

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: P453820

Luminaire Tested: **GALN-SA4D-827-U-RW**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-827-U-RW
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23211 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G4

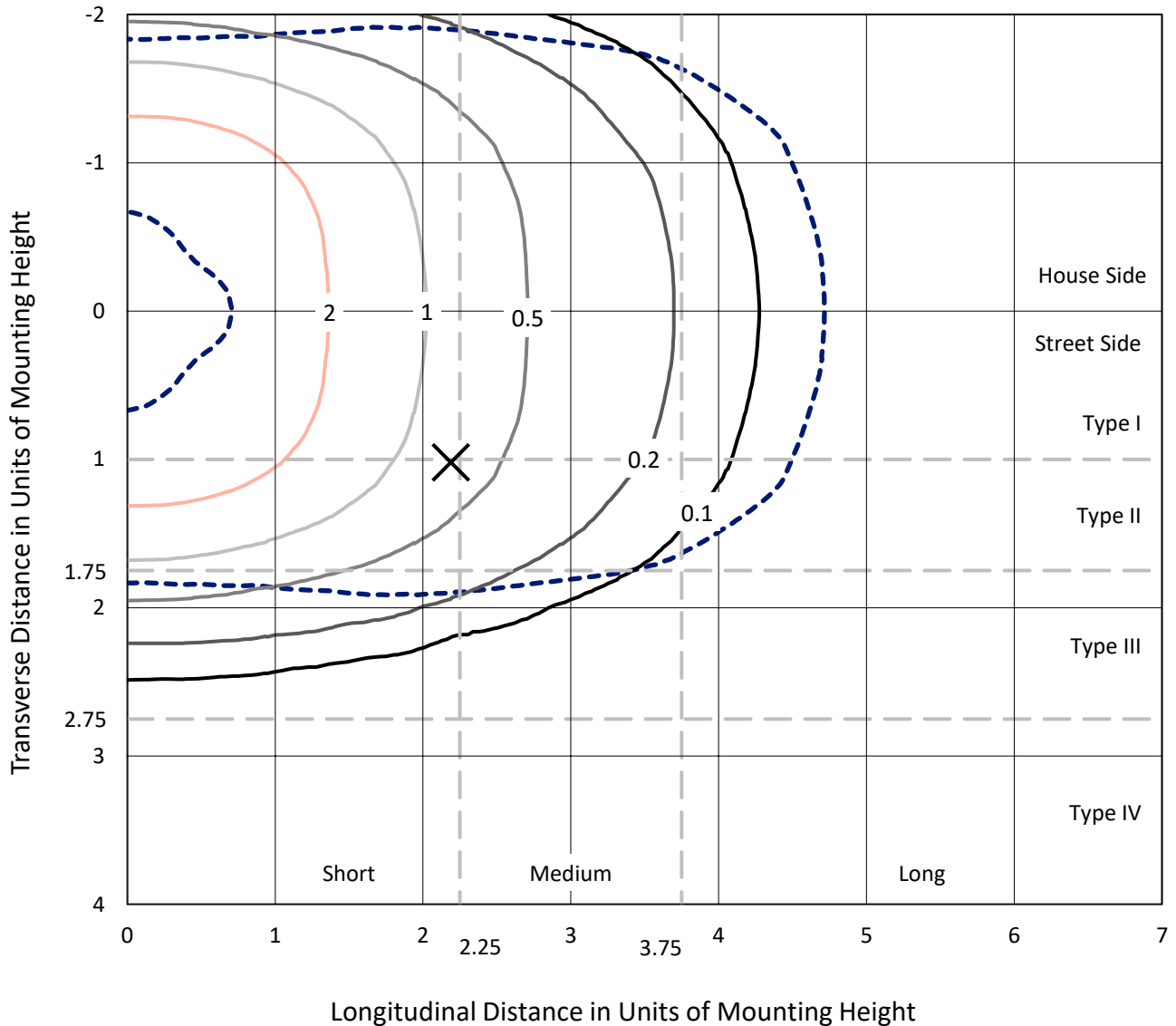
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

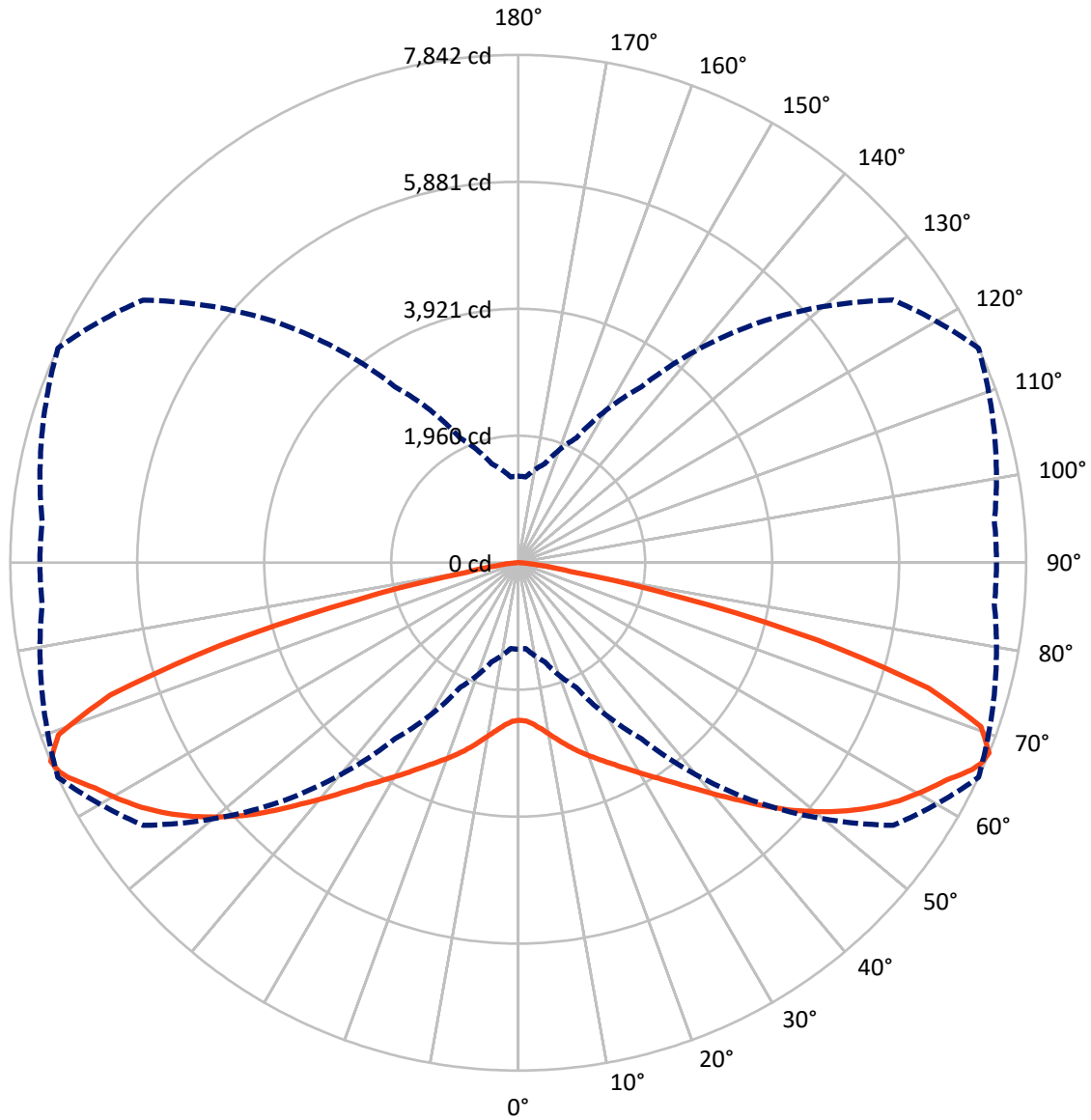
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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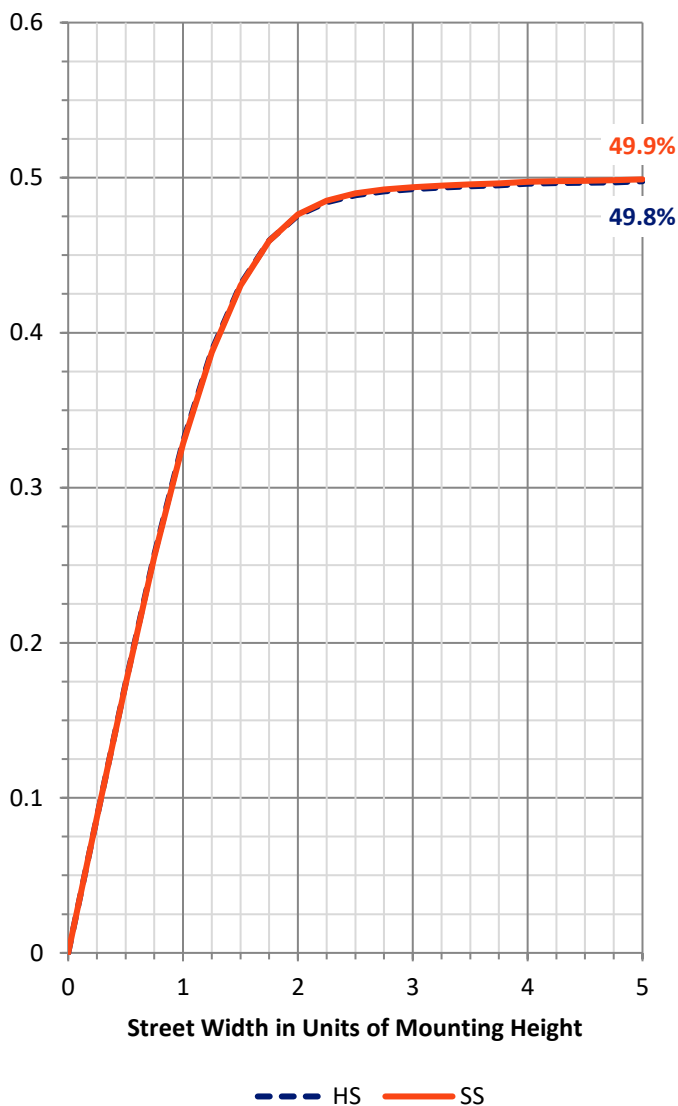
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11605.5 | 0.0 | 11605.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 11605.5 | 0.0 | 11605.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 23211.0 | 0.0 | 23211.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 239.8 | 1.0 |
| 10°-20° | 802.5 | 3.5 |
| 20°-30° | 1569.8 | 6.8 |
| 30°-40° | 2670.0 | 11.5 |
| 40°-50° | 4225.8 | 18.2 |
| 50°-60° | 5603.3 | 24.1 |
| 60°-70° | 5285.6 | 22.8 |
| 70°-80° | 2612.9 | 11.3 |
| 80°-90° | 201.4 | 0.9 |
| 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° | 23211.0 | 100.0 |
