

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: INVUE

Report Number: P597124

Luminaire Tested: **MSA-SA4B-835-U-SLL**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597124  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-24)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA4B-835-U-SLL  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT ELIMINATOR LEFT OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13721 lumens  
Efficiency: N/A  
Efficacy: 80.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G3

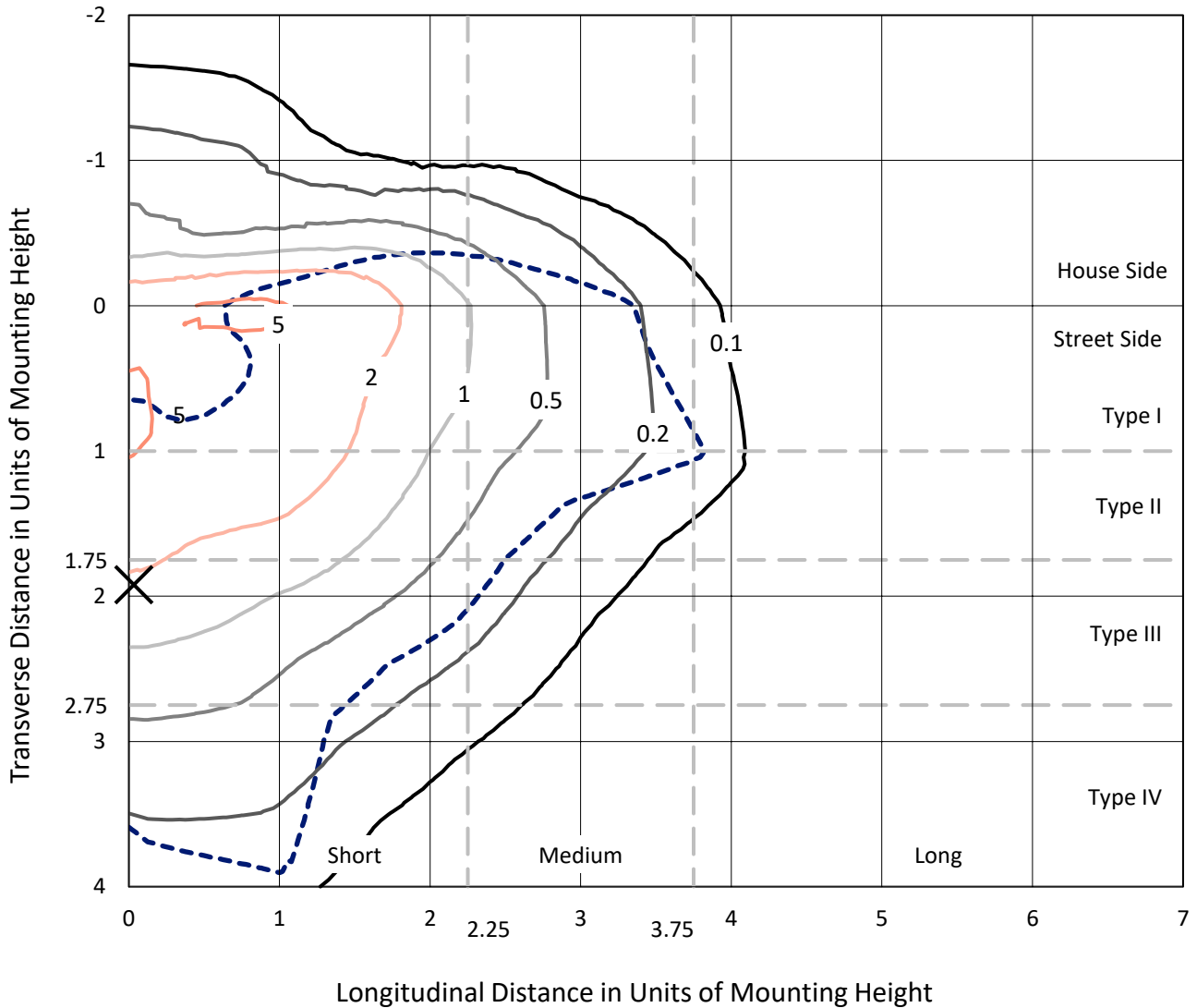
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

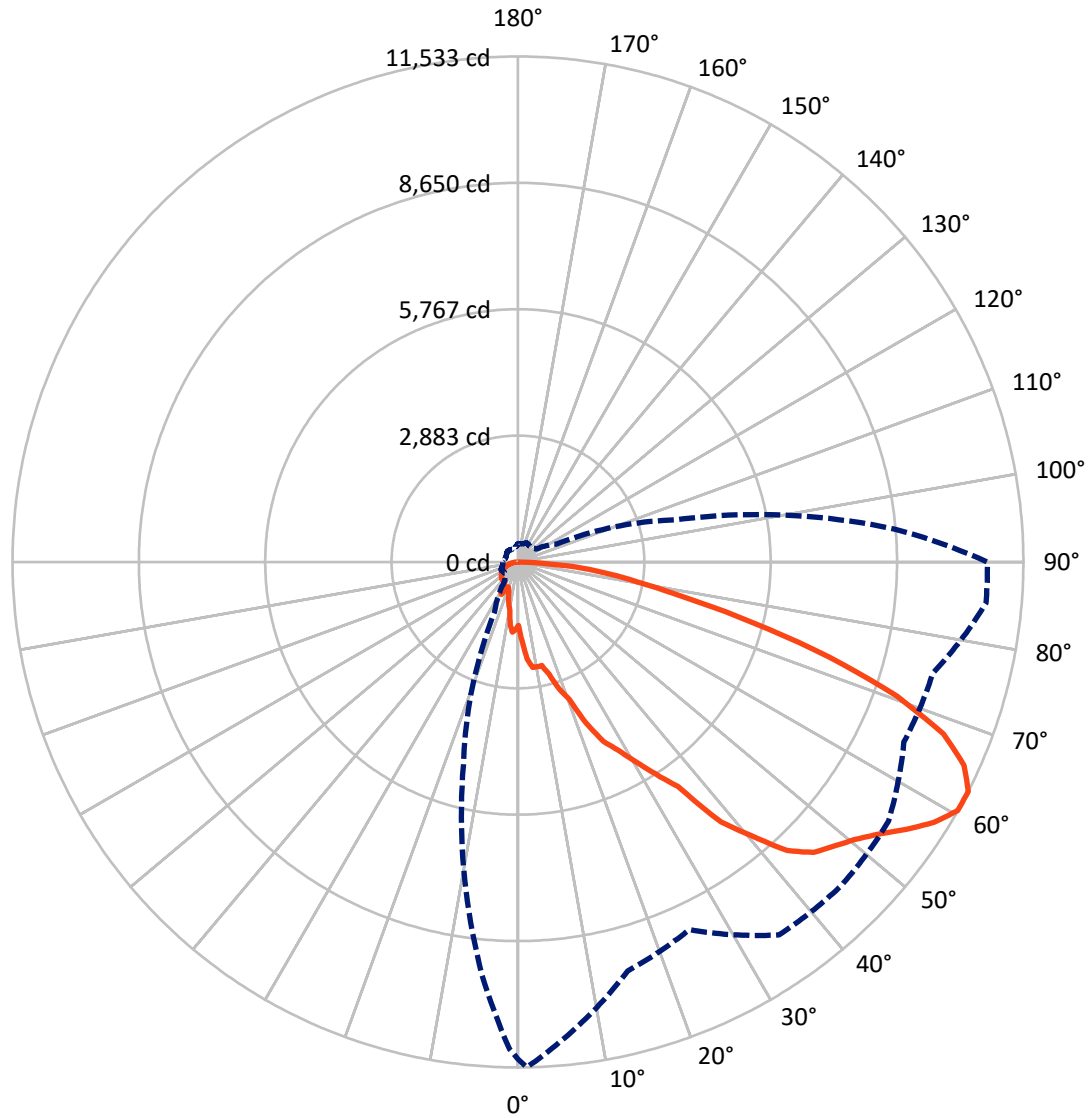
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 1-Deg Lateral      - - - Horizontal Cone Through 62.5-Deg Vertical

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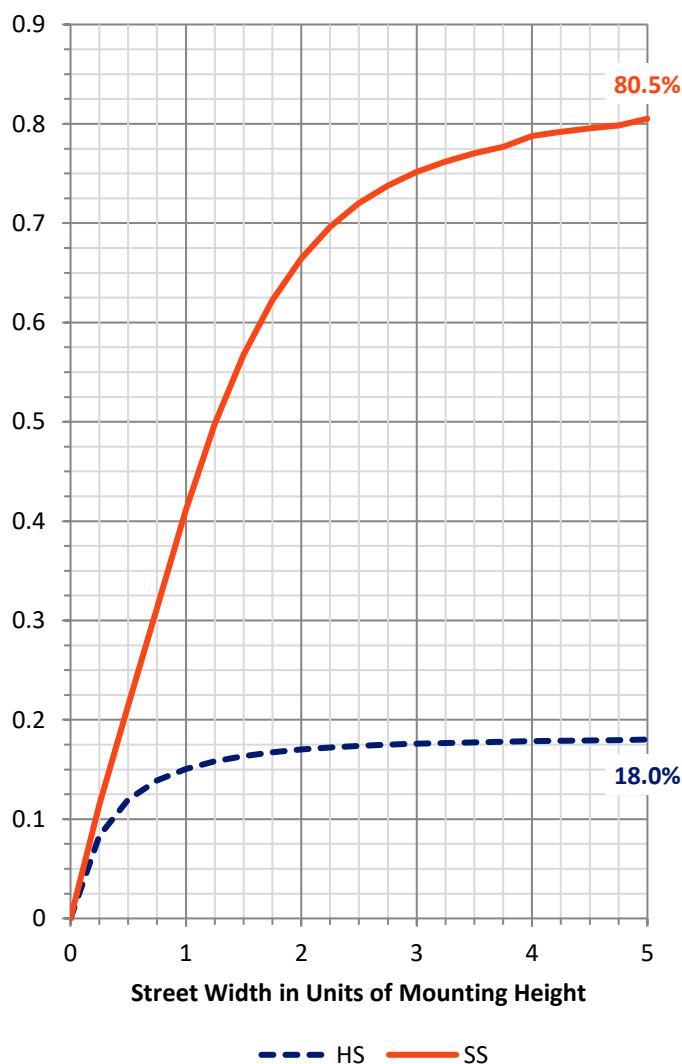
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2498.5   | 0.0    | 2498.5  |
|                    | % Fixture | 18.2     | 0.0    | 18.2    |
| <b>Street Side</b> | Lumens    | 11222.5  | 0.0    | 11222.5 |
|                    | % Fixture | 81.8     | 0.0    | 81.8    |
| <b>Total</b>       | Lumens    | 13721.0  | 0.0    | 13721.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 165.9   | 1.2       |
| 10°-20°   | 482.0   | 3.5       |
| 20°-30°   | 850.9   | 6.2       |
| 30°-40°   | 1325.4  | 9.7       |
| 40°-50°   | 2182.5  | 15.9      |
| 50°-60°   | 3114.9  | 22.7      |
| 60°-70°   | 3303.1  | 24.1      |
| 70°-80°   | 1824.5  | 13.3      |
| 80°-90°   | 471.9   | 3.4       |
| 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°    | 13721.0 | 100.0     |
| 0°-180°   | 13721.0 | 100.0     |

**Coefficient of Utilization**



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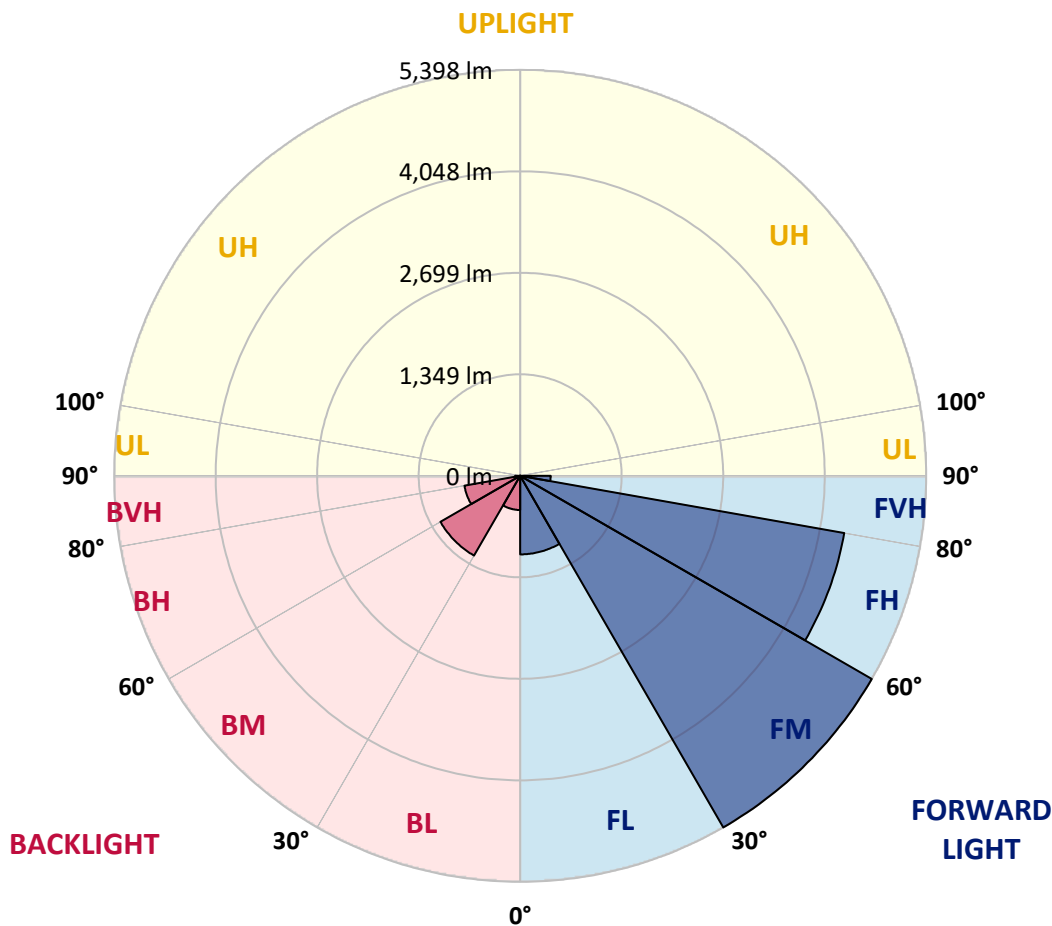
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1044.4 | 7.6       |                         |      |         |
| FM (30°-60°)   | 5398.0 | 39.3      |                         |      |         |
| FH (60°-80°)   | 4374.8 | 31.9      |                         |      | G2/5000 |
| FVH (80°-90°)  | 405.3  | 3.0       |                         |      | G3/500  |
| BL (0°-30°)    | 454.4  | 3.3       | B1/500                  |      |         |
| BM (30°-60°)   | 1224.8 | 8.9       | B2/2500                 |      |         |
