

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: STREETWORKS

Report Number: P268408

Luminaire Tested: **GAN-AF-04-LED-U-5NQ-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P268408
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-04-LED-U-5NQ-7027-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23606.6 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

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: 28.75 FT

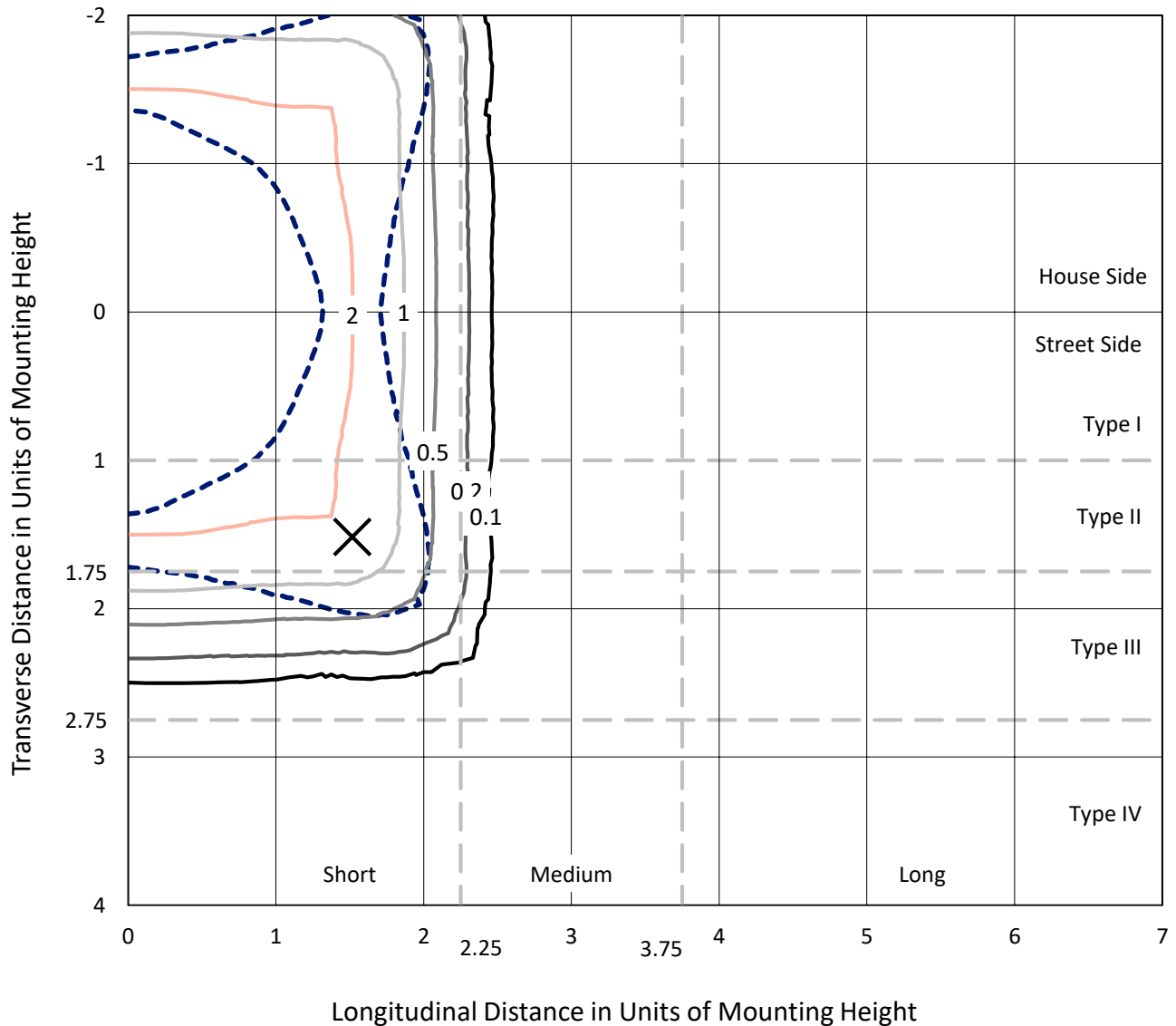


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

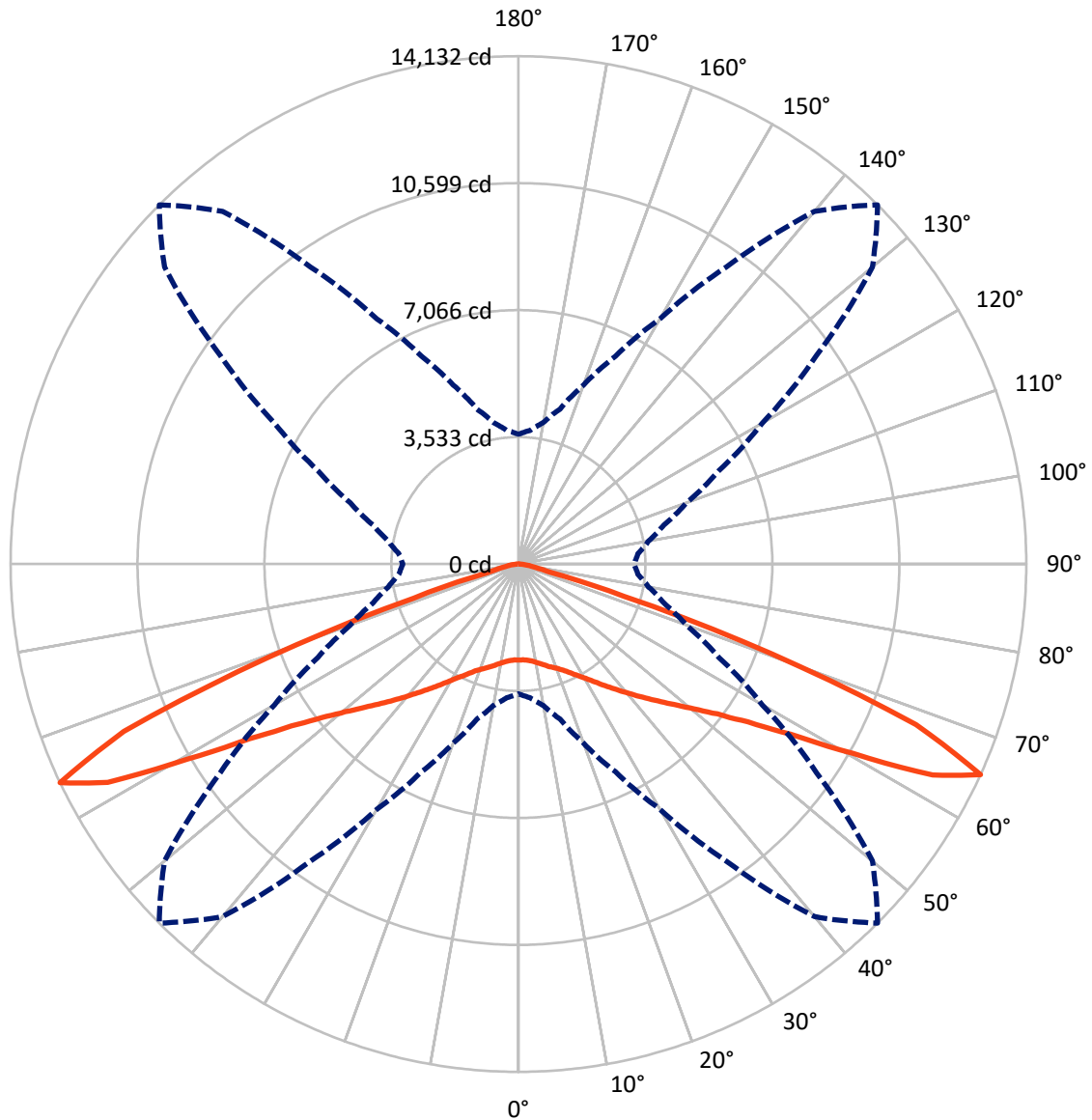


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11803.3 | 0.0 | 11803.3 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 11803.3 | 0.0 | 11803.3 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 23606.6 | 0.0 | 23606.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 260.3 | 1.1 |
| 10°-20° | 835.0 | 3.5 |
| 20°-30° | 1561.3 | 6.6 |
| 30°-40° | 2640.5 | 11.2 |
| 40°-50° | 4317.5 | 18.3 |
| 50°-60° | 6865.5 | 29.1 |
| 60°-70° | 6206.0 | 26.3 |
| 70°-80° | 785.4 | 3.3 |
| 80°-90° | 135.1 | 0.6 |
| 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° | 23606.6 | 100.0 |
| 0°-180° | 23606.6 | 100.0 |



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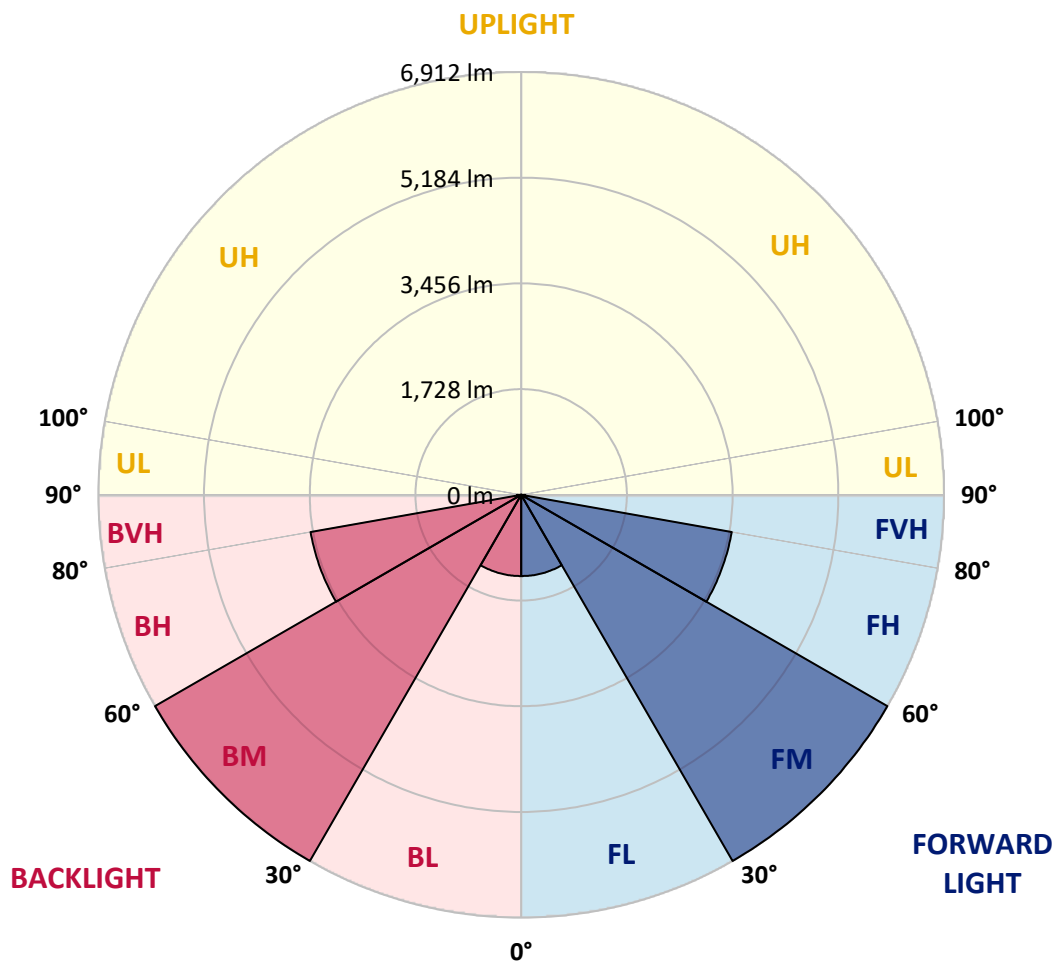
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1328.3 | 5.6 | | | |
