

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: P453188

Luminaire Tested: **GALN-SA4B-722-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-722-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2200K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16197 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

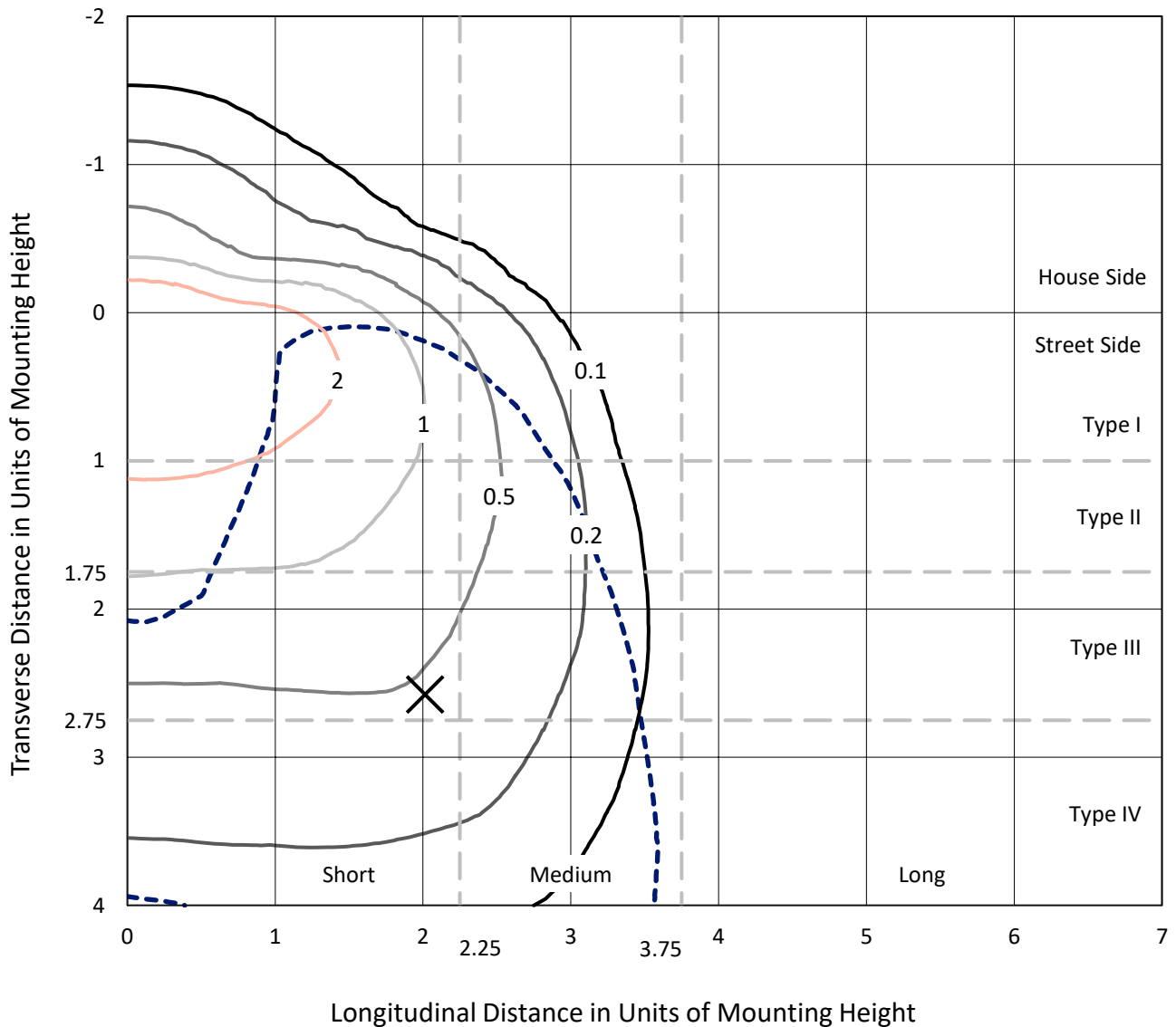
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

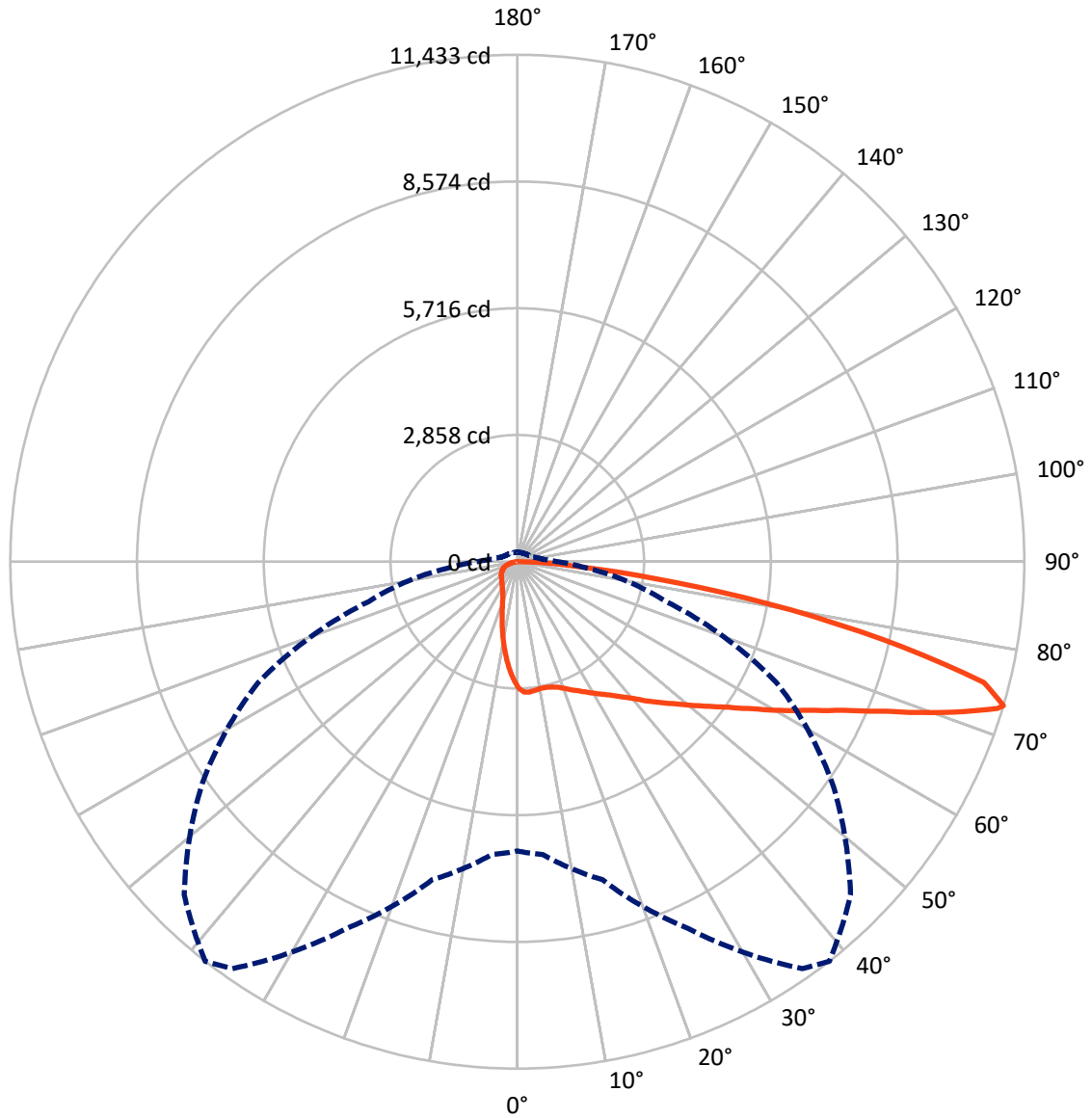
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2177.4 | 0.0 | 2177.4 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 14019.6 | 0.0 | 14019.6 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 16197.0 | 0.0 | 16197.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 248.4 | 1.5 |
| 10°-20° | 636.9 | 3.9 |
| 20°-30° | 991.8 | 6.1 |
| 30°-40° | 1454.8 | 9.0 |
| 40°-50° | 2158.0 | 13.3 |
| 50°-60° | 3057.5 | 18.9 |
| 60°-70° | 3878.5 | 23.9 |
| 70°-80° | 3228.6 | 19.9 |
| 80°-90° | 542.5 | 3.3 |
| 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° | 16197.0 | 100.0 |
| 0°-180° | 16197.0 | 100.0 |



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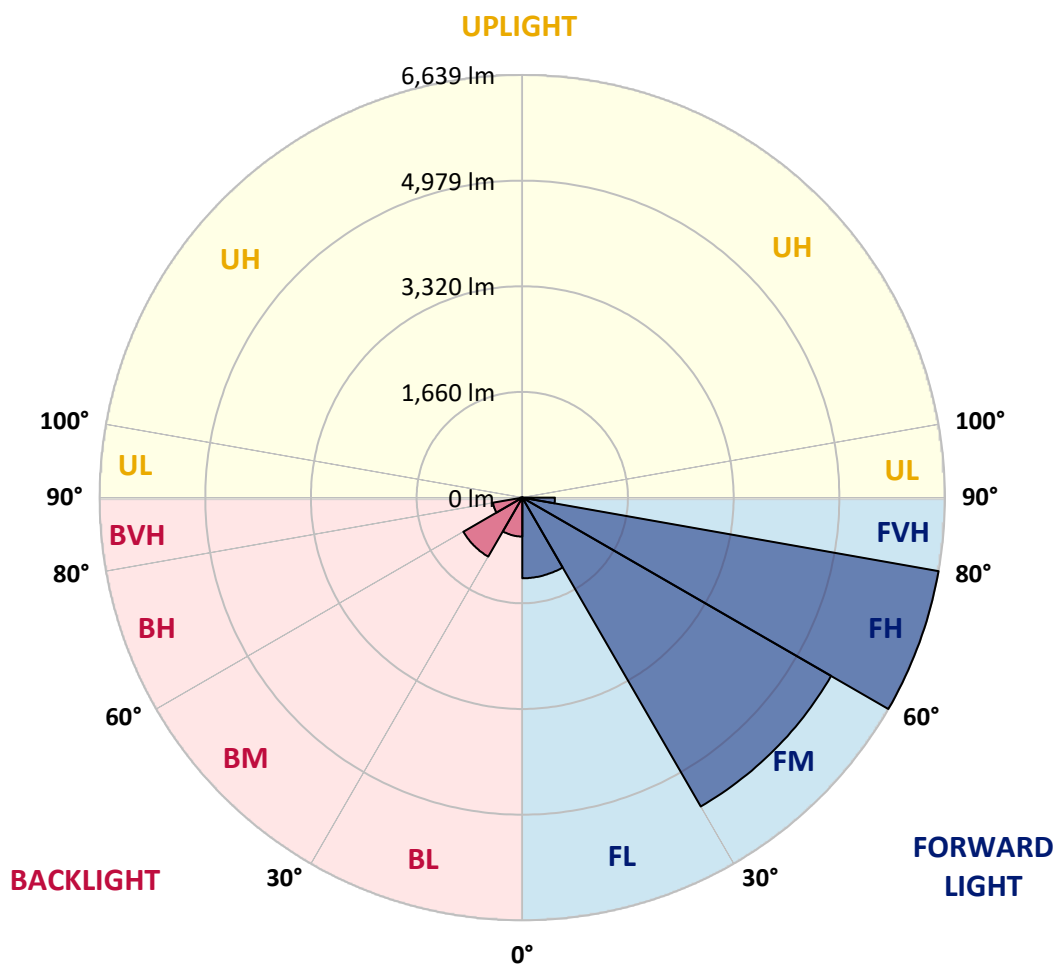
CATALOG NUMBER: GALN-SA4B-722-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1266.2 | 7.8 | | | |
| FM | (30°-60°) | 5601.4 | 34.6 | | | |