| BH (60°-80°)   | 752.7  | 5.5       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 66.5   | 0.5       |                         |      | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 1°      | 5°      | 15°    | 25°    | 35°     | 45°     | 55°     | 65°    | 75°     | 85°     |
|-------|---------|---------|---------|--------|--------|---------|---------|---------|--------|---------|---------|
| 0°    | 1446.9  | 1446.9  | 1446.9  | 1446.9 | 1446.9 | 1446.9  | 1446.9  | 1446.9  | 1446.9 | 1446.9  | 1446.9  |
| 2.5°  | 1779.1  | 1794.4  | 1763.1  | 1727.8 | 1582.0 | 1722.5  | 1680.6  | 1758.5  | 1733.2 | 1564.1  | 1873.7  |
| 5°    | 2198.6  | 2226.6  | 2195.9  | 2301.8 | 2308.5 | 2335.8  | 2083.4  | 2240.5  | 2185.9 | 2172.0  | 2328.4  |
| 7.5°  | 2401.0  | 2429.6  | 2507.5  | 2696.0 | 2843.1 | 2710.0  | 2562.8  | 2530.2  | 2487.6 | 2376.4  | 2470.9  |
| 10°   | 2413.7  | 2429.6  | 2534.2  | 2933.7 | 3004.9 | 3099.5  | 3004.3  | 2779.9  | 2687.3 | 2445.6  | 2373.7  |
| 12.5° | 2375.7  | 2425.6  | 2560.8  | 3047.5 | 3259.3 | 3362.5  | 3385.8  | 3136.1  | 2909.0 | 2633.4  | 2596.8  |
| 15°   | 2630.7  | 2648.7  | 2842.5  | 3128.8 | 3274.6 | 3361.8  | 3437.7  | 3283.9  | 3212.7 | 2994.3  | 2700.6  |
| 17.5° | 2996.3  | 3046.2  | 3204.7  | 3310.5 | 3409.1 | 3425.7  | 3363.1  | 3303.2  | 3190.0 | 3481.7  | 3169.4  |
| 20°   | 3244.0  | 3340.5  | 3534.9  | 3554.9 | 3347.8 | 3384.5  | 3375.8  | 3379.8  | 3315.2 | 3854.5  | 3682.7  |
| 22.5° | 3899.1  | 4003.7  | 4030.3  | 3914.5 | 3524.3 | 3357.2  | 3390.4  | 3487.0  | 3741.3 | 4203.4  | 4397.9  |
| 25°   | 4492.4  | 4533.0  | 4776.1  | 4477.8 | 3855.9 | 3491.7  | 3437.1  | 3686.7  | 4101.6 | 4790.7  | 4929.2  |
| 27.5° | 4802.0  | 4854.6  | 5016.4  | 4367.2 | 3897.1 | 3318.5  | 3190.7  | 3570.9  | 3993.7 | 4514.4  | 5122.3  |
| 30°   | 5198.2  | 5282.1  | 5502.5  | 4477.8 | 4021.7 | 3431.7  | 3148.7  | 3512.3  | 3979.7 | 4695.5  | 5531.1  |
| 32.5° | 5606.4  | 5769.5  | 5933.3  | 4867.3 | 4004.3 | 3604.8  | 3417.1  | 3446.4  | 4106.2 | 5075.0  | 5954.6  |
| 35°   | 6147.0  | 6290.8  | 6432.0  | 5092.3 | 4353.2 | 3749.3  | 3562.9  | 3873.2  | 4431.2 | 5515.1  | 6545.2  |
| 37.5° | 7302.9  | 7530.6  | 7158.4  | 5732.9 | 4732.8 | 4400.5  | 4064.3  | 4248.0  | 4774.7 | 5882.0  | 7510.0  |
