

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: P459832

Luminaire Tested: **NAV-SA1A-AMB-U-5MQ**

Issue Date: 1/6/2021

Test Information

Test Method: LM-79-08
Report Number: P459832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2003-697-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SA1A-AMB-U-5MQ
Description: NAVION AREA AND ROADWAY LUMINAIRE
(1) NARROW BAND AMBER, 500mA LIGHTSQUARE WITH 16 LEDS AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1198 lumens
Efficiency: N/A
Efficacy: 53.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B1 - U0 - G0

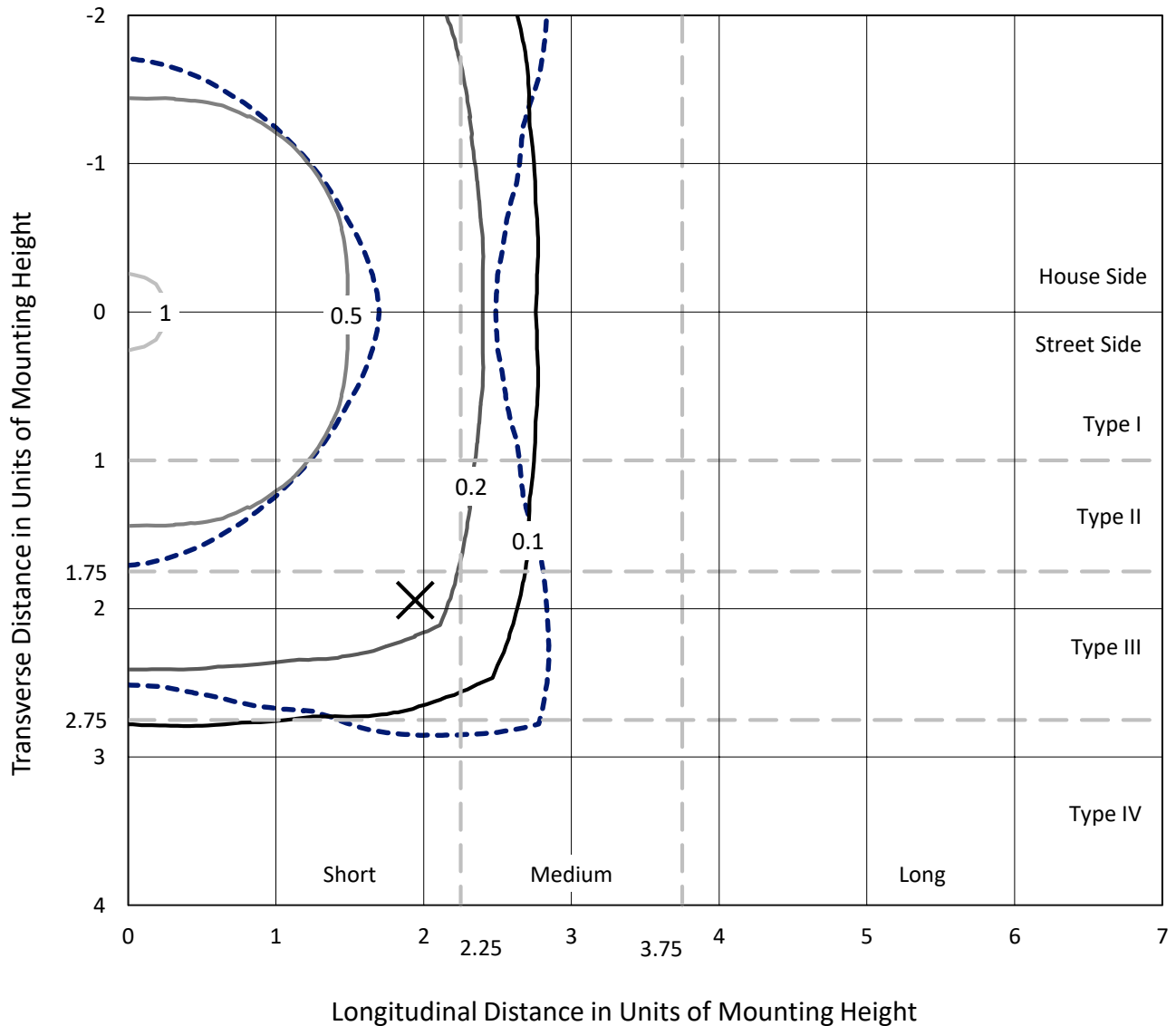
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

