

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: P299678

Luminaire Tested: **GAA-AF-08-LED-U-5MQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-08-LED-U-5MQ-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39027.9 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 334
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

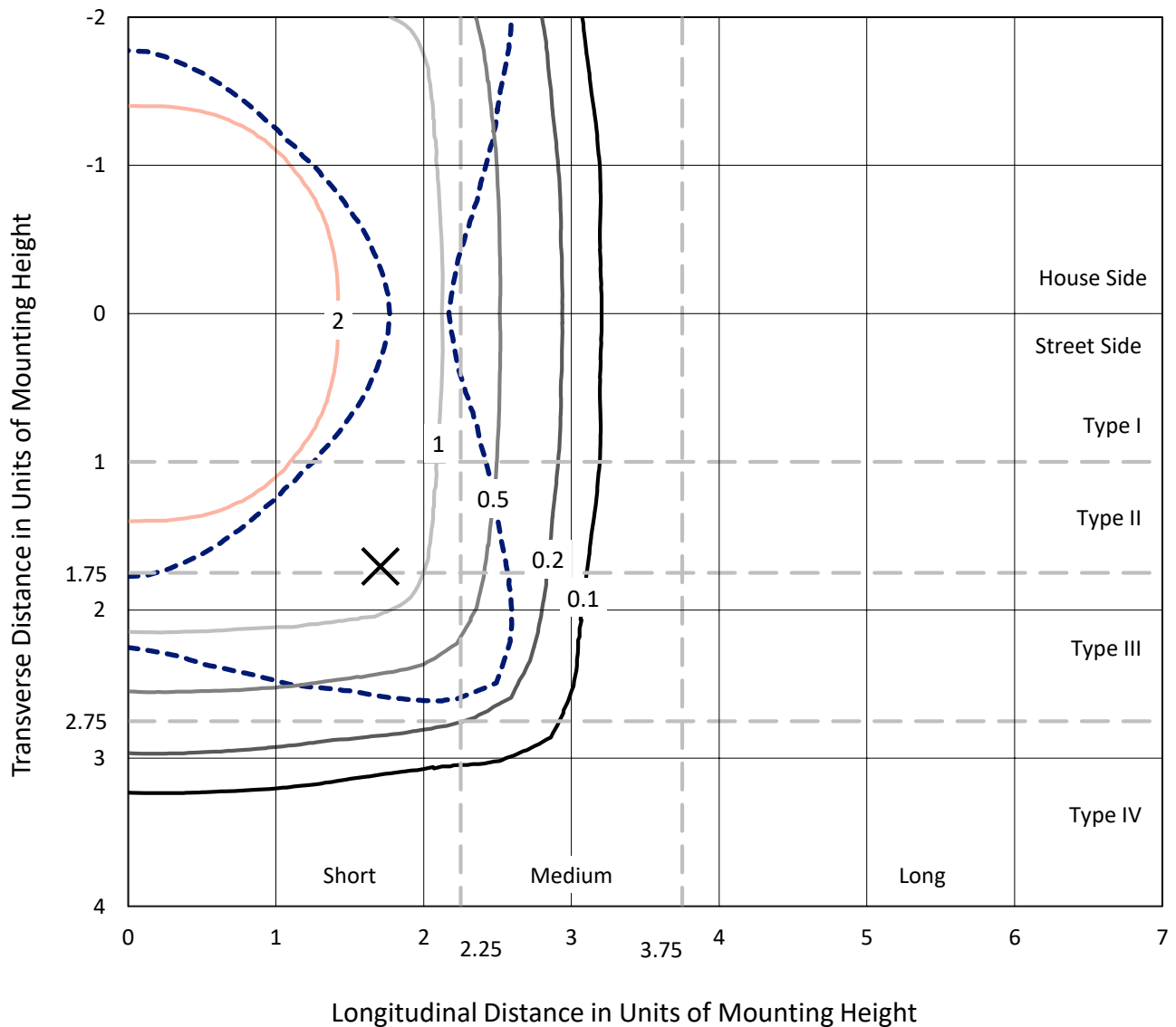


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

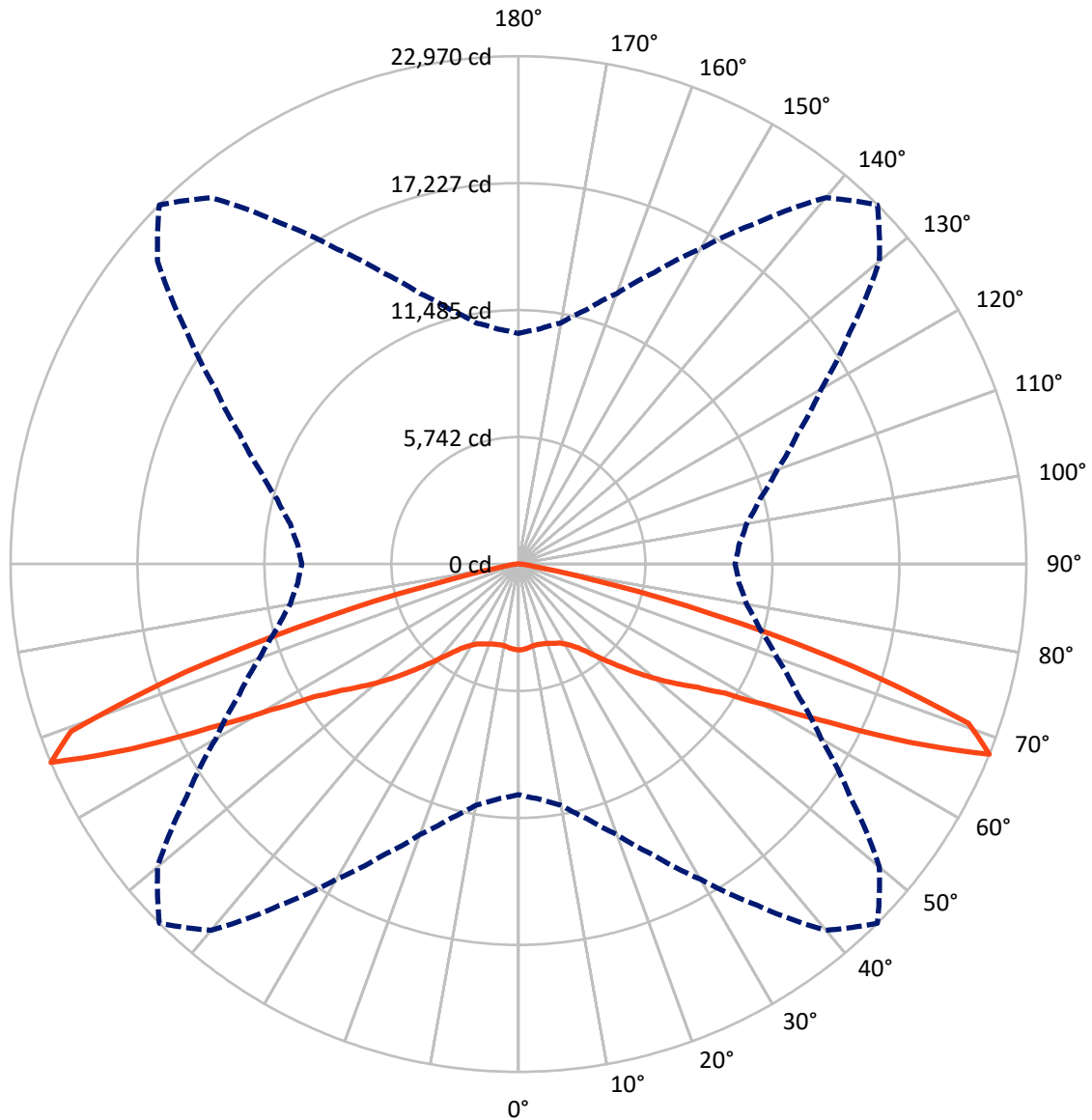


Based on 30 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 19514.0 | 0.0 | 19514.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 19514.0 | 0.0 | 19514.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 39027.9 | 0.0 | 39027.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 364.0 | 0.9 |
| 10°-20° | 1056.3 | 2.7 |
| 20°-30° | 1795.7 | 4.6 |
| 30°-40° | 2935.4 | 7.5 |
| 40°-50° | 5240.3 | 13.4 |
| 50°-60° | 8835.3 | 22.6 |
| 60°-70° | 13711.1 | 35.1 |
| 70°-80° | 4817.5 | 12.3 |
| 80°-90° | 272.3 | 0.7 |
| 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° | 39027.9 | 100.0 |
| 0°-180° | 39027.9 | 100.0 |



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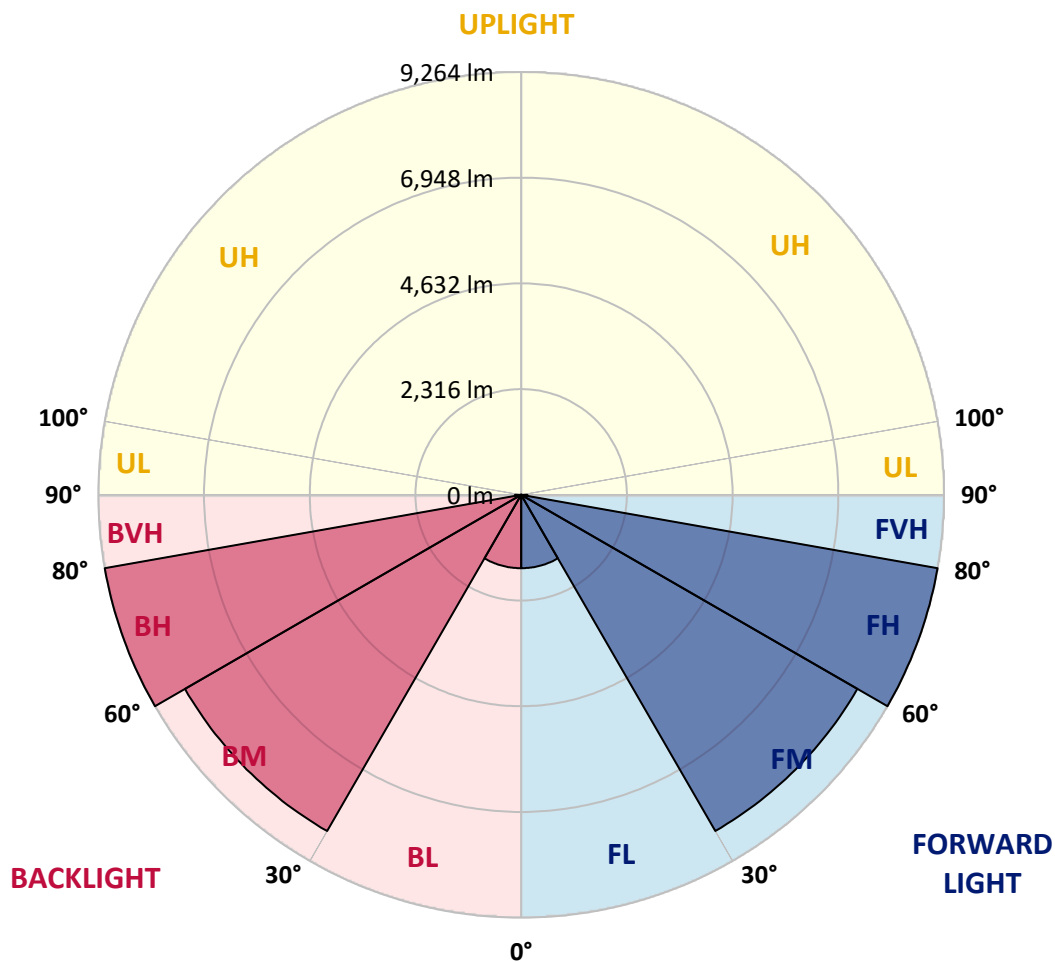
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1608.0 | 4.1 | | | |
| FM | (30°-60°) | 8505.5 | 21.8 | | | |
| FH | (60°-80°) | 9264.3 | 23.7 | | | G4/12000 |
| FVH | (80°-90°) | 136.1 | 0.3 | | | G2/225 |
