

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: P580870

Luminaire Tested: **HVSL8-8-LD4-3STD-35-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

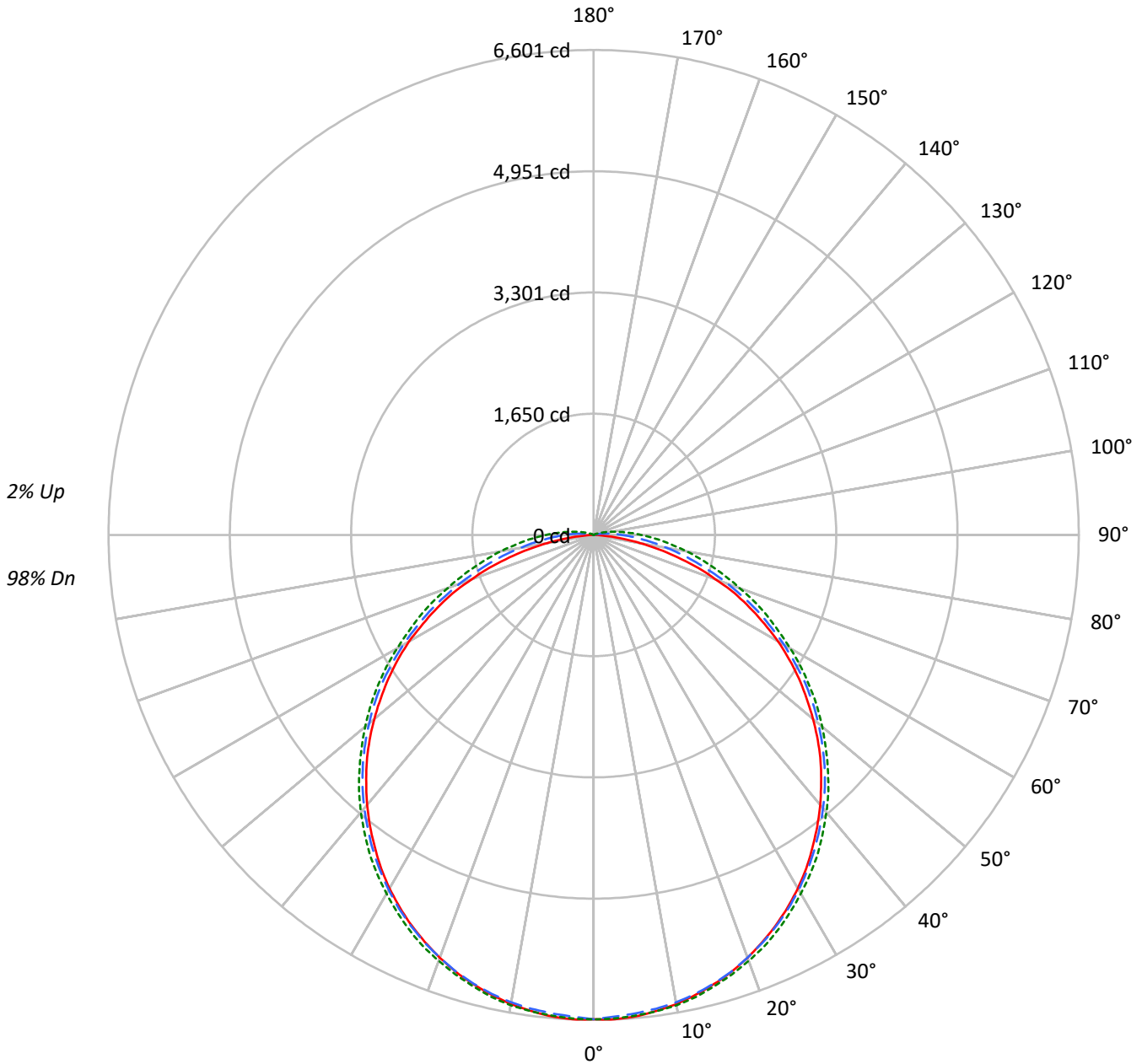
Test Method: LM-79-08  
Report Number: P580870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/16/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HVSL8-8-LD4-3STD-35-UNV-O-EDD  
Description: 8 FOOT, 8INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19934.0 lumens  
Efficiency: N/A  
Efficacy: 101.2 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): 197  
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





