

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: P227846

Luminaire Tested: **ISS-AF-1200-LED-E1-T4FT-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227846
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-1200-LED-E1-T4FT-8030
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW
Light Source: (16) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5312 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

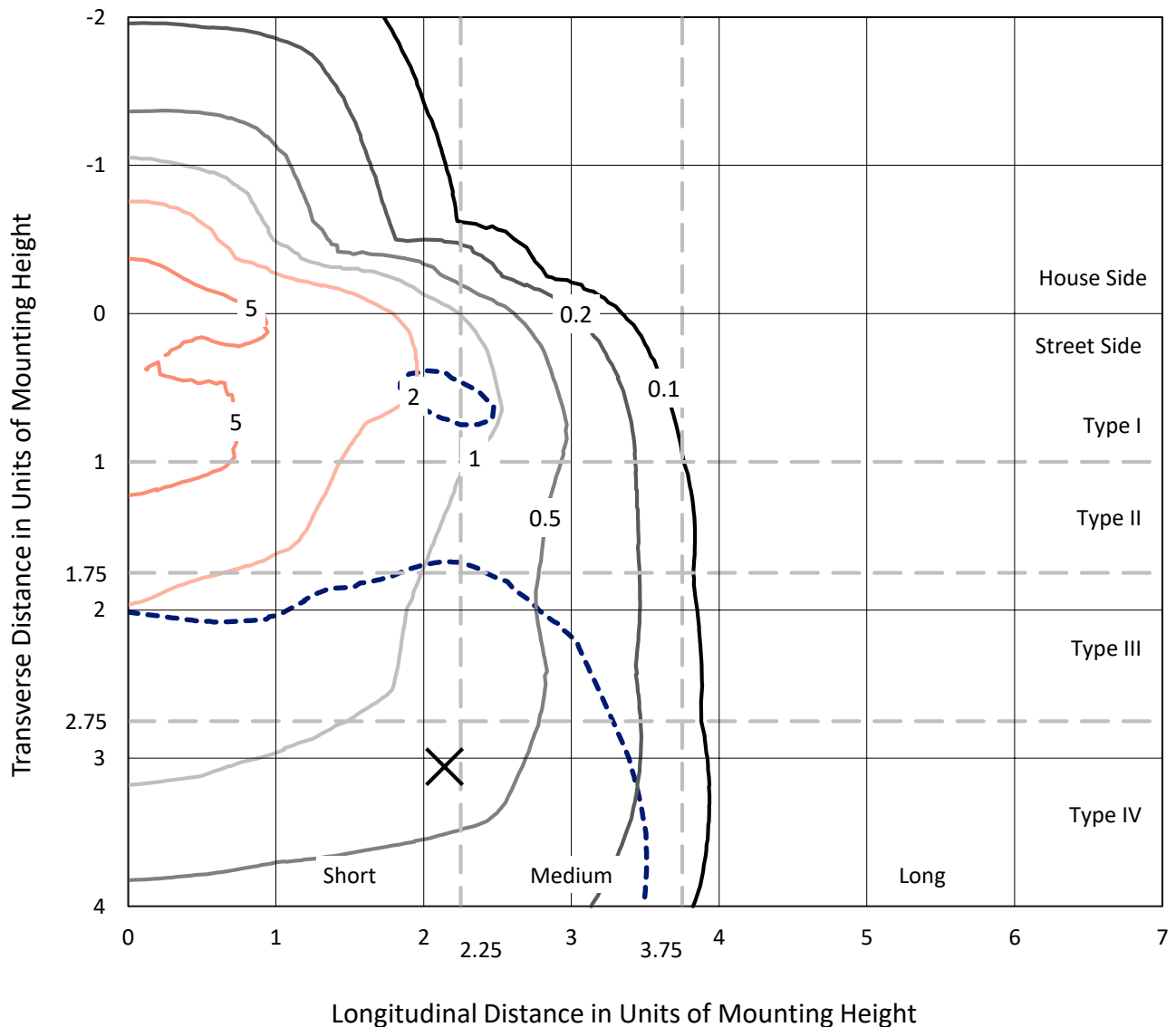
Input Watts (W): 66
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

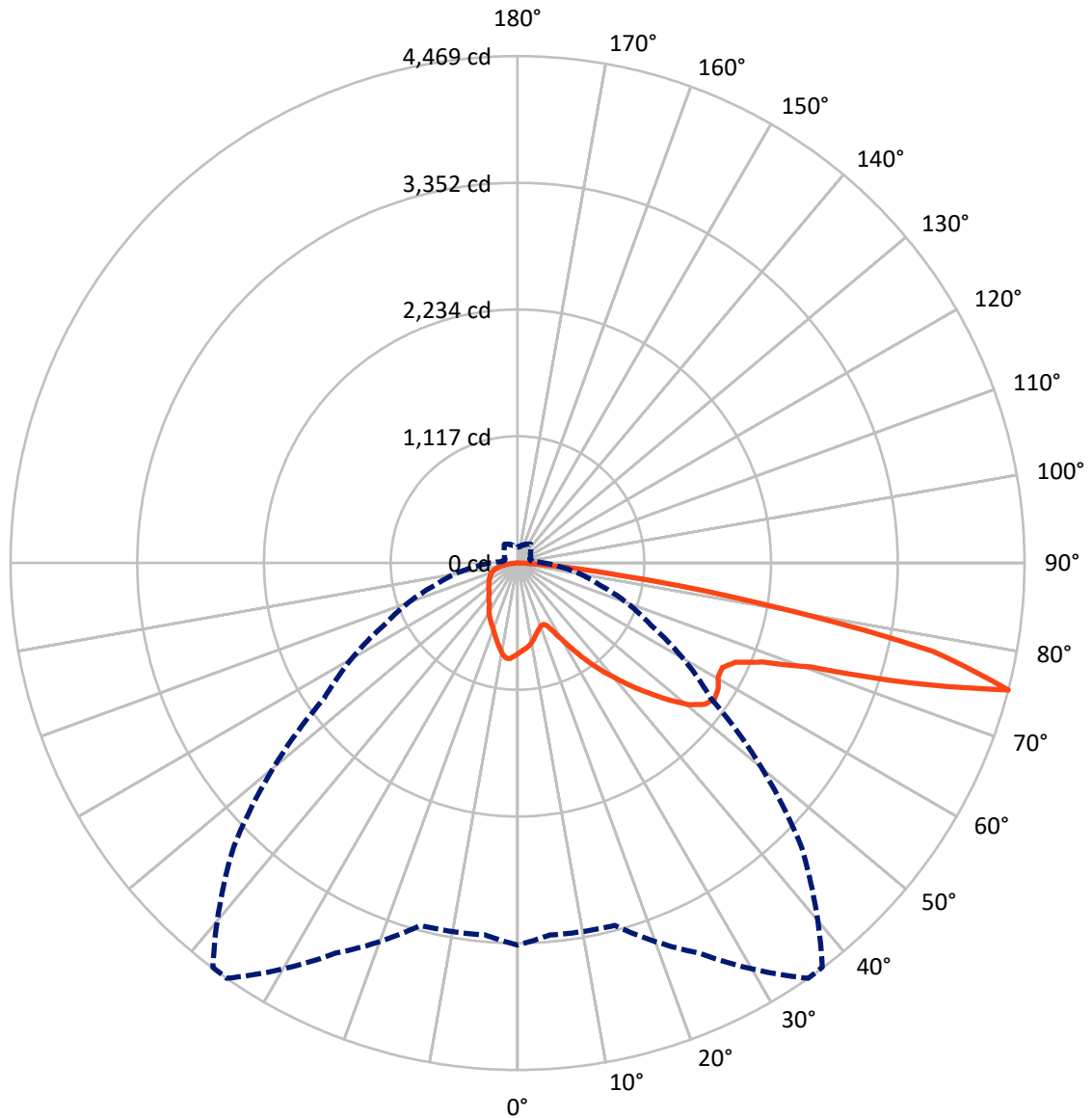
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1066.1 | 0.0 | 1066.1 |
| | % Fixture | 20.1 | 0.0 | 20.1 |
| Street Side | Lumens | 4245.9 | 0.0 | 4245.9 |
| | % Fixture | 79.9 | 0.0 | 79.9 |
| Total | Lumens | 5312.0 | 0.0 | 5312.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 74.9 | 1.4 |
| 10°-20° | 197.7 | 3.7 |
| 20°-30° | 312.7 | 5.9 |
| 30°-40° | 504.7 | 9.5 |
| 40°-50° | 746.8 | 14.1 |
| 50°-60° | 960.2 | 18.1 |
| 60°-70° | 1188.9 | 22.4 |
| 70°-80° | 1198.1 | 22.6 |
| 80°-90° | 127.9 | 2.4 |
| 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° | 5312.0 | 100.0 |
| 0°-180° | 5312.0 | 100.0 |



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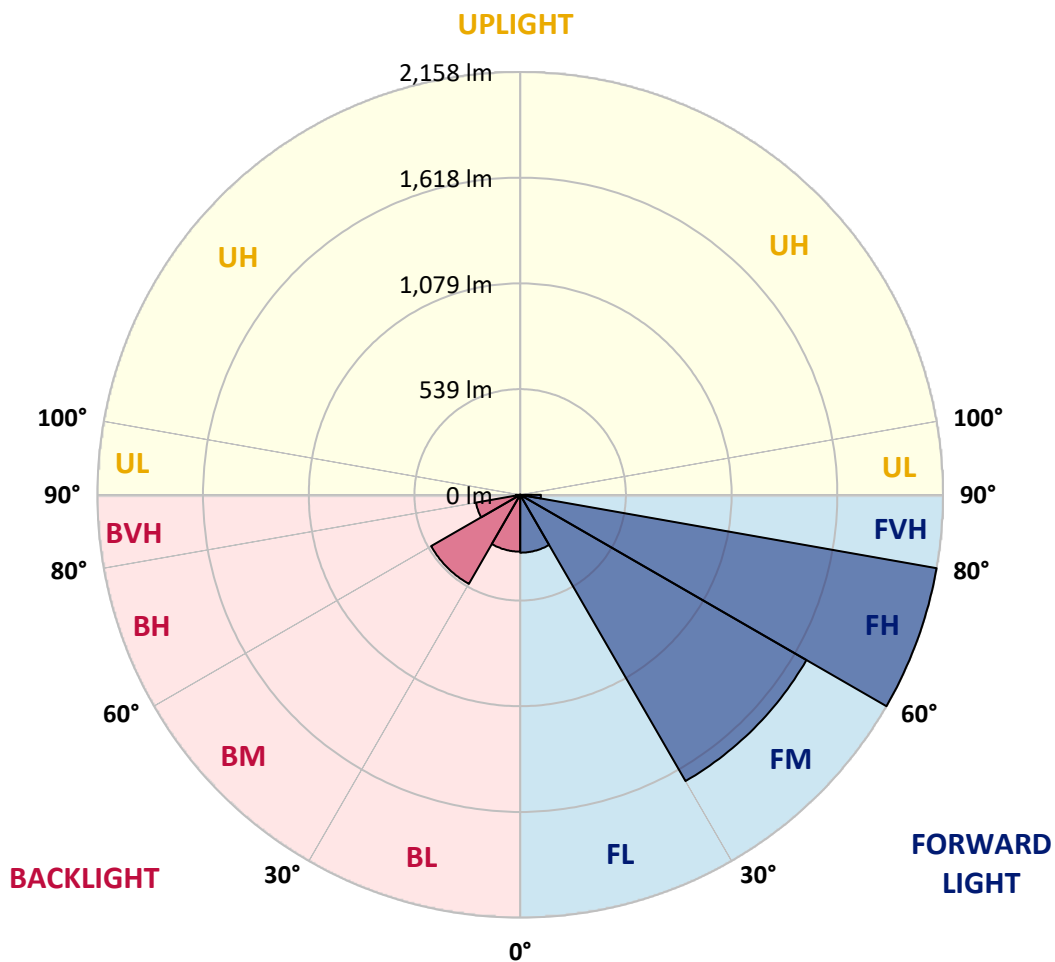
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 295.4 | 5.6 | | | |
| FM | (30°-60°) | 1686.8 | 31.8 | | | |
| FH | (60°-80°) | 2157.9 | 40.6 | | | G2/5000 |
