

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: P190971

Luminaire Tested: **GAN-AF-03-LED-U-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-03-LED-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19071.9 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

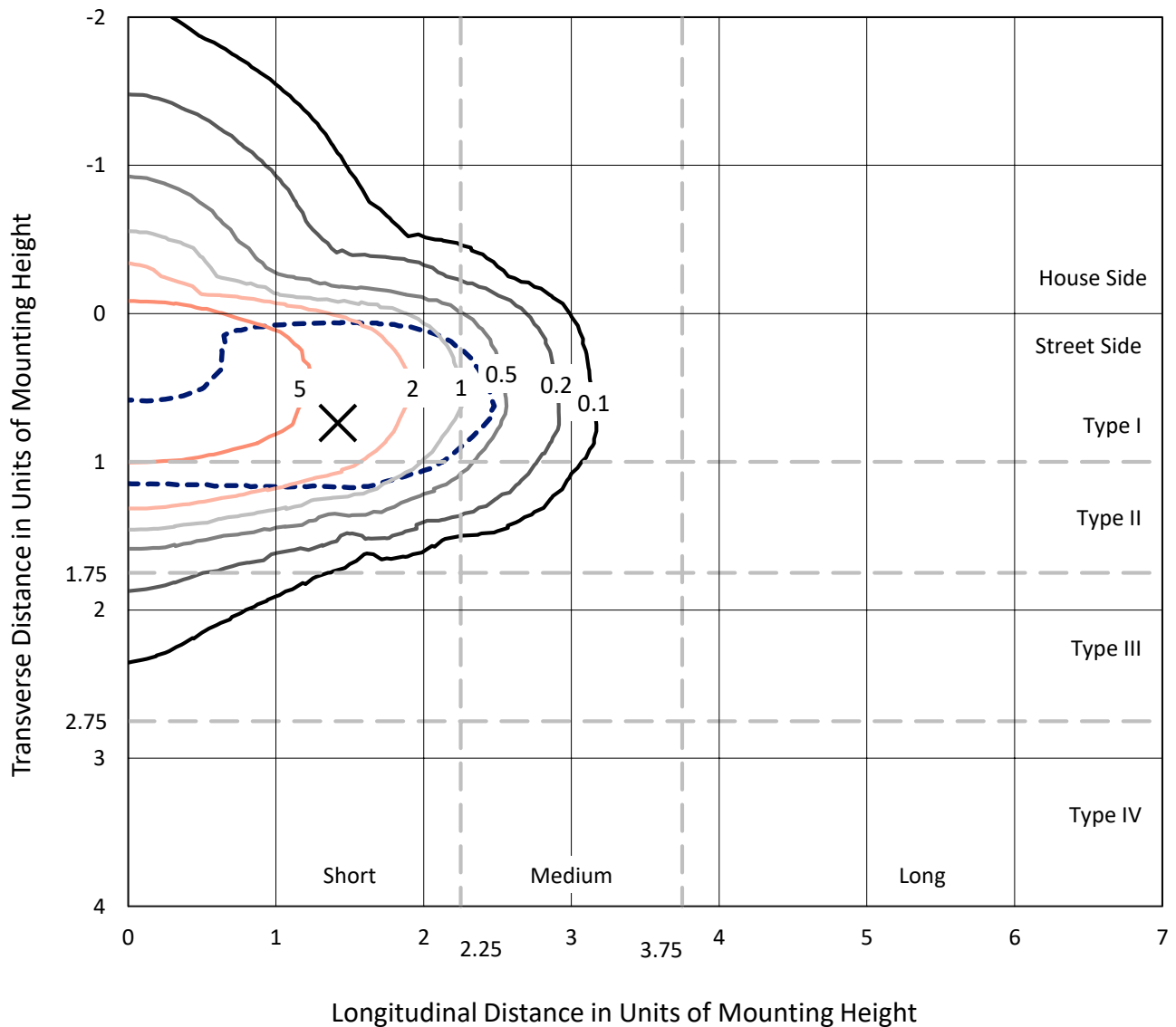
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

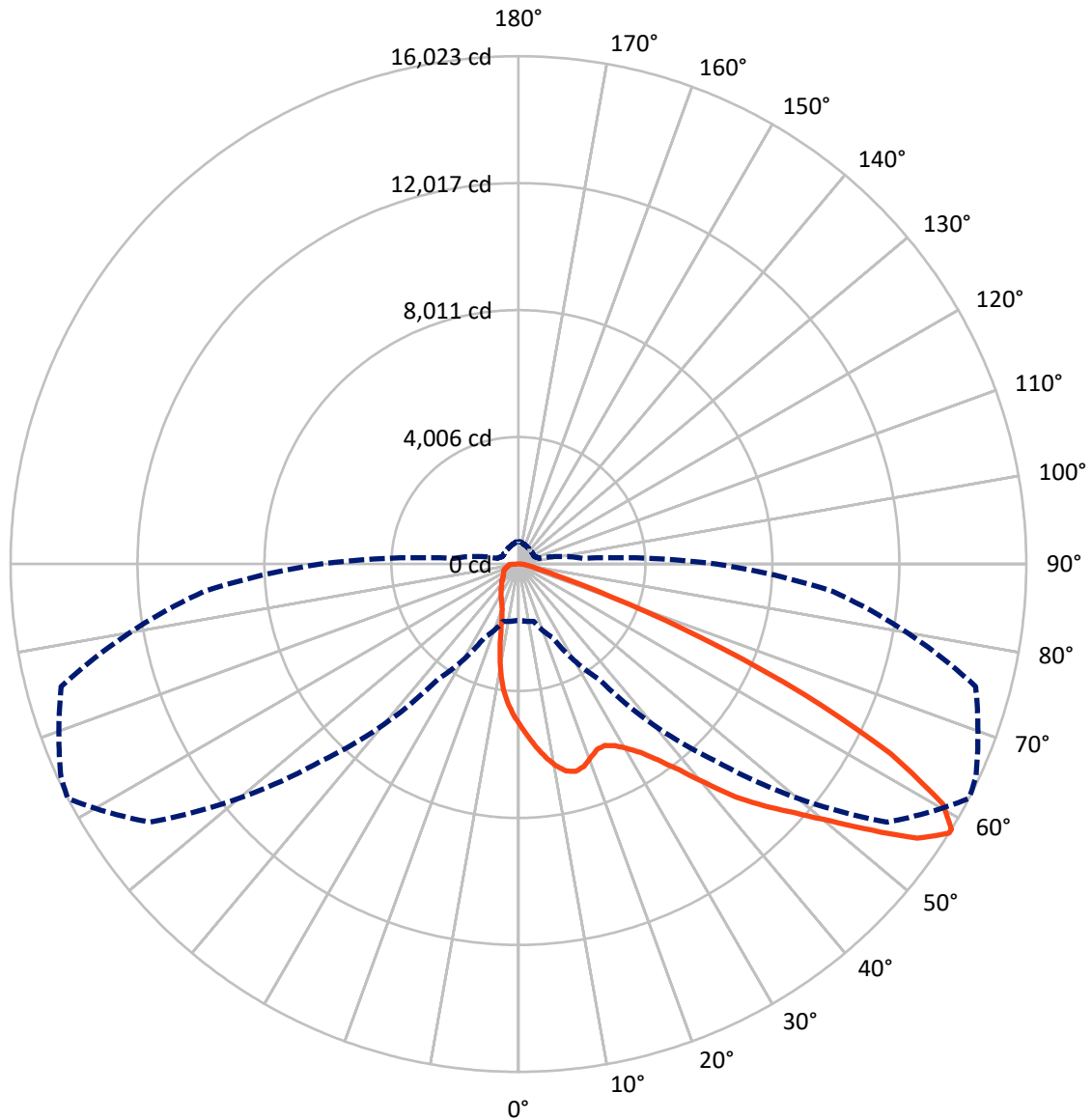
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2908.5 | 0.0 | 2908.5 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 16163.4 | 0.0 | 16163.4 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 19071.9 | 0.0 | 19071.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 453.1 | 2.4 |
| 10°-20° | 1158.2 | 6.1 |
| 20°-30° | 1872.2 | 9.8 |
| 30°-40° | 2972.1 | 15.6 |
| 40°-50° | 4348.8 | 22.8 |
| 50°-60° | 4548.5 | 23.8 |
| 60°-70° | 2687.2 | 14.1 |
| 70°-80° | 757.0 | 4.0 |
| 80°-90° | 274.8 | 1.4 |
| 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° | 19071.9 | 100.0 |
| 0°-180° | 19071.9 | 100.0 |



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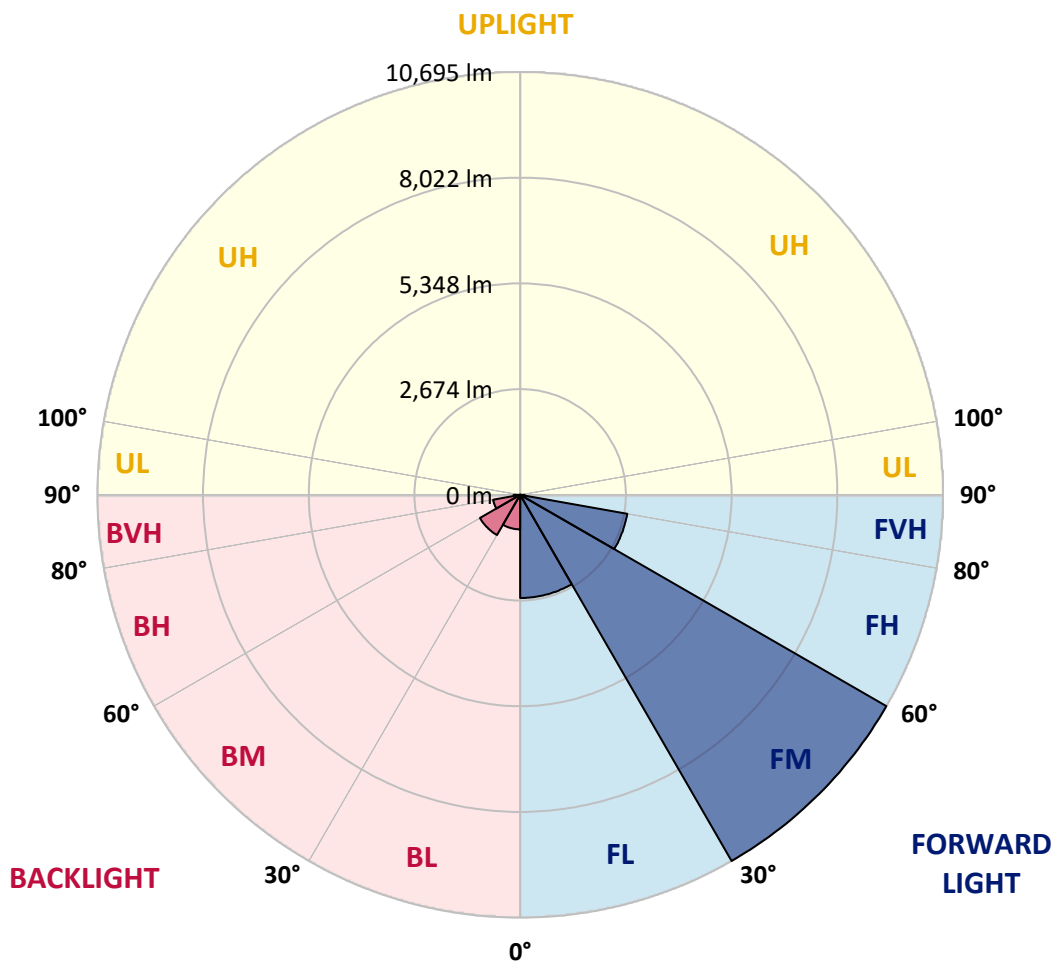
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2609.3 | 13.7 | | | |
| FM | (30°-60°) | 10695.4 | 56.1 | | | |
| FH | (60°-80°) | 2750.2 | 14.4 | | | G2/5000 |
| FVH | (80°-90°) | 108.4 | 0.6 | | | G2/225 |
