

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: P821324

Luminaire Tested: **TT-D5-740-24VDC-CQ**

Issue Date: 2/18/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P821324  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1908-473-17)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 2/18/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-D5-740-24VDC-CQ  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
4000K, 70 CRI LEDS AND CONCENTRATED DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

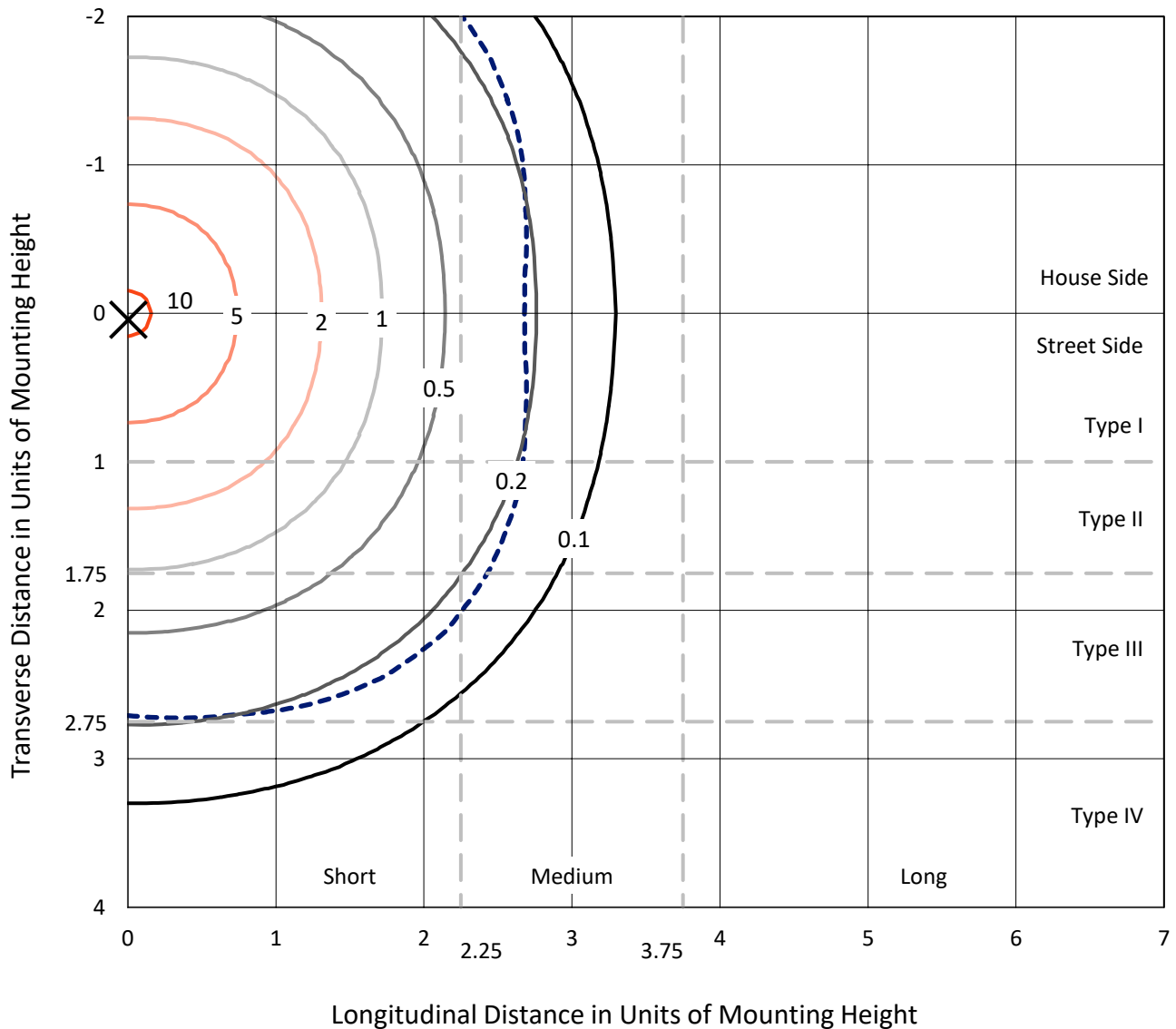
Lumens per Lamp: N/A  
Luminaire Lumens: 9415 lumens  
Efficiency: N/A  
Efficacy: 129.0 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B3 - U0 - G1

Input Watts (W): 73  
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: 25 FT

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## Iso-Footcandle Lines of Horizontal Illumination

