



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  
Eaton Lighting Division  
(formerly Cooper Lighting)

Brand: io LED

Report Number: P397170

Luminaire Tested: **2VRVT2-LD5-2-DR-W-UNV-LG52-CD1-WL-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Eaton or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P397170  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-9)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: EATON (FORMERLY COOPER LIGHTING)  
Product Line: io LED  
Catalog Number: 2VRVT2-LD5-2-DR-W-UNV-LG52-CD1-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: 

| <u>Sample No.</u> | <u>Condition</u> | <u>Description</u> |
|-------------------|------------------|--------------------|
| a                 | good             | reflector          |
| b                 | good             | lens               |
| c                 | good             | housing            |
| d                 | good             | cord               |

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1672.7 lumens  
Efficiency: N/A  
Efficacy: 40.4 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 2.08' x H: 0.17')  
IES Classification: Type V - Short - Non-Cutoff  
BUG Rating: B1 - U3 - G1  
  
Input Watts (W): 41.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

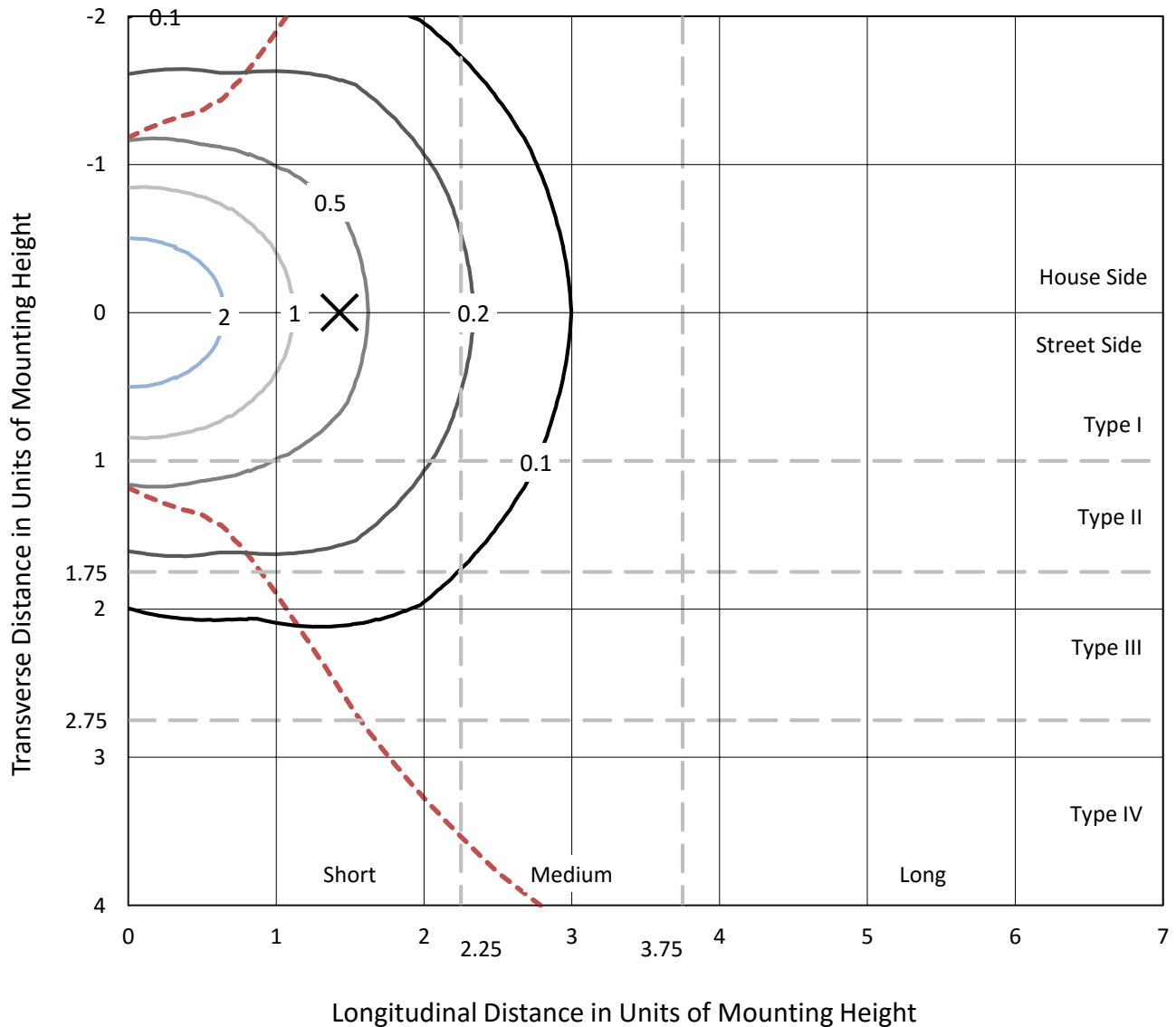


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd



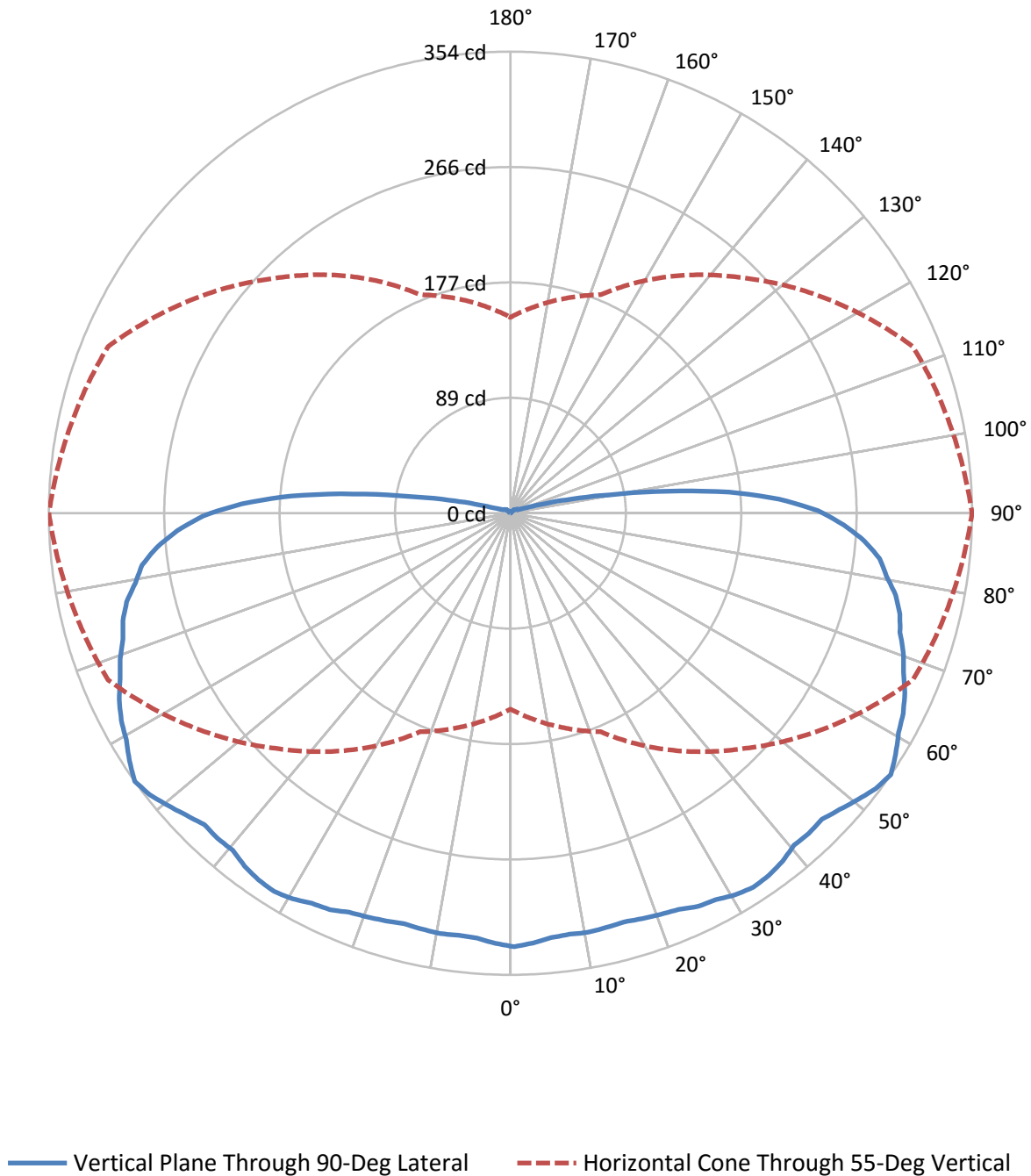
Based on 10 foot mounting height. Maximum calculated value = 3.3 fc  
 Type V - Short - Non-Cutoff



