

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: LUMARK

Report Number: P884272

Luminaire Tested: **NAV-SB5A-735-U-5WQ**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884272
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-1)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-5WQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23024 lumens
Efficiency: N/A
Efficacy: 162.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

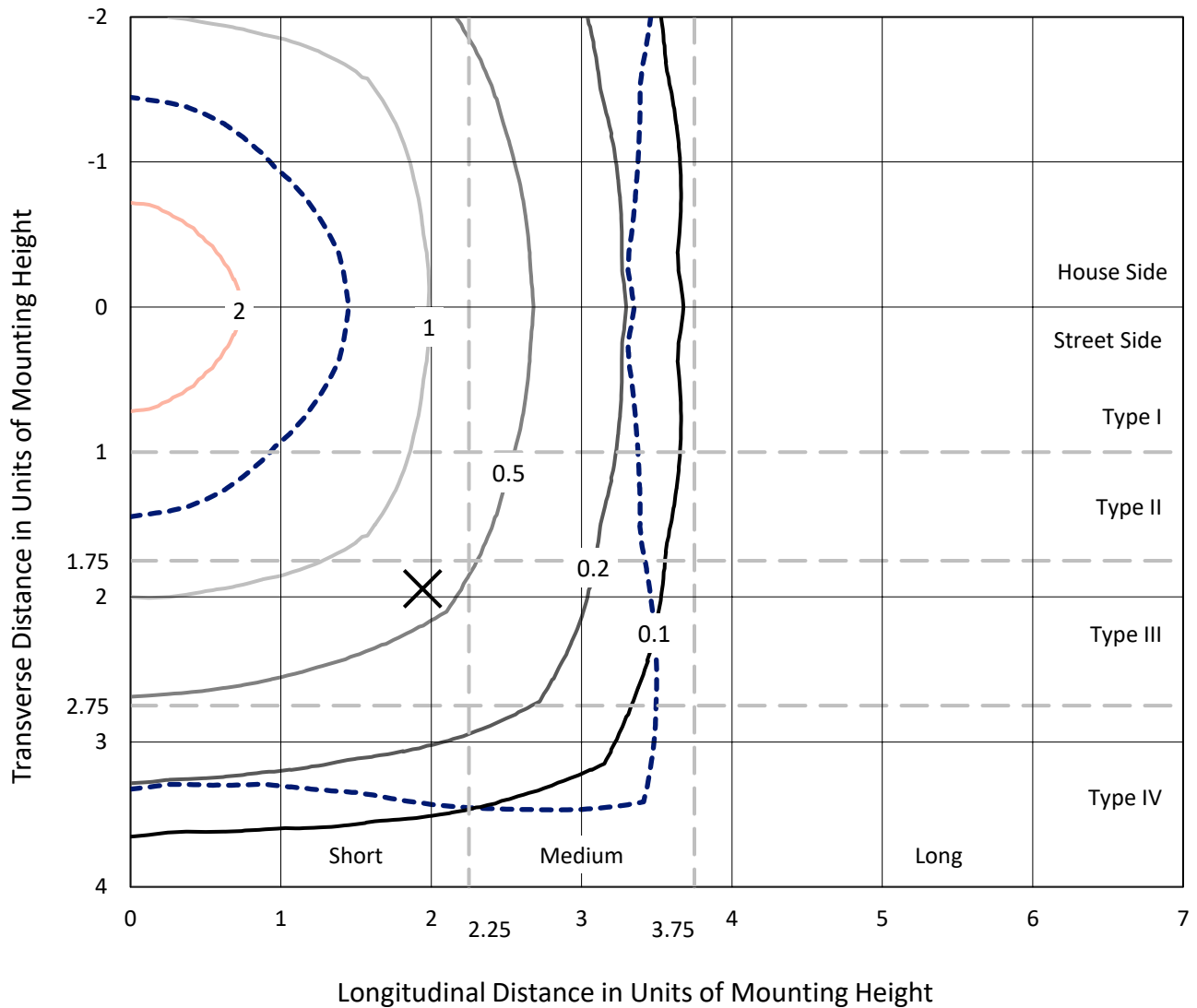
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

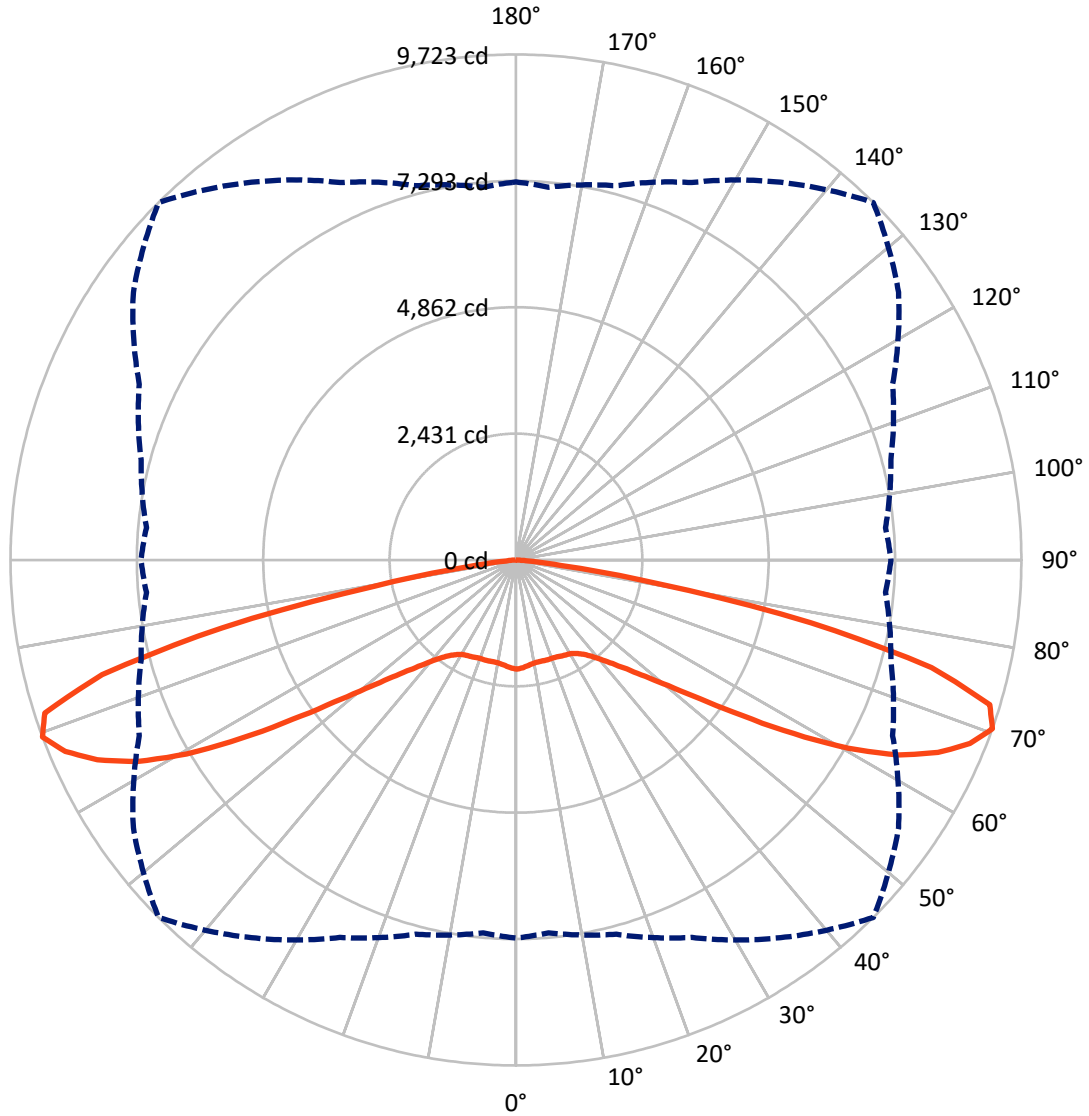
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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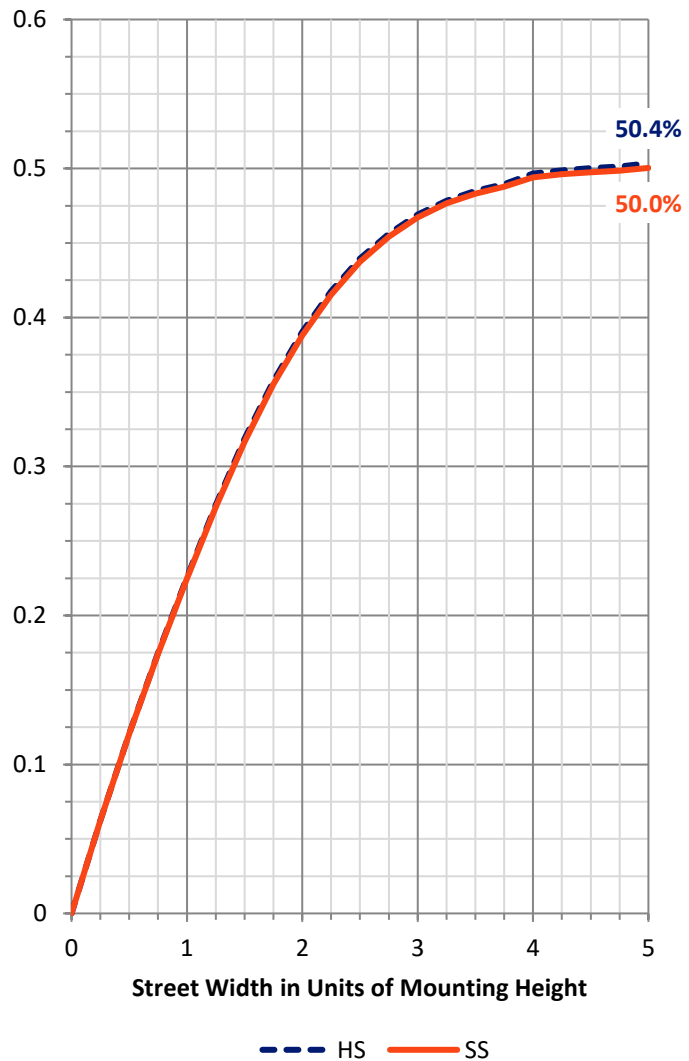
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11512.0 | 0.0 | 11512.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 11512.0 | 0.0 | 11512.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 23024.0 | 0.0 | 23024.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 195.4 | 0.8 |
| 10°-20° | 573.7 | 2.5 |
| 20°-30° | 954.7 | 4.1 |
| 30°-40° | 1443.7 | 6.3 |
| 40°-50° | 2399.1 | 10.4 |
