

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: P299500

Luminaire Tested: **GAA-AF-08-LED-U-5NQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299500
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: GAA-AF-08-LED-U-5NQ-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32305.2 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G2

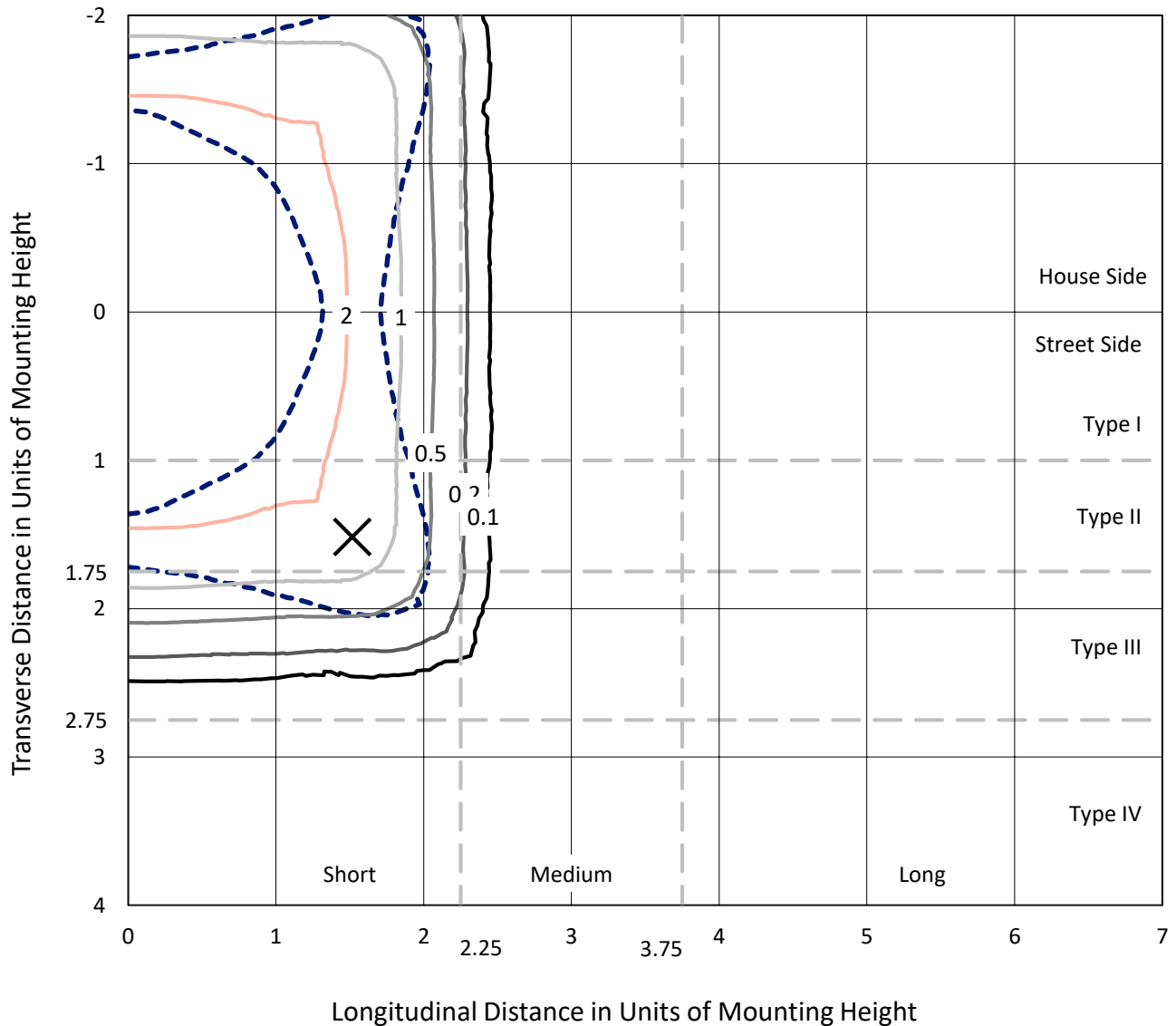
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

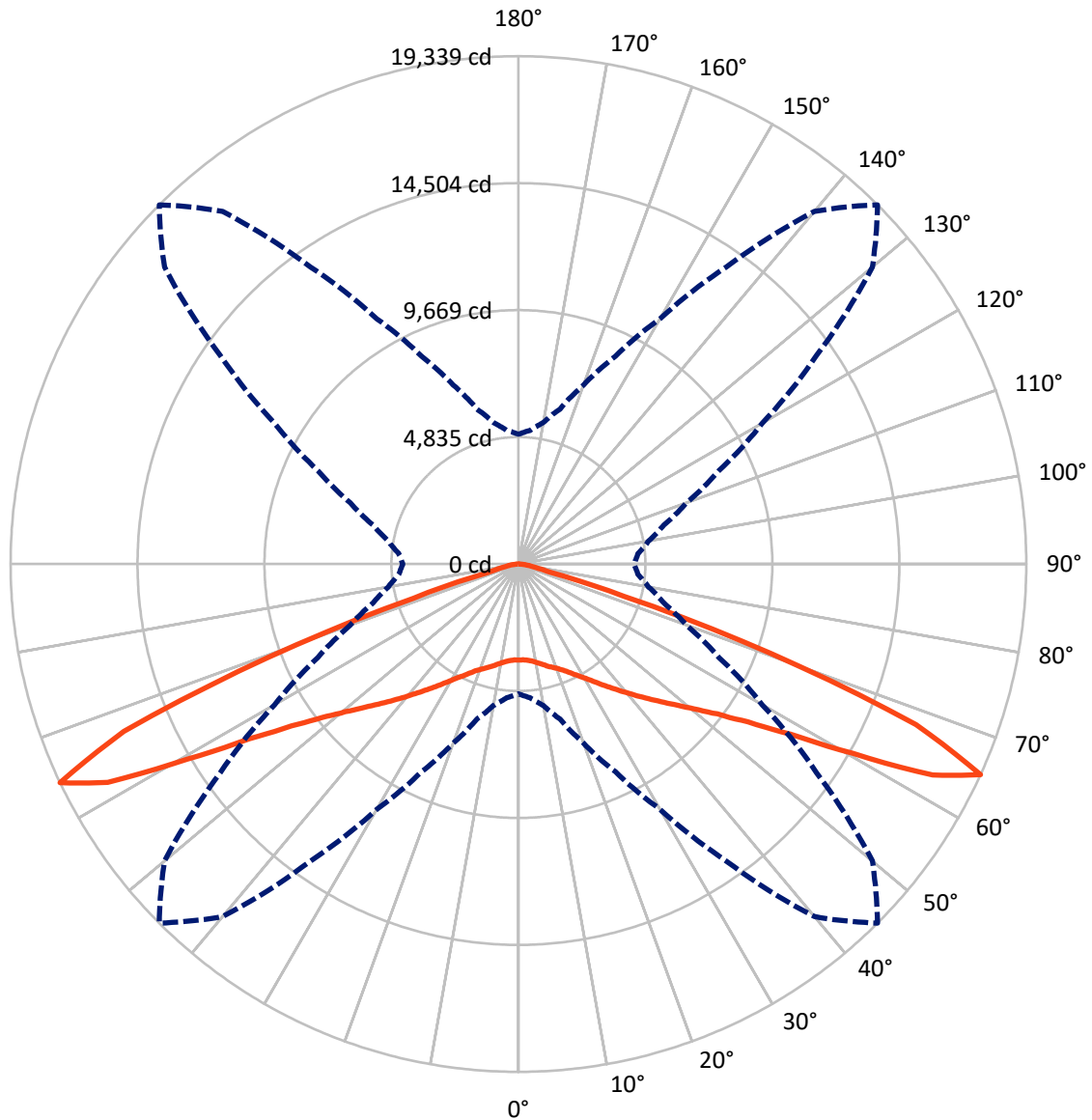
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.1 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 | 16152.6 | 0.0 | 16152.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 16152.6 | 0.0 | 16152.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 32305.2 | 0.0 | 32305.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 356.3 | 1.1 |
| 10°-20° | 1142.6 | 3.5 |
| 20°-30° | 2136.5 | 6.6 |
| 30°-40° | 3613.5 | 11.2 |
| 40°-50° | 5908.4 | 18.3 |
| 50°-60° | 9395.3 | 29.1 |
| 60°-70° | 8492.8 | 26.3 |
| 70°-80° | 1074.8 | 3.3 |
| 80°-90° | 184.9 | 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° | 32305.2 | 100.0 |
| 0°-180° | 32305.2 | 100.0 |

Coefficient of Utilization



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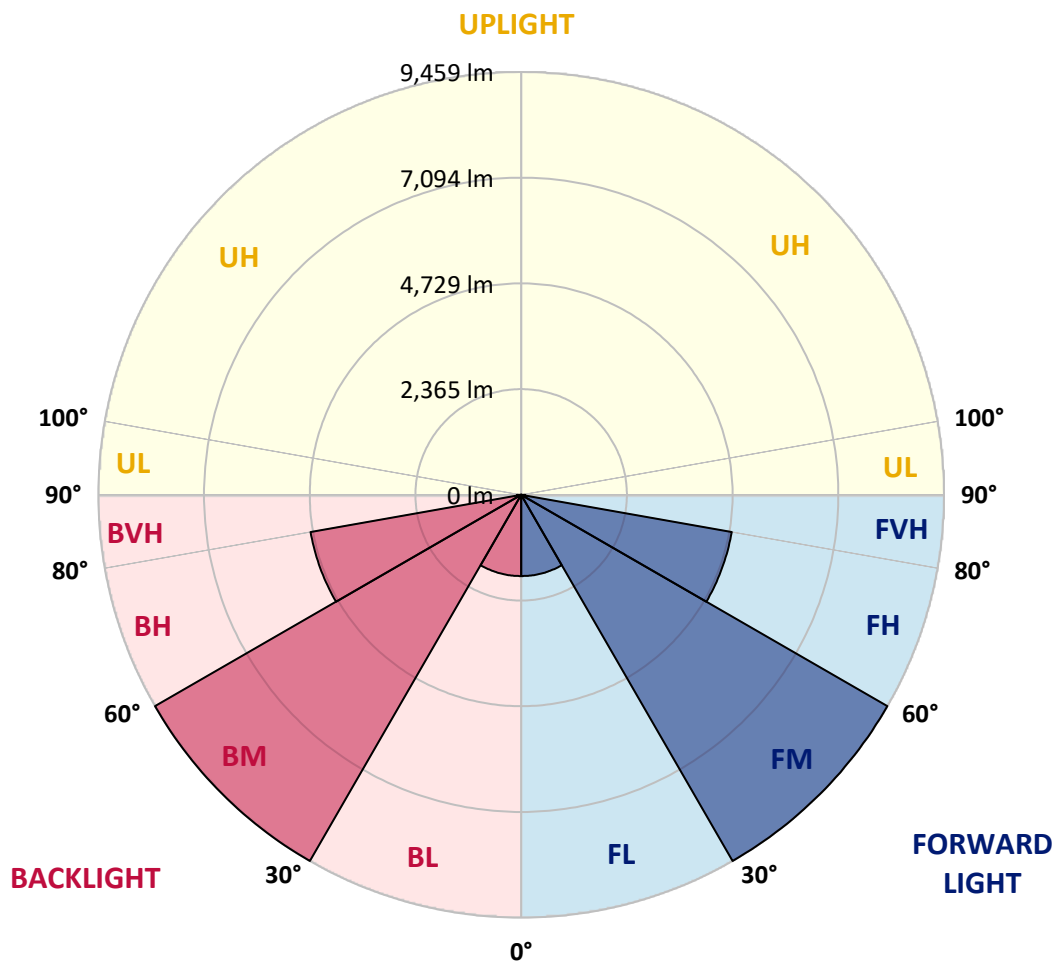
CATALOG NUMBER: GAA-AF-08-LED-U-5NQ-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1817.7 | 5.6 | | | |
