

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: P452781

Luminaire Tested: **GALN-SA3D-730-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452781
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-SA3D-730-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH 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: 17300 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

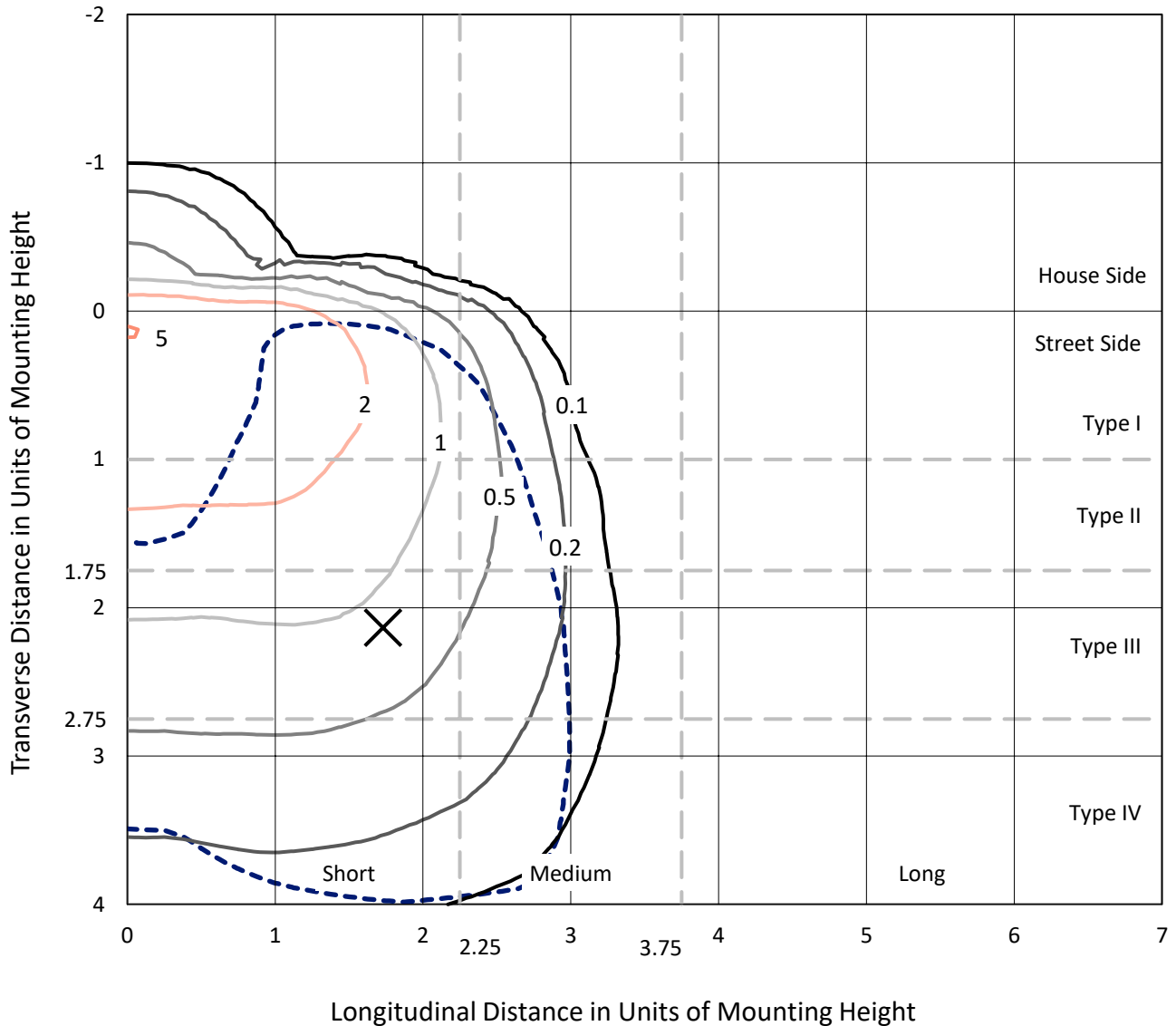
Input Watts (W): 184
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

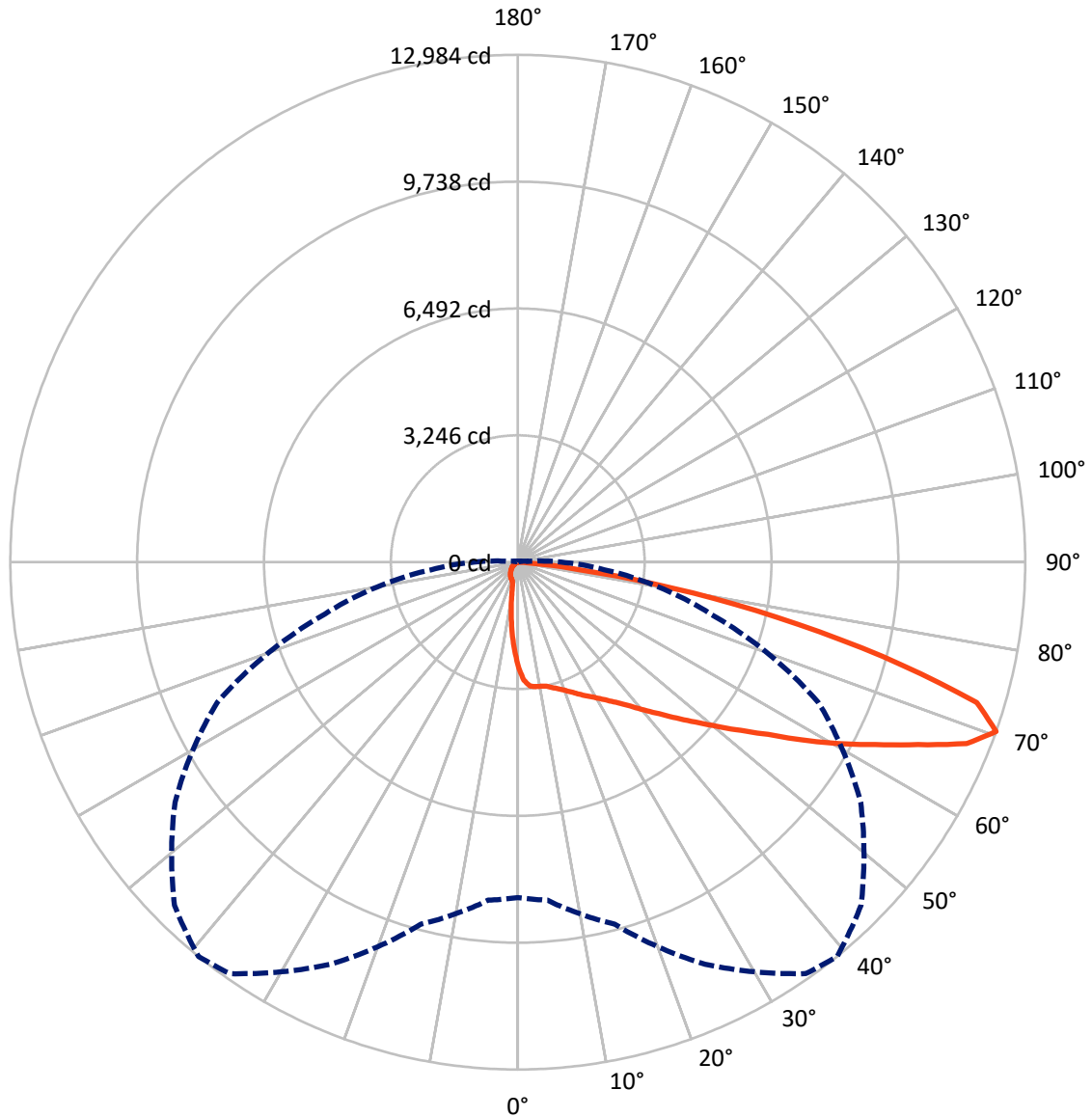
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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 | 1128.1 | 0.0 | 1128.1 |
| | % Fixture | 6.5 | 0.0 | 6.5 |
| Street Side | Lumens | 16172.0 | 0.0 | 16172.0 |
| | % Fixture | 93.5 | 0.0 | 93.5 |
| Total | Lumens | 17300.0 | 0.0 | 17300.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 230.2 | 1.3 |
| 10°-20° | 598.3 | 3.5 |
| 20°-30° | 1002.4 | 5.8 |
| 30°-40° | 1554.5 | 9.0 |
| 40°-50° | 2463.5 | 14.2 |
| 50°-60° | 3611.1 | 20.9 |
| 60°-70° | 4628.5 | 26.8 |
| 70°-80° | 2908.4 | 16.8 |
| 80°-90° | 303.0 | 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° | 17300.0 | 100.0 |
| 0°-180° | 17300.0 | 100.0 |

Coefficient of Utilization



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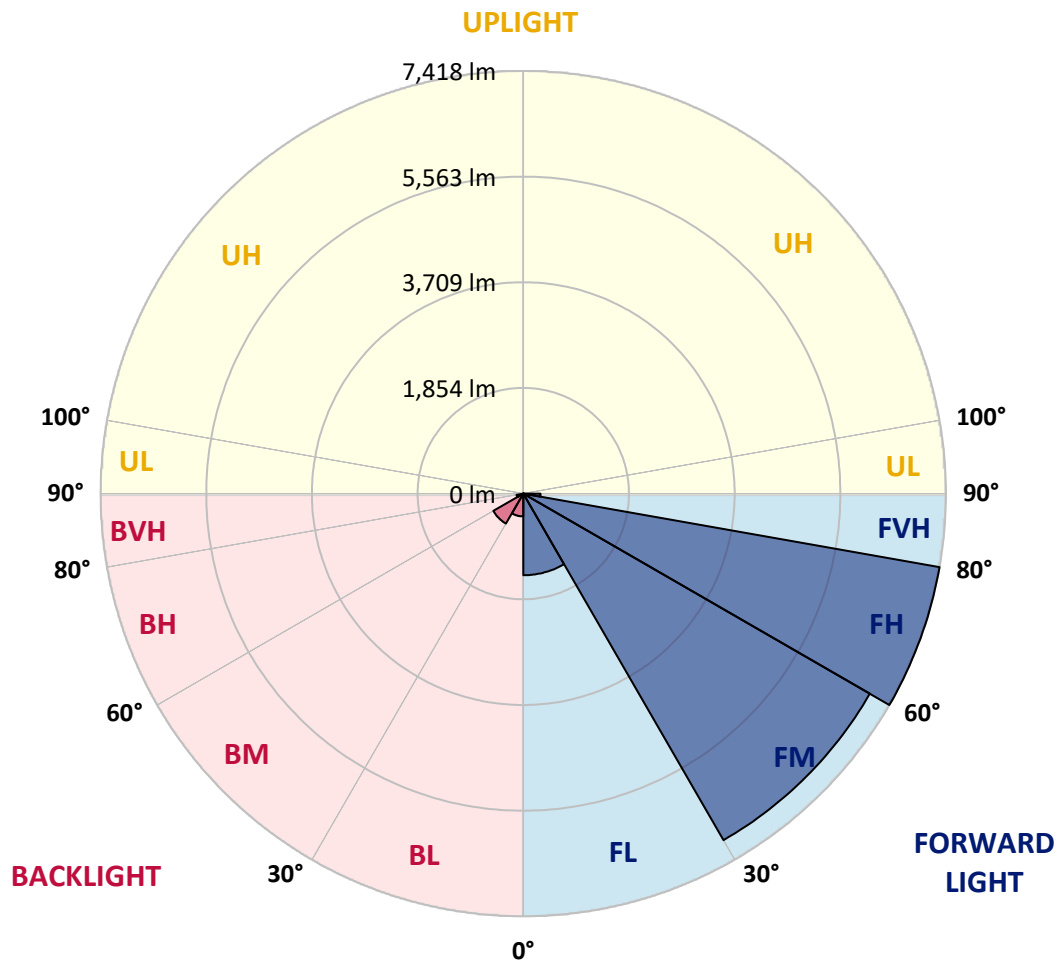
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1431.5 | 8.3 | | | |
| FM (30°-60°) | 7022.0 | 40.6 | | | |
| FH (60°-80°) | 7417.7 | 42.9 | | | G3/7500 |
