

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: P454790

Luminaire Tested: **GALN-SA5D-830-U-T2**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454790  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA5D-830-U-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30961 lumens  
Efficiency: N/A  
Efficacy: 100.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4

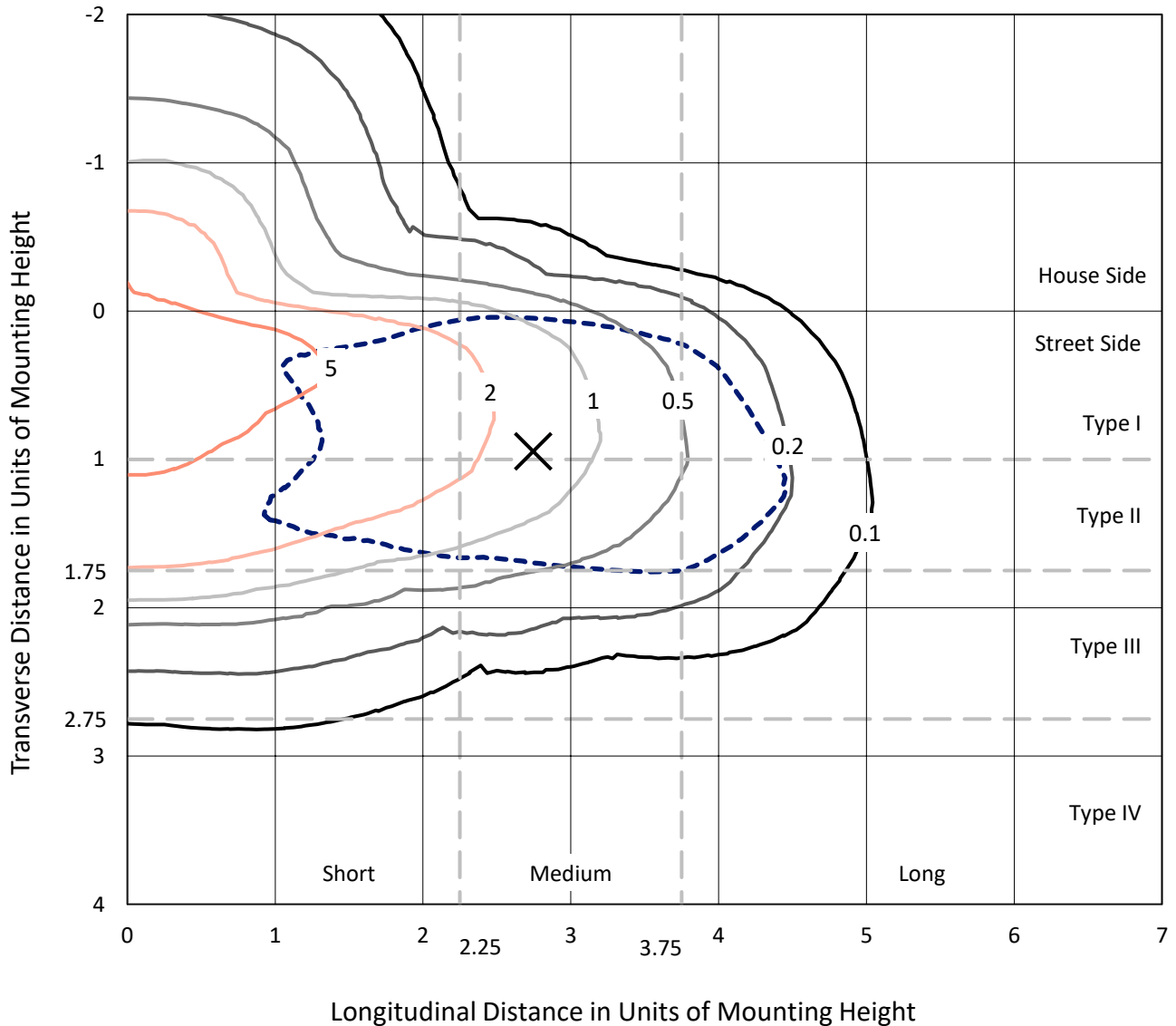
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P454790  
 CATALOG NUMBER: GALN-SA5D-830-U-T2

