

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: P456191

Luminaire Tested: **GALN-SA7B-830-U-T4W-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-27)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7B-830-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22783 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

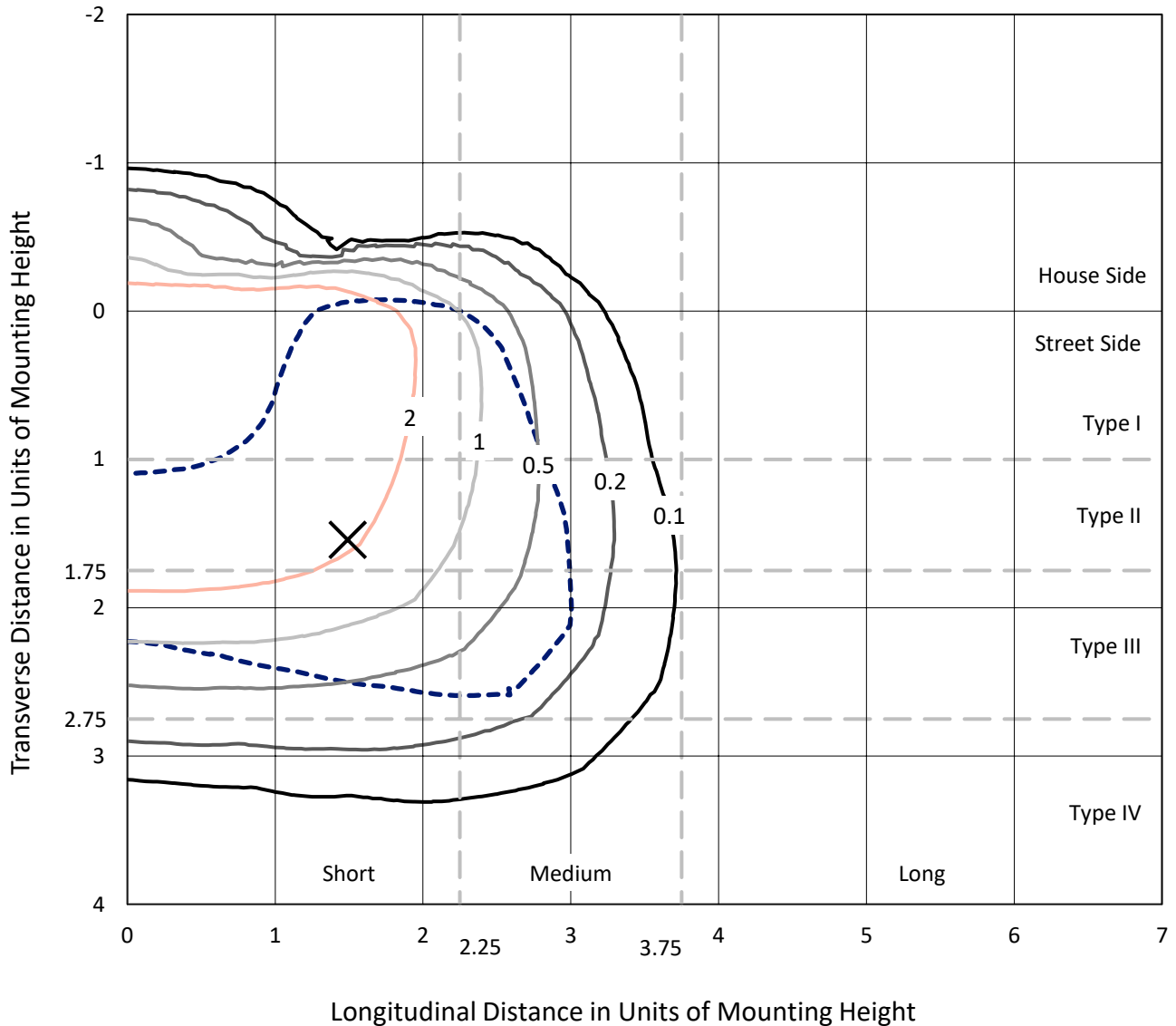
Input Watts (W): 286
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

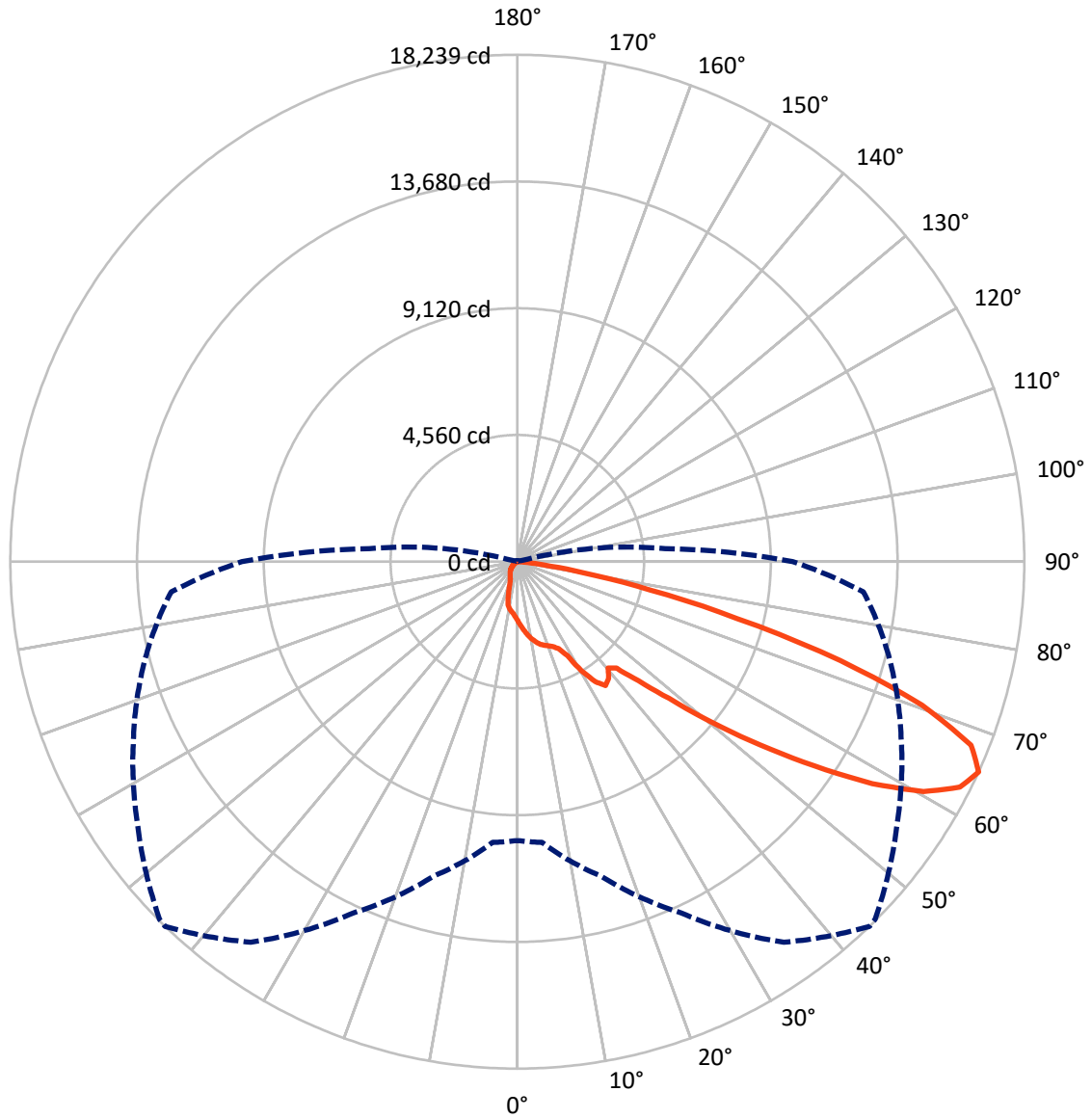
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2099.1 | 0.0 | 2099.1 |
| | % Fixture | 9.2 | 0.0 | 9.2 |
| Street Side | Lumens | 20683.9 | 0.0 | 20683.9 |
| | % Fixture | 90.8 | 0.0 | 90.8 |
| Total | Lumens | 22783.0 | 0.0 | 22783.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 210.9 | 0.9 |
| 10°-20° | 634.7 | 2.8 |
| 20°-30° | 1076.3 | 4.7 |
| 30°-40° | 1789.5 | 7.9 |
| 40°-50° | 3124.5 | 13.7 |
| 50°-60° | 6104.1 | 26.8 |
| 60°-70° | 7082.2 | 31.1 |
| 70°-80° | 2579.0 | 11.3 |
| 80°-90° | 181.7 | 0.8 |
| 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° | 22783.0 | 100.0 |
| 0°-180° | 22783.0 | 100.0 |

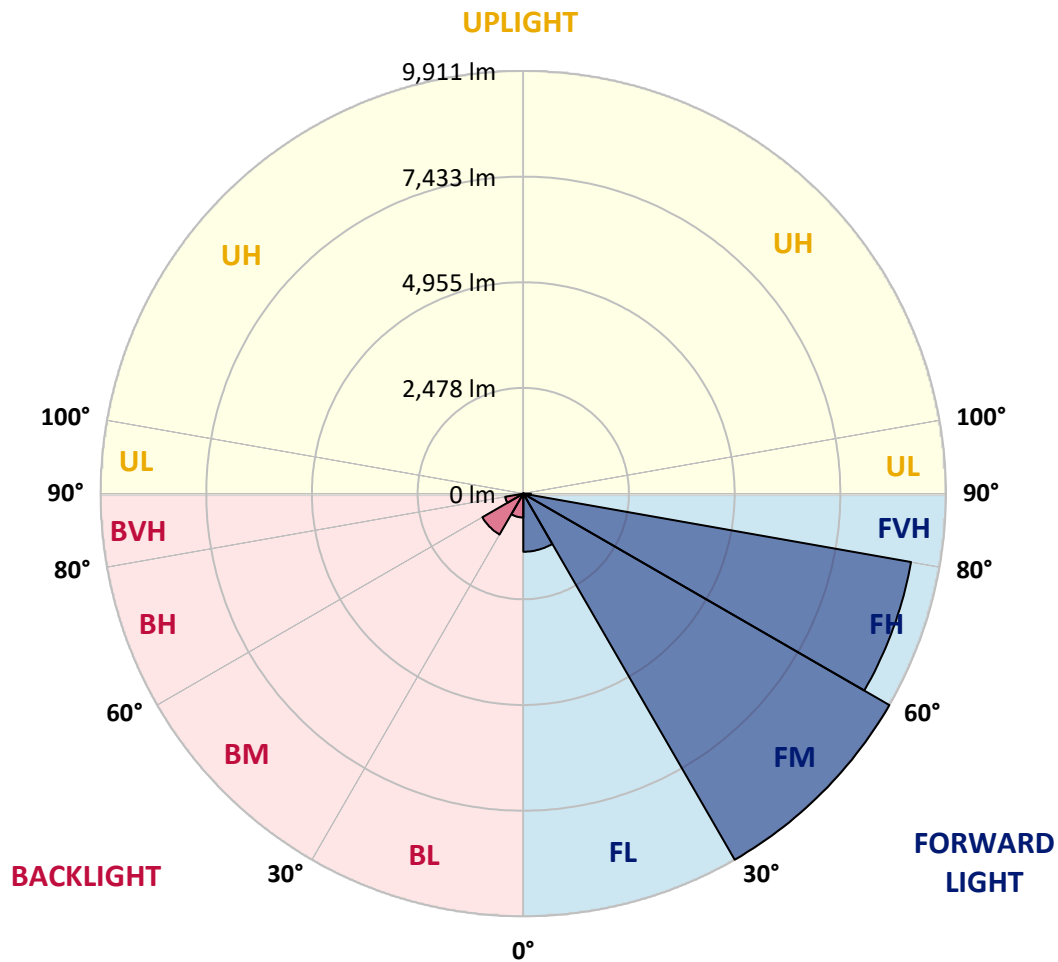


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1362.6 | 6.0 | | | |
| FM | (30°-60°) | 9910.6 | 43.5 | | | |
| FH | (60°-80°) | 9231.4 | 40.5 | | | G4/12000 |
| FVH | (80°-90°) | 179.2 | 0.8 | | | G2/225 |
| BL | (0°-30°) | 559.3 | 2.5 | B2/1000 | | |
| BM | (30°-60°) | 1107.5 | 4.9 | B2/2500 | | |