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### Luminous Intensity Polar Plot





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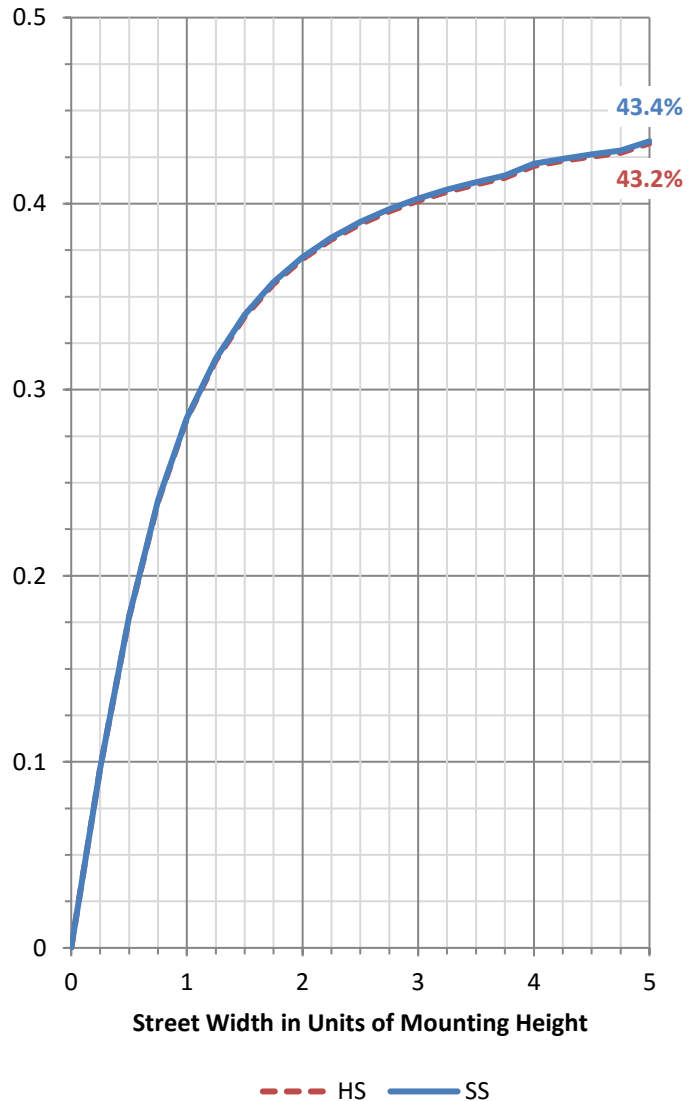
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 763.9    | 72.4   | 836.3  |
|                    | % Fixture | 45.7     | 4.3    | 50.0   |
| <b>Street Side</b> | Lumens    | 763.9    | 72.4   | 836.3  |
|                    | % Fixture | 45.7     | 4.3    | 50.0   |
| <b>Total</b>       | Lumens    | 1527.9   | 144.8  | 1672.7 |
|                    | % Fixture | 91.3     | 8.7    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 31.4   | 1.9       |
| 10°-20°   | 90.9   | 5.4       |
| 20°-30°   | 143.0  | 8.5       |
| 30°-40°   | 184.4  | 11.0      |
| 40°-50°   | 209.8  | 12.5      |
| 50°-60°   | 229.3  | 13.7      |
| 60°-70°   | 236.5  | 14.1      |
| 70°-80°   | 222.2  | 13.3      |
| 80°-90°   | 180.4  | 10.8      |
| 90°-100°  | 103.2  | 6.2       |
| 100°-110° | 26.6   | 1.6       |
| 110°-120° | 8.6    | 0.5       |
| 120°-130° | 4.5    | 0.3       |
| 130°-140° | 1.7    | 0.1       |
| 140°-150° | 0.2    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-90°    | 1527.9 | 91.3      |
| 0°-180°   | 1672.7 | 100.0     |





