

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: io LED

Report Number: P273463

Luminaire Tested: **0.05-12W-827-10-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273463  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.05-12W-827-10-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 10 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1737.7 lumens  
Efficiency: N/A  
Efficacy: 49.2 lumens/watt  
Spacing Criteria (0/90/45): 0.12 / 0.93 / 0.2  
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')  
CIE Type: Direct

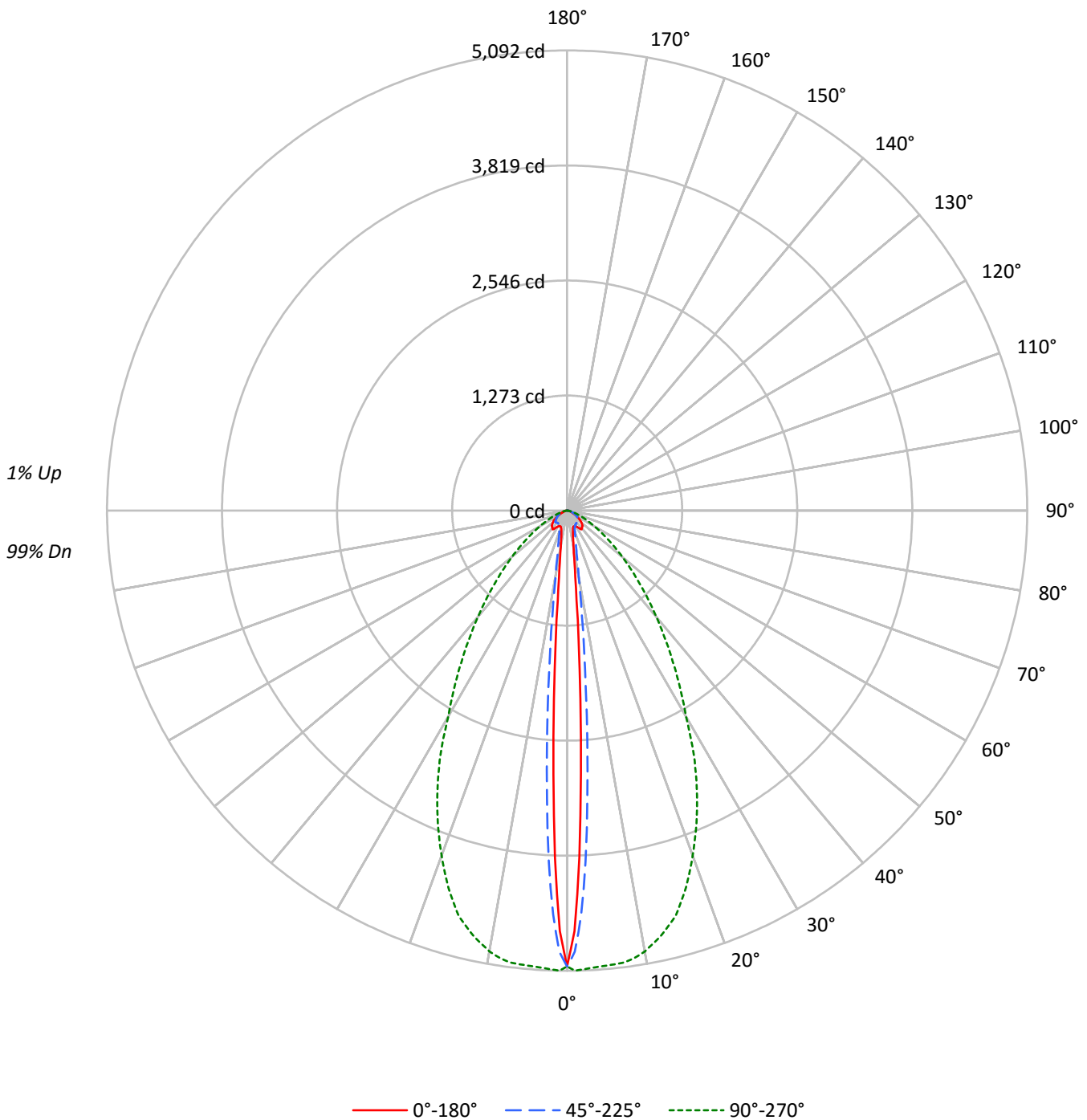
Input Watts (W): 35.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: 0.05-12W-827-10-STD-UNV-AN-3F0

### Luminous Intensity Polar Plot





TEST NUMBER: P273463

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |    |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 99 |
| 1   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88 |
| 2   | 103 | 97  | 91  | 87  | 101 | 95  | 90  | 86  | 91  | 87  | 84  | 88  | 85  | 82  | 85  | 82  | 80  | 78 |
| 3   | 96  | 88  | 81  | 76  | 94  | 86  | 80  | 75  | 83  | 78  | 74  | 81  | 76  | 73  | 78  | 75  | 71  | 70 |
| 4   | 90  | 80  | 73  | 68  | 88  | 79  | 72  | 67  | 76  | 71  | 66  | 74  | 69  | 65  | 72  | 68  | 64  | 63 |
| 5   | 84  | 74  | 66  | 61  | 82  | 73  | 66  | 61  | 71  | 65  | 60  | 69  | 63  | 59  | 67  | 62  | 59  | 57 |
| 6   | 79  | 68  | 61  | 55  | 77  | 67  | 60  | 55  | 66  | 59  | 55  | 64  | 58  | 54  | 62  | 58  | 54  | 52 |
| 7   | 75  | 63  | 56  | 51  | 73  | 63  | 56  | 51  | 61  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 48 |
| 8   | 71  | 59  | 52  | 47  | 69  | 59  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 46  | 45 |
| 9   | 67  | 56  | 49  | 44  | 66  | 55  | 48  | 44  | 54  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 43  | 42 |
| 10  | 64  | 52  | 46  | 41  | 63  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 49  | 44  | 41  | 39 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 89364 | 89364 | 89364 |
| 5°  | 25555 | 45442 | 89870 |
| 10° | 7244  | 13160 | 89095 |
| 15° | 4506  | 6692  | 85147 |
| 20° | 3699  | 4720  | 76604 |
| 25° | 3708  | 3917  | 66385 |
| 30° | 4177  | 3745  | 53782 |
| 35° | 5294  | 3758  | 44048 |
| 40° | 5855  | 4019  | 35501 |
| 45° | 6040  | 4587  | 28158 |
| 50° | 5705  | 4492  | 21862 |
| 55° | 5136  | 4472  | 16708 |
| 60° | 4088  | 4255  | 12414 |
