

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: P651897

Luminaire Tested: **GALN-SA5A-840-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA5A-840-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15842.8 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

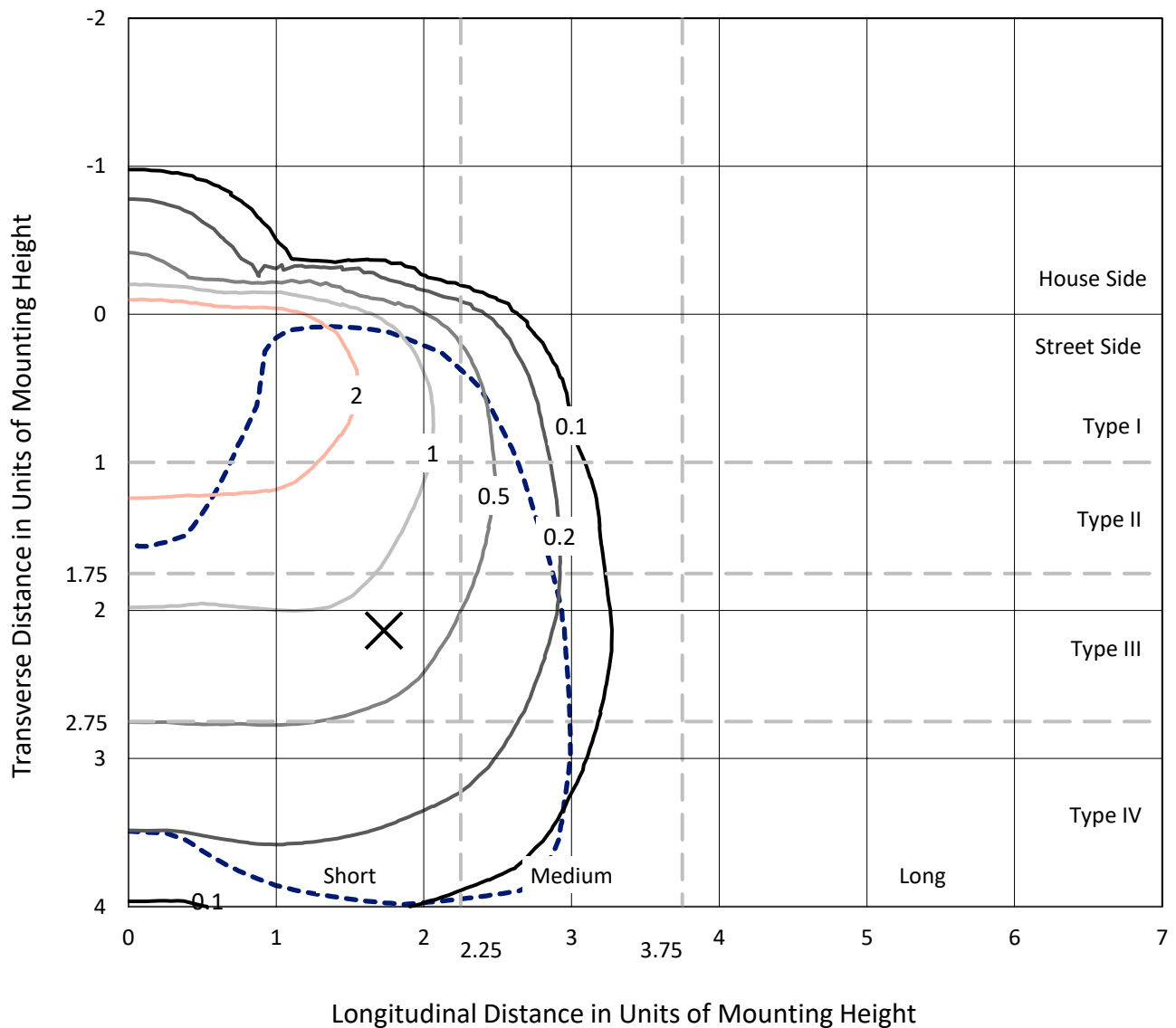
Input Watts (W): 154
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

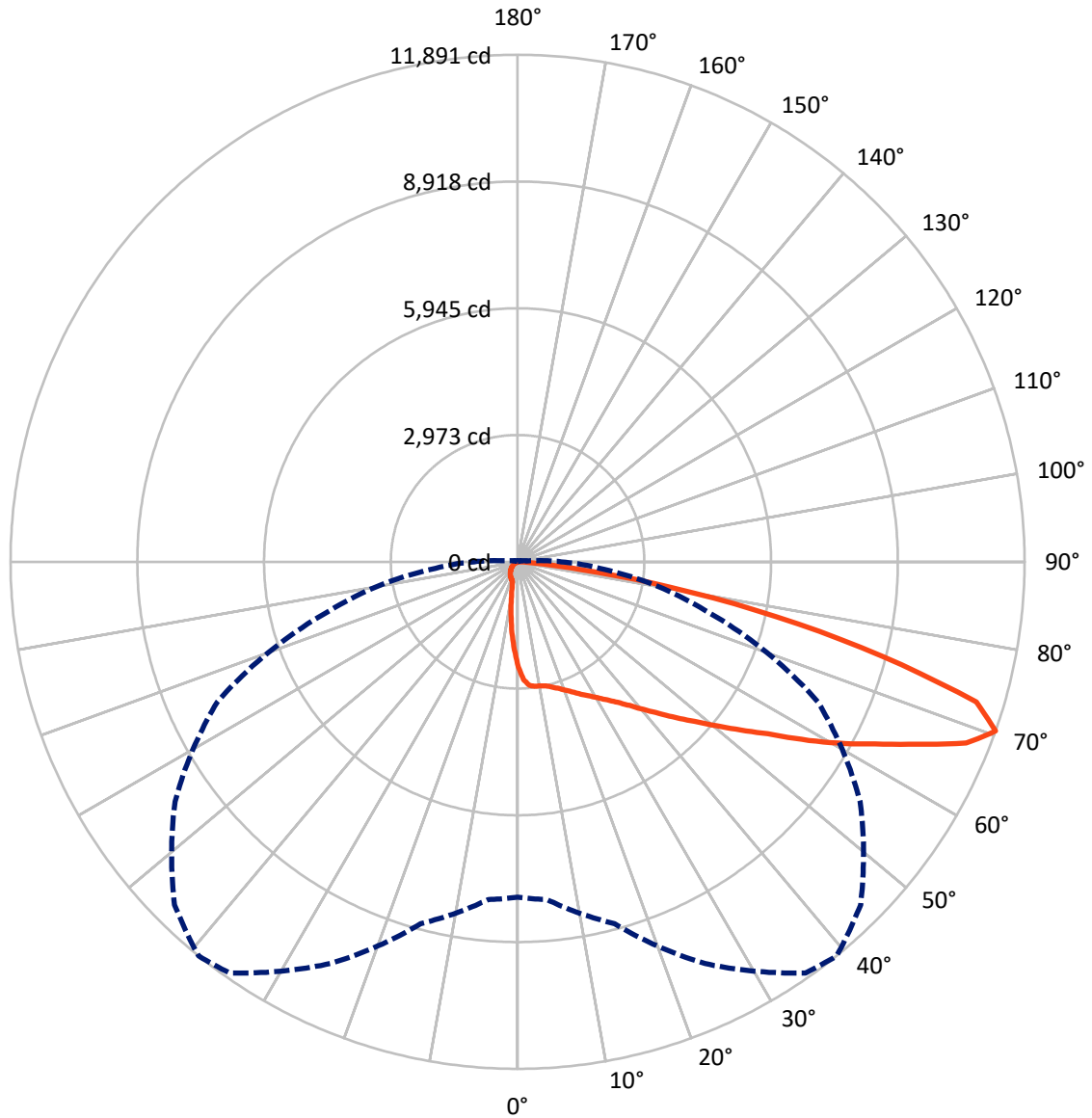
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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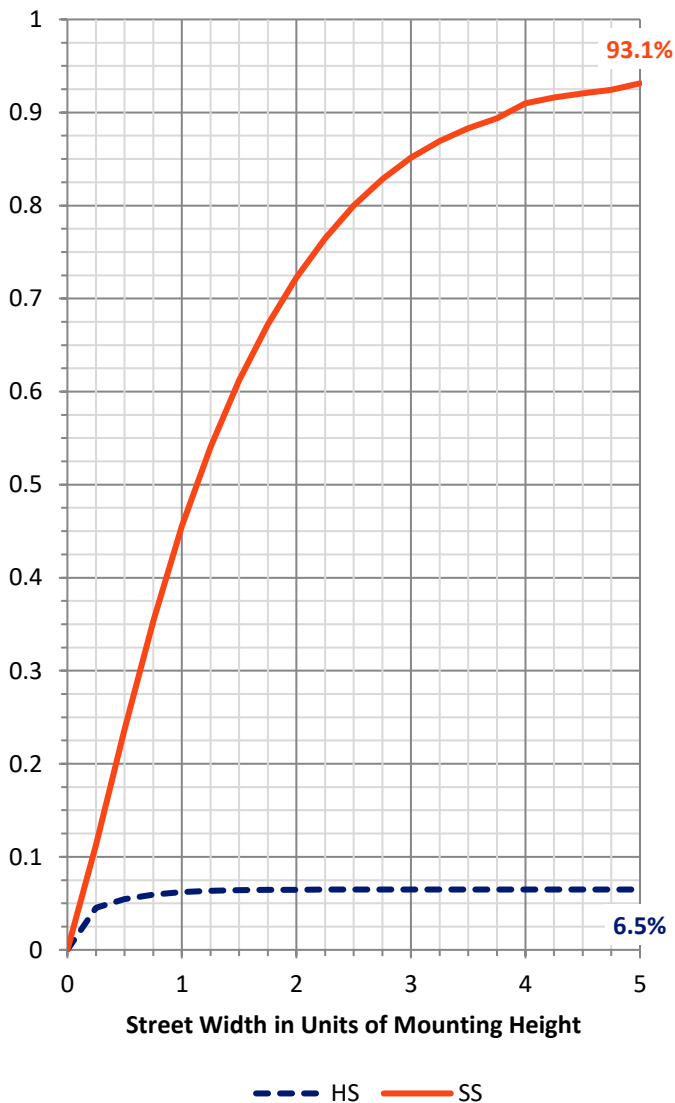
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1033.0 | 0.0 | 1033.0 |
| | % Fixture | 6.5 | 0.0 | 6.5 |
| Street Side | Lumens | 14809.7 | 0.0 | 14809.7 |
| | % Fixture | 93.5 | 0.0 | 93.5 |
| Total | Lumens | 15842.8 | 0.0 | 15842.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 210.8 | 1.3 |
| 10°-20° | 547.9 | 3.5 |
| 20°-30° | 917.9 | 5.8 |
| 30°-40° | 1423.6 | 9.0 |
| 40°-50° | 2256.0 | 14.2 |
| 50°-60° | 3306.9 | 20.9 |
| 60°-70° | 4238.7 | 26.8 |
| 70°-80° | 2663.4 | 16.8 |
| 80°-90° | 277.5 | 1.8 |
| 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° | 15842.8 | 100.0 |
| 0°-180° | 15842.8 | 100.0 |

Coefficient of Utilization



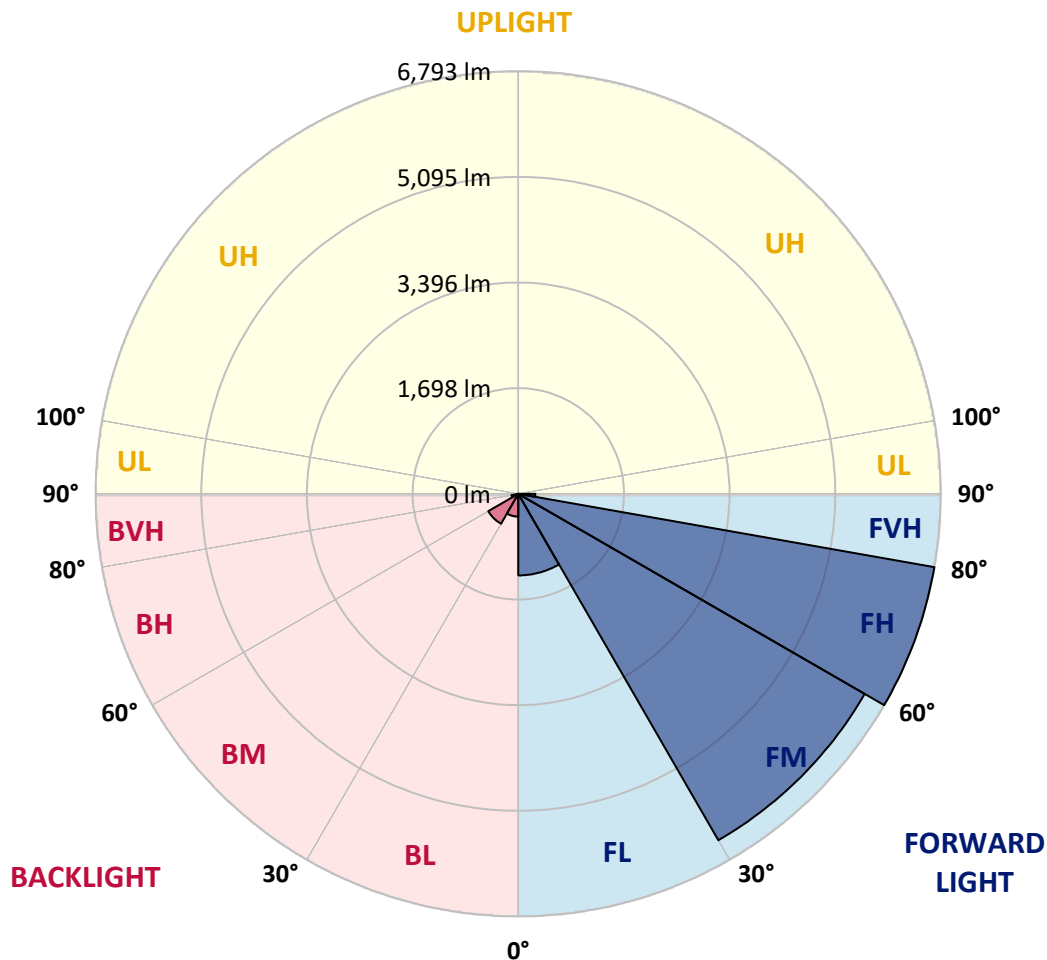
