

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: P533959

Luminaire Tested: **GALN-SA9B-830-U-T2-GRSBK**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P533959  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-057-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9B-830-U-T2-GRSBK  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
OPTICS WITH BLACK GLARE REDUCTION SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24181 lumens  
Efficiency: N/A  
Efficacy: 66.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2

Input Watts (W): 364  
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

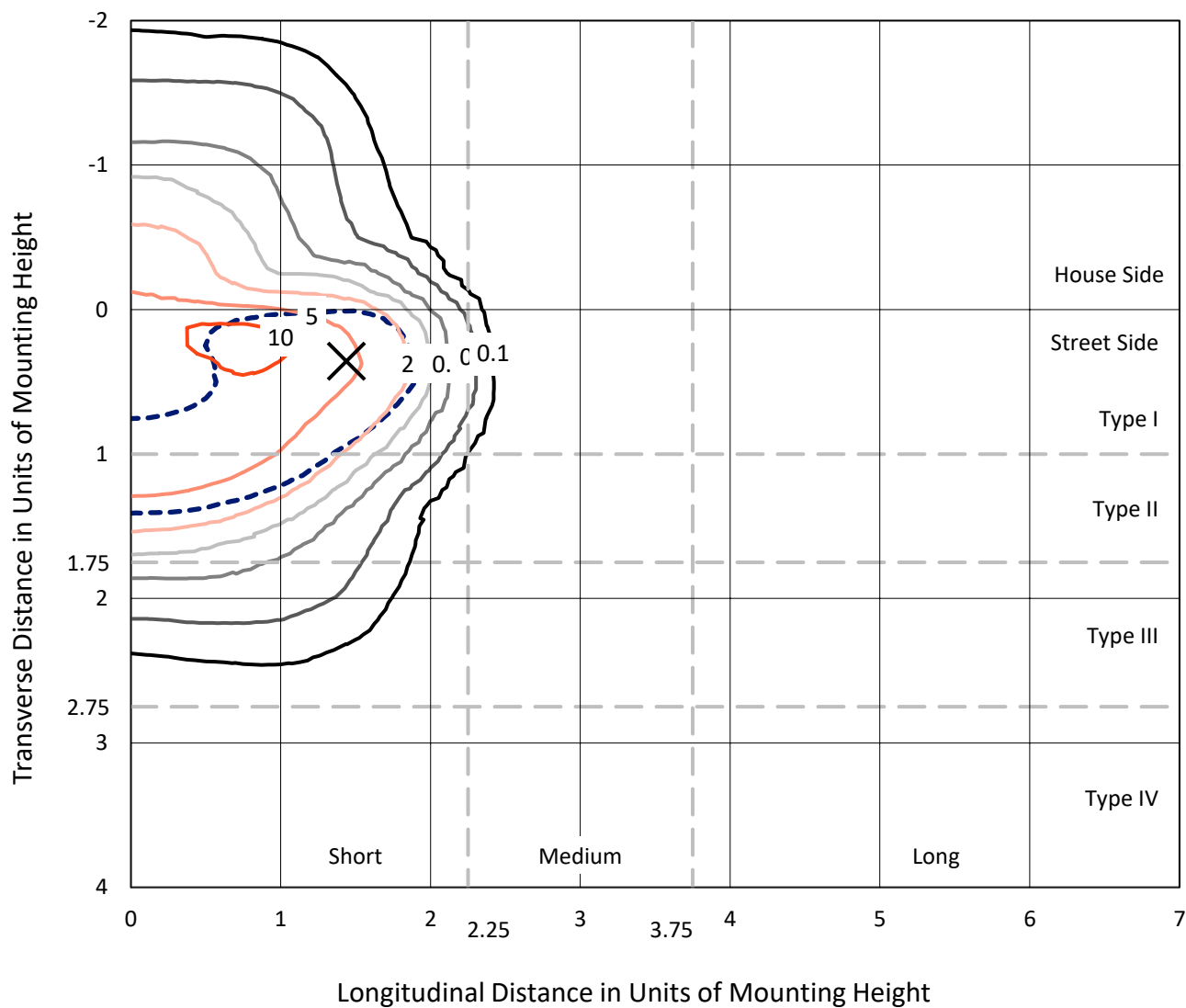


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## Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

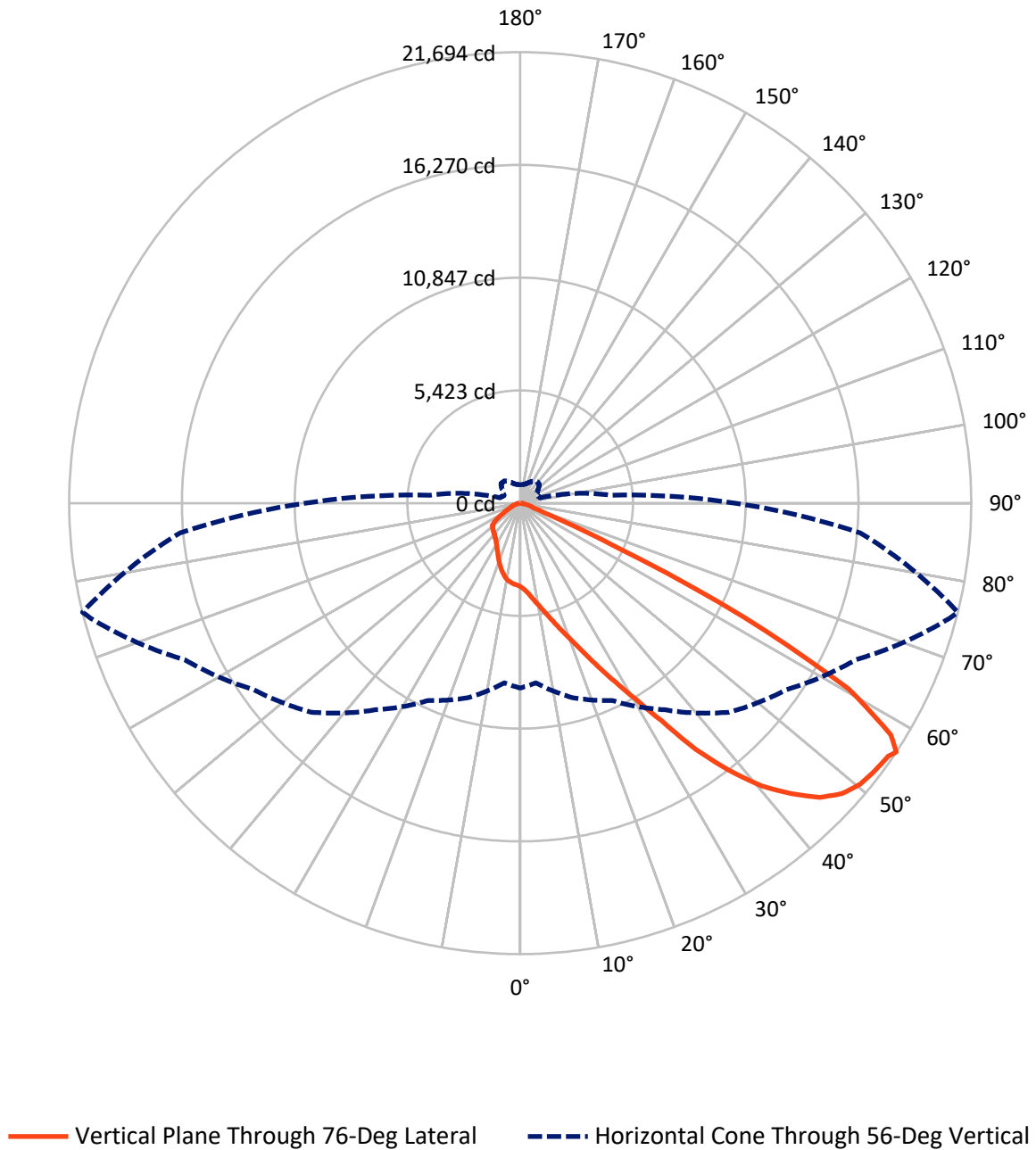
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc  
 Type II - Short - N/A

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## Luminous Intensity Polar Plot



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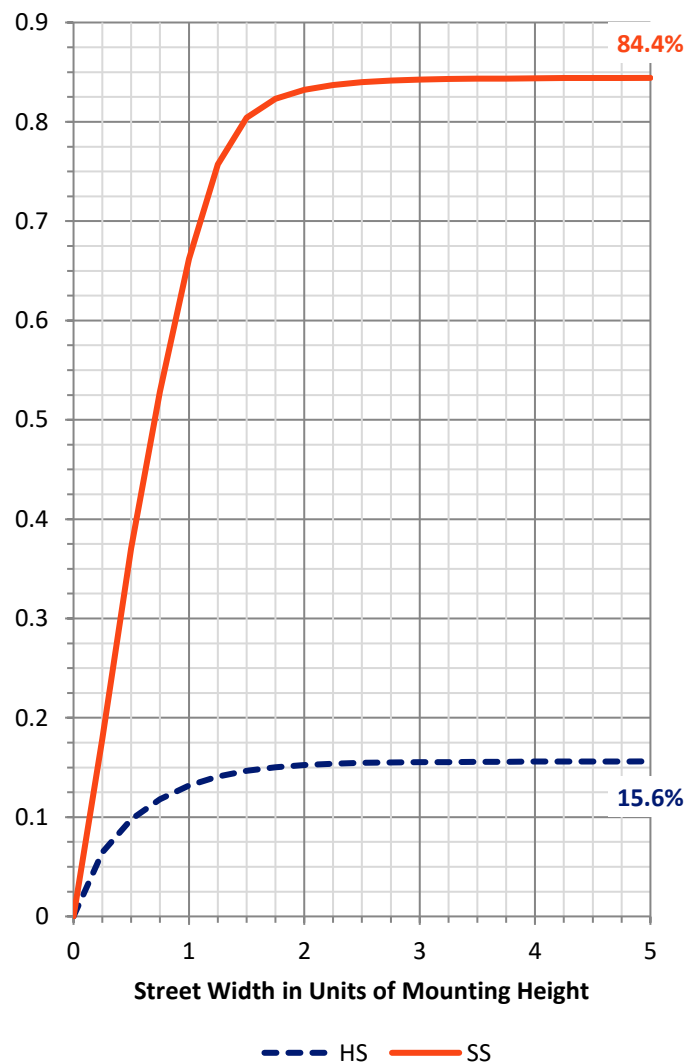
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3798.7   | 0.0    | 3798.7  |
|                    | % Fixture | 15.7     | 0.0    | 15.7    |
| <b>Street Side</b> | Lumens    | 20382.3  | 0.0    | 20382.3 |
|                    | % Fixture | 84.3     | 0.0    | 84.3    |
| <b>Total</b>       | Lumens    | 24181.0  | 0.0    | 24181.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 405.5   | 1.7       |
| 10°-20°   | 1302.6  | 5.4       |
| 20°-30°   | 2361.9  | 9.8       |
| 30°-40°   | 4073.3  | 16.8      |