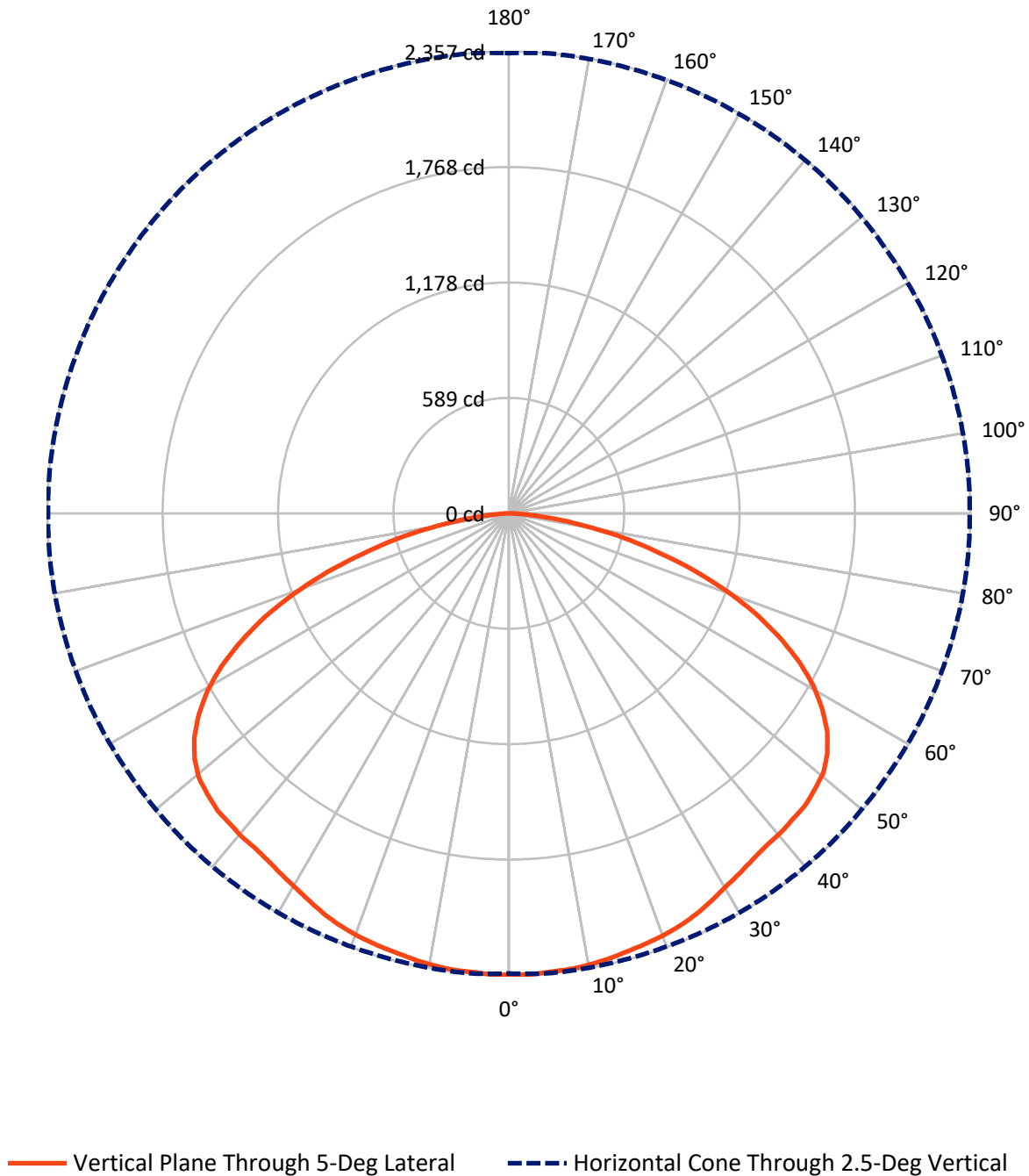
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 10.5 fc  
 Type V - Short - N/A

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## Luminous Intensity Polar Plot



