

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: STREETWORKS

Report Number: P316616

Luminaire Tested: **GAN-SA2D-827-U-5MQ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P316616  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA2D-827-U-5MQ  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12259 lumens  
Efficiency: N/A  
Efficacy: 95.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B4 - U0 - G2

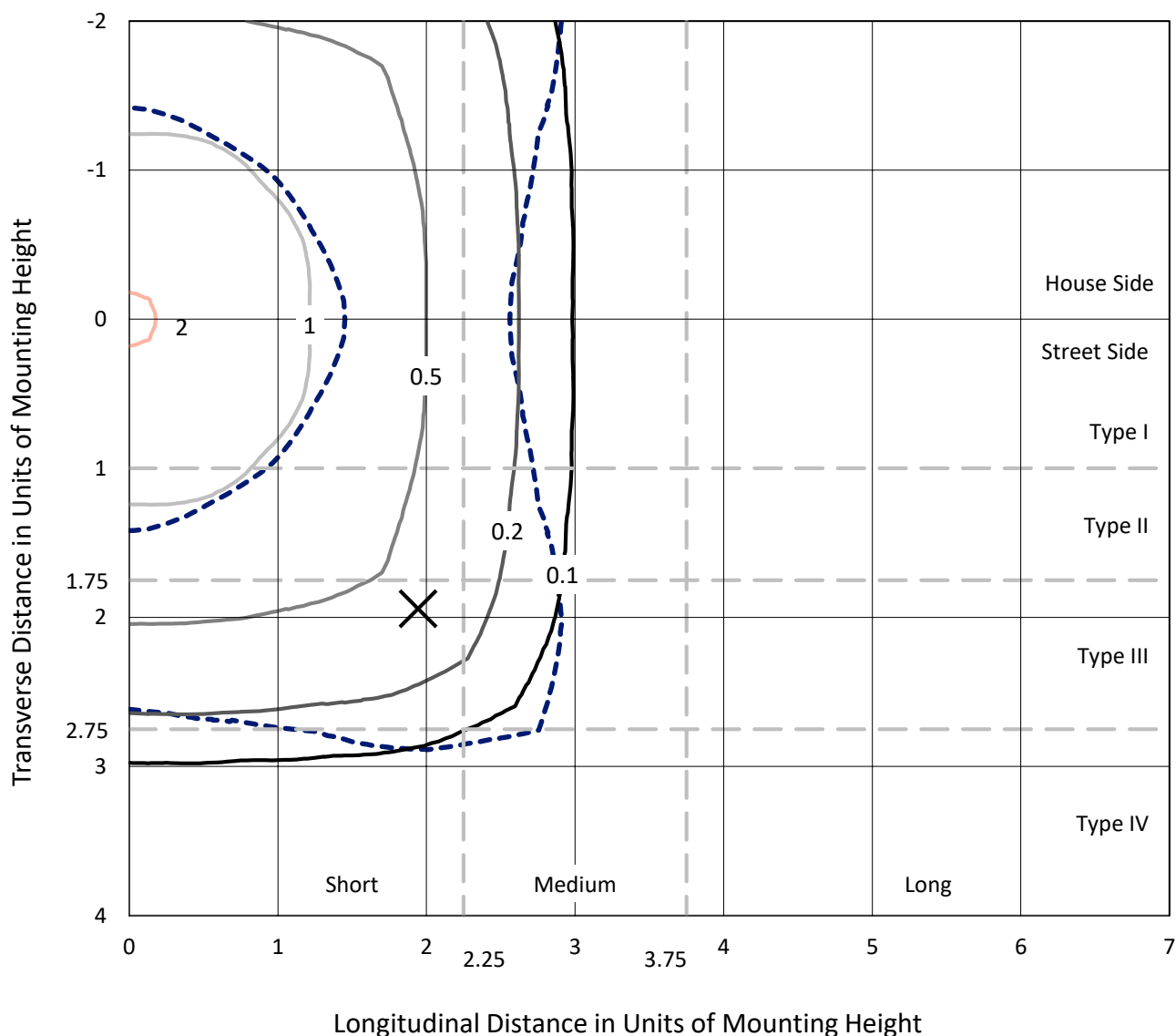
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

