

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: P397325

Luminaire Tested: **8VRVT2-LD5-16-DR100-UNV-LA59-CD2-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397325  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 8VRVT2-LD5-16-DR100-UNV-LA59-CD2-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4615.0 lumens  
Efficiency: N/A  
Efficacy: 25.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')  
CIE Type: Direct

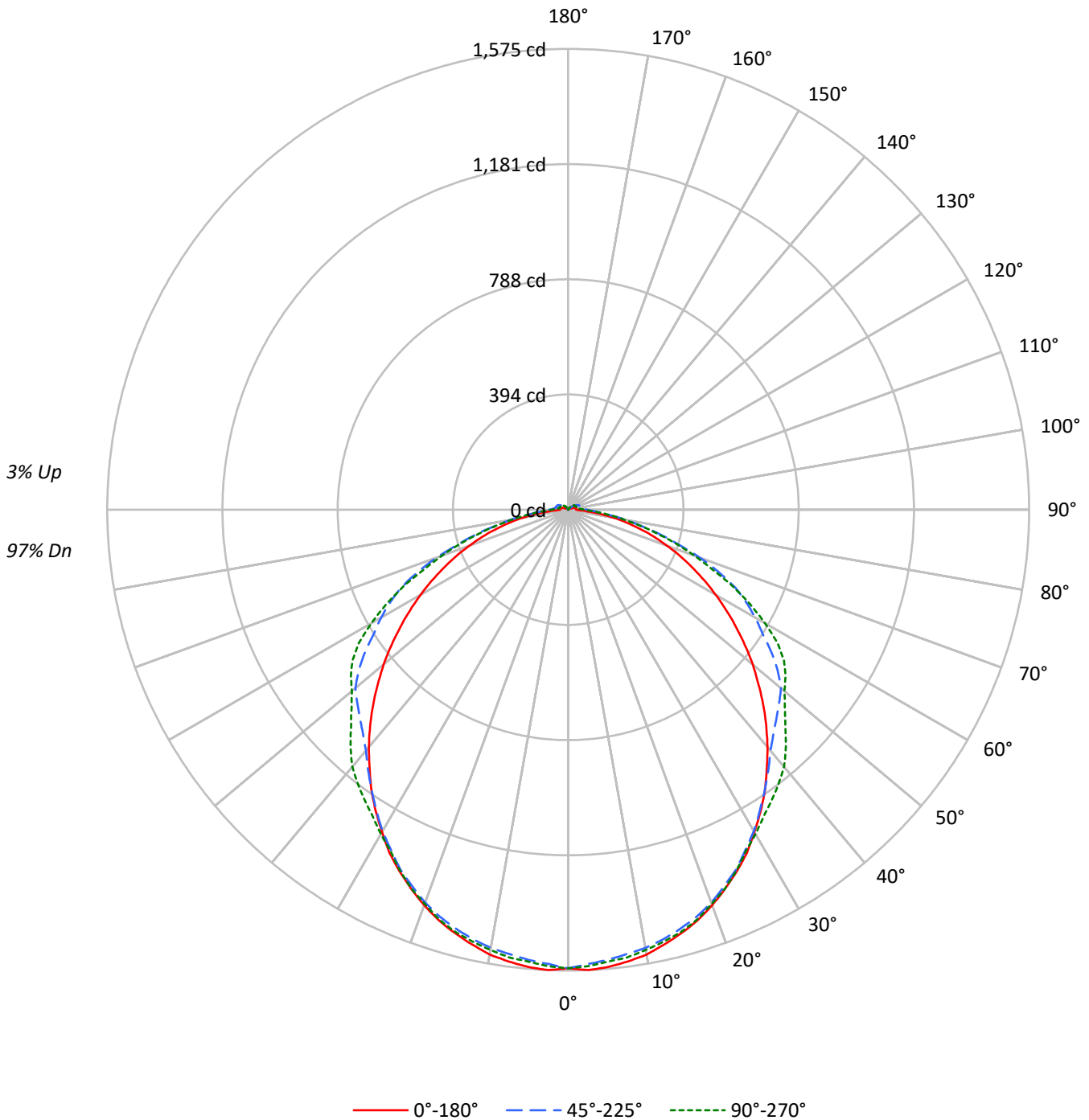
Input Watts (W): 179  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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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   | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 97 |
| 1   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 95  | 92  | 89  | 91  | 88  | 86  | 87 | 85 | 83 | 80 |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 77  | 73  | 79  | 75  | 71  | 76 | 72 | 69 | 66 |
| 3   | 89  | 78  | 70  | 63  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 64  | 59  | 67 | 62 | 58 | 56 |
| 4   | 81  | 69  | 60  | 53  | 79  | 67  | 59  | 53  | 64  | 57  | 52  | 62  | 56  | 51  | 59 | 54 | 50 | 47 |
| 5   | 75  | 62  | 52  | 46  | 72  | 60  | 52  | 45  | 58  | 50  | 44  | 55  | 49  | 44  | 53 | 48 | 43 | 41 |
| 6   | 69  | 55  | 46  | 40  | 67  | 54  | 46  | 39  | 52  | 44  | 39  | 50  | 43  | 38  | 48 | 42 | 38 | 36 |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 47  | 40  | 34  | 46  | 39  | 34  | 44 | 38 | 33 | 31 |
| 8   | 59  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 30  | 40 | 34 | 30 | 28 |
| 9   | 55  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 27  | 37 | 31 | 27 | 25 |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 29  | 25  | 35 | 29 | 25 | 23 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4049 | 4049 | 4049 |
| 5°  | 4060 | 3920 | 3907 |
| 10° | 4036 | 3820 | 3786 |
| 15° | 3985 | 3716 | 3667 |
| 20° | 3926 | 3601 | 3515 |
