

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: P300354

Luminaire Tested: **GAA-AF-10-LED-U-AFL-7060**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P300354  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
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-AFL-7060  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND  
Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 60237.6 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B4 - U0 - G4

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



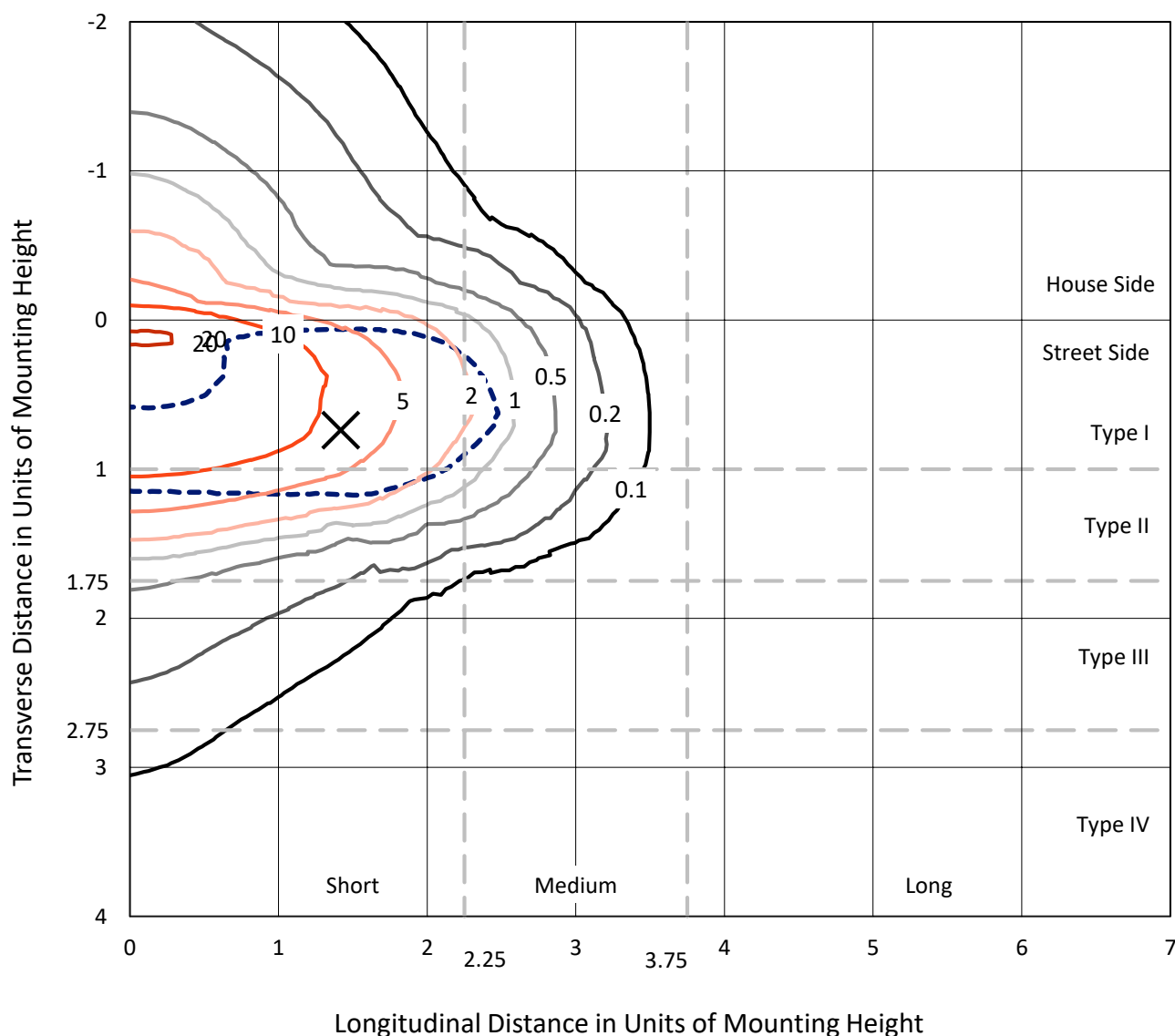
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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

