

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: P318858

Luminaire Tested: **GLEON-SA4D-827-U-T4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P318858
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-16)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA4D-827-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23147 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

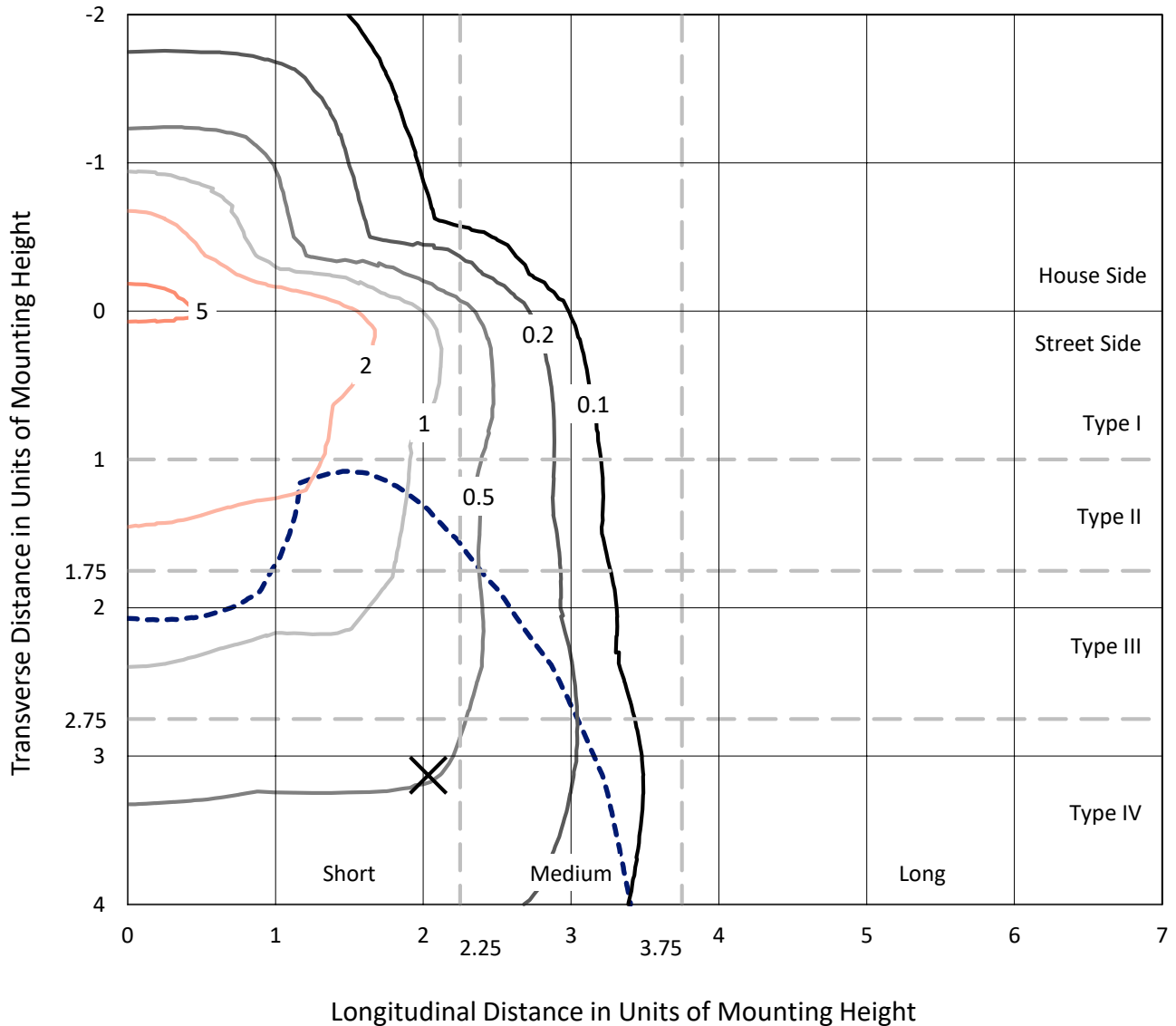
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

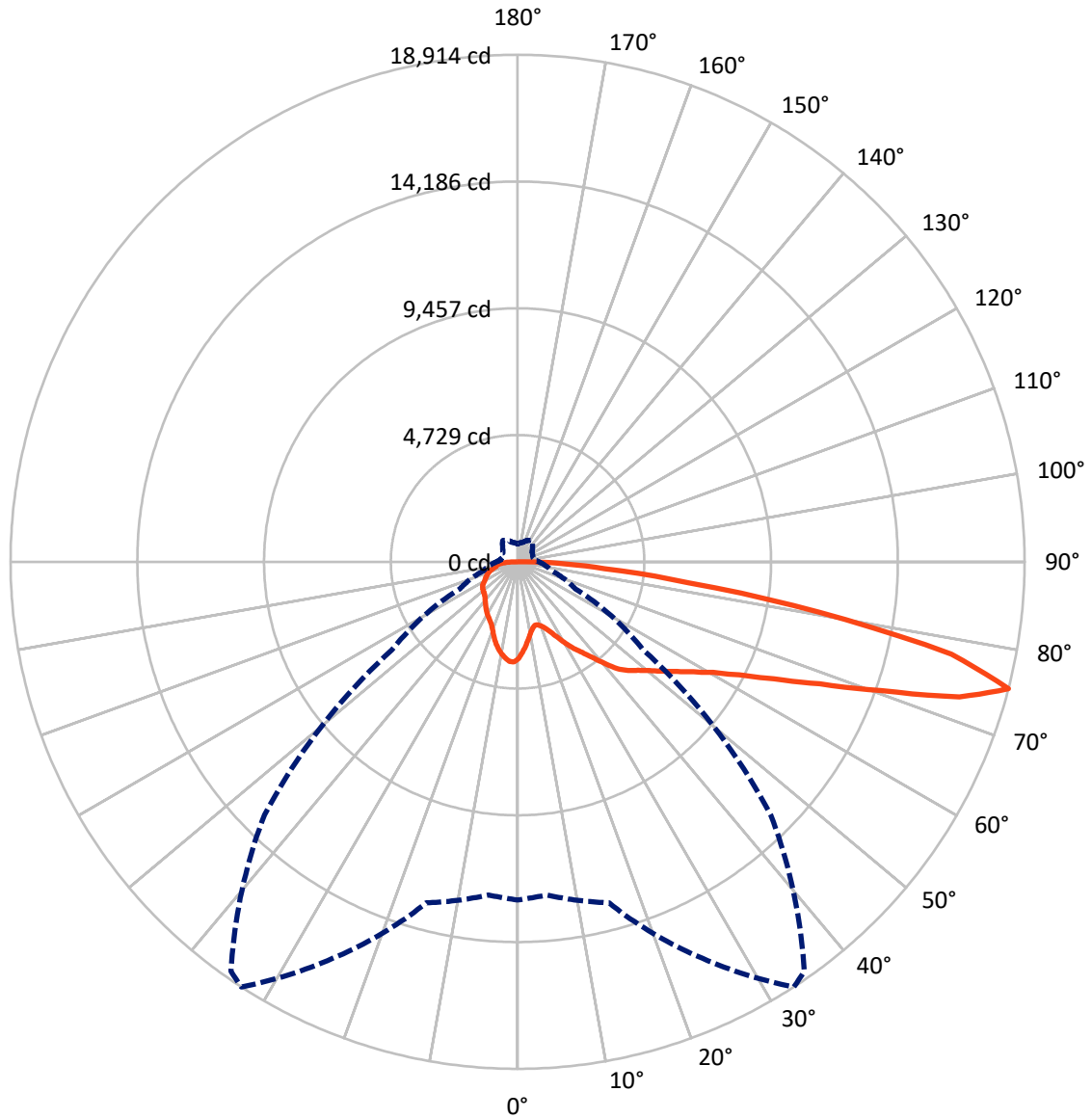
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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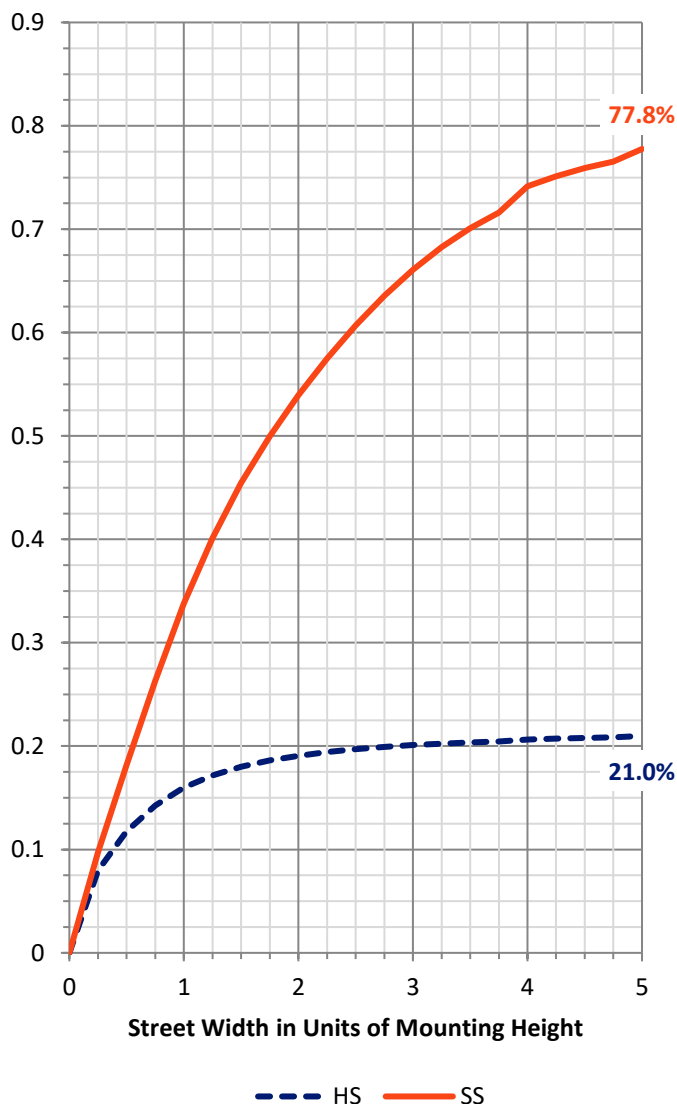
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4970.3 | 0.0 | 4970.3 |
| | % Fixture | 21.5 | 0.0 | 21.5 |
| Street Side | Lumens | 18176.7 | 0.0 | 18176.7 |
| | % Fixture | 78.5 | 0.0 | 78.5 |
| Total | Lumens | 23147.0 | 0.0 | 23147.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 327.2 | 1.4 |
| 10°-20° | 886.2 | 3.8 |
| 20°-30° | 1447.3 | 6.3 |
| 30°-40° | 2155.4 | 9.3 |
| 40°-50° | 3091.4 | 13.4 |
| 50°-60° | 4244.0 | 18.3 |
| 60°-70° | 5313.3 | 23.0 |
| 70°-80° | 4806.7 | 20.8 |
| 80°-90° | 875.6 | 3.8 |
| 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° | 23147.0 | 100.0 |
| 0°-180° | 23147.0 | 100.0 |

Coefficient of Utilization

