

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: P647385

Luminaire Tested: **GALN-SA4D-835-U-SL3-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P647385
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-835-U-SL3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19821.6 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

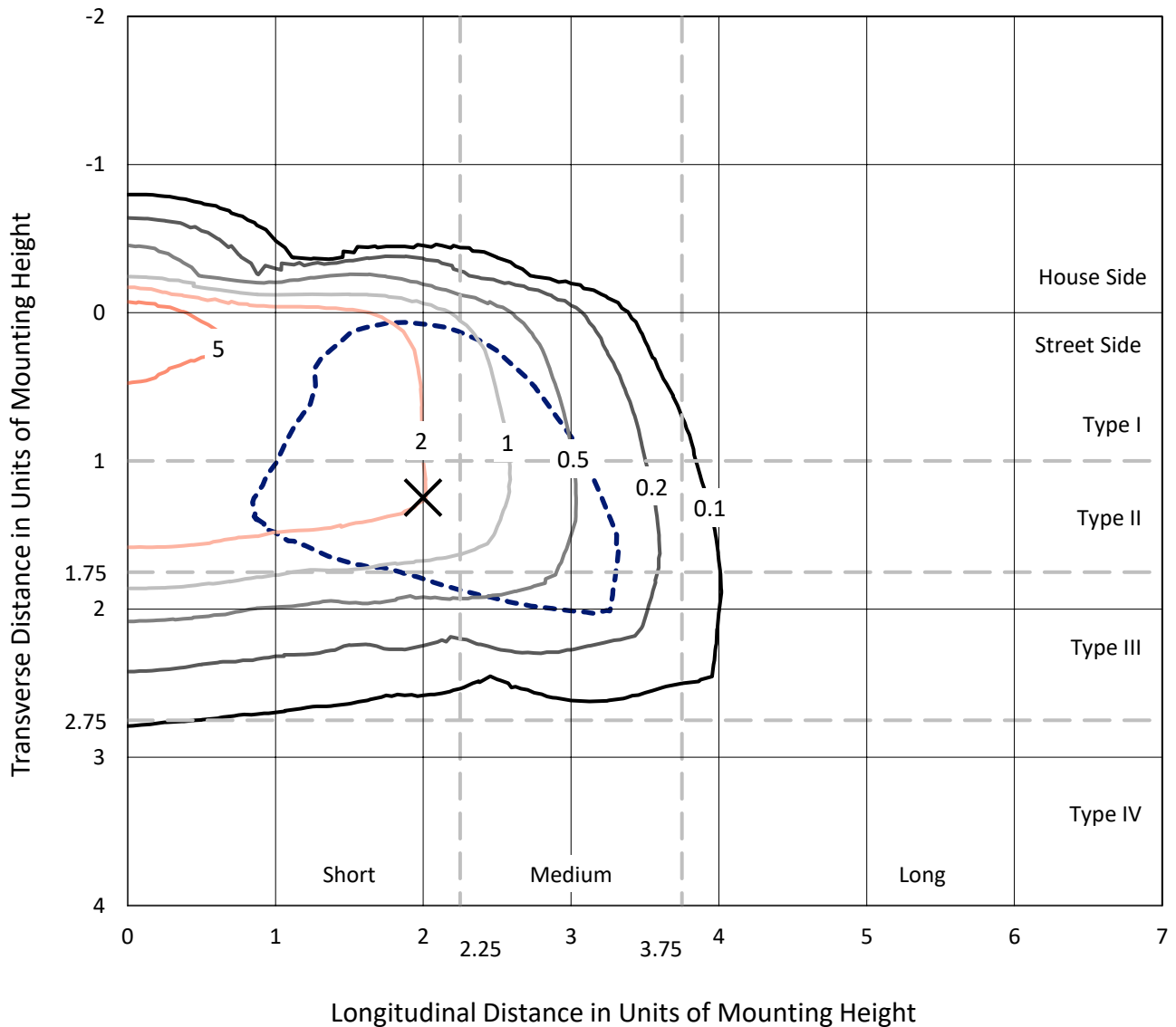
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

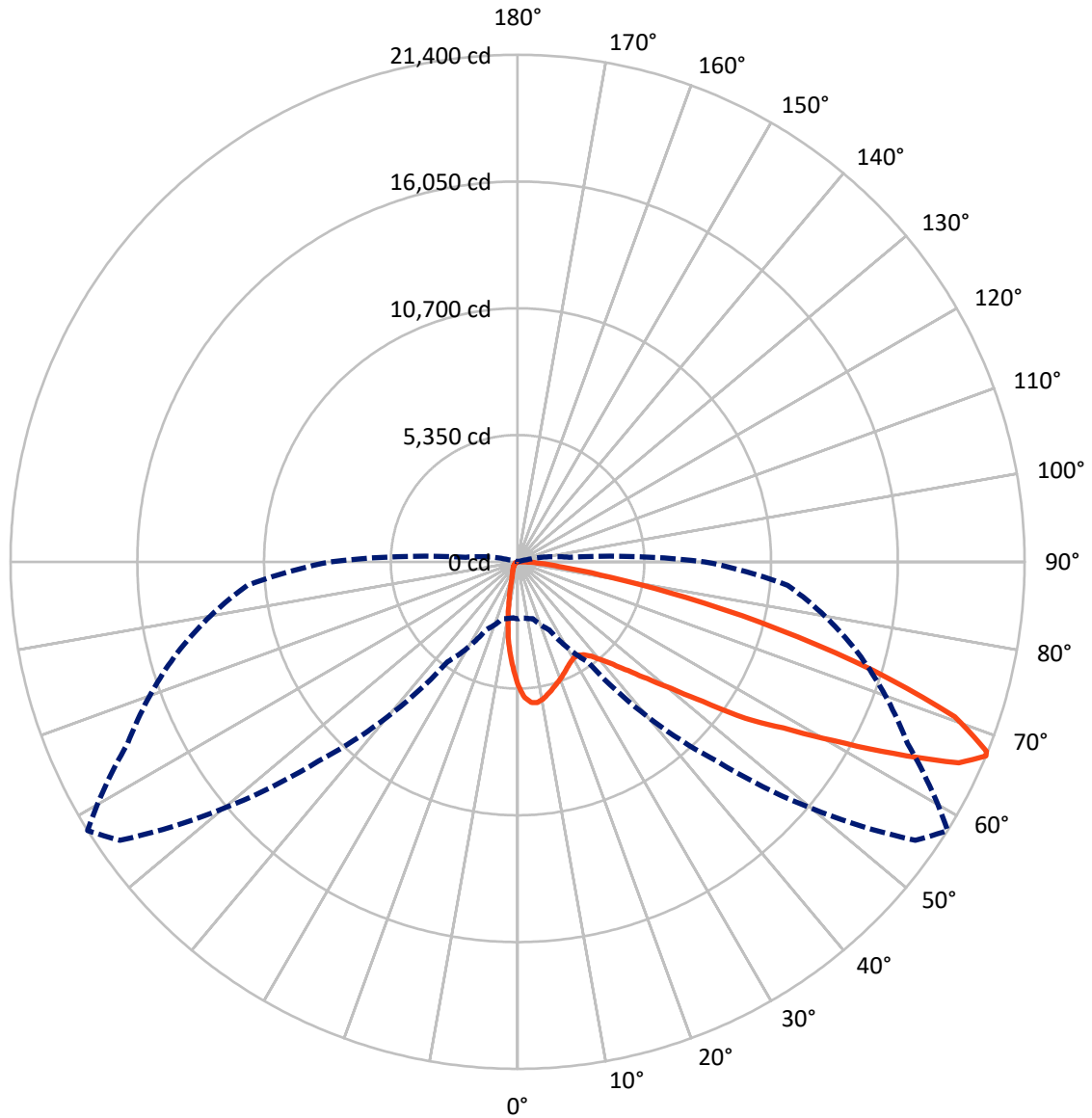
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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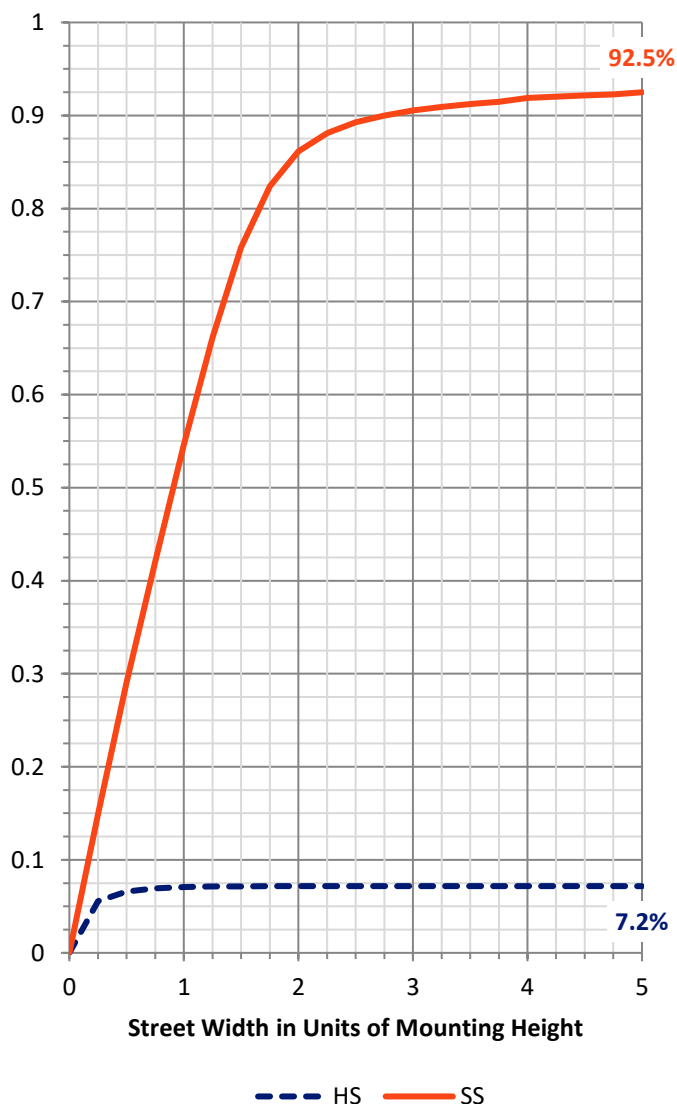
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1430.4 | 0.0 | 1430.4 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 18391.2 | 0.0 | 18391.2 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 19821.6 | 0.0 | 19821.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 426.4 | 2.2 |
| 10°-20° | 920.9 | 4.6 |
| 20°-30° | 1247.9 | 6.3 |
| 30°-40° | 1730.8 | 8.7 |
| 40°-50° | 2760.4 | 13.9 |
| 50°-60° | 4771.5 | 24.1 |
| 60°-70° | 5450.5 | 27.5 |
| 70°-80° | 2272.4 | 11.5 |
| 80°-90° | 240.9 | 1.2 |
| 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° | 19821.6 | 100.0 |
| 0°-180° | 19821.6 | 100.0 |

Coefficient of Utilization

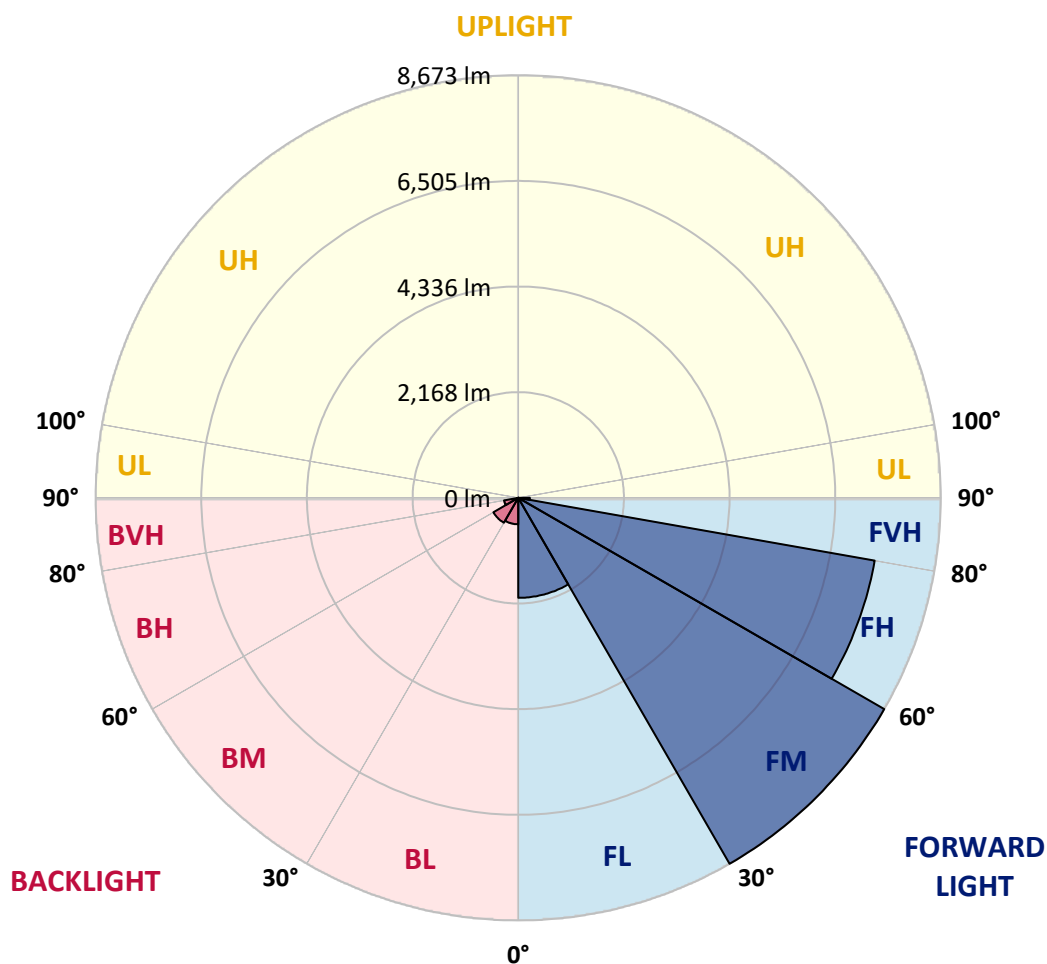


