

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: P190847

Luminaire Tested: **GLEON-AF-09-LED-E1-5NQ-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190847
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: MCGRAW-EDISON
Catalog Number: GLEON-AF-09-LED-E1-5NQ-800
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45366.8 lumens
Efficiency: N/A
Efficacy: 121.3 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 - G3

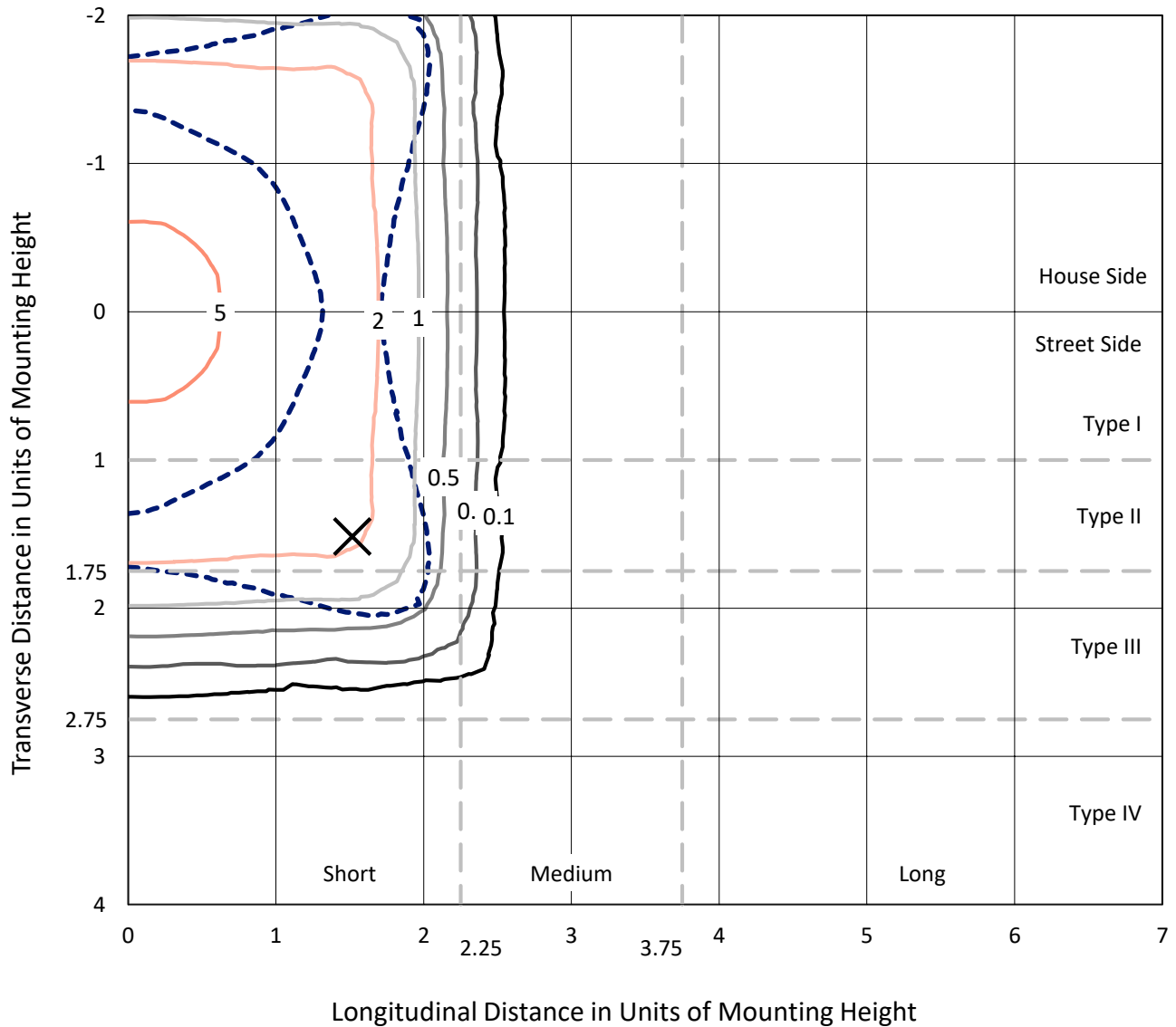
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

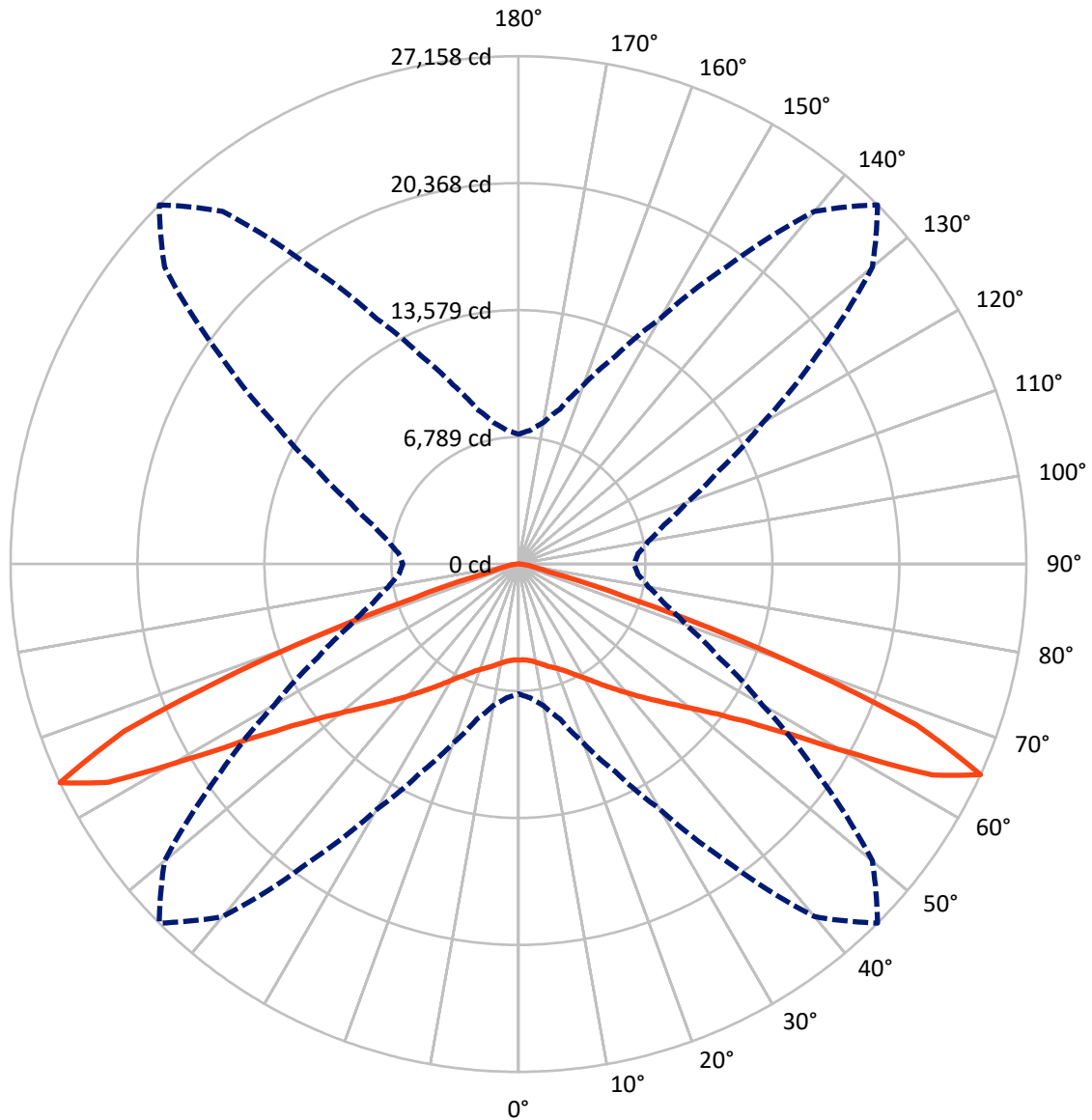
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.7 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 | 22683.4 | 0.0 | 22683.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 22683.4 | 0.0 | 22683.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 45366.8 | 0.0 | 45366.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 500.3 | 1.1 |
| 10°-20° | 1604.6 | 3.5 |
| 20°-30° | 3000.4 | 6.6 |
| 30°-40° | 5074.5 | 11.2 |
| 40°-50° | 8297.3 | 18.3 |
| 50°-60° | 13194.1 | 29.1 |
| 60°-70° | 11926.6 | 26.3 |
| 70°-80° | 1509.3 | 3.3 |
| 80°-90° | 259.6 | 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° | 45366.8 | 100.0 |
| 0°-180° | 45366.8 | 100.0 |



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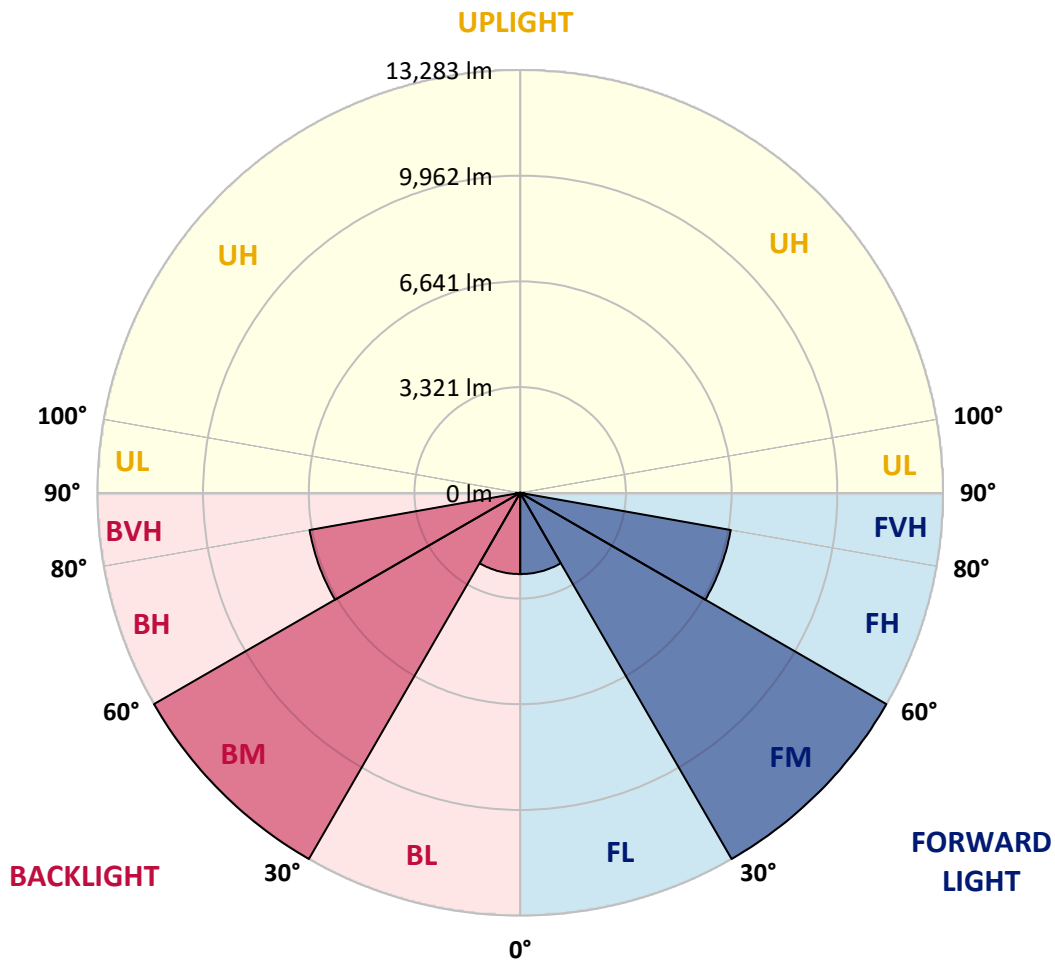
CATALOG NUMBER: GLEON-AF-09-LED-E1-5NQ-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2552.7 | 5.6 | | | |
