

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: P453603

Luminaire Tested: **GALN-SA4C-827-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4C-827-U-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20836 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G3

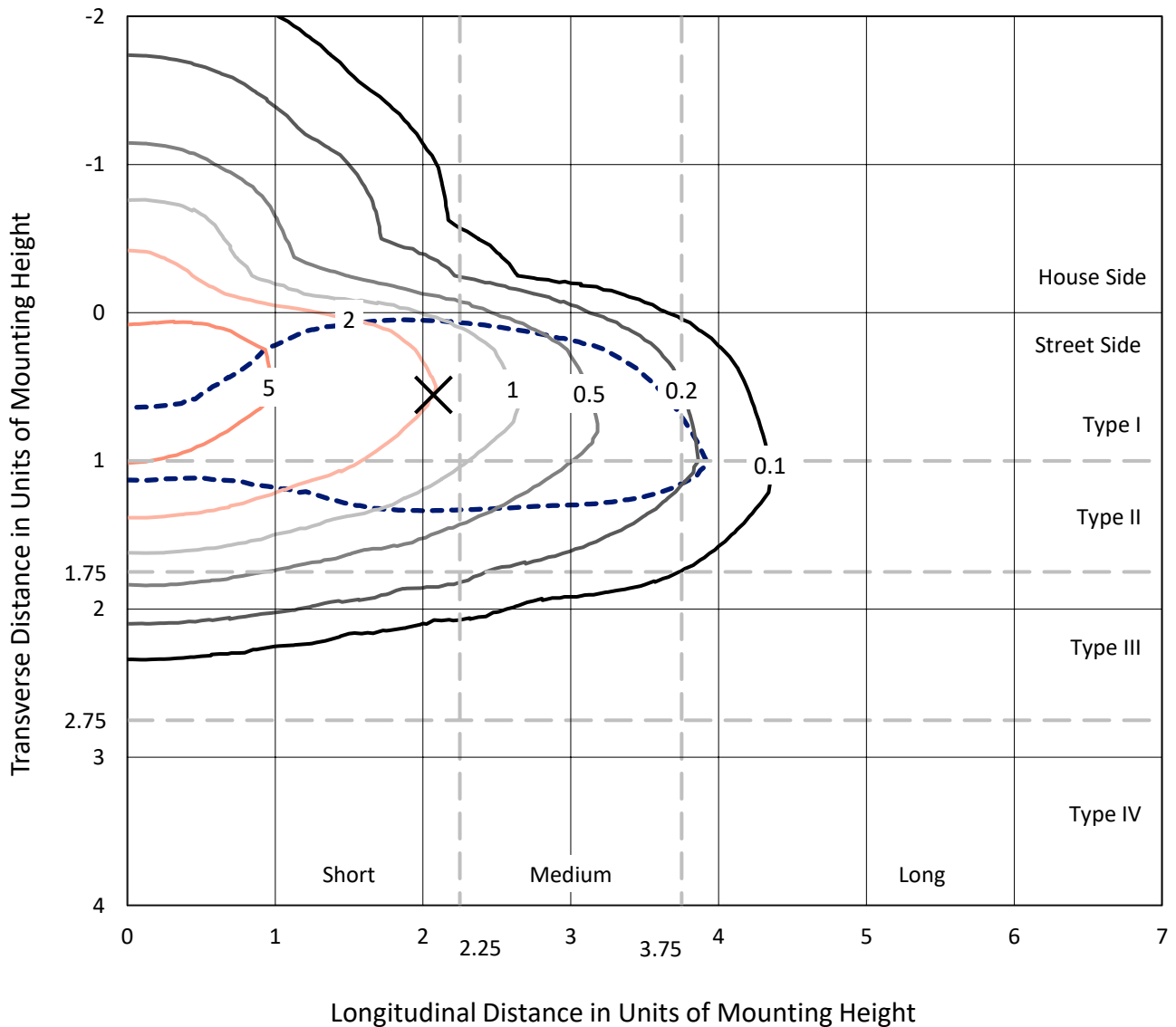
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P453603
 CATALOG NUMBER: GALN-SA4C-827-U-T2R

