

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: P299150

Luminaire Tested: **GAA-AF-10-LED-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-10-LED-U-T3-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 56804.9 lumens
Efficiency: N/A
Efficacy: 101.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B4 - U0 - G5

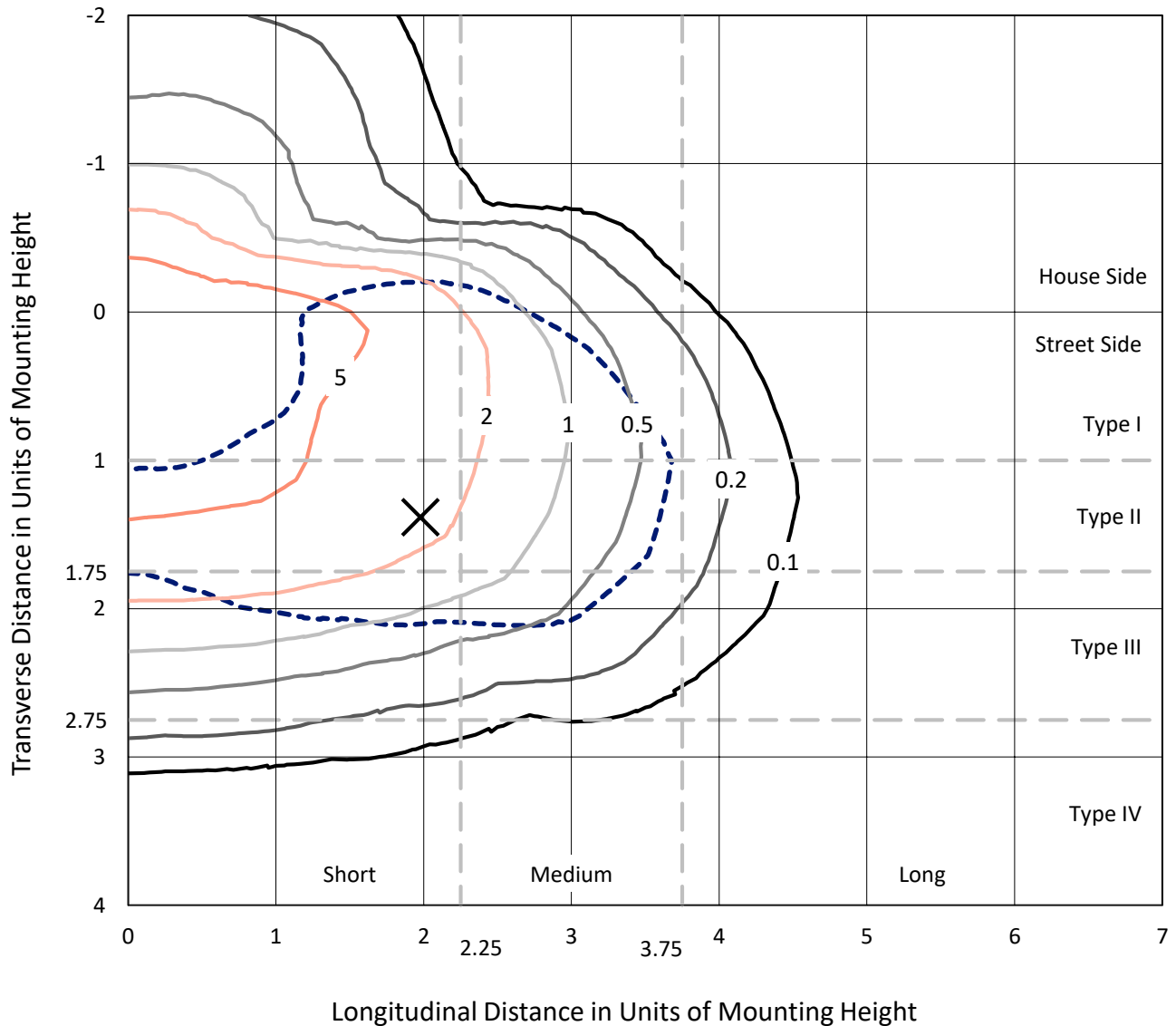
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

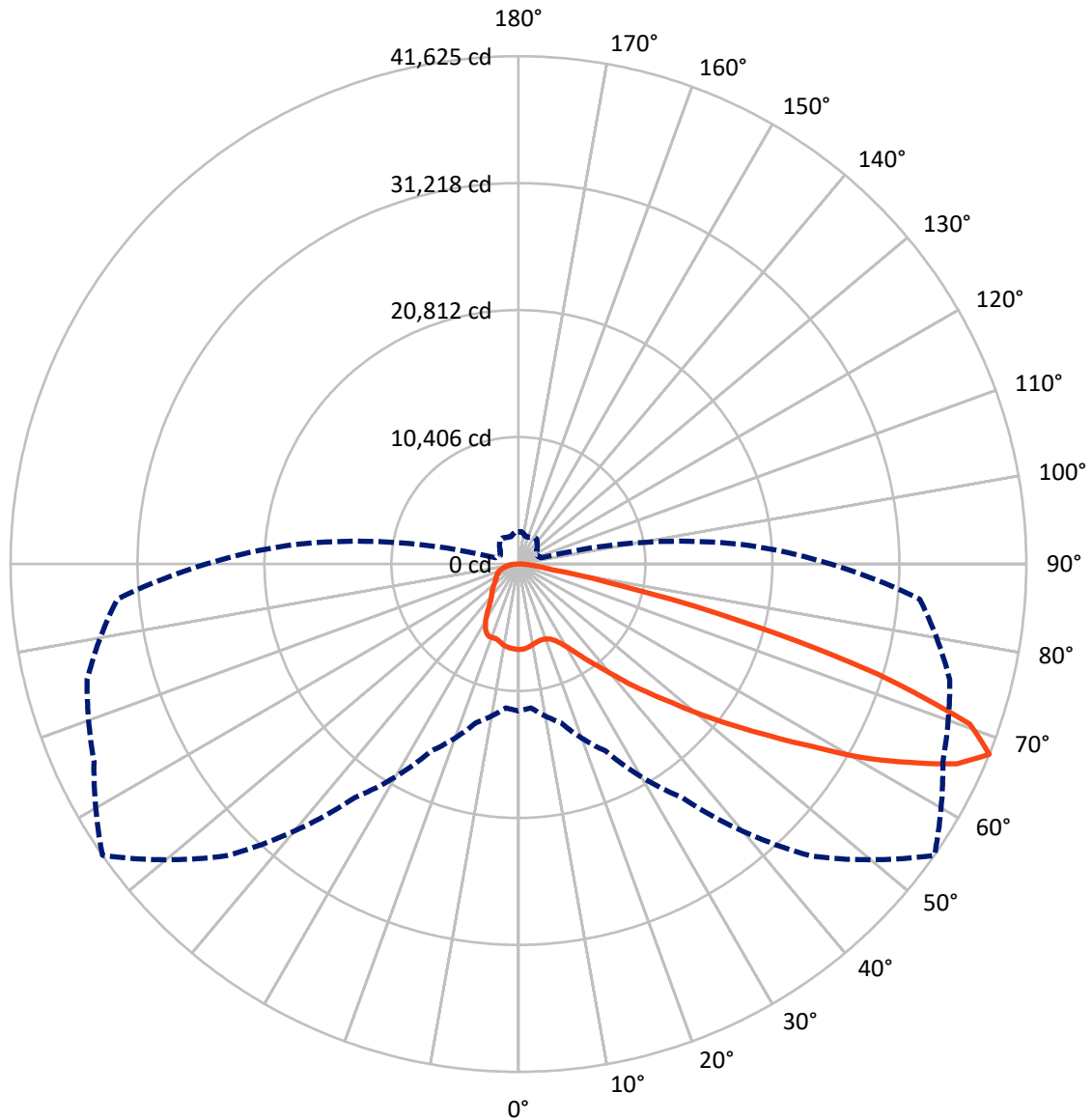
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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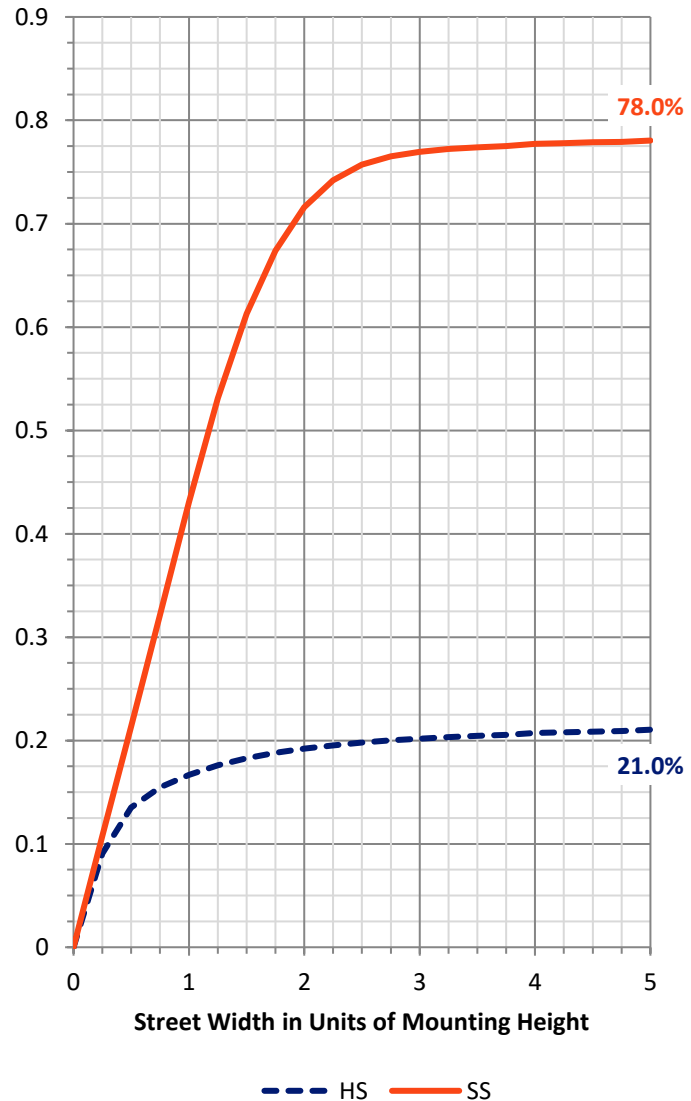
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 12271.1 | 0.0 | 12271.1 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 44533.8 | 0.0 | 44533.8 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 56804.9 | 0.0 | 56804.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 653.8 | 1.2 |
| 10°-20° | 1851.7 | 3.3 |
| 20°-30° | 3101.8 | 5.5 |
| 30°-40° | 5100.7 | 9.0 |
| 40°-50° | 8586.1 | 15.1 |
| 50°-60° | 13513.8 | 23.8 |
| 60°-70° | 16127.3 | 28.4 |
| 70°-80° | 6925.4 | 12.2 |
| 80°-90° | 944.2 | 1.7 |
| 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° | 56804.9 | 100.0 |
| 0°-180° | 56804.9 | 100.0 |



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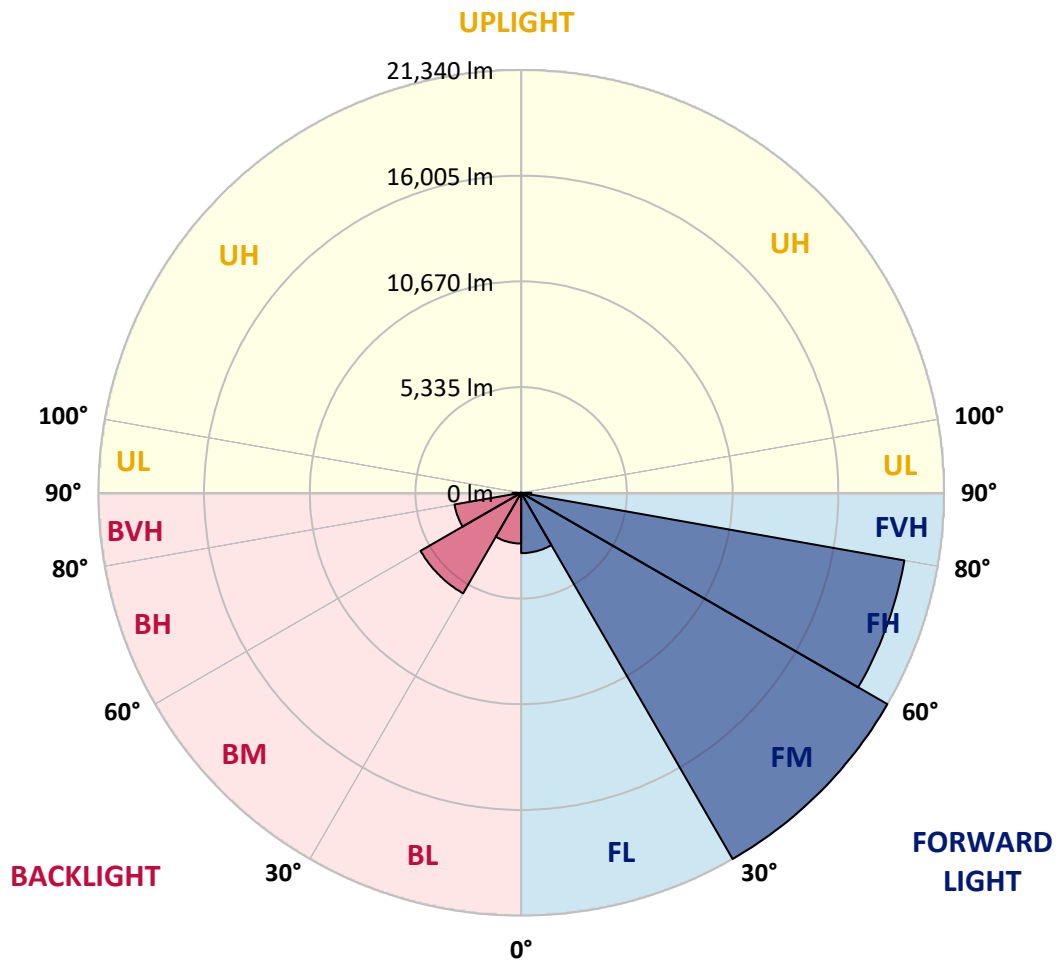