| 0°-180° | 23211.0 | 100.0 |

Coefficient of Utilization



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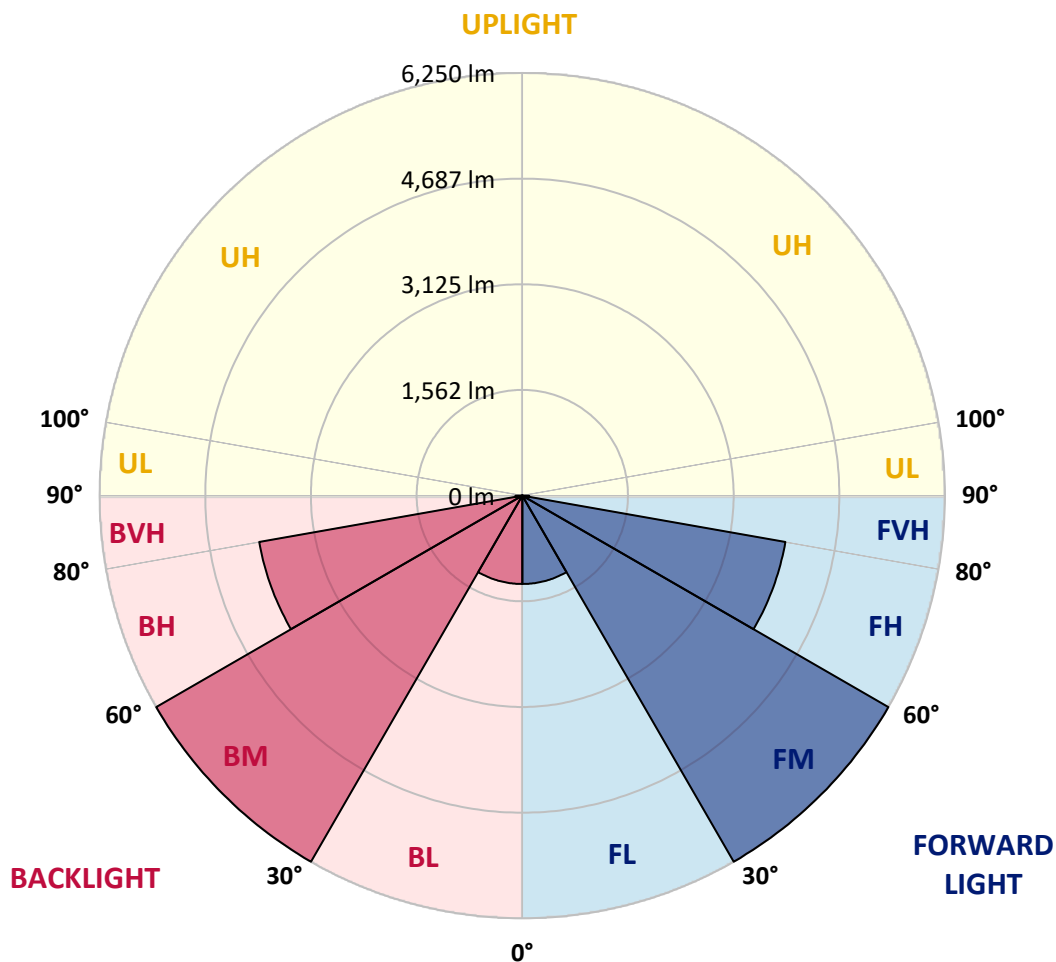
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1306.0 | 5.6 | | | |
| FM | (30°-60°) | 6249.5 | 26.9 | | | |
| FH | (60°-80°) | 3949.3 | 17.0 | | | G2/5000 |
| FVH | (80°-90°) | 100.7 | 0.4 | | | G2/225 |
| BL | (0°-30°) | 1306.0 | 5.6 | B3/2500 | | |
| BM | (30°-60°) | 6249.5 | 26.9 | B4/8500 | | |
| BH | (60°-80°) | 3949.3 | 17.0 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 100.7 | 0.4 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 | 2431.1 |
| 2.5° | 2418.7 | 2421.2 | 2423.7 | 2427.4 | 2432.4 | 2439.9 | 2444.8 | 2448.6 | 2458.5 | 2459.7 | 2458.5 |
| 5° | 2410.0 | 2412.5 | 2418.7 | 2429.9 | 2446.1 | 2468.5 | 2485.9 | 2507.0 | 2523.2 | 2534.4 | 2531.9 |
| 7.5° | 2408.8 | 2413.7 | 2423.7 | 2447.3 | 2478.4 | 2517.0 | 2556.7 | 2592.8 | 2623.9 | 2648.8 | 2645.0 |
| 10° | 2428.7 | 2434.9 | 2451.0 | 2485.9 | 2534.4 | 2590.3 | 2646.3 | 2699.8 | 2744.5 | 2776.9 | 2788.0 |
