

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: P191537

Luminaire Tested: **GAN-AF-09-LED-U-T4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-09-LED-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54762.6 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

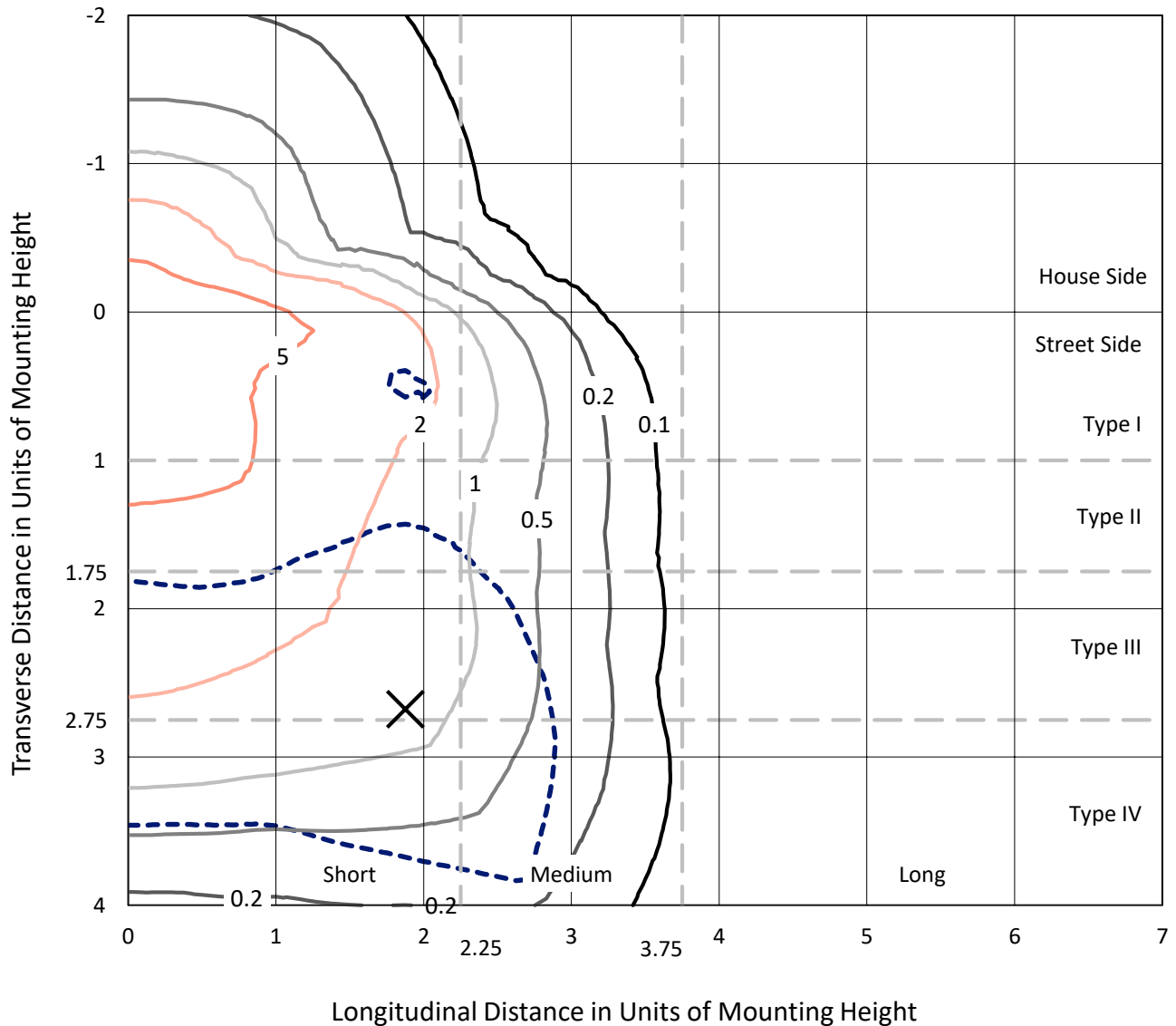
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

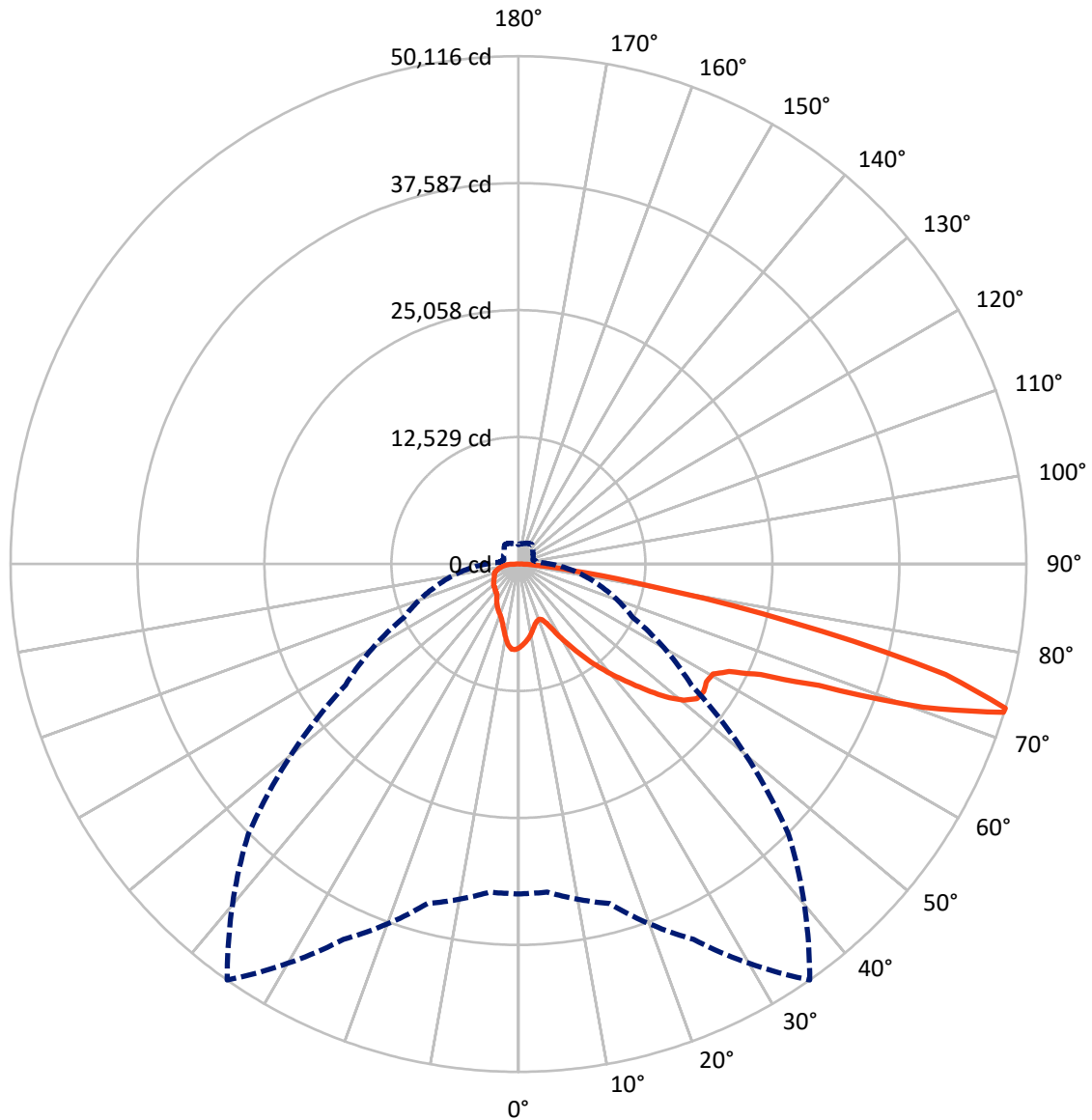


Based on 30 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 10444.7 | 0.0 | 10444.7 |
| | % Fixture | 19.1 | 0.0 | 19.1 |
| Street Side | Lumens | 44317.9 | 0.0 | 44317.9 |
| | % Fixture | 80.9 | 0.0 | 80.9 |
| Total | Lumens | 54762.6 | 0.0 | 54762.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 748.3 | 1.4 |
| 10°-20° | 1867.5 | 3.4 |
| 20°-30° | 3019.1 | 5.5 |
| 30°-40° | 5062.7 | 9.2 |
| 40°-50° | 7803.9 | 14.3 |
| 50°-60° | 10469.7 | 19.1 |
| 60°-70° | 13947.8 | 25.5 |
| 70°-80° | 10637.9 | 19.4 |
| 80°-90° | 1205.8 | 2.2 |
| 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° | 54762.6 | 100.0 |
| 0°-180° | 54762.6 | 100.0 |



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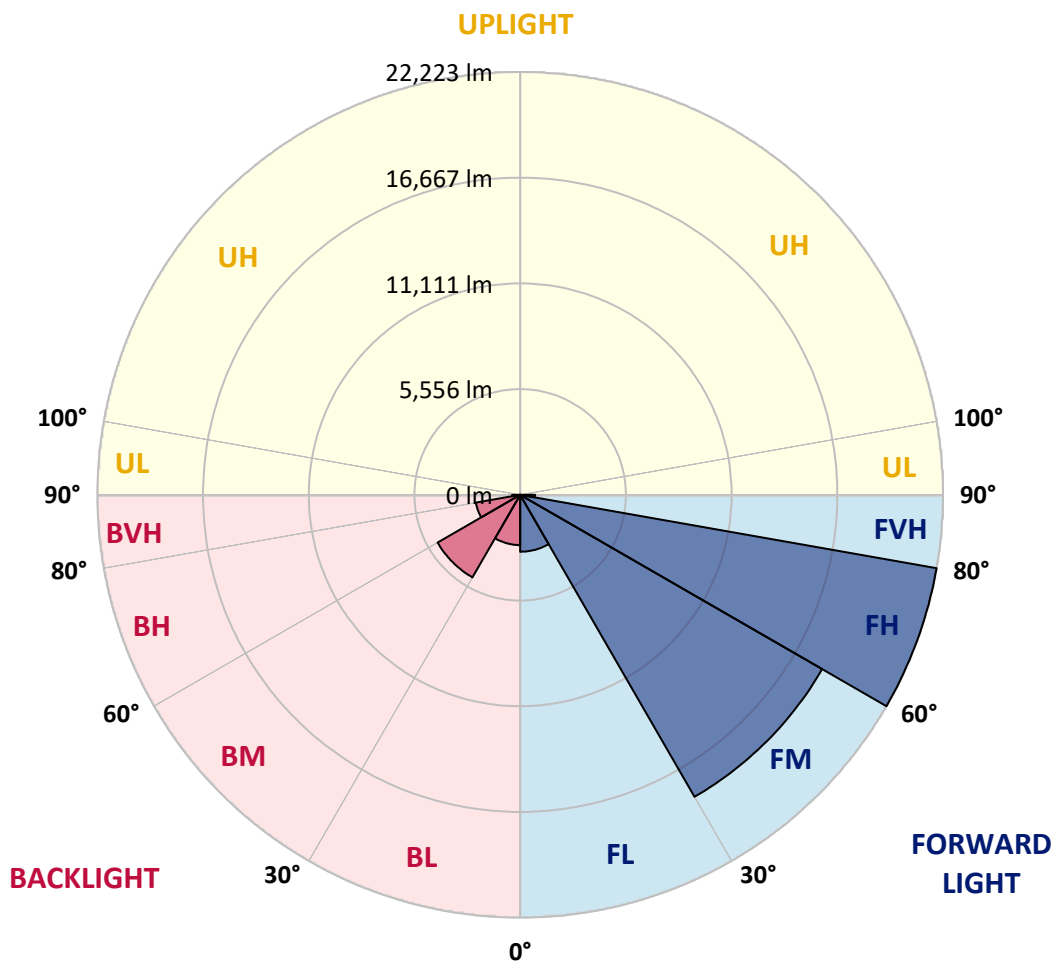
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2991.9 | 5.5 | | | |
| FM | (30°-60°) | 18323.9 | 33.5 | | | |
| FH | (60°-80°) | 22222.7 | 40.6 | | | G5 |