| BL | (0°-30°) | 1608.0 | 4.1 | B3/2500 | | |
| BM | (30°-60°) | 8505.5 | 21.8 | B5 | | |
| BH | (60°-80°) | 9264.3 | 23.7 | B5 | | G4/12000 |
| BVH | (80°-90°) | 136.1 | 0.3 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 |
| 2.5° | 3874.9 | 3878.5 | 3878.5 | 3878.5 | 3876.7 | 3876.7 | 3873.1 | 3876.7 | 3874.9 | 3869.6 | 3871.3 |
| 5° | 3842.6 | 3846.2 | 3846.2 | 3844.4 | 3849.8 | 3848.0 | 3842.6 | 3846.2 | 3844.4 | 3840.8 | 3842.6 |
| 7.5° | 3796.0 | 3801.4 | 3801.4 | 3799.6 | 3804.9 | 3803.1 | 3799.6 | 3801.4 | 3801.4 | 3796.0 | 3796.0 |
| 10° | 3743.9 | 3747.5 | 3747.5 | 3745.7 | 3754.7 | 3754.7 | 3752.9 | 3758.3 | 3760.1 | 3754.7 | 3751.1 |
| 12.5° | 3695.5 | 3700.8 | 3700.8 | 3708.0 | 3717.0 | 3720.6 | 3729.6 | 3736.7 | 3743.9 | 3742.1 | 3734.9 |
| 15° | 3666.7 | 3670.3 | 3677.5 | 3686.5 | 3700.8 | 3713.4 | 3727.8 | 3743.9 | 3758.3 | 3761.9 | 3751.1 |
| 17.5° | 3648.8 | 3654.2 | 3664.9 | 3677.5 | 3697.3 | 3718.8 | 3740.3 | 3761.9 | 3781.6 | 3788.8 | 3776.2 |
| 20° | 3643.4 | 3647.0 | 3657.8 | 3679.3 | 3706.2 | 3738.5 | 3769.0 | 3794.2 | 3821.1 | 3830.1 | 3821.1 |
| 22.5° | 3654.2 | 3661.4 | 3673.9 | 3699.0 | 3734.9 | 3776.2 | 3812.1 | 3846.2 | 3880.3 | 3896.5 | 3883.9 |
| 25° | 3702.6 | 3709.8 | 3726.0 | 3758.3 | 3797.8 | 3840.8 | 3882.1 | 3921.6 | 3952.1 | 3968.3 | 3959.3 |
| 27.5° | 3792.4 | 3801.4 | 3821.1 | 3853.4 | 3896.5 | 3943.1 | 3988.0 | 4020.3 | 4045.4 | 4050.8 | 4040.1 |