| 25° | 3851 | 3464 | 3356 |
| 30° | 3750 | 3307 | 3202 |
| 35° | 3644 | 3141 | 3100 |
| 40° | 3514 | 2996 | 3024 |
| 45° | 3376 | 2941 | 2874 |
| 50° | 3231 | 2940 | 2774 |
| 55° | 3068 | 2811 | 2746 |
| 60° | 2908 | 2660 | 2542 |
| 65° | 2737 | 2503 | 2214 |
| 70° | 2562 | 2140 | 1806 |
| 75° | 2367 | 1672 | 1395 |
| 80° | 2095 | 1230 | 986  |
| 85° | 1595 | 823  | 635  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 147.6  | 3.2       |
| 10°-20°   | 420.2  | 9.1       |
| 20°-30°   | 625.8  | 13.6      |
| 30°-40°   | 740.6  | 16.0      |
| 40°-50°   | 773.4  | 16.8      |
| 50°-60°   | 727.6  | 15.8      |
| 60°-70°   | 583.5  | 12.6      |
| 70°-80°   | 338.7  | 7.3       |
| 80°-90°   | 120.6  | 2.6       |
| 90°-100°  | 47.1   | 1.0       |
| 100°-110° | 35.4   | 0.8       |
| 110°-120° | 26.9   | 0.6       |
| 120°-130° | 16.5   | 0.4       |
| 130°-140° | 8.1    | 0.2       |
| 140°-150° | 2.6    | 0.1       |
| 150°-160° | 0.3    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1193.7 | 25.9      |
| 0°-40°    | 1934.2 | 41.9      |
| 0°-60°    | 3435.2 | 74.4      |
| 0°-90°    | 4478.0 | 97.0      |
| 90°-120°  | 109.4  | 2.4       |
| 90°-150°  | 136.6  | 3.0       |
| 90°-180°  | 137.0  | 3.0       |
| 0°-180°   | 4615.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1567 | 1567  | 1567 | 1567  | 1567 |      |
| 5°   | 1568 | 1560  | 1544 | 1552  | 1551 | 149  |
| 15°  | 1498 | 1487  | 1482 | 1497  | 1494 | 422  |
| 25°  | 1364 | 1356  | 1357 | 1366  | 1360 | 628  |
| 35°  | 1172 | 1170  | 1170 | 1196  | 1212 | 732  |
| 45°  | 942  | 948   | 1006 | 1056  | 1049 | 727  |
| 55°  | 701  | 735   | 847  | 878   | 900  | 627  |
| 65°  | 467  | 581   | 629  | 624   | 621  | 464  |
| 75°  | 255  | 349   | 324  | 318   | 314  | 270  |
| 85°  | 66   | 108   | 107  | 105   | 103  | 74   |
| 90°  | 27   | 58    | 64   | 60    | 57   | 16   |
| 95°  | 27   | 43    | 48   | 42    | 38   | 22   |
