

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: P190838

Luminaire Tested: **GAN-AF-10-LED-U-5NQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190838
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-10-LED-U-5NQ-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40961 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

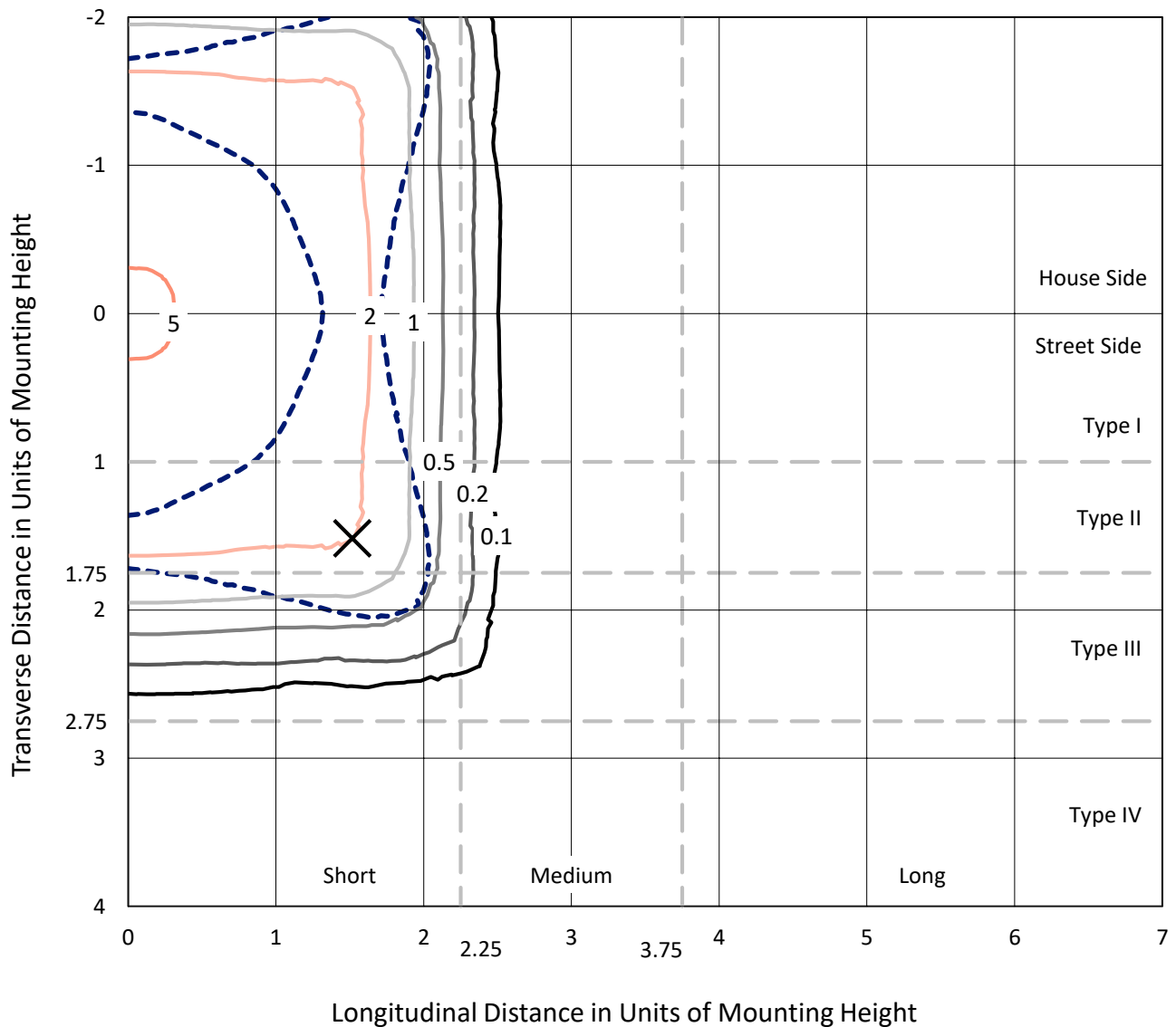
Input Watts (W): 323
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

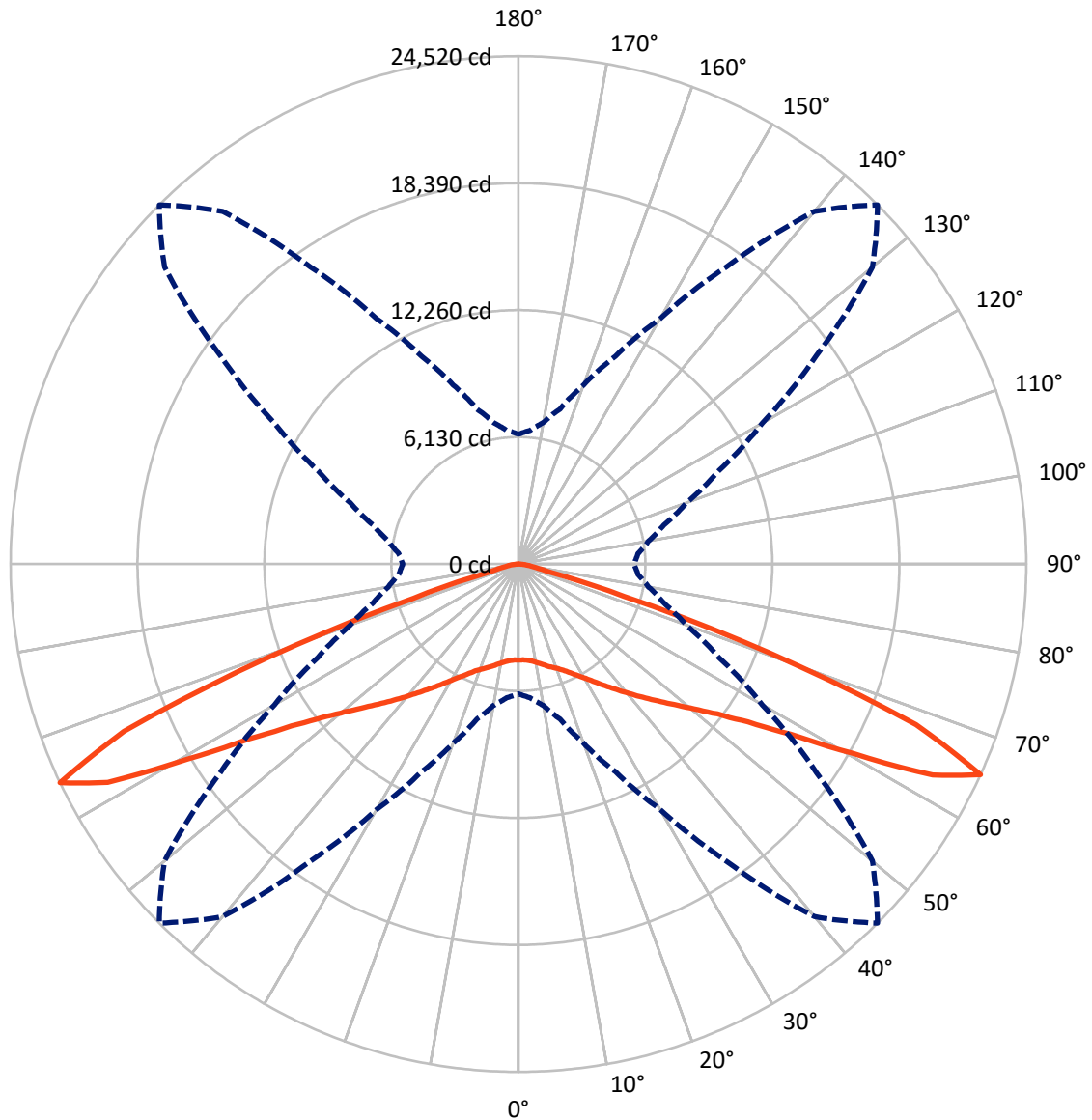
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.2 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 20480.5 | 0.0 | 20480.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 20480.5 | 0.0 | 20480.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 40961.0 | 0.0 | 40961.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 451.7 | 1.1 |
| 10°-20° | 1448.8 | 3.5 |
| 20°-30° | 2709.0 | 6.6 |
| 30°-40° | 4581.7 | 11.2 |
| 40°-50° | 7491.5 | 18.3 |
| 50°-60° | 11912.7 | 29.1 |
| 60°-70° | 10768.3 | 26.3 |
| 70°-80° | 1362.8 | 3.3 |
| 80°-90° | 234.4 | 0.6 |
| 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° | 40961.0 | 100.0 |
| 0°-180° | 40961.0 | 100.0 |



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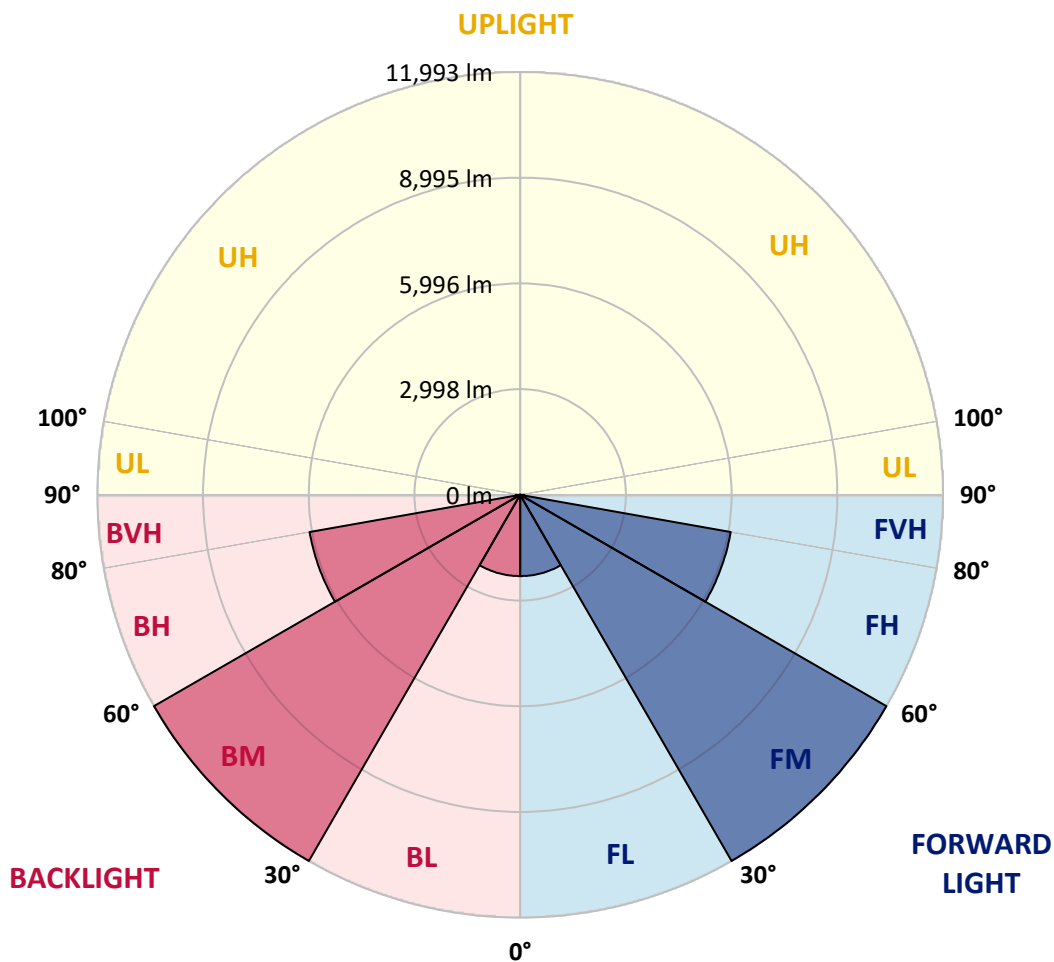
CATALOG NUMBER: GAN-AF-10-LED-U-5NQ-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2304.8 | 5.6 | | | |
| FM | (30°-60°) | 11993.0 | 29.3 | | | |
