

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: P299995

Luminaire Tested: **GAA-AF-02-LED-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-SL3-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI
4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III w/Spill
Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9450.9 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

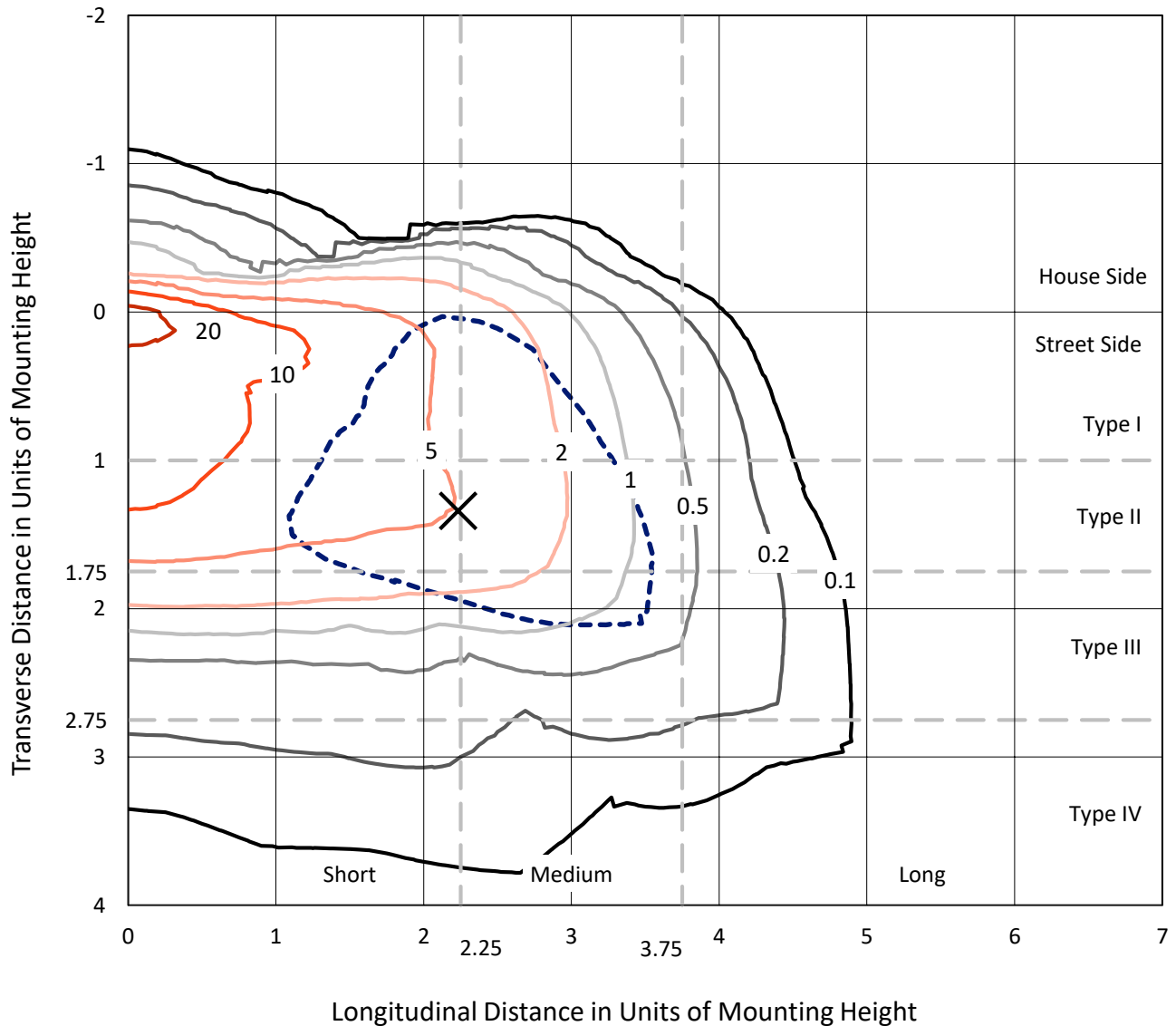
Input Watts (W): 113
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P299995
 CATALOG NUMBER: GAA-AF-02-LED-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

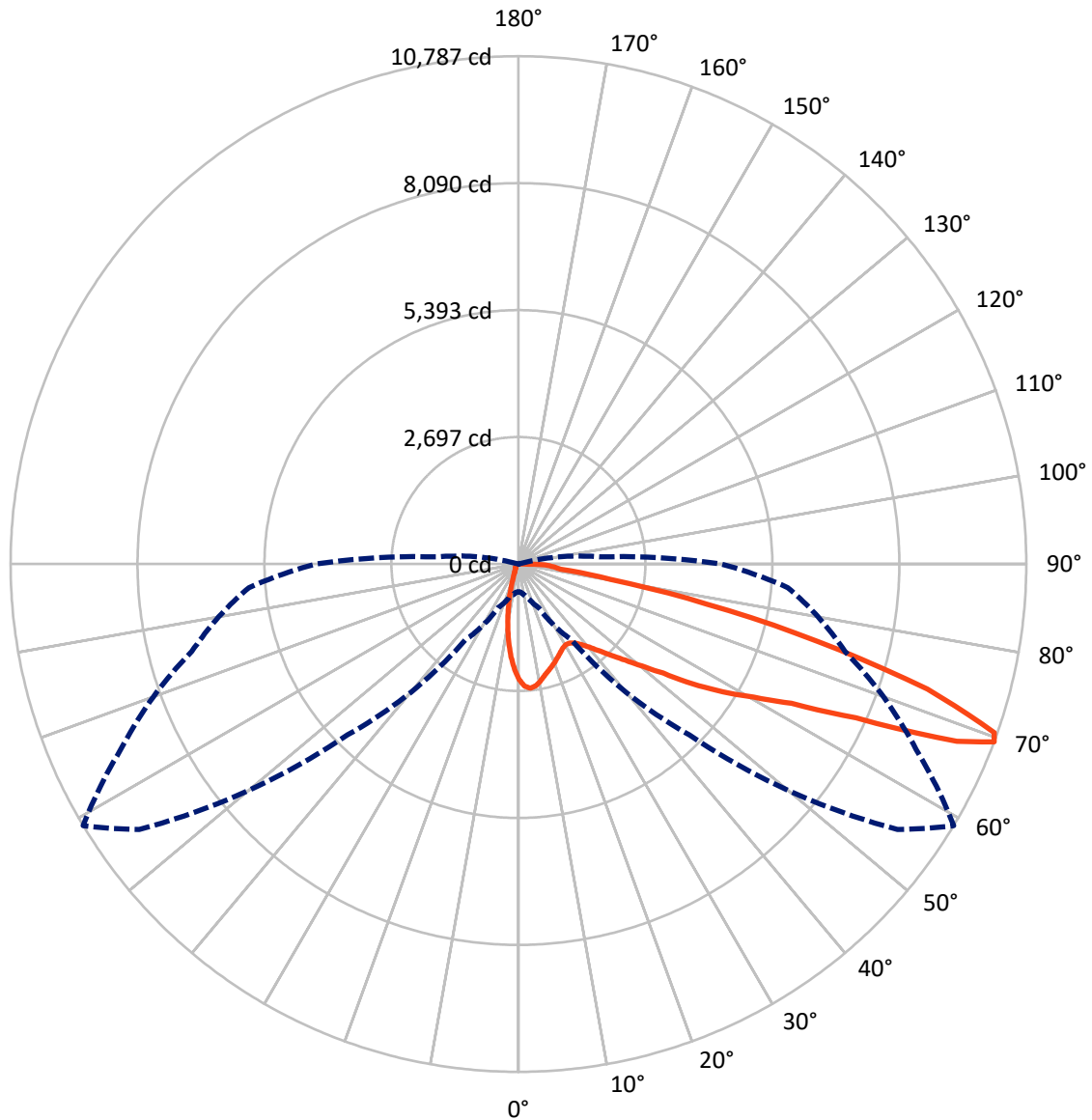
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 24.7 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P299995
CATALOG NUMBER: GAA-AF-02-LED-U-SL3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P299995

CATALOG NUMBER: GAA-AF-02-LED-U-SL3-HSS

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 769.6 | 0.0 | 769.6 |
| | % Fixture | 8.1 | 0.0 | 8.1 |
| Street Side | Lumens | 8681.2 | 0.0 | 8681.2 |
| | % Fixture | 91.9 | 0.0 | 91.9 |
| Total | Lumens | 9450.9 | 0.0 | 9450.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 199.7 | 2.1 |
| 10°-20° | 412.6 | 4.4 |
| 20°-30° | 555.2 | 5.9 |
| 30°-40° | 806.1 | 8.5 |
| 40°-50° | 1342.2 | 14.2 |
| 50°-60° | 2093.8 | 22.2 |
| 60°-70° | 2590.9 | 27.4 |