Iso-Footcandle Lines of Horizontal Illumination

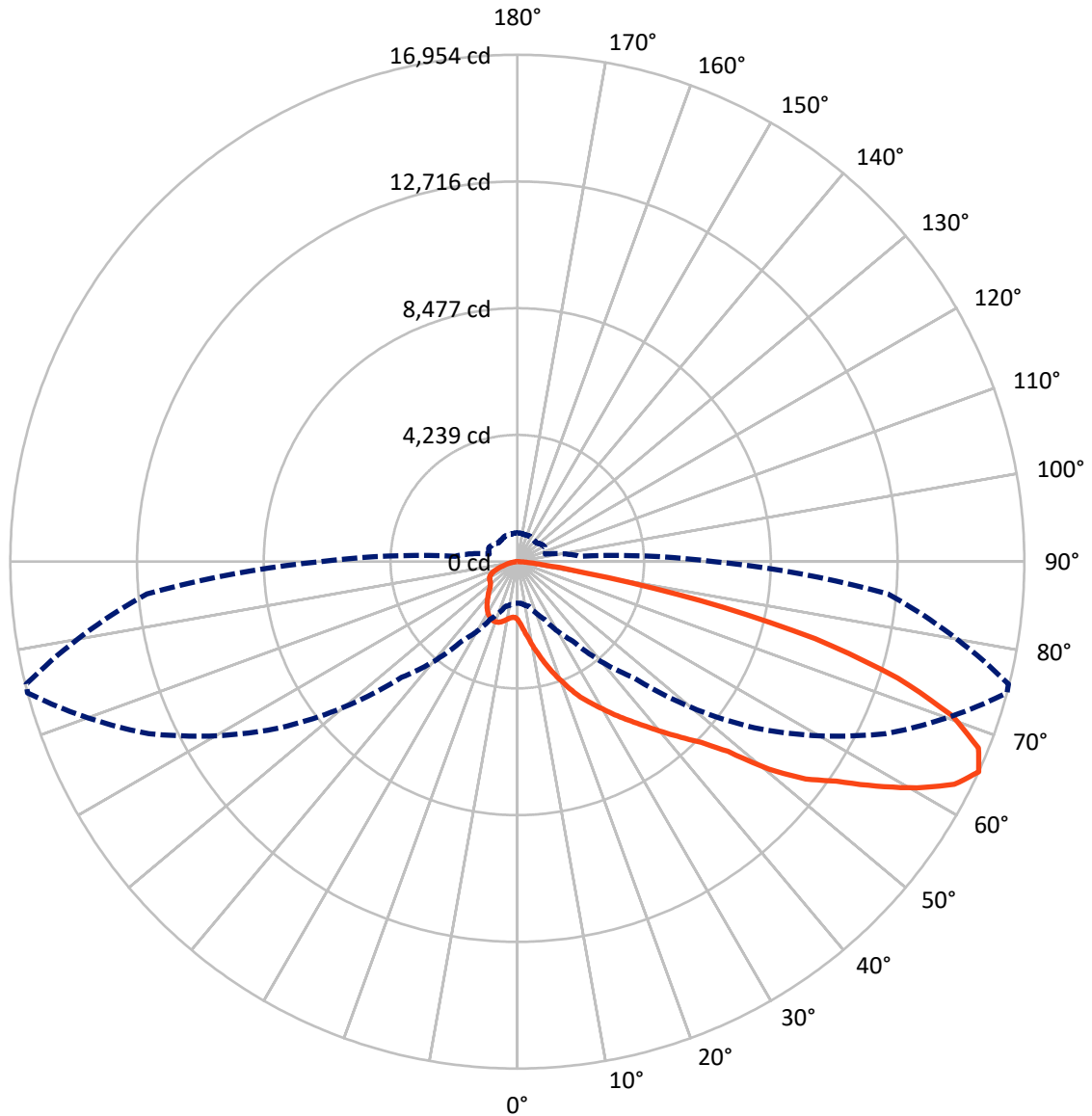
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc
 Type II - Short - N/A