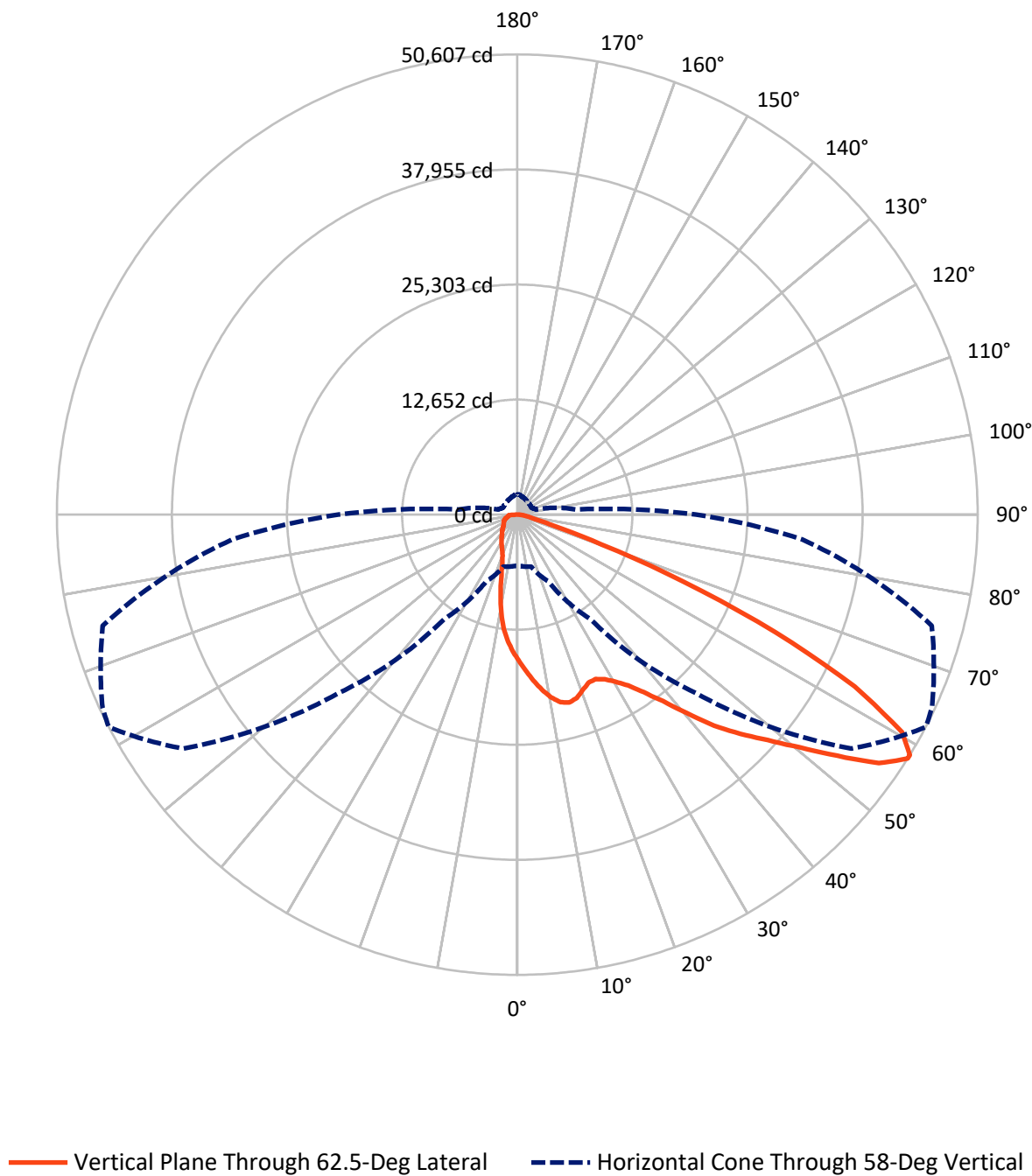


Based on 30 foot mounting height. Maximum calculated value = 21.7 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P300354

