

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: P197525

Luminaire Tested: **TT-C5-LED-E1-CQ-LWR-LW-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197525  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P115438)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-C5-LED-E1-CQ-LWR-LW-8030  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE  
CONCENTRATED DISTRIBUTION WITH LumaWatt WIRELESS SENSOR  
Light Source: (160) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6733.3 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Luminous Opening: Circular (Dia: 1.12' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B2 - U0 - G1

Input Watts (W): 77  
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

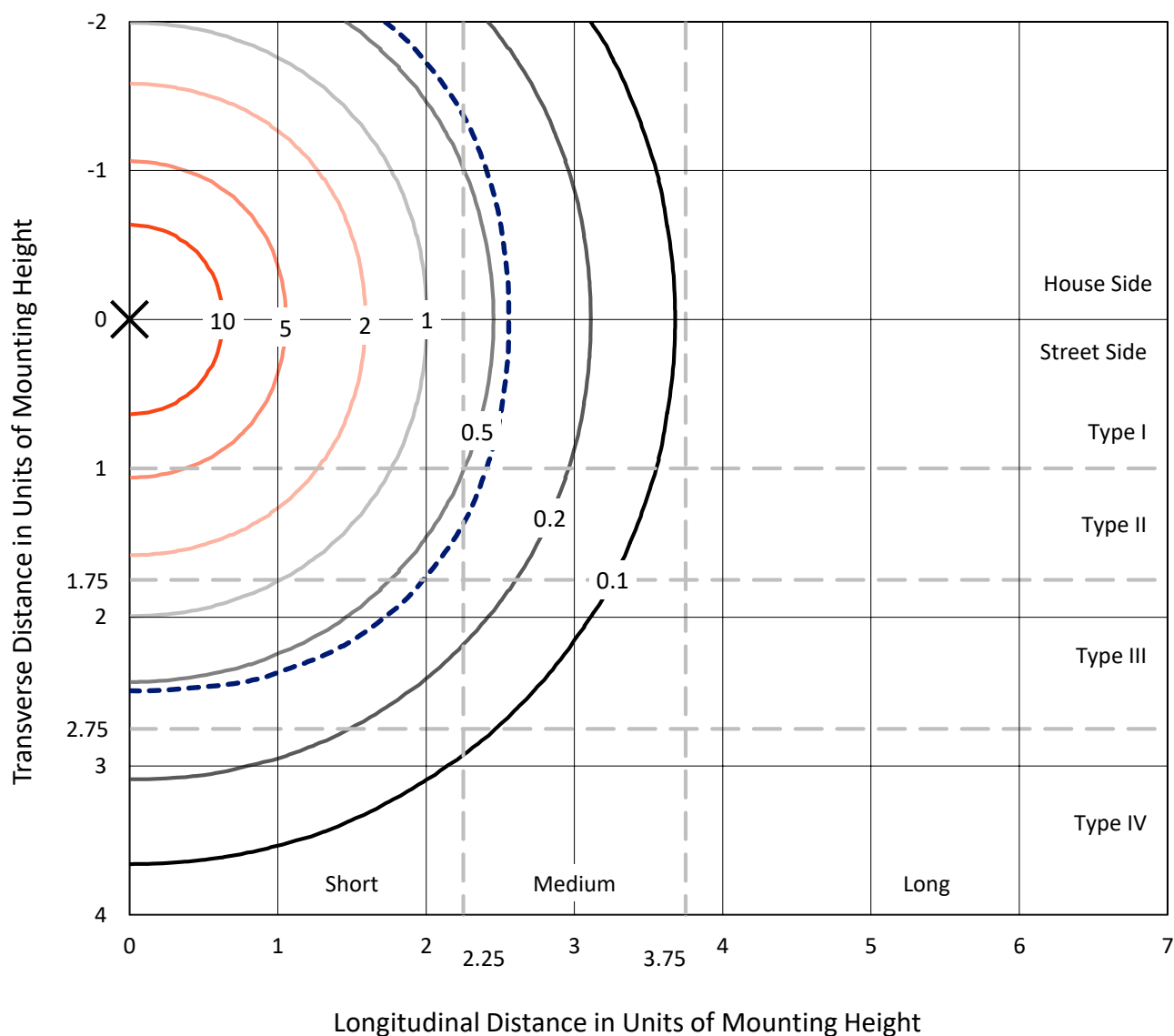


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 --- 1/2 Max cd

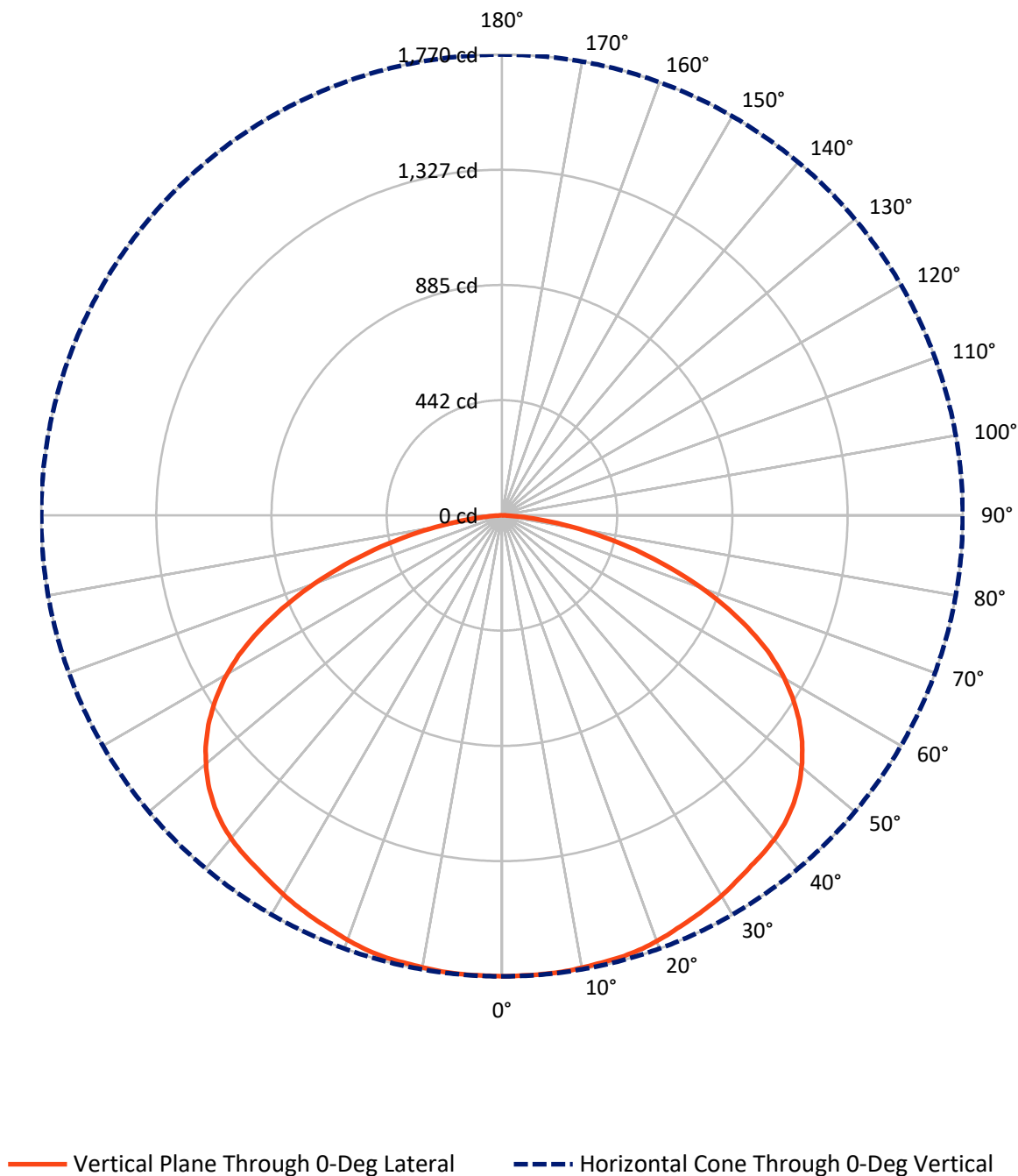


Based on 10 foot mounting height. Maximum calculated value = 17.7 fc  
 Type V - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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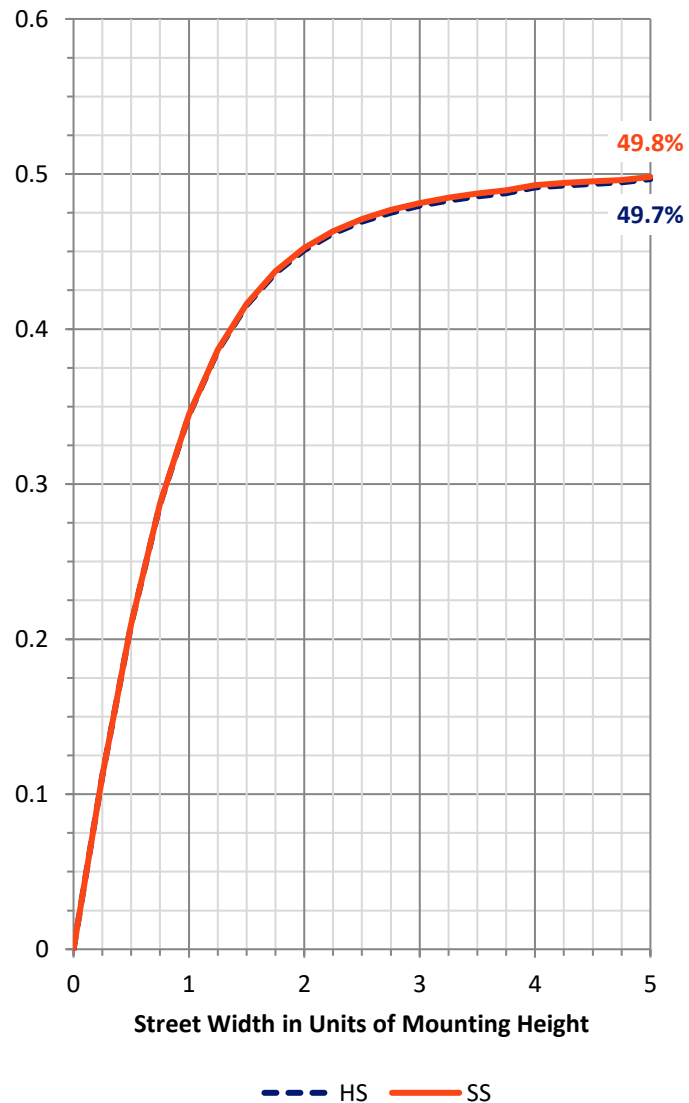
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3366.7   | 0.0    | 3366.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Street Side</b> | Lumens    | 3366.7   | 0.0    | 3366.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0   |
