

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: P454657

Luminaire Tested: **GALN-SA5D-740-U-5NQ**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454657  
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-SA5D-740-U-5NQ  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40431 lumens  
Efficiency: N/A  
Efficacy: 130.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G3

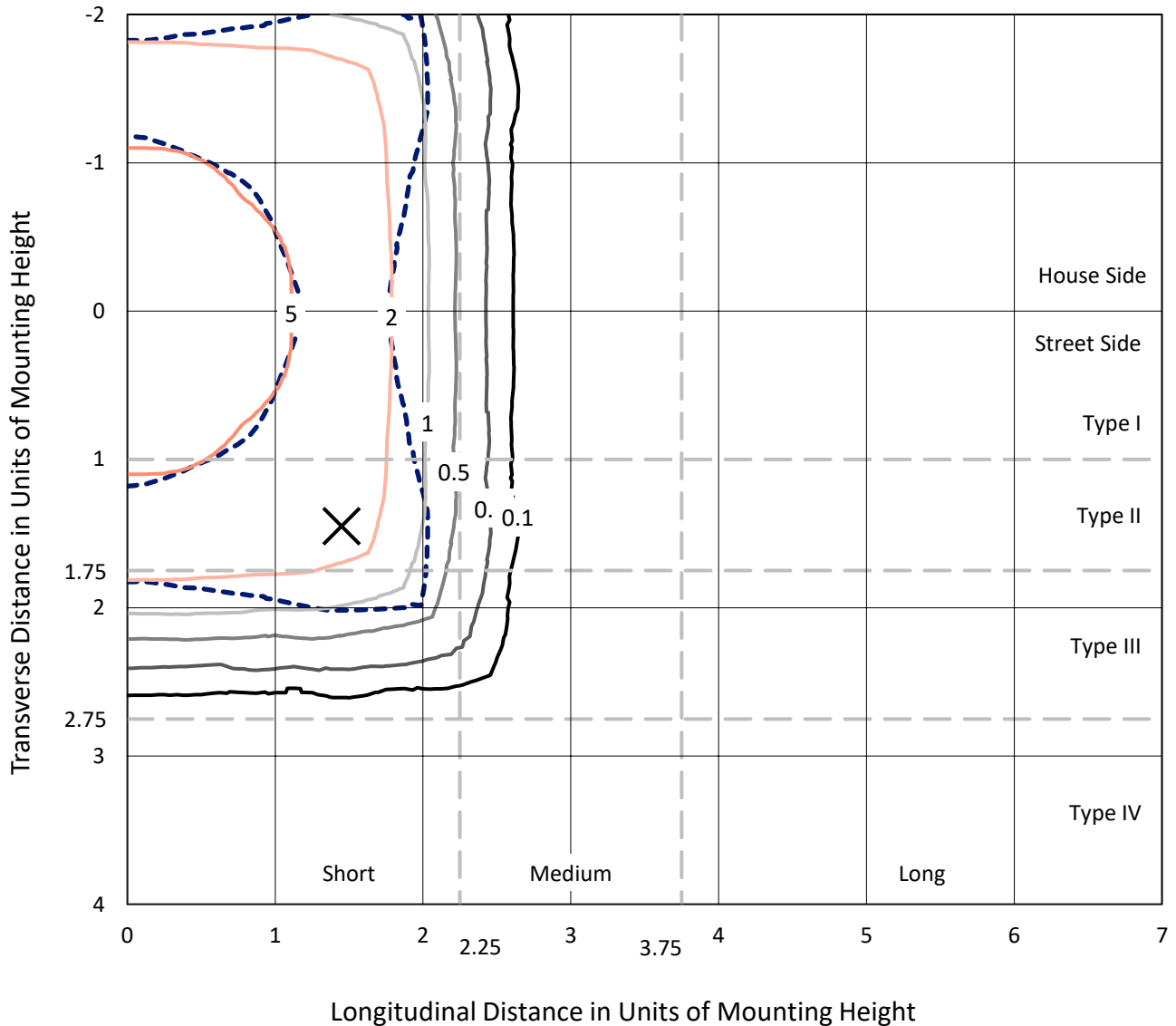
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

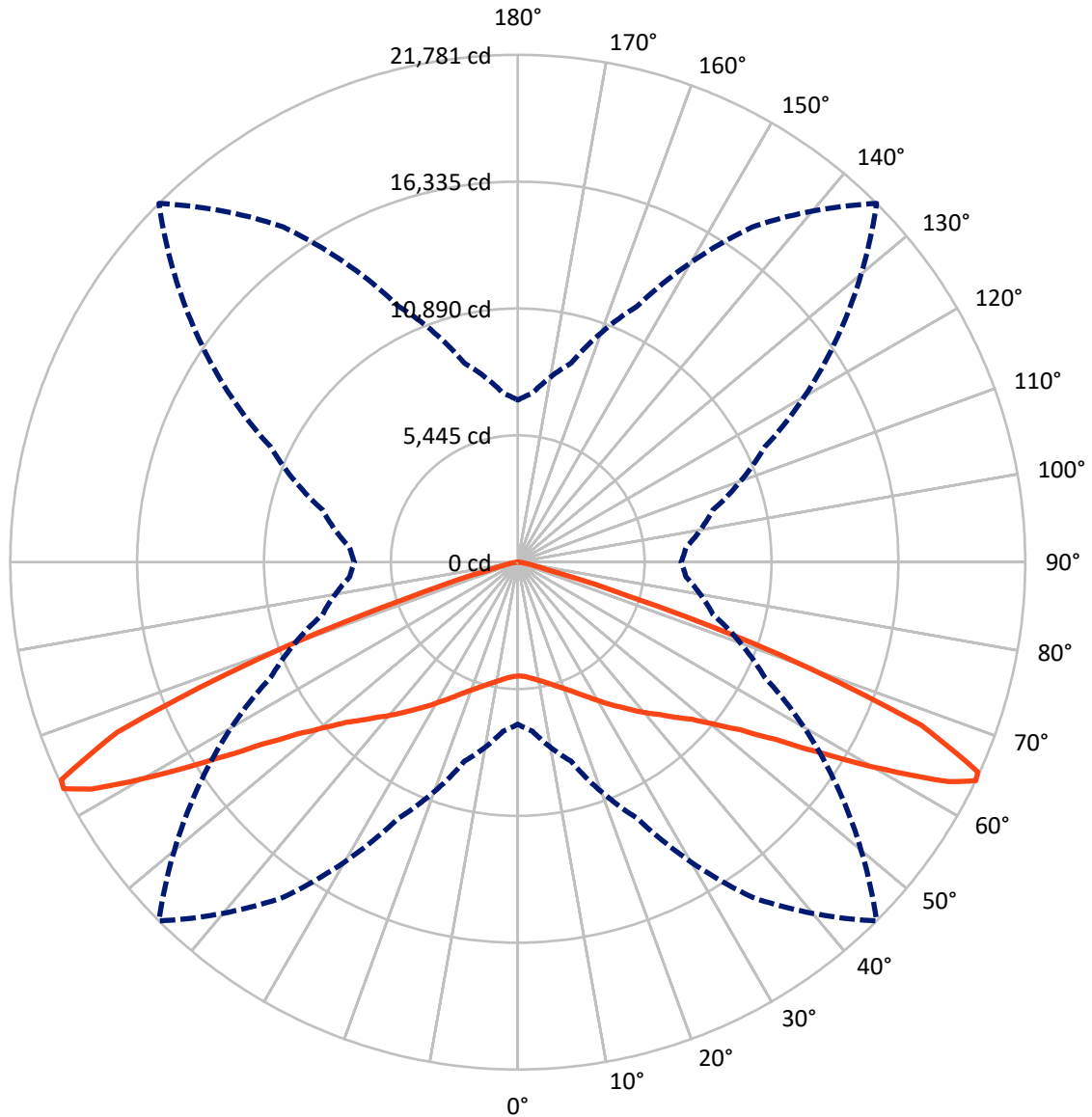
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 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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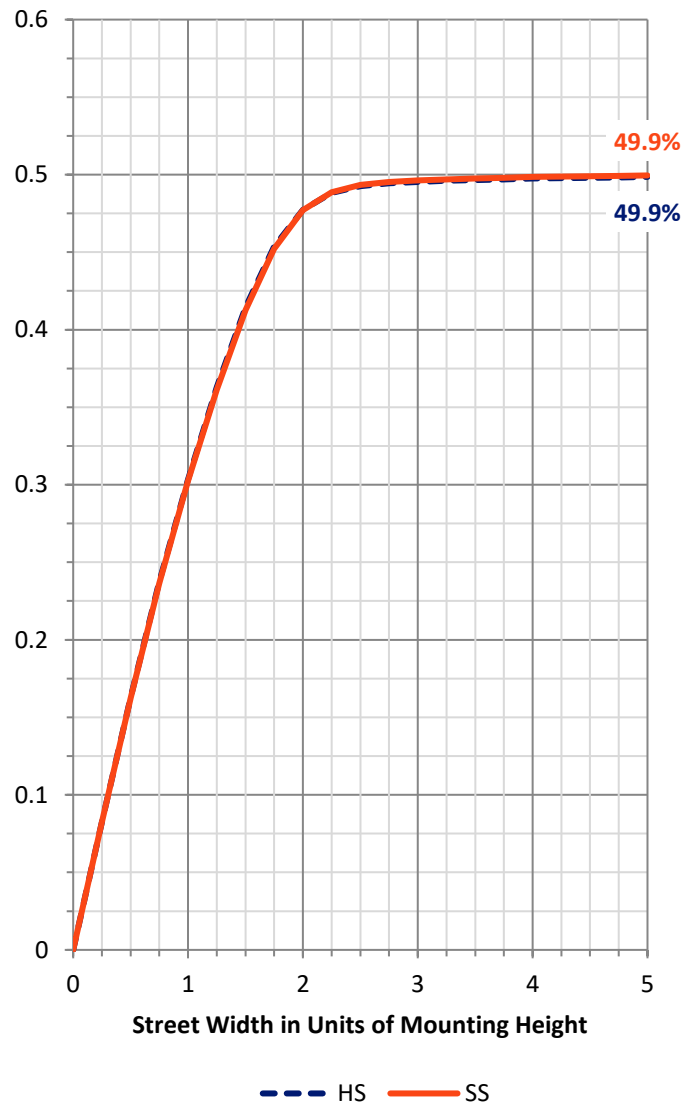
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 20215.5  | 0.0    | 20215.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 20215.5  | 0.0    | 20215.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 40431.0  | 0.0    | 40431.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 480.1   | 1.2       |
| 10°-20°   | 1548.6  | 3.8       |
| 20°-30°   | 2926.4  | 7.2       |
| 30°-40°   | 4846.5  | 12.0      |
| 40°-50°   | 7566.1  | 18.7      |
| 50°-60°   | 11697.1 | 28.9      |
| 60°-70°   | 10086.2 | 24.9      |
| 70°-80°   | 1143.0  | 2.8       |
