

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: FAIL-SAFE

Report Number: P837821

Luminaire Tested: **ORLG-24-2-INS-ASY2R-LD4-1LO-20-120-EDD**

Issue Date: 5/21/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P837821  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-2-INS-ASY2R-LD4-1LO-20-120-EDD  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and  
RFI grid  
Light Source: 2000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

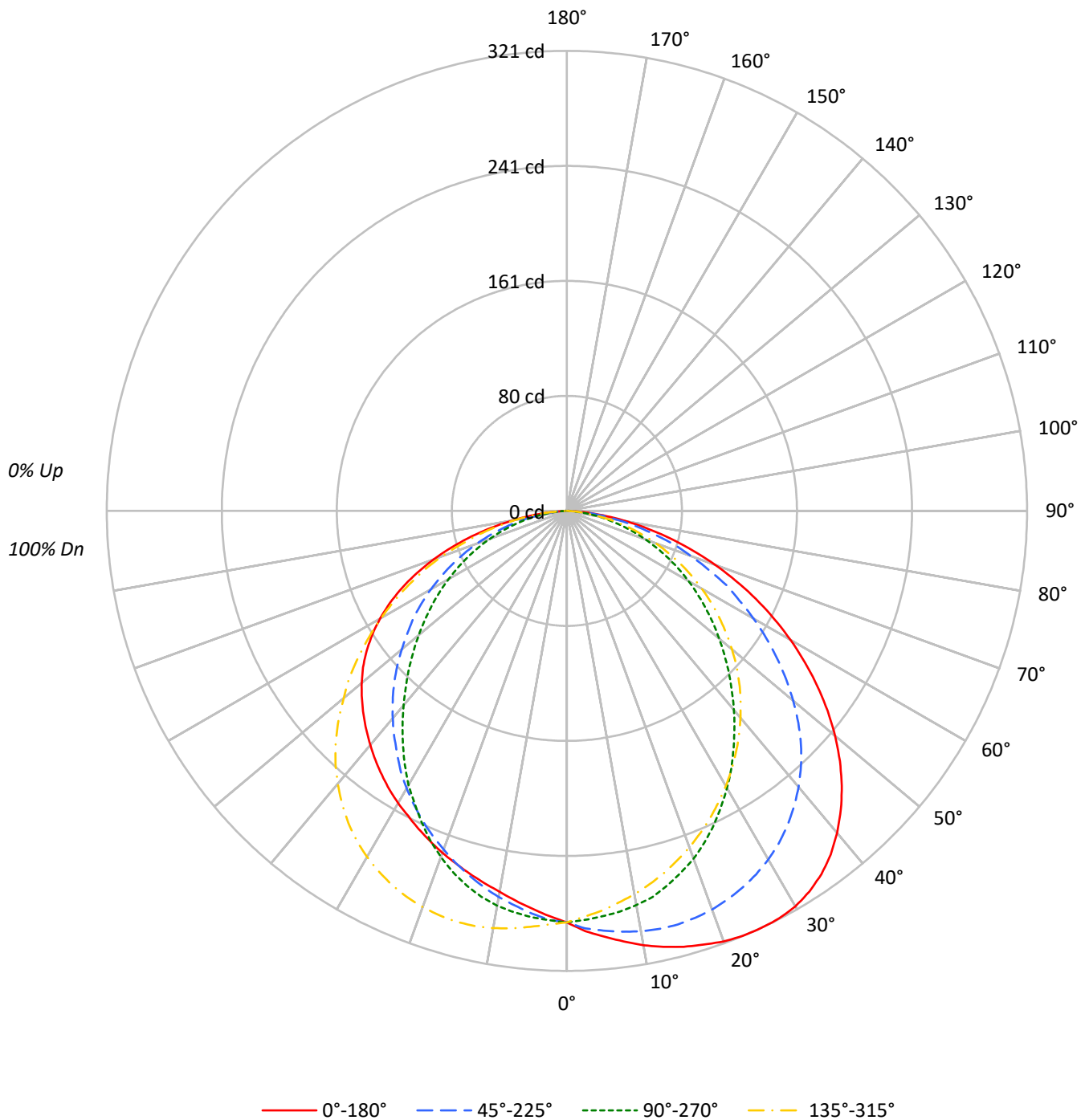
Lumens per Lamp: N/A  
Luminaire Lumens: 842.5 lumens  
Efficiency: N/A  
Efficacy: 72.0 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.7  
Input Voltage (V): 120  
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: 25 FT

