

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: P451754

Luminaire Tested: **GALN-SA2C-827-U-T4W-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451754
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA2C-827-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7518 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

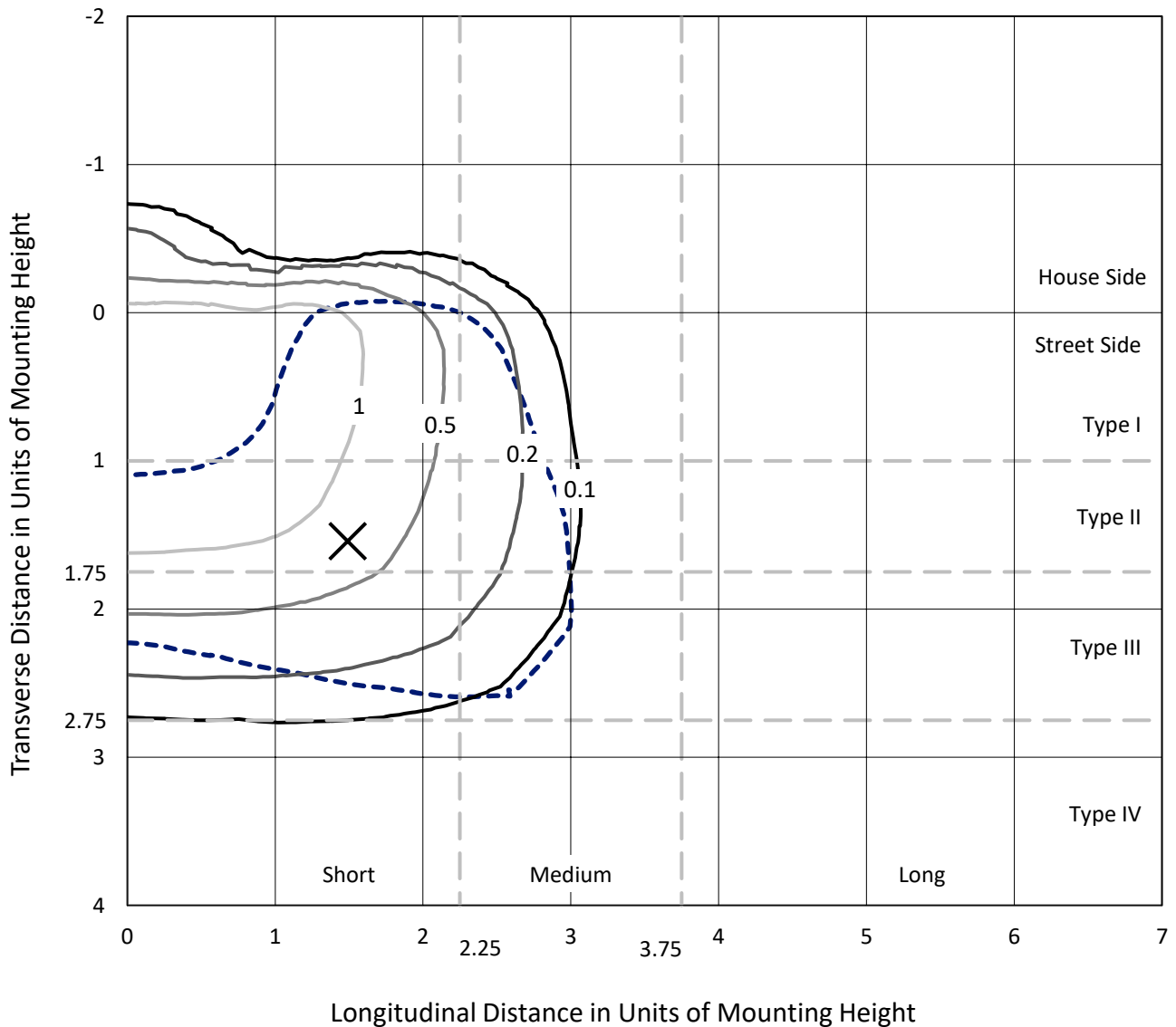
Input Watts (W): 108
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P451754
 CATALOG NUMBER: GALN-SA2C-827-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

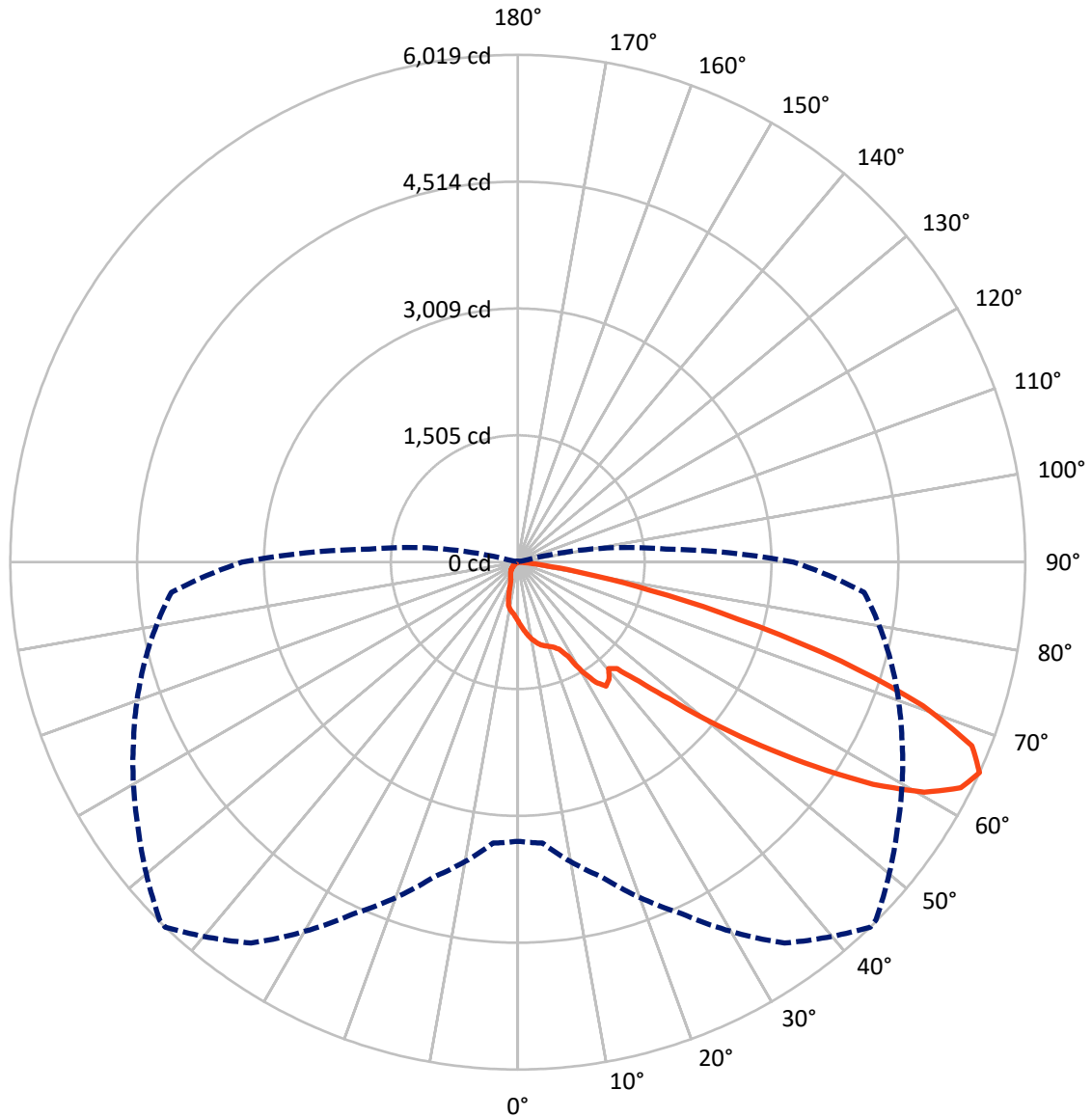
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type III - Short - N/A

REPORT NUMBER: P451754
CATALOG NUMBER: GALN-SA2C-827-U-T4W-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P451754

CATALOG NUMBER: GALN-SA2C-827-U-T4W-HSS

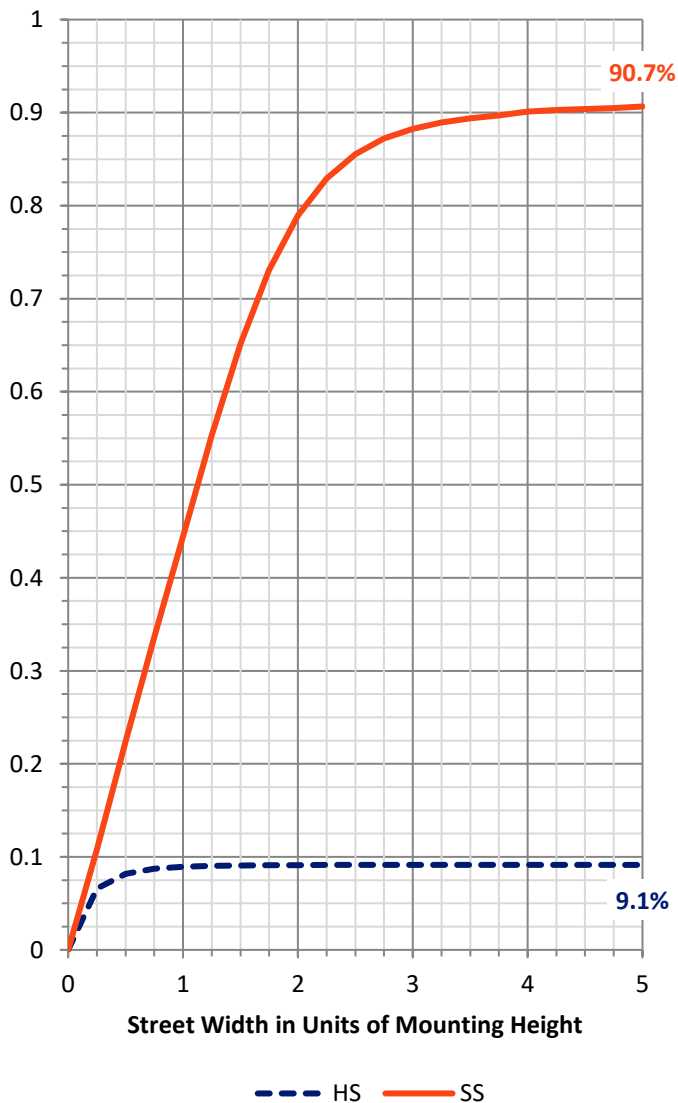
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 692.7 | 0.0 | 692.7 |
| | % Fixture | 9.2 | 0.0 | 9.2 |
| Street Side | Lumens | 6825.3 | 0.0 | 6825.3 |
| | % Fixture | 90.8 | 0.0 | 90.8 |
| Total | Lumens | 7518.0 | 0.0 | 7518.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 69.6 | 0.9 |
| 10°-20° | 209.4 | 2.8 |
| 20°-30° | 355.2 | 4.7 |
| 30°-40° | 590.5 | 7.9 |
| 40°-50° | 1031.0 | 13.7 |
| 50°-60° | 2014.3 | 26.8 |