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2052.0 | 10.4 | | | |
| FM (30°-60°) | 8672.8 | 43.8 | | | |
| FH (60°-80°) | 7427.2 | 37.5 | | | G3/7500 |
| FVH (80°-90°) | 239.2 | 1.2 | | | G3/500 |
| BL (0°-30°) | 543.2 | 2.7 | B2/1000 | | |
| BM (30°-60°) | 589.8 | 3.0 | B1/1000 | | |
| BH (60°-80°) | 295.7 | 1.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.7 | 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° | 58° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 |
| 2.5° | 6098.3 | 6107.6 | 6073.1 | 6045.3 | 5973.7 | 5896.9 | 5795.0 | 5740.6 | 5647.9 | 5487.7 | 5310.1 |
| 5° | 6241.4 | 6253.3 | 6247.9 | 6241.4 | 6213.5 | 6139.3 | 6009.5 | 5961.8 | 5825.4 | 5564.5 | 5243.9 |
| 7.5° | 5923.5 | 5967.2 | 5972.4 | 6024.1 | 6073.1 | 6079.8 | 6030.7 | 5995.0 | 5869.1 | 5563.1 | 5126.1 |
| 10° | 5502.2 | 5531.3 | 5573.8 | 5633.4 | 5751.2 | 5849.2 | 5896.9 | 5891.7 | 5818.8 | 5522.1 | 4988.3 |
| 12.5° | 5077.1 | 5092.9 | 5157.9 | 5259.8 | 5404.2 | 5571.1 | 5698.3 | 5723.4 | 5724.7 | 5473.1 | 4873.1 |
| 15° | 4711.5 | 4704.8 | 4755.2 | 4873.1 | 5075.7 | 5285.0 | 5512.8 | 5552.6 | 5616.1 | 5425.4 | 4765.8 |
| 17.5° | 4398.9 | 4433.3 | 4441.3 | 4571.1 | 4757.8 | 5029.4 | 5319.5 | 5389.6 | 5516.8 | 5384.4 | 4677.0 |
| 20° | 4205.5 | 4224.1 | 4241.3 | 4314.1 | 4482.3 | 4768.4 | 5138.0 | 5234.7 | 5424.1 | 5347.3 | 4577.7 |