| 50°-60° | 4527.1 | 19.7 |
| 60°-70° | 7644.2 | 33.2 |
| 70°-80° | 5023.0 | 21.8 |
| 80°-90° | 263.2 | 1.1 |
| 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° | 23024.0 | 100.0 |
| 0°-180° | 23024.0 | 100.0 |

Coefficient of Utilization



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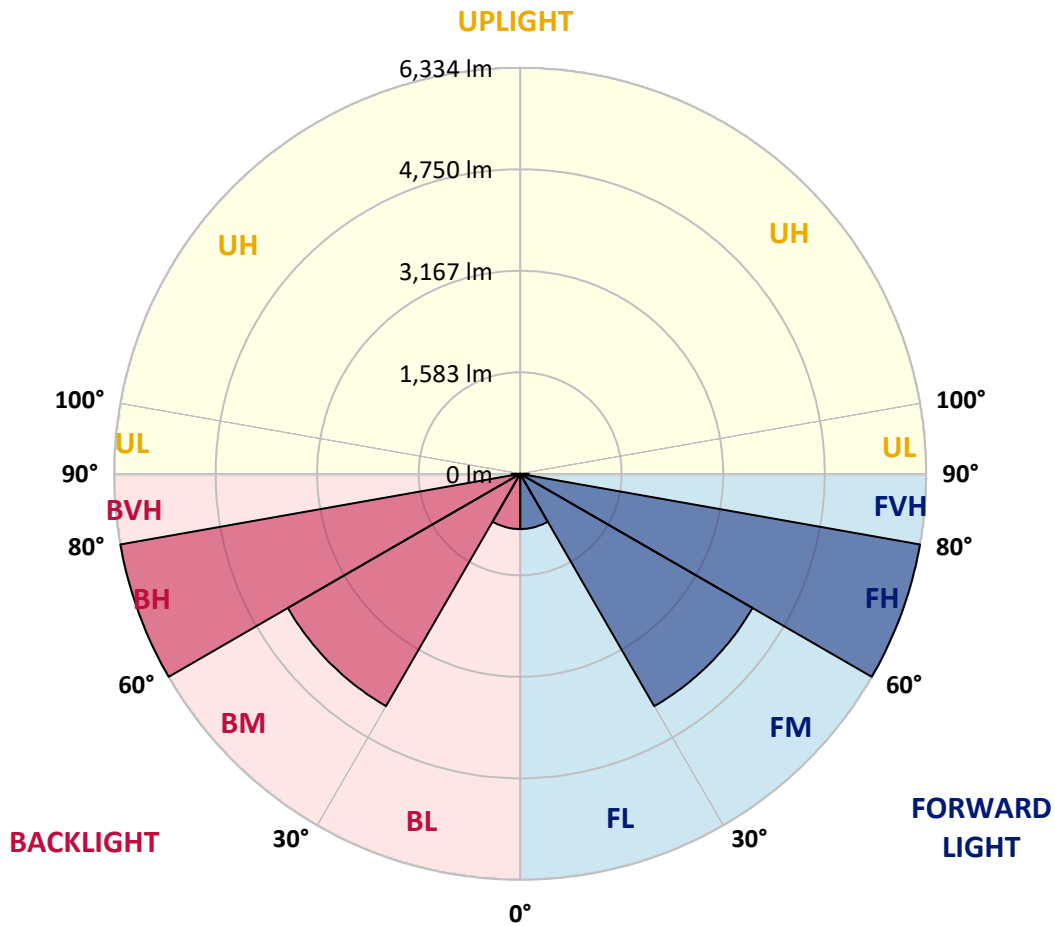
CATALOG NUMBER: NAV-SB5A-735-U-5WQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 861.8 | 3.7 | | | |
| FM (30°-60°) | 4185.0 | 18.2 | | | |
| FH (60°-80°) | 6333.6 | 27.5 | | | G3/7500 |
| FVH (80°-90°) | 131.6 | 0.6 | | | G2/225 |
| BL (0°-30°) | 861.8 | 3.7 | B2/1000 | | |
| BM (30°-60°) | 4185.0 | 18.2 | B3/5000 | | |
| BH (60°-80°) | 6333.6 | 27.5 | B5 | | G3/7500 |
| BVH (80°-90°) | 131.6 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 | 2100.3 |
| 2.5° | 2087.1 | 2093.1 | 2090.7 | 2085.9 | 2085.9 | 2082.3 | 2085.9 | 2088.3 | 2091.9 | 2094.3 | 2093.1 |
| 5° | 2059.6 | 2064.4 | 2063.2 | 2059.6 | 2060.8 | 2057.2 | 2059.6 | 2063.2 | 2065.5 | 2066.7 | 2066.7 |
| 7.5° | 2035.6 | 2040.4 | 2038.0 | 2032.0 | 2032.0 | 2028.4 | 2029.6 | 2033.2 | 2036.8 | 2038.0 | 2038.0 |