| FM | (30°-60°) | 9458.6 | 29.3 | | | |
| FH | (60°-80°) | 4783.8 | 14.8 | | | G2/5000 |
| FVH | (80°-90°) | 92.4 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 1817.7 | 5.6 | B3/2500 | | |
| BM | (30°-60°) | 9458.6 | 29.3 | B5 | | |
| BH | (60°-80°) | 4783.8 | 14.8 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 92.4 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 |
| 2.5° | 3658.4 | 3661.4 | 3664.4 | 3661.4 | 3664.4 | 3659.9 | 3656.9 | 3661.4 | 3656.9 | 3652.3 | 3655.3 |
| 5° | 3690.1 | 3691.7 | 3691.7 | 3687.1 | 3691.7 | 3688.6 | 3684.1 | 3690.1 | 3685.6 | 3681.1 | 3684.1 |
| 7.5° | 3743.1 | 3749.2 | 3744.6 | 3740.1 | 3743.1 | 3740.1 | 3737.0 | 3738.6 | 3737.0 | 3732.5 | 3734.0 |
| 10° | 3814.2 | 3818.7 | 3815.7 | 3814.2 | 3817.2 | 3815.7 | 3812.7 | 3811.2 | 3812.7 | 3808.2 | 3808.2 |
| 12.5° | 3900.4 | 3898.9 | 3897.4 | 3898.9 | 3903.5 | 3903.5 | 3902.0 | 3903.5 | 3906.5 | 3908.0 | 3905.0 |
| 15° | 3985.2 | 3988.2 | 3988.2 | 3988.2 | 3997.3 | 4004.8 | 4009.4 | 4012.4 | 4018.5 | 4020.0 | 4013.9 |
| 17.5° | 4091.1 | 4091.1 | 4089.6 | 4091.1 | 4100.2 | 4112.3 | 4116.8 | 4122.9 | 4128.9 | 4133.4 | 4125.9 |
| 20° | 4209.1 | 4212.1 | 4212.1 | 4215.1 | 4227.3 | 4240.9 | 4240.9 | 4243.9 | 4240.9 | 4243.9 | 4239.4 |
| 22.5° | 4352.8 | 4361.9 | 4361.9 | 4363.4 | 4375.5 | 4392.2 | 4387.6 | 4392.2 | 4384.6 | 4390.7 | 4384.6 |
| 25° | 4540.4 | 4554.1 | 4551.0 | 4551.0 | 4560.1 | 4570.7 | 4572.2 | 4581.3 | 4579.8 | 4587.3 | 4582.8 |
