

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: P580238

Luminaire Tested: **HVSL12-4-LD4-3LO-35-UNV-O-EDD**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580238
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-LD4-3LO-35-UNV-O-EDD
Description: 4 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3500K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

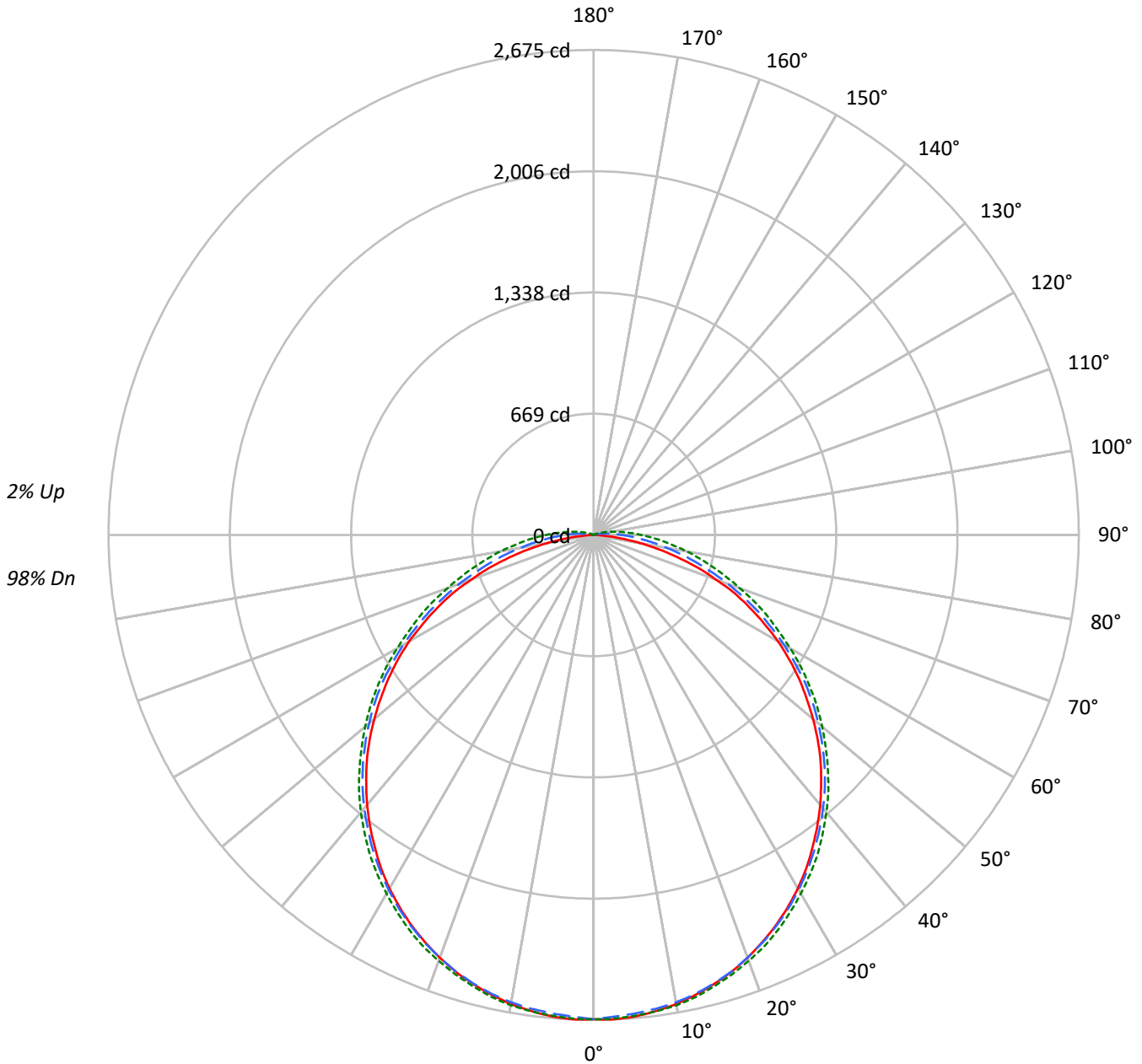
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8078.0 lumens
Efficiency: N/A
Efficacy: 113.1 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): 71.4
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

