

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: P450461

Luminaire Tested: **GALN-SA1B-730-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P450461
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-730-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 3000K, 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: 4313 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G2

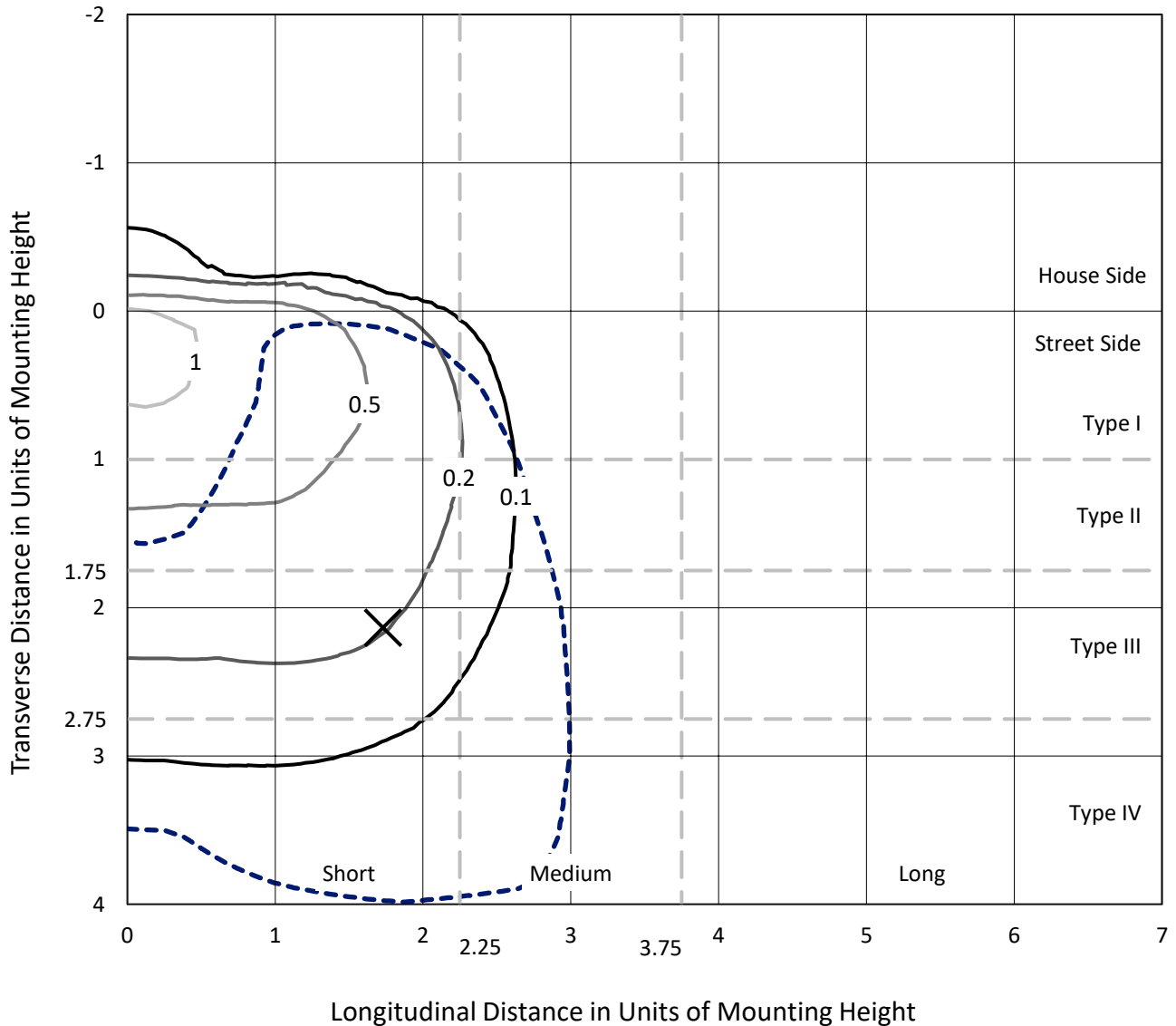
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

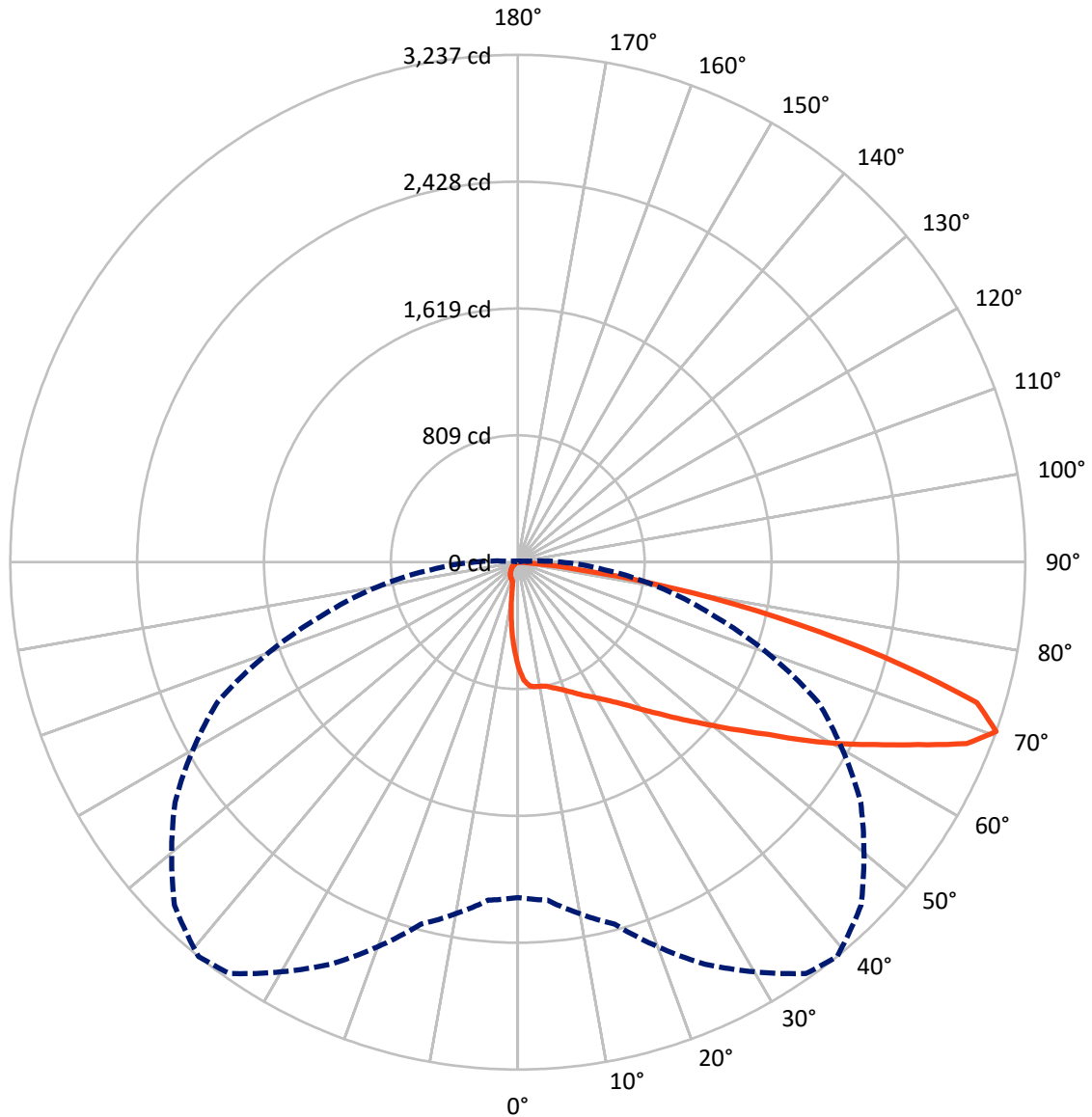
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 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 | 281.2 | 0.0 | 281.2 |
| | % Fixture | 6.5 | 0.0 | 6.5 |
| Street Side | Lumens | 4031.8 | 0.0 | 4031.8 |
| | % Fixture | 93.5 | 0.0 | 93.5 |
| Total | Lumens | 4313.0 | 0.0 | 4313.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 57.4 | 1.3 |
| 10°-20° | 149.2 | 3.5 |
| 20°-30° | 249.9 | 5.8 |
| 30°-40° | 387.6 | 9.0 |
| 40°-50° | 614.2 | 14.2 |
| 50°-60° | 900.3 | 20.9 |
| 60°-70° | 1153.9 | 26.8 |
| 70°-80° | 725.1 | 16.8 |
| 80°-90° | 75.5 | 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° | 4313.0 | 100.0 |
| 0°-180° | 4313.0 | 100.0 |



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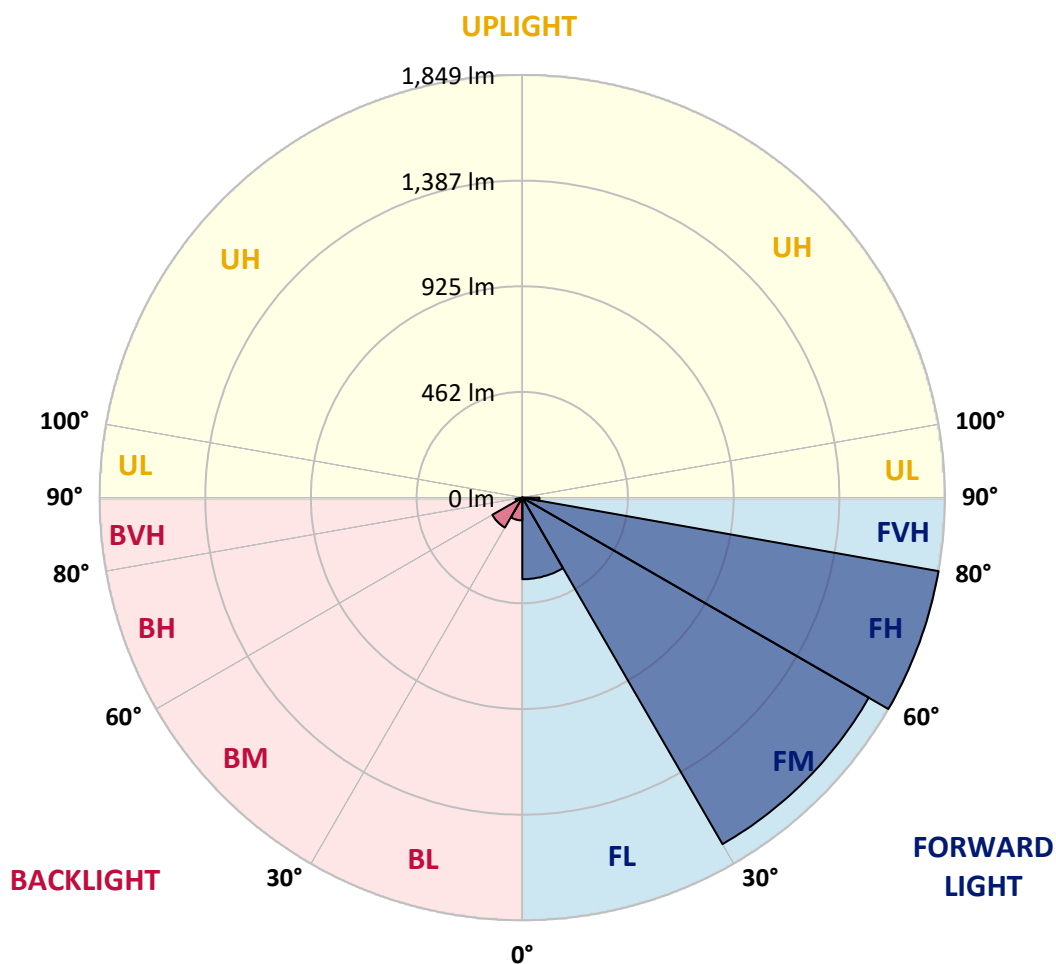
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 356.9 | 8.3 | | | |
| FM (30°-60°) | 1750.6 | 40.6 | | | |