| FM | (30°-60°) | 6911.8 | 29.3 | | | |
| FH | (60°-80°) | 3495.7 | 14.8 | | | G2/5000 |
| FVH | (80°-90°) | 67.6 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 1328.3 | 5.6 | B3/2500 | | |
| BM | (30°-60°) | 6911.8 | 29.3 | B4/8500 | | |
| BH | (60°-80°) | 3495.7 | 14.8 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 67.6 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 |
| 2.5° | 2673.3 | 2675.5 | 2677.8 | 2675.5 | 2677.8 | 2674.4 | 2672.2 | 2675.5 | 2672.2 | 2668.9 | 2671.1 |
| 5° | 2696.5 | 2697.6 | 2697.6 | 2694.3 | 2697.6 | 2695.5 | 2692.1 | 2696.5 | 2693.2 | 2689.9 | 2692.1 |
| 7.5° | 2735.2 | 2739.7 | 2736.3 | 2733.1 | 2735.2 | 2733.1 | 2730.8 | 2731.9 | 2730.8 | 2727.4 | 2728.6 |
| 10° | 2787.3 | 2790.6 | 2788.2 | 2787.3 | 2789.3 | 2788.2 | 2786.1 | 2784.9 | 2786.1 | 2782.8 | 2782.8 |
| 12.5° | 2850.2 | 2849.2 | 2847.9 | 2849.2 | 2852.4 | 2852.4 | 2851.3 | 2852.4 | 2854.6 | 2855.7 | 2853.6 |
| 15° | 2912.1 | 2914.3 | 2914.3 | 2914.3 | 2921.0 | 2926.5 | 2929.8 | 2932.0 | 2936.4 | 2937.5 | 2933.1 |
| 17.5° | 2989.5 | 2989.5 | 2988.4 | 2989.5 | 2996.1 | 3005.0 | 3008.3 | 3012.7 | 3017.1 | 3020.6 | 3014.9 |
| 20° | 3075.7 | 3078.0 | 3078.0 | 3080.2 | 3089.0 | 3099.0 | 3099.0 | 3101.2 | 3099.0 | 3101.2 | 3097.9 |
| 22.5° | 3180.8 | 3187.4 | 3187.4 | 3188.5 | 3197.3 | 3209.6 | 3206.2 | 3209.6 | 3204.0 | 3208.4 | 3204.0 |
