

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: P651152

Luminaire Tested: **GALN-SA9C-840-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651152
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9C-840-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54851.7 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

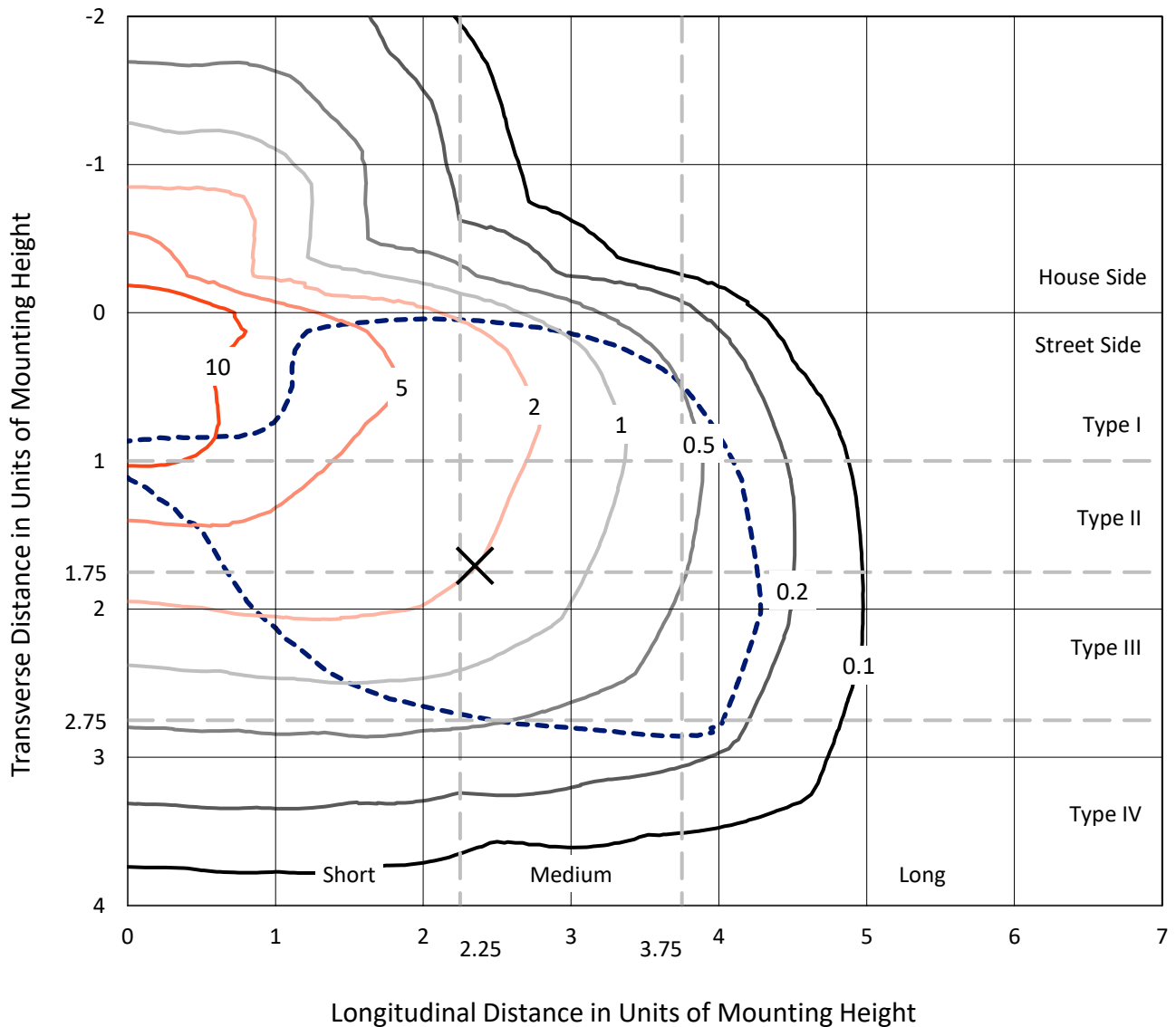
Input Watts (W): 481
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P651152
 CATALOG NUMBER: GALN-SA9C-840-U-T3R

