

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: P192947

Luminaire Tested: **GAN-AF-09-LED-U-SL4-7030-800-HSS**

Issue Date: 3/3/2020

#### Test Information

Test Method: LM-79-08  
Report Number: P192947  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-AF-09-LED-U-SL4-7030-800-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

#### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 33748 lumens  
Efficiency: N/A  
Efficacy: 90.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

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: 28.75 FT

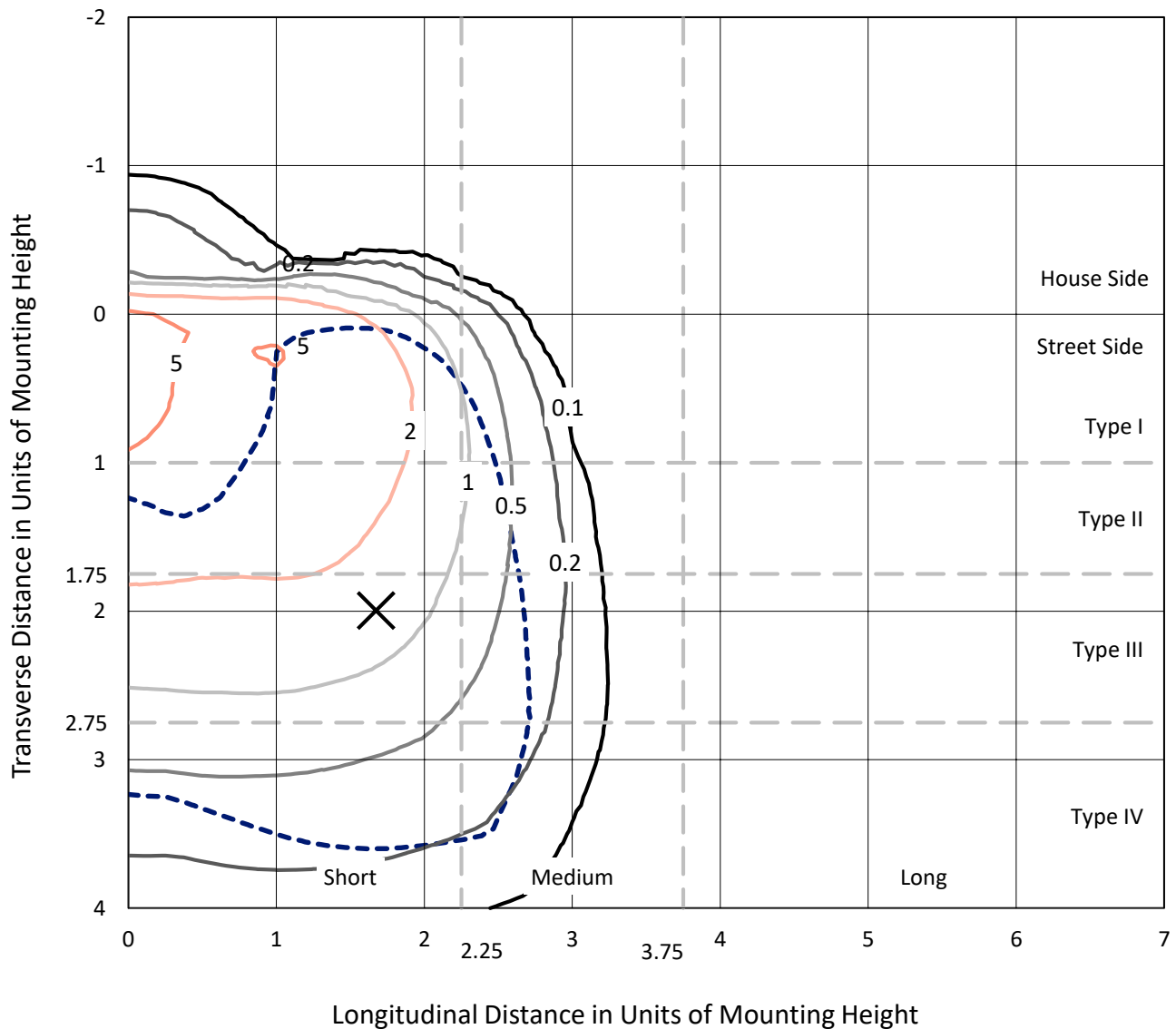


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 --- 1/2 Max cd

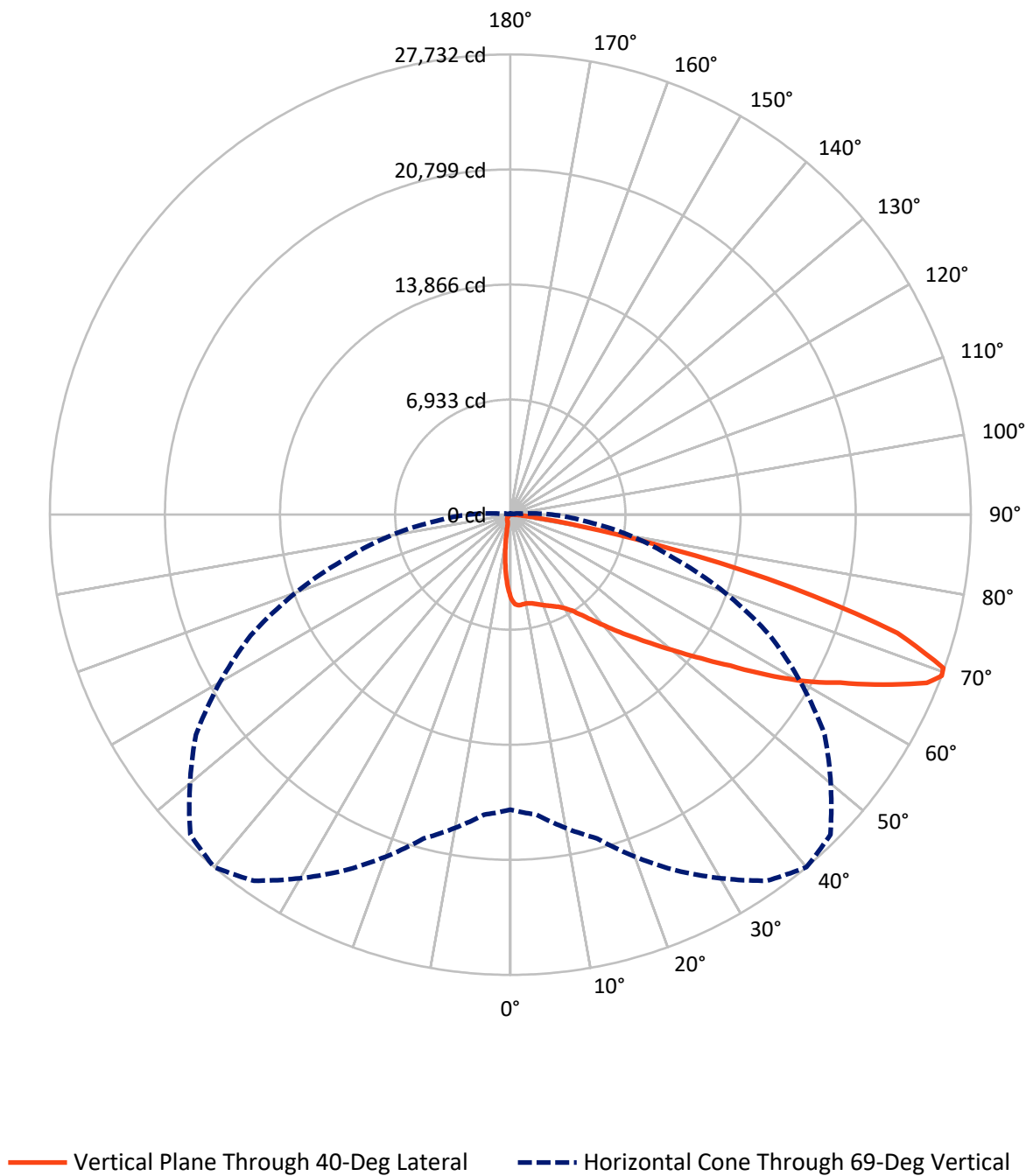


Based on 30 foot mounting height. Maximum calculated value = 6.1 fc  
 Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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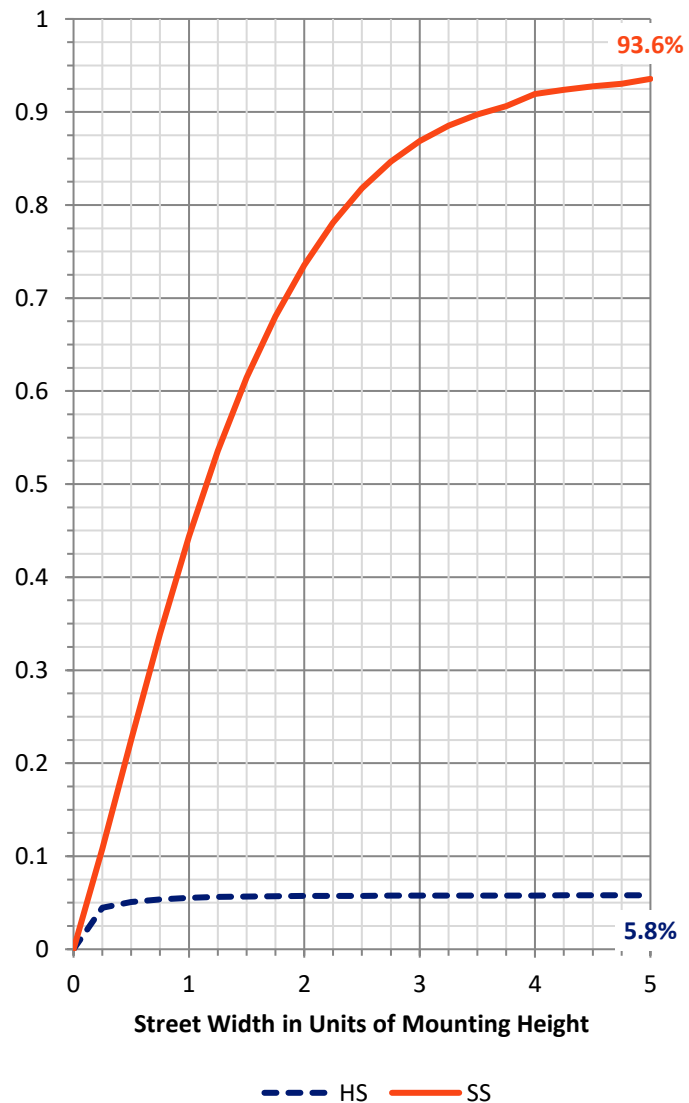
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1974.4   | 0.0    | 1974.4  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 31773.5  | 0.0    | 31773.5 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 33748.0  | 0.0    | 33748.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 408.8   | 1.2       |
| 10°-20°   | 1005.4  | 3.0       |
| 20°-30°   | 1693.4  | 5.0       |
| 30°-40°   | 2772.1  | 8.2       |
| 40°-50°   | 4799.8  | 14.2      |
| 50°-60°   | 7560.1  | 22.4      |
| 60°-70°   | 9873.2  | 29.3      |
| 70°-80°   | 5085.2  | 15.1      |
| 80°-90°   | 550.1   | 1.6       |
| 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°    | 33748.0 | 100.0     |
| 0°-180°   | 33748.0 | 100.0     |