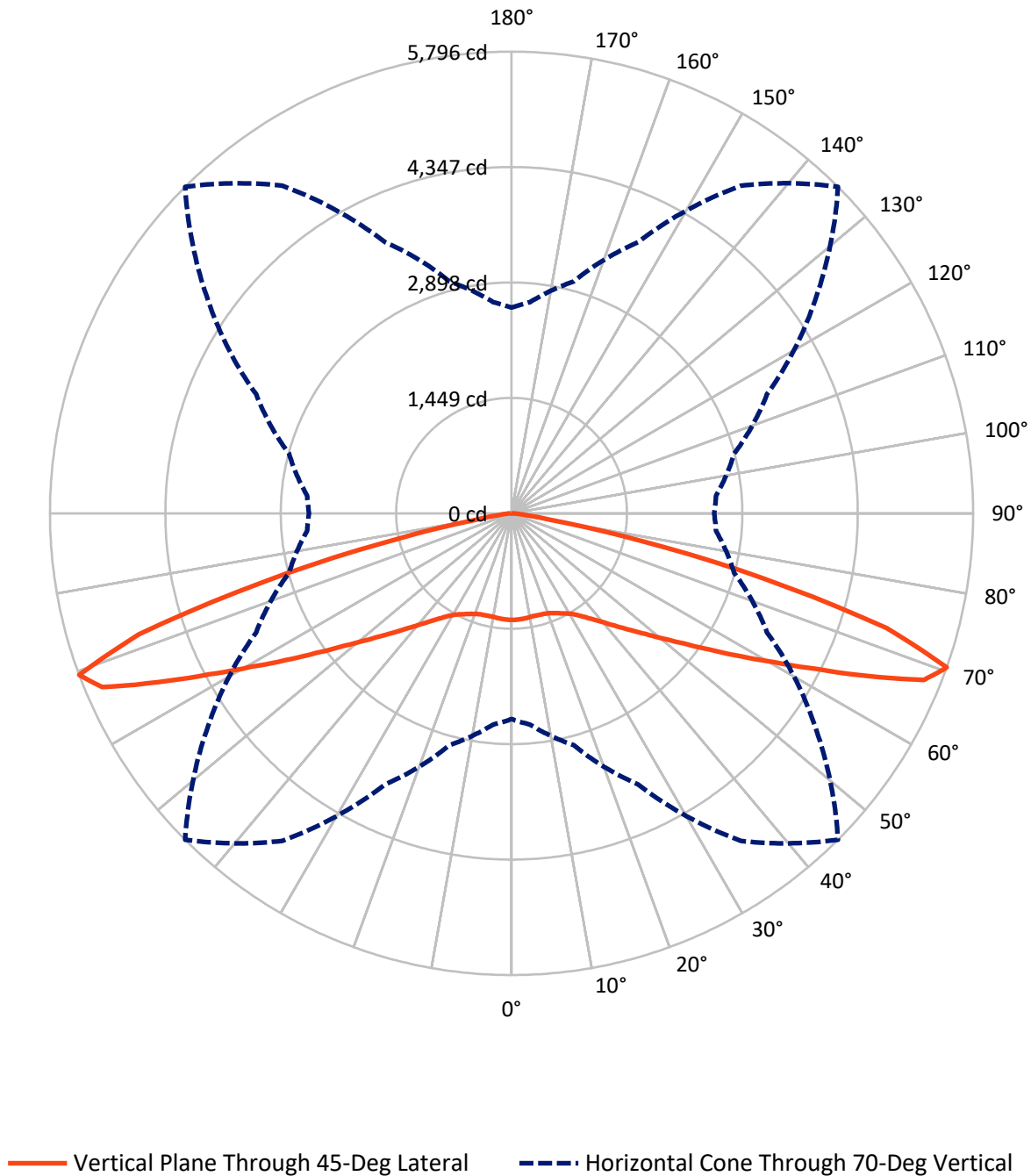
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc  
 Type V - Short - N/A

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## Luminous Intensity Polar Plot