| 70°-80° | 1313.1 | 13.9 |
| 80°-90° | 137.4 | 1.5 |
| 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° | 9450.9 | 100.0 |
| 0°-180° | 9450.9 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P299995

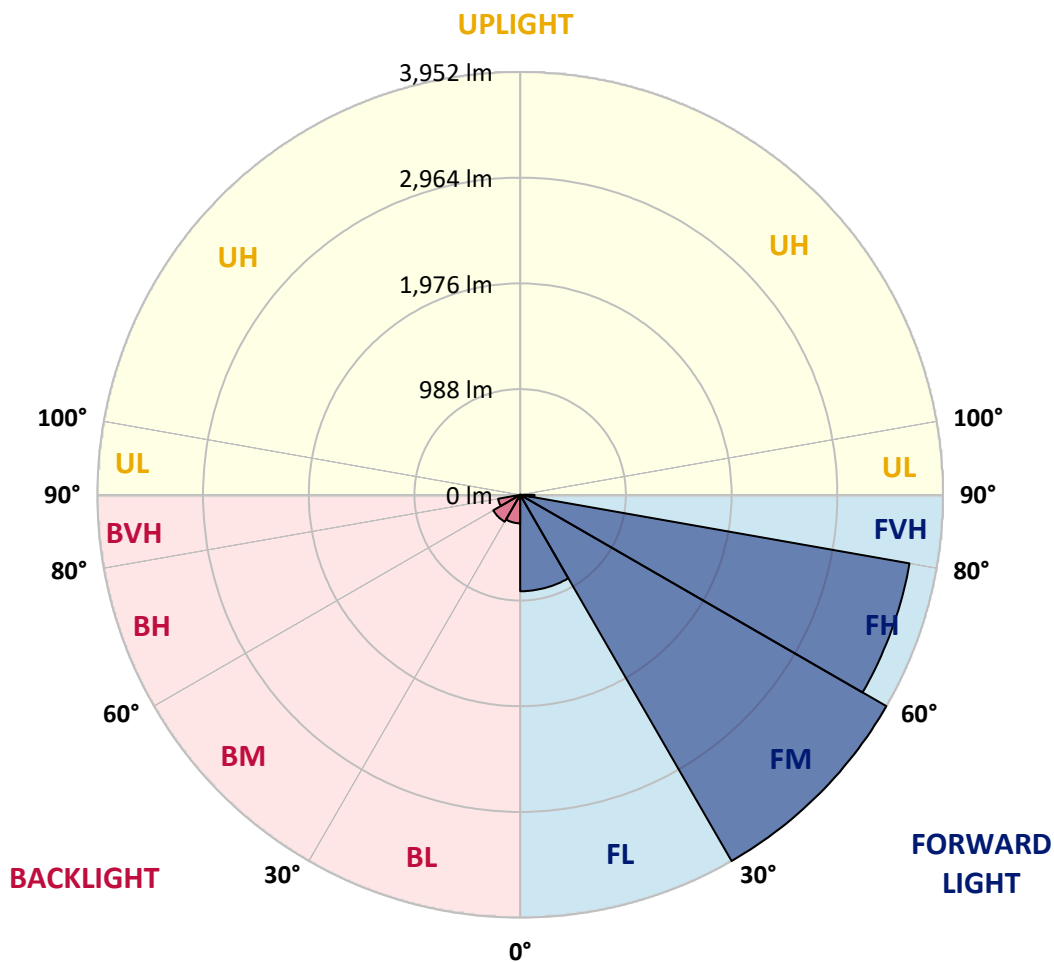
CATALOG NUMBER: GAA-AF-02-LED-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 901.0 | 9.5 | | | |
| FM (30°-60°) | 3952.1 | 41.8 | | | |
| FH (60°-80°) | 3695.0 | 39.1 | | | G2/5000 |
| FVH (80°-90°) | 133.2 | 1.4 | | | G2/225 |
| BL (0°-30°) | 266.4 | 2.8 | B1/500 | | |
| BM (30°-60°) | 290.0 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 209.0 | 2.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 4.2 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Short





REPORT NUMBER: P299995

CATALOG NUMBER: GAA-AF-02-LED-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
| 0° | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 |
| 2.5° | 2696.1 | 2695.1 | 2683.3 | 2678.0 | 2668.3 | 2648.1 | 2616.5 | 2600.0 | 2573.3 | 2526.7 | 2464.3 |
| 5° | 2671.5 | 2684.5 | 2691.3 | 2691.9 | 2698.9 | 2691.3 | 2662.9 | 2649.2 | 2612.3 | 2537.4 | 2425.3 |
| 7.5° | 2504.9 | 2509.6 | 2529.5 | 2546.4 | 2579.6 | 2611.2 | 2621.4 | 2615.4 | 2593.5 | 2513.4 | 2364.3 |
| 10° | 2326.4 | 2331.1 | 2354.7 | 2377.0 | 2422.0 | 2470.6 | 2521.9 | 2532.7 | 2541.8 | 2479.1 | 2305.5 |