**Coefficient of Utilization**



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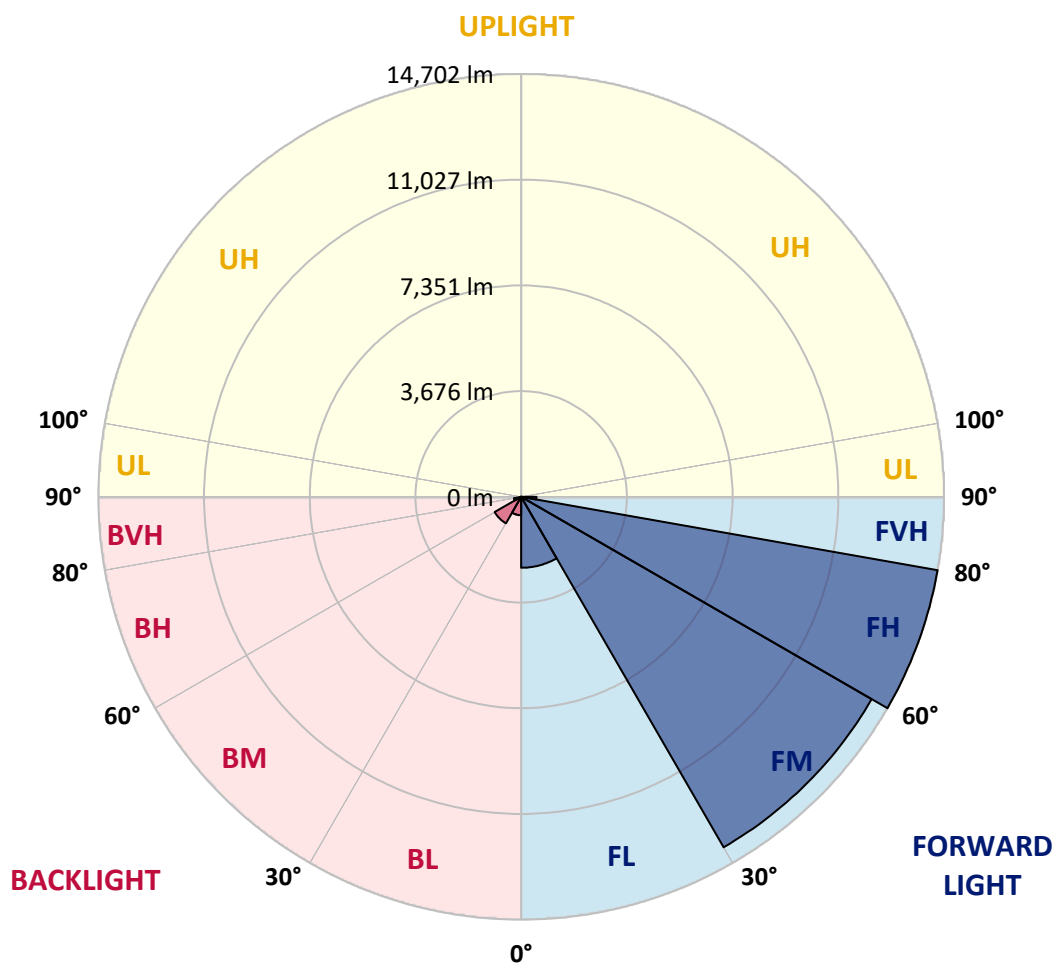
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2467.9  | 7.3       |                         |      |        |
| FM   | (30°-60°)   | 14070.8 | 41.7      |                         |      |        |
| FH   | (60°-80°)   | 14702.0 | 43.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 532.8   | 1.6       |                         |      | G4/750 |
| BL   | (0°-30°)    | 639.6   | 1.9       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 1061.2  | 3.1       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 256.4   | 0.8       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 17.3    | 0.1       |                         |      | G1/100 |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  | 5042.1  |
| 2.5°  | 5536.2  | 5506.1  | 5488.1  | 5463.9  | 5433.8  | 5407.7  | 5397.7  | 5323.3  | 5253.0  | 5156.6  | 5046.1  |
| 5°    | 5638.8  | 5628.7  | 5596.6  | 5564.5  | 5528.3  | 5488.1  | 5466.0  | 5377.6  | 5277.1  | 5136.5  | 4943.7  |
| 7.5°  | 5648.8  | 5636.6  | 5596.6  | 5552.3  | 5502.2  | 5453.9  | 5415.8  | 5327.4  | 5234.9  | 5092.3  | 4857.3  |
| 10°   | 5632.8  | 5618.6  | 5588.5  | 5540.3  | 5478.0  | 5431.9  | 5393.7  | 5309.4  | 5231.0  | 5102.4  | 4841.3  |
| 12.5° | 5614.7  | 5600.6  | 5586.5  | 5562.4  | 5508.2  | 5476.1  | 5443.9  | 5363.5  | 5293.2  | 5184.8  | 4899.5  |
| 15°   | 5632.8  | 5624.6  | 5640.7  | 5630.6  | 5600.6  | 5572.4  | 5540.3  | 5468.0  | 5403.8  | 5313.3  | 5005.9  |
| 17.5° | 5709.1  | 5709.1  | 5759.3  | 5765.3  | 5737.2  | 5697.0  | 5650.8  | 5578.4  | 5524.2  | 5447.8  | 5132.6  |
| 20°   | 5887.9  | 5881.9  | 5946.1  | 5958.1  | 5889.8  | 5827.6  | 5759.3  | 5670.9  | 5628.7  | 5580.5  | 5257.1  |
| 22.5° | 6195.2  | 6167.0  | 6205.3  | 6193.2  | 6058.5  | 5962.2  | 5877.8  | 5769.3  | 5747.2  | 5725.0  | 5395.7  |
| 25°   | 6594.9  | 6578.8  | 6604.9  | 6486.5  | 6249.4  | 6118.8  | 6018.4  | 5895.8  | 5895.8  | 5917.9  | 5552.3  |
| 27.5° | 7175.5  | 7115.2  | 7026.8  | 6817.9  | 6462.3  | 6295.6  | 6187.2  | 6056.6  | 6090.7  | 6173.0  | 5759.3  |
| 30°   | 7770.1  | 7703.8  | 7500.8  | 7179.5  | 6721.5  | 6546.7  | 6420.2  | 6283.6  | 6364.0  | 6514.6  | 6036.5  |
