

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: P450432

Luminaire Tested: **GALN-SA1B-727-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P450432
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA1B-727-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3961 lumens
Efficiency: N/A
Efficacy: 90.0 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

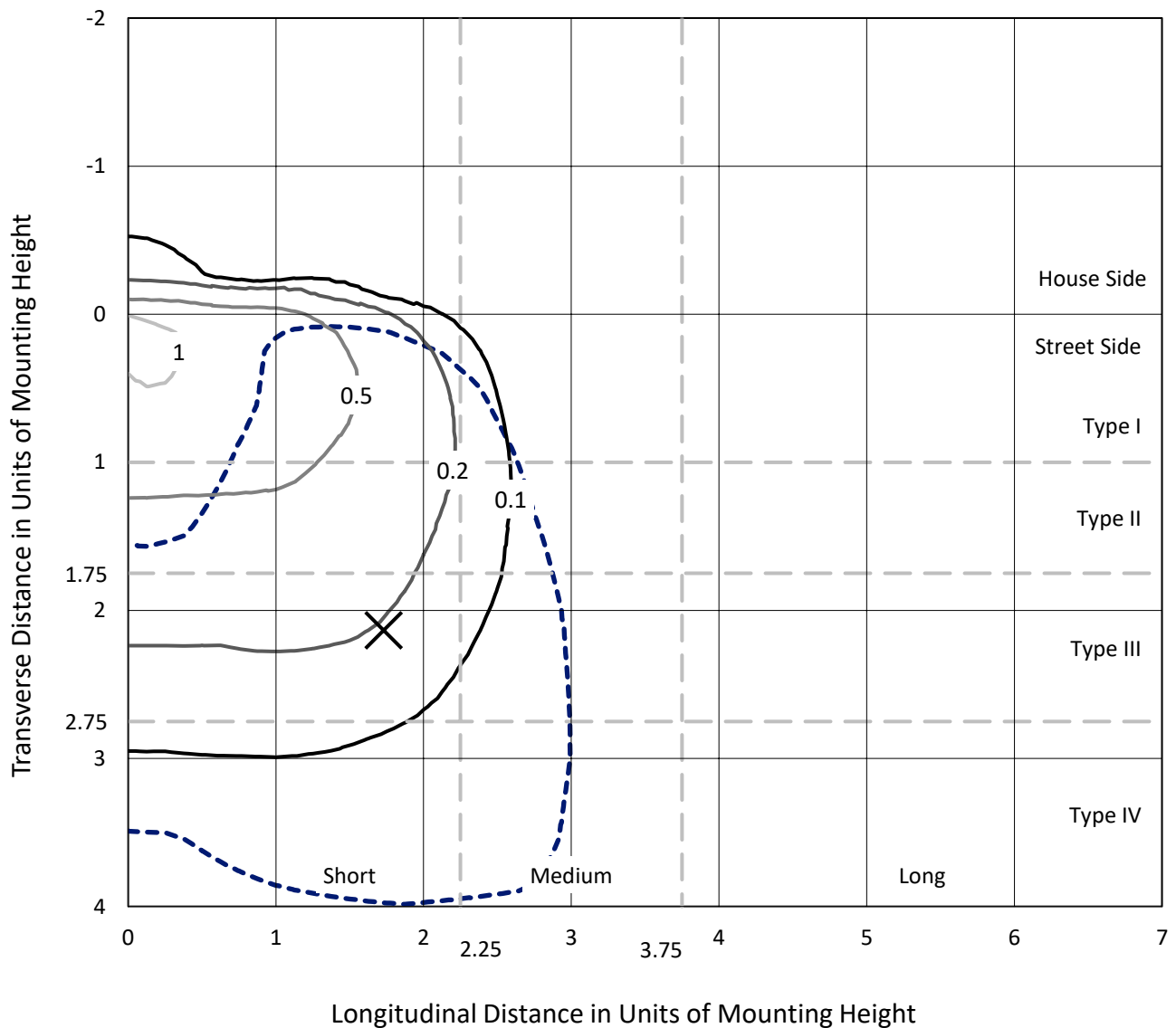
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

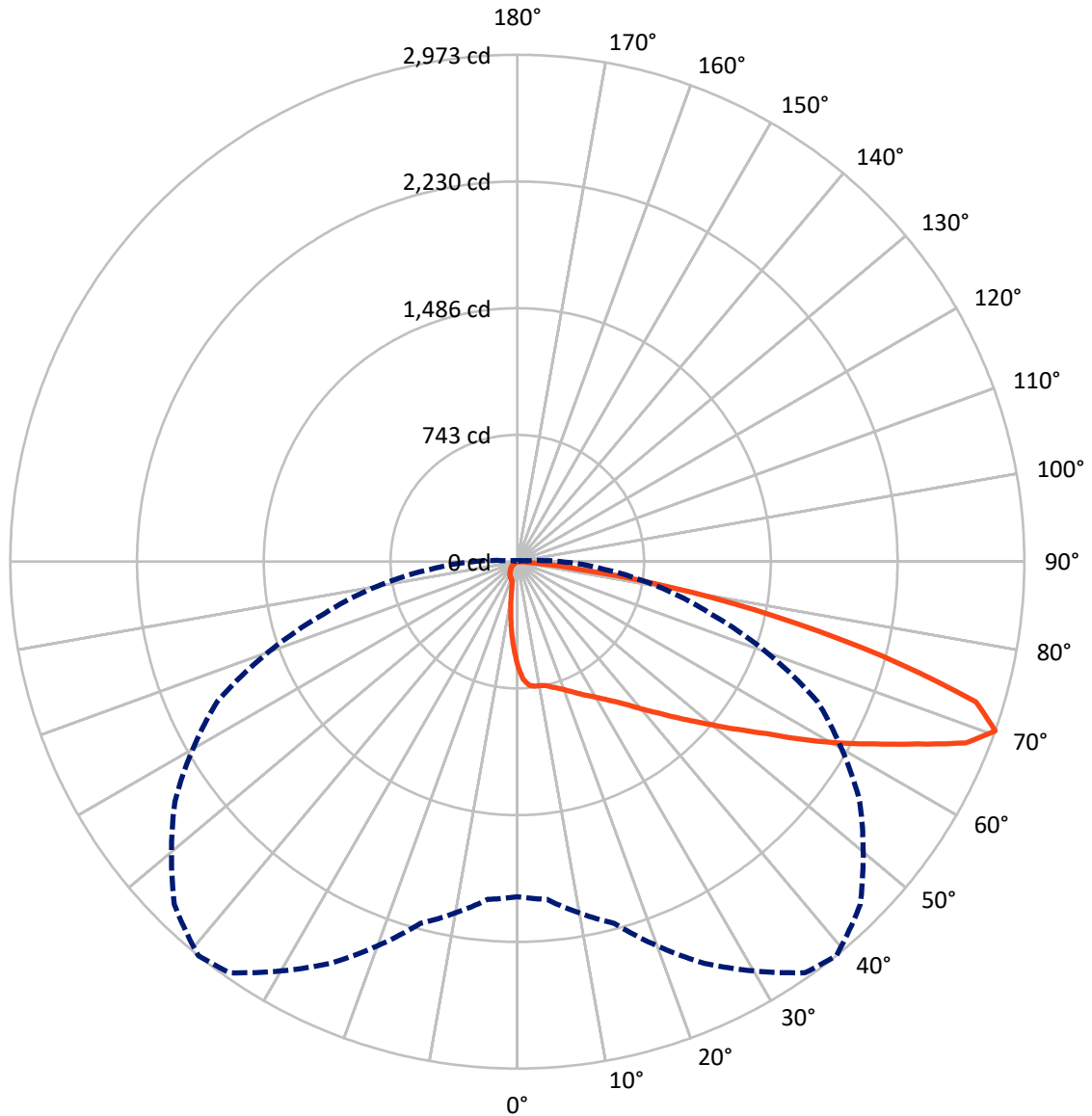
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 258.3 | 0.0 | 258.3 |
| | % Fixture | 6.5 | 0.0 | 6.5 |
| Street Side | Lumens | 3702.7 | 0.0 | 3702.7 |
| | % Fixture | 93.5 | 0.0 | 93.5 |
| Total | Lumens | 3961.0 | 0.0 | 3961.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 52.7 | 1.3 |
| 10°-20° | 137.0 | 3.5 |
| 20°-30° | 229.5 | 5.8 |
| 30°-40° | 355.9 | 9.0 |
| 40°-50° | 564.0 | 14.2 |
| 50°-60° | 826.8 | 20.9 |
| 60°-70° | 1059.7 | 26.8 |
| 70°-80° | 665.9 | 16.8 |
| 80°-90° | 69.4 | 1.8 |
| 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° | 3961.0 | 100.0 |
| 0°-180° | 3961.0 | 100.0 |

Coefficient of Utilization



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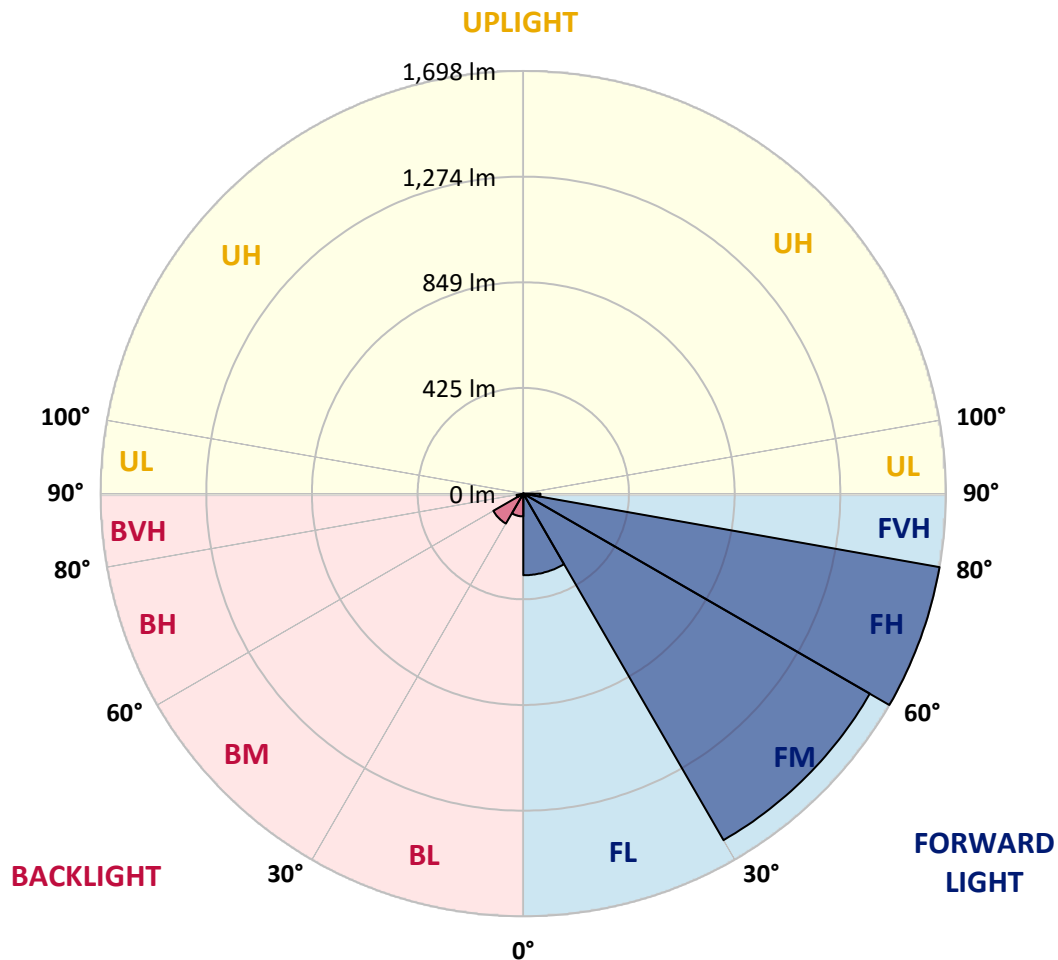
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 327.8 | 8.3 | | | |
| FM (30°-60°) | 1607.8 | 40.6 | | | |
| FH (60°-80°) | 1698.3 | 42.9 | | | G1/1800 |