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3044.9 | 5.4 | | | |
| FM | (30°-60°) | 21340.1 | 37.6 | | | |
| FH | (60°-80°) | 19637.7 | 34.6 | | | G5 |
| FVH | (80°-90°) | 511.1 | 0.9 | | | G4/750 |
| BL | (0°-30°) | 2562.4 | 4.5 | B4/5000 | | |
| BM | (30°-60°) | 5860.5 | 10.3 | B4/8500 | | |
| BH | (60°-80°) | 3415.0 | 6.0 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 433.1 | 0.8 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 |
| 2.5° | 6944.3 | 6947.0 | 6952.5 | 6974.5 | 6993.7 | 6988.2 | 6990.9 | 6980.0 | 6977.2 | 6960.8 | 6977.2 |
| 5° | 6856.5 | 6864.7 | 6867.5 | 6903.1 | 6925.1 | 6930.6 | 6922.3 | 6908.6 | 6892.2 | 6875.7 | 6883.9 |
| 7.5° | 6656.2 | 6678.2 | 6680.9 | 6730.3 | 6766.0 | 6812.6 | 6815.3 | 6818.1 | 6809.9 | 6798.9 | 6815.3 |
| 10° | 6530.0 | 6535.5 | 6532.7 | 6568.4 | 6595.8 | 6648.0 | 6678.2 | 6730.3 | 6752.2 | 6757.7 | 6768.7 |
| 12.5° | 6521.8 | 6516.3 | 6508.1 | 6508.1 | 6499.8 | 6521.8 | 6576.6 | 6650.7 | 6702.9 | 6719.3 | 6733.0 |
| 15° | 6609.6 | 6606.8 | 6579.4 | 6538.2 | 6486.1 | 6469.6 | 6516.3 | 6598.6 | 6667.2 | 6702.9 | 6716.6 |
| 17.5° | 6807.1 | 6790.7 | 6746.8 | 6653.5 | 6541.0 | 6497.1 | 6502.6 | 6571.2 | 6650.7 | 6697.4 | 6711.1 |
| 20° | 7169.3 | 7169.3 | 7076.0 | 6900.4 | 6700.1 | 6595.8 | 6546.5 | 6587.6 | 6664.4 | 6727.5 | 6746.8 |
