

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: P478843

Luminaire Tested: **IFLD-M-SA4E-727-U-5NQ**

Issue Date: 02/26/2021



Test Information

Test Method: LM-79-08
Report Number: P478843
Test Lab: INNOVATION CENTER(G2)
Issue Date: 02/26/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4E-727-U-5NQ
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ 5NQ
distribution lens
Light Source: (64) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

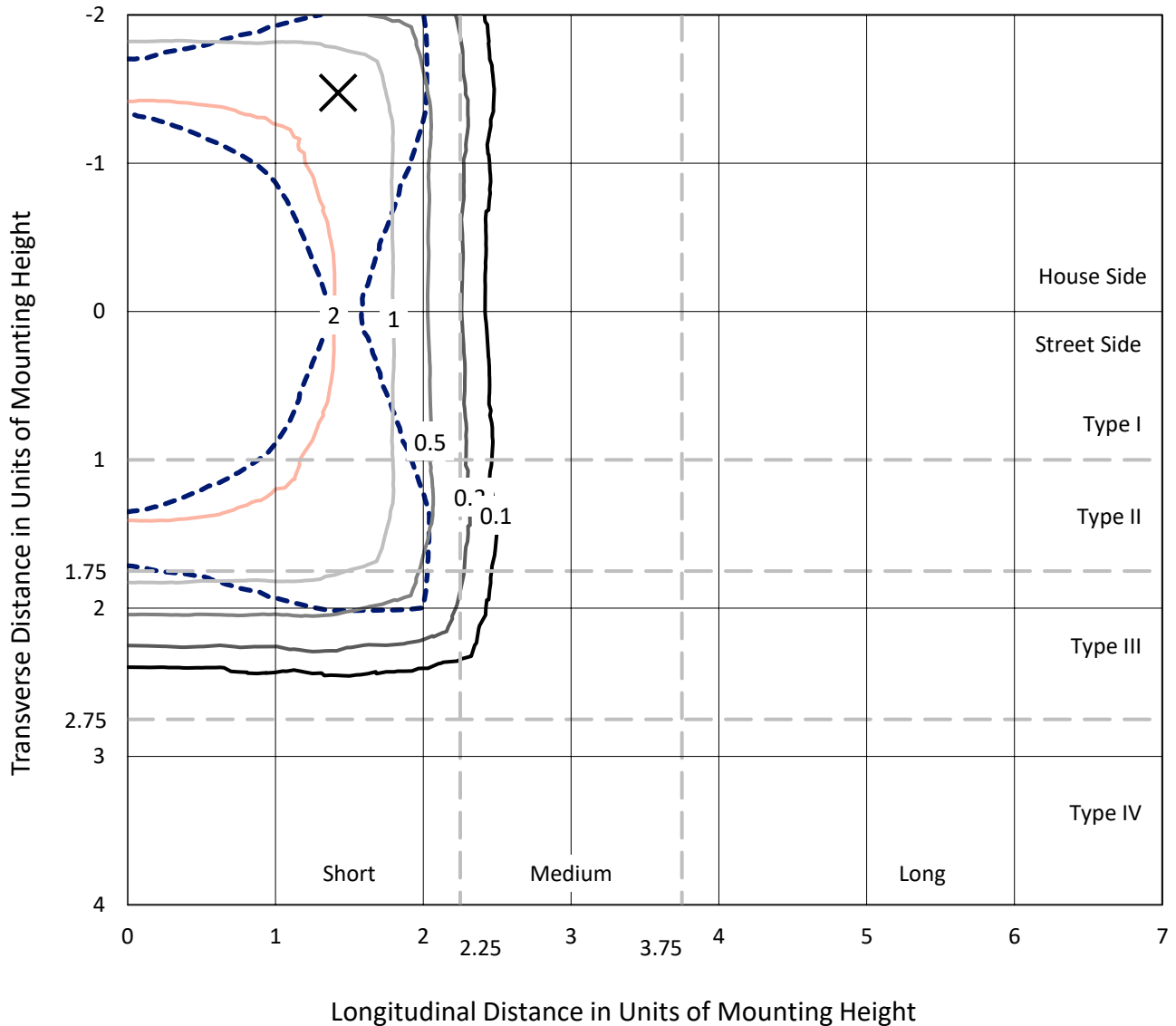
Lumens per Lamp: N/A
Luminaire Lumens: 30198.4 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G2

Input Watts (W): 314.8
Input Voltage (V): 120
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

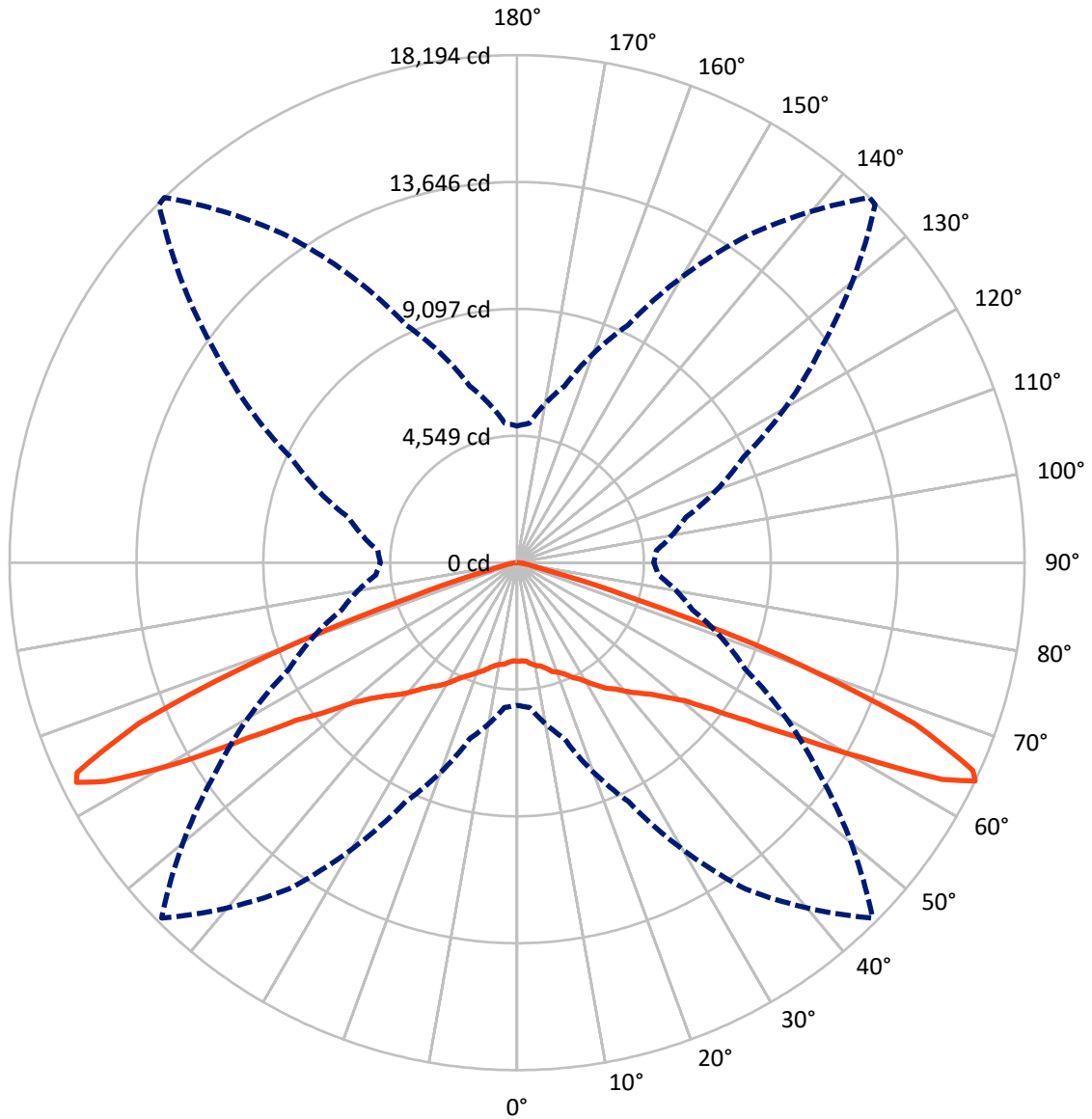
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 136-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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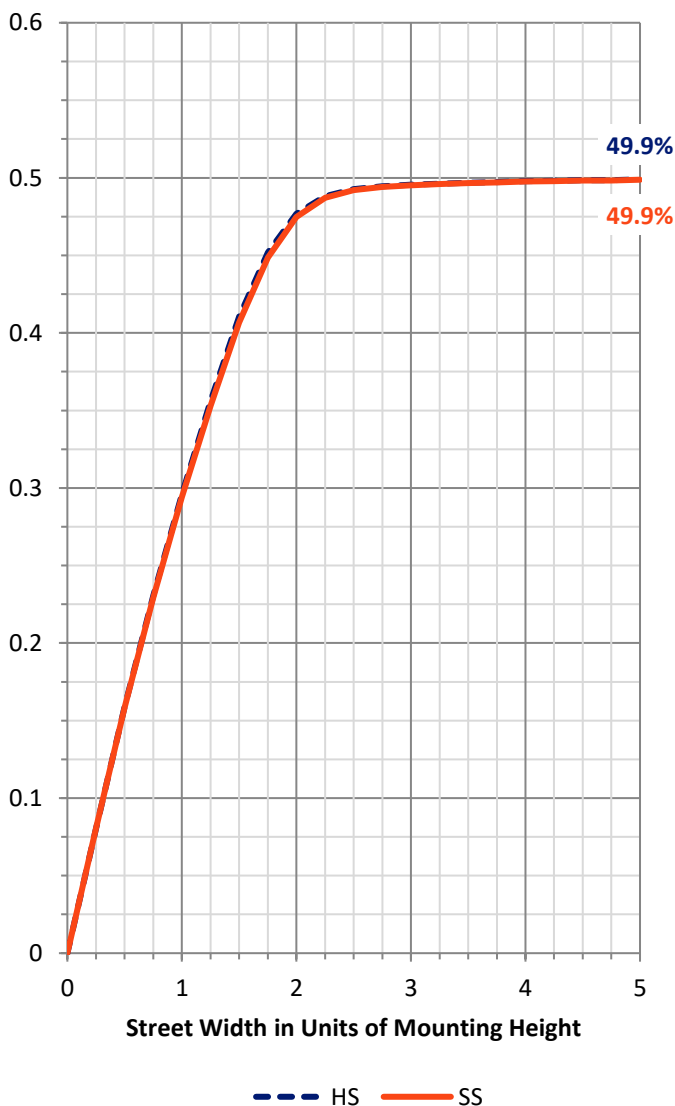
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 15113.6 | 0.0 | 15113.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 15084.8 | 0.0 | 15084.8 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 30198.4 | 0.0 | 30198.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 347.4 | 1.2 |
| 10°-20° | 1119.7 | 3.7 |
| 20°-30° | 2104.3 | 7.0 |
| 30°-40° | 3470.4 | 11.5 |
| 40°-50° | 5427.5 | 18.0 |
| 50°-60° | 8769.4 | 29.0 |
| 60°-70° | 7896.3 | 26.1 |
| 70°-80° | 935.4 | 3.1 |