| FH | (60°-80°) | 6065.6 | 14.8 | | | G3/7500 |
| FVH | (80°-90°) | 117.2 | 0.3 | | | G2/225 |
| BL | (0°-30°) | 2304.8 | 5.6 | B3/2500 | | |
| BM | (30°-60°) | 11993.0 | 29.3 | B5 | | |
| BH | (60°-80°) | 6065.6 | 14.8 | B5 | | G3/7500 |
| BVH | (80°-90°) | 117.2 | 0.3 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 |
| 2.5° | 4638.6 | 4642.5 | 4646.2 | 4642.5 | 4646.2 | 4640.5 | 4636.6 | 4642.5 | 4636.6 | 4630.9 | 4634.8 |
| 5° | 4678.9 | 4680.8 | 4680.8 | 4675.1 | 4680.8 | 4676.9 | 4671.2 | 4678.9 | 4673.1 | 4667.4 | 4671.2 |
| 7.5° | 4746.0 | 4753.7 | 4747.9 | 4742.2 | 4746.0 | 4742.2 | 4738.3 | 4740.3 | 4738.3 | 4732.6 | 4734.5 |
| 10° | 4836.2 | 4841.9 | 4838.1 | 4836.2 | 4840.0 | 4838.1 | 4834.3 | 4832.3 | 4834.3 | 4828.5 | 4828.5 |
| 12.5° | 4945.6 | 4943.6 | 4941.7 | 4943.6 | 4949.3 | 4949.3 | 4947.5 | 4949.3 | 4953.2 | 4955.2 | 4951.3 |
| 15° | 5053.0 | 5056.8 | 5056.8 | 5056.8 | 5068.3 | 5077.9 | 5083.7 | 5087.4 | 5095.2 | 5097.1 | 5089.4 |
| 17.5° | 5187.3 | 5187.3 | 5185.3 | 5187.3 | 5198.7 | 5214.1 | 5219.8 | 5227.5 | 5235.2 | 5241.0 | 5231.4 |
| 20° | 5336.8 | 5340.7 | 5340.7 | 5344.5 | 5359.9 | 5377.1 | 5377.1 | 5381.0 | 5377.1 | 5381.0 | 5375.2 |
| 22.5° | 5519.1 | 5530.6 | 5530.6 | 5532.5 | 5547.9 | 5569.0 | 5563.2 | 5569.0 | 5559.4 | 5567.1 | 5559.4 |
| 25° | 5757.0 | 5774.3 | 5770.5 | 5770.5 | 5781.9 | 5795.3 | 5797.3 | 5808.8 | 5806.9 | 5816.5 | 5810.7 |