| FH (60°-80°) | 1849.3 | 42.9 | | | G2/5000 |
| FVH (80°-90°) | 75.0 | 1.7 | | | G1/100 |
| BL (0°-30°) | 99.6 | 2.3 | B0/110 | | |
| BM (30°-60°) | 151.3 | 3.5 | B0/220 | | |
| BH (60°-80°) | 29.7 | 0.7 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.6 | 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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 |
| 2.5° | 777.6 | 775.0 | 771.5 | 767.5 | 755.9 | 753.8 | 746.9 | 732.1 | 714.4 | 699.9 | 679.9 |
| 5° | 814.4 | 815.9 | 813.3 | 806.0 | 797.6 | 792.7 | 784.0 | 761.1 | 738.2 | 708.9 | 676.2 |
| 7.5° | 822.8 | 825.7 | 822.5 | 815.6 | 807.5 | 802.2 | 795.3 | 775.6 | 748.9 | 715.6 | 670.7 |
| 10° | 821.9 | 825.4 | 823.4 | 817.0 | 810.4 | 805.4 | 797.9 | 782.2 | 760.8 | 725.7 | 672.4 |
| 12.5° | 820.5 | 825.1 | 824.8 | 821.7 | 816.1 | 812.4 | 807.7 | 793.8 | 773.8 | 740.5 | 682.0 |
| 15° | 816.4 | 822.2 | 827.5 | 830.1 | 830.4 | 830.4 | 824.6 | 809.8 | 790.6 | 759.9 | 694.4 |
| 17.5° | 818.2 | 824.8 | 837.9 | 845.4 | 850.6 | 850.1 | 844.0 | 828.0 | 806.9 | 779.9 | 707.5 |
| 20° | 828.9 | 837.9 | 856.1 | 871.2 | 876.4 | 874.7 | 866.6 | 848.0 | 824.0 | 797.0 | 720.2 |
| 22.5° | 855.3 | 863.4 | 886.3 | 904.0 | 907.7 | 903.1 | 891.5 | 866.3 | 844.6 | 815.6 | 735.6 |
| 25° | 894.7 | 904.3 | 925.4 | 938.7 | 938.7 | 936.1 | 919.9 | 890.3 | 867.7 | 841.4 | 755.6 |
| 27.5° | 942.5 | 950.6 | 971.5 | 983.4 | 976.4 | 968.9 | 952.7 | 917.0 | 895.3 | 873.8 | 779.6 |
