

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: P299360

Luminaire Tested: **GAA-AF-05-LED-U-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299360
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-05-LED-U-5NQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29582 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G2

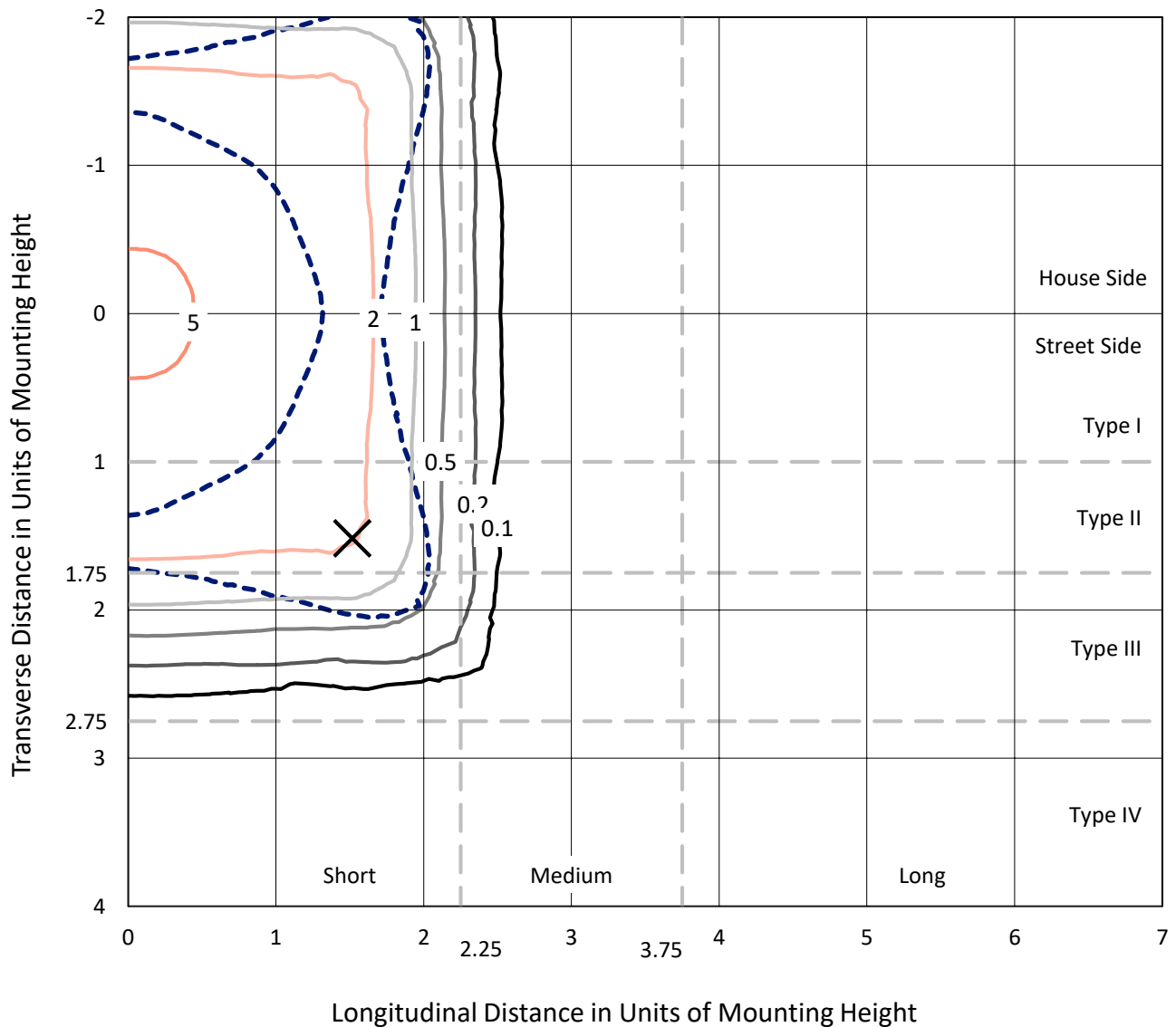
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

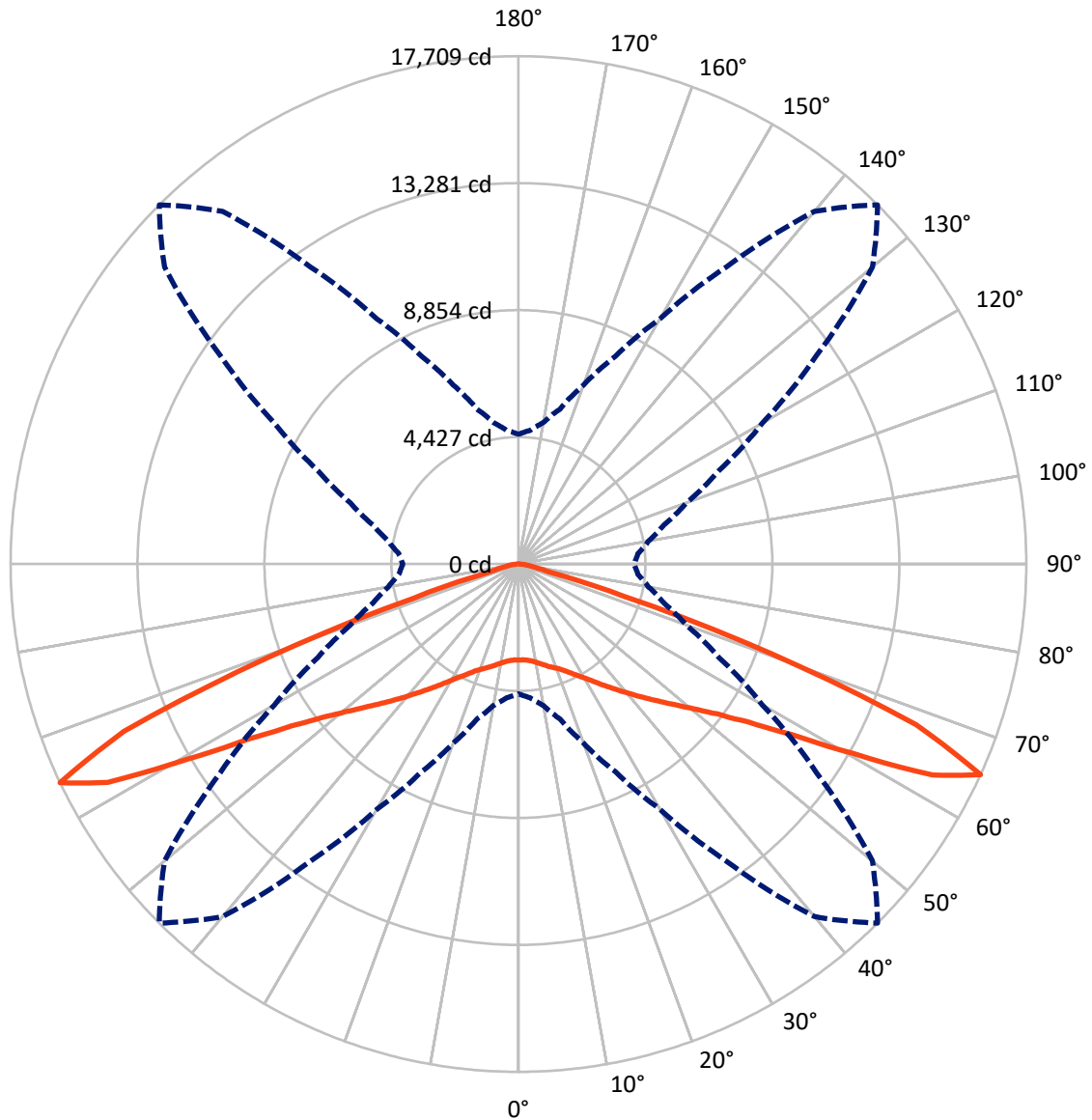
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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 | 14791.0 | 0.0 | 14791.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 14791.0 | 0.0 | 14791.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 29582.0 | 0.0 | 29582.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 326.2 | 1.1 |
| 10°-20° | 1046.3 | 3.5 |
| 20°-30° | 1956.4 | 6.6 |
| 30°-40° | 3308.9 | 11.2 |
| 40°-50° | 5410.4 | 18.3 |
| 50°-60° | 8603.3 | 29.1 |
| 60°-70° | 7776.9 | 26.3 |
| 70°-80° | 984.2 | 3.3 |
| 80°-90° | 169.3 | 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° | 29582.0 | 100.0 |
| 0°-180° | 29582.0 | 100.0 |



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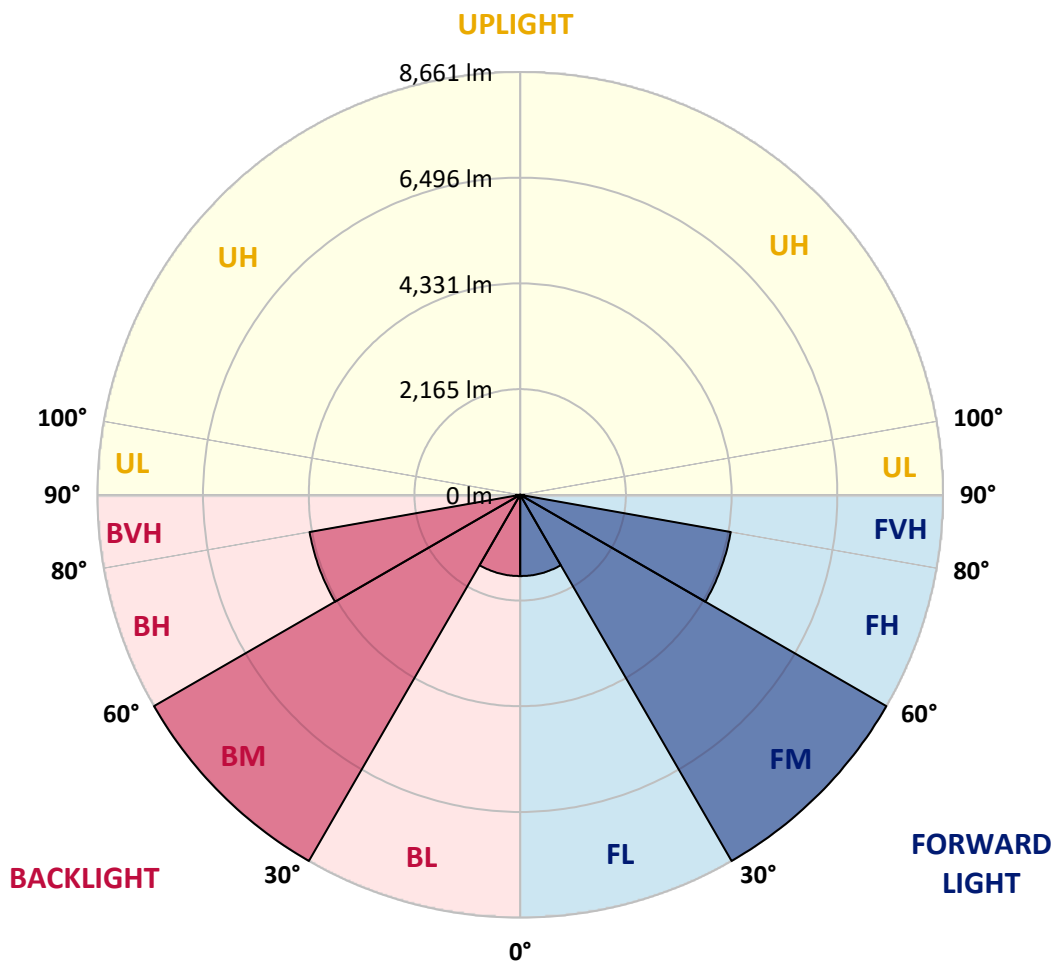
CATALOG NUMBER: GAA-AF-05-LED-U-5NQ-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1664.5 | 5.6 | | | |
| FM | (30°-60°) | 8661.3 | 29.3 | | | |
| FH | (60°-80°) | 4380.5 | 14.8 | | | G2/5000 |