| FVH | (80°-90°) | 779.4 | 1.4 | | | G5 |
| BL | (0°-30°) | 2643.0 | 4.8 | B4/5000 | | |
| BM | (30°-60°) | 5012.3 | 9.2 | B4/8500 | | |
| BH | (60°-80°) | 2363.1 | 4.3 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 426.4 | 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 IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 |
| 2.5° | 7939.3 | 7955.1 | 7936.7 | 7960.3 | 7999.8 | 8041.8 | 8070.8 | 8112.8 | 8160.2 | 8226.0 | 8241.7 |
| 5° | 7565.8 | 7589.6 | 7589.6 | 7631.6 | 7707.8 | 7776.3 | 7839.4 | 7907.7 | 8007.7 | 8120.8 | 8165.5 |
| 7.5° | 7155.6 | 7168.7 | 7192.5 | 7255.6 | 7366.0 | 7463.3 | 7552.8 | 7663.1 | 7799.9 | 7949.9 | 8028.7 |
| 10° | 6661.3 | 6679.7 | 6716.5 | 6805.9 | 6955.8 | 7089.9 | 7218.8 | 7371.3 | 7544.9 | 7731.6 | 7831.5 |
| 12.5° | 6311.5 | 6306.2 | 6321.9 | 6387.7 | 6519.2 | 6682.2 | 6869.0 | 7063.6 | 7276.6 | 7494.9 | 7615.9 |
| 15° | 6193.1 | 6164.2 | 6103.7 | 6087.9 | 6159.0 | 6321.9 | 6537.6 | 6776.9 | 7032.1 | 7295.0 | 7444.9 |
| 17.5° | 6266.8 | 6216.8 | 6051.2 | 5930.1 | 5919.6 | 6043.2 | 6272.0 | 6540.2 | 6834.7 | 7155.6 | 7342.3 |
| 20° | 6729.6 | 6611.2 | 6203.7 | 5922.3 | 5825.0 | 5885.4 | 6085.3 | 6369.3 | 6716.5 | 7142.4 | 7381.8 |
| 22.5° | 7836.7 | 7663.1 | 6798.0 | 6274.7 | 5945.9 | 5872.2 | 6022.2 | 6324.6 | 6729.6 | 7305.5 | 7610.5 |
| 25° | 9448.8 | 9201.5 | 7818.3 | 7153.0 | 6474.5 | 6082.7 | 6116.8 | 6427.2 | 6916.3 | 7684.2 | 8052.4 |