| 27.5° | 6025.6 | 6052.4 | 6060.1 | 6058.2 | 6065.9 | 6079.3 | 6083.1 | 6096.6 | 6088.9 | 6096.6 | 6092.7 |
| 30° | 6347.8 | 6359.4 | 6374.7 | 6380.5 | 6390.1 | 6403.5 | 6403.5 | 6405.4 | 6395.8 | 6407.4 | 6413.1 |
| 32.5° | 6681.6 | 6702.8 | 6718.1 | 6752.6 | 6769.9 | 6779.5 | 6777.6 | 6781.4 | 6771.8 | 6787.2 | 6798.6 |
| 35° | 7122.9 | 7138.3 | 7163.1 | 7190.0 | 7213.0 | 7211.1 | 7205.4 | 7207.3 | 7207.3 | 7220.7 | 7232.3 |
| 37.5° | 7654.2 | 7658.1 | 7690.7 | 7729.1 | 7740.6 | 7729.1 | 7694.5 | 7686.9 | 7669.6 | 7686.9 | 7706.1 |
| 40° | 8216.3 | 8229.7 | 8295.0 | 8320.0 | 8325.7 | 8304.6 | 8254.7 | 8226.0 | 8187.6 | 8208.7 | 8235.5 |
| 42.5° | 8805.3 | 8832.2 | 8891.6 | 8935.7 | 8954.9 | 8941.5 | 8872.5 | 8828.3 | 8778.5 | 8789.9 | 8816.8 |
| 45° | 9457.5 | 9490.1 | 9574.5 | 9616.8 | 9653.2 | 9632.1 | 9564.9 | 9497.8 | 9419.1 | 9424.9 | 9467.1 |
| 47.5° | 10186.5 | 10219.1 | 10328.4 | 10399.4 | 10418.7 | 10414.8 | 10340.0 | 10247.9 | 10140.4 | 10136.6 | 10173.0 |
| 50° | 11003.7 | 11036.3 | 11172.6 | 11281.9 | 11337.5 | 11331.7 | 11243.6 | 11113.0 | 10982.6 | 10984.5 | 11030.6 |
| 52.5° | 11801.8 | 11842.1 | 11984.0 | 12172.0 | 12281.3 | 12360.0 | 12306.3 | 12183.5 | 12024.3 | 12028.2 | 12070.3 |
| 55° | 12549.9 | 12617.1 | 12780.1 | 13035.3 | 13238.6 | 13459.2 | 13522.5 | 13518.7 | 13422.8 | 13449.7 | 13491.8 |
| 57.5° | 12912.5 | 13012.2 | 13263.6 | 13666.4 | 14080.8 | 14529.7 | 14909.5 | 15193.4 | 15314.3 | 15496.5 | 15454.3 |