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1310.9 | 8.3 | | | |
| FM (30°-60°) | 6430.5 | 40.6 | | | |
| FH (60°-80°) | 6792.9 | 42.9 | | | G3/7500 |
| FVH (80°-90°) | 275.4 | 1.7 | | | G3/500 |
| BL (0°-30°) | 365.8 | 2.3 | B1/500 | | |
| BM (30°-60°) | 555.9 | 3.5 | B1/1000 | | |
| BH (60°-80°) | 109.3 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 2.0 | 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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0° | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 |
| 2.5° | 2856.4 | 2846.8 | 2834.0 | 2819.1 | 2776.5 | 2769.1 | 2743.5 | 2689.2 | 2624.3 | 2571.0 | 2497.6 |
| 5° | 2991.5 | 2996.9 | 2987.3 | 2960.7 | 2929.8 | 2911.7 | 2879.8 | 2795.7 | 2711.6 | 2604.0 | 2483.7 |
| 7.5° | 3022.4 | 3033.1 | 3021.4 | 2995.8 | 2966.0 | 2946.9 | 2921.3 | 2848.9 | 2750.9 | 2628.5 | 2463.5 |
| 10° | 3019.2 | 3032.0 | 3024.6 | 3001.1 | 2976.6 | 2958.6 | 2930.9 | 2873.4 | 2794.6 | 2665.8 | 2469.8 |
| 12.5° | 3013.9 | 3031.0 | 3029.9 | 3018.2 | 2997.9 | 2984.1 | 2967.0 | 2915.9 | 2842.5 | 2720.0 | 2505.0 |
| 15° | 2999.0 | 3020.3 | 3039.5 | 3049.0 | 3050.1 | 3050.1 | 3028.8 | 2974.5 | 2904.2 | 2791.4 | 2550.8 |
| 17.5° | 3005.4 | 3029.9 | 3077.8 | 3105.5 | 3124.7 | 3122.5 | 3100.1 | 3041.6 | 2963.9 | 2864.9 | 2598.7 |