### Iso-Footcandle Lines of Horizontal Illumination

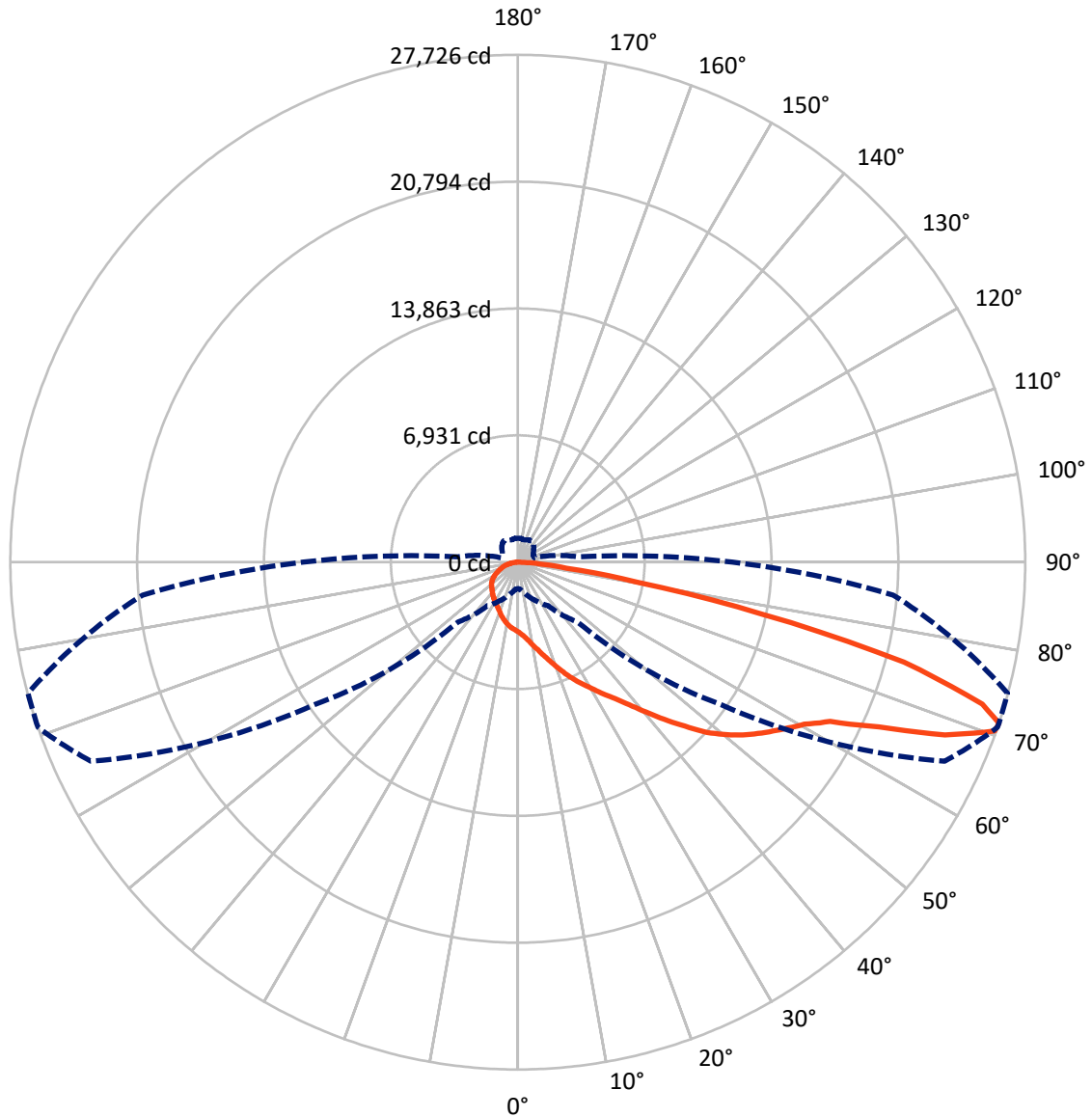
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc  
 Type II - Medium - N/A