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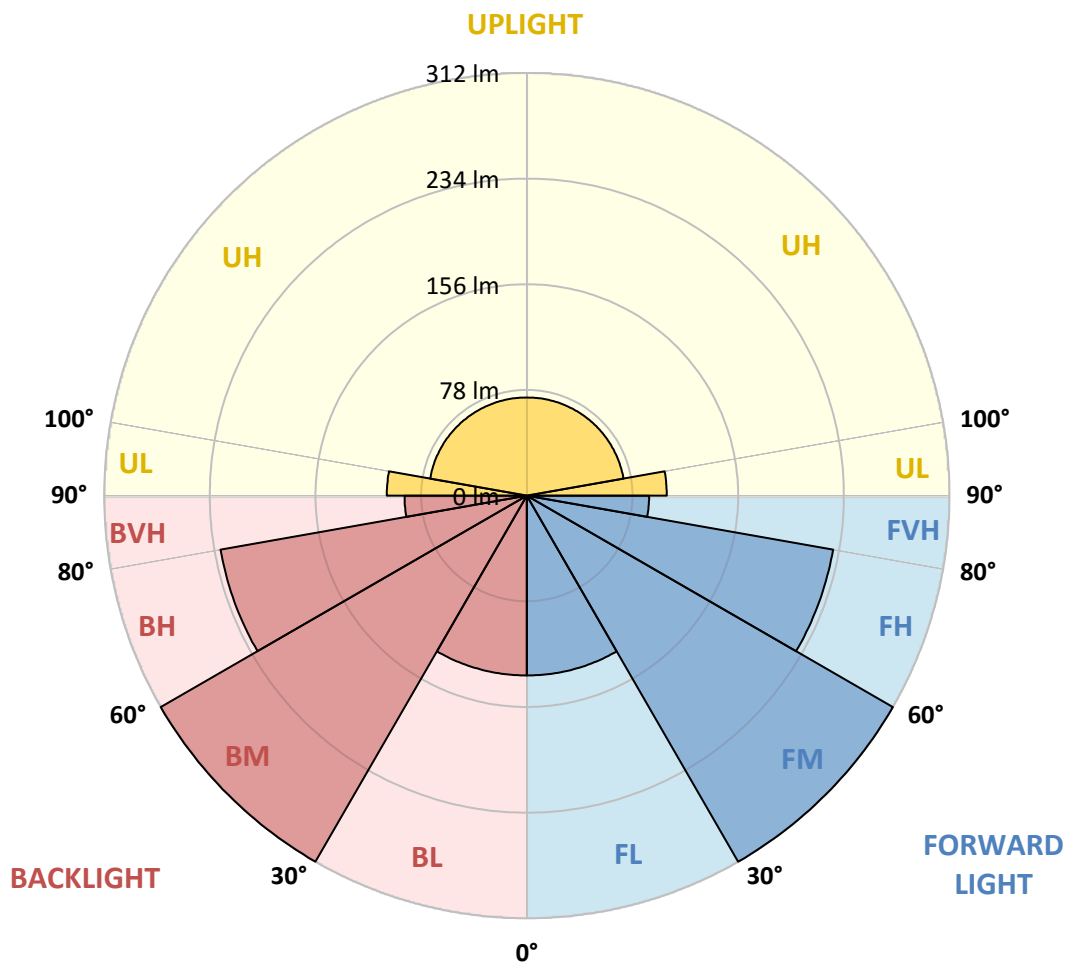
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |        |        |
|------|-------------|--------|-----------|-------------------------|--------|--------|
|      |             |        |           | B                       | U      | G      |
| FL   | (0°-30°)    | 132.6  | 7.9       |                         |        |        |
| FM   | (30°-60°)   | 311.7  | 18.6      |                         |        |        |
| FH   | (60°-80°)   | 229.4  | 13.7      |                         |        | G0/660 |
| FVH  | (80°-90°)   | 90.2   | 5.4       |                         |        | G1/100 |
| BL   | (0°-30°)    | 132.6  | 7.9       | B1/500                  |        |        |
| BM   | (30°-60°)   | 311.7  | 18.6      | B1/1000                 |        |        |
| BH   | (60°-80°)   | 229.4  | 13.7      | B1/500                  |        | G0/660 |
| BVH  | (80°-90°)   | 90.2   | 5.4       |                         |        | G1/100 |
| UL   | (90°-100°)  | 103.2  | 6.2       |                         | U3/500 |        |
| UH   | (100°-180°) | 72.4   | 4.3       |                         | U3/500 |        |