| 27.5° | 10721.5 | 10561.1 | 9151.6 | 8391.6 | 7437.0 | 6650.7 | 6424.5 | 6684.9 | 7297.6 | 8304.8 | 8680.9 |
| 30° | 11478.9 | 11381.7 | 10577.0 | 9795.9 | 8665.1 | 7555.3 | 7013.7 | 7168.7 | 7894.6 | 9164.7 | 9475.1 |
| 32.5° | 12357.3 | 12299.4 | 11905.0 | 11187.1 | 9990.5 | 8744.0 | 7947.2 | 7892.0 | 8694.1 | 10198.3 | 10340.3 |
| 35° | 13267.3 | 13248.8 | 13017.4 | 12502.0 | 11413.3 | 10311.3 | 9185.8 | 8812.4 | 9564.5 | 11271.2 | 11181.8 |
| 37.5° | 14114.0 | 14082.5 | 13948.3 | 13648.5 | 12901.7 | 11994.4 | 10448.1 | 9756.5 | 10503.4 | 12296.8 | 11899.8 |
| 40° | 15673.4 | 15426.3 | 14966.1 | 14739.9 | 14405.9 | 13411.8 | 11450.1 | 10637.5 | 11476.4 | 13275.1 | 12520.4 |
| 42.5° | 17574.8 | 17172.5 | 16315.1 | 16004.8 | 15957.5 | 14529.5 | 12133.8 | 11492.1 | 12457.3 | 14245.5 | 13130.5 |
| 45° | 19071.2 | 18692.5 | 17953.5 | 17561.6 | 17735.2 | 15542.0 | 12820.1 | 12404.6 | 13467.0 | 15263.2 | 13759.0 |
| 47.5° | 20667.4 | 20073.1 | 19094.8 | 19213.2 | 19591.9 | 16499.2 | 13519.7 | 13385.5 | 14574.2 | 16401.9 | 14540.0 |
| 50° | 20725.3 | 20270.3 | 19841.7 | 20549.0 | 21138.2 | 17380.1 | 14395.4 | 14413.8 | 15928.6 | 17835.1 | 15578.8 |
| 52.5° | 19523.4 | 19426.1 | 20107.2 | 21219.7 | 22069.0 | 18077.1 | 15392.0 | 15476.2 | 17661.6 | 19481.4 | 16720.1 |