| FVH | (80°-90°) | 105.8 | 2.0 | | | G2/225 |
| BL | (0°-30°) | 290.0 | 5.5 | B1/500 | | |
| BM | (30°-60°) | 525.0 | 9.9 | B1/1000 | | |
| BH | (60°-80°) | 229.0 | 4.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 22.1 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 37° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 |
| 2.5° | 774.9 | 773.2 | 771.4 | 771.4 | 774.9 | 774.9 | 776.7 | 778.5 | 780.3 | 785.6 | 792.7 |
| 5° | 753.7 | 751.9 | 750.1 | 751.9 | 757.2 | 757.2 | 762.5 | 766.1 | 769.6 | 778.5 | 787.4 |
| 7.5° | 725.3 | 725.3 | 723.5 | 730.6 | 735.9 | 734.2 | 741.3 | 744.8 | 753.7 | 762.5 | 776.7 |
| 10° | 688.1 | 688.1 | 688.1 | 696.9 | 705.8 | 705.8 | 711.1 | 720.0 | 727.1 | 739.5 | 757.2 |
| 12.5° | 656.1 | 654.4 | 654.4 | 661.5 | 672.1 | 673.9 | 682.7 | 695.1 | 704.0 | 720.0 | 739.5 |
| 15° | 645.5 | 641.9 | 633.1 | 633.1 | 638.4 | 638.4 | 652.6 | 670.3 | 684.5 | 700.5 | 723.5 |
| 17.5° | 647.3 | 641.9 | 618.9 | 611.8 | 611.8 | 613.6 | 627.8 | 647.3 | 665.0 | 684.5 | 714.7 |
| 20° | 663.2 | 654.4 | 611.8 | 595.8 | 592.3 | 594.1 | 606.5 | 626.0 | 647.3 | 673.9 | 707.6 |
| 22.5° | 732.4 | 718.2 | 638.4 | 602.9 | 587.0 | 587.0 | 594.1 | 615.3 | 641.9 | 677.4 | 720.0 |
| 25° | 892.0 | 868.9 | 727.1 | 663.2 | 615.3 | 610.0 | 597.6 | 618.9 | 650.8 | 693.4 | 755.4 |
| 27.5° | 1055.1 | 1032.1 | 837.0 | 767.8 | 693.4 | 677.4 | 631.3 | 636.6 | 672.1 | 728.8 | 808.6 |
| 30° | 1191.7 | 1172.2 | 975.3 | 895.5 | 796.2 | 778.5 | 707.6 | 673.9 | 709.3 | 778.5 | 888.4 |