| FVH (80°-90°) | 68.9 | 1.7 | | | G1/100 |
| BL (0°-30°) | 91.5 | 2.3 | B0/110 | | |
| BM (30°-60°) | 139.0 | 3.5 | B0/220 | | |
| BH (60°-80°) | 27.3 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.5 | 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° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 |
| 2.5° | 714.1 | 711.7 | 708.6 | 704.8 | 694.2 | 692.3 | 685.9 | 672.4 | 656.1 | 642.8 | 624.4 |
| 5° | 747.9 | 749.3 | 746.9 | 740.2 | 732.5 | 728.0 | 720.0 | 699.0 | 677.9 | 651.1 | 621.0 |
| 7.5° | 755.7 | 758.3 | 755.4 | 749.0 | 741.6 | 736.8 | 730.4 | 712.3 | 687.8 | 657.2 | 615.9 |
| 10° | 754.9 | 758.1 | 756.2 | 750.3 | 744.2 | 739.7 | 732.8 | 718.4 | 698.7 | 666.5 | 617.5 |
| 12.5° | 753.5 | 757.8 | 757.5 | 754.6 | 749.5 | 746.1 | 741.8 | 729.0 | 710.7 | 680.1 | 626.3 |
| 15° | 749.8 | 755.1 | 759.9 | 762.3 | 762.6 | 762.6 | 757.3 | 743.7 | 726.1 | 697.9 | 637.7 |
| 17.5° | 751.4 | 757.5 | 769.5 | 776.4 | 781.2 | 780.7 | 775.1 | 760.5 | 741.0 | 716.3 | 649.7 |
| 20° | 761.3 | 769.5 | 786.3 | 800.1 | 804.9 | 803.3 | 795.9 | 778.8 | 756.7 | 732.0 | 661.4 |
| 22.5° | 785.5 | 792.9 | 814.0 | 830.2 | 833.7 | 829.4 | 818.7 | 795.6 | 775.6 | 749.0 | 675.5 |
| 25° | 821.7 | 830.5 | 849.9 | 862.1 | 862.1 | 859.7 | 844.8 | 817.7 | 796.9 | 772.7 | 693.9 |
| 27.5° | 865.6 | 873.0 | 892.2 | 903.1 | 896.7 | 889.8 | 874.9 | 842.2 | 822.2 | 802.5 | 716.0 |
| 30° | 910.0 | 914.8 | 935.1 | 939.9 | 933.2 | 924.4 | 908.4 | 875.7 | 858.1 | 843.0 | 747.9 |
