

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: P190937

Luminaire Tested: **GAN-AF-09-LED-U-AFL-HSS-ADJ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P190937  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)  
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-AFL-HSS-ADJ  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 44562.8 lumens  
Efficiency: N/A  
Efficacy: 88.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B3 - U0 - G3

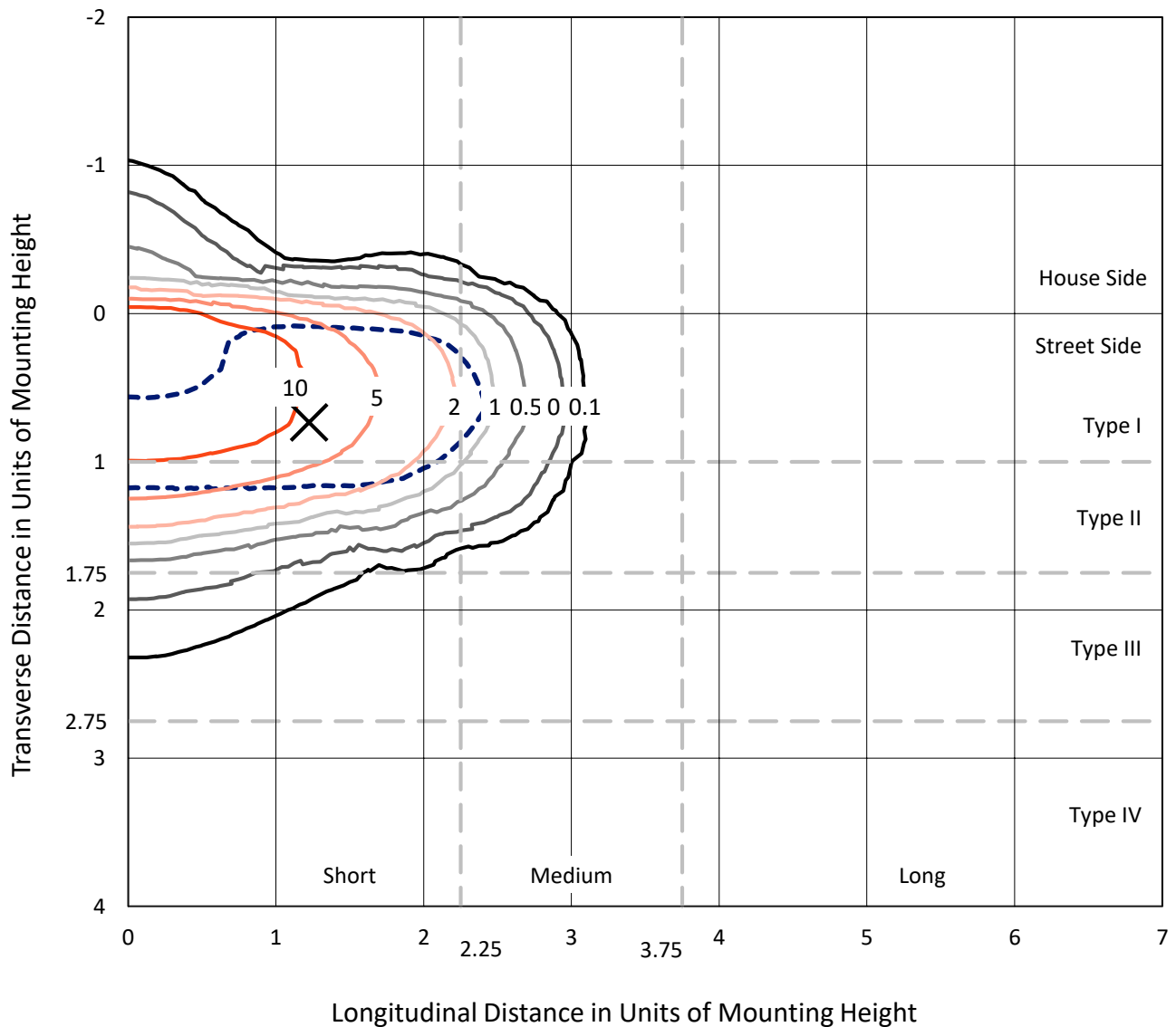
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

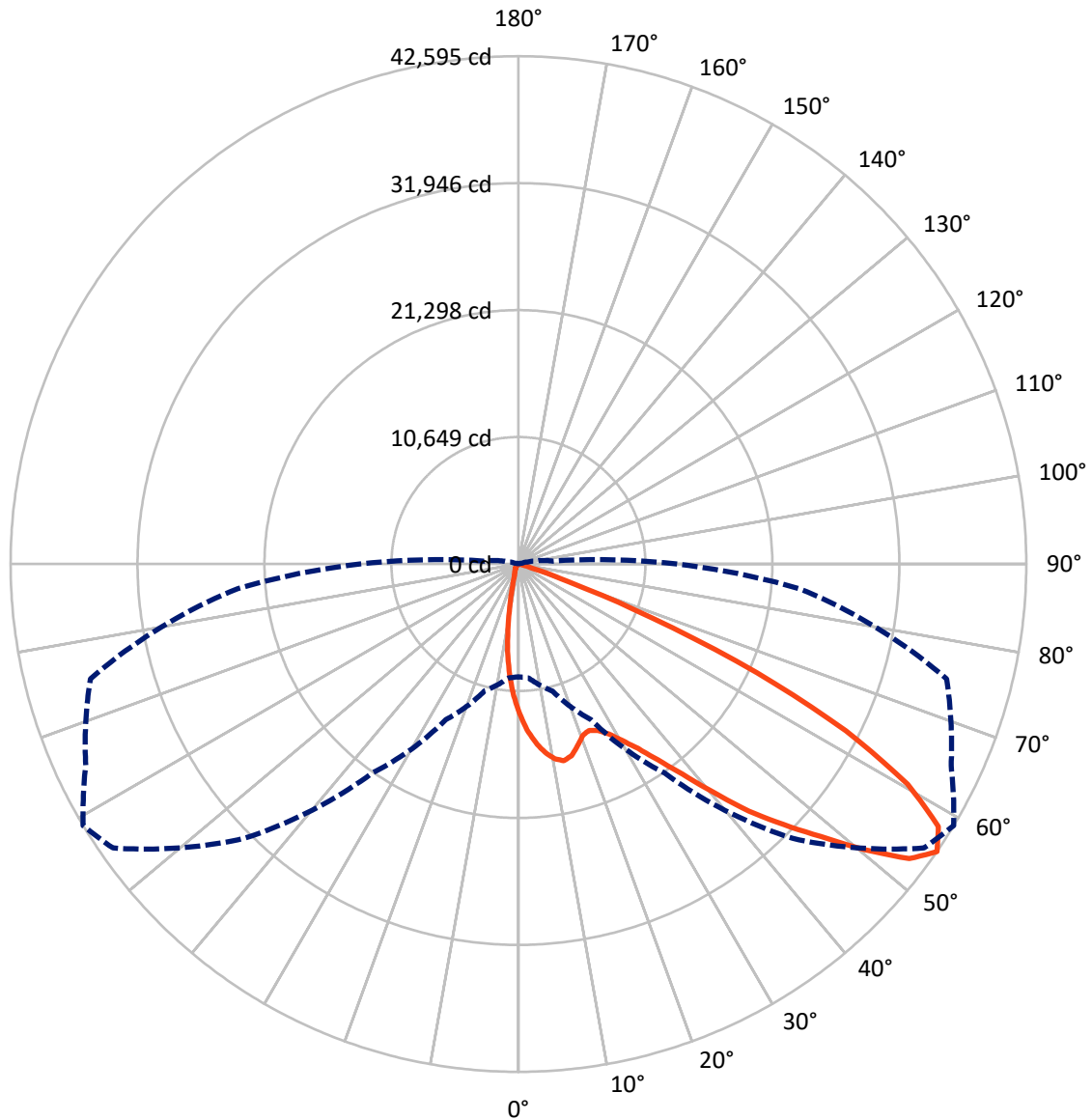
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17.3 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2489.1   | 0.0    | 2489.1  |
|                    | % Fixture | 5.6      | 0.0    | 5.6     |
| <b>Street Side</b> | Lumens    | 42073.7  | 0.0    | 42073.7 |
|                    | % Fixture | 94.4     | 0.0    | 94.4    |
| <b>Total</b>       | Lumens    | 44562.8  | 0.0    | 44562.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1050.7  | 2.4       |
| 10°-20°   | 2515.7  | 5.6       |
| 20°-30°   | 4280.8  | 9.6       |
| 30°-40°   | 7362.0  | 16.5      |
| 40°-50°   | 11366.1 | 25.5      |
| 50°-60°   | 11426.5 | 25.6      |
| 60°-70°   | 5859.6  | 13.1      |
| 70°-80°   | 635.0   | 1.4       |
| 80°-90°   | 66.4    | 0.1       |
| 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°    | 44562.8 | 100.0     |
| 0°-180°   | 44562.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P190937

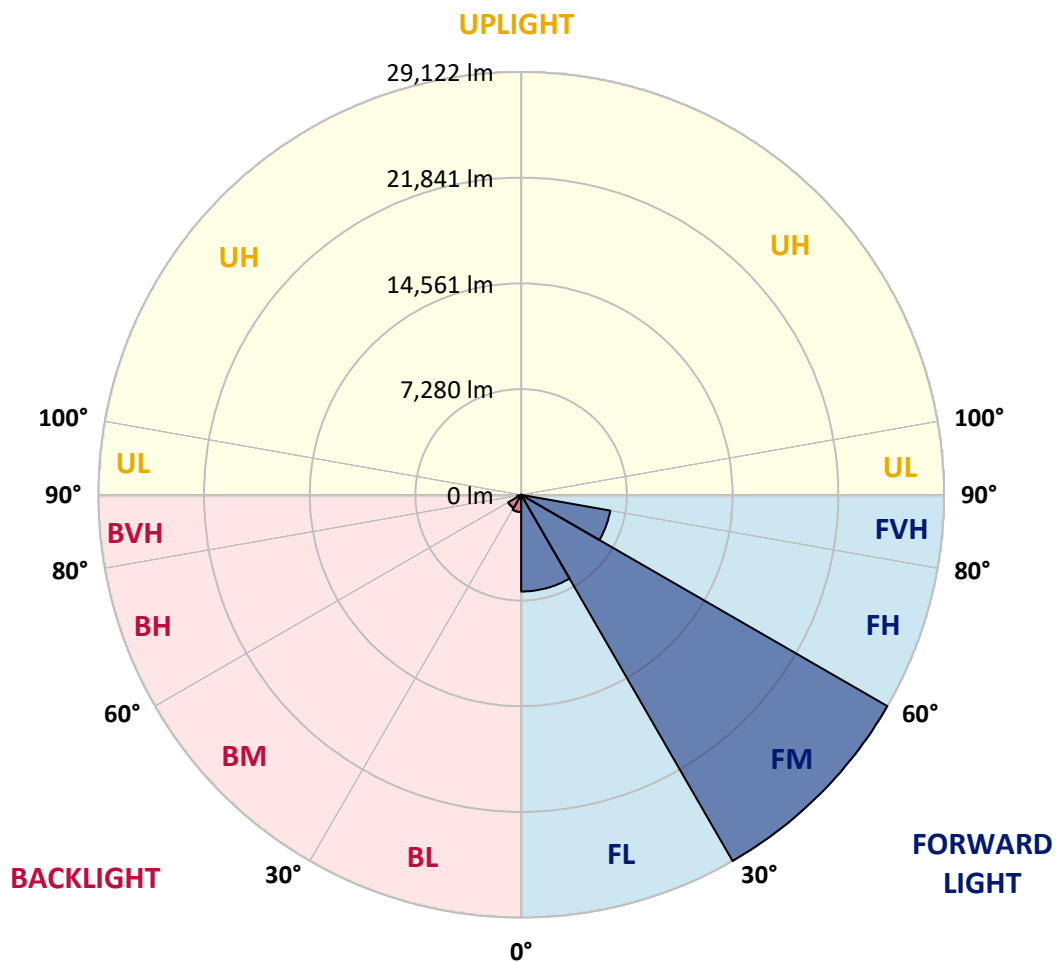
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 6659.1  | 14.9      |                         |      |         |
| FM   | (30°-60°)   | 29121.6 | 65.3      |                         |      |         |
