

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: P961853

Luminaire Tested: **NAV-SB2B-727-U-5MQ**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961853
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-20)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-727-U-5MQ
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11212.5 lumens
Efficiency: N/A
Efficacy: 151.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B4 - U0 - G2

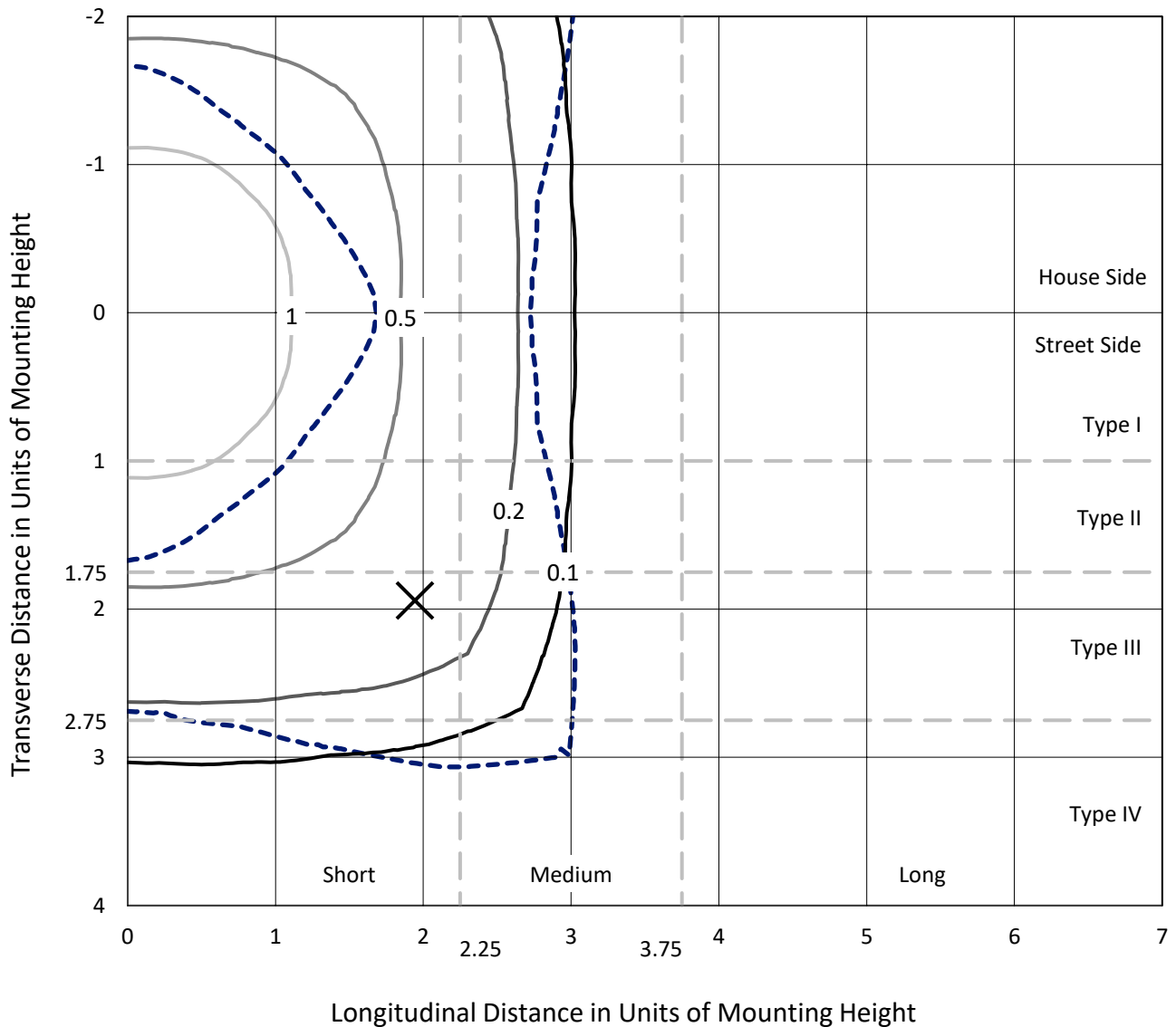
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

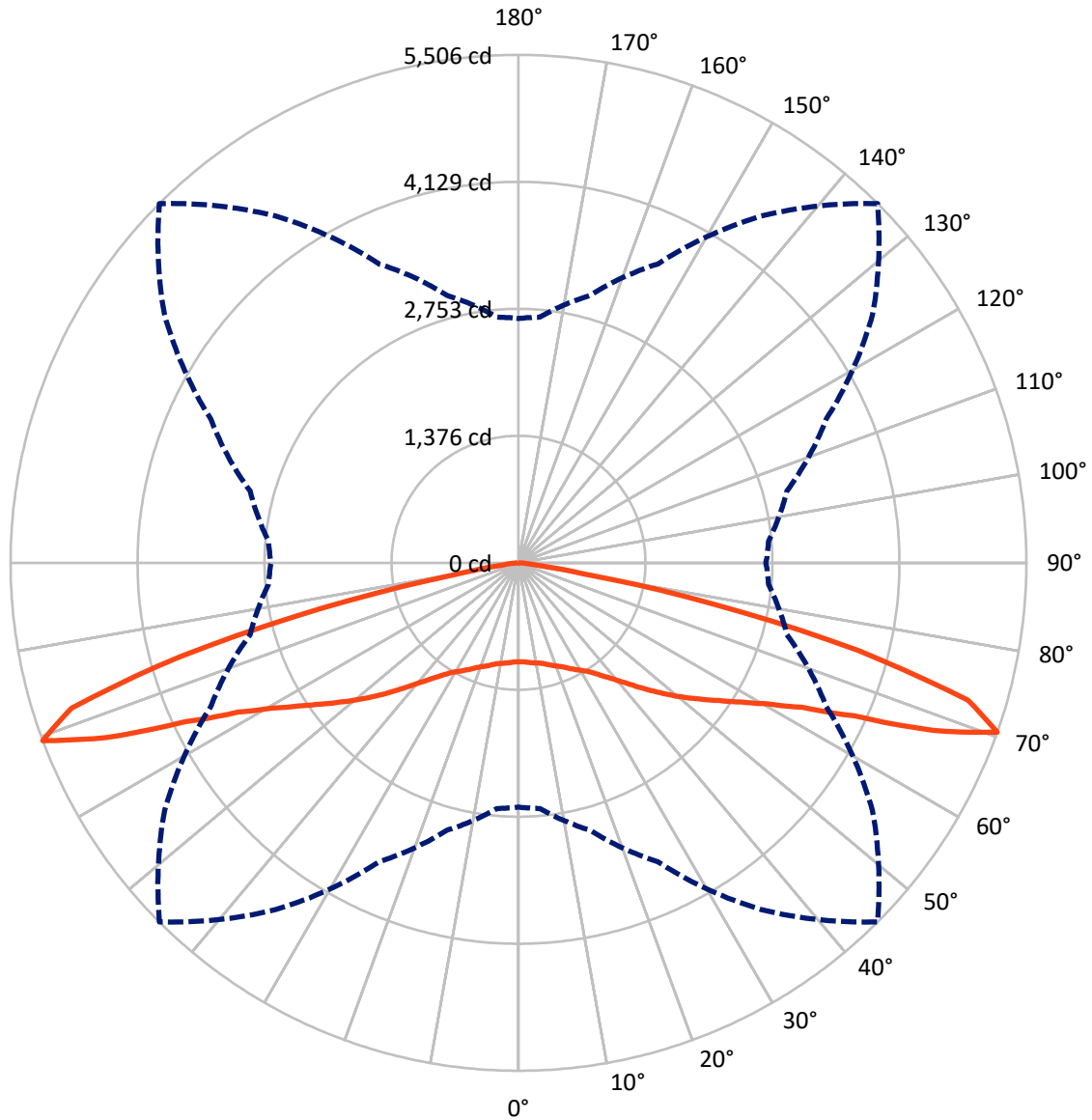
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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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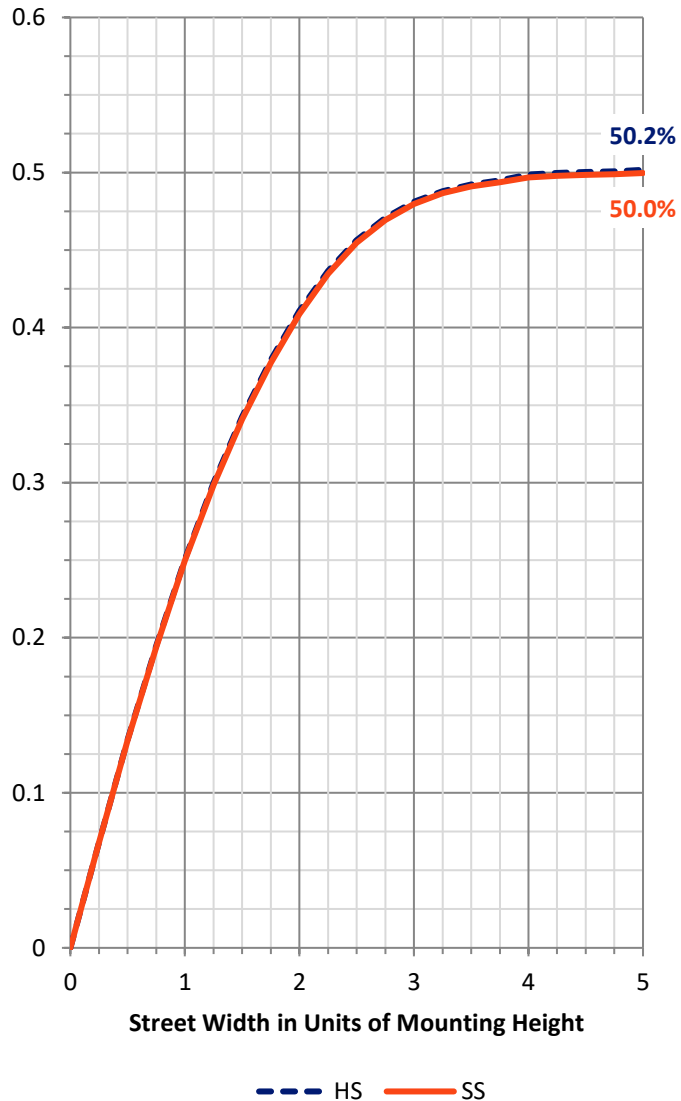
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5606.2 | 0.0 | 5606.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 5606.2 | 0.0 | 5606.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 11212.5 | 0.0 | 11212.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 104.3 | 0.9 |
| 10°-20° | 323.6 | 2.9 |
| 20°-30° | 578.2 | 5.2 |
