

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: P580308

Luminaire Tested: **HVSL12-8-LD4-3LO-30-UNV-O-EDD**

Issue Date: 12/16/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P580308  
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-LD4-3LO-30-UNV-O-EDD  
Description: 8 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

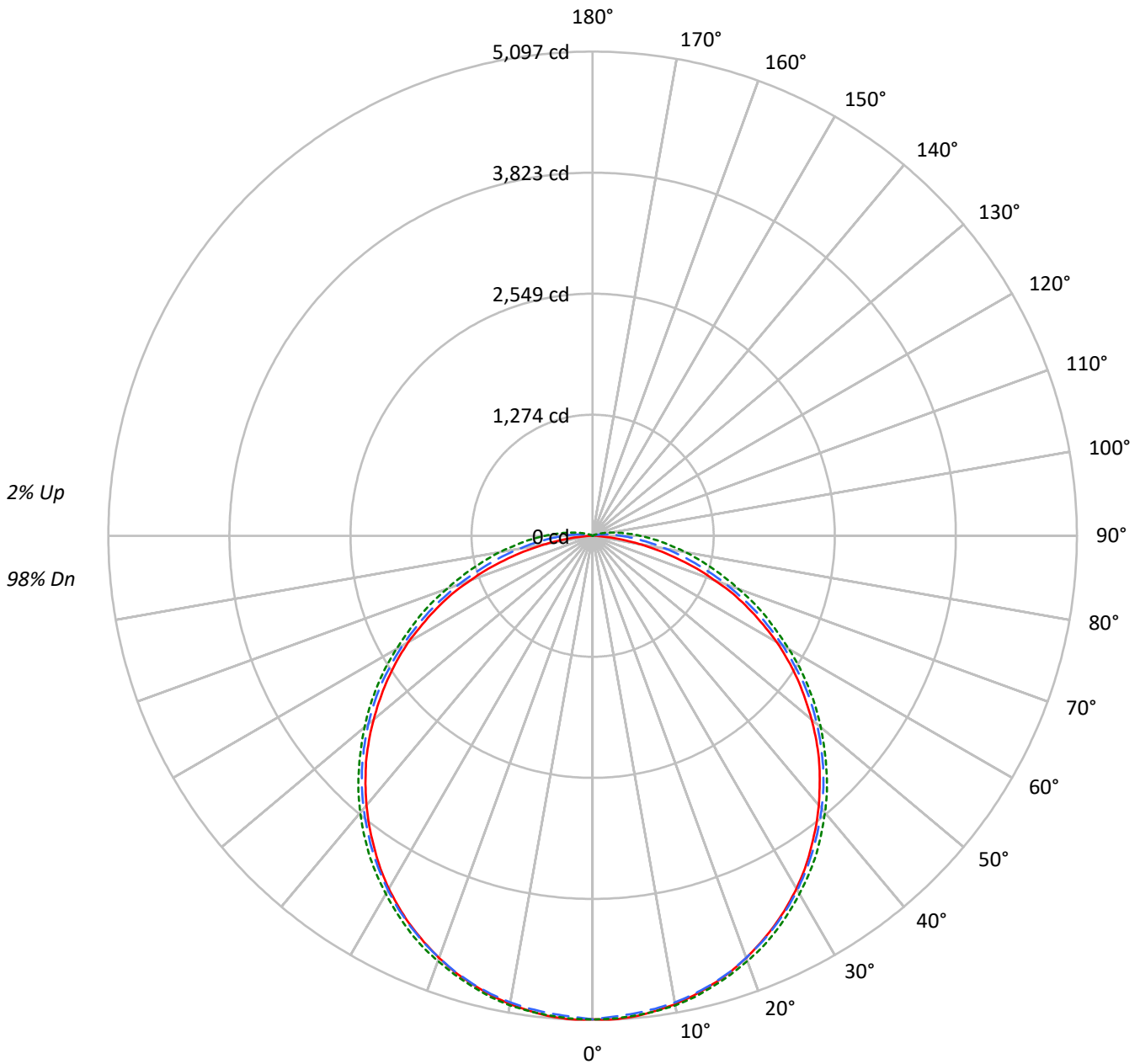
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15393.0 lumens  
Efficiency: N/A  
Efficacy: 107.9 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): 142.7  
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

