

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: P451601

Luminaire Tested: **GALN-SA2C-727-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P451601
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA2C-727-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9466 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

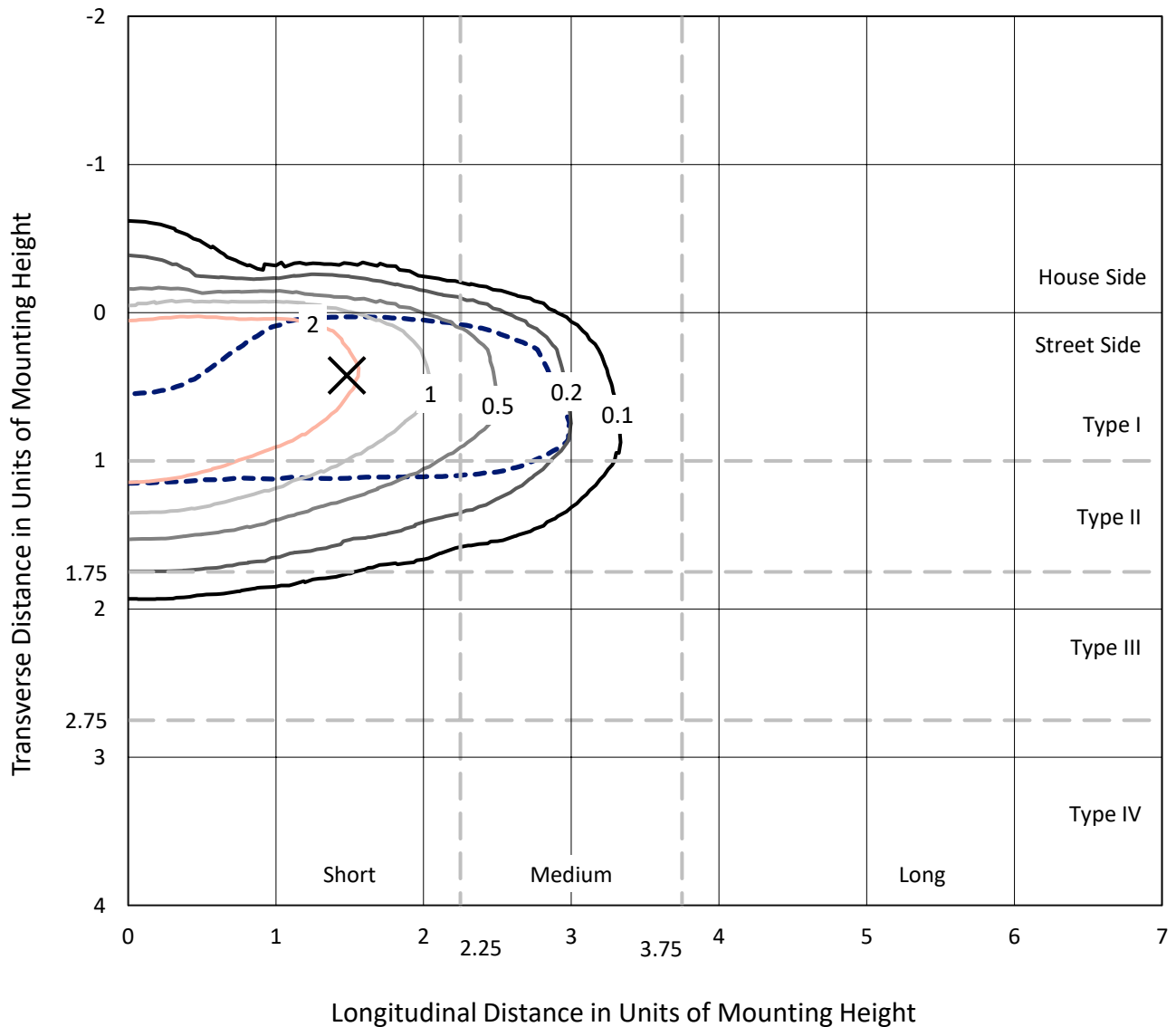
Input Watts (W): 108
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

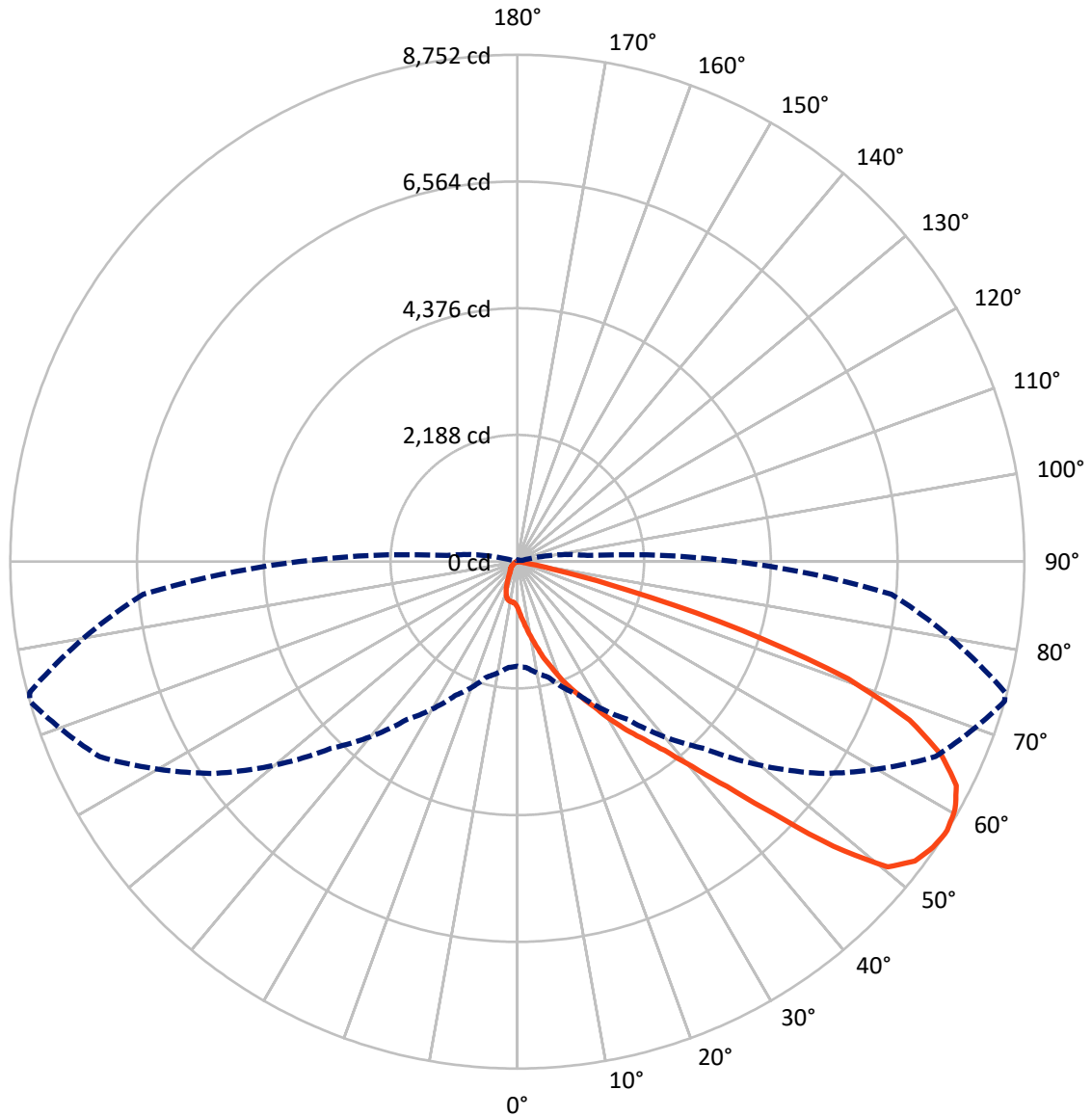
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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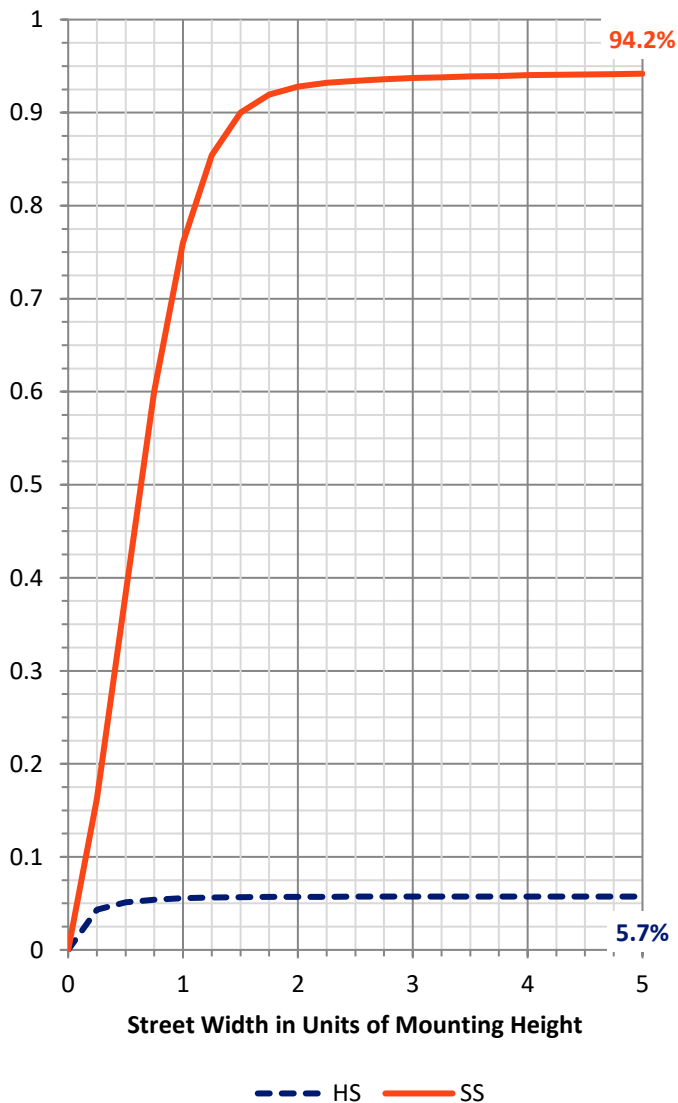
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 546.0 | 0.0 | 546.0 |
| | % Fixture | 5.8 | 0.0 | 5.8 |
| Street Side | Lumens | 8920.0 | 0.0 | 8920.0 |
| | % Fixture | 94.2 | 0.0 | 94.2 |
| Total | Lumens | 9466.0 | 0.0 | 9466.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 95.7 | 1.0 |
| 10°-20° | 377.2 | 4.0 |
| 20°-30° | 807.0 | 8.5 |
| 30°-40° | 1483.3 | 15.7 |
| 40°-50° | 2274.0 | 24.0 |
| 50°-60° | 2405.6 | 25.4 |
| 60°-70° | 1570.9 | 16.6 |
| 70°-80° | 429.2 | 4.5 |
| 80°-90° | 23.1 | 0.2 |
| 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° | 9466.0 | 100.0 |
| 0°-180° | 9466.0 | 100.0 |

Coefficient of Utilization



