

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: P821145

Luminaire Tested: **TT-D4-830-24VDC-5CQ-PM**

Issue Date: 2/18/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P821145  
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-D4-830-24VDC-5CQ-PM  
Description: TOPTIER LED SITE LUMINAIRE  
3000K, 80 CRI LEDS AND CONCENTRATED DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

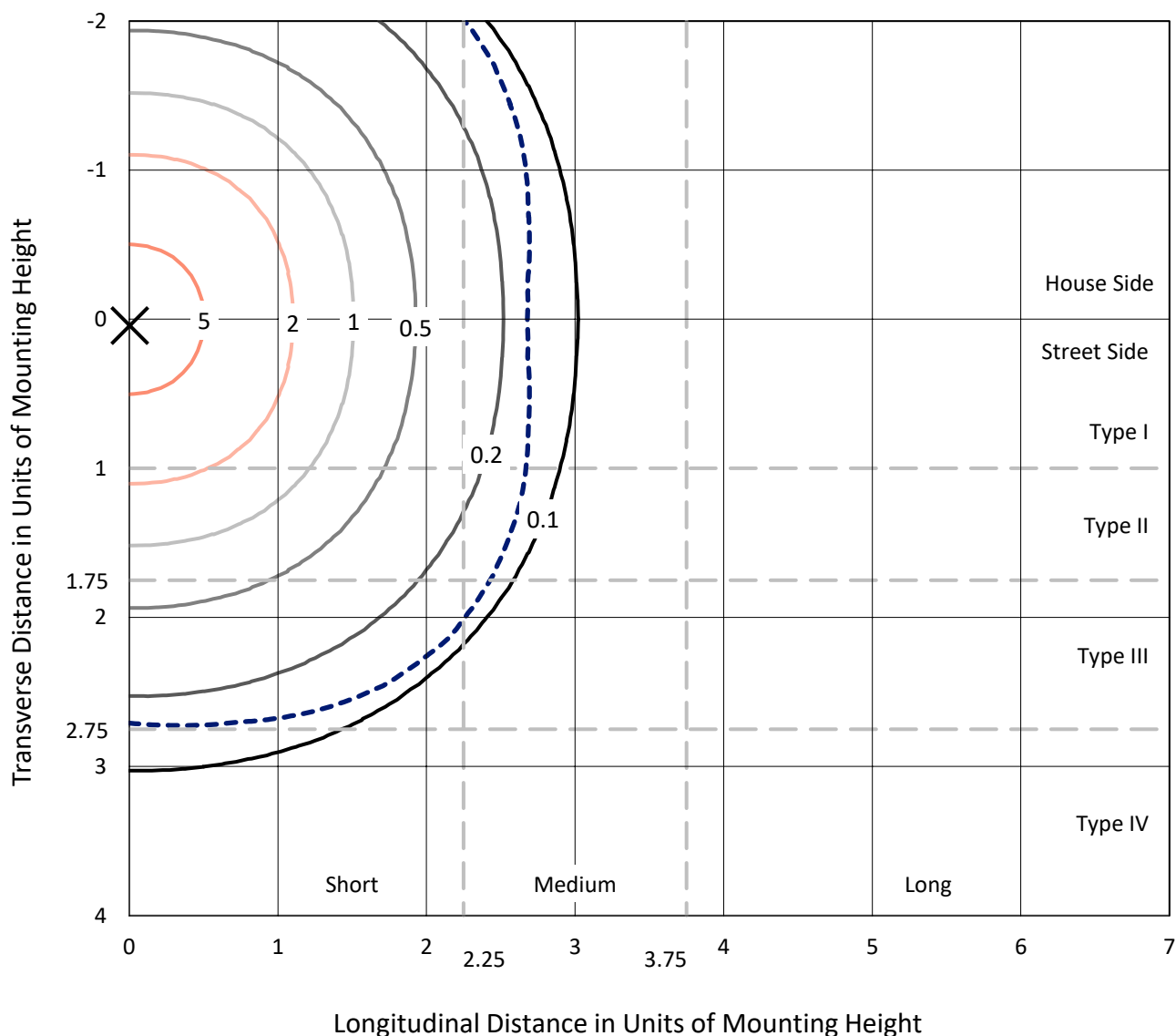
Lumens per Lamp: N/A  
Luminaire Lumens: 6660 lumens  
Efficiency: N/A  
Efficacy: 116.8 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B2 - U0 - G1

