

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: P299724

Luminaire Tested: **GAA-AF-05-LED-U-SL2-7060-600-HSS**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P299724  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
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-SL2-7060-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 14745.6 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 162  
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

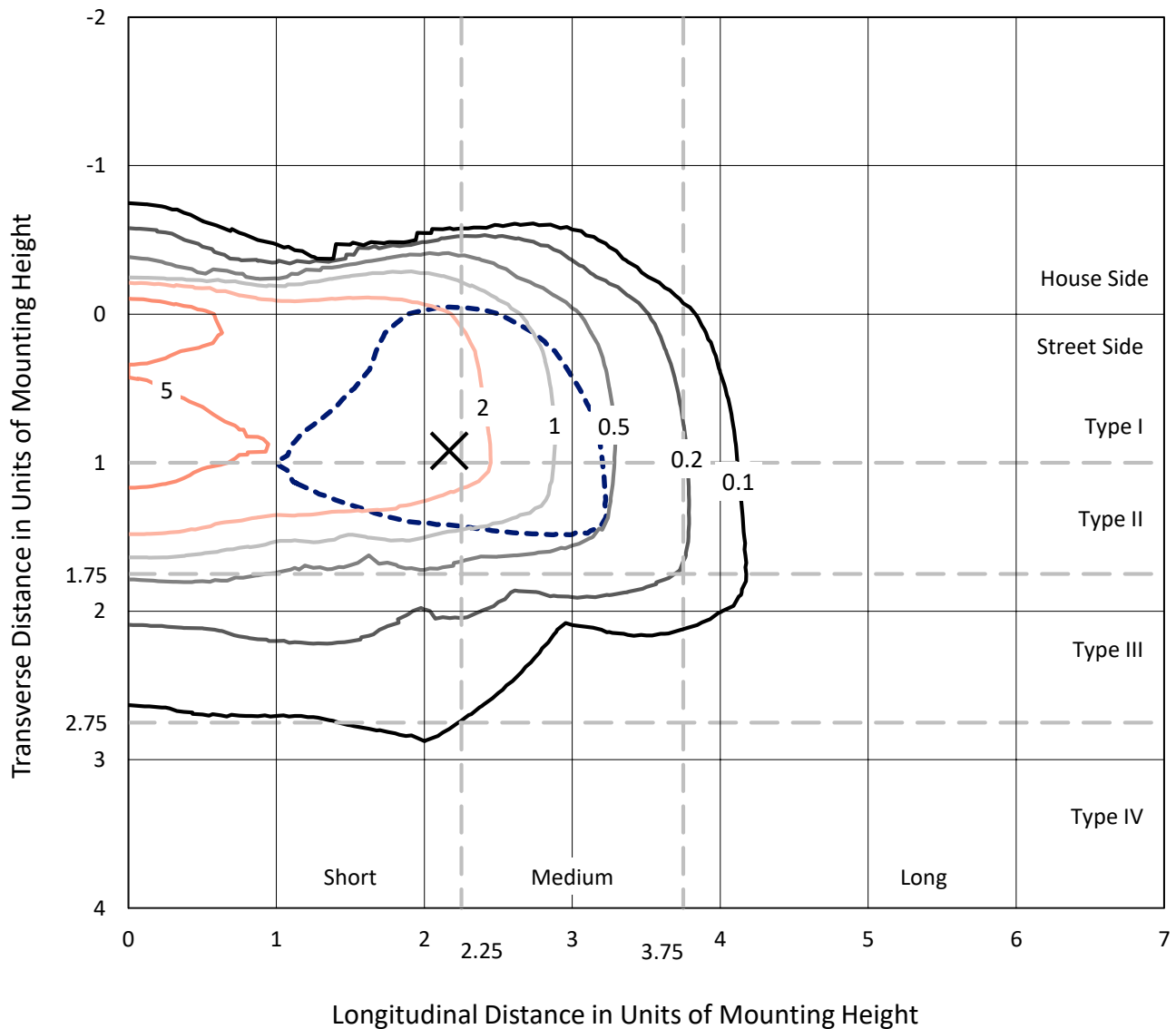


REPORT NUMBER: P299724

CATALOG NUMBER: GAA-AF-05-LED-U-SL2-7060-600-HSS

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

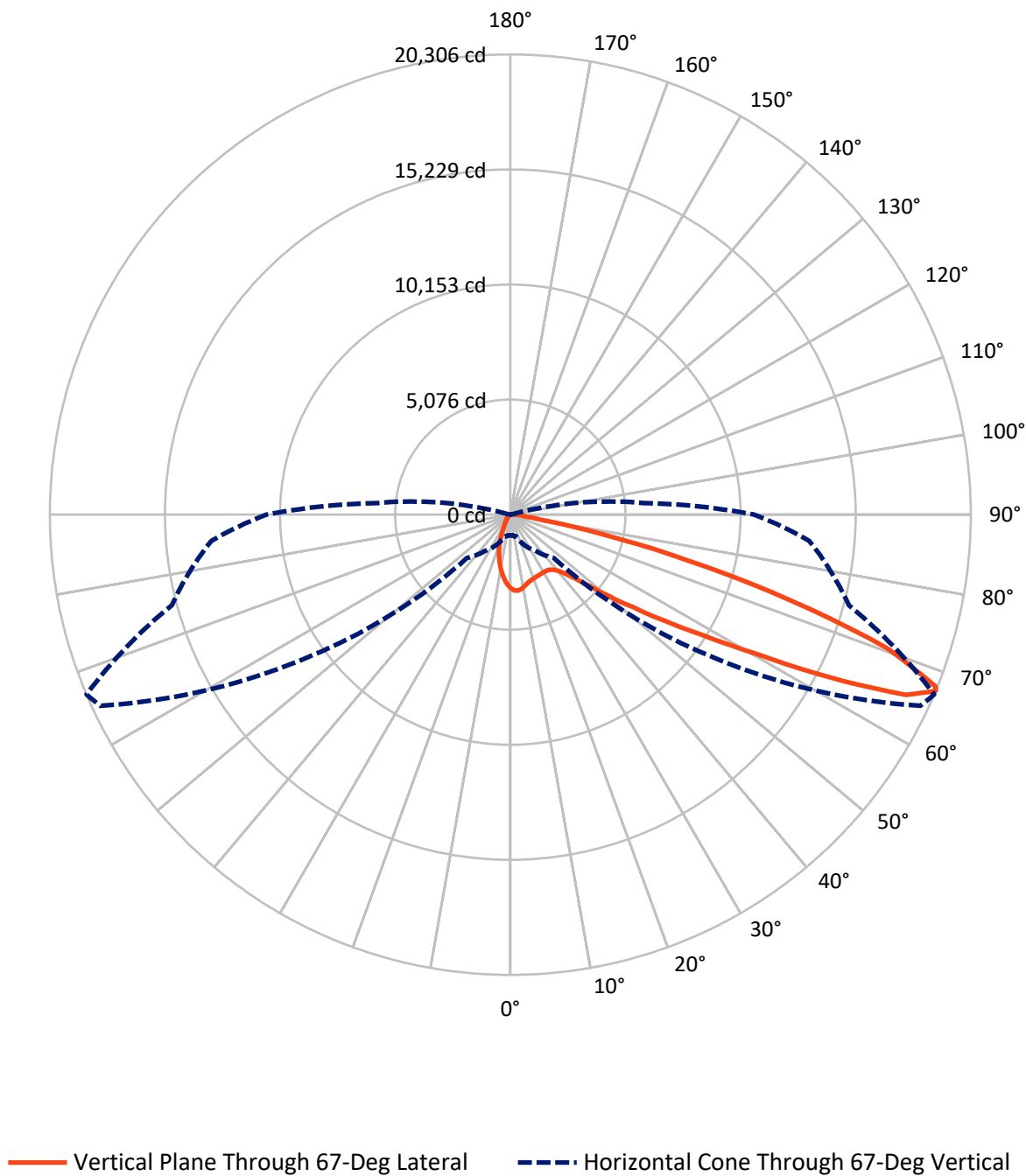


Based on 20 foot mounting height. Maximum calculated value = 8.1 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299724

CATALOG NUMBER: GAA-AF-05-LED-U-SL2-7060-600-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P299724