| FH | (60°-80°) | 6639.1 | 41.0 | | | G3/7500 |
| FVH | (80°-90°) | 513.0 | 3.2 | | | G4/750 |
| BL | (0°-30°) | 611.0 | 3.8 | B2/1000 | | |
| BM | (30°-60°) | 1069.0 | 6.6 | B2/2500 | | |
| BH | (60°-80°) | 468.0 | 2.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 29.4 | 0.2 | | | G1/100 |
| 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° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 |
| 2.5° | 2959.9 | 2974.5 | 2967.2 | 2957.1 | 2950.7 | 2944.3 | 2935.2 | 2908.7 | 2887.6 | 2864.7 | 2829.1 |
| 5° | 2981.8 | 2991.0 | 2984.6 | 2971.8 | 2957.1 | 2950.7 | 2933.3 | 2898.6 | 2864.7 | 2826.3 | 2773.3 |
| 7.5° | 2969.0 | 2972.7 | 2965.4 | 2949.8 | 2937.0 | 2925.1 | 2905.0 | 2866.6 | 2825.4 | 2778.8 | 2709.3 |
| 10° | 2923.3 | 2937.0 | 2937.0 | 2924.2 | 2911.4 | 2905.0 | 2884.9 | 2848.3 | 2810.8 | 2757.7 | 2675.4 |
| 12.5° | 2885.8 | 2900.4 | 2912.3 | 2908.7 | 2907.7 | 2907.7 | 2892.2 | 2864.7 | 2820.8 | 2770.5 | 2672.7 |
| 15° | 2860.2 | 2877.6 | 2903.2 | 2917.8 | 2926.9 | 2929.7 | 2923.3 | 2899.5 | 2854.7 | 2796.1 | 2683.6 |
| 17.5° | 2854.7 | 2875.7 | 2922.4 | 2954.4 | 2978.2 | 2977.3 | 2975.4 | 2942.5 | 2893.1 | 2832.7 | 2697.4 |
| 20° | 2879.4 | 2906.8 | 2971.8 | 3022.1 | 3056.8 | 3050.4 | 3040.4 | 2997.4 | 2939.7 | 2872.1 | 2710.2 |
| 22.5° | 2953.5 | 2981.8 | 3053.2 | 3108.0 | 3141.9 | 3141.9 | 3111.7 | 3055.0 | 2993.7 | 2917.8 | 2727.5 |