| <b>Total</b>       | Lumens    | 6733.3   | 0.0    | 6733.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 168.6  | 2.5       |
| 10°-20°   | 496.6  | 7.4       |
| 20°-30°   | 790.8  | 11.7      |
| 30°-40°   | 1036.9 | 15.4      |
| 40°-50°   | 1222.9 | 18.2      |
| 50°-60°   | 1266.5 | 18.8      |
| 60°-70°   | 1059.2 | 15.7      |
| 70°-80°   | 577.3  | 8.6       |
| 80°-90°   | 114.6  | 1.7       |
| 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°    | 6733.3 | 100.0     |
| 0°-180°   | 6733.3 | 100.0     |

**Coefficient of Utilization**



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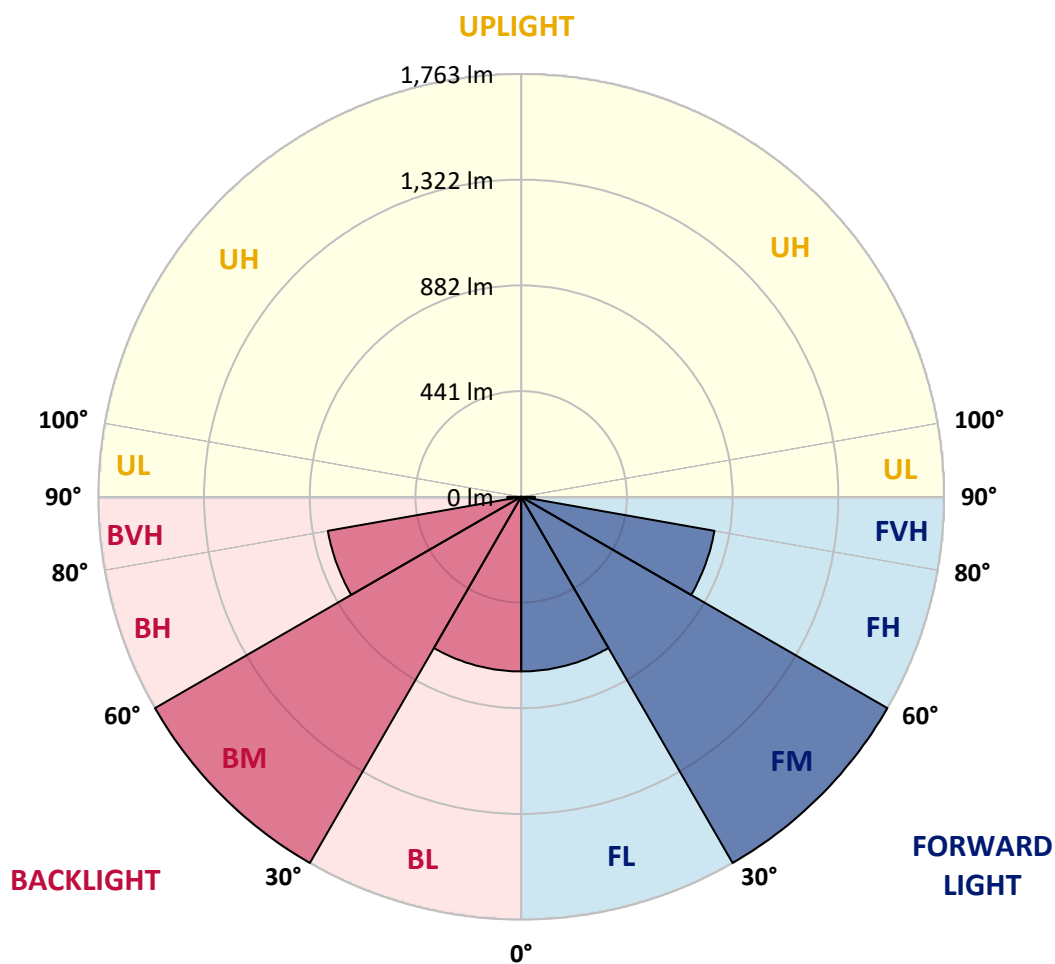
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 728.0  | 10.8      |                         |      |         |
| FM   | (30°-60°)   | 1763.1 | 26.2      |                         |      |         |
| FH   | (60°-80°)   | 818.3  | 12.2      |                         |      | G1/1800 |
| FVH  | (80°-90°)   | 57.3   | 0.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 728.0  | 10.8      | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1763.1 | 26.2      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 818.3  | 12.2      | B2/1000                 |      | G1/1800 |
| BVH  | (80°-90°)   | 57.3   | 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°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 |