| 60°-70° | 2337.0 | 31.1 |
| 70°-80° | 851.0 | 11.3 |
| 80°-90° | 60.0 | 0.8 |
| 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° | 7518.0 | 100.0 |
| 0°-180° | 7518.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P451754

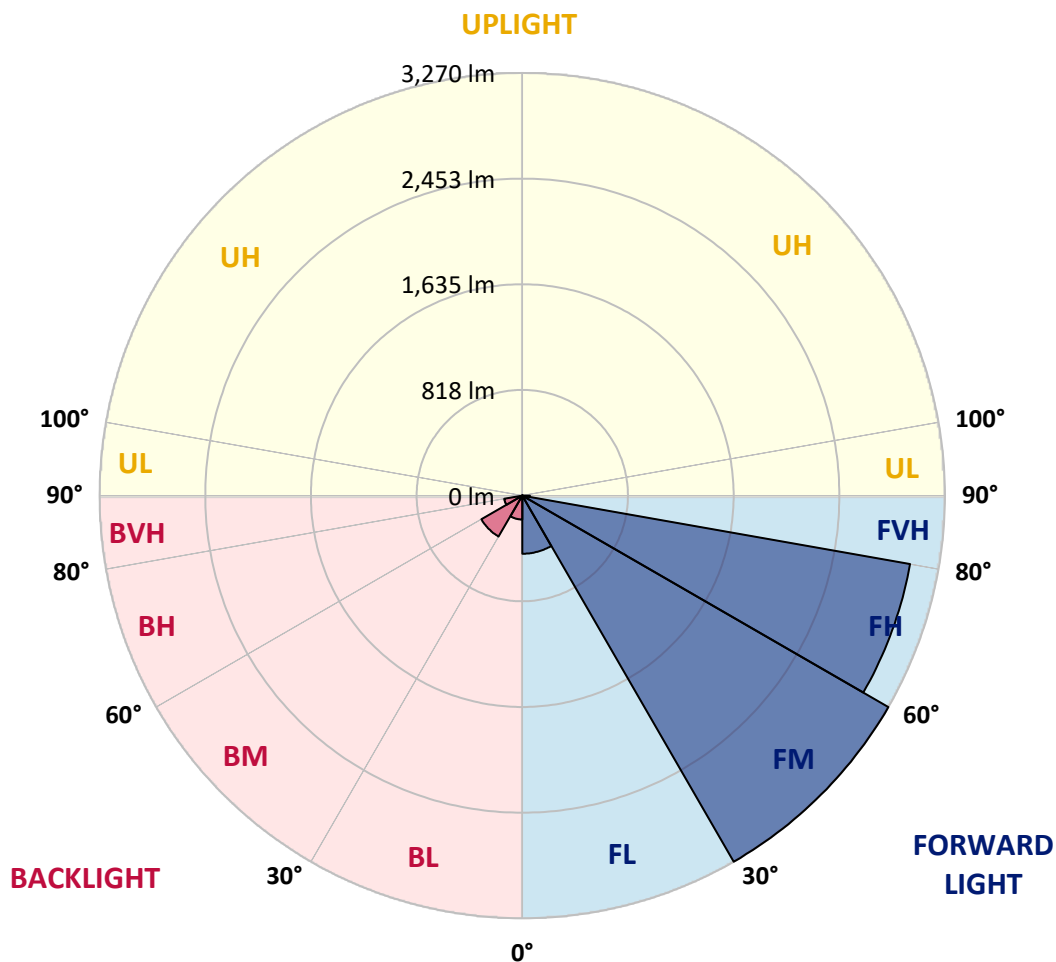
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 449.6 | 6.0 | | | |
| FM | (30°-60°) | 3270.3 | 43.5 | | | |
| FH | (60°-80°) | 3046.2 | 40.5 | | | G2/5000 |
| FVH | (80°-90°) | 59.1 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 184.5 | 2.5 | B1/500 | | |
| BM | (30°-60°) | 365.5 | 4.9 | B1/1000 | | |
| BH | (60°-80°) | 141.8 | 1.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 0.8 | 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: P451754

CATALOG NUMBER: GALN-SA2C-827-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 |
| 2.5° | 787.6 | 784.1 | 782.4 | 773.2 | 766.3 | 757.7 | 757.7 | 746.8 | 734.2 | 720.4 | 707.7 |
| 5° | 875.5 | 869.7 | 862.3 | 854.2 | 838.1 | 815.2 | 815.2 | 792.2 | 765.8 | 742.2 | 716.4 |
| 7.5° | 959.9 | 954.8 | 942.1 | 926.6 | 900.2 | 876.1 | 874.3 | 841.0 | 809.4 | 773.8 | 737.0 |
| 10° | 1034.0 | 1030.0 | 1019.1 | 989.2 | 961.7 | 930.1 | 929.5 | 892.1 | 855.4 | 811.7 | 766.3 |
| 12.5° | 1085.7 | 1086.3 | 1072.0 | 1043.2 | 1007.6 | 977.7 | 975.4 | 938.7 | 900.2 | 853.1 | 797.4 |