Iso-Footcandle Lines of Horizontal Illumination

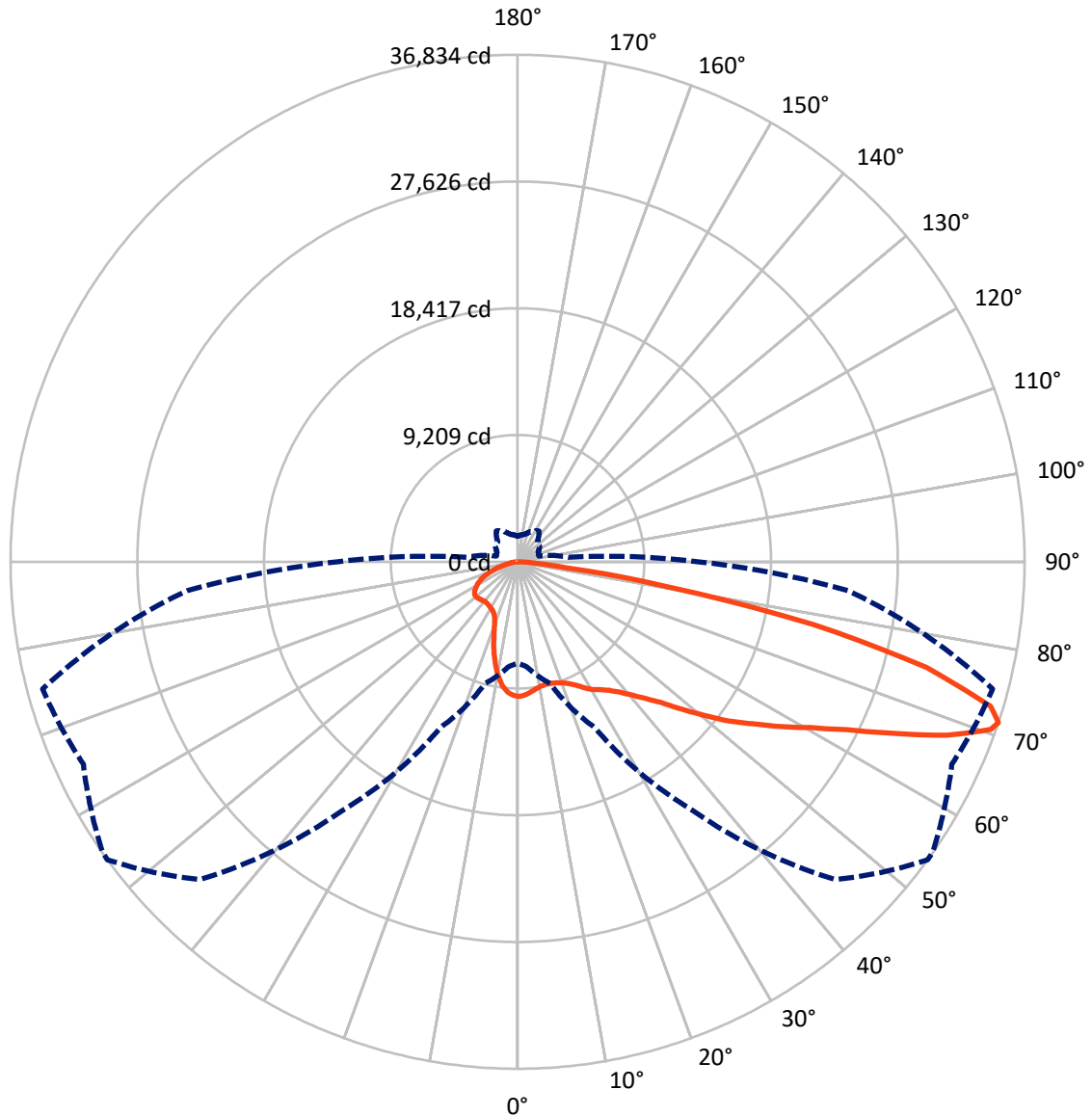
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.8 fc
 Type IV - Medium - N/A

REPORT NUMBER: P651152
CATALOG NUMBER: GALN-SA9C-840-U-T3R

Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P651152
 CATALOG NUMBER: GALN-SA9C-840-U-T3R