| 30° | 990.9 | 996.1 | 1018.2 | 1023.4 | 1016.1 | 1006.6 | 989.2 | 953.5 | 934.4 | 917.9 | 814.4 |
| 32.5° | 1036.7 | 1048.0 | 1066.3 | 1065.1 | 1055.3 | 1050.6 | 1034.7 | 996.7 | 986.0 | 984.2 | 863.1 |
| 35° | 1082.5 | 1091.2 | 1107.4 | 1111.5 | 1102.8 | 1101.9 | 1090.3 | 1062.2 | 1062.5 | 1073.8 | 939.0 |
| 37.5° | 1121.9 | 1129.7 | 1148.9 | 1157.9 | 1159.6 | 1163.9 | 1159.3 | 1140.8 | 1167.1 | 1198.1 | 1039.6 |
| 40° | 1155.0 | 1166.0 | 1190.3 | 1206.0 | 1223.9 | 1239.9 | 1240.7 | 1244.8 | 1297.8 | 1351.2 | 1170.9 |
| 42.5° | 1180.8 | 1196.1 | 1231.5 | 1260.5 | 1301.6 | 1321.9 | 1338.1 | 1360.4 | 1449.7 | 1529.4 | 1325.7 |
| 45° | 1214.4 | 1232.1 | 1276.1 | 1321.6 | 1385.9 | 1419.3 | 1441.9 | 1501.6 | 1628.2 | 1736.9 | 1484.5 |
| 47.5° | 1270.0 | 1279.3 | 1324.2 | 1390.6 | 1475.2 | 1522.7 | 1566.8 | 1657.2 | 1819.8 | 1917.2 | 1616.6 |
| 50° | 1341.6 | 1347.7 | 1381.6 | 1473.8 | 1583.3 | 1645.9 | 1726.2 | 1832.6 | 2018.6 | 2066.7 | 1691.4 |
| 52.5° | 1420.7 | 1422.8 | 1448.3 | 1565.4 | 1704.5 | 1783.3 | 1873.1 | 2004.4 | 2180.7 | 2173.4 | 1741.0 |
| 55° | 1512.6 | 1509.7 | 1531.4 | 1664.8 | 1847.9 | 1938.1 | 2042.7 | 2180.4 | 2321.2 | 2249.0 | 1769.4 |
| 57.5° | 1617.8 | 1610.0 | 1631.1 | 1796.6 | 2031.7 | 2139.5 | 2245.9 | 2332.2 | 2430.2 | 2312.5 | 1783.0 |
| 60° | 1727.9 | 1712.3 | 1737.5 | 1944.7 | 2248.2 | 2350.5 | 2438.9 | 2462.1 | 2545.0 | 2363.0 | 1759.5 |
| 62.5° | 1815.8 | 1816.0 | 1863.0 | 2102.4 | 2470.8 | 2560.3 | 2607.3 | 2628.1 | 2643.8 | 2351.9 | 1636.1 |