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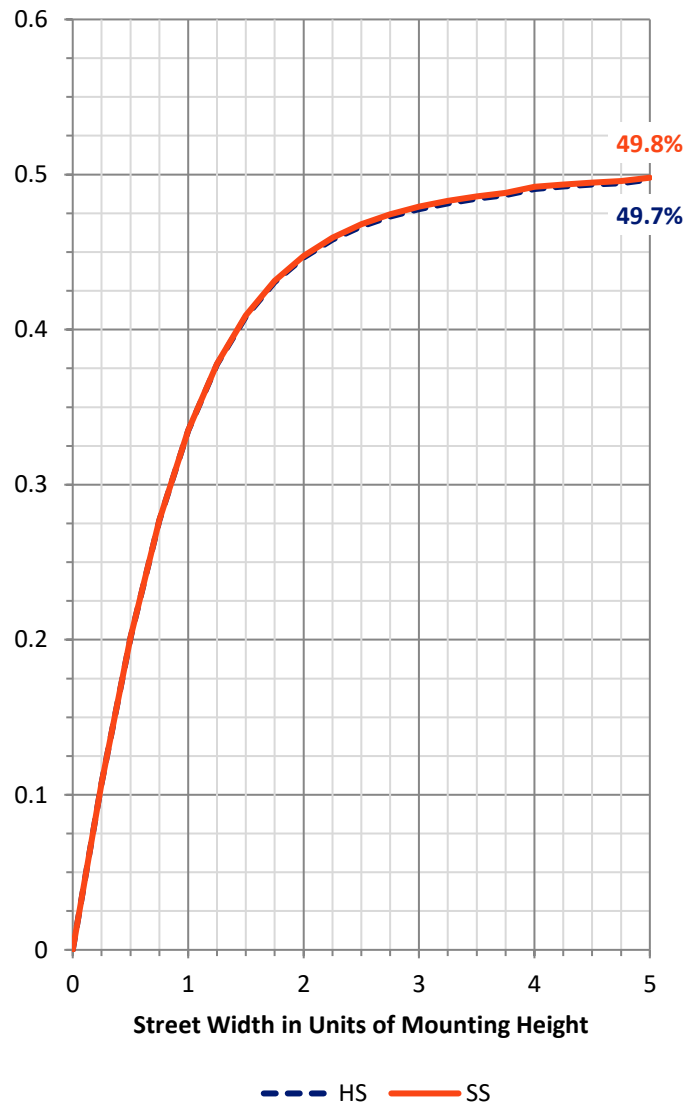
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 4707.5   | 0.0    | 4707.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 4707.5   | 0.0    | 4707.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 9415.0   | 0.0    | 9415.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 224.0  | 2.4       |
| 10°-20°   | 656.1  | 7.0       |
| 20°-30°   | 1043.3 | 11.1      |
| 30°-40°   | 1372.5 | 14.6      |
| 40°-50°   | 1679.8 | 17.8      |
| 50°-60°   | 1819.5 | 19.3      |
| 60°-70°   | 1565.3 | 16.6      |
| 70°-80°   | 880.0  | 9.3       |
| 80°-90°   | 174.5  | 1.9       |
| 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°    | 9415.0 | 100.0     |
| 0°-180°   | 9415.0 | 100.0     |

