ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191257
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24294)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-09-LED-U-SL4-ADJ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 51726.5 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

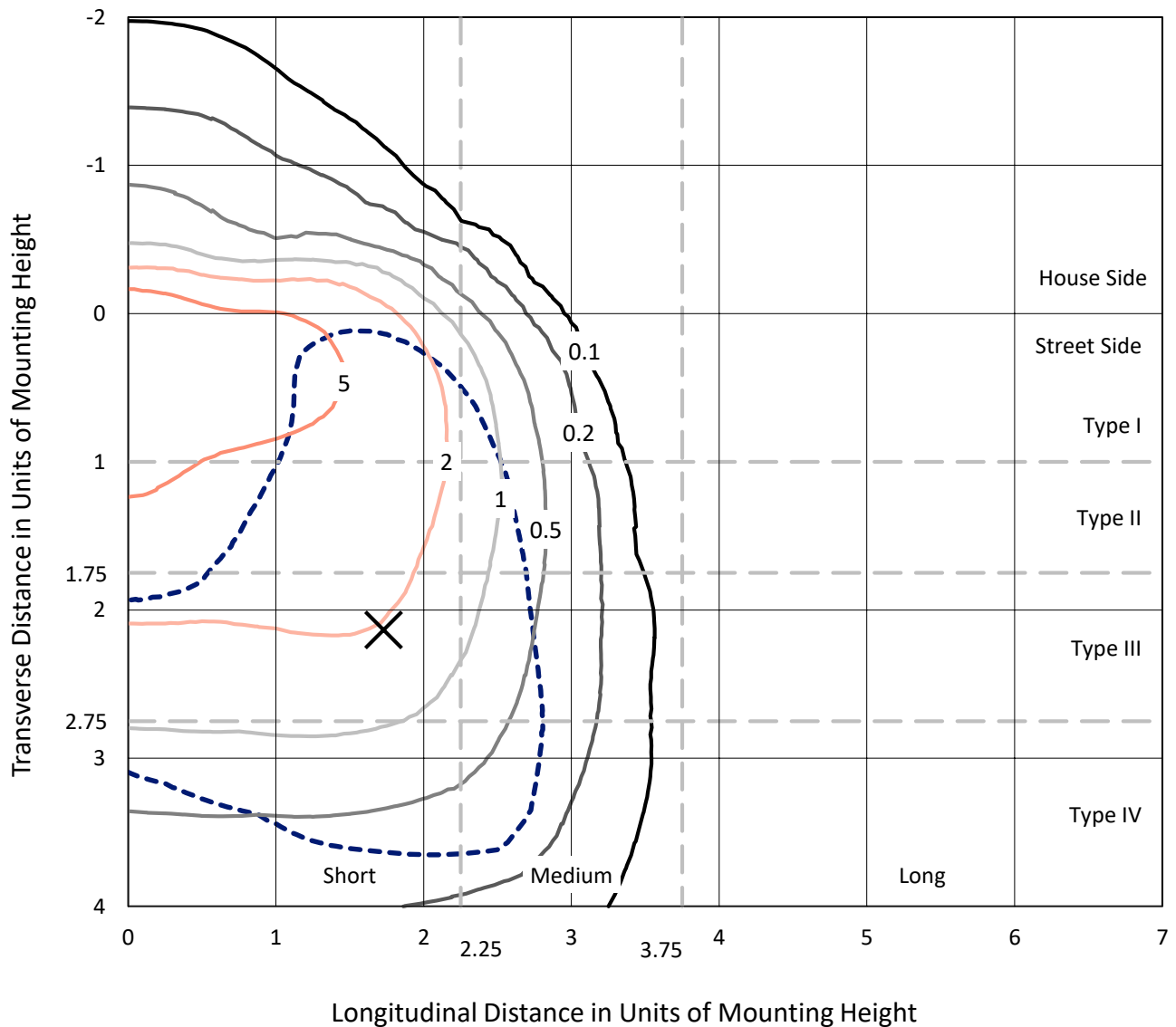
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

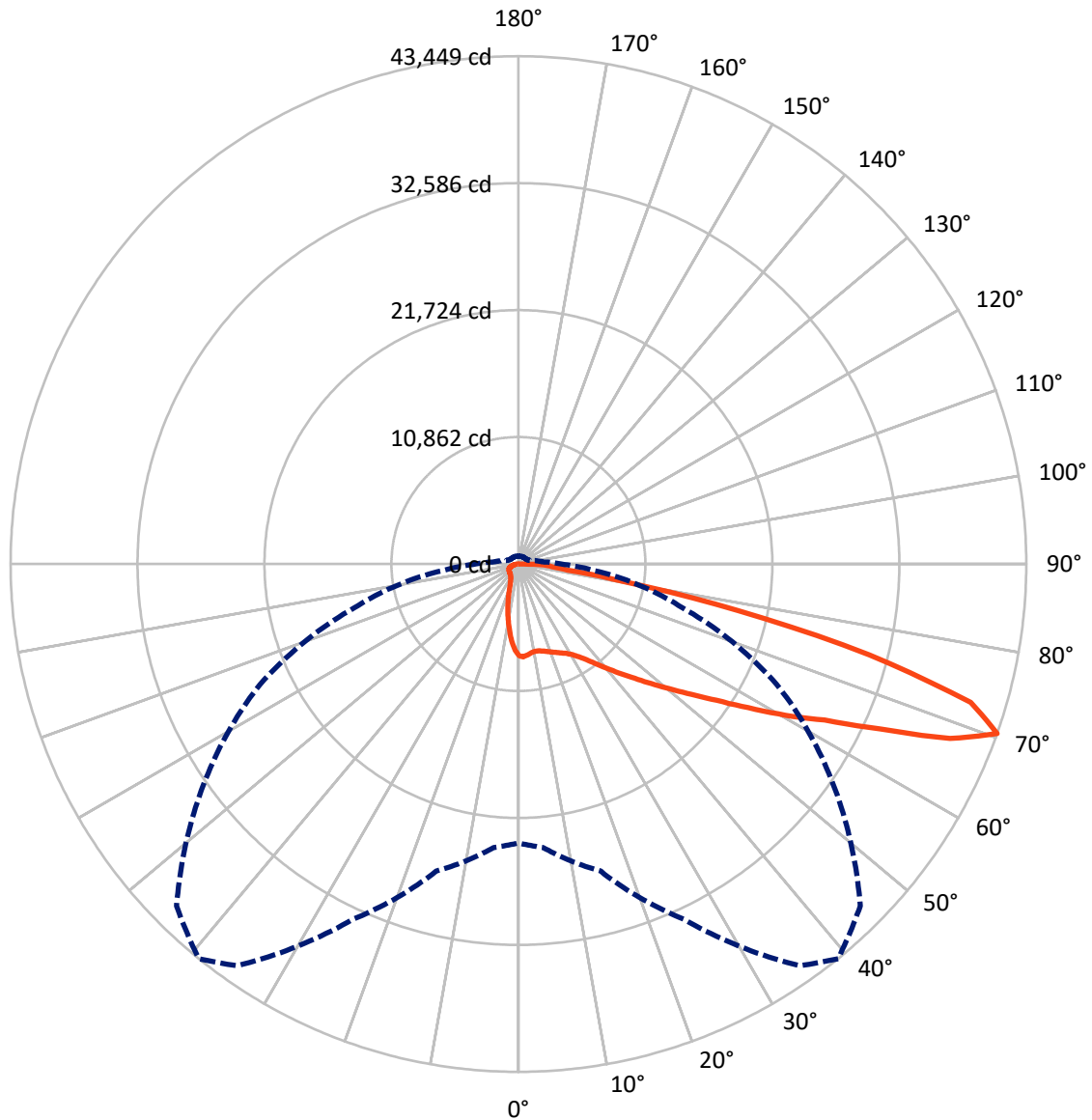
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5883.1 | 0.0 | 5883.1 |
| | % Fixture | 11.4 | 0.0 | 11.4 |
| Street Side | Lumens | 45843.5 | 0.0 | 45843.5 |
| | % Fixture | 88.6 | 0.0 | 88.6 |
| Total | Lumens | 51726.5 | 0.0 | 51726.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 673.9 | 1.3 |
| 10°-20° | 1684.6 | 3.3 |
| 20°-30° | 2622.9 | 5.1 |
| 30°-40° | 4086.0 | 7.9 |
| 40°-50° | 6859.7 | 13.3 |
| 50°-60° | 10897.2 | 21.1 |
| 60°-70° | 14535.7 | 28.1 |
| 70°-80° | 8777.8 | 17.0 |
| 80°-90° | 1588.7 | 3.1 |
| 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° | 51726.5 | 100.0 |
| 0°-180° | 51726.5 | 100.0 |

Coefficient of Utilization



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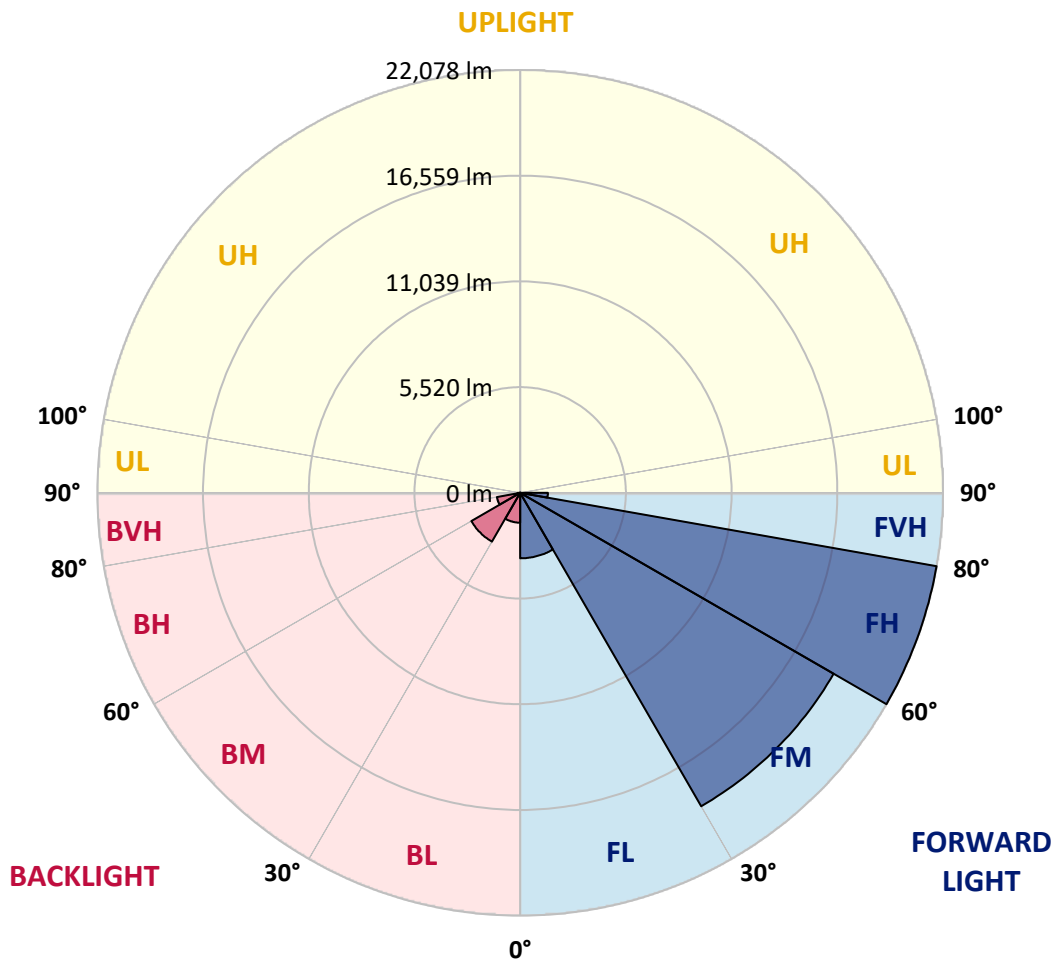
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3420.7 | 6.6 | | | |
| FM | (30°-60°) | 18898.9 | 36.5 | | | |
| FH | (60°-80°) | 22078.4 | 42.7 | | | G5 |