| FVH (80°-90°) | 300.8 | 1.7 | | | G3/500 |
| BL (0°-30°) | 399.4 | 2.3 | B1/500 | | |
| BM (30°-60°) | 607.1 | 3.5 | B1/1000 | | |
| BH (60°-80°) | 119.3 | 0.7 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.2 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|--------|
| 0° | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 |
| 2.5° | 3119.1 | 3108.6 | 3094.7 | 3078.4 | 3031.9 | 3023.7 | 2995.8 | 2936.5 | 2865.6 | 2807.5 | 2727.3 |
| 5° | 3266.7 | 3272.5 | 3262.1 | 3233.0 | 3199.3 | 3179.5 | 3144.6 | 3052.8 | 2961.0 | 2843.5 | 2712.2 |
| 7.5° | 3300.4 | 3312.0 | 3299.3 | 3271.4 | 3238.8 | 3217.9 | 3190.0 | 3110.9 | 3004.0 | 2870.3 | 2690.1 |
| 10° | 3296.9 | 3310.9 | 3302.7 | 3277.2 | 3250.4 | 3230.7 | 3200.4 | 3137.7 | 3051.6 | 2911.0 | 2697.1 |
| 12.5° | 3291.1 | 3309.7 | 3308.6 | 3295.8 | 3273.7 | 3258.6 | 3240.0 | 3184.2 | 3104.0 | 2970.3 | 2735.4 |
| 15° | 3274.8 | 3298.1 | 3319.0 | 3329.5 | 3330.6 | 3330.6 | 3307.4 | 3248.1 | 3171.4 | 3048.2 | 2785.4 |
| 17.5° | 3281.8 | 3308.6 | 3360.9 | 3391.1 | 3412.0 | 3409.7 | 3385.3 | 3321.3 | 3236.5 | 3128.4 | 2837.7 |
| 20° | 3324.8 | 3360.9 | 3434.1 | 3494.6 | 3515.5 | 3508.5 | 3476.0 | 3401.6 | 3305.1 | 3197.0 | 2888.9 |
| 22.5° | 3430.6 | 3463.2 | 3555.0 | 3625.9 | 3641.0 | 3622.4 | 3575.9 | 3474.8 | 3387.6 | 3271.4 | 2950.5 |
| 25° | 3588.7 | 3627.1 | 3712.0 | 3765.4 | 3765.4 | 3755.0 | 3689.9 | 3571.3 | 3480.6 | 3374.8 | 3030.7 |
| 27.5° | 3780.5 | 3813.1 | 3896.8 | 3944.5 | 3916.6 | 3886.3 | 3821.2 | 3678.2 | 3591.1 | 3505.0 | 3127.2 |