REPORT NUMBER: P454790  
CATALOG NUMBER: GALN-SA5D-830-U-T2

### Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P454790

CATALOG NUMBER: GALN-SA5D-830-U-T2

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5568.3   | 0.0    | 5568.3  |
|                    | % Fixture | 18.0     | 0.0    | 18.0    |
| <b>Street Side</b> | Lumens    | 25392.8  | 0.0    | 25392.8 |
|                    | % Fixture | 82.0     | 0.0    | 82.0    |
| <b>Total</b>       | Lumens    | 30961.0  | 0.0    | 30961.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 381.5   | 1.2       |
| 10°-20°   | 1239.6  | 4.0       |
| 20°-30°   | 2166.2  | 7.0       |
| 30°-40°   | 3222.0  | 10.4      |
| 40°-50°   | 4747.2  | 15.3      |
| 50°-60°   | 6646.2  | 21.5      |
| 60°-70°   | 7433.5  | 24.0      |
| 70°-80°   | 4540.7  | 14.7      |
| 80°-90°   | 584.1   | 1.9       |
| 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°    | 30961.0 | 100.0     |
| 0°-180°   | 30961.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P454790

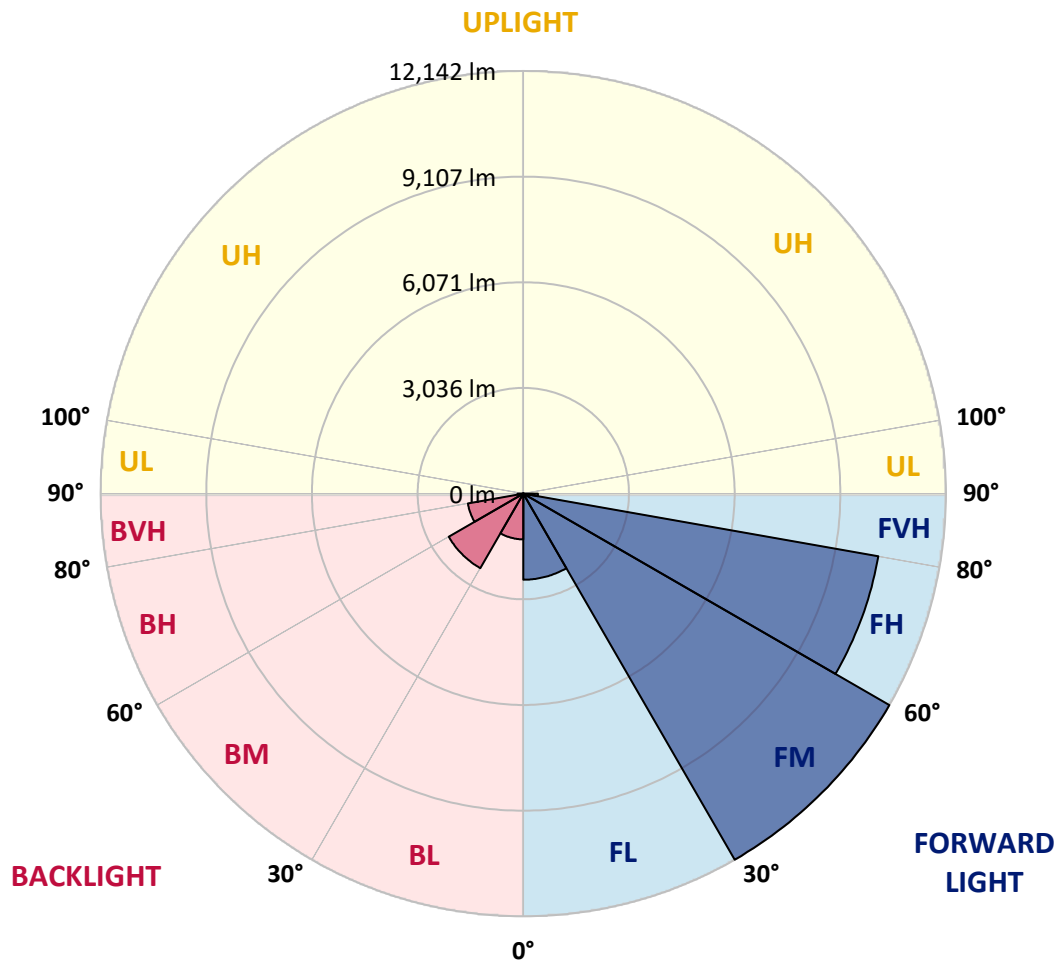
CATALOG NUMBER: GALN-SA5D-830-U-T2

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2473.8  | 8.0       |                         |      |          |
| FM   | (30°-60°)   | 12142.3 | 39.2      |                         |      |          |
| FH   | (60°-80°)   | 10356.4 | 33.4      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 420.3   | 1.4       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1313.5  | 4.2       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 2473.1  | 8.0       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 1617.8  | 5.2       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 163.8   | 0.5       |                         |      | G2/225   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type II Medium