| BH | (60°-80°) | 429.9 | 1.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 2.5 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 |
| 2.5° | 2386.8 | 2376.3 | 2371.1 | 2343.3 | 2322.4 | 2296.2 | 2296.2 | 2263.2 | 2224.9 | 2183.1 | 2144.8 |
| 5° | 2653.1 | 2635.7 | 2613.1 | 2588.7 | 2540.0 | 2470.3 | 2470.3 | 2400.7 | 2320.6 | 2249.2 | 2170.9 |
| 7.5° | 2909.0 | 2893.4 | 2855.1 | 2808.1 | 2728.0 | 2654.9 | 2649.7 | 2548.7 | 2452.9 | 2345.0 | 2233.6 |
| 10° | 3133.6 | 3121.4 | 3088.4 | 2997.8 | 2914.3 | 2818.5 | 2816.8 | 2703.6 | 2592.2 | 2459.9 | 2322.4 |
| 12.5° | 3290.3 | 3292.0 | 3248.5 | 3161.5 | 3053.5 | 2963.0 | 2956.1 | 2844.6 | 2728.0 | 2585.2 | 2416.4 |
| 15° | 3401.7 | 3401.7 | 3356.5 | 3259.0 | 3161.5 | 3081.4 | 3074.4 | 2976.9 | 2856.8 | 2701.9 | 2519.1 |
| 17.5° | 3433.1 | 3443.5 | 3394.8 | 3307.7 | 3229.4 | 3159.7 | 3158.0 | 3076.2 | 2980.4 | 2830.7 | 2623.5 |
| 20° | 3420.9 | 3431.3 | 3393.0 | 3325.1 | 3271.2 | 3231.1 | 3225.9 | 3192.8 | 3104.0 | 2963.0 | 2735.0 |
| 22.5° | 3394.8 | 3405.2 | 3377.3 | 3337.3 | 3311.2 | 3323.4 | 3314.7 | 3342.5 | 3295.5 | 3124.9 | 2867.3 |
| 25° | 3400.0 | 3410.4 | 3389.5 | 3366.9 | 3389.5 | 3464.4 | 3487.0 | 3607.1 | 3565.4 | 3330.3 | 3010.0 |
| 27.5° | 3563.6 | 3584.5 | 3554.9 | 3565.4 | 3645.4 | 3819.5 | 3863.1 | 4070.2 | 3885.7 | 3591.5 | 3232.9 |
| 30° | 3927.5 | 3913.5 | 3857.8 | 3908.3 | 4186.9 | 4555.9 | 4543.8 | 4510.7 | 4221.7 | 3892.7 | 3497.5 |
| 32.5° | 4258.2 | 4246.1 | 4242.6 | 4460.2 | 4965.1 | 5144.4 | 5135.7 | 4815.3 | 4522.9 | 4237.4 | 3758.6 |