| 12.5° | 2172.4 | 2177.2 | 2201.3 | 2230.6 | 2283.0 | 2342.9 | 2422.5 | 2440.1 | 2480.3 | 2446.6 | 2258.4 |
| 15° | 2039.8 | 2041.9 | 2065.6 | 2101.8 | 2164.4 | 2241.3 | 2331.7 | 2360.1 | 2421.5 | 2423.6 | 2217.3 |
| 17.5° | 1927.1 | 1932.4 | 1947.0 | 1981.6 | 2050.0 | 2145.2 | 2250.5 | 2291.1 | 2363.1 | 2404.4 | 2177.2 |
| 20° | 1858.1 | 1863.5 | 1863.0 | 1882.2 | 1943.7 | 2045.2 | 2169.3 | 2217.8 | 2305.5 | 2384.6 | 2141.5 |
| 22.5° | 1844.9 | 1844.9 | 1831.0 | 1828.2 | 1864.6 | 1949.6 | 2084.8 | 2144.0 | 2253.6 | 2376.1 | 2116.4 |
| 25° | 1892.4 | 1890.2 | 1855.6 | 1827.2 | 1828.9 | 1879.5 | 2003.0 | 2073.5 | 2209.9 | 2381.9 | 2102.9 |
| 27.5° | 1992.9 | 1990.2 | 1946.3 | 1892.4 | 1849.1 | 1848.6 | 1941.0 | 2016.9 | 2175.1 | 2409.7 | 2108.3 |
| 30° | 2131.7 | 2130.8 | 2083.2 | 2015.2 | 1936.8 | 1864.6 | 1919.6 | 1988.6 | 2152.6 | 2459.9 | 2120.6 |
| 32.5° | 2283.5 | 2281.9 | 2246.1 | 2174.6 | 2075.1 | 1936.8 | 1942.1 | 1999.9 | 2159.1 | 2526.7 | 2150.5 |
| 35° | 2444.5 | 2441.8 | 2426.2 | 2363.8 | 2254.2 | 2069.8 | 2015.9 | 2060.7 | 2199.7 | 2626.7 | 2209.3 |
| 37.5° | 2618.6 | 2621.4 | 2632.5 | 2572.7 | 2457.8 | 2256.3 | 2139.4 | 2169.8 | 2281.4 | 2762.5 | 2304.9 |
| 40° | 2875.7 | 2875.2 | 2879.0 | 2800.3 | 2689.8 | 2484.5 | 2311.8 | 2321.5 | 2418.3 | 2942.5 | 2450.3 |
| 42.5° | 3342.2 | 3309.7 | 3210.8 | 3050.5 | 2939.3 | 2745.3 | 2529.5 | 2519.3 | 2585.6 | 3165.3 | 2653.9 |
