

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: P191052

Luminaire Tested: **GLEON-AF-04-LED-E1-SL2-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191052  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-04-LED-E1-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20344.4 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 225  
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

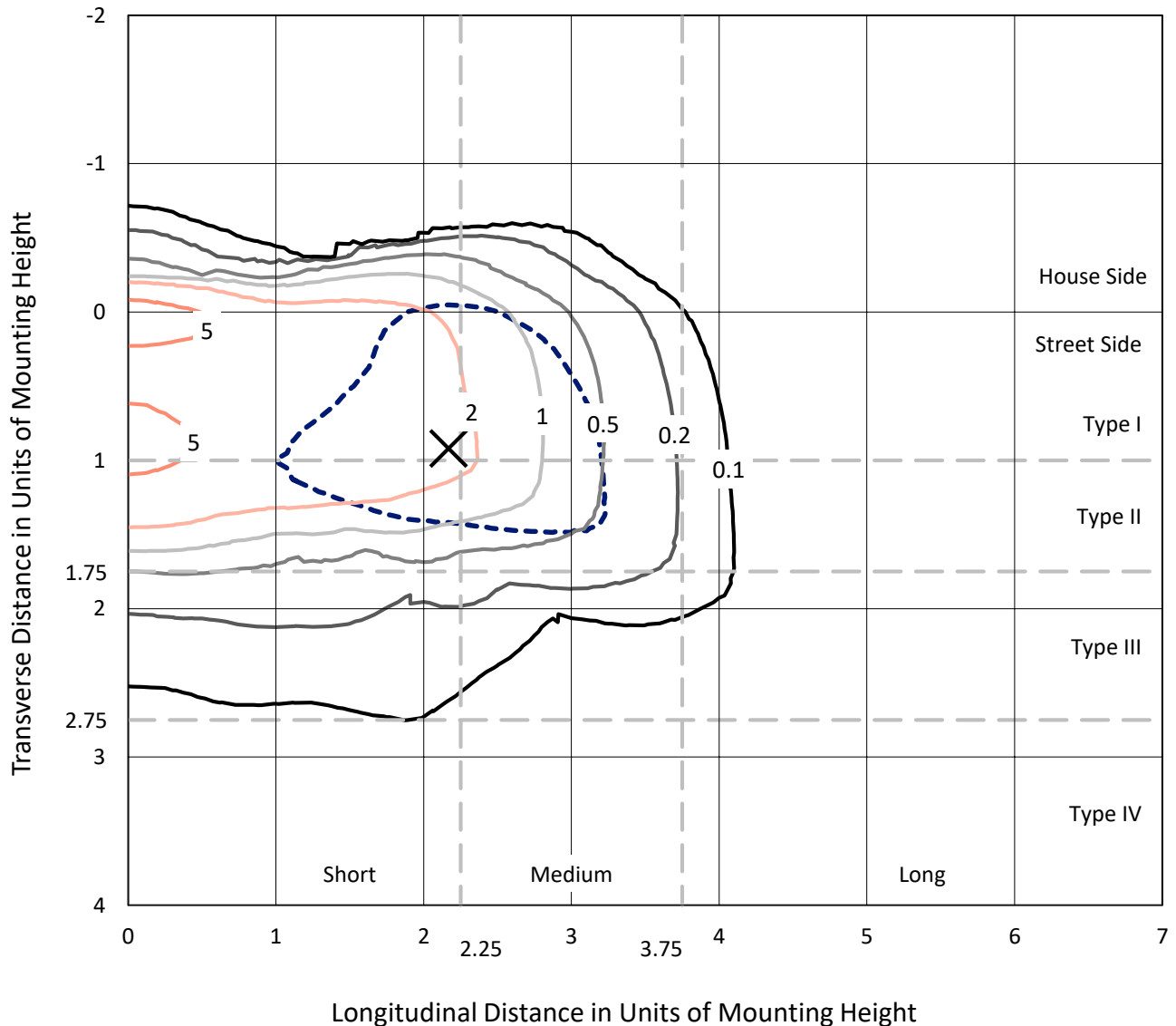


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### Iso-Footcandle Lines of Horizontal Illumination

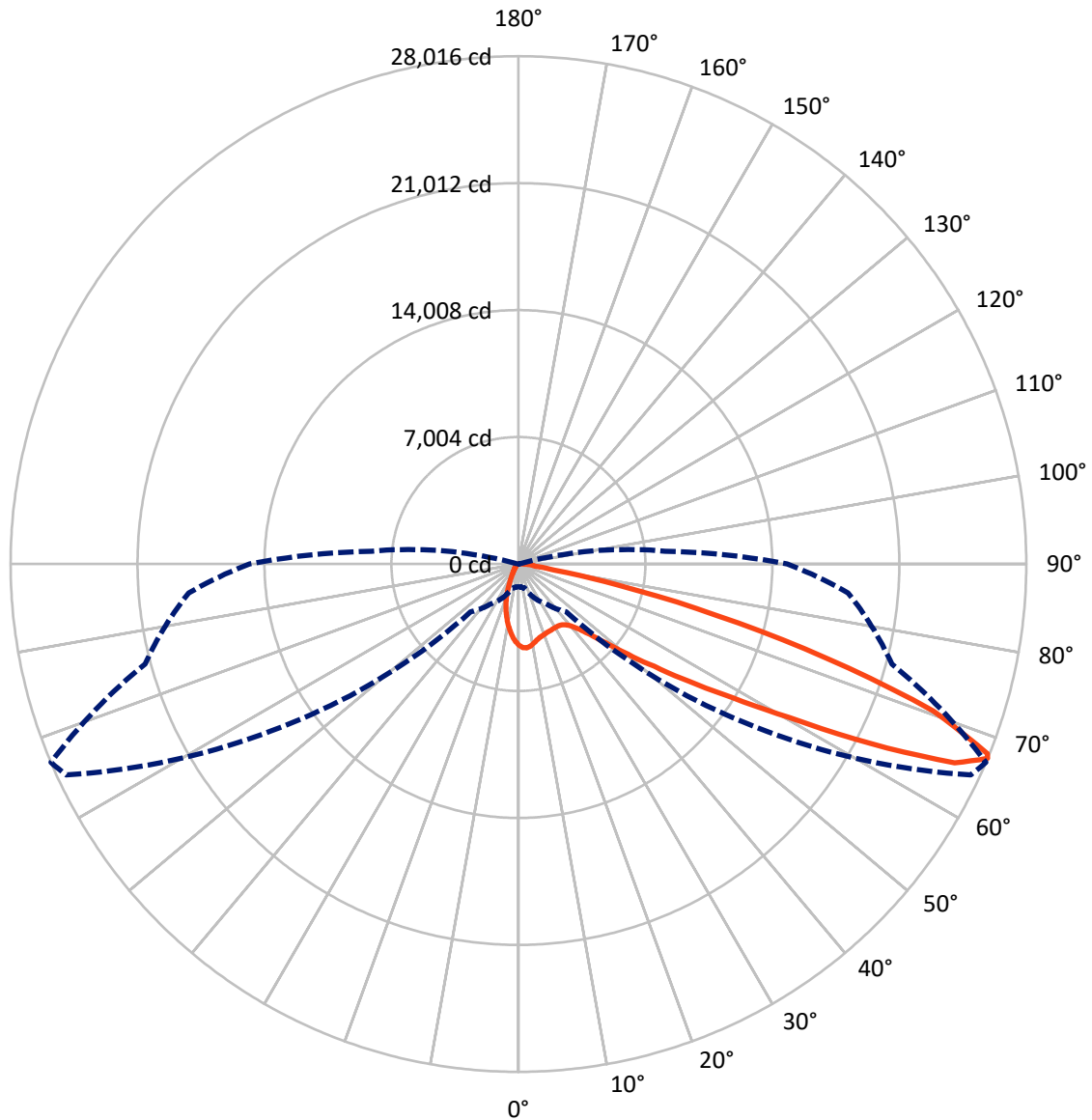
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2112.3   | 0.0    | 2112.3  |
|                    | % Fixture | 10.4     | 0.0    | 10.4    |
| <b>Street Side</b> | Lumens    | 18232.1  | 0.0    | 18232.1 |
|                    | % Fixture | 89.6     | 0.0    | 89.6    |
| <b>Total</b>       | Lumens    | 20344.4  | 0.0    | 20344.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 365.1   | 1.8       |
| 10°-20°   | 777.0   | 3.8       |
| 20°-30°   | 1129.7  | 5.6       |
| 30°-40°   | 1762.4  | 8.7       |
| 40°-50°   | 3122.0  | 15.3      |
| 50°-60°   | 4940.3  | 24.3      |
| 60°-70°   | 5658.4  | 27.8      |
| 70°-80°   | 2347.1  | 11.5      |
| 80°-90°   | 242.4   | 1.2       |
| 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°    | 20344.4 | 100.0     |
| 0°-180°   | 20344.4 | 100.0     |

**Coefficient of Utilization**



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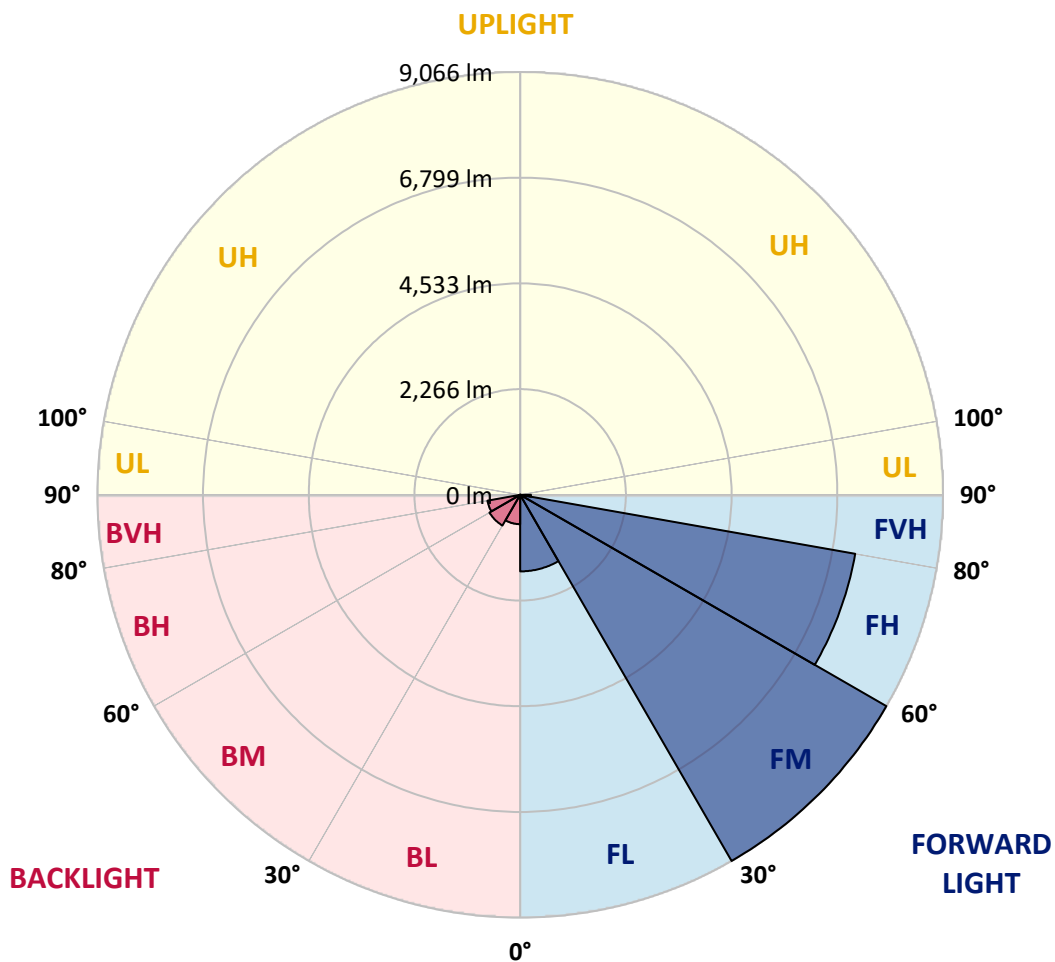
