

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: P299194

Luminaire Tested: **GAA-AF-07-LED-U-T3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299194
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-07-LED-U-T3-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33904.3 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

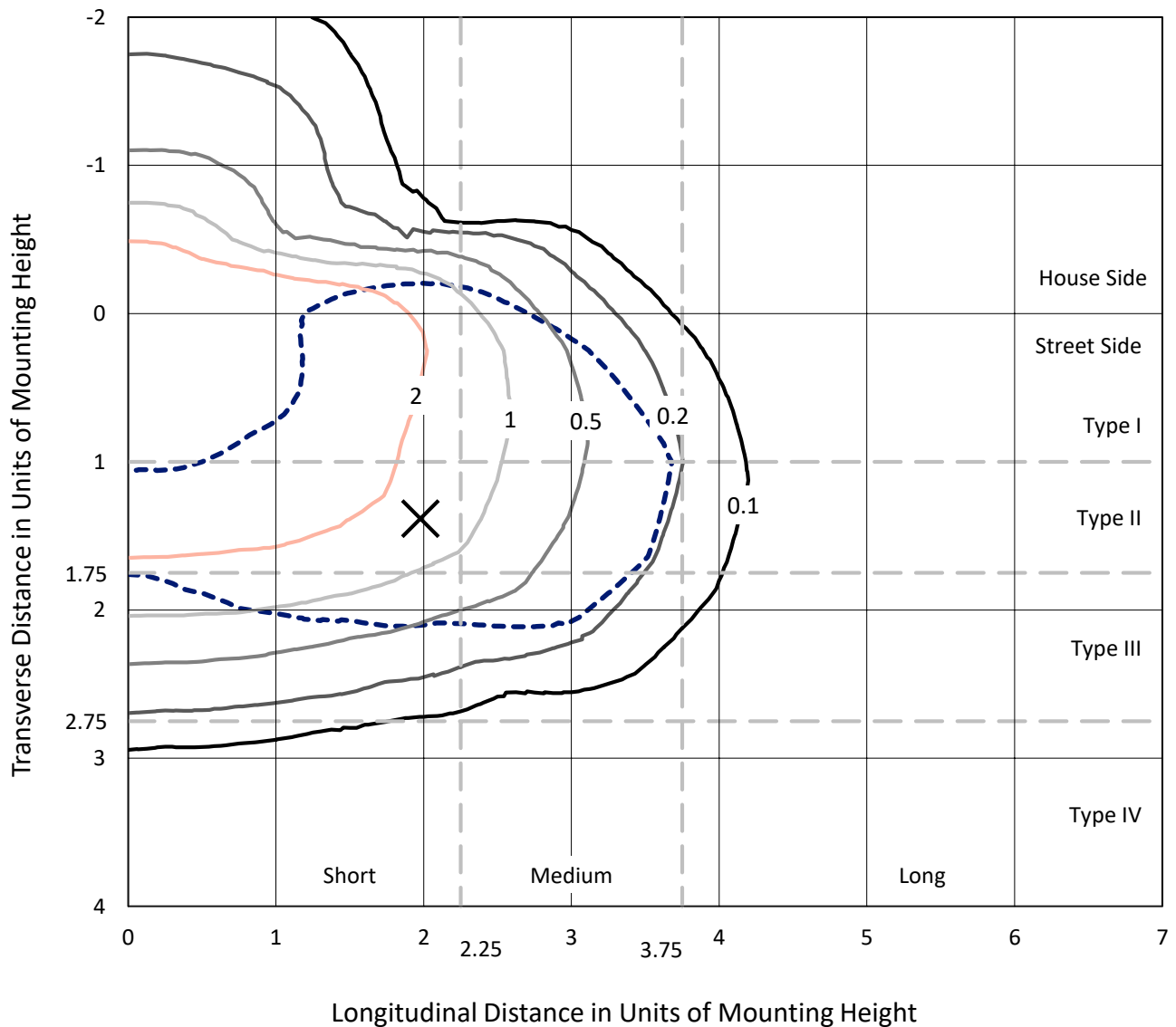
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

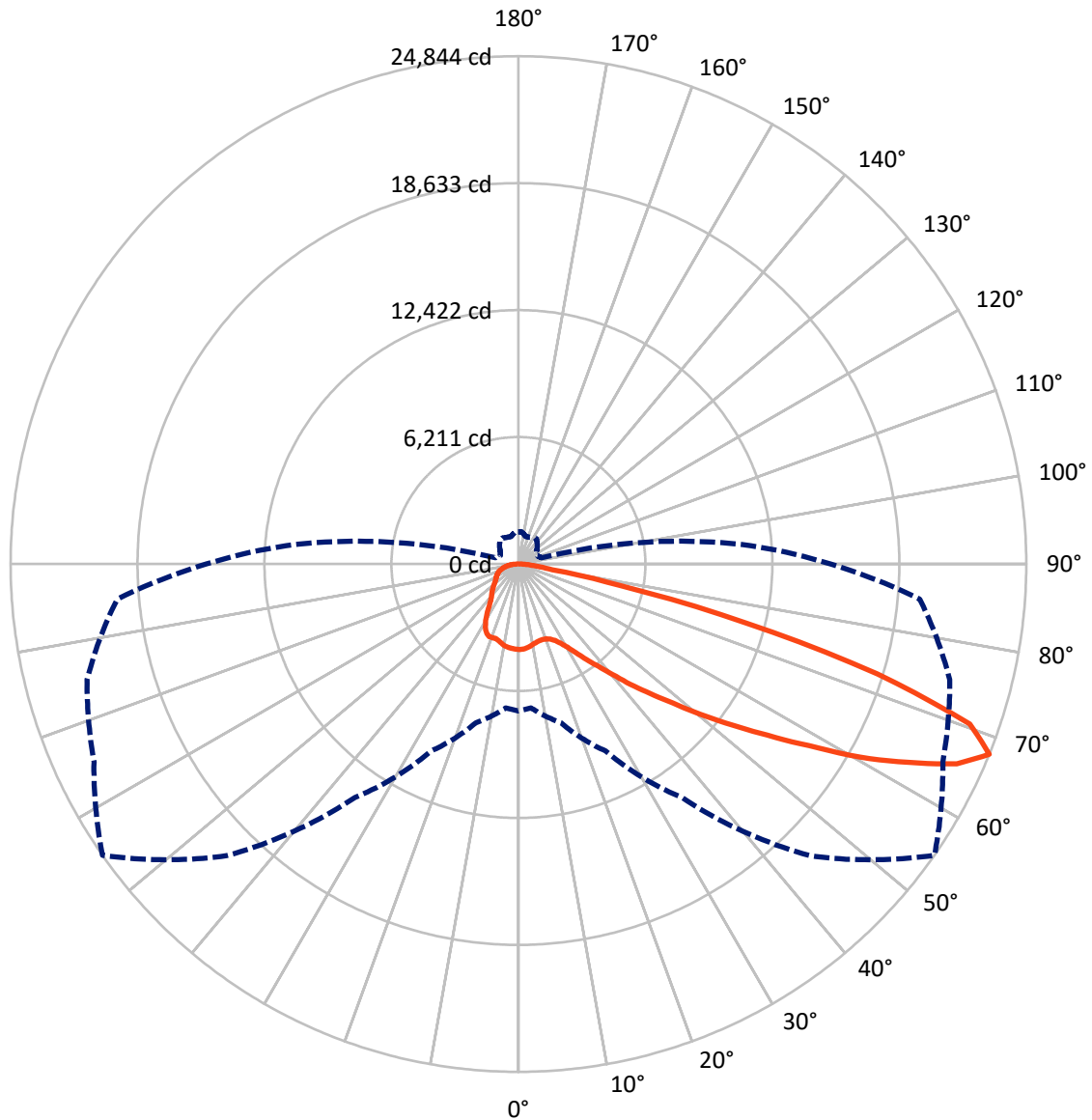
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7324.0 | 0.0 | 7324.0 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 26580.2 | 0.0 | 26580.2 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 33904.3 | 0.0 | 33904.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 390.2 | 1.2 |
| 10°-20° | 1105.2 | 3.3 |
| 20°-30° | 1851.3 | 5.5 |
| 30°-40° | 3044.4 | 9.0 |
| 40°-50° | 5124.6 | 15.1 |
| 50°-60° | 8065.8 | 23.8 |
| 60°-70° | 9625.7 | 28.4 |
| 70°-80° | 4133.4 | 12.2 |
| 80°-90° | 563.6 | 1.7 |
| 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° | 33904.3 | 100.0 |
| 0°-180° | 33904.3 | 100.0 |



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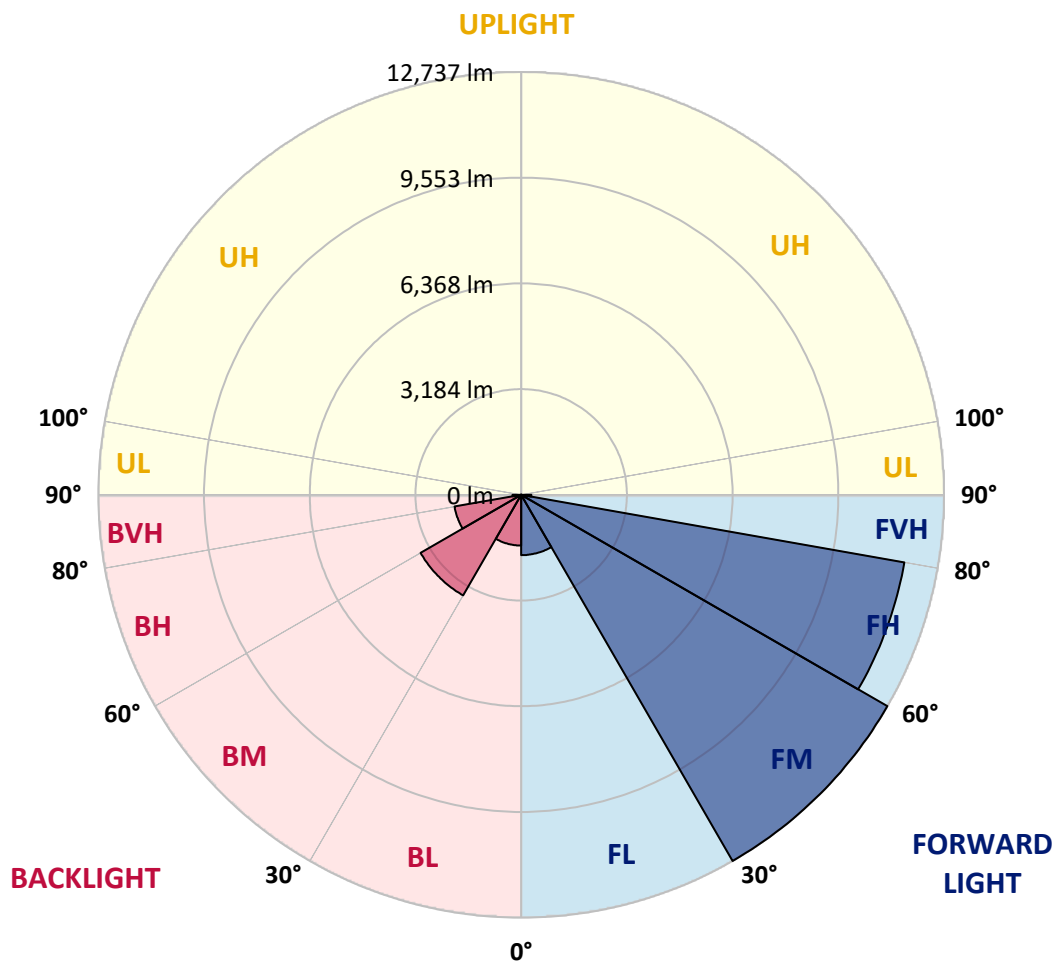
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1817.3 | 5.4 | | | |
| FM | (30°-60°) | 12736.9 | 37.6 | | | |
| FH | (60°-80°) | 11720.9 | 34.6 | | | G4/12000 |
| FVH | (80°-90°) | 305.1 | 0.9 | | | G3/500 |
| BL | (0°-30°) | 1529.4 | 4.5 | B3/2500 | | |
| BM | (30°-60°) | 3497.9 | 10.3 | B3/5000 | | |