REPORT NUMBER: P454790

CATALOG NUMBER: GALN-SA5D-830-U-T2

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 71°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  | 3799.9  |
| 2.5°  | 4218.5  | 4198.0  | 4199.7  | 4170.8  | 4133.4  | 4092.5  | 4034.7  | 3983.6  | 3942.8  | 3919.0  | 3849.2  |
| 5°    | 4674.5  | 4654.1  | 4628.6  | 4565.6  | 4538.4  | 4438.0  | 4310.4  | 4194.6  | 4106.2  | 4056.8  | 3917.3  |
| 7.5°  | 5043.8  | 5038.7  | 5031.9  | 4996.1  | 4926.4  | 4786.8  | 4677.9  | 4477.1  | 4346.1  | 4252.5  | 4014.3  |
| 10°   | 5271.8  | 5280.3  | 5285.4  | 5292.2  | 5263.3  | 5190.1  | 5040.4  | 4786.8  | 4620.1  | 4500.9  | 4140.2  |
| 12.5° | 5387.5  | 5396.0  | 5425.0  | 5487.9  | 5527.1  | 5518.5  | 5396.0  | 5147.6  | 4917.9  | 4761.3  | 4274.6  |
| 15°   | 5459.0  | 5472.6  | 5523.7  | 5607.0  | 5738.1  | 5821.4  | 5761.9  | 5532.2  | 5280.3  | 5094.8  | 4434.6  |
| 17.5° | 5537.3  | 5552.6  | 5608.7  | 5727.9  | 5899.7  | 6080.1  | 6144.8  | 5947.4  | 5673.4  | 5452.2  | 4613.3  |
| 20°   | 5581.5  | 5601.9  | 5681.9  | 5838.5  | 6039.3  | 6301.3  | 6515.7  | 6411.9  | 6112.4  | 5867.4  | 4819.2  |
| 22.5° | 5653.0  | 5670.0  | 5738.1  | 5904.8  | 6144.8  | 6473.2  | 6886.7  | 6864.6  | 6600.8  | 6284.3  | 5045.5  |
| 25°   | 5847.0  | 5874.2  | 5908.2  | 6008.6  | 6240.1  | 6648.5  | 7194.7  | 7347.9  | 7073.9  | 6719.9  | 5253.1  |
| 27.5° | 6212.8  | 6235.0  | 6233.3  | 6246.9  | 6377.9  | 6799.9  | 7461.9  | 7826.0  | 7543.5  | 7160.7  | 5453.9  |
| 30°   | 6629.7  | 6638.3  | 6645.1  | 6614.4  | 6643.4  | 6954.8  | 7706.9  | 8299.1  | 8016.6  | 7613.3  | 5629.2  |
| 32.5° | 7136.8  | 7153.9  | 7096.0  | 7017.7  | 6993.9  | 7184.5  | 7909.4  | 8772.2  | 8576.5  | 8072.8  | 5802.7  |
| 35°   | 7735.8  | 7780.1  | 7662.7  | 7524.8  | 7427.8  | 7514.6  | 8181.7  | 9255.4  | 9149.9  | 8659.9  | 6032.5  |
| 37.5° | 8419.9  | 8474.4  | 8365.5  | 8094.9  | 7957.1  | 7980.9  | 8537.3  | 9852.7  | 9874.9  | 9328.6  | 6374.5  |
| 40°   | 8979.8  | 9051.2  | 9054.6  | 8671.8  | 8462.5  | 8489.7  | 8988.3  | 10496.0 | 10749.5 | 10155.6 | 6777.8  |
| 42.5° | 9349.0  | 9418.8  | 9492.0  | 9267.4  | 9047.8  | 9202.7  | 9514.1  | 11193.7 | 11733.1 | 11159.6 | 7341.0  |