| 60° | 12225.7 | 12385.0 | 12755.2 | 13348.0 | 14167.1 | 15103.3 | 16106.6 | 17086.9 | 17923.2 | 18554.4 | 18191.9 |
| 62.5° | 10010.0 | 10217.2 | 10666.1 | 11425.7 | 12665.1 | 14163.3 | 16083.5 | 18400.9 | 20925.5 | 22448.7 | 21361.0 |
| 65° | 6263.4 | 6478.3 | 6934.9 | 7748.2 | 9198.6 | 11061.3 | 13666.4 | 17507.0 | 22224.2 | 24520.4 | 22306.7 |
| 67.5° | 2442.1 | 2559.1 | 2806.6 | 3326.4 | 4416.1 | 6073.6 | 8688.2 | 13046.8 | 18688.7 | 20701.0 | 18341.4 |
| 70° | 1224.0 | 1235.4 | 1281.5 | 1377.4 | 1611.5 | 2093.0 | 3184.4 | 6048.6 | 10717.9 | 12945.1 | 10332.3 |
| 72.5° | 884.3 | 886.3 | 909.3 | 951.5 | 1026.3 | 1133.7 | 1340.9 | 1851.2 | 3485.7 | 5327.3 | 3267.0 |
| 75° | 677.2 | 684.9 | 698.3 | 721.3 | 761.6 | 815.3 | 890.1 | 1066.6 | 1321.8 | 1532.8 | 1289.1 |
| 77.5° | 521.8 | 537.2 | 546.8 | 567.8 | 592.8 | 629.2 | 650.3 | 717.5 | 834.5 | 878.6 | 865.2 |
| 80° | 397.1 | 410.5 | 431.6 | 448.9 | 466.2 | 483.4 | 475.8 | 506.5 | 567.8 | 604.3 | 585.1 |
| 82.5° | 253.2 | 268.5 | 330.0 | 345.3 | 353.0 | 364.5 | 351.1 | 353.0 | 379.8 | 402.8 | 379.8 |
| 85° | 163.1 | 172.7 | 209.1 | 228.3 | 230.2 | 237.8 | 232.1 | 218.7 | 218.7 | 199.5 | 224.4 |
| 87.5° | 74.8 | 76.7 | 94.0 | 111.3 | 115.1 | 103.6 | 101.7 | 97.8 | 78.7 | 74.8 | 80.6 |
| 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-10-LED-U-5NQ-600

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 | 4634.8 |