| FVH | (80°-90°) | 1445.5 | 2.8 | | | G5 |
| BL | (0°-30°) | 1560.7 | 3.0 | B3/2500 | | |
| BM | (30°-60°) | 2944.1 | 5.7 | B3/5000 | | |
| BH | (60°-80°) | 1235.1 | 2.4 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 143.2 | 0.3 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 |
| 2.5° | 8005.4 | 8002.7 | 7981.8 | 7966.0 | 7952.8 | 7947.6 | 7958.0 | 7918.7 | 7884.5 | 7842.4 | 7797.6 |
| 5° | 7945.0 | 7942.3 | 7908.1 | 7876.5 | 7845.0 | 7834.5 | 7831.8 | 7760.8 | 7718.8 | 7655.7 | 7571.5 |
| 7.5° | 7879.2 | 7866.1 | 7821.4 | 7768.7 | 7713.5 | 7687.2 | 7660.9 | 7568.8 | 7521.6 | 7458.4 | 7361.1 |
| 10° | 7810.8 | 7795.0 | 7752.9 | 7700.4 | 7647.8 | 7608.3 | 7563.6 | 7474.2 | 7424.2 | 7376.9 | 7263.8 |
| 12.5° | 7739.9 | 7726.7 | 7716.1 | 7692.5 | 7655.7 | 7621.5 | 7587.2 | 7511.0 | 7458.4 | 7403.2 | 7271.6 |
| 15° | 7729.3 | 7724.0 | 7747.7 | 7763.5 | 7742.4 | 7721.4 | 7684.6 | 7618.8 | 7563.6 | 7508.4 | 7337.4 |
| 17.5° | 7813.4 | 7810.8 | 7871.3 | 7913.3 | 7902.8 | 7866.1 | 7816.1 | 7742.4 | 7697.7 | 7650.3 | 7437.4 |
| 20° | 7997.5 | 8010.7 | 8084.3 | 8139.5 | 8086.9 | 8034.4 | 7952.8 | 7850.2 | 7826.6 | 7805.5 | 7540.0 |
| 22.5° | 8344.7 | 8357.8 | 8410.4 | 8431.5 | 8294.7 | 8218.5 | 8105.4 | 7973.9 | 7958.0 | 7973.9 | 7663.5 |
| 25° | 8886.5 | 8873.3 | 8865.4 | 8786.5 | 8536.6 | 8418.3 | 8273.6 | 8137.0 | 8144.8 | 8215.8 | 7837.1 |