| 22.5° | 7794.8 | 7800.3 | 7643.9 | 7355.9 | 7018.4 | 6796.1 | 6672.7 | 6664.4 | 6755.0 | 6826.3 | 6848.3 |
| 25° | 8681.1 | 8659.1 | 8439.6 | 8028.1 | 7515.0 | 7147.3 | 6933.3 | 6883.9 | 6960.8 | 7040.3 | 7067.8 |
| 27.5° | 9712.7 | 9633.1 | 9372.5 | 8875.9 | 8211.9 | 7674.1 | 7344.9 | 7265.3 | 7339.4 | 7429.9 | 7457.4 |
| 30° | 10733.3 | 10651.0 | 10341.0 | 9797.7 | 9059.7 | 8379.3 | 7907.3 | 7778.4 | 7882.6 | 8011.6 | 8028.1 |
| 32.5° | 11754.0 | 11754.0 | 11408.3 | 10774.5 | 9970.6 | 9221.6 | 8656.4 | 8502.7 | 8675.6 | 8832.0 | 8867.6 |
| 35° | 12974.9 | 12980.4 | 12645.7 | 11883.0 | 11018.7 | 10225.8 | 9602.9 | 9490.4 | 9751.1 | 9860.8 | 9945.9 |
| 37.5° | 14475.7 | 14505.9 | 14075.2 | 13153.3 | 12206.7 | 11372.6 | 10631.8 | 10478.2 | 10738.8 | 11037.9 | 11312.3 |
| 40° | 16097.3 | 16135.7 | 15661.0 | 14525.1 | 13578.6 | 12706.1 | 11904.9 | 11627.8 | 12061.3 | 12632.0 | 12985.9 |
| 42.5° | 17644.7 | 17842.3 | 17384.1 | 16215.3 | 15197.3 | 14294.7 | 13482.5 | 13079.2 | 13622.5 | 14484.0 | 14791.3 |
| 45° | 19880.8 | 20023.5 | 19225.1 | 18166.0 | 17208.5 | 16198.8 | 15123.3 | 14698.0 | 15458.0 | 16544.5 | 16607.6 |
| 47.5° | 21370.7 | 21263.7 | 20857.6 | 20199.1 | 19592.7 | 18648.9 | 17030.1 | 16563.7 | 17573.4 | 18851.9 | 18498.0 |
| 50° | 22163.6 | 22196.5 | 22141.6 | 22180.1 | 22202.0 | 21609.4 | 19367.8 | 18728.5 | 19933.0 | 21477.7 | 20662.8 |