| 32.5° | 952.1 | 962.5 | 979.2 | 978.2 | 969.1 | 964.9 | 950.2 | 915.4 | 905.5 | 903.9 | 792.7 |
| 35° | 994.2 | 1002.1 | 1017.0 | 1020.8 | 1012.8 | 1012.0 | 1001.3 | 975.5 | 975.8 | 986.2 | 862.4 |
| 37.5° | 1030.4 | 1037.5 | 1055.1 | 1063.4 | 1065.0 | 1068.9 | 1064.7 | 1047.7 | 1071.9 | 1100.4 | 954.8 |
| 40° | 1060.7 | 1070.8 | 1093.2 | 1107.5 | 1124.0 | 1138.7 | 1139.5 | 1143.2 | 1191.9 | 1240.9 | 1075.3 |
| 42.5° | 1084.4 | 1098.5 | 1131.0 | 1157.6 | 1195.4 | 1214.0 | 1228.9 | 1249.4 | 1331.4 | 1404.6 | 1217.5 |
| 45° | 1115.3 | 1131.5 | 1172.0 | 1213.7 | 1272.8 | 1303.4 | 1324.2 | 1379.0 | 1495.4 | 1595.2 | 1363.3 |
| 47.5° | 1166.4 | 1174.9 | 1216.1 | 1277.1 | 1354.8 | 1398.5 | 1438.9 | 1522.0 | 1671.3 | 1760.7 | 1484.7 |
| 50° | 1232.1 | 1237.7 | 1268.8 | 1353.5 | 1454.1 | 1511.6 | 1585.3 | 1683.0 | 1853.9 | 1898.1 | 1553.4 |
| 52.5° | 1304.8 | 1306.6 | 1330.1 | 1437.6 | 1565.4 | 1637.8 | 1720.3 | 1840.8 | 2002.7 | 1996.0 | 1598.9 |
| 55° | 1389.2 | 1386.5 | 1406.5 | 1528.9 | 1697.1 | 1779.9 | 1876.0 | 2002.4 | 2131.8 | 2065.5 | 1625.0 |
| 57.5° | 1485.8 | 1478.6 | 1498.0 | 1650.0 | 1865.9 | 1964.9 | 2062.6 | 2141.9 | 2231.9 | 2123.8 | 1637.5 |
| 60° | 1586.9 | 1572.5 | 1595.7 | 1786.0 | 2064.7 | 2158.7 | 2239.8 | 2261.1 | 2337.3 | 2170.1 | 1615.9 |
| 62.5° | 1667.6 | 1667.8 | 1711.0 | 1930.8 | 2269.1 | 2351.4 | 2394.5 | 2413.6 | 2428.0 | 2160.0 | 1502.5 |
