

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: P580825

Luminaire Tested: **HVSL8-8-LD4-1STD-50-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580825  
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: HVSL8-8-LD4-1STD-50-UNV-O-EDD-90  
Description: 8 FOOT, 8INCH WIDE, HVSL LED LUMINAIRE, WITH 5000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

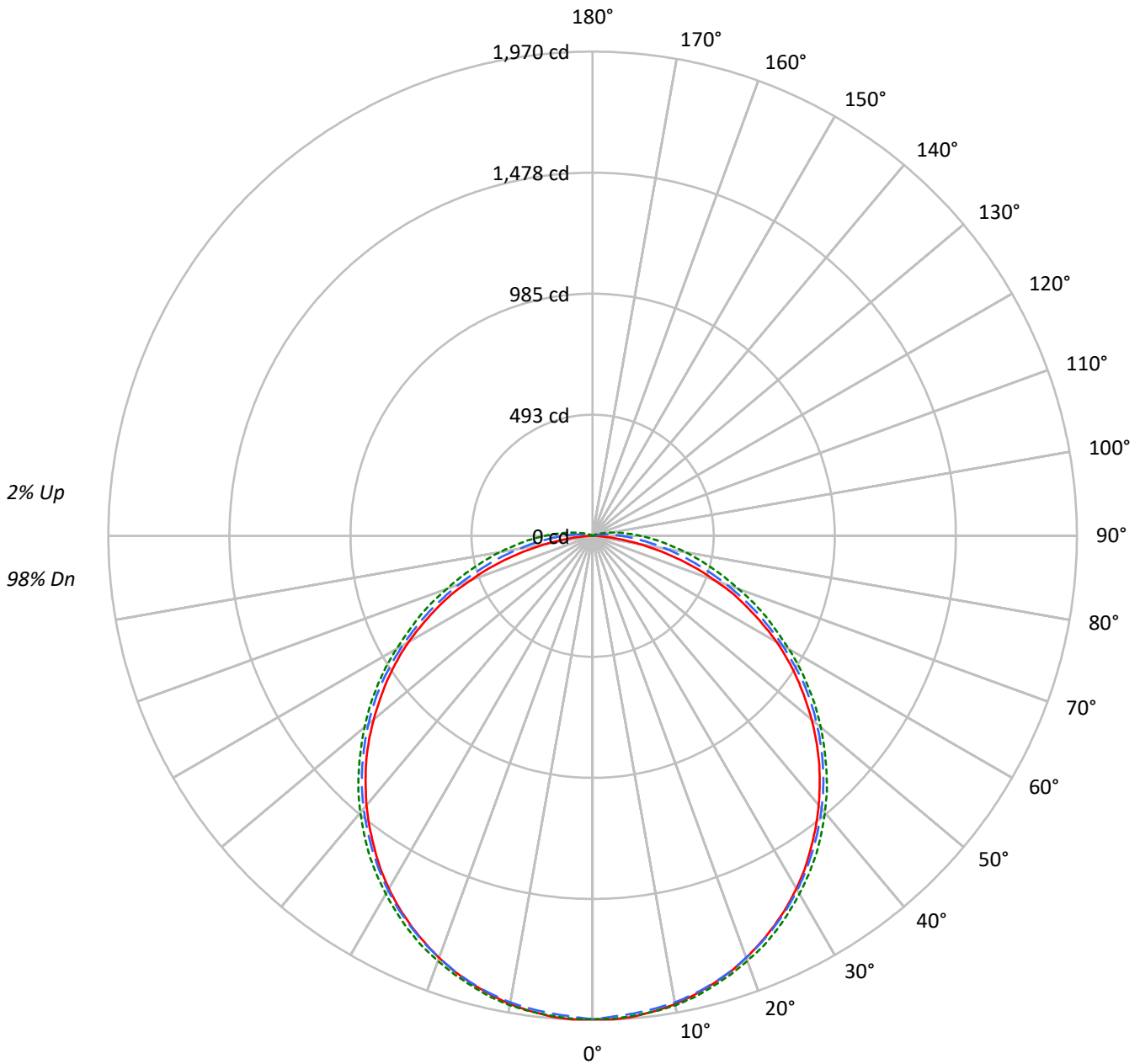
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5948.0 lumens  
Efficiency: N/A  
Efficacy: 88.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 8' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 67.2  
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  |    |    |    | 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  | 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°  | 3970 | 3970 | 3970 |
| 5°  | 3970 | 3886 | 3885 |
| 10° | 3951 | 3822 | 3808 |
| 15° | 3924 | 3749 | 3714 |
| 20° | 3895 | 3668 | 3623 |
| 25° | 3859 | 3584 | 3531 |
| 30° | 3817 | 3494 | 3426 |
| 35° | 3761 | 3394 | 3322 |
| 40° | 3705 | 3289 | 3201 |
| 45° | 3643 | 3175 | 3071 |
| 50° | 3562 | 3042 | 2930 |
| 55° | 3475 | 2896 | 2775 |
| 60° | 3371 | 2704 | 2594 |
| 65° | 3195 | 2490 | 2415 |
| 70° | 2935 | 2236 | 2206 |
| 75° | 2560 | 1957 | 2016 |
| 80° | 1986 | 1685 | 1843 |
| 85° | 1145 | 1411 | 1678 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 186.2  | 3.1       |
| 10°-20°   | 534.0  | 9.0       |
| 20°-30°   | 810.2  | 13.6      |
| 30°-40°   | 979.7  | 16.5      |
| 40°-50°   | 1022.3 | 17.2      |
| 50°-60°   | 934.7  | 15.7      |
| 60°-70°   | 728.6  | 12.2      |
| 70°-80°   | 455.8  | 7.7       |
| 80°-90°   | 207.0  | 3.5       |
| 90°-100°  | 69.4   | 1.2       |
| 100°-110° | 17.4   | 0.3       |
| 110°-120° | 2.8    | 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°    | 1530.4 | 25.7      |
| 0°-40°    | 2510.1 | 42.2      |