| BL | (0°-30°) | 874.2 | 4.6 | B2/1000 | | |
| BM | (30°-60°) | 1174.0 | 6.2 | B2/2500 | | |
| BH | (60°-80°) | 694.0 | 3.6 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 166.4 | 0.9 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 |
| 2.5° | 5789.0 | 5742.3 | 5712.7 | 5686.6 | 5652.5 | 5579.8 | 5481.9 | 5419.9 | 5388.5 | 5281.6 | 5155.0 |
| 5° | 6356.6 | 6315.3 | 6284.7 | 6249.7 | 6188.6 | 6074.6 | 5916.5 | 5790.8 | 5728.8 | 5515.1 | 5261.9 |
| 7.5° | 6223.6 | 6240.7 | 6293.7 | 6386.3 | 6465.3 | 6450.0 | 6309.0 | 6149.2 | 6067.4 | 5770.2 | 5385.7 |
| 10° | 5422.6 | 5452.2 | 5543.9 | 5760.2 | 6110.5 | 6469.8 | 6579.3 | 6468.8 | 6386.3 | 6022.5 | 5513.3 |
| 12.5° | 5261.9 | 5260.9 | 5268.1 | 5325.6 | 5534.0 | 6039.6 | 6588.3 | 6699.7 | 6650.3 | 6263.2 | 5643.5 |
| 15° | 5327.4 | 5329.2 | 5323.8 | 5348.1 | 5412.7 | 5613.0 | 6313.4 | 6788.6 | 6823.6 | 6505.7 | 5778.2 |
| 17.5° | 5499.8 | 5495.3 | 5474.7 | 5474.7 | 5498.1 | 5576.2 | 5990.2 | 6706.0 | 6867.6 | 6720.3 | 5896.8 |
| 20° | 5789.0 | 5768.3 | 5713.6 | 5663.3 | 5638.1 | 5680.3 | 5857.3 | 6515.6 | 6791.3 | 6908.0 | 5994.7 |
| 22.5° | 6139.2 | 6123.1 | 6034.2 | 5926.5 | 5839.3 | 5838.4 | 5925.5 | 6349.5 | 6659.2 | 7085.0 | 6077.2 |
| 25° | 6591.9 | 6565.8 | 6433.8 | 6261.4 | 6108.8 | 6050.3 | 6074.6 | 6341.4 | 6587.4 | 7277.2 | 6150.9 |
