

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: P580132

Luminaire Tested: **HVSL12-2-LD4-2HI-30-UNV-O-EDD**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580132
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: HVSL12-2-LD4-2HI-30-UNV-O-EDD
Description: 2 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

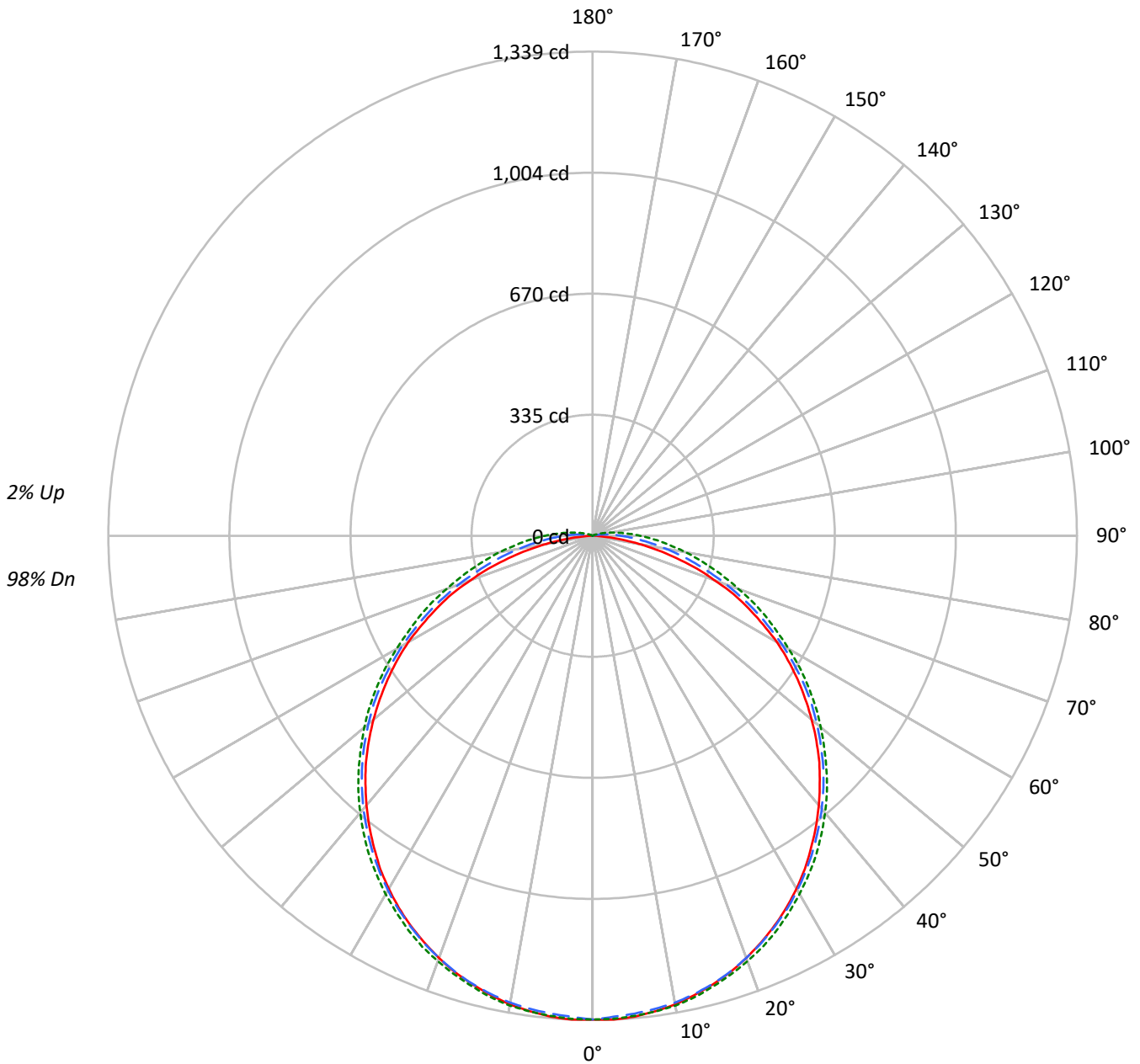
Lumens per Lamp: N/A
Luminaire Lumens: 4045.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 45.6
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: P580132