| 27.5° | 4752.3 | 4773.4 | 4779.5 | 4778.0 | 4784.0 | 4794.6 | 4797.6 | 4808.2 | 4802.2 | 4808.2 | 4805.2 |
| 30° | 5006.4 | 5015.5 | 5027.6 | 5032.2 | 5039.7 | 5050.3 | 5050.3 | 5051.8 | 5044.3 | 5053.3 | 5057.9 |
| 32.5° | 5269.7 | 5286.3 | 5298.4 | 5325.7 | 5339.3 | 5346.9 | 5345.3 | 5348.4 | 5340.8 | 5352.9 | 5362.0 |
| 35° | 5617.7 | 5629.8 | 5649.4 | 5670.6 | 5688.8 | 5687.3 | 5682.7 | 5684.2 | 5684.2 | 5694.8 | 5703.9 |
| 37.5° | 6036.8 | 6039.8 | 6065.5 | 6095.8 | 6104.9 | 6095.8 | 6068.5 | 6062.5 | 6048.9 | 6062.5 | 6077.6 |
| 40° | 6480.1 | 6490.7 | 6542.1 | 6561.8 | 6566.3 | 6549.7 | 6510.3 | 6487.6 | 6457.4 | 6474.0 | 6495.2 |
| 42.5° | 6944.6 | 6965.7 | 7012.6 | 7047.4 | 7062.6 | 7052.0 | 6997.5 | 6962.7 | 6923.4 | 6932.5 | 6953.6 |
| 45° | 7459.0 | 7484.7 | 7551.3 | 7584.5 | 7613.3 | 7596.6 | 7543.7 | 7490.7 | 7428.7 | 7433.2 | 7466.5 |
| 47.5° | 8033.9 | 8059.6 | 8145.9 | 8201.8 | 8217.0 | 8213.9 | 8154.9 | 8082.3 | 7997.6 | 7994.6 | 8023.3 |
| 50° | 8678.4 | 8704.1 | 8811.6 | 8897.8 | 8941.7 | 8937.1 | 8867.5 | 8764.7 | 8661.8 | 8663.3 | 8699.6 |
| 52.5° | 9307.8 | 9339.6 | 9451.6 | 9599.8 | 9686.1 | 9748.1 | 9705.7 | 9608.9 | 9483.3 | 9486.4 | 9519.6 |
| 55° | 9897.9 | 9950.8 | 10079.4 | 10280.7 | 10441.0 | 10615.0 | 10665.0 | 10661.9 | 10586.3 | 10607.5 | 10640.8 |
| 57.5° | 10183.8 | 10262.5 | 10460.7 | 10778.4 | 11105.2 | 11459.3 | 11758.8 | 11982.8 | 12078.1 | 12221.8 | 12188.5 |