| 65° | 3211  | 3957  | 8890  |
| 70° | 2662  | 3558  | 6241  |
| 75° | 2368  | 3169  | 4285  |
| 80° | 2479  | 2999  | 3050  |
| 85° | 3516  | 3801  | 1890  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 234.5  | 13.5      |
| 10°-20°   | 296.7  | 17.1      |
| 20°-30°   | 287.9  | 16.6      |
| 30°-40°   | 274.4  | 15.8      |
| 40°-50°   | 252.9  | 14.6      |
| 50°-60°   | 194.9  | 11.2      |
| 60°-70°   | 115.1  | 6.6       |
| 70°-80°   | 52.8   | 3.0       |
| 80°-90°   | 19.6   | 1.1       |
| 90°-100°  | 6.7    | 0.4       |
| 100°-110° | 2.1    | 0.1       |
| 110°-120° | 0.1    | 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°-30°    | 819.0  | 47.1      |
| 0°-40°    | 1093.4 | 62.9      |
| 0°-60°    | 1541.2 | 88.7      |
| 0°-90°    | 1728.7 | 99.5      |
| 90°-120°  | 9.0    | 0.5       |
| 90°-150°  | 9.0    | 0.5       |
| 90°-180°  | 9.0    | 0.5       |
| 0°-180°   | 1737.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 5045 | 5045  | 5045 | 5045  | 5045 |      |
| 5°   | 1437 | 1723  | 2556 | 4043  | 5054 | 114  |
| 15°  | 246  | 265   | 365  | 1180  | 4643 | 72   |
| 25°  | 190  | 188   | 200  | 472   | 3396 | 90   |
| 35°  | 245  | 211   | 174  | 324   | 2037 | 151  |
| 45°  | 241  | 220   | 183  | 304   | 1124 | 181  |
| 55°  | 166  | 168   | 145  | 257   | 541  | 147  |
| 65°  | 77   | 84    | 94   | 150   | 212  | 78   |
| 75°  | 35   | 37    | 46   | 61    | 63   | 38   |
| 85°  | 17   | 17    | 19   | 18    | 9    | 16   |
| 90°  | 13   | 12    | 12   | 9     | 0    | 7    |
| 95°  | 9    | 8     | 8    | 3     | 0    | 7    |
| 105° | 4    | 4     | 2    | 0     | 0    | 4    |
| 115° | 0    | 0     | 0    | 0     | 0    | 0    |
| 125° | 0    | 0     | 0    | 0     | 0    | 0    |
| 135° | 0    | 0     | 0    | 0     | 0    | 0    |
| 145° | 0    | 0     | 0    | 0     | 0    | 0    |
| 155° | 0    | 0     | 0    | 0     | 0    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 |
| 1°    | 4655.5 | 4694.7 | 4633.1 | 4750.8 | 4705.5 | 4741.5 | 4803.1 | 4843.8 | 4878.8 | 4882.5 | 4920.9 |
| 2°    | 3841.7 | 3947.2 | 3860.3 | 4030.9 | 4015.4 | 4090.2 | 4200.9 | 4292.0 | 4382.2 | 4471.0 | 4545.2 |
| 3°    | 2922.7 | 3040.9 | 3018.5 | 3136.7 | 3161.4 | 3268.9 | 3421.2 | 3562.3 | 3712.7 | 3889.3 | 4020.1 |
| 4°    | 2087.8 | 2177.1 | 2205.1 | 2266.8 | 2358.8 | 2446.6 | 2609.7 | 2784.4 | 2980.6 | 3193.7 | 3418.4 |
