

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: P190970

Luminaire Tested: **GAN-AF-02-LED-U-AFL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-02-LED-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12780.7 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

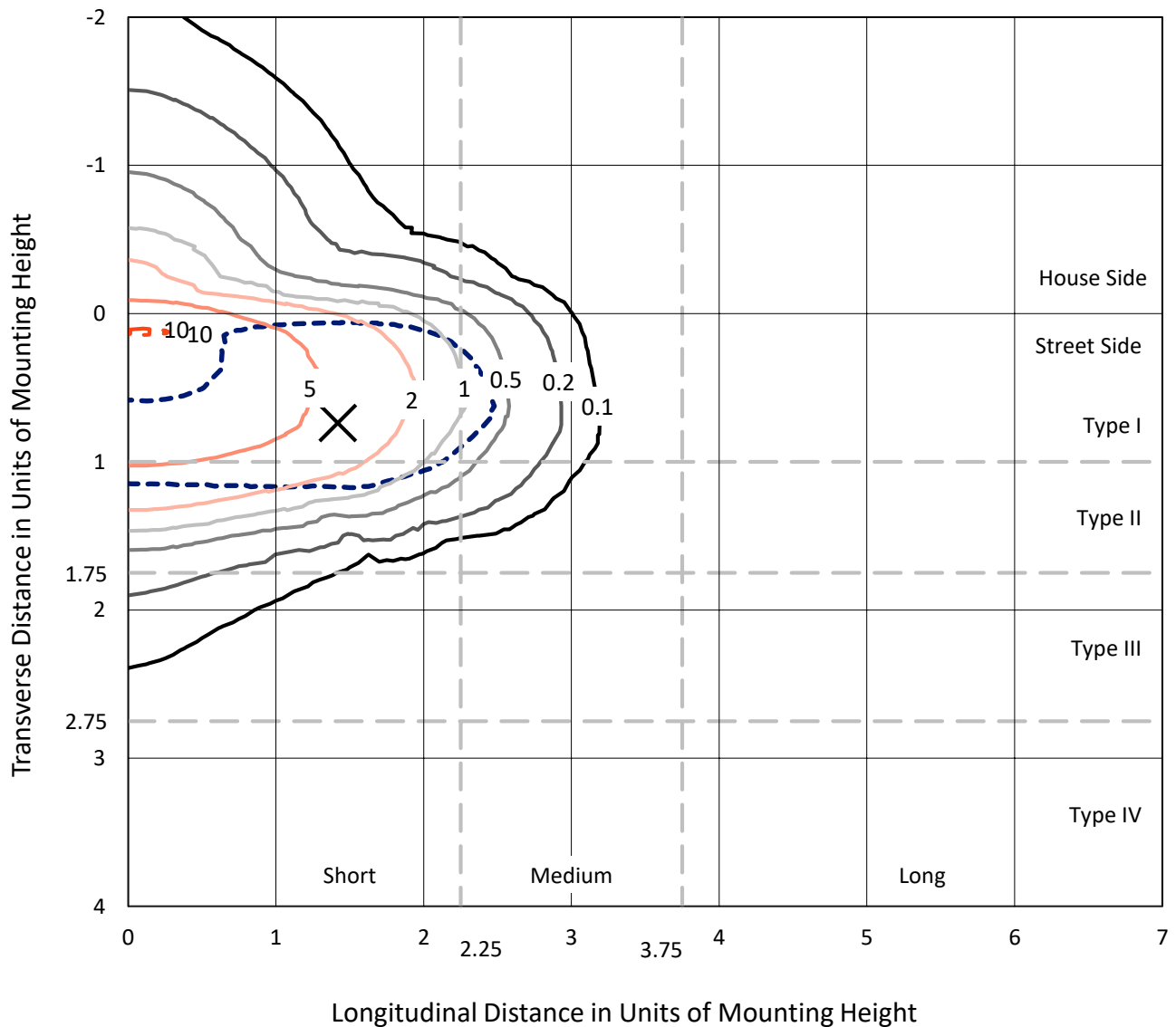
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

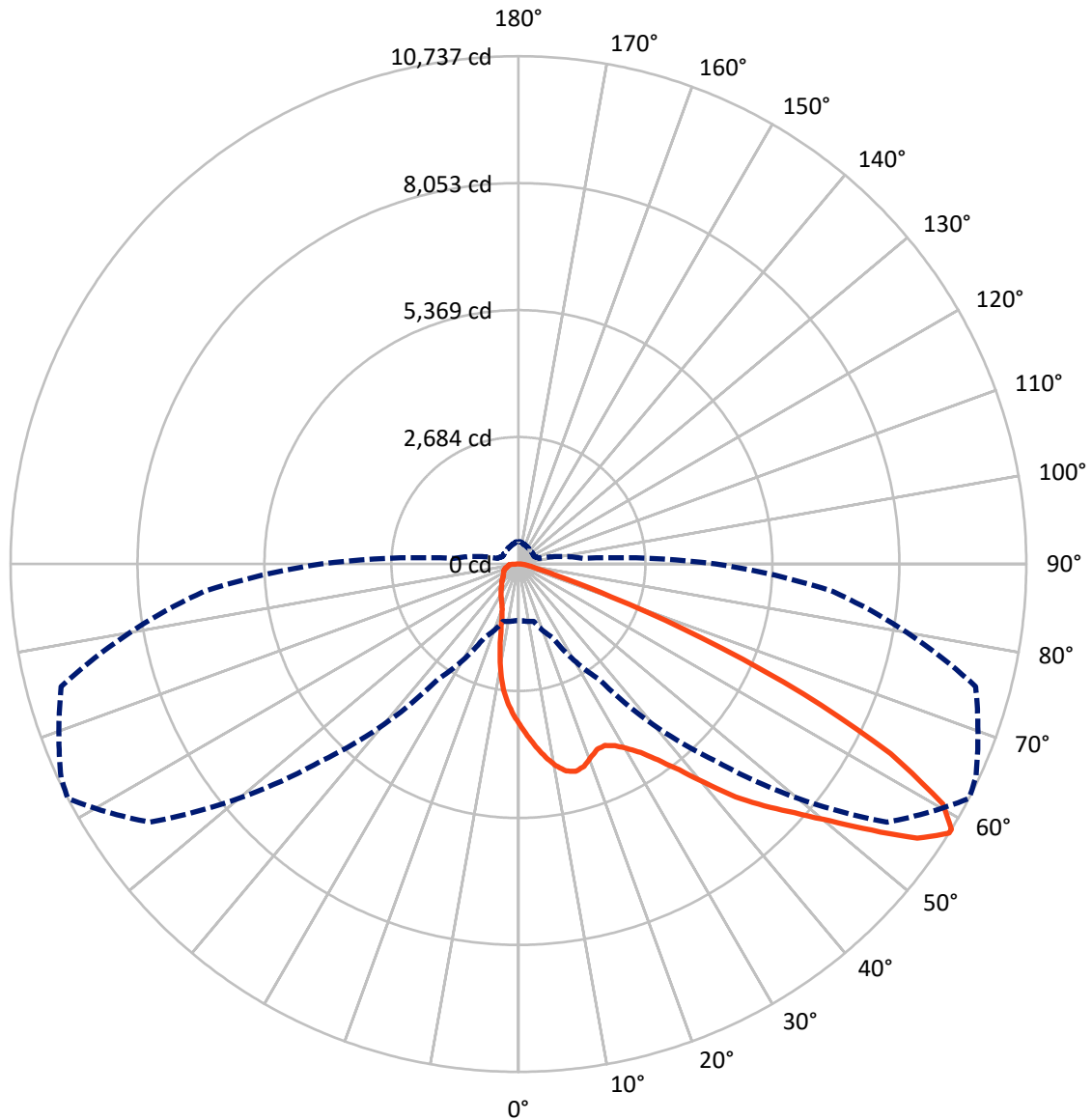
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1949.1 | 0.0 | 1949.1 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 10831.6 | 0.0 | 10831.6 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 12780.7 | 0.0 | 12780.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 303.6 | 2.4 |
| 10°-20° | 776.1 | 6.1 |
| 20°-30° | 1254.6 | 9.8 |
| 30°-40° | 1991.7 | 15.6 |
| 40°-50° | 2914.3 | 22.8 |
| 50°-60° | 3048.1 | 23.8 |
| 60°-70° | 1800.8 | 14.1 |
| 70°-80° | 507.3 | 4.0 |
| 80°-90° | 184.2 | 1.4 |
| 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° | 12780.7 | 100.0 |
| 0°-180° | 12780.7 | 100.0 |



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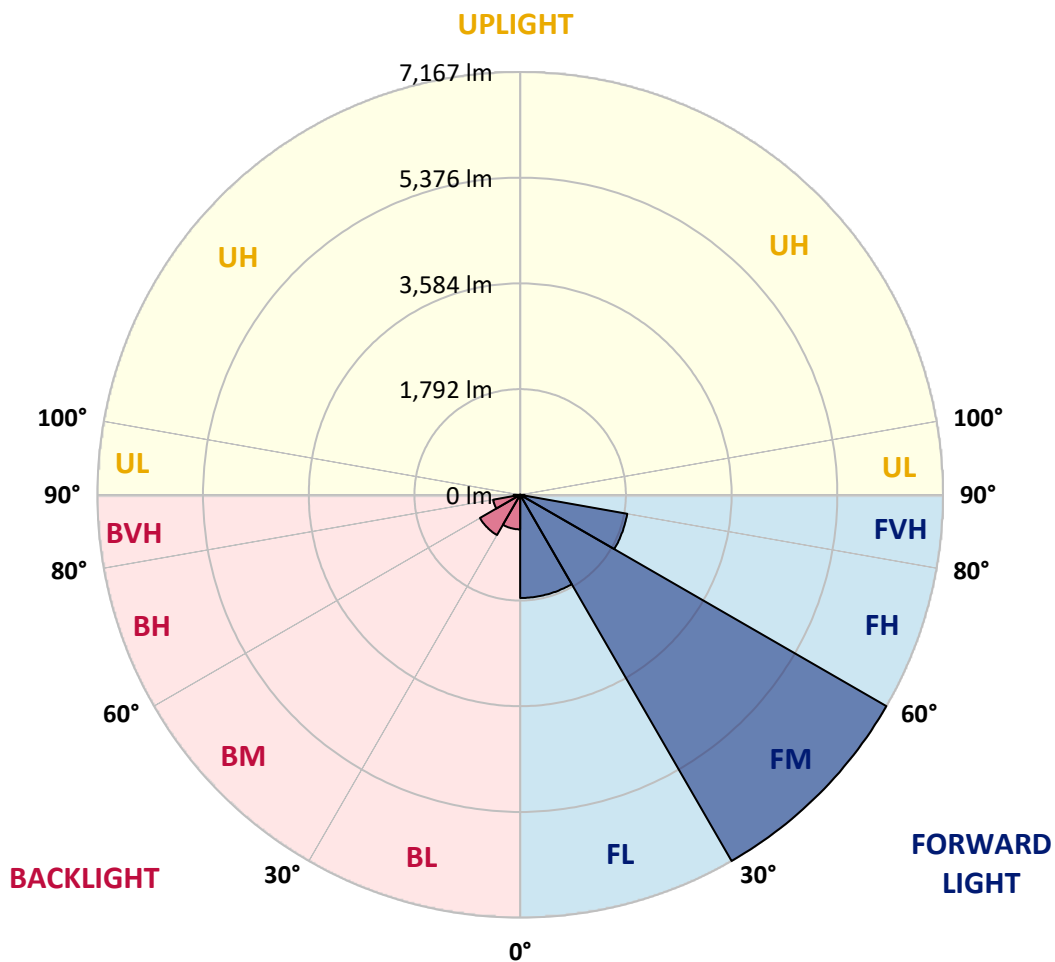
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1748.6 | 13.7 | | | |
| FM (30°-60°) | 7167.4 | 56.1 | | | |
| FH (60°-80°) | 1843.0 | 14.4 | | | G2/5000 |
| FVH (80°-90°) | 72.7 | 0.6 | | | G1/100 |
| BL (0°-30°) | 585.8 | 4.6 | B2/1000 | | |
| BM (30°-60°) | 786.7 | 6.2 | B1/1000 | | |
| BH (60°-80°) | 465.1 | 3.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 111.5 | 0.9 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0° | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 |
