

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: P650876

Luminaire Tested: **GALN-SA4C-840-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P650876
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-840-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18312.8 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

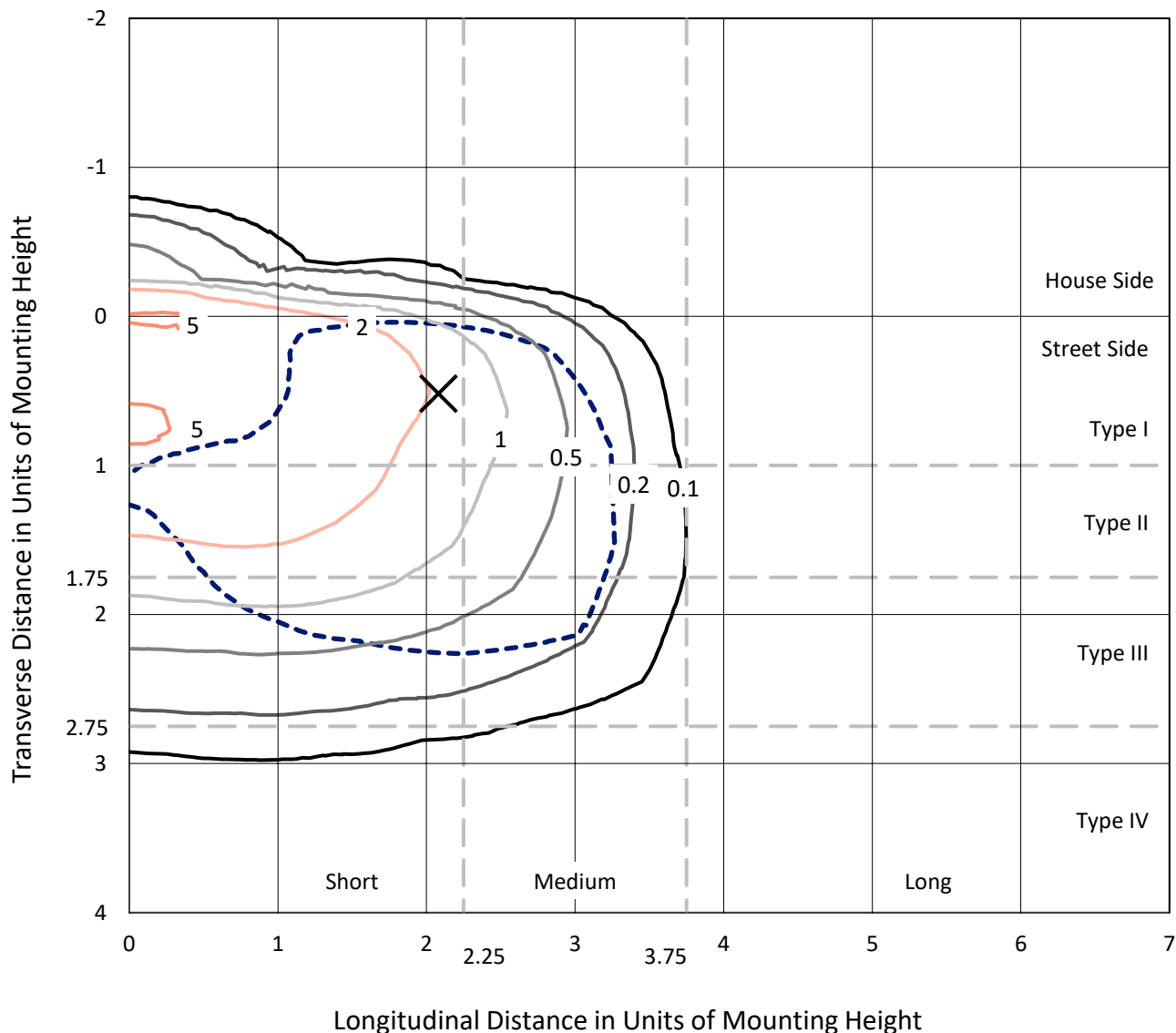
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

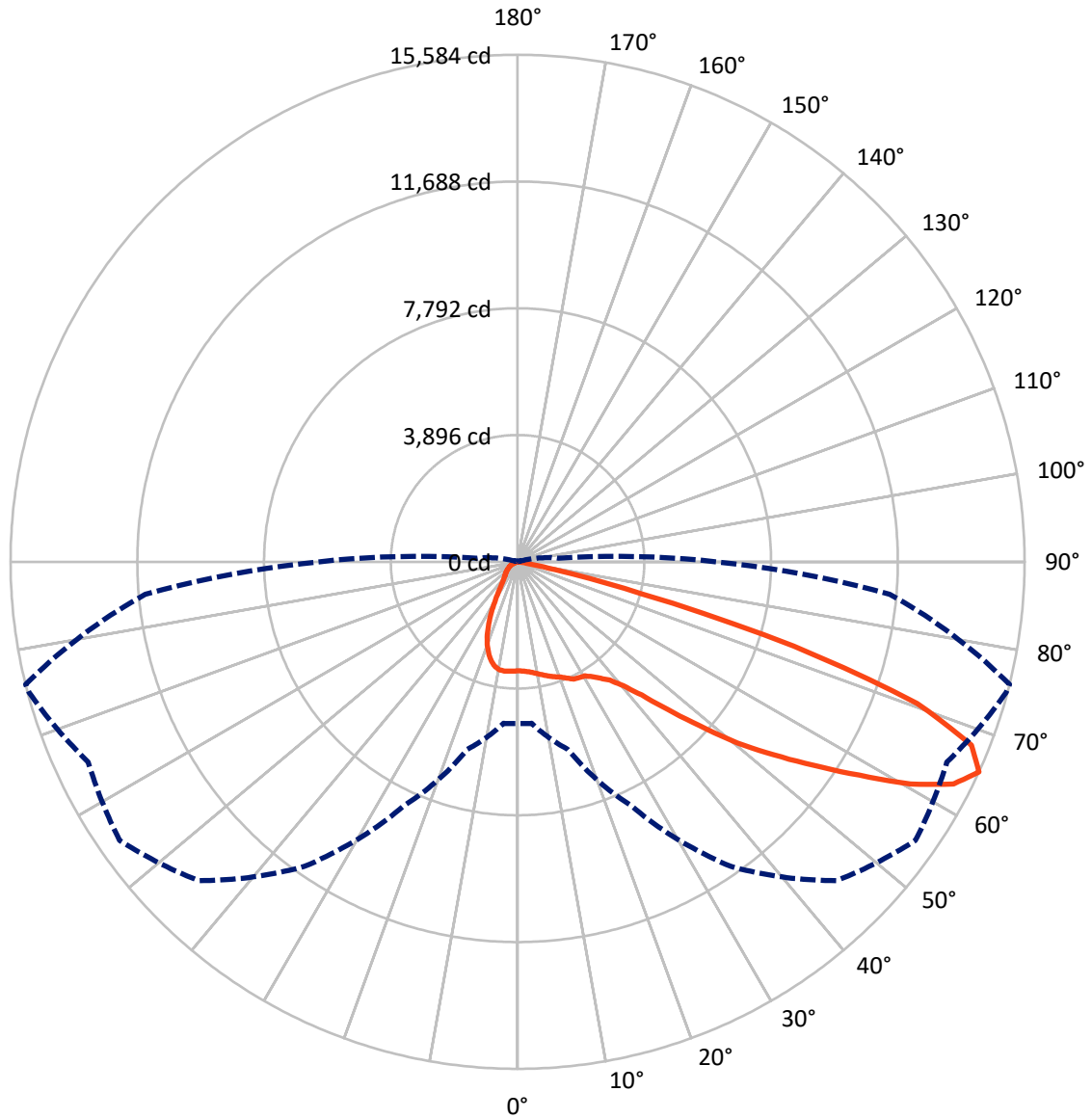
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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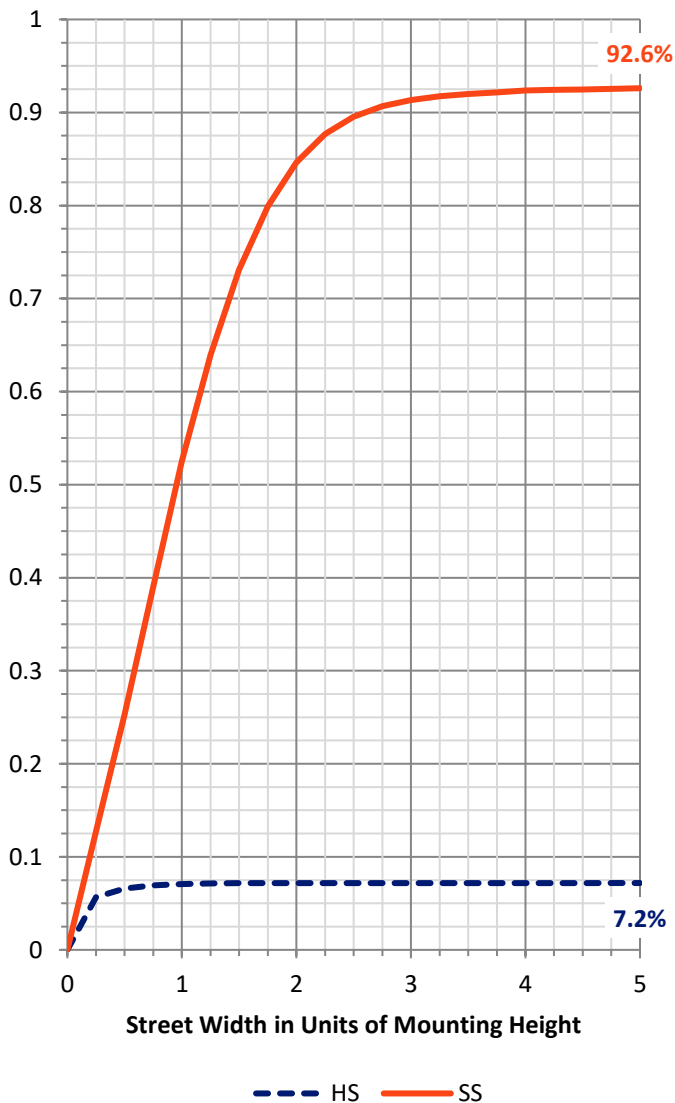
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1322.6 | 0.0 | 1322.6 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 16990.2 | 0.0 | 16990.2 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 18312.8 | 0.0 | 18312.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 276.0 | 1.5 |
| 10°-20° | 614.4 | 3.4 |
| 20°-30° | 990.1 | 5.4 |
| 30°-40° | 1721.6 | 9.4 |
| 40°-50° | 2844.8 | 15.5 |
| 50°-60° | 4394.6 | 24.0 |
| 60°-70° | 5366.5 | 29.3 |
| 70°-80° | 2036.7 | 11.1 |
| 80°-90° | 68.0 | 0.4 |
| 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° | 18312.8 | 100.0 |
| 0°-180° | 18312.8 | 100.0 |

Coefficient of Utilization