| 27.5° | 7123.5 | 7076.0 | 6919.6 | 6671.0 | 6446.4 | 6328.8 | 6293.7 | 6487.8 | 6653.0 | 7515.1 | 6253.3 |
| 30° | 7768.4 | 7713.6 | 7513.4 | 7189.1 | 6872.1 | 6679.1 | 6604.5 | 6747.3 | 6870.3 | 7805.2 | 6417.7 |
| 32.5° | 8502.2 | 8423.1 | 8191.4 | 7834.0 | 7417.2 | 7122.7 | 7001.4 | 7090.4 | 7188.2 | 8154.6 | 6623.3 |
| 35° | 9516.0 | 9421.8 | 9086.8 | 8593.7 | 8123.2 | 7718.1 | 7524.1 | 7588.8 | 7684.0 | 8675.4 | 6920.6 |
| 37.5° | 10207.5 | 10165.4 | 9942.7 | 9479.2 | 8967.3 | 8501.2 | 8201.2 | 8238.9 | 8292.9 | 9326.5 | 7301.4 |
| 40° | 10201.3 | 10218.4 | 10222.9 | 10227.4 | 9878.8 | 9432.5 | 9110.1 | 9070.6 | 9059.9 | 10041.4 | 7734.2 |
| 42.5° | 9690.3 | 9760.3 | 9986.7 | 10445.6 | 10657.5 | 10452.7 | 10157.3 | 10043.2 | 9986.7 | 10883.8 | 8193.1 |
| 45° | 8908.1 | 8945.8 | 9369.6 | 10265.9 | 11056.3 | 11463.1 | 11239.5 | 10880.2 | 10777.8 | 11658.0 | 8574.0 |
| 47.5° | 8504.8 | 8546.1 | 8812.8 | 9789.9 | 11051.8 | 12279.4 | 12408.7 | 11724.4 | 11541.2 | 12331.5 | 8902.6 |
| 50° | 7544.8 | 7631.0 | 7966.8 | 8962.0 | 10648.5 | 12654.8 | 13631.0 | 12730.2 | 12351.3 | 12987.1 | 9232.2 |
| 52.5° | 5781.8 | 5914.7 | 6291.0 | 7600.4 | 9625.6 | 12469.0 | 14609.1 | 13949.9 | 13414.6 | 13666.0 | 9515.2 |
| 55° | 3647.1 | 3745.8 | 4062.0 | 5367.8 | 7700.2 | 11501.6 | 14980.0 | 15269.2 | 14793.2 | 14309.0 | 9760.3 |
