

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: P580265

Luminaire Tested: **HVSL12-8-LD4-1LO-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580265  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/16/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HVSL12-8-LD4-1LO-50-UNV-O-EDD-90  
Description: 8 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

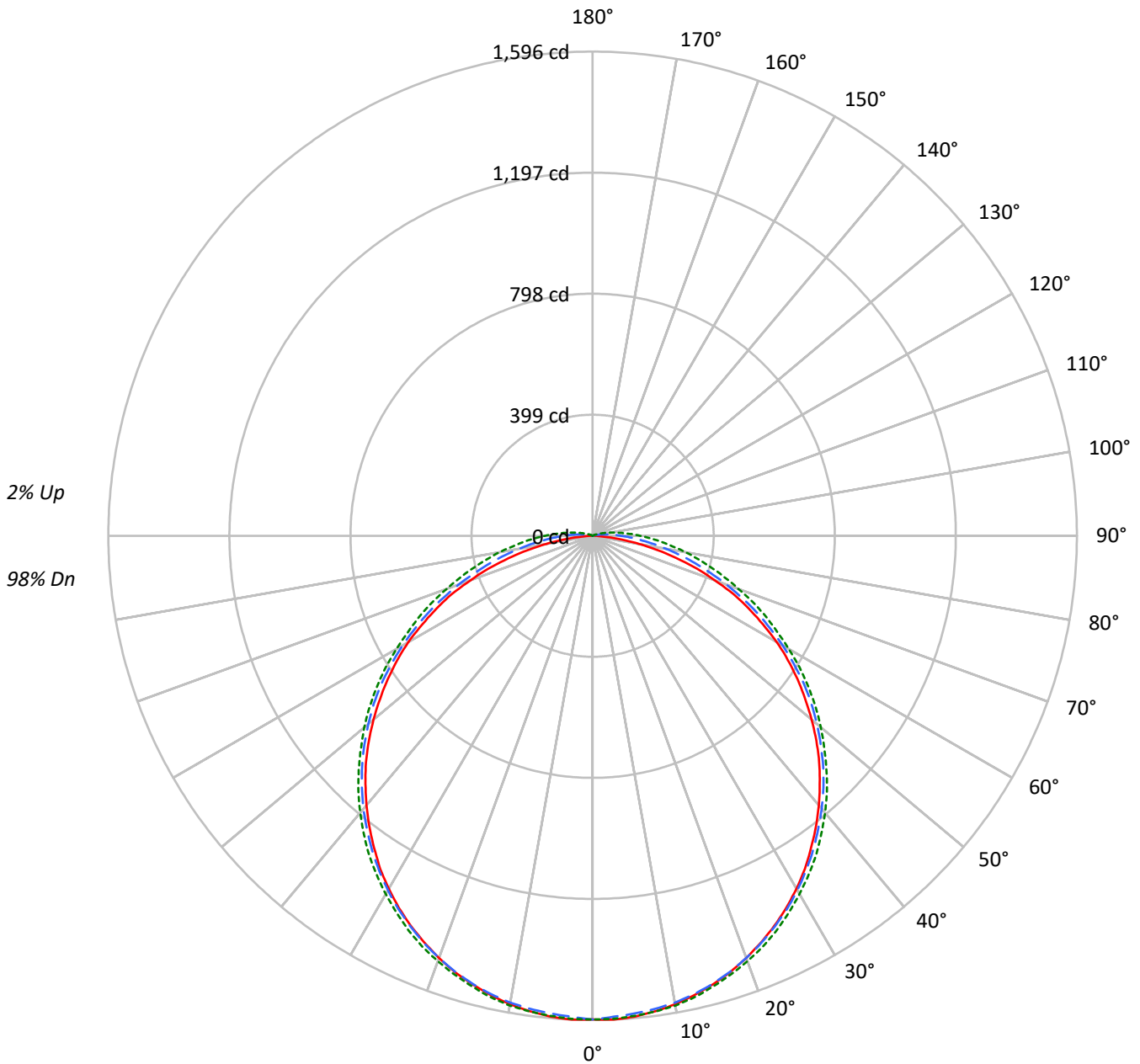
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4821.0 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 8' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 48.7  
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: P580265

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### Luminous Intensity Polar Plot





