

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: P456187

Luminaire Tested: **GALN-SA7B-830-U-T3R-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P456187  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA7B-830-U-T3R-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24658 lumens  
Efficiency: N/A  
Efficacy: 86.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G4

Input Watts (W): 286  
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: 24 FT

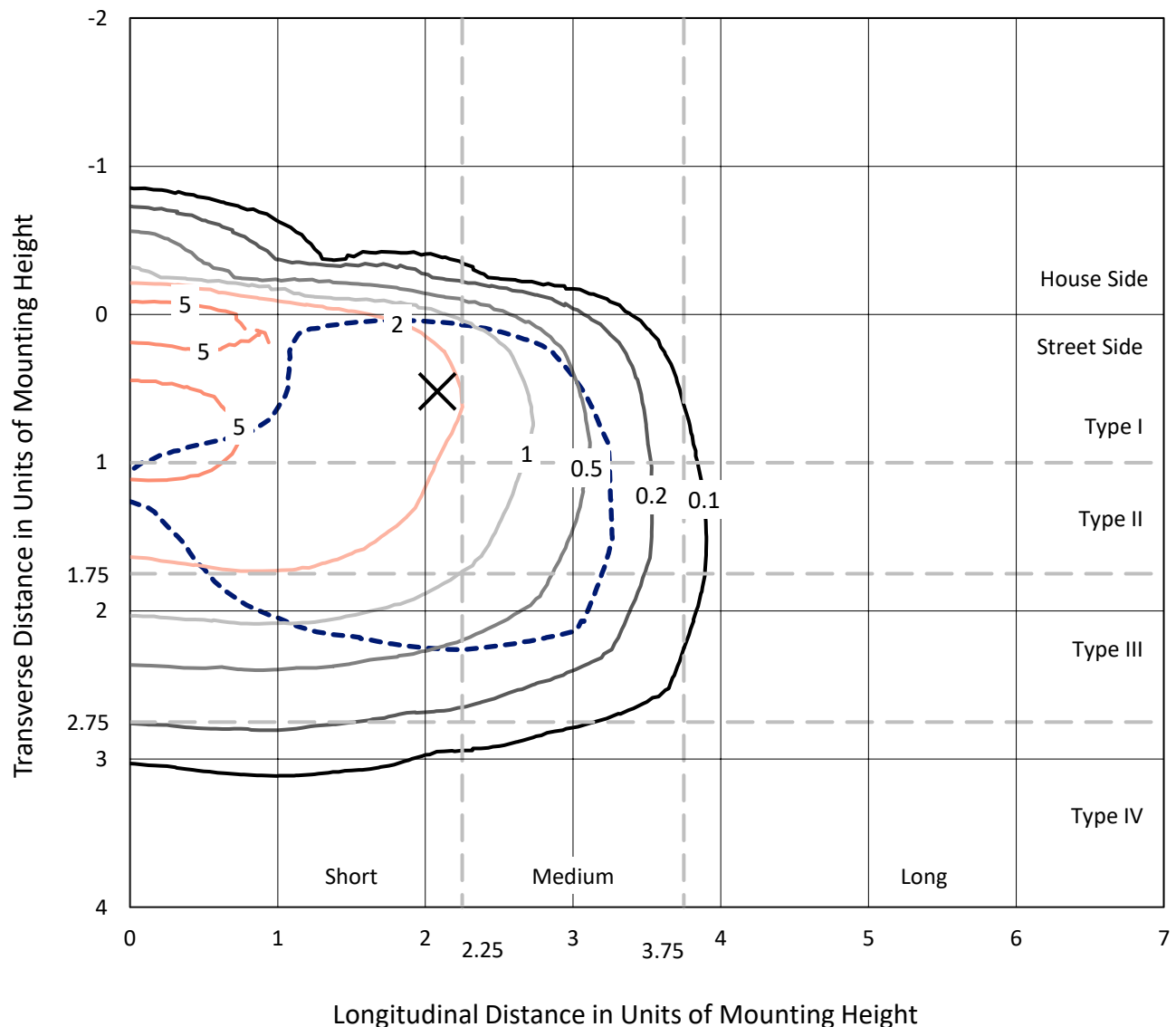


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## Iso-Footcandle Lines of Horizontal Illumination

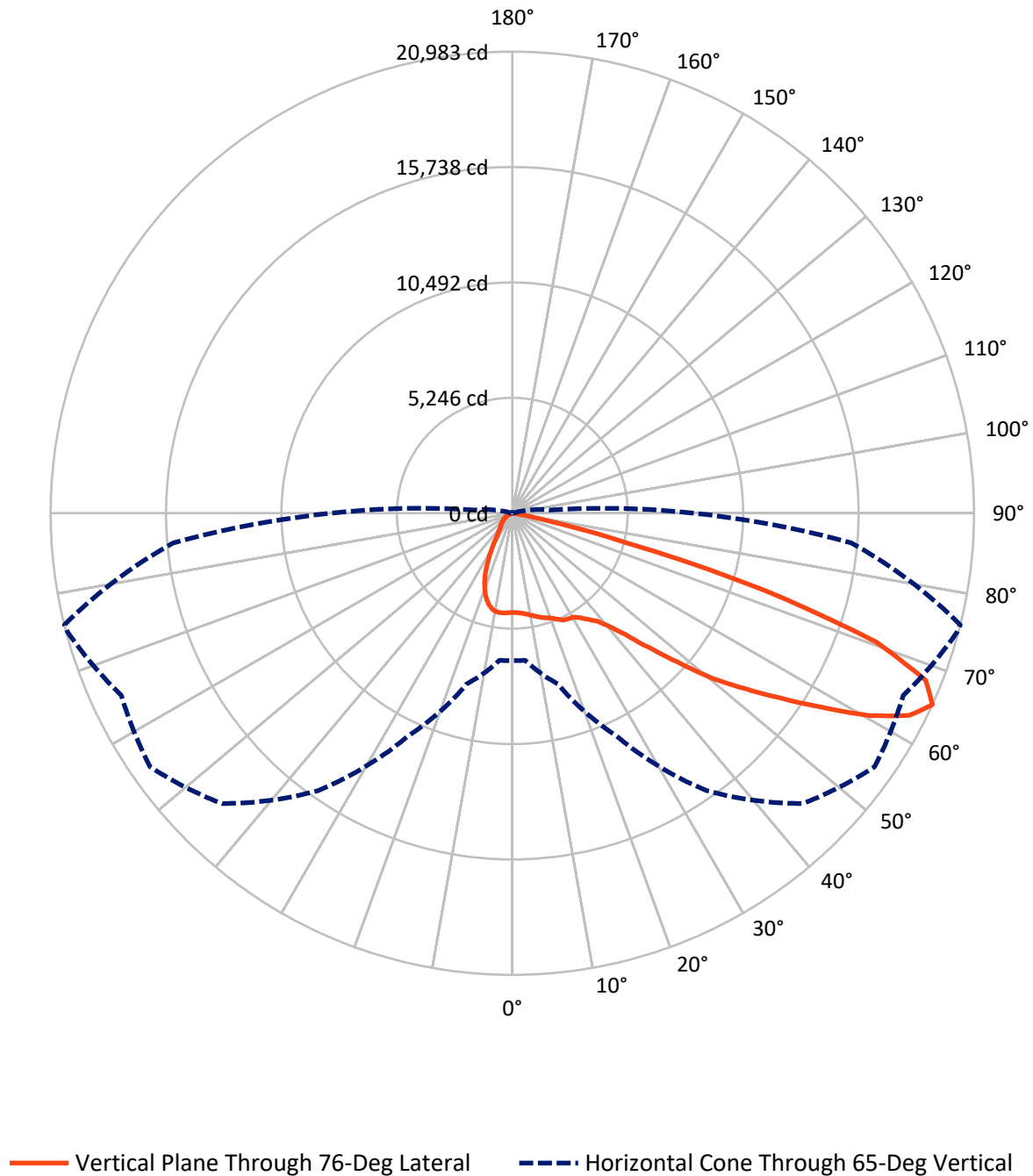
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc  
 Type III - Short - N/A

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## Luminous Intensity Polar Plot



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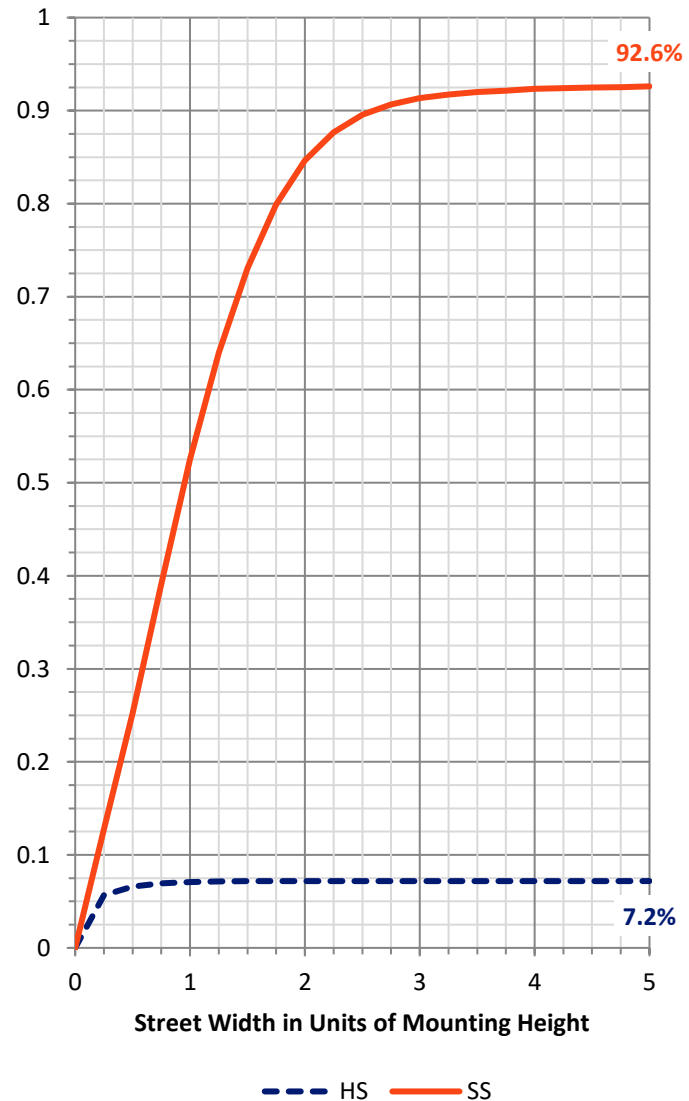
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1780.8   | 0.0    | 1780.8  |
|                    | % Fixture | 7.2      | 0.0    | 7.2     |
| <b>Street Side</b> | Lumens    | 22877.2  | 0.0    | 22877.2 |
|                    | % Fixture | 92.8     | 0.0    | 92.8    |
| <b>Total</b>       | Lumens    | 24658.0  | 0.0    | 24658.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 371.6   | 1.5       |
| 10°-20°   | 827.3   | 3.4       |
| 20°-30°   | 1333.2  | 5.4       |
| 30°-40°   | 2318.1  | 9.4       |
| 40°-50°   | 3830.5  | 15.5      |
| 50°-60°   | 5917.4  | 24.0      |