| 80°-90° | 128.0 | 0.4 |
| 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° | 30198.4 | 100.0 |
| 0°-180° | 30198.4 | 100.0 |

Coefficient of Utilization



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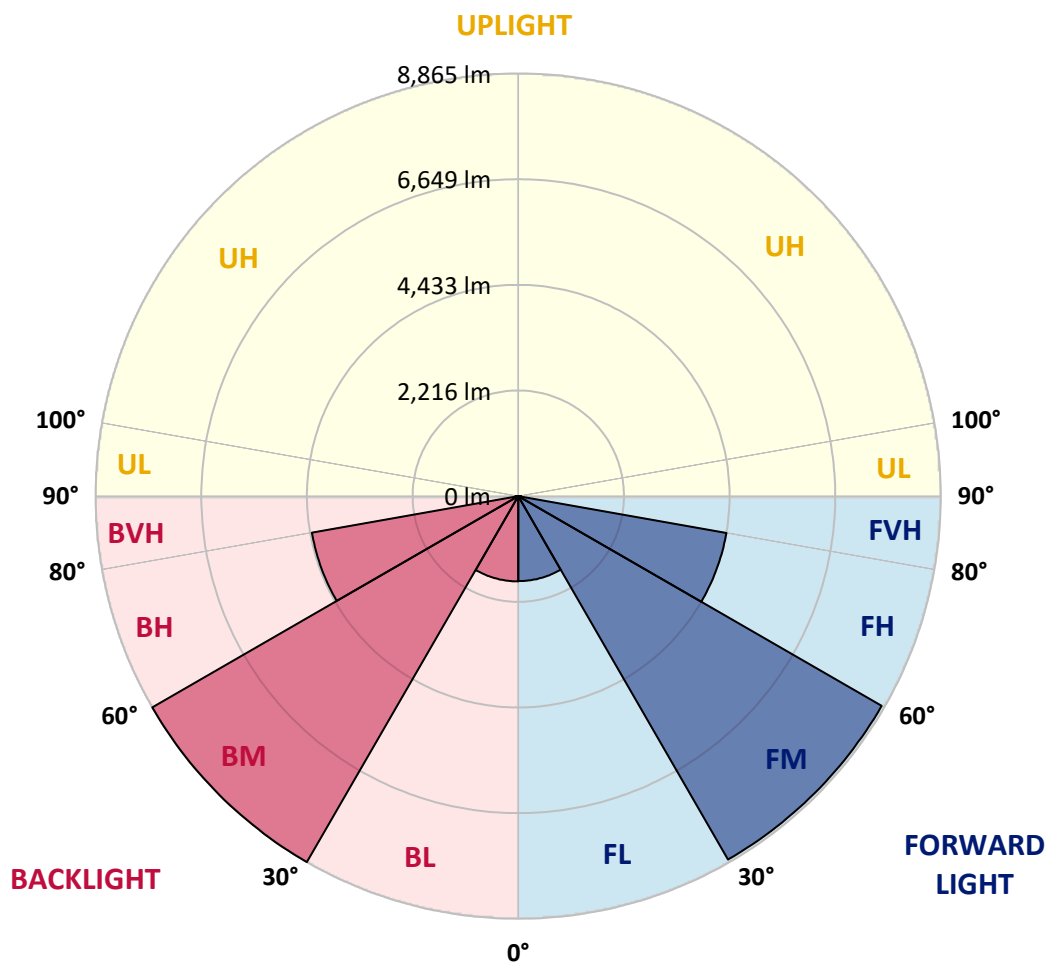
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1782.3 | 5.9 | | | |
| FM (30°-60°) | 8801.9 | 29.1 | | | |
| FH (60°-80°) | 4435.0 | 14.7 | | | G2/5000 |
| FVH (80°-90°) | 65.7 | 0.2 | | | G1/100 |
| BL (0°-30°) | 1789.1 | 5.9 | B3/2500 | | |
| BM (30°-60°) | 8865.4 | 29.4 | B5 | | |
| BH (60°-80°) | 4396.7 | 14.6 | B4/5000 | | G2/5000 |
| BVH (80°-90°) | 62.4 | 0.2 | | | 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° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0° | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 |
| 2.5° | 3494.1 | 3501.0 | 3563.3 | 3539.1 | 3559.8 | 3521.8 | 3549.5 | 3608.3 | 3539.1 | 3591.0 | 3608.3 |
| 5° | 3532.1 | 3542.5 | 3542.5 | 3566.8 | 3580.6 | 3573.7 | 3591.0 | 3566.8 | 3632.6 | 3604.9 | 3646.4 |
| 7.5° | 3670.7 | 3653.3 | 3625.6 | 3646.4 | 3649.9 | 3667.2 | 3684.5 | 3715.7 | 3705.3 | 3681.0 | 3722.6 |
| 10° | 3694.9 | 3681.0 | 3722.6 | 3726.1 | 3708.8 | 3694.9 | 3712.2 | 3712.2 | 3743.4 | 3750.3 | 3750.3 |
| 12.5° | 3736.5 | 3750.3 | 3746.8 | 3774.5 | 3778.0 | 3767.6 | 3795.3 | 3847.3 | 3833.4 | 3843.8 | 3819.6 |
| 15° | 3895.7 | 3878.4 | 3875.0 | 3902.7 | 3947.7 | 3881.9 | 3930.4 | 3926.9 | 3913.1 | 3933.8 | 3878.4 |