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1641.5 | 8.1       |                         |      |         |
| FM (30°-60°)   | 9065.5 | 44.6      |                         |      |         |
| FH (60°-80°)   | 7293.5 | 35.9      |                         |      | G3/7500 |
| FVH (80°-90°)  | 231.5  | 1.1       |                         |      | G3/500  |
| BL (0°-30°)    | 630.3  | 3.1       | B2/1000                 |      |         |
| BM (30°-60°)   | 759.2  | 3.7       | B1/1000                 |      |         |
| BH (60°-80°)   | 711.9  | 3.5       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 10.9   | 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-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°    | 35°     | 45°     | 55°     | 65°     | 67°     | 75°     | 85°     |
|-------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4486.7  | 4486.7  | 4486.7  | 4486.7 | 4486.7  | 4486.7  | 4486.7  | 4486.7  | 4486.7  | 4486.7  | 4486.7  |
| 2.5°  | 4638.6  | 4648.1  | 4646.9  | 4654.0 | 4670.6  | 4671.8  | 4655.2  | 4623.1  | 4616.1  | 4574.5  | 4502.1  |
| 5°    | 4277.9  | 4305.2  | 4321.8  | 4389.4 | 4465.4  | 4556.7  | 4625.6  | 4650.4  | 4646.9  | 4617.2  | 4508.0  |
| 7.5°  | 3866.0  | 3893.4  | 3912.4  | 3991.9 | 4092.7  | 4249.3  | 4428.6  | 4575.7  | 4588.8  | 4620.8  | 4503.3  |
| 10°   | 3592.0  | 3596.7  | 3622.8  | 3698.8 | 3804.4  | 3964.5  | 4178.1  | 4435.7  | 4474.8  | 4592.3  | 4491.5  |
| 12.5° | 3366.5  | 3370.1  | 3404.5  | 3486.3 | 3599.0  | 3760.5  | 3984.7  | 4282.6  | 4343.1  | 4556.7  | 4489.1  |