| BH | (60°-80°) | 2038.3 | 6.0 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 258.5 | 0.8 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 |
| 2.5° | 4144.7 | 4146.4 | 4149.7 | 4162.8 | 4174.2 | 4170.9 | 4172.6 | 4166.0 | 4164.4 | 4154.6 | 4164.4 |
| 5° | 4092.3 | 4097.2 | 4098.9 | 4120.2 | 4133.3 | 4136.6 | 4131.6 | 4123.4 | 4113.6 | 4103.8 | 4108.7 |
| 7.5° | 3972.8 | 3985.9 | 3987.5 | 4017.0 | 4038.3 | 4066.1 | 4067.8 | 4069.4 | 4064.5 | 4057.9 | 4067.8 |
| 10° | 3897.5 | 3900.7 | 3899.1 | 3920.4 | 3936.8 | 3967.9 | 3985.9 | 4017.0 | 4030.1 | 4033.4 | 4039.9 |
| 12.5° | 3892.5 | 3889.3 | 3884.4 | 3884.4 | 3879.4 | 3892.5 | 3925.3 | 3969.5 | 4000.6 | 4010.5 | 4018.6 |
| 15° | 3945.0 | 3943.3 | 3926.9 | 3902.4 | 3871.3 | 3861.4 | 3889.3 | 3938.4 | 3979.3 | 4000.6 | 4008.8 |
| 17.5° | 4062.9 | 4053.0 | 4026.8 | 3971.2 | 3904.0 | 3877.8 | 3881.1 | 3922.0 | 3969.5 | 3997.4 | 4005.5 |
| 20° | 4279.0 | 4279.0 | 4223.3 | 4118.5 | 3999.0 | 3936.8 | 3907.3 | 3931.9 | 3977.7 | 4015.4 | 4026.8 |
| 22.5° | 4652.4 | 4655.7 | 4562.3 | 4390.4 | 4189.0 | 4056.3 | 3982.6 | 3977.7 | 4031.7 | 4074.3 | 4087.4 |
| 25° | 5181.3 | 5168.2 | 5037.2 | 4791.6 | 4485.4 | 4265.9 | 4138.2 | 4108.7 | 4154.6 | 4202.1 | 4218.4 |
| 27.5° | 5797.1 | 5749.6 | 5594.0 | 5297.6 | 4901.3 | 4580.3 | 4383.8 | 4336.3 | 4380.6 | 4434.6 | 4451.0 |
| 30° | 6406.2 | 6357.1 | 6172.1 | 5847.8 | 5407.3 | 5001.2 | 4719.5 | 4642.6 | 4704.8 | 4781.8 | 4791.6 |
| 32.5° | 7015.4 | 7015.4 | 6809.1 | 6430.8 | 5951.0 | 5503.9 | 5166.6 | 5074.9 | 5178.1 | 5271.4 | 5292.7 |