| 32.5° | 1202.3 | 1193.4 | 1124.3 | 1042.7 | 922.1 | 897.3 | 803.3 | 750.1 | 767.8 | 845.9 | 975.3 |
| 35° | 1301.6 | 1294.5 | 1257.3 | 1179.3 | 1058.7 | 1030.3 | 931.0 | 849.4 | 844.1 | 920.4 | 1074.6 |
| 37.5° | 1399.2 | 1390.3 | 1365.5 | 1312.3 | 1200.5 | 1177.5 | 1099.5 | 968.2 | 931.0 | 1007.2 | 1172.2 |
| 40° | 1491.4 | 1479.0 | 1447.0 | 1416.9 | 1335.3 | 1335.3 | 1252.0 | 1081.7 | 1014.3 | 1083.5 | 1253.7 |
| 42.5° | 1661.6 | 1622.6 | 1537.5 | 1514.4 | 1491.4 | 1491.4 | 1369.0 | 1159.8 | 1081.7 | 1166.8 | 1331.8 |
| 45° | 1824.8 | 1787.5 | 1672.2 | 1626.1 | 1638.6 | 1631.5 | 1463.0 | 1204.1 | 1142.0 | 1244.9 | 1406.2 |
| 47.5° | 1954.2 | 1920.5 | 1803.5 | 1771.6 | 1807.0 | 1778.6 | 1541.0 | 1239.6 | 1218.3 | 1328.2 | 1468.3 |
| 50° | 2069.5 | 1989.7 | 1876.2 | 1918.7 | 1963.1 | 1915.2 | 1610.2 | 1292.8 | 1294.5 | 1416.9 | 1558.8 |
| 52.5° | 1911.6 | 1902.8 | 1927.6 | 2026.9 | 2069.5 | 2016.3 | 1672.2 | 1360.1 | 1376.1 | 1530.4 | 1661.6 |
| 55° | 1721.9 | 1720.1 | 1865.5 | 2058.8 | 2110.3 | 2060.6 | 1713.0 | 1441.7 | 1461.2 | 1670.5 | 1791.1 |
| 57.5° | 1684.7 | 1666.9 | 1766.2 | 1991.4 | 2085.4 | 2050.0 | 1734.3 | 1518.0 | 1542.8 | 1847.8 | 1918.7 |
| 60° | 1805.2 | 1771.6 | 1755.6 | 1918.7 | 2032.2 | 2014.5 | 1760.9 | 1608.4 | 1642.1 | 2050.0 | 2037.6 |
| 62.5° | 2067.7 | 2021.6 | 1908.1 | 1924.1 | 2026.9 | 2012.7 | 1824.8 | 1714.8 | 1753.8 | 2252.1 | 2104.9 |