| 32.5° | 8356.7  | 8282.3  | 7995.0  | 7589.2  | 7093.1  | 6918.4  | 6795.8  | 6645.1  | 6779.7  | 7032.9  | 6442.3  |
| 35°   | 8925.2  | 8858.8  | 8527.4  | 8049.3  | 7587.3  | 7442.6  | 7330.2  | 7199.6  | 7372.4  | 7725.9  | 7014.8  |
| 37.5° | 9564.0  | 9491.7  | 9087.8  | 8569.6  | 8187.9  | 8083.4  | 8001.0  | 7870.5  | 8171.8  | 8690.2  | 7812.2  |
| 40°   | 10349.4 | 10226.8 | 9682.4  | 9166.2  | 8883.0  | 8832.7  | 8776.5  | 8758.4  | 9226.5  | 9943.6  | 8874.9  |
| 42.5° | 11249.4 | 11048.6 | 10305.3 | 9795.0  | 9646.3  | 9682.4  | 9668.5  | 9748.7  | 10546.2 | 11502.5 | 10168.6 |
| 45°   | 12149.3 | 11890.1 | 10998.2 | 10466.0 | 10486.0 | 10612.6 | 10690.9 | 11012.4 | 12199.6 | 13290.3 | 11560.7 |
| 47.5° | 12912.7 | 12657.5 | 11663.2 | 11191.1 | 11432.2 | 11681.2 | 11894.2 | 12502.9 | 13899.0 | 15050.0 | 12643.5 |
| 50°   | 13565.5 | 13324.5 | 12368.2 | 11988.6 | 12531.0 | 12932.8 | 13278.3 | 14180.2 | 15727.0 | 16389.9 | 13402.9 |
| 52.5° | 14099.9 | 13939.2 | 13099.5 | 12902.7 | 13786.5 | 14375.1 | 14881.3 | 15962.0 | 17346.1 | 17478.8 | 13993.4 |
| 55°   | 14620.2 | 14505.7 | 13884.8 | 13989.3 | 15261.0 | 16062.5 | 16703.3 | 17852.3 | 18740.2 | 18386.7 | 14559.9 |
| 57.5° | 15218.8 | 15114.3 | 14780.8 | 15367.5 | 17199.5 | 18207.9 | 18907.0 | 19527.7 | 19967.5 | 19314.8 | 15094.2 |
| 60°   | 15829.5 | 15769.2 | 15777.2 | 16898.1 | 19425.2 | 20393.5 | 20779.2 | 20939.9 | 21173.0 | 20188.6 | 15124.3 |
| 62.5° | 16412.1 | 16526.5 | 16916.2 | 18601.6 | 21556.7 | 22299.9 | 22494.8 | 22653.4 | 22380.2 | 20327.2 | 13973.2 |
| 65°   | 17398.3 | 17585.2 | 18515.3 | 20881.6 | 23900.9 | 24696.4 | 24897.2 | 24352.9 | 22571.0 | 18535.3 | 11365.9 |
| 67.5° | 17880.5 | 18221.9 | 19881.3 | 23006.9 | 26174.8 | 27058.7 | 26984.5 | 24463.3 | 20254.9 | 14134.0 | 7294.0  |
| 69°   | 17780.0 | 18143.6 | 20196.6 | 23657.8 | 26930.2 | 27731.6 | 27259.6 | 23111.4 | 17255.8 | 10238.9 | 4477.7  |
| 70°   | 17382.3 | 17749.9 | 20033.9 | 23633.7 | 27026.6 | 27661.3 | 26749.4 | 21442.1 | 14590.1 | 7486.9  | 2800.4  |
| 72.5° | 14515.7 | 14833.0 | 17786.1 | 21361.8 | 24897.2 | 24380.9 | 22378.2 | 14855.2 | 7109.2  | 2039.0  | 630.8   |
| 75°   | 8935.2  | 9112.0  | 12762.0 | 16092.6 | 18804.5 | 17478.8 | 14909.4 | 7390.4  | 2119.3  | 576.6   | 349.5   |
| 77.5° | 4720.8  | 4801.1  | 6986.7  | 9485.7  | 11920.3 | 9863.3  | 7641.5  | 2882.7  | 976.2   | 361.5   | 253.2   |
