

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: McGRAW-EDISON

Report Number: P190824

Luminaire Tested: **GLEON-AF-06-LED-E1-5MQ-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190824
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: MCGRAW-EDISON
Catalog Number: GLEON-AF-06-LED-E1-5MQ-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41968.6 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 382
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: 25 FT

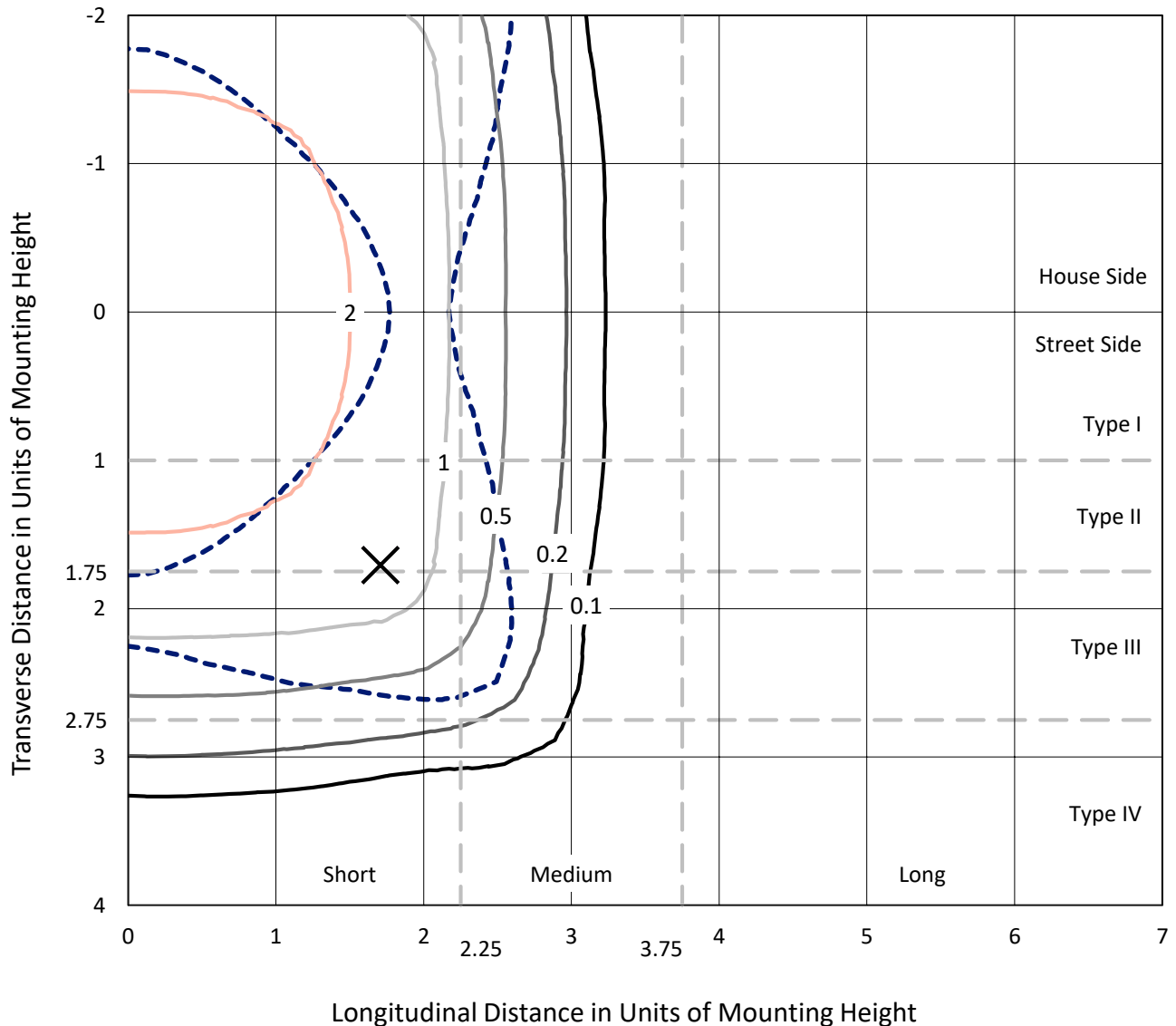


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Iso-Footcandle Lines of Horizontal Illumination

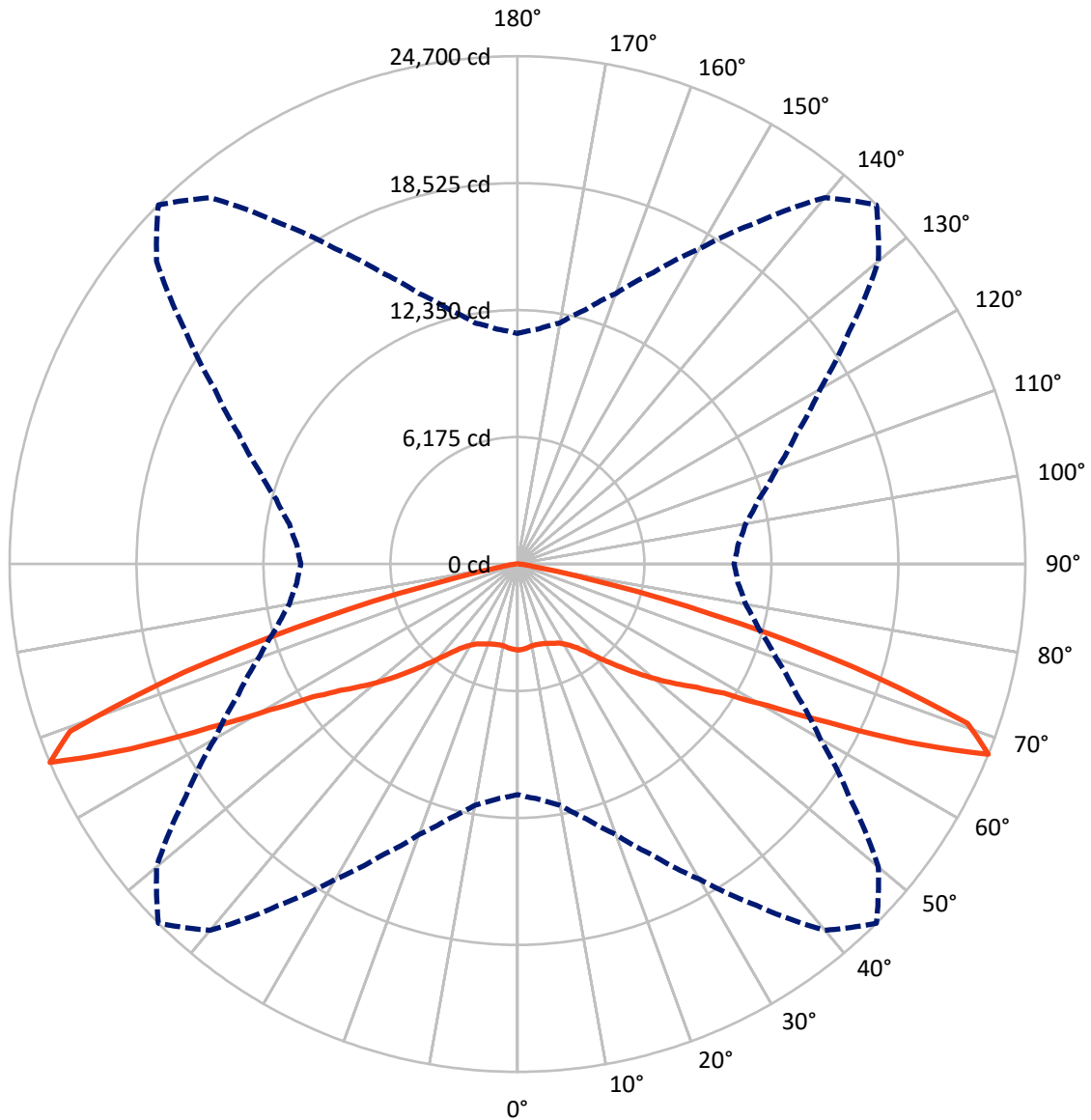
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.6 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 | 20984.3 | 0.0 | 20984.3 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 20984.3 | 0.0 | 20984.3 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 41968.6 | 0.0 | 41968.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 391.4 | 0.9 |
| 10°-20° | 1135.9 | 2.7 |
| 20°-30° | 1931.0 | 4.6 |
| 30°-40° | 3156.6 | 7.5 |
| 40°-50° | 5635.2 | 13.4 |
| 50°-60° | 9501.0 | 22.6 |
| 60°-70° | 14744.2 | 35.1 |
| 70°-80° | 5180.5 | 12.3 |
| 80°-90° | 292.8 | 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° | 41968.6 | 100.0 |
| 0°-180° | 41968.6 | 100.0 |



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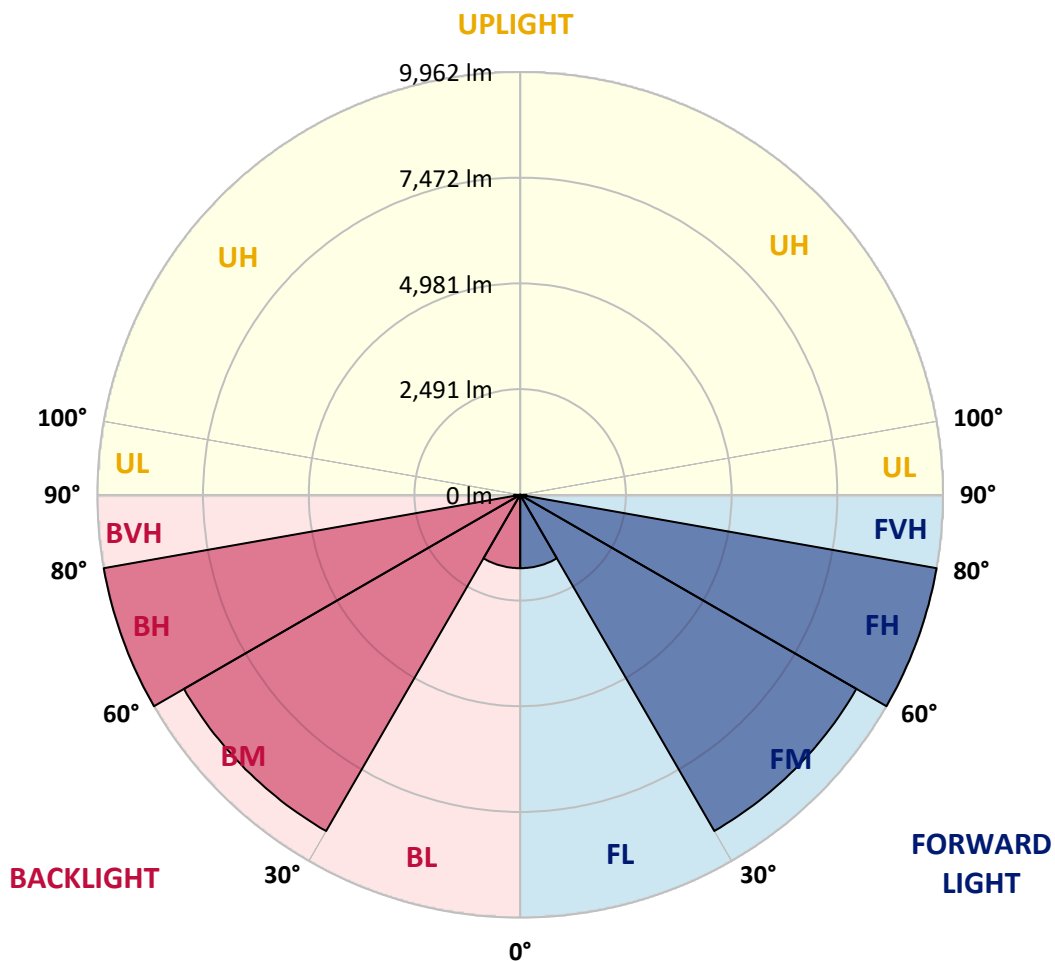