REPORT NUMBER: P453603
CATALOG NUMBER: GALN-SA4C-827-U-T2R

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P453603

CATALOG NUMBER: GALN-SA4C-827-U-T2R

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3502.8 | 0.0 | 3502.8 |
| | % Fixture | 16.8 | 0.0 | 16.8 |
| Street Side | Lumens | 17333.2 | 0.0 | 17333.2 |
| | % Fixture | 83.2 | 0.0 | 83.2 |
| Total | Lumens | 20836.0 | 0.0 | 20836.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 235.2 | 1.1 |
| 10°-20° | 921.3 | 4.4 |
| 20°-30° | 1779.6 | 8.5 |
| 30°-40° | 2890.6 | 13.9 |
| 40°-50° | 3976.3 | 19.1 |
| 50°-60° | 4694.7 | 22.5 |
| 60°-70° | 4113.3 | 19.7 |
| 70°-80° | 1963.7 | 9.4 |
| 80°-90° | 261.3 | 1.3 |
| 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° | 20836.0 | 100.0 |
| 0°-180° | 20836.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P453603

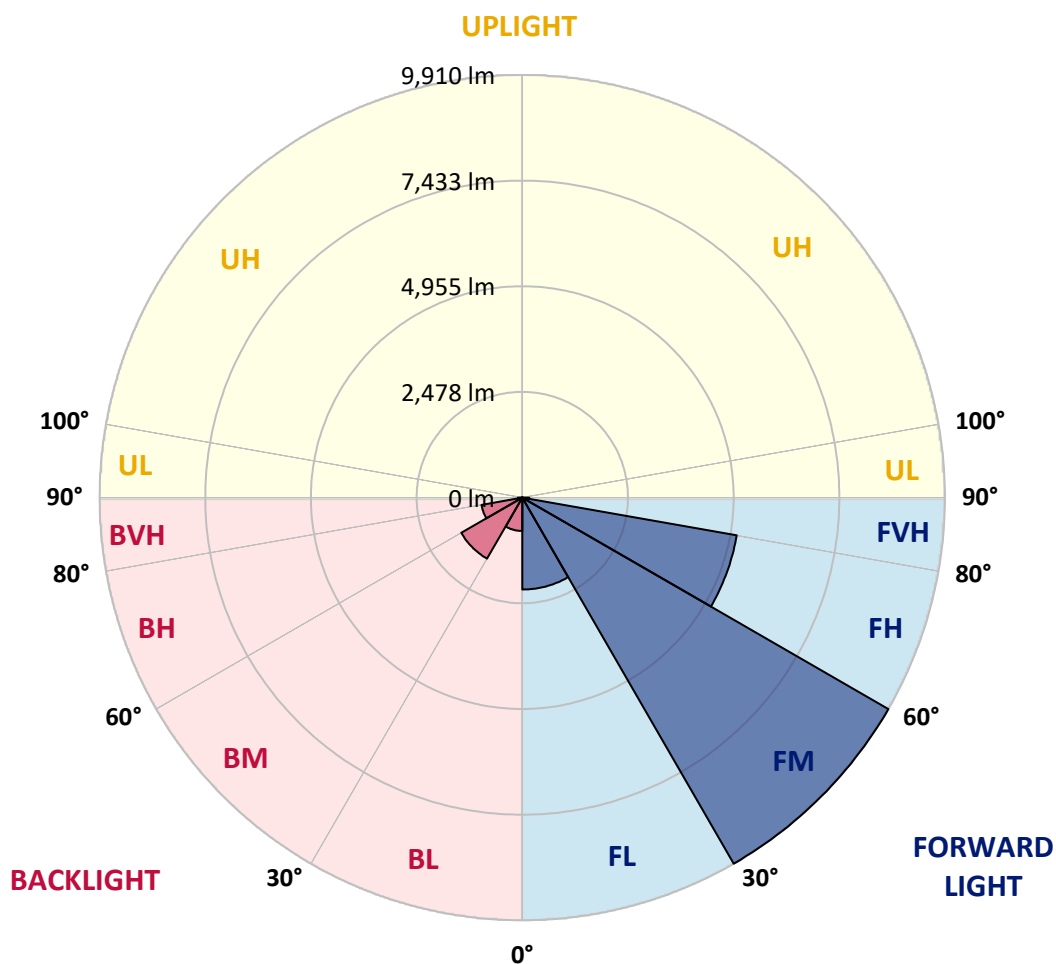
CATALOG NUMBER: GALN-SA4C-827-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2154.1 | 10.3 | | | |
| FM (30°-60°) | 9910.0 | 47.6 | | | |
| FH (60°-80°) | 5105.8 | 24.5 | | | G3/7500 |
| FVH (80°-90°) | 163.3 | 0.8 | | | G2/225 |
| BL (0°-30°) | 782.0 | 3.8 | B2/1000 | | |
| BM (30°-60°) | 1651.5 | 7.9 | B2/2500 | | |
| BH (60°-80°) | 971.3 | 4.7 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 98.0 | 0.5 | | | G1/100 |
| 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: P453603