| 45°   | 9754.0  | 9817.0  | 9857.8  | 9755.7  | 9633.2  | 10034.8 | 10148.8 | 11935.6 | 12781.3 | 12281.0 | 7957.1  |
| 47.5° | 10223.7 | 10293.5 | 10332.6 | 10235.6 | 10189.7 | 10764.8 | 10832.9 | 12628.2 | 13901.0 | 13370.1 | 8637.7  |
| 50°   | 10849.9 | 10902.7 | 10882.2 | 10821.0 | 10810.8 | 11324.7 | 11489.7 | 13276.5 | 14825.0 | 14542.6 | 9343.9  |
| 52.5° | 11629.3 | 11692.2 | 11714.4 | 11627.6 | 11588.4 | 11724.6 | 12019.0 | 13867.0 | 15665.7 | 15550.0 | 10097.8 |
| 55°   | 12100.6 | 12201.0 | 12538.0 | 12674.1 | 12767.7 | 12241.9 | 12589.0 | 14518.7 | 16419.5 | 16611.8 | 10907.8 |
| 57.5° | 11496.6 | 11625.9 | 12379.7 | 13060.4 | 13940.2 | 13535.2 | 13397.3 | 15199.4 | 17173.4 | 17641.3 | 11877.7 |
| 60°   | 10022.9 | 10051.8 | 11023.5 | 12277.6 | 14047.4 | 15197.7 | 15083.7 | 16281.7 | 17990.2 | 18679.3 | 13155.7 |
| 62.5° | 6953.1  | 7014.3  | 8163.0  | 10164.1 | 12723.5 | 15796.7 | 17952.7 | 18150.1 | 19160.9 | 20233.0 | 15029.2 |
| 65°   | 3585.4  | 3505.5  | 4552.0  | 6388.1  | 9592.4  | 14374.1 | 20277.2 | 21585.8 | 21699.8 | 22663.0 | 17666.8 |
| 67.5° | 2207.1  | 2242.8  | 2732.9  | 3730.1  | 5671.7  | 10446.6 | 20033.9 | 25783.9 | 25183.2 | 25646.0 | 20115.6 |
| 70°   | 1657.4  | 1701.7  | 2038.6  | 2552.5  | 3457.8  | 5972.9  | 16111.5 | 26801.5 | 27640.4 | 27521.3 | 20860.9 |
| 71°   | 1441.3  | 1487.3  | 1837.8  | 2322.8  | 2904.8  | 4609.9  | 13574.3 | 25736.2 | 27725.5 | 27705.1 | 20580.1 |
| 72.5° | 1228.6  | 1257.5  | 1531.5  | 1967.1  | 2448.7  | 3231.5  | 10198.2 | 23081.6 | 26542.8 | 27221.8 | 19577.8 |
| 75°   | 964.9   | 987.0   | 1109.5  | 1500.9  | 1928.0  | 1984.2  | 5472.6  | 17304.4 | 21800.2 | 23093.5 | 16298.7 |
| 77.5° | 786.2   | 801.5   | 864.5   | 1114.6  | 1487.3  | 1405.6  | 2870.7  | 11263.4 | 13657.7 | 14959.5 | 9600.9  |
| 80°   | 624.5   | 641.5   | 679.0   | 755.5   | 1114.6  | 1002.3  | 1369.9  | 5707.4  | 6597.4  | 6583.8  | 3832.2  |
| 82.5° | 485.0   | 490.1   | 534.3   | 554.7   | 762.4   | 711.3   | 741.9   | 2416.4  | 2676.7  | 2765.2  | 1383.5  |
| 85°   | 306.3   | 321.6   | 473.1   | 425.4   | 456.1   | 416.9   | 365.9   | 959.7   | 1182.7  | 1165.7  | 553.0   |