| 40°-50°   | 6617.2  | 27.4      |
| 50°-60°   | 6974.8  | 28.8      |
| 60°-70°   | 2131.1  | 8.8       |
| 70°-80°   | 273.2   | 1.1       |
| 80°-90°   | 41.5    | 0.2       |
| 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°    | 24181.0 | 100.0     |
| 0°-180°   | 24181.0 | 100.0     |

**Coefficient of Utilization**



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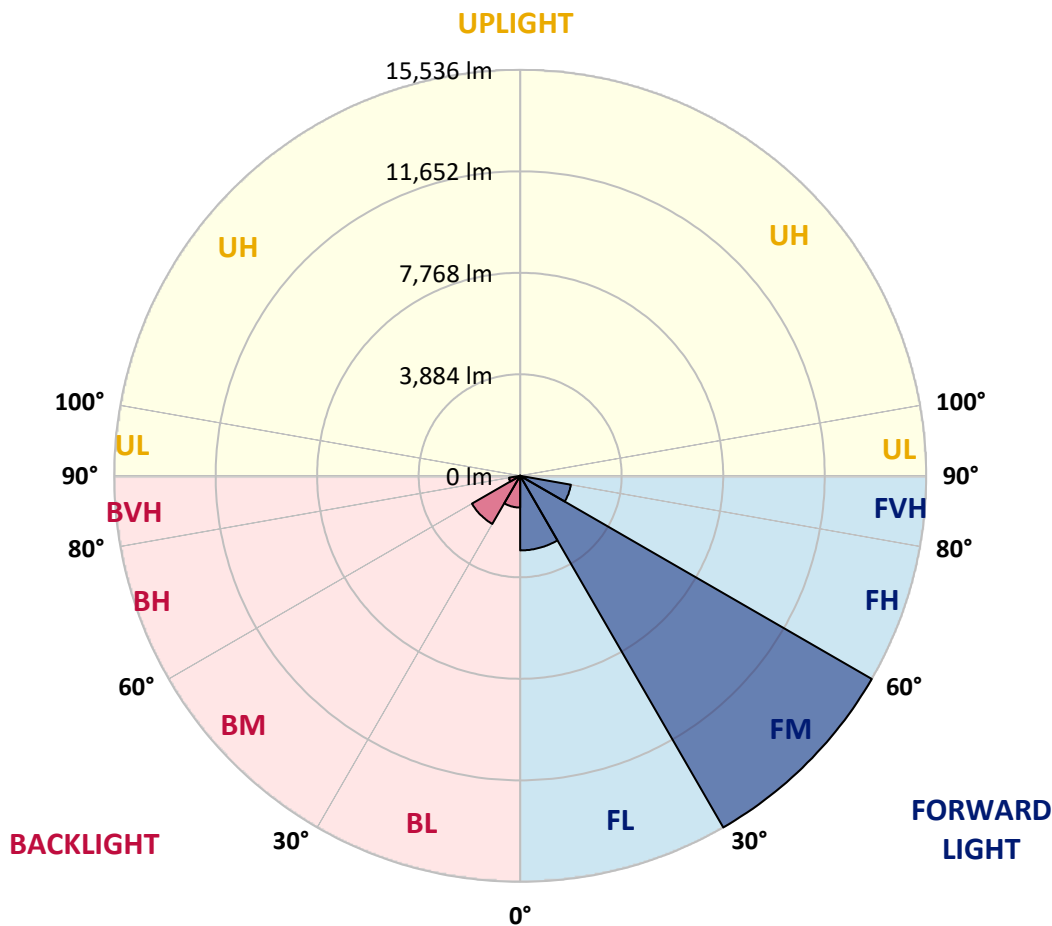
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2854.8  | 11.8      |                         |      |         |
| FM   | (30°-60°)   | 15536.3 | 64.2      |                         |      |         |
| FH   | (60°-80°)   | 1970.9  | 8.2       |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 20.3    | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1215.2  | 5.0       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2129.0  | 8.8       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 433.4   | 1.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 21.2    | 0.1       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type II Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 76°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  | 4025.0  |
| 2.5°  | 4635.6  | 4528.6  | 4533.1  | 4524.2  | 4510.8  | 4461.8  | 4314.7  | 4292.4  | 4194.3  | 4167.6  | 4078.5  |
| 5°    | 5192.8  | 5099.2  | 5152.7  | 5072.4  | 4996.7  | 4952.1  | 4711.4  | 4600.0  | 4444.0  | 4386.0  | 4261.2  |
| 7.5°  | 5540.5  | 5495.9  | 5478.1  | 5482.5  | 5411.2  | 5299.8  | 5192.8  | 4947.6  | 4738.1  | 4693.6  | 4430.6  |