Input Watts (W): 57  
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

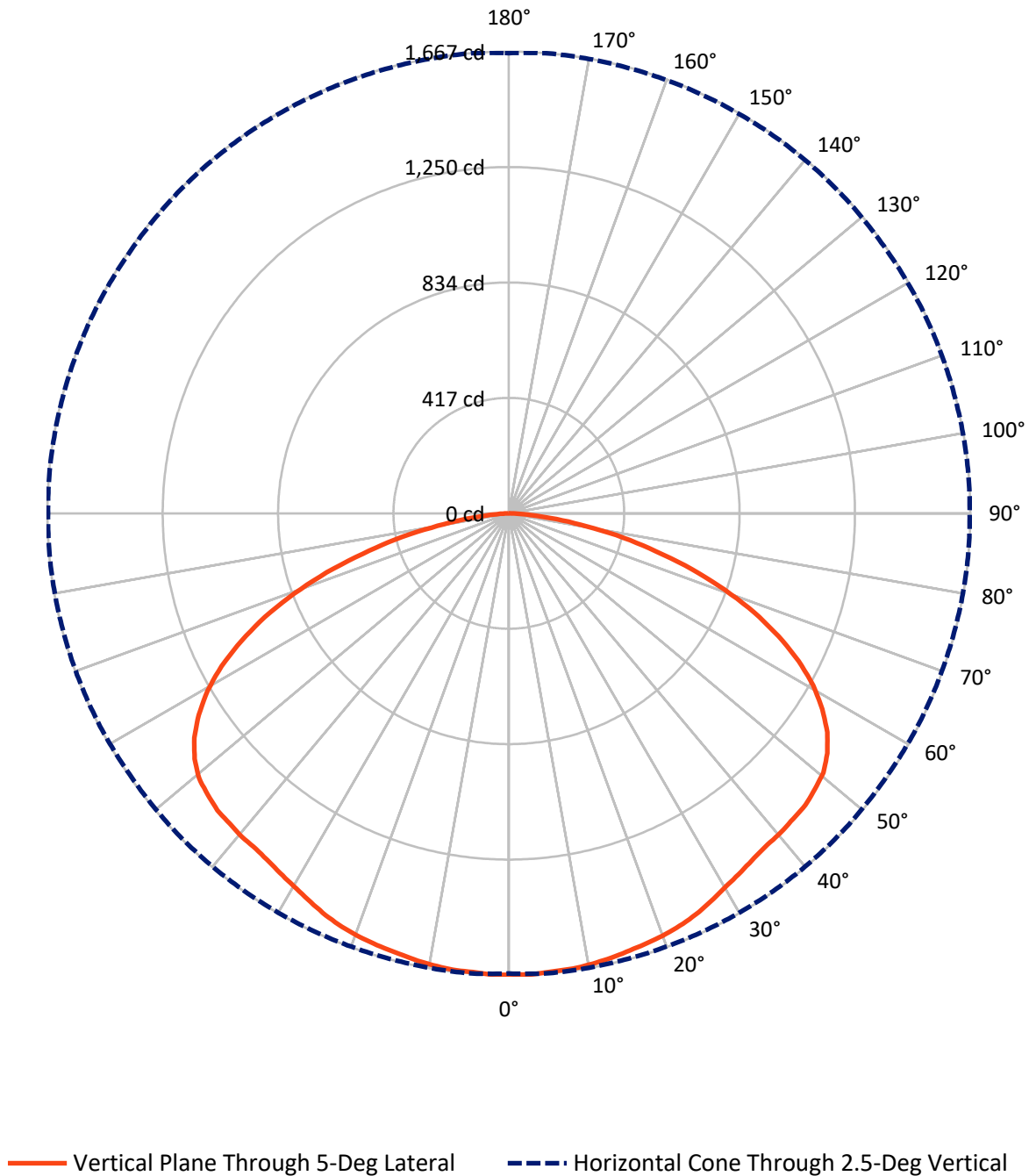
× Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 7.4 fc  
 Type V - Short - N/A

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## Luminous Intensity Polar Plot