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1729.2 | 4.1 | | | |
| FM | (30°-60°) | 9146.4 | 21.8 | | | |
| FH | (60°-80°) | 9962.3 | 23.7 | | | G4/12000 |
| FVH | (80°-90°) | 146.4 | 0.3 | | | G2/225 |
| BL | (0°-30°) | 1729.2 | 4.1 | B3/2500 | | |
| BM | (30°-60°) | 9146.4 | 21.8 | B5 | | |
| BH | (60°-80°) | 9962.3 | 23.7 | B5 | | G4/12000 |
| BVH | (80°-90°) | 146.4 | 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° | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 |
| 2.5° | 4166.9 | 4170.8 | 4170.8 | 4170.8 | 4168.8 | 4168.8 | 4164.9 | 4168.8 | 4166.9 | 4161.2 | 4163.0 |
| 5° | 4132.2 | 4136.0 | 4136.0 | 4134.1 | 4139.9 | 4137.9 | 4132.2 | 4136.0 | 4134.1 | 4130.3 | 4132.2 |
| 7.5° | 4082.0 | 4087.8 | 4087.8 | 4085.9 | 4091.6 | 4089.8 | 4085.9 | 4087.8 | 4087.8 | 4082.0 | 4082.0 |
| 10° | 4026.0 | 4029.9 | 4029.9 | 4028.0 | 4037.6 | 4037.6 | 4035.6 | 4041.5 | 4043.4 | 4037.6 | 4033.7 |
| 12.5° | 3973.9 | 3979.7 | 3979.7 | 3987.5 | 3997.1 | 4001.0 | 4010.6 | 4018.3 | 4026.0 | 4024.1 | 4016.4 |
| 15° | 3943.1 | 3946.9 | 3954.6 | 3964.2 | 3979.7 | 3993.2 | 4008.6 | 4026.0 | 4041.5 | 4045.4 | 4033.7 |
| 17.5° | 3923.7 | 3929.6 | 3941.1 | 3954.6 | 3975.8 | 3999.0 | 4022.1 | 4045.4 | 4066.5 | 4074.3 | 4060.8 |
| 20° | 3917.9 | 3921.8 | 3933.3 | 3956.6 | 3985.5 | 4020.2 | 4053.0 | 4080.0 | 4109.0 | 4118.7 | 4109.0 |
| 22.5° | 3929.6 | 3937.2 | 3950.7 | 3977.7 | 4016.4 | 4060.8 | 4099.4 | 4136.0 | 4172.7 | 4190.1 | 4176.6 |