CATALOG NUMBER: GAA-AF-10-LED-U-AFL-7060

## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 9186.5   | 0.0    | 9186.5  |
|                    | % Fixture | 15.3     | 0.0    | 15.3    |
| <b>Street Side</b> | Lumens    | 51051.1  | 0.0    | 51051.1 |
|                    | % Fixture | 84.7     | 0.0    | 84.7    |
| <b>Total</b>       | Lumens    | 60237.6  | 0.0    | 60237.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1431.0  | 2.4       |
| 10°-20°   | 3658.0  | 6.1       |
| 20°-30°   | 5913.2  | 9.8       |
| 30°-40°   | 9387.2  | 15.6      |
| 40°-50°   | 13735.5 | 22.8      |
| 50°-60°   | 14366.1 | 23.8      |
| 60°-70°   | 8487.5  | 14.1      |
| 70°-80°   | 2391.0  | 4.0       |
| 80°-90°   | 868.1   | 1.4       |
| 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°    | 60237.6 | 100.0     |
| 0°-180°   | 60237.6 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P300354

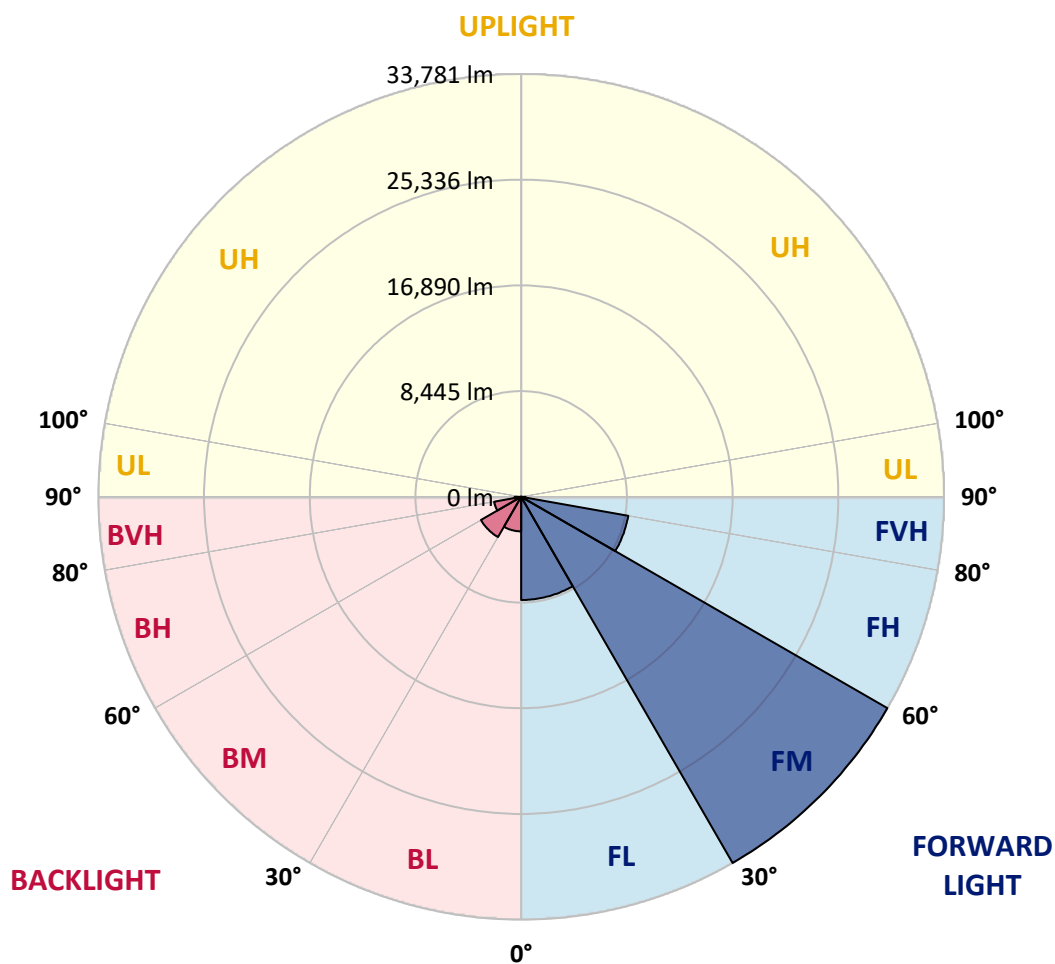
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 8241.3  | 13.7      |                         |      |          |
| FM   | (30°-60°)   | 33780.9 | 56.1      |                         |      |          |
| FH   | (60°-80°)   | 8686.5  | 14.4      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 342.5   | 0.6       |                         |      | G3/500   |
| BL   | (0°-30°)    | 2761.0  | 4.6       | B4/5000                 |      |          |
| BM   | (30°-60°)   | 3707.9  | 6.2       | B3/5000                 |      |          |
| BH   | (60°-80°)   | 2192.0  | 3.6       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 525.6   | 0.9       |                         |      | G4/750   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B4-U0-G4**

