

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: P580243

Luminaire Tested: **HVSL12-4-LD4-3STD-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P580243  
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: HVSL12-4-LD4-3STD-30-UNV-O-EDD-90  
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

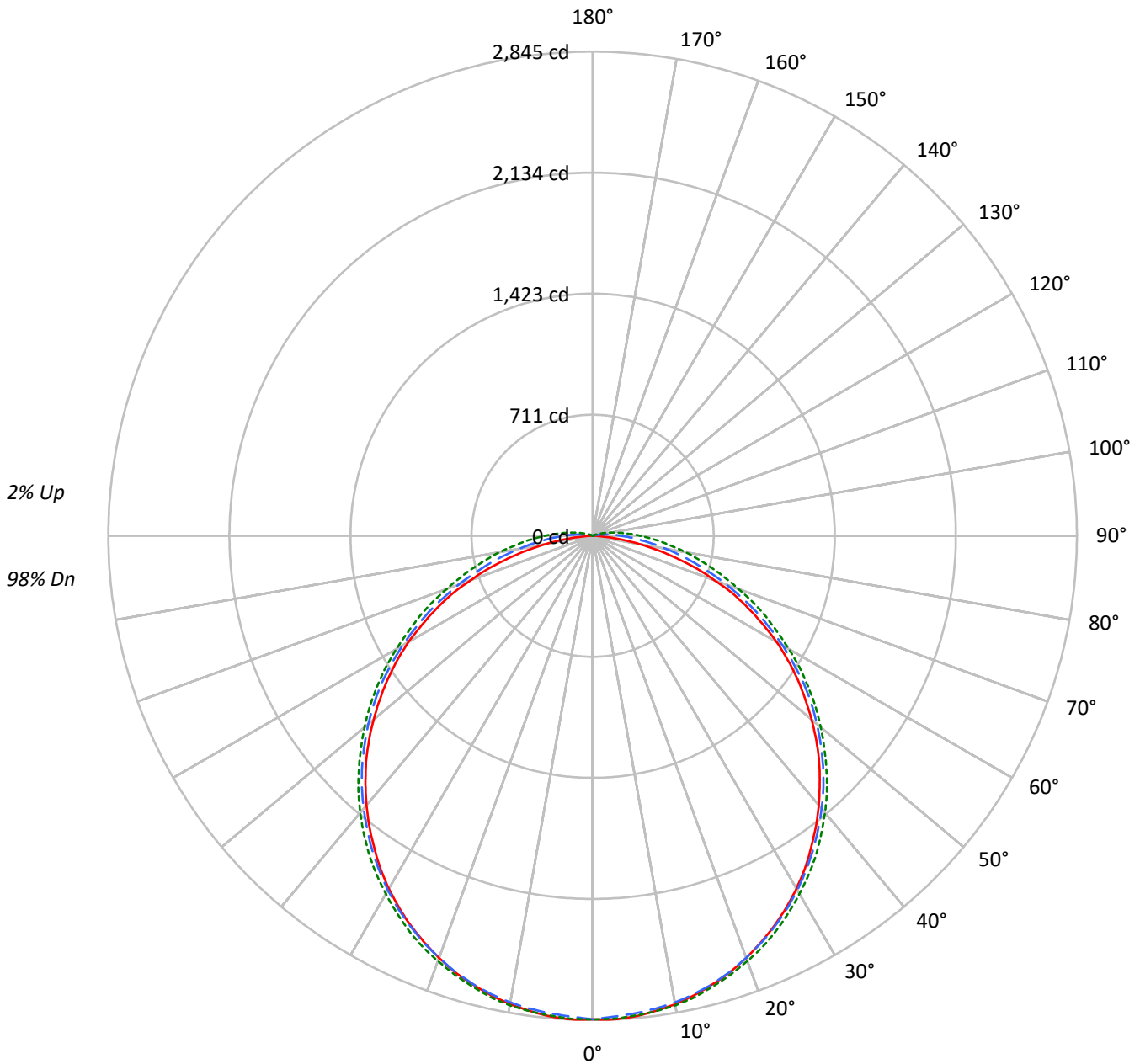
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8592.0 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 101.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P580243

CATALOG NUMBER: HVSL12-4-LD4-3STD-30-UNV-O-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P580243