| 60°-70°   | 7225.9  | 29.3      |
| 70°-80°   | 2742.4  | 11.1      |
| 80°-90°   | 91.5    | 0.4       |
| 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°    | 24658.0 | 100.0     |
| 0°-180°   | 24658.0 | 100.0     |

**Coefficient of Utilization**



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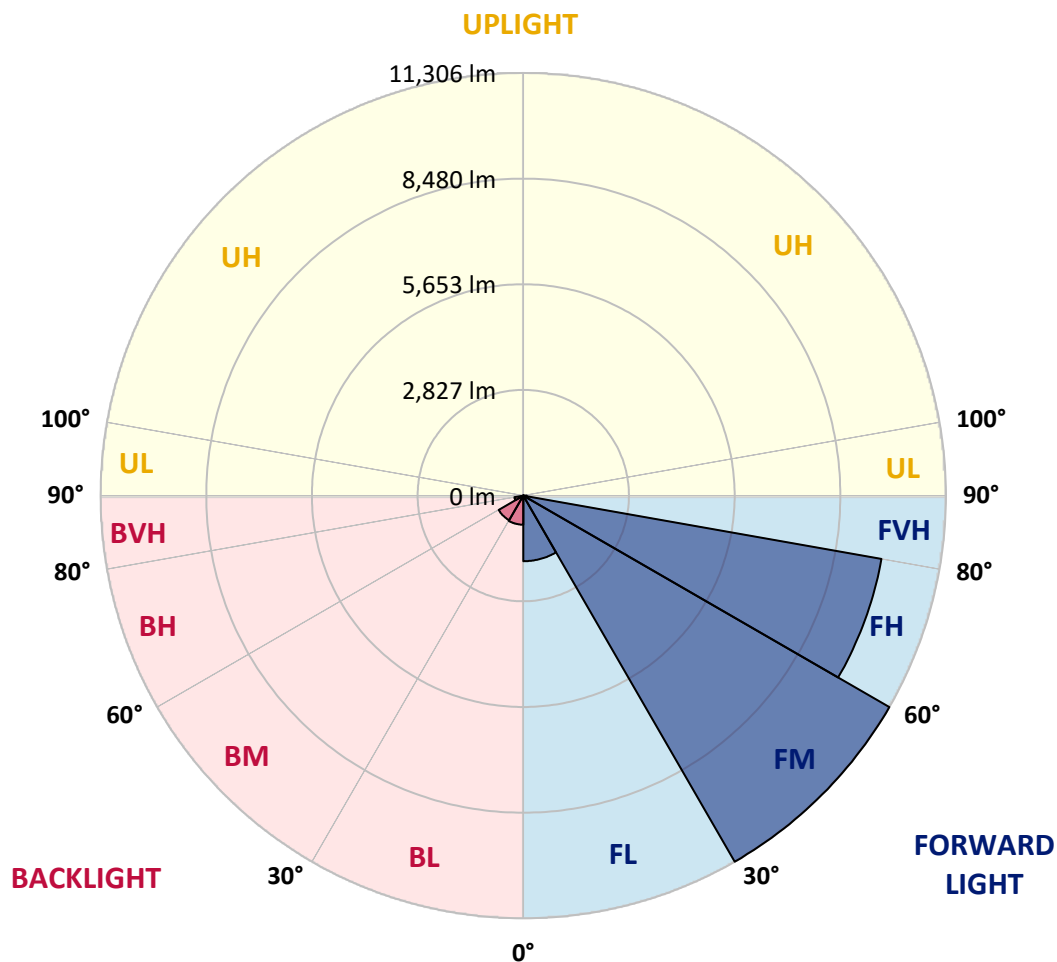
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 1754.1  | 7.1       |                         |      |          |
| FM   | (30°-60°)   | 11306.1 | 45.9      |                         |      |          |
| FH   | (60°-80°)   | 9726.7  | 39.4      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 90.3    | 0.4       |                         |      | G1/100   |
| BL   | (0°-30°)    | 778.0   | 3.2       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 759.9   | 3.1       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 241.6   | 1.0       | B1/500                  |      | G1/500   |
| BVH  | (80°-90°)   | 1.3     | 0.0       |                         |      | G0/10    |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  | 4510.7  |
| 2.5°  | 4310.5  | 4312.3  | 4322.7  | 4348.8  | 4388.9  | 4421.9  | 4449.8  | 4495.1  | 4526.4  | 4529.9  | 4540.3  |
| 5°    | 4012.8  | 3991.9  | 4012.8  | 4080.7  | 4141.7  | 4233.9  | 4347.1  | 4460.2  | 4561.2  | 4568.2  | 4616.9  |
| 7.5°  | 3678.6  | 3696.0  | 3729.1  | 3798.7  | 3913.6  | 4054.6  | 4218.3  | 4420.2  | 4611.7  | 4629.1  | 4724.9  |