| 10°   | 5709.8  | 5683.1  | 5709.8  | 5696.5  | 5727.7  | 5741.0  | 5553.8  | 5406.7  | 5099.2  | 5023.4  | 4613.3  |
| 12.5° | 5749.9  | 5803.4  | 5825.7  | 5883.7  | 5959.4  | 6088.7  | 6075.3  | 5874.8  | 5464.7  | 5415.6  | 4894.1  |
| 15°   | 5848.0  | 5892.6  | 5870.3  | 5963.9  | 6106.5  | 6324.9  | 6440.8  | 6409.6  | 5968.4  | 5879.2  | 5219.5  |
| 17.5° | 5937.2  | 5856.9  | 5932.7  | 6119.9  | 6262.5  | 6596.8  | 6877.7  | 7006.9  | 6516.6  | 6414.1  | 5518.2  |
| 20°   | 6057.5  | 6035.2  | 6021.8  | 6115.4  | 6369.5  | 6815.2  | 7372.4  | 7608.7  | 7131.7  | 7024.7  | 5946.1  |
| 22.5° | 6423.0  | 6427.5  | 6418.5  | 6280.4  | 6463.1  | 6966.8  | 7804.8  | 8388.7  | 7867.2  | 7778.0  | 6431.9  |
| 25°   | 6904.4  | 6846.5  | 6801.9  | 6690.4  | 6668.2  | 7105.0  | 8241.6  | 9342.6  | 8749.7  | 8687.3  | 6957.9  |
| 27.5° | 7412.5  | 7412.5  | 7278.8  | 7176.3  | 7033.7  | 7448.2  | 8642.8  | 10269.7 | 9815.0  | 9730.3  | 7417.0  |
| 30°   | 7965.2  | 7996.4  | 7978.6  | 7760.2  | 7671.1  | 7822.6  | 9052.8  | 11455.3 | 11036.3 | 10929.4 | 8174.7  |
| 32.5° | 8780.9  | 8714.1  | 8789.8  | 8607.1  | 8344.1  | 8477.8  | 9699.1  | 12516.2 | 12623.1 | 12471.6 | 9168.7  |
| 35°   | 9859.6  | 9819.5  | 9770.5  | 9471.8  | 9159.8  | 9266.8  | 10612.9 | 13822.2 | 14615.6 | 14539.8 | 10171.6 |
| 37.5° | 10826.8 | 10804.6 | 10764.4 | 10559.4 | 10198.4 | 10327.6 | 11651.4 | 15181.6 | 16559.0 | 16309.3 | 11589.0 |
| 40°   | 11843.1 | 11963.5 | 11834.2 | 11651.4 | 11321.6 | 11606.9 | 12872.8 | 15988.4 | 18194.8 | 17891.7 | 12672.2 |
| 42.5° | 13220.4 | 13126.8 | 13184.8 | 12850.5 | 12672.2 | 12984.2 | 14098.5 | 16795.2 | 19465.1 | 19104.1 | 13822.2 |
