

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: P451496

Luminaire Tested: **GALN-SA2B-827-U-5NQ**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P451496  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA2B-827-U-5NQ  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8779 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

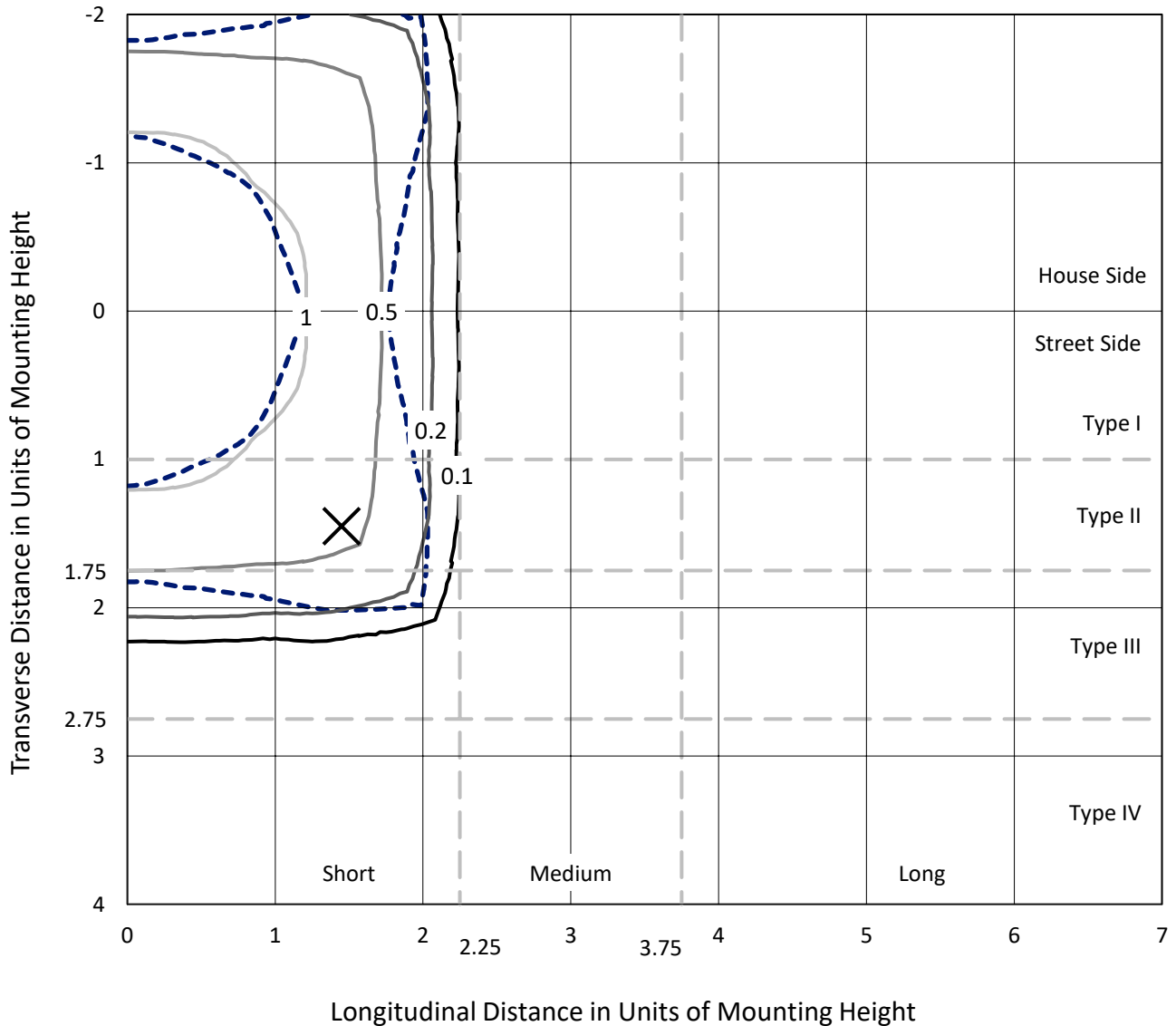
Input Watts (W): 82  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

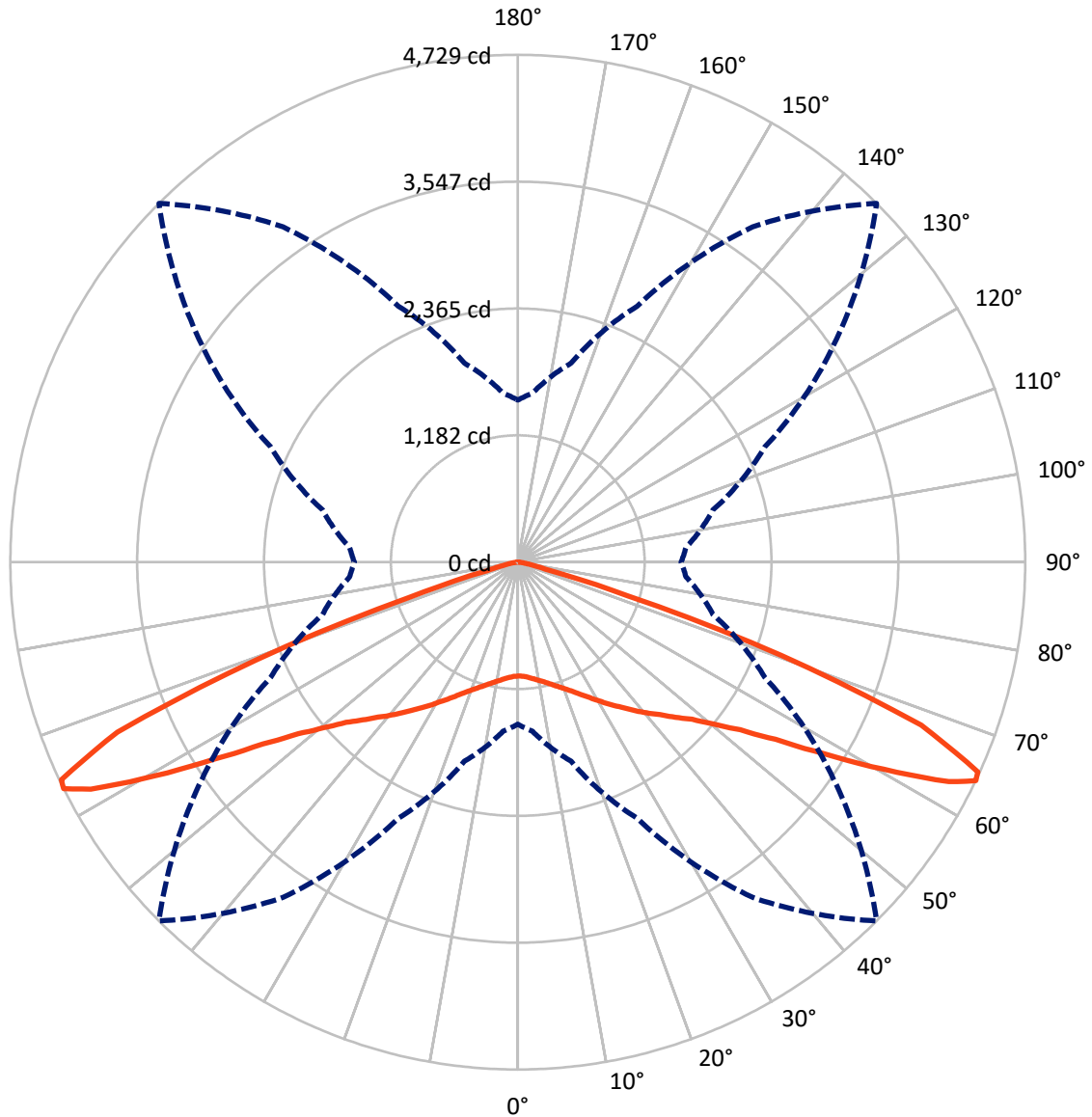
× Max cd  
 - - - 1/2 Max cd



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 64-Deg Vertical

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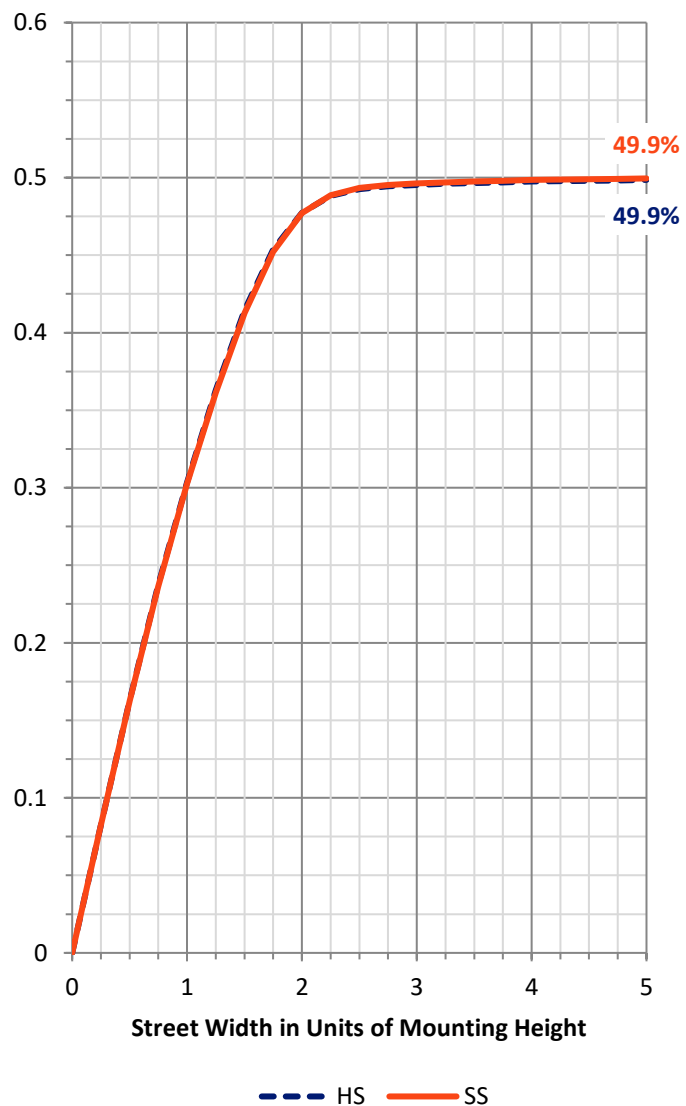
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4389.5   | 0.0    | 4389.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4389.5   | 0.0    | 4389.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 8779.0   | 0.0    | 8779.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 104.2  | 1.2       |
| 10°-20°   | 336.3  | 3.8       |
| 20°-30°   | 635.4  | 7.2       |
| 30°-40°   | 1052.3 | 12.0      |
| 40°-50°   | 1642.9 | 18.7      |
| 50°-60°   | 2539.8 | 28.9      |
| 60°-70°   | 2190.1 | 24.9      |