| 20° | 3044.8 | 3077.8 | 3144.8 | 3200.2 | 3219.3 | 3213.0 | 3183.2 | 3115.1 | 3026.7 | 2927.7 | 2645.5 |
| 22.5° | 3141.6 | 3171.5 | 3255.6 | 3320.5 | 3334.3 | 3317.3 | 3274.7 | 3182.1 | 3102.3 | 2995.8 | 2702.0 |
| 25° | 3286.5 | 3321.5 | 3399.3 | 3448.3 | 3448.3 | 3438.7 | 3379.1 | 3270.5 | 3187.4 | 3090.6 | 2775.5 |
| 27.5° | 3462.1 | 3491.9 | 3568.5 | 3612.2 | 3586.7 | 3558.9 | 3499.3 | 3368.4 | 3288.6 | 3209.8 | 2863.8 |
| 30° | 3639.8 | 3659.0 | 3739.9 | 3759.1 | 3732.5 | 3697.4 | 3633.5 | 3502.5 | 3432.3 | 3371.6 | 2991.5 |
| 32.5° | 3808.1 | 3849.6 | 3916.7 | 3912.4 | 3876.3 | 3859.2 | 3800.6 | 3661.2 | 3621.8 | 3615.4 | 3170.4 |
| 35° | 3976.3 | 4008.2 | 4067.8 | 4082.8 | 4050.8 | 4047.6 | 4005.0 | 3901.8 | 3902.8 | 3944.4 | 3449.4 |
| 37.5° | 4121.1 | 4149.8 | 4220.1 | 4253.1 | 4259.5 | 4275.5 | 4258.4 | 4190.3 | 4287.2 | 4401.0 | 3818.7 |
| 40° | 4242.4 | 4282.9 | 4372.4 | 4429.8 | 4495.8 | 4554.4 | 4557.5 | 4572.5 | 4767.3 | 4963.2 | 4301.0 |
| 42.5° | 4337.2 | 4393.6 | 4523.5 | 4630.0 | 4781.2 | 4855.7 | 4915.3 | 4997.2 | 5325.1 | 5618.0 | 4869.5 |
| 45° | 4460.7 | 4525.7 | 4687.5 | 4854.6 | 5090.9 | 5213.4 | 5296.4 | 5515.7 | 5980.9 | 6380.2 | 5452.9 |
| 47.5° | 4665.1 | 4699.2 | 4864.2 | 5108.0 | 5418.8 | 5593.4 | 5755.2 | 6087.4 | 6684.7 | 7042.4 | 5938.4 |