| 30°-40° | 937.3 | 8.4 |
| 40°-50° | 1526.7 | 13.6 |
| 50°-60° | 2327.7 | 20.8 |
| 60°-70° | 3462.9 | 30.9 |
| 70°-80° | 1887.4 | 16.8 |
| 80°-90° | 64.3 | 0.6 |
| 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° | 11212.5 | 100.0 |
| 0°-180° | 11212.5 | 100.0 |

Coefficient of Utilization



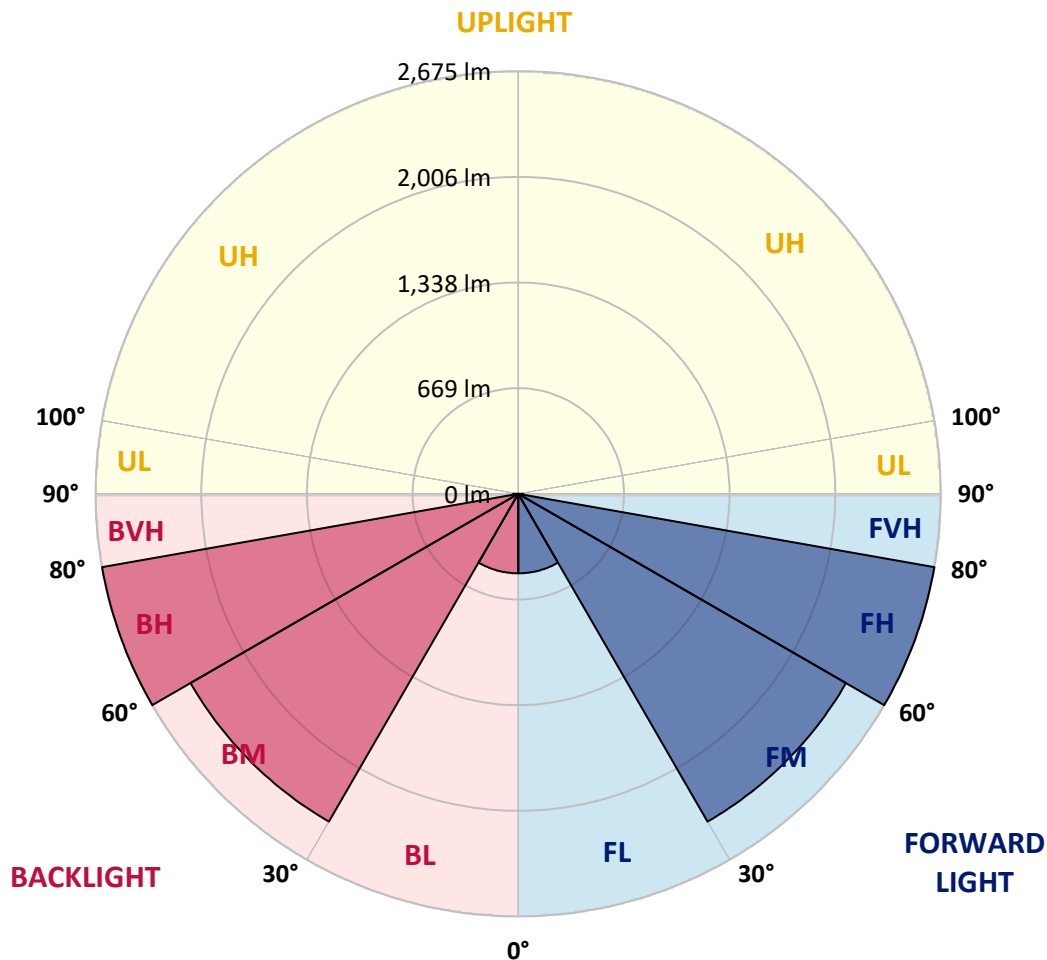
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 503.1 | 4.5 | | | |
| FM (30°-60°) | 2395.9 | 21.4 | | | |
| FH (60°-80°) | 2675.2 | 23.9 | | | G2/5000 |
| FVH (80°-90°) | 32.1 | 0.3 | | | G1/100 |
| BL (0°-30°) | 503.1 | 4.5 | B2/1000 | | |
| BM (30°-60°) | 2395.9 | 21.4 | B2/2500 | | |
| BH (60°-80°) | 2675.2 | 23.9 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 32.1 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 | 1074.0 |
| 2.5° | 1079.1 | 1080.2 | 1078.0 | 1076.9 | 1075.7 | 1074.0 | 1074.6 | 1077.4 | 1079.6 | 1079.1 | 1079.6 |
| 5° | 1088.1 | 1089.3 | 1087.5 | 1087.0 | 1084.8 | 1084.1 | 1084.1 | 1087.0 | 1088.7 | 1087.5 | 1088.1 |
| 7.5° | 1098.3 | 1099.9 | 1097.2 | 1096.5 | 1095.4 | 1094.3 | 1093.8 | 1096.5 | 1098.3 | 1098.3 | 1098.3 |