| 45° | 3969.2 | 3899.6 | 3643.1 | 3335.9 | 3193.7 | 3039.3 | 2797.1 | 2764.6 | 2806.8 | 3433.1 | 2905.2 |
| 47.5° | 4508.3 | 4436.1 | 4073.4 | 3633.0 | 3463.5 | 3318.2 | 3110.8 | 3052.1 | 3066.0 | 3732.9 | 3223.6 |
| 50° | 4691.6 | 4656.4 | 4339.5 | 3891.7 | 3724.9 | 3669.4 | 3474.9 | 3403.2 | 3383.5 | 4079.7 | 3592.8 |
| 52.5° | 4628.0 | 4625.4 | 4414.3 | 4059.5 | 3964.3 | 4032.8 | 3932.8 | 3849.9 | 3777.3 | 4445.4 | 3968.5 |
| 55° | 4525.9 | 4539.4 | 4444.7 | 4206.4 | 4203.1 | 4364.6 | 4559.1 | 4490.2 | 4279.7 | 4842.4 | 4292.5 |
| 57.5° | 4244.4 | 4301.5 | 4427.7 | 4484.4 | 4615.7 | 4780.9 | 5080.8 | 5121.4 | 4872.4 | 5146.5 | 4561.2 |
| 60° | 3443.8 | 3569.4 | 3982.0 | 4524.3 | 5147.6 | 5559.0 | 5710.3 | 5745.0 | 5358.6 | 5399.2 | 4924.1 |
| 62.5° | 2444.5 | 2572.7 | 3095.9 | 4013.5 | 5155.5 | 6581.3 | 6648.1 | 6511.9 | 5894.1 | 5773.9 | 5550.0 |
| 65° | 1297.5 | 1396.5 | 1824.0 | 2897.1 | 4470.0 | 6818.7 | 8288.3 | 7882.2 | 6838.9 | 6510.8 | 6358.5 |
| 67.5° | 663.7 | 693.6 | 863.7 | 1417.9 | 3073.0 | 6056.6 | 9758.5 | 10044.4 | 8467.3 | 7242.0 | 6319.5 |
| 69° | 587.3 | 605.0 | 717.8 | 1025.0 | 1967.7 | 5129.9 | 9830.1 | 10786.7 | 9319.8 | 7181.0 | 5742.9 |
| 70° | 568.6 | 584.1 | 686.7 | 927.8 | 1538.1 | 4302.0 | 9555.9 | 10721.5 | 9537.8 | 6949.1 | 5312.1 |
| 72.5° | 482.7 | 495.9 | 611.5 | 819.9 | 1250.1 | 2135.5 | 7762.5 | 9085.2 | 8558.7 | 5788.8 | 3845.1 |