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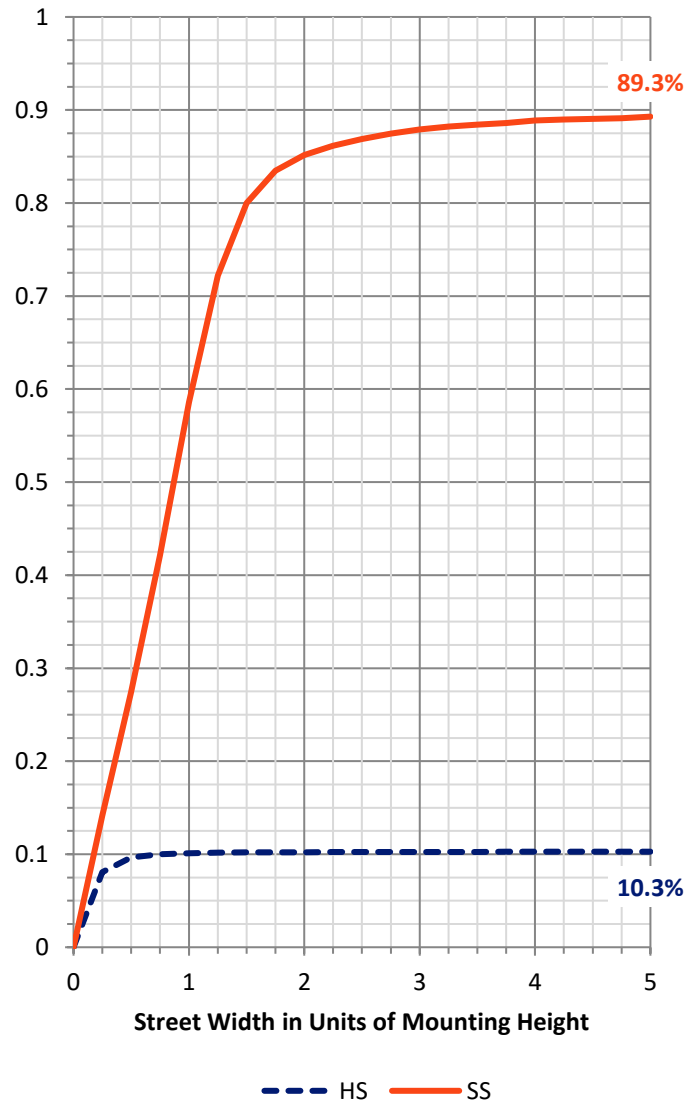
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1531.0   | 0.0    | 1531.0  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 13214.6  | 0.0    | 13214.6 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 14745.6  | 0.0    | 14745.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 264.6   | 1.8       |
| 10°-20°   | 563.2   | 3.8       |
| 20°-30°   | 818.8   | 5.6       |
| 30°-40°   | 1277.4  | 8.7       |
| 40°-50°   | 2262.8  | 15.3      |
| 50°-60°   | 3580.7  | 24.3      |
| 60°-70°   | 4101.2  | 27.8      |
| 70°-80°   | 1701.2  | 11.5      |
| 80°-90°   | 175.7   | 1.2       |
| 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°    | 14745.6 | 100.0     |
| 0°-180°   | 14745.6 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P299724