| 0°-60°    | 4467.0 | 75.1      |
| 0°-90°    | 5858.4 | 98.5      |
| 90°-120°  | 89.6   | 1.5       |
| 90°-150°  | 89.6   | 1.5       |
| 90°-180°  | 90.0   | 1.5       |
| 0°-180°   | 5948.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1967 | 1967  | 1967 | 1967  | 1967 |      |
| 5°   | 1963 | 1959  | 1950 | 1960  | 1960 | 186  |
| 15°  | 1888 | 1892  | 1886 | 1897  | 1897 | 533  |
| 25°  | 1750 | 1751  | 1753 | 1768  | 1771 | 806  |
| 35°  | 1549 | 1556  | 1562 | 1578  | 1585 | 969  |
| 45°  | 1303 | 1315  | 1325 | 1338  | 1345 | 1004 |
| 55°  | 1017 | 1029  | 1048 | 1063  | 1070 | 909  |
| 65°  | 699  | 711   | 736  | 765   | 777  | 692  |
| 75°  | 354  | 376   | 430  | 482   | 500  | 377  |
| 85°  | 61   | 113   | 194  | 257   | 280  | 77   |
| 90°  | 0    | 42    | 114  | 172   | 193  | 2    |
| 95°  | 0    | 11    | 59   | 108   | 124  | 0    |
| 105° | 1    | 1     | 10   | 29    | 38   | 1    |
| 115° | 1    | 1     | 2    | 5     | 7    | 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    |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1967.2 | 1967.2 | 1967.2 | 1967.2 | 1967.2 |
| 2.5°   | 1969.6 | 1966.8 | 1958.0 | 1966.8 | 1966.3 |
| 5°     | 1963.1 | 1959.4 | 1950.5 | 1959.8 | 1959.8 |
| 7.5°   | 1950.1 | 1948.7 | 1940.8 | 1951.5 | 1951.5 |
| 10°    | 1934.8 | 1934.3 | 1927.8 | 1939.4 | 1939.9 |
| 12.5°  | 1913.4 | 1915.3 | 1909.3 | 1920.4 | 1921.8 |
| 15°    | 1888.4 | 1891.6 | 1886.5 | 1897.2 | 1896.7 |
| 17.5°  | 1861.0 | 1862.9 | 1859.2 | 1871.2 | 1870.8 |
| 20°    | 1827.2 | 1829.5 | 1826.7 | 1839.2 | 1840.6 |
| 22.5°  | 1789.6 | 1792.9 | 1792.4 | 1805.4 | 1809.1 |
| 25°    | 1749.7 | 1751.1 | 1753.0 | 1767.8 | 1770.6 |
| 27.5°  | 1705.7 | 1708.0 | 1711.2 | 1724.7 | 1727.5 |
| 30°    | 1657.5 | 1661.2 | 1664.9 | 1678.8 | 1682.5 |
| 32.5°  | 1606.4 | 1610.1 | 1614.8 | 1632.9 | 1634.7 |
| 35°    | 1548.9 | 1555.9 | 1562.4 | 1578.2 | 1584.6 |