| 15° | 1122.5 | 1122.5 | 1107.6 | 1075.4 | 1043.2 | 1016.8 | 1014.5 | 982.3 | 942.7 | 891.6 | 831.3 |
| 17.5° | 1132.9 | 1136.3 | 1120.2 | 1091.5 | 1065.6 | 1042.7 | 1042.1 | 1015.1 | 983.5 | 934.1 | 865.7 |
| 20° | 1128.8 | 1132.3 | 1119.6 | 1097.2 | 1079.4 | 1066.2 | 1064.5 | 1053.6 | 1024.3 | 977.7 | 902.5 |
| 22.5° | 1120.2 | 1123.7 | 1114.5 | 1101.3 | 1092.6 | 1096.7 | 1093.8 | 1103.0 | 1087.5 | 1031.2 | 946.1 |
| 25° | 1121.9 | 1125.4 | 1118.5 | 1111.0 | 1118.5 | 1143.2 | 1150.7 | 1190.3 | 1176.5 | 1099.0 | 993.3 |
| 27.5° | 1175.9 | 1182.8 | 1173.1 | 1176.5 | 1202.9 | 1260.4 | 1274.7 | 1343.1 | 1282.2 | 1185.1 | 1066.8 |
| 30° | 1296.0 | 1291.4 | 1273.0 | 1289.7 | 1381.6 | 1503.4 | 1499.4 | 1488.4 | 1393.1 | 1284.5 | 1154.1 |
| 32.5° | 1405.1 | 1401.1 | 1400.0 | 1471.8 | 1638.4 | 1697.6 | 1694.7 | 1589.0 | 1492.5 | 1398.3 | 1240.3 |
| 35° | 1449.4 | 1433.9 | 1430.4 | 1604.5 | 1883.1 | 1805.0 | 1787.2 | 1630.3 | 1613.1 | 1522.3 | 1328.2 |
| 37.5° | 1582.7 | 1571.7 | 1518.3 | 1626.3 | 1785.4 | 1759.6 | 1745.8 | 1701.6 | 1741.8 | 1632.1 | 1427.6 |
| 40° | 1857.3 | 1826.8 | 1778.6 | 1672.8 | 1647.0 | 1657.9 | 1671.7 | 1792.9 | 1894.0 | 1782.0 | 1560.3 |
| 42.5° | 2198.5 | 2191.6 | 2102.0 | 1904.9 | 1711.3 | 1726.3 | 1744.1 | 1983.6 | 2112.9 | 2007.8 | 1776.8 |
