

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: P268806

Luminaire Tested: **GAN-AF-09-LED-U-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P268806
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-09-LED-U-5NQ-7027-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31421.1 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G2

Input Watts (W): 290
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

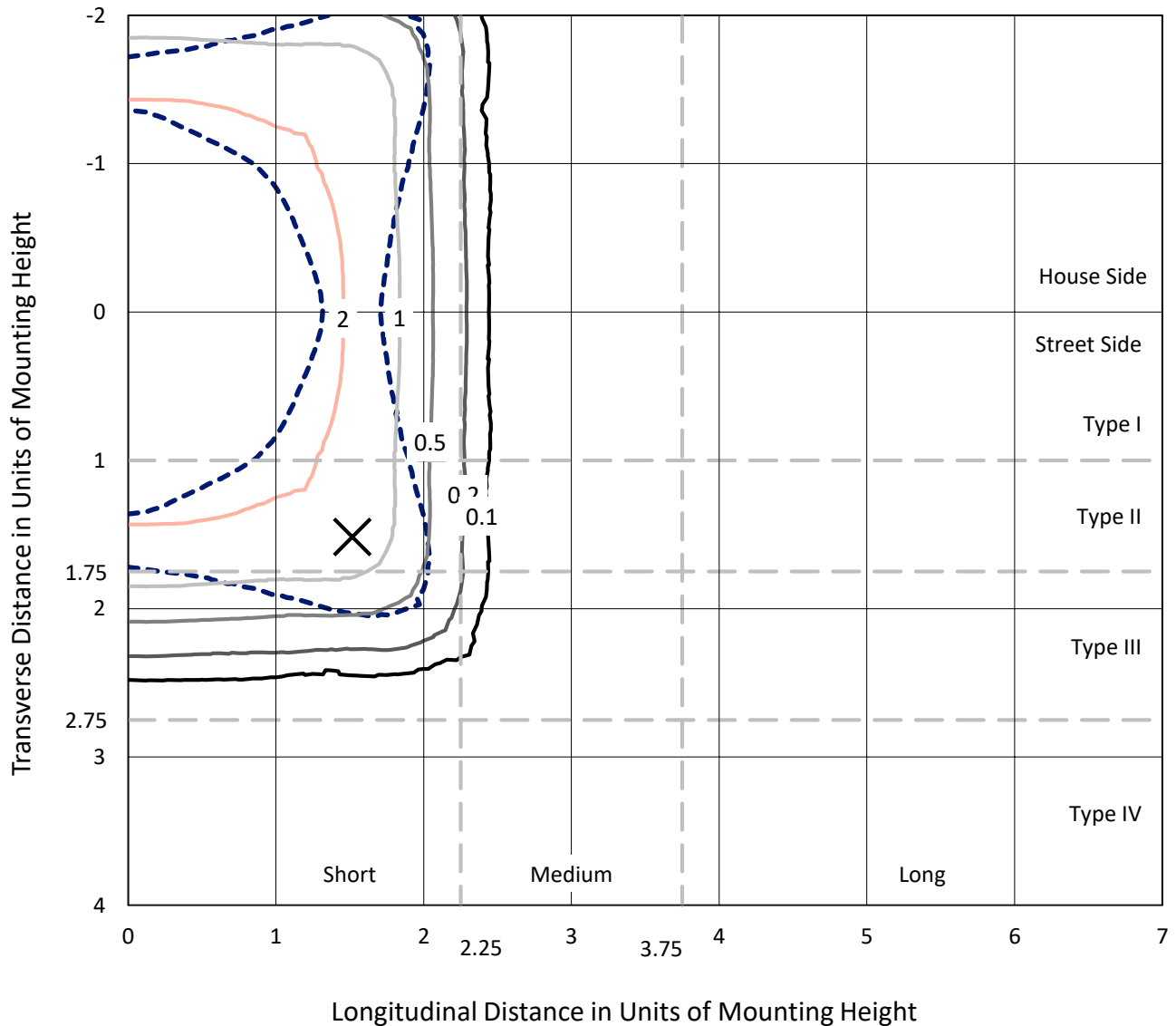


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

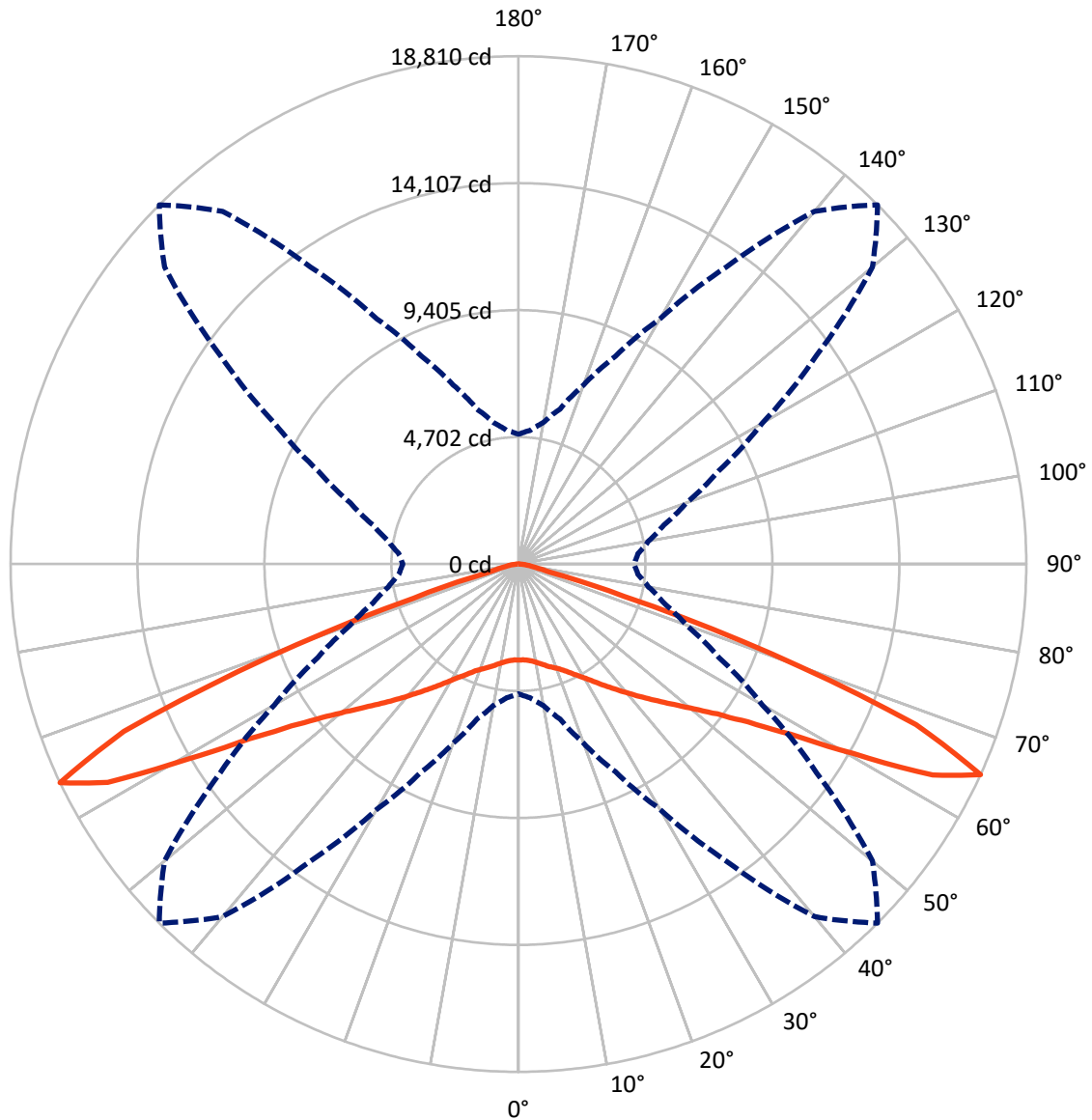


Based on 30 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - Full Cutoff

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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 | 15710.6 | 0.0 | 15710.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 15710.6 | 0.0 | 15710.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 31421.1 | 0.0 | 31421.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 346.5 | 1.1 |
| 10°-20° | 1111.4 | 3.5 |
| 20°-30° | 2078.1 | 6.6 |
| 30°-40° | 3514.6 | 11.2 |
| 40°-50° | 5746.7 | 18.3 |
| 50°-60° | 9138.2 | 29.1 |
| 60°-70° | 8260.4 | 26.3 |
| 70°-80° | 1045.4 | 3.3 |
| 80°-90° | 179.8 | 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° | 31421.1 | 100.0 |
| 0°-180° | 31421.1 | 100.0 |

Coefficient of Utilization



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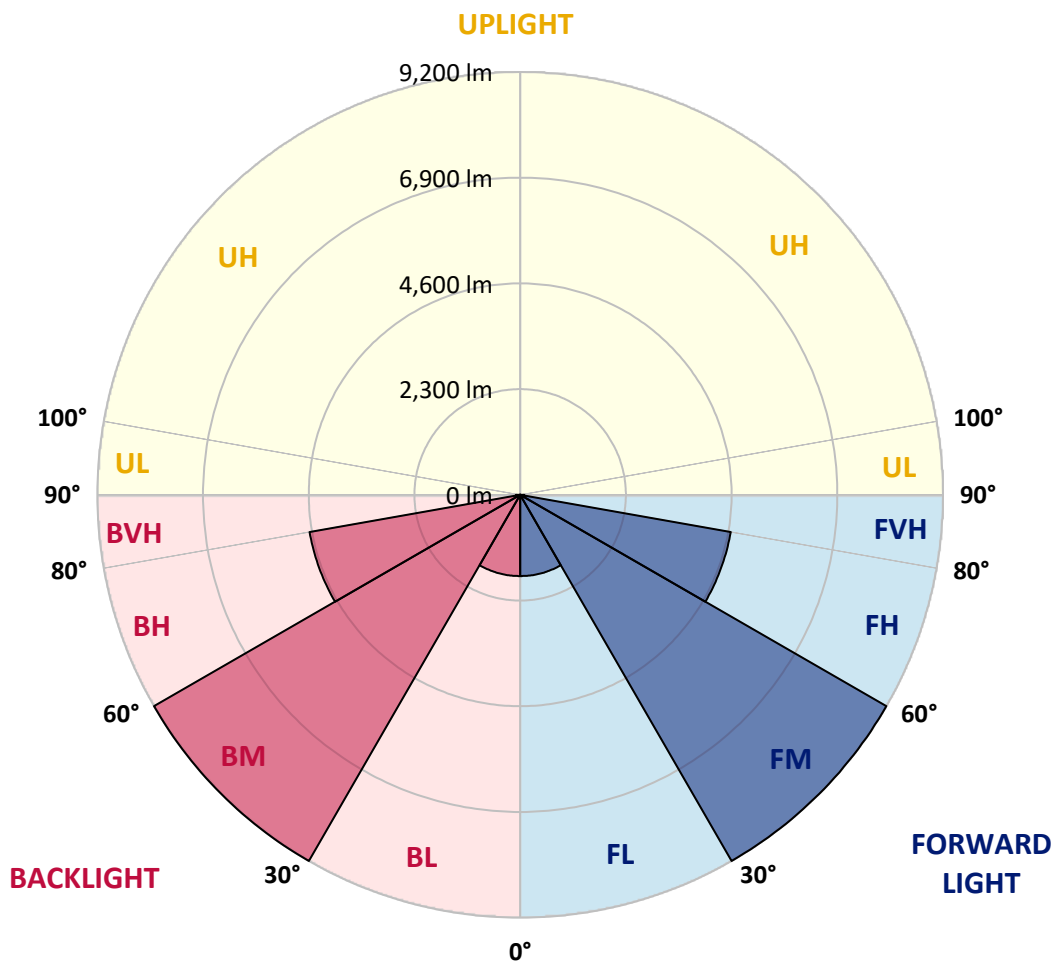