| 30° | 3974.7 | 3995.6 | 4084.0 | 4104.9 | 4075.8 | 4037.5 | 3967.7 | 3824.7 | 3748.0 | 3681.7 | 3266.7 |
| 32.5° | 4158.4 | 4203.7 | 4276.9 | 4272.3 | 4232.8 | 4214.2 | 4150.2 | 3997.9 | 3954.9 | 3948.0 | 3462.0 |
| 35° | 4342.0 | 4376.9 | 4442.0 | 4458.3 | 4423.4 | 4419.9 | 4373.4 | 4260.7 | 4261.8 | 4307.2 | 3766.6 |
| 37.5° | 4500.2 | 4531.5 | 4608.3 | 4644.3 | 4651.3 | 4668.7 | 4650.1 | 4575.7 | 4681.5 | 4805.9 | 4170.0 |
| 40° | 4632.7 | 4676.9 | 4774.5 | 4837.3 | 4909.4 | 4973.3 | 4976.8 | 4993.1 | 5205.8 | 5419.7 | 4696.6 |
| 42.5° | 4736.1 | 4797.8 | 4939.6 | 5055.8 | 5220.9 | 5302.3 | 5367.4 | 5456.9 | 5815.0 | 6134.7 | 5317.4 |
| 45° | 4871.0 | 4941.9 | 5118.6 | 5301.1 | 5559.2 | 5692.9 | 5783.6 | 6023.1 | 6531.1 | 6967.0 | 5954.5 |
| 47.5° | 5094.2 | 5131.4 | 5311.6 | 5577.8 | 5917.3 | 6107.9 | 6284.6 | 6647.3 | 7299.5 | 7690.1 | 6484.6 |
| 50° | 5381.3 | 5405.8 | 5541.8 | 5911.5 | 6350.9 | 6602.0 | 6924.0 | 7350.7 | 8097.0 | 8290.0 | 6784.5 |
| 52.5° | 5698.7 | 5706.9 | 5809.2 | 6278.8 | 6836.8 | 7153.0 | 7513.4 | 8040.1 | 8746.9 | 8717.8 | 6983.3 |
| 55° | 6067.2 | 6055.6 | 6142.8 | 6677.6 | 7412.3 | 7773.8 | 8193.5 | 8745.7 | 9310.7 | 9021.2 | 7097.2 |
| 57.5° | 6489.2 | 6457.9 | 6542.7 | 7206.5 | 8149.3 | 8581.8 | 9008.4 | 9354.9 | 9747.8 | 9275.8 | 7151.9 |
| 60° | 6931.0 | 6868.2 | 6969.4 | 7800.6 | 9017.7 | 9428.1 | 9782.7 | 9875.7 | 10208.2 | 9478.1 | 7057.7 |
| 62.5° | 7283.2 | 7284.4 | 7472.7 | 8433.0 | 9910.6 | 10269.8 | 10458.1 | 10541.8 | 10604.6 | 9433.9 | 6562.5 |