| FH   | (60°-80°)   | 6228.0  | 14.0      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 65.0    | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1188.0  | 2.7       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 1033.0  | 2.3       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 266.7   | 0.6       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.4     | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Short





REPORT NUMBER: P190937  
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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 |
| 2.5°  | 14842.7 | 14685.0 | 14637.6 | 14606.1 | 14461.5 | 14280.0 | 14032.7 | 13917.0 | 13680.3 | 13299.1 | 12830.9 |
| 5°    | 16202.3 | 16173.5 | 16068.2 | 16010.4 | 15855.2 | 15597.5 | 15203.0 | 15013.6 | 14637.6 | 13995.9 | 13157.0 |
| 7.5°  | 15608.0 | 15789.5 | 15934.1 | 16176.0 | 16481.1 | 16470.6 | 16139.2 | 15942.0 | 15521.2 | 14674.4 | 13519.9 |
| 10°   | 13312.2 | 13459.5 | 13696.1 | 14245.7 | 15366.1 | 16354.9 | 16744.1 | 16602.1 | 16265.4 | 15297.7 | 13869.7 |
| 12.5° | 12862.5 | 12846.7 | 12888.8 | 13049.2 | 13635.6 | 15045.3 | 16641.6 | 16928.2 | 16859.8 | 15868.3 | 14201.0 |
| 15°   | 13101.7 | 13083.3 | 13078.1 | 13133.4 | 13275.3 | 13869.7 | 15871.0 | 16694.1 | 17222.7 | 16397.0 | 14482.4 |
| 17.5° | 13772.4 | 13693.5 | 13651.4 | 13606.7 | 13564.6 | 13711.9 | 14945.3 | 16039.4 | 17277.9 | 16859.8 | 14716.5 |
| 20°   | 14921.7 | 14790.1 | 14634.9 | 14382.5 | 14145.9 | 14072.2 | 14556.1 | 15366.1 | 17080.7 | 17212.2 | 14869.0 |
| 22.5° | 16365.4 | 16197.1 | 15928.9 | 15468.7 | 14987.4 | 14708.6 | 14748.1 | 15153.1 | 16786.2 | 17596.2 | 14940.0 |
| 25°   | 17988.0 | 17772.3 | 17414.7 | 16775.7 | 16068.2 | 15573.8 | 15316.1 | 15458.1 | 16652.1 | 18045.9 | 15021.5 |