| 60° | 9642.2 | 9767.8 | 10059.8 | 10527.3 | 11173.3 | 11911.7 | 12702.9 | 13476.1 | 14135.7 | 14633.5 | 14347.5 |
| 62.5° | 7894.7 | 8058.1 | 8412.1 | 9011.3 | 9988.7 | 11170.3 | 12684.8 | 14512.5 | 16503.5 | 17704.8 | 16847.0 |
| 65° | 4939.9 | 5109.3 | 5469.4 | 6110.9 | 7254.7 | 8723.8 | 10778.4 | 13807.4 | 17527.8 | 19338.8 | 17592.9 |
| 67.5° | 1926.0 | 2018.3 | 2213.5 | 2623.5 | 3482.9 | 4790.1 | 6852.3 | 10289.7 | 14739.4 | 16326.5 | 14465.6 |
| 70° | 965.3 | 974.4 | 1010.7 | 1086.3 | 1270.9 | 1650.7 | 2511.5 | 4770.4 | 8453.0 | 10209.6 | 8148.9 |
| 72.5° | 697.5 | 699.0 | 717.2 | 750.4 | 809.4 | 894.2 | 1057.6 | 1460.0 | 2749.1 | 4201.5 | 2576.6 |
| 75° | 534.1 | 540.1 | 550.7 | 568.9 | 600.7 | 643.0 | 702.0 | 841.2 | 1042.4 | 1208.9 | 1016.7 |
| 77.5° | 411.5 | 423.6 | 431.2 | 447.8 | 467.5 | 496.3 | 512.9 | 565.9 | 658.1 | 692.9 | 682.4 |
| 80° | 313.2 | 323.8 | 340.4 | 354.0 | 367.7 | 381.3 | 375.2 | 399.4 | 447.8 | 476.6 | 461.5 |
| 82.5° | 199.7 | 211.8 | 260.2 | 272.3 | 278.4 | 287.5 | 276.9 | 278.4 | 299.6 | 317.7 | 299.6 |
| 85° | 128.6 | 136.2 | 164.9 | 180.0 | 181.6 | 187.6 | 183.1 | 172.5 | 172.5 | 157.3 | 177.0 |
| 87.5° | 59.0 | 60.5 | 74.1 | 87.8 | 90.8 | 81.7 | 80.2 | 77.2 | 62.0 | 59.0 | 63.5 |
| 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: GAA-AF-08-LED-U-5NQ-600

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 | 3655.3 |
