

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: P652335

Luminaire Tested: **GALN-SA4B-840-U-SL3-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P652335
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-SA4B-840-U-SL3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 800mA 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: 15659.4 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

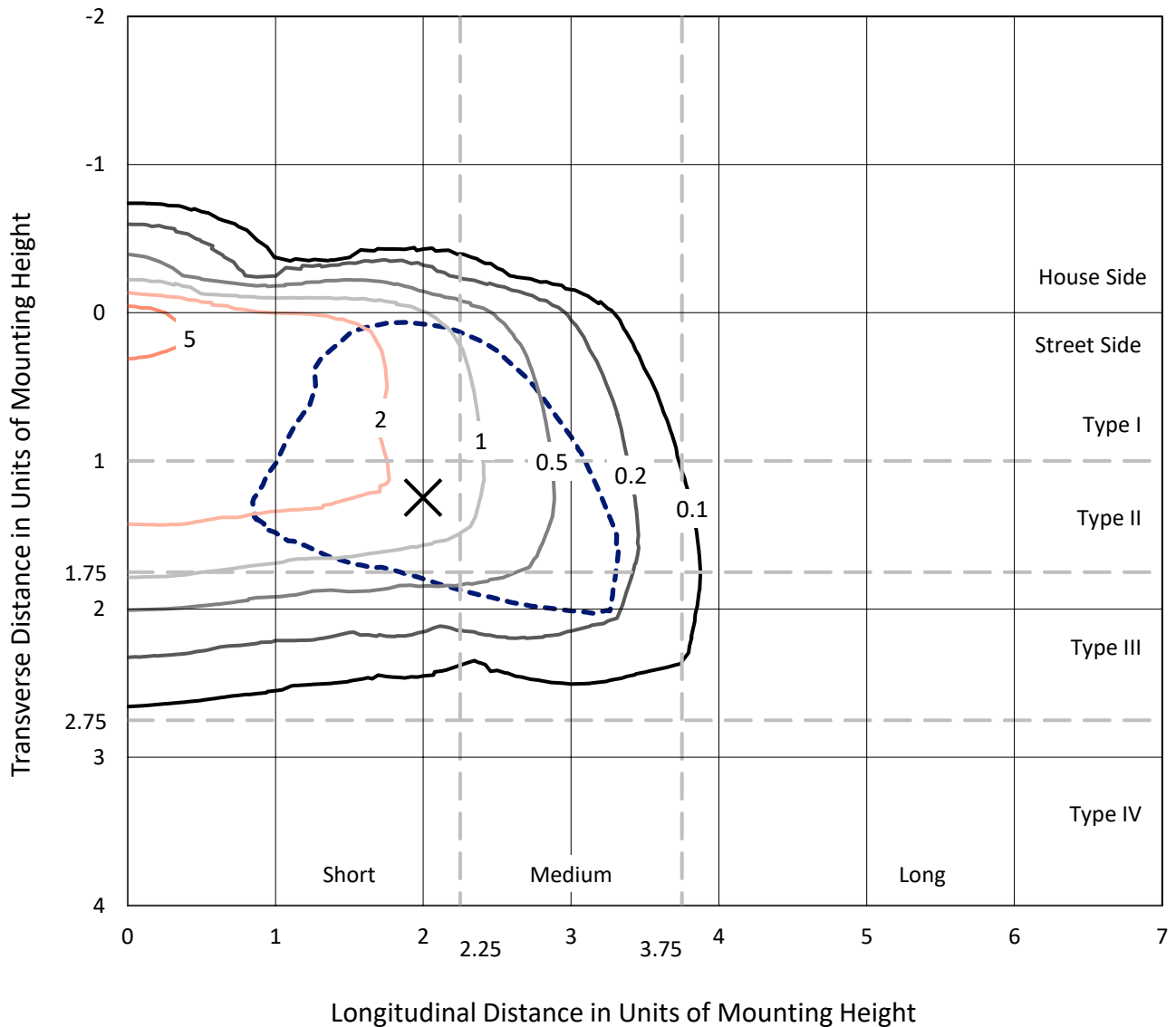
Input Watts (W): 164
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

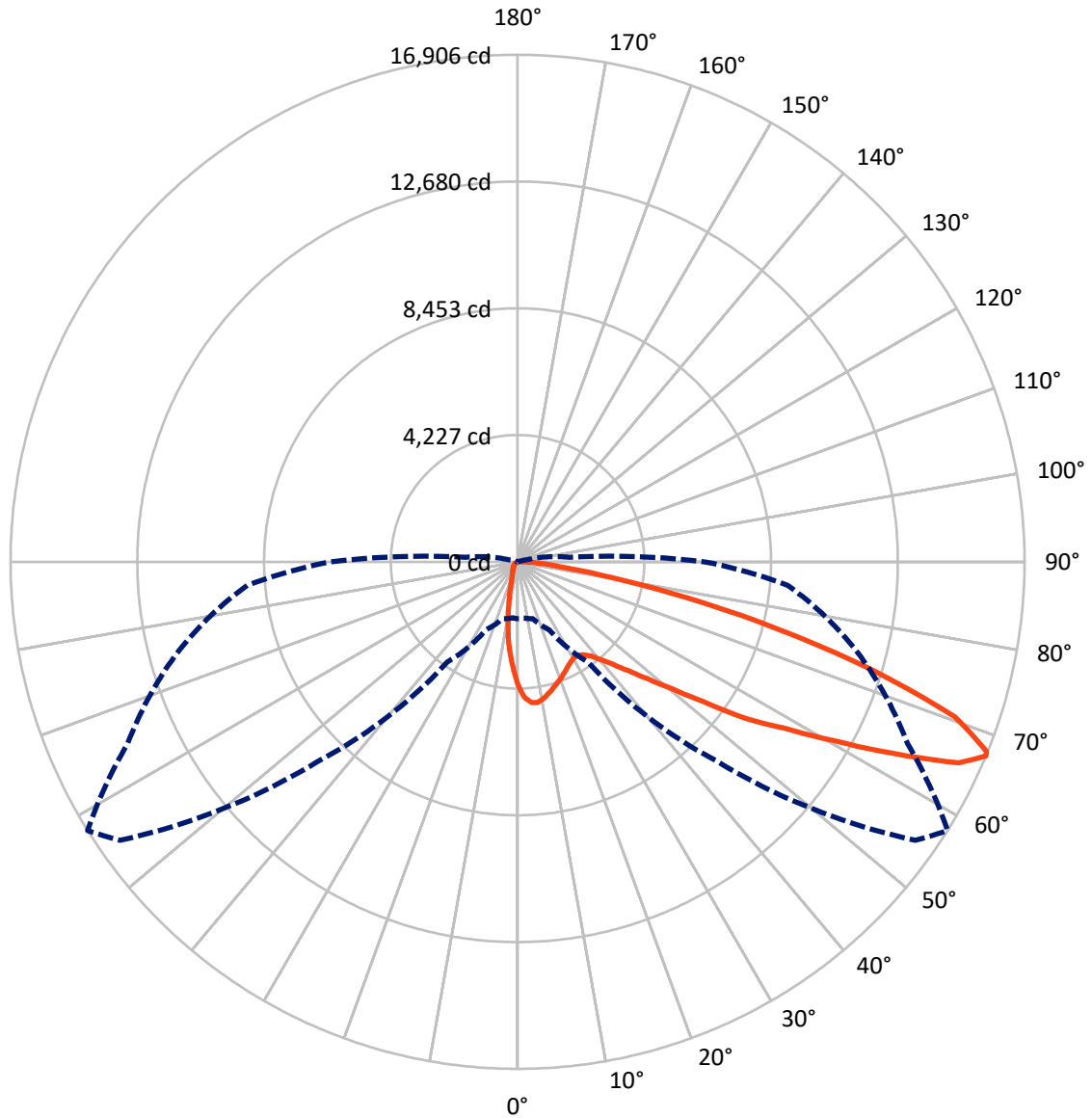
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 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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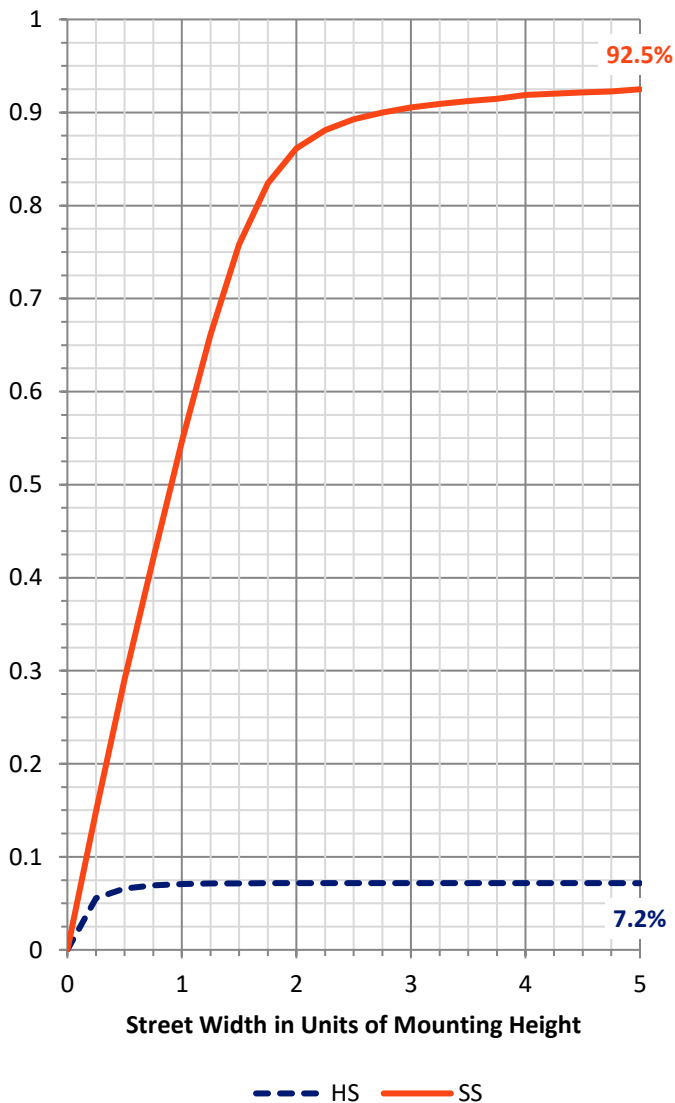
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1130.1 | 0.0 | 1130.1 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 14529.3 | 0.0 | 14529.3 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 15659.4 | 0.0 | 15659.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 336.9 | 2.2 |
| 10°-20° | 727.5 | 4.6 |
| 20°-30° | 985.9 | 6.3 |
| 30°-40° | 1367.3 | 8.7 |
| 40°-50° | 2180.7 | 13.9 |
| 50°-60° | 3769.6 | 24.1 |
| 60°-70° | 4306.0 | 27.5 |
| 70°-80° | 1795.2 | 11.5 |
| 80°-90° | 190.3 | 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° | 15659.4 | 100.0 |