**Coefficient of Utilization**



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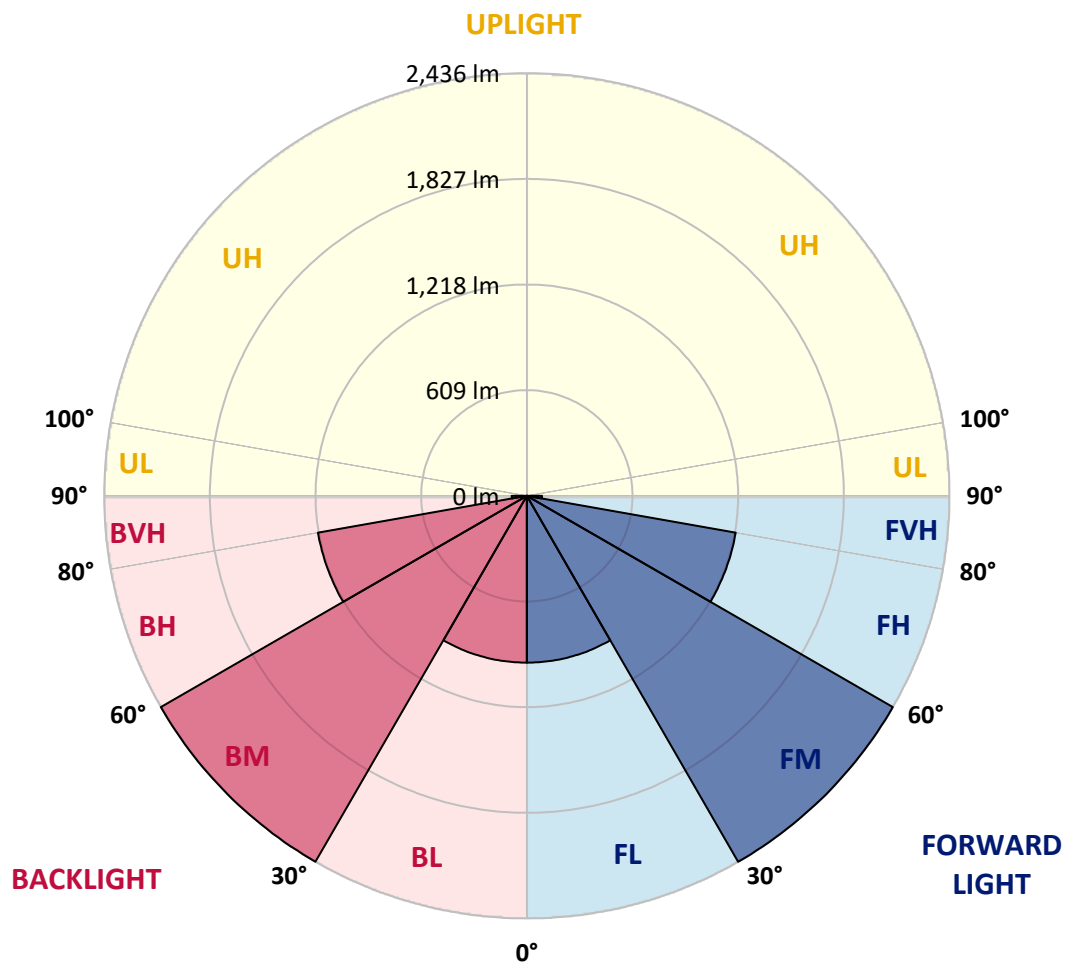
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 961.7  | 10.2      |                         |      |         |
| FM   | (30°-60°)   | 2435.9 | 25.9      |                         |      |         |
| FH   | (60°-80°)   | 1222.7 | 13.0      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 87.2   | 0.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 961.7  | 10.2      | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2435.9 | 25.9      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 1222.7 | 13.0      | B3/2500                 |      | G1/1800 |
| BVH  | (80°-90°)   | 87.2   | 0.9       |                         |      | 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°    | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 | 2355.4 |
| 2.5°  | 2349.4 | 2356.9 | 2353.9 | 2353.9 | 2353.9 | 2353.9 | 2350.9 | 2353.9 | 2353.9 | 2355.4 | 2353.9 |
| 5°    | 2350.9 | 2349.4 | 2349.4 | 2350.9 | 2350.9 | 2352.4 | 2349.4 | 2350.9 | 2352.4 | 2352.4 | 2353.9 |
| 7.5°  | 2346.4 | 2347.9 | 2344.9 | 2347.9 | 2344.9 | 2346.4 | 2346.4 | 2347.9 | 2346.4 | 2347.9 | 2350.9 |
| 10°   | 2337.4 | 2338.9 | 2337.4 | 2337.4 | 2337.4 | 2340.4 | 2334.4 | 2338.9 | 2337.4 | 2338.9 | 2337.4 |
| 12.5° | 2320.9 | 2328.4 | 2325.4 | 2328.4 | 2328.4 | 2328.4 | 2323.9 | 2326.9 | 2328.4 | 2328.4 | 2328.4 |
| 15°   | 2313.4 | 2314.9 | 2310.4 | 2316.4 | 2317.9 | 2319.4 | 2313.4 | 2316.4 | 2316.4 | 2317.9 | 2319.4 |
| 17.5° | 2296.9 | 2304.4 | 2302.9 | 2307.4 | 2305.9 | 2310.4 | 2308.9 | 2307.4 | 2305.9 | 2308.9 | 2305.9 |
| 20°   | 2284.9 | 2292.4 | 2290.9 | 2295.4 | 2296.9 | 2301.4 | 2296.9 | 2296.9 | 2292.4 | 2293.9 | 2298.4 |
| 22.5° | 2272.9 | 2275.9 | 2275.9 | 2280.4 | 2280.4 | 2284.9 | 2280.4 | 2278.9 | 2278.9 | 2277.4 | 2281.9 |
| 25°   | 2253.5 | 2255.0 | 2253.5 | 2258.0 | 2261.0 | 2264.0 | 2262.5 | 2259.5 | 2258.0 | 2258.0 | 2256.5 |
| 27.5° | 2222.0 | 2228.0 | 2231.0 | 2237.0 | 2238.5 | 2243.0 | 2237.0 | 2237.0 | 2234.0 | 2231.0 | 2232.5 |
| 30°   | 2198.0 | 2201.0 | 2201.0 | 2214.5 | 2214.5 | 2222.0 | 2214.5 | 2213.0 | 2211.5 | 2210.0 | 2207.0 |
| 32.5° | 2175.6 | 2180.1 | 2184.5 | 2195.0 | 2202.5 | 2205.5 | 2201.0 | 2198.0 | 2190.5 | 2186.0 | 2184.5 |
| 35°   | 2157.6 | 2159.1 | 2168.1 | 2183.1 | 2192.0 | 2199.5 | 2193.5 | 2186.0 | 2175.6 | 2168.1 | 2174.1 |