| 70°-80°   | 248.2  | 2.8       |
| 80°-90°   | 29.7   | 0.3       |
| 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°    | 8779.0 | 100.0     |
| 0°-180°   | 8779.0 | 100.0     |

**Coefficient of Utilization**



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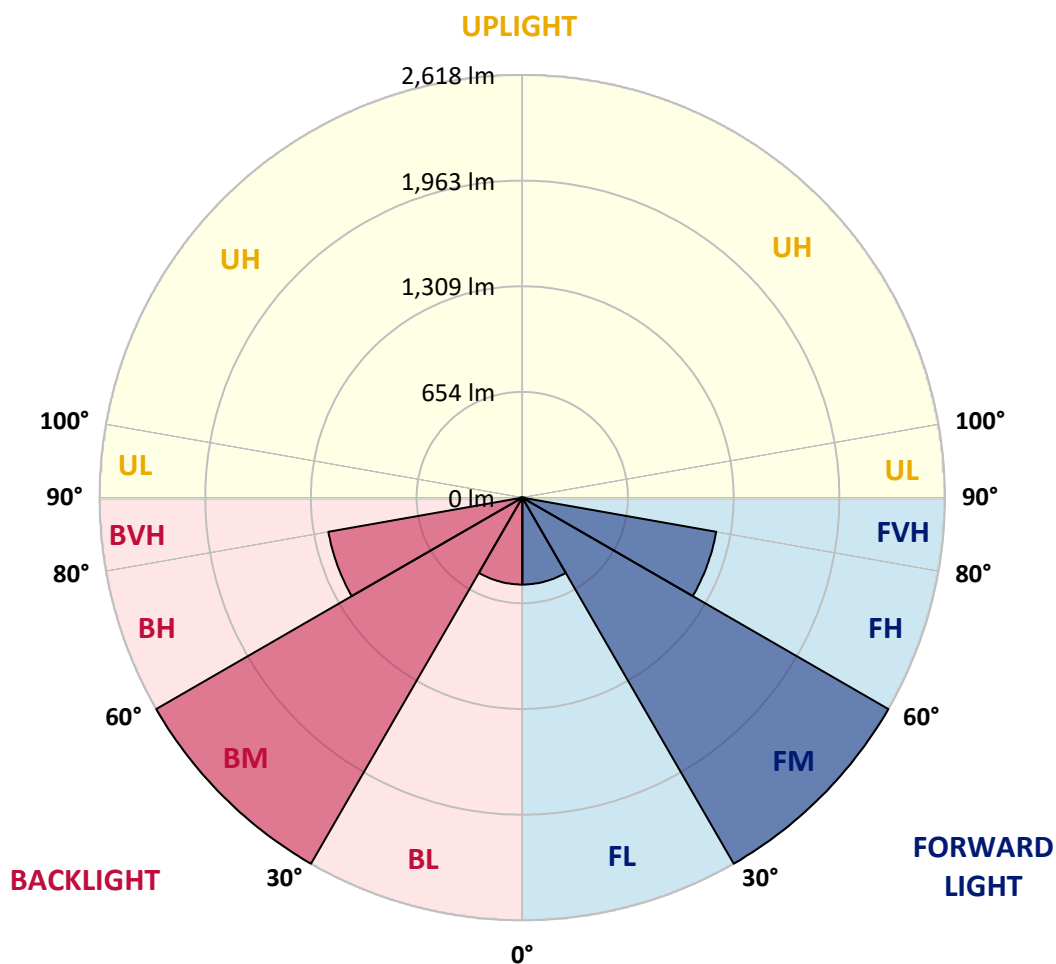
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 538.0  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 2617.5 | 29.8      |                         |      |         |
| FH   | (60°-80°)   | 1219.1 | 13.9      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 14.9   | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 538.0  | 6.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2617.5 | 29.8      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1219.1 | 13.9      | B3/2500                 |      | G1/1800 |
| BVH  | (80°-90°)   | 14.9   | 0.2       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 | 1061.1 |
| 2.5°  | 1065.3 | 1067.6 | 1065.7 | 1065.3 | 1064.8 | 1064.8 | 1064.8 | 1065.3 | 1067.1 | 1068.5 | 1067.6 |
| 5°    | 1078.8 | 1080.6 | 1079.7 | 1079.2 | 1078.8 | 1078.3 | 1077.8 | 1079.2 | 1079.2 | 1079.2 | 1078.8 |
| 7.5°  | 1095.5 | 1097.8 | 1096.9 | 1097.8 | 1098.3 | 1098.8 | 1096.4 | 1094.6 | 1094.1 | 1095.5 | 1094.6 |