| 25° | 3059.6 | 3090.7 | 3166.6 | 3222.4 | 3237.9 | 3226.0 | 3195.9 | 3127.3 | 3056.8 | 2983.7 | 2764.1 |
| 27.5° | 3189.5 | 3227.0 | 3297.4 | 3344.0 | 3339.5 | 3330.3 | 3299.2 | 3211.4 | 3141.0 | 3074.2 | 2826.3 |
| 30° | 3351.4 | 3378.8 | 3452.0 | 3462.9 | 3446.5 | 3444.6 | 3400.7 | 3312.9 | 3247.1 | 3195.9 | 2915.1 |
| 32.5° | 3504.1 | 3528.8 | 3587.3 | 3591.9 | 3562.6 | 3566.3 | 3525.1 | 3444.6 | 3407.1 | 3388.9 | 3064.1 |
| 35° | 3666.0 | 3678.8 | 3729.1 | 3723.6 | 3704.4 | 3701.7 | 3685.2 | 3608.4 | 3620.3 | 3653.2 | 3275.4 |
| 37.5° | 3801.4 | 3827.0 | 3855.3 | 3859.9 | 3859.0 | 3868.1 | 3879.1 | 3842.5 | 3911.1 | 4014.5 | 3552.6 |
| 40° | 3925.8 | 3947.7 | 3989.8 | 4004.4 | 4040.1 | 4058.4 | 4095.9 | 4096.8 | 4255.0 | 4425.2 | 3893.8 |
| 42.5° | 4009.9 | 4047.4 | 4126.1 | 4152.6 | 4239.5 | 4294.4 | 4350.2 | 4409.6 | 4639.2 | 4857.8 | 4296.2 |
| 45° | 4083.1 | 4132.5 | 4263.3 | 4345.6 | 4463.6 | 4530.4 | 4648.4 | 4772.7 | 5102.9 | 5389.2 | 4705.1 |
| 47.5° | 4193.8 | 4237.7 | 4387.7 | 4533.1 | 4711.5 | 4788.3 | 4964.8 | 5150.5 | 5582.2 | 5896.0 | 5096.5 |
| 50° | 4347.4 | 4374.0 | 4526.7 | 4763.6 | 4991.4 | 5090.1 | 5323.4 | 5591.4 | 6094.4 | 6396.3 | 5440.5 |
| 52.5° | 4544.1 | 4555.1 | 4676.7 | 4992.3 | 5292.3 | 5414.8 | 5724.0 | 6036.8 | 6542.6 | 6830.8 | 5713.0 |