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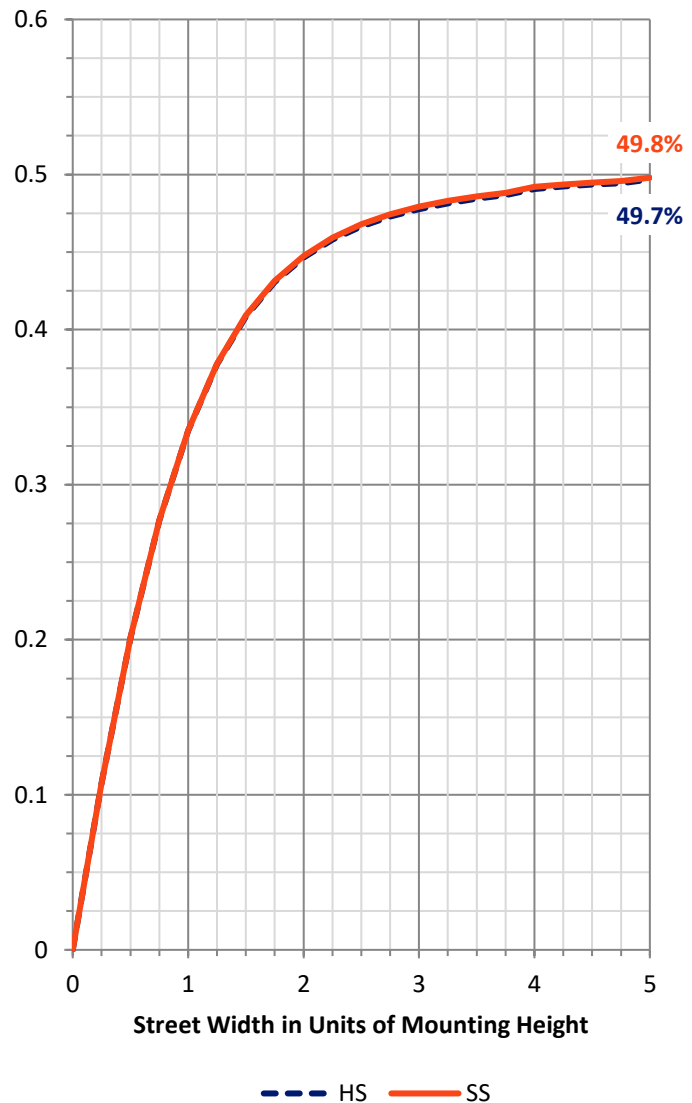
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3330.0   | 0.0    | 3330.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 3330.0   | 0.0    | 3330.0 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 6660.0   | 0.0    | 6660.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 158.5  | 2.4       |
| 10°-20°   | 464.1  | 7.0       |
| 20°-30°   | 738.0  | 11.1      |
| 30°-40°   | 970.9  | 14.6      |
| 40°-50°   | 1188.3 | 17.8      |
| 50°-60°   | 1287.1 | 19.3      |
| 60°-70°   | 1107.3 | 16.6      |
| 70°-80°   | 622.5  | 9.3       |
| 80°-90°   | 123.4  | 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°    | 6660.0 | 100.0     |
| 0°-180°   | 6660.0 | 100.0     |