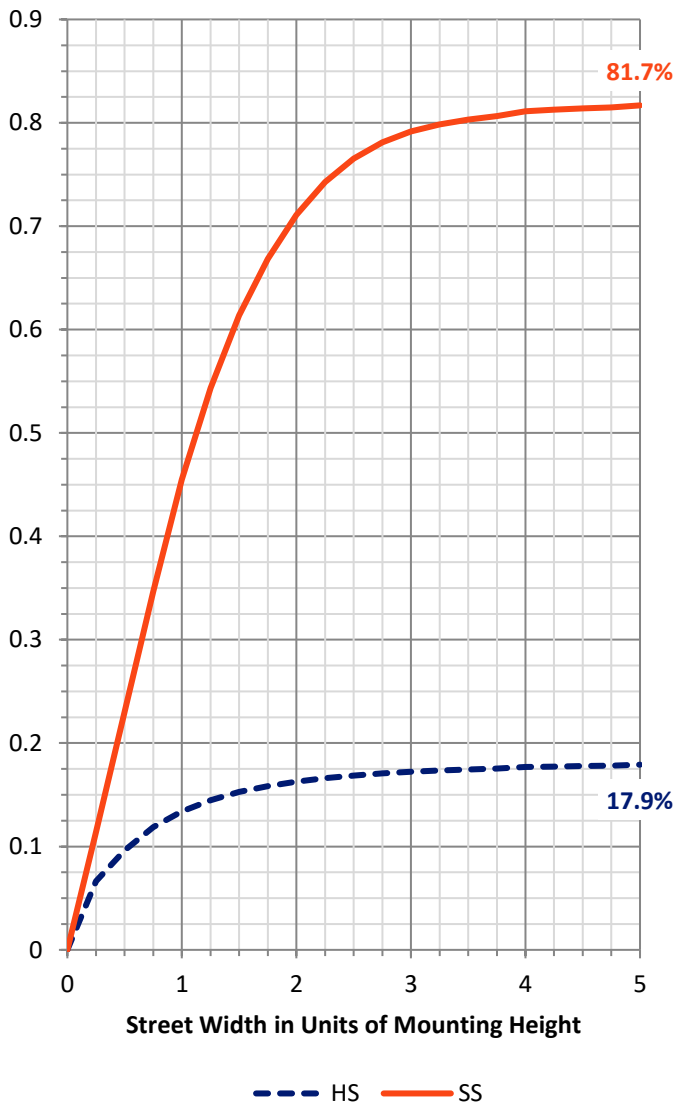
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9903.1 | 0.0 | 9903.1 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 44948.6 | 0.0 | 44948.6 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 54851.7 | 0.0 | 54851.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 872.1 | 1.6 |
| 10°-20° | 2302.8 | 4.2 |
| 20°-30° | 3834.3 | 7.0 |
| 30°-40° | 5669.7 | 10.3 |
| 40°-50° | 7985.9 | 14.6 |
| 50°-60° | 10693.5 | 19.5 |
| 60°-70° | 13478.3 | 24.6 |
| 70°-80° | 9205.6 | 16.8 |
| 80°-90° | 809.6 | 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° | 54851.7 | 100.0 |
| 0°-180° | 54851.7 | 100.0 |