| 50° | 4928.1 | 4950.4 | 5075.0 | 5413.5 | 5815.9 | 6045.9 | 6340.8 | 6731.5 | 7415.0 | 7591.7 | 6213.1 |
| 52.5° | 5218.7 | 5226.1 | 5319.8 | 5749.9 | 6260.9 | 6550.5 | 6880.6 | 7362.8 | 8010.1 | 7983.4 | 6395.0 |
| 55° | 5556.2 | 5545.6 | 5625.4 | 6115.1 | 6788.0 | 7119.0 | 7503.3 | 8009.0 | 8526.4 | 8261.3 | 6499.4 |
| 57.5° | 5942.6 | 5913.9 | 5991.6 | 6599.5 | 7462.9 | 7858.9 | 8249.6 | 8566.8 | 8926.7 | 8494.5 | 6549.5 |
| 60° | 6347.2 | 6289.7 | 6382.3 | 7143.5 | 8258.1 | 8634.0 | 8958.7 | 9043.9 | 9348.3 | 8679.7 | 6463.3 |
| 62.5° | 6669.7 | 6670.8 | 6843.3 | 7722.7 | 9075.7 | 9404.7 | 9577.2 | 9653.8 | 9711.4 | 8639.3 | 6009.7 |
| 65° | 7173.3 | 7190.4 | 7466.1 | 8526.4 | 10022.2 | 10307.5 | 10425.7 | 10176.6 | 9727.3 | 8136.8 | 5328.3 |
| 67.5° | 7692.9 | 7747.1 | 8251.7 | 9633.7 | 11115.6 | 11345.5 | 11193.3 | 10277.7 | 9293.0 | 6990.2 | 4040.2 |
| 70° | 7862.1 | 7951.6 | 8783.0 | 10395.9 | 11771.3 | 11890.6 | 11375.3 | 9806.1 | 7768.4 | 4673.6 | 2033.4 |
| 72.5° | 7204.2 | 7349.0 | 8477.4 | 10118.0 | 11352.9 | 11249.7 | 10177.6 | 8224.1 | 4938.7 | 1774.7 | 620.7 |
| 75° | 5080.3 | 5144.1 | 7045.6 | 8393.3 | 9131.2 | 8838.3 | 7741.8 | 5301.7 | 2031.3 | 498.2 | 212.9 |
| 77.5° | 2623.2 | 2592.3 | 4190.3 | 5568.9 | 6512.2 | 6208.8 | 5069.6 | 2744.5 | 769.7 | 207.6 | 132.0 |