| 65° | 1793.5 | 1797.7 | 1866.7 | 2131.8 | 2505.7 | 2577.1 | 2606.6 | 2544.3 | 2432.0 | 2034.4 | 1332.2 |
| 67.5° | 1923.4 | 1936.9 | 2063.1 | 2408.6 | 2779.1 | 2836.6 | 2798.5 | 2569.6 | 2323.4 | 1747.7 | 1010.1 |
| 70° | 1965.7 | 1988.0 | 2195.9 | 2599.2 | 2943.1 | 2972.9 | 2844.1 | 2451.7 | 1942.3 | 1168.5 | 508.4 |
| 72.5° | 1801.2 | 1837.4 | 2119.5 | 2529.7 | 2838.5 | 2812.6 | 2544.6 | 2056.2 | 1234.8 | 443.7 | 155.2 |
| 75° | 1270.2 | 1286.1 | 1761.5 | 2098.5 | 2283.0 | 2209.8 | 1935.6 | 1325.5 | 507.9 | 124.6 | 53.2 |
| 77.5° | 655.8 | 648.1 | 1047.7 | 1392.3 | 1628.2 | 1552.3 | 1267.5 | 686.2 | 192.4 | 51.9 | 33.0 |
| 80° | 339.1 | 344.7 | 453.3 | 729.6 | 993.9 | 914.6 | 675.8 | 318.1 | 102.5 | 28.7 | 25.3 |
| 82.5° | 190.0 | 178.3 | 260.6 | 318.6 | 464.7 | 364.4 | 259.3 | 225.2 | 44.7 | 17.3 | 24.0 |
| 85° | 34.6 | 36.2 | 142.9 | 172.2 | 161.3 | 102.5 | 83.6 | 150.4 | 13.0 | 9.6 | 16.8 |
| 87.5° | 0.5 | 0.5 | 27.7 | 49.5 | 31.4 | 14.4 | 26.4 | 21.6 | 2.7 | 3.7 | 2.9 |
| 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° | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 | 618.1 |
| 2.5° | 615.1 | 605.0 | 586.1 | 567.5 | 543.8 | 524.4 | 511.3 | 497.7 | 483.9 | 485.0 | 488.2 |
| 5° | 604.5 | 586.9 | 549.6 | 510.3 | 472.5 | 438.4 | 404.8 | 374.8 | 362.5 | 351.3 | 351.9 |
| 7.5° | 593.8 | 569.1 | 514.5 | 452.8 | 395.5 | 337.5 | 295.5 | 260.8 | 242.5 | 228.6 | 224.6 |