| 45° | 2608.1 | 2617.8 | 2488.6 | 2255.9 | 2002.0 | 2014.7 | 2040.5 | 2265.1 | 2409.3 | 2358.8 | 2117.5 |
| 47.5° | 2980.3 | 2972.9 | 2929.2 | 2687.4 | 2453.0 | 2424.8 | 2466.8 | 2626.5 | 2819.5 | 2827.5 | 2540.3 |
| 50° | 3354.9 | 3394.5 | 3329.6 | 3234.8 | 3060.8 | 3001.6 | 2986.1 | 3064.2 | 3358.3 | 3319.8 | 3048.1 |
| 52.5° | 3893.2 | 3913.8 | 3792.1 | 3767.9 | 3807.6 | 3615.7 | 3600.2 | 3619.1 | 3882.3 | 3750.1 | 3428.4 |
| 55° | 4231.5 | 4219.5 | 4174.1 | 4362.5 | 4519.3 | 4279.8 | 4260.3 | 4183.8 | 4317.1 | 4054.0 | 3794.4 |
| 57.5° | 4338.4 | 4355.6 | 4461.3 | 4802.0 | 5173.1 | 4969.7 | 4934.1 | 4717.0 | 4630.8 | 4337.2 | 4131.0 |
| 60° | 4290.7 | 4322.3 | 4550.4 | 5057.0 | 5571.8 | 5541.3 | 5510.9 | 5146.1 | 4856.0 | 4573.9 | 4367.1 |
| 62.5° | 3951.2 | 3995.4 | 4360.2 | 5011.7 | 5706.8 | 5896.9 | 5859.0 | 5413.8 | 5005.9 | 4688.8 | 4408.5 |
| 65° | 3311.2 | 3344.0 | 3867.9 | 4599.8 | 5514.9 | 6018.7 | 6004.9 | 5497.7 | 5029.5 | 4583.7 | 4125.3 |
| 67.5° | 2360.5 | 2471.9 | 2957.4 | 3876.5 | 4947.3 | 5810.7 | 5834.3 | 5397.1 | 4808.3 | 4129.3 | 3416.4 |
| 70° | 1483.8 | 1559.7 | 1907.8 | 2775.3 | 3966.1 | 5097.8 | 5175.4 | 4937.0 | 4172.9 | 3218.7 | 2287.0 |
| 72.5° | 707.7 | 764.0 | 1012.2 | 1756.7 | 2799.4 | 4010.9 | 4072.4 | 4052.9 | 3226.8 | 2027.9 | 1180.0 |