| 17.5° | 4034.3 | 3978.9 | 4003.1 | 4048.1 | 4030.8 | 4044.7 | 4107.0 | 4051.6 | 4065.4 | 4041.2 | 4023.9 |
| 20° | 4155.5 | 4110.4 | 4113.9 | 4131.2 | 4131.2 | 4172.8 | 4197.0 | 4176.2 | 4162.4 | 4158.9 | 4165.9 |
| 22.5° | 4290.5 | 4238.6 | 4242.0 | 4314.8 | 4339.0 | 4325.1 | 4307.8 | 4342.5 | 4349.4 | 4321.7 | 4352.8 |
| 25° | 4390.9 | 4446.3 | 4463.7 | 4498.3 | 4446.3 | 4484.4 | 4470.6 | 4536.4 | 4577.9 | 4522.5 | 4560.6 |
| 27.5° | 4654.1 | 4629.9 | 4674.9 | 4671.4 | 4713.0 | 4674.9 | 4699.1 | 4719.9 | 4737.2 | 4740.7 | 4723.4 |
| 30° | 4889.6 | 4900.0 | 4855.0 | 4976.2 | 4879.2 | 4941.5 | 4983.1 | 4993.5 | 5014.3 | 5014.3 | 4962.3 |
| 32.5° | 5138.9 | 5118.1 | 5190.9 | 5163.2 | 5145.9 | 5194.3 | 5149.3 | 5291.3 | 5208.2 | 5256.7 | 5197.8 |
| 35° | 5419.4 | 5419.4 | 5447.1 | 5523.3 | 5419.4 | 5388.3 | 5471.4 | 5530.2 | 5530.2 | 5443.7 | 5464.4 |
| 37.5° | 5734.5 | 5706.8 | 5741.5 | 5838.4 | 5758.8 | 5654.9 | 5807.3 | 5831.5 | 5814.2 | 5789.9 | 5748.4 |
| 40° | 5956.2 | 5949.2 | 6018.5 | 6146.6 | 6032.4 | 6011.6 | 6039.3 | 6105.1 | 6125.8 | 6150.1 | 6094.7 |
| 42.5° | 6330.2 | 6361.3 | 6562.2 | 6531.0 | 6437.5 | 6364.8 | 6357.9 | 6603.7 | 6544.9 | 6482.5 | 6451.4 |
| 45° | 6884.2 | 6856.5 | 6960.4 | 6963.9 | 6842.7 | 6683.4 | 6718.0 | 6943.1 | 7043.5 | 6905.0 | 6956.9 |
| 47.5° | 7324.0 | 7337.9 | 7410.6 | 7559.5 | 7279.0 | 7112.8 | 7240.9 | 7604.5 | 7573.3 | 7521.4 | 7569.9 |