| 2.5° | 3879.4 | 3848.1 | 3828.3 | 3810.8 | 3788.0 | 3739.2 | 3673.6 | 3632.1 | 3611.0 | 3539.4 | 3454.5 |
| 5° | 4259.8 | 4232.0 | 4211.6 | 4188.2 | 4147.2 | 4070.8 | 3964.9 | 3880.7 | 3839.1 | 3695.8 | 3526.1 |
| 7.5° | 4170.7 | 4182.1 | 4217.6 | 4279.6 | 4332.6 | 4322.4 | 4227.9 | 4120.8 | 4066.0 | 3866.8 | 3609.2 |
| 10° | 3633.8 | 3653.8 | 3715.2 | 3860.2 | 4094.9 | 4335.6 | 4409.0 | 4335.1 | 4279.6 | 4035.8 | 3694.7 |
| 12.5° | 3526.1 | 3525.5 | 3530.4 | 3568.9 | 3708.5 | 4047.3 | 4415.1 | 4489.7 | 4456.6 | 4197.2 | 3782.0 |
| 15° | 3570.1 | 3571.3 | 3567.6 | 3583.9 | 3627.3 | 3761.5 | 4230.9 | 4549.3 | 4572.7 | 4359.7 | 3872.2 |
| 17.5° | 3685.6 | 3682.6 | 3668.8 | 3668.8 | 3684.5 | 3736.7 | 4014.3 | 4493.9 | 4602.3 | 4503.5 | 3951.7 |
| 20° | 3879.4 | 3865.6 | 3828.9 | 3795.1 | 3778.3 | 3806.6 | 3925.2 | 4366.3 | 4551.1 | 4629.3 | 4017.2 |
| 22.5° | 4114.1 | 4103.3 | 4043.7 | 3971.5 | 3913.1 | 3912.5 | 3970.9 | 4255.0 | 4462.6 | 4747.8 | 4072.6 |
| 25° | 4417.5 | 4400.0 | 4311.5 | 4195.9 | 4093.6 | 4054.6 | 4070.8 | 4249.5 | 4414.4 | 4876.6 | 4122.0 |
| 27.5° | 4773.7 | 4741.9 | 4637.1 | 4470.4 | 4319.9 | 4241.2 | 4217.6 | 4347.6 | 4458.4 | 5036.2 | 4190.6 |
| 30° | 5205.9 | 5169.2 | 5035.0 | 4817.7 | 4605.2 | 4475.8 | 4425.9 | 4521.5 | 4604.0 | 5230.6 | 4300.7 |
| 32.5° | 5697.5 | 5644.6 | 5489.4 | 5249.8 | 4970.5 | 4773.2 | 4691.9 | 4751.5 | 4817.1 | 5464.6 | 4438.5 |