Type II Short





REPORT NUMBER: P300354

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 62.5°   | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 |
| 2.5°  | 18284.3 | 18136.8 | 18043.2 | 17960.9 | 17853.2 | 17623.4 | 17314.2 | 17118.5 | 17019.2 | 16681.7 | 16281.7 |
| 5°    | 20077.0 | 19946.5 | 19850.1 | 19739.5 | 19546.6 | 19186.3 | 18687.1 | 18290.0 | 18094.3 | 17419.2 | 16619.3 |
| 7.5°  | 19657.2 | 19711.1 | 19878.4 | 20170.6 | 20420.2 | 20372.0 | 19926.7 | 19421.8 | 19163.6 | 18224.7 | 17010.7 |
| 10°   | 17127.0 | 17220.6 | 17509.9 | 18193.5 | 19299.8 | 20434.4 | 20780.5 | 20431.6 | 20170.6 | 19021.8 | 17413.5 |
| 12.5° | 16619.3 | 16616.4 | 16639.1 | 16820.7 | 17478.7 | 19075.7 | 20808.8 | 21160.6 | 21004.5 | 19782.0 | 17824.8 |
| 15°   | 16826.3 | 16832.0 | 16815.0 | 16891.6 | 17095.8 | 17728.3 | 19940.8 | 21441.4 | 21552.0 | 20547.9 | 18250.3 |
| 17.5° | 17370.9 | 17356.8 | 17291.5 | 17291.5 | 17365.3 | 17612.0 | 18919.7 | 21180.4 | 21691.0 | 21225.8 | 18624.7 |
| 20°   | 18284.3 | 18219.1 | 18046.0 | 17887.2 | 17807.8 | 17941.1 | 18499.9 | 20579.1 | 21449.9 | 21818.6 | 18933.9 |
| 22.5° | 19390.6 | 19339.5 | 19058.7 | 18718.3 | 18443.2 | 18440.3 | 18715.5 | 20054.3 | 21032.9 | 22377.4 | 19194.8 |
| 25°   | 20820.2 | 20737.9 | 20320.9 | 19776.3 | 19294.1 | 19109.7 | 19186.3 | 20028.8 | 20806.0 | 22984.4 | 19427.4 |
| 27.5° | 22499.4 | 22349.1 | 21855.5 | 21069.8 | 20360.7 | 19989.1 | 19878.4 | 20491.1 | 21013.1 | 23736.1 | 19750.8 |
| 30°   | 24536.0 | 24363.0 | 23730.5 | 22706.5 | 21705.2 | 21095.3 | 20859.9 | 21310.9 | 21699.5 | 24652.3 | 20269.9 |
| 32.5° | 26853.5 | 26603.9 | 25872.0 | 24743.1 | 23426.9 | 22496.6 | 22113.6 | 22394.4 | 22703.6 | 25755.7 | 20919.4 |
| 35°   | 30055.9 | 29758.1 | 28700.1 | 27142.8 | 25656.5 | 24377.2 | 23764.5 | 23968.7 | 24269.4 | 27400.9 | 21858.3 |
| 37.5° | 32240.1 | 32106.7 | 31403.3 | 29939.6 | 28322.8 | 26850.6 | 25903.2 | 26022.4 | 26192.6 | 29457.4 | 23061.0 |
| 40°   | 32220.2 | 32274.1 | 32288.3 | 32302.5 | 31201.9 | 29792.1 | 28773.8 | 28649.0 | 28615.0 | 31715.3 | 24428.2 |
| 42.5° | 30606.2 | 30827.5 | 31542.3 | 32991.7 | 33661.2 | 33014.4 | 32081.2 | 31721.0 | 31542.3 | 34376.0 | 25877.7 |
| 45°   | 28135.6 | 28254.7 | 29593.6 | 32424.4 | 34920.6 | 36205.5 | 35499.2 | 34364.6 | 34041.3 | 36821.1 | 27080.4 |