| 40°   | 8039.3  | 8210.4  | 7850.9  | 6169.0 | 5401.3 | 4839.3  | 4784.0  | 4799.4  | 5248.1 | 6196.3  | 8159.2  |
| 42.5° | 8771.1  | 9002.8  | 8430.8  | 6767.6 | 6209.6 | 5745.5  | 5460.5  | 5441.2  | 5778.1 | 6760.9  | 8897.6  |
| 45°   | 9317.1  | 9453.6  | 8629.9  | 7272.3 | 7076.5 | 6732.3  | 6518.6  | 6179.6  | 6474.6 | 7151.8  | 9354.4  |
| 47.5° | 9576.7  | 9687.9  | 8950.2  | 7565.9 | 7638.5 | 7656.5  | 8042.0  | 7464.0  | 7083.2 | 7416.1  | 9594.1  |
| 50°   | 9901.0  | 9953.6  | 9138.6  | 7824.3 | 8172.5 | 8962.2  | 9054.7  | 8075.3  | 7675.8 | 7704.4  | 9735.9  |
| 52.5° | 10288.5 | 10310.5 | 9413.6  | 8122.6 | 8712.5 | 9821.1  | 9678.0  | 9111.3  | 8239.7 | 8231.1  | 10002.9 |
| 55°   | 10775.9 | 10762.6 | 9758.5  | 8524.1 | 9098.0 | 10331.8 | 10223.3 | 9810.5  | 8854.3 | 8667.2  | 10418.4 |
| 57.5° | 11209.4 | 11201.4 | 10216.0 | 8893.6 | 9422.3 | 10594.1 | 10626.1 | 10516.9 | 9272.5 | 8979.5  | 10868.5 |
| 60°   | 11421.8 | 11523.7 | 10736.6 | 9297.8 | 9442.9 | 10712.7 | 10724.7 | 10550.9 | 9739.9 | 9380.3  | 10988.3 |
| 62.5° | 11339.2 | 11533.0 | 10992.3 | 9661.3 | 9253.1 | 10389.1 | 10439.0 | 10319.2 | 9718.6 | 9801.1  | 10720.7 |
| 65°   | 10963.7 | 11187.4 | 10770.6 | 9855.1 | 9136.6 | 9847.1  | 9859.7  | 9556.8  | 9414.3 | 10080.1 | 10093.4 |
| 67.5° | 10259.2 | 10469.0 | 10064.8 | 9546.1 | 8339.0 | 8386.2  | 8668.5  | 8693.2  | 8485.4 | 9869.7  | 9212.5  |
| 70°   | 9026.1  | 9173.9  | 8920.9  | 8783.1 | 6970.0 | 6693.0  | 6999.3  | 7130.5  | 7225.0 | 9110.0  | 8155.2  |
| 72.5° | 7145.8  | 7431.4  | 7471.4  | 7561.3 | 5611.7 | 5150.3  | 5377.3  | 5182.9  | 5798.8 | 7753.7  | 6663.0  |
| 75°   | 5286.8  | 5527.8  | 5786.8  | 6288.2 | 4423.2 | 3855.9  | 3827.9  | 3728.7  | 4304.0 | 6235.6  | 4941.8  |
| 77.5° | 3736.0  | 3889.8  | 4088.9  | 5023.1 | 3337.8 | 2969.6  | 2986.9  | 2886.4  | 3108.1 | 4712.8  | 3413.8  |
| 80°   | 2678.0  | 2758.6  | 2851.1  | 3309.2 | 2462.3 | 2562.1  | 2564.8  | 2469.6  | 2311.1 | 3200.7  | 2278.5  |
| 82.5° | 1908.3  | 1970.9  | 2076.7  | 2182.6 | 1835.7 | 2100.1  | 2098.1  | 2092.1  | 1832.4 | 2163.3  | 1425.6  |
| 85°   | 1062.7  | 1146.6  | 1330.3  | 1709.9 | 1325.7 | 1501.5  | 1320.4  | 1454.2  | 1345.0 | 1440.2  | 721.8   |
| 87.5° | 74.6    | 66.6    | 297.6   | 990.8  | 618.6  | 452.1   | 237.0   | 469.4   | 601.9  | 752.4   | 100.5   |
| 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°    | 1446.9  | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 |