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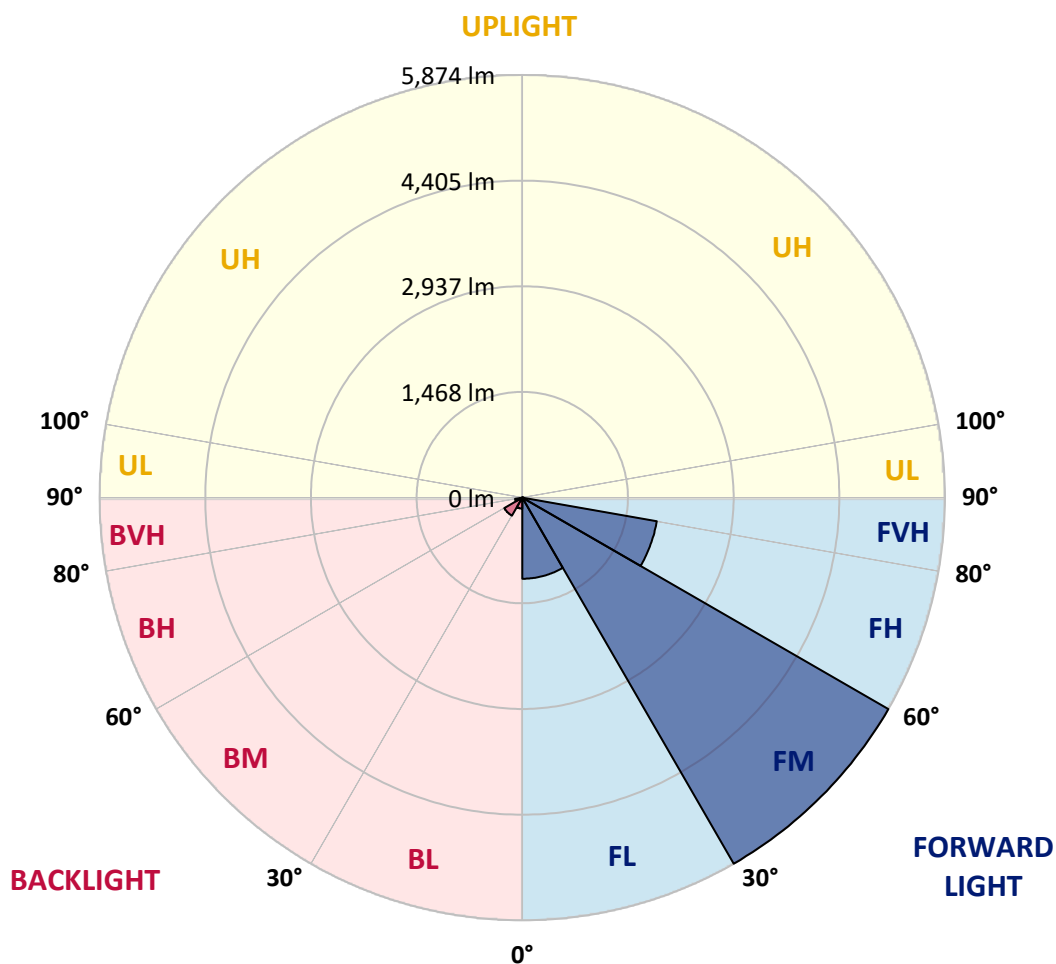
CATALOG NUMBER: GALN-SA2C-727-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1127.4 | 11.9 | | | |
| FM (30°-60°) | 5873.8 | 62.1 | | | |
| FH (60°-80°) | 1897.6 | 20.0 | | | G2/5000 |
| FVH (80°-90°) | 21.2 | 0.2 | | | G1/100 |
| BL (0°-30°) | 152.5 | 1.6 | B1/500 | | |
| BM (30°-60°) | 289.1 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 102.5 | 1.1 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.9 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 |
| 2.5° | 1160.1 | 1149.6 | 1128.7 | 1121.5 | 1090.8 | 1043.1 | 1001.2 | 945.0 | 900.6 | 896.0 | 842.4 |
| 5° | 1553.5 | 1530.0 | 1520.2 | 1473.1 | 1399.3 | 1330.0 | 1211.0 | 1120.9 | 1016.9 | 1009.1 | 901.3 |
| 7.5° | 1932.6 | 1899.9 | 1890.1 | 1845.6 | 1759.4 | 1650.2 | 1496.0 | 1332.0 | 1167.3 | 1152.2 | 980.3 |
| 10° | 2207.1 | 2211.6 | 2194.0 | 2164.6 | 2094.7 | 1983.5 | 1793.4 | 1569.2 | 1334.6 | 1315.6 | 1069.2 |
| 12.5° | 2403.8 | 2403.1 | 2406.4 | 2405.7 | 2368.5 | 2284.2 | 2084.2 | 1826.0 | 1518.9 | 1481.6 | 1171.2 |
| 15° | 2531.9 | 2533.8 | 2543.6 | 2577.6 | 2581.6 | 2529.3 | 2362.6 | 2071.8 | 1732.6 | 1686.2 | 1281.6 |
| 17.5° | 2661.3 | 2675.0 | 2690.7 | 2722.7 | 2751.5 | 2730.6 | 2612.9 | 2328.0 | 1926.0 | 1891.4 | 1399.9 |