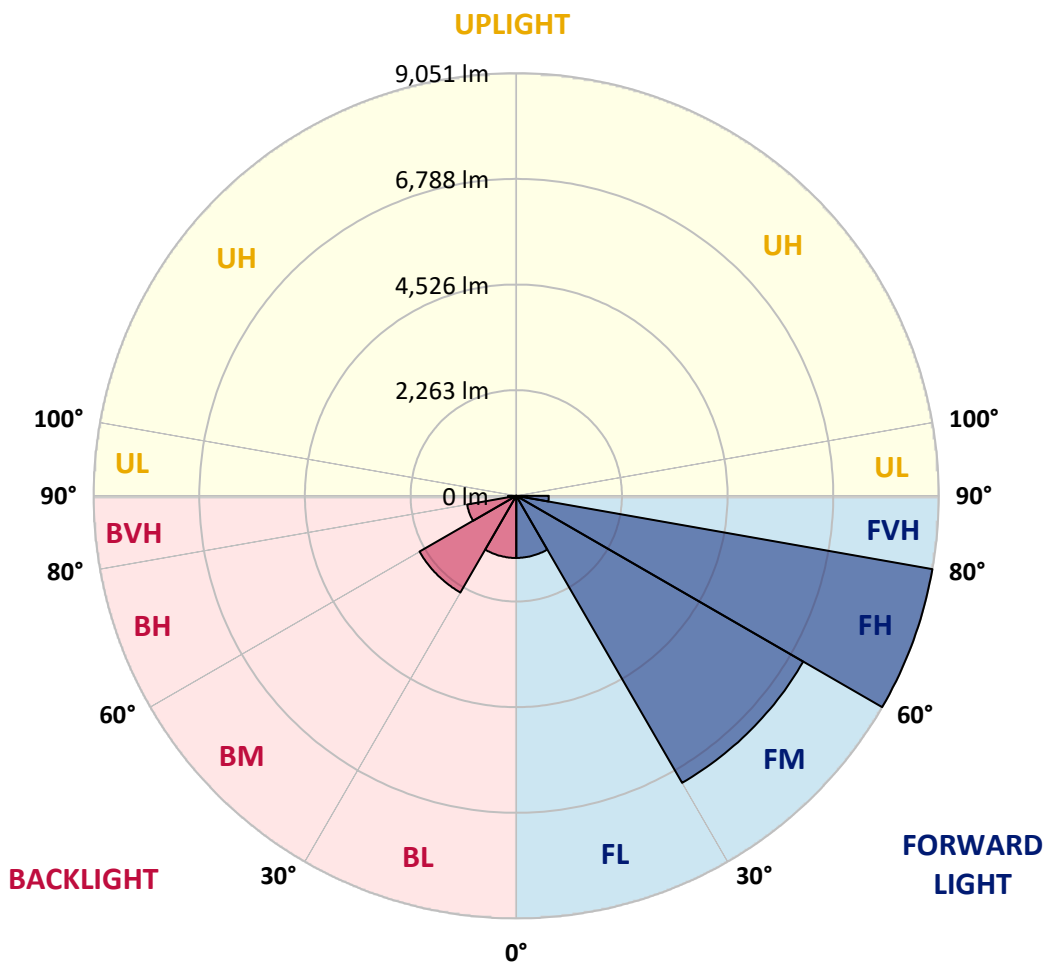


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1329.4 | 5.7 | | | |
| FM (30°-60°) | 7098.7 | 30.7 | | | |
| FH (60°-80°) | 9051.3 | 39.1 | | | G4/12000 |
| FVH (80°-90°) | 697.3 | 3.0 | | | G4/750 |
| BL (0°-30°) | 1331.3 | 5.8 | B3/2500 | | |
| BM (30°-60°) | 2392.0 | 10.3 | B2/2500 | | |
| BH (60°-80°) | 1068.7 | 4.6 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 178.3 | 0.8 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 33° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 |
| 2.5° | 3359.7 | 3347.0 | 3370.9 | 3374.1 | 3394.9 | 3402.9 | 3431.7 | 3476.5 | 3513.3 | 3555.6 | 3594.0 |
| 5° | 3055.1 | 3046.3 | 3079.9 | 3103.9 | 3149.5 | 3168.7 | 3236.6 | 3331.8 | 3416.5 | 3512.5 | 3599.6 |
| 7.5° | 2765.7 | 2760.9 | 2798.5 | 2852.8 | 2905.6 | 2932.0 | 3049.5 | 3187.8 | 3329.4 | 3484.5 | 3618.0 |
| 10° | 2521.8 | 2520.2 | 2556.2 | 2609.8 | 2687.3 | 2716.9 | 2868.8 | 3051.1 | 3249.4 | 3462.9 | 3649.2 |
| 12.5° | 2385.1 | 2390.7 | 2407.5 | 2452.2 | 2524.2 | 2553.8 | 2722.5 | 2936.8 | 3182.2 | 3455.7 | 3694.8 |
| 15° | 2418.7 | 2427.5 | 2398.7 | 2397.1 | 2448.3 | 2471.4 | 2629.8 | 2855.2 | 3134.3 | 3467.7 | 3761.1 |
| 17.5° | 2561.8 | 2563.4 | 2487.4 | 2439.5 | 2470.6 | 2482.6 | 2601.0 | 2808.9 | 3106.3 | 3494.9 | 3844.3 |
| 20° | 2763.3 | 2759.3 | 2625.0 | 2545.0 | 2561.8 | 2565.0 | 2641.7 | 2809.7 | 3103.9 | 3542.0 | 3952.2 |