| 2.5°  | 1768.1 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1768.1 | 1769.5 | 1769.5 |
| 5°    | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1769.5 | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1768.1 |
| 7.5°  | 1766.7 | 1765.3 | 1765.3 | 1765.3 | 1765.3 | 1765.3 | 1766.7 | 1766.7 | 1766.7 | 1766.7 | 1766.7 |
| 10°   | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 |
| 12.5° | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1759.6 | 1759.6 | 1759.6 | 1759.6 | 1759.6 | 1759.6 | 1758.2 |
| 15°   | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 | 1755.4 |
| 17.5° | 1748.3 | 1748.3 | 1748.3 | 1748.3 | 1749.7 | 1749.7 | 1749.7 | 1749.7 | 1749.7 | 1749.7 | 1749.7 |
| 20°   | 1736.9 | 1736.9 | 1736.9 | 1736.9 | 1736.9 | 1738.4 | 1739.8 | 1739.8 | 1739.8 | 1739.8 | 1739.8 |
| 22.5° | 1722.8 | 1722.8 | 1724.2 | 1724.2 | 1725.6 | 1725.6 | 1727.0 | 1727.0 | 1727.0 | 1727.0 | 1727.0 |
| 25°   | 1710.0 | 1710.0 | 1710.0 | 1711.4 | 1711.4 | 1711.4 | 1712.9 | 1714.3 | 1714.3 | 1714.3 | 1712.9 |
| 27.5° | 1697.3 | 1697.3 | 1697.3 | 1698.7 | 1698.7 | 1698.7 | 1700.1 | 1700.1 | 1701.5 | 1700.1 | 1700.1 |
| 30°   | 1683.1 | 1681.7 | 1681.7 | 1683.1 | 1684.5 | 1684.5 | 1685.9 | 1685.9 | 1685.9 | 1685.9 | 1684.5 |