| 10°   | 3339.1  | 3377.4  | 3431.4  | 3537.6  | 3697.7  | 3880.5  | 4103.4  | 4392.4  | 4691.8  | 4716.2  | 4881.6  |
| 12.5° | 3025.7  | 3043.1  | 3109.3  | 3252.0  | 3450.5  | 3708.2  | 4016.3  | 4376.7  | 4780.6  | 4810.2  | 5048.7  |
| 15°   | 2785.5  | 2808.1  | 2865.6  | 2994.4  | 3215.5  | 3546.3  | 3944.9  | 4371.5  | 4867.6  | 4909.4  | 5215.8  |
| 17.5° | 2740.2  | 2754.1  | 2778.5  | 2865.6  | 3058.8  | 3417.4  | 3880.5  | 4369.7  | 4951.2  | 5001.7  | 5370.8  |
| 20°   | 2926.5  | 2914.3  | 2889.9  | 2881.2  | 2987.4  | 3318.2  | 3833.5  | 4383.6  | 5031.3  | 5088.7  | 5534.4  |
| 22.5° | 3393.1  | 3408.7  | 3266.0  | 3097.1  | 3062.3  | 3302.5  | 3826.6  | 4449.8  | 5158.4  | 5226.3  | 5717.2  |
| 25°   | 4383.6  | 4263.5  | 4040.7  | 3636.8  | 3332.1  | 3398.3  | 3904.9  | 4606.5  | 5306.3  | 5381.2  | 5882.6  |
| 27.5° | 5478.7  | 5442.1  | 5095.7  | 4430.7  | 3863.1  | 3600.2  | 4044.2  | 4726.6  | 5355.1  | 5431.7  | 5976.6  |
| 30°   | 6554.6  | 6598.1  | 6201.2  | 5466.5  | 4634.3  | 3974.5  | 4174.7  | 4771.9  | 5398.6  | 5478.7  | 6096.7  |
| 32.5° | 7552.1  | 7604.4  | 7256.2  | 6528.5  | 5543.1  | 4622.2  | 4399.3  | 4947.7  | 5581.4  | 5663.2  | 6296.9  |
| 35°   | 8337.3  | 8344.3  | 8081.4  | 7501.6  | 6535.4  | 5409.1  | 4885.0  | 5255.9  | 5828.6  | 5924.4  | 6509.3  |
| 37.5° | 9058.0  | 9047.6  | 8739.4  | 8239.8  | 7362.4  | 6190.7  | 5496.1  | 5611.0  | 6110.6  | 6209.9  | 6815.7  |
| 40°   | 9592.5  | 9599.5  | 9500.2  | 9030.2  | 8133.6  | 6913.2  | 5980.1  | 5943.5  | 6584.2  | 6739.1  | 7261.4  |