| FM | (30°-60°) | 13282.9 | 29.3 | | | |
| FH | (60°-80°) | 6718.0 | 14.8 | | | G3/7500 |
| FVH | (80°-90°) | 129.8 | 0.3 | | | G2/225 |
| BL | (0°-30°) | 2552.7 | 5.6 | B4/5000 | | |
| BM | (30°-60°) | 13282.9 | 29.3 | B5 | | |
| BH | (60°-80°) | 6718.0 | 14.8 | B5 | | G3/7500 |
| BVH | (80°-90°) | 129.8 | 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-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 |
| 2.5° | 5137.6 | 5141.8 | 5146.1 | 5141.8 | 5146.1 | 5139.6 | 5135.4 | 5141.8 | 5135.4 | 5129.1 | 5133.3 |
| 5° | 5182.2 | 5184.3 | 5184.3 | 5177.9 | 5184.3 | 5180.0 | 5173.7 | 5182.2 | 5175.8 | 5169.4 | 5173.7 |
| 7.5° | 5256.5 | 5265.0 | 5258.7 | 5252.2 | 5256.5 | 5252.2 | 5248.0 | 5250.1 | 5248.0 | 5241.6 | 5243.7 |
| 10° | 5356.4 | 5362.7 | 5358.5 | 5356.4 | 5360.7 | 5358.5 | 5354.2 | 5352.1 | 5354.2 | 5347.9 | 5347.9 |
| 12.5° | 5477.5 | 5475.3 | 5473.2 | 5475.3 | 5481.7 | 5481.7 | 5479.6 | 5481.7 | 5486.0 | 5488.1 | 5483.8 |
| 15° | 5596.5 | 5600.8 | 5600.8 | 5600.8 | 5613.4 | 5624.1 | 5630.4 | 5634.7 | 5643.2 | 5645.4 | 5636.9 |
| 17.5° | 5745.2 | 5745.2 | 5743.1 | 5745.2 | 5758.0 | 5775.0 | 5781.3 | 5789.8 | 5798.3 | 5804.7 | 5794.1 |
| 20° | 5910.9 | 5915.2 | 5915.2 | 5919.4 | 5936.4 | 5955.5 | 5955.5 | 5959.8 | 5955.5 | 5959.8 | 5953.4 |
| 22.5° | 6112.7 | 6125.5 | 6125.5 | 6127.7 | 6144.7 | 6168.0 | 6161.6 | 6168.0 | 6157.3 | 6165.9 | 6157.3 |