| 65° | 7833.1 | 7851.7 | 8152.8 | 9310.7 | 10944.1 | 11255.6 | 11384.7 | 11112.6 | 10622.0 | 8885.2 | 5818.5 |
| 67.5° | 8400.4 | 8459.7 | 9010.8 | 10519.7 | 12138.0 | 12389.1 | 12222.8 | 11223.1 | 10147.7 | 7633.2 | 4411.8 |
| 70° | 8585.3 | 8682.9 | 9590.9 | 11352.1 | 12854.1 | 12984.3 | 12421.6 | 10708.1 | 8483.0 | 5103.5 | 2220.4 |
| 72.5° | 7866.8 | 8024.9 | 9257.2 | 11048.7 | 12397.2 | 12284.4 | 11113.8 | 8980.5 | 5393.0 | 1937.9 | 677.8 |
| 75° | 5547.6 | 5617.3 | 7693.6 | 9165.4 | 9971.0 | 9651.3 | 8453.9 | 5789.4 | 2218.1 | 544.1 | 232.5 |
| 77.5° | 2864.5 | 2830.8 | 4575.7 | 6081.2 | 7111.2 | 6779.9 | 5536.0 | 2997.0 | 840.5 | 226.7 | 144.2 |
| 80° | 1481.1 | 1505.5 | 1979.8 | 3186.5 | 4340.9 | 3994.5 | 2951.7 | 1389.2 | 447.6 | 125.6 | 110.4 |
| 82.5° | 830.0 | 778.9 | 1138.1 | 1391.5 | 2029.8 | 1591.5 | 1132.3 | 983.5 | 195.3 | 75.6 | 104.6 |
| 85° | 151.1 | 158.1 | 624.3 | 752.2 | 704.5 | 447.6 | 365.0 | 656.8 | 57.0 | 41.9 | 73.2 |
| 87.5° | 2.3 | 2.3 | 120.9 | 216.2 | 137.2 | 62.8 | 115.1 | 94.2 | 11.6 | 16.3 | 12.8 |
| 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° | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 | 2699.4 |
| 2.5° | 2686.6 | 2642.4 | 2559.9 | 2478.5 | 2375.0 | 2290.2 | 2233.2 | 2173.9 | 2113.5 | 2118.1 | 2132.1 |
| 5° | 2640.1 | 2563.4 | 2400.6 | 2228.6 | 2063.5 | 1914.7 | 1768.2 | 1636.8 | 1583.4 | 1534.5 | 1536.9 |
| 7.5° | 2593.6 | 2485.5 | 2247.2 | 1977.5 | 1727.5 | 1474.1 | 1290.4 | 1139.3 | 1059.1 | 998.6 | 981.2 |
