

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: P458958

Luminaire Tested: **GALN-SA4D-735-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458958
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-SA4D-735-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3500K, 1200mA 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: 23450 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

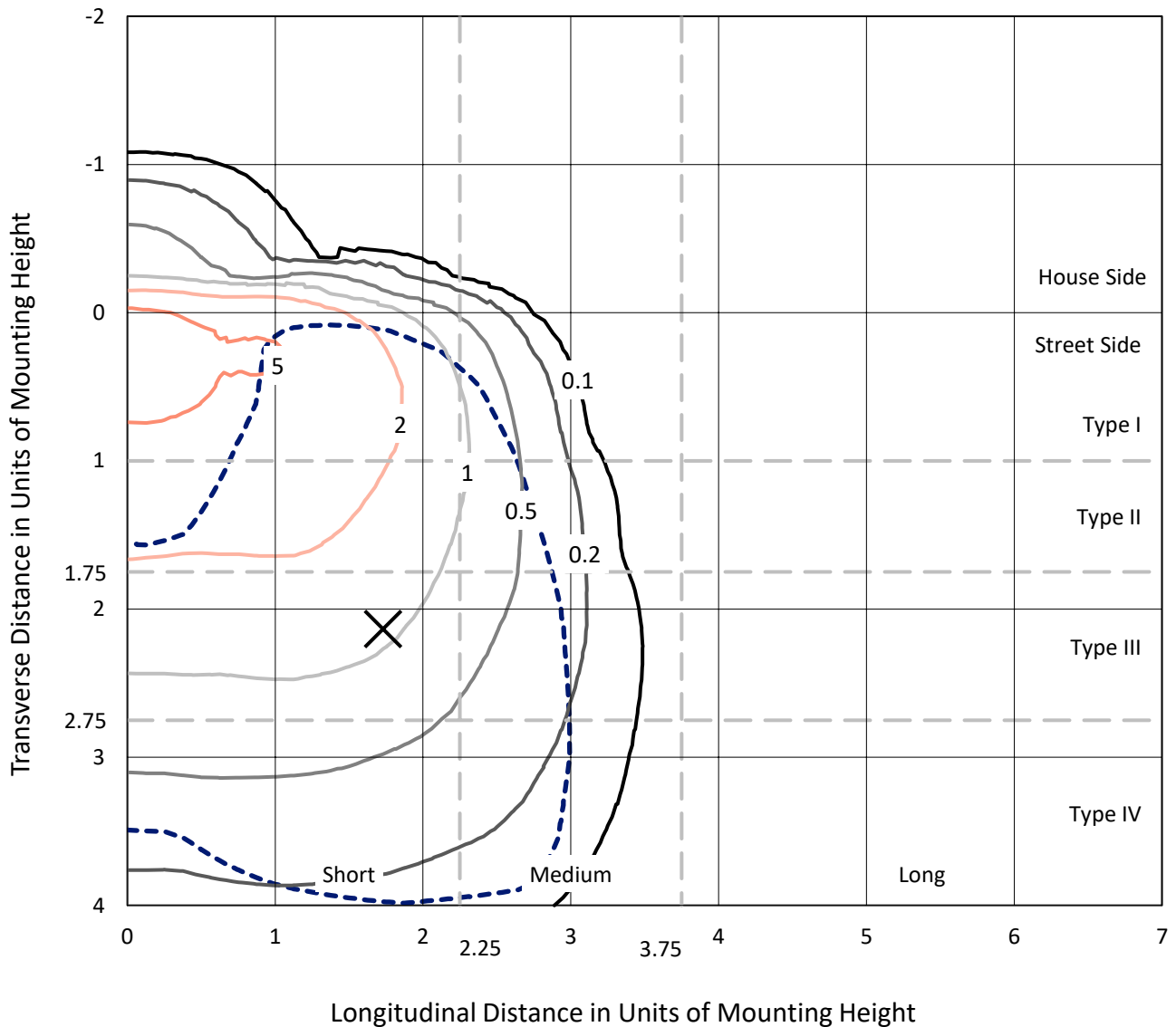
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

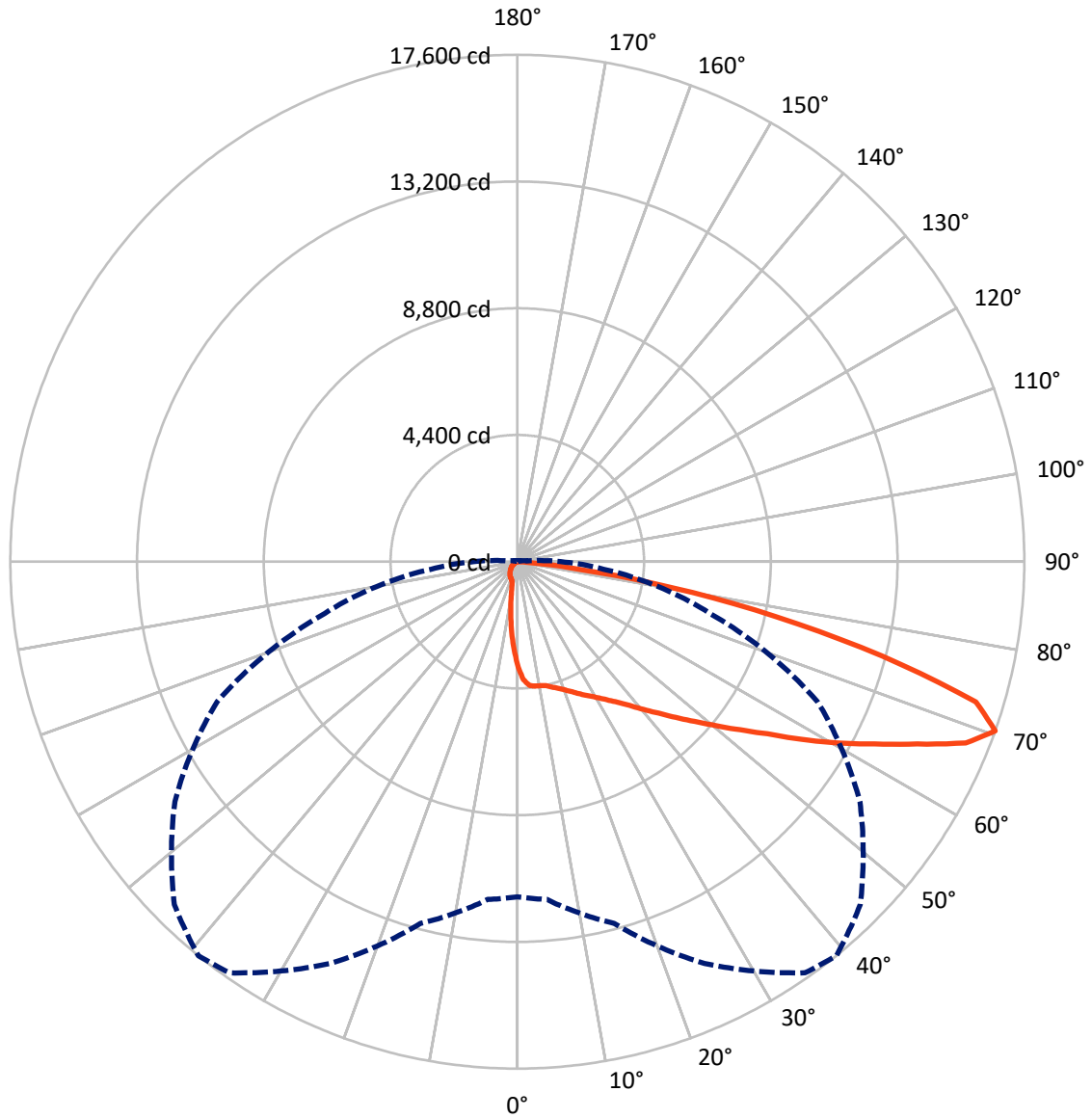
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 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 | 1529.1 | 0.0 | 1529.1 |
| | % Fixture | 6.5 | 0.0 | 6.5 |
| Street Side | Lumens | 21920.9 | 0.0 | 21920.9 |
| | % Fixture | 93.5 | 0.0 | 93.5 |
| Total | Lumens | 23450.0 | 0.0 | 23450.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 312.1 | 1.3 |
| 10°-20° | 811.0 | 3.5 |
| 20°-30° | 1358.7 | 5.8 |
| 30°-40° | 2107.2 | 9.0 |
| 40°-50° | 3339.2 | 14.2 |
| 50°-60° | 4894.8 | 20.9 |
| 60°-70° | 6274.0 | 26.8 |
| 70°-80° | 3942.4 | 16.8 |
| 80°-90° | 410.7 | 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° | 23450.0 | 100.0 |
| 0°-180° | 23450.0 | 100.0 |

Coefficient of Utilization



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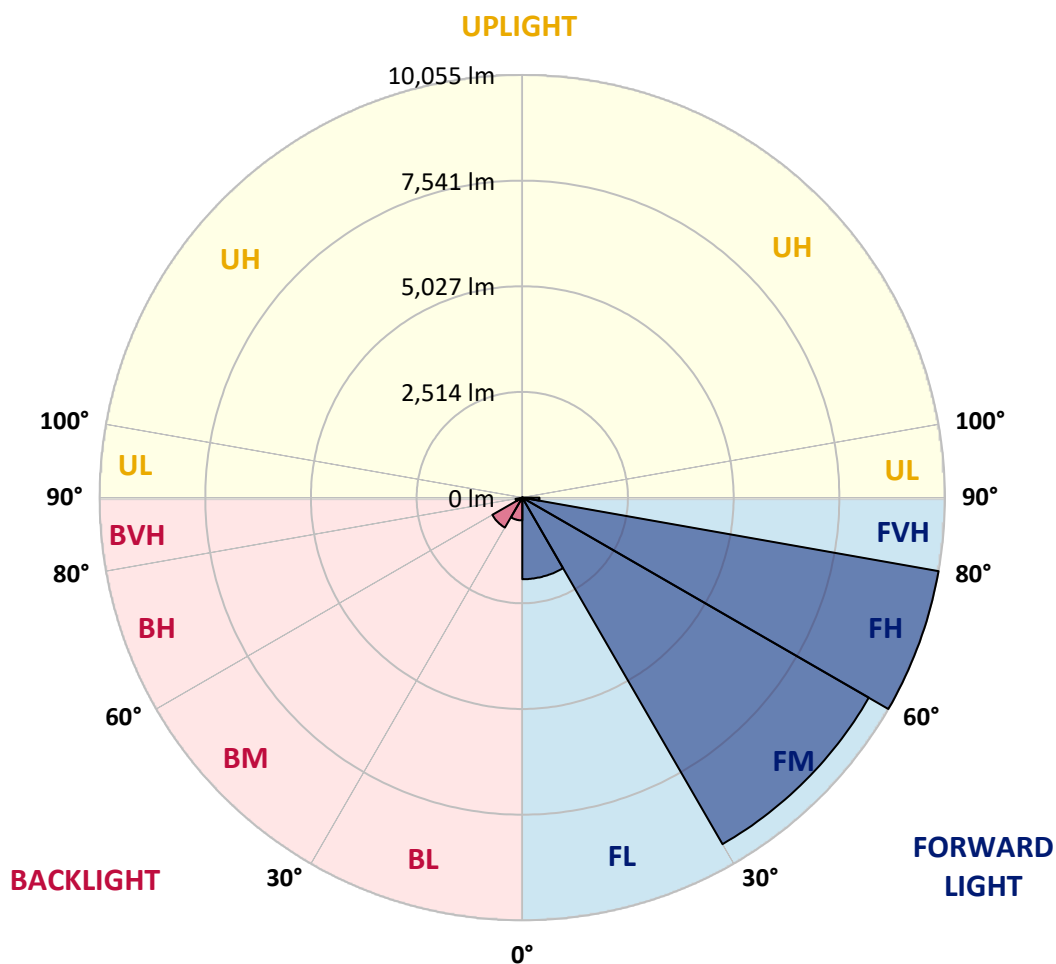
CATALOG NUMBER: GALN-SA4D-735-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1940.4 | 8.3 | | | |
| FM | (30°-60°) | 9518.3 | 40.6 | | | |
| FH | (60°-80°) | 10054.6 | 42.9 | | | G4/12000 |