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1768.0 | 5.6 | | | |
| FM (30°-60°) | 9199.8 | 29.3 | | | |
| FH (60°-80°) | 4652.9 | 14.8 | | | G2/5000 |
| FVH (80°-90°) | 89.9 | 0.3 | | | G1/100 |
| BL (0°-30°) | 1768.0 | 5.6 | B3/2500 | | |
| BM (30°-60°) | 9199.8 | 29.3 | B5 | | |
| BH (60°-80°) | 4652.9 | 14.8 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 89.9 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 |
| 2.5° | 3558.2 | 3561.2 | 3564.1 | 3561.2 | 3564.1 | 3559.8 | 3556.7 | 3561.2 | 3556.7 | 3552.3 | 3555.3 |
| 5° | 3589.2 | 3590.6 | 3590.6 | 3586.3 | 3590.6 | 3587.7 | 3583.2 | 3589.2 | 3584.7 | 3580.4 | 3583.2 |
| 7.5° | 3640.7 | 3646.6 | 3642.2 | 3637.7 | 3640.7 | 3637.7 | 3634.8 | 3636.2 | 3634.8 | 3630.4 | 3631.8 |
| 10° | 3709.8 | 3714.2 | 3711.3 | 3709.8 | 3712.8 | 3711.3 | 3708.4 | 3706.9 | 3708.4 | 3703.9 | 3703.9 |
| 12.5° | 3793.7 | 3792.3 | 3790.8 | 3792.3 | 3796.6 | 3796.6 | 3795.2 | 3796.6 | 3799.7 | 3801.1 | 3798.2 |
| 15° | 3876.1 | 3879.2 | 3879.2 | 3879.2 | 3888.0 | 3895.2 | 3899.6 | 3902.5 | 3908.4 | 3910.0 | 3904.0 |
| 17.5° | 3979.1 | 3979.1 | 3977.6 | 3979.1 | 3987.9 | 3999.8 | 4004.1 | 4010.0 | 4016.0 | 4020.4 | 4013.0 |
| 20° | 4093.9 | 4096.9 | 4096.9 | 4099.9 | 4111.6 | 4124.7 | 4124.7 | 4127.7 | 4124.7 | 4127.7 | 4123.3 |
| 22.5° | 4233.7 | 4242.5 | 4242.5 | 4244.0 | 4255.8 | 4272.0 | 4267.6 | 4272.0 | 4264.7 | 4270.5 | 4264.7 |