| 30° | 3927.0 | 3946.7 | 3970.1 | 4006.0 | 4056.2 | 4095.7 | 4140.6 | 4169.3 | 4199.8 | 4199.8 | 4190.8 |
| 32.5° | 4137.0 | 4156.7 | 4181.8 | 4215.9 | 4255.4 | 4298.5 | 4338.0 | 4363.1 | 4395.4 | 4397.2 | 4375.7 |
| 35° | 4451.1 | 4460.0 | 4481.6 | 4503.1 | 4539.0 | 4576.7 | 4610.8 | 4627.0 | 4653.9 | 4655.7 | 4635.9 |
| 37.5° | 4865.7 | 4867.5 | 4881.8 | 4889.0 | 4921.3 | 4962.6 | 4994.9 | 5005.7 | 5030.8 | 5027.2 | 5007.4 |
| 40° | 5348.5 | 5357.4 | 5362.8 | 5373.6 | 5407.7 | 5447.2 | 5481.3 | 5486.7 | 5513.6 | 5508.2 | 5483.1 |
| 42.5° | 5906.6 | 5910.2 | 5940.7 | 5956.9 | 5989.2 | 6008.9 | 6052.0 | 6057.4 | 6089.7 | 6075.3 | 6046.6 |
| 45° | 6533.0 | 6565.3 | 6594.0 | 6626.3 | 6660.4 | 6683.8 | 6717.9 | 6710.7 | 6732.2 | 6710.7 | 6694.5 |
| 47.5° | 7191.7 | 7215.0 | 7279.6 | 7329.9 | 7385.5 | 7405.3 | 7453.7 | 7432.2 | 7453.7 | 7423.2 | 7417.8 |
| 50° | 7916.8 | 7958.1 | 8013.7 | 8071.1 | 8130.4 | 8162.7 | 8225.5 | 8198.6 | 8227.3 | 8198.6 | 8182.4 |
| 52.5° | 8631.1 | 8641.9 | 8763.9 | 8848.3 | 8930.8 | 8968.5 | 9006.2 | 8993.7 | 8995.5 | 8993.7 | 8977.5 |
| 55° | 9309.5 | 9334.7 | 9456.7 | 9571.6 | 9715.2 | 9821.1 | 9885.7 | 9878.5 | 9862.3 | 9846.2 | 9819.3 |
| 57.5° | 10074.1 | 10099.2 | 10239.2 | 10381.0 | 10544.4 | 10695.1 | 10826.1 | 10960.7 | 11012.8 | 11027.2 | 10967.9 |
| 60° | 11107.9 | 11106.1 | 11292.8 | 11465.1 | 11698.4 | 11922.7 | 12209.9 | 12502.5 | 12838.1 | 12994.2 | 12787.8 |