| 2.5°  | 1937.6  | 1960.9 | 1869.7 | 1732.5 | 1769.8 | 1729.2 | 1677.9 | 1598.0 | 1433.5 | 1535.4 | 1536.1 |
| 5°    | 2327.1  | 2238.5 | 2167.3 | 2100.1 | 1986.9 | 1815.7 | 1793.1 | 1655.9 | 1578.7 | 1619.3 | 1613.3 |
| 7.5°  | 2449.0  | 2323.1 | 2215.9 | 1975.5 | 1765.8 | 1500.1 | 1420.2 | 1339.0 | 1305.0 | 1403.6 | 1442.9 |
| 10°   | 2315.1  | 2183.9 | 2078.7 | 1786.4 | 1644.0 | 1478.2 | 1258.4 | 1145.9 | 1079.3 | 1105.3 | 1120.6 |
| 12.5° | 2423.0  | 2289.2 | 1958.2 | 1795.1 | 1560.1 | 1458.9 | 1266.4 | 1101.3 | 1002.8 | 1026.7 | 998.1  |
| 15°   | 2526.9  | 2346.4 | 2015.5 | 1690.6 | 1500.1 | 1353.6 | 1197.8 | 1027.4 | 911.5  | 870.3  | 848.3  |
| 17.5° | 2906.4  | 2606.8 | 2008.8 | 1632.0 | 1413.6 | 1245.1 | 1057.4 | 870.9  | 793.7  | 751.1  | 714.4  |
| 20°   | 3369.1  | 2951.7 | 2044.8 | 1571.4 | 1321.7 | 1109.3 | 904.9  | 731.8  | 677.8  | 649.9  | 639.9  |
| 22.5° | 3919.8  | 3393.8 | 2250.5 | 1562.7 | 1235.1 | 1010.1 | 821.0  | 713.1  | 652.5  | 621.9  | 609.2  |
| 25°   | 4357.2  | 3851.2 | 2402.3 | 1621.3 | 1230.5 | 928.2  | 770.4  | 792.3  | 764.4  | 773.7  | 699.8  |
| 27.5° | 4782.0  | 3975.7 | 2317.1 | 1595.3 | 1106.6 | 783.0  | 758.4  | 804.3  | 828.3  | 835.6  | 833.0  |
| 30°   | 5140.9  | 4501.7 | 2335.8 | 1448.9 | 934.8  | 637.9  | 580.6  | 603.2  | 669.2  | 773.7  | 793.7  |
| 32.5° | 5666.3  | 4753.4 | 2494.9 | 1360.3 | 835.6  | 570.6  | 506.7  | 498.0  | 513.4  | 551.3  | 583.9  |
| 35°   | 6280.8  | 5332.7 | 2539.5 | 1337.0 | 767.0  | 540.7  | 496.0  | 476.1  | 484.1  | 512.7  | 519.4  |
| 37.5° | 7426.8  | 5754.8 | 2704.6 | 1308.4 | 741.7  | 522.7  | 488.1  | 480.7  | 498.0  | 521.4  | 534.7  |
| 40°   | 8058.6  | 6513.9 | 2712.6 | 1283.7 | 709.1  | 515.4  | 493.4  | 490.1  | 500.7  | 532.7  | 540.7  |
| 42.5° | 8900.9  | 6946.7 | 2837.8 | 1255.1 | 697.8  | 525.3  | 504.0  | 502.7  | 512.0  | 530.7  | 545.3  |
| 45°   | 9414.3  | 7236.3 | 2844.5 | 1238.5 | 695.1  | 569.3  | 518.0  | 513.4  | 511.4  | 522.7  | 536.0  |
| 47.5° | 9745.2  | 7653.8 | 2925.7 | 1219.8 | 711.1  | 580.6  | 534.7  | 514.7  | 508.0  | 512.7  | 522.7  |
| 50°   | 10058.8 | 7987.4 | 3079.5 | 1217.2 | 727.8  | 569.3  | 564.0  | 514.0  | 500.7  | 498.7  | 506.0  |
| 52.5° | 10443.7 | 8536.0 | 3269.3 | 1242.5 | 723.8  | 552.6  | 585.9  | 511.4  | 487.4  | 482.7  | 490.1  |
