

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: P194138

Luminaire Tested: **GLEON-AF-10-LED-E1-5MQ-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194138  
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-10-LED-E1-5MQ-7060-600  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40779 lumens  
Efficiency: N/A  
Efficacy: 126.3 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 - G4

Input Watts (W): 323  
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

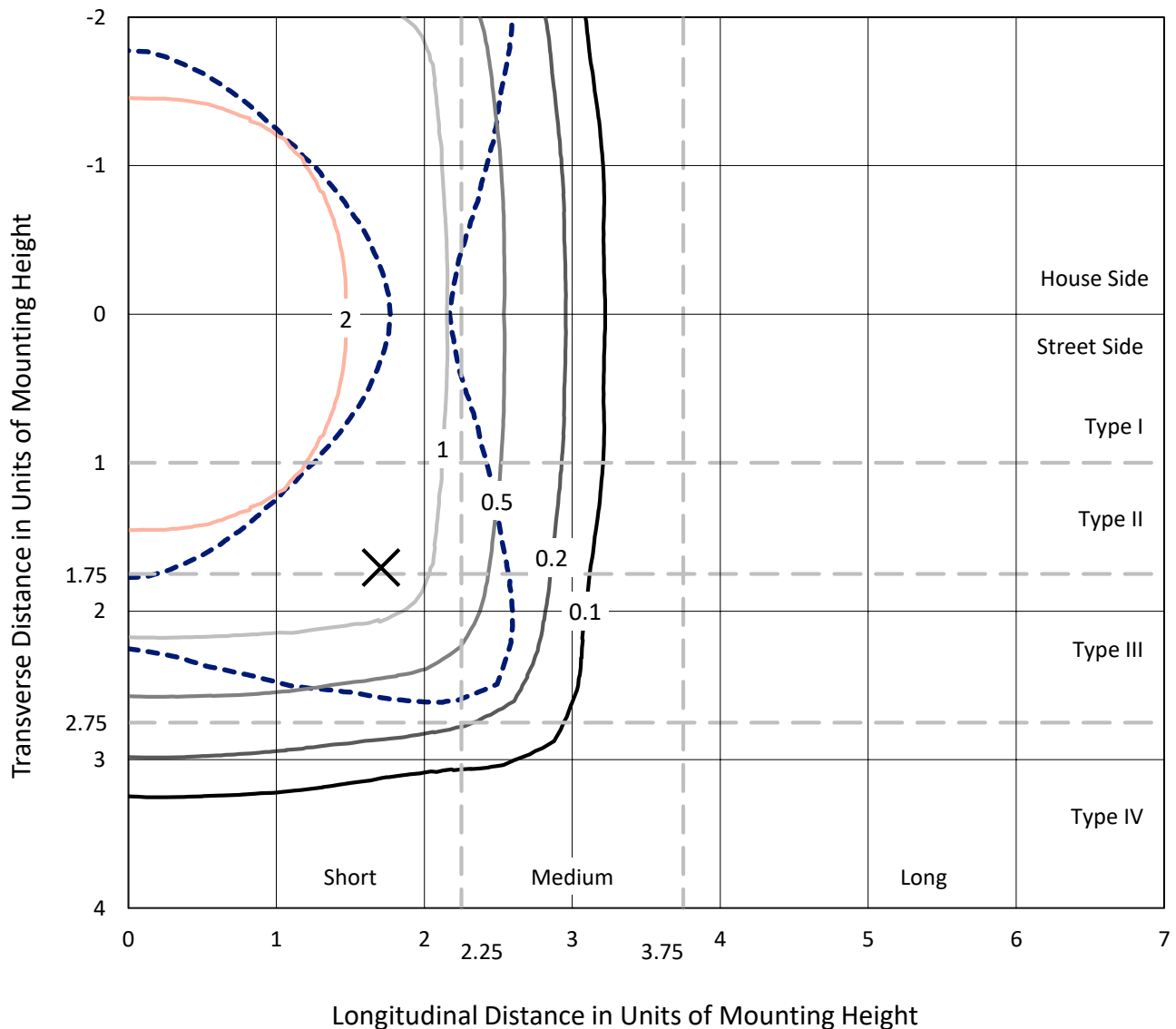


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

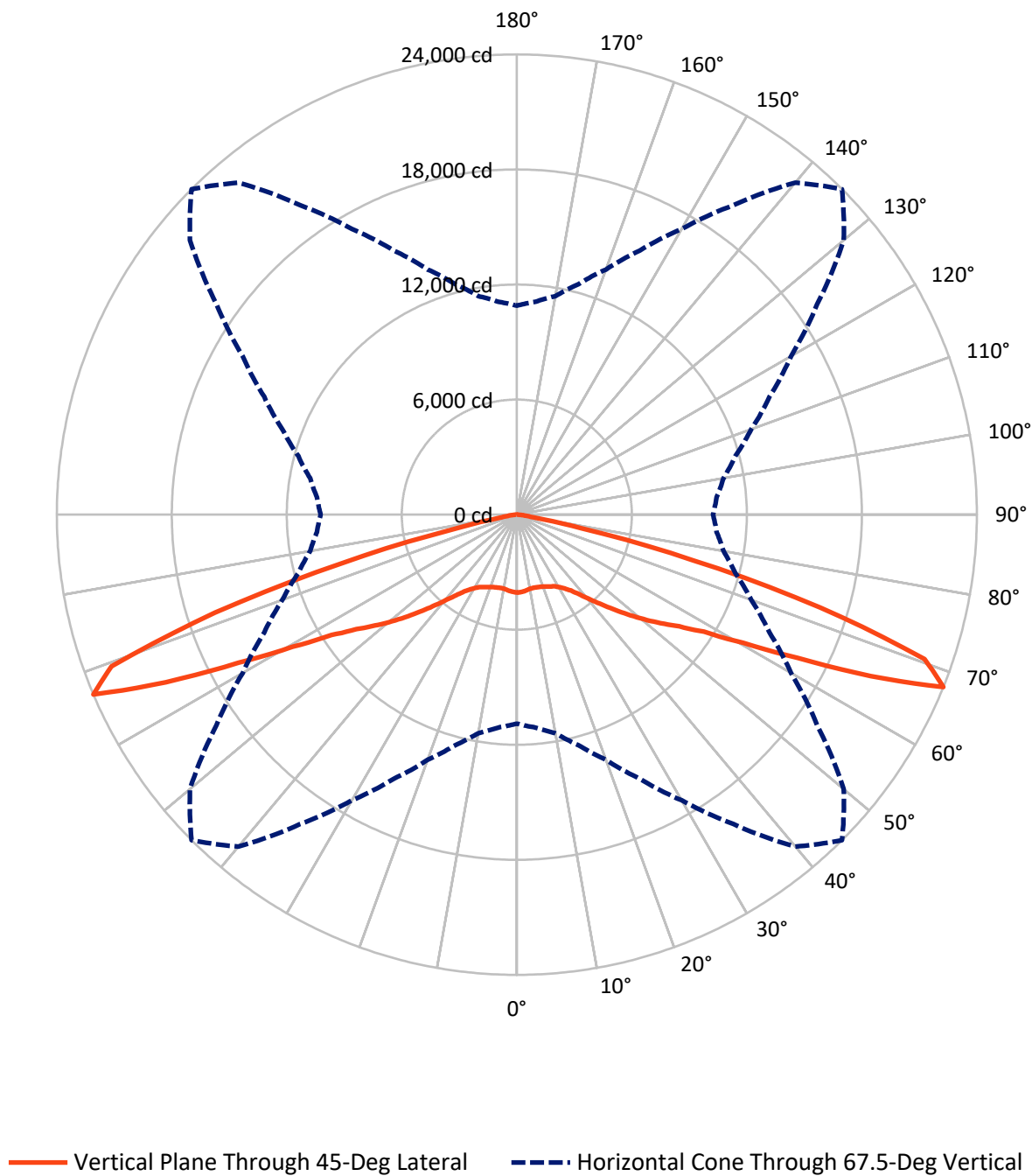


Based on 30 foot mounting height. Maximum calculated value = 4.5 fc  
 Type V - Short - Full Cutoff

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## Luminous Intensity Polar Plot



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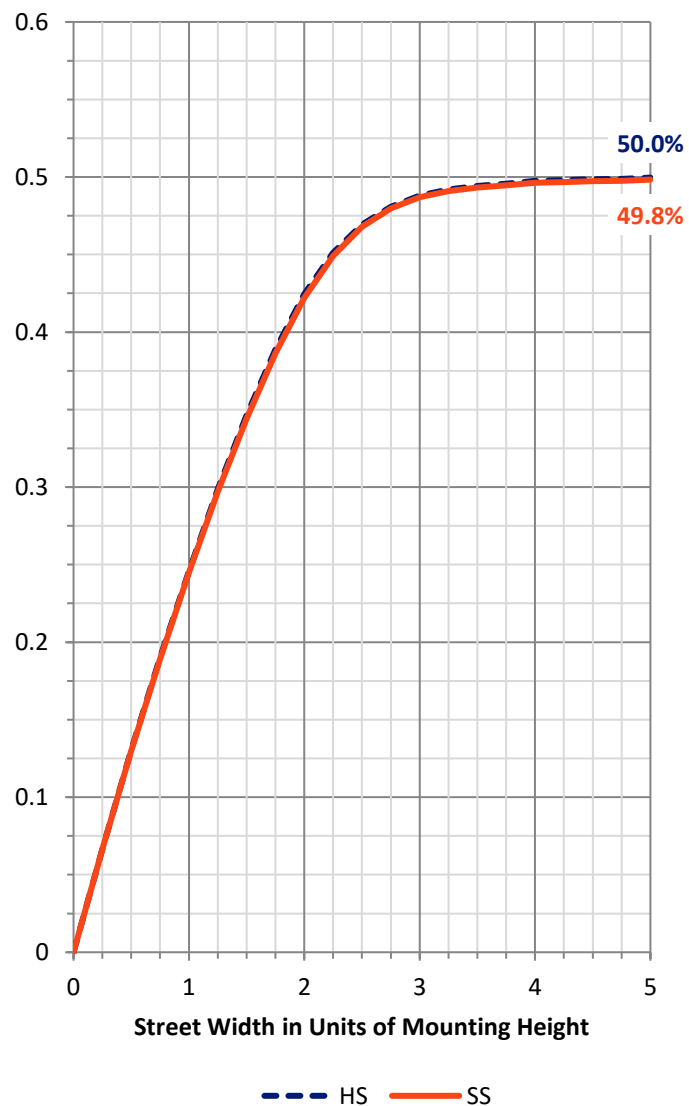
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 20389.5  | 0.0    | 20389.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 20389.5  | 0.0    | 20389.5 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 40779.0  | 0.0    | 40779.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 380.4   | 0.9       |
| 10°-20°   | 1103.7  | 2.7       |
| 20°-30°   | 1876.3  | 4.6       |
| 30°-40°   | 3067.1  | 7.5       |
| 40°-50°   | 5475.4  | 13.4      |
| 50°-60°   | 9231.7  | 22.6      |
| 60°-70°   | 14326.3 | 35.1      |