| 35° | 7744.2 | 7747.4 | 7547.6 | 7092.4 | 6576.6 | 6103.3 | 5731.6 | 5664.4 | 5820.0 | 5885.5 | 5936.3 |
| 37.5° | 8639.9 | 8657.9 | 8400.8 | 7850.6 | 7285.6 | 6787.8 | 6345.7 | 6254.0 | 6409.5 | 6588.0 | 6751.8 |
| 40° | 9607.7 | 9630.7 | 9347.4 | 8669.4 | 8104.4 | 7583.7 | 7105.5 | 6940.1 | 7198.8 | 7539.5 | 7750.7 |
| 42.5° | 10531.3 | 10649.2 | 10375.8 | 9678.2 | 9070.6 | 8531.8 | 8047.1 | 7806.4 | 8130.6 | 8644.8 | 8828.2 |
| 45° | 11866.0 | 11951.1 | 11474.6 | 10842.5 | 10271.0 | 9668.3 | 9026.4 | 8772.6 | 9226.2 | 9874.7 | 9912.3 |
| 47.5° | 12755.2 | 12691.3 | 12449.0 | 12055.9 | 11694.0 | 11130.7 | 10164.5 | 9886.1 | 10488.8 | 11251.9 | 11040.6 |
| 50° | 13228.4 | 13248.1 | 13215.3 | 13238.3 | 13251.4 | 12897.7 | 11559.7 | 11178.2 | 11897.1 | 12819.0 | 12332.7 |
| 52.5° | 13670.6 | 13539.6 | 13647.7 | 14184.8 | 14833.3 | 14702.3 | 13077.8 | 12679.9 | 13406.9 | 14558.2 | 13698.4 |
| 55° | 13660.8 | 13461.0 | 13813.1 | 14761.2 | 16167.9 | 16318.6 | 14782.5 | 14324.0 | 15003.6 | 16423.4 | 15146.1 |
| 57.5° | 13177.7 | 13187.5 | 13729.5 | 14970.8 | 17098.1 | 17838.3 | 16760.7 | 16072.9 | 16696.9 | 18313.2 | 16467.6 |
| 60° | 12512.8 | 12602.9 | 13384.0 | 14936.5 | 17843.2 | 19084.5 | 19187.6 | 17957.8 | 18355.7 | 20031.0 | 17561.5 |
| 62.5° | 11440.2 | 11535.2 | 12612.7 | 14579.5 | 17730.2 | 20284.8 | 21382.0 | 20096.5 | 20089.9 | 21072.5 | 17882.5 |
| 65° | 9748.6 | 9720.7 | 10852.3 | 13244.8 | 16782.0 | 21172.4 | 23561.6 | 21945.3 | 21396.7 | 21088.9 | 17237.3 |