| 0°-180° | 15659.4 | 100.0 |

Coefficient of Utilization



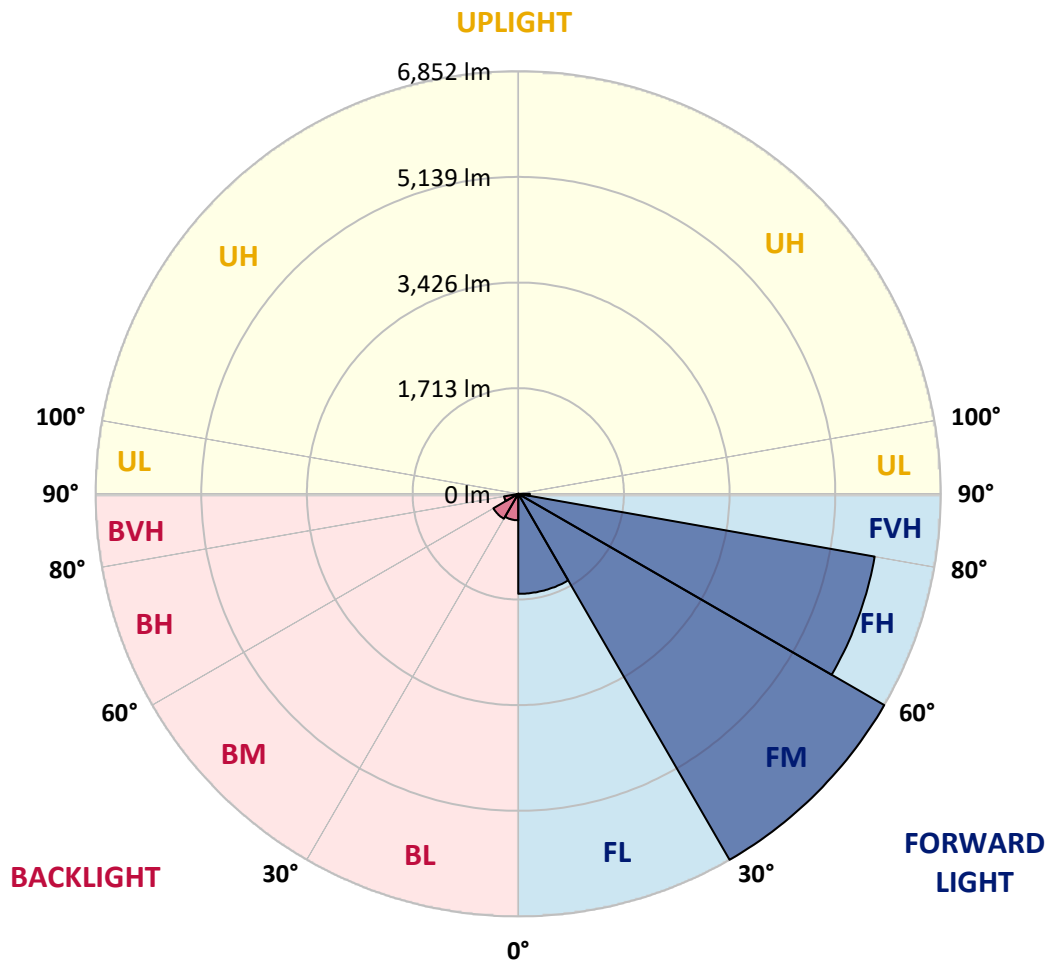
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1621.1 | 10.4 | | | |
| FM (30°-60°) | 6851.6 | 43.8 | | | |
| FH (60°-80°) | 5867.6 | 37.5 | | | G3/7500 |
| FVH (80°-90°) | 189.0 | 1.2 | | | G2/225 |
| BL (0°-30°) | 429.1 | 2.7 | B1/500 | | |
| BM (30°-60°) | 466.0 | 3.0 | B1/1000 | | |
| BH (60°-80°) | 233.6 | 1.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.4 | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 |
| 2.5° | 4817.8 | 4825.1 | 4797.8 | 4775.9 | 4719.4 | 4658.7 | 4578.2 | 4535.2 | 4461.9 | 4335.4 | 4195.2 |
| 5° | 4930.8 | 4940.2 | 4936.0 | 4930.8 | 4908.7 | 4850.2 | 4747.6 | 4709.9 | 4602.2 | 4396.0 | 4142.8 |
| 7.5° | 4679.6 | 4714.1 | 4718.3 | 4759.1 | 4797.8 | 4803.1 | 4764.3 | 4736.1 | 4636.7 | 4395.0 | 4049.7 |
| 10° | 4346.9 | 4369.8 | 4403.4 | 4450.5 | 4543.6 | 4621.0 | 4658.7 | 4654.5 | 4596.9 | 4362.5 | 3940.8 |
| 12.5° | 4011.0 | 4023.5 | 4074.8 | 4155.4 | 4269.4 | 4401.3 | 4501.7 | 4521.6 | 4522.6 | 4323.8 | 3849.8 |
| 15° | 3722.1 | 3716.9 | 3756.7 | 3849.8 | 4009.9 | 4175.2 | 4355.2 | 4386.7 | 4436.9 | 4286.2 | 3765.1 |
| 17.5° | 3475.2 | 3502.3 | 3508.7 | 3611.3 | 3758.8 | 3973.3 | 4202.5 | 4257.9 | 4358.4 | 4253.7 | 3694.9 |