| 80°   | 2790.3  | 2850.5  | 3762.6  | 4337.0  | 5158.6  | 4308.8  | 3055.4  | 1769.8  | 699.0   | 227.0   | 225.0   |
| 82.5° | 1597.1  | 1635.2  | 2727.9  | 2410.6  | 2032.9  | 1735.6  | 1520.7  | 1677.3  | 419.9   | 152.6   | 233.0   |
| 85°   | 586.6   | 594.6   | 1534.8  | 1834.0  | 1209.3  | 719.2   | 755.3   | 1390.1  | 112.5   | 96.4    | 182.8   |
| 87.5° | 273.1   | 267.1   | 789.5   | 1122.9  | 707.1   | 456.0   | 588.6   | 305.4   | 44.1    | 62.3    | 50.3    |
| 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):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 5042.1  | 5042.1 | 5042.1 | 5042.1 | 5042.1 | 5042.1 | 5042.1 | 5042.1 | 5042.1 | 5042.1 | 5042.1 |
| 2.5°  | 4981.9  | 4907.5 | 4773.0 | 4634.3 | 4493.8 | 4385.2 | 4278.8 | 4194.4 | 4166.3 | 4114.0 | 4118.1 |
| 5°    | 4829.2  | 4692.5 | 4411.4 | 4126.0 | 3828.8 | 3583.7 | 3352.7 | 3165.9 | 3075.5 | 2983.1 | 2983.1 |
| 7.5°  | 4696.6  | 4497.7 | 4057.8 | 3593.7 | 3113.7 | 2709.8 | 2346.4 | 2073.0 | 1922.4 | 1801.9 | 1799.9 |
| 10°   | 4646.4  | 4377.3 | 3762.6 | 3097.6 | 2428.7 | 1878.2 | 1446.4 | 1169.2 | 1026.5 | 934.0  | 930.2  |
| 12.5° | 4668.5  | 4335.0 | 3535.5 | 2639.6 | 1799.9 | 1207.4 | 837.7  | 659.0  | 598.6  | 570.6  | 570.6  |
| 15°   | 4732.8  | 4323.0 | 3308.5 | 2191.6 | 1271.6 | 755.3  | 556.4  | 508.3  | 504.2  | 504.2  | 504.2  |
| 17.5° | 4811.1  | 4327.0 | 3075.5 | 1755.7 | 865.8  | 540.4  | 480.0  | 474.0  | 478.1  | 478.1  | 478.1  |
| 20°   | 4891.4  | 4329.0 | 2824.4 | 1352.0 | 610.6  | 470.1  | 452.0  | 449.9  | 454.0  | 454.0  | 456.0  |
| 22.5° | 4989.9  | 4339.0 | 2573.3 | 1010.4 | 504.2  | 443.9  | 429.9  | 429.9  | 431.9  | 431.9  | 429.9  |
| 25°   | 5102.4  | 4359.1 | 2312.2 | 749.3  | 460.0  | 425.9  | 413.8  | 411.8  | 413.8  | 411.8  | 409.8  |
| 27.5° | 5243.1  | 4387.3 | 2020.9 | 586.6  | 439.9  | 407.7  | 397.7  | 397.7  | 395.7  | 393.8  | 391.7  |
| 30°   | 5419.8  | 4419.4 | 1693.4 | 498.2  | 419.9  | 391.7  | 381.7  | 379.6  | 377.7  | 373.6  | 373.6  |
| 32.5° | 5688.9  | 4489.7 | 1370.0 | 452.0  | 397.7  | 369.7  | 361.5  | 361.5  | 357.6  | 353.6  | 351.6  |
| 35°   | 6102.7  | 4628.3 | 1080.8 | 423.8  | 373.6  | 345.5  | 335.4  | 335.4  | 331.5  | 329.4  | 327.4  |
| 37.5° | 6675.3  | 4839.2 | 839.6  | 397.7  | 349.5  | 319.4  | 309.3  | 307.3  | 303.3  | 299.3  | 297.3  |