| 25° | 3981.6 | 3989.3 | 4006.7 | 4041.5 | 4083.9 | 4130.3 | 4174.7 | 4217.1 | 4249.8 | 4267.2 | 4257.6 |
| 27.5° | 4078.1 | 4087.8 | 4109.0 | 4143.8 | 4190.1 | 4240.2 | 4288.5 | 4323.2 | 4350.3 | 4356.0 | 4344.5 |
| 30° | 4222.8 | 4244.1 | 4269.2 | 4307.9 | 4361.9 | 4404.3 | 4452.6 | 4483.4 | 4516.2 | 4516.2 | 4506.6 |
| 32.5° | 4448.7 | 4469.9 | 4496.9 | 4533.6 | 4576.1 | 4622.4 | 4664.9 | 4691.9 | 4726.6 | 4728.6 | 4705.4 |
| 35° | 4786.5 | 4796.1 | 4819.2 | 4842.4 | 4881.0 | 4921.5 | 4958.2 | 4975.6 | 5004.6 | 5006.4 | 4985.2 |
| 37.5° | 5232.3 | 5234.2 | 5249.7 | 5257.4 | 5292.1 | 5336.5 | 5371.2 | 5382.9 | 5409.9 | 5406.0 | 5384.7 |
| 40° | 5751.4 | 5761.1 | 5766.9 | 5778.4 | 5815.2 | 5857.6 | 5894.2 | 5900.1 | 5929.0 | 5923.2 | 5896.2 |
| 42.5° | 6351.7 | 6355.6 | 6388.3 | 6405.7 | 6440.5 | 6461.7 | 6508.0 | 6513.8 | 6548.5 | 6533.1 | 6502.2 |
| 45° | 7025.2 | 7060.0 | 7090.9 | 7125.7 | 7162.3 | 7187.4 | 7224.1 | 7216.3 | 7239.5 | 7216.3 | 7199.0 |
| 47.5° | 7733.6 | 7758.7 | 7828.1 | 7882.1 | 7942.0 | 7963.3 | 8015.3 | 7992.2 | 8015.3 | 7982.6 | 7976.8 |
| 50° | 8513.3 | 8557.7 | 8617.5 | 8679.3 | 8743.0 | 8777.7 | 8845.3 | 8816.3 | 8847.2 | 8816.3 | 8798.9 |
| 52.5° | 9281.4 | 9293.0 | 9424.2 | 9515.0 | 9603.8 | 9644.3 | 9684.8 | 9671.3 | 9673.2 | 9671.3 | 9654.0 |
| 55° | 10011.0 | 10038.0 | 10169.3 | 10292.8 | 10447.2 | 10561.0 | 10630.5 | 10622.8 | 10605.4 | 10588.1 | 10559.1 |