| 10°   | 1118.3 | 1120.1 | 1120.6 | 1121.1 | 1122.0 | 1121.5 | 1118.7 | 1115.5 | 1115.0 | 1114.6 | 1114.1 |
| 12.5° | 1143.9 | 1145.3 | 1145.7 | 1147.6 | 1149.0 | 1149.4 | 1146.2 | 1143.4 | 1138.7 | 1139.7 | 1137.8 |
| 15°   | 1172.7 | 1175.5 | 1175.0 | 1177.8 | 1181.5 | 1182.5 | 1179.2 | 1174.5 | 1170.4 | 1168.0 | 1166.6 |
| 17.5° | 1208.0 | 1209.9 | 1209.0 | 1211.7 | 1216.4 | 1218.7 | 1215.9 | 1209.9 | 1205.7 | 1200.6 | 1197.8 |
| 20°   | 1249.9 | 1253.1 | 1254.1 | 1254.1 | 1258.2 | 1260.6 | 1256.4 | 1254.5 | 1248.0 | 1244.3 | 1242.0 |
| 22.5° | 1297.3 | 1298.7 | 1301.5 | 1304.3 | 1308.5 | 1307.5 | 1306.1 | 1303.3 | 1297.3 | 1294.0 | 1290.3 |
| 25°   | 1350.8 | 1352.2 | 1359.1 | 1365.2 | 1366.6 | 1365.7 | 1363.8 | 1362.4 | 1356.8 | 1349.4 | 1346.6 |
| 27.5° | 1413.1 | 1415.9 | 1425.2 | 1430.8 | 1430.8 | 1431.2 | 1427.5 | 1432.1 | 1420.1 | 1411.2 | 1410.3 |
| 30°   | 1491.2 | 1493.1 | 1501.0 | 1506.5 | 1503.8 | 1501.4 | 1500.5 | 1505.1 | 1492.1 | 1476.3 | 1472.6 |
| 32.5° | 1568.4 | 1574.9 | 1581.9 | 1594.0 | 1584.2 | 1580.0 | 1579.1 | 1582.3 | 1567.5 | 1549.8 | 1544.7 |
| 35°   | 1651.2 | 1655.8 | 1668.8 | 1679.1 | 1670.2 | 1660.5 | 1664.6 | 1674.9 | 1657.2 | 1633.5 | 1632.6 |