| 32.5° | 1666.1 | 1666.1 | 1667.5 | 1668.9 | 1668.9 | 1670.4 | 1671.8 | 1671.8 | 1671.8 | 1673.2 | 1670.4 |
| 35°   | 1650.5 | 1651.9 | 1651.9 | 1653.4 | 1656.2 | 1657.6 | 1659.0 | 1660.4 | 1660.4 | 1660.4 | 1657.6 |
| 37.5° | 1637.8 | 1639.2 | 1640.6 | 1643.4 | 1646.3 | 1649.1 | 1651.9 | 1654.8 | 1653.4 | 1653.4 | 1649.1 |
| 40°   | 1622.2 | 1623.6 | 1626.4 | 1629.3 | 1634.9 | 1637.8 | 1642.0 | 1644.9 | 1646.3 | 1644.9 | 1640.6 |
| 42.5° | 1600.9 | 1602.4 | 1605.2 | 1609.4 | 1616.5 | 1622.2 | 1626.4 | 1630.7 | 1632.1 | 1630.7 | 1626.4 |
| 45°   | 1572.6 | 1574.0 | 1576.9 | 1582.5 | 1591.0 | 1596.7 | 1603.8 | 1608.0 | 1610.9 | 1610.9 | 1606.6 |
| 47.5° | 1537.2 | 1538.6 | 1542.8 | 1548.5 | 1557.0 | 1564.1 | 1572.6 | 1578.3 | 1581.1 | 1583.9 | 1579.7 |
| 50°   | 1493.3 | 1494.7 | 1500.3 | 1507.4 | 1514.5 | 1524.4 | 1534.3 | 1542.8 | 1547.1 | 1548.5 | 1547.1 |
| 52.5° | 1443.7 | 1445.1 | 1450.8 | 1457.8 | 1467.8 | 1479.1 | 1490.4 | 1500.3 | 1506.0 | 1508.8 | 1506.0 |
| 55°   | 1384.2 | 1387.0 | 1391.3 | 1401.2 | 1412.5 | 1422.4 | 1436.6 | 1447.9 | 1455.0 | 1456.4 | 1455.0 |
| 57.5° | 1314.8 | 1319.0 | 1323.3 | 1334.6 | 1345.9 | 1360.1 | 1371.4 | 1382.8 | 1391.3 | 1392.7 | 1392.7 |
| 60°   | 1236.8 | 1239.7 | 1243.9 | 1255.2 | 1268.0 | 1277.9 | 1293.5 | 1304.8 | 1311.9 | 1311.9 | 1313.3 |
| 62.5° | 1144.7 | 1147.6 | 1154.7 | 1163.2 | 1177.3 | 1187.2 | 1200.0 | 1211.3 | 1218.4 | 1221.2 | 1219.8 |