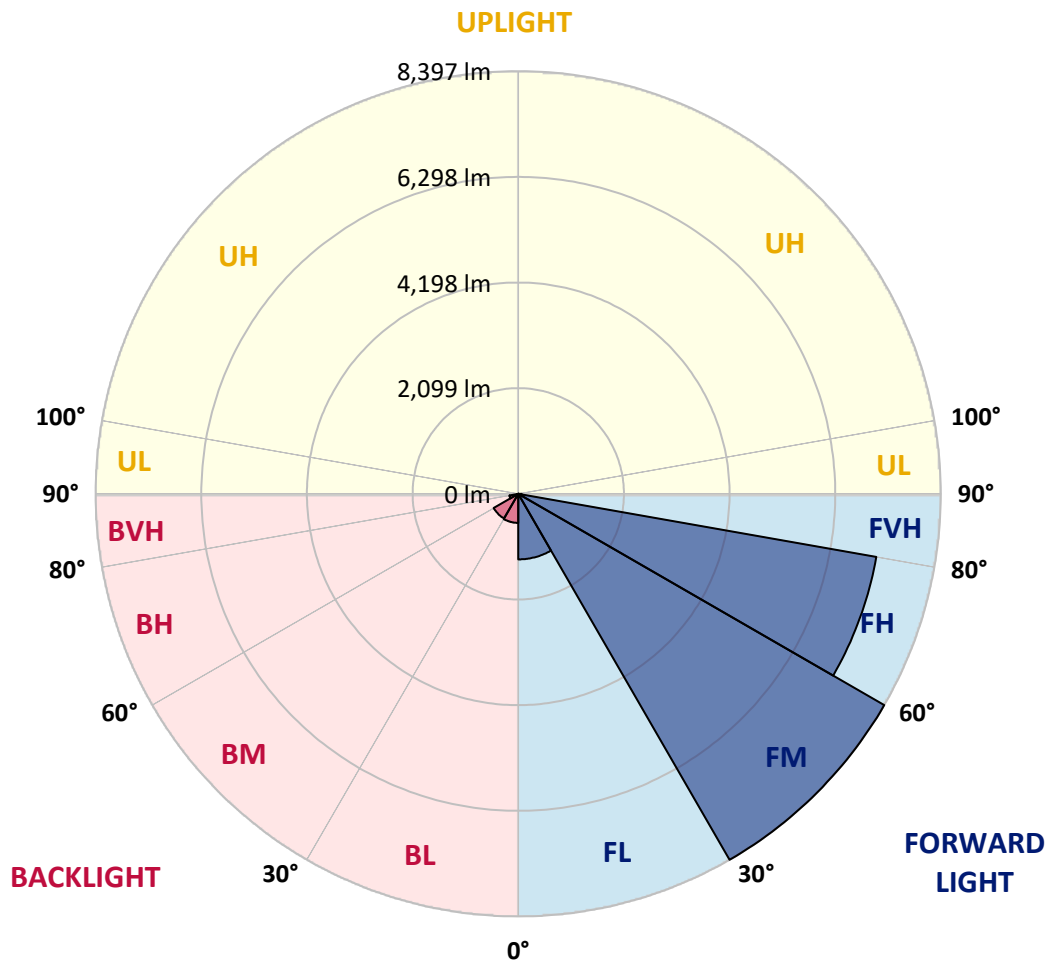
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1302.7 | 7.1 | | | |
| FM (30°-60°) | 8396.7 | 45.9 | | | |
| FH (60°-80°) | 7223.8 | 39.4 | | | G3/7500 |
| FVH (80°-90°) | 67.0 | 0.4 | | | G1/100 |
| BL (0°-30°) | 577.8 | 3.2 | B2/1000 | | |
| BM (30°-60°) | 564.4 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 179.5 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.9 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 |
| 2.5° | 3201.3 | 3202.6 | 3210.3 | 3229.8 | 3259.5 | 3284.0 | 3304.7 | 3338.3 | 3361.6 | 3364.3 | 3372.0 |
| 5° | 2980.3 | 2964.7 | 2980.3 | 3030.6 | 3075.9 | 3144.4 | 3228.4 | 3312.5 | 3387.5 | 3392.7 | 3428.8 |
| 7.5° | 2732.0 | 2744.9 | 2769.5 | 2821.2 | 2906.5 | 3011.2 | 3132.8 | 3282.8 | 3425.0 | 3437.9 | 3509.0 |
| 10° | 2479.9 | 2508.3 | 2548.4 | 2627.2 | 2746.2 | 2881.9 | 3047.4 | 3262.1 | 3484.4 | 3502.6 | 3625.4 |
| 12.5° | 2247.2 | 2260.0 | 2309.2 | 2415.2 | 2562.6 | 2753.9 | 2982.8 | 3250.5 | 3550.4 | 3572.4 | 3749.5 |
| 15° | 2068.7 | 2085.5 | 2128.2 | 2223.9 | 2388.0 | 2633.7 | 2929.8 | 3246.6 | 3615.0 | 3646.1 | 3873.6 |
| 17.5° | 2035.1 | 2045.4 | 2063.6 | 2128.2 | 2271.7 | 2538.1 | 2881.9 | 3245.3 | 3677.1 | 3714.6 | 3988.7 |