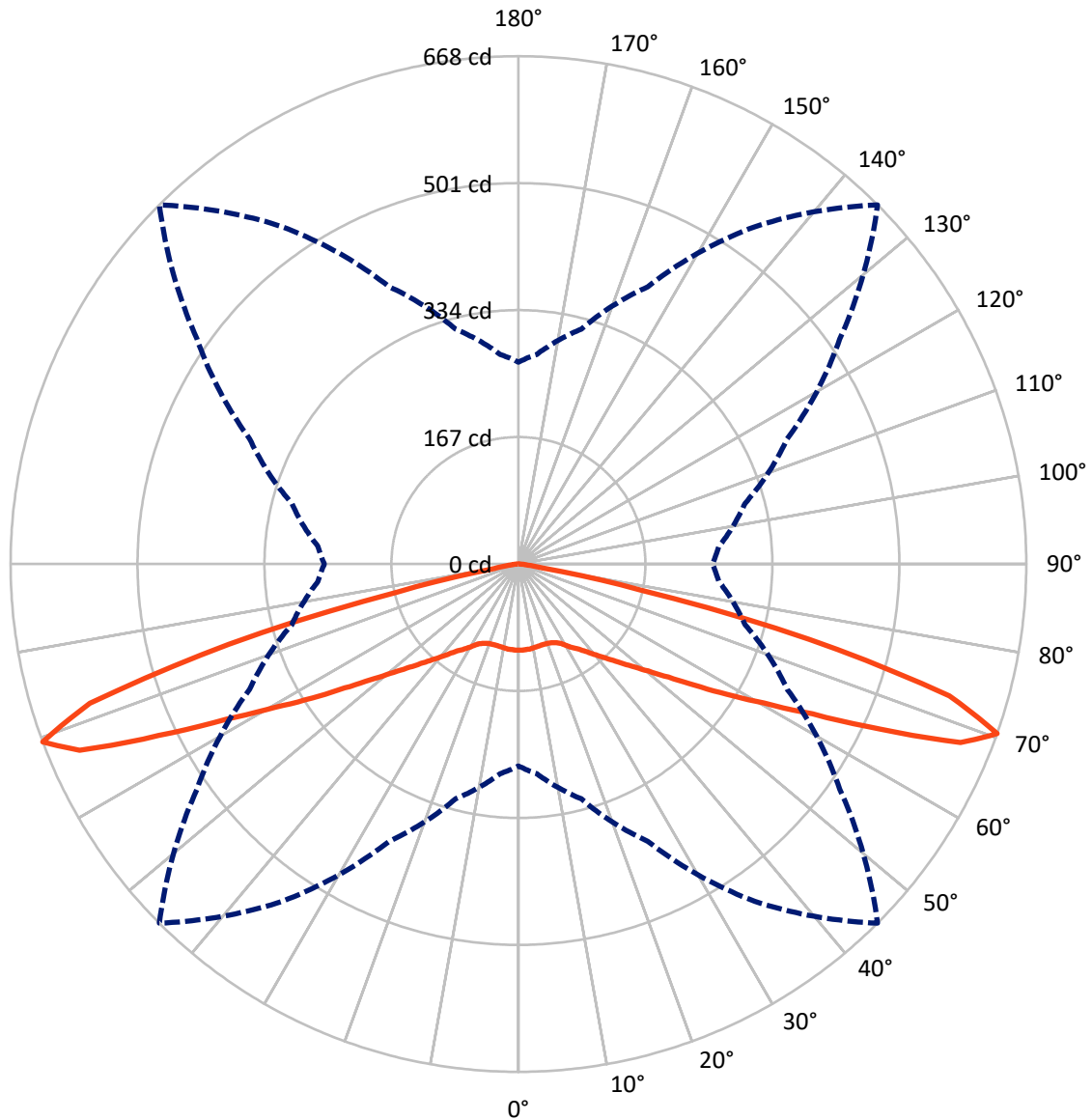


Based on 10 foot mounting height. Maximum calculated value = 1.1 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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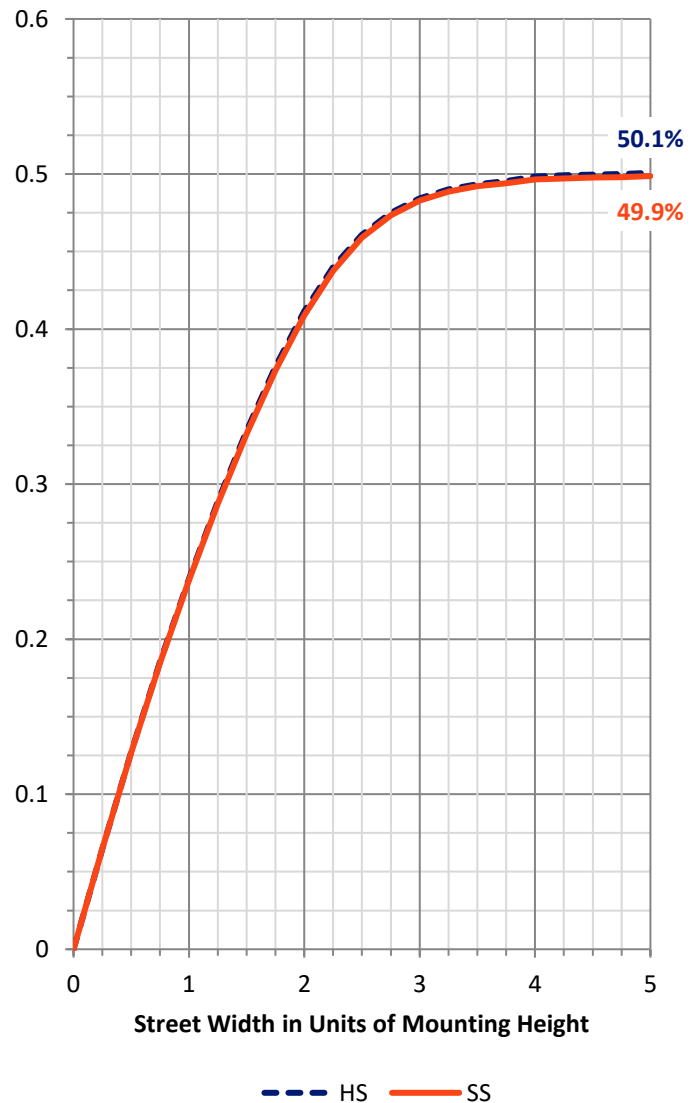
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 599.0 | 0.0 | 599.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 599.0 | 0.0 | 599.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 1198.0 | 0.0 | 1198.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 10.8 | 0.9 |
| 10°-20° | 31.3 | 2.6 |
| 20°-30° | 53.0 | 4.4 |
| 30°-40° | 86.9 | 7.3 |
| 40°-50° | 145.3 | 12.1 |
| 50°-60° | 255.0 | 21.3 |
| 60°-70° | 419.0 | 35.0 |
| 70°-80° | 188.9 | 15.8 |
| 80°-90° | 7.9 | 0.7 |
| 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° | 1198.0 | 100.0 |
| 0°-180° | 1198.0 | 100.0 |