| 2.5° | 3653.8 | 3656.9 | 3658.4 | 3662.9 | 3664.4 | 3664.4 | 3665.9 | 3669.0 |
| 5° | 3682.6 | 3687.1 | 3688.6 | 3694.7 | 3696.2 | 3694.7 | 3697.7 | 3699.2 |
| 7.5° | 3734.0 | 3741.6 | 3744.6 | 3750.7 | 3746.1 | 3752.2 | 3753.7 | 3753.7 |
| 10° | 3809.7 | 3817.2 | 3818.7 | 3824.8 | 3821.8 | 3824.8 | 3824.8 | 3821.8 |
| 12.5° | 3909.5 | 3911.0 | 3906.5 | 3911.0 | 3905.0 | 3908.0 | 3903.5 | 3900.4 |
| 15° | 4020.0 | 4015.4 | 4004.8 | 4004.8 | 3995.8 | 3997.3 | 3995.8 | 3994.3 |
| 17.5° | 4127.4 | 4118.3 | 4110.8 | 4107.7 | 4100.2 | 4098.6 | 4094.1 | 4094.1 |
| 20° | 4245.4 | 4240.9 | 4236.3 | 4230.3 | 4222.7 | 4215.1 | 4213.6 | 4216.7 |
| 22.5° | 4387.6 | 4386.1 | 4386.1 | 4383.1 | 4372.5 | 4364.9 | 4360.4 | 4360.4 |
| 25° | 4578.3 | 4564.6 | 4564.6 | 4563.1 | 4558.6 | 4554.1 | 4545.0 | 4549.5 |
| 27.5° | 4793.1 | 4785.5 | 4791.6 | 4790.1 | 4785.5 | 4785.5 | 4779.5 | 4779.5 |
| 30° | 5057.9 | 5054.8 | 5063.9 | 5056.4 | 5041.2 | 5039.7 | 5033.7 | 5026.1 |
| 32.5° | 5363.5 | 5360.5 | 5374.1 | 5365.0 | 5340.8 | 5327.2 | 5315.1 | 5309.0 |
| 35° | 5703.9 | 5705.4 | 5722.1 | 5716.0 | 5688.8 | 5679.7 | 5658.5 | 5655.5 |
| 37.5° | 6076.1 | 6100.3 | 6129.1 | 6135.1 | 6112.4 | 6106.4 | 6083.7 | 6071.6 |
| 40° | 6513.4 | 6545.1 | 6589.0 | 6599.6 | 6575.4 | 6570.8 | 6539.1 | 6522.4 |
| 42.5° | 6979.4 | 7033.8 | 7088.3 | 7097.4 | 7073.2 | 7048.9 | 7018.7 | 7006.6 |
| 45° | 7499.8 | 7564.9 | 7636.0 | 7654.1 | 7617.8 | 7589.1 | 7549.7 | 7549.7 |