| 25° | 6376.3 | 6395.4 | 6391.1 | 6391.1 | 6403.9 | 6418.7 | 6420.9 | 6433.6 | 6431.5 | 6442.1 | 6435.7 |
| 27.5° | 6673.7 | 6703.4 | 6711.9 | 6709.8 | 6718.3 | 6733.2 | 6737.5 | 6752.3 | 6743.8 | 6752.3 | 6748.1 |
| 30° | 7030.6 | 7043.4 | 7060.4 | 7066.7 | 7077.4 | 7092.2 | 7092.2 | 7094.4 | 7083.7 | 7096.5 | 7102.9 |
| 32.5° | 7400.3 | 7423.8 | 7440.7 | 7479.0 | 7498.1 | 7508.7 | 7506.6 | 7510.8 | 7500.2 | 7517.2 | 7529.9 |
| 35° | 7889.0 | 7906.0 | 7933.6 | 7963.4 | 7988.8 | 7986.8 | 7980.3 | 7982.5 | 7982.5 | 7997.4 | 8010.1 |
| 37.5° | 8477.6 | 8481.8 | 8517.9 | 8560.5 | 8573.1 | 8560.5 | 8522.2 | 8513.7 | 8494.6 | 8513.7 | 8534.9 |
| 40° | 9100.1 | 9115.0 | 9187.2 | 9214.8 | 9221.2 | 9197.9 | 9142.6 | 9110.7 | 9068.3 | 9091.6 | 9121.3 |
| 42.5° | 9752.4 | 9782.2 | 9848.0 | 9896.8 | 9918.1 | 9903.3 | 9826.8 | 9777.9 | 9722.6 | 9735.4 | 9765.1 |
| 45° | 10474.8 | 10510.9 | 10604.4 | 10651.2 | 10691.5 | 10668.1 | 10593.8 | 10519.4 | 10432.3 | 10438.7 | 10485.5 |
| 47.5° | 11282.1 | 11318.3 | 11439.4 | 11518.0 | 11539.3 | 11535.0 | 11452.1 | 11350.2 | 11231.2 | 11226.9 | 11267.3 |
| 50° | 12187.3 | 12223.4 | 12374.2 | 12495.3 | 12557.0 | 12550.6 | 12452.9 | 12308.5 | 12163.9 | 12166.1 | 12217.0 |
| 52.5° | 13071.2 | 13115.8 | 13273.0 | 13481.3 | 13602.4 | 13689.4 | 13630.0 | 13493.9 | 13317.6 | 13321.9 | 13368.6 |
| 55° | 13899.9 | 13974.1 | 14154.8 | 14437.3 | 14662.6 | 14907.0 | 14977.0 | 14972.8 | 14866.5 | 14896.3 | 14943.1 |