TEST NUMBER: P837821

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### Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837821

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |    | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |    |    |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 70  |    |    |
| 3   | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |    |    |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |    |    |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  | 33  |    |    |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 31  | 29  |    |    |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |    |    |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24  |    |    |

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

|     | 0°   | 90° | 180° | 270° |
|-----|------|-----|------|------|
| 0°  | 773  | 773 | 773  | 773  |
| 5°  | 805  | 767 | 753  | 769  |
| 10° | 841  | 763 | 737  | 764  |
| 15° | 877  | 754 | 730  | 754  |
| 20° | 916  | 740 | 727  | 736  |
| 25° | 953  | 719 | 727  | 712  |
| 30° | 990  | 694 | 732  | 686  |
| 35° | 1017 | 666 | 739  | 655  |
| 40° | 1030 | 637 | 749  | 622  |
| 45° | 1032 | 608 | 764  | 593  |
| 50° | 1022 | 580 | 782  | 565  |
| 55° | 1001 | 555 | 800  | 539  |
| 60° | 970  | 527 | 811  | 513  |
| 65° | 926  | 497 | 807  | 485  |
| 70° | 865  | 460 | 778  | 452  |
| 75° | 779  | 411 | 714  | 409  |
| 80° | 660  | 344 | 600  | 349  |
| 85° | 460  | 228 | 380  | 235  |