| 52.5° | 22904.4 | 22684.9 | 22866.0 | 23765.9 | 24852.4 | 24632.9 | 21911.2 | 21244.5 | 22462.7 | 24391.5 | 22951.0 |
| 55° | 22887.9 | 22553.2 | 23143.1 | 24731.7 | 27088.5 | 27340.9 | 24767.4 | 23999.1 | 25137.8 | 27516.5 | 25376.5 |
| 57.5° | 22078.5 | 22095.0 | 23003.2 | 25082.9 | 28646.9 | 29887.1 | 28081.7 | 26929.4 | 27974.7 | 30682.8 | 27590.6 |
| 60° | 20964.6 | 21115.5 | 22424.2 | 25025.3 | 29895.3 | 31975.1 | 32147.9 | 30087.4 | 30754.1 | 33560.9 | 29423.4 |
| 62.5° | 19167.5 | 19326.6 | 21132.0 | 24427.1 | 29706.0 | 33986.2 | 35824.5 | 33670.7 | 33659.7 | 35305.9 | 29961.2 |
| 65° | 16333.2 | 16286.6 | 18182.5 | 22191.0 | 28117.4 | 35473.3 | 39476.3 | 36768.3 | 35849.2 | 35333.3 | 28880.2 |
| 67.5° | 12044.8 | 11836.3 | 13463.3 | 16901.2 | 23370.8 | 33807.8 | 41624.6 | 38381.6 | 36595.4 | 33009.4 | 25576.7 |
| 70° | 6250.1 | 6041.6 | 7358.6 | 9869.1 | 15370.2 | 26386.1 | 39245.8 | 37547.5 | 34946.5 | 27670.2 | 20037.2 |
| 72.5° | 2672.4 | 2636.7 | 3171.7 | 4329.6 | 7435.4 | 15219.3 | 30773.3 | 32499.1 | 29985.9 | 20616.1 | 13776.1 |
| 75° | 1797.1 | 1786.1 | 1986.4 | 2359.6 | 3344.6 | 6176.1 | 19258.0 | 23069.0 | 21938.6 | 12782.9 | 7748.2 |
| 77.5° | 1410.3 | 1396.5 | 1514.5 | 1695.6 | 2167.5 | 2436.4 | 8546.6 | 12385.1 | 11463.2 | 5564.2 | 3391.2 |