TEST NUMBER: P580238
CATALOG NUMBER: HVSL12-4-LD4-3LO-35-UNV-O-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P580238

CATALOG NUMBER: HVSL12-4-LD4-3LO-35-UNV-O-EDD

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° | 7189 | 7189 | 7189 |
| 5° | 7175 | 7065 | 7086 |
| 10° | 7128 | 6973 | 6993 |
| 15° | 7066 | 6867 | 6870 |
| 20° | 7000 | 6743 | 6749 |
| 25° | 6921 | 6614 | 6625 |
| 30° | 6830 | 6475 | 6477 |
| 35° | 6715 | 6319 | 6331 |
| 40° | 6595 | 6153 | 6153 |
| 45° | 6466 | 5970 | 5958 |
| 50° | 6298 | 5755 | 5746 |
| 55° | 6116 | 5517 | 5508 |
| 60° | 5900 | 5196 | 5224 |
| 65° | 5548 | 4833 | 4949 |
| 70° | 5042 | 4399 | 4623 |
| 75° | 4324 | 3921 | 4352 |
| 80° | 3253 | 3466 | 4149 |
| 85° | 1738 | 3036 | 4036 |



TEST NUMBER: P580238

CATALOG NUMBER: HVSL12-4-LD4-3LO-35-UNV-O-EDD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 252.8 | 3.1 |
| 10°-20° | 725.2 | 9.0 |
| 20°-30° | 1100.4 | 13.6 |
| 30°-40° | 1330.6 | 16.5 |
| 40°-50° | 1388.3 | 17.2 |
| 50°-60° | 1269.4 | 15.7 |
| 60°-70° | 989.5 | 12.2 |
| 70°-80° | 619.0 | 7.7 |
| 80°-90° | 281.1 | 3.5 |
| 90°-100° | 94.2 | 1.2 |
| 100°-110° | 23.7 | 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° | 2078.4 | 25.7 |
| 0°-40° | 3409.0 | 42.2 |
| 0°-60° | 6066.7 | 75.1 |
| 0°-90° | 7956.4 | 98.5 |
| 90°-120° | 121.6 | 1.5 |
| 90°-150° | 121.6 | 1.5 |
| 90°-180° | 122.0 | 1.5 |
| 0°-180° | 8078.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2672 | 2672 | 2672 | 2672 | 2672 | |
| 5° | 2666 | 2661 | 2649 | 2662 | 2662 | 253 |
| 15° | 2565 | 2569 | 2562 | 2577 | 2576 | 724 |
| 25° | 2376 | 2378 | 2381 | 2401 | 2405 | 1095 |
| 35° | 2104 | 2113 | 2122 | 2143 | 2152 | 1317 |
| 45° | 1770 | 1786 | 1800 | 1818 | 1826 | 1364 |
| 55° | 1381 | 1398 | 1423 | 1444 | 1454 | 1234 |
| 65° | 949 | 966 | 999 | 1039 | 1055 | 939 |
| 75° | 481 | 510 | 584 | 654 | 679 | 512 |
| 85° | 83 | 154 | 264 | 349 | 380 | 105 |
| 90° | 1 | 57 | 156 | 234 | 262 | 3 |
| 95° | 1 | 15 | 81 | 146 | 169 | 0 |
| 105° | 1 | 2 | 13 | 39 | 52 | 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: P580238