| 22.5° | 3030.3 | 3000.7 | 2820.0 | 2711.3 | 2707.3 | 2702.5 | 2746.5 | 2868.8 | 3139.1 | 3618.8 | 4081.0 |
| 25° | 3378.9 | 3351.0 | 3102.3 | 2953.6 | 2921.6 | 2909.6 | 2916.0 | 2995.1 | 3208.6 | 3701.2 | 4224.9 |
| 27.5° | 3766.7 | 3718.0 | 3478.1 | 3267.8 | 3201.4 | 3184.6 | 3146.3 | 3173.5 | 3284.6 | 3780.3 | 4396.0 |
| 30° | 4091.3 | 4065.0 | 3855.5 | 3606.0 | 3527.7 | 3503.7 | 3402.9 | 3373.3 | 3394.1 | 3888.3 | 4611.9 |
| 32.5° | 4272.8 | 4255.3 | 4128.1 | 3926.6 | 3853.9 | 3820.3 | 3678.0 | 3618.8 | 3570.0 | 4058.6 | 4904.5 |
| 35° | 4492.7 | 4481.5 | 4404.8 | 4258.5 | 4150.5 | 4115.3 | 4005.0 | 3943.4 | 3817.9 | 4292.8 | 5282.7 |
| 37.5° | 4772.6 | 4760.6 | 4762.2 | 4643.8 | 4515.1 | 4482.3 | 4409.6 | 4344.8 | 4139.3 | 4600.7 | 5693.7 |
| 40° | 5089.2 | 5066.0 | 5057.2 | 5051.6 | 4970.1 | 4951.7 | 4913.3 | 4825.3 | 4542.3 | 4968.5 | 6099.0 |
| 42.5° | 5565.7 | 5483.4 | 5307.5 | 5373.8 | 5454.6 | 5445.0 | 5476.2 | 5349.9 | 4990.0 | 5403.4 | 6494.8 |
| 45° | 6025.5 | 5890.4 | 5586.5 | 5600.9 | 5777.6 | 5831.2 | 6064.7 | 5975.1 | 5475.4 | 5880.0 | 6904.2 |
| 47.5° | 6235.0 | 6132.6 | 5874.4 | 5875.2 | 6050.3 | 6161.4 | 6673.1 | 6609.2 | 5985.5 | 6421.3 | 7403.9 |
| 50° | 6469.2 | 6366.9 | 6135.0 | 6222.2 | 6374.9 | 6493.2 | 7260.8 | 7228.0 | 6470.8 | 7013.7 | 8002.8 |