| 25° | 4416.2 | 4429.5 | 4426.5 | 4426.5 | 4435.3 | 4445.6 | 4447.1 | 4456.0 | 4454.4 | 4461.8 | 4457.4 |
| 27.5° | 4622.1 | 4642.8 | 4648.6 | 4647.2 | 4653.1 | 4663.5 | 4666.3 | 4676.7 | 4670.7 | 4676.7 | 4673.7 |
| 30° | 4869.4 | 4878.2 | 4890.1 | 4894.4 | 4901.8 | 4912.1 | 4912.1 | 4913.5 | 4906.3 | 4915.0 | 4919.5 |
| 32.5° | 5125.5 | 5141.7 | 5153.4 | 5179.9 | 5193.2 | 5200.6 | 5199.1 | 5202.1 | 5194.7 | 5206.4 | 5215.3 |
| 35° | 5463.9 | 5475.7 | 5494.8 | 5515.5 | 5533.1 | 5531.7 | 5527.2 | 5528.7 | 5528.7 | 5538.9 | 5547.8 |
| 37.5° | 5871.6 | 5874.6 | 5899.4 | 5929.0 | 5937.7 | 5929.0 | 5902.5 | 5896.6 | 5883.4 | 5896.6 | 5911.2 |
| 40° | 6302.8 | 6313.1 | 6363.1 | 6382.2 | 6386.6 | 6370.4 | 6332.2 | 6310.1 | 6280.7 | 6296.8 | 6317.5 |
| 42.5° | 6754.5 | 6775.1 | 6820.7 | 6854.5 | 6869.2 | 6859.0 | 6806.0 | 6772.2 | 6734.0 | 6742.8 | 6763.3 |
| 45° | 7254.8 | 7279.9 | 7344.6 | 7377.1 | 7405.0 | 7388.7 | 7337.3 | 7285.8 | 7225.4 | 7229.7 | 7262.2 |
| 47.5° | 7814.0 | 7839.1 | 7923.0 | 7977.4 | 7992.1 | 7989.2 | 7931.8 | 7861.2 | 7778.8 | 7775.8 | 7803.8 |
| 50° | 8441.0 | 8465.9 | 8570.4 | 8654.4 | 8697.0 | 8692.5 | 8624.8 | 8524.8 | 8424.8 | 8426.2 | 8461.6 |
| 52.5° | 9053.1 | 9084.0 | 9193.0 | 9337.2 | 9421.1 | 9481.3 | 9440.2 | 9346.0 | 9223.8 | 9226.9 | 9259.1 |
| 55° | 9627.0 | 9678.5 | 9803.7 | 9999.4 | 10155.2 | 10324.6 | 10373.1 | 10370.2 | 10296.6 | 10317.3 | 10349.6 |
