

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: McGRAW-EDISON

Report Number: P299995

Luminaire Tested: **GLNA-AF-02-LED-E1-SL3-7030-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: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-SL3-7030-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 3000K 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: 9141.7 lumens
Efficiency: N/A
Efficacy: 80.9 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

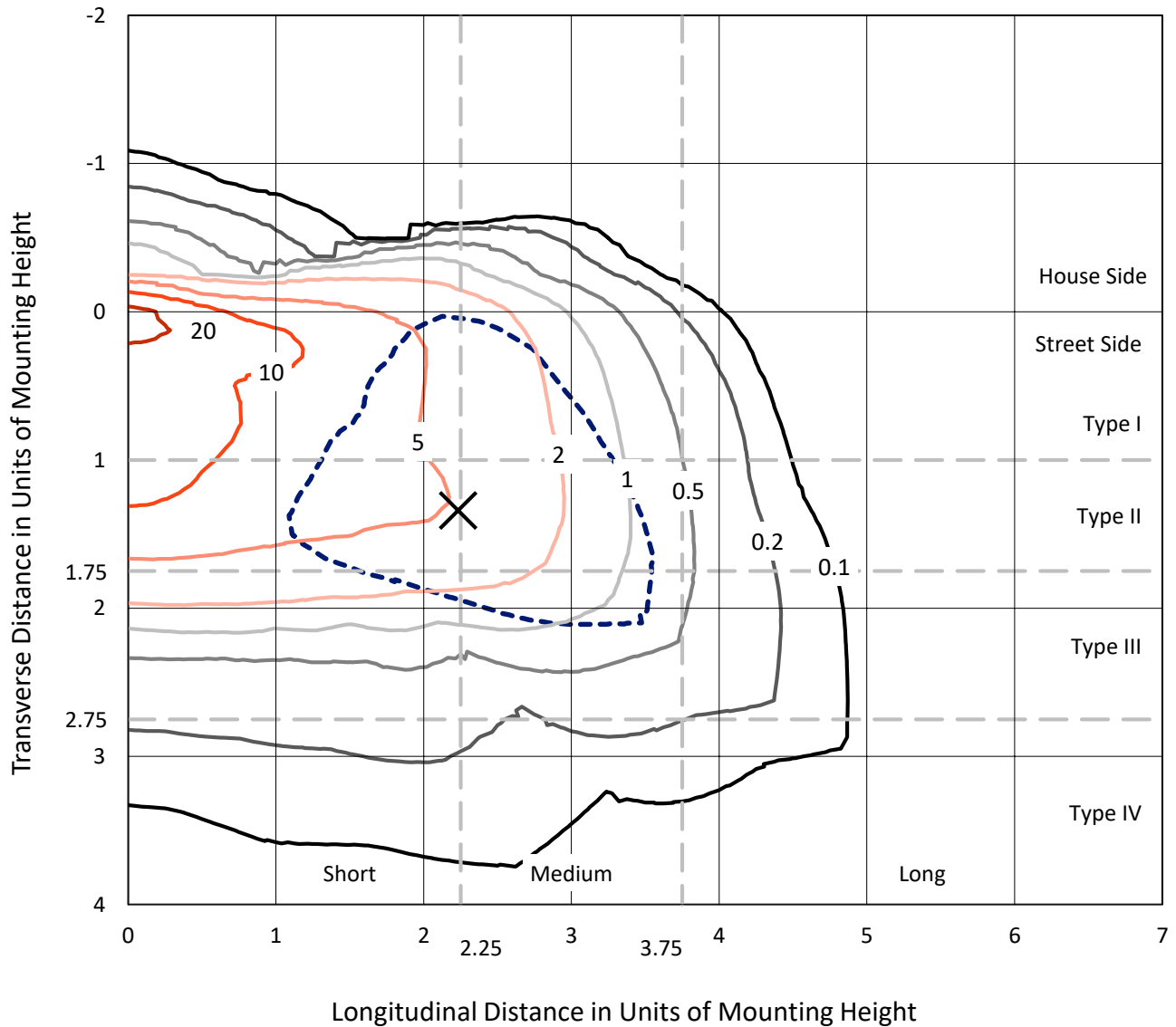
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299995
 CATALOG NUMBER: GLNA-AF-02-LED-E1-SL3-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

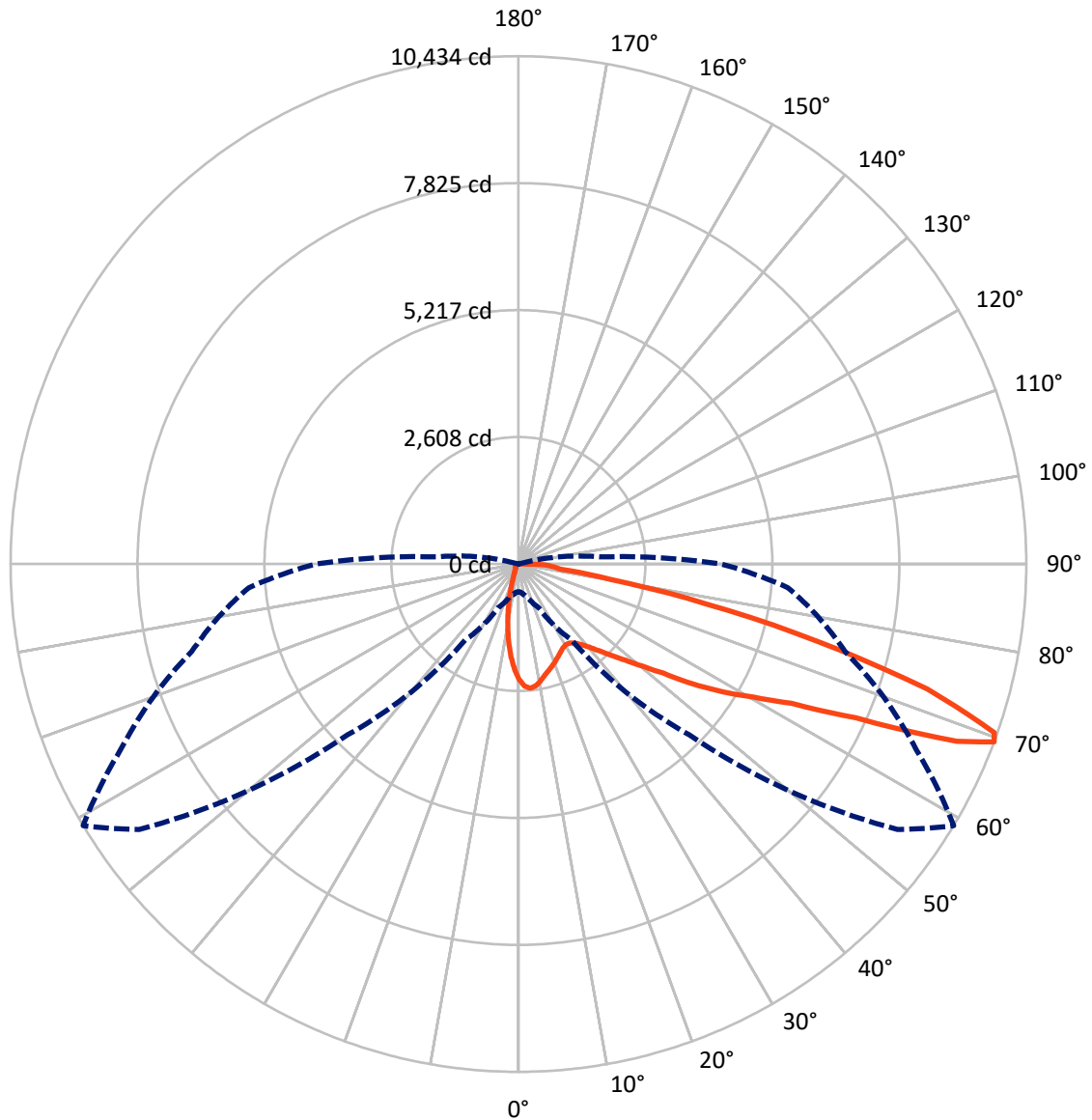
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 23.9 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P299995
CATALOG NUMBER: GLNA-AF-02-LED-E1-SL3-7030-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299995

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL3-7030-HSS

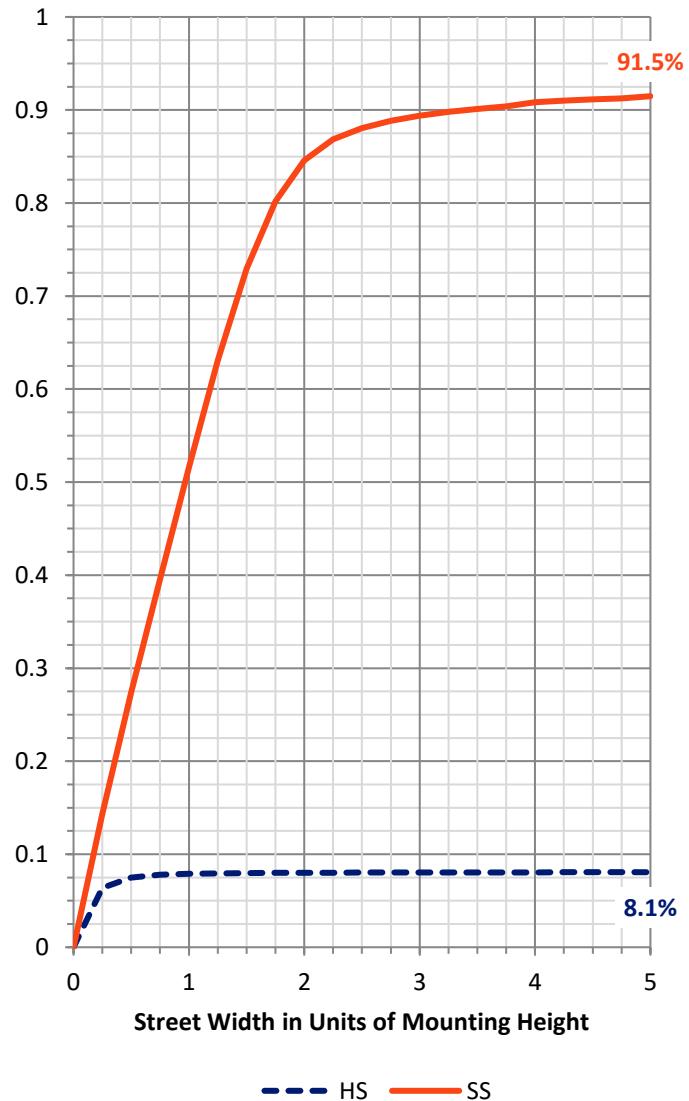
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 744.5 | 0.0 | 744.5 |
| | % Fixture | 8.1 | 0.0 | 8.1 |
| Street Side | Lumens | 8397.2 | 0.0 | 8397.2 |
| | % Fixture | 91.9 | 0.0 | 91.9 |
| Total | Lumens | 9141.7 | 0.0 | 9141.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 193.1 | 2.1 |
| 10°-20° | 399.1 | 4.4 |
| 20°-30° | 537.0 | 5.9 |