| 50° | 7912.7 | 7975.0 | 8203.6 | 8151.6 | 7902.3 | 7698.0 | 7978.5 | 8321.3 | 8359.4 | 8169.0 | 8134.3 |
| 52.5° | 8726.5 | 8823.4 | 8948.1 | 8989.7 | 8750.7 | 8678.0 | 8695.3 | 9121.2 | 9027.7 | 8844.2 | 8726.5 |
| 55° | 9439.8 | 9484.8 | 9713.4 | 10056.2 | 10038.9 | 9689.2 | 9890.0 | 10049.3 | 9668.4 | 9290.9 | 9322.1 |
| 57.5° | 9744.6 | 9765.3 | 10402.5 | 11088.2 | 11496.8 | 11576.4 | 11347.9 | 10811.1 | 9903.9 | 9176.7 | 9131.6 |
| 60° | 8986.2 | 9183.6 | 9952.3 | 11500.2 | 13366.7 | 14287.9 | 12767.7 | 10897.7 | 9353.3 | 8470.2 | 8404.4 |
| 62.5° | 7182.0 | 7192.4 | 8335.2 | 10683.0 | 14530.3 | 16943.9 | 13311.3 | 10083.9 | 7885.0 | 6884.2 | 6621.0 |
| 64° | 5114.7 | 5211.6 | 6524.1 | 9457.1 | 14287.9 | 18024.3 | 13245.5 | 9020.8 | 6499.8 | 5080.1 | 4896.5 |
| 65° | 3670.7 | 3805.7 | 5073.1 | 8210.5 | 13720.0 | 17896.2 | 13048.2 | 8106.6 | 5256.7 | 3878.4 | 3691.4 |
| 67.5° | 1350.5 | 1405.9 | 1991.2 | 4107.0 | 9851.9 | 15250.6 | 10340.2 | 4456.7 | 2309.7 | 1644.9 | 1478.7 |
| 70° | 626.8 | 630.2 | 737.6 | 1357.5 | 4307.8 | 10198.2 | 4934.6 | 1672.6 | 869.2 | 689.1 | 640.6 |
| 72.5° | 460.6 | 471.0 | 516.0 | 626.8 | 1267.4 | 4318.2 | 1620.6 | 685.7 | 509.0 | 450.2 | 439.8 |
| 75° | 374.0 | 380.9 | 394.8 | 453.6 | 585.2 | 1156.6 | 657.9 | 474.4 | 405.2 | 363.6 | 349.8 |
| 77.5° | 287.4 | 287.4 | 318.6 | 346.3 | 387.8 | 540.2 | 436.3 | 377.5 | 329.0 | 287.4 | 277.0 |
| 80° | 207.8 | 211.2 | 249.3 | 270.1 | 263.2 | 356.7 | 315.1 | 311.7 | 270.1 | 225.1 | 207.8 |