| 75° | 315.4 | 336.6 | 483.1 | 896.7 | 1807.3 | 2696.0 | 2855.1 | 2881.5 | 2016.4 | 992.1 | 459.0 |
| 77.5° | 160.9 | 161.4 | 226.3 | 434.3 | 902.5 | 1608.5 | 1640.1 | 1732.6 | 1093.2 | 437.2 | 159.7 |
| 80° | 85.6 | 91.3 | 120.1 | 205.1 | 468.2 | 792.2 | 788.2 | 866.3 | 484.9 | 214.3 | 53.4 |
| 82.5° | 38.5 | 42.5 | 67.8 | 107.4 | 228.6 | 300.4 | 324.0 | 354.4 | 208.0 | 136.7 | 23.6 |
| 85° | 11.5 | 13.8 | 33.3 | 54.0 | 82.7 | 86.7 | 97.1 | 125.2 | 117.8 | 97.1 | 12.1 |
| 87.5° | 1.7 | 1.7 | 13.8 | 14.9 | 12.1 | 15.5 | 16.1 | 17.8 | 37.9 | 35.6 | 6.3 |
| 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: P451754
 CATALOG NUMBER: GALN-SA2C-827-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 | 699.7 |
| 2.5° | 700.9 | 696.8 | 682.5 | 670.4 | 660.1 | 653.7 | 646.3 | 641.7 | 639.4 | 637.7 | 638.2 |
| 5° | 703.7 | 694.0 | 669.3 | 649.7 | 634.8 | 618.7 | 607.8 | 601.5 | 598.6 | 594.0 | 594.0 |
| 7.5° | 719.8 | 704.3 | 669.8 | 640.0 | 614.1 | 592.3 | 571.6 | 564.1 | 559.0 | 557.8 | 556.7 |
| 10° | 742.8 | 723.3 | 676.1 | 634.8 | 598.0 | 568.1 | 538.9 | 513.0 | 492.9 | 480.8 | 479.1 |
| 12.5° | 771.5 | 743.4 | 685.9 | 631.3 | 584.2 | 531.4 | 453.8 | 401.6 | 366.5 | 355.6 | 357.3 |
| 15° | 797.9 | 767.5 | 695.7 | 628.5 | 559.0 | 440.6 | 352.7 | 293.0 | 275.2 | 273.4 | 274.0 |