| 62.5° | 12159.7 | 12202.7 | 12472.0 | 12777.1 | 13258.1 | 13726.5 | 14256.0 | 14776.5 | 15307.7 | 15740.3 | 15280.8 |
| 65° | 12034.0 | 12199.1 | 12599.4 | 13290.4 | 14178.8 | 15234.1 | 16375.6 | 17583.5 | 18674.7 | 19424.9 | 18583.2 |
| 67.5° | 10429.5 | 10664.6 | 11072.0 | 11912.0 | 13023.0 | 14544.9 | 16461.8 | 18850.6 | 21627.1 | 22969.6 | 21305.9 |
| 70° | 7559.6 | 7825.3 | 8252.4 | 9072.6 | 10172.8 | 11619.4 | 13701.4 | 16569.4 | 20245.2 | 21598.4 | 19766.0 |
| 72.5° | 3761.9 | 3905.4 | 4169.3 | 4691.6 | 5524.3 | 6698.1 | 8586.2 | 11343.0 | 14595.2 | 15837.2 | 14162.6 |
| 75° | 1277.9 | 1344.3 | 1389.2 | 1559.7 | 1823.5 | 2284.8 | 3223.4 | 4959.0 | 7565.0 | 9069.0 | 7457.3 |
| 77.5° | 737.7 | 739.5 | 770.0 | 800.5 | 845.3 | 895.6 | 1021.2 | 1340.7 | 2318.9 | 3293.4 | 2399.6 |
| 80° | 477.4 | 475.6 | 500.7 | 524.1 | 554.6 | 579.7 | 586.9 | 621.0 | 716.1 | 848.9 | 759.2 |
| 82.5° | 247.7 | 278.2 | 333.8 | 364.3 | 421.8 | 432.5 | 418.2 | 405.6 | 429.0 | 445.1 | 455.9 |
| 85° | 136.4 | 118.5 | 177.7 | 229.7 | 254.9 | 258.4 | 258.4 | 244.1 | 253.1 | 247.7 | 269.2 |
| 87.5° | 62.8 | 57.4 | 70.0 | 113.1 | 120.3 | 102.3 | 107.7 | 95.1 | 68.2 | 66.4 | 75.4 |
| 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° | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 | 3889.3 |
| 2.5° | 3871.3 | 3873.1 | 3873.1 | 3878.5 | 3880.3 | 3883.9 | 3887.5 | 3889.3 |