| 45°   | 14686.9 | 14691.3 | 14535.3 | 14428.4 | 13964.8 | 14303.6 | 14851.8 | 17240.9 | 20476.9 | 20196.1 | 14691.3 |
| 47.5° | 15627.4 | 15622.9 | 15792.3 | 15961.7 | 15484.7 | 15150.4 | 15364.4 | 17664.4 | 20998.5 | 20869.2 | 15007.8 |
| 50°   | 15480.3 | 15524.9 | 15743.3 | 16376.2 | 16625.8 | 16175.6 | 15845.8 | 17539.6 | 21234.7 | 21221.3 | 15279.7 |
| 52.5° | 13465.6 | 13612.7 | 13978.2 | 14891.9 | 16148.9 | 16706.1 | 16349.5 | 17771.4 | 21350.6 | 21372.9 | 15685.3 |
| 55°   | 10251.8 | 10332.1 | 11027.4 | 12137.3 | 13528.0 | 15435.7 | 16148.9 | 17954.1 | 21439.7 | 21479.8 | 16175.6 |
| 56°   | 8892.4  | 8678.4  | 9681.3  | 10470.3 | 12132.8 | 14218.9 | 15640.8 | 17811.5 | 21386.2 | 21693.8 | 16420.8 |
| 57.5° | 6712.7  | 6570.1  | 7381.3  | 8366.4  | 9966.6  | 12168.5 | 14062.9 | 17138.4 | 21025.2 | 21020.7 | 16068.7 |
| 60°   | 4082.9  | 3940.3  | 4564.3  | 5143.8  | 6039.7  | 7492.8  | 9503.0  | 13648.3 | 17775.8 | 18150.2 | 13010.9 |
| 62.5° | 2429.2  | 2518.4  | 3133.5  | 3485.6  | 3775.4  | 3926.9  | 4916.4  | 8112.3  | 11860.9 | 12128.4 | 8072.2  |
| 65°   | 1618.0  | 1649.2  | 2112.8  | 2692.2  | 2821.5  | 2246.5  | 2001.3  | 3285.0  | 5143.8  | 4978.8  | 3329.6  |
| 67.5° | 998.4   | 1069.8  | 1417.4  | 2023.6  | 2242.0  | 1640.3  | 949.4   | 1225.8  | 1417.4  | 1417.4  | 962.8   |
| 70°   | 606.2   | 641.9   | 945.0   | 1377.3  | 1537.8  | 1056.4  | 690.9   | 690.9   | 682.0   | 668.6   | 575.0   |
| 72.5° | 289.7   | 312.0   | 481.4   | 708.7   | 722.1   | 557.2   | 534.9   | 583.9   | 570.5   | 566.1   | 476.9   |
