

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: P450273

Luminaire Tested: **GALN-SA1A-740-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P450273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA1A-740-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3332 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

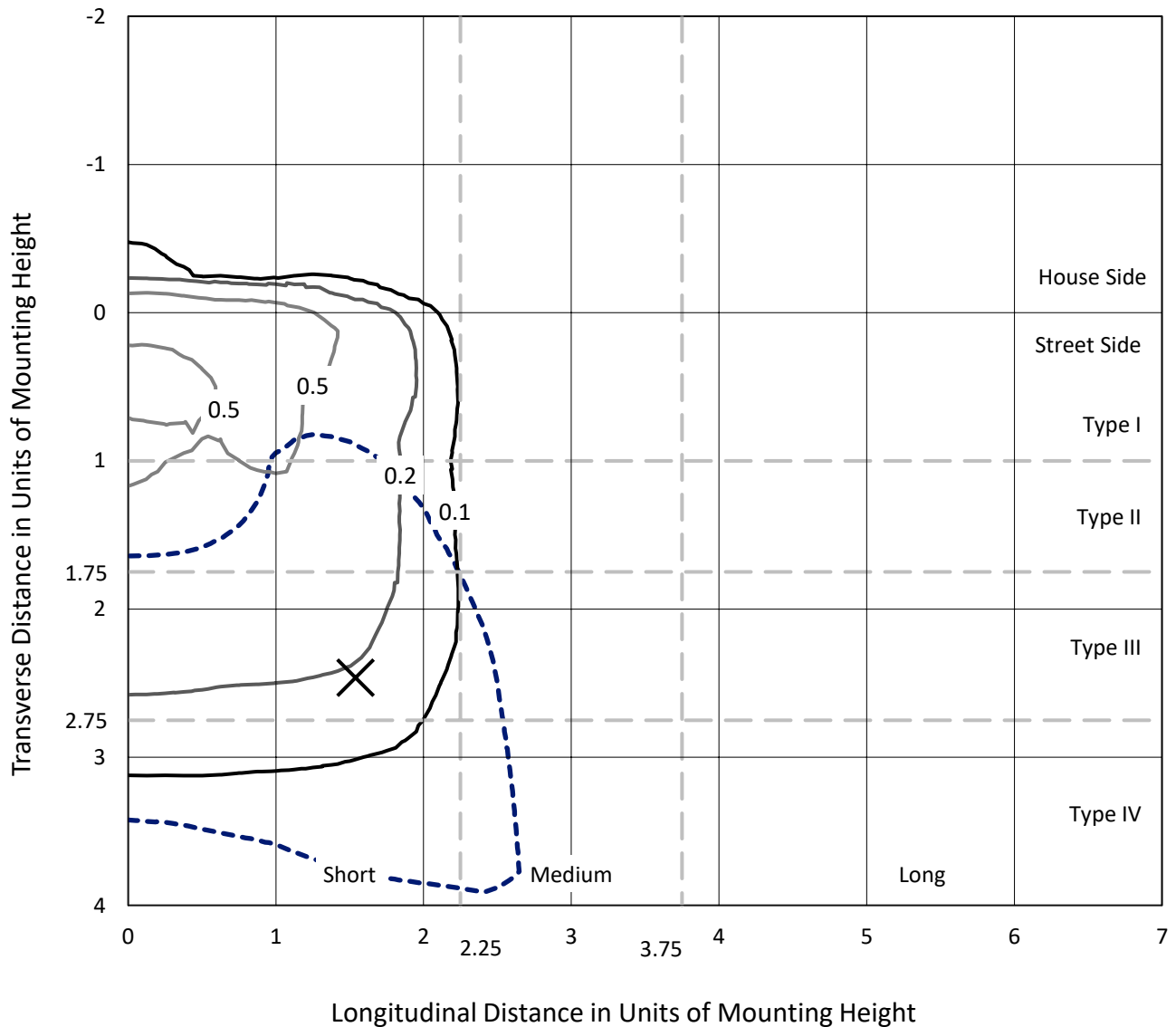
Input Watts (W): 33
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

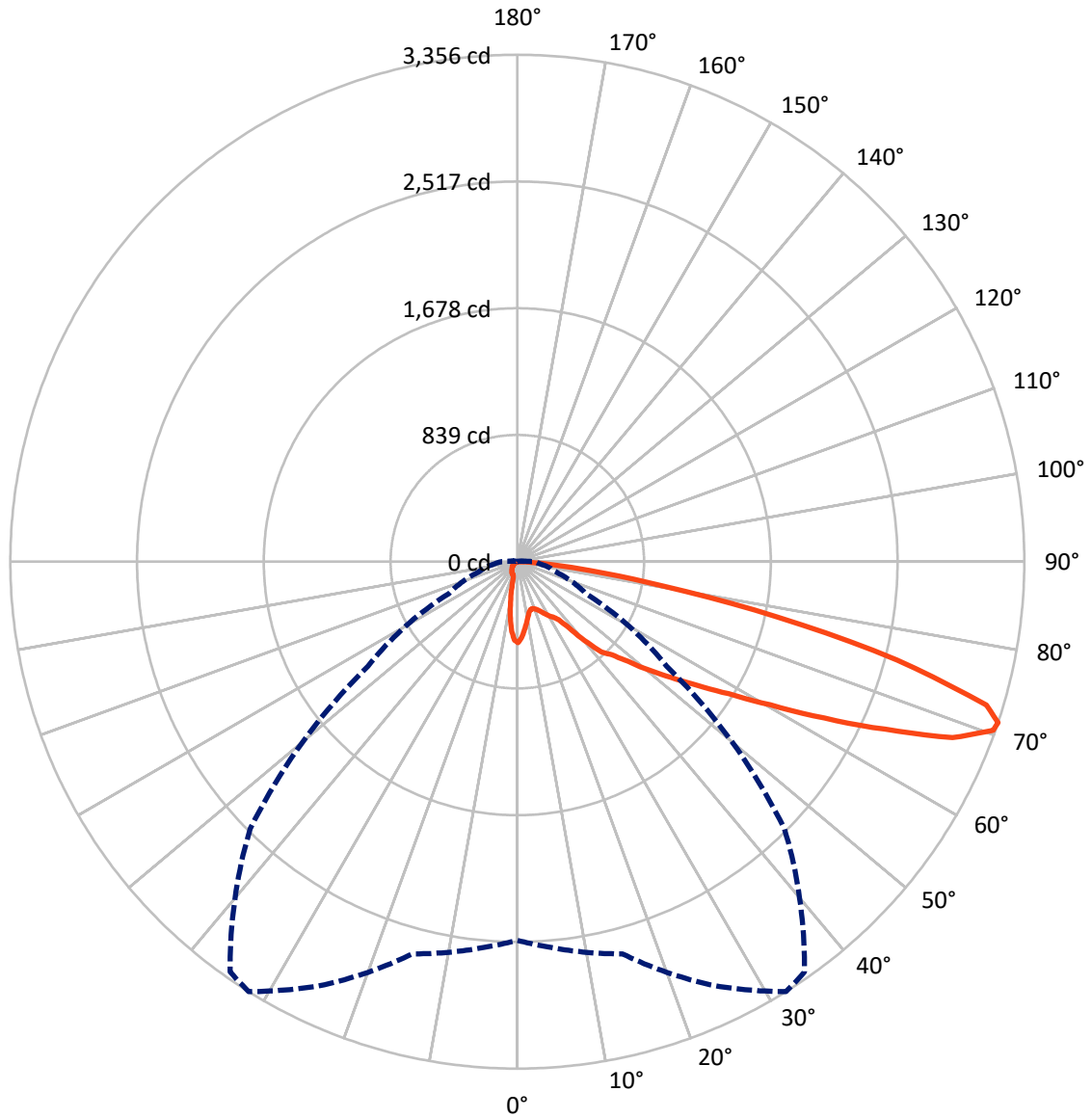
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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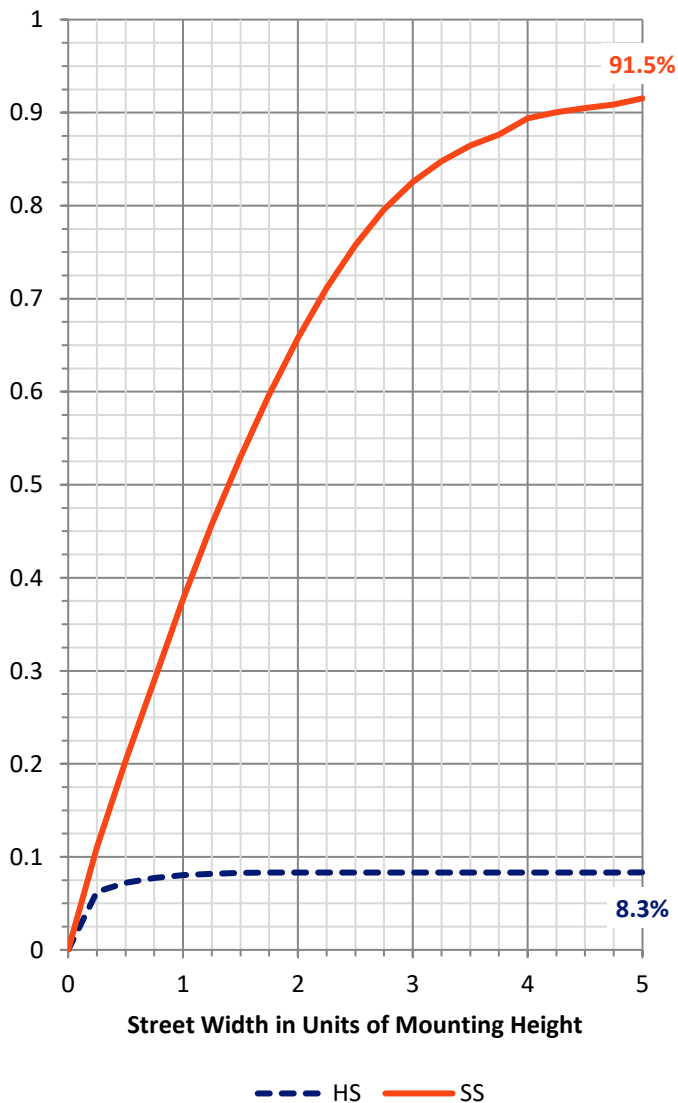
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 279.1 | 0.0 | 279.1 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 3052.9 | 0.0 | 3052.9 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 3332.0 | 0.0 | 3332.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 43.6 | 1.3 |
| 10°-20° | 94.6 | 2.8 |
| 20°-30° | 147.1 | 4.4 |
| 30°-40° | 245.1 | 7.4 |
| 40°-50° | 455.9 | 13.7 |
| 50°-60° | 732.0 | 22.0 |
| 60°-70° | 984.5 | 29.5 |
| 70°-80° | 584.1 | 17.5 |
| 80°-90° | 45.2 | 1.4 |
| 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° | 3332.0 | 100.0 |