| 87.5° | 93.6    | 98.7    | 160.0   | 180.4   | 202.5   | 182.1   | 134.4   | 282.5   | 345.4   | 374.4   | 137.8   |
| 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: P454790  
 CATALOG NUMBER: GALN-SA5D-830-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 3799.9  | 3799.9 | 3799.9 | 3799.9 | 3799.9 | 3799.9 | 3799.9 | 3799.9 | 3799.9 | 3799.9 | 3799.9 |
| 2.5°  | 3822.0  | 3803.3 | 3736.9 | 3682.4 | 3631.4 | 3575.2 | 3527.6 | 3514.0 | 3502.1 | 3497.0 | 3495.3 |
| 5°    | 3857.7  | 3801.6 | 3670.5 | 3563.3 | 3478.2 | 3400.0 | 3350.6 | 3328.5 | 3306.4 | 3306.4 | 3313.2 |
| 7.5°  | 3908.8  | 3806.7 | 3604.2 | 3444.2 | 3337.0 | 3263.8 | 3228.1 | 3224.7 | 3229.8 | 3234.9 | 3236.6 |
| 10°   | 3964.9  | 3803.3 | 3507.2 | 3308.1 | 3212.8 | 3178.7 | 3180.4 | 3209.4 | 3236.6 | 3257.0 | 3260.4 |
| 12.5° | 4019.4  | 3782.8 | 3393.2 | 3180.4 | 3119.2 | 3126.0 | 3173.6 | 3238.3 | 3291.0 | 3320.0 | 3321.7 |
| 15°   | 4080.6  | 3750.5 | 3255.3 | 3059.6 | 3039.2 | 3092.0 | 3180.4 | 3279.1 | 3359.1 | 3406.8 | 3411.9 |
| 17.5° | 4131.7  | 3696.0 | 3110.7 | 2942.2 | 2967.7 | 3064.7 | 3187.2 | 3314.9 | 3411.9 | 3471.4 | 3481.6 |
| 20°   | 4189.5  | 3626.3 | 2960.9 | 2829.9 | 2903.1 | 3034.1 | 3173.6 | 3311.5 | 3411.9 | 3469.7 | 3483.3 |
| 22.5° | 4235.5  | 3527.6 | 2818.0 | 2738.0 | 2845.2 | 2996.7 | 3127.7 | 3238.3 | 3320.0 | 3350.6 | 3371.0 |
| 25°   | 4254.2  | 3403.4 | 2683.5 | 2663.1 | 2799.3 | 2935.4 | 3023.9 | 3086.8 | 3112.4 | 3109.0 | 3117.5 |
| 27.5° | 4244.0  | 3260.4 | 2567.8 | 2603.6 | 2741.4 | 2840.1 | 2884.3 | 2879.2 | 2833.3 | 2790.8 | 2811.2 |
| 30°   | 4201.4  | 3090.3 | 2470.8 | 2542.3 | 2666.5 | 2721.0 | 2714.2 | 2647.8 | 2561.0 | 2481.0 | 2486.2 |
| 32.5° | 4124.9  | 2906.5 | 2380.7 | 2472.5 | 2561.0 | 2584.9 | 2538.9 | 2452.1 | 2327.9 | 2224.1 | 2208.8 |
| 35°   | 4060.2  | 2731.2 | 2300.7 | 2392.6 | 2455.5 | 2443.6 | 2399.4 | 2287.1 | 2174.7 | 2082.9 | 2067.5 |
| 37.5° | 4050.0  | 2581.4 | 2224.1 | 2302.4 | 2338.1 | 2321.1 | 2266.6 | 2171.3 | 2130.5 | 2060.7 | 2052.2 |
| 40°   | 4104.5  | 2475.9 | 2145.8 | 2207.1 | 2224.1 | 2210.5 | 2150.9 | 2096.5 | 2133.9 | 2116.9 | 2116.9 |
| 42.5° | 4252.5  | 2419.8 | 2076.0 | 2111.8 | 2125.4 | 2135.6 | 2093.1 | 2047.1 | 2093.1 | 2014.8 | 1989.3 |