| 10° | 589.0 | 556.3 | 482.3 | 397.4 | 316.2 | 252.9 | 198.8 | 170.6 | 148.8 | 141.9 | 143.7 |
| 12.5° | 591.2 | 549.9 | 453.3 | 347.4 | 250.7 | 176.2 | 138.4 | 124.0 | 119.2 | 118.4 | 117.9 |
| 15° | 595.2 | 545.4 | 424.8 | 292.0 | 184.2 | 131.0 | 116.3 | 113.7 | 113.1 | 112.6 | 112.9 |
| 17.5° | 600.5 | 541.4 | 394.5 | 240.1 | 141.3 | 114.5 | 110.2 | 108.9 | 108.6 | 108.6 | 108.6 |
| 20° | 605.8 | 536.9 | 360.7 | 193.8 | 117.9 | 108.1 | 105.4 | 104.6 | 104.3 | 104.3 | 104.1 |
| 22.5° | 611.9 | 532.9 | 326.3 | 152.3 | 108.6 | 103.5 | 101.1 | 100.6 | 100.3 | 100.1 | 100.1 |
| 25° | 620.7 | 527.8 | 289.9 | 124.6 | 102.7 | 99.3 | 96.9 | 96.4 | 96.1 | 95.0 | 95.3 |
| 27.5° | 632.4 | 524.1 | 252.3 | 107.5 | 97.4 | 94.0 | 92.4 | 91.6 | 91.0 | 90.2 | 90.5 |
| 30° | 648.4 | 520.9 | 212.4 | 98.2 | 91.3 | 88.4 | 86.8 | 86.2 | 85.7 | 84.9 | 84.9 |
| 32.5° | 676.1 | 522.2 | 170.4 | 90.8 | 85.7 | 82.2 | 80.7 | 80.1 | 79.6 | 78.8 | 78.8 |
| 35° | 717.6 | 529.9 | 136.3 | 84.4 | 79.1 | 75.6 | 74.0 | 74.0 | 73.2 | 72.1 | 71.9 |
| 37.5° | 785.5 | 549.6 | 109.4 | 78.3 | 72.7 | 69.5 | 67.6 | 67.1 | 66.3 | 64.7 | 64.4 |
| 40° | 865.6 | 580.3 | 92.1 | 72.1 | 66.8 | 63.6 | 62.0 | 60.4 | 58.3 | 56.7 | 56.4 |
| 42.5° | 966.2 | 611.7 | 79.9 | 66.0 | 61.2 | 58.3 | 56.4 | 53.8 | 50.6 | 48.4 | 48.2 |
| 45° | 1071.1 | 640.4 | 71.6 | 60.4 | 55.9 | 53.5 | 51.4 | 47.1 | 43.1 | 40.5 | 40.2 |
| 47.5° | 1149.3 | 645.7 | 64.9 | 55.1 | 51.4 | 49.0 | 46.0 | 40.7 | 35.4 | 33.0 | 32.2 |
