

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: P647747

Luminaire Tested: **GALN-SA1A-835-U-T4W**

Issue Date: 5/13/2021

Test Information

Test Method: LM-79-08
Report Number: P647747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2011-042-41)
Test Lab: INNOVATION CENTER
Issue Date: 5/13/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA1A-835-U-T4W
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 80 CRI, 3500K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3626.1 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

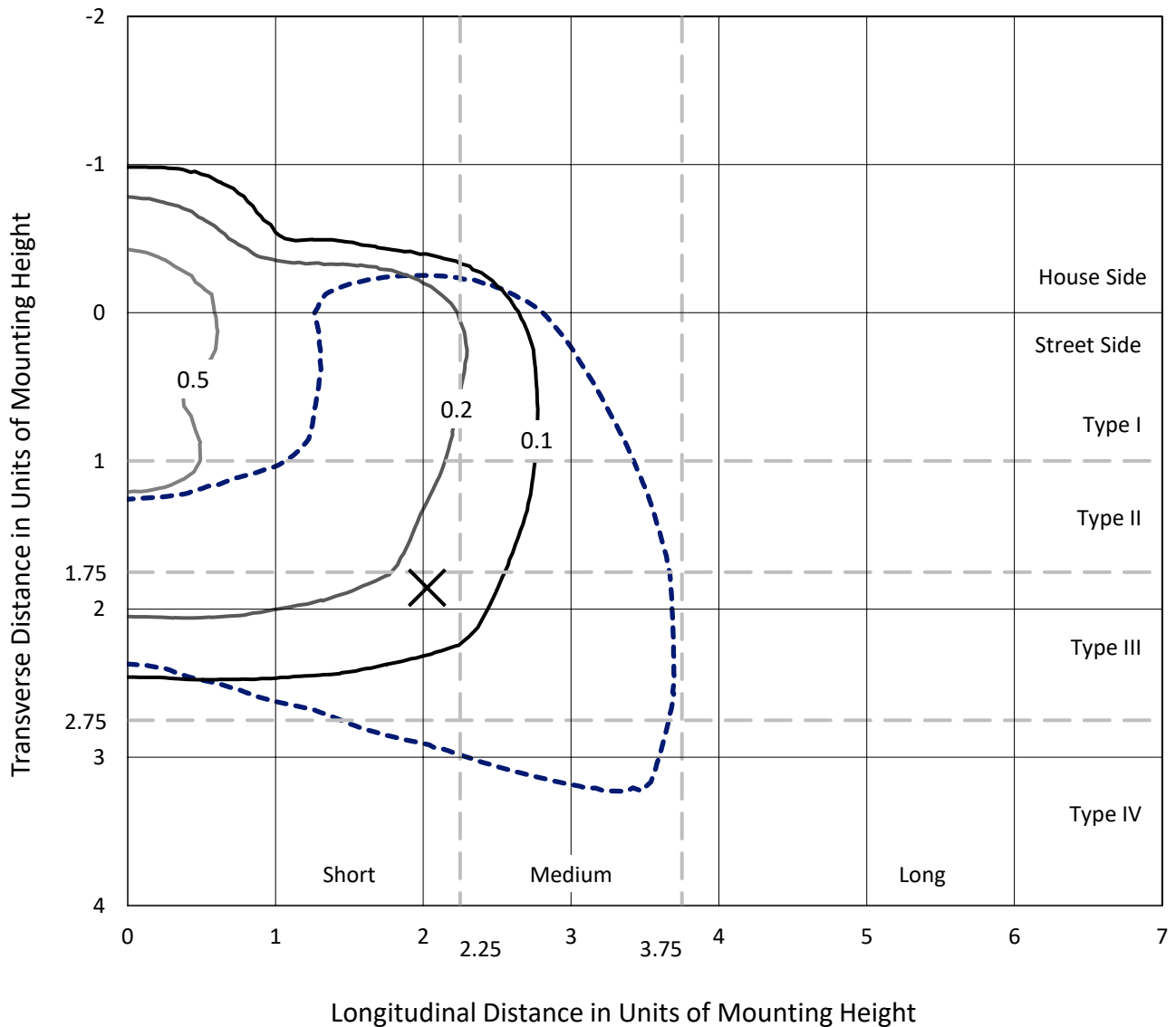
Input Watts (W): 33
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

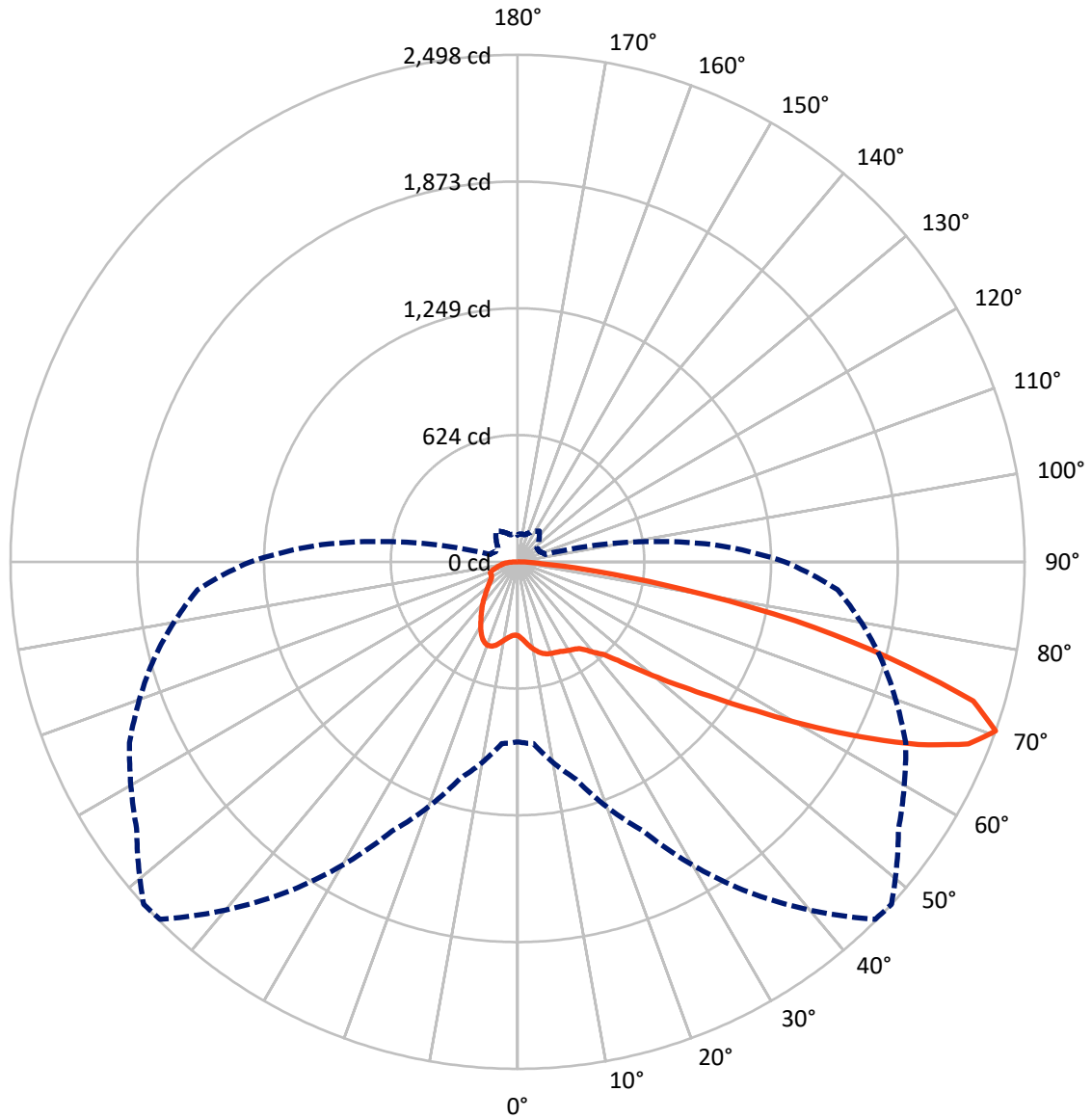
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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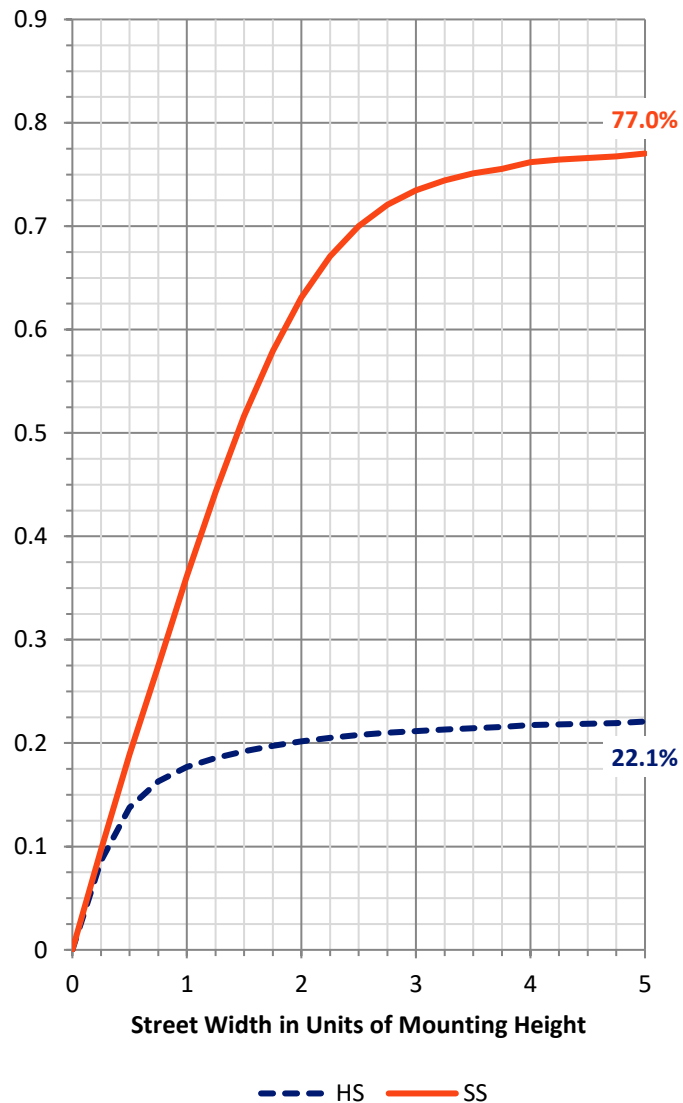
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 821.0 | 0.0 | 821.0 |
| | % Fixture | 22.6 | 0.0 | 22.6 |
| Street Side | Lumens | 2805.1 | 0.0 | 2805.1 |
| | % Fixture | 77.4 | 0.0 | 77.4 |
| Total | Lumens | 3626.1 | 0.0 | 3626.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 37.5 | 1.0 |
| 10°-20° | 125.4 | 3.5 |
| 20°-30° | 208.6 | 5.8 |
| 30°-40° | 295.7 | 8.2 |
| 40°-50° | 436.5 | 12.0 |
| 50°-60° | 756.0 | 20.8 |