| 27.5° | 19726.3 | 19487.0 | 19018.9 | 18148.5 | 17346.4 | 16678.4 | 16152.4 | 16134.0 | 16880.8 | 18635.0 | 15153.1 |
| 30°   | 21448.8 | 21412.0 | 20801.9 | 19881.5 | 18819.0 | 18006.4 | 17249.0 | 17151.7 | 17519.9 | 19450.2 | 15413.4 |
| 32.5° | 23747.3 | 23471.2 | 22724.3 | 21777.6 | 20552.1 | 19576.4 | 18679.7 | 18453.5 | 18500.8 | 20399.6 | 15815.7 |
| 35°   | 26645.4 | 26342.9 | 25291.0 | 23984.0 | 22613.9 | 21462.0 | 20470.6 | 20162.9 | 20047.2 | 21953.8 | 16494.3 |
| 37.5° | 28517.8 | 28512.6 | 27852.5 | 26521.8 | 25051.8 | 23781.6 | 22703.3 | 22343.0 | 22108.9 | 23831.5 | 17546.2 |
| 40°   | 28567.8 | 28691.4 | 28778.2 | 28765.1 | 27718.4 | 26548.1 | 25590.9 | 25146.4 | 24602.1 | 26340.4 | 18905.8 |
| 42.5° | 27034.6 | 27352.8 | 28118.1 | 29417.2 | 30037.8 | 29572.4 | 28765.1 | 28328.5 | 27518.5 | 29025.4 | 20562.6 |
| 45°   | 24962.4 | 25183.2 | 26521.8 | 28914.9 | 31294.9 | 32570.3 | 31955.0 | 31173.9 | 30106.3 | 31826.1 | 22048.5 |
| 47.5° | 24034.0 | 24073.4 | 24938.6 | 27565.9 | 31389.6 | 35026.7 | 35400.1 | 34129.8 | 32457.3 | 34082.6 | 23210.9 |
| 50°   | 21259.5 | 21330.5 | 22524.5 | 25227.9 | 30279.9 | 36186.4 | 38861.0 | 37656.5 | 35021.4 | 35820.9 | 23634.3 |
| 52.5° | 16023.5 | 16123.4 | 17638.2 | 21385.7 | 27229.2 | 35692.0 | 41338.3 | 41046.3 | 37830.1 | 36670.3 | 23657.9 |
| 55°   | 9454.2  | 9585.8  | 11032.1 | 14395.7 | 21417.3 | 32546.7 | 41522.3 | 42595.3 | 40047.0 | 37172.6 | 23621.1 |
| 57.5° | 4415.5  | 4507.5  | 5335.9  | 7416.1  | 13320.0 | 25722.3 | 38750.5 | 41532.8 | 41269.8 | 37438.2 | 23881.4 |
| 60°   | 2345.8  | 2372.1  | 2572.0  | 3211.0  | 6019.7  | 16310.1 | 33340.9 | 37503.9 | 40154.8 | 37806.4 | 24199.6 |
| 62.5° | 1793.5  | 1801.4  | 1790.9  | 1867.2  | 2529.9  | 7239.9  | 25201.6 | 30832.0 | 35665.7 | 37530.2 | 23847.2 |