| 65° | 1952.8 | 1957.5 | 2032.5 | 2321.2 | 2728.4 | 2806.1 | 2838.3 | 2770.4 | 2648.1 | 2215.1 | 1450.6 |
| 67.5° | 2094.3 | 2109.1 | 2246.4 | 2622.6 | 3026.1 | 3088.7 | 3047.2 | 2798.0 | 2529.9 | 1903.0 | 1099.9 |
| 70° | 2140.4 | 2164.7 | 2391.1 | 2830.2 | 3204.6 | 3237.1 | 3096.8 | 2669.6 | 2114.9 | 1272.3 | 553.6 |
| 72.5° | 1961.3 | 2000.7 | 2307.9 | 2754.5 | 3090.7 | 3062.6 | 2770.7 | 2238.9 | 1344.5 | 483.1 | 169.0 |
| 75° | 1383.0 | 1400.4 | 1918.1 | 2285.0 | 2485.8 | 2406.1 | 2107.6 | 1443.3 | 553.0 | 135.6 | 58.0 |
| 77.5° | 714.1 | 705.7 | 1140.8 | 1516.1 | 1772.9 | 1690.3 | 1380.2 | 747.2 | 209.5 | 56.5 | 35.9 |
| 80° | 369.2 | 375.3 | 493.6 | 794.4 | 1082.2 | 995.8 | 735.9 | 346.3 | 111.6 | 31.3 | 27.5 |
| 82.5° | 206.9 | 194.2 | 283.7 | 346.9 | 506.0 | 396.8 | 282.3 | 245.2 | 48.7 | 18.8 | 26.1 |
| 85° | 37.7 | 39.4 | 155.6 | 187.5 | 175.6 | 111.6 | 91.0 | 163.8 | 14.2 | 10.4 | 18.3 |
| 87.5° | 0.6 | 0.6 | 30.1 | 53.9 | 34.2 | 15.7 | 28.7 | 23.5 | 2.9 | 4.1 | 3.2 |
| 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° | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 | 673.0 |
| 2.5° | 669.8 | 658.8 | 638.2 | 617.9 | 592.1 | 571.0 | 556.8 | 542.0 | 526.9 | 528.1 | 531.5 |
| 5° | 658.2 | 639.1 | 598.5 | 555.6 | 514.4 | 477.3 | 440.8 | 408.1 | 394.7 | 382.6 | 383.1 |
| 7.5° | 646.6 | 619.6 | 560.2 | 493.0 | 430.7 | 367.5 | 321.7 | 284.0 | 264.0 | 249.0 | 244.6 |