TEST NUMBER: P580870

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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°  | 13306 | 13306 | 13306 |
| 5°  | 13304 | 13025 | 13022 |
| 10° | 13240 | 12808 | 12761 |
| 15° | 13150 | 12565 | 12448 |
| 20° | 13053 | 12292 | 12144 |
| 25° | 12933 | 12010 | 11834 |
| 30° | 12791 | 11708 | 11483 |
| 35° | 12606 | 11375 | 11135 |
| 40° | 12415 | 11024 | 10729 |
| 45° | 12211 | 10640 | 10291 |
| 50° | 11938 | 10195 | 9820  |
| 55° | 11646 | 9705  | 9301  |
| 60° | 11299 | 9063  | 8694  |
| 65° | 10707 | 8344  | 8093  |
| 70° | 9837  | 7493  | 7393  |
| 75° | 8580  | 6558  | 6758  |
| 80° | 6655  | 5645  | 6178  |
| 85° | 3838  | 4728  | 5625  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 623.9   | 3.1       |
| 10°-20°   | 1789.6  | 9.0       |
| 20°-30°   | 2715.4  | 13.6      |
| 30°-40°   | 3283.4  | 16.5      |
| 40°-50°   | 3426.0  | 17.2      |
| 50°-60°   | 3132.4  | 15.7      |
| 60°-70°   | 2441.9  | 12.2      |
| 70°-80°   | 1527.5  | 7.7       |
| 80°-90°   | 693.8   | 3.5       |
| 90°-100°  | 232.5   | 1.2       |
| 100°-110° | 58.4    | 0.3       |
| 110°-120° | 9.2     | 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°    | 5128.9  | 25.7      |
| 0°-40°    | 8412.4  | 42.2      |
| 0°-60°    | 14970.8 | 75.1      |
| 0°-90°    | 19633.9 | 98.5      |
| 90°-120°  | 300.1   | 1.5       |
| 90°-150°  | 300.1   | 1.5       |
| 90°-180°  | 300.0   | 1.5       |
| 0°-180°   | 19934.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 6593 | 6593  | 6593 | 6593  | 6593 |      |
| 5°   | 6579 | 6566  | 6537 | 6568  | 6568 | 625  |
| 15°  | 6329 | 6340  | 6322 | 6358  | 6357 | 1787 |
| 25°  | 5864 | 5869  | 5875 | 5925  | 5934 | 2702 |
| 35°  | 5191 | 5214  | 5236 | 5289  | 5311 | 3249 |
| 45°  | 4367 | 4406  | 4442 | 4486  | 4507 | 3365 |
| 55°  | 3408 | 3449  | 3512 | 3564  | 3587 | 3045 |
| 65°  | 2342 | 2383  | 2465 | 2563  | 2603 | 2317 |
| 75°  | 1186 | 1259  | 1442 | 1615  | 1675 | 1264 |
| 85°  | 205  | 379   | 651  | 861   | 937  | 260  |
| 90°  | 2    | 141   | 384  | 577   | 647  | 8    |
| 95°  | 2    | 37    | 199  | 361   | 416  | 1    |
| 105° | 3    | 5     | 33   | 96    | 129  | 3    |
| 115° | 5    | 5     | 6    | 17    | 25   | 3    |
| 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°     | 6593.0 | 6593.0 | 6593.0 | 6593.0 | 6593.0 |
| 2.5°   | 6600.7 | 6591.4 | 6561.9 | 6591.4 | 6589.9 |
| 5°     | 6579.0 | 6566.5 | 6537.0 | 6568.1 | 6568.1 |
| 7.5°   | 6535.5 | 6530.8 | 6504.4 | 6540.1 | 6540.1 |