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P837821

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-1LO-20-120-EDD

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 27.3   | 3.2       |
| 10°-20°   | 78.9   | 9.4       |
| 20°-30°   | 121.0  | 14.4      |
| 30°-40°   | 147.1  | 17.5      |
| 40°-50°   | 152.9  | 18.2      |
| 50°-60°   | 138.1  | 16.4      |
| 60°-70°   | 105.0  | 12.5      |
| 70°-80°   | 58.6   | 7.0       |
| 80°-90°   | 13.5   | 1.6       |
| 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°-30°    | 227.2  | 27.0      |
| 0°-40°    | 374.3  | 44.4      |
| 0°-60°    | 665.4  | 79.0      |
| 0°-90°    | 842.5  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 842.5  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 90° | 180° | 270° | 360° | Flux |
|-----|-----|-----|------|------|------|------|
| 0°  | 287 | 287 | 287  | 287  | 287  |      |
| 5°  | 298 | 284 | 279  | 284  | 298  | 29   |
| 15° | 315 | 270 | 262  | 270  | 315  | 89   |
| 25° | 321 | 242 | 245  | 240  | 321  | 148  |
| 35° | 310 | 203 | 225  | 199  | 310  | 193  |
| 45° | 271 | 160 | 201  | 156  | 271  | 209  |
| 55° | 213 | 118 | 170  | 115  | 213  | 191  |
| 65° | 146 | 78  | 127  | 76   | 146  | 144  |
| 75° | 75  | 40  | 69   | 39   | 75   | 80   |
| 85° | 15  | 7   | 12   | 8    | 15   | 19   |
| 90° | 0   | 0   | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 |
| 2.5°  | 293.5 | 289.2 | 289.3 | 293.0 | 290.2 | 291.6 | 287.6 | 289.1 | 288.6 | 289.0 | 285.7 |
| 5°    | 298.1 | 293.5 | 293.4 | 296.7 | 293.4 | 294.0 | 289.0 | 290.0 | 288.5 | 287.6 | 284.0 |
| 7.5°  | 303.0 | 298.4 | 297.9 | 300.7 | 296.5 | 296.1 | 290.4 | 290.4 | 287.8 | 285.4 | 282.1 |
| 10°   | 307.8 | 303.1 | 302.5 | 304.6 | 299.4 | 297.9 | 291.0 | 290.0 | 286.4 | 282.9 | 279.3 |
| 12.5° | 311.5 | 306.6 | 306.2 | 307.5 | 301.6 | 298.8 | 291.0 | 289.0 | 283.7 | 278.8 | 276.0 |
| 15°   | 314.9 | 309.9 | 308.6 | 309.3 | 302.6 | 298.8 | 290.1 | 286.9 | 280.2 | 273.8 | 270.5 |
| 17.5° | 317.3 | 312.5 | 311.3 | 311.2 | 303.0 | 297.7 | 288.1 | 283.7 | 275.6 | 267.9 | 264.6 |
| 20°   | 319.7 | 314.9 | 313.3 | 312.1 | 302.9 | 296.1 | 285.1 | 279.2 | 269.8 | 261.1 | 258.3 |
| 22.5° | 320.9 | 316.0 | 314.3 | 312.5 | 302.0 | 293.3 | 281.5 | 274.0 | 263.2 | 252.9 | 250.6 |
| 25°   | 321.1 | 316.1 | 314.2 | 311.6 | 300.3 | 290.0 | 276.8 | 267.7 | 255.7 | 244.1 | 242.2 |
| 27.5° | 320.6 | 315.1 | 313.2 | 310.1 | 297.7 | 285.9 | 271.3 | 260.5 | 247.6 | 234.9 | 232.8 |