| 20° | 3322.4 | 3337.1 | 3350.6 | 3408.2 | 3541.1 | 3767.1 | 4059.1 | 4135.4 | 4285.1 | 4224.4 | 3616.5 |
| 22.5° | 3277.4 | 3286.8 | 3275.3 | 3293.1 | 3387.3 | 3588.2 | 3903.2 | 4004.7 | 4215.0 | 4197.2 | 3552.6 |
| 25° | 3311.9 | 3321.4 | 3294.1 | 3273.3 | 3305.6 | 3442.7 | 3752.5 | 3875.9 | 4158.5 | 4192.0 | 3504.4 |
| 27.5° | 3395.6 | 3413.5 | 3375.8 | 3338.1 | 3319.3 | 3364.3 | 3634.2 | 3777.6 | 4119.8 | 4217.1 | 3482.5 |
| 30° | 3526.5 | 3536.9 | 3508.7 | 3462.6 | 3419.8 | 3374.7 | 3572.5 | 3709.6 | 4109.3 | 4275.7 | 3480.4 |
| 32.5° | 3668.8 | 3690.7 | 3675.1 | 3644.7 | 3589.2 | 3482.5 | 3590.3 | 3711.7 | 4134.4 | 4360.4 | 3506.5 |
| 35° | 3844.5 | 3869.7 | 3884.3 | 3878.0 | 3806.9 | 3674.0 | 3703.3 | 3805.9 | 4201.4 | 4516.3 | 3577.7 |
| 37.5° | 4017.2 | 4039.2 | 4121.9 | 4150.1 | 4087.3 | 3961.8 | 3923.0 | 3991.0 | 4349.0 | 4720.4 | 3706.5 |
| 40° | 4215.0 | 4244.3 | 4360.4 | 4468.2 | 4437.9 | 4306.0 | 4234.9 | 4291.4 | 4575.0 | 5028.1 | 3950.3 |
| 42.5° | 4404.4 | 4456.7 | 4633.6 | 4824.1 | 4852.2 | 4704.7 | 4657.6 | 4676.5 | 4909.8 | 5470.7 | 4290.4 |
| 45° | 4673.4 | 4722.6 | 4950.6 | 5209.1 | 5342.0 | 5226.9 | 5178.8 | 5175.6 | 5369.2 | 6093.3 | 4841.8 |
| 47.5° | 5061.6 | 5105.5 | 5374.4 | 5629.7 | 5866.2 | 5882.0 | 5791.0 | 5822.3 | 5946.8 | 6821.6 | 5517.8 |