| 70°-80°   | 5033.6  | 12.3      |
| 80°-90°   | 284.5   | 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°    | 40779.0 | 100.0     |
| 0°-180°   | 40779.0 | 100.0     |

**Coefficient of Utilization**



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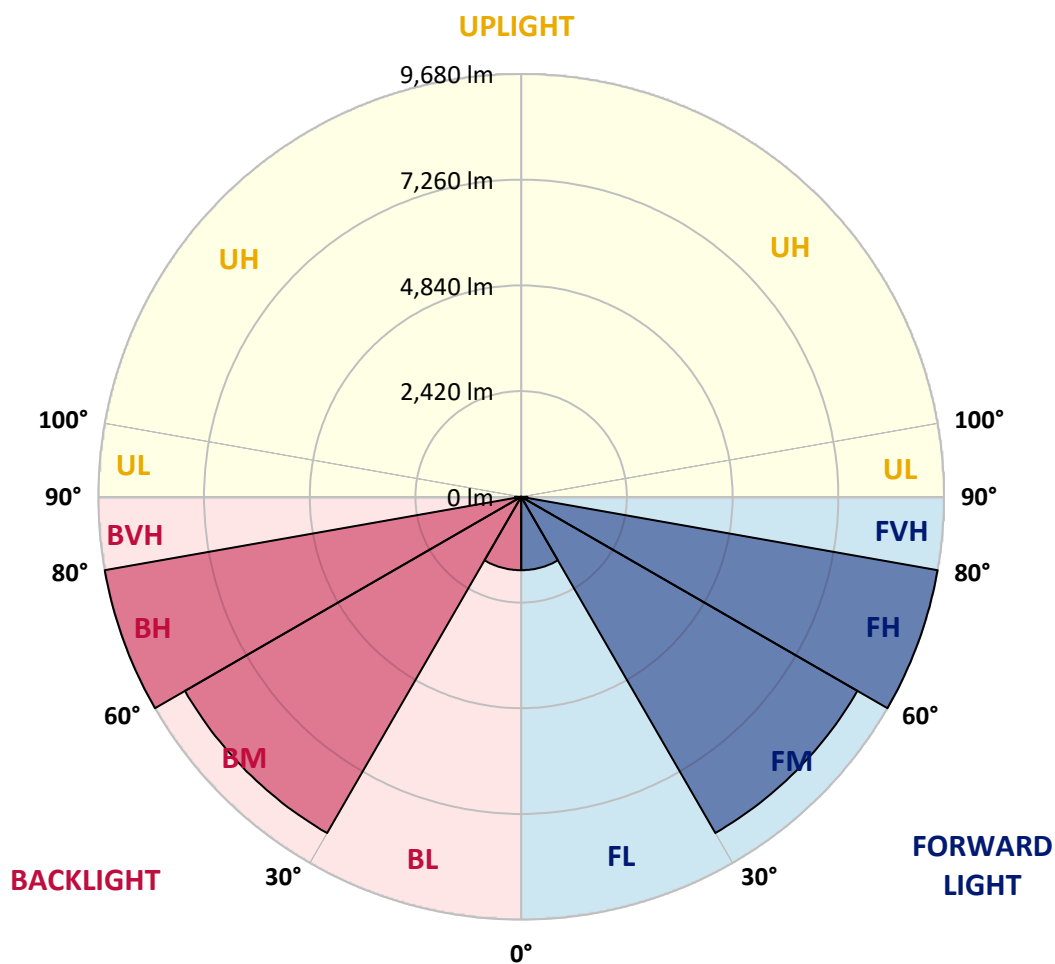
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1680.2 | 4.1       |                         |      |          |
| FM   | (30°-60°)   | 8887.2 | 21.8      |                         |      |          |
| FH   | (60°-80°)   | 9679.9 | 23.7      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 142.2  | 0.3       |                         |      | G2/225   |
| BL   | (0°-30°)    | 1680.2 | 4.1       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 8887.2 | 21.8      | B5                      |      |          |
| BH   | (60°-80°)   | 9679.9 | 23.7      | B5                      |      | G4/12000 |
| BVH  | (80°-90°)   | 142.2  | 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°    | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  |
| 2.5°  | 4048.8  | 4052.5  | 4052.5  | 4052.5  | 4050.7  | 4050.7  | 4046.9  | 4050.7  | 4048.8  | 4043.2  | 4045.0  |
| 5°    | 4015.0  | 4018.8  | 4018.8  | 4016.9  | 4022.5  | 4020.7  | 4015.0  | 4018.8  | 4016.9  | 4013.2  | 4015.0  |
| 7.5°  | 3966.3  | 3971.9  | 3971.9  | 3970.0  | 3975.7  | 3973.8  | 3970.0  | 3971.9  | 3971.9  | 3966.3  | 3966.3  |
