

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: P397334

Luminaire Tested: **8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P397334  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1710-355-11)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U  
Description:  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6023.9 lumens  
Efficiency: N/A  
Efficacy: 23.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 8.33' x H: 0.17')  
CIE Type: Direct

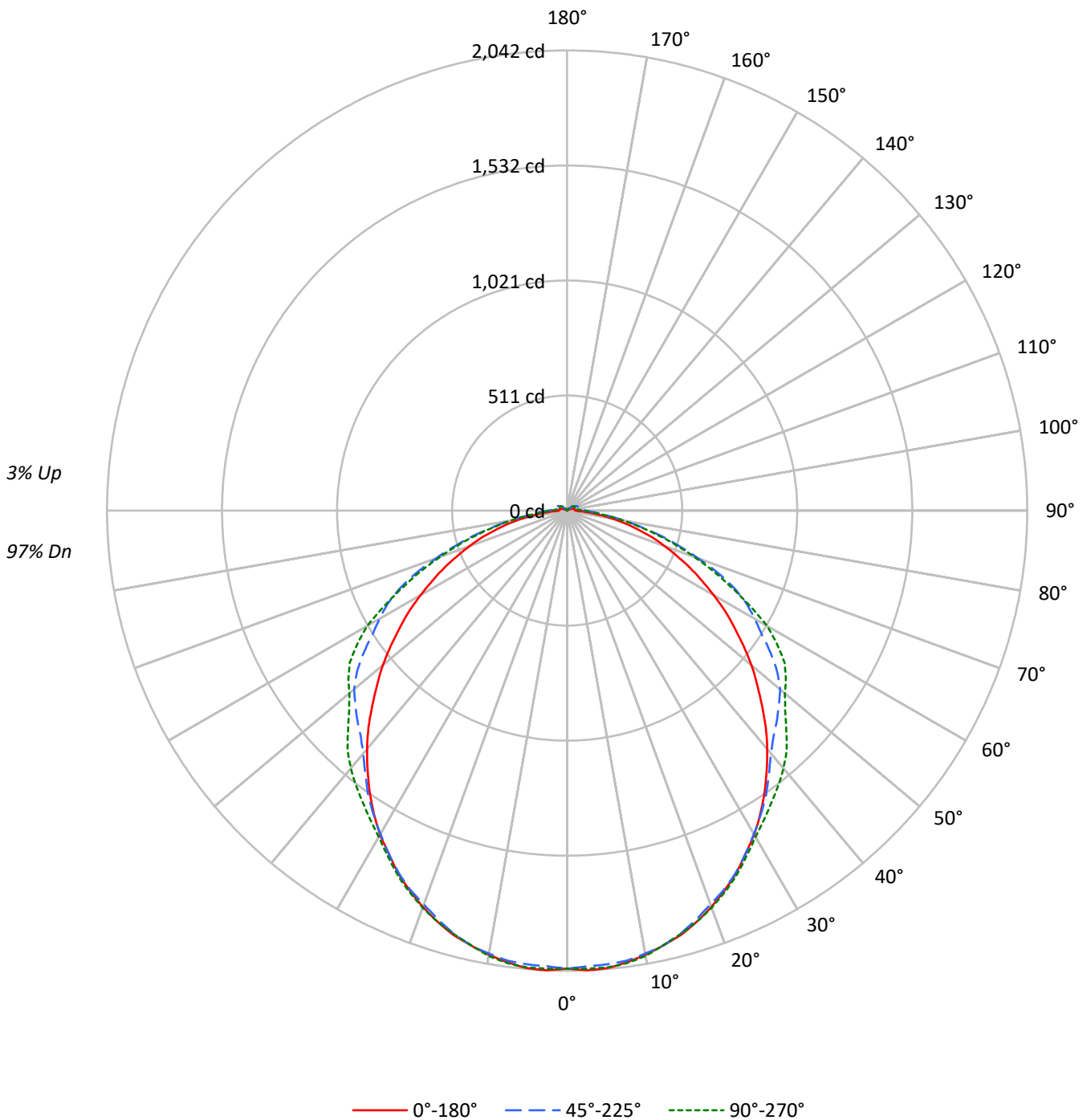
Input Watts (W): 252.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P397334