| 57.5° | 10833.2 | 10860.3 | 11010.7 | 11163.3 | 11338.9 | 11500.9 | 11641.9 | 11786.6 | 11842.6 | 11858.0 | 11794.3 |
| 60° | 11944.9 | 11943.0 | 12143.7 | 12328.9 | 12579.8 | 12821.2 | 13129.9 | 13444.5 | 13805.4 | 13973.3 | 13751.4 |
| 62.5° | 13075.9 | 13122.2 | 13411.7 | 13739.8 | 14257.1 | 14760.8 | 15330.1 | 15889.8 | 16461.1 | 16926.3 | 16432.2 |
| 65° | 12940.7 | 13118.3 | 13548.7 | 14291.7 | 15247.2 | 16381.9 | 17609.5 | 18908.4 | 20081.9 | 20888.6 | 19983.4 |
| 67.5° | 11215.3 | 11468.2 | 11906.3 | 12809.5 | 14004.2 | 15640.8 | 17702.2 | 20271.0 | 23256.7 | 24700.4 | 22911.2 |
| 70° | 8129.2 | 8414.9 | 8874.2 | 9756.2 | 10939.3 | 12494.9 | 14733.8 | 17818.0 | 21770.6 | 23225.8 | 21255.3 |
| 72.5° | 4045.4 | 4199.7 | 4483.4 | 5045.1 | 5940.6 | 7202.8 | 9233.2 | 12197.7 | 15694.9 | 17030.5 | 15229.8 |
| 75° | 1374.1 | 1445.6 | 1493.8 | 1677.2 | 1960.9 | 2456.9 | 3466.3 | 5332.6 | 8135.0 | 9752.4 | 8019.2 |
| 77.5° | 793.2 | 795.1 | 828.0 | 860.8 | 909.0 | 963.1 | 1098.1 | 1441.7 | 2493.5 | 3541.6 | 2580.4 |
| 80° | 513.4 | 511.5 | 538.5 | 563.5 | 596.4 | 623.4 | 631.2 | 667.8 | 770.1 | 912.9 | 816.4 |
| 82.5° | 266.4 | 299.1 | 359.0 | 391.8 | 453.6 | 465.1 | 449.7 | 436.2 | 461.2 | 478.6 | 490.2 |
| 85° | 146.7 | 127.4 | 191.1 | 247.0 | 274.0 | 277.9 | 277.9 | 262.5 | 272.1 | 266.4 | 289.5 |
| 87.5° | 67.5 | 61.8 | 75.3 | 121.6 | 129.3 | 110.0 | 115.8 | 102.3 | 73.3 | 71.4 | 81.0 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 | 4182.3 |