| FVH | (80°-90°) | 407.7 | 1.7 | | | G3/500 |
| BL | (0°-30°) | 541.4 | 2.3 | B2/1000 | | |
| BM | (30°-60°) | 822.9 | 3.5 | B1/1000 | | |
| BH | (60°-80°) | 161.7 | 0.7 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 3.0 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 |
| 2.5° | 4227.9 | 4213.7 | 4194.8 | 4172.7 | 4109.7 | 4098.7 | 4060.8 | 3980.5 | 3884.3 | 3805.6 | 3696.8 |
| 5° | 4428.0 | 4435.9 | 4421.7 | 4382.3 | 4336.6 | 4309.8 | 4262.5 | 4138.0 | 4013.6 | 3854.4 | 3676.3 |
| 7.5° | 4473.7 | 4489.5 | 4472.1 | 4434.3 | 4390.2 | 4361.8 | 4324.0 | 4216.8 | 4071.9 | 3890.6 | 3646.4 |
| 10° | 4469.0 | 4487.9 | 4476.8 | 4442.2 | 4405.9 | 4379.1 | 4338.2 | 4253.1 | 4136.5 | 3945.8 | 3655.9 |
| 12.5° | 4461.1 | 4486.3 | 4484.7 | 4467.4 | 4437.4 | 4417.0 | 4391.8 | 4316.1 | 4207.4 | 4026.2 | 3707.9 |
| 15° | 4439.0 | 4470.5 | 4498.9 | 4513.1 | 4514.7 | 4514.7 | 4483.1 | 4402.8 | 4298.8 | 4131.7 | 3775.6 |
| 17.5° | 4448.5 | 4484.7 | 4555.6 | 4596.6 | 4625.0 | 4621.8 | 4588.7 | 4502.1 | 4387.0 | 4240.5 | 3846.5 |
| 20° | 4506.8 | 4555.6 | 4654.9 | 4736.9 | 4765.2 | 4755.8 | 4711.6 | 4610.8 | 4480.0 | 4333.4 | 3915.9 |
| 22.5° | 4650.2 | 4694.3 | 4818.8 | 4914.9 | 4935.4 | 4910.2 | 4847.2 | 4710.1 | 4591.9 | 4434.3 | 3999.4 |
| 25° | 4864.5 | 4916.5 | 5031.5 | 5104.0 | 5104.0 | 5089.8 | 5001.6 | 4840.9 | 4717.9 | 4574.5 | 4108.1 |
| 27.5° | 5124.5 | 5168.6 | 5282.1 | 5346.7 | 5308.9 | 5267.9 | 5179.6 | 4985.8 | 4867.6 | 4751.0 | 4238.9 |