CATALOG NUMBER: HVSL12-4-LD4-3STD-30-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°  | 7647 | 7647 | 7647 |
| 5°  | 7632 | 7514 | 7537 |
| 10° | 7581 | 7417 | 7438 |
| 15° | 7515 | 7304 | 7307 |
| 20° | 7445 | 7172 | 7178 |
| 25° | 7362 | 7035 | 7046 |
| 30° | 7265 | 6887 | 6889 |
| 35° | 7142 | 6721 | 6734 |
| 40° | 7014 | 6545 | 6544 |
| 45° | 6877 | 6351 | 6337 |
| 50° | 6698 | 6122 | 6111 |
| 55° | 6505 | 5868 | 5859 |
| 60° | 6275 | 5526 | 5556 |
| 65° | 5901 | 5141 | 5263 |
| 70° | 5363 | 4679 | 4917 |
| 75° | 4599 | 4171 | 4629 |
| 80° | 3459 | 3688 | 4413 |
| 85° | 1849 | 3229 | 4292 |



TEST NUMBER: P580243

CATALOG NUMBER: HVSL12-4-LD4-3STD-30-UNV-O-EDD-90

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 268.9  | 3.1       |
| 10°-20°   | 771.4  | 9.0       |
| 20°-30°   | 1170.4 | 13.6      |
| 30°-40°   | 1415.2 | 16.5      |
| 40°-50°   | 1476.7 | 17.2      |
| 50°-60°   | 1350.1 | 15.7      |
| 60°-70°   | 1052.5 | 12.2      |
| 70°-80°   | 658.4  | 7.7       |
| 80°-90°   | 299.0  | 3.5       |
| 90°-100°  | 100.2  | 1.2       |
| 100°-110° | 25.1   | 0.3       |
| 110°-120° | 4.0    | 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°    | 2210.7 | 25.7      |
| 0°-40°    | 3625.9 | 42.2      |
| 0°-60°    | 6452.7 | 75.1      |
| 0°-90°    | 8462.7 | 98.5      |
| 90°-120°  | 129.3  | 1.5       |
| 90°-150°  | 129.3  | 1.5       |
| 90°-180°  | 129.0  | 1.5       |
| 0°-180°   | 8592.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2842 | 2842  | 2842 | 2842  | 2842 |      |
| 5°   | 2836 | 2830  | 2818 | 2831  | 2831 | 269  |
| 15°  | 2728 | 2732  | 2725 | 2741  | 2740 | 770  |
| 25°  | 2528 | 2530  | 2532 | 2554  | 2558 | 1165 |
| 35°  | 2238 | 2248  | 2257 | 2280  | 2289 | 1400 |
| 45°  | 1882 | 1899  | 1915 | 1933  | 1943 | 1451 |
| 55°  | 1469 | 1486  | 1514 | 1536  | 1546 | 1312 |
| 65°  | 1010 | 1027  | 1062 | 1105  | 1122 | 999  |
| 75°  | 511  | 543   | 622  | 696   | 722  | 545  |
| 85°  | 88   | 164   | 281  | 371   | 404  | 112  |
| 90°  | 1    | 61    | 166  | 248   | 279  | 3    |
| 95°  | 1    | 16    | 86   | 155   | 180  | 1    |
| 105° | 1    | 2     | 14   | 42    | 56   | 1    |
| 115° | 2    | 2     | 3    | 7     | 11   | 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: P580243