| 10° | 641.4 | 605.7 | 525.2 | 432.7 | 344.3 | 275.3 | 216.5 | 185.8 | 162.0 | 154.5 | 156.5 |
| 12.5° | 643.7 | 598.8 | 493.6 | 378.2 | 273.0 | 191.9 | 150.7 | 135.1 | 129.8 | 129.0 | 128.4 |
| 15° | 648.1 | 593.9 | 462.6 | 317.9 | 200.6 | 142.6 | 126.7 | 123.8 | 123.2 | 122.6 | 122.9 |
| 17.5° | 653.8 | 589.5 | 429.5 | 261.4 | 153.9 | 124.6 | 120.0 | 118.5 | 118.2 | 118.2 | 118.2 |
| 20° | 659.6 | 584.6 | 392.7 | 211.0 | 128.4 | 117.7 | 114.8 | 113.9 | 113.6 | 113.6 | 113.3 |
| 22.5° | 666.3 | 580.2 | 355.3 | 165.8 | 118.2 | 112.7 | 110.1 | 109.6 | 109.3 | 109.0 | 109.0 |
| 25° | 675.9 | 574.7 | 315.6 | 135.6 | 111.9 | 108.1 | 105.5 | 104.9 | 104.6 | 103.5 | 103.8 |
| 27.5° | 688.6 | 570.7 | 274.8 | 117.1 | 106.1 | 102.3 | 100.6 | 99.7 | 99.1 | 98.3 | 98.5 |
| 30° | 706.0 | 567.2 | 231.3 | 106.9 | 99.4 | 96.2 | 94.5 | 93.9 | 93.3 | 92.5 | 92.5 |
| 32.5° | 736.2 | 568.6 | 185.5 | 98.8 | 93.3 | 89.6 | 87.8 | 87.2 | 86.7 | 85.8 | 85.8 |
| 35° | 781.4 | 577.0 | 148.4 | 91.9 | 86.1 | 82.3 | 80.6 | 80.6 | 79.7 | 78.5 | 78.3 |
| 37.5° | 855.3 | 598.5 | 119.1 | 85.2 | 79.1 | 75.6 | 73.6 | 73.0 | 72.2 | 70.4 | 70.1 |
| 40° | 942.5 | 631.8 | 100.3 | 78.5 | 72.7 | 69.3 | 67.5 | 65.8 | 63.5 | 61.7 | 61.4 |
| 42.5° | 1052.1 | 666.0 | 86.9 | 71.9 | 66.7 | 63.5 | 61.4 | 58.5 | 55.1 | 52.7 | 52.5 |
| 45° | 1166.3 | 697.3 | 78.0 | 65.8 | 60.9 | 58.3 | 55.9 | 51.3 | 47.0 | 44.1 | 43.8 |