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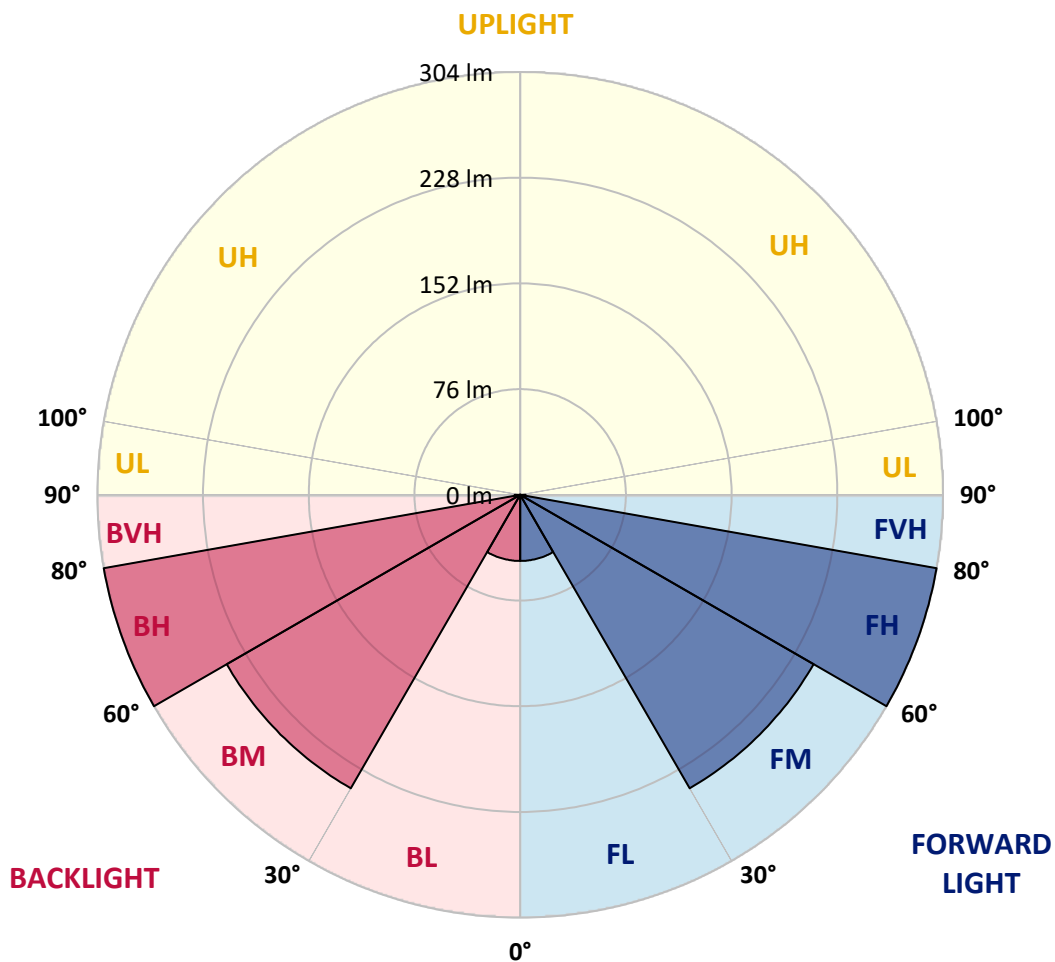
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 47.5 | 4.0 | | | |
| FM | (30°-60°) | 243.6 | 20.3 | | | |
| FH | (60°-80°) | 303.9 | 25.4 | | | G0/660 |
| FVH | (80°-90°) | 3.9 | 0.3 | | | G0/10 |
| BL | (0°-30°) | 47.5 | 4.0 | B0/110 | | |
| BM | (30°-60°) | 243.6 | 20.3 | B1/1000 | | |
| BH | (60°-80°) | 303.9 | 25.4 | B1/500 | | G0/660 |
| BVH | (80°-90°) | 3.9 | 0.3 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G0