| 75°   | 124.8   | 133.7   | 169.4   | 222.9   | 254.1   | 236.2   | 325.4   | 419.0   | 432.4   | 419.0   | 343.2   |
| 77.5° | 40.1    | 44.6    | 62.4    | 80.2    | 84.7    | 102.5   | 138.2   | 173.8   | 200.6   | 187.2   | 169.4   |
| 80°   | 4.5     | 8.9     | 17.8    | 40.1    | 62.4    | 80.2    | 102.5   | 115.9   | 129.3   | 129.3   | 120.3   |
| 82.5° | 4.5     | 4.5     | 17.8    | 35.7    | 57.9    | 75.8    | 98.1    | 111.4   | 129.3   | 133.7   | 124.8   |
| 85°   | 0.0     | 4.5     | 13.4    | 31.2    | 49.0    | 49.0    | 44.6    | 44.6    | 31.2    | 31.2    | 31.2    |
| 87.5° | 0.0     | 0.0     | 4.5     | 4.5     | 4.5     | 8.9     | 8.9     | 8.9     | 8.9     | 8.9     | 8.9     |
| 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°    | 4025.0  | 4025.0 | 4025.0 | 4025.0 | 4025.0 | 4025.0 | 4025.0 | 4025.0 | 4025.0 | 4025.0 | 4025.0 |
| 2.5°  | 4060.6  | 4051.7 | 3931.4 | 3855.6 | 3815.5 | 3735.2 | 3686.2 | 3650.5 | 3623.8 | 3592.6 | 3597.1 |
| 5°    | 4114.1  | 4082.9 | 3882.3 | 3744.2 | 3579.2 | 3490.1 | 3414.3 | 3351.9 | 3311.8 | 3302.9 | 3285.0 |
| 7.5°  | 4265.7  | 4100.7 | 3797.6 | 3548.0 | 3338.5 | 3249.4 | 3182.5 | 3142.4 | 3160.2 | 3120.1 | 3151.3 |
| 10°   | 4381.5  | 4136.4 | 3695.1 | 3334.1 | 3124.6 | 3057.7 | 3022.1 | 3053.3 | 3097.8 | 3080.0 | 3057.7 |
| 12.5° | 4524.2  | 4172.1 | 3530.2 | 3129.0 | 2932.9 | 2883.9 | 2946.3 | 3004.2 | 3093.4 | 3129.0 | 3084.5 |
| 15°   | 4684.6  | 4212.2 | 3320.7 | 2892.8 | 2768.0 | 2808.1 | 2915.1 | 3017.6 | 3106.8 | 3151.3 | 3178.1 |
| 17.5° | 4880.8  | 4198.8 | 3115.7 | 2705.6 | 2612.0 | 2727.9 | 2857.1 | 2950.7 | 3084.5 | 3151.3 | 3133.5 |