| 10° | 2029.6 | 2034.4 | 2027.3 | 2017.7 | 2014.1 | 2009.3 | 2010.5 | 2014.1 | 2021.3 | 2024.9 | 2024.9 |
| 12.5° | 2032.0 | 2035.6 | 2028.4 | 2014.1 | 2010.5 | 2005.7 | 2005.7 | 2009.3 | 2018.9 | 2023.7 | 2024.9 |
| 15° | 2039.2 | 2042.8 | 2032.0 | 2016.5 | 2012.9 | 2009.3 | 2008.1 | 2012.9 | 2023.7 | 2032.0 | 2033.2 |
| 17.5° | 2052.4 | 2056.0 | 2039.2 | 2017.7 | 2012.9 | 2014.1 | 2012.9 | 2016.5 | 2033.2 | 2048.8 | 2048.8 |
| 20° | 2064.4 | 2066.7 | 2044.0 | 2017.7 | 2012.9 | 2014.1 | 2012.9 | 2020.1 | 2041.6 | 2063.2 | 2064.4 |
| 22.5° | 2067.9 | 2070.3 | 2048.8 | 2026.1 | 2022.5 | 2023.7 | 2022.5 | 2029.6 | 2050.0 | 2071.5 | 2071.5 |
| 25° | 2069.1 | 2072.7 | 2056.0 | 2038.0 | 2044.0 | 2046.4 | 2044.0 | 2045.2 | 2060.8 | 2079.9 | 2078.7 |
| 27.5° | 2087.1 | 2091.9 | 2076.3 | 2060.8 | 2064.4 | 2063.2 | 2066.7 | 2070.3 | 2082.3 | 2101.4 | 2096.7 |
| 30° | 2124.2 | 2127.8 | 2114.6 | 2099.1 | 2096.7 | 2088.3 | 2099.1 | 2111.0 | 2124.2 | 2140.9 | 2137.4 |
| 32.5° | 2185.2 | 2192.4 | 2175.6 | 2158.9 | 2148.1 | 2143.3 | 2151.7 | 2172.1 | 2190.0 | 2208.0 | 2200.8 |
| 35° | 2286.9 | 2291.7 | 2276.2 | 2245.1 | 2225.9 | 2225.9 | 2233.1 | 2259.4 | 2288.1 | 2310.9 | 2302.5 |