| 80°-90°   | 136.9   | 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°    | 40431.0 | 100.0     |
| 0°-180°   | 40431.0 | 100.0     |



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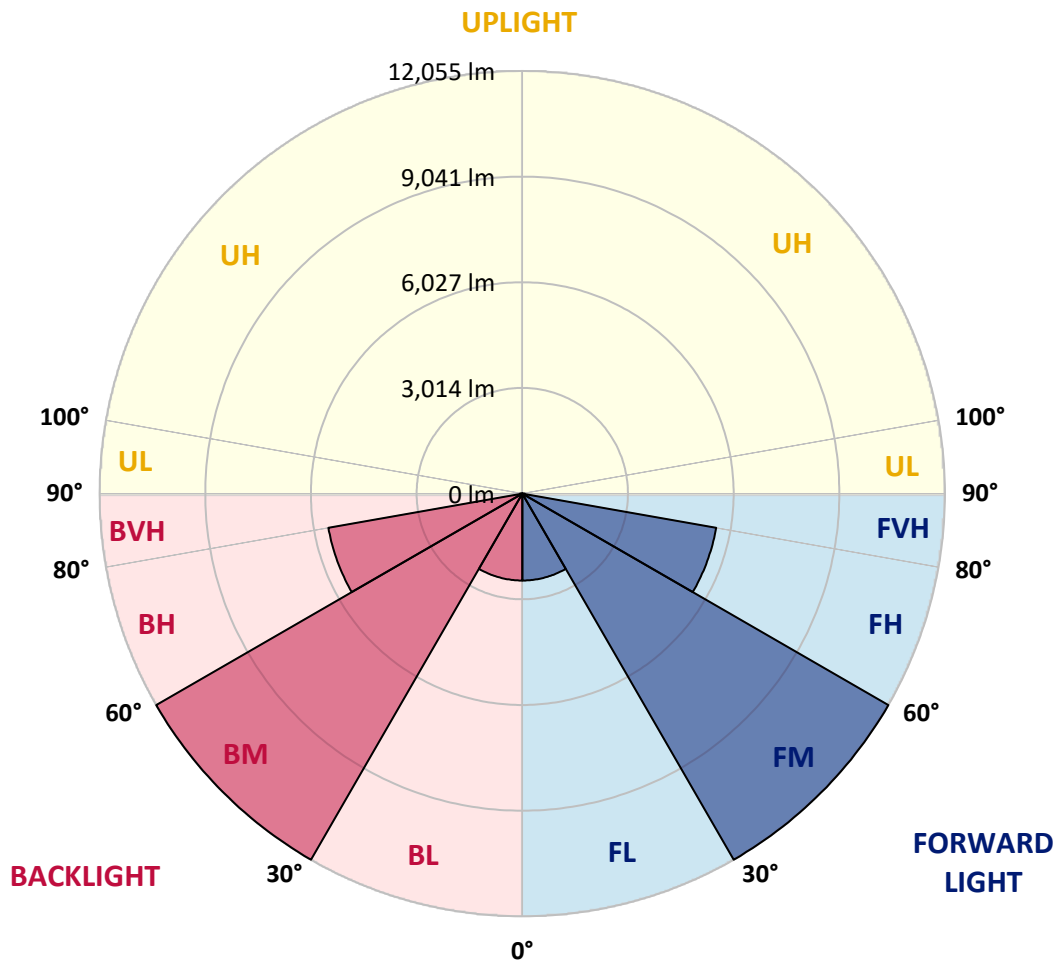
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2477.6  | 6.1       |                         |      |         |
| FM   | (30°-60°)   | 12054.8 | 29.8      |                         |      |         |
| FH   | (60°-80°)   | 5614.6  | 13.9      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 68.5    | 0.2       |                         |      | G1/100  |
| BL   | (0°-30°)    | 2477.6  | 6.1       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 12054.8 | 29.8      | B5                      |      |         |
| BH   | (60°-80°)   | 5614.6  | 13.9      | B5                      |      | G3/7500 |
| BVH  | (80°-90°)   | 68.5    | 0.2       |                         |      | G1/100  |
| 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°    | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  | 4886.8  |
| 2.5°  | 4906.0  | 4916.7  | 4908.2  | 4906.0  | 4903.9  | 4903.9  | 4903.9  | 4906.0  | 4914.6  | 4921.0  | 4916.7  |
| 5°    | 4968.1  | 4976.7  | 4972.4  | 4970.3  | 4968.1  | 4970.3  | 4966.0  | 4963.9  | 4970.3  | 4970.3  | 4968.1  |
| 7.5°  | 5045.2  | 5055.9  | 5051.7  | 5055.9  | 5058.1  | 5060.2  | 5049.5  | 5040.9  | 5038.8  | 5045.2  | 5040.9  |