| 25° | 3317.9 | 3327.9 | 3325.6 | 3325.6 | 3332.3 | 3340.0 | 3341.1 | 3347.8 | 3346.6 | 3352.1 | 3348.8 |
| 27.5° | 3472.7 | 3488.1 | 3492.5 | 3491.4 | 3495.8 | 3503.6 | 3505.8 | 3513.5 | 3509.0 | 3513.5 | 3511.4 |
| 30° | 3658.3 | 3665.1 | 3673.9 | 3677.2 | 3682.7 | 3690.4 | 3690.4 | 3691.6 | 3686.0 | 3692.7 | 3695.9 |
| 32.5° | 3850.8 | 3862.9 | 3871.8 | 3891.6 | 3901.6 | 3907.2 | 3906.0 | 3908.3 | 3902.7 | 3911.6 | 3918.1 |
| 35° | 4105.1 | 4113.9 | 4128.3 | 4143.7 | 4156.9 | 4155.9 | 4152.5 | 4153.8 | 4153.8 | 4161.4 | 4168.0 |
| 37.5° | 4411.2 | 4413.6 | 4432.2 | 4454.4 | 4461.1 | 4454.4 | 4434.6 | 4430.1 | 4420.1 | 4430.1 | 4441.1 |
| 40° | 4735.2 | 4743.1 | 4780.6 | 4795.0 | 4798.2 | 4786.1 | 4757.3 | 4740.7 | 4718.6 | 4730.8 | 4746.3 |
| 42.5° | 5074.6 | 5090.2 | 5124.4 | 5149.9 | 5160.9 | 5153.1 | 5113.3 | 5087.9 | 5059.2 | 5065.8 | 5081.4 |
| 45° | 5450.6 | 5469.3 | 5518.0 | 5542.4 | 5563.4 | 5551.2 | 5512.4 | 5473.7 | 5428.5 | 5431.7 | 5456.0 |
| 47.5° | 5870.7 | 5889.5 | 5952.4 | 5993.4 | 6004.5 | 6002.2 | 5959.1 | 5906.0 | 5844.2 | 5841.9 | 5863.0 |
| 50° | 6341.7 | 6360.4 | 6439.0 | 6501.9 | 6534.0 | 6530.7 | 6479.8 | 6404.6 | 6329.5 | 6330.5 | 6357.1 |
| 52.5° | 6801.5 | 6824.9 | 6906.6 | 7015.0 | 7077.9 | 7123.3 | 7092.4 | 7021.6 | 6929.9 | 6932.0 | 6956.4 |
| 55° | 7232.8 | 7271.4 | 7365.5 | 7512.4 | 7629.7 | 7756.9 | 7793.2 | 7791.1 | 7735.8 | 7751.3 | 7775.5 |