| 80° | 1103.0 | 1092.0 | 1166.1 | 1264.8 | 1558.4 | 1536.5 | 2812.3 | 4927.7 | 3813.7 | 2131.9 | 1649.0 |
| 82.5° | 869.8 | 869.8 | 930.1 | 932.9 | 1105.7 | 1048.1 | 1467.9 | 2170.3 | 1904.1 | 1242.9 | 1009.7 |
| 85° | 795.7 | 795.7 | 858.8 | 696.9 | 721.6 | 661.2 | 910.9 | 1286.8 | 1207.2 | 510.3 | 439.0 |
| 87.5° | 400.6 | 389.6 | 721.6 | 617.3 | 392.3 | 351.2 | 444.5 | 622.8 | 669.5 | 282.6 | 219.5 |
| 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-10-LED-U-T3-7030

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 | 7004.7 |
| 2.5° | 6971.7 | 6969.0 | 6974.5 | 6977.2 | 6999.2 | 7029.4 | 7043.1 | 7062.3 | 7073.3 | 7067.8 |
| 5° | 6889.4 | 6894.9 | 6916.9 | 6933.3 | 6971.7 | 7021.1 | 7048.6 | 7070.5 | 7089.7 | 7081.5 |
| 7.5° | 6820.8 | 6834.6 | 6867.5 | 6881.2 | 6903.1 | 6916.9 | 6914.1 | 6922.3 | 6938.8 | 6919.6 |
| 10° | 6782.4 | 6798.9 | 6823.6 | 6804.4 | 6752.2 | 6678.2 | 6609.6 | 6573.9 | 6584.9 | 6571.2 |
| 12.5° | 6744.0 | 6766.0 | 6746.8 | 6656.2 | 6510.8 | 6414.8 | 6362.6 | 6368.1 | 6392.8 | 6398.3 |
| 15° | 6722.1 | 6730.3 | 6648.0 | 6477.9 | 6329.7 | 6316.0 | 6343.4 | 6337.9 | 6340.7 | 6340.7 |
| 17.5° | 6722.1 | 6700.1 | 6546.5 | 6376.4 | 6313.2 | 6288.6 | 6203.5 | 6096.5 | 6049.9 | 6033.4 |
| 20° | 6757.7 | 6700.1 | 6513.5 | 6401.0 | 6263.9 | 6052.6 | 5827.6 | 5630.1 | 5542.3 | 5517.6 |