| 40°   | 7436.6  | 5100.3 | 660.9  | 373.6  | 325.4  | 293.3  | 285.2  | 281.3  | 273.1  | 267.1  | 267.1  |
| 42.5° | 8392.9  | 5397.7 | 536.4  | 347.6  | 297.3  | 269.3  | 263.2  | 257.1  | 243.1  | 237.1  | 235.0  |
| 45°   | 9393.2  | 5664.9 | 454.0  | 317.4  | 269.3  | 245.1  | 241.0  | 231.0  | 212.9  | 206.9  | 206.9  |
| 47.5° | 10114.3 | 5727.2 | 399.8  | 289.3  | 243.1  | 218.9  | 217.0  | 198.9  | 182.8  | 178.7  | 176.8  |
| 50°   | 10564.4 | 5604.6 | 355.5  | 261.1  | 218.9  | 194.8  | 188.8  | 166.7  | 156.7  | 152.6  | 150.7  |
| 52.5° | 10867.7 | 5385.6 | 319.4  | 237.1  | 196.8  | 172.7  | 158.7  | 142.6  | 134.6  | 130.6  | 130.6  |
| 55°   | 11110.8 | 5076.3 | 283.2  | 214.9  | 178.7  | 154.7  | 134.6  | 122.6  | 114.5  | 110.5  | 110.5  |
| 57.5° | 11179.1 | 4656.4 | 247.0  | 196.8  | 160.7  | 136.6  | 114.5  | 106.4  | 96.4   | 94.4   | 94.4   |
| 60°   | 10682.9 | 3899.1 | 218.9  | 174.9  | 144.7  | 118.5  | 100.4  | 90.3   | 80.3   | 78.3   | 76.4   |
| 62.5° | 9375.1  | 3017.2 | 192.9  | 154.7  | 126.5  | 102.4  | 86.5   | 74.3   | 66.3   | 66.3   | 66.3   |
| 65°   | 7151.3  | 2022.8 | 168.7  | 134.6  | 110.5  | 86.5   | 74.3   | 60.3   | 56.3   | 56.3   | 58.2   |
| 67.5° | 4280.8  | 1100.8 | 144.7  | 114.5  | 94.4   | 72.3   | 62.3   | 52.2   | 50.3   | 52.2   | 52.2   |
| 69°   | 2509.0  | 646.9  | 130.6  | 102.4  | 82.4   | 64.3   | 54.2   | 46.2   | 50.3   | 52.2   | 52.2   |
| 70°   | 1548.7  | 436.0  | 120.5  | 92.5   | 74.3   | 58.2   | 50.3   | 44.1   | 48.2   | 50.3   | 50.3   |
| 72.5° | 431.9   | 225.0  | 96.4   | 72.3   | 60.3   | 48.2   | 40.2   | 40.2   | 46.2   | 48.2   | 48.2   |
| 75°   | 281.3   | 166.7  | 74.3   | 54.2   | 46.2   | 38.1   | 34.2   | 38.1   | 44.1   | 46.2   | 46.2   |
| 77.5° | 233.0   | 136.6  | 60.3   | 44.1   | 38.1   | 36.2   | 32.1   | 34.2   | 40.2   | 42.2   | 42.2   |
| 80°   | 212.9   | 96.4   | 48.2   | 40.2   | 34.2   | 32.1   | 30.1   | 28.1   | 36.2   | 38.1   | 38.1   |
| 82.5° | 202.9   | 76.4   | 42.2   | 36.2   | 32.1   | 28.1   | 26.1   | 28.1   | 32.1   | 34.2   | 36.2   |
| 85°   | 126.5   | 50.3   | 38.1   | 34.2   | 28.1   | 26.1   | 26.1   | 26.1   | 30.1   | 32.1   | 32.1   |
| 87.5° | 46.2    | 40.2   | 34.2   | 28.1   | 24.1   | 24.1   | 24.1   | 24.1   | 26.1   | 30.1   | 30.1   |
| 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)