| 55° | 4776.4 | 4758.1 | 4853.2 | 5234.7 | 5636.2 | 5796.3 | 6128.3 | 6487.8 | 7046.6 | 7182.0 | 5911.5 |
| 57.5° | 5006.0 | 4977.6 | 5053.6 | 5529.2 | 6060.6 | 6253.6 | 6640.5 | 6952.4 | 7496.6 | 7510.4 | 6050.5 |
| 60° | 5249.3 | 5228.3 | 5318.8 | 5874.9 | 6581.1 | 6809.7 | 7167.4 | 7434.4 | 7932.0 | 7739.0 | 6072.5 |
| 62.5° | 5499.0 | 5465.2 | 5594.1 | 6263.7 | 7167.4 | 7375.0 | 7721.6 | 7946.7 | 8359.2 | 7824.1 | 5861.2 |
| 65° | 5741.4 | 5725.8 | 5925.2 | 6725.6 | 7835.1 | 8071.0 | 8407.6 | 8560.4 | 8701.3 | 7696.0 | 5337.1 |
| 67.5° | 5999.3 | 6030.4 | 6348.7 | 7342.1 | 8705.8 | 9002.2 | 9365.3 | 9221.7 | 8799.1 | 7089.6 | 4494.7 |
| 70° | 6392.6 | 6412.8 | 6904.8 | 8149.7 | 9828.1 | 10185.8 | 10361.4 | 9456.8 | 8327.2 | 5938.0 | 3378.8 |
| 72.5° | 6561.8 | 6650.6 | 7401.5 | 8997.6 | 11103.2 | 11321.8 | 10696.2 | 8932.7 | 6936.9 | 4033.7 | 1775.4 |
| 73° | 6524.3 | 6630.4 | 7424.4 | 9126.6 | 11202.9 | 11432.5 | 10624.8 | 8662.8 | 6448.4 | 3473.9 | 1522.0 |
| 75° | 6056.9 | 6187.7 | 7127.1 | 9018.6 | 11009.0 | 10871.8 | 9477.8 | 7383.2 | 4357.5 | 1579.6 | 693.3 |
| 77.5° | 4779.2 | 4816.7 | 5647.2 | 7282.6 | 8669.2 | 8415.0 | 7093.3 | 4614.5 | 1779.9 | 587.2 | 393.3 |
| 80° | 2397.4 | 2535.5 | 3183.1 | 4171.8 | 5797.2 | 5713.9 | 4477.3 | 2182.4 | 741.8 | 344.8 | 260.7 |