| 27.5° | 9604.4 | 9533.4 | 9422.9 | 9186.2 | 8789.1 | 8657.6 | 8481.4 | 8355.2 | 8405.2 | 8541.9 | 8097.5 |
| 30° | 10348.7 | 10269.8 | 10014.7 | 9628.1 | 9120.5 | 8975.9 | 8778.7 | 8636.6 | 8768.1 | 8983.8 | 8444.7 |
| 32.5° | 11037.7 | 11027.2 | 10653.7 | 10156.7 | 9578.1 | 9451.9 | 9254.6 | 9094.2 | 9307.2 | 9636.0 | 8965.3 |
| 35° | 11789.8 | 11813.5 | 11366.4 | 10769.4 | 10196.2 | 10064.6 | 9922.6 | 9801.6 | 10085.7 | 10538.0 | 9720.1 |
| 37.5° | 12594.6 | 12641.9 | 12113.4 | 11440.1 | 10901.0 | 10845.7 | 10761.5 | 10709.0 | 11148.1 | 11774.1 | 10774.7 |
| 40° | 13670.2 | 13622.9 | 12889.2 | 12197.5 | 11766.2 | 11763.5 | 11737.2 | 11800.4 | 12531.5 | 13388.8 | 12129.1 |
| 42.5° | 14822.1 | 14682.7 | 13712.3 | 13010.1 | 12715.6 | 12805.0 | 12857.6 | 13115.4 | 14196.2 | 15350.7 | 13780.7 |
| 45° | 16063.4 | 15750.5 | 14567.0 | 13870.1 | 13770.1 | 13959.5 | 14138.3 | 14698.6 | 16155.5 | 17583.5 | 15590.1 |
| 47.5° | 17054.9 | 16752.5 | 15450.6 | 14772.1 | 14990.4 | 15277.1 | 15621.6 | 16507.9 | 18348.9 | 19889.9 | 17375.7 |
| 50° | 17836.0 | 17638.7 | 16342.3 | 15824.1 | 16334.3 | 16776.2 | 17338.9 | 18556.6 | 20631.6 | 22135.9 | 19030.0 |
| 52.5° | 18593.5 | 18446.2 | 17241.6 | 16902.4 | 17912.3 | 18522.4 | 19287.7 | 20755.2 | 22972.2 | 24345.0 | 20421.2 |