| 2.5° | 4632.8 | 4636.6 | 4638.6 | 4644.4 | 4646.2 | 4646.2 | 4648.2 | 4652.1 |
| 5° | 4669.3 | 4675.1 | 4676.9 | 4684.6 | 4686.5 | 4684.6 | 4688.5 | 4690.4 |
| 7.5° | 4734.5 | 4744.1 | 4747.9 | 4755.6 | 4749.9 | 4757.5 | 4759.5 | 4759.5 |
| 10° | 4830.5 | 4840.0 | 4841.9 | 4849.6 | 4845.8 | 4849.6 | 4849.6 | 4845.8 |
| 12.5° | 4957.0 | 4959.0 | 4953.2 | 4959.0 | 4951.3 | 4955.2 | 4949.3 | 4945.6 |
| 15° | 5097.1 | 5091.3 | 5077.9 | 5077.9 | 5066.4 | 5068.3 | 5066.4 | 5064.4 |
| 17.5° | 5233.3 | 5221.8 | 5212.1 | 5208.4 | 5198.7 | 5196.8 | 5191.1 | 5191.1 |
| 20° | 5382.9 | 5377.1 | 5371.4 | 5363.7 | 5354.1 | 5344.5 | 5342.7 | 5346.5 |
| 22.5° | 5563.2 | 5561.4 | 5561.4 | 5557.5 | 5544.1 | 5534.5 | 5528.7 | 5528.7 |
| 25° | 5804.9 | 5787.7 | 5787.7 | 5785.8 | 5780.0 | 5774.3 | 5762.8 | 5768.5 |
| 27.5° | 6077.4 | 6067.7 | 6075.4 | 6073.6 | 6067.7 | 6067.7 | 6060.1 | 6060.1 |
| 30° | 6413.1 | 6409.2 | 6420.8 | 6411.1 | 6392.0 | 6390.1 | 6382.4 | 6372.8 |
| 32.5° | 6800.6 | 6796.8 | 6814.0 | 6802.5 | 6771.8 | 6754.5 | 6739.2 | 6731.5 |
| 35° | 7232.3 | 7234.1 | 7255.3 | 7247.6 | 7213.0 | 7201.6 | 7174.7 | 7170.8 |
| 37.5° | 7704.1 | 7734.8 | 7771.3 | 7778.9 | 7750.2 | 7742.5 | 7713.8 | 7698.4 |
| 40° | 8258.6 | 8298.8 | 8354.4 | 8367.8 | 8337.2 | 8331.4 | 8291.1 | 8270.0 |
| 42.5° | 8849.4 | 8918.5 | 8987.5 | 8999.0 | 8968.3 | 8937.6 | 8899.3 | 8883.9 |
| 45° | 9509.4 | 9591.8 | 9681.9 | 9704.9 | 9658.9 | 9622.5 | 9572.6 | 9572.6 |