| 20° | 2173.4 | 2164.4 | 2146.2 | 2139.8 | 2218.6 | 2464.3 | 2847.0 | 3255.6 | 3736.6 | 3779.3 | 4110.2 |
| 22.5° | 2519.9 | 2531.6 | 2425.5 | 2300.1 | 2274.2 | 2452.7 | 2841.9 | 3304.7 | 3830.9 | 3881.4 | 4246.0 |
| 25° | 3255.6 | 3166.4 | 3000.9 | 2701.0 | 2474.6 | 2523.8 | 2900.0 | 3421.1 | 3940.8 | 3996.4 | 4368.8 |
| 27.5° | 4068.8 | 4041.7 | 3784.4 | 3290.5 | 2869.0 | 2673.8 | 3003.5 | 3510.3 | 3977.1 | 4033.9 | 4438.6 |
| 30° | 4867.9 | 4900.3 | 4605.4 | 4059.8 | 3441.8 | 2951.7 | 3100.4 | 3543.9 | 4009.4 | 4068.8 | 4527.9 |
| 32.5° | 5608.7 | 5647.6 | 5389.0 | 4848.5 | 4116.7 | 3432.7 | 3267.3 | 3674.5 | 4145.1 | 4205.9 | 4676.5 |
| 35° | 6191.9 | 6197.0 | 6001.8 | 5571.3 | 4853.7 | 4017.1 | 3628.0 | 3903.3 | 4328.7 | 4399.9 | 4834.3 |
| 37.5° | 6727.2 | 6719.3 | 6490.5 | 6119.5 | 5467.8 | 4597.7 | 4081.8 | 4167.2 | 4538.2 | 4611.9 | 5061.8 |
| 40° | 7124.0 | 7129.2 | 7055.6 | 6706.5 | 6040.6 | 5134.2 | 4441.2 | 4414.1 | 4889.9 | 5005.0 | 5392.8 |
| 42.5° | 7389.1 | 7437.0 | 7473.1 | 7296.0 | 6760.7 | 5794.9 | 4993.3 | 4942.9 | 5500.1 | 5595.8 | 5860.8 |
| 45° | 7603.7 | 7689.1 | 7870.1 | 7861.0 | 7452.4 | 6605.6 | 5751.0 | 5647.6 | 6365.1 | 6467.3 | 6456.9 |
| 47.5° | 7760.2 | 7846.8 | 8146.8 | 8327.8 | 8102.8 | 7391.7 | 6703.9 | 6614.6 | 7398.2 | 7509.4 | 7115.0 |