CATALOG NUMBER: GALN-SA4C-827-U-T2R

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 |
| 2.5° | 2572.2 | 2555.2 | 2537.2 | 2487.4 | 2434.3 | 2374.4 | 2288.5 | 2206.0 | 2096.4 | 2093.0 | 2011.6 |
| 5° | 3285.3 | 3274.0 | 3193.8 | 3147.4 | 3024.3 | 2860.4 | 2721.4 | 2505.5 | 2305.5 | 2281.7 | 2123.5 |
| 7.5° | 3940.8 | 3896.7 | 3866.2 | 3782.6 | 3660.5 | 3450.3 | 3181.3 | 2889.8 | 2555.2 | 2523.6 | 2261.4 |
| 10° | 4434.7 | 4430.1 | 4414.3 | 4342.0 | 4250.5 | 4041.4 | 3743.0 | 3324.9 | 2871.7 | 2809.5 | 2428.7 |
| 12.5° | 4804.2 | 4807.6 | 4805.3 | 4804.2 | 4738.7 | 4561.2 | 4238.0 | 3797.3 | 3191.5 | 3147.4 | 2621.9 |
| 15° | 5047.2 | 5081.1 | 5094.7 | 5151.2 | 5156.8 | 5038.2 | 4760.1 | 4253.8 | 3552.0 | 3486.5 | 2829.9 |
| 17.5° | 5207.7 | 5224.6 | 5287.9 | 5384.0 | 5462.0 | 5440.5 | 5193.0 | 4676.5 | 3920.5 | 3810.8 | 3045.7 |
| 20° | 5361.4 | 5390.8 | 5439.4 | 5570.5 | 5708.3 | 5771.6 | 5597.6 | 5109.4 | 4285.5 | 4215.4 | 3284.2 |
| 22.5° | 5681.2 | 5723.0 | 5740.0 | 5806.7 | 5924.2 | 6036.1 | 5957.0 | 5524.1 | 4685.6 | 4590.6 | 3537.3 |
| 25° | 6222.5 | 6266.6 | 6219.2 | 6203.3 | 6241.8 | 6297.1 | 6280.2 | 5915.1 | 5063.0 | 4927.4 | 3776.9 |
| 27.5° | 6927.8 | 6933.4 | 6840.7 | 6752.6 | 6657.6 | 6629.4 | 6577.4 | 6262.1 | 5390.8 | 5277.7 | 4017.6 |
| 30° | 7684.9 | 7657.8 | 7504.1 | 7344.8 | 7184.3 | 7026.1 | 6876.9 | 6596.6 | 5755.8 | 5625.8 | 4253.8 |
| 32.5° | 8387.9 | 8373.2 | 8202.5 | 7955.0 | 7683.8 | 7534.6 | 7232.9 | 6934.5 | 6146.8 | 6021.4 | 4496.8 |
| 35° | 8914.5 | 8936.0 | 8748.4 | 8478.3 | 8182.2 | 8050.0 | 7669.1 | 7289.4 | 6551.4 | 6414.7 | 4761.3 |
| 37.5° | 9288.6 | 9277.3 | 9111.2 | 8877.2 | 8617.3 | 8502.0 | 8178.8 | 7677.0 | 6986.5 | 6855.4 | 5050.6 |
| 40° | 9422.0 | 9415.2 | 9292.0 | 9121.3 | 8956.3 | 8915.7 | 8712.2 | 8095.2 | 7484.9 | 7331.2 | 5398.7 |
| 42.5° | 9337.2 | 9351.9 | 9270.5 | 9224.2 | 9193.7 | 9223.1 | 9242.3 | 8643.3 | 8028.5 | 7887.2 | 5776.1 |