| 0°-180° | 3332.0 | 100.0 |

Coefficient of Utilization



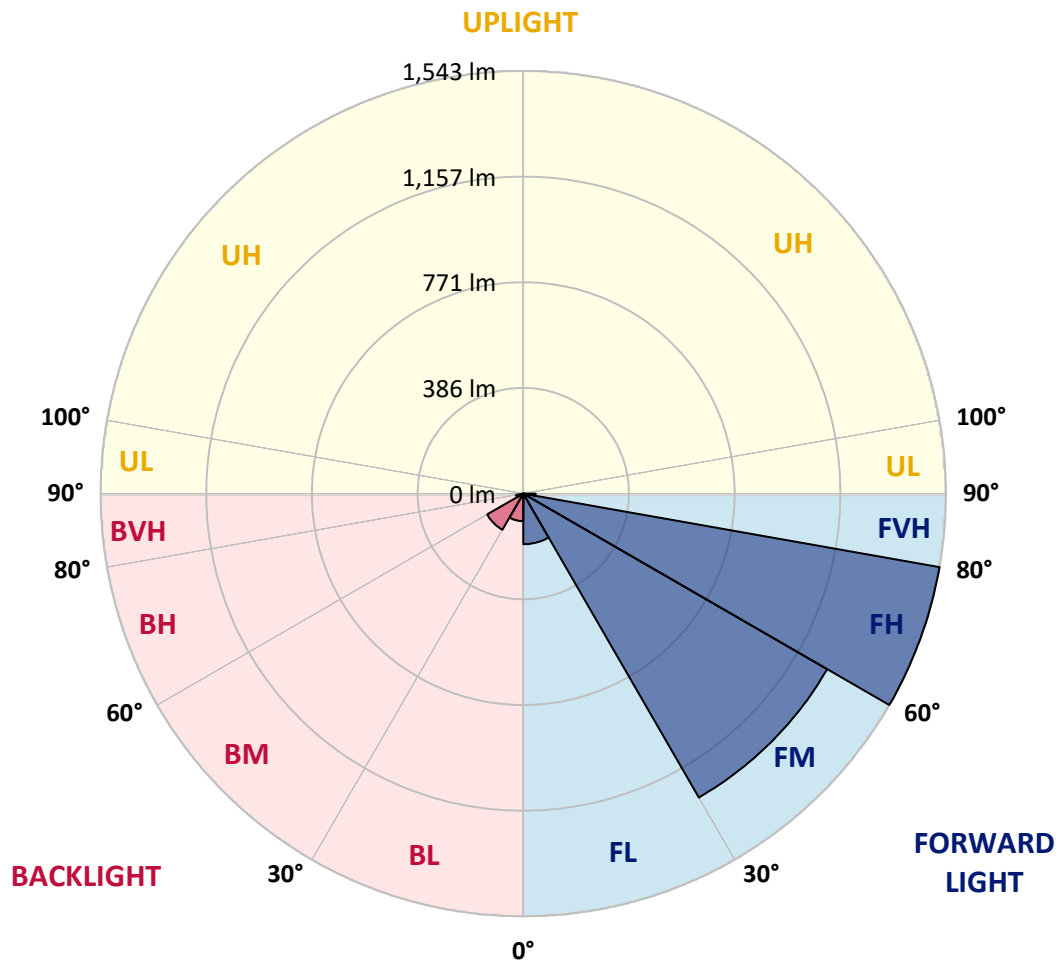
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 184.7 | 5.5 | | | |
| FM | (30°-60°) | 1280.7 | 38.4 | | | |
| FH | (60°-80°) | 1542.6 | 46.3 | | | G1/1800 |
| FVH | (80°-90°) | 45.0 | 1.3 | | | G1/100 |
| BL | (0°-30°) | 100.6 | 3.0 | B0/110 | | |
| BM | (30°-60°) | 152.3 | 4.6 | B0/220 | | |
| BH | (60°-80°) | 26.1 | 0.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.2 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 |
| 2.5° | 497.0 | 502.1 | 501.3 | 503.1 | 507.4 | 509.2 | 514.1 | 519.5 | 526.9 | 532.0 | 535.3 |
| 5° | 445.0 | 448.9 | 449.4 | 458.3 | 462.7 | 467.5 | 481.9 | 497.5 | 514.9 | 528.7 | 537.9 |
| 7.5° | 389.5 | 391.6 | 395.7 | 407.4 | 418.4 | 423.3 | 445.0 | 472.2 | 499.5 | 525.4 | 542.0 |
| 10° | 343.8 | 346.1 | 353.5 | 366.0 | 376.2 | 382.6 | 412.8 | 446.8 | 485.2 | 523.6 | 547.9 |
| 12.5° | 317.7 | 318.9 | 321.8 | 333.0 | 346.1 | 353.0 | 385.4 | 424.3 | 473.7 | 524.3 | 557.8 |
| 15° | 315.9 | 315.4 | 312.0 | 316.6 | 328.4 | 335.6 | 367.3 | 409.0 | 463.5 | 526.9 | 569.6 |
| 17.5° | 325.3 | 324.1 | 316.1 | 316.1 | 325.9 | 331.7 | 359.6 | 400.8 | 458.3 | 532.8 | 586.2 |