| 30°   | 318.7 | 313.1 | 311.3 | 307.2 | 294.0 | 280.9 | 265.2 | 252.5 | 238.7 | 225.2 | 223.4 |
| 32.5° | 314.9 | 309.5 | 308.0 | 304.0 | 290.0 | 275.0 | 258.1 | 243.9 | 228.9 | 215.9 | 213.3 |
| 35°   | 309.5 | 304.0 | 303.1 | 298.8 | 284.3 | 268.1 | 250.3 | 234.6 | 218.4 | 205.2 | 202.6 |
| 37.5° | 302.3 | 297.7 | 296.3 | 292.1 | 277.7 | 260.2 | 241.4 | 224.4 | 207.8 | 193.6 | 192.0 |
| 40°   | 293.2 | 289.0 | 287.9 | 284.1 | 270.0 | 251.4 | 231.8 | 213.9 | 196.8 | 183.6 | 181.3 |
| 42.5° | 282.9 | 278.9 | 278.3 | 274.4 | 260.5 | 241.7 | 221.3 | 203.0 | 185.3 | 172.6 | 170.3 |
| 45°   | 271.2 | 267.3 | 267.2 | 263.5 | 250.1 | 230.9 | 210.3 | 191.9 | 174.2 | 161.0 | 159.8 |
| 47.5° | 258.3 | 254.8 | 254.8 | 251.4 | 238.5 | 219.0 | 199.0 | 180.4 | 162.9 | 151.2 | 149.1 |
| 50°   | 244.2 | 240.9 | 239.9 | 238.3 | 225.7 | 206.1 | 187.1 | 169.1 | 151.8 | 140.7 | 138.6 |
| 52.5° | 229.2 | 226.4 | 227.1 | 224.0 | 211.9 | 192.6 | 175.0 | 156.5 | 140.6 | 130.5 | 128.4 |
| 55°   | 213.4 | 209.4 | 210.0 | 208.8 | 197.4 | 178.8 | 161.5 | 146.0 | 129.6 | 120.1 | 118.2 |
| 57.5° | 197.0 | 191.8 | 193.9 | 193.2 | 182.0 | 164.6 | 149.1 | 134.2 | 118.7 | 109.9 | 108.0 |
| 60°   | 180.2 | 175.2 | 177.4 | 176.8 | 166.2 | 150.4 | 136.3 | 122.4 | 107.8 | 99.9  | 98.0  |
| 62.5° | 162.9 | 158.3 | 160.3 | 159.8 | 150.1 | 135.8 | 123.6 | 110.9 | 96.9  | 89.8  | 88.0  |
| 65°   | 145.5 | 141.1 | 142.9 | 142.5 | 133.6 | 122.7 | 110.5 | 98.9  | 85.9  | 79.7  | 78.0  |
| 67.5° | 127.7 | 123.6 | 125.3 | 125.3 | 117.0 | 106.6 | 97.4  | 86.7  | 75.2  | 69.8  | 68.2  |
| 70°   | 110.0 | 106.2 | 107.6 | 107.5 | 100.5 | 92.1  | 84.1  | 74.6  | 64.2  | 59.8  | 58.5  |
| 72.5° | 92.2  | 88.8  | 90.2  | 90.0  | 84.2  | 78.8  | 70.9  | 62.6  | 53.6  | 50.0  | 48.8  |
| 75°   | 74.9  | 71.7  | 73.0  | 72.9  | 68.1  | 63.0  | 57.7  | 50.9  | 43.1  | 40.7  | 39.5  |
| 77.5° | 58.4  | 55.2  | 56.3  | 56.3  | 52.8  | 49.1  | 44.9  | 39.6  | 34.1  | 31.4  | 30.5  |
| 80°   | 42.6  | 41.1  | 40.5  | 40.6  | 38.2  | 35.8  | 33.7  | 28.6  | 24.6  | 22.8  | 22.2  |
| 82.5° | 28.0  | 26.7  | 26.2  | 26.3  | 25.0  | 23.5  | 22.2  | 18.6  | 15.9  | 14.9  | 14.5  |
| 85°   | 14.9  | 13.9  | 13.5  | 13.8  | 13.5  | 12.7  | 12.1  | 9.6   | 8.0   | 7.6   | 7.4   |
| 87.5° | 4.7   | 4.1   | 3.8   | 5.0   | 4.2   | 3.8   | 3.6   | 2.9   | 2.2   | 2.2   | 2.1   |
| 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):**