CATALOG NUMBER: HVSL12-4-LD4-3LO-35-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2671.7 | 2671.7 | 2671.7 | 2671.7 | 2671.7 |
| 2.5° | 2674.9 | 2671.1 | 2659.1 | 2671.1 | 2670.5 |
| 5° | 2666.0 | 2661.0 | 2649.0 | 2661.6 | 2661.6 |
| 7.5° | 2648.4 | 2646.5 | 2635.8 | 2650.3 | 2650.3 |
| 10° | 2627.6 | 2627.0 | 2618.2 | 2633.9 | 2634.6 |
| 12.5° | 2598.7 | 2601.2 | 2593.0 | 2608.1 | 2610.0 |
| 15° | 2564.6 | 2569.1 | 2562.1 | 2576.6 | 2576.0 |
| 17.5° | 2527.5 | 2530.0 | 2525.0 | 2541.3 | 2540.7 |
| 20° | 2481.5 | 2484.7 | 2480.9 | 2497.9 | 2499.8 |
| 22.5° | 2430.5 | 2434.9 | 2434.3 | 2451.9 | 2456.9 |
| 25° | 2376.3 | 2378.2 | 2380.7 | 2400.9 | 2404.7 |
| 27.5° | 2316.5 | 2319.6 | 2324.1 | 2342.3 | 2346.1 |
| 30° | 2251.0 | 2256.0 | 2261.1 | 2280.0 | 2285.0 |
| 32.5° | 2181.7 | 2186.7 | 2193.0 | 2217.6 | 2220.1 |
| 35° | 2103.6 | 2113.1 | 2121.9 | 2143.3 | 2152.1 |
| 37.5° | 2025.5 | 2037.5 | 2045.7 | 2068.3 | 2075.3 |
| 40° | 1943.0 | 1955.0 | 1968.2 | 1992.1 | 1996.5 |
| 42.5° | 1856.7 | 1870.6 | 1886.3 | 1907.7 | 1915.3 |
| 45° | 1769.8 | 1785.6 | 1800.0 | 1817.7 | 1826.5 |
| 47.5° | 1676.0 | 1691.7 | 1709.3 | 1729.5 | 1735.2 |
| 50° | 1579.0 | 1597.2 | 1616.1 | 1635.0 | 1645.1 |
| 52.5° | 1479.5 | 1501.5 | 1522.9 | 1543.1 | 1552.5 |
| 55° | 1381.2 | 1397.6 | 1423.4 | 1444.2 | 1453.6 |
| 57.5° | 1279.2 | 1293.0 | 1316.3 | 1350.3 | 1355.4 |
| 60° | 1175.3 | 1187.8 | 1211.8 | 1239.5 | 1250.8 |
| 62.5° | 1060.6 | 1077.6 | 1102.8 | 1138.1 | 1148.2 |
| 65° | 949.1 | 965.5 | 998.9 | 1038.6 | 1055.0 |
| 67.5° | 841.4 | 847.1 | 889.9 | 931.5 | 958.0 |
| 70° | 714.2 | 735.6 | 785.4 | 836.4 | 856.6 |
| 72.5° | 604.6 | 626.0 | 680.8 | 740.7 | 765.9 |
| 75° | 480.6 | 510.2 | 584.5 | 654.4 | 679.0 |
| 77.5° | 371.6 | 404.3 | 496.3 | 566.8 | 595.2 |
| 80° | 259.5 | 310.5 | 410.6 | 490.0 | 520.9 |
| 82.5° | 163.1 | 226.1 | 333.2 | 416.3 | 443.4 |
| 85° | 83.1 | 153.7 | 263.9 | 348.9 | 379.8 |
| 87.5° | 22.0 | 99.5 | 205.3 | 286.6 | 318.1 |
| 90° | 0.6 | 57.3 | 155.6 | 233.7 | 262.0 |
| 92.5° | 0.6 | 32.1 | 115.9 | 185.8 | 214.8 |
| 95° | 0.6 | 15.1 | 80.6 | 146.1 | 168.8 |
| 97.5° | 0.6 | 6.3 | 55.4 | 110.2 | 132.9 |
| 100° | 0.6 | 3.1 | 35.3 | 80.0 | 99.5 |
| 102.5° | 1.3 | 1.9 | 22.0 | 57.3 | 73.1 |
| 105° | 1.3 | 1.9 | 13.2 | 39.0 | 52.3 |



TEST NUMBER: P580238

CATALOG NUMBER: HVSL12-4-LD4-3LO-35-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|------|
| 112.5° | 1.9 | 1.9 | 2.5 | 10.7 | 15.7 |
| 115° | 1.9 | 1.9 | 2.5 | 6.9 | 10.1 |
| 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 | 1.9 | 7.6 | 26.5 | 35.9 |
| 110° | 1.9 | 1.9 | 4.4 | 16.4 | 23.9 |



(END OF REPORT)