| 10° | 1107.8 | 1109.5 | 1107.2 | 1105.6 | 1104.4 | 1104.4 | 1103.3 | 1105.6 | 1108.3 | 1107.8 | 1107.8 |
| 12.5° | 1118.0 | 1119.1 | 1116.8 | 1115.7 | 1115.7 | 1117.4 | 1115.7 | 1116.8 | 1119.1 | 1118.0 | 1117.4 |
| 15° | 1130.4 | 1130.9 | 1130.4 | 1132.0 | 1134.9 | 1140.4 | 1135.4 | 1134.3 | 1135.4 | 1132.6 | 1132.6 |
| 17.5° | 1147.2 | 1148.3 | 1150.6 | 1154.6 | 1158.5 | 1168.6 | 1159.6 | 1156.8 | 1156.8 | 1151.2 | 1151.2 |
| 20° | 1168.1 | 1169.7 | 1173.1 | 1179.9 | 1184.9 | 1194.5 | 1185.5 | 1181.5 | 1179.9 | 1172.6 | 1172.6 |
| 22.5° | 1190.0 | 1192.8 | 1197.9 | 1206.9 | 1215.9 | 1224.9 | 1215.9 | 1209.1 | 1204.1 | 1194.5 | 1193.9 |
| 25° | 1215.3 | 1218.7 | 1226.6 | 1241.3 | 1253.6 | 1266.6 | 1255.8 | 1242.3 | 1232.3 | 1218.7 | 1218.1 |
| 27.5° | 1251.3 | 1255.3 | 1264.8 | 1282.9 | 1298.7 | 1309.9 | 1299.8 | 1282.3 | 1268.2 | 1251.9 | 1251.3 |
| 30° | 1302.1 | 1306.0 | 1317.2 | 1336.4 | 1347.1 | 1354.3 | 1347.6 | 1334.1 | 1317.2 | 1298.7 | 1298.7 |
| 32.5° | 1367.4 | 1372.4 | 1384.8 | 1402.8 | 1405.1 | 1406.2 | 1403.9 | 1397.2 | 1384.8 | 1362.2 | 1362.8 |
| 35° | 1450.1 | 1455.7 | 1469.7 | 1484.4 | 1482.1 | 1484.4 | 1481.0 | 1478.8 | 1469.7 | 1443.9 | 1443.9 |