| 20° | 2875.0 | 2894.0 | 2884.8 | 2904.4 | 2919.4 | 2921.4 | 2830.6 | 2564.6 | 2160.7 | 2102.5 | 1535.2 |
| 22.5° | 3216.8 | 3216.2 | 3192.6 | 3157.3 | 3127.9 | 3126.6 | 3044.3 | 2807.7 | 2373.7 | 2317.5 | 1671.1 |
| 25° | 3648.8 | 3650.8 | 3605.0 | 3504.4 | 3431.2 | 3341.6 | 3246.9 | 3020.7 | 2601.8 | 2532.5 | 1814.3 |
| 27.5° | 4144.2 | 4131.8 | 4062.5 | 3924.0 | 3778.9 | 3625.9 | 3489.3 | 3268.4 | 2843.6 | 2786.1 | 1978.3 |
| 30° | 4589.3 | 4584.7 | 4503.7 | 4334.4 | 4143.6 | 3990.0 | 3791.9 | 3578.9 | 3156.7 | 3086.1 | 2162.0 |
| 32.5° | 5003.6 | 5010.2 | 4897.8 | 4722.6 | 4538.3 | 4361.2 | 4152.1 | 3875.6 | 3463.9 | 3363.9 | 2362.0 |
| 35° | 5327.1 | 5333.7 | 5217.3 | 5071.6 | 4882.1 | 4735.0 | 4535.7 | 4191.9 | 3767.1 | 3682.8 | 2592.0 |
| 37.5° | 5499.7 | 5508.2 | 5440.9 | 5331.1 | 5212.8 | 5138.9 | 4953.3 | 4599.1 | 4135.7 | 4084.7 | 2863.9 |
| 40° | 5532.4 | 5542.2 | 5512.8 | 5483.3 | 5476.8 | 5529.7 | 5475.5 | 5078.8 | 4646.8 | 4567.1 | 3269.1 |
| 42.5° | 5434.3 | 5447.4 | 5460.5 | 5525.8 | 5659.2 | 5853.3 | 6042.1 | 5729.7 | 5304.9 | 5197.7 | 3764.5 |
| 45° | 5176.8 | 5175.5 | 5227.2 | 5396.4 | 5695.1 | 6109.5 | 6634.3 | 6544.7 | 6201.6 | 6074.2 | 4464.5 |
| 47.5° | 4736.3 | 4729.8 | 4841.6 | 5082.7 | 5548.0 | 6156.5 | 7117.2 | 7534.2 | 7346.0 | 7228.3 | 5216.7 |