| 60°-70° | 1067.8 | 29.4 |
| 70°-80° | 613.9 | 16.9 |
| 80°-90° | 84.7 | 2.3 |
| 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° | 3626.1 | 100.0 |
| 0°-180° | 3626.1 | 100.0 |

Coefficient of Utilization

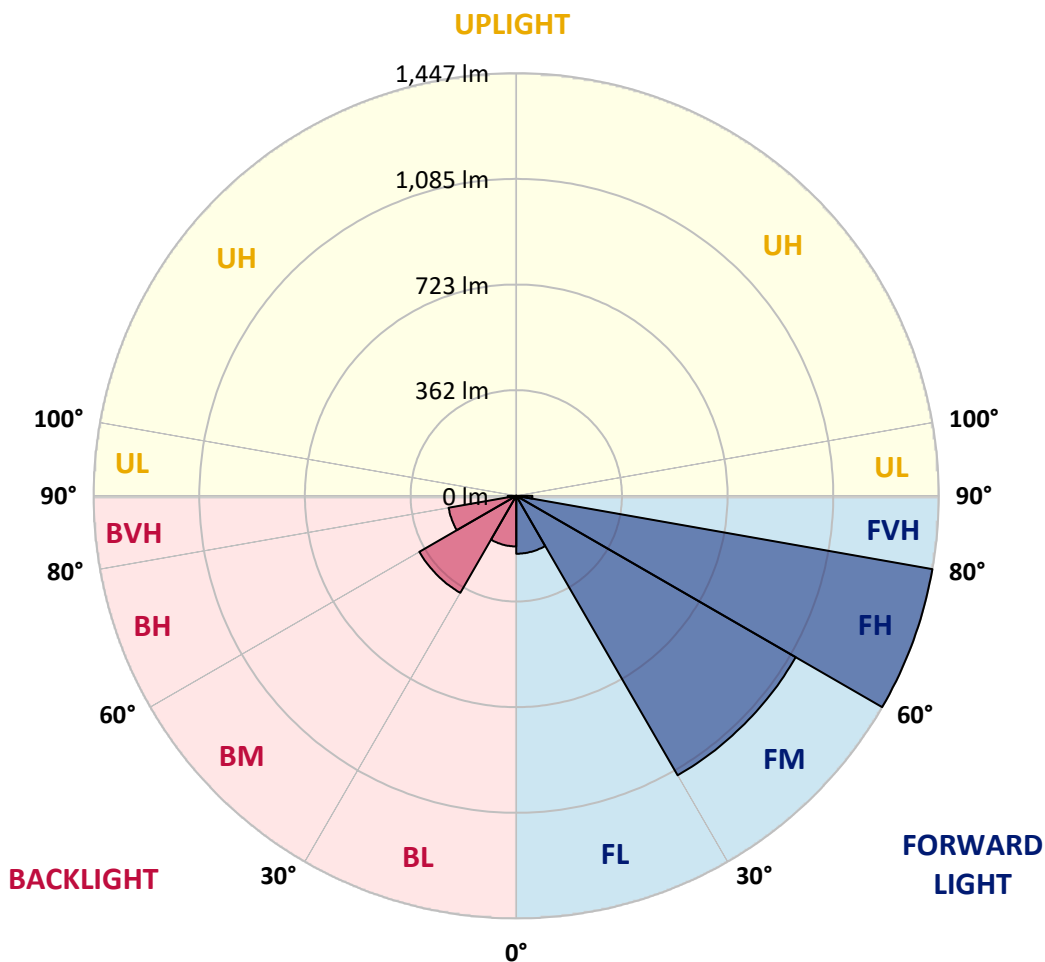


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 198.3 | 5.5 | | | |
| FM (30°-60°) | 1104.8 | 30.5 | | | |
| FH (60°-80°) | 1446.7 | 39.9 | | | G1/1800 |
| FVH (80°-90°) | 55.3 | 1.5 | | | G1/100 |
| BL (0°-30°) | 173.3 | 4.8 | B1/500 | | |
| BM (30°-60°) | 383.3 | 10.6 | B1/1000 | | |
| BH (60°-80°) | 235.0 | 6.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 29.4 | 0.8 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 47.5° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 |
| 2.5° | 387.5 | 386.1 | 385.9 | 383.0 | 381.5 | 378.6 | 377.4 | 374.7 | 371.4 | 368.1 | 365.0 |
| 5° | 418.0 | 418.0 | 416.6 | 412.5 | 406.1 | 399.5 | 396.6 | 391.3 | 382.0 | 374.5 | 368.1 |
| 7.5° | 449.2 | 449.6 | 446.9 | 440.8 | 431.7 | 421.1 | 418.4 | 410.6 | 397.4 | 386.3 | 376.9 |
| 10° | 476.1 | 476.1 | 472.5 | 464.3 | 452.9 | 441.2 | 438.6 | 429.8 | 415.1 | 401.3 | 388.8 |
| 12.5° | 496.7 | 496.7 | 491.9 | 481.2 | 468.8 | 458.3 | 455.2 | 446.9 | 433.1 | 417.7 | 402.1 |
| 15° | 510.1 | 509.2 | 503.7 | 491.7 | 479.7 | 470.5 | 468.4 | 461.4 | 448.8 | 433.3 | 415.6 |