| 47.5° | 8083.8 | 8165.5 | 8245.7 | 8295.6 | 8262.4 | 8232.1 | 8185.2 | 8154.9 |
| 50° | 8773.7 | 8885.7 | 8990.1 | 9041.5 | 8988.6 | 8931.1 | 8849.4 | 8822.2 |
| 52.5° | 9639.2 | 9760.2 | 9851.0 | 9823.7 | 9742.0 | 9661.9 | 9572.6 | 9536.3 |
| 55° | 10743.6 | 10784.5 | 10784.5 | 10681.6 | 10518.2 | 10383.5 | 10242.8 | 10195.9 |
| 57.5° | 12125.0 | 11967.6 | 11725.6 | 11418.4 | 11032.6 | 10696.7 | 10469.8 | 10362.4 |
| 60° | 13748.4 | 12991.9 | 12137.1 | 11297.4 | 10607.5 | 10038.6 | 9701.2 | 9546.9 |
| 62.5° | 14830.2 | 12851.2 | 11138.5 | 9790.5 | 8797.9 | 8112.6 | 7646.6 | 7465.0 |
| 65° | 13860.4 | 10717.9 | 8424.2 | 6811.4 | 5729.6 | 5032.2 | 4570.7 | 4401.2 |
| 67.5° | 10152.1 | 6716.1 | 4486.0 | 3215.1 | 2355.7 | 1879.1 | 1690.0 | 1611.3 |
| 70° | 4557.1 | 2364.8 | 1449.4 | 1131.7 | 975.9 | 895.7 | 860.9 | 848.8 |
| 72.5° | 1373.8 | 994.0 | 838.2 | 756.5 | 694.5 | 655.1 | 626.4 | 623.3 |
| 75° | 829.1 | 689.9 | 612.8 | 564.3 | 525.0 | 493.2 | 478.1 | 473.6 |
| 77.5° | 579.5 | 506.8 | 470.5 | 435.7 | 405.5 | 381.3 | 367.7 | 357.1 |
| 80° | 407.0 | 372.2 | 355.5 | 335.9 | 316.2 | 293.5 | 273.8 | 264.8 |
| 82.5° | 272.3 | 264.8 | 264.8 | 252.7 | 236.0 | 214.8 | 175.5 | 166.4 |
| 85° | 175.5 | 174.0 | 177.0 | 172.5 | 160.4 | 137.7 | 113.5 | 107.4 |
| 87.5° | 81.7 | 83.2 | 92.3 | 90.8 | 87.8 | 72.6 | 57.5 | 54.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)