| 50° | 7840.4 | 7943.7 | 8326.5 | 8676.8 | 8610.9 | 8149.4 | 7789.9 | 7795.1 | 8645.8 | 8753.1 | 7877.8 |
| 52.5° | 7652.8 | 7787.3 | 8422.2 | 9053.1 | 9181.1 | 8874.7 | 8807.5 | 8978.1 | 9756.4 | 9848.3 | 8567.0 |
| 55° | 7054.2 | 7223.6 | 8291.6 | 9373.8 | 9841.8 | 9730.6 | 9963.3 | 10223.2 | 10970.5 | 11030.1 | 9274.2 |
| 57.5° | 6675.4 | 6855.2 | 7906.3 | 9646.6 | 10635.7 | 10806.3 | 11174.8 | 11364.9 | 12223.4 | 12374.6 | 10086.2 |
| 60° | 6356.0 | 6497.0 | 7589.5 | 9704.7 | 11442.5 | 12122.5 | 12480.7 | 12677.2 | 13769.8 | 13868.0 | 10979.6 |
| 62.5° | 5824.7 | 5986.3 | 7054.2 | 9298.8 | 11848.4 | 13176.3 | 13918.5 | 13830.5 | 14965.7 | 15034.2 | 11527.8 |
| 65° | 4970.1 | 4984.3 | 5968.2 | 8278.6 | 11429.5 | 13860.3 | 14928.2 | 14559.7 | 15537.2 | 15583.7 | 11485.1 |
| 67.5° | 3709.4 | 3846.5 | 4591.2 | 6507.3 | 9654.3 | 13275.9 | 15255.3 | 14579.2 | 15176.4 | 15047.2 | 10573.6 |
| 70° | 2389.4 | 2494.1 | 3112.1 | 4512.3 | 6961.1 | 11079.2 | 14170.5 | 13579.7 | 13319.8 | 13032.8 | 8654.9 |
| 72.5° | 1102.9 | 1237.4 | 1848.9 | 2578.1 | 4128.3 | 7892.0 | 11503.2 | 11032.6 | 9587.1 | 8878.6 | 5501.4 |
| 75° | 481.0 | 514.6 | 912.8 | 1360.1 | 1935.6 | 4173.6 | 7584.4 | 6848.7 | 4330.1 | 3955.1 | 2201.9 |