| 82.5° | 1153.4 | 1251.3 | 1550.4 | 2034.2 | 3203.2 | 3127.3 | 2217.2 | 1192.7 | 471.1 | 201.2 | 153.7 |
| 85° | 742.7 | 815.9 | 986.9 | 970.5 | 1317.1 | 1257.7 | 996.1 | 902.8 | 279.0 | 105.2 | 107.0 |
| 87.5° | 490.3 | 536.9 | 643.9 | 515.0 | 479.3 | 433.6 | 440.0 | 508.6 | 54.9 | 40.2 | 14.6 |
| 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-SA4B-722-U-SL4

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 | 2845.5 |
| 2.5° | 2814.4 | 2802.5 | 2763.2 | 2724.8 | 2688.2 | 2653.5 | 2630.6 | 2600.4 | 2580.3 | 2585.8 | 2594.0 |
| 5° | 2744.0 | 2717.5 | 2648.0 | 2580.3 | 2516.3 | 2440.3 | 2379.1 | 2329.7 | 2292.2 | 2278.4 | 2275.7 |
| 7.5° | 2669.9 | 2625.1 | 2525.4 | 2409.2 | 2300.4 | 2206.2 | 2097.3 | 2043.4 | 1980.3 | 1958.3 | 1951.0 |
| 10° | 2625.1 | 2564.7 | 2424.8 | 2262.9 | 2099.2 | 1942.8 | 1824.8 | 1728.7 | 1641.8 | 1625.4 | 1617.1 |
| 12.5° | 2612.3 | 2532.7 | 2344.3 | 2135.8 | 1918.1 | 1726.0 | 1551.3 | 1425.1 | 1340.9 | 1321.7 | 1293.3 |
| 15° | 2605.0 | 2506.2 | 2269.3 | 2007.7 | 1731.5 | 1497.3 | 1313.5 | 1166.2 | 1089.4 | 1038.2 | 1039.1 |
| 17.5° | 2598.6 | 2476.0 | 2185.1 | 1867.8 | 1570.5 | 1300.7 | 1097.6 | 965.0 | 894.5 | 867.1 | 864.4 |
| 20° | 2589.4 | 2440.3 | 2088.2 | 1720.5 | 1386.6 | 1121.4 | 937.5 | 838.8 | 791.2 | 768.3 | 767.4 |
| 22.5° | 2585.8 | 2405.6 | 1993.1 | 1570.5 | 1223.8 | 983.3 | 831.4 | 761.9 | 731.7 | 716.2 | 716.2 |