| 82.5° | 121.2 | 131.6 | 180.1 | 193.9 | 187.0 | 211.2 | 228.6 | 242.4 | 211.2 | 155.8 | 142.0 |
| 85° | 69.3 | 72.7 | 103.9 | 107.3 | 107.3 | 100.4 | 131.6 | 145.4 | 142.0 | 97.0 | 86.6 |
| 87.5° | 20.8 | 20.8 | 27.7 | 27.7 | 31.2 | 34.6 | 51.9 | 62.3 | 69.3 | 48.5 | 45.0 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 136° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 0° | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 | 3535.6 |
| 2.5° | 3591.0 | 3539.1 | 3542.5 | 3556.4 | 3511.4 | 3528.7 | 3580.6 | 3542.5 | 3532.1 | 3511.4 | 3501.0 |
| 5° | 3573.7 | 3629.1 | 3608.3 | 3615.3 | 3604.9 | 3556.4 | 3549.5 | 3580.6 | 3597.9 | 3566.8 | 3629.1 |
| 7.5° | 3694.9 | 3670.7 | 3643.0 | 3653.3 | 3629.1 | 3670.7 | 3698.4 | 3636.0 | 3667.2 | 3649.9 | 3615.3 |
| 10° | 3764.2 | 3719.1 | 3739.9 | 3733.0 | 3715.7 | 3757.2 | 3729.5 | 3722.6 | 3694.9 | 3656.8 | 3712.2 |
| 12.5° | 3788.4 | 3840.3 | 3875.0 | 3816.1 | 3826.5 | 3805.7 | 3788.4 | 3788.4 | 3757.2 | 3746.8 | 3757.2 |
| 15° | 3895.7 | 3940.8 | 3926.9 | 3971.9 | 3913.1 | 3933.8 | 3954.6 | 3902.7 | 3930.4 | 3854.2 | 3913.1 |
| 17.5° | 4093.1 | 4055.0 | 4103.5 | 4044.7 | 4065.4 | 4107.0 | 4041.2 | 4041.2 | 4062.0 | 4020.4 | 3968.5 |
| 20° | 4217.8 | 4200.5 | 4183.2 | 4186.6 | 4152.0 | 4190.1 | 4169.3 | 4158.9 | 4127.8 | 4141.6 | 4169.3 |
| 22.5° | 4335.5 | 4311.3 | 4318.2 | 4328.6 | 4352.8 | 4335.5 | 4325.1 | 4335.5 | 4259.4 | 4328.6 | 4231.6 |