| 55° | 19277.2 | 19171.9 | 18209.4 | 18246.3 | 19768.9 | 20563.3 | 21525.7 | 23258.8 | 25523.2 | 26314.8 | 21599.4 |
| 57.5° | 20047.8 | 19913.6 | 19314.0 | 19932.0 | 22154.3 | 23185.2 | 24437.1 | 26072.9 | 27916.4 | 28066.3 | 22496.2 |
| 60° | 20823.6 | 20707.9 | 20539.5 | 21878.2 | 25183.9 | 26267.4 | 27453.5 | 28800.1 | 30343.8 | 29426.0 | 22443.5 |
| 62.5° | 21496.8 | 21510.0 | 21807.2 | 23921.6 | 28150.5 | 29404.9 | 30851.4 | 32182.1 | 32539.8 | 29662.7 | 20784.1 |
| 65° | 22638.2 | 22846.0 | 23732.3 | 26814.5 | 32326.8 | 34004.6 | 35779.9 | 35566.8 | 33147.3 | 27450.9 | 17225.9 |
| 67.5° | 23995.3 | 24360.8 | 26157.1 | 30669.9 | 37605.0 | 39832.5 | 40518.9 | 36332.1 | 30714.6 | 22314.8 | 12279.0 |
| 70° | 23858.5 | 24360.8 | 27203.7 | 33544.4 | 41954.8 | 43448.6 | 41365.8 | 32881.6 | 24389.7 | 14577.6 | 6522.1 |
| 72.5° | 21186.5 | 21904.4 | 25070.9 | 32226.8 | 40584.7 | 40453.2 | 35911.3 | 24513.3 | 14490.8 | 5854.1 | 2548.4 |
| 75° | 16147.6 | 16873.5 | 19598.0 | 25460.1 | 32076.9 | 30972.4 | 25481.1 | 13541.4 | 5499.1 | 2324.9 | 1606.9 |
| 77.5° | 9288.8 | 9851.6 | 11955.5 | 15613.7 | 20350.2 | 19216.7 | 14183.1 | 6022.5 | 2677.3 | 1620.0 | 1254.4 |
| 80° | 5186.2 | 5499.1 | 6777.3 | 7921.2 | 9972.5 | 9141.5 | 6346.0 | 3742.4 | 1998.7 | 1175.6 | 967.8 |
| 82.5° | 4100.0 | 4378.7 | 5480.8 | 4996.8 | 4555.0 | 4202.6 | 3645.1 | 3332.1 | 1596.3 | 741.6 | 578.6 |