| 65°   | 1554.3  | 1567.4  | 1493.7  | 1475.3  | 1622.6  | 2582.4  | 14971.6 | 21977.5 | 28026.1 | 33803.8 | 21446.3 |
| 67.5° | 1393.8  | 1399.1  | 1309.7  | 1233.4  | 1259.7  | 1396.4  | 5906.6  | 12031.4 | 18550.8 | 24778.2 | 15544.9 |
| 70°   | 1283.4  | 1278.1  | 1180.8  | 1059.8  | 1025.6  | 954.6   | 1877.7  | 4410.2  | 8865.1  | 12565.3 | 7229.4  |
| 72.5° | 1136.1  | 1138.7  | 1091.4  | 933.5   | 852.0   | 668.0   | 870.4   | 1286.0  | 2645.6  | 3424.0  | 1693.6  |
| 75°   | 1007.2  | 994.1   | 936.2   | 836.3   | 702.2   | 439.2   | 431.3   | 573.3   | 815.3   | 810.0   | 365.5   |
| 77.5° | 728.4   | 715.3   | 733.8   | 686.4   | 539.1   | 284.0   | 215.6   | 276.1   | 331.3   | 320.8   | 102.6   |
| 80°   | 533.9   | 526.0   | 473.3   | 570.7   | 476.0   | 194.6   | 134.1   | 147.3   | 170.9   | 144.6   | 31.5    |
| 82.5° | 365.5   | 362.9   | 334.0   | 315.6   | 270.9   | 118.4   | 84.2    | 92.1    | 110.5   | 81.5    | 15.8    |
| 85°   | 57.9    | 65.8    | 241.9   | 192.0   | 160.4   | 52.6    | 57.9    | 63.1    | 73.7    | 44.7    | 5.2     |
| 87.5° | 0.0     | 0.0     | 113.0   | 99.9    | 31.5    | 21.1    | 34.2    | 36.8    | 36.8    | 23.6    | 0.0     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



REPORT NUMBER: P190937

CATALOG NUMBER: GAN-AF-09-LED-U-AFL-HSS-ADJ

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°    | 115°    | 125°    | 135°    | 145°    | 155°    | 165°    | 175°    | 180°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 | 12544.2 |
| 2.5°  | 12591.6 | 12328.6 | 11842.1 | 11339.8 | 10874.4 | 10319.4 | 9938.1  | 9651.4  | 9320.1  | 9230.7  | 9425.3  |
| 5°    | 12678.4 | 12181.4 | 11134.7 | 9996.0  | 8925.7  | 7739.5  | 6832.3  | 6114.4  | 5464.8  | 5243.9  | 5443.7  |