| FVH | (80°-90°) | 84.7 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 1664.5 | 5.6 | B3/2500 | | |
| BM | (30°-60°) | 8661.3 | 29.3 | B5 | | |
| BH | (60°-80°) | 4380.5 | 14.8 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 84.7 | 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° | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 |
| 2.5° | 3350.0 | 3352.8 | 3355.5 | 3352.8 | 3355.5 | 3351.4 | 3348.6 | 3352.8 | 3348.6 | 3344.4 | 3347.2 |
| 5° | 3379.1 | 3380.5 | 3380.5 | 3376.3 | 3380.5 | 3377.7 | 3373.5 | 3379.1 | 3374.9 | 3370.8 | 3373.5 |
| 7.5° | 3427.6 | 3433.1 | 3429.0 | 3424.8 | 3427.6 | 3424.8 | 3422.0 | 3423.4 | 3422.0 | 3417.9 | 3419.3 |
| 10° | 3492.7 | 3496.8 | 3494.1 | 3492.7 | 3495.5 | 3494.1 | 3491.3 | 3489.9 | 3491.3 | 3487.1 | 3487.1 |
| 12.5° | 3571.7 | 3570.3 | 3568.9 | 3570.3 | 3574.4 | 3574.4 | 3573.0 | 3574.4 | 3577.2 | 3578.6 | 3575.8 |
| 15° | 3649.2 | 3652.0 | 3652.0 | 3652.0 | 3660.3 | 3667.2 | 3671.4 | 3674.2 | 3679.7 | 3681.1 | 3675.6 |
| 17.5° | 3746.2 | 3746.2 | 3744.8 | 3746.2 | 3754.5 | 3765.6 | 3769.8 | 3775.3 | 3780.9 | 3785.0 | 3778.1 |
| 20° | 3854.3 | 3857.1 | 3857.1 | 3859.8 | 3870.9 | 3883.4 | 3883.4 | 3886.1 | 3883.4 | 3886.1 | 3882.0 |
| 22.5° | 3985.9 | 3994.2 | 3994.2 | 3995.6 | 4006.7 | 4021.9 | 4017.8 | 4021.9 | 4015.0 | 4020.5 | 4015.0 |
| 25° | 4157.7 | 4170.2 | 4167.4 | 4167.4 | 4175.7 | 4185.4 | 4186.8 | 4195.1 | 4193.7 | 4200.6 | 4196.5 |