| 50° | 4065.1 | 4097.2 | 4273.0 | 4609.5 | 5182.7 | 6014.0 | 7266.3 | 8183.2 | 8285.1 | 8160.3 | 5824.5 |
| 52.5° | 3278.9 | 3277.6 | 3553.4 | 4010.2 | 4641.6 | 5700.3 | 7162.3 | 8300.8 | 8590.4 | 8494.9 | 6123.8 |
| 55° | 2426.7 | 2443.7 | 2730.6 | 3191.3 | 3939.0 | 5127.8 | 6823.1 | 8179.9 | 8706.7 | 8639.4 | 6321.2 |
| 57° | 1805.1 | 1835.2 | 2065.2 | 2552.8 | 3327.3 | 4561.2 | 6371.5 | 7963.6 | 8752.4 | 8715.8 | 6485.3 |
| 57.5° | 1684.9 | 1686.2 | 1910.3 | 2353.5 | 3148.2 | 4343.5 | 6242.1 | 7873.4 | 8751.1 | 8730.9 | 6512.0 |
| 60° | 1037.2 | 1069.9 | 1224.8 | 1590.8 | 2304.4 | 3390.0 | 5374.9 | 7355.1 | 8683.2 | 8712.6 | 6626.4 |
| 62.5° | 620.9 | 634.6 | 735.3 | 958.8 | 1485.5 | 2474.4 | 4398.4 | 6691.8 | 8506.1 | 8595.6 | 6618.6 |
| 65° | 399.3 | 402.6 | 448.3 | 580.4 | 928.7 | 1672.5 | 3389.3 | 5815.4 | 8047.9 | 8212.6 | 6359.8 |
| 67.5° | 308.5 | 313.7 | 332.0 | 381.0 | 538.5 | 1041.8 | 2397.2 | 4880.1 | 7306.8 | 7519.2 | 5732.4 |
| 70° | 273.8 | 276.5 | 283.0 | 298.7 | 356.2 | 588.2 | 1491.4 | 3812.2 | 6059.1 | 6119.3 | 4486.0 |
| 72.5° | 223.5 | 230.7 | 251.0 | 256.2 | 282.3 | 367.3 | 830.0 | 2558.7 | 4071.0 | 4086.0 | 2509.7 |
| 75° | 173.2 | 174.5 | 204.6 | 219.6 | 237.9 | 252.9 | 370.6 | 1290.1 | 1955.4 | 1850.9 | 967.3 |