| 22.5° | 6864.7 | 6766.0 | 6606.8 | 6412.0 | 6022.4 | 5668.5 | 5311.8 | 5075.8 | 4916.7 | 4889.3 |
| 25° | 7081.5 | 6971.7 | 6790.7 | 6266.6 | 5638.3 | 5133.5 | 4727.4 | 4464.0 | 4304.9 | 4282.9 |
| 27.5° | 7460.1 | 7388.8 | 6889.4 | 5945.6 | 5128.0 | 4587.5 | 4211.6 | 4008.5 | 3890.6 | 3882.3 |
| 30° | 8030.8 | 7995.1 | 6840.0 | 5470.9 | 4499.7 | 4057.9 | 3876.8 | 3758.9 | 3671.1 | 3668.3 |
| 32.5° | 8941.7 | 8653.6 | 6678.2 | 4892.0 | 3926.2 | 3682.0 | 3608.0 | 3536.6 | 3468.0 | 3468.0 |
| 35° | 10113.3 | 9185.9 | 6370.9 | 4271.9 | 3577.8 | 3473.5 | 3380.2 | 3267.7 | 3177.2 | 3171.7 |
| 37.5° | 11490.6 | 9515.1 | 5819.4 | 3772.6 | 3413.2 | 3333.6 | 3196.4 | 3029.0 | 2869.9 | 2842.5 |
| 40° | 12881.7 | 9613.9 | 5042.9 | 3465.3 | 3308.9 | 3193.7 | 3026.3 | 2828.8 | 2675.1 | 2666.9 |
| 42.5° | 14157.5 | 9424.6 | 4219.8 | 3254.0 | 3204.6 | 3051.0 | 2875.4 | 2699.8 | 2579.1 | 2576.3 |
| 45° | 15227.5 | 8933.5 | 3528.4 | 3053.7 | 3094.9 | 2922.0 | 2765.6 | 2623.0 | 2529.7 | 2510.5 |
| 47.5° | 16234.5 | 8239.3 | 3042.8 | 2842.5 | 2985.1 | 2850.7 | 2719.0 | 2584.6 | 2494.0 | 2480.3 |
| 50° | 17403.3 | 7490.3 | 2702.5 | 2636.7 | 2889.1 | 2826.0 | 2757.4 | 2617.5 | 2466.6 | 2450.1 |
| 52.5° | 18819.0 | 6842.8 | 2436.4 | 2455.6 | 2815.0 | 2858.9 | 2856.2 | 2710.8 | 2447.4 | 2425.4 |
| 55° | 20399.4 | 6123.9 | 2236.1 | 2307.4 | 2784.9 | 2919.3 | 2880.9 | 2798.6 | 2463.8 | 2430.9 |