| 30° | 5387.7 | 5416.0 | 5535.8 | 5564.1 | 5524.7 | 5472.7 | 5378.2 | 5184.4 | 5080.4 | 4990.6 | 4428.0 |
| 32.5° | 5636.6 | 5698.1 | 5797.4 | 5791.1 | 5737.5 | 5712.3 | 5625.6 | 5419.2 | 5360.9 | 5351.4 | 4692.7 |
| 35° | 5885.6 | 5932.9 | 6021.1 | 6043.2 | 5995.9 | 5991.2 | 5928.2 | 5775.3 | 5776.9 | 5838.3 | 5105.6 |
| 37.5° | 6099.9 | 6142.5 | 6246.5 | 6295.3 | 6304.8 | 6328.4 | 6303.2 | 6202.3 | 6345.7 | 6514.4 | 5652.4 |
| 40° | 6279.6 | 6339.4 | 6471.8 | 6556.9 | 6654.6 | 6741.3 | 6746.0 | 6768.1 | 7056.4 | 7346.4 | 6366.2 |
| 42.5° | 6419.8 | 6503.3 | 6695.6 | 6853.1 | 7076.9 | 7187.2 | 7275.5 | 7396.8 | 7882.1 | 8315.5 | 7207.7 |
| 45° | 6602.6 | 6698.7 | 6938.2 | 7185.6 | 7535.5 | 7716.7 | 7839.6 | 8164.2 | 8852.8 | 9443.8 | 8071.2 |
| 47.5° | 6905.1 | 6955.6 | 7199.8 | 7560.7 | 8020.8 | 8279.2 | 8518.8 | 9010.4 | 9894.4 | 10423.9 | 8789.8 |
| 50° | 7294.4 | 7327.5 | 7511.8 | 8012.9 | 8608.6 | 8949.0 | 9385.5 | 9963.8 | 10975.4 | 11237.0 | 9196.4 |
| 52.5° | 7724.6 | 7735.6 | 7874.3 | 8510.9 | 9267.3 | 9695.9 | 10184.4 | 10898.2 | 11856.3 | 11816.9 | 9465.8 |
| 55° | 8224.1 | 8208.3 | 8326.5 | 9051.4 | 10047.3 | 10537.4 | 11106.2 | 11854.7 | 12620.6 | 12228.2 | 9620.3 |
| 57.5° | 8796.1 | 8753.6 | 8868.6 | 9768.4 | 11046.3 | 11632.5 | 12210.9 | 12680.5 | 13213.1 | 12573.3 | 9694.3 |
| 60° | 9394.9 | 9309.8 | 9446.9 | 10573.6 | 12223.5 | 12779.7 | 13260.3 | 13386.4 | 13837.1 | 12847.5 | 9566.7 |
| 62.5° | 9872.4 | 9874.0 | 10129.2 | 11430.8 | 13433.7 | 13920.6 | 14175.9 | 14289.3 | 14374.4 | 12787.6 | 8895.4 |