| 85° | 3582.0 | 3847.5 | 4639.2 | 3934.4 | 3111.2 | 2853.4 | 2961.2 | 3279.5 | 1241.4 | 447.1 | 494.4 |
| 87.5° | 3319.0 | 3673.9 | 4134.3 | 3032.2 | 2422.1 | 2146.0 | 2732.5 | 3595.1 | 399.8 | 278.8 | 199.9 |
| 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-09-LED-U-SL4-ADJ

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 | 7852.9 |
| 2.5° | 7758.3 | 7716.1 | 7647.8 | 7587.2 | 7492.6 | 7442.6 | 7387.4 | 7348.0 | 7316.3 | 7290.1 | 7332.2 |
| 5° | 7518.9 | 7440.0 | 7295.4 | 7140.2 | 6956.1 | 6811.4 | 6690.5 | 6577.4 | 6498.5 | 6445.9 | 6482.7 |
| 7.5° | 7292.7 | 7163.8 | 6937.7 | 6656.2 | 6340.7 | 6072.4 | 5851.5 | 5656.9 | 5522.8 | 5436.0 | 5470.2 |
| 10° | 7163.8 | 7003.4 | 6653.7 | 6211.9 | 5746.3 | 5328.1 | 4981.1 | 4681.2 | 4473.5 | 4355.1 | 4373.5 |
| 12.5° | 7132.3 | 6924.6 | 6440.6 | 5833.2 | 5196.7 | 4615.5 | 4126.3 | 3710.8 | 3418.9 | 3266.4 | 3271.6 |
| 15° | 7156.0 | 6890.4 | 6240.7 | 5470.2 | 4665.5 | 3931.7 | 3321.5 | 2816.6 | 2477.4 | 2303.8 | 2301.1 |
| 17.5° | 7195.4 | 6864.0 | 6030.4 | 5078.3 | 4126.3 | 3274.3 | 2593.1 | 2098.7 | 1798.9 | 1659.4 | 1649.0 |
| 20° | 7237.5 | 6822.0 | 5793.7 | 4654.9 | 3566.1 | 2664.1 | 2030.3 | 1643.7 | 1454.3 | 1378.1 | 1372.8 |
| 22.5° | 7297.9 | 6785.1 | 5549.1 | 4207.8 | 3016.5 | 2169.7 | 1670.0 | 1409.6 | 1309.7 | 1270.2 | 1265.0 |