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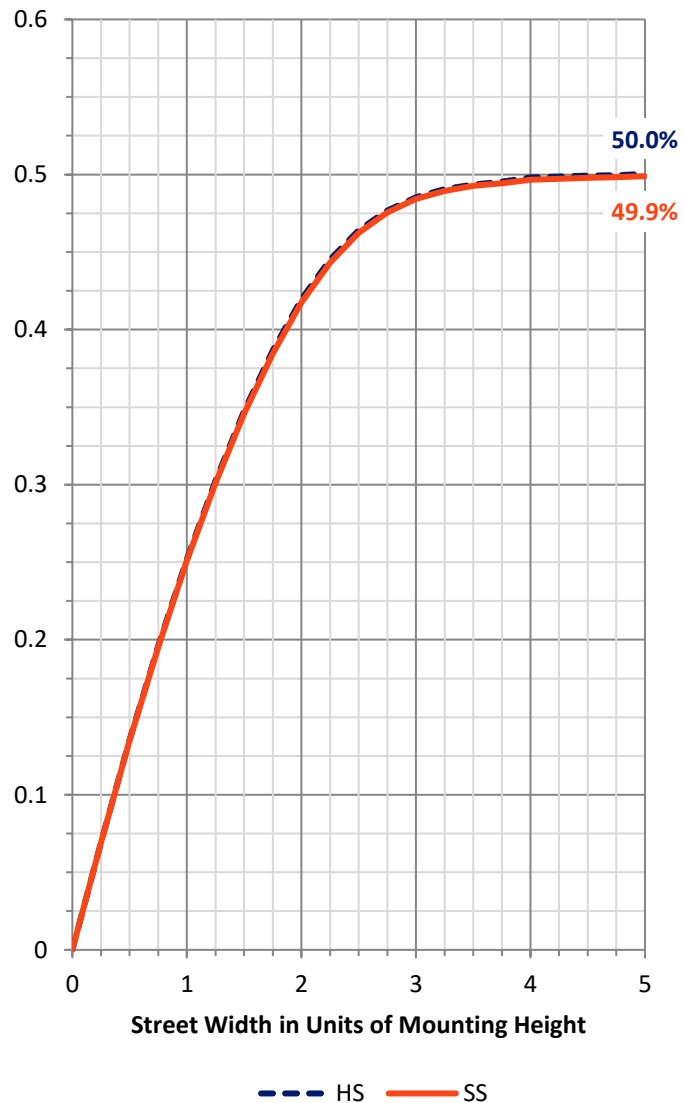
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6129.5   | 0.0    | 6129.5  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 6129.5   | 0.0    | 6129.5  |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 12259.0  | 0.0    | 12259.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 126.8   | 1.0       |
| 10°-20°   | 372.3   | 3.0       |
| 20°-30°   | 633.7   | 5.2       |
| 30°-40°   | 1005.1  | 8.2       |
| 40°-50°   | 1635.6  | 13.3      |
| 50°-60°   | 2696.8  | 22.0      |
| 60°-70°   | 3958.9  | 32.3      |
| 70°-80°   | 1750.6  | 14.3      |
| 80°-90°   | 79.3    | 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°    | 12259.0 | 100.0     |
| 0°-180°   | 12259.0 | 100.0     |