| 27.5° | 4351.7 | 4371.1 | 4376.6 | 4375.2 | 4380.7 | 4390.4 | 4393.2 | 4402.9 | 4397.4 | 4402.9 | 4400.1 |
| 30° | 4584.4 | 4592.7 | 4603.8 | 4608.0 | 4614.9 | 4624.6 | 4624.6 | 4626.0 | 4619.0 | 4627.4 | 4631.5 |
| 32.5° | 4825.5 | 4840.7 | 4851.8 | 4876.7 | 4889.2 | 4896.1 | 4894.7 | 4897.5 | 4890.6 | 4901.7 | 4910.0 |
| 35° | 5144.1 | 5155.2 | 5173.2 | 5192.6 | 5209.2 | 5207.9 | 5203.7 | 5205.1 | 5205.1 | 5214.8 | 5223.1 |
| 37.5° | 5527.9 | 5530.7 | 5554.2 | 5581.9 | 5590.2 | 5581.9 | 5557.0 | 5551.4 | 5539.0 | 5551.4 | 5565.3 |
| 40° | 5933.8 | 5943.5 | 5990.6 | 6008.6 | 6012.8 | 5997.6 | 5961.5 | 5940.8 | 5913.0 | 5928.3 | 5947.7 |
| 42.5° | 6359.2 | 6378.5 | 6421.5 | 6453.4 | 6467.2 | 6457.5 | 6407.6 | 6375.8 | 6339.8 | 6348.1 | 6367.5 |
| 45° | 6830.2 | 6853.8 | 6914.7 | 6945.2 | 6971.5 | 6956.3 | 6907.8 | 6859.3 | 6802.5 | 6806.6 | 6837.1 |
| 47.5° | 7356.7 | 7380.2 | 7459.2 | 7510.4 | 7524.3 | 7521.5 | 7467.5 | 7401.0 | 7323.4 | 7320.6 | 7347.0 |
| 50° | 7946.9 | 7970.4 | 8068.8 | 8147.8 | 8187.9 | 8183.8 | 8120.0 | 8025.8 | 7931.6 | 7933.0 | 7966.3 |
| 52.5° | 8523.2 | 8552.3 | 8654.8 | 8790.6 | 8869.6 | 8926.4 | 8887.6 | 8798.9 | 8683.9 | 8686.7 | 8717.2 |
| 55° | 9063.5 | 9112.0 | 9229.8 | 9414.0 | 9560.9 | 9720.2 | 9765.9 | 9763.2 | 9693.9 | 9713.3 | 9743.8 |
| 57.5° | 9325.4 | 9397.4 | 9578.9 | 9869.8 | 10169.1 | 10493.3 | 10767.6 | 10972.7 | 11059.9 | 11191.6 | 11161.1 |