TEST NUMBER: P580265

CATALOG NUMBER: HVSL12-8-LD4-1LO-50-UNV-O-EDD-90

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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 20  |     |     |     |     |     |     |     |     | 20  |     |     |     |     |     |     |     |    | 20 |    |    |  |  |  |  |  |  | 20 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |    | 30 |    |    |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 0  |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 110 | 110 | 110 | 105 | 105 | 105 | 101 | 101 | 101 |    |    |    | 98 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 108 | 102 | 98  | 94  | 105 | 100 | 96  | 92  | 95  | 92  | 89  | 91  | 88  | 86  | 87  | 85  | 83  |    |    |    | 81 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 77  | 73  | 79  | 75  | 71  | 76  | 72  | 69  |    |    |    | 67 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 89  | 78  | 69  | 63  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 64  | 59  | 67  | 62  | 58  |    |    |    | 56 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 81  | 69  | 60  | 53  | 79  | 67  | 59  | 52  | 65  | 57  | 52  | 62  | 56  | 51  | 60  | 54  | 50  |    |    |    | 47 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 75  | 61  | 52  | 45  | 72  | 60  | 52  | 45  | 58  | 50  | 44  | 56  | 49  | 44  | 54  | 48  | 43  |    |    |    | 41 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 69  | 55  | 46  | 40  | 67  | 54  | 46  | 39  | 52  | 45  | 39  | 50  | 44  | 38  | 49  | 43  | 38  |    |    |    | 36 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 47  | 40  | 34  | 46  | 39  | 34  | 44  | 38  | 34  |    |    |    | 32 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 59  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 30  | 41  | 35  | 30  |    |    |    | 28 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 55  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 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°  | 2145 | 2145 | 2145 |
| 5°  | 2145 | 2111 | 2115 |
| 10° | 2135 | 2086 | 2087 |
| 15° | 2120 | 2057 | 2050 |
| 20° | 2105 | 2022 | 2014 |
| 25° | 2085 | 1986 | 1977 |
| 30° | 2062 | 1947 | 1933 |
| 35° | 2032 | 1903 | 1889 |
| 40° | 2002 | 1857 | 1836 |
| 45° | 1969 | 1805 | 1778 |
| 50° | 1925 | 1743 | 1715 |
| 55° | 1878 | 1675 | 1644 |
| 60° | 1822 | 1583 | 1559 |
| 65° | 1726 | 1478 | 1477 |
| 70° | 1586 | 1351 | 1379 |
| 75° | 1383 | 1213 | 1299 |
| 80° | 1073 | 1084 | 1238 |
| 85° | 618  | 966  | 1205 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 150.9  | 3.1       |
| 10°-20°   | 432.8  | 9.0       |
| 20°-30°   | 656.7  | 13.6      |
| 30°-40°   | 794.1  | 16.5      |
| 40°-50°   | 828.6  | 17.2      |
| 50°-60°   | 757.6  | 15.7      |
| 60°-70°   | 590.6  | 12.2      |
| 70°-80°   | 369.4  | 7.7       |
| 80°-90°   | 167.8  | 3.5       |
| 90°-100°  | 56.2   | 1.2       |
| 100°-110° | 14.1   | 0.3       |
| 110°-120° | 2.2    | 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°    | 1240.4 | 25.7      |
| 0°-40°    | 2034.5 | 42.2      |
| 0°-60°    | 3620.6 | 75.1      |
| 0°-90°    | 4748.4 | 98.5      |
| 90°-120°  | 72.6   | 1.5       |
| 90°-150°  | 72.6   | 1.5       |
| 90°-180°  | 73.0   | 1.5       |
| 0°-180°   | 4821.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1594 | 1594  | 1594 | 1594  | 1594 |      |
| 5°   | 1591 | 1588  | 1581 | 1588  | 1588 | 151  |
| 15°  | 1531 | 1533  | 1529 | 1538  | 1537 | 432  |
| 25°  | 1418 | 1419  | 1421 | 1433  | 1435 | 653  |
| 35°  | 1255 | 1261  | 1266 | 1279  | 1284 | 786  |
| 45°  | 1056 | 1066  | 1074 | 1085  | 1090 | 814  |
| 55°  | 824  | 834   | 850  | 862   | 868  | 736  |
| 65°  | 566  | 576   | 596  | 620   | 630  | 561  |
| 75°  | 287  | 304   | 349  | 390   | 405  | 306  |
| 85°  | 50   | 92    | 158  | 208   | 227  | 63   |
| 90°  | 0    | 34    | 93   | 140   | 156  | 2    |
| 95°  | 0    | 9     | 48   | 87    | 101  | 0    |
| 105° | 1    | 1     | 8    | 23    | 31   | 1    |
| 115° | 1    | 1     | 2    | 4     | 6    | 1    |
| 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    |