| 75° | 322.8 | 366.6 | 586.9 | 768.6 | 1162.9 | 1213.2 | 5117.7 | 6565.3 | 6098.8 | 3904.5 | 2003.0 |
| 77.5° | 77.5 | 83.3 | 165.7 | 611.5 | 1063.5 | 1067.7 | 2632.0 | 4081.3 | 3328.9 | 1391.7 | 473.4 |
| 80° | 41.7 | 40.1 | 46.4 | 121.4 | 990.2 | 1002.0 | 1184.9 | 1981.1 | 1188.6 | 230.9 | 156.0 |
| 82.5° | 29.4 | 27.8 | 29.9 | 50.8 | 311.6 | 912.7 | 857.2 | 896.7 | 492.7 | 88.7 | 70.1 |
| 85° | 10.7 | 10.2 | 16.5 | 46.0 | 97.7 | 524.7 | 880.7 | 739.6 | 399.2 | 40.6 | 51.3 |
| 87.5° | 3.7 | 3.2 | 6.5 | 25.1 | 29.9 | 223.4 | 543.5 | 559.0 | 157.1 | 24.6 | 24.1 |
| 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: P299995

CATALOG NUMBER: GAA-AF-02-LED-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 | 2459.9 |
| 2.5° | 2438.0 | 2404.9 | 2344.0 | 2281.4 | 2223.7 | 2154.2 | 2119.5 | 2085.3 | 2070.9 | 2065.6 | 2040.5 |
| 5° | 2367.5 | 2311.3 | 2182.1 | 2052.1 | 1932.4 | 1805.2 | 1721.4 | 1654.1 | 1614.5 | 1595.2 | 1564.8 |
| 7.5° | 2277.2 | 2185.3 | 1989.0 | 1788.7 | 1602.2 | 1418.4 | 1282.1 | 1177.3 | 1105.1 | 1070.5 | 1038.9 |
| 10° | 2189.5 | 2067.2 | 1788.2 | 1515.1 | 1261.7 | 1018.1 | 829.9 | 693.6 | 606.6 | 566.5 | 540.9 |
| 12.5° | 2111.0 | 1952.3 | 1594.2 | 1248.5 | 930.4 | 645.1 | 453.7 | 345.3 | 291.2 | 272.5 | 263.4 |
| 15° | 2041.0 | 1846.5 | 1410.9 | 995.1 | 630.1 | 368.7 | 248.0 | 211.2 | 202.6 | 202.6 | 201.4 |