| 20°   | 5063.5  | 4154.2 | 2888.3 | 2518.4 | 2522.8 | 2629.8 | 2736.8 | 2888.3 | 2959.7 | 3048.8 | 3017.6 |
| 22.5° | 5237.4  | 4074.0 | 2652.1 | 2389.1 | 2389.1 | 2554.0 | 2607.5 | 2705.6 | 2768.0 | 2812.6 | 2808.1 |
| 25°   | 5482.5  | 3922.4 | 2456.0 | 2264.3 | 2317.8 | 2424.8 | 2469.4 | 2500.6 | 2473.8 | 2509.5 | 2513.9 |
| 27.5° | 5656.3  | 3766.4 | 2295.5 | 2152.9 | 2250.9 | 2331.2 | 2317.8 | 2300.0 | 2237.6 | 2188.5 | 2219.7 |
| 30°   | 5843.6  | 3583.7 | 2157.3 | 2077.1 | 2130.6 | 2201.9 | 2148.4 | 2094.9 | 1996.9 | 1916.6 | 1921.1 |
| 32.5° | 6111.0  | 3499.0 | 2037.0 | 1988.0 | 2059.3 | 2068.2 | 2010.3 | 1930.0 | 1832.0 | 1756.2 | 1751.7 |
| 35°   | 6610.2  | 3445.5 | 1934.5 | 1930.0 | 1943.4 | 1947.9 | 1889.9 | 1791.8 | 1751.7 | 1689.3 | 1711.6 |
| 37.5° | 7109.4  | 3418.8 | 1863.2 | 1845.3 | 1840.9 | 1845.3 | 1778.5 | 1684.9 | 1760.6 | 1756.2 | 1765.1 |
| 40°   | 7746.8  | 3539.1 | 1760.6 | 1738.4 | 1742.8 | 1742.8 | 1658.1 | 1631.4 | 1765.1 | 1778.5 | 1782.9 |
| 42.5° | 8393.1  | 3690.7 | 1693.8 | 1622.5 | 1640.3 | 1640.3 | 1595.7 | 1564.5 | 1658.1 | 1569.0 | 1555.6 |
| 45°   | 8954.8  | 3913.5 | 1622.5 | 1506.6 | 1551.1 | 1573.4 | 1560.1 | 1506.6 | 1448.6 | 1297.1 | 1297.1 |
| 47.5° | 9137.5  | 4109.7 | 1537.8 | 1395.1 | 1430.8 | 1528.9 | 1488.7 | 1377.3 | 1274.8 | 1150.0 | 1141.1 |
| 50°   | 9458.4  | 4323.6 | 1470.9 | 1265.9 | 1341.7 | 1462.0 | 1421.9 | 1310.5 | 1194.6 | 1105.4 | 1109.9 |
| 52.5° | 9788.3  | 4568.8 | 1346.1 | 1114.3 | 1207.9 | 1408.5 | 1408.5 | 1283.7 | 1105.4 | 1043.0 | 1034.1 |
| 55°   | 10283.0 | 4559.8 | 1123.2 | 913.8  | 1078.7 | 1328.3 | 1350.6 | 1150.0 | 989.5  | 940.5  | 940.5  |