| 57.5° | 14301.4 | 14411.8 | 14690.2 | 15136.4 | 15595.3 | 16092.6 | 16513.2 | 16827.6 | 16961.5 | 17163.4 | 17116.6 |
| 60° | 13540.7 | 13717.1 | 14127.2 | 14783.7 | 15690.9 | 16727.8 | 17839.0 | 18924.7 | 19851.1 | 20550.2 | 20148.6 |
| 62.5° | 11086.7 | 11316.2 | 11813.3 | 12654.7 | 14027.3 | 15686.6 | 17813.5 | 20380.1 | 23176.3 | 24863.2 | 23658.6 |
| 65° | 6937.1 | 7175.1 | 7680.8 | 8581.6 | 10188.0 | 12251.1 | 15136.4 | 19390.0 | 24614.7 | 27157.9 | 24706.0 |
| 67.5° | 2704.8 | 2834.4 | 3108.4 | 3684.3 | 4891.0 | 6726.8 | 9622.8 | 14450.1 | 20698.9 | 22927.7 | 20314.3 |
| 70° | 1355.5 | 1368.3 | 1419.3 | 1525.5 | 1784.7 | 2318.0 | 3527.0 | 6699.2 | 11870.7 | 14337.5 | 11443.6 |
| 72.5° | 979.5 | 981.6 | 1007.1 | 1053.8 | 1136.7 | 1255.7 | 1485.1 | 2050.3 | 3860.6 | 5900.3 | 3618.4 |
| 75° | 750.0 | 758.5 | 773.4 | 798.9 | 843.5 | 903.0 | 985.8 | 1181.3 | 1463.9 | 1697.6 | 1427.8 |
| 77.5° | 578.0 | 594.9 | 605.6 | 628.9 | 656.5 | 696.9 | 720.3 | 794.6 | 924.2 | 973.1 | 958.2 |
| 80° | 439.8 | 454.7 | 478.0 | 497.2 | 516.3 | 535.4 | 526.9 | 560.9 | 628.9 | 669.3 | 648.0 |
| 82.5° | 280.5 | 297.5 | 365.4 | 382.5 | 391.0 | 403.7 | 388.8 | 391.0 | 420.7 | 446.2 | 420.7 |
| 85° | 180.6 | 191.2 | 231.6 | 252.9 | 254.9 | 263.5 | 257.1 | 242.2 | 242.2 | 221.0 | 248.6 |
| 87.5° | 82.9 | 85.0 | 104.1 | 123.3 | 127.5 | 114.8 | 112.6 | 108.3 | 87.2 | 82.9 | 89.2 |
| 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° | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 | 5133.3 |