| 20° | 339.9 | 337.9 | 324.8 | 323.8 | 333.3 | 339.4 | 364.2 | 401.3 | 459.4 | 543.8 | 608.5 |
| 22.5° | 358.3 | 356.0 | 336.3 | 336.8 | 347.1 | 353.2 | 377.5 | 410.5 | 465.8 | 557.3 | 632.3 |
| 25° | 382.4 | 379.8 | 356.5 | 355.5 | 366.3 | 371.6 | 397.2 | 426.9 | 474.7 | 574.2 | 663.5 |
| 27.5° | 414.3 | 409.0 | 381.1 | 379.6 | 391.1 | 398.0 | 421.0 | 448.9 | 490.6 | 597.5 | 705.4 |
| 30° | 440.7 | 434.8 | 408.2 | 404.1 | 416.4 | 421.8 | 445.6 | 478.5 | 521.8 | 638.1 | 763.5 |
| 32.5° | 475.2 | 466.5 | 435.3 | 424.6 | 437.6 | 444.5 | 481.1 | 533.8 | 568.1 | 681.1 | 832.5 |
| 35° | 553.0 | 547.6 | 509.5 | 471.9 | 471.1 | 479.8 | 533.5 | 589.5 | 615.6 | 748.1 | 926.7 |
| 37.5° | 664.2 | 660.4 | 620.0 | 569.6 | 555.0 | 550.9 | 597.2 | 650.9 | 691.6 | 840.2 | 1036.1 |
| 40° | 793.4 | 784.4 | 747.4 | 704.6 | 685.7 | 673.7 | 672.4 | 742.2 | 790.8 | 965.3 | 1150.2 |
| 42.5° | 886.0 | 869.6 | 824.6 | 821.5 | 817.4 | 804.9 | 768.6 | 875.8 | 919.0 | 1099.8 | 1272.2 |
| 45° | 983.2 | 958.4 | 891.4 | 879.8 | 878.3 | 877.5 | 913.9 | 1033.8 | 1058.6 | 1245.6 | 1397.5 |
| 47.5° | 1058.6 | 1038.9 | 983.9 | 978.8 | 985.2 | 1002.6 | 1105.9 | 1201.6 | 1196.5 | 1375.5 | 1502.6 |
| 50° | 1159.1 | 1144.3 | 1083.2 | 1092.9 | 1125.9 | 1154.3 | 1322.6 | 1384.5 | 1309.8 | 1477.8 | 1579.1 |