| 35° | 6377.1 | 6313.9 | 6089.3 | 5758.9 | 5443.6 | 5172.1 | 5042.1 | 5085.5 | 5149.3 | 5813.7 | 4637.8 |
| 37.5° | 6840.5 | 6812.1 | 6662.9 | 6352.3 | 6009.3 | 5696.9 | 5495.9 | 5521.3 | 5557.4 | 6250.0 | 4892.9 |
| 40° | 6836.3 | 6847.6 | 6850.7 | 6853.7 | 6620.1 | 6321.0 | 6105.0 | 6078.5 | 6071.3 | 6729.1 | 5183.0 |
| 42.5° | 6493.8 | 6540.7 | 6692.3 | 7000.0 | 7141.9 | 7004.8 | 6806.7 | 6730.3 | 6692.3 | 7293.6 | 5490.5 |
| 45° | 5969.6 | 5994.9 | 6279.0 | 6879.5 | 7409.1 | 7681.8 | 7532.0 | 7291.2 | 7222.6 | 7812.4 | 5745.7 |
| 47.5° | 5699.4 | 5727.1 | 5905.8 | 6560.6 | 7406.2 | 8228.9 | 8315.6 | 7857.0 | 7734.1 | 8263.8 | 5966.0 |
| 50° | 5056.0 | 5113.8 | 5338.9 | 6005.7 | 7135.9 | 8480.5 | 9134.6 | 8531.0 | 8277.0 | 8703.2 | 6186.8 |
| 52.5° | 3874.6 | 3963.6 | 4215.9 | 5093.3 | 6450.4 | 8355.9 | 9790.0 | 9348.2 | 8989.6 | 9158.1 | 6376.5 |
| 55° | 2444.0 | 2510.2 | 2722.1 | 3597.2 | 5160.2 | 7707.7 | 10038.6 | 10232.4 | 9913.4 | 9589.0 | 6540.7 |
| 57.5° | 1328.8 | 1358.4 | 1437.8 | 1986.1 | 3356.4 | 6274.7 | 9676.3 | 10735.6 | 10603.1 | 9954.9 | 6664.7 |
| 58° | 1189.2 | 1209.1 | 1258.4 | 1721.2 | 2976.7 | 5882.9 | 9515.6 | 10737.3 | 10671.1 | 10008.4 | 6674.3 |
| 60° | 882.3 | 872.1 | 828.1 | 982.2 | 1656.9 | 4064.2 | 8544.2 | 10307.6 | 10502.0 | 10074.1 | 6627.4 |
| 62.5° | 775.2 | 750.4 | 660.8 | 650.6 | 805.9 | 1872.3 | 6537.7 | 8829.5 | 9288.7 | 9699.7 | 6342.1 |
| 65° | 728.2 | 701.7 | 586.2 | 548.9 | 581.3 | 792.0 | 3851.1 | 6622.0 | 7197.9 | 8564.7 | 5612.7 |
| 67.5° | 693.4 | 659.0 | 538.7 | 487.4 | 489.9 | 523.5 | 1543.7 | 4170.7 | 4818.9 | 6502.8 | 4365.7 |