| 50° | 5537.6 | 5641.3 | 5818.1 | 6083.9 | 6399.9 | 6655.3 | 6683.5 | 6641.6 | 6748.4 | 7665.0 | 6329.8 |
| 52.5° | 6229.4 | 6269.2 | 6431.3 | 6650.0 | 7020.5 | 7453.7 | 7789.6 | 7732.1 | 7698.5 | 8468.7 | 7150.2 |
| 55° | 6745.2 | 6798.6 | 7050.8 | 7351.1 | 7894.2 | 8465.6 | 9193.9 | 9213.7 | 8791.1 | 9241.0 | 7952.8 |
| 57.5° | 6589.3 | 6671.0 | 7052.9 | 7656.7 | 8850.7 | 9895.0 | 10437.1 | 10450.7 | 9801.9 | 9991.2 | 8859.0 |
| 60° | 5788.9 | 5827.5 | 6374.8 | 7180.5 | 8932.3 | 11443.7 | 12200.3 | 12090.4 | 10830.5 | 10830.5 | 9659.6 |
| 62.5° | 4105.1 | 4165.8 | 4609.5 | 5795.1 | 8066.9 | 11981.6 | 14312.0 | 14084.9 | 12247.4 | 11633.1 | 10136.7 |
| 65° | 2623.4 | 2564.8 | 2858.8 | 3658.3 | 6009.6 | 11187.3 | 16150.6 | 16164.1 | 13580.5 | 11954.4 | 9876.2 |
| 67° | 1900.3 | 1877.3 | 1962.1 | 2501.0 | 4074.8 | 9404.2 | 16189.2 | 16906.0 | 14346.5 | 11751.4 | 9043.2 |
| 67.5° | 1738.1 | 1755.9 | 1817.7 | 2256.1 | 3702.3 | 8557.7 | 16013.5 | 16862.1 | 14519.1 | 11628.9 | 8741.9 |
| 70° | 1317.4 | 1287.1 | 1354.1 | 1595.8 | 2219.5 | 5398.5 | 13775.2 | 15465.1 | 14304.7 | 10414.0 | 6984.9 |
| 72.5° | 969.0 | 965.9 | 1059.0 | 1304.9 | 1708.8 | 2875.5 | 10340.8 | 12400.1 | 11686.5 | 7929.8 | 4398.1 |
| 75° | 654.0 | 683.3 | 831.9 | 1090.4 | 1548.7 | 1864.7 | 7049.8 | 8996.1 | 8113.0 | 4502.8 | 1797.7 |