| 80° | 1356.3 | 1378.7 | 1813.0 | 2918.1 | 3975.2 | 3658.0 | 2703.1 | 1272.2 | 409.9 | 115.0 | 101.2 |
| 82.5° | 760.1 | 713.3 | 1042.3 | 1274.4 | 1858.8 | 1457.5 | 1037.0 | 900.6 | 178.9 | 69.2 | 95.8 |
| 85° | 138.4 | 144.8 | 571.7 | 688.8 | 645.1 | 409.9 | 334.3 | 601.5 | 52.1 | 38.3 | 67.1 |
| 87.5° | 2.1 | 2.1 | 110.8 | 198.1 | 125.6 | 57.5 | 105.4 | 86.2 | 10.7 | 14.9 | 11.7 |
| 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-SA5A-840-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 | 2472.0 |
| 2.5° | 2460.3 | 2419.8 | 2344.3 | 2269.8 | 2175.0 | 2097.3 | 2045.1 | 1990.8 | 1935.5 | 1939.7 | 1952.5 |
| 5° | 2417.7 | 2347.5 | 2198.4 | 2040.9 | 1889.6 | 1753.4 | 1619.3 | 1499.0 | 1450.0 | 1405.3 | 1407.4 |
| 7.5° | 2375.2 | 2276.2 | 2057.8 | 1810.9 | 1582.0 | 1349.9 | 1181.7 | 1043.3 | 969.8 | 914.5 | 898.5 |
| 10° | 2356.0 | 2225.0 | 1929.1 | 1589.5 | 1264.8 | 1011.4 | 795.2 | 682.4 | 595.1 | 567.4 | 574.9 |
| 12.5° | 2364.5 | 2199.5 | 1813.0 | 1389.3 | 1002.9 | 704.8 | 553.6 | 496.1 | 476.9 | 473.7 | 471.6 |
| 15° | 2380.5 | 2181.4 | 1699.1 | 1167.9 | 736.7 | 523.8 | 465.2 | 454.6 | 452.5 | 450.4 | 451.4 |
| 17.5° | 2401.7 | 2165.4 | 1577.7 | 960.3 | 565.3 | 457.8 | 440.8 | 435.4 | 434.4 | 434.4 | 434.4 |