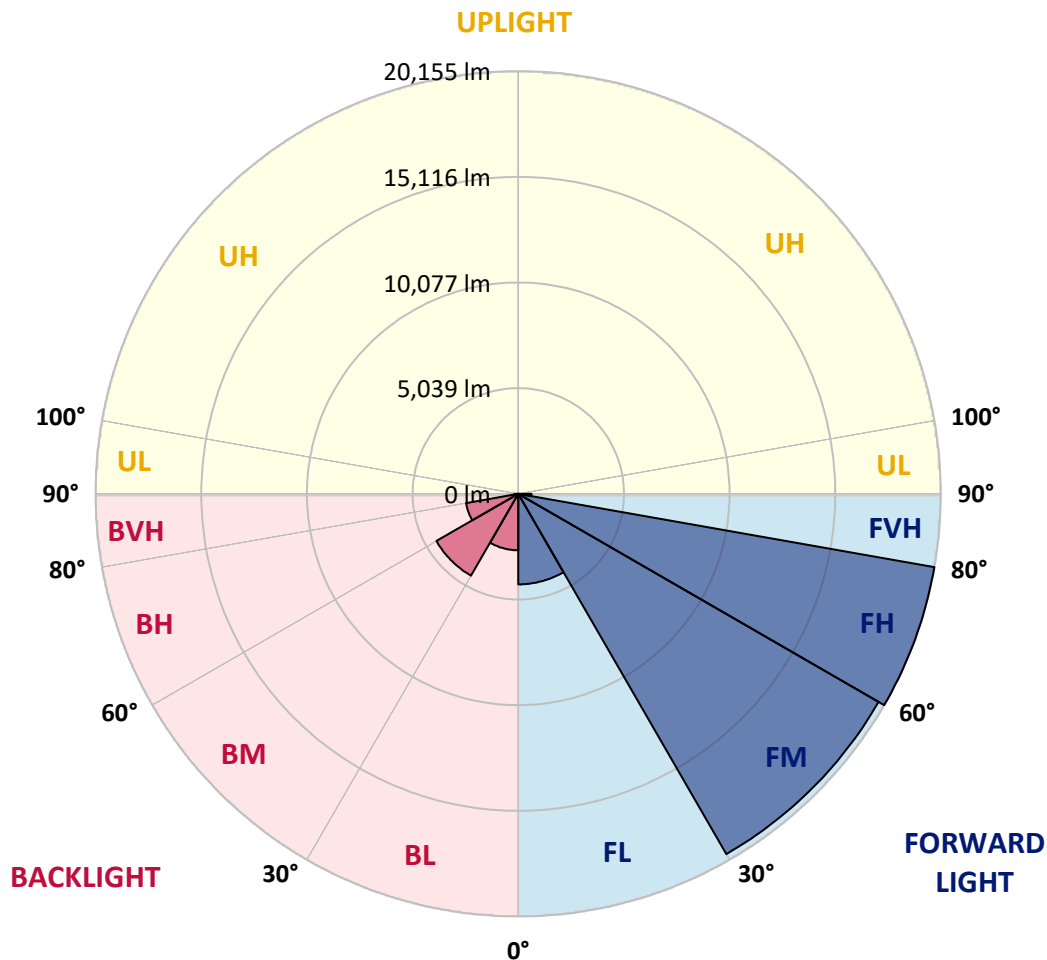


REPORT NUMBER: P651152
 CATALOG NUMBER: GALN-SA9C-840-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 4317.7 | 7.9 | | | |
| FM (30°-60°) | 19843.4 | 36.2 | | | |
| FH (60°-80°) | 20154.7 | 36.7 | | | G5 |
| FVH (80°-90°) | 632.8 | 1.2 | | | G4/750 |
| BL (0°-30°) | 2691.5 | 4.9 | B4/5000 | | |
| BM (30°-60°) | 4505.6 | 8.2 | B3/5000 | | |
| BH (60°-80°) | 2529.2 | 4.6 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 176.8 | 0.3 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type IV Medium