| 35° | 4392.3 | 4345.3 | 4334.8 | 4862.3 | 5706.7 | 5469.9 | 5415.9 | 4940.7 | 4888.5 | 4613.4 | 4025.0 |
| 37.5° | 4796.2 | 4763.1 | 4601.2 | 4928.5 | 5410.7 | 5332.4 | 5290.6 | 5156.5 | 5278.4 | 4945.9 | 4326.1 |
| 40° | 5628.3 | 5536.1 | 5389.8 | 5069.5 | 4991.2 | 5024.2 | 5066.0 | 5433.4 | 5739.8 | 5400.3 | 4728.3 |
| 42.5° | 6662.4 | 6641.5 | 6370.0 | 5772.8 | 5186.1 | 5231.4 | 5285.4 | 6011.3 | 6403.0 | 6084.5 | 5384.6 |
| 45° | 7903.7 | 7933.3 | 7541.6 | 6836.5 | 6067.0 | 6105.3 | 6183.7 | 6864.4 | 7301.3 | 7148.1 | 6417.0 |
| 47.5° | 9031.8 | 9009.2 | 8876.9 | 8143.9 | 7433.6 | 7348.3 | 7475.4 | 7959.4 | 8544.3 | 8568.7 | 7698.3 |
| 50° | 10166.9 | 10287.0 | 10090.3 | 9803.0 | 9275.5 | 9096.2 | 9049.2 | 9286.0 | 10177.3 | 10060.7 | 9237.2 |
| 52.5° | 11798.1 | 11860.8 | 11491.7 | 11418.6 | 11538.7 | 10957.2 | 10910.2 | 10967.7 | 11765.0 | 11364.6 | 10389.7 |
| 55° | 12823.5 | 12786.9 | 12649.4 | 13220.4 | 13695.7 | 12969.7 | 12910.5 | 12679.0 | 13082.9 | 12285.5 | 11498.7 |
| 57.5° | 13147.3 | 13199.5 | 13519.8 | 14552.2 | 15676.8 | 15060.5 | 14952.6 | 14294.5 | 14033.4 | 13143.8 | 12518.8 |
| 60° | 13002.8 | 13098.5 | 13789.7 | 15325.2 | 16885.0 | 16792.7 | 16700.5 | 15595.0 | 14715.8 | 13861.1 | 13234.3 |
| 62.5° | 11973.9 | 12108.0 | 13213.4 | 15187.6 | 17294.1 | 17870.4 | 17755.5 | 16406.3 | 15170.2 | 14209.2 | 13359.7 |
| 65° | 10034.6 | 10133.8 | 11721.5 | 13939.4 | 16712.7 | 18239.4 | 18197.6 | 16660.4 | 15241.6 | 13890.7 | 12501.4 |