| 67.5° | 7189.0 | 7064.6 | 8035.6 | 10087.5 | 13949.0 | 20178.4 | 24843.9 | 22908.2 | 21842.2 | 19701.8 | 15265.6 |
| 70° | 3730.4 | 3606.0 | 4392.0 | 5890.4 | 9173.8 | 15748.7 | 23424.1 | 22410.4 | 20858.0 | 16515.1 | 11959.3 |
| 72.5° | 1595.0 | 1573.7 | 1893.1 | 2584.1 | 4437.9 | 9083.7 | 18367.2 | 19397.2 | 17897.2 | 12304.8 | 8222.3 |
| 75° | 1072.6 | 1066.1 | 1185.6 | 1408.3 | 1996.2 | 3686.2 | 11494.2 | 13768.8 | 13094.2 | 7629.5 | 4624.6 |
| 77.5° | 841.7 | 833.5 | 903.9 | 1012.0 | 1293.7 | 1454.2 | 5101.1 | 7392.1 | 6841.8 | 3321.0 | 2024.1 |
| 80° | 658.3 | 651.8 | 696.0 | 754.9 | 930.2 | 917.0 | 1678.5 | 2941.1 | 2276.2 | 1272.4 | 984.2 |
| 82.5° | 519.1 | 519.1 | 555.1 | 556.8 | 659.9 | 625.6 | 876.1 | 1295.3 | 1136.5 | 741.8 | 602.6 |
| 85° | 474.9 | 474.9 | 512.6 | 415.9 | 430.7 | 394.7 | 543.7 | 768.0 | 720.5 | 304.6 | 262.0 |
| 87.5° | 239.1 | 232.5 | 430.7 | 368.5 | 234.2 | 209.6 | 265.3 | 371.7 | 399.6 | 168.7 | 131.0 |
| 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° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 | 4180.8 |
| 2.5° | 4161.1 | 4159.5 | 4162.8 | 4164.4 | 4177.5 | 4195.5 | 4203.7 | 4215.2 | 4221.7 | 4218.4 |
| 5° | 4112.0 | 4115.3 | 4128.4 | 4138.2 | 4161.1 | 4190.6 | 4207.0 | 4220.1 | 4231.5 | 4226.6 |
| 7.5° | 4071.0 | 4079.2 | 4098.9 | 4107.1 | 4120.2 | 4128.4 | 4126.7 | 4131.6 | 4141.5 | 4130.0 |
| 10° | 4048.1 | 4057.9 | 4072.7 | 4061.2 | 4030.1 | 3985.9 | 3945.0 | 3923.7 | 3930.2 | 3922.0 |