| 22.5° | 4148.5 | 4160.5 | 4145.9 | 4168.4 | 4287.6 | 4541.9 | 4940.7 | 5069.1 | 5335.4 | 5312.8 | 4496.9 |
| 25° | 4192.3 | 4204.2 | 4169.7 | 4143.2 | 4184.3 | 4357.8 | 4749.9 | 4906.2 | 5263.8 | 5306.2 | 4435.9 |
| 27.5° | 4298.2 | 4320.8 | 4273.1 | 4225.4 | 4201.5 | 4258.5 | 4600.2 | 4781.7 | 5214.8 | 5337.9 | 4408.1 |
| 30° | 4463.8 | 4477.0 | 4441.3 | 4383.0 | 4328.7 | 4271.7 | 4522.1 | 4695.6 | 5201.5 | 5412.2 | 4405.5 |
| 32.5° | 4643.9 | 4671.7 | 4651.9 | 4613.4 | 4543.3 | 4408.1 | 4544.5 | 4698.2 | 5233.3 | 5519.4 | 4438.6 |
| 35° | 4866.4 | 4898.2 | 4916.8 | 4908.9 | 4818.7 | 4650.6 | 4687.6 | 4817.4 | 5318.1 | 5716.8 | 4528.7 |
| 37.5° | 5085.0 | 5112.8 | 5217.4 | 5253.2 | 5173.8 | 5014.8 | 4965.8 | 5051.9 | 5504.9 | 5975.1 | 4691.6 |
| 40° | 5335.4 | 5372.4 | 5519.4 | 5655.8 | 5617.5 | 5450.5 | 5360.5 | 5432.1 | 5791.0 | 6364.5 | 5000.2 |
| 42.5° | 5575.1 | 5641.3 | 5865.1 | 6106.2 | 6142.0 | 5955.3 | 5895.6 | 5919.5 | 6214.8 | 6924.8 | 5430.7 |
| 45° | 5915.5 | 5977.7 | 6266.5 | 6593.6 | 6761.9 | 6616.2 | 6555.3 | 6551.3 | 6796.4 | 7712.9 | 6128.8 |
| 47.5° | 6406.9 | 6462.6 | 6802.9 | 7126.2 | 7425.5 | 7445.4 | 7330.1 | 7369.8 | 7527.4 | 8634.8 | 6984.4 |
| 50° | 7009.6 | 7140.7 | 7364.6 | 7701.0 | 8101.0 | 8424.2 | 8460.0 | 8407.0 | 8542.1 | 9702.4 | 8012.3 |