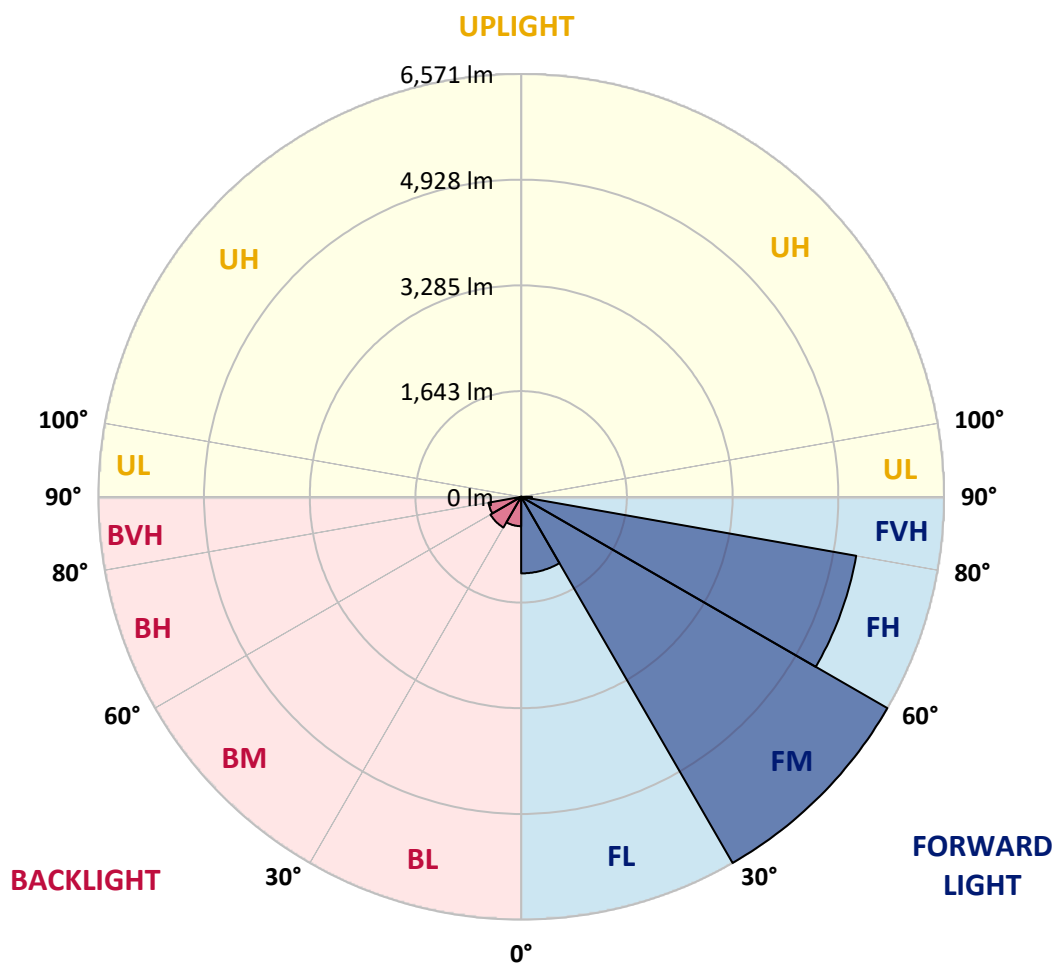
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1189.7 | 8.1       |                         |      |         |
| FM   | (30°-60°)   | 6570.7 | 44.6      |                         |      |         |
| FH   | (60°-80°)   | 5286.3 | 35.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 167.8  | 1.1       |                         |      | G2/225  |
| BL   | (0°-30°)    | 456.9  | 3.1       | B1/500                  |      |         |
| BM   | (30°-60°)   | 550.2  | 3.7       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 516.0  | 3.5       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 7.9    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type II Short