| 70° | 659.6 | 622.3 | 498.3 | 439.4 | 425.5 | 414.1 | 613.9 | 2087.7 | 2675.7 | 4107.6 | 2783.4 |
| 72.5° | 623.5 | 586.8 | 462.8 | 401.4 | 374.3 | 336.4 | 400.8 | 854.0 | 1192.9 | 1943.3 | 1262.6 |
| 75° | 571.1 | 538.1 | 427.3 | 367.8 | 329.2 | 278.7 | 302.7 | 446.0 | 535.0 | 774.0 | 608.5 |
| 77.5° | 506.8 | 479.7 | 387.6 | 340.0 | 291.8 | 226.3 | 232.9 | 309.3 | 343.0 | 442.9 | 361.7 |
| 80° | 364.1 | 373.8 | 344.8 | 305.8 | 260.0 | 183.5 | 178.7 | 225.7 | 243.8 | 284.7 | 235.3 |
| 82.5° | 255.7 | 261.2 | 285.3 | 249.8 | 214.8 | 144.4 | 131.8 | 158.9 | 169.7 | 187.2 | 126.9 |
| 85° | 176.4 | 170.3 | 195.6 | 173.9 | 155.3 | 96.3 | 90.2 | 107.7 | 114.4 | 116.1 | 65.6 |
| 87.5° | 105.9 | 105.9 | 113.1 | 93.3 | 83.7 | 49.9 | 48.8 | 61.4 | 65.6 | 62.6 | 36.1 |
| 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° | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 | 3395.0 |
| 2.5° | 3404.0 | 3361.2 | 3270.4 | 3197.5 | 3105.5 | 3009.7 | 2956.2 | 2899.0 | 2860.0 | 2831.6 | 2876.7 |
| 5° | 3429.9 | 3342.6 | 3154.8 | 2976.7 | 2779.9 | 2575.3 | 2420.0 | 2275.6 | 2175.0 | 2112.4 | 2171.4 |
| 7.5° | 3470.8 | 3336.6 | 3037.4 | 2732.9 | 2379.7 | 2039.0 | 1734.5 | 1543.7 | 1432.3 | 1377.6 | 1411.9 |
| 10° | 3517.7 | 3326.9 | 2899.7 | 2402.5 | 1897.0 | 1467.8 | 1240.4 | 1163.3 | 1138.0 | 1127.8 | 1132.6 |
| 12.5° | 3556.8 | 3306.5 | 2730.6 | 2002.9 | 1424.6 | 1159.1 | 1093.5 | 1091.7 | 1097.1 | 1098.3 | 1100.2 |
| 15° | 3584.5 | 3276.4 | 2479.5 | 1586.4 | 1139.3 | 1056.2 | 1052.6 | 1063.5 | 1073.7 | 1077.9 | 1080.3 |