| 65° | 2415.3 | 2381.6 | 2200.7 | 2071.2 | 2110.3 | 2090.8 | 1940.0 | 1849.6 | 1870.9 | 2397.5 | 2028.7 |
| 67.5° | 2796.5 | 2750.4 | 2553.6 | 2376.3 | 2326.6 | 2289.4 | 2122.7 | 2009.2 | 1932.9 | 2376.3 | 1824.8 |
| 70° | 3227.5 | 3177.8 | 3007.6 | 2824.9 | 2739.8 | 2699.0 | 2441.9 | 2147.5 | 1909.9 | 2142.2 | 1439.9 |
| 72.5° | 3757.7 | 3690.3 | 3596.3 | 3615.8 | 3601.6 | 3488.1 | 2950.8 | 2193.6 | 1741.4 | 1594.2 | 860.1 |
| 75° | 3367.5 | 3291.3 | 3307.3 | 3794.9 | 4468.8 | 4463.5 | 3539.6 | 2080.1 | 1298.1 | 751.9 | 372.4 |
| 77.5° | 1207.6 | 1335.3 | 1970.2 | 2842.6 | 3747.0 | 3741.7 | 2739.8 | 1301.6 | 556.8 | 321.0 | 225.2 |
| 80° | 303.2 | 308.6 | 489.4 | 1166.8 | 2188.3 | 2170.6 | 1553.4 | 491.2 | 232.3 | 195.1 | 154.3 |
| 82.5° | 97.5 | 104.6 | 179.1 | 402.5 | 936.3 | 915.0 | 482.3 | 161.4 | 145.4 | 125.9 | 94.0 |
| 85° | 31.9 | 31.9 | 63.8 | 138.3 | 308.6 | 296.1 | 97.5 | 58.5 | 79.8 | 65.6 | 42.6 |
| 87.5° | 0.0 | 0.0 | 1.8 | 3.5 | 7.1 | 3.5 | 0.0 | 3.5 | 10.6 | 12.4 | 8.9 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 | 798.0 |
| 2.5° | 798.0 | 796.2 | 803.3 | 808.6 | 810.4 | 815.7 | 821.0 | 824.6 | 822.8 | 821.0 | 821.0 |
| 5° | 796.2 | 798.0 | 810.4 | 821.0 | 829.9 | 838.8 | 845.9 | 849.4 | 847.6 | 847.6 | 847.6 |
| 7.5° | 785.6 | 792.7 | 806.9 | 824.6 | 837.0 | 842.3 | 844.1 | 838.8 | 835.2 | 829.9 | 829.9 |
| 10° | 767.8 | 778.5 | 801.5 | 821.0 | 826.4 | 819.3 | 808.6 | 798.0 | 783.8 | 774.9 | 774.9 |
| 12.5° | 753.7 | 766.1 | 794.4 | 810.4 | 803.3 | 785.6 | 762.5 | 744.8 | 730.6 | 720.0 | 718.2 |