| 45° | 9077.3 | 9069.4 | 9058.1 | 9133.8 | 9305.6 | 9498.8 | 9766.7 | 9160.9 | 8619.6 | 8506.6 | 6282.4 |
| 47.5° | 8612.8 | 8669.3 | 8697.5 | 8906.6 | 9281.8 | 9739.5 | 10370.2 | 9854.8 | 9477.3 | 9379.0 | 7054.3 |
| 50° | 7963.0 | 8008.2 | 8175.4 | 8547.2 | 9106.7 | 9829.9 | 10960.1 | 10989.5 | 10908.1 | 10723.9 | 7892.9 |
| 52.5° | 6948.1 | 7018.2 | 7362.9 | 8044.3 | 8747.3 | 9792.7 | 11317.2 | 11962.5 | 12069.9 | 11932.0 | 8719.0 |
| 55° | 5812.3 | 5910.6 | 6274.5 | 7168.5 | 8252.3 | 9589.2 | 11563.6 | 12526.5 | 12954.8 | 12827.1 | 9514.6 |
| 57.5° | 4700.2 | 4804.2 | 5178.3 | 6044.0 | 7388.8 | 9139.4 | 11725.2 | 13154.8 | 14159.5 | 13993.4 | 10504.6 |
| 60° | 3522.6 | 3631.1 | 3952.1 | 4843.8 | 6159.3 | 8260.2 | 11615.6 | 13699.5 | 15363.1 | 15291.9 | 11495.8 |
| 62.5° | 2272.7 | 2392.5 | 2671.6 | 3409.6 | 4734.2 | 7058.8 | 11029.0 | 14000.2 | 16405.1 | 16319.2 | 12219.1 |
| 65° | 1384.4 | 1398.0 | 1551.7 | 2116.7 | 3240.1 | 5465.4 | 9687.5 | 13601.2 | 16954.3 | 16928.3 | 12439.4 |
| 67.5° | 895.1 | 916.5 | 986.6 | 1268.0 | 1942.7 | 3796.1 | 7746.0 | 12284.6 | 16633.4 | 16624.3 | 11984.0 |
| 70° | 756.1 | 762.8 | 794.5 | 855.5 | 1129.0 | 2302.1 | 5439.4 | 10185.9 | 15414.0 | 15414.0 | 10888.9 |
| 72.5° | 675.8 | 684.9 | 696.2 | 715.4 | 805.8 | 1304.2 | 3245.8 | 7929.1 | 13308.5 | 13396.7 | 9268.3 |
| 75° | 613.7 | 611.4 | 618.2 | 621.6 | 687.1 | 852.1 | 1678.3 | 5864.3 | 10295.6 | 10119.3 | 6711.9 |
| 77.5° | 525.5 | 528.9 | 525.5 | 540.2 | 606.9 | 648.7 | 852.1 | 3935.1 | 6239.5 | 6011.2 | 3368.9 |
| 80° | 431.7 | 437.4 | 443.0 | 452.1 | 518.7 | 492.7 | 512.0 | 1793.5 | 2307.7 | 2259.1 | 1040.9 |
| 82.5° | 324.3 | 332.3 | 341.3 | 362.8 | 408.0 | 325.5 | 323.2 | 766.2 | 832.9 | 762.8 | 383.1 |
| 85° | 131.1 | 154.8 | 233.9 | 255.4 | 256.5 | 178.6 | 198.9 | 319.8 | 340.2 | 332.3 | 150.3 |
| 87.5° | 30.5 | 36.2 | 75.7 | 114.1 | 105.1 | 66.7 | 73.5 | 104.0 | 118.7 | 109.6 | 50.9 |
| 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: P453603
 CATALOG NUMBER: GALN-SA4C-827-U-T2R