| 10° | 2572.7 | 2429.7 | 2106.5 | 1735.7 | 1381.1 | 1104.4 | 868.4 | 745.2 | 649.9 | 619.6 | 627.8 |
| 12.5° | 2582.0 | 2401.8 | 1979.8 | 1517.1 | 1095.1 | 769.6 | 604.5 | 541.7 | 520.8 | 517.3 | 515.0 |
| 15° | 2599.4 | 2382.0 | 1855.4 | 1275.3 | 804.5 | 572.0 | 508.0 | 496.4 | 494.1 | 491.7 | 492.9 |
| 17.5° | 2622.7 | 2364.6 | 1722.9 | 1048.6 | 617.3 | 499.9 | 481.3 | 475.5 | 474.3 | 474.3 | 474.3 |
| 20° | 2645.9 | 2344.8 | 1575.2 | 846.3 | 515.0 | 472.0 | 460.4 | 456.9 | 455.7 | 455.7 | 454.5 |
| 22.5° | 2672.7 | 2327.4 | 1425.3 | 665.0 | 474.3 | 452.2 | 441.8 | 439.4 | 438.3 | 437.1 | 437.1 |
| 25° | 2711.0 | 2305.3 | 1266.0 | 544.1 | 448.7 | 433.6 | 423.2 | 420.8 | 419.7 | 415.0 | 416.2 |
| 27.5° | 2762.2 | 2289.0 | 1102.1 | 469.7 | 425.5 | 410.4 | 403.4 | 399.9 | 397.6 | 394.1 | 395.3 |
| 30° | 2831.9 | 2275.1 | 927.7 | 429.0 | 398.7 | 386.0 | 379.0 | 376.7 | 374.3 | 370.8 | 370.8 |
| 32.5° | 2952.8 | 2280.9 | 744.0 | 396.4 | 374.3 | 359.2 | 352.2 | 349.9 | 347.6 | 344.1 | 344.1 |
| 35° | 3134.2 | 2314.6 | 595.2 | 368.5 | 345.3 | 330.2 | 323.2 | 323.2 | 319.7 | 315.0 | 313.9 |
| 37.5° | 3430.6 | 2400.6 | 477.8 | 341.8 | 317.4 | 303.4 | 295.3 | 293.0 | 289.5 | 282.5 | 281.3 |
| 40° | 3780.5 | 2534.3 | 402.2 | 315.0 | 291.8 | 277.8 | 270.9 | 263.9 | 254.6 | 247.6 | 246.5 |
| 42.5° | 4220.0 | 2671.5 | 348.8 | 288.3 | 267.4 | 254.6 | 246.5 | 234.8 | 220.9 | 211.6 | 210.4 |
| 45° | 4678.0 | 2797.0 | 312.7 | 263.9 | 244.1 | 233.7 | 224.4 | 205.8 | 188.3 | 176.7 | 175.5 |