| 55° | 19102.7 | 18992.2 | 19778.5 | 20985.6 | 22195.3 | 18653.0 | 16472.9 | 16625.4 | 19757.5 | 21217.0 | 17832.5 |
| 57.5° | 20128.3 | 19883.7 | 19936.3 | 20875.2 | 21887.7 | 19284.2 | 17651.0 | 17958.7 | 22034.9 | 22734.4 | 18547.8 |
| 60° | 22994.8 | 22471.5 | 21477.4 | 21453.7 | 22053.3 | 20230.9 | 19013.3 | 19389.3 | 24401.7 | 23460.3 | 18269.1 |
| 62.5° | 27015.7 | 26492.4 | 24630.5 | 23418.1 | 23328.7 | 21792.9 | 20685.8 | 20785.7 | 25769.2 | 22476.7 | 16567.6 |
| 65° | 31368.0 | 30899.9 | 28819.7 | 27107.7 | 26282.0 | 24380.6 | 22629.2 | 21409.0 | 25322.1 | 19770.7 | 13590.7 |
| 67.5° | 36651.2 | 36148.9 | 34360.6 | 32780.2 | 31985.9 | 28556.7 | 23994.0 | 20812.0 | 22484.6 | 15315.8 | 9769.6 |
| 70° | 40346.0 | 39833.2 | 39128.5 | 40409.1 | 42352.5 | 34581.6 | 24170.3 | 18384.8 | 16793.8 | 10179.9 | 5880.2 |
| 72.5° | 35525.6 | 35286.3 | 36572.3 | 41965.9 | 50060.5 | 38237.0 | 21848.2 | 13385.5 | 9753.8 | 5404.1 | 3402.9 |
| 73° | 32548.8 | 32496.2 | 34689.4 | 40874.6 | 50115.6 | 37674.2 | 20830.4 | 12441.4 | 8365.3 | 4781.0 | 3111.0 |
| 75° | 14697.9 | 15121.3 | 19928.4 | 31220.7 | 43541.2 | 31044.5 | 14661.0 | 7137.2 | 4725.7 | 3303.0 | 2348.4 |
| 77.5° | 3531.7 | 3679.0 | 6235.2 | 14826.6 | 27496.9 | 18500.5 | 6642.8 | 3529.2 | 3021.6 | 2332.6 | 1714.6 |
| 80° | 1504.2 | 1554.2 | 2401.0 | 5477.8 | 12946.4 | 7450.2 | 3061.1 | 2364.1 | 2090.7 | 1627.8 | 1201.8 |