REPORT NUMBER: P299724

CATALOG NUMBER: GAA-AF-05-LED-U-SL2-7060-600-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0°    | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9  | 3251.9  | 3251.9  | 3251.9  | 3251.9  | 3251.9  |
| 2.5°  | 3362.0 | 3368.9 | 3368.1 | 3373.2 | 3385.3 | 3386.1  | 3374.1  | 3350.9  | 3345.7  | 3315.6  | 3263.1  |
| 5°    | 3100.6 | 3120.4 | 3132.4 | 3181.4 | 3236.5 | 3302.7  | 3352.6  | 3370.6  | 3368.1  | 3346.6  | 3267.4  |
| 7.5°  | 2802.1 | 2821.9 | 2835.7 | 2893.3 | 2966.4 | 3079.9  | 3209.8  | 3316.5  | 3325.9  | 3349.1  | 3264.0  |
| 10°   | 2603.5 | 2606.9 | 2625.8 | 2680.9 | 2757.4 | 2873.5  | 3028.3  | 3215.0  | 3243.3  | 3328.5  | 3255.4  |
| 12.5° | 2440.0 | 2442.6 | 2467.6 | 2526.9 | 2608.6 | 2725.6  | 2888.1  | 3104.0  | 3147.9  | 3302.7  | 3253.7  |
| 15°   | 2323.9 | 2333.4 | 2355.8 | 2417.7 | 2504.5 | 2620.7  | 2787.5  | 3022.3  | 3074.8  | 3293.2  | 3269.2  |
| 17.5° | 2285.2 | 2295.5 | 2302.4 | 2347.1 | 2426.3 | 2539.8  | 2711.0  | 2969.0  | 3028.3  | 3298.4  | 3299.3  |
| 20°   | 2325.6 | 2333.4 | 2317.9 | 2329.1 | 2378.1 | 2479.6  | 2646.5  | 2923.4  | 2993.9  | 3304.4  | 3338.0  |
| 22.5° | 2476.2 | 2479.6 | 2437.5 | 2388.4 | 2379.8 | 2435.7  | 2595.7  | 2887.3  | 2963.0  | 3320.8  | 3383.5  |
| 25°   | 2734.2 | 2728.2 | 2659.4 | 2553.6 | 2453.8 | 2428.0  | 2565.6  | 2864.9  | 2947.5  | 3338.0  | 3430.8  |
| 27.5° | 3045.5 | 3054.1 | 2959.5 | 2805.6 | 2615.5 | 2479.6  | 2561.3  | 2855.5  | 2940.6  | 3350.0  | 3472.1  |
| 30°   | 3424.0 | 3436.0 | 3327.6 | 3134.1 | 2861.5 | 2606.9  | 2600.9  | 2853.7  | 2936.3  | 3342.3  | 3475.6  |
| 32.5° | 3810.1 | 3824.8 | 3739.6 | 3540.1 | 3190.0 | 2820.2  | 2690.3  | 2872.7  | 2944.9  | 3315.6  | 3455.8  |
| 35°   | 4214.4 | 4235.0 | 4178.3 | 4007.1 | 3635.5 | 3128.1  | 2847.7  | 2930.3  | 2985.3  | 3313.0  | 3436.0  |
| 37.5° | 4772.6 | 4791.5 | 4684.8 | 4503.4 | 4174.8 | 3540.9  | 3100.6  | 3038.7  | 3080.8  | 3354.3  | 3441.2  |
| 40°   | 5606.0 | 5603.4 | 5328.2 | 5050.4 | 4767.4 | 4065.6  | 3455.8  | 3234.7  | 3256.3  | 3479.0  | 3504.8  |
| 42.5° | 6514.2 | 6509.9 | 6103.1 | 5680.8 | 5425.4 | 4711.5  | 3922.8  | 3573.6  | 3559.0  | 3708.7  | 3669.9  |