| 65° | 10617.7 | 10642.9 | 11051.1 | 12620.6 | 14834.6 | 15256.9 | 15431.8 | 15063.1 | 14398.1 | 12043.8 | 7886.9 |
| 67.5° | 11386.7 | 11467.1 | 12214.0 | 14259.4 | 16452.9 | 16793.3 | 16567.9 | 15212.8 | 13755.1 | 10346.7 | 5980.2 |
| 70° | 11637.3 | 11769.6 | 13000.3 | 15387.7 | 17423.6 | 17600.1 | 16837.4 | 14514.7 | 11498.6 | 6917.8 | 3009.8 |
| 72.5° | 10663.4 | 10877.7 | 12548.1 | 14976.4 | 16804.3 | 16651.5 | 15064.6 | 12173.0 | 7310.1 | 2626.9 | 918.7 |
| 75° | 7519.7 | 7614.3 | 10428.6 | 12423.6 | 13515.6 | 13082.3 | 11459.2 | 7847.5 | 3006.6 | 737.5 | 315.2 |
| 77.5° | 3882.8 | 3837.1 | 6202.3 | 8243.0 | 9639.2 | 9190.1 | 7504.0 | 4062.4 | 1139.3 | 307.3 | 195.4 |
| 80° | 2007.6 | 2040.7 | 2683.6 | 4319.3 | 5884.0 | 5414.4 | 4001.0 | 1883.1 | 606.7 | 170.2 | 149.7 |
| 82.5° | 1125.1 | 1055.8 | 1542.7 | 1886.2 | 2751.3 | 2157.3 | 1534.8 | 1333.1 | 264.7 | 102.4 | 141.8 |
| 85° | 204.9 | 214.3 | 846.2 | 1019.5 | 954.9 | 606.7 | 494.8 | 890.3 | 77.2 | 56.7 | 99.3 |
| 87.5° | 3.2 | 3.2 | 163.9 | 293.1 | 185.9 | 85.1 | 156.0 | 127.6 | 15.8 | 22.1 | 17.3 |
| 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-SA4D-735-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 | 3659.0 |
| 2.5° | 3641.7 | 3581.8 | 3469.9 | 3359.6 | 3219.4 | 3104.3 | 3027.1 | 2946.7 | 2864.8 | 2871.1 | 2890.0 |
| 5° | 3578.6 | 3474.6 | 3254.0 | 3020.8 | 2797.0 | 2595.3 | 2396.8 | 2218.7 | 2146.2 | 2080.1 | 2083.2 |
| 7.5° | 3515.6 | 3369.1 | 3046.0 | 2680.4 | 2341.6 | 1998.1 | 1749.1 | 1544.3 | 1435.6 | 1353.6 | 1330.0 |