| 65°   | 1037.1 | 1039.9 | 1044.2 | 1055.5 | 1066.8 | 1078.2 | 1090.9 | 1100.8 | 1107.9 | 1109.3 | 1107.9 |
| 67.5° | 918.1  | 920.9  | 923.7  | 937.9  | 949.2  | 953.5  | 969.1  | 977.6  | 981.8  | 983.2  | 983.2  |
| 70°   | 792.0  | 793.4  | 797.6  | 804.7  | 817.5  | 821.7  | 831.6  | 838.7  | 841.6  | 847.2  | 843.0  |
| 72.5° | 660.2  | 663.0  | 673.0  | 674.4  | 684.3  | 690.0  | 692.8  | 692.8  | 699.9  | 699.9  | 701.3  |
| 75°   | 529.9  | 531.3  | 535.5  | 537.0  | 544.0  | 544.0  | 542.6  | 545.5  | 551.1  | 551.1  | 552.5  |
| 77.5° | 400.9  | 400.9  | 408.0  | 402.4  | 405.2  | 399.5  | 402.4  | 399.5  | 403.8  | 402.4  | 403.8  |
| 80°   | 280.5  | 280.5  | 284.8  | 279.1  | 280.5  | 274.9  | 276.3  | 274.9  | 274.9  | 276.3  | 276.3  |
| 82.5° | 172.8  | 174.3  | 177.1  | 172.8  | 172.8  | 168.6  | 170.0  | 171.4  | 171.4  | 170.0  | 168.6  |
| 85°   | 85.0   | 85.0   | 87.8   | 86.4   | 85.0   | 82.2   | 83.6   | 85.0   | 85.0   | 83.6   | 83.6   |
| 87.5° | 22.7   | 22.7   | 24.1   | 24.1   | 22.7   | 21.3   | 22.7   | 24.1   | 24.1   | 24.1   | 22.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 | 1769.5 |
| 2.5°  | 1768.1 | 1768.1 | 1769.5 | 1768.1 | 1769.5 | 1768.1 | 1769.5 | 1769.5 |
| 5°    | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1768.1 | 1768.1 |