**BUG Rating: B1-U3-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 332.8 | 332.8 | 332.8 | 332.8 | 332.8 |
| 2.5°   | 334.4 | 334.4 | 332.8 | 332.0 | 330.4 |
| 5°     | 332.0 | 332.0 | 330.4 | 328.8 | 327.2 |
| 7.5°   | 329.6 | 328.8 | 328.8 | 328.0 | 326.4 |
| 10°    | 326.4 | 325.6 | 326.4 | 326.4 | 327.2 |
| 12.5°  | 321.6 | 322.4 | 323.2 | 325.6 | 326.4 |
| 15°    | 316.0 | 317.6 | 320.0 | 325.6 | 325.6 |
| 17.5°  | 310.4 | 311.2 | 318.4 | 325.6 | 327.2 |
| 20°    | 302.4 | 306.4 | 316.0 | 324.8 | 328.8 |
| 22.5°  | 294.4 | 299.2 | 312.8 | 325.6 | 330.4 |
| 25°    | 287.2 | 292.0 | 308.0 | 327.2 | 334.4 |
| 27.5°  | 276.8 | 284.8 | 305.6 | 327.2 | 336.0 |
| 30°    | 266.4 | 276.8 | 302.4 | 328.0 | 340.0 |
| 32.5°  | 256.8 | 268.0 | 300.8 | 329.6 | 342.4 |
| 35°    | 246.4 | 259.2 | 296.8 | 328.8 | 341.6 |
| 37.5°  | 234.4 | 251.2 | 292.0 | 325.6 | 339.2 |
| 40°    | 222.4 | 241.6 | 287.2 | 323.2 | 335.2 |
| 42.5°  | 210.4 | 232.0 | 280.8 | 319.2 | 336.0 |
| 45°    | 198.4 | 222.4 | 274.4 | 318.4 | 335.2 |
| 47.5°  | 187.2 | 212.8 | 268.0 | 318.4 | 340.0 |
| 50°    | 175.2 | 203.2 | 261.6 | 323.2 | 345.6 |
| 52.5°  | 163.2 | 192.8 | 257.6 | 328.0 | 351.2 |
| 55°    | 150.4 | 181.6 | 255.2 | 334.4 | 354.4 |
| 57.5°  | 138.4 | 172.0 | 258.4 | 336.8 | 348.8 |
| 60°    | 127.2 | 162.4 | 264.0 | 332.0 | 342.4 |
| 62.5°  | 115.2 | 153.6 | 271.2 | 325.6 | 338.4 |
| 65°    | 104.0 | 146.4 | 273.6 | 318.4 | 332.8 |
| 67.5°  | 92.8  | 142.4 | 270.4 | 310.4 | 325.6 |
| 70°    | 81.6  | 140.8 | 261.6 | 300.8 | 320.0 |
| 72.5°  | 72.0  | 142.4 | 248.8 | 292.0 | 312.8 |
| 75°    | 61.6  | 143.2 | 230.4 | 284.8 | 308.8 |
| 77.5°  | 52.0  | 140.8 | 214.4 | 277.6 | 302.4 |
| 80°    | 43.2  | 130.4 | 199.2 | 266.4 | 292.8 |
| 82.5°  | 34.4  | 116.0 | 184.0 | 256.8 | 285.6 |
| 85°    | 26.4  | 100.0 | 170.4 | 244.0 | 272.8 |
| 87.5°  | 19.2  | 86.4  | 155.2 | 229.6 | 256.0 |
| 90°    | 16.0  | 74.4  | 140.0 | 208.0 | 236.0 |