| 52.5° | 6725.1 | 6551.6 | 6404.5 | 6560.4 | 6774.7 | 6912.2 | 7849.3 | 7759.7 | 6916.2 | 7610.2 | 8691.2 |
| 55° | 6728.3 | 6681.1 | 6793.1 | 6907.4 | 7228.0 | 7396.7 | 8465.7 | 8229.1 | 7279.2 | 8196.3 | 9251.7 |
| 57.5° | 7111.3 | 7034.5 | 7272.0 | 7324.8 | 7743.7 | 7934.0 | 9079.0 | 8637.6 | 7648.6 | 8645.6 | 9553.9 |
| 60° | 7618.2 | 7552.6 | 7746.9 | 7886.1 | 8381.8 | 8636.0 | 9733.8 | 9057.4 | 7938.8 | 8984.6 | 9539.5 |
| 62.5° | 8493.7 | 8419.4 | 8417.0 | 8612.1 | 9279.7 | 9575.5 | 10468.6 | 9469.2 | 8054.0 | 9051.8 | 9132.6 |
| 65° | 9775.4 | 9657.1 | 9434.0 | 9526.7 | 10519.8 | 10814.8 | 11289.8 | 9767.4 | 7902.0 | 8692.0 | 8084.3 |
| 67.5° | 11022.7 | 11018.7 | 10744.5 | 10934.8 | 12157.3 | 12394.0 | 12225.3 | 9797.0 | 7427.9 | 7439.1 | 6224.6 |
| 70° | 12266.0 | 12282.0 | 12235.7 | 12897.7 | 14369.7 | 14615.9 | 13221.5 | 9399.6 | 6362.1 | 5372.2 | 3729.1 |
| 72.5° | 13251.1 | 13247.1 | 13480.6 | 15187.6 | 17240.9 | 17185.7 | 14061.1 | 8195.5 | 4567.9 | 2900.0 | 1782.2 |
| 75° | 12613.0 | 12473.9 | 13169.5 | 16321.4 | 18914.4 | 18644.9 | 13347.0 | 5716.8 | 2370.7 | 1320.1 | 959.5 |
| 77.5° | 8226.7 | 8358.6 | 9379.6 | 13483.0 | 16544.5 | 16216.7 | 9792.2 | 2667.3 | 1117.0 | 865.9 | 695.6 |
| 80° | 2979.2 | 3118.3 | 4392.0 | 7637.4 | 11398.5 | 11344.9 | 4822.1 | 1096.2 | 755.6 | 654.0 | 506.9 |
| 82.5° | 1025.0 | 1076.2 | 1732.6 | 3391.7 | 6435.7 | 6675.5 | 1814.2 | 622.9 | 549.3 | 463.7 | 347.0 |