| 7.5°  | 12815.1 | 12076.1 | 10369.4 | 8494.4  | 6632.4  | 4781.1  | 3513.4  | 2679.8  | 2148.6  | 1990.8  | 2075.0  |
| 10°   | 12951.9 | 11923.6 | 9483.2  | 6716.6  | 4170.9  | 2327.4  | 1514.8  | 1209.7  | 1096.6  | 1073.0  | 1086.2  |
| 12.5° | 13065.0 | 11718.5 | 8402.3  | 4775.7  | 2230.1  | 1246.6  | 991.4   | 941.5   | 925.7   | 925.7   | 931.0   |
| 15°   | 13133.4 | 11408.2 | 7121.6  | 3037.4  | 1283.4  | 941.5   | 865.2   | 849.5   | 849.5   | 852.0   | 857.3   |
| 17.5° | 13125.5 | 11013.7 | 5719.8  | 1838.2  | 959.9   | 833.7   | 788.9   | 775.8   | 773.1   | 778.5   | 781.0   |
| 20°   | 13028.2 | 10498.2 | 4313.0  | 1212.3  | 836.3   | 760.1   | 715.3   | 691.6   | 689.1   | 694.3   | 699.5   |
| 22.5° | 12844.1 | 9861.9  | 3084.8  | 933.5   | 754.7   | 689.1   | 633.8   | 612.7   | 612.7   | 618.0   | 623.3   |
| 25°   | 12620.6 | 9083.4  | 2109.1  | 791.6   | 681.1   | 612.7   | 560.2   | 541.8   | 547.0   | 560.2   | 562.8   |
| 27.5° | 12341.8 | 8207.6  | 1433.3  | 678.5   | 591.7   | 536.4   | 497.1   | 483.9   | 497.1   | 515.5   | 520.7   |
| 30°   | 12102.4 | 7295.2  | 1023.1  | 586.5   | 502.3   | 462.9   | 439.2   | 439.2   | 457.6   | 491.7   | 499.7   |
| 32.5° | 11918.4 | 6411.5  | 788.9   | 518.1   | 436.6   | 402.3   | 389.2   | 402.3   | 431.3   | 465.4   | 473.3   |
| 35°   | 11894.7 | 5683.0  | 668.0   | 462.9   | 389.2   | 355.1   | 349.7   | 373.5   | 402.3   | 428.6   | 433.9   |
| 37.5° | 12076.1 | 5009.8  | 602.2   | 418.2   | 347.1   | 315.6   | 310.4   | 339.2   | 368.2   | 399.8   | 407.6   |
| 40°   | 12420.7 | 4481.2  | 554.8   | 376.0   | 312.9   | 278.8   | 268.2   | 289.3   | 328.8   | 370.8   | 381.4   |