| 37.5°  | 1491.4 | 1500.2 | 1506.3 | 1523.0 | 1528.1 |
| 40°    | 1430.7 | 1439.5 | 1449.2 | 1466.8 | 1470.1 |
| 42.5°  | 1367.1 | 1377.3 | 1388.9 | 1404.7 | 1410.3 |
| 45°    | 1303.1 | 1314.7 | 1325.4 | 1338.4 | 1344.9 |
| 47.5°  | 1234.0 | 1245.6 | 1258.6 | 1273.5 | 1277.6 |
| 50°    | 1162.6 | 1176.1 | 1190.0 | 1203.9 | 1211.3 |
| 52.5°  | 1089.4 | 1105.6 | 1121.4 | 1136.2 | 1143.2 |
| 55°    | 1017.0 | 1029.1 | 1048.1 | 1063.4 | 1070.3 |
| 57.5°  | 941.9  | 952.1  | 969.2  | 994.3  | 998.0  |
| 60°    | 865.4  | 874.6  | 892.3  | 912.7  | 921.0  |
| 62.5°  | 781.0  | 793.5  | 812.0  | 838.0  | 845.4  |
| 65°    | 698.9  | 710.9  | 735.5  | 764.7  | 776.8  |
| 67.5°  | 619.6  | 623.7  | 655.3  | 685.9  | 705.4  |
| 70°    | 525.9  | 541.7  | 578.3  | 615.9  | 630.7  |
| 72.5°  | 445.2  | 461.0  | 501.3  | 545.4  | 563.9  |
| 75°    | 353.8  | 375.6  | 430.4  | 481.8  | 499.9  |
| 77.5°  | 273.6  | 297.7  | 365.4  | 417.4  | 438.2  |
| 80°    | 191.1  | 228.6  | 302.4  | 360.8  | 383.5  |
| 82.5°  | 120.1  | 166.5  | 245.3  | 306.5  | 326.5  |
| 85°    | 61.2   | 113.2  | 194.3  | 256.9  | 279.6  |
| 87.5°  | 16.2   | 73.3   | 151.2  | 211.0  | 234.2  |
| 90°    | 0.5    | 42.2   | 114.5  | 172.1  | 192.9  |
| 92.5°  | 0.5    | 23.7   | 85.3   | 136.8  | 158.1  |
| 95°    | 0.5    | 11.1   | 59.4   | 107.6  | 124.3  |
| 97.5°  | 0.5    | 4.6    | 40.8   | 81.2   | 97.9   |
| 100°   | 0.5    | 2.3    | 26.0   | 58.9   | 73.3   |
| 102.5° | 0.9    | 1.4    | 16.2   | 42.2   | 53.8   |
| 105°   | 0.9    | 1.4    | 9.7    | 28.8   | 38.5   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90°  |
|--------|-----|-------|-----|-------|------|
| 112.5° | 1.4 | 1.4   | 1.9 | 7.9   | 11.6 |
| 115°   | 1.4 | 1.4   | 1.9 | 5.1   | 7.4  |
| 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° | 0.9 | 1.4 | 5.6 | 19.5 | 26.4 |
| 110°   | 1.4 | 1.4 | 3.2 | 12.1 | 17.6 |



(END OF REPORT)