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 | 1935.9 |
| 2.5° | 1974.4 | 1934.8 | 1867.0 | 1815.0 | 1777.7 | 1744.9 | 1724.6 | 1712.2 | 1707.6 | 1706.5 | 1707.6 |
| 5° | 2041.0 | 1971.0 | 1863.6 | 1795.8 | 1758.5 | 1737.0 | 1724.6 | 1723.5 | 1724.6 | 1725.7 | 1722.3 |
| 7.5° | 2132.6 | 2032.0 | 1891.9 | 1828.6 | 1800.3 | 1784.5 | 1778.8 | 1776.6 | 1777.7 | 1776.6 | 1776.6 |
| 10° | 2254.6 | 2116.7 | 1947.2 | 1881.7 | 1857.9 | 1839.9 | 1830.8 | 1825.2 | 1820.7 | 1816.1 | 1813.9 |
| 12.5° | 2389.1 | 2210.6 | 2007.1 | 1943.8 | 1909.9 | 1881.7 | 1861.3 | 1846.6 | 1836.5 | 1826.3 | 1824.0 |
| 15° | 2539.4 | 2310.0 | 2073.8 | 1985.7 | 1937.1 | 1895.2 | 1860.2 | 1836.5 | 1818.4 | 1803.7 | 1802.6 |
| 17.5° | 2682.9 | 2403.8 | 2119.0 | 2004.9 | 1933.7 | 1874.9 | 1828.6 | 1795.8 | 1773.2 | 1754.0 | 1751.7 |
| 20° | 2836.6 | 2493.1 | 2139.4 | 1992.4 | 1899.8 | 1828.6 | 1767.5 | 1728.0 | 1702.0 | 1680.5 | 1677.1 |
| 22.5° | 2991.5 | 2568.8 | 2137.1 | 1952.9 | 1841.0 | 1757.4 | 1692.9 | 1651.1 | 1620.6 | 1599.1 | 1591.2 |
| 25° | 3139.5 | 2629.8 | 2108.8 | 1889.6 | 1759.6 | 1672.6 | 1607.1 | 1568.6 | 1541.5 | 1515.5 | 1515.5 |
| 27.5° | 3272.9 | 2666.0 | 2055.7 | 1812.7 | 1676.0 | 1584.5 | 1532.5 | 1497.4 | 1472.6 | 1455.6 | 1445.4 |
| 30° | 3404.0 | 2682.9 | 1983.4 | 1715.6 | 1587.8 | 1509.9 | 1468.1 | 1447.7 | 1425.1 | 1405.9 | 1403.6 |
| 32.5° | 3521.5 | 2679.6 | 1893.0 | 1620.6 | 1504.2 | 1448.8 | 1431.9 | 1416.1 | 1392.3 | 1365.2 | 1358.4 |
| 35° | 3635.7 | 2657.0 | 1785.6 | 1516.6 | 1434.1 | 1412.7 | 1417.2 | 1394.6 | 1351.6 | 1317.7 | 1312.1 |
| 37.5° | 3760.0 | 2616.3 | 1668.1 | 1431.9 | 1375.4 | 1395.7 | 1407.0 | 1357.3 | 1287.2 | 1234.1 | 1221.7 |
| 40° | 3903.5 | 2569.9 | 1546.0 | 1347.1 | 1329.0 | 1379.9 | 1379.9 | 1288.4 | 1192.3 | 1159.5 | 1150.5 |
| 42.5° | 4071.9 | 2531.5 | 1444.3 | 1275.9 | 1290.6 | 1341.5 | 1335.8 | 1196.8 | 1157.3 | 1140.3 | 1135.8 |