REPORT NUMBER: P651152

CATALOG NUMBER: GALN-SA9C-840-U-T3R

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 |
| 2.5° | 9454.5 | 9498.9 | 9510.8 | 9540.5 | 9602.6 | 9653.0 | 9703.4 | 9697.5 | 9768.6 | 9798.2 | 9824.9 |
| 5° | 9033.8 | 9045.6 | 9090.1 | 9149.3 | 9259.0 | 9398.3 | 9534.5 | 9537.4 | 9712.3 | 9851.6 | 9919.7 |
| 7.5° | 8725.6 | 8764.1 | 8793.8 | 8856.0 | 8971.5 | 9122.7 | 9339.0 | 9356.7 | 9667.8 | 9943.4 | 10088.6 |
| 10° | 8524.2 | 8568.6 | 8601.2 | 8678.3 | 8793.8 | 8962.7 | 9196.8 | 9229.3 | 9635.3 | 10088.6 | 10343.4 |
| 12.5° | 8340.4 | 8384.9 | 8414.5 | 8515.3 | 8666.4 | 8873.8 | 9137.5 | 9176.0 | 9647.1 | 10257.4 | 10621.9 |
| 15° | 8453.1 | 8488.6 | 8476.8 | 8506.4 | 8607.1 | 8844.1 | 9161.2 | 9199.7 | 9691.5 | 10420.4 | 10897.4 |
| 17.5° | 8953.8 | 8983.4 | 8885.7 | 8773.1 | 8725.6 | 8900.5 | 9235.3 | 9276.7 | 9780.4 | 10589.3 | 11178.9 |
| 20° | 9691.5 | 9771.6 | 9558.2 | 9306.3 | 9078.3 | 9102.0 | 9389.3 | 9433.7 | 9904.9 | 10758.2 | 11466.3 |
| 22.5° | 10651.5 | 10710.8 | 10450.0 | 10035.2 | 9614.5 | 9398.3 | 9620.5 | 9647.1 | 10091.5 | 10977.4 | 11780.4 |
| 25° | 11780.4 | 11815.9 | 11454.4 | 10921.1 | 10313.8 | 9904.9 | 9937.4 | 9984.9 | 10399.6 | 11226.3 | 12058.8 |
| 27.5° | 12876.6 | 12989.2 | 12571.4 | 11919.7 | 11119.6 | 10438.2 | 10373.0 | 10402.7 | 10734.4 | 11365.5 | 12251.4 |
| 30° | 14177.3 | 14168.4 | 13727.0 | 12971.4 | 11946.3 | 11019.0 | 10784.8 | 10778.9 | 10915.2 | 11433.7 | 12390.7 |
| 32.5° | 15214.4 | 15335.8 | 14903.2 | 14079.5 | 12891.4 | 11620.3 | 11069.2 | 11057.5 | 11054.4 | 11552.2 | 12598.1 |
| 35° | 16393.5 | 16411.4 | 16014.3 | 15184.7 | 13913.7 | 12375.9 | 11466.3 | 11407.1 | 11338.9 | 11807.1 | 12879.6 |
| 37.5° | 17448.3 | 17531.3 | 17166.8 | 16236.5 | 14918.1 | 13161.1 | 12011.5 | 11973.0 | 11765.6 | 12248.5 | 13329.9 |
| 40° | 18272.0 | 18334.2 | 18115.0 | 17229.1 | 15907.7 | 14008.5 | 12704.8 | 12633.7 | 12381.8 | 12971.4 | 13931.4 |
| 42.5° | 18541.6 | 18669.0 | 18755.0 | 18319.4 | 17045.4 | 15012.9 | 13558.1 | 13469.2 | 13276.6 | 14067.7 | 14624.7 |
| 45° | 18562.4 | 18763.9 | 19217.2 | 19237.9 | 18189.1 | 16215.7 | 14553.6 | 14491.4 | 14476.6 | 15472.1 | 15599.5 |