| 47.5° | 5019.8 | 2820.3 | 283.7 | 240.6 | 224.4 | 213.9 | 201.1 | 177.9 | 154.6 | 144.2 | 140.7 |
| 50° | 5181.4 | 2707.5 | 253.4 | 217.4 | 204.6 | 193.0 | 176.7 | 150.0 | 124.4 | 111.6 | 109.3 |
| 52.5° | 5238.4 | 2512.2 | 229.0 | 196.5 | 184.8 | 170.9 | 151.1 | 120.9 | 97.7 | 84.9 | 83.7 |
| 55° | 5215.1 | 2265.8 | 206.9 | 176.7 | 161.6 | 145.3 | 125.6 | 96.5 | 72.1 | 61.6 | 59.3 |
| 57.5° | 5093.0 | 1951.9 | 184.8 | 156.9 | 138.3 | 122.1 | 100.0 | 72.1 | 48.8 | 39.5 | 38.4 |
| 60° | 4764.0 | 1524.1 | 162.8 | 134.9 | 117.4 | 100.0 | 79.1 | 51.2 | 30.2 | 22.1 | 22.1 |
| 62.5° | 4208.4 | 1131.1 | 141.8 | 112.8 | 98.8 | 80.2 | 55.8 | 32.6 | 16.3 | 11.6 | 10.5 |
| 65° | 3516.7 | 834.7 | 118.6 | 95.3 | 82.5 | 62.8 | 39.5 | 19.8 | 8.1 | 3.5 | 2.3 |
| 67.5° | 2454.1 | 515.0 | 98.8 | 77.9 | 67.4 | 45.3 | 24.4 | 8.1 | 3.5 | 0.0 | 0.0 |
| 70° | 1114.9 | 245.3 | 75.6 | 59.3 | 51.2 | 32.6 | 12.8 | 4.7 | 2.3 | 0.0 | 0.0 |
| 72.5° | 346.4 | 129.0 | 53.5 | 43.0 | 34.9 | 20.9 | 7.0 | 3.5 | 2.3 | 0.0 | 0.0 |
| 75° | 160.4 | 82.5 | 33.7 | 23.3 | 19.8 | 10.5 | 4.7 | 2.3 | 1.2 | 0.0 | 0.0 |
| 77.5° | 119.7 | 63.9 | 19.8 | 12.8 | 10.5 | 7.0 | 3.5 | 2.3 | 1.2 | 0.0 | 0.0 |
| 80° | 104.6 | 32.6 | 11.6 | 8.1 | 5.8 | 4.7 | 2.3 | 1.2 | 0.0 | 0.0 | 0.0 |
| 82.5° | 94.2 | 16.3 | 7.0 | 4.7 | 3.5 | 2.3 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 |
| 85° | 51.2 | 9.3 | 4.7 | 3.5 | 2.3 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 9.3 | 4.7 | 3.5 | 2.3 | 2.3 | 1.2 | 1.2 | 1.2 | 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)