| 42.5° | 9949.4  | 10013.8 | 10062.5 | 9824.0  | 9103.3  | 7802.8  | 6723.5  | 6655.6  | 7405.9  | 7534.7  | 7891.6  |
| 45°   | 10238.4 | 10353.3 | 10597.0 | 10584.8 | 10034.7 | 8894.4  | 7743.6  | 7604.4  | 8570.6  | 8708.1  | 8694.2  |
| 47.5° | 10449.0 | 10565.7 | 10969.6 | 11213.3 | 10910.4 | 9952.9  | 9026.7  | 8906.6  | 9961.6  | 10111.3 | 9580.3  |
| 50°   | 10557.0 | 10696.2 | 11211.6 | 11683.3 | 11594.6 | 10973.0 | 10489.1 | 10496.0 | 11641.6 | 11786.1 | 10607.5 |
| 52.5° | 10304.5 | 10485.6 | 11340.4 | 12190.0 | 12362.3 | 11949.7 | 11859.2 | 12089.0 | 13137.0 | 13260.6 | 11535.4 |
| 55°   | 9498.5  | 9726.5  | 11164.5 | 12621.7 | 13251.9 | 13102.2 | 13415.6 | 13765.5 | 14771.7 | 14851.8 | 12487.7 |
| 57.5° | 8988.4  | 9230.4  | 10645.8 | 12989.0 | 14320.8 | 14550.6 | 15046.8 | 15302.7 | 16458.7 | 16662.4 | 13581.0 |
| 60°   | 8558.4  | 8748.1  | 10219.2 | 13067.4 | 15407.2 | 16322.9 | 16805.1 | 17069.8 | 18540.8 | 18673.2 | 14783.9 |
| 62.5° | 7842.9  | 8060.5  | 9498.5  | 12520.7 | 15953.8 | 17741.8 | 18741.1 | 18622.7 | 20151.2 | 20243.5 | 15522.1 |
| 65°   | 6692.1  | 6711.3  | 8036.1  | 11147.1 | 15389.8 | 18662.7 | 20100.7 | 19604.5 | 20920.7 | 20983.4 | 15464.6 |
| 67.5° | 4994.7  | 5179.3  | 6182.0  | 8762.1  | 12999.5 | 17875.8 | 20541.2 | 19630.7 | 20435.0 | 20260.9 | 14237.3 |
| 70°   | 3217.2  | 3358.2  | 4190.4  | 6075.8  | 9373.1  | 14918.0 | 19080.5 | 18284.9 | 17935.0 | 17548.5 | 11653.7 |