| 15° | 741.3 | 757.2 | 787.4 | 790.9 | 774.9 | 744.8 | 714.7 | 695.1 | 679.2 | 672.1 | 672.1 |
| 17.5° | 732.4 | 753.7 | 780.3 | 769.6 | 737.7 | 698.7 | 670.3 | 654.4 | 641.9 | 634.9 | 633.1 |
| 20° | 734.2 | 760.8 | 773.2 | 743.0 | 696.9 | 656.1 | 629.5 | 620.7 | 611.8 | 608.3 | 608.3 |
| 22.5° | 753.7 | 778.5 | 771.4 | 720.0 | 659.7 | 613.6 | 595.8 | 594.1 | 590.5 | 587.0 | 585.2 |
| 25° | 796.2 | 814.0 | 776.7 | 696.9 | 620.7 | 574.6 | 565.7 | 571.0 | 569.2 | 565.7 | 565.7 |
| 27.5° | 854.7 | 858.3 | 785.6 | 673.9 | 578.1 | 537.3 | 537.3 | 546.2 | 542.6 | 537.3 | 540.9 |
| 30° | 925.7 | 906.2 | 789.1 | 636.6 | 528.5 | 501.9 | 507.2 | 512.5 | 508.9 | 501.9 | 501.9 |
| 32.5° | 1001.9 | 955.8 | 789.1 | 588.7 | 480.6 | 469.9 | 471.7 | 473.5 | 466.4 | 457.5 | 457.5 |
| 35° | 1076.4 | 1003.7 | 780.3 | 532.0 | 443.3 | 438.0 | 436.2 | 443.3 | 438.0 | 425.6 | 425.6 |
| 37.5° | 1147.3 | 1040.9 | 757.2 | 473.5 | 415.0 | 413.2 | 418.5 | 415.0 | 407.9 | 390.1 | 386.6 |
| 40° | 1197.0 | 1065.8 | 711.1 | 425.6 | 391.9 | 402.5 | 399.0 | 379.5 | 368.9 | 356.4 | 356.4 |
| 42.5° | 1241.3 | 1078.2 | 654.4 | 388.4 | 375.9 | 390.1 | 375.9 | 351.1 | 336.9 | 335.2 | 336.9 |
| 45° | 1282.1 | 1088.8 | 599.4 | 358.2 | 356.4 | 375.9 | 358.2 | 331.6 | 315.7 | 315.7 | 317.4 |
| 47.5° | 1321.1 | 1099.5 | 544.4 | 329.8 | 333.4 | 354.7 | 344.0 | 317.4 | 301.5 | 290.8 | 290.8 |
| 50° | 1383.2 | 1124.3 | 464.6 | 299.7 | 306.8 | 336.9 | 333.4 | 303.2 | 285.5 | 269.5 | 266.0 |