| 60° | 8829.4 | 8944.4 | 9211.8 | 9639.9 | 10231.4 | 10907.5 | 11632.1 | 12340.1 | 12944.1 | 13399.9 | 13138.1 |
| 62.5° | 7229.2 | 7378.8 | 7703.0 | 8251.7 | 9146.6 | 10228.7 | 11615.5 | 13289.1 | 15112.3 | 16212.4 | 15426.8 |
| 65° | 4523.4 | 4678.6 | 5008.4 | 5595.8 | 6643.2 | 7988.4 | 9869.8 | 12643.5 | 16050.3 | 17708.6 | 16109.9 |
| 67.5° | 1763.7 | 1848.2 | 2026.9 | 2402.3 | 3189.3 | 4386.3 | 6274.6 | 9422.4 | 13496.9 | 14950.2 | 13246.2 |
| 70° | 883.9 | 892.2 | 925.5 | 994.7 | 1163.8 | 1511.5 | 2299.8 | 4368.3 | 7740.4 | 9348.9 | 7462.0 |
| 72.5° | 638.7 | 640.1 | 656.7 | 687.2 | 741.2 | 818.8 | 968.4 | 1336.9 | 2517.3 | 3847.4 | 2359.4 |
| 75° | 489.1 | 494.6 | 504.3 | 520.9 | 550.0 | 588.8 | 642.8 | 770.3 | 954.6 | 1107.0 | 931.0 |
| 77.5° | 376.8 | 387.9 | 394.8 | 410.1 | 428.1 | 454.4 | 469.7 | 518.2 | 602.7 | 634.5 | 624.8 |
| 80° | 286.8 | 296.5 | 311.7 | 324.2 | 336.7 | 349.1 | 343.6 | 365.8 | 410.1 | 436.4 | 422.6 |
| 82.5° | 182.9 | 194.0 | 238.3 | 249.4 | 254.9 | 263.2 | 253.5 | 254.9 | 274.3 | 290.9 | 274.3 |
| 85° | 117.8 | 124.7 | 151.0 | 164.9 | 166.3 | 171.8 | 167.6 | 157.9 | 157.9 | 144.1 | 162.1 |
| 87.5° | 54.0 | 55.4 | 67.9 | 80.4 | 83.1 | 74.8 | 73.4 | 70.7 | 56.8 | 54.0 | 58.2 |
| 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-05-LED-U-5NQ-7030

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0° | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 | 3347.2 |