| 52.5° | 1277.8 | 1250.5 | 1193.7 | 1220.0 | 1270.7 | 1318.0 | 1552.5 | 1544.6 | 1389.3 | 1554.8 | 1636.2 |
| 55° | 1380.6 | 1361.2 | 1341.8 | 1369.1 | 1444.8 | 1503.9 | 1760.2 | 1664.5 | 1447.1 | 1616.7 | 1661.2 |
| 57.5° | 1554.6 | 1550.0 | 1530.0 | 1557.9 | 1649.7 | 1711.1 | 1946.2 | 1757.6 | 1484.2 | 1648.9 | 1631.8 |
| 60° | 1811.9 | 1804.5 | 1767.4 | 1802.9 | 1922.6 | 2019.0 | 2117.5 | 1841.3 | 1492.7 | 1636.4 | 1547.2 |
| 62.5° | 2121.4 | 2096.0 | 2064.3 | 2116.8 | 2281.0 | 2323.4 | 2278.9 | 1890.9 | 1461.2 | 1536.7 | 1343.0 |
| 65° | 2410.4 | 2384.3 | 2385.1 | 2495.5 | 2674.3 | 2703.2 | 2467.2 | 1883.5 | 1369.1 | 1286.8 | 990.6 |
| 67.5° | 2631.6 | 2627.3 | 2658.5 | 2874.1 | 3107.9 | 3087.9 | 2635.5 | 1772.5 | 1096.2 | 834.1 | 526.4 |
| 70° | 2642.9 | 2651.3 | 2740.8 | 3104.8 | 3342.1 | 3310.4 | 2621.1 | 1440.8 | 683.4 | 383.7 | 207.4 |
| 71° | 2506.8 | 2563.6 | 2687.4 | 3097.6 | 3356.0 | 3314.8 | 2500.4 | 1206.7 | 501.3 | 267.5 | 149.6 |
| 72.5° | 2136.2 | 2166.1 | 2433.6 | 2915.3 | 3246.7 | 3158.8 | 2194.2 | 845.8 | 321.0 | 163.7 | 85.9 |
| 75° | 1176.5 | 1250.2 | 1629.8 | 2287.1 | 2596.8 | 2519.6 | 1430.0 | 401.8 | 160.1 | 89.5 | 35.6 |