CATALOG NUMBER: 8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U

### Luminous Intensity Polar Plot





TEST NUMBER: P397334

CATALOG NUMBER: 8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U

**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  | 81  | 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  | 65  | 57  | 52  | 62  | 56  | 51  | 59 | 54 | 50 | 47 |
| 5   | 75  | 62  | 52  | 46  | 72  | 60  | 52  | 45  | 58  | 50  | 45  | 55  | 49  | 44  | 53 | 48 | 43 | 41 |
| 6   | 69  | 55  | 46  | 40  | 67  | 54  | 46  | 39  | 52  | 45  | 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°  | 5251 | 5251 | 5251 |
| 5°  | 5277 | 5131 | 5127 |
| 10° | 5231 | 5015 | 4972 |
| 15° | 5187 | 4873 | 4777 |
| 20° | 5108 | 4687 | 4598 |
| 25° | 5015 | 4524 | 4399 |
| 30° | 4898 | 4320 | 4182 |
| 35° | 4749 | 4132 | 4042 |
| 40° | 4581 | 3922 | 3935 |
| 45° | 4378 | 3847 | 3766 |
| 50° | 4192 | 3822 | 3627 |
| 55° | 3971 | 3662 | 3594 |
| 60° | 3750 | 3466 | 3356 |
| 65° | 3527 | 3269 | 2862 |
| 70° | 3296 | 2770 | 2366 |
| 75° | 3033 | 2208 | 1833 |
| 80° | 2690 | 1586 | 1307 |
| 85° | 2191 | 1086 | 789  |



TEST NUMBER: P397334

CATALOG NUMBER: 8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 193.0  | 3.2       |
| 10°-20°   | 549.6  | 9.1       |
| 20°-30°   | 819.2  | 13.6      |
| 30°-40°   | 969.1  | 16.1      |
| 40°-50°   | 1009.0 | 16.7      |
| 50°-60°   | 949.2  | 15.8      |
| 60°-70°   | 760.6  | 12.6      |
| 70°-80°   | 441.9  | 7.3       |
| 80°-90°   | 155.8  | 2.6       |
| 90°-100°  | 60.2   | 1.0       |
| 100°-110° | 45.8   | 0.8       |
| 110°-120° | 34.8   | 0.6       |
| 120°-130° | 21.2   | 0.4       |
| 130°-140° | 10.4   | 0.2       |
| 140°-150° | 3.4    | 0.1       |
| 150°-160° | 0.5    | 0.0       |
| 160°-170° | 0.2    | 0.0       |
| 170°-180° | 0.1    | 0.0       |
| 0°-30°    | 1561.8 | 25.9      |
| 0°-40°    | 2531.0 | 42.0      |
| 0°-60°    | 4489.1 | 74.5      |
| 0°-90°    | 5847.4 | 97.1      |
| 90°-120°  | 140.8  | 2.3       |
| 90°-150°  | 175.7  | 2.9       |
| 90°-180°  | 177.0  | 2.9       |
| 0°-180°   | 6023.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2033 | 2033  | 2033 | 2033  | 2033 |      |
| 5°   | 2038 | 2030  | 2022 | 2039  | 2035 | 193  |
| 15°  | 1950 | 1956  | 1944 | 1948  | 1946 | 549  |
| 25°  | 1776 | 1782  | 1772 | 1785  | 1783 | 817  |
| 35°  | 1527 | 1530  | 1539 | 1566  | 1581 | 954  |
| 45°  | 1222 | 1235  | 1316 | 1380  | 1375 | 945  |
| 55°  | 907  | 960   | 1103 | 1151  | 1178 | 812  |
| 65°  | 602  | 752   | 821  | 814   | 803  | 596  |
| 75°  | 326  | 452   | 428  | 418   | 412  | 347  |
| 85°  | 91   | 138   | 141  | 136   | 128  | 97   |
| 90°  | 34   | 75    | 81   | 77    | 72   | 21   |
| 95°  | 35   | 55    | 62   | 53    | 49   | 28   |
| 105° | 29   | 41    | 54   | 45    | 38   | 30   |
| 115° | 15   | 26    | 47   | 42    | 37   | 15   |
| 125° | 6    | 10    | 31   | 34    | 33   | 5    |
| 135° | 2    | 2     | 15   | 23    | 24   | 2    |
| 145° | 2    | 1     | 3    | 10    | 12   | 1    |
| 155° | 1    | 1     | 1    | 1     | 2    | 0    |
| 165° | 1    | 1     | 1    | 1     | 0    | 0    |
| 175° | 2    | 2     | 1    | 1     | 1    | 0    |
| 180° | 1    | 1     | 1    | 1     | 1    |      |