| 17.5° | 829.5 | 793.3 | 707.2 | 624.4 | 489.4 | 336.6 | 262.0 | 245.9 | 249.3 | 255.1 | 254.5 |
| 20° | 862.3 | 820.9 | 721.0 | 600.3 | 390.6 | 253.3 | 231.5 | 233.2 | 238.4 | 243.6 | 244.7 |
| 22.5° | 897.3 | 852.5 | 737.0 | 542.3 | 298.1 | 220.6 | 219.4 | 221.7 | 226.9 | 232.7 | 233.8 |
| 25° | 945.6 | 892.1 | 749.1 | 466.5 | 225.8 | 203.9 | 206.2 | 210.3 | 214.9 | 221.2 | 222.3 |
| 27.5° | 1007.6 | 945.6 | 755.4 | 367.7 | 195.3 | 189.0 | 189.6 | 195.3 | 201.1 | 206.8 | 206.8 |
| 30° | 1088.0 | 1009.3 | 742.8 | 278.0 | 180.4 | 174.6 | 172.3 | 175.8 | 183.3 | 189.0 | 189.6 |
| 32.5° | 1159.9 | 1069.7 | 709.5 | 212.6 | 169.5 | 161.4 | 155.7 | 156.3 | 159.1 | 162.6 | 163.1 |
| 35° | 1231.7 | 1128.3 | 652.6 | 178.7 | 158.0 | 148.8 | 140.2 | 135.6 | 133.3 | 131.6 | 133.3 |
| 37.5° | 1323.6 | 1201.2 | 576.8 | 162.6 | 148.2 | 136.7 | 124.7 | 114.9 | 106.9 | 101.7 | 102.8 |
| 40° | 1441.9 | 1302.3 | 487.1 | 152.2 | 139.0 | 125.2 | 109.1 | 96.5 | 82.7 | 78.1 | 75.8 |
| 42.5° | 1637.2 | 1455.7 | 392.9 | 143.6 | 129.8 | 113.2 | 93.1 | 75.8 | 63.2 | 58.6 | 59.7 |
| 45° | 1945.7 | 1649.3 | 302.7 | 134.4 | 120.6 | 100.0 | 78.1 | 59.7 | 49.4 | 47.1 | 48.3 |
| 47.5° | 2354.7 | 1899.8 | 233.2 | 124.1 | 109.1 | 85.6 | 61.5 | 47.1 | 40.8 | 40.2 | 39.6 |
| 50° | 2739.6 | 2133.0 | 194.7 | 112.6 | 95.4 | 71.2 | 50.6 | 39.6 | 35.6 | 35.0 | 35.0 |