| 82.5° | 836.3 | 888.8 | 1362.3 | 2485.2 | 5225.3 | 2540.4 | 1867.1 | 1646.2 | 1375.4 | 980.9 | 781.0 |
| 85° | 473.3 | 502.3 | 796.8 | 1388.6 | 2214.3 | 1020.4 | 1117.7 | 1093.9 | 775.8 | 504.9 | 383.9 |
| 87.5° | 223.5 | 241.9 | 383.9 | 644.3 | 867.9 | 399.8 | 568.0 | 625.8 | 486.5 | 307.7 | 199.9 |
| 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-09-LED-U-T4FT

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 | 8265.3 |
| 2.5° | 8260.1 | 8307.5 | 8362.7 | 8391.6 | 8417.9 | 8449.5 | 8481.0 | 8481.0 | 8486.3 | 8489.0 |
| 5° | 8202.2 | 8299.6 | 8386.4 | 8423.2 | 8431.1 | 8431.1 | 8423.2 | 8381.1 | 8344.3 | 8360.1 |
| 7.5° | 8081.3 | 8223.3 | 8296.9 | 8283.8 | 8183.8 | 8068.1 | 7970.8 | 7852.5 | 7792.0 | 7781.5 |
| 10° | 7907.7 | 8070.8 | 8084.0 | 7952.4 | 7705.3 | 7458.0 | 7252.9 | 7053.0 | 6958.4 | 6934.7 |
| 12.5° | 7715.8 | 7865.7 | 7781.5 | 7510.6 | 7113.5 | 6753.2 | 6492.9 | 6290.4 | 6201.0 | 6177.3 |
| 15° | 7560.6 | 7663.1 | 7450.2 | 7024.1 | 6524.5 | 6143.1 | 5927.5 | 5777.6 | 5714.5 | 5696.1 |
| 17.5° | 7479.1 | 7500.1 | 7110.9 | 6535.0 | 6003.8 | 5685.6 | 5551.5 | 5480.5 | 5456.8 | 5443.6 |
| 20° | 7518.5 | 7371.3 | 6787.5 | 6080.0 | 5577.7 | 5354.2 | 5322.6 | 5304.3 | 5299.0 | 5291.1 |
| 22.5° | 7715.8 | 7331.8 | 6490.3 | 5648.7 | 5204.4 | 5107.0 | 5133.4 | 5130.7 | 5125.4 | 5120.2 |