| 57.5° | 1983.0 | 2027.0 | 2145.5 | 2963.7 | 5008.6 | 9363.4 | 14439.3 | 16019.9 | 15822.4 | 14855.1 | 9945.3 |
| 58° | 1774.6 | 1804.3 | 1877.9 | 2568.5 | 4441.9 | 8778.8 | 14199.5 | 16022.6 | 15923.9 | 14935.1 | 9959.7 |
| 60° | 1316.5 | 1301.3 | 1235.7 | 1465.7 | 2472.4 | 6064.8 | 12750.1 | 15381.4 | 15671.5 | 15033.0 | 9889.7 |
| 62.5° | 1156.8 | 1119.9 | 986.1 | 970.8 | 1202.5 | 2793.9 | 9755.8 | 13175.7 | 13861.0 | 14474.3 | 9463.9 |
| 65° | 1086.7 | 1047.2 | 874.7 | 819.1 | 867.6 | 1181.9 | 5746.8 | 9881.6 | 10741.0 | 12780.5 | 8375.5 |
| 67.5° | 1034.6 | 983.4 | 803.7 | 727.4 | 731.0 | 781.3 | 2303.6 | 6223.6 | 7190.9 | 9703.7 | 6514.7 |
| 70° | 984.3 | 928.6 | 743.6 | 655.6 | 634.9 | 617.9 | 916.1 | 3115.4 | 3992.9 | 6129.4 | 4153.6 |
| 72.5° | 930.4 | 875.6 | 690.6 | 599.0 | 558.6 | 502.1 | 598.1 | 1274.4 | 1780.0 | 2899.9 | 1884.2 |
| 75° | 852.3 | 802.9 | 637.6 | 548.7 | 491.2 | 415.8 | 451.7 | 665.4 | 798.4 | 1154.9 | 908.0 |
| 77.5° | 756.2 | 715.8 | 578.4 | 507.4 | 435.6 | 337.7 | 347.6 | 461.7 | 511.9 | 661.0 | 539.7 |
| 80° | 543.3 | 557.7 | 514.6 | 456.2 | 388.0 | 273.9 | 266.7 | 336.8 | 363.8 | 424.8 | 351.2 |
| 82.5° | 381.7 | 389.7 | 425.6 | 372.7 | 320.6 | 215.5 | 196.7 | 237.1 | 253.3 | 279.3 | 189.5 |
| 85° | 263.1 | 254.2 | 291.8 | 259.5 | 231.7 | 143.7 | 134.7 | 160.7 | 170.6 | 173.3 | 97.9 |