| 55°   | 11003.6 | 9124.0 | 3471.0 | 1221.1 | 682.5  | 520.7  | 564.6  | 509.4  | 473.4  | 464.8  | 471.4  |
| 57.5° | 11366.5 | 9460.9 | 3696.7 | 1203.2 | 619.9  | 496.7  | 545.3  | 510.7  | 474.7  | 455.4  | 459.4  |
| 60°   | 11246.0 | 9279.8 | 3785.3 | 1093.3 | 560.6  | 478.1  | 499.4  | 500.0  | 462.8  | 444.8  | 448.1  |
| 62.5° | 10713.3 | 8623.9 | 3702.7 | 965.5  | 516.7  | 451.4  | 452.1  | 480.1  | 428.1  | 415.5  | 420.8  |
| 65°   | 9968.9  | 7808.3 | 3368.5 | 882.2  | 496.0  | 423.5  | 412.8  | 421.5  | 381.5  | 372.2  | 382.9  |
| 67.5° | 9055.4  | 6802.9 | 2871.1 | 794.3  | 488.7  | 385.5  | 372.9  | 369.5  | 344.2  | 333.6  | 344.2  |
| 70°   | 7909.5  | 5696.2 | 2295.1 | 732.4  | 460.8  | 344.2  | 334.3  | 330.9  | 309.6  | 301.6  | 310.9  |
| 72.5° | 6357.4  | 4447.8 | 1771.1 | 685.1  | 430.1  | 306.3  | 297.6  | 293.6  | 275.7  | 264.3  | 275.7  |
| 75°   | 4521.7  | 3399.1 | 1315.7 | 612.6  | 386.9  | 267.7  | 257.7  | 252.4  | 235.7  | 225.1  | 235.0  |
| 77.5° | 3213.3  | 2551.5 | 918.9  | 506.7  | 318.9  | 226.4  | 220.4  | 211.7  | 197.1  | 184.4  | 194.4  |
| 80°   | 2375.7  | 1823.1 | 592.6  | 390.8  | 243.7  | 181.1  | 177.8  | 171.8  | 157.8  | 142.5  | 149.8  |
| 82.5° | 1564.1  | 1314.4 | 339.6  | 265.0  | 177.1  | 130.5  | 133.2  | 129.2  | 115.9  | 99.9   | 103.9  |
| 85°   | 700.5   | 778.4  | 180.4  | 145.8  | 115.2  | 78.6   | 85.9   | 83.2   | 73.2   | 57.9   | 59.3   |
| 87.5° | 67.2    | 131.2  | 55.3   | 53.3   | 42.6   | 24.6   | 30.6   | 26.0   | 22.0   | 14.0   | 10.7   |
| 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):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 |
| 2.5°  | 1559.4 | 1465.5 | 1371.6 | 1428.9 | 1430.2 | 1445.5 | 1447.5 | 1390.9 | 1436.2 | 1470.8 | 1506.8 |
| 5°    | 1584.0 | 1522.8 | 1526.1 | 1470.8 | 1440.9 | 1479.5 | 1471.5 | 1456.2 | 1483.5 | 1521.4 | 1567.4 |
| 7.5°  | 1405.6 | 1365.6 | 1359.0 | 1305.7 | 1176.5 | 1147.9 | 1171.9 | 1181.9 | 1218.5 | 1277.1 | 1326.3 |
| 10°   | 1097.3 | 1176.5 | 1087.3 | 1066.7 | 1032.7 | 966.1  | 927.5  | 922.9  | 1000.8 | 1048.0 | 1089.3 |
| 12.5° | 988.8  | 968.8  | 958.1  | 901.5  | 901.5  | 831.0  | 808.3  | 829.0  | 948.8  | 982.8  | 1036.0 |
| 15°   | 842.3  | 827.6  | 778.4  | 750.4  | 737.1  | 708.5  | 732.4  | 752.4  | 864.3  | 866.9  | 922.9  |