| 77.5° | 560.1 | 545.8 | 795.2 | 1360.2 | 1760.7 | 1756.6 | 720.5 | 178.5 | 93.4 | 60.6 | 17.9 |
| 80° | 160.1 | 180.1 | 304.4 | 646.6 | 977.6 | 988.3 | 276.7 | 86.2 | 64.7 | 47.3 | 9.2 |
| 82.5° | 48.3 | 49.4 | 111.8 | 286.0 | 486.2 | 458.3 | 103.8 | 44.0 | 46.6 | 37.6 | 5.4 |
| 85° | 8.4 | 10.5 | 33.0 | 100.8 | 185.4 | 140.7 | 26.1 | 21.0 | 30.7 | 24.8 | 3.1 |
| 87.5° | 0.5 | 0.8 | 11.0 | 11.5 | 16.4 | 9.5 | 4.6 | 3.1 | 6.7 | 6.7 | 1.8 |
| 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° | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 | 535.8 |
| 2.5° | 537.6 | 539.2 | 538.1 | 535.8 | 532.0 | 527.4 | 521.3 | 516.1 | 511.8 | 509.5 | 512.3 |
| 5° | 541.0 | 543.0 | 537.9 | 526.4 | 509.0 | 490.1 | 468.6 | 451.9 | 438.9 | 434.8 | 433.3 |
| 7.5° | 546.1 | 547.3 | 533.5 | 508.0 | 471.1 | 426.4 | 387.2 | 354.2 | 328.7 | 321.0 | 309.7 |
| 10° | 552.7 | 552.0 | 525.9 | 478.3 | 413.6 | 346.3 | 285.7 | 240.7 | 206.7 | 194.4 | 193.4 |
| 12.5° | 562.9 | 558.9 | 516.1 | 437.9 | 345.0 | 257.0 | 182.1 | 142.5 | 121.0 | 113.8 | 112.3 |
| 15° | 575.7 | 566.0 | 500.8 | 390.6 | 264.2 | 166.0 | 112.3 | 100.3 | 97.4 | 96.9 | 96.4 |
| 17.5° | 590.8 | 575.5 | 480.6 | 332.5 | 185.7 | 107.7 | 93.9 | 93.6 | 93.9 | 93.4 | 93.1 |