| 10°   | 5150.2  | 5158.7  | 5160.9  | 5163.0  | 5167.3  | 5165.2  | 5152.3  | 5137.3  | 5135.2  | 5133.0  | 5130.9  |
| 12.5° | 5267.9  | 5274.4  | 5276.5  | 5285.1  | 5291.5  | 5293.6  | 5278.6  | 5265.8  | 5244.4  | 5248.7  | 5240.1  |
| 15°   | 5400.7  | 5413.6  | 5411.4  | 5424.3  | 5441.4  | 5445.7  | 5430.7  | 5409.3  | 5390.0  | 5379.3  | 5372.9  |
| 17.5° | 5563.5  | 5572.0  | 5567.7  | 5580.6  | 5602.0  | 5612.7  | 5599.9  | 5572.0  | 5552.8  | 5529.2  | 5516.3  |
| 20°   | 5756.2  | 5771.2  | 5775.5  | 5775.5  | 5794.7  | 5805.4  | 5786.2  | 5777.6  | 5747.6  | 5730.5  | 5719.8  |
| 22.5° | 5974.6  | 5981.0  | 5993.9  | 6006.7  | 6026.0  | 6021.7  | 6015.3  | 6002.5  | 5974.6  | 5959.6  | 5942.5  |
| 25°   | 6220.9  | 6227.3  | 6259.4  | 6287.3  | 6293.7  | 6289.4  | 6280.8  | 6274.4  | 6248.7  | 6214.5  | 6201.6  |
| 27.5° | 6507.8  | 6520.7  | 6563.5  | 6589.2  | 6589.2  | 6591.4  | 6574.2  | 6595.6  | 6540.0  | 6499.3  | 6495.0  |
| 30°   | 6867.6  | 6876.2  | 6912.6  | 6938.3  | 6925.4  | 6914.7  | 6910.4  | 6931.8  | 6871.9  | 6799.1  | 6781.9  |
| 32.5° | 7223.1  | 7253.1  | 7285.2  | 7340.9  | 7295.9  | 7276.6  | 7272.3  | 7287.3  | 7218.8  | 7137.4  | 7113.9  |
| 35°   | 7604.3  | 7625.7  | 7685.6  | 7732.7  | 7692.1  | 7647.1  | 7666.4  | 7713.5  | 7632.1  | 7522.9  | 7518.6  |