| 52.5° | 3087.8 | 2300.2 | 158.6 | 99.4 | 80.4 | 58.6 | 42.5 | 35.0 | 31.6 | 29.9 | 29.9 |
| 55° | 3397.4 | 2409.3 | 128.7 | 83.3 | 63.2 | 46.5 | 36.8 | 31.6 | 27.6 | 25.3 | 24.7 |
| 57.5° | 3631.2 | 2422.5 | 96.5 | 66.6 | 47.1 | 36.2 | 31.6 | 27.6 | 23.0 | 20.1 | 19.0 |
| 60° | 3731.2 | 2308.2 | 71.2 | 50.6 | 35.0 | 28.7 | 25.3 | 22.4 | 17.2 | 14.4 | 13.8 |
| 62.5° | 3630.6 | 2085.9 | 52.9 | 38.5 | 27.0 | 21.3 | 17.8 | 16.7 | 12.1 | 8.6 | 8.0 |
| 65° | 3270.4 | 1764.8 | 41.9 | 29.3 | 20.1 | 15.5 | 11.5 | 10.9 | 7.5 | 4.0 | 3.4 |
| 67.5° | 2620.1 | 1382.2 | 33.3 | 21.8 | 14.4 | 10.3 | 7.5 | 6.9 | 4.0 | 1.1 | 1.1 |
| 70° | 1703.9 | 883.5 | 27.0 | 16.1 | 9.2 | 6.9 | 4.6 | 3.4 | 2.3 | 0.6 | 0.0 |
| 72.5° | 842.7 | 413.0 | 21.8 | 12.6 | 6.3 | 3.4 | 1.7 | 1.1 | 1.7 | 0.0 | 0.0 |
| 75° | 326.9 | 147.1 | 16.1 | 8.6 | 3.4 | 1.7 | 1.1 | 0.0 | 0.6 | 0.0 | 0.0 |
| 77.5° | 108.6 | 48.8 | 9.8 | 4.6 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 40.2 | 19.0 | 5.2 | 2.9 | 1.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 16.1 | 7.5 | 3.4 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 8.0 | 4.6 | 2.3 | 1.7 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.7 | 3.4 | 2.3 | 1.7 | 1.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)