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### Luminous Intensity Polar Plot





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**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°  | 6850 | 6850 | 6850 |
| 5°  | 6849 | 6740 | 6752 |
| 10° | 6816 | 6661 | 6663 |
| 15° | 6770 | 6567 | 6545 |
| 20° | 6720 | 6457 | 6430 |
| 25° | 6658 | 6343 | 6312 |
| 30° | 6585 | 6218 | 6171 |
| 35° | 6489 | 6077 | 6032 |
| 40° | 6391 | 5928 | 5862 |
| 45° | 6286 | 5763 | 5676 |
| 50° | 6145 | 5567 | 5474 |
| 55° | 5995 | 5350 | 5248 |
| 60° | 5817 | 5053 | 4977 |
| 65° | 5512 | 4718 | 4715 |
| 70° | 5064 | 4315 | 4404 |
| 75° | 4417 | 3873 | 4146 |
| 80° | 3427 | 3461 | 3953 |
| 85° | 1975 | 3086 | 3845 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 481.8   | 3.1       |
| 10°-20°   | 1381.9  | 9.0       |
| 20°-30°   | 2096.9  | 13.6      |
| 30°-40°   | 2535.5  | 16.5      |
| 40°-50°   | 2645.6  | 17.2      |
| 50°-60°   | 2418.8  | 15.7      |
| 60°-70°   | 1885.6  | 12.2      |
| 70°-80°   | 1179.5  | 7.7       |
| 80°-90°   | 535.7   | 3.5       |
| 90°-100°  | 179.5   | 1.2       |
| 100°-110° | 45.1    | 0.3       |
| 110°-120° | 7.1     | 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°    | 3960.6  | 25.7      |
| 0°-40°    | 6496.0  | 42.2      |
| 0°-60°    | 11560.4 | 75.1      |
| 0°-90°    | 15161.3 | 98.5      |
| 90°-120°  | 231.7   | 1.5       |
| 90°-150°  | 231.7   | 1.5       |
| 90°-180°  | 232.0   | 1.5       |
| 0°-180°   | 15393.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 5091 | 5091  | 5091 | 5091  | 5091 |      |
| 5°   | 5080 | 5071  | 5048 | 5072  | 5072 | 482  |
| 15°  | 4887 | 4895  | 4882 | 4910  | 4909 | 1380 |
| 25°  | 4528 | 4532  | 4537 | 4575  | 4582 | 2087 |
| 35°  | 4008 | 4026  | 4043 | 4084  | 4101 | 2509 |
| 45°  | 3372 | 3402  | 3430 | 3464  | 3480 | 2599 |
| 55°  | 2632 | 2663  | 2712 | 2752  | 2770 | 2351 |
| 65°  | 1809 | 1840  | 1904 | 1979  | 2010 | 1790 |
| 75°  | 916  | 972   | 1114 | 1247  | 1294 | 976  |
| 85°  | 158  | 293   | 503  | 665   | 724  | 200  |
| 90°  | 1    | 109   | 296  | 445   | 499  | 6    |
| 95°  | 1    | 29    | 154  | 278   | 322  | 1    |
| 105° | 2    | 4     | 25   | 74    | 100  | 3    |
| 115° | 4    | 4     | 5    | 13    | 19   | 2    |
| 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: P580308