| 37.5° | 8026.1  | 8045.4  | 8122.5  | 8171.7  | 8141.8  | 8064.7  | 8096.8  | 8152.5  | 8071.1  | 7936.2  | 7908.3  |
| 40°   | 8465.1  | 8505.8  | 8602.2  | 8653.6  | 8604.3  | 8501.5  | 8561.5  | 8621.4  | 8548.6  | 8392.3  | 8330.2  |
| 42.5° | 8957.6  | 9021.9  | 9161.1  | 9186.8  | 9092.6  | 8953.4  | 9058.3  | 9154.7  | 9103.3  | 8923.4  | 8899.8  |
| 45°   | 9533.7  | 9572.2  | 9743.6  | 9799.2  | 9668.6  | 9495.1  | 9625.8  | 9801.4  | 9762.8  | 9555.1  | 9510.1  |
| 47.5° | 10178.3 | 10214.7 | 10392.4 | 10475.9 | 10311.0 | 10077.6 | 10313.2 | 10542.3 | 10518.8 | 10296.0 | 10274.6 |
| 50°   | 10940.6 | 10949.2 | 11195.4 | 11289.7 | 11124.8 | 10923.5 | 11133.3 | 11418.2 | 11323.9 | 11039.1 | 11034.8 |
| 52.5° | 11775.8 | 11786.5 | 12097.0 | 12279.0 | 12186.9 | 11959.9 | 12208.3 | 12381.8 | 12142.0 | 11769.4 | 11741.5 |
| 55°   | 12499.6 | 12553.1 | 12977.1 | 13461.1 | 13587.4 | 13422.5 | 13497.5 | 13416.1 | 12825.1 | 12302.6 | 12221.2 |
| 57.5° | 12795.1 | 12900.0 | 13544.6 | 14448.3 | 15270.6 | 15514.7 | 14936.5 | 14161.3 | 13097.0 | 12358.3 | 12279.0 |
| 60°   | 12073.4 | 12186.9 | 13187.0 | 14902.3 | 17000.9 | 18060.9 | 16435.6 | 14287.7 | 12478.2 | 11439.6 | 11315.4 |
| 62.5° | 9668.6  | 9700.7  | 11171.9 | 13833.7 | 18009.5 | 20754.8 | 17067.3 | 13210.5 | 10677.2 | 9266.0  | 9216.8  |