| 2.5° | 5131.1 | 5135.4 | 5137.6 | 5143.9 | 5146.1 | 5146.1 | 5148.2 | 5152.4 |
| 5° | 5171.5 | 5177.9 | 5180.0 | 5188.5 | 5190.7 | 5188.5 | 5192.8 | 5194.9 |
| 7.5° | 5243.7 | 5254.4 | 5258.7 | 5267.2 | 5260.7 | 5269.2 | 5271.4 | 5271.4 |
| 10° | 5350.0 | 5360.7 | 5362.7 | 5371.2 | 5367.0 | 5371.2 | 5371.2 | 5367.0 |
| 12.5° | 5490.3 | 5492.3 | 5486.0 | 5492.3 | 5483.8 | 5488.1 | 5481.7 | 5477.5 |
| 15° | 5645.4 | 5638.9 | 5624.1 | 5624.1 | 5611.3 | 5613.4 | 5611.3 | 5609.2 |
| 17.5° | 5796.1 | 5783.5 | 5772.8 | 5768.5 | 5758.0 | 5755.8 | 5749.5 | 5749.5 |
| 20° | 5962.0 | 5955.5 | 5949.2 | 5940.7 | 5930.0 | 5919.4 | 5917.3 | 5921.6 |
| 22.5° | 6161.6 | 6159.5 | 6159.5 | 6155.3 | 6140.4 | 6129.7 | 6123.4 | 6123.4 |
| 25° | 6429.3 | 6410.2 | 6410.2 | 6408.1 | 6401.7 | 6395.4 | 6382.6 | 6388.9 |
| 27.5° | 6731.0 | 6720.5 | 6729.0 | 6726.8 | 6720.5 | 6720.5 | 6711.9 | 6711.9 |
| 30° | 7102.9 | 7098.7 | 7111.3 | 7100.7 | 7079.5 | 7077.4 | 7068.9 | 7058.3 |
| 32.5° | 7532.1 | 7527.8 | 7546.9 | 7534.2 | 7500.2 | 7481.0 | 7464.1 | 7455.6 |
| 35° | 8010.1 | 8012.3 | 8035.6 | 8027.1 | 7988.8 | 7976.2 | 7946.4 | 7942.2 |
| 37.5° | 8532.8 | 8566.8 | 8607.2 | 8615.7 | 8583.8 | 8575.3 | 8543.5 | 8526.4 |
| 40° | 9146.8 | 9191.4 | 9253.1 | 9267.9 | 9234.0 | 9227.6 | 9182.9 | 9159.6 |
| 42.5° | 9801.3 | 9877.7 | 9954.2 | 9967.0 | 9933.0 | 9899.0 | 9856.5 | 9839.5 |
| 45° | 10532.2 | 10623.5 | 10723.4 | 10748.9 | 10697.9 | 10657.5 | 10602.3 | 10602.3 |