| 12.5° | 2462.2 | 2467.2 | 2497.1 | 2549.3 | 2618.9 | 2688.6 | 2752.0 | 2817.9 | 2880.1 | 2934.8 | 2934.8 |
| 15° | 2520.7 | 2529.4 | 2566.7 | 2642.6 | 2728.4 | 2809.2 | 2873.9 | 2943.5 | 3010.6 | 3072.8 | 3091.5 |
| 17.5° | 2601.5 | 2613.9 | 2669.9 | 2766.9 | 2876.3 | 2951.0 | 3011.9 | 3069.1 | 3127.5 | 3187.2 | 3195.9 |
| 20° | 2712.2 | 2724.6 | 2799.2 | 2916.1 | 3045.5 | 3135.0 | 3176.0 | 3189.7 | 3218.3 | 3275.5 | 3283.0 |
| 22.5° | 2862.7 | 2875.1 | 2958.4 | 3090.2 | 3234.5 | 3331.5 | 3348.9 | 3316.6 | 3309.1 | 3353.9 | 3358.8 |
| 25° | 3033.0 | 3044.2 | 3140.0 | 3281.7 | 3431.0 | 3536.7 | 3531.7 | 3452.1 | 3407.3 | 3434.7 | 3442.2 |
| 27.5° | 3224.5 | 3240.7 | 3337.7 | 3484.4 | 3646.1 | 3739.4 | 3724.4 | 3608.8 | 3513.0 | 3508.1 | 3510.6 |
| 30° | 3469.5 | 3486.9 | 3578.9 | 3719.5 | 3878.6 | 3964.4 | 3933.4 | 3777.9 | 3629.9 | 3580.2 | 3580.2 |
| 32.5° | 3728.2 | 3771.7 | 3865.0 | 4011.7 | 4136.1 | 4198.2 | 4151.0 | 3964.4 | 3768.0 | 3698.3 | 3694.6 |
| 35° | 4065.2 | 4088.8 | 4180.8 | 4323.8 | 4417.1 | 4465.6 | 4374.8 | 4174.6 | 3948.3 | 3866.2 | 3855.0 |
| 37.5° | 4394.7 | 4414.6 | 4521.6 | 4658.4 | 4771.5 | 4769.0 | 4645.9 | 4424.6 | 4172.1 | 4080.1 | 4072.6 |