| 25° | 2594.9 | 2380.9 | 1893.4 | 1427.8 | 1079.3 | 865.3 | 758.3 | 710.7 | 693.3 | 685.1 | 682.3 |
| 27.5° | 2623.3 | 2369.9 | 1794.6 | 1285.1 | 946.7 | 784.8 | 708.9 | 675.9 | 663.1 | 656.7 | 657.6 |
| 30° | 2677.2 | 2369.0 | 1697.6 | 1144.3 | 847.9 | 723.5 | 669.5 | 646.7 | 636.6 | 633.0 | 632.0 |
| 32.5° | 2764.1 | 2389.1 | 1602.5 | 1028.1 | 764.7 | 672.3 | 633.0 | 616.5 | 611.9 | 609.2 | 608.3 |
| 35° | 2911.4 | 2445.8 | 1508.3 | 922.0 | 700.6 | 626.5 | 598.2 | 590.0 | 583.6 | 586.3 | 587.2 |
| 37.5° | 3109.9 | 2543.7 | 1418.7 | 838.8 | 652.2 | 592.7 | 568.9 | 561.6 | 557.9 | 560.7 | 563.4 |
| 40° | 3376.0 | 2684.6 | 1343.7 | 772.0 | 617.4 | 564.4 | 543.3 | 536.9 | 533.3 | 537.8 | 538.7 |
| 42.5° | 3669.7 | 2847.4 | 1281.5 | 719.8 | 589.0 | 540.6 | 520.4 | 513.1 | 510.4 | 513.1 | 514.0 |
| 45° | 3971.5 | 3036.7 | 1249.4 | 682.3 | 565.3 | 523.2 | 502.2 | 493.9 | 487.5 | 485.7 | 488.4 |
| 47.5° | 4268.8 | 3201.3 | 1248.5 | 659.5 | 546.1 | 507.6 | 484.8 | 475.6 | 467.4 | 462.8 | 461.9 |
| 50° | 4511.2 | 3332.1 | 1270.5 | 649.4 | 529.6 | 490.3 | 467.4 | 458.2 | 447.3 | 438.1 | 440.0 |
| 52.5° | 4694.1 | 3417.2 | 1280.5 | 644.8 | 520.4 | 472.0 | 449.1 | 440.9 | 428.1 | 416.2 | 416.2 |
| 55° | 4812.1 | 3437.3 | 1255.8 | 640.3 | 513.1 | 452.8 | 428.1 | 420.7 | 407.9 | 396.1 | 396.1 |