| 37.5° | 1742.8 | 1746.9 | 1763.7 | 1774.4 | 1767.9 | 1751.1 | 1758.1 | 1770.2 | 1752.5 | 1723.2 | 1717.2 |
| 40°   | 1838.1 | 1846.9 | 1867.8 | 1879.0 | 1868.3 | 1846.0 | 1859.0 | 1872.0 | 1856.2 | 1822.3 | 1808.8 |
| 42.5° | 1945.0 | 1959.0 | 1989.2 | 1994.8 | 1974.3 | 1944.1 | 1966.9 | 1987.8 | 1976.6 | 1937.6 | 1932.5 |
| 45°   | 2070.1 | 2078.5 | 2115.7 | 2127.8 | 2099.4 | 2061.7 | 2090.1 | 2128.2 | 2119.9 | 2074.8 | 2065.0 |
| 47.5° | 2210.1 | 2218.0 | 2256.6 | 2274.7 | 2238.9 | 2188.2 | 2239.4 | 2289.1 | 2284.0 | 2235.6 | 2231.0 |
| 50°   | 2375.6 | 2377.5 | 2430.9 | 2451.4 | 2415.6 | 2371.9 | 2417.4 | 2479.3 | 2458.8 | 2397.0 | 2396.1 |
| 52.5° | 2556.9 | 2559.3 | 2626.7 | 2666.2 | 2646.2 | 2596.9 | 2650.9 | 2688.5 | 2636.5 | 2555.5 | 2549.5 |
| 55°   | 2714.1 | 2725.7 | 2817.8 | 2922.9 | 2950.3 | 2914.5 | 2930.8 | 2913.1 | 2784.8 | 2671.3 | 2653.7 |
| 57.5° | 2778.3 | 2801.1 | 2941.0 | 3137.2 | 3315.8 | 3368.8 | 3243.3 | 3074.9 | 2843.8 | 2683.4 | 2666.2 |
| 60°   | 2621.6 | 2646.2 | 2863.4 | 3235.8 | 3691.5 | 3921.7 | 3568.7 | 3102.4 | 2709.5 | 2483.9 | 2457.0 |
| 62.5° | 2099.4 | 2106.4 | 2425.8 | 3003.8 | 3910.5 | 4506.6 | 3705.9 | 2868.5 | 2318.4 | 2012.0 | 2001.3 |