| 2.5° | 3345.8 | 3348.6 | 3350.0 | 3354.1 | 3355.5 | 3355.5 | 3356.9 | 3359.7 |
| 5° | 3372.2 | 3376.3 | 3377.7 | 3383.2 | 3384.6 | 3383.2 | 3386.0 | 3387.4 |
| 7.5° | 3419.3 | 3426.2 | 3429.0 | 3434.5 | 3430.3 | 3435.9 | 3437.3 | 3437.3 |
| 10° | 3488.5 | 3495.5 | 3496.8 | 3502.4 | 3499.6 | 3502.4 | 3502.4 | 3499.6 |
| 12.5° | 3580.0 | 3581.4 | 3577.2 | 3581.4 | 3575.8 | 3578.6 | 3574.4 | 3571.7 |
| 15° | 3681.1 | 3676.9 | 3667.2 | 3667.2 | 3658.9 | 3660.3 | 3658.9 | 3657.6 |
| 17.5° | 3779.5 | 3771.2 | 3764.2 | 3761.5 | 3754.5 | 3753.1 | 3749.0 | 3749.0 |
| 20° | 3887.5 | 3883.4 | 3879.2 | 3873.7 | 3866.8 | 3859.8 | 3858.4 | 3861.2 |
| 22.5° | 4017.8 | 4016.4 | 4016.4 | 4013.6 | 4003.9 | 3997.0 | 3992.8 | 3992.8 |
| 25° | 4192.3 | 4179.9 | 4179.9 | 4178.5 | 4174.3 | 4170.2 | 4161.9 | 4166.0 |
| 27.5° | 4389.1 | 4382.1 | 4387.7 | 4386.3 | 4382.1 | 4382.1 | 4376.6 | 4376.6 |
| 30° | 4631.5 | 4628.7 | 4637.1 | 4630.1 | 4616.3 | 4614.9 | 4609.3 | 4602.4 |
| 32.5° | 4911.4 | 4908.6 | 4921.1 | 4912.8 | 4890.6 | 4878.1 | 4867.0 | 4861.5 |
| 35° | 5223.1 | 5224.5 | 5239.7 | 5234.2 | 5209.2 | 5200.9 | 5181.5 | 5178.8 |
| 37.5° | 5563.9 | 5586.1 | 5612.4 | 5617.9 | 5597.2 | 5591.6 | 5570.8 | 5559.8 |
| 40° | 5964.3 | 5993.4 | 6033.6 | 6043.3 | 6021.1 | 6016.9 | 5987.9 | 5972.6 |
| 42.5° | 6391.0 | 6440.9 | 6490.8 | 6499.1 | 6476.9 | 6454.7 | 6427.0 | 6416.0 |