| 17.5° | 510.7 | 510.3 | 505.1 | 495.0 | 484.5 | 478.3 | 476.9 | 472.3 | 462.4 | 447.6 | 429.0 |
| 20° | 499.5 | 500.3 | 496.7 | 489.5 | 484.5 | 481.8 | 481.2 | 479.7 | 472.7 | 458.9 | 440.3 |
| 22.5° | 487.4 | 488.7 | 485.5 | 481.6 | 481.2 | 483.9 | 484.3 | 484.7 | 480.2 | 466.8 | 449.8 |
| 25° | 484.5 | 485.5 | 482.2 | 478.7 | 480.8 | 488.0 | 489.5 | 491.1 | 487.7 | 476.4 | 461.0 |
| 27.5° | 499.2 | 498.5 | 492.1 | 484.5 | 485.9 | 495.6 | 497.7 | 499.5 | 497.7 | 488.0 | 475.0 |
| 30° | 541.0 | 538.5 | 525.6 | 503.5 | 496.6 | 503.3 | 505.5 | 510.3 | 510.3 | 503.2 | 490.2 |
| 32.5° | 610.8 | 606.0 | 582.5 | 539.0 | 514.7 | 510.7 | 512.9 | 520.8 | 524.8 | 519.2 | 505.1 |
| 35° | 695.6 | 690.6 | 657.0 | 598.6 | 548.2 | 525.5 | 524.8 | 533.8 | 544.7 | 532.0 | 513.6 |
| 37.5° | 780.8 | 775.6 | 735.2 | 669.6 | 596.9 | 556.5 | 553.0 | 556.1 | 560.8 | 537.7 | 525.5 |
| 40° | 866.0 | 859.8 | 824.5 | 749.0 | 656.5 | 597.7 | 588.5 | 574.6 | 572.6 | 556.1 | 548.3 |
| 42.5° | 950.4 | 944.8 | 926.9 | 838.0 | 727.8 | 637.8 | 623.8 | 599.8 | 607.1 | 597.3 | 590.5 |
| 45° | 1035.6 | 1036.0 | 1017.0 | 938.0 | 814.0 | 711.9 | 693.1 | 655.4 | 672.9 | 669.2 | 673.1 |
| 47.5° | 1111.1 | 1110.1 | 1103.3 | 1035.0 | 920.9 | 807.4 | 783.2 | 739.5 | 769.4 | 782.9 | 812.6 |