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 |
| 2.5° | 113.8 | 113.8 | 113.8 | 113.8 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 | 113.4 |
| 5° | 113.8 | 113.8 | 113.8 | 113.4 | 113.4 | 112.9 | 113.4 | 112.9 | 112.9 | 112.9 | 113.4 |
| 7.5° | 113.8 | 113.8 | 113.8 | 113.4 | 113.4 | 112.9 | 112.9 | 112.4 | 112.4 | 112.4 | 112.4 |
| 10° | 112.4 | 112.4 | 112.4 | 112.4 | 112.4 | 111.9 | 111.9 | 111.4 | 111.4 | 111.4 | 111.4 |
| 12.5° | 110.9 | 111.4 | 110.9 | 110.9 | 111.4 | 111.4 | 110.9 | 110.4 | 109.9 | 109.9 | 110.4 |
| 15° | 109.9 | 109.9 | 109.9 | 109.9 | 110.9 | 110.9 | 110.9 | 109.9 | 109.4 | 109.4 | 109.4 |
| 17.5° | 109.0 | 109.0 | 109.0 | 109.9 | 110.4 | 110.9 | 110.4 | 109.9 | 109.4 | 108.5 | 108.5 |
| 20° | 108.5 | 108.5 | 109.0 | 109.9 | 110.9 | 111.4 | 111.4 | 110.4 | 109.4 | 108.5 | 108.5 |
| 22.5° | 108.5 | 108.5 | 109.4 | 110.9 | 111.9 | 112.4 | 112.4 | 111.4 | 110.4 | 109.4 | 109.4 |
| 25° | 110.4 | 109.9 | 110.9 | 112.9 | 114.3 | 114.8 | 115.3 | 113.8 | 112.4 | 111.4 | 110.9 |
| 27.5° | 113.4 | 113.8 | 114.8 | 116.8 | 118.7 | 118.2 | 118.7 | 117.8 | 116.8 | 115.3 | 115.3 |
| 30° | 119.2 | 119.2 | 120.7 | 122.6 | 124.1 | 124.6 | 124.6 | 123.6 | 122.1 | 121.2 | 120.7 |
| 32.5° | 126.1 | 126.1 | 127.5 | 130.0 | 130.9 | 131.4 | 130.9 | 130.0 | 128.0 | 126.5 | 126.1 |
| 35° | 132.9 | 132.9 | 134.9 | 137.8 | 138.8 | 137.8 | 138.3 | 137.3 | 135.8 | 134.9 | 134.4 |
| 37.5° | 141.2 | 141.2 | 143.6 | 146.1 | 147.6 | 146.6 | 148.0 | 147.6 | 145.6 | 144.6 | 144.1 |
| 40° | 151.0 | 151.5 | 153.9 | 156.8 | 156.8 | 157.3 | 158.8 | 159.3 | 157.3 | 156.4 | 155.4 |
| 42.5° | 163.2 | 164.2 | 166.1 | 169.1 | 169.5 | 169.5 | 171.5 | 172.0 | 171.0 | 169.1 | 168.1 |
| 45° | 177.8 | 178.8 | 181.8 | 184.7 | 184.7 | 183.7 | 186.6 | 189.1 | 187.1 | 184.2 | 183.2 |
| 47.5° | 194.9 | 195.9 | 199.8 | 202.3 | 203.3 | 200.8 | 205.2 | 208.1 | 205.7 | 203.7 | 201.8 |
| 50° | 215.5 | 217.4 | 221.3 | 225.2 | 224.3 | 221.3 | 227.2 | 230.6 | 229.2 | 224.8 | 223.3 |
| 52.5° | 237.5 | 238.9 | 246.7 | 250.6 | 250.6 | 247.2 | 255.0 | 258.0 | 253.6 | 247.7 | 245.8 |
| 55° | 267.3 | 266.8 | 272.1 | 280.9 | 284.4 | 280.9 | 287.3 | 288.3 | 282.4 | 277.5 | 274.1 |
| 57.5° | 298.0 | 299.0 | 306.3 | 314.7 | 319.5 | 323.5 | 323.5 | 321.0 | 312.7 | 303.4 | 301.5 |
| 60° | 333.7 | 336.6 | 345.4 | 356.2 | 366.0 | 371.3 | 363.0 | 358.1 | 345.4 | 337.6 | 334.7 |
| 62.5° | 373.3 | 377.2 | 390.4 | 408.0 | 423.6 | 434.4 | 420.7 | 407.0 | 390.9 | 378.7 | 376.7 |
| 65° | 385.5 | 388.9 | 414.8 | 452.9 | 498.9 | 524.3 | 480.8 | 448.0 | 409.9 | 384.5 | 381.6 |
| 67.5° | 358.6 | 360.1 | 392.8 | 458.3 | 550.6 | 627.4 | 531.6 | 449.5 | 391.4 | 354.7 | 352.8 |
| 70° | 265.8 | 277.0 | 320.0 | 402.6 | 541.9 | 668.4 | 516.4 | 390.4 | 308.8 | 264.8 | 255.5 |
| 72.5° | 155.9 | 153.4 | 186.2 | 267.3 | 442.7 | 593.2 | 420.2 | 264.8 | 190.1 | 156.8 | 149.5 |
| 75° | 61.1 | 62.1 | 77.7 | 123.6 | 250.6 | 395.3 | 251.6 | 124.6 | 69.4 | 56.7 | 56.2 |
| 77.5° | 21.0 | 21.5 | 23.5 | 29.8 | 80.6 | 163.2 | 83.1 | 30.3 | 23.0 | 24.4 | 24.9 |
| 80° | 13.2 | 12.7 | 14.2 | 14.7 | 17.6 | 32.2 | 19.1 | 15.6 | 15.1 | 15.1 | 15.6 |
| 82.5° | 6.8 | 7.3 | 9.8 | 10.3 | 10.7 | 12.2 | 12.2 | 11.7 | 10.3 | 7.8 | 6.8 |
| 85° | 4.4 | 3.4 | 6.8 | 7.3 | 6.8 | 6.4 | 7.8 | 8.8 | 7.8 | 4.4 | 4.9 |
| 87.5° | 2.0 | 2.0 | 3.4 | 3.4 | 3.4 | 2.4 | 3.4 | 4.9 | 4.9 | 2.0 | 2.0 |
| 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)