| 105° | 22   | 32    | 42   | 34    | 30   | 23   |
| 115° | 12   | 20    | 36   | 32    | 28   | 12   |
| 125° | 4    | 8     | 24   | 26    | 25   | 4    |
| 135° | 2    | 2     | 11   | 18    | 18   | 2    |
| 145° | 1    | 1     | 2    | 8     | 9    | 1    |
| 155° | 1    | 1     | 1    | 1     | 1    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P397325

CATALOG NUMBER: 8VRVT2-LD5-16-DR100-UNV-LA59-CD2-WL-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1567.4 | 1567.4 | 1567.4 | 1567.4 | 1567.4 |
| 2.5°   | 1574.7 | 1566.3 | 1554.0 | 1565.2 | 1561.3 |
| 5°     | 1568.5 | 1560.1 | 1544.5 | 1552.3 | 1550.6 |
| 7.5°   | 1557.3 | 1546.1 | 1532.1 | 1544.5 | 1543.3 |
| 10°    | 1543.9 | 1531.0 | 1520.4 | 1532.1 | 1528.2 |
| 12.5°  | 1521.5 | 1511.4 | 1503.6 | 1517.6 | 1511.4 |
| 15°    | 1498.0 | 1486.8 | 1482.3 | 1497.4 | 1493.5 |
| 17.5°  | 1471.1 | 1462.1 | 1458.8 | 1467.2 | 1467.7 |
| 20°    | 1438.6 | 1431.9 | 1429.1 | 1440.3 | 1433.6 |
| 22.5°  | 1401.7 | 1392.1 | 1392.7 | 1404.5 | 1401.1 |
| 25°    | 1363.6 | 1355.7 | 1356.9 | 1366.4 | 1360.2 |
| 27.5°  | 1322.1 | 1313.2 | 1310.9 | 1321.0 | 1314.9 |
| 30°    | 1271.7 | 1270.1 | 1268.4 | 1276.8 | 1280.1 |
| 32.5°  | 1223.0 | 1222.5 | 1219.1 | 1230.9 | 1242.6 |
| 35°    | 1171.5 | 1169.8 | 1170.4 | 1196.1 | 1212.4 |
| 37.5°  | 1114.4 | 1116.1 | 1122.8 | 1164.2 | 1180.5 |
| 40°    | 1059.5 | 1060.1 | 1074.6 | 1136.8 | 1147.4 |
| 42.5°  | 1001.3 | 1002.4 | 1037.7 | 1103.2 | 1100.9 |
| 45°    | 942.5  | 947.5  | 1006.3 | 1056.1 | 1048.9 |
| 47.5°  | 881.4  | 890.9  | 977.2  | 1003.5 | 1004.1 |
| 50°    | 823.2  | 835.5  | 949.2  | 955.3  | 964.3  |
| 52.5°  | 761.0  | 785.1  | 902.1  | 910.5  | 935.7  |
| 55°    | 700.6  | 735.3  | 846.7  | 877.5  | 899.9  |
| 57.5°  | 641.2  | 692.2  | 786.8  | 835.5  | 847.8  |
| 60°    | 582.4  | 653.5  | 737.5  | 777.3  | 776.2  |
| 62.5°  | 524.7  | 616.6  | 686.0  | 704.5  | 701.7  |
| 65°    | 467.0  | 581.3  | 628.9  | 624.4  | 621.0  |