| 47.5° | 26862.0 | 26992.5 | 27834.9 | 30921.1 | 34906.4 | 38783.9 | 39192.4 | 37031.0 | 36452.3 | 38948.5 | 28118.6 |
| 50°   | 23829.7 | 24102.0 | 25162.9 | 28305.8 | 33632.8 | 39969.6 | 43052.9 | 40207.9 | 39010.9 | 41019.1 | 29159.6 |
| 52.5° | 18261.6 | 18681.4 | 19869.9 | 24005.6 | 30402.0 | 39382.5 | 46141.9 | 44059.9 | 42369.3 | 43163.6 | 30053.1 |
| 55°   | 11519.2 | 11831.2 | 12829.6 | 16954.0 | 24320.5 | 36327.5 | 47313.4 | 48226.8 | 46723.4 | 45194.5 | 30827.5 |
| 57.5° | 6263.1  | 6402.1  | 6776.5  | 9360.6  | 15819.4 | 29573.7 | 45605.8 | 50598.1 | 49974.1 | 46919.1 | 31411.8 |
| 58°   | 5605.0  | 5698.6  | 5931.2  | 8112.5  | 14029.5 | 27727.1 | 44848.5 | 50606.6 | 50294.6 | 47171.6 | 31457.2 |
| 60°   | 4158.4  | 4110.1  | 3903.1  | 4629.2  | 7809.0  | 19155.1 | 40270.3 | 48581.3 | 49497.5 | 47480.8 | 31235.9 |
| 62.5° | 3653.5  | 3537.2  | 3114.5  | 3066.3  | 3798.1  | 8824.5  | 30813.3 | 41614.8 | 43779.1 | 45716.4 | 29891.4 |
| 65°   | 3432.2  | 3307.4  | 2762.8  | 2586.9  | 2740.1  | 3732.9  | 18151.0 | 31210.4 | 33925.0 | 40366.7 | 26453.5 |
| 67.5° | 3267.7  | 3106.0  | 2538.7  | 2297.6  | 2308.9  | 2467.8  | 7275.7  | 19657.2 | 22712.1 | 30648.8 | 20576.2 |
| 70°   | 3108.8  | 2933.0  | 2348.7  | 2070.7  | 2005.4  | 1951.5  | 2893.3  | 9839.9  | 12611.2 | 19359.4 | 13119.0 |
| 72.5° | 2938.7  | 2765.6  | 2181.3  | 1892.0  | 1764.3  | 1585.6  | 1889.1  | 4025.0  | 5622.0  | 9159.2  | 5951.1  |
| 75°   | 2691.9  | 2535.9  | 2013.9  | 1733.1  | 1551.6  | 1313.3  | 1426.8  | 2101.9  | 2521.7  | 3647.8  | 2867.7  |
| 77.5° | 2388.4  | 2260.7  | 1826.7  | 1602.6  | 1375.7  | 1066.5  | 1097.7  | 1458.0  | 1616.8  | 2087.7  | 1704.8  |
| 80°   | 1716.1  | 1761.5  | 1625.3  | 1441.0  | 1225.4  | 865.1   | 842.5   | 1063.7  | 1148.8  | 1341.7  | 1109.1  |
| 82.5° | 1205.5  | 1231.1  | 1344.5  | 1177.2  | 1012.6  | 680.8   | 621.2   | 748.8   | 799.9   | 882.2   | 598.5   |
| 85°   | 831.1   | 802.7   | 921.9   | 819.8   | 731.8   | 453.8   | 425.5   | 507.7   | 538.9   | 547.5   | 309.2   |
| 87.5° | 499.2   | 499.2   | 533.3   | 439.7   | 394.3   | 235.4   | 229.8   | 289.3   | 309.2   | 295.0   | 170.2   |
| 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: P300354