| 20° | 2423.0 | 2147.3 | 1442.6 | 775.1 | 471.6 | 432.2 | 421.6 | 418.4 | 417.3 | 417.3 | 416.3 |
| 22.5° | 2447.6 | 2131.3 | 1305.2 | 609.0 | 434.4 | 414.1 | 404.5 | 402.4 | 401.3 | 400.3 | 400.3 |
| 25° | 2482.6 | 2111.1 | 1159.3 | 498.2 | 410.9 | 397.1 | 387.5 | 385.3 | 384.3 | 380.0 | 381.1 |
| 27.5° | 2529.5 | 2096.2 | 1009.3 | 430.1 | 389.6 | 375.8 | 369.5 | 366.3 | 364.1 | 360.9 | 362.0 |
| 30° | 2593.4 | 2083.4 | 849.6 | 392.8 | 365.2 | 353.5 | 347.1 | 344.9 | 342.8 | 339.6 | 339.6 |
| 32.5° | 2704.1 | 2088.8 | 681.4 | 363.1 | 342.8 | 329.0 | 322.6 | 320.4 | 318.3 | 315.1 | 315.1 |
| 35° | 2870.2 | 2119.7 | 545.1 | 337.5 | 316.2 | 302.3 | 295.9 | 295.9 | 292.8 | 288.5 | 287.5 |
| 37.5° | 3141.6 | 2198.4 | 437.6 | 313.0 | 290.6 | 277.9 | 270.4 | 268.3 | 265.1 | 258.7 | 257.6 |
| 40° | 3462.1 | 2320.8 | 368.4 | 288.5 | 267.2 | 254.4 | 248.1 | 241.7 | 233.1 | 226.7 | 225.7 |
| 42.5° | 3864.5 | 2446.5 | 319.4 | 264.0 | 244.9 | 233.1 | 225.7 | 215.0 | 202.3 | 193.8 | 192.7 |
| 45° | 4284.0 | 2561.4 | 286.4 | 241.7 | 223.5 | 214.0 | 205.5 | 188.5 | 172.5 | 161.8 | 160.7 |
| 47.5° | 4597.0 | 2582.7 | 259.8 | 220.3 | 205.5 | 195.9 | 184.2 | 162.9 | 141.6 | 132.0 | 128.8 |
| 50° | 4744.9 | 2479.4 | 232.1 | 199.1 | 187.4 | 176.7 | 161.8 | 137.3 | 113.9 | 102.2 | 100.1 |
| 52.5° | 4797.1 | 2300.6 | 209.7 | 179.9 | 169.3 | 156.5 | 138.4 | 110.8 | 89.4 | 77.7 | 76.6 |