| 20° | 611.3 | 585.5 | 456.5 | 263.7 | 122.8 | 90.8 | 89.5 | 89.5 | 89.8 | 89.5 | 89.5 |
| 22.5° | 633.0 | 597.2 | 426.9 | 201.3 | 92.6 | 86.2 | 85.9 | 86.5 | 87.0 | 86.7 | 86.7 |
| 25° | 659.9 | 612.6 | 387.7 | 137.9 | 82.9 | 82.4 | 82.6 | 83.6 | 84.7 | 84.9 | 84.7 |
| 27.5° | 698.8 | 631.5 | 345.8 | 94.9 | 76.0 | 76.5 | 79.0 | 81.6 | 83.1 | 83.4 | 83.4 |
| 30° | 742.5 | 652.5 | 291.1 | 77.0 | 70.3 | 70.3 | 73.4 | 78.3 | 81.6 | 82.1 | 82.4 |
| 32.5° | 798.8 | 676.8 | 230.4 | 69.3 | 65.0 | 64.5 | 67.3 | 73.2 | 79.3 | 81.1 | 81.1 |
| 35° | 868.3 | 705.4 | 171.4 | 64.5 | 61.1 | 59.9 | 61.4 | 66.2 | 74.2 | 79.3 | 79.8 |
| 37.5° | 949.9 | 732.5 | 125.3 | 60.1 | 57.5 | 55.8 | 56.8 | 60.6 | 67.0 | 74.7 | 76.7 |
| 40° | 1025.4 | 756.6 | 93.6 | 56.5 | 54.0 | 52.7 | 53.5 | 55.2 | 60.6 | 67.8 | 69.1 |
| 42.5° | 1107.7 | 775.2 | 74.4 | 52.7 | 50.4 | 49.9 | 49.9 | 50.6 | 54.2 | 58.3 | 58.6 |
| 45° | 1189.8 | 781.9 | 62.4 | 48.1 | 46.6 | 47.1 | 46.8 | 46.3 | 47.8 | 47.3 | 47.3 |
| 47.5° | 1248.4 | 774.0 | 51.7 | 43.7 | 43.7 | 44.5 | 43.2 | 41.4 | 40.7 | 37.6 | 37.9 |
| 50° | 1288.6 | 745.1 | 42.5 | 38.6 | 40.7 | 41.7 | 39.1 | 36.3 | 33.5 | 30.2 | 29.4 |
| 52.5° | 1305.2 | 693.6 | 34.8 | 32.0 | 36.1 | 37.3 | 34.3 | 30.9 | 26.6 | 23.8 | 23.0 |