| 12.5° | 4025.2 | 4038.3 | 4026.8 | 3972.8 | 3886.0 | 3828.7 | 3797.6 | 3800.8 | 3815.6 | 3818.9 |
| 15° | 4012.1 | 4017.0 | 3967.9 | 3866.3 | 3777.9 | 3769.7 | 3786.1 | 3782.8 | 3784.5 | 3784.5 |
| 17.5° | 4012.1 | 3999.0 | 3907.3 | 3805.8 | 3768.1 | 3753.4 | 3702.6 | 3638.7 | 3610.9 | 3601.1 |
| 20° | 4033.4 | 3999.0 | 3887.6 | 3820.5 | 3738.6 | 3612.5 | 3478.2 | 3360.3 | 3307.9 | 3293.2 |
| 22.5° | 4097.2 | 4038.3 | 3943.3 | 3827.0 | 3594.5 | 3383.3 | 3170.4 | 3029.5 | 2934.6 | 2918.2 |
| 25° | 4226.6 | 4161.1 | 4053.0 | 3740.3 | 3365.2 | 3063.9 | 2821.6 | 2664.4 | 2569.4 | 2556.3 |
| 27.5° | 4452.6 | 4410.0 | 4112.0 | 3548.7 | 3060.7 | 2738.0 | 2513.7 | 2392.5 | 2322.1 | 2317.2 |
| 30° | 4793.2 | 4771.9 | 4082.5 | 3265.4 | 2685.6 | 2422.0 | 2313.9 | 2243.5 | 2191.1 | 2189.5 |
| 32.5° | 5336.9 | 5165.0 | 3985.9 | 2919.8 | 2343.4 | 2197.6 | 2153.4 | 2110.9 | 2069.9 | 2069.9 |
| 35° | 6036.2 | 5482.6 | 3802.5 | 2549.7 | 2135.4 | 2073.2 | 2017.5 | 1950.4 | 1896.3 | 1893.1 |
| 37.5° | 6858.2 | 5679.2 | 3473.3 | 2251.7 | 2037.2 | 1989.7 | 1907.8 | 1807.9 | 1712.9 | 1696.5 |
| 40° | 7688.5 | 5738.1 | 3009.9 | 2068.3 | 1974.9 | 1906.2 | 1806.3 | 1688.4 | 1596.6 | 1591.7 |
| 42.5° | 8450.0 | 5625.1 | 2518.6 | 1942.2 | 1912.7 | 1821.0 | 1716.2 | 1611.4 | 1539.3 | 1537.7 |
| 45° | 9088.6 | 5332.0 | 2105.9 | 1822.6 | 1847.2 | 1744.0 | 1650.7 | 1565.5 | 1509.9 | 1498.4 |
| 47.5° | 9689.6 | 4917.7 | 1816.1 | 1696.5 | 1781.7 | 1701.5 | 1622.9 | 1542.6 | 1488.6 | 1480.4 |
| 50° | 10387.2 | 4470.6 | 1613.0 | 1573.7 | 1724.4 | 1686.7 | 1645.8 | 1562.3 | 1472.2 | 1462.4 |