| 67.5° | 7153.4 | 7491.1 | 8962.2 | 11747.6 | 14992.6 | 17609.2 | 17680.6 | 16355.8 | 14571.3 | 12513.6 | 10353.1 |
| 70° | 4496.7 | 4726.5 | 5781.5 | 8410.3 | 12019.2 | 15448.8 | 15683.8 | 14961.3 | 12645.9 | 9754.3 | 6930.5 |
| 72.5° | 2144.8 | 2315.4 | 3067.5 | 5323.7 | 8483.4 | 12155.0 | 12341.2 | 12282.1 | 9778.6 | 6145.4 | 3575.8 |
| 75° | 955.8 | 1020.2 | 1464.1 | 2717.5 | 5476.9 | 8170.1 | 8652.3 | 8732.4 | 6110.6 | 3006.5 | 1391.0 |
| 77.5° | 487.5 | 489.2 | 685.9 | 1316.1 | 2735.0 | 4874.5 | 4970.3 | 5250.6 | 3312.9 | 1324.8 | 484.0 |
| 80° | 259.4 | 276.8 | 363.8 | 621.5 | 1418.8 | 2400.7 | 2388.5 | 2625.3 | 1469.3 | 649.4 | 161.9 |
| 82.5° | 116.6 | 128.8 | 205.4 | 325.5 | 692.9 | 910.5 | 981.9 | 1074.1 | 630.2 | 414.3 | 71.4 |
| 85° | 34.8 | 41.8 | 101.0 | 163.6 | 250.7 | 262.9 | 294.2 | 379.5 | 356.9 | 294.2 | 36.6 |
| 87.5° | 5.2 | 5.2 | 41.8 | 45.3 | 36.6 | 47.0 | 48.7 | 54.0 | 114.9 | 107.9 | 19.1 |
| 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° | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 | 2120.4 |
| 2.5° | 2123.9 | 2111.7 | 2068.2 | 2031.6 | 2000.3 | 1981.1 | 1958.5 | 1944.6 | 1937.6 | 1932.4 | 1934.1 |
| 5° | 2132.6 | 2103.0 | 2028.2 | 1969.0 | 1923.7 | 1875.0 | 1841.9 | 1822.7 | 1814.0 | 1800.1 | 1800.1 |
| 7.5° | 2181.3 | 2134.3 | 2029.9 | 1939.4 | 1861.0 | 1794.9 | 1732.2 | 1709.6 | 1693.9 | 1690.4 | 1686.9 |
| 10° | 2251.0 | 2191.8 | 2049.0 | 1923.7 | 1812.3 | 1721.8 | 1633.0 | 1554.6 | 1493.7 | 1457.1 | 1451.9 |