| 45°   | 7214.3 | 7213.5 | 6881.5 | 6405.9 | 6217.5 | 5452.9  | 4526.6  | 4044.9  | 4022.6  | 4081.9  | 3974.4  |
| 47.5° | 7512.8 | 7517.9 | 7351.1 | 7016.5 | 7095.6 | 6455.7  | 5287.8  | 4727.8  | 4694.3  | 4670.2  | 4506.8  |
| 50°   | 7280.5 | 7290.9 | 7304.6 | 7239.3 | 7739.8 | 7803.5  | 6308.7  | 5690.3  | 5673.9  | 5566.4  | 5311.0  |
| 52.5° | 6522.0 | 6574.4 | 6736.1 | 6943.4 | 7963.4 | 9097.0  | 7909.3  | 6885.8  | 6798.0  | 6683.7  | 6402.4  |
| 55°   | 5243.9 | 5301.5 | 5608.6 | 6111.7 | 7630.6 | 9946.8  | 10152.3 | 8427.0  | 8280.8  | 7939.4  | 7533.4  |
| 57.5° | 3470.4 | 3559.9 | 4005.4 | 4645.3 | 6663.9 | 10083.5 | 12390.3 | 10566.0 | 10056.9 | 9122.0  | 8664.4  |
| 60°   | 1912.0 | 1998.0 | 2481.3 | 3061.0 | 4813.0 | 9407.5  | 13895.4 | 13351.0 | 12451.3 | 10443.9 | 10038.0 |
| 62.5° | 1177.4 | 1223.9 | 1580.8 | 2120.1 | 2886.4 | 7425.0  | 14206.7 | 16850.6 | 15809.1 | 12146.0 | 11697.0 |
| 65°   | 937.5  | 957.3  | 1131.9 | 1733.1 | 2069.3 | 4416.5  | 13201.3 | 19518.6 | 19171.1 | 14206.7 | 13182.4 |
| 67°   | 910.0  | 917.7  | 1000.3 | 1487.9 | 1950.7 | 2707.5  | 11059.7 | 19952.9 | 20305.6 | 15453.9 | 13228.8 |
| 67.5° | 916.0  | 924.6  | 1002.8 | 1420.0 | 1947.2 | 2488.2  | 10321.8 | 19781.8 | 20227.3 | 15552.8 | 13023.3 |
| 70°   | 883.3  | 910.0  | 1148.2 | 1419.1 | 1851.7 | 2067.6  | 6181.4  | 17139.6 | 17603.2 | 14451.0 | 11050.3 |
| 72.5° | 313.1  | 314.8  | 496.3  | 1148.2 | 2013.4 | 2090.0  | 3104.0  | 12564.9 | 12908.0 | 11054.6 | 7966.9  |
| 75°   | 185.8  | 158.3  | 165.1  | 326.8  | 1924.0 | 2029.8  | 1790.7  | 8028.8  | 8157.0  | 6334.5  | 4034.6  |
| 77.5° | 128.2  | 111.8  | 115.3  | 144.5  | 732.8  | 2001.4  | 1422.6  | 4186.9  | 4050.1  | 2221.6  | 859.2   |
| 80°   | 73.1   | 64.5   | 68.8   | 126.4  | 266.6  | 1867.2  | 1341.7  | 1697.8  | 1447.5  | 376.7   | 237.4   |
| 82.5° | 38.7   | 32.7   | 39.6   | 104.1  | 185.8  | 1163.7  | 1344.3  | 820.5   | 650.2   | 127.3   | 161.7   |
| 85°   | 13.8   | 11.2   | 18.9   | 71.4   | 123.9  | 356.9   | 1246.3  | 689.8   | 541.8   | 61.9    | 123.0   |
| 87.5° | 2.6    | 2.6    | 7.7    | 29.2   | 49.9   | 109.2   | 737.1   | 409.4   | 274.4   | 37.0    | 84.3    |
| 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: P299724

