

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: P580399

Luminaire Tested: **HVSL2-8-LD4-HI-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580399
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: HVSL2-8-LD4-HI-40-UNV-O-EDD-90
Description: 8 FOOT, 2INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

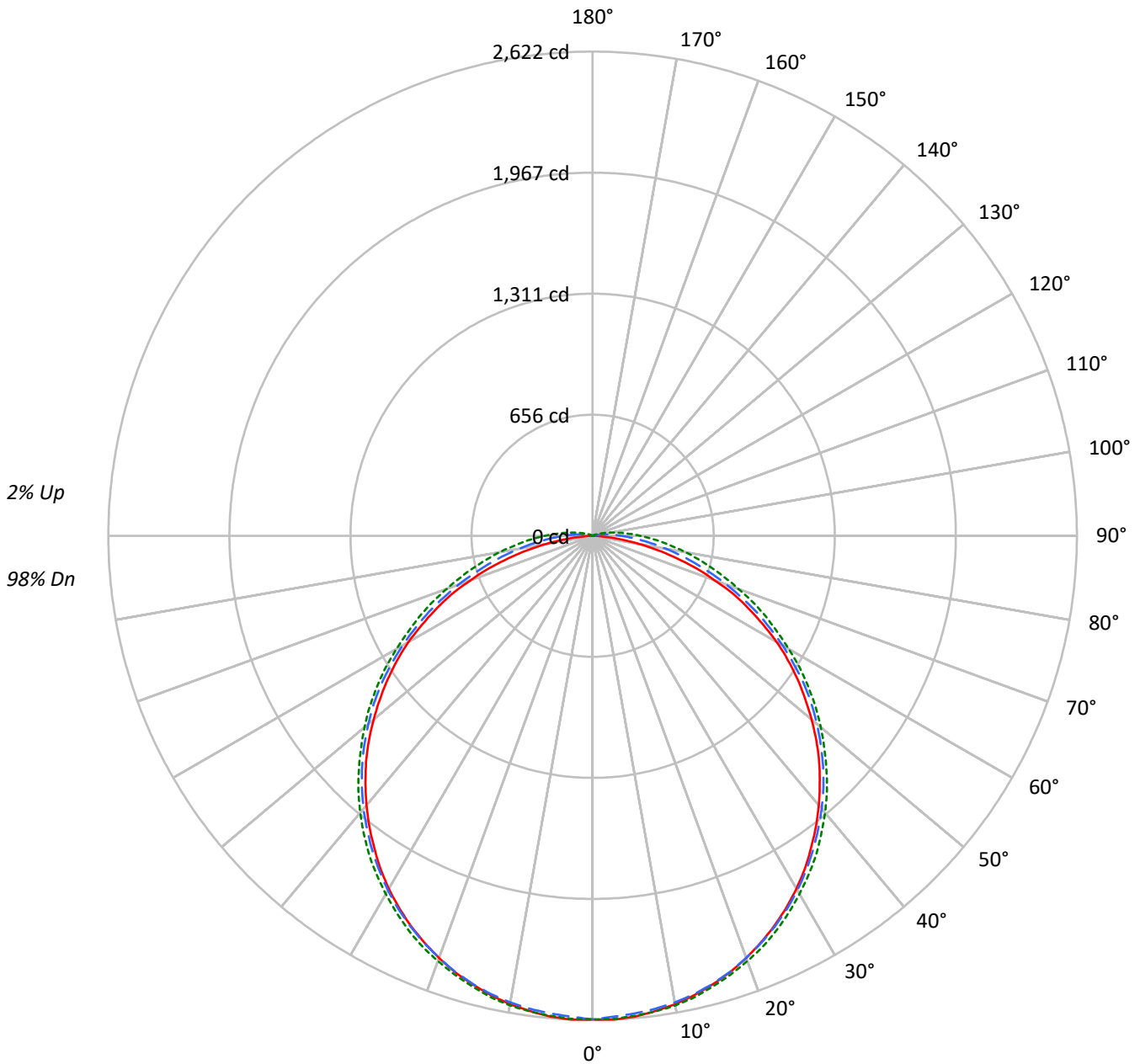
Lumens per Lamp: N/A
Luminaire Lumens: 7919.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 8' x H: 0.17')
CIE Type: Direct

Input Watts (W): 86.2
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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CATALOG NUMBER: HVSL2-8-LD4-HI-40-UNV-O-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P580399