| 47.5° | 1251.5 | 703.1 | 70.7 | 60.0 | 55.9 | 53.3 | 50.1 | 44.3 | 38.5 | 35.9 | 35.1 |
| 50° | 1291.8 | 675.0 | 63.2 | 54.2 | 51.0 | 48.1 | 44.1 | 37.4 | 31.0 | 27.8 | 27.2 |
| 52.5° | 1306.0 | 626.3 | 57.1 | 49.0 | 46.1 | 42.6 | 37.7 | 30.1 | 24.3 | 21.2 | 20.9 |
| 55° | 1300.2 | 564.9 | 51.6 | 44.1 | 40.3 | 36.2 | 31.3 | 24.1 | 18.0 | 15.4 | 14.8 |
| 57.5° | 1269.7 | 486.6 | 46.1 | 39.1 | 34.5 | 30.4 | 24.9 | 18.0 | 12.2 | 9.9 | 9.6 |
| 60° | 1187.7 | 380.0 | 40.6 | 33.6 | 29.3 | 24.9 | 19.7 | 12.8 | 7.5 | 5.5 | 5.5 |
| 62.5° | 1049.2 | 282.0 | 35.4 | 28.1 | 24.6 | 20.0 | 13.9 | 8.1 | 4.1 | 2.9 | 2.6 |
| 65° | 876.7 | 208.1 | 29.6 | 23.8 | 20.6 | 15.7 | 9.9 | 4.9 | 2.0 | 0.9 | 0.6 |
| 67.5° | 611.8 | 128.4 | 24.6 | 19.4 | 16.8 | 11.3 | 6.1 | 2.0 | 0.9 | 0.0 | 0.0 |
| 70° | 277.9 | 61.2 | 18.8 | 14.8 | 12.8 | 8.1 | 3.2 | 1.2 | 0.6 | 0.0 | 0.0 |
| 72.5° | 86.4 | 32.2 | 13.3 | 10.7 | 8.7 | 5.2 | 1.7 | 0.9 | 0.6 | 0.0 | 0.0 |
| 75° | 40.0 | 20.6 | 8.4 | 5.8 | 4.9 | 2.6 | 1.2 | 0.6 | 0.3 | 0.0 | 0.0 |
| 77.5° | 29.9 | 15.9 | 4.9 | 3.2 | 2.6 | 1.7 | 0.9 | 0.6 | 0.3 | 0.0 | 0.0 |
| 80° | 26.1 | 8.1 | 2.9 | 2.0 | 1.4 | 1.2 | 0.6 | 0.3 | 0.0 | 0.0 | 0.0 |
| 82.5° | 23.5 | 4.1 | 1.7 | 1.2 | 0.9 | 0.6 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| 85° | 12.8 | 2.3 | 1.2 | 0.9 | 0.6 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.3 | 1.2 | 0.9 | 0.6 | 0.6 | 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)