**Coefficient of Utilization**



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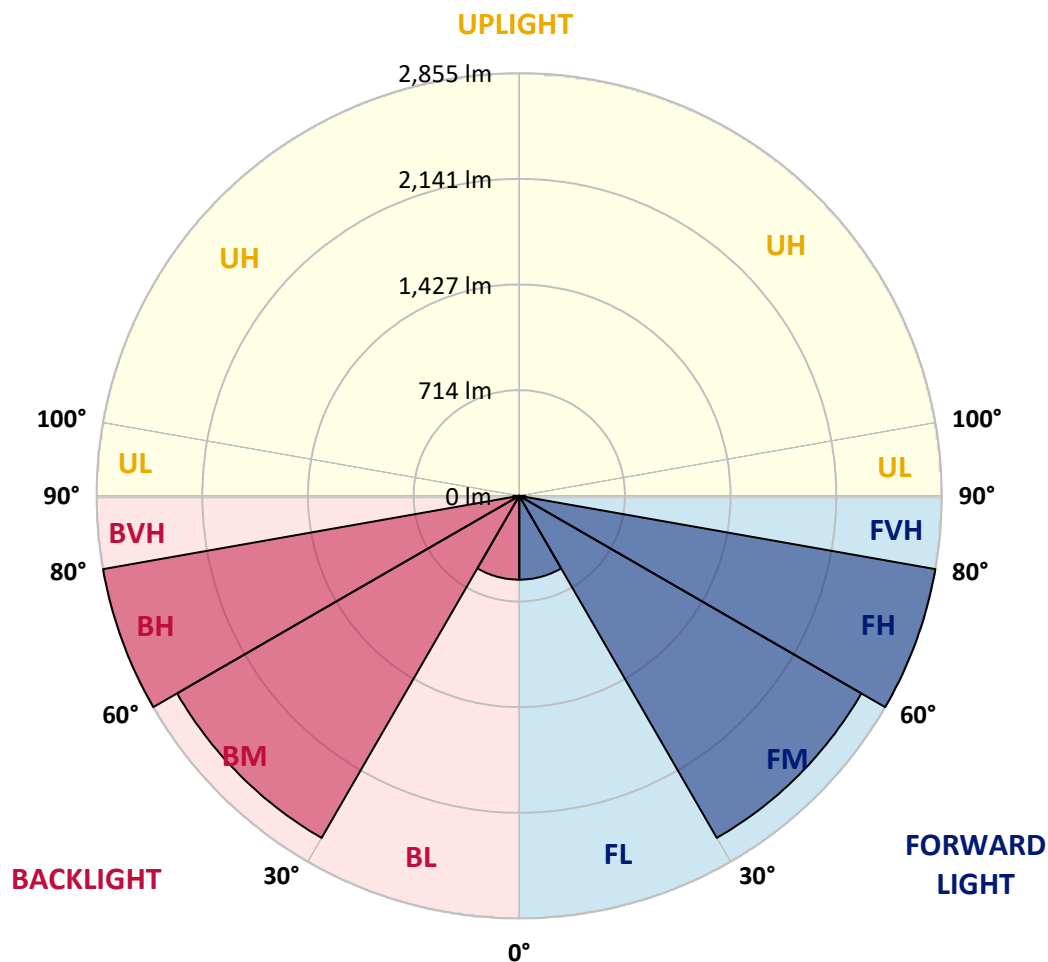
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 566.4  | 4.6       |                         |      |         |
| FM   | (30°-60°)   | 2668.7 | 21.8      |                         |      |         |
| FH   | (60°-80°)   | 2854.8 | 23.3      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 39.6   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 566.4  | 4.6       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2668.7 | 21.8      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2854.8 | 23.3      | B4/5000                 |      | G2/5000 |
| BVH  | (80°-90°)   | 39.6   | 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°    | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 | 1338.9 |
| 2.5°  | 1336.8 | 1335.6 | 1338.5 | 1338.1 | 1335.6 | 1336.0 | 1336.0 | 1337.3 | 1337.3 | 1336.4 | 1336.4 |
| 5°    | 1332.0 | 1331.2 | 1334.4 | 1334.4 | 1332.0 | 1332.8 | 1333.6 | 1334.8 | 1334.4 | 1333.6 | 1333.2 |
| 7.5°  | 1325.9 | 1325.5 | 1328.7 | 1328.7 | 1327.1 | 1327.9 | 1327.1 | 1327.5 | 1326.7 | 1325.9 | 1324.7 |
| 10°   | 1315.7 | 1316.6 | 1319.4 | 1320.2 | 1320.2 | 1320.6 | 1319.8 | 1317.8 | 1316.6 | 1315.3 | 1314.1 |
| 12.5° | 1306.4 | 1306.0 | 1310.1 | 1312.1 | 1315.3 | 1319.0 | 1316.6 | 1310.9 | 1308.4 | 1306.0 | 1305.2 |
| 15°   | 1300.3 | 1300.7 | 1304.8 | 1308.4 | 1314.1 | 1321.8 | 1319.0 | 1310.1 | 1305.2 | 1302.4 | 1301.5 |
| 17.5° | 1299.1 | 1299.9 | 1305.2 | 1311.7 | 1317.8 | 1326.3 | 1324.7 | 1315.7 | 1307.6 | 1302.4 | 1301.1 |
| 20°   | 1302.0 | 1302.4 | 1310.5 | 1319.8 | 1330.4 | 1338.5 | 1334.8 | 1325.1 | 1314.1 | 1306.0 | 1304.0 |
| 22.5° | 1307.2 | 1308.9 | 1319.0 | 1333.6 | 1349.8 | 1360.8 | 1356.3 | 1339.7 | 1322.6 | 1312.5 | 1309.7 |
| 25°   | 1323.9 | 1324.3 | 1338.1 | 1357.9 | 1377.4 | 1390.0 | 1384.7 | 1361.2 | 1339.3 | 1327.9 | 1324.3 |
| 27.5° | 1358.3 | 1359.6 | 1373.4 | 1396.5 | 1413.1 | 1421.2 | 1418.0 | 1398.9 | 1380.3 | 1368.1 | 1369.3 |
| 30°   | 1408.3 | 1409.9 | 1425.3 | 1450.9 | 1461.0 | 1463.0 | 1462.2 | 1453.3 | 1436.2 | 1420.0 | 1421.2 |
| 32.5° | 1469.1 | 1469.9 | 1490.6 | 1513.7 | 1521.9 | 1523.5 | 1521.9 | 1513.7 | 1493.5 | 1471.5 | 1472.8 |
| 35°   | 1547.4 | 1549.8 | 1569.7 | 1592.0 | 1598.5 | 1601.8 | 1598.9 | 1588.4 | 1567.3 | 1545.8 | 1545.0 |