| 57.5° | 9905.2 | 9981.6 | 10174.5 | 10483.5 | 10801.3 | 11145.7 | 11437.1 | 11654.9 | 11747.6 | 11887.5 | 11855.0 |
| 60° | 9378.3 | 9500.5 | 9784.5 | 10239.2 | 10867.5 | 11585.7 | 12355.3 | 13107.3 | 13748.9 | 14233.0 | 13954.9 |
| 62.5° | 7678.6 | 7837.6 | 8181.9 | 8764.8 | 9715.3 | 10864.6 | 12337.7 | 14115.3 | 16052.0 | 17220.4 | 16386.0 |
| 65° | 4804.7 | 4969.6 | 5319.8 | 5943.6 | 7056.1 | 8485.1 | 10483.5 | 13429.7 | 17048.2 | 18809.6 | 17111.5 |
| 67.5° | 1873.3 | 1963.1 | 2152.9 | 2551.7 | 3387.6 | 4659.0 | 6664.7 | 10008.1 | 14336.1 | 15879.8 | 14069.8 |
| 70° | 938.9 | 947.7 | 983.0 | 1056.5 | 1236.1 | 1605.5 | 2442.9 | 4639.8 | 8221.6 | 9930.1 | 7925.8 |
| 72.5° | 678.4 | 679.8 | 697.5 | 730.0 | 787.3 | 869.6 | 1028.6 | 1420.1 | 2673.8 | 4086.6 | 2506.1 |
| 75° | 519.5 | 525.4 | 535.7 | 553.4 | 584.2 | 625.4 | 682.8 | 818.1 | 1013.8 | 1175.8 | 988.9 |
| 77.5° | 400.3 | 412.1 | 419.4 | 435.6 | 454.7 | 482.7 | 498.9 | 550.4 | 640.1 | 674.0 | 663.7 |
| 80° | 304.6 | 314.9 | 331.1 | 344.3 | 357.5 | 370.8 | 364.9 | 388.4 | 435.6 | 463.5 | 448.9 |
| 82.5° | 194.3 | 206.0 | 253.1 | 264.9 | 270.7 | 279.6 | 269.3 | 270.7 | 291.4 | 309.0 | 291.4 |
| 85° | 125.0 | 132.4 | 160.3 | 175.1 | 176.5 | 182.4 | 178.0 | 167.8 | 167.8 | 153.0 | 172.1 |
| 87.5° | 57.4 | 58.8 | 72.1 | 85.3 | 88.4 | 79.5 | 78.1 | 75.1 | 60.4 | 57.4 | 61.9 |
| 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° | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 | 3555.3 |