| 77.5° | 129.4 | 135.3 | 149.0 | 168.0 | 194.1 | 181.0 | 166.0 | 486.2 | 607.2 | 596.0 | 281.0 |
| 80° | 83.0 | 86.3 | 103.9 | 126.1 | 151.0 | 118.3 | 93.5 | 142.5 | 133.3 | 137.2 | 67.3 |
| 82.5° | 41.8 | 42.5 | 66.7 | 102.6 | 96.1 | 59.5 | 58.8 | 58.2 | 49.7 | 49.0 | 31.4 |
| 85° | 4.6 | 9.8 | 43.1 | 58.8 | 43.1 | 19.6 | 27.4 | 26.8 | 26.1 | 26.8 | 18.3 |
| 87.5° | 0.7 | 0.7 | 7.2 | 8.5 | 5.9 | 6.5 | 7.8 | 8.5 | 10.5 | 9.8 | 7.8 |
| 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° | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 | 792.8 |
| 2.5° | 816.3 | 790.2 | 741.8 | 695.4 | 660.7 | 638.5 | 609.8 | 599.3 | 584.3 | 582.3 | 575.1 |
| 5° | 851.6 | 801.9 | 717.6 | 650.9 | 597.4 | 556.8 | 521.5 | 492.1 | 468.6 | 463.4 | 466.0 |
| 7.5° | 901.9 | 828.1 | 710.4 | 619.6 | 545.1 | 475.8 | 419.6 | 384.9 | 360.1 | 351.0 | 352.3 |
| 10° | 958.8 | 862.7 | 709.1 | 586.2 | 472.5 | 387.6 | 326.1 | 295.4 | 281.0 | 275.8 | 269.9 |
| 12.5° | 1026.1 | 902.6 | 705.8 | 534.6 | 392.8 | 309.1 | 265.3 | 247.0 | 233.3 | 229.4 | 229.4 |
| 15° | 1101.9 | 945.0 | 690.2 | 470.6 | 318.9 | 255.5 | 226.1 | 211.8 | 207.2 | 203.3 | 203.3 |
| 17.5° | 1181.0 | 986.9 | 657.5 | 391.5 | 264.7 | 218.9 | 200.6 | 192.1 | 185.6 | 181.0 | 181.0 |