| 52.5° | 1457.7 | 1166.8 | 377.7 | 267.8 | 287.3 | 321.0 | 321.0 | 290.8 | 271.3 | 250.0 | 246.5 |
| 55° | 1557.0 | 1213.0 | 303.2 | 244.7 | 267.8 | 303.2 | 308.6 | 285.5 | 257.1 | 237.6 | 234.1 |
| 57.5° | 1656.3 | 1228.9 | 244.7 | 221.7 | 242.9 | 285.5 | 299.7 | 274.9 | 241.2 | 227.0 | 225.2 |
| 60° | 1725.4 | 1177.5 | 205.7 | 202.2 | 225.2 | 264.2 | 287.3 | 262.5 | 230.5 | 216.3 | 216.3 |
| 62.5° | 1714.8 | 1021.4 | 184.4 | 189.7 | 211.0 | 248.3 | 276.6 | 251.8 | 223.4 | 214.6 | 212.8 |
| 65° | 1564.1 | 771.4 | 166.7 | 179.1 | 198.6 | 232.3 | 266.0 | 246.5 | 219.9 | 211.0 | 207.5 |
| 67.5° | 1317.6 | 512.5 | 154.3 | 168.5 | 186.2 | 219.9 | 257.1 | 239.4 | 209.3 | 203.9 | 200.4 |
| 70° | 954.0 | 299.7 | 141.9 | 157.8 | 173.8 | 205.7 | 244.7 | 225.2 | 196.8 | 193.3 | 184.4 |
| 72.5° | 516.0 | 188.0 | 127.7 | 143.6 | 157.8 | 188.0 | 225.2 | 207.5 | 180.9 | 166.7 | 161.4 |
| 75° | 235.9 | 136.5 | 113.5 | 127.7 | 138.3 | 164.9 | 202.2 | 182.7 | 161.4 | 143.6 | 140.1 |
| 77.5° | 157.8 | 102.9 | 95.8 | 109.9 | 115.3 | 138.3 | 179.1 | 145.4 | 125.9 | 113.5 | 109.9 |
| 80° | 108.2 | 76.3 | 78.0 | 90.4 | 88.7 | 109.9 | 134.8 | 117.0 | 99.3 | 102.9 | 94.0 |
| 82.5° | 69.2 | 53.2 | 60.3 | 63.8 | 62.1 | 83.3 | 104.6 | 88.7 | 74.5 | 62.1 | 53.2 |
| 85° | 30.1 | 28.4 | 35.5 | 37.2 | 37.2 | 46.1 | 55.0 | 44.3 | 33.7 | 24.8 | 24.8 |
| 87.5° | 1.8 | 3.5 | 3.5 | 5.3 | 3.5 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)