| 42.5° | 12867.7 | 4044.6  | 502.3   | 334.0   | 278.8   | 231.4   | 218.3   | 241.9   | 284.0   | 328.8   | 341.9   |
| 45°   | 13293.8 | 3668.6  | 444.5   | 286.6   | 234.1   | 178.8   | 173.6   | 205.1   | 226.2   | 270.9   | 281.4   |
| 47.5° | 13527.8 | 3337.3  | 394.4   | 234.1   | 181.5   | 144.6   | 144.6   | 152.5   | 173.6   | 226.2   | 236.7   |
| 50°   | 13448.9 | 3071.6  | 341.9   | 173.6   | 126.2   | 110.5   | 110.5   | 107.8   | 139.4   | 181.5   | 189.3   |
| 52.5° | 13291.1 | 2919.1  | 294.5   | 134.1   | 86.7    | 78.9    | 71.0    | 78.9    | 97.3    | 115.7   | 118.4   |
| 55°   | 13267.5 | 2892.8  | 247.2   | 107.8   | 60.5    | 52.6    | 39.5    | 39.5    | 39.5    | 36.8    | 31.5    |
| 57.5° | 13451.6 | 2934.8  | 207.8   | 86.7    | 44.7    | 34.2    | 21.1    | 0.0     | 0.0     | 0.0     | 0.0     |
| 60°   | 13640.9 | 2979.5  | 178.8   | 60.5    | 31.5    | 18.4    | 2.7     | 0.0     | 0.0     | 0.0     | 0.0     |
| 62.5° | 13325.4 | 2879.7  | 149.9   | 36.8    | 23.6    | 7.9     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 65°   | 11705.3 | 2451.0  | 118.4   | 26.3    | 15.8    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 67.5° | 8326.0  | 1641.0  | 78.9    | 15.8    | 2.7     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 70°   | 3800.1  | 686.4   | 49.9    | 5.2     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 72.5° | 812.6   | 213.0   | 34.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 75°   | 165.7   | 155.2   | 13.2    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 77.5° | 52.6    | 244.6   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 80°   | 31.5    | 176.2   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 5.2     | 26.3    | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

(END OF REPORT)