CATALOG NUMBER: GAA-AF-10-LED-U-AFL-7060

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°    | 115°    | 125°    | 135°    | 145°    | 155°    | 165°    | 175°    | 180°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 | 16000.9 |
| 2.5°  | 16043.4 | 15842.1 | 15413.7 | 15070.5 | 14636.5 | 14185.5 | 13933.1 | 13663.6 | 13479.2 | 13345.9 | 13558.6 |
| 5°    | 16165.4 | 15754.1 | 14869.1 | 14029.5 | 13102.0 | 12137.5 | 11405.7 | 10724.9 | 10251.2 | 9956.2  | 10234.2 |
| 7.5°  | 16358.3 | 15725.8 | 14316.0 | 12880.7 | 11215.7 | 9610.2  | 8174.9  | 7275.7  | 6751.0  | 6492.8  | 6654.5  |
| 10°   | 16579.5 | 15680.4 | 13666.4 | 11323.4 | 8940.8  | 6918.3  | 5846.1  | 5483.0  | 5363.9  | 5315.7  | 5338.4  |
| 12.5° | 16763.9 | 15583.9 | 12869.4 | 9440.0  | 6714.1  | 5463.2  | 5154.0  | 5145.5  | 5171.0  | 5176.7  | 5185.2  |
| 15°   | 16894.4 | 15442.1 | 11686.5 | 7477.1  | 5369.6  | 4978.1  | 4961.1  | 5012.2  | 5060.4  | 5080.2  | 5091.6  |
| 17.5° | 16982.3 | 15149.9 | 10350.5 | 5911.3  | 4810.8  | 4742.7  | 4782.4  | 4847.6  | 4898.7  | 4912.9  | 4924.2  |
| 20°   | 16973.8 | 14721.6 | 8759.2  | 4929.9  | 4507.3  | 4507.3  | 4575.3  | 4626.4  | 4629.2  | 4612.2  | 4620.7  |
| 22.5° | 16885.9 | 14134.5 | 7216.1  | 4408.0  | 4237.8  | 4286.0  | 4354.1  | 4305.9  | 4107.3  | 3976.8  | 3985.3  |
| 25°   | 16738.4 | 13433.8 | 5894.3  | 4076.1  | 3988.2  | 4073.3  | 4053.4  | 3690.3  | 3406.7  | 3279.0  | 3279.0  |
| 27.5° | 16607.9 | 12605.6 | 4878.8  | 3786.8  | 3738.6  | 3843.5  | 3491.8  | 3162.7  | 3043.6  | 2984.0  | 2964.2  |
| 30°   | 16514.3 | 11712.1 | 4200.9  | 3508.8  | 3503.1  | 3426.5  | 3029.4  | 2938.7  | 2918.8  | 2870.6  | 2853.6  |
| 32.5° | 16537.0 | 10807.2 | 3766.9  | 3264.9  | 3284.7  | 2933.0  | 2808.2  | 2828.0  | 2811.0  | 2759.9  | 2737.3  |
| 35°   | 16724.2 | 9947.7  | 3483.3  | 3043.6  | 2984.0  | 2649.3  | 2677.7  | 2714.6  | 2708.9  | 2638.0  | 2615.3  |
| 37.5° | 17058.9 | 9133.6  | 3296.1  | 2859.2  | 2603.9  | 2507.5  | 2552.9  | 2609.6  | 2595.4  | 2547.2  | 2530.2  |
| 40°   | 17410.7 | 8367.8  | 3142.9  | 2714.6  | 2379.9  | 2411.1  | 2450.8  | 2482.0  | 2496.2  | 2510.3  | 2499.0  |
| 42.5° | 17753.9 | 7567.9  | 2955.7  | 2567.1  | 2286.2  | 2320.3  | 2337.3  | 2368.5  | 2445.1  | 2499.0  | 2496.2  |