**Coefficient of Utilization**



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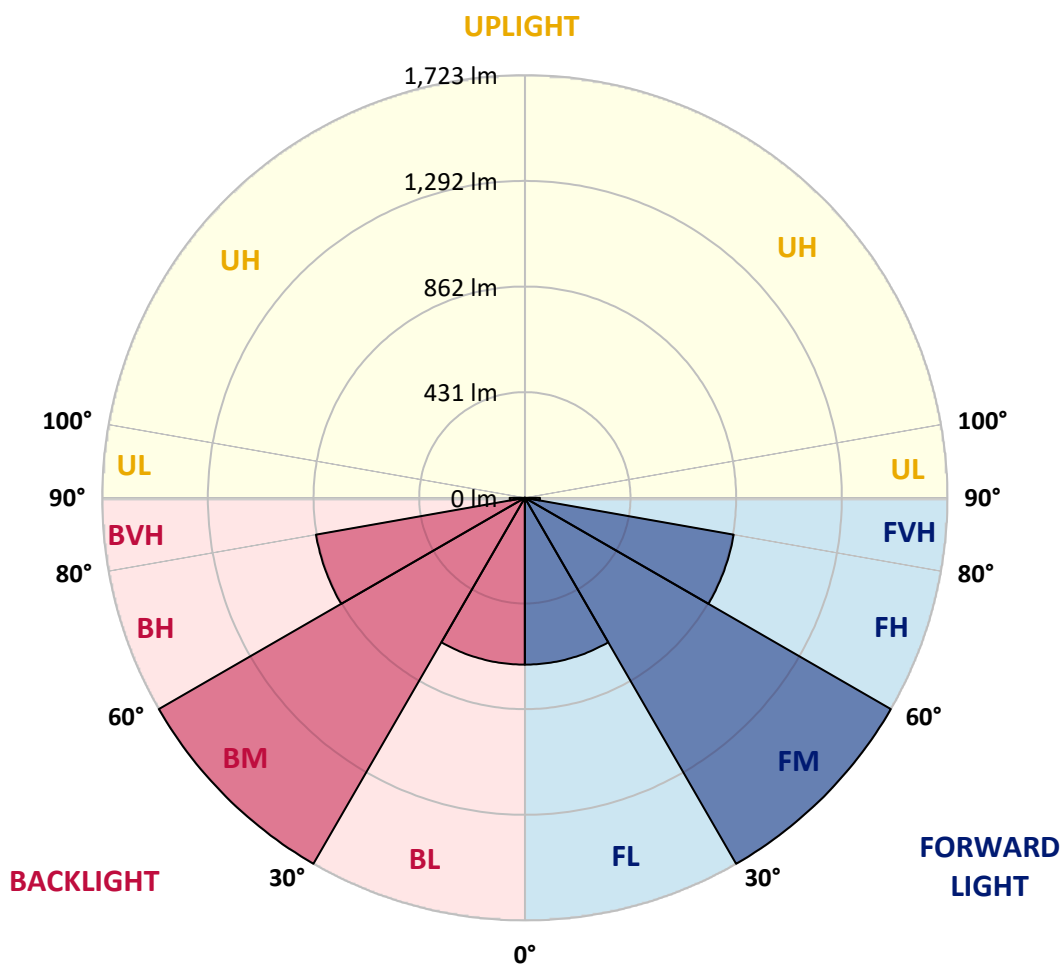
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 680.3  | 10.2      |                         |      |         |
| FM   | (30°-60°)   | 1723.1 | 25.9      |                         |      |         |
| FH   | (60°-80°)   | 864.9  | 13.0      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 61.7   | 0.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 680.3  | 10.2      | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1723.1 | 25.9      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 864.9  | 13.0      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 61.7   | 0.9       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 | 1666.1 |
| 2.5°  | 1661.9 | 1667.2 | 1665.1 | 1665.1 | 1665.1 | 1665.1 | 1663.0 | 1665.1 | 1665.1 | 1666.1 | 1665.1 |
| 5°    | 1663.0 | 1661.9 | 1661.9 | 1663.0 | 1663.0 | 1664.0 | 1661.9 | 1663.0 | 1664.0 | 1664.0 | 1665.1 |
| 7.5°  | 1659.8 | 1660.8 | 1658.7 | 1660.8 | 1658.7 | 1659.8 | 1659.8 | 1660.8 | 1659.8 | 1660.8 | 1663.0 |
| 10°   | 1653.4 | 1654.5 | 1653.4 | 1653.4 | 1653.4 | 1655.5 | 1651.3 | 1654.5 | 1653.4 | 1654.5 | 1653.4 |
| 12.5° | 1641.8 | 1647.1 | 1644.9 | 1647.1 | 1647.1 | 1647.1 | 1643.9 | 1646.0 | 1647.1 | 1647.1 | 1647.1 |
| 15°   | 1636.5 | 1637.5 | 1634.3 | 1638.6 | 1639.6 | 1640.7 | 1636.5 | 1638.6 | 1638.6 | 1639.6 | 1640.7 |
| 17.5° | 1624.8 | 1630.1 | 1629.0 | 1632.2 | 1631.2 | 1634.3 | 1633.3 | 1632.2 | 1631.2 | 1633.3 | 1631.2 |
| 20°   | 1616.3 | 1621.6 | 1620.6 | 1623.7 | 1624.8 | 1628.0 | 1624.8 | 1624.8 | 1621.6 | 1622.7 | 1625.9 |
| 22.5° | 1607.8 | 1610.0 | 1610.0 | 1613.1 | 1613.1 | 1616.3 | 1613.1 | 1612.1 | 1612.1 | 1611.0 | 1614.2 |
| 25°   | 1594.1 | 1595.1 | 1594.1 | 1597.2 | 1599.4 | 1601.5 | 1600.4 | 1598.3 | 1597.2 | 1597.2 | 1596.2 |
| 27.5° | 1571.8 | 1576.0 | 1578.2 | 1582.4 | 1583.5 | 1586.6 | 1582.4 | 1582.4 | 1580.3 | 1578.2 | 1579.2 |
| 30°   | 1554.8 | 1557.0 | 1557.0 | 1566.5 | 1566.5 | 1571.8 | 1566.5 | 1565.4 | 1564.4 | 1563.3 | 1561.2 |
| 32.5° | 1539.0 | 1542.1 | 1545.3 | 1552.7 | 1558.0 | 1560.1 | 1557.0 | 1554.8 | 1549.5 | 1546.4 | 1545.3 |
| 35°   | 1526.2 | 1527.3 | 1533.7 | 1544.3 | 1550.6 | 1555.9 | 1551.7 | 1546.4 | 1539.0 | 1533.7 | 1537.9 |