| 10°   | 3911.9  | 3915.6  | 3915.6  | 3913.8  | 3923.2  | 3923.2  | 3921.3  | 3926.9  | 3928.8  | 3923.2  | 3919.4  |
| 12.5° | 3861.3  | 3866.9  | 3866.9  | 3874.4  | 3883.8  | 3887.5  | 3896.9  | 3904.4  | 3911.9  | 3910.0  | 3902.5  |
| 15°   | 3831.3  | 3835.0  | 3842.5  | 3851.9  | 3866.9  | 3880.0  | 3895.0  | 3911.9  | 3926.9  | 3930.7  | 3919.4  |
| 17.5° | 3812.5  | 3818.1  | 3829.4  | 3842.5  | 3863.1  | 3885.6  | 3908.1  | 3930.7  | 3951.3  | 3958.8  | 3945.7  |
| 20°   | 3806.9  | 3810.6  | 3821.9  | 3844.4  | 3872.5  | 3906.3  | 3938.2  | 3964.4  | 3992.5  | 4001.9  | 3992.5  |
| 22.5° | 3818.1  | 3825.6  | 3838.8  | 3865.0  | 3902.5  | 3945.7  | 3983.2  | 4018.8  | 4054.4  | 4071.3  | 4058.2  |
| 25°   | 3868.8  | 3876.3  | 3893.1  | 3926.9  | 3968.2  | 4013.2  | 4056.3  | 4097.6  | 4129.4  | 4146.3  | 4136.9  |
| 27.5° | 3962.5  | 3971.9  | 3992.5  | 4026.3  | 4071.3  | 4120.1  | 4166.9  | 4200.7  | 4227.0  | 4232.6  | 4221.3  |
| 30°   | 4103.2  | 4123.8  | 4148.2  | 4185.7  | 4238.2  | 4279.5  | 4326.3  | 4356.3  | 4388.2  | 4388.2  | 4378.9  |
| 32.5° | 4322.6  | 4343.2  | 4369.5  | 4405.1  | 4446.4  | 4491.4  | 4532.6  | 4558.9  | 4592.6  | 4594.5  | 4572.0  |
| 35°   | 4650.8  | 4660.1  | 4682.7  | 4705.2  | 4742.7  | 4782.0  | 4817.7  | 4834.6  | 4862.7  | 4864.6  | 4843.9  |
| 37.5° | 5084.0  | 5085.8  | 5100.8  | 5108.3  | 5142.1  | 5185.2  | 5219.0  | 5230.2  | 5256.5  | 5252.7  | 5232.1  |