| 12.5° | 2338.0 | 2252.7 | 2078.6 | 1913.3 | 1770.5 | 1610.3 | 1375.3 | 1216.9 | 1110.7 | 1077.6 | 1082.8 |
| 15° | 2418.1 | 2325.8 | 2108.2 | 1904.5 | 1693.9 | 1335.3 | 1068.9 | 887.9 | 833.9 | 828.7 | 830.4 |
| 17.5° | 2513.9 | 2404.2 | 2143.0 | 1892.4 | 1483.2 | 1020.2 | 793.9 | 745.1 | 755.6 | 773.0 | 771.2 |
| 20° | 2613.1 | 2487.7 | 2184.8 | 1819.2 | 1183.8 | 767.7 | 701.6 | 706.8 | 722.5 | 738.1 | 741.6 |
| 22.5° | 2719.3 | 2583.5 | 2233.6 | 1643.4 | 903.5 | 668.5 | 665.0 | 672.0 | 687.7 | 705.1 | 708.5 |
| 25° | 2865.5 | 2703.6 | 2270.1 | 1413.6 | 684.2 | 618.0 | 625.0 | 637.2 | 651.1 | 670.2 | 673.7 |
| 27.5° | 3053.5 | 2865.5 | 2289.3 | 1114.2 | 591.9 | 572.8 | 574.5 | 591.9 | 609.3 | 626.7 | 626.7 |
| 30° | 3297.3 | 3058.8 | 2251.0 | 842.6 | 546.6 | 529.2 | 522.3 | 532.7 | 555.3 | 572.8 | 574.5 |
| 32.5° | 3514.9 | 3241.6 | 2150.0 | 644.1 | 513.6 | 489.2 | 471.8 | 473.5 | 482.2 | 492.7 | 494.4 |
| 35° | 3732.5 | 3419.1 | 1977.7 | 541.4 | 478.7 | 450.9 | 424.8 | 410.9 | 403.9 | 398.7 | 403.9 |
| 37.5° | 4011.0 | 3640.2 | 1747.9 | 492.7 | 449.2 | 414.3 | 377.8 | 348.2 | 323.8 | 308.1 | 311.6 |
| 40° | 4369.7 | 3946.6 | 1476.3 | 461.3 | 421.3 | 379.5 | 330.8 | 292.5 | 250.7 | 236.8 | 229.8 |
| 42.5° | 4961.6 | 4411.4 | 1190.8 | 435.2 | 393.4 | 343.0 | 282.0 | 229.8 | 191.5 | 177.6 | 181.1 |
| 45° | 5896.4 | 4998.1 | 917.5 | 407.4 | 365.6 | 302.9 | 236.8 | 181.1 | 149.7 | 142.8 | 146.2 |
| 47.5° | 7136.0 | 5757.2 | 706.8 | 376.0 | 330.8 | 259.4 | 186.3 | 142.8 | 123.6 | 121.9 | 120.1 |