| 15°   | 3206.3  | 3219.3  | 3250.2  | 3335.6 | 3455.5  | 3615.7  | 3845.9  | 4169.9  | 4242.3  | 4543.6  | 4510.4  |
| 17.5° | 3152.9  | 3167.2  | 3176.7  | 3238.4 | 3347.5  | 3504.1  | 3740.3  | 4096.3  | 4178.1  | 4550.8  | 4551.9  |
| 20°   | 3208.7  | 3219.3  | 3198.1  | 3213.4 | 3281.1  | 3421.1  | 3651.3  | 4033.4  | 4130.7  | 4559.1  | 4605.3  |
| 22.5° | 3416.3  | 3421.1  | 3363.0  | 3295.3 | 3283.5  | 3360.6  | 3581.2  | 3983.6  | 4088.0  | 4581.6  | 4668.2  |
| 25°   | 3772.3  | 3764.0  | 3669.1  | 3523.1 | 3385.5  | 3349.9  | 3539.7  | 3952.7  | 4066.6  | 4605.3  | 4733.5  |
| 27.5° | 4201.9  | 4213.7  | 4083.2  | 3870.8 | 3608.6  | 3421.1  | 3533.8  | 3939.7  | 4057.1  | 4622.0  | 4790.5  |
| 30°   | 4724.0  | 4740.7  | 4591.1  | 4324.1 | 3948.0  | 3596.7  | 3588.4  | 3937.2  | 4051.2  | 4611.3  | 4795.2  |
| 32.5° | 5256.8  | 5277.0  | 5159.6  | 4884.2 | 4401.2  | 3891.0  | 3711.8  | 3963.4  | 4063.1  | 4574.5  | 4768.0  |
| 35°   | 5814.6  | 5843.0  | 5764.7  | 5528.5 | 5015.9  | 4315.8  | 3928.9  | 4042.9  | 4118.8  | 4571.0  | 4740.7  |
| 37.5° | 6584.7  | 6610.8  | 6463.6  | 6213.3 | 5759.9  | 4885.4  | 4277.9  | 4192.5  | 4250.6  | 4627.9  | 4747.7  |
| 40°   | 7734.5  | 7731.0  | 7351.2  | 6967.9 | 6577.6  | 5609.2  | 4768.0  | 4462.9  | 4492.6  | 4800.0  | 4835.6  |
| 42.5° | 8987.6  | 8981.7  | 8420.4  | 7837.7 | 7485.3  | 6500.4  | 5412.3  | 4930.5  | 4910.4  | 5116.8  | 5063.4  |
| 45°   | 9953.6  | 9952.4  | 9494.3  | 8838.1 | 8578.3  | 7523.3  | 6245.3  | 5580.8  | 5549.9  | 5631.9  | 5483.5  |