| 17.5° | 1974.6 | 1742.8 | 1233.9 | 757.2 | 395.4 | 225.6 | 188.7 | 183.8 | 183.8 | 185.9 | 185.9 |
| 20° | 1911.0 | 1643.9 | 1062.9 | 543.5 | 249.0 | 179.0 | 170.5 | 169.4 | 170.5 | 173.1 | 173.1 |
| 22.5° | 1856.5 | 1554.1 | 903.2 | 373.0 | 184.9 | 161.3 | 157.1 | 155.5 | 156.0 | 157.6 | 158.7 |
| 25° | 1815.9 | 1478.2 | 752.5 | 252.7 | 159.2 | 146.9 | 142.2 | 139.5 | 137.4 | 137.4 | 138.3 |
| 27.5° | 1790.3 | 1414.2 | 606.6 | 183.8 | 143.2 | 133.6 | 126.0 | 121.8 | 117.0 | 114.4 | 115.4 |
| 30° | 1771.6 | 1353.2 | 469.7 | 150.2 | 128.3 | 118.6 | 109.1 | 102.1 | 95.1 | 91.9 | 93.0 |
| 32.5° | 1764.6 | 1304.0 | 351.1 | 132.5 | 114.9 | 104.2 | 92.4 | 83.3 | 75.9 | 73.1 | 73.8 |
| 35° | 1783.4 | 1265.0 | 257.1 | 119.7 | 104.2 | 90.8 | 77.5 | 67.3 | 61.5 | 59.9 | 60.4 |
| 37.5° | 1832.6 | 1244.1 | 192.4 | 109.1 | 94.7 | 79.6 | 64.7 | 55.0 | 51.3 | 51.3 | 51.8 |
| 40° | 1925.4 | 1243.6 | 154.5 | 101.6 | 86.1 | 68.9 | 53.4 | 46.4 | 44.3 | 45.5 | 46.0 |
| 42.5° | 2061.2 | 1271.9 | 134.6 | 94.7 | 78.6 | 58.7 | 44.3 | 39.5 | 39.0 | 40.1 | 40.6 |
| 45° | 2246.6 | 1323.7 | 123.9 | 88.7 | 70.5 | 49.2 | 37.4 | 34.1 | 34.1 | 35.8 | 36.4 |
| 47.5° | 2473.8 | 1399.6 | 114.9 | 82.8 | 62.5 | 41.1 | 32.0 | 29.9 | 30.4 | 32.0 | 32.5 |
| 50° | 2747.4 | 1495.4 | 105.8 | 76.4 | 56.6 | 34.1 | 27.8 | 26.2 | 26.7 | 28.8 | 29.4 |
| 52.5° | 3059.0 | 1624.2 | 98.4 | 70.5 | 49.2 | 28.3 | 23.5 | 22.5 | 23.5 | 25.7 | 26.2 |