CATALOG NUMBER: HVSL12-2-LD4-2HI-30-UNV-O-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P580132

CATALOG NUMBER: HVSL12-2-LD4-2HI-30-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° | 7200 | 7200 | 7200 |
| 5° | 7160 | 7057 | 7097 |
| 10° | 7087 | 6948 | 7004 |
| 15° | 6999 | 6825 | 6880 |
| 20° | 6907 | 6685 | 6759 |
| 25° | 6802 | 6540 | 6635 |
| 30° | 6683 | 6384 | 6486 |
| 35° | 6539 | 6212 | 6341 |
| 40° | 6388 | 6030 | 6162 |
| 45° | 6226 | 5830 | 5967 |
| 50° | 6022 | 5597 | 5754 |
| 55° | 5799 | 5340 | 5517 |
| 60° | 5535 | 5000 | 5231 |
| 65° | 5135 | 4619 | 4956 |
| 70° | 4579 | 4165 | 4629 |
| 75° | 3816 | 3667 | 4358 |
| 80° | 2734 | 3182 | 4155 |
| 85° | 1316 | 2700 | 4043 |



TEST NUMBER: P580132

CATALOG NUMBER: HVSL12-2-LD4-2HI-30-UNV-O-EDD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 126.6 | 3.1 |
| 10°-20° | 363.1 | 9.0 |
| 20°-30° | 551.0 | 13.6 |
| 30°-40° | 666.3 | 16.5 |
| 40°-50° | 695.2 | 17.2 |
| 50°-60° | 635.6 | 15.7 |
| 60°-70° | 495.5 | 12.2 |
| 70°-80° | 310.0 | 7.7 |
| 80°-90° | 140.8 | 3.5 |
| 90°-100° | 47.2 | 1.2 |
| 100°-110° | 11.8 | 0.3 |
| 110°-120° | 1.9 | 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° | 1040.8 | 25.7 |
| 0°-40° | 1707.0 | 42.2 |
| 0°-60° | 3037.9 | 75.1 |
| 0°-90° | 3984.1 | 98.5 |
| 90°-120° | 60.9 | 1.5 |
| 90°-150° | 60.9 | 1.5 |
| 90°-180° | 61.0 | 1.5 |
| 0°-180° | 4045.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1338 | 1338 | 1338 | 1338 | 1338 | |
| 5° | 1335 | 1332 | 1326 | 1333 | 1333 | 127 |
| 15° | 1284 | 1286 | 1283 | 1290 | 1290 | 363 |
| 25° | 1190 | 1191 | 1192 | 1202 | 1204 | 548 |
| 35° | 1053 | 1058 | 1062 | 1073 | 1078 | 659 |
| 45° | 886 | 894 | 901 | 910 | 915 | 683 |
| 55° | 692 | 700 | 713 | 723 | 728 | 618 |
| 65° | 475 | 484 | 500 | 520 | 528 | 470 |
| 75° | 241 | 256 | 293 | 328 | 340 | 257 |
| 85° | 42 | 77 | 132 | 175 | 190 | 53 |
| 90° | 0 | 29 | 78 | 117 | 131 | 2 |
| 95° | 0 | 8 | 40 | 73 | 84 | 0 |
| 105° | 1 | 1 | 7 | 20 | 26 | 1 |
| 115° | 1 | 1 | 1 | 4 | 5 | 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 | |