| 40°   | 5588.4  | 5597.8  | 5603.4  | 5614.7  | 5650.3  | 5691.6  | 5727.2  | 5732.8  | 5761.0  | 5755.3  | 5729.1  |
| 42.5° | 6171.6  | 6175.4  | 6207.3  | 6224.2  | 6257.9  | 6278.5  | 6323.5  | 6329.2  | 6362.9  | 6347.9  | 6317.9  |
| 45°   | 6826.1  | 6859.9  | 6889.9  | 6923.6  | 6959.3  | 6983.7  | 7019.3  | 7011.8  | 7034.3  | 7011.8  | 6994.9  |
| 47.5° | 7514.4  | 7538.8  | 7606.3  | 7658.8  | 7716.9  | 7737.5  | 7788.2  | 7765.7  | 7788.2  | 7756.3  | 7750.7  |
| 50°   | 8272.0  | 8315.1  | 8373.3  | 8433.3  | 8495.2  | 8528.9  | 8594.6  | 8566.4  | 8596.4  | 8566.4  | 8549.5  |
| 52.5° | 9018.4  | 9029.6  | 9157.1  | 9245.3  | 9331.5  | 9370.9  | 9410.3  | 9397.2  | 9399.1  | 9397.2  | 9380.3  |
| 55°   | 9727.2  | 9753.5  | 9881.0  | 10001.0 | 10151.1 | 10261.7 | 10329.2 | 10321.7 | 10304.8 | 10288.0 | 10259.8 |
| 57.5° | 10526.1 | 10552.4 | 10698.7 | 10846.8 | 11017.5 | 11175.0 | 11311.9 | 11452.5 | 11506.9 | 11521.9 | 11460.0 |
| 60°   | 11606.3 | 11604.4 | 11799.5 | 11979.5 | 12223.3 | 12457.7 | 12757.7 | 13063.4 | 13414.1 | 13577.3 | 13361.6 |
| 62.5° | 12705.2 | 12750.2 | 13031.5 | 13350.3 | 13852.9 | 14342.4 | 14895.6 | 15439.4 | 15994.5 | 16446.5 | 15966.4 |
| 65°   | 12574.0 | 12746.5 | 13164.7 | 13886.7 | 14815.0 | 15917.6 | 17110.3 | 18372.4 | 19512.6 | 20296.5 | 19417.0 |
| 67.5° | 10897.4 | 11143.1 | 11568.8 | 12446.4 | 13607.3 | 15197.5 | 17200.4 | 19696.4 | 22597.5 | 24000.2 | 22261.8 |