| 57.5° | 7441.6 | 7499.2 | 7644.0 | 7876.2 | 8115.0 | 8373.7 | 8592.6 | 8756.3 | 8825.8 | 8930.9 | 8906.6 |
| 60° | 7045.9 | 7137.7 | 7351.0 | 7692.6 | 8164.8 | 8704.2 | 9282.5 | 9847.5 | 10329.5 | 10693.2 | 10484.3 |
| 62.5° | 5768.9 | 5888.4 | 6147.0 | 6584.8 | 7299.1 | 8162.5 | 9269.3 | 10604.9 | 12059.7 | 12937.6 | 12310.7 |
| 65° | 3609.7 | 3733.5 | 3996.6 | 4465.5 | 5301.3 | 6374.8 | 7876.2 | 10089.7 | 12808.3 | 14131.5 | 12855.7 |
| 67.5° | 1407.5 | 1474.8 | 1617.5 | 1917.2 | 2545.1 | 3500.2 | 5007.2 | 7519.2 | 10770.6 | 11930.4 | 10570.5 |
| 70° | 705.3 | 711.9 | 738.5 | 793.8 | 928.7 | 1206.2 | 1835.2 | 3486.0 | 6176.9 | 7460.6 | 5954.7 |
| 72.5° | 509.7 | 510.7 | 524.0 | 548.3 | 591.4 | 653.3 | 772.8 | 1066.8 | 2008.9 | 3070.1 | 1882.8 |
| 75° | 390.3 | 394.6 | 402.4 | 415.6 | 438.9 | 469.9 | 513.0 | 614.7 | 761.8 | 883.4 | 743.0 |
| 77.5° | 300.8 | 309.6 | 315.0 | 327.3 | 341.6 | 362.6 | 374.9 | 413.5 | 481.0 | 506.4 | 498.6 |
| 80° | 228.9 | 236.7 | 248.8 | 258.7 | 268.7 | 278.7 | 274.3 | 291.9 | 327.3 | 348.3 | 337.3 |
| 82.5° | 146.0 | 154.8 | 190.1 | 199.1 | 203.5 | 210.1 | 202.3 | 203.5 | 218.8 | 232.2 | 218.8 |
| 85° | 94.0 | 99.5 | 120.6 | 131.5 | 132.7 | 137.1 | 133.8 | 126.0 | 126.0 | 115.1 | 129.4 |
| 87.5° | 43.1 | 44.2 | 54.2 | 64.0 | 66.4 | 59.6 | 58.6 | 56.4 | 45.4 | 43.1 | 46.4 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 | 2671.1 |