| 50° | 1184.2 | 1183.7 | 1184.1 | 1145.0 | 1045.1 | 920.9 | 894.1 | 848.3 | 915.6 | 962.8 | 1015.9 |
| 52.5° | 1289.0 | 1292.3 | 1268.8 | 1258.5 | 1196.0 | 1055.0 | 1025.5 | 978.1 | 1088.5 | 1162.8 | 1266.7 |
| 55° | 1394.1 | 1391.5 | 1373.0 | 1383.7 | 1354.0 | 1213.7 | 1182.9 | 1145.2 | 1281.1 | 1362.3 | 1518.3 |
| 57.5° | 1456.1 | 1457.0 | 1475.9 | 1528.0 | 1549.0 | 1411.6 | 1383.7 | 1354.6 | 1497.4 | 1555.0 | 1742.3 |
| 60° | 1511.7 | 1516.2 | 1570.3 | 1668.9 | 1725.7 | 1654.7 | 1629.9 | 1601.5 | 1695.9 | 1718.8 | 1936.7 |
| 62.5° | 1529.2 | 1543.0 | 1637.5 | 1784.9 | 1898.1 | 1929.2 | 1898.3 | 1835.8 | 1884.9 | 1876.0 | 2068.5 |
| 65° | 1442.1 | 1460.9 | 1630.3 | 1828.4 | 2051.9 | 2189.5 | 2169.9 | 2053.9 | 2045.9 | 1992.2 | 2090.0 |
| 67.5° | 1212.7 | 1231.6 | 1449.1 | 1737.2 | 2115.6 | 2415.0 | 2395.4 | 2213.0 | 2143.7 | 2003.1 | 1927.0 |
| 70° | 887.3 | 899.2 | 1107.2 | 1462.6 | 1987.7 | 2490.6 | 2497.5 | 2290.6 | 2108.8 | 1855.4 | 1582.2 |
| 72.5° | 511.3 | 537.5 | 683.2 | 1029.0 | 1623.9 | 2299.4 | 2346.5 | 2129.1 | 1888.0 | 1547.8 | 1106.2 |
| 75° | 219.9 | 220.4 | 315.9 | 567.6 | 1099.8 | 1848.2 | 1893.8 | 1765.0 | 1482.6 | 1070.3 | 590.6 |
| 77.5° | 104.6 | 106.5 | 138.9 | 253.4 | 605.4 | 1277.0 | 1400.0 | 1246.8 | 948.3 | 514.2 | 223.2 |