| 85° | 402.2 | 460.5 | 792.4 | 1631.9 | 3246.2 | 3270.2 | 734.8 | 372.6 | 382.2 | 303.8 | 190.3 |
| 87.5° | 152.7 | 185.5 | 379.0 | 758.0 | 1482.4 | 1361.6 | 263.1 | 177.5 | 217.5 | 180.7 | 90.4 |
| 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° | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 | 3618.0 |
| 2.5° | 3623.6 | 3640.4 | 3675.6 | 3699.6 | 3725.1 | 3732.3 | 3735.5 | 3741.9 | 3748.3 | 3745.9 | 3746.7 |
| 5° | 3646.0 | 3678.8 | 3735.5 | 3759.5 | 3770.7 | 3757.9 | 3733.1 | 3713.2 | 3698.8 | 3690.8 | 3688.4 |
| 7.5° | 3682.8 | 3729.1 | 3789.9 | 3785.9 | 3760.3 | 3703.6 | 3639.6 | 3591.6 | 3551.6 | 3537.3 | 3529.3 |
| 10° | 3731.5 | 3785.9 | 3828.3 | 3782.7 | 3708.4 | 3610.0 | 3514.1 | 3439.7 | 3379.7 | 3356.5 | 3352.6 |
| 12.5° | 3793.9 | 3849.1 | 3857.1 | 3760.3 | 3637.2 | 3502.9 | 3372.5 | 3274.2 | 3184.6 | 3155.9 | 3149.5 |
| 15° | 3874.7 | 3926.6 | 3877.1 | 3721.1 | 3549.2 | 3368.5 | 3199.8 | 3066.3 | 2972.0 | 2936.8 | 2924.0 |
| 17.5° | 3959.4 | 4009.0 | 3881.1 | 3656.4 | 3434.1 | 3209.4 | 2997.5 | 2860.8 | 2752.9 | 2712.1 | 2707.3 |
| 20° | 4061.0 | 4083.3 | 3864.3 | 3563.6 | 3275.8 | 3003.1 | 2780.1 | 2651.3 | 2593.8 | 2565.0 | 2561.8 |
| 22.5° | 4186.5 | 4162.5 | 3825.9 | 3438.1 | 3075.1 | 2764.9 | 2583.4 | 2523.4 | 2509.0 | 2502.6 | 2505.0 |