| 87.5° | 158.0 | 158.0 | 168.9 | 139.2 | 124.8 | 74.6 | 72.7 | 91.6 | 97.9 | 93.4 | 53.9 |
| 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-03-LED-U-AFL

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 | 5066.1 |
| 2.5° | 5079.6 | 5015.7 | 4880.2 | 4771.5 | 4634.1 | 4491.3 | 4411.4 | 4326.1 | 4267.6 | 4225.5 | 4292.8 |
| 5° | 5118.1 | 4987.9 | 4707.7 | 4441.9 | 4148.3 | 3842.9 | 3611.2 | 3395.7 | 3245.6 | 3152.2 | 3240.3 |
| 7.5° | 5179.2 | 4978.9 | 4532.6 | 4078.2 | 3551.0 | 3042.7 | 2588.3 | 2303.6 | 2137.5 | 2055.7 | 2106.9 |
| 10° | 5249.3 | 4964.6 | 4327.0 | 3585.1 | 2830.7 | 2190.4 | 1850.9 | 1735.9 | 1698.3 | 1683.0 | 1690.2 |
| 12.5° | 5307.7 | 4934.0 | 4074.6 | 2988.8 | 2125.8 | 1729.7 | 1631.8 | 1629.2 | 1637.2 | 1639.0 | 1641.7 |
| 15° | 5348.9 | 4889.1 | 3700.1 | 2367.3 | 1700.0 | 1576.2 | 1570.7 | 1586.9 | 1602.1 | 1608.5 | 1612.1 |
| 17.5° | 5376.8 | 4796.6 | 3277.1 | 1871.6 | 1523.2 | 1501.6 | 1514.2 | 1534.8 | 1551.0 | 1555.5 | 1559.1 |
| 20° | 5374.1 | 4661.1 | 2773.2 | 1560.8 | 1427.0 | 1427.0 | 1448.6 | 1464.8 | 1465.7 | 1460.3 | 1462.9 |
| 22.5° | 5346.2 | 4475.1 | 2284.8 | 1395.6 | 1341.7 | 1357.0 | 1378.5 | 1363.3 | 1300.4 | 1259.2 | 1261.8 |
| 25° | 5299.6 | 4253.3 | 1866.2 | 1290.6 | 1262.7 | 1289.6 | 1283.4 | 1168.4 | 1078.6 | 1038.2 | 1038.2 |