| 37.5° | 1516.7 | 1517.8 | 1527.3 | 1541.1 | 1552.7 | 1557.0 | 1550.6 | 1542.1 | 1530.5 | 1524.1 | 1522.0 |
| 40°   | 1508.2 | 1514.6 | 1525.2 | 1544.3 | 1557.0 | 1563.3 | 1558.0 | 1546.4 | 1529.4 | 1516.7 | 1515.6 |
| 42.5° | 1504.0 | 1507.2 | 1523.1 | 1545.3 | 1563.3 | 1571.8 | 1564.4 | 1548.5 | 1527.3 | 1512.5 | 1511.4 |
| 45°   | 1493.4 | 1502.9 | 1517.8 | 1546.4 | 1566.5 | 1577.1 | 1566.5 | 1546.4 | 1520.9 | 1504.0 | 1500.8 |
| 47.5° | 1484.9 | 1488.1 | 1511.4 | 1544.3 | 1568.6 | 1577.1 | 1566.5 | 1541.1 | 1509.3 | 1487.0 | 1484.9 |
| 50°   | 1464.8 | 1472.2 | 1495.5 | 1530.5 | 1559.1 | 1567.6 | 1554.8 | 1520.9 | 1484.9 | 1460.5 | 1456.3 |
| 52.5° | 1434.0 | 1440.4 | 1467.9 | 1511.4 | 1539.0 | 1548.5 | 1529.4 | 1493.4 | 1451.0 | 1421.3 | 1421.3 |
| 55°   | 1386.3 | 1395.9 | 1424.5 | 1469.0 | 1504.0 | 1512.5 | 1490.2 | 1452.0 | 1404.3 | 1374.7 | 1373.6 |
| 57.5° | 1329.1 | 1335.5 | 1366.2 | 1414.9 | 1448.9 | 1461.6 | 1439.3 | 1396.9 | 1349.2 | 1314.3 | 1311.1 |
| 60°   | 1254.9 | 1263.4 | 1296.2 | 1342.9 | 1377.8 | 1388.4 | 1369.4 | 1327.0 | 1278.2 | 1241.1 | 1241.1 |
| 62.5° | 1165.9 | 1175.4 | 1208.3 | 1256.0 | 1292.0 | 1307.9 | 1281.4 | 1241.1 | 1190.2 | 1154.2 | 1151.0 |
| 65°   | 1062.0 | 1070.5 | 1100.2 | 1150.0 | 1187.1 | 1198.7 | 1178.6 | 1136.2 | 1087.4 | 1053.5 | 1050.3 |
| 67.5° | 945.4  | 957.1  | 986.8  | 1029.1 | 1060.9 | 1075.8 | 1063.1 | 1024.9 | 974.0  | 939.1  | 935.9  |
| 70°   | 819.3  | 827.8  | 851.1  | 890.3  | 926.3  | 936.9  | 917.9  | 892.4  | 844.7  | 812.9  | 808.7  |
| 72.5° | 684.7  | 692.1  | 711.2  | 748.3  | 773.7  | 787.5  | 776.9  | 744.0  | 705.9  | 679.4  | 683.6  |
| 75°   | 549.0  | 548.0  | 569.2  | 595.7  | 619.0  | 628.5  | 621.1  | 599.9  | 564.9  | 542.7  | 541.6  |
| 77.5° | 413.4  | 424.0  | 431.4  | 453.6  | 472.7  | 480.1  | 469.5  | 452.6  | 426.1  | 408.1  | 411.2  |
| 80°   | 290.4  | 284.0  | 297.8  | 311.6  | 324.3  | 331.7  | 325.4  | 315.8  | 297.8  | 284.0  | 281.9  |
| 82.5° | 178.1  | 172.8  | 179.1  | 191.8  | 200.3  | 202.4  | 203.5  | 191.8  | 184.4  | 173.8  | 175.9  |
| 85°   | 78.4   | 79.5   | 84.8   | 93.3   | 94.3   | 95.4   | 95.4   | 93.3   | 84.8   | 83.7   | 81.6   |
| 87.5° | 19.1   | 19.1   | 20.1   | 23.3   | 23.3   | 24.4   | 24.4   | 21.2   | 20.1   | 18.0   | 19.1   |
| 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)