|       | 95°   | 105°  | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  | 185°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 |
| 2.5°  | 286.7 | 286.7 | 284.1 | 283.5 | 283.3 | 283.6 | 281.0 | 280.5 | 284.3 | 283.0 | 280.1 |
| 5°    | 284.5 | 284.3 | 280.7 | 280.0 | 280.0 | 279.6 | 276.6 | 276.0 | 279.7 | 278.6 | 275.5 |
| 7.5°  | 281.7 | 281.3 | 276.9 | 276.4 | 275.8 | 275.5 | 272.2 | 271.7 | 275.0 | 274.3 | 271.3 |
| 10°   | 278.2 | 277.8 | 272.7 | 272.3 | 271.6 | 271.1 | 268.0 | 267.7 | 270.9 | 269.9 | 267.5 |
| 12.5° | 273.8 | 273.0 | 267.7 | 267.4 | 266.8 | 266.6 | 263.6 | 263.4 | 267.1 | 266.0 | 263.5 |
| 15°   | 267.9 | 267.3 | 261.4 | 261.5 | 261.6 | 261.6 | 259.2 | 259.0 | 262.6 | 262.1 | 259.4 |
| 17.5° | 261.4 | 260.6 | 254.9 | 255.3 | 255.8 | 256.3 | 254.5 | 254.8 | 258.5 | 257.9 | 255.5 |
| 20°   | 254.0 | 253.2 | 247.7 | 248.8 | 249.8 | 250.9 | 249.7 | 250.6 | 254.1 | 253.9 | 252.1 |
| 22.5° | 245.8 | 245.0 | 239.9 | 241.6 | 243.3 | 245.3 | 244.7 | 245.8 | 249.5 | 249.4 | 247.8 |
| 25°   | 235.7 | 235.9 | 231.4 | 233.6 | 236.4 | 239.2 | 239.4 | 241.1 | 245.2 | 244.8 | 243.3 |
| 27.5° | 226.3 | 226.6 | 221.8 | 225.5 | 229.2 | 232.8 | 233.7 | 236.1 | 240.3 | 239.9 | 238.7 |
| 30°   | 216.5 | 216.8 | 212.2 | 217.2 | 221.7 | 226.1 | 228.0 | 231.3 | 235.5 | 235.5 | 234.2 |
| 32.5° | 206.2 | 206.8 | 202.0 | 208.6 | 213.9 | 219.1 | 222.4 | 225.8 | 230.6 | 230.5 | 229.3 |
| 35°   | 195.7 | 196.4 | 192.0 | 200.4 | 205.7 | 212.0 | 216.1 | 220.6 | 224.9 | 225.0 | 224.1 |
| 37.5° | 185.0 | 185.8 | 181.8 | 191.0 | 197.1 | 204.5 | 209.7 | 214.3 | 219.0 | 219.3 | 218.5 |
| 40°   | 174.4 | 175.2 | 171.7 | 180.6 | 188.3 | 196.6 | 202.6 | 208.0 | 213.2 | 213.3 | 212.8 |
| 42.5° | 163.7 | 164.6 | 162.0 | 170.7 | 179.4 | 188.3 | 195.4 | 201.5 | 206.8 | 207.2 | 206.6 |
| 45°   | 153.3 | 154.1 | 152.2 | 161.8 | 170.1 | 179.8 | 187.9 | 194.8 | 200.3 | 200.7 | 200.5 |
| 47.5° | 143.0 | 143.7 | 142.1 | 150.8 | 160.4 | 170.7 | 180.1 | 187.7 | 193.5 | 194.0 | 193.9 |
| 50°   | 132.9 | 133.5 | 131.7 | 140.8 | 150.3 | 161.3 | 171.1 | 180.0 | 186.4 | 186.9 | 186.9 |
| 52.5° | 122.8 | 123.4 | 121.9 | 131.5 | 140.1 | 151.7 | 162.4 | 172.0 | 178.4 | 179.2 | 179.3 |
| 55°   | 113.1 | 113.4 | 112.2 | 121.4 | 129.7 | 141.9 | 154.2 | 163.5 | 169.9 | 170.5 | 170.9 |
| 57.5° | 103.4 | 103.5 | 102.5 | 111.3 | 119.3 | 131.7 | 144.6 | 154.4 | 160.4 | 161.1 | 161.7 |
| 60°   | 93.8  | 93.7  | 92.6  | 101.1 | 108.8 | 121.0 | 134.5 | 144.2 | 150.0 | 150.6 | 151.4 |
| 62.5° | 84.2  | 84.0  | 83.0  | 90.8  | 98.1  | 110.2 | 123.7 | 133.1 | 138.7 | 139.1 | 140.1 |
| 65°   | 74.7  | 74.5  | 73.5  | 80.8  | 87.3  | 98.9  | 112.2 | 121.1 | 126.1 | 126.7 | 126.5 |
| 67.5° | 65.3  | 64.9  | 64.2  | 70.7  | 76.6  | 87.3  | 100.1 | 108.6 | 112.7 | 113.2 | 114.5 |
| 70°   | 55.9  | 55.5  | 53.8  | 60.7  | 65.9  | 75.5  | 87.3  | 94.9  | 98.4  | 98.9  | 98.7  |
| 72.5° | 46.7  | 46.2  | 44.4  | 50.8  | 55.2  | 63.6  | 74.1  | 80.4  | 83.5  | 83.9  | 83.9  |
| 75°   | 37.7  | 37.4  | 36.3  | 41.1  | 44.8  | 51.6  | 60.6  | 65.8  | 68.2  | 68.7  | 68.5  |
| 77.5° | 29.1  | 28.9  | 27.7  | 31.9  | 34.8  | 39.9  | 47.1  | 51.2  | 52.9  | 53.5  | 54.6  |
| 80°   | 20.8  | 20.8  | 19.0  | 23.0  | 24.3  | 28.6  | 33.9  | 37.0  | 38.0  | 38.7  | 39.5  |
| 82.5° | 13.3  | 13.4  | 11.6  | 15.1  | 15.6  | 18.4  | 21.6  | 23.6  | 24.2  | 24.9  | 25.5  |
| 85°   | 6.5   | 6.8   | 5.8   | 8.0   | 8.0   | 9.4   | 10.9  | 11.6  | 11.9  | 12.3  | 12.9  |
| 87.5° | 1.7   | 1.9   | 1.1   | 2.3   | 2.0   | 2.6   | 3.0   | 3.2   | 3.1   | 3.5   | 3.7   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