| 30°-40° | 779.7 | 8.5 |
| 40°-50° | 1298.3 | 14.2 |
| 50°-60° | 2025.3 | 22.2 |
| 60°-70° | 2506.1 | 27.4 |
| 70°-80° | 1270.1 | 13.9 |
| 80°-90° | 132.9 | 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° | 9141.7 | 100.0 |
| 0°-180° | 9141.7 | 100.0 |



REPORT NUMBER: P299995

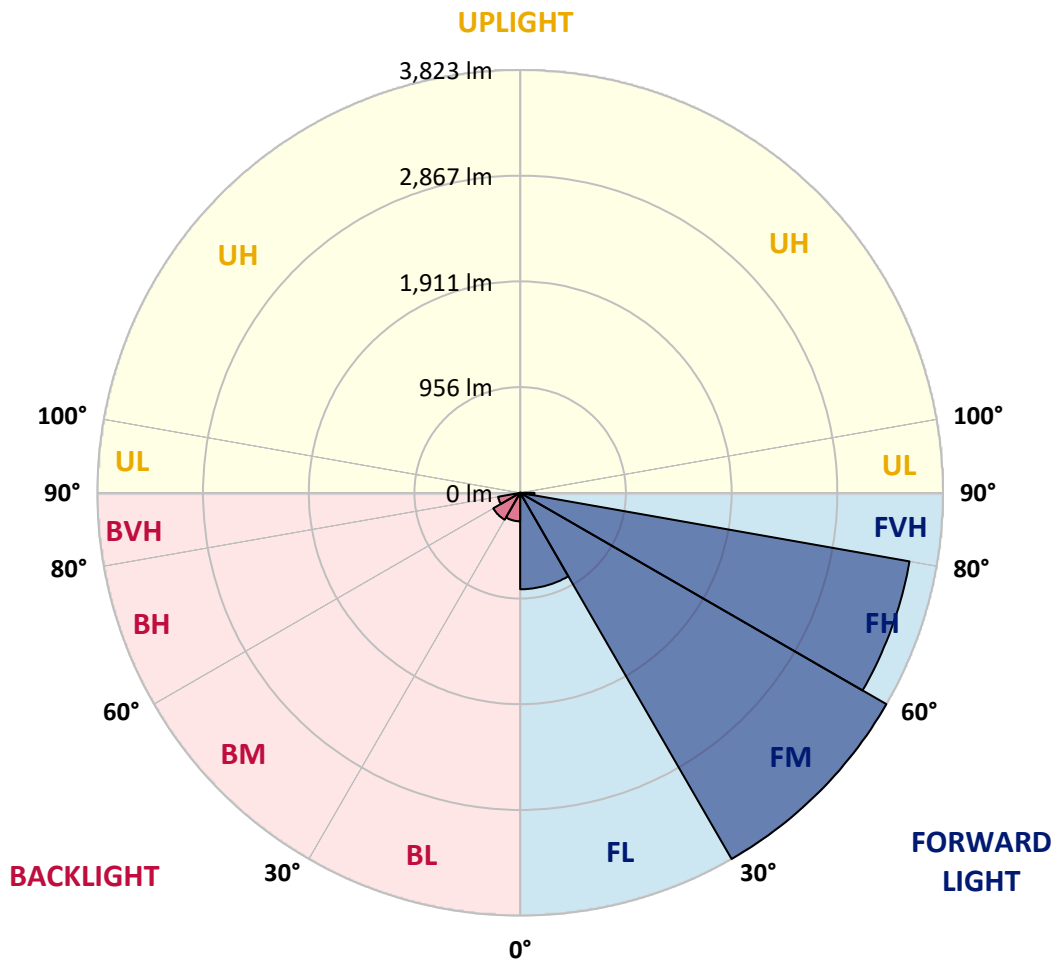
CATALOG NUMBER: GLNA-AF-02-LED-E1-SL3-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 871.6 | 9.5 | | | |
| FM | (30°-60°) | 3822.8 | 41.8 | | | |
| FH | (60°-80°) | 3574.1 | 39.1 | | | G2/5000 |
| FVH | (80°-90°) | 128.8 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 257.7 | 2.8 | B1/500 | | |
| BM | (30°-60°) | 280.5 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 202.2 | 2.2 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.1 | 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: GLNA-AF-02-LED-E1-SL3-7030-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|
| 0° | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 |
| 2.5° | 2607.9 | 2607.0 | 2595.5 | 2590.4 | 2581.0 | 2561.4 | 2530.9 | 2514.9 | 2489.1 | 2444.0 | 2383.6 |
| 5° | 2584.1 | 2596.6 | 2603.2 | 2603.8 | 2610.6 | 2603.2 | 2575.8 | 2562.5 | 2526.8 | 2454.4 | 2345.9 |
| 7.5° | 2422.9 | 2427.4 | 2446.7 | 2463.1 | 2495.2 | 2525.7 | 2535.6 | 2529.8 | 2508.7 | 2431.2 | 2286.9 |
| 10° | 2250.3 | 2254.8 | 2277.7 | 2299.3 | 2342.8 | 2389.7 | 2439.3 | 2449.8 | 2458.6 | 2398.0 | 2230.1 |