| 10°    | 6484.2 | 6482.6 | 6460.9 | 6499.7 | 6501.3 |
| 12.5°  | 6412.7 | 6418.9 | 6398.7 | 6436.0 | 6440.7 |
| 15°    | 6328.7 | 6339.6 | 6322.5 | 6358.3 | 6356.7 |
| 17.5°  | 6237.0 | 6243.3 | 6230.8 | 6271.2 | 6269.7 |
| 20°    | 6123.6 | 6131.4 | 6122.0 | 6164.0 | 6168.7 |
| 22.5°  | 5997.7 | 6008.6 | 6007.0 | 6050.5 | 6063.0 |
| 25°    | 5864.0 | 5868.7 | 5874.9 | 5924.7 | 5934.0 |
| 27.5°  | 5716.4 | 5724.2 | 5735.0 | 5780.1 | 5789.4 |
| 30°    | 5554.8 | 5567.2 | 5579.6 | 5626.2 | 5638.7 |
| 32.5°  | 5383.8 | 5396.2 | 5411.8 | 5472.4 | 5478.6 |
| 35°    | 5191.1 | 5214.4 | 5236.1 | 5289.0 | 5310.7 |
| 37.5°  | 4998.3 | 5027.9 | 5048.1 | 5104.0 | 5121.1 |
| 40°    | 4794.7 | 4824.3 | 4856.9 | 4916.0 | 4926.8 |
| 42.5°  | 4581.8 | 4616.0 | 4654.9 | 4707.7 | 4726.4 |
| 45°    | 4367.3 | 4406.2 | 4441.9 | 4485.5 | 4507.2 |
| 47.5°  | 4135.8 | 4174.6 | 4218.1 | 4267.9 | 4281.9 |
| 50°    | 3896.4 | 3941.5 | 3988.1 | 4034.7 | 4059.6 |
| 52.5°  | 3650.8 | 3705.2 | 3758.1 | 3807.8 | 3831.1 |
| 55°    | 3408.4 | 3448.8 | 3512.5 | 3563.8 | 3587.1 |
| 57.5°  | 3156.6 | 3190.8 | 3248.3 | 3332.2 | 3344.7 |
| 60°    | 2900.2 | 2931.2 | 2990.3 | 3058.7 | 3086.7 |
| 62.5°  | 2617.3 | 2659.3 | 2721.4 | 2808.5 | 2833.3 |
| 65°    | 2342.2 | 2382.6 | 2465.0 | 2562.9 | 2603.3 |
| 67.5°  | 2076.4 | 2090.4 | 2196.1 | 2298.7 | 2364.0 |
| 70°    | 1762.5 | 1815.3 | 1938.1 | 2064.0 | 2113.7 |
| 72.5°  | 1492.0 | 1544.9 | 1680.1 | 1827.8 | 1889.9 |
| 75°    | 1185.9 | 1258.9 | 1442.3 | 1614.8 | 1675.4 |
| 77.5°  | 917.0  | 997.8  | 1224.7 | 1398.8 | 1468.7 |
| 80°    | 640.3  | 766.2  | 1013.3 | 1209.2 | 1285.3 |
| 82.5°  | 402.5  | 558.0  | 822.2  | 1027.3 | 1094.2 |
| 85°    | 205.2  | 379.2  | 651.2  | 861.0  | 937.2  |
| 87.5°  | 54.4   | 245.6  | 506.7  | 707.2  | 784.9  |
| 90°    | 1.6    | 141.4  | 383.9  | 576.6  | 646.6  |
| 92.5°  | 1.6    | 79.3   | 286.0  | 458.5  | 530.0  |
| 95°    | 1.6    | 37.3   | 198.9  | 360.6  | 416.5  |
| 97.5°  | 1.6    | 15.5   | 136.8  | 272.0  | 327.9  |
| 100°   | 1.6    | 7.8    | 87.0   | 197.4  | 245.6  |
| 102.5° | 3.1    | 4.7    | 54.4   | 141.4  | 180.3  |
| 105°   | 3.1    | 4.7    | 32.6   | 96.4   | 129.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90°  |
|--------|-----|-------|-----|-------|------|
| 112.5° | 4.7 | 4.7   | 6.2 | 26.4  | 38.9 |
| 115°   | 4.7 | 4.7   | 6.2 | 17.1  | 24.9 |
| 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° | 3.1 | 4.7 | 18.7 | 65.3 | 88.6 |
| 110°   | 4.7 | 4.7 | 10.9 | 40.4 | 59.1 |



(END OF REPORT)