CATALOG NUMBER: HVSL2-8-LD4-HI-40-UNV-O-EDD-90

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 | | | | 98 |
| 1 | 108 | 102 | 98 | 94 | 105 | 100 | 96 | 92 | 95 | 92 | 89 | 91 | 88 | 86 | 87 | 85 | 83 | 81 | | | | 81 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 77 | 73 | 79 | 75 | 71 | 76 | 72 | 69 | 67 | | | | 67 |
| 3 | 89 | 78 | 69 | 63 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 67 | 62 | 58 | 56 | | | | 56 |
| 4 | 81 | 69 | 60 | 53 | 79 | 67 | 59 | 52 | 65 | 57 | 52 | 62 | 56 | 51 | 60 | 54 | 50 | 47 | | | | 47 |
| 5 | 75 | 61 | 52 | 45 | 72 | 60 | 52 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 | | | | 41 |
| 6 | 69 | 55 | 46 | 40 | 67 | 54 | 46 | 39 | 52 | 45 | 39 | 50 | 44 | 38 | 49 | 43 | 38 | 36 | | | | 36 |
| 7 | 64 | 50 | 41 | 35 | 62 | 49 | 41 | 35 | 47 | 40 | 34 | 46 | 39 | 34 | 44 | 38 | 34 | 32 | | | | 32 |
| 8 | 59 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 30 | 41 | 35 | 30 | 28 | | | | 28 |
| 9 | 55 | 42 | 34 | 28 | 54 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 25 | | | | 25 |
| 10 | 52 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 | | | | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 21144 | 21144 | 21144 |
| 5° | 21141 | 19794 | 19443 |
| 10° | 21039 | 18664 | 17998 |
| 15° | 20896 | 17589 | 16645 |
| 20° | 20742 | 16546 | 15434 |
| 25° | 20551 | 15553 | 14319 |
| 30° | 20326 | 14584 | 13237 |
| 35° | 20031 | 13616 | 12228 |
| 40° | 19729 | 12663 | 11214 |
| 45° | 19404 | 11699 | 10220 |
| 50° | 18969 | 10695 | 9240 |
| 55° | 18506 | 9670 | 8259 |
| 60° | 17954 | 8522 | 7246 |
| 65° | 17014 | 7340 | 6282 |
| 70° | 15632 | 6091 | 5288 |
| 75° | 13634 | 4838 | 4387 |
| 80° | 10577 | 3674 | 3558 |
| 85° | 6097 | 2590 | 2774 |



TEST NUMBER: P580399

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 247.8 | 3.1 |
| 10°-20° | 710.9 | 9.0 |
| 20°-30° | 1078.7 | 13.6 |
| 30°-40° | 1304.4 | 16.5 |
| 40°-50° | 1361.0 | 17.2 |
| 50°-60° | 1244.4 | 15.7 |
| 60°-70° | 970.0 | 12.2 |
| 70°-80° | 606.8 | 7.7 |
| 80°-90° | 275.6 | 3.5 |
| 90°-100° | 92.4 | 1.2 |
| 100°-110° | 23.2 | 0.3 |
| 110°-120° | 3.7 | 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° | 2037.5 | 25.7 |
| 0°-40° | 3341.9 | 42.2 |
| 0°-60° | 5947.3 | 75.1 |
| 0°-90° | 7799.8 | 98.5 |
| 90°-120° | 119.2 | 1.5 |
| 90°-150° | 119.2 | 1.5 |
| 90°-180° | 119.0 | 1.5 |
| 0°-180° | 7919.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2619 | 2619 | 2619 | 2619 | 2619 | |
| 5° | 2614 | 2609 | 2597 | 2609 | 2609 | 248 |
| 15° | 2514 | 2518 | 2512 | 2526 | 2525 | 710 |
| 25° | 2330 | 2331 | 2334 | 2354 | 2357 | 1073 |
| 35° | 2062 | 2072 | 2080 | 2101 | 2110 | 1291 |
| 45° | 1735 | 1750 | 1765 | 1782 | 1790 | 1337 |
| 55° | 1354 | 1370 | 1395 | 1416 | 1425 | 1210 |
| 65° | 930 | 946 | 979 | 1018 | 1034 | 921 |
| 75° | 471 | 500 | 573 | 642 | 666 | 502 |
| 85° | 82 | 151 | 259 | 342 | 372 | 103 |
| 90° | 1 | 56 | 152 | 229 | 257 | 3 |
| 95° | 1 | 15 | 79 | 143 | 166 | 0 |
| 105° | 1 | 2 | 13 | 38 | 51 | 1 |
| 115° | 2 | 2 | 2 | 7 | 10 | 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: P580399