CATALOG NUMBER: GAA-AF-05-LED-U-SL2-7060-600-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3251.9  | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 | 3251.9 |
| 2.5°  | 3241.6  | 3204.6 | 3154.8 | 3093.7 | 3021.4 | 2957.8 | 2910.5 | 2861.5 | 2851.2 | 2834.0 | 2831.4 |
| 5°    | 3220.1  | 3156.5 | 3032.6 | 2890.7 | 2739.3 | 2602.6 | 2491.6 | 2392.7 | 2348.9 | 2311.0 | 2306.7 |
| 7.5°  | 3188.3  | 3092.8 | 2882.1 | 2653.3 | 2416.8 | 2201.8 | 2019.5 | 1890.4 | 1771.8 | 1715.0 | 1706.4 |
| 10°   | 3151.3  | 3014.6 | 2712.7 | 2395.3 | 2068.5 | 1764.9 | 1494.0 | 1266.9 | 1129.3 | 1047.6 | 1037.3 |
| 12.5° | 3116.9  | 2938.0 | 2539.8 | 2127.8 | 1693.5 | 1287.5 | 939.2  | 722.5  | 578.0  | 519.5  | 512.6  |
| 15°   | 3100.6  | 2876.1 | 2378.1 | 1854.3 | 1301.3 | 819.7  | 513.5  | 397.4  | 350.1  | 336.3  | 335.4  |
| 17.5° | 3098.9  | 2823.6 | 2219.9 | 1571.4 | 911.7  | 476.5  | 334.6  | 305.3  | 295.9  | 292.4  | 292.4  |
| 20°   | 3098.0  | 2773.7 | 2061.6 | 1278.1 | 578.8  | 317.4  | 278.7  | 271.8  | 264.9  | 260.6  | 260.6  |
| 22.5° | 3107.5  | 2729.0 | 1896.5 | 978.8  | 364.7  | 257.2  | 245.1  | 238.2  | 229.6  | 223.6  | 222.8  |
| 25°   | 3116.9  | 2694.6 | 1727.9 | 696.7  | 264.0  | 223.6  | 211.6  | 202.1  | 190.1  | 182.3  | 181.5  |
| 27.5° | 3118.6  | 2651.6 | 1547.3 | 466.2  | 221.0  | 195.2  | 179.8  | 165.1  | 151.4  | 143.6  | 142.8  |
| 30°   | 3092.8  | 2579.4 | 1346.9 | 314.8  | 195.2  | 169.4  | 148.8  | 133.3  | 120.4  | 114.4  | 114.4  |
| 32.5° | 3042.1  | 2489.9 | 1126.7 | 237.4  | 173.7  | 145.4  | 123.0  | 108.4  | 99.8   | 97.2   | 96.3   |
| 35°   | 2996.5  | 2393.6 | 900.5  | 201.3  | 155.7  | 123.0  | 100.6  | 91.2   | 86.0   | 85.1   | 84.3   |
| 37.5° | 2969.8  | 2316.2 | 688.1  | 182.3  | 138.5  | 103.2  | 85.1   | 78.3   | 75.7   | 74.0   | 74.8   |
| 40°   | 2990.5  | 2251.7 | 508.3  | 166.9  | 121.3  | 86.0   | 72.2   | 68.8   | 66.2   | 65.4   | 65.4   |
| 42.5° | 3080.8  | 2240.5 | 377.6  | 153.1  | 104.9  | 71.4   | 62.8   | 60.2   | 58.5   | 57.6   | 58.5   |
| 45°   | 3318.2  | 2309.3 | 293.3  | 140.2  | 88.6   | 60.2   | 53.3   | 52.5   | 51.6   | 51.6   | 51.6   |
| 47.5° | 3675.1  | 2451.2 | 244.3  | 125.6  | 74.0   | 51.6   | 46.4   | 45.6   | 44.7   | 45.6   | 45.6   |
| 50°   | 4279.7  | 2711.0 | 218.5  | 110.9  | 61.1   | 43.9   | 39.6   | 39.6   | 39.6   | 39.6   | 40.4   |
| 52.5° | 5199.2  | 3221.8 | 201.3  | 96.3   | 49.9   | 37.0   | 33.5   | 33.5   | 34.4   | 34.4   | 35.3   |
| 55°   | 6223.5  | 3899.6 | 185.8  | 81.7   | 42.1   | 31.0   | 27.5   | 28.4   | 29.2   | 30.1   | 30.1   |
| 57.5° | 7334.7  | 4650.4 | 172.9  | 67.1   | 36.1   | 24.9   | 23.2   | 24.1   | 24.9   | 26.7   | 26.7   |
| 60°   | 8675.6  | 5463.2 | 154.0  | 52.5   | 30.1   | 19.8   | 18.1   | 19.8   | 22.4   | 24.1   | 24.9   |
| 62.5° | 10148.0 | 6249.3 | 129.9  | 41.3   | 24.9   | 15.5   | 14.6   | 18.1   | 21.5   | 23.2   | 24.1   |
| 65°   | 11154.3 | 6496.2 | 99.8   | 33.5   | 18.9   | 11.2   | 12.0   | 16.3   | 20.6   | 23.2   | 23.2   |
| 67°   | 10746.7 | 5889.8 | 81.7   | 28.4   | 15.5   | 8.6    | 11.2   | 16.3   | 20.6   | 22.4   | 23.2   |
| 67.5° | 10463.7 | 5652.4 | 78.3   | 27.5   | 14.6   | 8.6    | 11.2   | 16.3   | 20.6   | 23.2   | 23.2   |
| 70°   | 8513.9  | 4246.2 | 65.4   | 20.6   | 12.0   | 7.7    | 9.5    | 15.5   | 19.8   | 22.4   | 22.4   |
| 72.5° | 5915.6  | 2618.1 | 58.5   | 14.6   | 10.3   | 6.9    | 8.6    | 14.6   | 18.9   | 21.5   | 22.4   |
| 75°   | 2812.5  | 947.8  | 49.9   | 11.2   | 9.5    | 6.0    | 7.7    | 14.6   | 18.9   | 21.5   | 21.5   |
| 77.5° | 573.7   | 220.2  | 40.4   | 9.5    | 7.7    | 6.0    | 6.9    | 13.8   | 18.1   | 20.6   | 20.6   |
| 80°   | 188.4   | 85.1   | 30.1   | 8.6    | 7.7    | 6.0    | 6.9    | 12.9   | 18.1   | 19.8   | 20.6   |
| 82.5° | 135.9   | 43.0   | 19.8   | 8.6    | 7.7    | 6.0    | 6.0    | 12.9   | 17.2   | 19.8   | 19.8   |
| 85°   | 104.1   | 30.1   | 12.9   | 8.6    | 7.7    | 6.0    | 6.0    | 12.0   | 16.3   | 18.9   | 18.9   |
| 87.5° | 68.8    | 12.0   | 10.3   | 8.6    | 7.7    | 6.0    | 6.0    | 12.0   | 15.5   | 18.1   | 18.9   |
| 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)