| 25° | 4481.0 | 4546.8 | 4526.0 | 4571.0 | 4501.8 | 4546.8 | 4543.3 | 4477.5 | 4519.1 | 4491.4 | 4470.6 |
| 27.5° | 4723.4 | 4688.7 | 4719.9 | 4664.5 | 4713.0 | 4716.5 | 4674.9 | 4785.7 | 4737.2 | 4730.3 | 4716.5 |
| 30° | 5035.0 | 5010.8 | 4990.0 | 4958.9 | 4996.9 | 4965.8 | 5000.4 | 5010.8 | 4965.8 | 4931.2 | 4865.4 |
| 32.5° | 5211.6 | 5277.4 | 5301.7 | 5225.5 | 5229.0 | 5246.3 | 5215.1 | 5183.9 | 5211.6 | 5222.0 | 5211.6 |
| 35° | 5461.0 | 5523.3 | 5537.2 | 5478.3 | 5447.1 | 5533.7 | 5471.4 | 5575.2 | 5485.2 | 5488.7 | 5395.2 |
| 37.5° | 5751.9 | 5769.2 | 5886.9 | 5821.1 | 5793.4 | 5751.9 | 5866.1 | 5852.3 | 5873.1 | 5706.8 | 5789.9 |
| 40° | 6080.8 | 6143.2 | 6209.0 | 6042.7 | 6039.3 | 6077.4 | 6070.4 | 6150.1 | 6112.0 | 6087.8 | 6028.9 |
| 42.5° | 6441.0 | 6572.6 | 6582.9 | 6472.1 | 6402.9 | 6396.0 | 6430.6 | 6607.2 | 6610.7 | 6451.4 | 6382.1 |
| 45° | 6918.8 | 7064.3 | 7026.2 | 6811.5 | 6735.3 | 6724.9 | 6894.6 | 6970.8 | 7036.6 | 6974.3 | 6915.4 |
| 47.5° | 7514.5 | 7611.4 | 7583.7 | 7386.3 | 7140.5 | 7209.7 | 7376.0 | 7614.9 | 7545.6 | 7462.5 | 7393.3 |
| 50° | 8151.6 | 8265.9 | 8207.0 | 8009.7 | 7774.2 | 7774.2 | 7978.5 | 8283.2 | 8262.4 | 8099.7 | 8037.4 |
| 52.5° | 8858.1 | 9024.3 | 9159.3 | 8878.8 | 8681.5 | 8712.6 | 9034.7 | 9145.5 | 9093.5 | 8979.3 | 8927.3 |
| 55° | 9384.4 | 9703.0 | 9980.0 | 9993.9 | 10004.3 | 10000.8 | 10083.9 | 10194.7 | 9824.2 | 9640.7 | 9453.7 |
| 57.5° | 9256.3 | 9858.8 | 10807.7 | 11451.8 | 11642.2 | 11742.7 | 11714.9 | 11202.4 | 10326.3 | 9723.8 | 9786.1 |