| 55° | 1294.5 | 630.2 | 28.9 | 26.1 | 30.4 | 32.0 | 28.9 | 25.1 | 20.2 | 17.1 | 16.6 |
| 57.5° | 1247.1 | 554.5 | 24.6 | 20.7 | 24.3 | 25.3 | 23.3 | 19.2 | 14.3 | 11.3 | 11.3 |
| 60° | 1165.3 | 476.2 | 20.0 | 16.4 | 18.2 | 19.7 | 17.6 | 13.8 | 9.7 | 6.9 | 6.4 |
| 62.5° | 999.3 | 386.7 | 16.1 | 12.8 | 12.8 | 14.1 | 12.3 | 10.0 | 6.1 | 3.6 | 3.3 |
| 65° | 721.5 | 265.2 | 12.8 | 9.5 | 9.2 | 9.2 | 7.7 | 6.7 | 3.6 | 1.5 | 1.0 |
| 67.5° | 392.1 | 149.6 | 10.2 | 7.2 | 6.4 | 6.1 | 4.9 | 3.8 | 1.5 | 0.3 | 0.0 |
| 70° | 154.2 | 57.5 | 7.9 | 4.9 | 4.1 | 3.8 | 2.6 | 1.8 | 1.0 | 0.0 | 0.0 |
| 71° | 104.6 | 39.6 | 6.9 | 4.1 | 3.3 | 2.8 | 2.0 | 1.5 | 0.8 | 0.0 | 0.0 |
| 72.5° | 59.9 | 24.6 | 5.4 | 3.1 | 2.6 | 2.0 | 1.5 | 1.0 | 0.8 | 0.0 | 0.0 |
| 75° | 26.1 | 12.5 | 3.3 | 2.3 | 1.8 | 1.3 | 1.0 | 0.8 | 0.3 | 0.0 | 0.0 |
| 77.5° | 13.3 | 6.9 | 2.3 | 1.8 | 1.0 | 0.8 | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 |
| 80° | 7.4 | 3.6 | 1.5 | 1.0 | 0.8 | 0.5 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| 82.5° | 4.1 | 2.0 | 0.8 | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 2.6 | 1.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 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)