| 45° | 6867.6 | 6927.2 | 6992.3 | 7008.9 | 6975.7 | 6949.3 | 6913.3 | 6913.3 |
| 47.5° | 7402.4 | 7477.2 | 7550.6 | 7596.3 | 7565.9 | 7538.2 | 7495.2 | 7467.5 |
| 50° | 8034.1 | 8136.7 | 8232.3 | 8279.4 | 8230.9 | 8178.2 | 8103.4 | 8078.5 |
| 52.5° | 8826.6 | 8937.4 | 9020.6 | 8995.6 | 8920.8 | 8847.4 | 8765.7 | 8732.4 |
| 55° | 9838.0 | 9875.4 | 9875.4 | 9781.2 | 9631.6 | 9508.2 | 9379.4 | 9336.5 |
| 57.5° | 11102.9 | 10958.8 | 10737.1 | 10455.9 | 10102.6 | 9795.0 | 9587.2 | 9488.9 |
| 60° | 12589.5 | 11896.7 | 11114.0 | 10345.1 | 9713.3 | 9192.4 | 8883.4 | 8742.1 |
| 62.5° | 13580.0 | 11767.9 | 10199.6 | 8965.2 | 8056.3 | 7428.7 | 7002.0 | 6835.7 |
| 65° | 12692.0 | 9814.4 | 7714.1 | 6237.2 | 5246.6 | 4608.0 | 4185.4 | 4030.2 |
| 67.5° | 9296.3 | 6150.0 | 4107.8 | 2944.1 | 2157.1 | 1720.7 | 1547.5 | 1475.5 |
| 70° | 4172.9 | 2165.4 | 1327.2 | 1036.3 | 893.6 | 820.2 | 788.3 | 777.2 |
| 72.5° | 1258.0 | 910.2 | 767.5 | 692.7 | 635.9 | 599.9 | 573.6 | 570.8 |
| 75° | 759.2 | 631.8 | 561.1 | 516.8 | 480.7 | 451.7 | 437.8 | 433.6 |
| 77.5° | 530.6 | 464.1 | 430.9 | 399.0 | 371.3 | 349.1 | 336.7 | 327.0 |
| 80° | 372.7 | 340.8 | 325.6 | 307.6 | 289.6 | 268.8 | 250.8 | 242.5 |
| 82.5° | 249.4 | 242.5 | 242.5 | 231.4 | 216.1 | 196.7 | 160.7 | 152.4 |
| 85° | 160.7 | 159.3 | 162.1 | 157.9 | 146.9 | 126.1 | 103.9 | 98.4 |
| 87.5° | 74.8 | 76.2 | 84.5 | 83.1 | 80.4 | 66.5 | 52.6 | 49.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)