| 5° | 3840.8 | 3846.2 | 3842.6 | 3848.0 | 3848.0 | 3851.6 | 3851.6 | 3853.4 |
| 7.5° | 3796.0 | 3801.4 | 3801.4 | 3801.4 | 3799.6 | 3804.9 | 3804.9 | 3804.9 |
| 10° | 3749.3 | 3752.9 | 3751.1 | 3747.5 | 3743.9 | 3749.3 | 3747.5 | 3745.7 |
| 12.5° | 3734.9 | 3726.0 | 3718.8 | 3715.2 | 3708.0 | 3709.8 | 3704.4 | 3704.4 |
| 15° | 3743.9 | 3727.8 | 3715.2 | 3709.8 | 3702.6 | 3699.0 | 3695.5 | 3697.3 |
| 17.5° | 3767.3 | 3747.5 | 3731.4 | 3722.4 | 3713.4 | 3708.0 | 3700.8 | 3702.6 |
| 20° | 3808.5 | 3785.2 | 3761.9 | 3743.9 | 3727.8 | 3718.8 | 3713.4 | 3711.6 |
| 22.5° | 3869.6 | 3835.5 | 3801.4 | 3774.4 | 3752.9 | 3740.3 | 3734.9 | 3731.4 |
| 25° | 3939.6 | 3901.9 | 3862.4 | 3831.9 | 3810.3 | 3794.2 | 3783.4 | 3783.4 |
| 27.5° | 4027.5 | 3997.0 | 3961.1 | 3925.2 | 3905.4 | 3889.3 | 3882.1 | 3878.5 |
| 30° | 4174.7 | 4146.0 | 4117.2 | 4083.1 | 4058.0 | 4041.9 | 4029.3 | 4018.5 |
| 32.5° | 4363.1 | 4339.8 | 4316.5 | 4291.3 | 4268.0 | 4246.5 | 4226.7 | 4217.7 |
| 35° | 4628.7 | 4610.8 | 4594.6 | 4565.9 | 4557.0 | 4544.4 | 4533.6 | 4524.7 |
| 37.5° | 4994.9 | 4987.7 | 4987.7 | 4957.2 | 4950.0 | 4944.6 | 4933.9 | 4935.7 |
| 40° | 5475.9 | 5483.1 | 5474.1 | 5463.3 | 5457.9 | 5443.6 | 5443.6 | 5456.1 |
| 42.5° | 6044.8 | 6050.2 | 6070.0 | 6052.0 | 6071.8 | 6053.8 | 6043.0 | 6052.0 |
| 45° | 6705.3 | 6725.1 | 6764.5 | 6746.6 | 6759.2 | 6728.6 | 6691.0 | 6692.7 |