| 77.5° | 293.5 | 315.5 | 478.4 | 729.2 | 760.3 | 1590.3 | 4085.7 | 2988.0 | 1338.2 | 1180.4 | 597.4 |
| 80° | 199.1 | 223.7 | 347.8 | 381.4 | 259.9 | 443.5 | 1533.4 | 797.8 | 270.2 | 258.6 | 128.0 |
| 82.5° | 97.0 | 122.9 | 257.3 | 213.4 | 112.5 | 142.2 | 446.1 | 170.6 | 78.9 | 73.7 | 45.2 |
| 85° | 14.2 | 24.6 | 144.8 | 139.6 | 50.5 | 33.6 | 78.9 | 42.6 | 27.2 | 25.8 | 20.7 |
| 87.5° | 0.0 | 0.0 | 49.1 | 22.0 | 5.1 | 5.1 | 9.1 | 9.1 | 10.3 | 9.1 | 10.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: GALN-SA4C-840-U-T3R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 | 3350.0 |
| 2.5° | 3375.9 | 3382.3 | 3357.8 | 3322.9 | 3285.4 | 3247.9 | 3194.9 | 3147.0 | 3118.6 | 3135.3 | 3094.0 |
| 5° | 3436.6 | 3431.4 | 3366.8 | 3260.8 | 3119.9 | 2950.5 | 2782.4 | 2638.9 | 2592.3 | 2522.5 | 2514.8 |
| 7.5° | 3520.7 | 3506.5 | 3369.4 | 3126.3 | 2808.3 | 2490.2 | 2179.9 | 1974.3 | 1856.7 | 1757.1 | 1759.7 |
| 10° | 3638.3 | 3597.0 | 3339.6 | 2889.7 | 2366.1 | 1886.4 | 1490.8 | 1219.2 | 1101.5 | 1064.1 | 1034.3 |
| 12.5° | 3759.9 | 3679.7 | 3256.9 | 2570.3 | 1842.5 | 1289.1 | 906.3 | 740.8 | 668.4 | 645.2 | 642.6 |
| 15° | 3868.4 | 3741.8 | 3112.1 | 2186.3 | 1339.5 | 823.6 | 618.1 | 563.7 | 554.6 | 556.0 | 554.6 |
| 17.5° | 3975.7 | 3790.9 | 2911.7 | 1779.1 | 910.2 | 590.9 | 531.4 | 518.5 | 522.3 | 527.5 | 526.2 |