| 47.5° | 10365.4 | 10372.4 | 10142.3 | 9680.6 | 9789.8  | 8906.9  | 7295.5  | 6522.9  | 6476.7  | 6443.5  | 6218.0  |
| 50°   | 10045.0 | 10059.2 | 10078.2 | 9988.0 | 10678.6 | 10766.5 | 8704.1  | 7850.8  | 7828.3  | 7680.0  | 7327.5  |
| 52.5° | 8998.3  | 9070.7  | 9293.8  | 9579.7 | 10987.1 | 12551.1 | 10912.4 | 9500.2  | 9379.2  | 9221.4  | 8833.4  |
| 55°   | 7234.9  | 7314.5  | 7738.1  | 8432.3 | 10527.9 | 13723.5 | 14007.2 | 11626.8 | 11425.0 | 10954.0 | 10393.8 |
| 57.5° | 4788.1  | 4911.5  | 5526.2  | 6409.1 | 9194.1  | 13912.2 | 17094.8 | 14578.0 | 13875.4 | 12585.6 | 11954.2 |
| 60°   | 2637.9  | 2756.5  | 3423.5  | 4223.3 | 6640.5  | 12979.5 | 19171.4 | 18420.3 | 17179.0 | 14409.4 | 13849.3 |
| 62.5° | 1624.5  | 1688.6  | 2181.0  | 2925.1 | 3982.3  | 10244.3 | 19601.0 | 23248.7 | 21811.7 | 16757.8 | 16138.4 |
| 65°   | 1293.4  | 1320.7  | 1561.6  | 2391.0 | 2855.1  | 6093.4  | 18213.8 | 26929.7 | 26450.3 | 19601.0 | 18187.7 |
| 67°   | 1255.5  | 1266.1  | 1380.1  | 2052.9 | 2691.3  | 3735.5  | 15259.1 | 27528.9 | 28015.5 | 21321.7 | 18251.8 |
| 67.5° | 1263.8  | 1275.6  | 1383.6  | 1959.2 | 2686.6  | 3432.9  | 14240.9 | 27292.8 | 27907.5 | 21458.1 | 17968.1 |
| 70°   | 1218.6  | 1255.5  | 1584.1  | 1957.9 | 2554.8  | 2852.7  | 8528.4  | 23647.5 | 24287.0 | 19938.0 | 15246.0 |
| 72.5° | 431.9   | 434.3   | 684.7   | 1584.1 | 2777.9  | 2883.6  | 4282.6  | 17335.6 | 17809.2 | 15251.9 | 10991.9 |
| 75°   | 256.4   | 218.3   | 227.8   | 450.9  | 2654.6  | 2800.4  | 2470.6  | 11077.3 | 11254.1 | 8739.7  | 5566.6  |