| 17.5° | 699.1  | 690.5  | 643.9  | 638.5  | 625.2  | 612.6  | 634.5  | 682.5  | 743.1  | 732.4  | 758.4  |
| 20°   | 625.2  | 595.3  | 552.6  | 568.0  | 554.0  | 544.0  | 534.7  | 602.6  | 645.2  | 659.2  | 674.5  |
| 22.5° | 606.6  | 552.0  | 526.7  | 512.7  | 513.4  | 497.4  | 499.4  | 556.0  | 620.6  | 629.2  | 619.9  |
| 25°   | 693.1  | 595.9  | 514.0  | 473.4  | 458.1  | 452.8  | 468.1  | 518.0  | 595.9  | 614.6  | 621.9  |
| 27.5° | 811.0  | 647.2  | 529.3  | 460.1  | 429.5  | 432.1  | 454.1  | 488.7  | 580.6  | 613.9  | 622.6  |
| 30°   | 778.4  | 608.6  | 530.0  | 450.1  | 412.2  | 426.1  | 434.1  | 467.4  | 568.6  | 618.6  | 661.8  |
| 32.5° | 600.6  | 547.3  | 533.3  | 458.1  | 442.8  | 420.8  | 432.1  | 464.1  | 533.3  | 564.6  | 566.6  |
| 35°   | 508.7  | 468.1  | 458.8  | 440.1  | 418.8  | 409.5  | 422.1  | 450.1  | 495.4  | 514.7  | 512.0  |
| 37.5° | 504.7  | 460.1  | 423.5  | 415.5  | 406.8  | 404.2  | 411.5  | 437.5  | 483.4  | 517.4  | 510.0  |
| 40°   | 511.4  | 456.1  | 418.8  | 404.8  | 408.2  | 396.2  | 403.5  | 435.5  | 485.4  | 517.4  | 510.7  |
| 42.5° | 503.4  | 451.4  | 412.8  | 402.2  | 405.5  | 388.8  | 397.5  | 430.8  | 480.1  | 518.0  | 505.4  |
| 45°   | 487.4  | 440.8  | 409.5  | 391.5  | 406.8  | 382.2  | 392.8  | 418.8  | 464.1  | 505.4  | 490.7  |
| 47.5° | 471.4  | 428.1  | 395.5  | 384.2  | 399.5  | 375.5  | 380.2  | 402.8  | 448.1  | 488.7  | 476.1  |
| 50°   | 454.1  | 412.2  | 384.2  | 380.9  | 391.5  | 374.2  | 366.9  | 385.5  | 428.8  | 469.4  | 458.8  |
| 52.5° | 435.5  | 398.8  | 376.2  | 374.9  | 384.9  | 365.5  | 354.9  | 369.5  | 408.2  | 448.8  | 440.1  |
| 55°   | 417.5  | 384.2  | 366.2  | 369.5  | 380.9  | 358.2  | 344.9  | 354.2  | 386.2  | 426.1  | 414.2  |
| 57.5° | 399.5  | 367.5  | 352.9  | 362.2  | 370.9  | 348.9  | 332.3  | 337.6  | 363.5  | 402.8  | 388.8  |
| 60°   | 383.5  | 352.9  | 338.2  | 349.6  | 357.6  | 334.9  | 315.6  | 318.9  | 342.2  | 377.5  | 364.9  |
| 62.5° | 362.9  | 336.9  | 317.6  | 332.3  | 338.2  | 316.3  | 295.6  | 299.6  | 318.3  | 351.6  | 342.2  |
| 65°   | 333.6  | 316.9  | 299.0  | 308.9  | 316.9  | 294.3  | 275.0  | 279.7  | 293.6  | 324.9  | 318.3  |
| 67.5° | 308.3  | 292.3  | 280.3  | 288.3  | 289.6  | 272.3  | 255.0  | 257.7  | 269.0  | 298.3  | 291.0  |
| 70°   | 280.3  | 265.0  | 255.7  | 261.7  | 261.0  | 246.4  | 233.0  | 233.7  | 243.0  | 269.7  | 259.7  |