| 40° | 4731.7 | 4752.9 | 4874.7 | 5000.3 | 5113.5 | 5103.5 | 4954.3 | 4706.9 | 4438.2 | 4335.0 | 4354.9 |
| 42.5° | 5024.0 | 5047.6 | 5185.6 | 5364.7 | 5466.7 | 5464.2 | 5291.3 | 5012.8 | 4733.0 | 4640.9 | 4658.4 |
| 45° | 5290.1 | 5311.2 | 5471.6 | 5676.8 | 5826.0 | 5844.7 | 5655.7 | 5361.0 | 5073.7 | 4955.6 | 4960.5 |
| 47.5° | 5477.9 | 5517.6 | 5685.5 | 5920.6 | 6123.3 | 6189.2 | 6003.9 | 5715.4 | 5384.6 | 5261.5 | 5268.9 |
| 50° | 5620.9 | 5645.7 | 5828.5 | 6095.9 | 6352.1 | 6488.9 | 6339.6 | 6043.7 | 5695.5 | 5564.9 | 5582.3 |
| 52.5° | 5638.3 | 5668.1 | 5867.1 | 6175.5 | 6503.8 | 6711.5 | 6638.1 | 6364.5 | 6012.6 | 5878.3 | 5915.6 |
| 55° | 5496.5 | 5513.9 | 5751.4 | 6125.7 | 6563.5 | 6876.9 | 6895.5 | 6663.0 | 6314.8 | 6212.8 | 6237.7 |
| 57.5° | 5092.4 | 5137.1 | 5438.1 | 5893.2 | 6481.4 | 6965.1 | 7088.3 | 6934.1 | 6620.7 | 6520.0 | 6559.7 |
| 60° | 4429.5 | 4474.3 | 4776.5 | 5353.5 | 6171.8 | 6924.1 | 7247.4 | 7174.1 | 6898.0 | 6817.2 | 6838.3 |
| 62.5° | 3470.8 | 3467.0 | 3841.3 | 4548.9 | 5556.2 | 6722.7 | 7365.6 | 7405.4 | 7171.6 | 7069.6 | 7101.9 |