| 72.5° | 1485.0  | 1666.1  | 2489.5  | 3471.4  | 5558.8  | 10626.6 | 15489.0 | 14855.3 | 12909.0 | 11954.9 | 7407.6  |
| 75°   | 647.6   | 692.9   | 1229.1  | 1831.5  | 2606.2  | 5619.7  | 10212.3 | 9221.7  | 5830.4  | 5325.5  | 2964.8  |
| 77.5° | 395.2   | 424.8   | 644.1   | 981.9   | 1023.7  | 2141.3  | 5501.3  | 4023.3  | 1801.9  | 1589.5  | 804.3   |
| 80°   | 268.1   | 301.2   | 468.3   | 513.6   | 349.9   | 597.1   | 2064.7  | 1074.2  | 363.9   | 348.2   | 172.4   |
| 82.5° | 130.6   | 165.4   | 346.4   | 287.3   | 151.5   | 191.5   | 600.6   | 229.8   | 106.2   | 99.2    | 60.9    |
| 85°   | 19.2    | 33.1    | 195.0   | 188.0   | 67.9    | 45.3    | 106.2   | 57.5    | 36.6    | 34.8    | 27.9    |
| 87.5° | 0.0     | 0.0     | 66.2    | 29.6    | 7.0     | 7.0     | 12.2    | 12.2    | 13.9    | 12.2    | 13.9    |
| 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°    | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 | 4510.7 |
| 2.5°  | 4545.6 | 4554.3 | 4521.2 | 4474.2 | 4423.7 | 4373.2 | 4301.8 | 4237.4 | 4199.1 | 4221.7 | 4166.0 |
| 5°    | 4627.4 | 4620.4 | 4533.4 | 4390.6 | 4200.9 | 3972.8 | 3746.5 | 3553.2 | 3490.6 | 3396.5 | 3386.1 |
| 7.5°  | 4740.5 | 4721.4 | 4536.8 | 4209.6 | 3781.3 | 3353.0 | 2935.2 | 2658.4 | 2500.0 | 2365.9 | 2369.4 |
| 10°   | 4899.0 | 4843.3 | 4496.8 | 3891.0 | 3185.9 | 2540.0 | 2007.3 | 1641.7 | 1483.3 | 1432.8 | 1392.7 |
| 12.5° | 5062.6 | 4954.7 | 4385.4 | 3461.0 | 2480.8 | 1735.7 | 1220.4 | 997.5  | 900.1  | 868.7  | 865.2  |