| 77.5° | 176.8   | 154.3   | 159.0   | 199.4  | 1011.0  | 2761.4  | 1962.7  | 5776.6  | 5587.9  | 3065.1  | 1185.5  |
| 80°   | 100.9   | 89.0    | 94.9    | 174.4  | 367.9   | 2576.2  | 1851.1  | 2342.5  | 1997.1  | 519.8   | 327.5   |
| 82.5° | 53.4    | 45.1    | 54.6    | 143.6  | 256.4   | 1605.5  | 1854.7  | 1132.1  | 897.1   | 175.6   | 223.1   |
| 85°   | 19.0    | 15.4    | 26.1    | 98.5   | 170.8   | 492.4   | 1719.5  | 951.7   | 747.6   | 85.4    | 169.7   |
| 87.5° | 3.6     | 3.6     | 10.6    | 40.3   | 68.8    | 150.7   | 1016.9  | 564.9   | 378.5   | 51.0    | 116.3   |
| 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°    | 4486.7  | 4486.7 | 4486.7 | 4486.7 | 4486.7 | 4486.7 | 4486.7 | 4486.7 | 4486.7 | 4486.7 | 4486.7 |
| 2.5°  | 4472.4  | 4421.4 | 4352.7 | 4268.4 | 4168.7 | 4080.9 | 4015.6 | 3948.0 | 3933.8 | 3910.0 | 3906.4 |
| 5°    | 4442.8  | 4355.0 | 4184.1 | 3988.3 | 3779.5 | 3590.8 | 3437.7 | 3301.3 | 3240.7 | 3188.5 | 3182.6 |
| 7.5°  | 4398.9  | 4267.1 | 3976.4 | 3660.8 | 3334.5 | 3037.9 | 2786.2 | 2608.2 | 2444.4 | 2366.2 | 2354.3 |
| 10°   | 4347.8  | 4159.2 | 3742.7 | 3304.8 | 2853.8 | 2435.0 | 2061.2 | 1747.9 | 1558.1 | 1445.3 | 1431.1 |
| 12.5° | 4300.4  | 4053.5 | 3504.1 | 2935.8 | 2336.5 | 1776.5 | 1295.8 | 996.8  | 797.4  | 716.8  | 707.3  |
| 15°   | 4277.9  | 3968.1 | 3281.1 | 2558.4 | 1795.4 | 1130.9 | 708.4  | 548.2  | 482.9  | 464.0  | 462.8  |
| 17.5° | 4275.5  | 3895.7 | 3062.7 | 2168.0 | 1257.8 | 657.5  | 461.6  | 421.3  | 408.2  | 403.5  | 403.5  |
| 20°   | 4274.3  | 3827.0 | 2844.4 | 1763.4 | 798.6  | 437.8  | 384.4  | 375.0  | 365.5  | 359.6  | 359.6  |