| 57.5° | 21955.1 | 5284.4 | 2096.2 | 2195.0 | 2741.0 | 2913.8 | 2762.9 | 2644.9 | 2502.3 | 2455.6 |
| 60° | 23121.1 | 4156.7 | 1989.2 | 2096.2 | 2644.9 | 2823.3 | 2633.9 | 2477.6 | 2494.0 | 2458.4 |
| 62.5° | 23198.0 | 3212.9 | 1860.2 | 2011.1 | 2499.5 | 2732.7 | 2548.9 | 2403.5 | 2529.7 | 2496.8 |
| 65° | 21834.3 | 2428.2 | 1736.8 | 1909.6 | 2343.1 | 2675.1 | 2466.6 | 2362.3 | 2603.8 | 2568.1 |
| 67.5° | 18382.8 | 1953.5 | 1632.5 | 1805.4 | 2186.7 | 2554.4 | 2392.5 | 2323.9 | 2669.6 | 2606.5 |
| 70° | 13271.3 | 1665.4 | 1531.0 | 1679.1 | 2046.8 | 2417.2 | 2326.7 | 2255.3 | 2491.3 | 2392.5 |
| 72.5° | 8170.7 | 1443.2 | 1415.7 | 1511.8 | 1939.8 | 2274.5 | 2227.9 | 2126.4 | 2244.3 | 2164.8 |
| 75° | 4079.9 | 1251.1 | 1286.8 | 1347.2 | 1788.9 | 2112.6 | 2063.3 | 1961.7 | 1978.2 | 1961.7 |
| 77.5° | 1953.5 | 1070.0 | 1135.9 | 1182.5 | 1594.1 | 1928.8 | 1876.7 | 1772.4 | 1753.2 | 1756.0 |
| 80° | 1237.4 | 894.4 | 957.6 | 990.5 | 1424.0 | 1714.8 | 1662.7 | 1558.4 | 1777.9 | 1649.0 |
| 82.5° | 773.7 | 727.1 | 743.5 | 803.9 | 1240.2 | 1492.6 | 1424.0 | 1330.7 | 1602.3 | 1267.6 |
| 85° | 428.0 | 507.6 | 529.5 | 581.7 | 954.8 | 1248.4 | 1179.8 | 1061.8 | 952.1 | 935.6 |
| 87.5° | 255.2 | 301.8 | 310.0 | 348.4 | 642.0 | 902.7 | 798.4 | 757.3 | 628.3 | 625.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)