| 52.5° | 7885.1 | 7935.5 | 8140.8 | 8417.6 | 8886.5 | 9434.8 | 9860.0 | 9787.2 | 9744.8 | 10719.7 | 9050.7 |
| 55° | 8538.1 | 8605.6 | 8924.9 | 9305.0 | 9992.5 | 10715.7 | 11637.6 | 11662.8 | 11127.6 | 11697.2 | 10066.6 |
| 57.5° | 8340.8 | 8444.1 | 8927.5 | 9691.8 | 11203.2 | 12525.0 | 13211.2 | 13228.4 | 12407.2 | 12646.9 | 11213.7 |
| 60° | 7327.5 | 7376.5 | 8069.2 | 9089.1 | 11306.4 | 14485.4 | 15443.0 | 15304.0 | 13709.2 | 13709.2 | 12227.0 |
| 62.5° | 5196.2 | 5273.1 | 5834.7 | 7335.5 | 10211.0 | 15166.2 | 18116.0 | 17828.6 | 15502.7 | 14725.2 | 12831.0 |
| 65° | 3320.7 | 3246.5 | 3618.7 | 4630.7 | 7606.9 | 14160.9 | 20443.3 | 20460.5 | 17190.1 | 15131.8 | 12501.2 |
| 67° | 2405.4 | 2376.2 | 2483.5 | 3165.7 | 5157.9 | 11903.9 | 20492.3 | 21399.6 | 18159.7 | 14874.8 | 11446.8 |
| 67.5° | 2200.1 | 2222.6 | 2300.8 | 2855.8 | 4686.3 | 10832.3 | 20269.8 | 21344.0 | 18378.3 | 14719.9 | 11065.4 |
| 70° | 1667.6 | 1629.2 | 1714.0 | 2020.0 | 2809.4 | 6833.4 | 17436.5 | 19575.7 | 18106.8 | 13182.0 | 8841.5 |
| 72.5° | 1226.6 | 1222.6 | 1340.4 | 1651.7 | 2163.0 | 3639.9 | 13089.3 | 15696.0 | 14792.7 | 10037.5 | 5567.1 |
| 75° | 827.9 | 864.9 | 1053.1 | 1380.2 | 1960.3 | 2360.4 | 8923.5 | 11387.2 | 10269.4 | 5699.6 | 2275.6 |
| 77.5° | 471.5 | 474.2 | 678.2 | 1108.6 | 1760.3 | 1899.4 | 5287.7 | 7254.7 | 5436.0 | 1895.5 | 675.5 |