| 47.5° | 18405.4 | 18609.8 | 19371.3 | 19783.1 | 19208.3 | 17430.6 | 15990.6 | 15892.8 | 15901.7 | 17208.4 | 16692.8 |
| 50° | 18026.1 | 18269.0 | 19193.5 | 20132.7 | 20005.3 | 18692.7 | 17507.6 | 17475.0 | 17658.7 | 19190.5 | 17827.6 |
| 52.5° | 17312.1 | 17605.3 | 19009.8 | 20351.9 | 20597.9 | 19780.2 | 19232.0 | 19140.2 | 19605.3 | 21341.6 | 19069.0 |
| 55° | 15335.8 | 15777.2 | 18337.2 | 20473.4 | 21160.8 | 20820.0 | 20784.6 | 20950.5 | 21566.7 | 23688.1 | 20434.9 |
| 57.5° | 14304.7 | 14636.6 | 16876.5 | 20494.2 | 21871.9 | 22028.9 | 22597.8 | 22639.3 | 23717.8 | 26179.9 | 21978.5 |
| 60° | 13741.8 | 14035.1 | 16076.6 | 20357.8 | 22864.4 | 23525.2 | 24452.6 | 24600.7 | 25818.4 | 28879.1 | 23578.5 |
| 62.5° | 13250.0 | 13501.8 | 15596.5 | 19886.8 | 23984.4 | 25744.4 | 26855.5 | 26926.5 | 28203.5 | 31859.7 | 25157.8 |
| 65° | 12091.5 | 12378.8 | 14630.6 | 19415.7 | 24950.3 | 28517.6 | 30043.5 | 29960.5 | 30742.8 | 34431.5 | 26147.3 |
| 67.5° | 10530.1 | 10894.5 | 12826.3 | 17789.1 | 25427.3 | 31548.6 | 33634.4 | 33530.8 | 33249.4 | 36117.3 | 26431.8 |
| 70° | 8536.1 | 8731.6 | 10518.2 | 14977.3 | 23522.2 | 33139.7 | 36470.0 | 36360.3 | 34801.8 | 36339.6 | 25086.6 |
| 71° | 7345.0 | 7650.2 | 9158.2 | 13303.3 | 21937.1 | 32653.8 | 36834.4 | 36804.8 | 34804.8 | 35726.3 | 24073.3 |
| 72.5° | 5733.2 | 5919.8 | 7253.1 | 10307.8 | 18645.3 | 29892.4 | 35933.7 | 36046.3 | 34049.3 | 34022.7 | 21984.5 |
| 75° | 3626.6 | 3709.5 | 4551.0 | 6068.0 | 10230.8 | 21169.7 | 30674.5 | 30979.7 | 30233.1 | 27848.0 | 16349.1 |
| 77.5° | 2106.6 | 2213.3 | 2725.8 | 3576.2 | 4420.6 | 11490.0 | 21948.9 | 22280.8 | 21006.8 | 15332.9 | 6693.1 |
| 80° | 1226.6 | 1345.2 | 1795.5 | 2076.9 | 2029.6 | 4263.5 | 11176.0 | 11741.9 | 9096.0 | 3872.5 | 1878.5 |
| 82.5° | 681.5 | 761.4 | 1262.2 | 1265.1 | 1081.4 | 1392.5 | 3516.9 | 3679.9 | 2595.5 | 1561.4 | 767.4 |
| 85° | 494.8 | 560.0 | 814.8 | 737.7 | 518.5 | 598.5 | 1223.7 | 1282.9 | 1048.9 | 657.7 | 248.9 |
| 87.5° | 174.8 | 248.9 | 447.4 | 355.6 | 142.2 | 124.5 | 352.5 | 287.4 | 266.7 | 183.7 | 56.3 |
| 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: P651152
 CATALOG NUMBER: GALN-SA9C-840-U-T3R