| 12.5° | 2101.3 | 2106.0 | 2129.3 | 2157.6 | 2208.3 | 2266.2 | 2343.2 | 2360.3 | 2399.1 | 2366.6 | 2184.5 |
| 15° | 1973.1 | 1975.1 | 1998.0 | 2033.0 | 2093.6 | 2168.0 | 2255.4 | 2282.8 | 2342.3 | 2344.3 | 2144.8 |
| 17.5° | 1864.0 | 1869.2 | 1883.3 | 1916.8 | 1983.0 | 2075.0 | 2176.9 | 2216.2 | 2285.8 | 2325.7 | 2106.0 |
| 20° | 1797.3 | 1802.5 | 1802.0 | 1820.7 | 1880.1 | 1978.3 | 2098.3 | 2145.3 | 2230.1 | 2306.6 | 2071.4 |
| 22.5° | 1784.5 | 1784.5 | 1771.0 | 1768.4 | 1803.6 | 1885.8 | 2016.6 | 2073.9 | 2179.8 | 2298.3 | 2047.1 |
| 25° | 1830.5 | 1828.3 | 1794.8 | 1767.4 | 1769.0 | 1818.0 | 1937.4 | 2005.7 | 2137.6 | 2304.0 | 2034.1 |
| 27.5° | 1927.7 | 1925.1 | 1882.6 | 1830.5 | 1788.6 | 1788.1 | 1877.5 | 1950.9 | 2103.9 | 2330.9 | 2039.3 |
| 30° | 2062.0 | 2061.1 | 2015.0 | 1949.3 | 1873.4 | 1803.6 | 1856.8 | 1923.5 | 2082.2 | 2379.4 | 2051.2 |
| 32.5° | 2208.8 | 2207.2 | 2172.6 | 2103.5 | 2007.2 | 1873.4 | 1878.6 | 1934.4 | 2088.4 | 2444.0 | 2080.2 |
| 35° | 2364.5 | 2361.9 | 2346.8 | 2286.4 | 2180.5 | 2002.1 | 1949.9 | 1993.3 | 2127.7 | 2540.8 | 2137.0 |
| 37.5° | 2532.9 | 2535.6 | 2546.4 | 2488.5 | 2377.4 | 2182.5 | 2069.4 | 2098.8 | 2206.8 | 2672.1 | 2229.5 |
| 40° | 2781.6 | 2781.2 | 2784.8 | 2708.7 | 2601.8 | 2403.2 | 2236.2 | 2245.6 | 2339.2 | 2846.3 | 2370.2 |
| 42.5° | 3232.8 | 3201.4 | 3105.7 | 2950.6 | 2843.1 | 2655.5 | 2446.7 | 2436.8 | 2501.0 | 3061.8 | 2567.0 |