| 80° | 204.0 | 223.9 | 336.5 | 805.3 | 1459.7 | 1682.2 | 3031.9 | 3987.0 | 2198.7 | 401.4 | 218.5 |
| 82.5° | 75.5 | 88.7 | 148.4 | 495.4 | 1065.0 | 1385.5 | 1831.9 | 1903.4 | 745.7 | 141.7 | 136.4 |
| 85° | 0.0 | 2.7 | 54.3 | 231.8 | 555.0 | 618.6 | 1223.9 | 1128.5 | 329.8 | 67.6 | 88.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 23.8 | 72.8 | 230.4 | 380.1 | 423.8 | 79.5 | 23.8 | 21.2 |
| 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-SA4D-835-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 | 5254.6 |
| 2.5° | 5214.8 | 5128.7 | 4912.8 | 4696.9 | 4536.6 | 4402.8 | 4201.5 | 4091.6 | 4033.3 | 3947.2 | 3952.5 |
| 5° | 5083.7 | 4908.9 | 4528.7 | 4135.3 | 3817.4 | 3507.4 | 3136.5 | 2986.9 | 2861.1 | 2789.5 | 2741.8 |
| 7.5° | 4889.0 | 4630.7 | 4067.8 | 3543.2 | 3054.4 | 2512.7 | 2106.0 | 1834.5 | 1651.7 | 1584.2 | 1519.3 |
| 10° | 4675.7 | 4332.7 | 3600.2 | 2873.0 | 2194.8 | 1635.8 | 1291.5 | 1042.4 | 953.7 | 871.6 | 879.5 |
| 12.5° | 4478.4 | 4061.1 | 3171.0 | 2267.6 | 1537.8 | 1039.7 | 810.6 | 708.6 | 679.5 | 670.2 | 670.2 |
| 15° | 4316.8 | 3801.5 | 2710.0 | 1704.7 | 1054.4 | 747.1 | 649.0 | 621.2 | 610.7 | 608.0 | 608.0 |
| 17.5° | 4144.6 | 3555.1 | 2294.1 | 1259.7 | 766.9 | 625.2 | 592.1 | 573.5 | 569.6 | 566.9 | 566.9 |