| 20° | 4065.0 | 3801.2 | 2655.7 | 1357.5 | 643.9 | 518.5 | 499.0 | 496.5 | 500.4 | 504.3 | 504.3 |
| 22.5° | 4161.9 | 3809.0 | 2351.9 | 940.0 | 526.2 | 482.2 | 471.9 | 471.9 | 477.1 | 482.2 | 483.6 |
| 25° | 4234.4 | 3766.3 | 1988.5 | 674.9 | 464.1 | 447.3 | 442.2 | 443.5 | 448.7 | 451.2 | 449.9 |
| 27.5° | 4246.0 | 3646.1 | 1603.2 | 517.2 | 421.5 | 404.7 | 399.5 | 404.7 | 398.2 | 402.1 | 399.5 |
| 30° | 4256.3 | 3493.5 | 1212.8 | 435.7 | 382.7 | 356.8 | 349.1 | 341.4 | 336.1 | 329.7 | 328.4 |
| 32.5° | 4288.7 | 3313.8 | 885.7 | 391.7 | 346.5 | 318.1 | 300.0 | 278.0 | 261.2 | 256.0 | 254.7 |
| 35° | 4302.9 | 3097.9 | 650.3 | 356.8 | 314.2 | 283.2 | 250.9 | 219.8 | 195.2 | 186.2 | 192.7 |
| 37.5° | 4357.2 | 2888.4 | 504.3 | 331.0 | 285.8 | 246.9 | 205.5 | 166.8 | 143.5 | 138.3 | 141.0 |
| 40° | 4468.4 | 2660.8 | 422.8 | 309.0 | 261.2 | 213.4 | 162.9 | 125.4 | 109.9 | 104.7 | 103.4 |
| 42.5° | 4646.8 | 2434.6 | 376.3 | 288.3 | 236.6 | 179.7 | 128.0 | 98.2 | 85.4 | 81.5 | 81.5 |
| 45° | 4864.0 | 2217.4 | 343.9 | 266.3 | 210.8 | 144.8 | 100.8 | 78.9 | 71.1 | 68.5 | 68.5 |
| 47.5° | 5149.8 | 2027.3 | 316.8 | 244.4 | 182.3 | 115.0 | 81.5 | 68.5 | 63.3 | 64.7 | 65.9 |
| 50° | 5439.3 | 1886.4 | 287.0 | 219.8 | 150.0 | 94.4 | 69.8 | 60.8 | 59.5 | 60.8 | 60.8 |