| 37.5° | 1551.4 | 1558.1 | 1572.8 | 1584.0 | 1578.4 | 1575.6 | 1576.1 | 1576.8 | 1571.6 | 1542.9 | 1542.9 |
| 40° | 1669.0 | 1678.0 | 1688.8 | 1700.6 | 1690.9 | 1682.5 | 1688.2 | 1692.7 | 1688.2 | 1658.9 | 1658.9 |
| 42.5° | 1790.1 | 1803.0 | 1814.2 | 1831.2 | 1823.3 | 1812.6 | 1820.5 | 1825.5 | 1816.0 | 1784.4 | 1786.7 |
| 45° | 1924.6 | 1936.9 | 1951.6 | 1976.9 | 1971.3 | 1960.1 | 1971.3 | 1972.4 | 1956.1 | 1919.0 | 1922.9 |
| 47.5° | 2063.6 | 2076.5 | 2098.6 | 2132.3 | 2130.1 | 2117.6 | 2132.3 | 2124.4 | 2103.6 | 2059.1 | 2056.4 |
| 50° | 2195.3 | 2213.4 | 2247.1 | 2294.5 | 2299.0 | 2283.7 | 2303.5 | 2288.2 | 2253.4 | 2197.6 | 2196.5 |
| 52.5° | 2319.2 | 2338.3 | 2391.8 | 2456.0 | 2472.3 | 2452.6 | 2479.1 | 2452.6 | 2400.2 | 2328.8 | 2322.0 |
| 55° | 2449.2 | 2470.7 | 2534.2 | 2618.2 | 2650.8 | 2636.1 | 2660.9 | 2620.9 | 2546.6 | 2459.9 | 2448.1 |
| 57.5° | 2602.4 | 2615.3 | 2691.2 | 2791.0 | 2846.1 | 2849.5 | 2860.8 | 2793.2 | 2703.1 | 2604.6 | 2591.1 |
| 60° | 2768.4 | 2786.5 | 2869.2 | 2988.5 | 3075.7 | 3103.9 | 3092.1 | 2991.9 | 2887.2 | 2774.1 | 2756.0 |