| 65° | 2249.6 | 2260.8 | 2622.7 | 3385.0 | 4627.3 | 6210.3 | 7391.7 | 7700.1 | 7440.2 | 7286.0 | 7309.6 |
| 66° | 1809.4 | 1842.9 | 2150.1 | 2852.7 | 4153.5 | 5874.5 | 7313.3 | 7787.1 | 7522.3 | 7335.7 | 7346.9 |
| 67.5° | 1335.6 | 1329.4 | 1581.8 | 2124.0 | 3316.6 | 5236.6 | 7068.4 | 7841.8 | 7615.5 | 7380.5 | 7385.5 |
| 70° | 762.3 | 761.1 | 850.6 | 1166.5 | 1949.9 | 3687.1 | 5957.9 | 7579.5 | 7804.5 | 7542.2 | 7528.5 |
| 72.5° | 557.1 | 553.4 | 565.8 | 644.2 | 951.3 | 1861.6 | 4109.9 | 6624.4 | 7707.5 | 7516.0 | 7477.5 |
| 75° | 467.6 | 465.1 | 462.6 | 472.6 | 533.5 | 843.1 | 2181.2 | 4765.3 | 6687.8 | 7054.7 | 7014.9 |
| 77.5° | 381.8 | 381.8 | 383.0 | 380.5 | 383.0 | 443.9 | 904.1 | 2554.3 | 4072.6 | 4546.4 | 4657.1 |
| 80° | 298.5 | 297.2 | 318.3 | 309.6 | 289.7 | 284.8 | 400.4 | 822.0 | 1351.7 | 1344.3 | 1109.2 |
| 82.5° | 220.1 | 205.2 | 242.5 | 236.3 | 213.9 | 181.6 | 233.8 | 350.7 | 451.4 | 293.5 | 217.6 |
| 85° | 139.3 | 138.0 | 171.6 | 156.7 | 130.6 | 85.8 | 111.9 | 150.5 | 186.5 | 113.2 | 92.0 |
| 87.5° | 24.9 | 23.6 | 54.7 | 39.8 | 39.8 | 24.9 | 31.1 | 41.0 | 60.9 | 42.3 | 31.1 |
| 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)