| 55° | 3326.2 | 1739.5 | 89.3 | 65.7 | 39.5 | 23.5 | 19.3 | 19.3 | 20.4 | 23.0 | 23.5 |
| 57.5° | 3583.3 | 1860.2 | 81.2 | 56.6 | 31.1 | 18.8 | 16.0 | 16.5 | 18.1 | 20.9 | 21.4 |
| 60° | 3960.6 | 2064.9 | 71.7 | 47.6 | 23.5 | 14.9 | 13.4 | 13.9 | 16.0 | 18.8 | 19.3 |
| 62.5° | 4601.3 | 2376.6 | 62.0 | 39.5 | 18.1 | 11.8 | 10.7 | 11.8 | 14.4 | 17.6 | 18.1 |
| 65° | 5179.6 | 2503.2 | 50.8 | 33.2 | 13.9 | 9.1 | 9.1 | 10.7 | 13.9 | 17.2 | 17.6 |
| 67.5° | 4857.3 | 2107.2 | 39.5 | 26.2 | 10.7 | 7.0 | 7.4 | 10.2 | 13.4 | 17.2 | 17.6 |
| 69° | 4295.7 | 1723.0 | 33.7 | 20.9 | 9.1 | 6.5 | 7.0 | 10.2 | 13.4 | 16.5 | 17.2 |
| 70° | 3858.0 | 1454.8 | 29.9 | 17.6 | 8.1 | 6.5 | 7.0 | 9.5 | 13.4 | 16.5 | 17.2 |
| 72.5° | 2584.0 | 785.6 | 24.1 | 12.8 | 7.4 | 5.8 | 5.8 | 9.5 | 12.8 | 16.0 | 16.5 |
| 75° | 1110.5 | 217.0 | 19.3 | 9.1 | 6.5 | 5.3 | 5.3 | 9.1 | 12.3 | 15.5 | 16.5 |
| 77.5° | 203.1 | 55.0 | 15.5 | 8.1 | 6.5 | 5.3 | 4.9 | 8.6 | 11.8 | 14.9 | 15.5 |
| 80° | 80.7 | 27.2 | 12.3 | 7.0 | 5.8 | 4.9 | 4.2 | 8.1 | 11.2 | 14.4 | 14.9 |
| 82.5° | 48.7 | 15.5 | 10.2 | 6.5 | 5.8 | 4.2 | 3.7 | 7.0 | 10.7 | 13.9 | 14.4 |
| 85° | 39.5 | 10.7 | 8.1 | 6.5 | 5.3 | 4.2 | 3.2 | 6.5 | 9.5 | 13.4 | 13.9 |
| 87.5° | 19.3 | 7.4 | 7.4 | 5.8 | 5.3 | 4.2 | 3.2 | 5.8 | 9.1 | 12.8 | 13.4 |
| 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)