| 45°   | 17958.1 | 6816.2  | 2762.8  | 2357.2  | 2212.5  | 2232.4  | 2221.0  | 2283.4  | 2377.0  | 2464.9  | 2467.8  |
| 47.5° | 18185.0 | 6231.9  | 2609.6  | 2164.3  | 2141.6  | 2155.8  | 2121.7  | 2184.1  | 2269.2  | 2377.0  | 2388.4  |
| 50°   | 18460.2 | 5883.0  | 2487.6  | 2011.1  | 2045.1  | 2045.1  | 2036.6  | 2093.4  | 2212.5  | 2337.3  | 2360.0  |
| 52.5° | 18772.2 | 5814.9  | 2385.5  | 1900.5  | 1948.7  | 1945.9  | 1954.4  | 2039.5  | 2169.9  | 2291.9  | 2311.8  |
| 55°   | 19152.3 | 5999.3  | 2274.9  | 1818.2  | 1855.1  | 1866.4  | 1894.8  | 1991.2  | 2101.9  | 2240.9  | 2249.4  |
| 57.5° | 19594.8 | 6373.7  | 2187.0  | 1753.0  | 1770.0  | 1806.9  | 1852.3  | 1940.2  | 2059.3  | 2212.5  | 2221.0  |
| 58°   | 19668.5 | 6453.1  | 2172.8  | 1747.3  | 1753.0  | 1795.5  | 1846.6  | 1931.7  | 2050.8  | 2218.2  | 2226.7  |
| 60°   | 19671.4 | 6716.9  | 2141.6  | 1721.8  | 1687.7  | 1758.7  | 1815.4  | 1900.5  | 2036.6  | 2238.0  | 2257.9  |
| 62.5° | 18973.6 | 6714.1  | 2118.9  | 1684.9  | 1619.7  | 1707.6  | 1772.8  | 1872.1  | 2022.4  | 2286.2  | 2326.0  |
| 65°   | 16707.2 | 6101.4  | 2011.1  | 1628.2  | 1565.8  | 1662.2  | 1736.0  | 1852.3  | 2062.2  | 2496.2  | 2521.7  |
| 67.5° | 13067.9 | 5000.8  | 1809.7  | 1548.7  | 1494.9  | 1616.8  | 1713.3  | 1849.4  | 2104.7  | 2544.4  | 2561.4  |
| 70°   | 8640.1  | 3741.4  | 1588.5  | 1458.0  | 1421.1  | 1562.9  | 1724.6  | 1945.9  | 2056.5  | 2442.3  | 2396.9  |
| 72.5° | 4484.6  | 2626.6  | 1409.8  | 1344.5  | 1336.0  | 1514.7  | 1889.1  | 1934.5  | 2008.3  | 2297.6  | 2240.9  |
| 75°   | 2354.3  | 1823.9  | 1253.7  | 1219.7  | 1233.9  | 1503.4  | 2229.5  | 1883.5  | 1945.9  | 2198.3  | 2306.1  |
| 77.5° | 1441.0  | 1472.2  | 1120.4  | 1106.2  | 1134.6  | 1469.3  | 2226.7  | 1818.2  | 1855.1  | 2022.4  | 2141.6  |
| 80°   | 964.4   | 1194.2  | 1018.3  | 1021.2  | 1041.0  | 1344.5  | 1999.8  | 1716.1  | 1744.5  | 1911.8  | 2033.8  |
| 82.5° | 609.9   | 706.3   | 924.7   | 972.9   | 947.4   | 1109.1  | 1699.1  | 1562.9  | 1602.6  | 2187.0  | 2311.8  |
| 85°   | 309.2   | 442.5   | 802.7   | 936.1   | 853.8   | 777.2   | 1378.6  | 1370.0  | 1389.9  | 1577.1  | 1648.0  |
| 87.5° | 141.8   | 243.9   | 626.9   | 816.9   | 643.9   | 485.0   | 1001.3  | 1015.5  | 1094.9  | 1120.4  | 1120.4  |
| 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)