| 56°   | 10354.4 | 4354.8 | 1011.8 | 855.8  | 1020.7 | 1306.0 | 1310.5 | 1114.3 | 945.0  | 891.5  | 891.5  |
| 57.5° | 9819.5  | 3931.4 | 887.0  | 784.5  | 949.4  | 1265.9 | 1270.3 | 1083.1 | 909.3  | 833.5  | 824.6  |
| 60°   | 7555.2  | 2661.0 | 739.9  | 699.8  | 860.3  | 1141.1 | 1163.4 | 985.1  | 797.9  | 739.9  | 735.5  |
| 62.5° | 4265.7  | 1475.4 | 650.8  | 632.9  | 739.9  | 971.7  | 1038.6 | 860.3  | 677.5  | 646.3  | 655.2  |
| 65°   | 1947.9  | 811.2  | 548.3  | 512.6  | 597.3  | 748.8  | 838.0  | 708.7  | 557.2  | 521.5  | 521.5  |
| 67.5° | 713.2   | 552.7  | 468.0  | 405.6  | 419.0  | 485.8  | 543.8  | 459.1  | 370.0  | 316.5  | 329.8  |
| 70°   | 508.1   | 463.6  | 410.1  | 352.1  | 325.4  | 316.5  | 312.0  | 258.5  | 182.8  | 142.6  | 151.5  |
| 72.5° | 410.1   | 383.3  | 343.2  | 298.6  | 254.1  | 214.0  | 182.8  | 133.7  | 84.7   | 57.9   | 53.5   |
| 75°   | 294.2   | 280.8  | 249.6  | 214.0  | 178.3  | 151.5  | 124.8  | 84.7   | 44.6   | 22.3   | 22.3   |
| 77.5° | 151.5   | 151.5  | 147.1  | 133.7  | 111.4  | 89.1   | 71.3   | 49.0   | 26.7   | 8.9    | 8.9    |
| 80°   | 115.9   | 124.8  | 129.3  | 115.9  | 102.5  | 80.2   | 57.9   | 35.7   | 17.8   | 4.5    | 4.5    |
| 82.5° | 111.4   | 129.3  | 138.2  | 120.3  | 102.5  | 75.8   | 57.9   | 35.7   | 17.8   | 4.5    | 4.5    |
| 85°   | 26.7    | 26.7   | 40.1   | 44.6   | 57.9   | 62.4   | 49.0   | 31.2   | 13.4   | 4.5    | 4.5    |
| 87.5° | 8.9     | 8.9    | 8.9    | 8.9    | 8.9    | 8.9    | 4.5    | 4.5    | 4.5    | 4.5    | 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)