| 25° | 8068.1 | 7366.0 | 6201.0 | 5238.5 | 4891.3 | 4870.4 | 4917.6 | 4917.6 | 4896.7 | 4896.7 |
| 27.5° | 8533.7 | 7437.0 | 5877.6 | 4849.3 | 4607.4 | 4610.0 | 4646.9 | 4636.3 | 4612.6 | 4596.8 |
| 30° | 9101.6 | 7481.8 | 5498.9 | 4499.6 | 4341.7 | 4331.3 | 4341.7 | 4297.0 | 4226.0 | 4220.8 |
| 32.5° | 9682.8 | 7426.5 | 5059.7 | 4189.2 | 4060.4 | 4036.7 | 4028.8 | 3965.7 | 3884.1 | 3860.5 |
| 35° | 10208.7 | 7224.0 | 4612.6 | 3942.0 | 3792.2 | 3739.5 | 3776.3 | 3755.4 | 3681.7 | 3663.3 |
| 37.5° | 10592.8 | 6847.9 | 4210.3 | 3723.7 | 3600.2 | 3587.0 | 3610.7 | 3618.6 | 3531.7 | 3513.4 |
| 40° | 10850.4 | 6337.8 | 3865.7 | 3539.7 | 3563.3 | 3513.4 | 3434.5 | 3379.2 | 3352.9 | 3345.0 |
| 42.5° | 11058.2 | 5806.6 | 3576.5 | 3452.9 | 3571.2 | 3426.6 | 3255.6 | 3166.2 | 3213.6 | 3234.7 |
| 45° | 11297.5 | 5288.5 | 3334.5 | 3345.0 | 3531.7 | 3326.6 | 3132.1 | 3045.3 | 3063.7 | 3069.0 |
| 47.5° | 11626.2 | 4657.3 | 3074.2 | 3171.6 | 3400.3 | 3258.3 | 3055.8 | 2932.2 | 2845.4 | 2806.0 |
| 50° | 12081.2 | 3910.4 | 2803.3 | 2976.9 | 3271.4 | 3208.3 | 2937.5 | 2806.0 | 2645.6 | 2608.7 |
| 52.5° | 12396.7 | 3213.6 | 2579.8 | 2813.8 | 3155.7 | 3108.4 | 2842.8 | 2671.8 | 2503.6 | 2472.0 |
| 55° | 12225.8 | 2669.2 | 2385.2 | 2632.4 | 3003.2 | 2984.8 | 2763.9 | 2535.1 | 2403.6 | 2377.3 |
| 57.5° | 11371.1 | 2324.8 | 2235.4 | 2461.4 | 2816.5 | 2879.6 | 2658.8 | 2419.4 | 2324.8 | 2306.3 |