| 2.5° | 2670.0 | 2672.2 | 2673.3 | 2676.6 | 2677.8 | 2677.8 | 2678.8 | 2681.0 |
| 5° | 2691.1 | 2694.3 | 2695.5 | 2699.9 | 2700.9 | 2699.9 | 2702.0 | 2703.2 |
| 7.5° | 2728.6 | 2734.1 | 2736.3 | 2740.8 | 2737.4 | 2741.8 | 2743.0 | 2743.0 |
| 10° | 2783.8 | 2789.3 | 2790.6 | 2794.9 | 2792.7 | 2794.9 | 2794.9 | 2792.7 |
| 12.5° | 2856.8 | 2858.0 | 2854.6 | 2858.0 | 2853.6 | 2855.7 | 2852.4 | 2850.2 |
| 15° | 2937.5 | 2934.3 | 2926.5 | 2926.5 | 2919.9 | 2921.0 | 2919.9 | 2918.8 |
| 17.5° | 3016.0 | 3009.4 | 3003.9 | 3001.6 | 2996.1 | 2994.9 | 2991.7 | 2991.7 |
| 20° | 3102.2 | 3099.0 | 3095.6 | 3091.2 | 3085.7 | 3080.2 | 3079.1 | 3081.2 |
| 22.5° | 3206.2 | 3205.2 | 3205.2 | 3202.8 | 3195.1 | 3189.6 | 3186.3 | 3186.3 |
| 25° | 3345.5 | 3335.5 | 3335.5 | 3334.5 | 3331.2 | 3327.9 | 3321.2 | 3324.4 |
| 27.5° | 3502.5 | 3497.0 | 3501.5 | 3500.2 | 3497.0 | 3497.0 | 3492.5 | 3492.5 |
| 30° | 3695.9 | 3693.8 | 3700.4 | 3694.9 | 3683.8 | 3682.7 | 3678.3 | 3672.8 |
| 32.5° | 3919.3 | 3917.1 | 3927.0 | 3920.5 | 3902.7 | 3892.7 | 3883.9 | 3879.5 |
| 35° | 4168.0 | 4169.2 | 4181.3 | 4176.8 | 4156.9 | 4150.3 | 4134.9 | 4132.7 |
| 37.5° | 4440.1 | 4457.7 | 4478.7 | 4483.1 | 4466.6 | 4462.2 | 4445.5 | 4436.6 |
| 40° | 4759.6 | 4782.8 | 4814.8 | 4822.6 | 4804.9 | 4801.6 | 4778.4 | 4766.1 |
| 42.5° | 5100.0 | 5139.9 | 5179.6 | 5186.4 | 5168.6 | 5150.9 | 5128.9 | 5120.0 |
| 45° | 5480.4 | 5527.9 | 5579.9 | 5593.1 | 5566.6 | 5545.6 | 5516.9 | 5516.9 |