| 22.5° | 4287.4  | 3765.2 | 2616.5 | 1350.4 | 503.1  | 354.8  | 338.2  | 328.7  | 316.8  | 308.5  | 307.3  |
| 25°   | 4300.4  | 3717.7 | 2384.0 | 961.2  | 364.3  | 308.5  | 292.0  | 278.9  | 262.3  | 251.5  | 250.4  |
| 27.5° | 4302.7  | 3658.4 | 2134.8 | 643.1  | 304.9  | 269.3  | 248.0  | 227.8  | 208.9  | 198.1  | 197.0  |
| 30°   | 4267.1  | 3558.7 | 1858.3 | 434.3  | 269.3  | 233.7  | 205.3  | 183.9  | 166.1  | 157.8  | 157.8  |
| 32.5° | 4197.2  | 3435.4 | 1554.5 | 327.5  | 239.7  | 200.5  | 169.7  | 149.6  | 137.7  | 134.1  | 132.9  |
| 35°   | 4134.3  | 3302.4 | 1242.4 | 277.6  | 214.8  | 169.7  | 138.8  | 125.8  | 118.7  | 117.4  | 116.3  |
| 37.5° | 4097.5  | 3195.6 | 949.3  | 251.5  | 191.1  | 142.4  | 117.4  | 108.0  | 104.4  | 102.1  | 103.2  |
| 40°   | 4126.0  | 3106.6 | 701.3  | 230.2  | 167.4  | 118.7  | 99.6   | 94.9   | 91.3   | 90.2   | 90.2   |
| 42.5° | 4250.6  | 3091.3 | 520.9  | 211.2  | 144.7  | 98.5   | 86.6   | 83.1   | 80.7   | 79.5   | 80.7   |
| 45°   | 4578.1  | 3186.2 | 404.7  | 193.4  | 122.2  | 83.1   | 73.6   | 72.4   | 71.2   | 71.2   | 71.2   |
| 47.5° | 5070.6  | 3382.0 | 337.0  | 173.3  | 102.1  | 71.2   | 64.0   | 62.9   | 61.7   | 62.9   | 62.9   |
| 50°   | 5904.8  | 3740.3 | 301.4  | 153.0  | 84.3   | 60.6   | 54.6   | 54.6   | 54.6   | 54.6   | 55.8   |
| 52.5° | 7173.2  | 4445.1 | 277.6  | 132.9  | 68.8   | 51.0   | 46.2   | 46.2   | 47.5   | 47.5   | 48.7   |
| 55°   | 8586.5  | 5380.2 | 256.4  | 112.7  | 58.1   | 42.8   | 38.0   | 39.2   | 40.3   | 41.5   | 41.5   |