| 7.5°  | 1765.3 | 1766.7 | 1765.3 | 1765.3 | 1765.3 | 1766.7 | 1765.3 | 1766.7 |
| 10°   | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 | 1762.4 |
| 12.5° | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1758.2 | 1756.8 |
| 15°   | 1755.4 | 1753.9 | 1753.9 | 1753.9 | 1752.5 | 1752.5 | 1752.5 | 1752.5 |
| 17.5° | 1749.7 | 1748.3 | 1746.9 | 1746.9 | 1746.9 | 1746.9 | 1745.4 | 1745.4 |
| 20°   | 1739.8 | 1738.4 | 1736.9 | 1736.9 | 1735.5 | 1735.5 | 1734.1 | 1734.1 |
| 22.5° | 1725.6 | 1725.6 | 1724.2 | 1722.8 | 1722.8 | 1721.4 | 1721.4 | 1719.9 |
| 25°   | 1712.9 | 1711.4 | 1710.0 | 1708.6 | 1707.2 | 1707.2 | 1705.8 | 1704.4 |
| 27.5° | 1698.7 | 1695.9 | 1694.4 | 1693.0 | 1691.6 | 1690.2 | 1688.8 | 1687.4 |
| 30°   | 1683.1 | 1680.3 | 1677.4 | 1676.0 | 1673.2 | 1670.4 | 1668.9 | 1667.5 |
| 32.5° | 1667.5 | 1664.7 | 1660.4 | 1656.2 | 1653.4 | 1650.5 | 1647.7 | 1646.3 |
| 35°   | 1654.8 | 1649.1 | 1644.9 | 1639.2 | 1634.9 | 1630.7 | 1629.3 | 1627.9 |
| 37.5° | 1644.9 | 1639.2 | 1632.1 | 1626.4 | 1622.2 | 1616.5 | 1613.7 | 1610.9 |
| 40°   | 1634.9 | 1627.9 | 1619.4 | 1612.3 | 1606.6 | 1599.5 | 1596.7 | 1593.9 |
| 42.5° | 1620.8 | 1612.3 | 1603.8 | 1595.3 | 1586.8 | 1579.7 | 1575.4 | 1572.6 |
| 45°   | 1600.9 | 1592.4 | 1582.5 | 1571.2 | 1562.7 | 1554.2 | 1549.9 | 1547.1 |
| 47.5° | 1574.0 | 1565.5 | 1554.2 | 1544.3 | 1534.3 | 1525.8 | 1520.2 | 1517.3 |