| 50° | 1186.3 | 619.9 | 58.0 | 49.8 | 46.8 | 44.2 | 40.5 | 34.3 | 28.5 | 25.6 | 25.0 |
| 52.5° | 1199.4 | 575.2 | 52.4 | 45.0 | 42.3 | 39.1 | 34.6 | 27.7 | 22.4 | 19.4 | 19.2 |
| 55° | 1194.0 | 518.8 | 47.4 | 40.5 | 37.0 | 33.3 | 28.7 | 22.1 | 16.5 | 14.1 | 13.6 |
| 57.5° | 1166.1 | 446.9 | 42.3 | 35.9 | 31.7 | 27.9 | 22.9 | 16.5 | 11.2 | 9.0 | 8.8 |
| 60° | 1090.8 | 349.0 | 37.3 | 30.9 | 26.9 | 22.9 | 18.1 | 11.7 | 6.9 | 5.1 | 5.1 |
| 62.5° | 963.5 | 259.0 | 32.5 | 25.8 | 22.6 | 18.4 | 12.8 | 7.5 | 3.7 | 2.7 | 2.4 |
| 65° | 805.2 | 191.1 | 27.1 | 21.8 | 18.9 | 14.4 | 9.0 | 4.5 | 1.9 | 0.8 | 0.5 |
| 67.5° | 561.9 | 117.9 | 22.6 | 17.8 | 15.4 | 10.4 | 5.6 | 1.9 | 0.8 | 0.0 | 0.0 |
| 70° | 255.3 | 56.2 | 17.3 | 13.6 | 11.7 | 7.5 | 2.9 | 1.1 | 0.5 | 0.0 | 0.0 |
| 72.5° | 79.3 | 29.5 | 12.2 | 9.8 | 8.0 | 4.8 | 1.6 | 0.8 | 0.5 | 0.0 | 0.0 |
| 75° | 36.7 | 18.9 | 7.7 | 5.3 | 4.5 | 2.4 | 1.1 | 0.5 | 0.3 | 0.0 | 0.0 |
| 77.5° | 27.4 | 14.6 | 4.5 | 2.9 | 2.4 | 1.6 | 0.8 | 0.5 | 0.3 | 0.0 | 0.0 |
| 80° | 24.0 | 7.5 | 2.7 | 1.9 | 1.3 | 1.1 | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 |
| 82.5° | 21.6 | 3.7 | 1.6 | 1.1 | 0.8 | 0.5 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| 85° | 11.7 | 2.1 | 1.1 | 0.8 | 0.5 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.1 | 1.1 | 0.8 | 0.5 | 0.5 | 0.3 | 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)