TEST NUMBER: P837821

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-1LO-20-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 195°  | 205°  | 215°  | 225°  | 235°  | 245°  | 255°  | 265°  | 270°  | 275°  | 285°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 |
| 2.5°  | 281.1 | 283.2 | 282.1 | 285.6 | 286.9 | 284.8 | 288.6 | 288.6 | 285.9 | 289.1 | 290.8 |
| 5°    | 276.7 | 278.9 | 278.2 | 281.9 | 283.5 | 281.7 | 286.2 | 287.1 | 284.5 | 288.0 | 290.8 |
| 7.5°  | 272.3 | 274.9 | 274.0 | 277.7 | 279.7 | 278.2 | 283.1 | 284.5 | 282.5 | 286.4 | 290.2 |
| 10°   | 268.5 | 270.7 | 269.7 | 273.6 | 275.4 | 274.2 | 279.0 | 281.6 | 279.7 | 284.5 | 289.0 |
| 12.5° | 264.7 | 266.5 | 265.4 | 268.7 | 270.3 | 268.8 | 274.7 | 277.1 | 275.8 | 280.7 | 286.5 |
| 15°   | 259.9 | 261.9 | 260.4 | 263.3 | 264.6 | 263.2 | 268.1 | 272.2 | 270.5 | 276.0 | 282.3 |
| 17.5° | 256.2 | 257.3 | 255.3 | 257.6 | 258.3 | 256.5 | 261.4 | 265.5 | 264.3 | 270.2 | 277.6 |
| 20°   | 252.1 | 253.1 | 250.2 | 251.5 | 251.4 | 249.2 | 253.7 | 257.7 | 256.9 | 263.4 | 271.7 |
| 22.5° | 247.6 | 248.0 | 244.7 | 245.0 | 244.9 | 241.1 | 245.2 | 249.2 | 248.9 | 255.5 | 264.8 |
| 25°   | 242.7 | 242.8 | 238.6 | 238.5 | 237.0 | 232.6 | 236.1 | 240.7 | 239.7 | 246.8 | 256.7 |
| 27.5° | 238.0 | 237.3 | 232.2 | 231.0 | 228.7 | 223.4 | 226.5 | 230.7 | 230.1 | 237.0 | 248.0 |
| 30°   | 232.9 | 232.0 | 225.8 | 223.6 | 220.2 | 214.1 | 216.7 | 220.6 | 220.9 | 227.0 | 238.5 |
| 32.5° | 228.1 | 225.9 | 219.0 | 215.7 | 211.5 | 204.4 | 205.8 | 209.7 | 210.3 | 216.4 | 228.2 |
| 35°   | 221.8 | 220.4 | 211.9 | 206.4 | 202.1 | 194.4 | 195.9 | 198.6 | 199.4 | 205.4 | 217.4 |
| 37.5° | 215.9 | 213.6 | 204.6 | 197.9 | 192.4 | 184.3 | 184.7 | 187.5 | 188.3 | 194.4 | 206.2 |
| 40°   | 209.9 | 206.5 | 196.8 | 189.0 | 182.7 | 174.2 | 173.7 | 176.6 | 177.2 | 183.2 | 193.9 |