| 37.5° | 2430.5 | 2436.5 | 2409.0 | 2371.9 | 2343.2 | 2343.2 | 2352.8 | 2380.3 | 2423.4 | 2455.7 | 2443.7 |
| 40° | 2605.3 | 2613.6 | 2578.9 | 2540.6 | 2513.1 | 2508.3 | 2520.3 | 2551.4 | 2592.1 | 2632.8 | 2619.6 |
| 42.5° | 2815.9 | 2825.5 | 2780.0 | 2746.5 | 2724.9 | 2724.9 | 2730.9 | 2759.6 | 2796.7 | 2847.0 | 2843.4 |
| 45° | 3085.2 | 3101.9 | 3039.7 | 3006.2 | 2985.8 | 2990.6 | 2994.2 | 3019.3 | 3052.8 | 3110.3 | 3107.9 |
| 47.5° | 3405.9 | 3422.6 | 3356.8 | 3322.1 | 3318.5 | 3341.3 | 3326.9 | 3344.8 | 3362.8 | 3428.6 | 3409.5 |
| 50° | 3769.7 | 3798.4 | 3752.9 | 3750.5 | 3757.7 | 3799.6 | 3766.1 | 3775.7 | 3755.3 | 3797.2 | 3772.1 |
| 52.5° | 4214.9 | 4256.8 | 4248.4 | 4262.7 | 4342.9 | 4429.1 | 4352.5 | 4319.0 | 4242.4 | 4255.6 | 4211.3 |
| 55° | 4754.6 | 4818.0 | 4830.0 | 4916.1 | 5098.0 | 5274.0 | 5111.2 | 4976.0 | 4813.2 | 4783.3 | 4736.6 |
| 57.5° | 5368.5 | 5418.8 | 5476.2 | 5652.1 | 5992.0 | 6304.3 | 5992.0 | 5692.8 | 5436.7 | 5375.7 | 5332.6 |
| 60° | 6029.1 | 6091.3 | 6146.4 | 6406.1 | 6911.1 | 7350.3 | 6901.5 | 6426.4 | 6087.7 | 6005.2 | 5933.4 |