| 10° | 3487.2 | 3293.4 | 2855.3 | 2352.7 | 1872.0 | 1497.0 | 1177.1 | 1010.1 | 880.9 | 839.9 | 850.9 |
| 12.5° | 3499.8 | 3255.6 | 2683.6 | 2056.4 | 1484.4 | 1043.2 | 819.4 | 734.3 | 706.0 | 701.2 | 698.1 |
| 15° | 3523.5 | 3228.8 | 2515.0 | 1728.7 | 1090.5 | 775.3 | 688.6 | 672.9 | 669.7 | 666.6 | 668.1 |
| 17.5° | 3555.0 | 3205.2 | 2335.3 | 1421.4 | 836.7 | 677.6 | 652.4 | 644.5 | 642.9 | 642.9 | 642.9 |
| 20° | 3586.5 | 3178.4 | 2135.2 | 1147.2 | 698.1 | 639.8 | 624.0 | 619.3 | 617.7 | 617.7 | 616.1 |
| 22.5° | 3622.8 | 3154.7 | 1931.9 | 901.4 | 642.9 | 613.0 | 598.8 | 595.7 | 594.1 | 592.5 | 592.5 |
| 25° | 3674.8 | 3124.8 | 1716.0 | 737.5 | 608.3 | 587.8 | 573.6 | 570.4 | 568.9 | 562.6 | 564.1 |
| 27.5° | 3744.1 | 3102.7 | 1493.9 | 636.6 | 576.7 | 556.3 | 546.8 | 542.1 | 538.9 | 534.2 | 535.8 |
| 30° | 3838.6 | 3083.8 | 1257.5 | 581.5 | 540.5 | 523.2 | 513.7 | 510.6 | 507.4 | 502.7 | 502.7 |
| 32.5° | 4002.5 | 3091.7 | 1008.5 | 537.3 | 507.4 | 486.9 | 477.5 | 474.3 | 471.2 | 466.4 | 466.4 |
| 35° | 4248.4 | 3137.4 | 806.8 | 499.5 | 468.0 | 447.5 | 438.1 | 438.1 | 433.3 | 427.0 | 425.5 |
| 37.5° | 4650.2 | 3254.0 | 647.7 | 463.3 | 430.2 | 411.3 | 400.3 | 397.1 | 392.4 | 382.9 | 381.3 |
| 40° | 5124.5 | 3435.2 | 545.2 | 427.0 | 395.5 | 376.6 | 367.2 | 357.7 | 345.1 | 335.6 | 334.1 |
| 42.5° | 5720.1 | 3621.2 | 472.7 | 390.8 | 362.4 | 345.1 | 334.1 | 318.3 | 299.4 | 286.8 | 285.2 |
| 45° | 6341.0 | 3791.4 | 423.9 | 357.7 | 330.9 | 316.7 | 304.1 | 278.9 | 255.3 | 239.5 | 237.9 |