TEST NUMBER: P397334

CATALOG NUMBER: 8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2032.6 | 2032.6 | 2032.6 | 2032.6 | 2032.6 |
| 2.5°   | 2042.2 | 2034.8 | 2023.9 | 2038.5 | 2034.8 |
| 5°     | 2038.5 | 2029.7 | 2021.7 | 2039.2 | 2034.8 |
| 7.5°   | 2022.4 | 2020.9 | 2015.1 | 2029.7 | 2026.1 |
| 10°    | 2001.2 | 2005.6 | 1996.0 | 2007.8 | 2007.0 |
| 12.5°  | 1976.3 | 1987.3 | 1976.3 | 1979.2 | 1974.8 |
| 15°    | 1949.9 | 1956.5 | 1944.1 | 1947.7 | 1945.6 |
| 17.5°  | 1913.3 | 1922.8 | 1902.3 | 1920.7 | 1913.3 |
| 20°    | 1871.6 | 1881.1 | 1859.9 | 1880.4 | 1875.3 |
| 22.5°  | 1824.8 | 1833.6 | 1820.4 | 1835.0 | 1831.3 |
| 25°    | 1775.7 | 1781.6 | 1772.1 | 1785.3 | 1783.0 |
| 27.5°  | 1715.0 | 1728.9 | 1716.4 | 1732.5 | 1725.9 |
| 30°    | 1660.8 | 1665.9 | 1657.2 | 1676.9 | 1671.8 |
| 32.5°  | 1595.7 | 1599.3 | 1599.3 | 1616.9 | 1625.7 |
| 35°    | 1526.9 | 1530.5 | 1539.3 | 1565.6 | 1581.0 |
| 37.5°  | 1454.4 | 1462.4 | 1470.5 | 1522.5 | 1539.3 |
| 40°    | 1381.2 | 1387.1 | 1406.8 | 1482.2 | 1493.2 |
| 42.5°  | 1305.1 | 1310.9 | 1356.3 | 1439.0 | 1442.7 |
| 45°    | 1222.4 | 1234.8 | 1316.1 | 1380.5 | 1374.6 |
| 47.5°  | 1144.1 | 1159.4 | 1275.1 | 1305.8 | 1311.7 |
| 50°    | 1067.9 | 1085.5 | 1234.1 | 1245.8 | 1261.1 |
| 52.5°  | 985.9  | 1019.6 | 1175.5 | 1191.6 | 1223.8 |
| 55°    | 906.9  | 960.3  | 1103.1 | 1150.6 | 1177.7 |
| 57.5°  | 831.5  | 901.0  | 1024.0 | 1097.9 | 1105.2 |
| 60°    | 751.0  | 850.5  | 961.1  | 1024.0 | 1024.7 |
| 62.5°  | 674.1  | 802.2  | 898.8  | 923.0  | 912.7  |
| 65°    | 601.7  | 752.4  | 821.3  | 813.9  | 803.0  |
| 67.5°  | 527.7  | 688.8  | 725.4  | 709.3  | 701.9  |
| 70°    | 460.4  | 620.0  | 618.5  | 604.6  | 600.2  |
| 72.5°  | 396.0  | 534.3  | 519.7  | 507.2  | 503.6  |
| 75°    | 326.5  | 452.3  | 427.5  | 418.0  | 412.1  |
| 77.5°  | 263.5  | 367.4  | 333.8  | 330.1  | 325.7  |
| 80°    | 201.3  | 280.3  | 257.7  | 258.4  | 254.0  |
| 82.5°  | 139.1  | 201.3  | 188.8  | 187.4  | 182.3  |
| 85°    | 90.8   | 138.3  | 141.3  | 136.1  | 128.1  |
| 87.5°  | 49.0   | 96.6   | 103.2  | 99.5   | 93.7   |
| 90°    | 34.4   | 74.6   | 81.3   | 76.9   | 71.7   |
| 92.5°  | 34.4   | 62.9   | 68.8   | 62.2   | 57.8   |
| 95°    | 35.1   | 54.9   | 61.5   | 53.4   | 49.0   |
| 97.5°  | 35.1   | 49.8   | 57.1   | 48.3   | 43.2   |
| 100°   | 33.7   | 46.8   | 55.6   | 46.1   | 41.0   |
| 102.5° | 31.5   | 43.9   | 54.9   | 44.7   | 39.5   |
| 105°   | 28.6   | 41.0   | 54.2   | 44.7   | 38.1   |
| 107.5° | 24.9   | 38.1   | 53.4   | 43.9   | 38.1   |
| 110°   | 21.2   | 34.4   | 52.0   | 43.9   | 37.3   |