| 60° | 9740.6 | 2109.1 | 2140.6 | 2345.7 | 2664.0 | 2774.4 | 2553.5 | 2356.3 | 2293.1 | 2280.1 |
| 62.5° | 7558.0 | 1964.5 | 2069.6 | 2261.6 | 2545.6 | 2700.8 | 2495.7 | 2348.4 | 2324.8 | 2308.9 |
| 65° | 5414.7 | 1848.8 | 1993.3 | 2177.5 | 2437.8 | 2632.4 | 2474.6 | 2337.9 | 2343.2 | 2330.0 |
| 67.5° | 3679.0 | 1746.2 | 1901.4 | 2082.8 | 2332.6 | 2571.9 | 2445.7 | 2301.0 | 2366.8 | 2351.0 |
| 70° | 2574.6 | 1646.2 | 1793.5 | 1961.8 | 2201.1 | 2487.8 | 2393.1 | 2245.8 | 2240.6 | 2177.5 |
| 72.5° | 2009.2 | 1514.8 | 1646.2 | 1793.5 | 2032.8 | 2369.5 | 2287.9 | 2122.2 | 2035.5 | 1969.7 |
| 73° | 1917.1 | 1483.2 | 1609.4 | 1756.7 | 1996.0 | 2340.5 | 2259.0 | 2088.0 | 1990.8 | 1930.2 |
| 75° | 1585.8 | 1346.4 | 1462.2 | 1593.7 | 1838.2 | 2203.7 | 2117.0 | 1932.9 | 1809.3 | 1772.5 |
| 77.5° | 1246.5 | 1151.8 | 1262.3 | 1380.7 | 1619.9 | 2003.9 | 1906.6 | 1730.4 | 1662.0 | 1630.5 |
| 80° | 923.0 | 954.6 | 1051.9 | 1157.1 | 1404.3 | 1790.9 | 1704.1 | 1527.9 | 1832.9 | 1756.7 |
| 82.5° | 649.6 | 723.2 | 812.6 | 907.3 | 1178.1 | 1583.1 | 1478.0 | 1296.5 | 1341.2 | 1115.0 |
| 85° | 383.9 | 473.3 | 557.5 | 639.0 | 849.5 | 1312.2 | 1220.2 | 1033.5 | 846.8 | 807.3 |
| 87.5° | 223.5 | 263.0 | 286.6 | 370.8 | 583.8 | 988.8 | 859.9 | 765.3 | 439.2 | 297.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)