| 2.5° | 3553.9 | 3556.7 | 3558.2 | 3562.7 | 3564.1 | 3564.1 | 3565.6 | 3568.5 |
| 5° | 3581.8 | 3586.3 | 3587.7 | 3593.6 | 3595.0 | 3593.6 | 3596.5 | 3598.0 |
| 7.5° | 3631.8 | 3639.3 | 3642.2 | 3648.0 | 3643.6 | 3649.5 | 3651.0 | 3651.0 |
| 10° | 3705.4 | 3712.8 | 3714.2 | 3720.2 | 3717.1 | 3720.2 | 3720.2 | 3717.1 |
| 12.5° | 3802.5 | 3804.1 | 3799.7 | 3804.1 | 3798.2 | 3801.1 | 3796.6 | 3793.7 |
| 15° | 3910.0 | 3905.6 | 3895.2 | 3895.2 | 3886.4 | 3888.0 | 3886.4 | 3885.0 |
| 17.5° | 4014.4 | 4005.6 | 3998.3 | 3995.3 | 3987.9 | 3986.5 | 3982.0 | 3982.0 |
| 20° | 4129.1 | 4124.7 | 4120.3 | 4114.4 | 4107.2 | 4099.9 | 4098.3 | 4101.3 |
| 22.5° | 4267.6 | 4266.1 | 4266.1 | 4263.1 | 4252.8 | 4245.5 | 4241.1 | 4241.1 |
| 25° | 4453.0 | 4439.8 | 4439.8 | 4438.3 | 4433.9 | 4429.5 | 4420.6 | 4425.1 |
| 27.5° | 4661.9 | 4654.6 | 4660.4 | 4659.0 | 4654.6 | 4654.6 | 4648.6 | 4648.6 |
| 30° | 4919.5 | 4916.6 | 4925.3 | 4918.0 | 4903.3 | 4901.8 | 4895.9 | 4888.5 |
| 32.5° | 5216.7 | 5213.9 | 5227.0 | 5218.3 | 5194.7 | 5181.5 | 5169.7 | 5163.7 |
| 35° | 5547.8 | 5549.3 | 5565.4 | 5559.6 | 5533.1 | 5524.2 | 5503.6 | 5500.7 |
| 37.5° | 5909.8 | 5933.3 | 5961.3 | 5967.3 | 5945.2 | 5939.2 | 5917.1 | 5905.4 |
| 40° | 6335.1 | 6366.0 | 6408.7 | 6419.0 | 6395.5 | 6391.0 | 6360.1 | 6343.9 |
| 42.5° | 6788.3 | 6841.3 | 6894.3 | 6903.1 | 6879.6 | 6856.0 | 6826.6 | 6814.8 |