| 45° | 3839.3 | 3772.0 | 3523.9 | 3226.7 | 3089.2 | 2939.8 | 2705.6 | 2674.1 | 2714.9 | 3320.8 | 2810.1 |
| 47.5° | 4360.8 | 4291.0 | 3940.1 | 3514.1 | 3350.2 | 3209.7 | 3009.0 | 2952.2 | 2965.7 | 3610.8 | 3118.1 |
| 50° | 4538.1 | 4504.0 | 4197.5 | 3764.3 | 3603.0 | 3549.3 | 3361.2 | 3291.8 | 3272.7 | 3946.2 | 3475.3 |
| 52.5° | 4476.6 | 4474.1 | 4269.9 | 3926.6 | 3834.6 | 3900.8 | 3804.1 | 3724.0 | 3653.7 | 4299.9 | 3838.7 |
| 55° | 4377.8 | 4390.8 | 4299.3 | 4068.7 | 4065.6 | 4221.8 | 4409.9 | 4343.3 | 4139.6 | 4684.0 | 4152.0 |
| 57.5° | 4105.5 | 4160.8 | 4282.8 | 4337.6 | 4464.7 | 4624.5 | 4914.5 | 4953.8 | 4712.9 | 4978.1 | 4412.0 |
| 60° | 3331.1 | 3452.6 | 3851.7 | 4376.3 | 4979.2 | 5377.2 | 5523.5 | 5557.0 | 5183.2 | 5222.5 | 4763.0 |
| 62.5° | 2364.5 | 2488.5 | 2994.6 | 3882.2 | 4986.8 | 6366.0 | 6430.6 | 6298.8 | 5701.3 | 5585.0 | 5368.4 |
| 65° | 1255.0 | 1350.8 | 1764.3 | 2802.3 | 4323.7 | 6595.6 | 8017.1 | 7624.3 | 6615.1 | 6297.7 | 6150.5 |
| 67.5° | 642.0 | 671.0 | 835.4 | 1371.5 | 2972.4 | 5858.4 | 9439.2 | 9715.7 | 8190.2 | 7005.0 | 6112.7 |
| 69° | 568.1 | 585.2 | 694.3 | 991.5 | 1903.3 | 4962.1 | 9508.5 | 10433.8 | 9014.9 | 6946.0 | 5554.9 |
| 70° | 550.0 | 565.0 | 664.2 | 897.4 | 1487.8 | 4161.2 | 9243.2 | 10370.7 | 9225.7 | 6721.7 | 5138.3 |
| 72.5° | 466.9 | 479.7 | 591.4 | 793.0 | 1209.2 | 2065.6 | 7508.5 | 8787.9 | 8278.7 | 5599.4 | 3719.3 |