| 50° | 8302.4 | 6464.0 | 590.2 | 341.2 | 289.0 | 215.9 | 153.2 | 120.1 | 107.9 | 106.2 | 106.2 |
| 52.5° | 9357.3 | 6970.6 | 480.5 | 301.2 | 243.7 | 177.6 | 128.8 | 106.2 | 95.7 | 90.5 | 90.5 |
| 55° | 10295.7 | 7301.3 | 390.0 | 252.4 | 191.5 | 141.0 | 111.4 | 95.7 | 83.6 | 76.6 | 74.9 |
| 57.5° | 11004.2 | 7341.4 | 292.5 | 201.9 | 142.8 | 109.7 | 95.7 | 83.6 | 69.6 | 60.9 | 57.4 |
| 60° | 11307.2 | 6994.9 | 215.9 | 153.2 | 106.2 | 87.0 | 76.6 | 67.9 | 52.2 | 43.5 | 41.8 |
| 62.5° | 11002.5 | 6321.2 | 160.2 | 116.6 | 81.8 | 64.4 | 54.0 | 50.5 | 36.6 | 26.1 | 24.4 |
| 65° | 9911.0 | 5348.0 | 127.1 | 88.8 | 60.9 | 47.0 | 34.8 | 33.1 | 22.6 | 12.2 | 10.4 |
| 67.5° | 7940.3 | 4188.6 | 101.0 | 66.2 | 43.5 | 31.3 | 22.6 | 20.9 | 12.2 | 3.5 | 3.5 |
| 70° | 5163.5 | 2677.5 | 81.8 | 48.7 | 27.9 | 20.9 | 13.9 | 10.4 | 7.0 | 1.7 | 0.0 |
| 72.5° | 2553.9 | 1251.7 | 66.2 | 38.3 | 19.1 | 10.4 | 5.2 | 3.5 | 5.2 | 0.0 | 0.0 |
| 75° | 990.6 | 445.7 | 48.7 | 26.1 | 10.4 | 5.2 | 3.5 | 0.0 | 1.7 | 0.0 | 0.0 |
| 77.5° | 329.0 | 148.0 | 29.6 | 13.9 | 7.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 121.9 | 57.4 | 15.7 | 8.7 | 3.5 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 48.7 | 22.6 | 10.4 | 7.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 24.4 | 13.9 | 7.0 | 5.2 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 17.4 | 10.4 | 7.0 | 5.2 | 3.5 | 1.7 | 0.0 | 0.0 | 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)