| 80° | 67.9 | 69.3 | 85.0 | 125.7 | 296.9 | 740.5 | 826.2 | 719.3 | 418.4 | 183.8 | 96.2 |
| 82.5° | 41.1 | 41.5 | 56.8 | 76.8 | 163.4 | 335.3 | 395.3 | 312.2 | 178.5 | 110.0 | 56.7 |
| 85° | 25.1 | 25.2 | 34.5 | 47.5 | 99.1 | 115.8 | 118.9 | 118.0 | 104.8 | 72.0 | 30.3 |
| 87.5° | 12.1 | 12.4 | 17.9 | 22.5 | 39.0 | 35.9 | 34.0 | 39.4 | 49.5 | 38.8 | 13.0 |
| 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° | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 | 364.0 |
| 2.5° | 363.6 | 363.1 | 361.7 | 361.1 | 360.7 | 360.9 | 360.7 | 360.7 | 360.9 | 360.9 | 360.9 |
| 5° | 365.3 | 364.4 | 362.3 | 362.3 | 363.5 | 366.1 | 368.6 | 370.6 | 372.7 | 372.6 | 372.6 |
| 7.5° | 372.9 | 371.2 | 368.6 | 369.4 | 372.4 | 376.6 | 381.1 | 385.4 | 389.6 | 390.0 | 389.9 |
| 10° | 384.0 | 382.3 | 379.5 | 380.5 | 385.2 | 391.6 | 397.2 | 403.4 | 408.1 | 409.4 | 409.0 |
| 12.5° | 396.6 | 393.1 | 390.8 | 393.5 | 400.9 | 409.4 | 414.8 | 419.5 | 422.8 | 424.8 | 424.0 |
| 15° | 409.4 | 406.1 | 403.4 | 409.0 | 418.0 | 425.9 | 428.6 | 429.4 | 430.0 | 431.9 | 431.5 |
| 17.5° | 421.8 | 417.3 | 416.4 | 423.8 | 432.3 | 435.8 | 434.3 | 431.0 | 428.5 | 430.0 | 429.8 |
| 20° | 432.9 | 429.4 | 429.0 | 436.4 | 439.7 | 436.4 | 429.8 | 424.0 | 419.5 | 419.9 | 419.7 |
| 22.5° | 443.4 | 440.7 | 441.1 | 444.1 | 438.9 | 427.7 | 416.8 | 408.8 | 403.9 | 405.0 | 405.5 |