| 64°   | 1510.7 | 1582.3 | 1920.8 | 2633.7 | 3814.7 | 4729.3 | 3626.9 | 2540.7 | 1883.2 | 1573.0 | 1522.8 |
| 65°   | 1129.9 | 1149.4 | 1548.4 | 2249.1 | 3645.9 | 4712.6 | 3473.4 | 2227.3 | 1559.6 | 1203.8 | 1148.0 |
| 67.5° | 426.9  | 429.2  | 571.5  | 1121.1 | 2595.5 | 4054.6 | 2650.9 | 1211.7 | 657.0  | 475.2  | 458.0  |
| 70°   | 177.2  | 180.4  | 209.7  | 377.1  | 1115.5 | 2603.4 | 1278.2 | 437.1  | 240.4  | 194.8  | 192.0  |
| 72.5° | 129.7  | 131.6  | 140.4  | 167.4  | 343.2  | 1069.0 | 420.3  | 185.5  | 140.9  | 126.0  | 124.6  |
| 75°   | 101.8  | 102.8  | 109.3  | 123.2  | 160.0  | 296.2  | 174.8  | 127.4  | 107.4  | 96.7   | 95.8   |
| 77.5° | 77.7   | 80.0   | 84.6   | 93.9   | 107.4  | 140.4  | 115.8  | 95.3   | 82.8   | 73.9   | 72.5   |
| 80°   | 53.5   | 56.3   | 65.1   | 68.8   | 72.1   | 91.1   | 79.0   | 72.1   | 64.6   | 53.9   | 50.7   |
| 82.5° | 33.0   | 34.9   | 43.7   | 47.0   | 45.6   | 51.1   | 50.7   | 51.6   | 46.0   | 33.5   | 31.2   |
| 85°   | 17.2   | 18.1   | 23.7   | 24.6   | 22.8   | 20.9   | 26.0   | 30.2   | 28.4   | 19.1   | 18.6   |
| 87.5° | 3.7    | 4.2    | 5.1    | 4.6    | 5.1    | 5.1    | 6.5    | 9.8    | 10.2   | 6.5    | 6.0    |
| 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)