| 17.5° | 3603.1 | 3214.4 | 2196.1 | 1254.2 | 1020.7 | 1006.3 | 1014.7 | 1028.6 | 1039.3 | 1042.4 | 1044.7 |
| 20° | 3601.4 | 3123.5 | 1858.5 | 1046.0 | 956.4 | 956.4 | 970.8 | 981.6 | 982.2 | 978.6 | 980.4 |
| 22.5° | 3582.7 | 2999.0 | 1531.1 | 935.3 | 899.2 | 909.4 | 923.8 | 913.6 | 871.5 | 843.7 | 845.6 |
| 25° | 3551.4 | 2850.2 | 1250.7 | 864.8 | 846.2 | 864.2 | 860.0 | 783.0 | 722.8 | 695.7 | 695.7 |
| 27.5° | 3523.8 | 2674.5 | 1035.1 | 803.4 | 793.2 | 815.5 | 740.8 | 671.1 | 645.8 | 633.1 | 628.9 |
| 30° | 3503.9 | 2485.0 | 891.3 | 744.5 | 743.3 | 727.0 | 642.7 | 623.5 | 619.3 | 609.1 | 605.5 |
| 32.5° | 3508.7 | 2292.9 | 799.2 | 692.7 | 696.9 | 622.3 | 595.8 | 600.1 | 596.4 | 585.5 | 580.7 |
| 35° | 3548.4 | 2110.7 | 739.1 | 645.8 | 633.1 | 562.1 | 568.1 | 575.9 | 574.8 | 559.7 | 554.8 |
| 37.5° | 3619.4 | 1937.9 | 699.3 | 606.6 | 552.5 | 532.0 | 541.7 | 553.7 | 550.7 | 540.4 | 536.8 |
| 40° | 3694.1 | 1775.4 | 666.9 | 575.9 | 504.9 | 511.6 | 520.0 | 526.6 | 529.6 | 532.7 | 530.2 |
| 42.5° | 3766.9 | 1605.7 | 627.1 | 544.6 | 485.1 | 492.3 | 495.9 | 502.6 | 518.7 | 530.2 | 529.6 |
| 45° | 3810.2 | 1446.2 | 586.2 | 500.1 | 469.4 | 473.6 | 471.3 | 484.5 | 504.3 | 523.0 | 523.5 |
| 47.5° | 3858.4 | 1322.3 | 553.7 | 459.2 | 454.4 | 457.4 | 450.2 | 463.4 | 481.5 | 504.3 | 506.8 |
| 50° | 3916.8 | 1248.2 | 527.8 | 426.7 | 433.9 | 433.9 | 432.1 | 444.2 | 469.4 | 495.9 | 500.7 |
| 52.5° | 3983.0 | 1233.8 | 506.2 | 403.2 | 413.5 | 412.9 | 414.7 | 432.7 | 460.4 | 486.3 | 490.5 |