| 2.5° | 4163.0 | 4164.9 | 4164.9 | 4170.8 | 4172.7 | 4176.6 | 4180.4 | 4182.3 |
| 5° | 4130.3 | 4136.0 | 4132.2 | 4137.9 | 4137.9 | 4141.8 | 4141.8 | 4143.8 |
| 7.5° | 4082.0 | 4087.8 | 4087.8 | 4087.8 | 4085.9 | 4091.6 | 4091.6 | 4091.6 |
| 10° | 4031.8 | 4035.6 | 4033.7 | 4029.9 | 4026.0 | 4031.8 | 4029.9 | 4028.0 |
| 12.5° | 4016.4 | 4006.7 | 3999.0 | 3995.1 | 3987.5 | 3989.3 | 3983.6 | 3983.6 |
| 15° | 4026.0 | 4008.6 | 3995.1 | 3989.3 | 3981.6 | 3977.7 | 3973.9 | 3975.8 |
| 17.5° | 4051.1 | 4029.9 | 4012.5 | 4002.8 | 3993.2 | 3987.5 | 3979.7 | 3981.6 |
| 20° | 4095.5 | 4070.4 | 4045.4 | 4026.0 | 4008.6 | 3999.0 | 3993.2 | 3991.2 |
| 22.5° | 4161.2 | 4124.4 | 4087.8 | 4058.9 | 4035.6 | 4022.1 | 4016.4 | 4012.5 |
| 25° | 4236.3 | 4195.8 | 4153.4 | 4120.5 | 4097.4 | 4080.0 | 4068.5 | 4068.5 |
| 27.5° | 4331.0 | 4298.1 | 4259.6 | 4220.9 | 4199.7 | 4182.3 | 4174.7 | 4170.8 |
| 30° | 4489.2 | 4458.3 | 4427.4 | 4390.8 | 4363.8 | 4346.4 | 4332.9 | 4321.4 |
| 32.5° | 4691.9 | 4666.8 | 4641.7 | 4614.6 | 4589.6 | 4566.5 | 4545.2 | 4535.6 |
| 35° | 4977.5 | 4958.2 | 4940.9 | 4910.0 | 4900.3 | 4886.8 | 4875.2 | 4865.6 |
| 37.5° | 5371.2 | 5363.5 | 5363.5 | 5330.7 | 5323.0 | 5317.2 | 5305.6 | 5307.6 |
| 40° | 5888.5 | 5896.2 | 5886.6 | 5875.0 | 5869.2 | 5853.7 | 5853.7 | 5867.2 |
| 42.5° | 6500.3 | 6506.1 | 6527.3 | 6508.0 | 6529.3 | 6510.0 | 6498.4 | 6508.0 |
| 45° | 7210.6 | 7231.8 | 7274.2 | 7255.0 | 7268.5 | 7235.6 | 7195.1 | 7197.1 |