TEST NUMBER: P580265

CATALOG NUMBER: HVSL12-8-LD4-1LO-50-UNV-O-EDD-90

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1594.5 | 1594.5 | 1594.5 | 1594.5 | 1594.5 |
| 2.5°   | 1596.4 | 1594.1 | 1587.0 | 1594.1 | 1593.7 |
| 5°     | 1591.1 | 1588.1 | 1581.0 | 1588.5 | 1588.5 |
| 7.5°   | 1580.6 | 1579.5 | 1573.1 | 1581.7 | 1581.7 |
| 10°    | 1568.2 | 1567.8 | 1562.5 | 1571.9 | 1572.3 |
| 12.5°  | 1550.9 | 1552.4 | 1547.5 | 1556.5 | 1557.7 |
| 15°    | 1530.6 | 1533.2 | 1529.1 | 1537.7 | 1537.4 |
| 17.5°  | 1508.4 | 1509.9 | 1506.9 | 1516.7 | 1516.3 |
| 20°    | 1481.0 | 1482.9 | 1480.6 | 1490.8 | 1491.9 |
| 22.5°  | 1450.5 | 1453.2 | 1452.8 | 1463.3 | 1466.3 |
| 25°    | 1418.2 | 1419.3 | 1420.8 | 1432.9 | 1435.1 |
| 27.5°  | 1382.5 | 1384.4 | 1387.0 | 1397.9 | 1400.2 |
| 30°    | 1343.4 | 1346.4 | 1349.4 | 1360.7 | 1363.7 |
| 32.5°  | 1302.1 | 1305.1 | 1308.8 | 1323.5 | 1325.0 |
| 35°    | 1255.4 | 1261.1 | 1266.3 | 1279.1 | 1284.4 |
| 37.5°  | 1208.8 | 1216.0 | 1220.9 | 1234.4 | 1238.5 |
| 40°    | 1159.6 | 1166.7 | 1174.6 | 1188.9 | 1191.5 |
| 42.5°  | 1108.1 | 1116.4 | 1125.8 | 1138.5 | 1143.1 |
| 45°    | 1056.2 | 1065.6 | 1074.3 | 1084.8 | 1090.1 |
| 47.5°  | 1000.2 | 1009.6 | 1020.1 | 1032.2 | 1035.6 |
| 50°    | 942.3  | 953.2  | 964.5  | 975.8  | 981.8  |
| 52.5°  | 882.9  | 896.1  | 908.9  | 920.9  | 926.6  |
| 55°    | 824.3  | 834.1  | 849.5  | 861.9  | 867.5  |
| 57.5°  | 763.4  | 771.7  | 785.6  | 805.9  | 808.9  |
| 60°    | 701.4  | 708.9  | 723.2  | 739.7  | 746.5  |
| 62.5°  | 633.0  | 643.1  | 658.2  | 679.2  | 685.2  |
| 65°    | 566.5  | 576.2  | 596.2  | 619.8  | 629.6  |
| 67.5°  | 502.2  | 505.6  | 531.1  | 555.9  | 571.7  |
| 70°    | 426.3  | 439.0  | 468.7  | 499.2  | 511.2  |
| 72.5°  | 360.8  | 373.6  | 406.3  | 442.0  | 457.1  |
| 75°    | 286.8  | 304.5  | 348.8  | 390.5  | 405.2  |
| 77.5°  | 221.8  | 241.3  | 296.2  | 338.3  | 355.2  |
| 80°    | 154.9  | 185.3  | 245.1  | 292.4  | 310.9  |
| 82.5°  | 97.4   | 134.9  | 198.8  | 248.5  | 264.6  |
| 85°    | 49.6   | 91.7   | 157.5  | 208.2  | 226.7  |
| 87.5°  | 13.2   | 59.4   | 122.5  | 171.0  | 189.8  |
| 90°    | 0.4    | 34.2   | 92.8   | 139.5  | 156.4  |
| 92.5°  | 0.4    | 19.2   | 69.2   | 110.9  | 128.2  |
| 95°    | 0.4    | 9.0    | 48.1   | 87.2   | 100.7  |
| 97.5°  | 0.4    | 3.8    | 33.1   | 65.8   | 79.3   |
| 100°   | 0.4    | 1.9    | 21.0   | 47.7   | 59.4   |
| 102.5° | 0.8    | 1.1    | 13.2   | 34.2   | 43.6   |
| 105°   | 0.8    | 1.1    | 7.9    | 23.3   | 31.2   |



TEST NUMBER: P580265

CATALOG NUMBER: HVSL12-8-LD4-1LO-50-UNV-O-EDD-90

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 1.1 | 1.1   | 1.5 | 6.4   | 9.4 |
| 115°   | 1.1 | 1.1   | 1.5 | 4.1   | 6.0 |
| 117.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 120°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 122.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 125°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 127.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 130°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 132.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 135°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 137.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 140°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 142.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 |
| 145°   | 0.0 | 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 |



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







|        |     |     |     |      |      |
|--------|-----|-----|-----|------|------|
| 107.5° | 0.8 | 1.1 | 4.5 | 15.8 | 21.4 |
| 110°   | 1.1 | 1.1 | 2.6 | 9.8  | 14.3 |



(END OF REPORT)