| 62.5° | 2981.2 | 3000.9 | 3100.0 | 3242.9 | 3380.9 | 3450.7 | 3404.5 | 3259.3 | 3129.8 | 2994.1 | 2970.4 |
| 65° | 3157.4 | 3179.3 | 3358.3 | 3613.3 | 3864.4 | 4004.6 | 3888.6 | 3621.2 | 3388.1 | 3196.8 | 3165.3 |
| 67.5° | 3029.6 | 3056.7 | 3337.5 | 3805.8 | 4430.2 | 4848.4 | 4451.5 | 3863.2 | 3406.8 | 3147.3 | 3108.4 |
| 70° | 2648.0 | 2673.3 | 3000.9 | 3573.4 | 4589.4 | 5505.9 | 4685.2 | 3678.6 | 3011.6 | 2721.2 | 2682.3 |
| 72.5° | 1758.0 | 1839.6 | 2171.2 | 2857.9 | 4098.1 | 5095.0 | 4138.5 | 2799.9 | 2014.1 | 1754.1 | 1697.2 |
| 75° | 583.2 | 648.5 | 874.7 | 1481.6 | 2744.7 | 3810.3 | 2613.0 | 1311.0 | 692.9 | 498.8 | 471.7 |
| 77.5° | 146.9 | 169.4 | 233.6 | 423.8 | 1094.9 | 2169.5 | 985.6 | 346.1 | 188.6 | 131.7 | 117.7 |
| 80° | 71.4 | 78.8 | 112.5 | 141.2 | 274.2 | 689.6 | 257.3 | 132.8 | 89.0 | 68.7 | 63.0 |
| 82.5° | 39.4 | 40.0 | 63.7 | 79.9 | 101.9 | 178.5 | 105.8 | 77.7 | 51.2 | 41.6 | 41.6 |
| 85° | 24.2 | 23.7 | 33.8 | 42.7 | 42.7 | 63.7 | 50.6 | 42.7 | 29.3 | 25.9 | 27.1 |
| 87.5° | 9.5 | 9.5 | 12.4 | 13.5 | 11.8 | 16.3 | 12.9 | 14.0 | 11.3 | 10.7 | 11.3 |
| 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)