| 37.5° | 1644.0 | 1644.4 | 1665.1 | 1688.2 | 1696.3 | 1697.1 | 1693.9 | 1687.0 | 1660.6 | 1641.1 | 1639.9 |
| 40°   | 1756.0 | 1757.6 | 1781.9 | 1806.7 | 1809.9 | 1806.3 | 1810.7 | 1806.7 | 1779.5 | 1757.2 | 1760.8 |
| 42.5° | 1892.3 | 1895.9 | 1925.1 | 1949.5 | 1940.1 | 1938.1 | 1941.0 | 1942.2 | 1920.3 | 1893.1 | 1890.7 |
| 45°   | 2050.9 | 2054.2 | 2090.7 | 2110.1 | 2104.1 | 2090.7 | 2096.4 | 2106.1 | 2075.7 | 2042.0 | 2045.2 |
| 47.5° | 2231.9 | 2240.0 | 2278.9 | 2297.2 | 2282.2 | 2263.9 | 2274.9 | 2289.5 | 2253.8 | 2212.0 | 2210.0 |
| 50°   | 2433.1 | 2443.2 | 2495.2 | 2520.7 | 2505.7 | 2472.0 | 2490.3 | 2500.0 | 2448.5 | 2394.6 | 2390.1 |
| 52.5° | 2647.7 | 2657.9 | 2723.2 | 2775.9 | 2766.2 | 2713.9 | 2739.4 | 2729.3 | 2670.0 | 2597.4 | 2591.7 |
| 55°   | 2890.7 | 2894.8 | 2965.4 | 3050.6 | 3060.3 | 3021.8 | 3020.2 | 3003.5 | 2915.9 | 2831.9 | 2827.9 |
| 57.5° | 3140.7 | 3143.5 | 3234.8 | 3335.4 | 3381.3 | 3381.3 | 3335.8 | 3300.5 | 3184.1 | 3086.7 | 3076.6 |
| 60°   | 3410.5 | 3420.6 | 3521.6 | 3658.4 | 3765.5 | 3797.1 | 3716.8 | 3620.6 | 3494.1 | 3375.2 | 3363.4 |
| 62.5° | 3650.7 | 3662.4 | 3817.0 | 4020.7 | 4192.7 | 4307.9 | 4111.6 | 3955.0 | 3724.5 | 3533.8 | 3511.5 |
| 65°   | 3681.1 | 3712.7 | 3937.9 | 4306.7 | 4691.7 | 4921.8 | 4545.3 | 4159.4 | 3739.5 | 3474.6 | 3451.9 |
| 67.5° | 3361.8 | 3415.3 | 3719.6 | 4293.7 | 5089.3 | 5583.1 | 4822.4 | 4042.6 | 3470.1 | 3177.2 | 3152.0 |
| 70°   | 2583.2 | 2661.1 | 3012.1 | 3755.7 | 5020.8 | 5796.1 | 4648.7 | 3539.1 | 2893.2 | 2577.9 | 2542.6 |
| 72.5° | 1417.2 | 1449.2 | 1764.9 | 2571.9 | 4025.1 | 4925.4 | 3877.5 | 2616.9 | 1918.6 | 1561.2 | 1502.0 |
| 75°   | 449.5  | 460.9  | 621.6  | 1052.4 | 2276.9 | 3262.4 | 2463.1 | 1284.5 | 707.2  | 521.3  | 515.3  |
| 77.5° | 199.6  | 200.8  | 224.8  | 307.1  | 784.3  | 1652.9 | 942.1  | 349.7  | 241.0  | 210.6  | 217.5  |
| 80°   | 126.2  | 126.2  | 139.2  | 152.1  | 213.4  | 480.0  | 254.8  | 166.3  | 142.0  | 131.9  | 134.7  |
| 82.5° | 60.5   | 66.9   | 90.5   | 97.4   | 117.3  | 161.5  | 130.6  | 108.7  | 94.9   | 70.6   | 65.7   |
| 85°   | 39.8   | 33.3   | 57.2   | 64.5   | 68.2   | 77.5   | 75.9   | 71.8   | 62.1   | 35.3   | 39.4   |
| 87.5° | 17.9   | 17.0   | 29.6   | 27.2   | 25.6   | 19.5   | 29.2   | 36.1   | 34.9   | 17.4   | 17.4   |
| 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)