| 77.5° | 372.6 | 374.6 | 535.8 | 875.8 | 1390.7 | 1500.6 | 4177.3 | 5731.2 | 4294.6 | 1497.4 | 533.7 |
| 80° | 161.1 | 176.9 | 265.8 | 636.2 | 1153.2 | 1328.9 | 2395.3 | 3149.7 | 1737.1 | 317.1 | 172.7 |
| 82.5° | 59.6 | 70.1 | 117.2 | 391.4 | 841.3 | 1094.6 | 1447.2 | 1503.7 | 589.1 | 111.9 | 107.8 |
| 85° | 0.0 | 2.1 | 42.9 | 183.1 | 438.4 | 488.7 | 966.9 | 891.5 | 260.5 | 53.4 | 70.1 |
| 87.5° | 0.0 | 0.0 | 0.0 | 18.8 | 57.5 | 182.1 | 300.3 | 334.9 | 62.8 | 18.8 | 16.7 |
| 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: P652335

CATALOG NUMBER: GALN-SA4B-840-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 | 4151.2 |
| 2.5° | 4119.8 | 4051.8 | 3881.2 | 3710.7 | 3584.0 | 3478.3 | 3319.3 | 3232.4 | 3186.4 | 3118.3 | 3122.5 |
| 5° | 4016.2 | 3878.0 | 3577.7 | 3266.9 | 3015.8 | 2770.9 | 2477.9 | 2359.7 | 2260.3 | 2203.8 | 2166.1 |
| 7.5° | 3862.4 | 3658.3 | 3213.5 | 2799.2 | 2413.1 | 1985.1 | 1663.8 | 1449.3 | 1304.9 | 1251.5 | 1200.3 |
| 10° | 3693.8 | 3422.9 | 2844.2 | 2269.7 | 1733.9 | 1292.4 | 1020.3 | 823.5 | 753.5 | 688.5 | 694.8 |
| 12.5° | 3538.0 | 3208.3 | 2505.2 | 1791.5 | 1214.9 | 821.4 | 640.4 | 559.9 | 536.8 | 529.5 | 529.5 |
| 15° | 3410.3 | 3003.2 | 2141.0 | 1346.8 | 832.9 | 590.2 | 512.8 | 490.8 | 482.4 | 480.3 | 480.3 |
| 17.5° | 3274.3 | 2808.6 | 1812.4 | 995.2 | 605.9 | 493.9 | 467.8 | 453.1 | 449.9 | 447.8 | 447.8 |