| 5°    | 1437.1 | 1510.9 | 1531.9 | 1584.2 | 1675.3 | 1770.6 | 1920.6 | 2099.5 | 2311.2 | 2555.5 | 2812.9 |
| 6°    | 999.3  | 1052.6 | 1070.8 | 1111.4 | 1179.2 | 1260.9 | 1385.2 | 1539.8 | 1736.1 | 1986.0 | 2251.8 |
| 7°    | 738.2  | 773.2  | 786.7  | 816.6  | 864.8  | 925.5  | 1019.9 | 1142.7 | 1303.9 | 1527.7 | 1813.6 |
| 8°    | 584.0  | 595.7  | 605.5  | 627.9  | 662.9  | 705.9  | 775.5  | 868.0  | 993.2  | 1178.7 | 1421.6 |
| 9°    | 471.9  | 482.6  | 490.1  | 506.9  | 532.6  | 564.4  | 616.7  | 687.2  | 783.0  | 910.5  | 1099.8 |
| 10°   | 402.7  | 408.8  | 414.4  | 427.0  | 445.7  | 469.5  | 508.3  | 560.6  | 635.4  | 731.6  | 903.1  |
| 12.5° | 300.9  | 299.9  | 304.6  | 312.5  | 324.7  | 338.2  | 358.8  | 387.8  | 427.5  | 480.3  | 576.5  |
| 15°   | 245.7  | 246.2  | 249.5  | 254.6  | 261.2  | 269.1  | 281.7  | 300.9  | 326.1  | 364.9  | 418.6  |
| 17.5° | 212.1  | 212.6  | 214.4  | 217.7  | 222.4  | 229.4  | 238.7  | 250.4  | 268.2  | 294.8  | 331.7  |
| 20°   | 196.2  | 195.8  | 196.7  | 198.6  | 201.4  | 205.1  | 210.2  | 216.8  | 229.9  | 250.4  | 278.9  |
| 22.5° | 190.1  | 190.1  | 190.1  | 189.7  | 190.1  | 191.1  | 194.3  | 199.5  | 206.5  | 218.6  | 239.2  |
| 25°   | 189.7  | 190.1  | 189.7  | 188.3  | 188.3  | 187.8  | 187.3  | 188.7  | 192.0  | 200.4  | 213.5  |
| 27.5° | 193.9  | 193.4  | 192.0  | 189.7  | 187.8  | 186.4  | 185.5  | 185.0  | 185.5  | 188.7  | 197.6  |
| 30°   | 204.2  | 203.2  | 200.4  | 196.2  | 192.0  | 187.8  | 184.1  | 182.2  | 181.7  | 183.1  | 186.9  |
| 32.5° | 219.6  | 218.2  | 214.9  | 207.9  | 202.3  | 194.8  | 188.3  | 181.3  | 177.5  | 177.5  | 179.9  |
| 35°   | 244.8  | 242.0  | 236.9  | 228.5  | 216.8  | 206.0  | 196.2  | 185.9  | 178.0  | 173.8  | 174.3  |
| 37.5° | 263.0  | 262.1  | 259.8  | 251.8  | 240.6  | 225.6  | 208.4  | 192.5  | 181.7  | 172.4  | 168.7  |
| 40°   | 253.2  | 251.8  | 248.5  | 244.3  | 241.1  | 237.8  | 224.2  | 204.2  | 187.8  | 173.8  | 165.9  |
| 42.5° | 245.3  | 244.3  | 241.1  | 234.1  | 229.4  | 224.2  | 219.6  | 213.5  | 195.8  | 178.0  | 165.9  |
| 45°   | 241.1  | 240.1  | 237.3  | 231.3  | 223.8  | 215.4  | 207.0  | 200.9  | 195.8  | 183.1  | 167.3  |
| 47.5° | 222.4  | 221.9  | 221.0  | 219.6  | 216.8  | 212.1  | 200.4  | 189.7  | 180.8  | 178.5  | 169.6  |
| 50°   | 207.0  | 207.0  | 206.5  | 203.7  | 200.9  | 197.2  | 193.9  | 183.6  | 170.5  | 163.0  | 162.1  |
| 52.5° | 189.7  | 189.7  | 189.7  | 188.7  | 186.9  | 182.7  | 178.5  | 173.3  | 164.4  | 151.8  | 146.7  |