| 75° | 312.2 | 354.6 | 567.7 | 743.4 | 1124.8 | 1173.5 | 4950.2 | 6350.5 | 5899.3 | 3776.7 | 1937.4 |
| 77.5° | 75.0 | 80.6 | 160.3 | 591.4 | 1028.7 | 1032.8 | 2545.9 | 3947.8 | 3220.0 | 1346.1 | 457.9 |
| 80° | 40.4 | 38.8 | 44.9 | 117.4 | 957.8 | 969.3 | 1146.1 | 1916.3 | 1149.7 | 223.3 | 150.9 |
| 82.5° | 28.5 | 26.9 | 29.0 | 49.1 | 301.4 | 882.9 | 829.2 | 867.4 | 476.6 | 85.8 | 67.8 |
| 85° | 10.3 | 9.9 | 16.0 | 44.4 | 94.5 | 507.6 | 851.9 | 715.4 | 386.1 | 39.3 | 49.6 |
| 87.5° | 3.6 | 3.1 | 6.3 | 24.3 | 29.0 | 216.1 | 525.7 | 540.7 | 152.0 | 23.8 | 23.3 |
| 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: P299995

CATALOG NUMBER: GLNA-AF-02-LED-E1-SL3-7030-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 | 2379.4 |
| 2.5° | 2358.3 | 2326.2 | 2267.3 | 2206.8 | 2150.9 | 2083.8 | 2050.1 | 2017.1 | 2003.1 | 1998.0 | 1973.7 |
| 5° | 2290.0 | 2235.7 | 2110.7 | 1985.0 | 1869.2 | 1746.2 | 1665.1 | 1600.0 | 1561.6 | 1543.0 | 1513.6 |
| 7.5° | 2202.7 | 2113.8 | 1924.0 | 1730.2 | 1549.7 | 1372.0 | 1240.2 | 1138.8 | 1069.0 | 1035.5 | 1004.9 |
| 10° | 2117.9 | 1999.5 | 1729.7 | 1465.5 | 1220.5 | 984.7 | 802.7 | 671.0 | 586.7 | 547.9 | 523.2 |
| 12.5° | 2042.0 | 1888.4 | 1542.1 | 1207.6 | 899.9 | 624.0 | 438.8 | 334.0 | 281.7 | 263.6 | 254.8 |
| 15° | 1974.2 | 1786.1 | 1364.8 | 962.5 | 609.4 | 356.7 | 239.9 | 204.2 | 195.9 | 195.9 | 194.9 |