| 72.5° | 249.7  | 235.0  | 230.4  | 233.7  | 231.0  | 217.7  | 205.1  | 209.7  | 215.7  | 235.7  | 227.7  |
| 75°   | 217.1  | 203.7  | 201.1  | 204.4  | 200.4  | 187.8  | 176.4  | 181.1  | 186.4  | 203.1  | 193.1  |
| 77.5° | 183.1  | 171.1  | 171.8  | 172.5  | 167.1  | 158.5  | 147.2  | 151.8  | 155.1  | 166.5  | 156.5  |
| 80°   | 145.8  | 136.5  | 139.2  | 139.2  | 133.2  | 127.2  | 116.5  | 117.9  | 119.9  | 123.8  | 116.5  |
| 82.5° | 106.5  | 106.5  | 106.5  | 107.2  | 94.5   | 96.5   | 87.2   | 86.6   | 84.6   | 83.9   | 79.2   |
| 85°   | 63.3   | 65.9   | 67.2   | 69.2   | 51.3   | 59.9   | 51.9   | 49.9   | 45.9   | 41.9   | 40.6   |
| 87.5° | 14.0   | 18.0   | 18.0   | 17.3   | 0.0    | 6.7    | 3.3    | 5.3    | 1.3    | 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    |



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**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°    | 360°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 0°    | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9 | 1446.9  | 1446.9  |
| 2.5°  | 1465.5 | 1425.6 | 1500.1 | 1566.7 | 1556.1 | 1594.7 | 1504.8 | 1638.0 | 1779.1  | 1779.1  |
| 5°    | 1555.4 | 1521.4 | 1540.7 | 1579.4 | 1608.7 | 1743.2 | 1855.0 | 1966.2 | 2195.9  | 2198.6  |
| 7.5°  | 1311.7 | 1384.9 | 1402.3 | 1390.9 | 1516.8 | 1689.9 | 1874.3 | 2191.3 | 2385.7  | 2401.0  |
| 10°   | 1226.5 | 1259.8 | 1312.4 | 1341.7 | 1392.9 | 1563.4 | 1792.4 | 2168.6 | 2375.0  | 2413.7  |
| 12.5° | 1111.3 | 1234.5 | 1314.4 | 1478.2 | 1518.8 | 1552.7 | 1916.9 | 2242.5 | 2385.0  | 2375.7  |
| 15°   | 985.4  | 1078.7 | 1193.8 | 1375.0 | 1478.2 | 1737.8 | 1990.9 | 2479.6 | 2560.1  | 2630.7  |
| 17.5° | 785.7  | 854.3  | 1007.4 | 1213.8 | 1469.5 | 1708.5 | 2173.3 | 2772.5 | 2923.0  | 2996.3  |
| 20°   | 646.5  | 647.2  | 800.3  | 1074.0 | 1352.3 | 1586.0 | 2242.5 | 3015.6 | 3206.7  | 3244.0  |
| 22.5° | 611.2  | 580.6  | 661.2  | 883.6  | 1223.1 | 1658.6 | 2382.4 | 3406.4 | 3805.3  | 3899.1  |
| 25°   | 591.9  | 554.6  | 605.2  | 779.7  | 1130.6 | 1696.6 | 2664.0 | 3943.8 | 4455.8  | 4492.4  |
| 27.5° | 599.9  | 617.2  | 633.2  | 695.1  | 1013.4 | 1625.3 | 2598.8 | 4184.1 | 4732.8  | 4802.0  |
| 30°   | 653.9  | 681.8  | 645.2  | 666.5  | 916.9  | 1522.1 | 2715.3 | 4574.3 | 5081.7  | 5198.2  |
| 32.5° | 544.0  | 533.3  | 530.0  | 576.6  | 820.3  | 1428.9 | 2959.6 | 5123.6 | 5459.9  | 5606.4  |