| 57.5° | 4852.3 | 3375.1 | 1167.1 | 629.3 | 505.8 | 436.3 | 407.0 | 400.6 | 390.6 | 378.7 | 376.8 |
| 60° | 4759.0 | 3164.8 | 1011.6 | 596.4 | 491.2 | 418.9 | 384.2 | 381.4 | 377.8 | 367.7 | 366.8 |
| 62.5° | 4399.6 | 2718.4 | 842.4 | 553.4 | 466.5 | 400.6 | 363.1 | 367.7 | 370.4 | 365.0 | 364.0 |
| 65° | 3801.4 | 2207.1 | 719.8 | 493.9 | 433.6 | 375.0 | 340.3 | 352.1 | 359.5 | 359.5 | 357.6 |
| 67.5° | 3083.4 | 1694.9 | 606.4 | 442.7 | 392.4 | 340.3 | 314.6 | 323.8 | 329.3 | 327.5 | 332.0 |
| 70° | 2191.5 | 1147.9 | 493.9 | 384.2 | 340.3 | 300.9 | 281.7 | 281.7 | 278.1 | 276.2 | 276.2 |
| 72.5° | 1062.8 | 655.8 | 400.6 | 321.0 | 290.0 | 257.0 | 241.5 | 235.1 | 227.8 | 226.8 | 222.3 |
| 73° | 888.1 | 588.1 | 382.3 | 309.2 | 278.1 | 250.6 | 233.2 | 223.2 | 218.6 | 214.9 | 214.0 |
| 75° | 540.6 | 446.4 | 319.2 | 260.7 | 236.9 | 215.9 | 200.3 | 191.2 | 186.6 | 183.8 | 182.9 |
| 77.5° | 355.8 | 332.9 | 247.9 | 199.4 | 181.1 | 168.3 | 161.9 | 152.7 | 150.0 | 146.3 | 146.3 |
| 80° | 265.3 | 254.3 | 177.4 | 140.9 | 129.9 | 118.9 | 117.1 | 115.2 | 107.9 | 103.4 | 101.5 |
| 82.5° | 171.0 | 181.1 | 120.7 | 94.2 | 82.3 | 73.2 | 74.1 | 76.8 | 69.5 | 63.1 | 61.3 |
| 85° | 121.7 | 130.8 | 73.2 | 43.0 | 34.8 | 30.2 | 33.8 | 30.2 | 31.1 | 24.7 | 20.1 |
| 87.5° | 20.1 | 34.8 | 12.8 | 5.5 | 2.7 | 1.8 | 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)