| 20° | 3152.9 | 2612.9 | 1500.6 | 740.8 | 489.7 | 444.7 | 428.0 | 418.6 | 415.5 | 413.4 | 414.4 |
| 22.5° | 3037.8 | 2439.2 | 1207.6 | 559.9 | 431.1 | 404.9 | 388.2 | 378.8 | 372.6 | 367.3 | 368.4 |
| 25° | 2935.3 | 2271.8 | 971.1 | 458.3 | 388.2 | 365.2 | 348.4 | 334.9 | 321.3 | 315.0 | 313.9 |
| 27.5° | 2863.0 | 2125.3 | 756.6 | 392.4 | 349.5 | 324.4 | 303.4 | 286.7 | 269.0 | 259.5 | 257.4 |
| 30° | 2803.4 | 1976.7 | 598.5 | 346.4 | 310.7 | 286.7 | 260.5 | 236.5 | 217.7 | 208.2 | 204.0 |
| 32.5° | 2764.6 | 1835.4 | 472.0 | 308.7 | 278.4 | 249.0 | 219.8 | 195.7 | 174.8 | 165.3 | 163.2 |
| 35° | 2758.4 | 1717.2 | 386.1 | 277.3 | 249.0 | 217.7 | 187.3 | 161.1 | 143.4 | 134.0 | 131.9 |
| 37.5° | 2803.4 | 1626.2 | 323.4 | 252.2 | 225.0 | 190.5 | 156.9 | 132.9 | 117.2 | 109.8 | 108.8 |
| 40° | 2923.7 | 1568.6 | 280.5 | 231.3 | 203.0 | 165.3 | 134.0 | 113.0 | 97.3 | 90.0 | 90.0 |
| 42.5° | 3152.9 | 1570.7 | 252.2 | 211.3 | 181.1 | 141.3 | 114.0 | 94.2 | 80.6 | 74.3 | 72.2 |
| 45° | 3510.8 | 1641.8 | 228.1 | 191.5 | 160.1 | 122.4 | 97.3 | 77.5 | 63.8 | 58.6 | 58.6 |
| 47.5° | 3990.0 | 1783.1 | 207.2 | 171.6 | 141.3 | 104.6 | 82.7 | 62.8 | 51.3 | 46.0 | 46.0 |
| 50° | 4616.8 | 2010.2 | 189.4 | 154.9 | 125.6 | 90.0 | 66.9 | 51.3 | 39.8 | 35.6 | 34.6 |