TEST NUMBER: P580132

CATALOG NUMBER: HVSL12-2-LD4-2HI-30-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1337.8 | 1337.8 | 1337.8 | 1337.8 | 1337.8 |
| 2.5° | 1339.4 | 1337.5 | 1331.5 | 1337.5 | 1337.2 |
| 5° | 1335.0 | 1332.5 | 1326.5 | 1332.8 | 1332.8 |
| 7.5° | 1326.2 | 1325.2 | 1319.9 | 1327.1 | 1327.1 |
| 10° | 1315.8 | 1315.4 | 1311.0 | 1318.9 | 1319.2 |
| 12.5° | 1301.3 | 1302.5 | 1298.4 | 1306.0 | 1306.9 |
| 15° | 1284.2 | 1286.4 | 1283.0 | 1290.2 | 1289.9 |
| 17.5° | 1265.6 | 1266.9 | 1264.4 | 1272.6 | 1272.2 |
| 20° | 1242.6 | 1244.2 | 1242.3 | 1250.8 | 1251.7 |
| 22.5° | 1217.1 | 1219.3 | 1218.9 | 1227.8 | 1230.3 |
| 25° | 1189.9 | 1190.9 | 1192.1 | 1202.2 | 1204.1 |
| 27.5° | 1160.0 | 1161.5 | 1163.8 | 1172.9 | 1174.8 |
| 30° | 1127.2 | 1129.7 | 1132.2 | 1141.7 | 1144.2 |
| 32.5° | 1092.5 | 1095.0 | 1098.2 | 1110.5 | 1111.7 |
| 35° | 1053.4 | 1058.1 | 1062.5 | 1073.2 | 1077.7 |
| 37.5° | 1014.3 | 1020.3 | 1024.4 | 1035.7 | 1039.2 |
| 40° | 972.9 | 978.9 | 985.6 | 997.5 | 999.8 |
| 42.5° | 929.7 | 936.7 | 944.6 | 955.3 | 959.1 |
| 45° | 886.2 | 894.1 | 901.4 | 910.2 | 914.6 |
| 47.5° | 839.2 | 847.1 | 855.9 | 866.0 | 868.9 |
| 50° | 790.7 | 799.8 | 809.3 | 818.7 | 823.8 |
| 52.5° | 740.8 | 751.9 | 762.6 | 772.7 | 777.4 |
| 55° | 691.6 | 699.8 | 712.8 | 723.2 | 727.9 |
| 57.5° | 640.5 | 647.5 | 659.1 | 676.2 | 678.7 |
| 60° | 588.5 | 594.8 | 606.8 | 620.7 | 626.3 |
| 62.5° | 531.1 | 539.6 | 552.2 | 569.9 | 574.9 |
| 65° | 475.3 | 483.5 | 500.2 | 520.1 | 528.3 |
| 67.5° | 421.3 | 424.2 | 445.6 | 466.4 | 479.7 |
| 70° | 357.6 | 368.4 | 393.3 | 418.8 | 428.9 |
| 72.5° | 302.8 | 313.5 | 340.9 | 370.9 | 383.5 |
| 75° | 240.6 | 255.5 | 292.7 | 327.7 | 340.0 |
| 77.5° | 186.1 | 202.5 | 248.5 | 283.8 | 298.0 |
| 80° | 129.9 | 155.5 | 205.6 | 245.4 | 260.8 |
| 82.5° | 81.7 | 113.2 | 166.8 | 208.5 | 222.0 |
| 85° | 41.6 | 77.0 | 132.1 | 174.7 | 190.2 |
| 87.5° | 11.0 | 49.8 | 102.8 | 143.5 | 159.3 |
| 90° | 0.3 | 28.7 | 77.9 | 117.0 | 131.2 |
| 92.5° | 0.3 | 16.1 | 58.0 | 93.0 | 107.5 |
| 95° | 0.3 | 7.6 | 40.4 | 73.2 | 84.5 |
| 97.5° | 0.3 | 3.2 | 27.8 | 55.2 | 66.5 |
| 100° | 0.3 | 1.6 | 17.7 | 40.1 | 49.8 |
| 102.5° | 0.6 | 0.9 | 11.0 | 28.7 | 36.6 |
| 105° | 0.6 | 0.9 | 6.6 | 19.6 | 26.2 |



TEST NUMBER: P580132

CATALOG NUMBER: HVSL12-2-LD4-2HI-30-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.9 | 0.9 | 1.3 | 5.4 | 7.9 |
| 115° | 0.9 | 0.9 | 1.3 | 3.5 | 5.0 |
| 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° | 0.6 | 0.9 | 3.8 | 13.2 | 18.0 |
| 110° | 0.9 | 0.9 | 2.2 | 8.2 | 12.0 |



(END OF REPORT)