| 47.5° | 7446.6 | 7464.5 | 7480.7 | 7468.1 | 7469.9 | 7419.6 | 7369.4 | 7356.8 |
| 50° | 8216.5 | 8223.7 | 8232.7 | 8214.7 | 8218.3 | 8162.7 | 8105.2 | 8107.0 |
| 52.5° | 8977.5 | 9011.6 | 9047.5 | 8999.0 | 8988.3 | 8925.5 | 8844.7 | 8812.4 |
| 55° | 9848.0 | 9896.4 | 9855.2 | 9770.8 | 9686.4 | 9602.1 | 9496.2 | 9478.3 |
| 57.5° | 10921.3 | 10838.7 | 10709.5 | 10549.7 | 10433.1 | 10314.6 | 10206.9 | 10162.1 |
| 60° | 12414.5 | 12104.0 | 11870.7 | 11633.8 | 11484.8 | 11339.4 | 11197.7 | 11176.1 |
| 62.5° | 14525.2 | 13988.5 | 13523.7 | 13033.7 | 12633.5 | 12321.2 | 12071.7 | 12001.7 |
| 65° | 17170.7 | 15901.8 | 14801.6 | 13775.0 | 12883.0 | 12209.9 | 11786.3 | 11599.7 |
| 67.5° | 18308.6 | 15803.1 | 13916.8 | 12459.4 | 11292.8 | 10477.9 | 10020.3 | 9792.3 |
| 70° | 16088.4 | 13105.5 | 11054.1 | 9594.9 | 8532.4 | 7663.7 | 7249.1 | 7005.0 |
| 72.5° | 11068.4 | 8336.8 | 6592.2 | 5380.8 | 4531.8 | 3804.9 | 3517.8 | 3496.2 |
| 75° | 4969.8 | 3291.6 | 2268.6 | 1748.1 | 1471.7 | 1279.7 | 1220.5 | 1175.6 |
| 77.5° | 1391.0 | 1028.4 | 917.1 | 857.9 | 800.5 | 734.1 | 708.9 | 714.3 |
| 80° | 676.6 | 638.9 | 613.8 | 576.1 | 524.1 | 468.4 | 443.3 | 454.1 |
| 82.5° | 448.7 | 443.3 | 459.5 | 432.5 | 357.2 | 303.3 | 254.9 | 233.3 |
| 85° | 272.8 | 276.4 | 281.8 | 283.6 | 240.5 | 168.7 | 114.9 | 129.2 |
| 87.5° | 107.7 | 123.8 | 134.6 | 140.0 | 131.0 | 80.8 | 64.6 | 66.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)