| 55°   | 166.3  | 166.8  | 167.7  | 168.2  | 168.7  | 166.3  | 164.0  | 157.9  | 152.8  | 144.8  | 134.5  |
| 57.5° | 140.6  | 141.1  | 143.0  | 144.4  | 146.2  | 147.2  | 147.6  | 144.8  | 139.2  | 133.1  | 126.1  |
| 60°   | 115.4  | 115.9  | 117.7  | 120.1  | 123.3  | 126.1  | 128.5  | 129.4  | 125.7  | 120.1  | 115.4  |
| 62.5° | 93.9   | 93.9   | 96.2   | 98.1   | 101.4  | 104.6  | 108.9  | 111.2  | 110.7  | 107.9  | 103.2  |
| 65°   | 76.6   | 77.1   | 78.5   | 79.9   | 82.2   | 85.5   | 90.2   | 93.9   | 95.8   | 94.4   | 91.1   |
| 67.5° | 62.6   | 63.1   | 64.0   | 65.4   | 66.8   | 69.6   | 73.3   | 78.0   | 80.8   | 81.3   | 79.9   |
| 70°   | 51.4   | 51.9   | 52.3   | 53.3   | 54.7   | 56.5   | 59.3   | 63.5   | 66.8   | 68.7   | 68.7   |
| 72.5° | 42.5   | 42.5   | 43.0   | 43.9   | 44.8   | 46.3   | 48.6   | 50.9   | 54.2   | 57.0   | 57.9   |
| 75°   | 34.6   | 35.0   | 35.5   | 35.5   | 36.4   | 36.9   | 38.8   | 40.6   | 43.0   | 46.3   | 47.7   |
| 77.5° | 29.0   | 29.0   | 29.0   | 29.0   | 29.9   | 30.4   | 31.3   | 32.7   | 34.6   | 36.9   | 38.8   |
| 80°   | 24.3   | 24.3   | 24.3   | 24.3   | 24.3   | 24.8   | 25.7   | 26.2   | 27.1   | 29.4   | 31.3   |
| 82.5° | 20.6   | 20.6   | 20.6   | 20.6   | 20.6   | 21.0   | 21.0   | 21.5   | 22.4   | 23.4   | 24.8   |
| 85°   | 17.3   | 17.3   | 17.3   | 17.3   | 17.3   | 17.3   | 17.8   | 17.8   | 18.2   | 18.7   | 19.2   |
| 87.5° | 14.5   | 14.5   | 14.5   | 14.5   | 14.5   | 14.5   | 14.9   | 14.9   | 14.9   | 14.9   | 15.4   |
| 90°   | 12.6   | 12.6   | 12.6   | 12.6   | 12.6   | 12.1   | 12.1   | 12.1   | 12.1   | 12.1   | 12.1   |
| 92.5° | 10.7   | 10.7   | 10.7   | 10.7   | 10.7   | 10.3   | 10.3   | 9.8    | 9.8    | 9.8    | 9.8    |
| 95°   | 8.9    | 8.9    | 8.9    | 8.4    | 8.4    | 8.4    | 8.4    | 7.9    | 7.9    | 7.9    | 7.0    |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 97.5°  | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.5 | 6.5 | 6.1 | 6.1 | 5.1 |
| 100°   | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.1 | 4.7 | 4.2 | 4.2 |
| 102.5° | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 3.7 | 3.7 | 3.3 | 2.3 |
| 105°   | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 2.8 | 2.8 | 1.9 | 1.4 |
| 107.5° | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 1.9 | 1.4 | 0.9 | 0.0 |
| 110°   | 2.8 | 2.8 | 2.8 | 2.3 | 2.8 | 2.3 | 1.9 | 1.4 | 0.9 | 0.0 | 0.0 |