| 25° | 455.0 | 452.3 | 453.3 | 448.2 | 431.0 | 411.4 | 395.6 | 388.8 | 386.9 | 388.8 | 390.2 |
| 27.5° | 470.2 | 468.4 | 467.8 | 448.4 | 416.8 | 387.3 | 369.4 | 366.9 | 368.6 | 372.9 | 375.1 |
| 30° | 486.5 | 486.5 | 483.3 | 445.1 | 397.4 | 358.4 | 342.9 | 343.3 | 349.3 | 355.2 | 357.4 |
| 32.5° | 502.1 | 505.5 | 495.8 | 436.2 | 372.4 | 330.3 | 318.4 | 318.8 | 324.0 | 331.4 | 333.3 |
| 35° | 515.1 | 524.7 | 506.4 | 419.9 | 342.9 | 306.5 | 297.6 | 292.5 | 292.6 | 298.2 | 299.8 |
| 37.5° | 533.0 | 550.7 | 512.6 | 395.6 | 311.4 | 286.4 | 276.3 | 267.2 | 261.2 | 258.9 | 258.9 |
| 40° | 564.1 | 590.1 | 514.2 | 359.7 | 281.7 | 267.2 | 252.8 | 241.9 | 230.4 | 219.9 | 217.9 |
| 42.5° | 616.6 | 649.4 | 511.1 | 318.4 | 254.9 | 246.0 | 232.1 | 218.7 | 202.6 | 187.8 | 186.7 |
| 45° | 709.8 | 726.7 | 502.8 | 275.5 | 231.1 | 225.7 | 212.1 | 197.6 | 180.5 | 167.2 | 166.3 |
| 47.5° | 859.0 | 835.1 | 491.7 | 237.5 | 209.4 | 207.8 | 197.3 | 180.5 | 163.4 | 154.3 | 153.3 |
| 50° | 1076.9 | 1005.9 | 490.2 | 209.9 | 191.9 | 192.7 | 184.2 | 168.6 | 153.7 | 146.1 | 144.9 |
| 52.5° | 1339.2 | 1212.2 | 500.4 | 190.6 | 176.6 | 179.5 | 175.2 | 160.8 | 147.7 | 141.3 | 140.1 |
| 55° | 1593.8 | 1397.7 | 506.6 | 175.4 | 162.2 | 167.6 | 168.3 | 156.2 | 144.2 | 137.7 | 137.0 |