| 15°   | 5208.8 | 5038.2 | 4190.4 | 2943.9 | 1803.6 | 1109.0 | 832.2  | 759.0  | 746.9  | 748.6  | 746.9  |
| 17.5° | 5353.3 | 5104.4 | 3920.6 | 2395.5 | 1225.6 | 795.6  | 715.5  | 698.1  | 703.3  | 710.3  | 708.6  |
| 20°   | 5473.5 | 5118.3 | 3575.9 | 1828.0 | 867.0  | 698.1  | 672.0  | 668.5  | 673.7  | 679.0  | 679.0  |
| 22.5° | 5604.0 | 5128.8 | 3166.7 | 1265.7 | 708.6  | 649.4  | 635.4  | 635.4  | 642.4  | 649.4  | 651.1  |
| 25°   | 5701.5 | 5071.3 | 2677.5 | 908.8  | 625.0  | 602.4  | 595.4  | 597.1  | 604.1  | 607.6  | 605.8  |
| 27.5° | 5717.2 | 4909.4 | 2158.7 | 696.4  | 567.5  | 544.9  | 537.9  | 544.9  | 536.2  | 541.4  | 537.9  |
| 30°   | 5731.1 | 4704.0 | 1633.0 | 586.7  | 515.3  | 480.5  | 470.0  | 459.6  | 452.6  | 443.9  | 442.2  |
| 32.5° | 5774.6 | 4462.0 | 1192.5 | 527.5  | 466.6  | 428.3  | 403.9  | 374.3  | 351.7  | 344.7  | 343.0  |
| 35°   | 5793.8 | 4171.3 | 875.7  | 480.5  | 423.0  | 381.3  | 337.7  | 296.0  | 262.9  | 250.7  | 259.4  |
| 37.5° | 5866.9 | 3889.2 | 679.0  | 445.7  | 384.7  | 332.5  | 276.8  | 224.6  | 193.2  | 186.3  | 189.8  |
| 40°   | 6016.6 | 3582.8 | 569.3  | 416.1  | 351.7  | 287.3  | 219.4  | 168.9  | 148.0  | 141.0  | 139.3  |
| 42.5° | 6256.9 | 3278.2 | 506.6  | 388.2  | 318.6  | 242.0  | 172.4  | 132.3  | 114.9  | 109.7  | 109.7  |
| 45°   | 6549.4 | 2985.7 | 463.1  | 358.6  | 283.8  | 195.0  | 135.8  | 106.2  | 95.8   | 92.3   | 92.3   |
| 47.5° | 6934.1 | 2729.8 | 426.5  | 329.0  | 245.5  | 154.9  | 109.7  | 92.3   | 85.3   | 87.0   | 88.8   |