| 27.5° | 5258.3 | 3991.0 | 1544.7 | 1198.9 | 1183.7 | 1216.9 | 1105.5 | 1001.4 | 963.6 | 944.8 | 938.5 |
| 30° | 5228.6 | 3708.2 | 1330.0 | 1110.9 | 1109.1 | 1084.8 | 959.1 | 930.4 | 924.1 | 908.9 | 903.5 |
| 32.5° | 5235.8 | 3421.7 | 1192.7 | 1033.7 | 1039.9 | 928.6 | 889.0 | 895.4 | 890.0 | 873.8 | 866.6 |
| 35° | 5295.1 | 3149.6 | 1102.8 | 963.6 | 944.8 | 838.8 | 847.8 | 859.5 | 857.6 | 835.2 | 828.1 |
| 37.5° | 5401.1 | 2891.8 | 1043.6 | 905.3 | 824.4 | 793.9 | 808.2 | 826.2 | 821.7 | 806.5 | 801.1 |
| 40° | 5512.4 | 2649.3 | 995.0 | 859.5 | 753.5 | 763.3 | 775.9 | 785.8 | 790.3 | 794.8 | 791.3 |
| 42.5° | 5621.1 | 2396.1 | 935.8 | 812.7 | 723.8 | 734.6 | 740.0 | 749.9 | 774.2 | 791.3 | 790.3 |
| 45° | 5685.8 | 2158.1 | 874.7 | 746.3 | 700.5 | 706.8 | 703.2 | 722.9 | 752.6 | 780.4 | 781.3 |
| 47.5° | 5757.6 | 1973.1 | 826.2 | 685.3 | 678.0 | 682.5 | 671.8 | 691.5 | 718.4 | 752.6 | 756.2 |
| 50° | 5844.7 | 1862.6 | 787.6 | 636.8 | 647.5 | 647.5 | 644.9 | 662.8 | 700.5 | 740.0 | 747.2 |
| 52.5° | 5943.4 | 1841.1 | 755.2 | 601.7 | 616.9 | 616.1 | 618.8 | 645.7 | 687.0 | 725.7 | 731.9 |
| 55° | 6063.8 | 1899.4 | 720.3 | 575.7 | 587.4 | 591.0 | 600.0 | 630.4 | 665.4 | 709.5 | 712.2 |
| 57.5° | 6203.9 | 2018.0 | 692.4 | 555.1 | 560.4 | 572.0 | 586.5 | 614.3 | 652.0 | 700.5 | 703.2 |