| 112.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 117.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 127.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 132.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 142.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180°   | 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°    | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 | 5044.7 |
| 1°    | 4905.9 | 4938.6 | 4960.6 | 4992.3 | 4998.4 | 5040.0 | 5074.6 | 5092.3 |
| 2°    | 4613.0 | 4718.1 | 4791.9 | 4879.7 | 4924.6 | 4999.8 | 5055.4 | 5080.2 |
| 3°    | 4193.4 | 4389.7 | 4539.2 | 4709.2 | 4818.1 | 4946.1 | 5031.6 | 5068.0 |
| 4°    | 3687.0 | 3979.5 | 4222.9 | 4488.2 | 4679.3 | 4879.3 | 5010.1 | 5059.6 |
| 5°    | 3154.4 | 3522.6 | 3859.4 | 4226.1 | 4513.5 | 4799.8 | 4986.7 | 5054.0 |
| 6°    | 2627.4 | 3053.5 | 3465.6 | 3928.1 | 4339.2 | 4704.5 | 4961.0 | 5048.4 |
| 7°    | 2156.5 | 2602.7 | 3065.7 | 3609.5 | 4103.3 | 4588.7 | 4923.7 | 5040.9 |
| 8°    | 1743.1 | 2183.6 | 2676.0 | 3279.6 | 3868.3 | 4454.1 | 4867.6 | 5022.2 |
| 9°    | 1406.7 | 1817.8 | 2318.2 | 2958.2 | 3618.8 | 4304.2 | 4805.9 | 4992.3 |
| 10°   | 1134.3 | 1501.5 | 1989.3 | 2650.8 | 3372.6 | 4146.7 | 4730.2 | 4953.1 |
| 12.5° | 713.4  | 954.0  | 1343.6 | 1967.8 | 2789.6 | 3727.2 | 4509.3 | 4814.8 |
| 15°   | 502.2  | 653.6  | 929.7  | 1429.6 | 2242.5 | 3301.1 | 4254.6 | 4642.9 |
| 17.5° | 388.7  | 489.6  | 673.2  | 1063.3 | 1810.8 | 2906.8 | 3963.6 | 4372.8 |
| 20°   | 319.1  | 392.4  | 528.4  | 829.7  | 1477.7 | 2553.6 | 3637.0 | 4063.6 |
| 22.5° | 271.4  | 327.5  | 434.9  | 677.4  | 1232.4 | 2240.6 | 3314.7 | 3741.2 |
| 25°   | 235.9  | 281.7  | 368.6  | 576.0  | 1068.9 | 1974.3 | 2969.4 | 3396.4 |
| 27.5° | 214.0  | 247.6  | 323.3  | 506.0  | 959.1  | 1730.0 | 2624.2 | 3033.9 |
| 30°   | 198.6  | 226.1  | 286.4  | 455.5  | 876.0  | 1494.1 | 2239.2 | 2629.3 |
| 32.5° | 187.3  | 207.4  | 261.6  | 423.3  | 826.0  | 1309.5 | 1943.5 | 2324.7 |
| 35°   | 179.4  | 195.3  | 243.9  | 404.1  | 789.5  | 1152.1 | 1696.8 | 2036.9 |
| 37.5° | 172.9  | 186.4  | 230.8  | 395.2  | 753.1  | 1005.4 | 1477.2 | 1774.4 |
| 40°   | 166.3  | 178.9  | 222.8  | 391.5  | 703.6  | 866.2  | 1288.5 | 1535.2 |
| 42.5° | 162.1  | 172.4  | 218.2  | 394.3  | 646.6  | 751.2  | 1115.6 | 1319.3 |
| 45°   | 160.2  | 166.3  | 213.5  | 393.8  | 581.6  | 646.6  | 958.7  | 1124.0 |
| 47.5° | 159.3  | 161.2  | 209.8  | 387.8  | 510.6  | 561.6  | 830.2  | 950.3  |