| 47.5° | 8007.7 | 8027.0 | 8044.3 | 8030.8 | 8032.7 | 7978.7 | 7924.7 | 7911.1 |
| 50° | 8835.6 | 8843.3 | 8853.0 | 8833.7 | 8837.6 | 8777.7 | 8716.0 | 8717.9 |
| 52.5° | 9654.0 | 9690.6 | 9729.2 | 9677.1 | 9665.6 | 9597.9 | 9511.1 | 9476.4 |
| 55° | 10590.0 | 10642.2 | 10597.8 | 10507.0 | 10416.3 | 10325.6 | 10211.7 | 10192.4 |
| 57.5° | 11744.2 | 11655.4 | 11516.4 | 11344.6 | 11219.2 | 11091.9 | 10976.1 | 10927.8 |
| 60° | 13349.9 | 13016.0 | 12765.1 | 12510.4 | 12350.2 | 12193.9 | 12041.4 | 12018.2 |
| 62.5° | 15619.6 | 15042.6 | 14542.7 | 14015.8 | 13585.4 | 13249.6 | 12981.3 | 12906.1 |
| 65° | 18464.5 | 17100.0 | 15916.8 | 14812.8 | 13853.6 | 13129.9 | 12674.5 | 12473.7 |
| 67.5° | 19688.1 | 16993.8 | 14965.4 | 13398.2 | 12143.7 | 11267.4 | 10775.3 | 10530.2 |
| 70° | 17300.7 | 14093.0 | 11887.0 | 10317.9 | 9175.3 | 8241.2 | 7795.3 | 7532.9 |
| 72.5° | 11902.4 | 8964.9 | 7088.9 | 5786.2 | 4873.3 | 4091.6 | 3782.9 | 3759.7 |
| 75° | 5344.2 | 3539.6 | 2439.5 | 1879.9 | 1582.6 | 1376.1 | 1312.4 | 1264.2 |
| 77.5° | 1495.8 | 1105.9 | 986.2 | 922.6 | 860.8 | 789.4 | 762.4 | 768.1 |
| 80° | 727.6 | 687.1 | 660.1 | 619.5 | 563.5 | 503.7 | 476.7 | 488.3 |
| 82.5° | 482.5 | 476.7 | 494.1 | 465.1 | 384.1 | 326.2 | 274.0 | 250.9 |
| 85° | 293.4 | 297.3 | 303.0 | 304.9 | 258.6 | 181.5 | 123.5 | 138.9 |
| 87.5° | 115.8 | 133.2 | 144.7 | 150.6 | 140.9 | 86.8 | 69.5 | 71.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)