| 52.5° | 11232.2 | 4084.1 | 1454.2 | 1465.6 | 1680.2 | 1706.4 | 1704.7 | 1617.9 | 1460.7 | 1447.6 |
| 55° | 12175.5 | 3655.1 | 1334.6 | 1377.2 | 1662.2 | 1742.4 | 1719.5 | 1670.3 | 1470.6 | 1450.9 |
| 57.5° | 13104.0 | 3154.0 | 1251.1 | 1310.1 | 1636.0 | 1739.1 | 1649.1 | 1578.6 | 1493.5 | 1465.6 |
| 60° | 13800.0 | 2480.9 | 1187.3 | 1251.1 | 1578.6 | 1685.1 | 1572.1 | 1478.7 | 1488.6 | 1467.3 |
| 62.5° | 13845.8 | 1917.6 | 1110.3 | 1200.4 | 1491.8 | 1631.0 | 1521.3 | 1434.5 | 1509.9 | 1490.2 |
| 65° | 13031.9 | 1449.3 | 1036.6 | 1139.8 | 1398.5 | 1596.6 | 1472.2 | 1410.0 | 1554.1 | 1532.8 |
| 67.5° | 10971.8 | 1166.0 | 974.4 | 1077.5 | 1305.2 | 1524.6 | 1428.0 | 1387.0 | 1593.4 | 1555.7 |
| 70° | 7921.0 | 994.0 | 913.8 | 1002.2 | 1221.6 | 1442.7 | 1388.7 | 1346.1 | 1486.9 | 1428.0 |
| 72.5° | 4876.7 | 861.4 | 845.0 | 902.3 | 1157.8 | 1357.6 | 1329.7 | 1269.1 | 1339.5 | 1292.1 |
| 75° | 2435.1 | 746.7 | 768.0 | 804.1 | 1067.7 | 1260.9 | 1231.5 | 1170.9 | 1180.7 | 1170.9 |
| 77.5° | 1166.0 | 638.7 | 678.0 | 705.8 | 951.4 | 1151.2 | 1120.1 | 1057.9 | 1046.4 | 1048.1 |
| 80° | 738.6 | 533.9 | 571.5 | 591.2 | 849.9 | 1023.5 | 992.4 | 930.2 | 1061.2 | 984.2 |
| 82.5° | 461.8 | 434.0 | 443.8 | 479.8 | 740.2 | 890.8 | 849.9 | 794.2 | 956.4 | 756.6 |
| 85° | 255.5 | 303.0 | 316.1 | 347.2 | 569.9 | 745.1 | 704.2 | 633.7 | 568.2 | 558.4 |
| 87.5° | 152.3 | 180.1 | 185.0 | 208.0 | 383.2 | 538.8 | 476.5 | 452.0 | 375.0 | 373.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)