| 45°   | 4487.3  | 2421.5 | 2013.1 | 2018.2 | 2059.0 | 2094.8 | 2065.8 | 1997.8 | 1973.9 | 1817.4 | 1786.8 |
| 47.5° | 4832.8  | 2479.3 | 1962.0 | 1929.7 | 2002.9 | 2062.4 | 2021.6 | 1922.9 | 1817.4 | 1713.6 | 1694.9 |
| 50°   | 5236.1  | 2583.2 | 1916.1 | 1837.8 | 1928.0 | 2021.6 | 1991.0 | 1875.3 | 1766.3 | 1703.4 | 1691.5 |
| 52.5° | 5683.6  | 2714.2 | 1859.9 | 1735.7 | 1836.1 | 2002.9 | 1997.8 | 1868.4 | 1718.7 | 1676.2 | 1665.9 |
| 55°   | 6236.7  | 2843.5 | 1790.2 | 1616.6 | 1754.4 | 1987.6 | 1979.1 | 1812.3 | 1708.5 | 1677.9 | 1674.5 |
| 57.5° | 6879.9  | 3030.7 | 1689.8 | 1495.8 | 1660.8 | 1924.6 | 1905.9 | 1778.3 | 1674.5 | 1652.3 | 1650.6 |
| 60°   | 7916.2  | 3321.7 | 1546.8 | 1385.2 | 1565.5 | 1814.0 | 1837.8 | 1720.4 | 1620.0 | 1614.9 | 1613.2 |
| 62.5° | 9279.3  | 3730.1 | 1398.8 | 1271.2 | 1454.9 | 1671.1 | 1739.1 | 1642.1 | 1562.1 | 1587.7 | 1591.1 |
| 65°   | 11161.3 | 4073.8 | 1245.6 | 1174.2 | 1332.4 | 1533.2 | 1645.5 | 1568.9 | 1497.5 | 1546.8 | 1546.8 |
| 67.5° | 12388.2 | 4080.6 | 1106.1 | 1073.8 | 1208.2 | 1417.5 | 1546.8 | 1482.2 | 1414.1 | 1497.5 | 1500.9 |
| 70°   | 12133.0 | 3575.2 | 990.4  | 968.3  | 1087.4 | 1293.3 | 1437.9 | 1386.9 | 1308.6 | 1383.5 | 1356.2 |
| 71°   | 11721.2 | 3294.5 | 944.4  | 927.4  | 1039.7 | 1233.7 | 1386.9 | 1344.3 | 1266.1 | 1315.4 | 1300.1 |
| 72.5° | 11064.3 | 2860.5 | 869.6  | 873.0  | 968.3  | 1158.8 | 1315.4 | 1271.2 | 1192.9 | 1220.1 | 1215.0 |
| 75°   | 9352.4  | 2498.1 | 743.6  | 758.9  | 832.1  | 1031.2 | 1172.5 | 1138.4 | 1058.4 | 1058.4 | 1053.3 |
| 77.5° | 5847.0  | 1745.9 | 617.7  | 626.2  | 706.2  | 883.2  | 1007.4 | 978.5  | 901.9  | 876.4  | 869.6  |
| 80°   | 2181.6  | 901.9  | 483.3  | 493.5  | 542.8  | 696.0  | 833.8  | 806.6  | 728.3  | 699.4  | 672.2  |
| 82.5° | 825.3   | 452.6  | 355.7  | 347.1  | 399.9  | 530.9  | 653.4  | 621.1  | 559.9  | 490.1  | 469.7  |
| 85°   | 311.4   | 224.6  | 217.8  | 211.0  | 234.8  | 314.8  | 405.0  | 398.2  | 333.5  | 284.2  | 279.1  |
| 87.5° | 81.7    | 73.2   | 85.1   | 63.0   | 66.4   | 59.6   | 61.3   | 25.5   | 11.9   | 5.1    | 3.4    |
| 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)