| 50°   | 1541.4 | 1532.9 | 1521.6 | 1510.3 | 1500.3 | 1490.4 | 1486.2 | 1481.9 |
| 52.5° | 1500.3 | 1493.3 | 1480.5 | 1472.0 | 1460.7 | 1450.8 | 1446.5 | 1443.7 |
| 55°   | 1449.3 | 1442.3 | 1429.5 | 1421.0 | 1409.7 | 1401.2 | 1395.5 | 1391.3 |
| 57.5° | 1387.0 | 1381.3 | 1367.2 | 1358.7 | 1347.3 | 1338.8 | 1334.6 | 1331.8 |
| 60°   | 1310.5 | 1304.8 | 1290.7 | 1282.2 | 1272.2 | 1262.3 | 1259.5 | 1256.7 |
| 62.5° | 1215.6 | 1212.7 | 1201.4 | 1191.5 | 1181.6 | 1171.7 | 1168.8 | 1167.4 |
| 65°   | 1105.1 | 1102.2 | 1092.3 | 1083.8 | 1075.3 | 1066.8 | 1064.0 | 1061.2 |
| 67.5° | 979.0  | 977.6  | 969.1  | 962.0  | 956.3  | 947.8  | 946.4  | 943.6  |
| 70°   | 844.4  | 841.6  | 834.5  | 828.8  | 824.6  | 817.5  | 816.1  | 813.2  |
| 72.5° | 704.1  | 702.7  | 698.5  | 691.4  | 691.4  | 681.5  | 680.0  | 678.6  |
| 75°   | 549.7  | 556.8  | 551.1  | 548.3  | 548.3  | 542.6  | 542.6  | 541.2  |
| 77.5° | 402.4  | 409.4  | 413.7  | 408.0  | 413.7  | 408.0  | 408.0  | 406.6  |
| 80°   | 274.9  | 280.5  | 284.8  | 280.5  | 287.6  | 283.4  | 283.4  | 289.0  |
| 82.5° | 167.2  | 172.8  | 175.7  | 174.3  | 178.5  | 177.1  | 175.7  | 179.9  |
| 85°   | 82.2   | 85.0   | 86.4   | 86.4   | 87.8   | 85.0   | 87.8   | 89.3   |
| 87.5° | 21.3   | 22.7   | 24.1   | 22.7   | 24.1   | 24.1   | 24.1   | 25.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)