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 5091.1 | 5091.1 | 5091.1 | 5091.1 | 5091.1 |
| 2.5°   | 5097.1 | 5089.9 | 5067.1 | 5089.9 | 5088.7 |
| 5°     | 5080.3 | 5070.7 | 5047.9 | 5071.9 | 5071.9 |
| 7.5°   | 5046.7 | 5043.1 | 5022.7 | 5050.3 | 5050.3 |
| 10°    | 5007.1 | 5005.9 | 4989.1 | 5019.1 | 5020.3 |
| 12.5°  | 4951.9 | 4956.7 | 4941.1 | 4969.9 | 4973.5 |
| 15°    | 4887.0 | 4895.4 | 4882.2 | 4909.9 | 4908.7 |
| 17.5°  | 4816.2 | 4821.0 | 4811.4 | 4842.6 | 4841.4 |
| 20°    | 4728.6 | 4734.6 | 4727.4 | 4759.8 | 4763.4 |
| 22.5°  | 4631.4 | 4639.8 | 4638.6 | 4672.2 | 4681.8 |
| 25°    | 4528.2 | 4531.8 | 4536.6 | 4575.0 | 4582.2 |
| 27.5°  | 4414.2 | 4420.2 | 4428.6 | 4463.4 | 4470.6 |
| 30°    | 4289.4 | 4299.0 | 4308.6 | 4344.6 | 4354.2 |
| 32.5°  | 4157.4 | 4167.0 | 4179.0 | 4225.8 | 4230.6 |
| 35°    | 4008.5 | 4026.5 | 4043.3 | 4084.1 | 4100.9 |
| 37.5°  | 3859.7 | 3882.5 | 3898.1 | 3941.3 | 3954.5 |
| 40°    | 3702.5 | 3725.3 | 3750.5 | 3796.1 | 3804.5 |
| 42.5°  | 3538.1 | 3564.5 | 3594.5 | 3635.3 | 3649.7 |
| 45°    | 3372.4 | 3402.5 | 3430.1 | 3463.7 | 3480.5 |
| 47.5°  | 3193.6 | 3223.6 | 3257.2 | 3295.6 | 3306.4 |
| 50°    | 3008.8 | 3043.6 | 3079.6 | 3115.6 | 3134.8 |
| 52.5°  | 2819.2 | 2861.2 | 2902.0 | 2940.4 | 2958.4 |
| 55°    | 2631.9 | 2663.2 | 2712.4 | 2752.0 | 2770.0 |
| 57.5°  | 2437.5 | 2463.9 | 2508.3 | 2573.1 | 2582.7 |
| 60°    | 2239.5 | 2263.5 | 2309.1 | 2361.9 | 2383.5 |
| 62.5°  | 2021.1 | 2053.5 | 2101.5 | 2168.7 | 2187.9 |
| 65°    | 1808.6 | 1839.8 | 1903.5 | 1979.1 | 2010.3 |
| 67.5°  | 1603.4 | 1614.2 | 1695.8 | 1775.0 | 1825.4 |
| 70°    | 1361.0 | 1401.8 | 1496.6 | 1593.8 | 1632.2 |
| 72.5°  | 1152.2 | 1193.0 | 1297.4 | 1411.4 | 1459.4 |
| 75°    | 915.7  | 972.1  | 1113.7 | 1247.0 | 1293.8 |
| 77.5°  | 708.1  | 770.5  | 945.7  | 1080.1 | 1134.2 |
| 80°    | 494.5  | 591.7  | 782.5  | 933.7  | 992.5  |
| 82.5°  | 310.8  | 430.9  | 634.9  | 793.3  | 844.9  |
| 85°    | 158.4  | 292.8  | 502.9  | 664.9  | 723.7  |
| 87.5°  | 42.0   | 189.6  | 391.3  | 546.1  | 606.1  |
| 90°    | 1.2    | 109.2  | 296.4  | 445.3  | 499.3  |
| 92.5°  | 1.2    | 61.2   | 220.8  | 354.0  | 409.3  |
| 95°    | 1.2    | 28.8   | 153.6  | 278.4  | 321.6  |
| 97.5°  | 1.2    | 12.0   | 105.6  | 210.0  | 253.2  |
| 100°   | 1.2    | 6.0    | 67.2   | 152.4  | 189.6  |
| 102.5° | 2.4    | 3.6    | 42.0   | 109.2  | 139.2  |
| 105°   | 2.4    | 3.6    | 25.2   | 74.4   | 99.6   |



TEST NUMBER: P580308

CATALOG NUMBER: HVSL12-8-LD4-3LO-30-UNV-O-EDD

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90°  |
|--------|-----|-------|-----|-------|------|
| 112.5° | 3.6 | 3.6   | 4.8 | 20.4  | 30.0 |
| 115°   | 3.6 | 3.6   | 4.8 | 13.2  | 19.2 |
| 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° | 2.4 | 3.6 | 14.4 | 50.4 | 68.4 |
| 110°   | 3.6 | 3.6 | 8.4  | 31.2 | 45.6 |



(END OF REPORT)