| 50°   | 157.9  | 158.4  | 208.8  | 369.1  | 441.5  | 484.5  | 708.7  | 793.3  |
| 52.5° | 149.5  | 155.1  | 207.9  | 345.2  | 373.7  | 420.0  | 605.5  | 659.7  |
| 55°   | 134.1  | 149.0  | 206.5  | 307.9  | 315.3  | 362.5  | 509.2  | 541.0  |
| 57.5° | 121.5  | 136.0  | 201.4  | 267.7  | 266.8  | 312.1  | 422.3  | 438.2  |
| 60°   | 112.1  | 123.3  | 187.3  | 228.0  | 223.3  | 265.8  | 342.0  | 350.4  |
| 62.5° | 102.3  | 113.1  | 166.8  | 190.6  | 187.8  | 220.5  | 270.5  | 271.0  |
| 65°   | 90.6   | 103.2  | 143.4  | 155.6  | 157.9  | 183.6  | 213.0  | 212.1  |
| 67.5° | 79.9   | 91.1   | 120.1  | 125.7  | 132.2  | 149.5  | 165.4  | 161.6  |
| 70°   | 69.1   | 77.6   | 97.2   | 101.4  | 108.4  | 120.1  | 124.7  | 120.5  |
| 72.5° | 58.9   | 64.9   | 76.6   | 80.8   | 86.4   | 92.5   | 92.5   | 87.8   |
| 75°   | 49.5   | 52.8   | 58.9   | 62.6   | 67.3   | 69.1   | 66.3   | 62.6   |
| 77.5° | 40.6   | 42.5   | 44.8   | 47.2   | 50.0   | 48.6   | 46.3   | 43.9   |
| 80°   | 33.2   | 34.1   | 34.1   | 35.0   | 35.0   | 33.6   | 30.4   | 29.9   |
| 82.5° | 26.6   | 27.6   | 26.2   | 24.8   | 23.4   | 21.0   | 19.2   | 17.8   |
| 85°   | 21.0   | 21.0   | 19.6   | 17.3   | 14.5   | 12.1   | 10.3   | 9.3    |
| 87.5° | 15.9   | 15.9   | 14.0   | 11.7   | 8.4    | 6.1    | 4.2    | 3.7    |
| 90°   | 12.1   | 12.1   | 9.8    | 7.5    | 4.7    | 2.3    | 0.9    | 0.0    |
| 92.5° | 9.3    | 8.4    | 6.5    | 4.2    | 1.9    | 0.9    | 0.0    | 0.0    |
| 95°   | 7.0    | 6.1    | 3.7    | 1.9    | 0.9    | 0.0    | 0.0    | 0.0    |





TEST NUMBER: P273463

CATALOG NUMBER: 0.05-12W-827-10-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

|        | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| 97.5°  | 4.7 | 3.7 | 1.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100°   | 2.8 | 1.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102.5° | 1.4 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105°   | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 112.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 117.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 127.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 132.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 142.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 147.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 152.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)