| 17.5° | 1910.0 | 1685.7 | 1193.5 | 732.5 | 382.5 | 218.2 | 182.5 | 177.8 | 177.8 | 179.8 | 179.8 |
| 20° | 1848.5 | 1590.1 | 1028.1 | 525.7 | 240.9 | 173.1 | 165.0 | 163.9 | 165.0 | 167.5 | 167.5 |
| 22.5° | 1795.8 | 1503.3 | 873.6 | 360.8 | 178.9 | 156.0 | 152.0 | 150.4 | 150.9 | 152.4 | 153.5 |
| 25° | 1756.5 | 1429.9 | 727.9 | 244.5 | 154.0 | 142.1 | 137.6 | 134.9 | 132.9 | 132.9 | 133.8 |
| 27.5° | 1731.8 | 1367.9 | 586.7 | 177.8 | 138.5 | 129.3 | 121.9 | 117.9 | 113.2 | 110.7 | 111.6 |
| 30° | 1713.6 | 1308.9 | 454.3 | 145.2 | 124.1 | 114.7 | 105.5 | 98.8 | 92.0 | 88.9 | 90.0 |
| 32.5° | 1706.9 | 1261.3 | 339.6 | 128.2 | 111.1 | 100.8 | 89.4 | 80.6 | 73.4 | 70.7 | 71.4 |
| 35° | 1725.0 | 1223.6 | 248.7 | 115.8 | 100.8 | 87.8 | 75.0 | 65.1 | 59.5 | 57.9 | 58.4 |
| 37.5° | 1772.6 | 1203.4 | 186.1 | 105.5 | 91.6 | 77.0 | 62.6 | 53.2 | 49.6 | 49.6 | 50.1 |
| 40° | 1862.4 | 1202.9 | 149.5 | 98.3 | 83.3 | 66.7 | 51.6 | 44.9 | 42.9 | 44.0 | 44.4 |
| 42.5° | 1993.8 | 1230.3 | 130.2 | 91.6 | 76.1 | 56.8 | 42.9 | 38.2 | 37.7 | 38.8 | 39.3 |
| 45° | 2173.1 | 1280.4 | 119.9 | 85.8 | 68.2 | 47.6 | 36.2 | 33.0 | 33.0 | 34.6 | 35.2 |
| 47.5° | 2392.9 | 1353.8 | 111.1 | 80.1 | 60.4 | 39.8 | 31.0 | 29.0 | 29.4 | 31.0 | 31.5 |
| 50° | 2657.5 | 1446.4 | 102.4 | 73.9 | 54.8 | 33.0 | 26.9 | 25.4 | 25.8 | 27.9 | 28.5 |