| 52.5° | 5271.9 | 2290.6 | 168.5 | 140.2 | 107.8 | 76.4 | 54.4 | 39.8 | 30.4 | 27.2 | 26.2 |
| 55° | 5995.0 | 2564.8 | 148.6 | 125.6 | 87.9 | 63.8 | 42.9 | 31.4 | 22.0 | 18.8 | 18.8 |
| 57.5° | 6724.3 | 2833.7 | 124.6 | 104.6 | 69.0 | 47.1 | 33.5 | 23.0 | 14.6 | 11.5 | 11.5 |
| 60° | 7341.7 | 2920.5 | 105.7 | 84.8 | 52.3 | 33.5 | 24.1 | 14.6 | 8.4 | 5.2 | 5.2 |
| 62.5° | 7426.5 | 2627.5 | 89.0 | 64.8 | 37.7 | 23.0 | 12.5 | 8.4 | 3.1 | 2.1 | 2.1 |
| 65° | 6966.1 | 2134.7 | 74.3 | 49.2 | 25.1 | 11.5 | 5.2 | 3.1 | 1.0 | 0.0 | 0.0 |
| 67° | 6241.9 | 1730.8 | 60.7 | 36.6 | 17.8 | 7.3 | 3.1 | 1.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 6056.7 | 1650.2 | 58.6 | 34.6 | 15.7 | 6.3 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 |
| 70° | 4752.8 | 1235.8 | 41.9 | 20.9 | 9.4 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2954.1 | 699.0 | 30.4 | 12.5 | 6.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1116.5 | 244.9 | 20.9 | 8.4 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 347.4 | 93.1 | 12.5 | 6.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 117.2 | 35.6 | 8.4 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 72.2 | 14.6 | 5.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 45.0 | 6.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 8.4 | 2.1 | 1.0 | 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)