| 47.5° | 11352.3 | 11467.1 | 11579.6 | 11649.8 | 11603.0 | 11560.5 | 11494.7 | 11452.1 |
| 50° | 12321.1 | 12478.4 | 12625.0 | 12697.3 | 12622.9 | 12542.1 | 12427.4 | 12389.2 |
| 52.5° | 13536.5 | 13706.4 | 13834.0 | 13795.7 | 13680.9 | 13568.3 | 13443.0 | 13392.0 |
| 55° | 15087.5 | 15144.9 | 15144.9 | 15000.4 | 14770.9 | 14581.9 | 14384.2 | 14318.3 |
| 57.5° | 17027.3 | 16806.4 | 16466.4 | 16035.2 | 15493.3 | 15021.6 | 14703.0 | 14552.1 |
| 60° | 19307.2 | 18244.8 | 17044.4 | 15865.1 | 14896.3 | 14097.4 | 13623.6 | 13406.9 |
| 62.5° | 20826.4 | 18047.2 | 15642.0 | 13749.0 | 12355.2 | 11392.7 | 10738.2 | 10483.3 |
| 65° | 19464.4 | 15051.4 | 11830.3 | 9565.4 | 8046.2 | 7066.7 | 6418.7 | 6180.8 |
| 67.5° | 14256.8 | 9431.6 | 6299.7 | 4515.0 | 3308.1 | 2638.9 | 2373.2 | 2262.8 |
| 70° | 6399.6 | 3320.9 | 2035.5 | 1589.3 | 1370.4 | 1257.8 | 1208.9 | 1191.9 |
| 72.5° | 1929.2 | 1395.9 | 1177.1 | 1062.3 | 975.3 | 920.0 | 879.6 | 875.3 |
| 75° | 1164.3 | 968.8 | 860.5 | 792.5 | 737.2 | 692.6 | 671.4 | 665.0 |
| 77.5° | 813.8 | 711.8 | 660.8 | 611.9 | 569.4 | 535.4 | 516.3 | 501.5 |
| 80° | 571.5 | 522.7 | 499.3 | 471.7 | 444.1 | 412.1 | 384.5 | 371.8 |
| 82.5° | 382.5 | 371.8 | 371.8 | 354.9 | 331.4 | 301.7 | 246.4 | 233.7 |
| 85° | 246.4 | 244.4 | 248.6 | 242.2 | 225.3 | 193.3 | 159.4 | 150.9 |
| 87.5° | 114.8 | 116.8 | 129.6 | 127.5 | 123.3 | 102.0 | 80.7 | 76.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)