| 67.5°  | 413.8  | 533.1  | 556.1  | 537.6  | 532.0  |
| 70°    | 357.8  | 474.9  | 477.7  | 459.2  | 458.1  |
| 72.5°  | 307.4  | 412.2  | 395.4  | 386.4  | 387.0  |
| 75°    | 254.8  | 349.4  | 323.7  | 317.5  | 313.6  |
| 77.5°  | 205.5  | 280.6  | 255.4  | 254.2  | 252.0  |
| 80°    | 156.8  | 216.2  | 199.9  | 194.9  | 191.5  |
| 82.5°  | 109.2  | 156.2  | 146.2  | 146.2  | 143.9  |
| 85°    | 66.1   | 108.1  | 107.0  | 104.7  | 103.0  |
| 87.5°  | 37.0   | 74.5   | 80.1   | 77.8   | 73.4   |
| 90°    | 26.9   | 57.7   | 64.4   | 60.5   | 57.1   |
| 92.5°  | 26.9   | 48.7   | 53.8   | 49.3   | 45.4   |
| 95°    | 27.4   | 42.6   | 47.6   | 42.0   | 38.1   |
| 97.5°  | 27.4   | 39.2   | 44.8   | 38.1   | 34.2   |
| 100°   | 26.3   | 36.4   | 43.1   | 35.8   | 31.4   |
| 102.5° | 24.6   | 34.2   | 42.0   | 34.7   | 30.2   |
| 105°   | 22.4   | 31.9   | 42.0   | 34.2   | 29.7   |
| 107.5° | 19.6   | 29.7   | 40.9   | 34.2   | 29.1   |
| 110°   | 16.8   | 26.9   | 40.3   | 33.6   | 29.1   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 112.5° | 14.6 | 23.5  | 38.6 | 33.0  | 28.6 |
| 115°   | 11.8 | 20.2  | 36.4 | 32.5  | 28.0 |
| 117.5° | 9.5  | 16.8  | 33.6 | 31.4  | 27.4 |
| 120°   | 7.8  | 13.4  | 30.2 | 29.7  | 26.9 |
| 122.5° | 5.6  | 10.1  | 27.4 | 28.6  | 26.3 |
| 125°   | 4.5  | 7.8   | 24.1 | 26.3  | 25.2 |
| 127.5° | 3.9  | 5.0   | 20.7 | 24.6  | 24.1 |
| 130°   | 2.8  | 3.4   | 17.4 | 22.4  | 22.4 |
| 132.5° | 2.2  | 2.2   | 14.0 | 20.2  | 20.7 |
| 135°   | 2.2  | 1.7   | 11.2 | 17.9  | 18.5 |
| 137.5° | 1.7  | 1.7   | 9.0  | 15.1  | 16.2 |
| 140°   | 1.1  | 1.1   | 6.2  | 12.3  | 14.0 |
| 142.5° | 1.1  | 1.1   | 3.9  | 10.1  | 11.2 |
| 145°   | 1.1  | 1.1   | 2.2  | 7.8   | 9.0  |
| 147.5° | 1.1  | 0.6   | 1.1  | 5.6   | 6.7  |
| 150°   | 1.1  | 0.6   | 0.6  | 3.4   | 4.5  |
| 152.5° | 0.6  | 0.6   | 0.6  | 1.7   | 2.8  |
| 155°   | 0.6  | 0.6   | 0.6  | 0.6   | 1.1  |
| 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)