| 20° | 1271.2 | 1028.0 | 605.2 | 321.6 | 223.5 | 195.4 | 181.0 | 171.2 | 166.0 | 162.1 | 160.8 |
| 22.5° | 1356.8 | 1061.4 | 538.5 | 264.0 | 194.8 | 175.8 | 162.7 | 152.3 | 147.1 | 145.1 | 145.1 |
| 25° | 1445.7 | 1081.6 | 458.1 | 218.3 | 177.8 | 159.5 | 145.1 | 136.6 | 132.0 | 130.7 | 130.1 |
| 27.5° | 1531.9 | 1093.4 | 387.6 | 190.8 | 162.1 | 144.4 | 130.7 | 124.2 | 119.6 | 118.3 | 118.9 |
| 30° | 1636.5 | 1095.4 | 318.9 | 171.2 | 148.4 | 130.1 | 117.6 | 111.8 | 109.1 | 107.8 | 107.2 |
| 32.5° | 1742.4 | 1092.7 | 268.0 | 159.5 | 135.3 | 117.6 | 107.2 | 102.6 | 100.6 | 98.7 | 98.7 |
| 35° | 1861.3 | 1079.0 | 228.1 | 147.7 | 122.9 | 107.2 | 98.0 | 94.1 | 91.5 | 89.5 | 88.9 |
| 37.5° | 2009.0 | 1071.8 | 205.2 | 134.6 | 111.8 | 97.4 | 88.9 | 85.0 | 83.0 | 80.4 | 79.7 |
| 40° | 2241.7 | 1103.9 | 198.0 | 122.9 | 100.6 | 88.2 | 80.4 | 75.8 | 73.2 | 70.6 | 69.9 |
| 42.5° | 2531.9 | 1160.1 | 186.3 | 111.1 | 90.8 | 79.7 | 71.9 | 66.7 | 62.1 | 58.8 | 57.5 |
| 45° | 2907.7 | 1233.9 | 168.0 | 98.7 | 82.3 | 70.6 | 63.4 | 56.9 | 51.0 | 48.4 | 47.7 |
| 47.5° | 3301.8 | 1305.2 | 151.6 | 88.9 | 73.2 | 62.7 | 54.9 | 47.7 | 42.5 | 40.5 | 39.9 |
| 50° | 3543.6 | 1319.5 | 141.2 | 77.8 | 64.0 | 54.2 | 46.4 | 39.9 | 36.6 | 34.6 | 34.6 |
| 52.5° | 3654.0 | 1296.7 | 126.8 | 68.0 | 55.6 | 47.7 | 39.9 | 34.6 | 32.7 | 31.4 | 30.7 |