| 55° | 4063.6 | 1272.9 | 482.6 | 385.8 | 393.6 | 396.0 | 402.0 | 422.5 | 446.0 | 475.5 | 477.2 |
| 57.5° | 4157.5 | 1352.3 | 464.0 | 371.9 | 375.5 | 383.4 | 393.0 | 411.6 | 436.9 | 469.4 | 471.3 |
| 58° | 4173.1 | 1369.2 | 461.0 | 370.7 | 371.9 | 380.9 | 391.8 | 409.9 | 435.2 | 470.7 | 472.4 |
| 60° | 4173.7 | 1425.2 | 454.4 | 365.3 | 358.1 | 373.2 | 385.1 | 403.2 | 432.1 | 474.9 | 479.0 |
| 62.5° | 4025.6 | 1424.6 | 449.6 | 357.5 | 343.6 | 362.3 | 376.1 | 397.2 | 429.1 | 485.1 | 493.5 |
| 65° | 3544.8 | 1294.5 | 426.7 | 345.5 | 332.3 | 352.7 | 368.4 | 393.0 | 437.5 | 529.6 | 535.0 |
| 67.5° | 2772.6 | 1061.0 | 384.0 | 328.6 | 317.2 | 343.0 | 363.6 | 392.4 | 446.5 | 539.8 | 543.5 |
| 70° | 1833.2 | 793.8 | 337.1 | 309.3 | 301.6 | 331.6 | 365.9 | 412.9 | 436.3 | 518.2 | 508.5 |
| 72.5° | 951.5 | 557.3 | 299.1 | 285.3 | 283.5 | 321.4 | 400.8 | 410.4 | 426.1 | 487.4 | 475.5 |
| 75° | 499.5 | 387.0 | 266.0 | 258.8 | 261.8 | 319.0 | 473.0 | 399.7 | 412.9 | 466.5 | 489.3 |
| 77.5° | 305.8 | 312.3 | 237.7 | 234.7 | 240.7 | 311.8 | 472.4 | 385.8 | 393.6 | 429.1 | 454.4 |
| 80° | 204.6 | 253.4 | 216.0 | 216.7 | 220.9 | 285.3 | 424.3 | 364.1 | 370.1 | 405.6 | 431.5 |
| 82.5° | 129.4 | 149.9 | 196.2 | 206.4 | 201.0 | 235.3 | 360.5 | 331.6 | 340.0 | 464.0 | 490.5 |
| 85° | 65.6 | 93.9 | 170.3 | 198.6 | 181.2 | 164.9 | 292.5 | 290.7 | 294.9 | 334.6 | 349.6 |
| 87.5° | 30.1 | 51.8 | 133.0 | 173.3 | 136.7 | 102.9 | 212.5 | 215.4 | 232.3 | 237.7 | 237.7 |
| 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)