| 55° | 4775.8 | 2074.9 | 189.5 | 161.8 | 148.0 | 133.0 | 115.0 | 88.4 | 66.0 | 56.4 | 54.3 |
| 57.5° | 4664.0 | 1787.5 | 169.3 | 143.7 | 126.7 | 111.8 | 91.6 | 66.0 | 44.7 | 36.2 | 35.2 |
| 60° | 4362.8 | 1395.7 | 149.0 | 123.5 | 107.6 | 91.6 | 72.4 | 46.8 | 27.7 | 20.3 | 20.3 |
| 62.5° | 3853.9 | 1035.9 | 129.9 | 103.3 | 90.5 | 73.4 | 51.1 | 29.8 | 14.9 | 10.7 | 9.6 |
| 65° | 3220.4 | 764.4 | 108.6 | 87.3 | 75.6 | 57.5 | 36.2 | 18.1 | 7.5 | 3.2 | 2.1 |
| 67.5° | 2247.4 | 471.6 | 90.5 | 71.3 | 61.7 | 41.5 | 22.4 | 7.5 | 3.2 | 0.0 | 0.0 |
| 70° | 1021.0 | 224.6 | 69.2 | 54.3 | 46.8 | 29.8 | 11.7 | 4.3 | 2.1 | 0.0 | 0.0 |
| 72.5° | 317.2 | 118.2 | 48.9 | 39.4 | 32.0 | 19.2 | 6.4 | 3.2 | 2.1 | 0.0 | 0.0 |
| 75° | 146.9 | 75.6 | 30.9 | 21.3 | 18.1 | 9.6 | 4.3 | 2.1 | 1.1 | 0.0 | 0.0 |
| 77.5° | 109.7 | 58.5 | 18.1 | 11.7 | 9.6 | 6.4 | 3.2 | 2.1 | 1.1 | 0.0 | 0.0 |
| 80° | 95.8 | 29.8 | 10.7 | 7.5 | 5.3 | 4.3 | 2.1 | 1.1 | 0.0 | 0.0 | 0.0 |
| 82.5° | 86.2 | 14.9 | 6.4 | 4.3 | 3.2 | 2.1 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 |
| 85° | 46.8 | 8.5 | 4.3 | 3.2 | 2.1 | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 8.5 | 4.3 | 3.2 | 2.1 | 2.1 | 1.1 | 1.1 | 1.1 | 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)