| 60° | 8342.1 | 9325.6 | 10856.2 | 12923.5 | 14308.7 | 14170.1 | 13664.6 | 11638.8 | 10049.3 | 9031.2 | 8903.1 |
| 62.5° | 6655.7 | 7840.0 | 10042.4 | 13339.0 | 17155.1 | 17113.6 | 14467.9 | 10631.1 | 8373.3 | 7085.1 | 7005.4 |
| 64° | 5014.3 | 6260.9 | 8958.5 | 13231.7 | 18152.5 | 18194.0 | 14263.6 | 9391.4 | 6551.8 | 5014.3 | 4893.1 |
| 65° | 3836.9 | 4993.5 | 7895.4 | 13010.1 | 17937.8 | 17962.0 | 13695.7 | 8110.1 | 4979.6 | 3559.8 | 3428.3 |
| 67.5° | 1527.1 | 2126.2 | 4283.6 | 9865.8 | 15402.9 | 15337.1 | 9772.3 | 3923.5 | 1904.6 | 1239.7 | 1215.5 |
| 70° | 651.0 | 810.3 | 1502.9 | 4674.9 | 10312.5 | 10122.0 | 4207.4 | 1274.3 | 706.4 | 592.2 | 588.7 |
| 72.5° | 446.7 | 495.2 | 644.1 | 1444.0 | 4287.1 | 4186.6 | 1198.2 | 592.2 | 481.3 | 443.2 | 443.2 |
| 75° | 360.1 | 394.8 | 467.5 | 606.0 | 1135.8 | 1094.3 | 564.5 | 436.3 | 384.4 | 356.7 | 353.2 |
| 77.5° | 280.5 | 315.1 | 367.1 | 419.0 | 519.4 | 516.0 | 377.5 | 329.0 | 297.8 | 277.0 | 270.1 |
| 80° | 221.6 | 256.3 | 290.9 | 297.8 | 339.4 | 332.4 | 256.3 | 259.7 | 242.4 | 200.8 | 197.4 |
| 82.5° | 152.4 | 207.8 | 232.0 | 211.2 | 200.8 | 200.8 | 183.5 | 183.5 | 169.7 | 124.7 | 114.3 |
| 85° | 93.5 | 138.5 | 145.4 | 124.7 | 93.5 | 93.5 | 100.4 | 97.0 | 90.0 | 65.8 | 62.3 |
| 87.5° | 48.5 | 65.8 | 58.9 | 48.5 | 31.2 | 31.2 | 27.7 | 20.8 | 20.8 | 17.3 | 17.3 |
| 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)