| 64°   | 6957.5  | 7287.3  | 8846.3  | 12129.1 | 17568.4 | 21780.6 | 16703.2 | 11700.8 | 8672.8  | 7244.5  | 7013.2  |
| 65°   | 5203.7  | 5293.6  | 7131.0  | 10358.1 | 16791.0 | 21703.5 | 15996.6 | 10257.5 | 7182.4  | 5544.2  | 5287.2  |
| 67.5° | 1965.8  | 1976.5  | 2631.8  | 5163.0  | 11953.5 | 18673.4 | 12208.3 | 5580.6  | 3025.9  | 2188.6  | 2109.3  |
| 70°   | 815.9   | 830.9   | 965.8   | 1736.7  | 5137.3  | 11989.9 | 5886.8  | 2013.0  | 1107.1  | 897.3   | 884.4   |
| 72.5° | 597.5   | 606.0   | 646.7   | 770.9   | 1580.4  | 4923.2  | 1935.9  | 854.4   | 648.9   | 580.3   | 573.9   |
| 75°   | 469.0   | 473.3   | 503.2   | 567.5   | 736.7   | 1364.1  | 805.2   | 586.8   | 494.7   | 445.4   | 441.1   |
| 77.5° | 357.6   | 368.3   | 389.7   | 432.6   | 494.7   | 646.7   | 533.2   | 439.0   | 381.2   | 340.5   | 334.1   |
| 80°   | 246.3   | 259.1   | 299.8   | 316.9   | 331.9   | 419.7   | 364.0   | 331.9   | 297.7   | 248.4   | 233.4   |
| 82.5° | 152.0   | 160.6   | 201.3   | 216.3   | 209.9   | 235.6   | 233.4   | 237.7   | 212.0   | 154.2   | 143.5   |
| 85°   | 79.2    | 83.5    | 109.2   | 113.5   | 104.9   | 96.4    | 119.9   | 139.2   | 130.6   | 87.8    | 85.7    |
| 87.5° | 17.1    | 19.3    | 23.6    | 21.4    | 23.6    | 23.6    | 30.0    | 45.0    | 47.1    | 30.0    | 27.8    |
| 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)