| 57.5° | 10119.7 | 6416.2 | 238.6  | 92.6   | 49.8   | 34.4   | 32.0   | 33.2   | 34.4   | 36.8   | 36.8   |
| 60°   | 11969.6 | 7537.6 | 212.4  | 72.4   | 41.5   | 27.3   | 25.0   | 27.3   | 30.9   | 33.2   | 34.4   |
| 62.5° | 14001.2 | 8622.1 | 179.2  | 57.0   | 34.4   | 21.4   | 20.2   | 25.0   | 29.7   | 32.0   | 33.2   |
| 65°   | 15389.6 | 8962.7 | 137.7  | 46.2   | 26.1   | 15.4   | 16.6   | 22.5   | 28.4   | 32.0   | 32.0   |
| 67°   | 14827.2 | 8126.1 | 112.7  | 39.2   | 21.4   | 11.9   | 15.4   | 22.5   | 28.4   | 30.9   | 32.0   |
| 67.5° | 14436.7 | 7798.7 | 108.0  | 38.0   | 20.2   | 11.9   | 15.4   | 22.5   | 28.4   | 32.0   | 32.0   |
| 70°   | 11746.5 | 5858.4 | 90.2   | 28.4   | 16.6   | 10.6   | 13.1   | 21.4   | 27.3   | 30.9   | 30.9   |
| 72.5° | 8161.7  | 3612.1 | 80.7   | 20.2   | 14.2   | 9.5    | 11.9   | 20.2   | 26.1   | 29.7   | 30.9   |
| 75°   | 3880.4  | 1307.6 | 68.8   | 15.4   | 13.1   | 8.3    | 10.6   | 20.2   | 26.1   | 29.7   | 29.7   |
| 77.5° | 791.5   | 303.8  | 55.8   | 13.1   | 10.6   | 8.3    | 9.5    | 19.0   | 25.0   | 28.4   | 28.4   |
| 80°   | 259.8   | 117.4  | 41.5   | 11.9   | 10.6   | 8.3    | 9.5    | 17.8   | 25.0   | 27.3   | 28.4   |
| 82.5° | 187.5   | 59.3   | 27.3   | 11.9   | 10.6   | 8.3    | 8.3    | 17.8   | 23.7   | 27.3   | 27.3   |
| 85°   | 143.6   | 41.5   | 17.8   | 11.9   | 10.6   | 8.3    | 8.3    | 16.6   | 22.5   | 26.1   | 26.1   |
| 87.5° | 94.9    | 16.6   | 14.2   | 11.9   | 10.6   | 8.3    | 8.3    | 16.6   | 21.4   | 25.0   | 26.1   |
| 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)