CATALOG NUMBER: HVSL2-8-LD4-HI-40-UNV-O-EDD-90

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2619.1 | 2619.1 | 2619.1 | 2619.1 | 2619.1 |
| 2.5° | 2622.2 | 2618.5 | 2606.8 | 2618.5 | 2617.9 |
| 5° | 2613.6 | 2608.6 | 2596.9 | 2609.2 | 2609.2 |
| 7.5° | 2596.3 | 2594.4 | 2583.9 | 2598.1 | 2598.1 |
| 10° | 2575.9 | 2575.3 | 2566.6 | 2582.1 | 2582.7 |
| 12.5° | 2547.5 | 2550.0 | 2541.9 | 2556.8 | 2558.6 |
| 15° | 2514.2 | 2518.5 | 2511.7 | 2525.9 | 2525.3 |
| 17.5° | 2477.7 | 2480.2 | 2475.3 | 2491.3 | 2490.7 |
| 20° | 2432.7 | 2435.8 | 2432.0 | 2448.7 | 2450.6 |
| 22.5° | 2382.7 | 2387.0 | 2386.4 | 2403.6 | 2408.6 |
| 25° | 2329.6 | 2331.4 | 2333.9 | 2353.6 | 2357.3 |
| 27.5° | 2270.9 | 2274.0 | 2278.3 | 2296.2 | 2299.9 |
| 30° | 2206.7 | 2211.6 | 2216.6 | 2235.1 | 2240.0 |
| 32.5° | 2138.8 | 2143.7 | 2149.9 | 2174.0 | 2176.4 |
| 35° | 2062.2 | 2071.5 | 2080.1 | 2101.1 | 2109.7 |
| 37.5° | 1985.6 | 1997.4 | 2005.4 | 2027.6 | 2034.4 |
| 40° | 1904.8 | 1916.5 | 1929.5 | 1952.9 | 1957.2 |
| 42.5° | 1820.2 | 1833.8 | 1849.2 | 1870.2 | 1877.6 |
| 45° | 1735.0 | 1750.4 | 1764.6 | 1781.9 | 1790.5 |
| 47.5° | 1643.0 | 1658.4 | 1675.7 | 1695.5 | 1701.0 |
| 50° | 1547.9 | 1565.8 | 1584.3 | 1602.8 | 1612.7 |
| 52.5° | 1450.3 | 1471.9 | 1492.9 | 1512.7 | 1522.0 |
| 55° | 1354.0 | 1370.1 | 1395.4 | 1415.8 | 1425.0 |
| 57.5° | 1254.0 | 1267.6 | 1290.4 | 1323.8 | 1328.7 |
| 60° | 1152.1 | 1164.5 | 1187.9 | 1215.1 | 1226.2 |
| 62.5° | 1039.7 | 1056.4 | 1081.1 | 1115.7 | 1125.6 |
| 65° | 930.5 | 946.5 | 979.2 | 1018.1 | 1034.2 |
| 67.5° | 824.9 | 830.4 | 872.4 | 913.2 | 939.1 |
| 70° | 700.2 | 721.2 | 769.9 | 819.9 | 839.7 |
| 72.5° | 592.7 | 613.7 | 667.4 | 726.1 | 750.8 |
| 75° | 471.1 | 500.1 | 573.0 | 641.5 | 665.6 |
| 77.5° | 364.3 | 396.4 | 486.5 | 555.7 | 583.5 |
| 80° | 254.4 | 304.4 | 402.6 | 480.4 | 510.6 |
| 82.5° | 159.9 | 221.7 | 326.6 | 408.1 | 434.7 |
| 85° | 81.5 | 150.7 | 258.7 | 342.1 | 372.3 |
| 87.5° | 21.6 | 97.6 | 201.3 | 280.9 | 311.8 |
| 90° | 0.6 | 56.2 | 152.5 | 229.1 | 256.8 |
| 92.5° | 0.6 | 31.5 | 113.6 | 182.1 | 210.5 |
| 95° | 0.6 | 14.8 | 79.0 | 143.2 | 165.5 |
| 97.5° | 0.6 | 6.2 | 54.3 | 108.0 | 130.3 |
| 100° | 0.6 | 3.1 | 34.6 | 78.4 | 97.6 |
| 102.5° | 1.2 | 1.9 | 21.6 | 56.2 | 71.6 |
| 105° | 1.2 | 1.9 | 13.0 | 38.3 | 51.2 |



TEST NUMBER: P580399

CATALOG NUMBER: HVSL2-8-LD4-HI-40-UNV-O-EDD-90

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|------|
| 112.5° | 1.9 | 1.9 | 2.5 | 10.5 | 15.4 |
| 115° | 1.9 | 1.9 | 2.5 | 6.8 | 9.9 |
| 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° | 1.2 | 1.9 | 7.4 | 25.9 | 35.2 |
| 110° | 1.9 | 1.9 | 4.3 | 16.1 | 23.5 |



(END OF REPORT)