| 42.5° | 203.4 | 199.3 | 188.4 | 179.8 | 172.7 | 164.0 | 163.0 | 165.6 | 166.2 | 172.1 | 182.6 |
| 45°   | 196.8 | 192.0 | 179.8 | 170.5 | 162.6 | 153.7 | 152.8 | 154.7 | 155.7 | 161.2 | 171.3 |
| 47.5° | 189.8 | 184.2 | 171.0 | 160.6 | 152.4 | 143.5 | 142.4 | 144.3 | 145.1 | 150.6 | 160.2 |
| 50°   | 182.5 | 175.7 | 161.9 | 150.4 | 142.3 | 133.6 | 131.9 | 134.2 | 134.9 | 140.0 | 149.4 |
| 52.5° | 174.5 | 166.9 | 152.2 | 140.1 | 132.1 | 123.7 | 121.7 | 123.9 | 124.8 | 129.7 | 138.4 |
| 55°   | 166.0 | 157.8 | 142.4 | 130.7 | 122.0 | 113.8 | 112.1 | 113.0 | 114.9 | 119.6 | 127.6 |
| 57.5° | 156.4 | 148.3 | 132.1 | 120.2 | 111.8 | 104.0 | 102.5 | 103.4 | 105.1 | 109.6 | 116.9 |
| 60°   | 146.2 | 137.6 | 121.6 | 109.6 | 101.5 | 94.1  | 92.8  | 93.6  | 95.4  | 99.6  | 106.3 |
| 62.5° | 136.2 | 126.5 | 110.7 | 98.9  | 91.5  | 84.6  | 84.3  | 84.0  | 85.7  | 89.8  | 95.6  |
| 65°   | 124.0 | 114.7 | 99.4  | 88.1  | 81.4  | 75.2  | 73.9  | 74.5  | 76.2  | 79.8  | 86.0  |
| 67.5° | 110.9 | 102.5 | 87.8  | 77.4  | 71.5  | 65.9  | 64.8  | 65.0  | 66.8  | 70.0  | 75.4  |
| 70°   | 97.1  | 89.7  | 76.0  | 66.6  | 61.6  | 56.4  | 55.7  | 55.7  | 57.4  | 60.2  | 64.9  |
| 72.5° | 82.5  | 75.9  | 64.0  | 56.0  | 51.8  | 48.1  | 47.4  | 46.6  | 48.2  | 50.6  | 54.6  |
| 75°   | 67.7  | 61.9  | 52.0  | 45.5  | 42.3  | 39.1  | 38.5  | 37.7  | 39.3  | 41.3  | 44.5  |
| 77.5° | 52.8  | 48.1  | 40.5  | 35.4  | 32.9  | 30.5  | 30.0  | 29.1  | 30.7  | 32.2  | 34.7  |
| 80°   | 38.2  | 34.8  | 30.2  | 24.9  | 24.0  | 22.5  | 22.0  | 21.0  | 22.5  | 23.5  | 25.4  |
| 82.5° | 24.6  | 22.4  | 19.8  | 16.1  | 15.9  | 14.8  | 14.5  | 13.5  | 14.8  | 15.4  | 16.8  |
| 85°   | 12.5  | 11.4  | 10.7  | 8.2   | 8.4   | 7.7   | 7.6   | 6.5   | 7.6   | 7.8   | 8.6   |
| 87.5° | 3.6   | 3.8   | 3.3   | 2.0   | 2.5   | 2.4   | 2.4   | 1.7   | 2.4   | 2.4   | 2.7   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