| 50°   | 7324.1 | 2540.0 | 386.5  | 296.0  | 201.9  | 127.1  | 94.0   | 81.8   | 80.1   | 81.8   | 81.8   |
| 52.5° | 7618.3 | 2428.6 | 332.5  | 250.7  | 158.4  | 106.2  | 83.6   | 76.6   | 74.9   | 71.4   | 71.4   |
| 55°   | 8015.2 | 2404.2 | 264.6  | 203.7  | 125.3  | 88.8   | 74.9   | 69.6   | 64.4   | 60.9   | 59.2   |
| 57.5° | 8525.3 | 2432.1 | 203.7  | 158.4  | 97.5   | 73.1   | 66.2   | 57.5   | 50.5   | 43.5   | 43.5   |
| 60°   | 8842.2 | 2369.4 | 158.4  | 121.9  | 71.4   | 59.2   | 50.5   | 41.8   | 33.1   | 27.9   | 26.1   |
| 62.5° | 8741.2 | 2104.8 | 125.3  | 90.5   | 50.5   | 43.5   | 33.1   | 27.9   | 19.2   | 13.9   | 12.2   |
| 65°   | 8220.6 | 1699.1 | 101.0  | 62.7   | 36.6   | 26.1   | 17.4   | 17.4   | 8.7    | 1.7    | 0.0    |
| 67.5° | 7195.2 | 1258.7 | 80.1   | 41.8   | 20.9   | 12.2   | 8.7    | 5.2    | 0.0    | 0.0    | 0.0    |
| 70°   | 5856.5 | 908.8  | 62.7   | 26.1   | 12.2   | 8.7    | 3.5    | 1.7    | 0.0    | 0.0    | 0.0    |
| 72.5° | 3718.6 | 520.5  | 48.7   | 15.7   | 8.7    | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 1438.0 | 203.7  | 33.1   | 10.4   | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 407.4  | 95.8   | 19.2   | 5.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 106.2  | 41.8   | 10.4   | 1.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 50.5   | 17.4   | 3.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 29.6   | 7.0    | 1.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 13.9   | 1.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)