| 70°   | 7898.8  | 8176.4  | 8622.7  | 9479.7  | 10629.3 | 12140.8 | 14316.1 | 17312.9 | 21153.5 | 22567.5 | 20652.8 |
| 72.5° | 3930.7  | 4080.7  | 4356.3  | 4902.1  | 5772.2  | 6998.7  | 8971.5  | 11852.0 | 15250.0 | 16547.7 | 14798.1 |
| 75°   | 1335.2  | 1404.6  | 1451.5  | 1629.6  | 1905.3  | 2387.3  | 3368.1  | 5181.5  | 7904.4  | 9475.9  | 7791.9  |
| 77.5° | 770.8   | 772.6   | 804.5   | 836.4   | 883.3   | 935.8   | 1067.1  | 1400.9  | 2422.9  | 3441.2  | 2507.3  |
| 80°   | 498.8   | 497.0   | 523.2   | 547.6   | 579.5   | 605.7   | 613.2   | 648.9   | 748.2   | 887.0   | 793.3   |
| 82.5° | 258.8   | 290.7   | 348.8   | 380.7   | 440.7   | 451.9   | 436.9   | 423.8   | 448.2   | 465.1   | 476.3   |
| 85°   | 142.5   | 123.8   | 185.7   | 240.0   | 266.3   | 270.0   | 270.0   | 255.0   | 264.4   | 258.8   | 281.3   |
| 87.5° | 65.6    | 60.0    | 73.1    | 118.1   | 125.6   | 106.9   | 112.5   | 99.4    | 71.3    | 69.4    | 78.8    |
| 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°    | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  | 4063.8  |
| 2.5°  | 4045.0  | 4046.9  | 4046.9  | 4052.5  | 4054.4  | 4058.2  | 4061.9  | 4063.8  |
| 5°    | 4013.2  | 4018.8  | 4015.0  | 4020.7  | 4020.7  | 4024.4  | 4024.4  | 4026.3  |
| 7.5°  | 3966.3  | 3971.9  | 3971.9  | 3971.9  | 3970.0  | 3975.7  | 3975.7  | 3975.7  |
| 10°   | 3917.5  | 3921.3  | 3919.4  | 3915.6  | 3911.9  | 3917.5  | 3915.6  | 3913.8  |