| 52.5° | 2958.9 | 1571.0 | 95.2 | 68.2 | 47.6 | 27.4 | 22.7 | 21.8 | 22.7 | 24.9 | 25.4 |
| 55° | 3217.3 | 1682.6 | 86.4 | 63.5 | 38.2 | 22.7 | 18.6 | 18.6 | 19.7 | 22.2 | 22.7 |
| 57.5° | 3466.0 | 1799.4 | 78.6 | 54.8 | 30.0 | 18.2 | 15.5 | 16.0 | 17.5 | 20.2 | 20.7 |
| 60° | 3831.0 | 1997.4 | 69.3 | 46.0 | 22.7 | 14.4 | 13.0 | 13.5 | 15.5 | 18.2 | 18.6 |
| 62.5° | 4450.8 | 2298.8 | 59.9 | 38.2 | 17.5 | 11.4 | 10.3 | 11.4 | 13.9 | 17.1 | 17.5 |
| 65° | 5010.1 | 2421.3 | 49.1 | 32.1 | 13.5 | 8.8 | 8.8 | 10.3 | 13.5 | 16.6 | 17.1 |
| 67.5° | 4698.4 | 2038.2 | 38.2 | 25.4 | 10.3 | 6.7 | 7.2 | 9.9 | 13.0 | 16.6 | 17.1 |
| 69° | 4155.1 | 1666.7 | 32.6 | 20.2 | 8.8 | 6.3 | 6.7 | 9.9 | 13.0 | 16.0 | 16.6 |
| 70° | 3731.8 | 1407.2 | 29.0 | 17.1 | 7.8 | 6.3 | 6.7 | 9.2 | 13.0 | 16.0 | 16.6 |
| 72.5° | 2499.4 | 759.8 | 23.3 | 12.4 | 7.2 | 5.6 | 5.6 | 9.2 | 12.4 | 15.5 | 16.0 |
| 75° | 1074.1 | 209.9 | 18.6 | 8.8 | 6.3 | 5.2 | 5.2 | 8.8 | 11.9 | 15.0 | 16.0 |
| 77.5° | 196.4 | 53.2 | 15.0 | 7.8 | 6.3 | 5.2 | 4.7 | 8.3 | 11.4 | 14.4 | 15.0 |
| 80° | 78.1 | 26.3 | 11.9 | 6.7 | 5.6 | 4.7 | 4.1 | 7.8 | 10.8 | 13.9 | 14.4 |
| 82.5° | 47.1 | 15.0 | 9.9 | 6.3 | 5.6 | 4.1 | 3.6 | 6.7 | 10.3 | 13.5 | 13.9 |
| 85° | 38.2 | 10.3 | 7.8 | 6.3 | 5.2 | 4.1 | 3.1 | 6.3 | 9.2 | 13.0 | 13.5 |
| 87.5° | 18.6 | 7.2 | 7.2 | 5.6 | 5.2 | 4.1 | 3.1 | 5.6 | 8.8 | 12.4 | 13.0 |
| 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)