CATALOG NUMBER: HVSL12-4-LD4-3STD-30-UNV-O-EDD-90

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2841.7 | 2841.7 | 2841.7 | 2841.7 | 2841.7 |
| 2.5°   | 2845.1 | 2841.0 | 2828.3 | 2841.0 | 2840.4 |
| 5°     | 2835.7 | 2830.3 | 2817.6 | 2831.0 | 2831.0 |
| 7.5°   | 2816.9 | 2814.9 | 2803.5 | 2818.9 | 2818.9 |
| 10°    | 2794.8 | 2794.2 | 2784.8 | 2801.5 | 2802.2 |
| 12.5°  | 2764.0 | 2766.7 | 2758.0 | 2774.1 | 2776.1 |
| 15°    | 2727.8 | 2732.5 | 2725.2 | 2740.6 | 2739.9 |
| 17.5°  | 2688.3 | 2691.0 | 2685.6 | 2703.0 | 2702.4 |
| 20°    | 2639.4 | 2642.8 | 2638.7 | 2656.8 | 2658.8 |
| 22.5°  | 2585.1 | 2589.8 | 2589.2 | 2607.9 | 2613.3 |
| 25°    | 2527.5 | 2529.5 | 2532.2 | 2553.7 | 2557.7 |
| 27.5°  | 2463.9 | 2467.2 | 2471.9 | 2491.4 | 2495.4 |
| 30°    | 2394.2 | 2399.6 | 2404.9 | 2425.0 | 2430.4 |
| 32.5°  | 2320.5 | 2325.9 | 2332.6 | 2358.7 | 2361.4 |
| 35°    | 2237.5 | 2247.5 | 2256.9 | 2279.7 | 2289.0 |
| 37.5°  | 2154.4 | 2167.1 | 2175.8 | 2200.0 | 2207.3 |
| 40°    | 2066.6 | 2079.4 | 2093.4 | 2118.9 | 2123.6 |
| 42.5°  | 1974.9 | 1989.6 | 2006.3 | 2029.1 | 2037.2 |
| 45°    | 1882.4 | 1899.2 | 1914.6 | 1933.3 | 1942.7 |
| 47.5°  | 1782.6 | 1799.4 | 1818.1 | 1839.5 | 1845.6 |
| 50°    | 1679.4 | 1698.9 | 1719.0 | 1739.1 | 1749.8 |
| 52.5°  | 1573.6 | 1597.0 | 1619.8 | 1641.3 | 1651.3 |
| 55°    | 1469.1 | 1486.5 | 1514.0 | 1536.1 | 1546.1 |
| 57.5°  | 1360.6 | 1375.3 | 1400.1 | 1436.3 | 1441.6 |
| 60°    | 1250.0 | 1263.4 | 1288.9 | 1318.4 | 1330.4 |
| 62.5°  | 1128.1 | 1146.2 | 1173.0 | 1210.5 | 1221.2 |
| 65°    | 1009.5 | 1027.0 | 1062.5 | 1104.7 | 1122.1 |
| 67.5°  | 895.0  | 901.0  | 946.6  | 990.8  | 1018.9 |
| 70°    | 759.7  | 782.4  | 835.4  | 889.6  | 911.1  |
| 72.5°  | 643.1  | 665.9  | 724.2  | 787.8  | 814.6  |
| 75°    | 511.1  | 542.6  | 621.7  | 696.0  | 722.2  |
| 77.5°  | 395.2  | 430.1  | 527.9  | 602.9  | 633.1  |
| 80°    | 276.0  | 330.3  | 436.8  | 521.2  | 554.0  |
| 82.5°  | 173.5  | 240.5  | 354.4  | 442.8  | 471.6  |
| 85°    | 88.4   | 163.5  | 280.7  | 371.1  | 403.9  |
| 87.5°  | 23.4   | 105.8  | 218.4  | 304.8  | 338.3  |
| 90°    | 0.7    | 61.0   | 165.5  | 248.5  | 278.7  |
| 92.5°  | 0.7    | 34.2   | 123.3  | 197.6  | 228.4  |
| 95°    | 0.7    | 16.1   | 85.7   | 155.4  | 179.5  |
| 97.5°  | 0.7    | 6.7    | 59.0   | 117.2  | 141.3  |
| 100°   | 0.7    | 3.3    | 37.5   | 85.1   | 105.8  |
| 102.5° | 1.3    | 2.0    | 23.4   | 61.0   | 77.7   |
| 105°   | 1.3    | 2.0    | 14.1   | 41.5   | 55.6   |



TEST NUMBER: P580243

CATALOG NUMBER: HVSL12-4-LD4-3STD-30-UNV-O-EDD-90

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90°  |
|--------|-----|-------|-----|-------|------|
| 112.5° | 2.0 | 2.0   | 2.7 | 11.4  | 16.7 |
| 115°   | 2.0 | 2.0   | 2.7 | 7.4   | 10.7 |
| 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° | 1.3 | 2.0 | 8.0 | 28.1 | 38.2 |
| 110°   | 2.0 | 2.0 | 4.7 | 17.4 | 25.5 |



(END OF REPORT)