| 20° | 3990.9 | 3307.4 | 1899.4 | 937.8 | 619.9 | 563.0 | 541.8 | 529.9 | 525.9 | 523.2 | 524.5 |
| 22.5° | 3845.2 | 3087.5 | 1528.6 | 708.6 | 545.8 | 512.6 | 491.4 | 479.5 | 471.5 | 464.9 | 466.3 |
| 25° | 3715.4 | 2875.6 | 1229.2 | 580.1 | 491.4 | 462.3 | 441.1 | 423.8 | 406.6 | 398.7 | 397.4 |
| 27.5° | 3624.0 | 2690.2 | 957.7 | 496.7 | 442.4 | 410.6 | 384.1 | 362.9 | 340.4 | 328.5 | 325.8 |
| 30° | 3548.5 | 2502.1 | 757.6 | 438.4 | 393.4 | 362.9 | 329.8 | 299.3 | 275.5 | 263.6 | 258.3 |
| 32.5° | 3499.5 | 2323.3 | 597.4 | 390.7 | 352.4 | 315.2 | 278.1 | 247.7 | 221.2 | 209.3 | 206.6 |
| 35° | 3491.6 | 2173.6 | 488.7 | 351.0 | 315.2 | 275.5 | 237.1 | 204.0 | 181.5 | 169.5 | 166.9 |
| 37.5° | 3548.5 | 2058.4 | 409.3 | 319.2 | 284.8 | 241.1 | 198.6 | 168.2 | 148.4 | 139.1 | 137.7 |
| 40° | 3700.8 | 1985.5 | 355.0 | 292.8 | 257.0 | 209.3 | 169.5 | 143.1 | 123.2 | 113.9 | 113.9 |
| 42.5° | 3990.9 | 1988.2 | 319.2 | 267.6 | 229.2 | 178.8 | 144.4 | 119.2 | 102.0 | 94.0 | 91.4 |
| 45° | 4443.9 | 2078.2 | 288.8 | 242.4 | 202.6 | 155.0 | 123.2 | 98.0 | 80.8 | 74.2 | 74.2 |
| 47.5° | 5050.6 | 2257.1 | 262.2 | 217.2 | 178.8 | 132.5 | 104.6 | 79.5 | 64.9 | 58.3 | 58.3 |
| 50° | 5844.0 | 2544.5 | 239.8 | 196.1 | 158.9 | 113.9 | 84.8 | 64.9 | 50.3 | 45.0 | 43.7 |