| 12.5° | 3902.5  | 3893.1  | 3885.6  | 3881.9  | 3874.4  | 3876.3  | 3870.6  | 3870.6  |
| 15°   | 3911.9  | 3895.0  | 3881.9  | 3876.3  | 3868.8  | 3865.0  | 3861.3  | 3863.1  |
| 17.5° | 3936.3  | 3915.6  | 3898.8  | 3889.4  | 3880.0  | 3874.4  | 3866.9  | 3868.8  |
| 20°   | 3979.4  | 3955.0  | 3930.7  | 3911.9  | 3895.0  | 3885.6  | 3880.0  | 3878.1  |
| 22.5° | 4043.2  | 4007.5  | 3971.9  | 3943.8  | 3921.3  | 3908.1  | 3902.5  | 3898.8  |
| 25°   | 4116.3  | 4076.9  | 4035.7  | 4003.8  | 3981.3  | 3964.4  | 3953.2  | 3953.2  |
| 27.5° | 4208.2  | 4176.3  | 4138.8  | 4101.3  | 4080.7  | 4063.8  | 4056.3  | 4052.5  |
| 30°   | 4362.0  | 4332.0  | 4302.0  | 4266.3  | 4240.1  | 4223.2  | 4210.1  | 4198.8  |
| 32.5° | 4558.9  | 4534.5  | 4510.1  | 4483.9  | 4459.5  | 4437.0  | 4416.4  | 4407.0  |
| 35°   | 4836.4  | 4817.7  | 4800.8  | 4770.8  | 4761.4  | 4748.3  | 4737.0  | 4727.7  |
| 37.5° | 5219.0  | 5211.5  | 5211.5  | 5179.6  | 5172.1  | 5166.5  | 5155.2  | 5157.1  |
| 40°   | 5721.6  | 5729.1  | 5719.7  | 5708.4  | 5702.8  | 5687.8  | 5687.8  | 5700.9  |
| 42.5° | 6316.0  | 6321.7  | 6342.3  | 6323.5  | 6344.2  | 6325.4  | 6314.2  | 6323.5  |
| 45°   | 7006.2  | 7026.8  | 7068.0  | 7049.3  | 7062.4  | 7030.5  | 6991.2  | 6993.0  |
| 47.5° | 7780.7  | 7799.4  | 7816.3  | 7803.2  | 7805.0  | 7752.5  | 7700.0  | 7686.9  |
| 50°   | 8585.2  | 8592.7  | 8602.1  | 8583.3  | 8587.0  | 8528.9  | 8468.9  | 8470.8  |