| 55° | 3731.2 | 1261.4 | 107.8 | 58.8 | 47.7 | 40.5 | 35.3 | 31.4 | 28.8 | 27.4 | 26.8 |
| 57° | 3776.3 | 1213.7 | 93.5 | 51.6 | 41.2 | 35.3 | 31.4 | 28.1 | 25.5 | 22.9 | 22.9 |
| 57.5° | 3778.2 | 1195.4 | 89.5 | 51.0 | 39.2 | 34.0 | 30.7 | 27.4 | 24.2 | 21.6 | 20.9 |
| 60° | 3720.0 | 1069.9 | 71.9 | 43.1 | 31.4 | 28.8 | 25.5 | 21.6 | 17.0 | 14.4 | 13.7 |
| 62.5° | 3533.1 | 910.4 | 59.5 | 36.6 | 25.5 | 22.2 | 18.3 | 16.3 | 11.8 | 8.5 | 8.5 |
| 65° | 3250.1 | 738.5 | 51.0 | 29.4 | 20.9 | 16.3 | 12.4 | 11.8 | 7.2 | 3.9 | 3.3 |
| 67.5° | 2841.0 | 575.1 | 43.1 | 24.2 | 17.6 | 11.8 | 8.5 | 7.8 | 3.9 | 1.3 | 0.0 |
| 70° | 2164.6 | 392.1 | 35.9 | 19.6 | 13.1 | 8.5 | 5.9 | 4.6 | 2.6 | 0.7 | 0.0 |
| 72.5° | 1247.6 | 215.7 | 30.1 | 15.0 | 9.8 | 6.5 | 4.6 | 2.6 | 2.6 | 0.0 | 0.0 |
| 75° | 445.7 | 92.8 | 22.9 | 11.1 | 7.8 | 5.2 | 3.3 | 1.3 | 2.0 | 0.7 | 0.0 |
| 77.5° | 141.8 | 49.7 | 15.0 | 8.5 | 6.5 | 3.9 | 2.6 | 1.3 | 1.3 | 0.7 | 0.0 |
| 80° | 41.8 | 26.1 | 9.1 | 7.2 | 4.6 | 3.3 | 2.0 | 0.7 | 1.3 | 0.7 | 0.0 |
| 82.5° | 22.9 | 13.1 | 7.2 | 5.2 | 4.6 | 2.6 | 2.0 | 0.7 | 0.7 | 0.7 | 0.0 |
| 85° | 11.8 | 7.8 | 5.9 | 5.2 | 4.6 | 2.6 | 2.0 | 0.7 | 0.0 | 0.7 | 0.7 |
| 87.5° | 6.5 | 5.9 | 5.9 | 5.2 | 4.6 | 3.3 | 2.0 | 0.7 | 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)