| 52.5° | 6673.1 | 2899.4 | 213.3 | 177.5 | 136.4 | 96.7 | 68.9 | 50.3 | 38.4 | 34.5 | 33.1 |
| 55° | 7588.4 | 3246.5 | 188.1 | 158.9 | 111.3 | 80.8 | 54.3 | 39.7 | 27.8 | 23.8 | 23.8 |
| 57.5° | 8511.6 | 3586.9 | 157.6 | 132.5 | 87.4 | 59.6 | 42.4 | 29.1 | 18.6 | 14.6 | 14.6 |
| 60° | 9293.1 | 3696.9 | 133.8 | 107.3 | 66.2 | 42.4 | 30.5 | 18.6 | 10.6 | 6.7 | 6.7 |
| 62.5° | 9400.4 | 3325.9 | 112.6 | 82.1 | 47.7 | 29.1 | 15.9 | 10.6 | 4.0 | 2.7 | 2.7 |
| 65° | 8817.6 | 2702.1 | 94.0 | 62.2 | 31.8 | 14.6 | 6.7 | 4.0 | 1.3 | 0.0 | 0.0 |
| 67° | 7901.0 | 2190.8 | 76.8 | 46.4 | 22.6 | 9.2 | 4.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| 67.5° | 7666.6 | 2088.8 | 74.2 | 43.7 | 19.9 | 7.9 | 2.7 | 1.3 | 0.0 | 0.0 | 0.0 |
| 70° | 6016.2 | 1564.3 | 53.0 | 26.5 | 11.9 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 3739.2 | 884.8 | 38.4 | 15.9 | 7.9 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1413.3 | 309.9 | 26.5 | 10.6 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 439.7 | 117.9 | 15.9 | 7.9 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 148.4 | 45.0 | 10.6 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 91.4 | 18.6 | 6.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 56.9 | 7.9 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.6 | 2.7 | 1.3 | 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)