| 52.5° | 9380.3  | 9415.9  | 9453.4  | 9402.8  | 9391.6  | 9325.9  | 9241.5  | 9207.8  |
| 55°   | 10289.8 | 10340.5 | 10297.3 | 10209.2 | 10121.1 | 10032.9 | 9922.3  | 9903.5  |
| 57.5° | 11411.3 | 11325.0 | 11190.0 | 11023.1 | 10901.2 | 10777.4 | 10664.9 | 10618.0 |
| 60°   | 12971.5 | 12647.1 | 12403.3 | 12155.8 | 12000.1 | 11848.2 | 11700.1 | 11677.6 |
| 62.5° | 15176.9 | 14616.2 | 14130.5 | 13618.5 | 13200.3 | 12874.0 | 12613.3 | 12540.2 |
| 65°   | 17941.1 | 16615.3 | 15465.7 | 14393.0 | 13461.0 | 12757.7 | 12315.2 | 12120.1 |
| 67.5° | 19130.0 | 16512.1 | 14541.2 | 13018.4 | 11799.5 | 10948.1 | 10469.9 | 10231.7 |
| 70°   | 16810.3 | 13693.5 | 11550.0 | 10025.4 | 8915.2  | 8007.6  | 7574.4  | 7319.3  |
| 72.5° | 11565.0 | 8710.8  | 6888.0  | 5622.2  | 4735.2  | 3975.7  | 3675.6  | 3653.1  |
| 75°   | 5192.7  | 3439.3  | 2370.4  | 1826.6  | 1537.8  | 1337.1  | 1275.2  | 1228.3  |
| 77.5° | 1453.4  | 1074.6  | 958.3   | 896.4   | 836.4   | 767.0   | 740.7   | 746.4   |
| 80°   | 707.0   | 667.6   | 641.4   | 602.0   | 547.6   | 489.5   | 463.2   | 474.5   |
| 82.5° | 468.8   | 463.2   | 480.1   | 451.9   | 373.2   | 316.9   | 266.3   | 243.8   |
| 85°   | 285.0   | 288.8   | 294.4   | 296.3   | 251.3   | 176.3   | 120.0   | 135.0   |
| 87.5° | 112.5   | 129.4   | 140.6   | 146.3   | 136.9   | 84.4    | 67.5    | 69.4    |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |

(END OF REPORT)