| 45° | 7294.5 | 7357.8 | 7427.0 | 7444.8 | 7409.4 | 7381.5 | 7343.1 | 7343.1 |
| 47.5° | 7862.7 | 7942.0 | 8020.1 | 8068.7 | 8036.2 | 8006.9 | 7961.1 | 7931.8 |
| 50° | 8533.7 | 8642.6 | 8744.1 | 8794.0 | 8742.7 | 8686.7 | 8607.2 | 8580.7 |
| 52.5° | 9375.4 | 9493.1 | 9581.4 | 9554.9 | 9475.4 | 9397.4 | 9310.7 | 9275.3 |
| 55° | 10449.7 | 10489.4 | 10489.4 | 10389.3 | 10230.3 | 10099.5 | 9962.6 | 9916.8 |
| 57.5° | 11793.2 | 11640.1 | 11404.7 | 11105.9 | 10730.8 | 10404.0 | 10183.2 | 10078.9 |
| 60° | 13372.2 | 12636.4 | 11804.9 | 10988.2 | 10317.3 | 9763.9 | 9435.7 | 9285.6 |
| 62.5° | 14424.4 | 12499.6 | 10833.6 | 9522.6 | 8557.3 | 7890.6 | 7437.3 | 7260.7 |
| 65° | 13481.0 | 10424.7 | 8193.7 | 6625.0 | 5572.8 | 4894.4 | 4445.6 | 4280.9 |
| 67.5° | 9874.3 | 6532.4 | 4363.2 | 3127.1 | 2291.2 | 1827.7 | 1643.8 | 1567.3 |
| 70° | 4432.3 | 2300.1 | 1409.8 | 1100.8 | 949.1 | 871.1 | 837.3 | 825.5 |
| 72.5° | 1336.1 | 966.8 | 815.2 | 735.8 | 675.4 | 637.2 | 609.2 | 606.3 |
| 75° | 806.4 | 671.0 | 595.9 | 549.0 | 510.6 | 479.8 | 465.1 | 460.7 |
| 77.5° | 563.5 | 493.0 | 457.6 | 423.8 | 394.4 | 370.8 | 357.5 | 347.3 |
| 80° | 395.9 | 361.9 | 345.8 | 326.8 | 307.6 | 285.5 | 266.3 | 257.5 |
| 82.5° | 264.9 | 257.5 | 257.5 | 245.7 | 229.5 | 208.9 | 170.7 | 161.9 |
| 85° | 170.7 | 169.2 | 172.1 | 167.8 | 155.9 | 133.8 | 110.4 | 104.6 |
| 87.5° | 79.5 | 80.9 | 89.8 | 88.4 | 85.3 | 70.6 | 56.0 | 53.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)