| 58° | 6227.3 | 2043.1 | 687.9 | 553.2 | 555.1 | 568.5 | 584.6 | 611.6 | 649.3 | 702.3 | 705.0 |
| 60° | 6228.1 | 2126.6 | 678.0 | 545.1 | 534.4 | 556.8 | 574.8 | 601.7 | 644.9 | 708.6 | 714.8 |
| 62.5° | 6007.3 | 2125.8 | 670.9 | 533.5 | 512.8 | 540.6 | 561.3 | 592.7 | 640.4 | 723.8 | 736.4 |
| 65° | 5289.7 | 1931.7 | 636.8 | 515.5 | 495.7 | 526.3 | 549.6 | 586.5 | 652.9 | 790.3 | 798.4 |
| 67.5° | 4137.4 | 1583.3 | 573.0 | 490.3 | 473.3 | 511.9 | 542.5 | 585.5 | 666.4 | 805.6 | 811.0 |
| 70° | 2735.6 | 1184.6 | 502.9 | 461.7 | 449.9 | 494.8 | 546.1 | 616.1 | 651.1 | 773.2 | 758.9 |
| 72.5° | 1419.9 | 831.7 | 446.3 | 425.6 | 423.0 | 479.6 | 598.1 | 612.4 | 635.9 | 727.4 | 709.5 |
| 75° | 745.4 | 577.5 | 396.9 | 386.2 | 390.7 | 476.0 | 705.9 | 596.3 | 616.1 | 696.0 | 730.2 |
| 77.5° | 456.2 | 466.1 | 354.8 | 350.3 | 359.3 | 465.2 | 705.0 | 575.7 | 587.4 | 640.4 | 678.0 |
| 80° | 305.4 | 378.1 | 322.4 | 323.4 | 329.6 | 425.6 | 633.1 | 543.3 | 552.3 | 605.3 | 643.9 |
| 82.5° | 193.1 | 223.6 | 292.8 | 308.0 | 299.9 | 351.2 | 538.0 | 494.8 | 507.4 | 692.4 | 731.9 |
| 85° | 97.9 | 140.1 | 254.2 | 296.3 | 270.4 | 246.1 | 436.5 | 433.7 | 440.1 | 499.3 | 521.8 |
| 87.5° | 44.9 | 77.2 | 198.5 | 258.6 | 203.9 | 153.5 | 317.0 | 321.5 | 346.7 | 354.8 | 354.8 |
| 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)