| 25° | 4319.2 | 4245.7 | 3769.1 | 3274.2 | 2821.6 | 2526.6 | 2439.5 | 2456.2 | 2475.4 | 2473.0 | 2473.0 |
| 27.5° | 4465.5 | 4330.4 | 3682.0 | 3056.7 | 2541.0 | 2331.5 | 2341.9 | 2403.5 | 2432.3 | 2431.5 | 2430.7 |
| 30° | 4653.4 | 4426.4 | 3570.8 | 2795.3 | 2278.7 | 2194.0 | 2257.2 | 2332.3 | 2371.5 | 2369.9 | 2370.7 |
| 32.5° | 4884.5 | 4531.9 | 3419.7 | 2503.4 | 2089.2 | 2092.4 | 2165.2 | 2239.6 | 2285.1 | 2281.1 | 2281.9 |
| 35° | 5154.8 | 4650.2 | 3215.0 | 2215.6 | 1963.7 | 2011.7 | 2069.3 | 2121.2 | 2164.4 | 2158.8 | 2153.2 |
| 37.5° | 5449.0 | 4766.2 | 2943.2 | 1958.1 | 1861.4 | 1936.5 | 1984.5 | 1993.3 | 2013.3 | 1998.9 | 1988.5 |
| 40° | 5728.8 | 4854.9 | 2593.0 | 1747.0 | 1758.2 | 1872.6 | 1903.8 | 1868.6 | 1832.6 | 1827.8 | 1813.4 |
| 42.5° | 5972.7 | 4884.5 | 2238.8 | 1578.3 | 1649.5 | 1805.4 | 1824.6 | 1751.0 | 1686.3 | 1655.9 | 1643.1 |
| 45° | 6230.2 | 4894.9 | 1908.5 | 1436.8 | 1544.7 | 1745.4 | 1766.2 | 1667.9 | 1576.7 | 1511.2 | 1489.6 |
| 47.5° | 6566.8 | 4970.1 | 1651.9 | 1332.1 | 1464.8 | 1705.5 | 1735.0 | 1601.5 | 1483.2 | 1389.6 | 1369.6 |
| 50° | 7007.3 | 5118.8 | 1443.2 | 1252.1 | 1412.8 | 1679.1 | 1712.7 | 1536.8 | 1406.4 | 1293.7 | 1273.7 |
| 52.5° | 7496.7 | 5255.5 | 1274.5 | 1187.3 | 1362.4 | 1632.7 | 1683.9 | 1490.4 | 1334.5 | 1204.9 | 1183.3 |
| 55° | 7838.9 | 5150.8 | 1138.6 | 1120.2 | 1296.9 | 1566.3 | 1643.9 | 1451.2 | 1231.3 | 1118.6 | 1099.4 |