| 45° | 4338.6 | 2517.9 | 1339.2 | 1213.8 | 1259.0 | 1296.3 | 1249.9 | 1165.2 | 1142.6 | 1129.0 | 1124.5 |
| 47.5° | 4760.1 | 2533.8 | 1246.5 | 1167.4 | 1222.8 | 1251.1 | 1153.9 | 1143.7 | 1127.9 | 1108.7 | 1106.4 |
| 50° | 5151.2 | 2519.1 | 1181.0 | 1141.4 | 1191.2 | 1196.8 | 1114.3 | 1117.7 | 1108.7 | 1087.2 | 1082.7 |
| 52.5° | 5471.0 | 2472.7 | 1139.2 | 1127.9 | 1164.0 | 1101.9 | 1077.0 | 1089.5 | 1086.1 | 1058.9 | 1054.4 |
| 55° | 5822.5 | 2444.5 | 1118.8 | 1127.9 | 1146.0 | 1019.4 | 1042.0 | 1060.1 | 1055.5 | 1036.3 | 1035.2 |
| 57.5° | 6248.5 | 2450.1 | 1104.1 | 1131.3 | 1127.9 | 977.6 | 1007.0 | 1028.4 | 1027.3 | 1021.6 | 1021.6 |
| 60° | 6684.8 | 2452.4 | 1081.5 | 1130.1 | 1106.4 | 944.8 | 970.8 | 1001.3 | 1003.6 | 1007.0 | 1007.0 |
| 62.5° | 6829.4 | 2354.1 | 1037.5 | 1109.8 | 1058.9 | 913.2 | 936.9 | 978.7 | 976.4 | 985.5 | 986.6 |
| 65° | 6559.3 | 2081.7 | 971.9 | 1063.5 | 997.9 | 890.5 | 910.9 | 949.3 | 936.9 | 960.6 | 965.1 |
| 67.5° | 5970.5 | 1722.3 | 870.2 | 979.8 | 930.1 | 866.8 | 893.9 | 908.6 | 886.0 | 932.4 | 933.5 |
| 70° | 5160.2 | 1344.9 | 741.4 | 861.2 | 853.3 | 842.0 | 880.4 | 857.8 | 826.1 | 882.6 | 871.3 |
| 72.5° | 4314.9 | 1027.3 | 592.2 | 704.1 | 750.4 | 804.7 | 856.6 | 792.2 | 748.2 | 765.1 | 744.8 |
| 75° | 3241.2 | 759.5 | 475.8 | 551.5 | 625.0 | 751.5 | 835.2 | 713.1 | 645.3 | 629.5 | 625.0 |
| 77.5° | 1652.3 | 496.1 | 356.0 | 412.5 | 469.0 | 679.2 | 805.8 | 620.4 | 534.6 | 509.7 | 498.4 |
| 80° | 589.9 | 308.5 | 250.9 | 284.8 | 316.4 | 584.3 | 704.1 | 513.1 | 414.8 | 410.2 | 414.8 |
| 82.5° | 273.5 | 198.9 | 168.4 | 186.5 | 187.6 | 389.9 | 536.8 | 383.1 | 315.3 | 479.2 | 404.6 |
| 85° | 117.5 | 99.5 | 94.9 | 92.7 | 85.9 | 174.0 | 301.7 | 205.7 | 321.0 | 143.5 | 132.2 |
| 87.5° | 35.0 | 39.6 | 35.0 | 26.0 | 19.2 | 19.2 | 30.5 | 11.3 | 7.9 | 5.7 | 5.7 |
| 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)