TEST NUMBER: P837821

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-1LO-20-120-EDD

**CANDELA DISTRIBUTION (continued):**

|       | 295°  | 305°  | 315°  | 325°  | 335°  | 345°  | 355°  | 360°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 | 287.1 |
| 2.5°  | 287.4 | 288.6 | 288.8 | 288.8 | 289.5 | 293.5 | 292.2 | 293.5 |
| 5°    | 288.1 | 290.6 | 291.3 | 292.2 | 293.4 | 298.0 | 296.5 | 298.1 |
| 7.5°  | 288.5 | 292.3 | 293.8 | 295.6 | 297.5 | 302.6 | 301.4 | 303.0 |
| 10°   | 288.5 | 293.4 | 295.6 | 298.6 | 301.2 | 307.1 | 306.0 | 307.8 |
| 12.5° | 287.3 | 293.6 | 296.7 | 300.9 | 304.2 | 310.6 | 310.1 | 311.5 |
| 15°   | 284.8 | 292.6 | 296.8 | 302.2 | 306.4 | 313.5 | 313.3 | 314.9 |
| 17.5° | 281.5 | 290.9 | 295.9 | 302.8 | 308.0 | 316.0 | 316.4 | 317.3 |
| 20°   | 277.2 | 287.6 | 294.2 | 302.6 | 309.1 | 317.9 | 318.5 | 319.7 |
| 22.5° | 271.7 | 283.7 | 291.6 | 301.7 | 309.3 | 318.7 | 319.8 | 320.9 |
| 25°   | 265.1 | 278.9 | 288.2 | 300.0 | 308.6 | 318.6 | 320.1 | 321.1 |
| 27.5° | 257.6 | 272.7 | 283.8 | 297.3 | 306.7 | 317.6 | 319.4 | 320.6 |
| 30°   | 248.9 | 266.2 | 278.8 | 293.8 | 304.2 | 315.5 | 317.5 | 318.7 |
| 32.5° | 239.9 | 258.9 | 272.9 | 289.4 | 300.5 | 312.3 | 314.0 | 314.9 |
| 35°   | 230.1 | 250.2 | 265.8 | 283.6 | 295.7 | 307.2 | 308.4 | 309.5 |
| 37.5° | 219.5 | 240.7 | 257.7 | 277.1 | 289.0 | 300.0 | 301.1 | 302.3 |
| 40°   | 208.5 | 230.7 | 248.6 | 269.1 | 281.1 | 291.2 | 292.4 | 293.2 |
| 42.5° | 197.5 | 219.6 | 238.9 | 259.8 | 271.6 | 281.4 | 282.1 | 282.9 |
| 45°   | 186.3 | 208.2 | 228.0 | 249.4 | 261.1 | 270.3 | 270.5 | 271.2 |
| 47.5° | 174.9 | 196.3 | 216.0 | 237.5 | 249.1 | 257.5 | 257.7 | 258.3 |
| 50°   | 163.4 | 184.5 | 203.2 | 224.7 | 236.0 | 244.9 | 243.7 | 244.2 |
| 52.5° | 152.2 | 172.0 | 191.2 | 210.9 | 222.1 | 229.9 | 230.3 | 229.2 |
| 55°   | 141.1 | 159.8 | 177.4 | 196.5 | 207.1 | 213.2 | 213.0 | 213.4 |
| 57.5° | 129.9 | 147.5 | 163.6 | 181.1 | 191.4 | 197.2 | 198.4 | 197.0 |
| 60°   | 118.6 | 135.0 | 149.5 | 165.2 | 175.3 | 180.1 | 181.5 | 180.2 |
| 62.5° | 107.2 | 122.4 | 135.5 | 149.2 | 158.5 | 164.5 | 164.4 | 162.9 |
| 65°   | 95.9  | 109.6 | 121.4 | 133.0 | 141.1 | 147.1 | 146.8 | 145.5 |
| 67.5° | 85.5  | 96.8  | 107.3 | 116.7 | 123.8 | 127.9 | 129.3 | 127.7 |
| 70°   | 73.9  | 83.7  | 93.0  | 100.5 | 106.4 | 110.1 | 111.4 | 110.0 |
| 72.5° | 62.4  | 70.7  | 77.2  | 84.5  | 89.0  | 92.1  | 93.5  | 92.2  |
| 75°   | 51.0  | 57.9  | 63.2  | 68.9  | 72.0  | 74.6  | 76.2  | 74.9  |
| 77.5° | 40.0  | 45.3  | 49.5  | 53.7  | 57.3  | 57.9  | 59.3  | 58.4  |
| 80°   | 29.5  | 33.3  | 36.4  | 39.1  | 41.7  | 42.0  | 43.1  | 42.6  |
| 82.5° | 19.6  | 22.2  | 23.0  | 25.9  | 27.5  | 27.3  | 28.4  | 28.0  |
| 85°   | 10.4  | 11.9  | 13.3  | 14.2  | 15.1  | 14.3  | 15.3  | 14.9  |
| 87.5° | 3.5   | 3.7   | 3.2   | 4.6   | 5.0   | 4.3   | 4.9   | 4.7   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)