| 25° | 7395.3 | 6766.7 | 5288.8 | 3742.4 | 2522.1 | 1814.6 | 1454.3 | 1293.9 | 1236.0 | 1209.7 | 1207.1 |
| 27.5° | 7558.4 | 6793.0 | 5044.2 | 3290.0 | 2119.7 | 1575.3 | 1333.3 | 1236.0 | 1194.0 | 1170.3 | 1167.7 |
| 30° | 7768.7 | 6874.5 | 4786.4 | 2861.3 | 1806.7 | 1412.3 | 1259.8 | 1196.6 | 1162.4 | 1138.7 | 1138.7 |
| 32.5° | 8118.5 | 7011.3 | 4515.5 | 2490.5 | 1583.2 | 1299.1 | 1204.5 | 1162.4 | 1133.5 | 1115.1 | 1112.5 |
| 35° | 8634.0 | 7269.1 | 4263.0 | 2182.8 | 1422.8 | 1217.6 | 1157.2 | 1125.6 | 1104.6 | 1094.0 | 1094.0 |
| 37.5° | 9383.5 | 7676.7 | 4039.5 | 1961.9 | 1325.4 | 1162.4 | 1112.5 | 1088.8 | 1075.6 | 1075.6 | 1075.6 |
| 40° | 10390.7 | 8239.5 | 3858.1 | 1814.6 | 1270.2 | 1123.0 | 1078.3 | 1059.9 | 1052.0 | 1054.6 | 1054.6 |
| 42.5° | 11634.7 | 8970.6 | 3737.0 | 1712.1 | 1243.9 | 1099.3 | 1054.6 | 1038.8 | 1030.9 | 1028.3 | 1030.9 |
| 45° | 13052.2 | 9801.6 | 3724.0 | 1635.8 | 1217.6 | 1083.5 | 1038.8 | 1023.1 | 1007.3 | 996.8 | 996.8 |
| 47.5° | 14430.3 | 10645.8 | 3831.8 | 1609.5 | 1188.7 | 1065.1 | 1025.7 | 1009.9 | 986.2 | 962.5 | 962.5 |
| 50° | 15647.9 | 11363.9 | 3976.4 | 1620.0 | 1178.2 | 1038.8 | 1004.6 | 996.8 | 959.9 | 933.6 | 931.0 |
| 52.5° | 16615.7 | 11916.0 | 4094.8 | 1651.6 | 1188.7 | 1020.4 | 978.4 | 980.9 | 941.5 | 912.6 | 909.9 |
| 55° | 17391.6 | 12279.0 | 4063.2 | 1683.2 | 1212.4 | 1009.9 | 954.6 | 959.9 | 928.3 | 899.4 | 899.4 |