| 57.5° | 7904.4 | 4792.6 | 1035.4 | 1050.6 | 1217.7 | 1483.2 | 1582.3 | 1364.0 | 1175.4 | 1081.0 | 1061.0 |
| 60° | 7725.3 | 4293.6 | 958.7 | 986.7 | 1133.0 | 1378.4 | 1467.2 | 1302.5 | 1121.8 | 1041.0 | 1024.2 |
| 62.5° | 7275.2 | 3782.7 | 901.9 | 929.1 | 1053.8 | 1272.1 | 1395.2 | 1237.7 | 1067.4 | 995.5 | 978.7 |
| 65° | 6366.1 | 3175.8 | 847.5 | 877.9 | 980.3 | 1180.1 | 1330.5 | 1177.8 | 1013.8 | 958.7 | 942.7 |
| 67.5° | 4805.4 | 2378.7 | 796.4 | 823.5 | 914.7 | 1100.2 | 1260.1 | 1118.6 | 961.9 | 926.7 | 907.5 |
| 70° | 2829.6 | 1489.6 | 738.0 | 766.8 | 845.9 | 1017.0 | 1184.9 | 1053.8 | 897.1 | 881.1 | 856.3 |
| 72.5° | 1316.9 | 896.3 | 671.6 | 699.6 | 759.6 | 905.9 | 1088.2 | 969.1 | 820.3 | 785.2 | 751.6 |
| 75° | 786.0 | 655.6 | 593.3 | 618.1 | 660.4 | 787.6 | 966.7 | 882.7 | 747.6 | 701.2 | 666.0 |
| 77.5° | 587.7 | 501.3 | 506.9 | 533.3 | 567.7 | 689.2 | 856.3 | 814.8 | 691.6 | 655.6 | 631.7 |
| 80° | 423.0 | 380.6 | 413.4 | 442.2 | 478.1 | 626.9 | 820.3 | 753.2 | 625.3 | 577.3 | 554.9 |
| 82.5° | 282.2 | 273.4 | 311.0 | 340.6 | 375.8 | 548.5 | 770.8 | 659.6 | 534.1 | 473.3 | 423.8 |
| 85° | 155.9 | 164.7 | 209.5 | 222.3 | 252.7 | 386.2 | 631.7 | 530.1 | 402.2 | 323.8 | 309.4 |
| 87.5° | 64.8 | 76.0 | 112.7 | 108.7 | 134.3 | 230.3 | 415.8 | 319.8 | 255.9 | 191.1 | 148.7 |
| 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)