| 35°   | 490.7  | 474.1  | 480.7  | 534.0  | 773.0  | 1415.6 | 3096.8 | 5578.4 | 6057.1  | 6147.0  |
| 37.5° | 488.7  | 469.4  | 478.1  | 518.0  | 789.7  | 1439.5 | 3316.5 | 6308.1 | 7110.5  | 7302.9  |
| 40°   | 484.1  | 473.4  | 478.1  | 508.0  | 772.4  | 1452.9 | 3443.0 | 6921.4 | 7844.2  | 8039.3  |
| 42.5° | 483.4  | 478.1  | 482.7  | 516.0  | 754.4  | 1458.9 | 3618.2 | 7475.4 | 8617.3  | 8771.1  |
| 45°   | 481.4  | 486.7  | 486.7  | 522.7  | 746.4  | 1498.8 | 3721.4 | 7747.0 | 9127.3  | 9317.1  |
| 47.5° | 472.1  | 488.1  | 514.0  | 520.7  | 713.8  | 1480.2 | 3867.2 | 8159.2 | 9398.3  | 9576.7  |
| 50°   | 460.1  | 486.1  | 548.7  | 507.4  | 708.5  | 1434.9 | 4037.6 | 8486.1 | 9745.9  | 9901.0  |
| 52.5° | 444.1  | 482.7  | 540.7  | 481.4  | 699.1  | 1426.9 | 4276.7 | 8910.9 | 10151.4 | 10288.5 |
| 55°   | 421.5  | 470.7  | 516.0  | 455.4  | 676.5  | 1401.6 | 4642.2 | 9437.6 | 10682.0 | 10775.9 |
| 57.5° | 400.8  | 452.8  | 480.1  | 440.8  | 622.6  | 1406.9 | 4896.6 | 9867.1 | 11127.5 | 11209.4 |
| 60°   | 382.2  | 450.8  | 428.8  | 425.5  | 567.3  | 1335.7 | 4979.1 | 9862.4 | 11293.3 | 11421.8 |
| 62.5° | 362.2  | 425.5  | 392.8  | 404.8  | 518.7  | 1262.4 | 4804.0 | 9439.6 | 11114.2 | 11339.2 |
| 65°   | 336.2  | 364.9  | 362.9  | 390.2  | 520.0  | 1143.2 | 4402.5 | 8693.8 | 10667.4 | 10963.7 |
| 67.5° | 305.6  | 322.9  | 334.3  | 366.2  | 536.7  | 1050.7 | 3756.7 | 7797.0 | 9907.0  | 10259.2 |
| 70°   | 274.3  | 291.6  | 304.3  | 334.9  | 552.0  | 1008.1 | 2990.3 | 6537.2 | 8668.5  | 9026.1  |
| 72.5° | 242.4  | 260.3  | 270.3  | 297.0  | 531.3  | 916.9  | 2213.2 | 5086.3 | 6958.0  | 7145.8  |
| 75°   | 209.1  | 226.4  | 234.4  | 259.0  | 461.4  | 758.4  | 1528.1 | 3852.5 | 5096.3  | 5286.8  |
| 77.5° | 175.1  | 193.8  | 196.4  | 216.4  | 352.2  | 579.9  | 979.4  | 2955.0 | 3608.8  | 3736.0  |
| 80°   | 139.8  | 158.5  | 158.5  | 169.1  | 247.7  | 398.8  | 586.6  | 2229.2 | 2628.1  | 2678.0  |
| 82.5° | 100.5  | 120.5  | 119.2  | 119.9  | 171.1  | 247.0  | 339.6  | 1670.6 | 1899.0  | 1908.3  |
| 85°   | 59.3   | 73.2   | 72.6   | 66.6   | 101.2  | 133.2  | 183.8  | 1037.4 | 1060.0  | 1062.7  |
| 87.5° | 11.3   | 17.3   | 15.3   | 6.7    | 28.0   | 39.3   | 53.3   | 192.4  | 76.6    | 74.6    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     |

(END OF REPORT)