| 57.5° | 17730.8 | 12144.9 | 3713.4 | 1656.9 | 1230.8 | 1012.5 | 936.2 | 957.3 | 931.0 | 904.7 | 904.7 |
| 60° | 17002.4 | 10953.6 | 3058.6 | 1541.1 | 1207.1 | 1004.6 | 928.3 | 967.8 | 965.2 | 938.9 | 936.2 |
| 62.5° | 14798.4 | 8820.7 | 2372.2 | 1370.1 | 1125.6 | 965.2 | 907.4 | 965.2 | 994.1 | 986.2 | 983.6 |
| 65° | 11405.9 | 6282.9 | 1812.0 | 1186.1 | 1015.2 | 899.4 | 852.1 | 904.7 | 944.2 | 954.6 | 952.1 |
| 67.5° | 7403.2 | 3850.2 | 1396.4 | 1012.5 | 891.5 | 823.2 | 781.1 | 804.8 | 812.6 | 812.6 | 807.4 |
| 70° | 3639.8 | 2072.4 | 1112.5 | 852.1 | 765.3 | 741.6 | 718.0 | 704.8 | 691.6 | 681.2 | 681.2 |
| 72.5° | 1796.2 | 1354.4 | 915.2 | 720.6 | 660.1 | 649.6 | 644.4 | 628.5 | 618.1 | 604.9 | 599.7 |
| 75° | 1328.1 | 1101.9 | 778.5 | 607.5 | 568.0 | 557.5 | 568.0 | 555.0 | 552.3 | 541.8 | 536.5 |
| 77.5° | 1091.4 | 938.9 | 670.6 | 520.7 | 486.5 | 468.1 | 483.9 | 486.5 | 489.2 | 473.4 | 468.1 |
| 80° | 886.3 | 794.2 | 560.2 | 431.3 | 399.8 | 386.6 | 397.1 | 418.2 | 423.4 | 399.8 | 389.2 |
| 82.5° | 639.0 | 649.6 | 452.3 | 336.7 | 310.4 | 299.8 | 320.8 | 347.2 | 352.4 | 318.2 | 310.4 |
| 85° | 536.5 | 541.8 | 347.2 | 239.4 | 213.0 | 197.2 | 231.4 | 257.7 | 276.1 | 241.9 | 234.1 |
| 87.5° | 223.5 | 318.2 | 199.9 | 134.1 | 118.4 | 102.6 | 123.6 | 136.8 | 165.7 | 152.5 | 149.9 |
| 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)