| 47.5° | 10249.8 | 10353.4 | 10455.1 | 10518.4 | 10476.1 | 10437.8 | 10378.3 | 10340.0 |
| 50° | 11124.6 | 11266.6 | 11398.9 | 11464.1 | 11397.0 | 11324.1 | 11220.4 | 11186.0 |
| 52.5° | 12221.9 | 12375.4 | 12490.4 | 12456.0 | 12352.3 | 12250.7 | 12137.5 | 12091.4 |
| 55° | 13622.2 | 13674.1 | 13674.1 | 13543.7 | 13336.4 | 13165.7 | 12987.3 | 12927.8 |
| 57.5° | 15373.7 | 15174.2 | 14867.3 | 14477.8 | 13988.6 | 13562.8 | 13275.0 | 13138.9 |
| 60° | 17432.1 | 16473.0 | 15389.1 | 14324.4 | 13449.7 | 12728.3 | 12300.6 | 12104.9 |
| 62.5° | 18803.8 | 16294.6 | 14123.0 | 12413.7 | 11155.3 | 10286.3 | 9695.4 | 9465.2 |
| 65° | 17574.1 | 13589.7 | 10681.4 | 8636.5 | 7264.8 | 6380.5 | 5795.3 | 5580.5 |
| 67.5° | 12872.2 | 8515.6 | 5687.9 | 4076.6 | 2986.9 | 2382.6 | 2142.8 | 2043.0 |
| 70° | 5778.1 | 2998.4 | 1837.8 | 1434.9 | 1237.4 | 1135.7 | 1091.6 | 1076.2 |
| 72.5° | 1741.9 | 1260.4 | 1062.7 | 959.2 | 880.6 | 830.6 | 794.2 | 790.3 |
| 75° | 1051.3 | 874.7 | 776.9 | 715.6 | 665.6 | 625.4 | 606.2 | 600.5 |
| 77.5° | 734.7 | 642.6 | 596.6 | 552.5 | 514.1 | 483.4 | 466.2 | 452.8 |
| 80° | 516.1 | 471.9 | 450.8 | 425.9 | 400.9 | 372.1 | 347.2 | 335.7 |
| 82.5° | 345.3 | 335.7 | 335.7 | 320.4 | 299.2 | 272.4 | 222.5 | 211.0 |
| 85° | 222.5 | 220.7 | 224.4 | 218.7 | 203.4 | 174.6 | 143.8 | 136.2 |
| 87.5° | 103.6 | 105.5 | 117.0 | 115.1 | 111.3 | 92.1 | 72.9 | 69.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)