| 57.5° | 1800.5 | 1537.3 | 479.0 | 161.6 | 149.8 | 158.2 | 162.4 | 153.5 | 142.4 | 137.6 | 136.8 |
| 60° | 1944.3 | 1603.3 | 400.7 | 149.4 | 140.7 | 150.6 | 160.3 | 153.7 | 146.7 | 147.3 | 147.7 |
| 62.5° | 1990.1 | 1574.1 | 300.6 | 140.3 | 134.4 | 148.1 | 163.8 | 161.6 | 154.5 | 158.9 | 159.7 |
| 65° | 1914.2 | 1452.9 | 217.9 | 133.1 | 129.0 | 149.8 | 174.2 | 167.5 | 151.7 | 155.0 | 155.0 |
| 67.5° | 1660.2 | 1251.7 | 169.6 | 126.5 | 122.9 | 153.1 | 184.7 | 166.9 | 145.3 | 149.2 | 145.7 |
| 70° | 1316.9 | 968.3 | 141.3 | 119.2 | 116.2 | 148.2 | 185.7 | 160.8 | 137.7 | 138.5 | 131.9 |
| 72.5° | 873.9 | 636.7 | 121.4 | 112.1 | 106.2 | 133.3 | 177.7 | 153.1 | 130.4 | 125.9 | 119.3 |
| 75° | 428.2 | 317.4 | 105.9 | 103.4 | 92.9 | 116.0 | 166.9 | 145.7 | 122.5 | 115.4 | 111.7 |
| 77.5° | 165.9 | 135.1 | 90.4 | 92.4 | 80.9 | 102.3 | 152.5 | 135.2 | 112.0 | 102.4 | 99.5 |
| 80° | 80.5 | 76.7 | 74.2 | 77.0 | 66.6 | 87.1 | 139.3 | 126.1 | 102.3 | 91.8 | 87.5 |
| 82.5° | 50.0 | 47.4 | 56.8 | 60.0 | 51.2 | 79.6 | 132.2 | 118.4 | 90.0 | 76.0 | 72.6 |
| 85° | 25.4 | 27.2 | 38.1 | 41.0 | 36.6 | 63.3 | 108.8 | 88.9 | 65.0 | 53.9 | 54.3 |
| 87.5° | 9.7 | 13.0 | 20.0 | 21.5 | 19.6 | 33.4 | 60.0 | 51.8 | 41.7 | 28.3 | 26.2 |
| 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)