| 52.5° | 5657.9 | 1803.6 | 246.9 | 186.2 | 117.7 | 78.9 | 62.1 | 56.9 | 55.6 | 53.0 | 53.0 |
| 55° | 5952.7 | 1785.5 | 196.5 | 151.3 | 93.1 | 65.9 | 55.6 | 51.7 | 47.9 | 45.2 | 44.0 |
| 57.5° | 6331.5 | 1806.2 | 151.3 | 117.7 | 72.4 | 54.3 | 49.1 | 42.6 | 37.5 | 32.3 | 32.3 |
| 60° | 6566.8 | 1759.7 | 117.7 | 90.5 | 53.0 | 44.0 | 37.5 | 31.0 | 24.6 | 20.7 | 19.4 |
| 62.5° | 6491.8 | 1563.2 | 93.1 | 67.2 | 37.5 | 32.3 | 24.6 | 20.7 | 14.2 | 10.3 | 9.1 |
| 65° | 6105.2 | 1261.9 | 75.0 | 46.5 | 27.2 | 19.4 | 13.0 | 13.0 | 6.5 | 1.3 | 0.0 |
| 67.5° | 5343.7 | 934.8 | 59.5 | 31.0 | 15.5 | 9.1 | 6.5 | 3.9 | 0.0 | 0.0 | 0.0 |
| 70° | 4349.4 | 674.9 | 46.5 | 19.4 | 9.1 | 6.5 | 2.6 | 1.3 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2761.7 | 386.6 | 36.2 | 11.6 | 6.5 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1068.0 | 151.3 | 24.6 | 7.7 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 302.5 | 71.1 | 14.2 | 3.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 78.9 | 31.0 | 7.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 37.5 | 13.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 22.0 | 5.1 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 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)