| 92.5°  | 15.2  | 61.6  | 121.6 | 182.4 | 206.4 |
| 95°    | 14.4  | 48.8  | 96.0  | 148.0 | 168.8 |
| 97.5°  | 13.6  | 37.6  | 70.4  | 104.8 | 121.6 |
| 100°   | 13.6  | 28.8  | 49.6  | 69.6  | 77.6  |
| 102.5° | 12.0  | 21.6  | 35.2  | 44.0  | 48.0  |
| 105°   | 11.2  | 16.8  | 24.0  | 27.2  | 28.0  |
| 107.5° | 10.4  | 13.6  | 17.6  | 17.6  | 16.0  |
| 110°   | 8.8   | 11.2  | 14.4  | 12.0  | 10.4  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90° |
|--------|-----|-------|------|-------|-----|
| 112.5° | 8.0 | 9.6   | 12.0 | 9.6   | 8.0 |
| 115°   | 6.4 | 8.0   | 10.4 | 8.0   | 6.4 |
| 117.5° | 5.6 | 6.4   | 9.6  | 8.0   | 6.4 |
| 120°   | 4.0 | 5.6   | 8.8  | 7.2   | 5.6 |
| 122.5° | 3.2 | 4.0   | 7.2  | 6.4   | 5.6 |
| 125°   | 3.2 | 3.2   | 6.4  | 6.4   | 4.8 |
| 127.5° | 2.4 | 2.4   | 5.6  | 5.6   | 4.8 |
| 130°   | 1.6 | 1.6   | 4.0  | 4.8   | 4.0 |
| 132.5° | 1.6 | 0.8   | 3.2  | 4.0   | 4.0 |
| 135°   | 0.8 | 0.8   | 2.4  | 3.2   | 3.2 |
| 137.5° | 0.8 | 0.8   | 1.6  | 2.4   | 2.4 |
| 140°   | 0.8 | 0.0   | 0.8  | 1.6   | 1.6 |
| 142.5° | 0.8 | 0.0   | 0.0  | 0.8   | 0.8 |
| 145°   | 0.8 | 0.0   | 0.0  | 0.0   | 0.0 |
| 147.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 150°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 152.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 155°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 157.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 160°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 162.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 165°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 167.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 170°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 172.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 175°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 177.5° | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |
| 180°   | 0.0 | 0.0   | 0.0  | 0.0   | 0.0 |

(END OF REPORT)