| 47.5° | 6804.3 | 3822.9 | 384.5 | 326.2 | 304.1 | 289.9 | 272.6 | 241.1 | 209.6 | 195.4 | 190.7 |
| 50° | 7023.3 | 3670.0 | 343.5 | 294.7 | 277.3 | 261.6 | 239.5 | 203.3 | 168.6 | 151.3 | 148.1 |
| 52.5° | 7100.5 | 3405.3 | 310.4 | 266.3 | 250.6 | 231.6 | 204.9 | 163.9 | 132.4 | 115.0 | 113.5 |
| 55° | 7069.0 | 3071.2 | 280.5 | 239.5 | 219.0 | 197.0 | 170.2 | 130.8 | 97.7 | 83.5 | 80.4 |
| 57.5° | 6903.6 | 2645.8 | 250.6 | 212.7 | 187.5 | 165.5 | 135.5 | 97.7 | 66.2 | 53.6 | 52.0 |
| 60° | 6457.6 | 2065.9 | 220.6 | 182.8 | 159.2 | 135.5 | 107.2 | 69.3 | 41.0 | 29.9 | 29.9 |
| 62.5° | 5704.4 | 1533.3 | 192.2 | 152.9 | 133.9 | 108.7 | 75.6 | 44.1 | 22.1 | 15.8 | 14.2 |
| 65° | 4766.8 | 1131.4 | 160.7 | 129.2 | 111.9 | 85.1 | 53.6 | 26.8 | 11.0 | 4.7 | 3.2 |
| 67.5° | 3326.5 | 698.1 | 133.9 | 105.6 | 91.4 | 61.5 | 33.1 | 11.0 | 4.7 | 0.0 | 0.0 |
| 70° | 1511.2 | 332.5 | 102.4 | 80.4 | 69.3 | 44.1 | 17.3 | 6.3 | 3.2 | 0.0 | 0.0 |
| 72.5° | 469.6 | 174.9 | 72.5 | 58.3 | 47.3 | 28.4 | 9.5 | 4.7 | 3.2 | 0.0 | 0.0 |
| 75° | 217.5 | 111.9 | 45.7 | 31.5 | 26.8 | 14.2 | 6.3 | 3.2 | 1.6 | 0.0 | 0.0 |
| 77.5° | 162.3 | 86.7 | 26.8 | 17.3 | 14.2 | 9.5 | 4.7 | 3.2 | 1.6 | 0.0 | 0.0 |
| 80° | 141.8 | 44.1 | 15.8 | 11.0 | 7.9 | 6.3 | 3.2 | 1.6 | 0.0 | 0.0 | 0.0 |
| 82.5° | 127.6 | 22.1 | 9.5 | 6.3 | 4.7 | 3.2 | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 |
| 85° | 69.3 | 12.6 | 6.3 | 4.7 | 3.2 | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.6 | 6.3 | 4.7 | 3.2 | 3.2 | 1.6 | 1.6 | 1.6 | 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)