| 62.5° | 6738.8 | 6818.9 | 6857.2 | 7145.6 | 7734.4 | 8258.6 | 7742.8 | 7167.2 | 6791.4 | 6702.9 | 6631.1 |
| 65° | 7419.7 | 7485.5 | 7528.6 | 7836.2 | 8398.6 | 8924.0 | 8436.9 | 7869.7 | 7483.1 | 7367.0 | 7309.6 |
| 67.5° | 7736.8 | 7772.7 | 7878.0 | 8226.3 | 8819.9 | 9419.4 | 8920.4 | 8263.4 | 7831.4 | 7627.9 | 7630.3 |
| 70° | 7272.5 | 7199.5 | 7453.2 | 8010.9 | 8870.1 | 9723.4 | 8985.0 | 7994.1 | 7465.2 | 7134.9 | 7213.9 |
| 72.5° | 5619.8 | 5494.2 | 5934.6 | 6888.3 | 8295.7 | 9529.5 | 8353.1 | 6942.2 | 6208.6 | 5538.4 | 5704.8 |
| 75° | 3057.6 | 2915.2 | 3523.2 | 4729.5 | 6615.5 | 8259.8 | 6767.5 | 4864.7 | 3922.9 | 3034.9 | 3232.4 |
| 77.5° | 862.8 | 809.0 | 1299.6 | 2288.1 | 3979.1 | 5799.3 | 4132.3 | 2338.4 | 1541.4 | 914.3 | 1016.0 |
| 80° | 264.5 | 256.1 | 347.1 | 689.3 | 1689.8 | 2777.6 | 1624.0 | 697.7 | 441.6 | 278.8 | 294.4 |
| 82.5° | 156.8 | 143.6 | 172.3 | 251.3 | 430.8 | 872.4 | 418.9 | 262.1 | 210.6 | 141.2 | 153.2 |
| 85° | 89.8 | 83.8 | 101.7 | 122.1 | 144.8 | 185.5 | 120.9 | 124.5 | 112.5 | 75.4 | 79.0 |
| 87.5° | 37.1 | 33.5 | 39.5 | 38.3 | 33.5 | 43.1 | 32.3 | 38.3 | 45.5 | 29.9 | 27.5 |
| 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)