TEST NUMBER: P397334

CATALOG NUMBER: 8VRVT2-LD5-22-DR-UNV-LA59-CD2-WL-U

**CANDELA DISTRIBUTION (continued):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 112.5° | 18.3 | 30.7  | 49.8 | 43.2  | 37.3 |
| 115°   | 14.6 | 26.3  | 46.8 | 41.7  | 36.6 |
| 117.5° | 11.7 | 22.0  | 43.2 | 40.3  | 35.9 |
| 120°   | 9.5  | 17.6  | 39.5 | 38.8  | 35.1 |
| 122.5° | 7.3  | 13.2  | 35.1 | 36.6  | 33.7 |
| 125°   | 5.9  | 9.5   | 30.7 | 34.4  | 32.9 |
| 127.5° | 4.4  | 6.6   | 26.3 | 32.2  | 30.7 |
| 130°   | 3.7  | 3.7   | 22.0 | 29.3  | 28.6 |
| 132.5° | 2.9  | 2.9   | 18.3 | 26.3  | 27.1 |
| 135°   | 2.2  | 2.2   | 14.6 | 22.7  | 24.2 |
| 137.5° | 2.2  | 1.5   | 11.0 | 19.8  | 21.2 |
| 140°   | 1.5  | 1.5   | 8.1  | 16.1  | 17.6 |
| 142.5° | 1.5  | 1.5   | 5.1  | 13.2  | 14.6 |
| 145°   | 1.5  | 0.7   | 2.9  | 9.5   | 11.7 |
| 147.5° | 1.5  | 0.7   | 1.5  | 6.6   | 8.8  |
| 150°   | 0.7  | 0.7   | 0.7  | 4.4   | 5.9  |
| 152.5° | 0.7  | 0.7   | 0.7  | 2.2   | 2.9  |
| 155°   | 0.7  | 0.7   | 0.7  | 0.7   | 1.5  |
| 157.5° | 0.7  | 0.7   | 0.7  | 0.7   | 0.0  |
| 160°   | 0.7  | 0.7   | 0.7  | 0.7   | 0.0  |
| 162.5° | 0.7  | 0.7   | 0.7  | 0.7   | 0.0  |
| 165°   | 0.7  | 0.7   | 0.7  | 0.7   | 0.0  |
| 167.5° | 1.5  | 0.7   | 0.7  | 0.7   | 0.0  |
| 170°   | 1.5  | 0.7   | 0.7  | 0.7   | 0.0  |
| 172.5° | 1.5  | 1.5   | 0.7  | 0.7   | 0.0  |
| 175°   | 1.5  | 1.5   | 0.7  | 0.7   | 0.7  |
| 177.5° | 1.5  | 1.5   | 0.7  | 0.7   | 0.7  |
| 180°   | 0.7  | 0.7   | 0.7  | 0.7   | 0.7  |

(END OF REPORT)