| 47.5° | 5907.2 | 5966.8 | 6025.4 | 6061.9 | 6037.6 | 6015.5 | 5981.3 | 5959.1 |
| 50° | 6411.4 | 6493.0 | 6569.3 | 6606.9 | 6568.2 | 6526.2 | 6466.5 | 6446.6 |
| 52.5° | 7043.7 | 7132.2 | 7198.5 | 7178.5 | 7118.9 | 7060.3 | 6995.0 | 6968.5 |
| 55° | 7850.7 | 7880.7 | 7880.7 | 7805.5 | 7686.1 | 7587.7 | 7484.8 | 7450.5 |
| 57.5° | 8860.2 | 8745.2 | 8568.4 | 8343.8 | 8062.0 | 7816.5 | 7650.7 | 7572.2 |
| 60° | 10046.5 | 9493.6 | 8869.1 | 8255.5 | 7751.3 | 7335.6 | 7089.1 | 6976.2 |
| 62.5° | 10837.0 | 9390.8 | 8139.4 | 7154.2 | 6429.0 | 5928.2 | 5587.6 | 5455.0 |
| 65° | 10128.3 | 7832.1 | 6155.9 | 4977.4 | 4186.9 | 3677.2 | 3340.0 | 3216.1 |
| 67.5° | 7418.6 | 4907.7 | 3278.1 | 2349.3 | 1721.4 | 1373.1 | 1234.9 | 1177.5 |
| 70° | 3330.0 | 1728.0 | 1059.1 | 827.0 | 713.2 | 654.5 | 629.1 | 620.2 |
| 72.5° | 1003.9 | 726.4 | 612.6 | 552.7 | 507.5 | 478.7 | 457.6 | 455.5 |
| 75° | 605.8 | 504.2 | 447.7 | 412.4 | 383.7 | 360.4 | 349.4 | 346.0 |
| 77.5° | 423.5 | 370.5 | 343.8 | 318.4 | 296.4 | 278.7 | 268.7 | 260.9 |
| 80° | 297.3 | 271.9 | 259.8 | 245.4 | 231.0 | 214.4 | 200.1 | 193.4 |
| 82.5° | 199.1 | 193.4 | 193.4 | 184.6 | 172.5 | 157.1 | 128.3 | 121.6 |
| 85° | 128.3 | 127.1 | 129.4 | 126.0 | 117.1 | 100.6 | 83.0 | 78.5 |
| 87.5° | 59.6 | 60.8 | 67.5 | 66.4 | 64.0 | 53.1 | 42.0 | 39.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)