| 37.5° | 2144.1 | 2145.6 | 2159.1 | 2178.6 | 2195.0 | 2201.0 | 2192.0 | 2180.1 | 2163.6 | 2154.6 | 2151.6 |
| 40°   | 2132.1 | 2141.1 | 2156.1 | 2183.1 | 2201.0 | 2210.0 | 2202.5 | 2186.0 | 2162.1 | 2144.1 | 2142.6 |
| 42.5° | 2126.1 | 2130.6 | 2153.1 | 2184.5 | 2210.0 | 2222.0 | 2211.5 | 2189.0 | 2159.1 | 2138.1 | 2136.6 |
| 45°   | 2111.1 | 2124.6 | 2145.6 | 2186.0 | 2214.5 | 2229.5 | 2214.5 | 2186.0 | 2150.1 | 2126.1 | 2121.6 |
| 47.5° | 2099.1 | 2103.6 | 2136.6 | 2183.1 | 2217.5 | 2229.5 | 2214.5 | 2178.6 | 2133.6 | 2102.1 | 2099.1 |
| 50°   | 2070.7 | 2081.2 | 2114.1 | 2163.6 | 2204.0 | 2216.0 | 2198.0 | 2150.1 | 2099.1 | 2064.7 | 2058.7 |
| 52.5° | 2027.2 | 2036.2 | 2075.2 | 2136.6 | 2175.6 | 2189.0 | 2162.1 | 2111.1 | 2051.2 | 2009.2 | 2009.2 |
| 55°   | 1959.8 | 1973.3 | 2013.7 | 2076.7 | 2126.1 | 2138.1 | 2106.6 | 2052.7 | 1985.3 | 1943.3 | 1941.8 |
| 57.5° | 1878.9 | 1887.9 | 1931.3 | 2000.3 | 2048.2 | 2066.2 | 2034.7 | 1974.8 | 1907.4 | 1857.9 | 1853.4 |
| 60°   | 1774.0 | 1786.0 | 1832.4 | 1898.4 | 1947.8 | 1962.8 | 1935.8 | 1875.9 | 1807.0 | 1754.5 | 1754.5 |
| 62.5° | 1648.2 | 1661.6 | 1708.1 | 1775.5 | 1826.5 | 1848.9 | 1811.5 | 1754.5 | 1682.6 | 1631.7 | 1627.2 |
| 65°   | 1501.3 | 1513.3 | 1555.3 | 1625.7 | 1678.1 | 1694.6 | 1666.1 | 1606.2 | 1537.3 | 1489.3 | 1484.8 |
| 67.5° | 1336.5 | 1353.0 | 1394.9 | 1454.9 | 1499.8 | 1520.8 | 1502.8 | 1448.9 | 1377.0 | 1327.5 | 1323.0 |
| 70°   | 1158.2 | 1170.2 | 1203.2 | 1258.6 | 1309.5 | 1324.5 | 1297.5 | 1261.6 | 1194.2 | 1149.2 | 1143.2 |
| 72.5° | 967.9  | 978.4  | 1005.4 | 1057.8 | 1093.8 | 1113.3 | 1098.3 | 1051.8 | 997.9  | 960.4  | 966.4  |
| 75°   | 776.1  | 774.6  | 804.6  | 842.1  | 875.0  | 888.5  | 878.0  | 848.0  | 798.6  | 767.1  | 765.6  |
| 77.5° | 584.3  | 599.3  | 609.8  | 641.3  | 668.3  | 678.7  | 663.8  | 639.8  | 602.3  | 576.9  | 581.3  |
| 80°   | 410.5  | 401.5  | 421.0  | 440.5  | 458.5  | 469.0  | 460.0  | 446.5  | 421.0  | 401.5  | 398.6  |
| 82.5° | 251.7  | 244.2  | 253.2  | 271.2  | 283.2  | 286.2  | 287.7  | 271.2  | 260.7  | 245.7  | 248.7  |
| 85°   | 110.9  | 112.4  | 119.9  | 131.9  | 133.4  | 134.8  | 134.8  | 131.9  | 119.9  | 118.4  | 115.4  |
| 87.5° | 27.0   | 27.0   | 28.5   | 33.0   | 33.0   | 34.5   | 34.5   | 30.0   | 28.5   | 25.5   | 27.0   |
| 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)