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 | 9786.4 |
| 2.5° | 9839.7 | 9845.6 | 9816.0 | 9762.7 | 9709.3 | 9641.1 | 9564.1 | 9504.9 | 9478.2 | 9475.3 | 9472.3 |
| 5° | 9946.3 | 9961.1 | 9848.6 | 9682.7 | 9498.9 | 9273.8 | 9081.2 | 8862.0 | 8805.6 | 8716.8 | 8743.5 |
| 7.5° | 10118.2 | 10109.3 | 9887.1 | 9534.5 | 9104.9 | 8627.9 | 8224.9 | 7990.8 | 7747.9 | 7679.8 | 7682.7 |
| 10° | 10364.1 | 10307.8 | 9887.1 | 9232.3 | 8515.3 | 7807.2 | 7244.2 | 6888.6 | 6696.0 | 6536.1 | 6476.8 |
| 12.5° | 10624.9 | 10482.6 | 9792.3 | 8808.6 | 7756.8 | 6888.6 | 6284.2 | 5804.2 | 5679.8 | 5549.4 | 5552.5 |
| 15° | 10873.7 | 10636.7 | 9605.6 | 8213.0 | 6939.0 | 5907.9 | 5321.3 | 5033.9 | 4995.4 | 5010.2 | 5007.2 |
| 17.5° | 11098.9 | 10746.3 | 9321.2 | 7549.4 | 5985.0 | 5066.5 | 4755.4 | 4776.1 | 4879.8 | 4953.9 | 4962.8 |
| 20° | 11327.0 | 10811.5 | 8897.5 | 6660.6 | 5084.3 | 4556.9 | 4568.7 | 4731.7 | 4888.7 | 4989.5 | 5004.3 |
| 22.5° | 11543.3 | 10841.2 | 8399.7 | 5801.3 | 4432.5 | 4340.6 | 4515.4 | 4690.3 | 4844.3 | 4942.1 | 4956.9 |
| 25° | 11685.5 | 10773.0 | 7694.6 | 4903.5 | 4112.5 | 4263.5 | 4447.3 | 4595.4 | 4725.7 | 4826.5 | 4850.2 |
| 27.5° | 11724.0 | 10553.7 | 6820.5 | 4177.7 | 3964.3 | 4189.5 | 4358.4 | 4468.0 | 4568.7 | 4663.6 | 4681.3 |
| 30° | 11703.4 | 10230.8 | 5860.6 | 3751.0 | 3878.4 | 4103.6 | 4233.9 | 4313.9 | 4435.4 | 4509.5 | 4524.3 |
| 32.5° | 11670.7 | 9854.5 | 4859.1 | 3522.9 | 3807.3 | 4023.6 | 4100.6 | 4171.7 | 4168.8 | 4139.1 | 4159.8 |
| 35° | 11682.6 | 9404.1 | 4047.3 | 3386.5 | 3745.1 | 3964.3 | 4029.5 | 3940.6 | 3685.9 | 3674.0 | 3662.1 |
| 37.5° | 11744.8 | 8959.7 | 3457.7 | 3291.8 | 3712.5 | 3955.4 | 3991.0 | 3582.1 | 3356.9 | 3253.2 | 3226.6 |
| 40° | 11904.8 | 8441.2 | 3069.6 | 3220.6 | 3709.5 | 4023.6 | 3816.2 | 3401.3 | 2968.8 | 2767.3 | 2752.5 |
| 42.5° | 12118.1 | 7931.6 | 2832.5 | 3176.2 | 3745.1 | 4127.3 | 3745.1 | 3146.6 | 2675.5 | 2557.0 | 2539.1 |
| 45° | 12435.2 | 7347.9 | 2702.1 | 3155.4 | 3798.4 | 4165.8 | 3721.3 | 2959.9 | 2557.0 | 2462.1 | 2462.1 |
| 47.5° | 12793.6 | 6790.9 | 2631.1 | 3140.6 | 3866.6 | 4139.1 | 3511.0 | 2900.6 | 2500.6 | 2512.5 | 2568.8 |
| 50° | 13149.2 | 6307.9 | 2577.7 | 3108.1 | 3925.8 | 4124.3 | 3425.1 | 2897.7 | 2515.5 | 2666.6 | 2767.3 |
| 52.5° | 13561.0 | 5967.2 | 2512.5 | 3054.7 | 3925.8 | 4029.5 | 3398.4 | 2957.0 | 2557.0 | 2601.4 | 2645.9 |
| 55° | 14058.8 | 5860.6 | 2429.6 | 2939.1 | 3854.7 | 3792.5 | 3383.6 | 3042.9 | 2586.6 | 2482.9 | 2500.6 |
| 57.5° | 14716.6 | 6032.4 | 2349.6 | 2794.0 | 3691.7 | 3546.6 | 3377.7 | 3066.5 | 2518.5 | 2432.5 | 2414.8 |
| 60° | 15481.0 | 6373.1 | 2325.9 | 2645.9 | 3469.5 | 3336.2 | 3342.1 | 2998.4 | 2423.6 | 2334.7 | 2349.6 |
| 62.5° | 16017.3 | 6577.5 | 2311.1 | 2533.3 | 3226.6 | 3105.1 | 3256.2 | 2915.5 | 2382.1 | 2305.1 | 2319.9 |
| 65° | 16017.3 | 6328.7 | 2174.7 | 2361.4 | 2912.5 | 2826.6 | 3152.5 | 2811.8 | 2328.8 | 2239.9 | 2225.1 |
| 67.5° | 15409.9 | 5602.8 | 1967.4 | 2103.7 | 2565.8 | 2509.5 | 3007.3 | 2687.3 | 2248.8 | 2180.7 | 2145.1 |
| 70° | 13827.7 | 4248.7 | 1706.6 | 1801.4 | 2127.3 | 2177.7 | 2820.6 | 2518.5 | 2115.5 | 2032.5 | 1979.2 |
| 71° | 13131.5 | 3700.7 | 1597.0 | 1647.4 | 1958.4 | 2032.5 | 2731.7 | 2447.3 | 2056.2 | 1937.7 | 1842.9 |
| 72.5° | 11789.2 | 3116.9 | 1431.0 | 1451.8 | 1674.0 | 1807.3 | 2545.1 | 2311.1 | 1943.6 | 1774.8 | 1668.1 |
| 75° | 8956.7 | 2275.5 | 1152.6 | 1140.7 | 1238.5 | 1434.0 | 2154.0 | 2059.2 | 1703.6 | 1475.5 | 1413.3 |
| 77.5° | 3869.5 | 1238.5 | 862.2 | 871.1 | 841.4 | 1087.4 | 1694.8 | 1768.8 | 1460.7 | 1199.9 | 1143.7 |
| 80° | 1173.3 | 714.1 | 589.6 | 601.5 | 563.0 | 728.9 | 1194.1 | 1386.6 | 1173.3 | 933.3 | 856.3 |
| 82.5° | 601.5 | 426.6 | 402.9 | 397.0 | 358.5 | 411.8 | 722.9 | 948.1 | 838.5 | 583.7 | 515.5 |
| 85° | 260.7 | 228.2 | 198.5 | 192.6 | 168.9 | 148.2 | 257.8 | 474.1 | 444.5 | 325.9 | 311.1 |
| 87.5° | 65.2 | 59.3 | 38.5 | 35.6 | 20.8 | 2.9 | 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)