

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: P580764

Luminaire Tested: **HVSL8-4-LD4-2LO-30-UNV-O-EDD**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580764
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: HVSL8-4-LD4-2LO-30-UNV-O-EDD
Description: 4 FOOT, 8INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

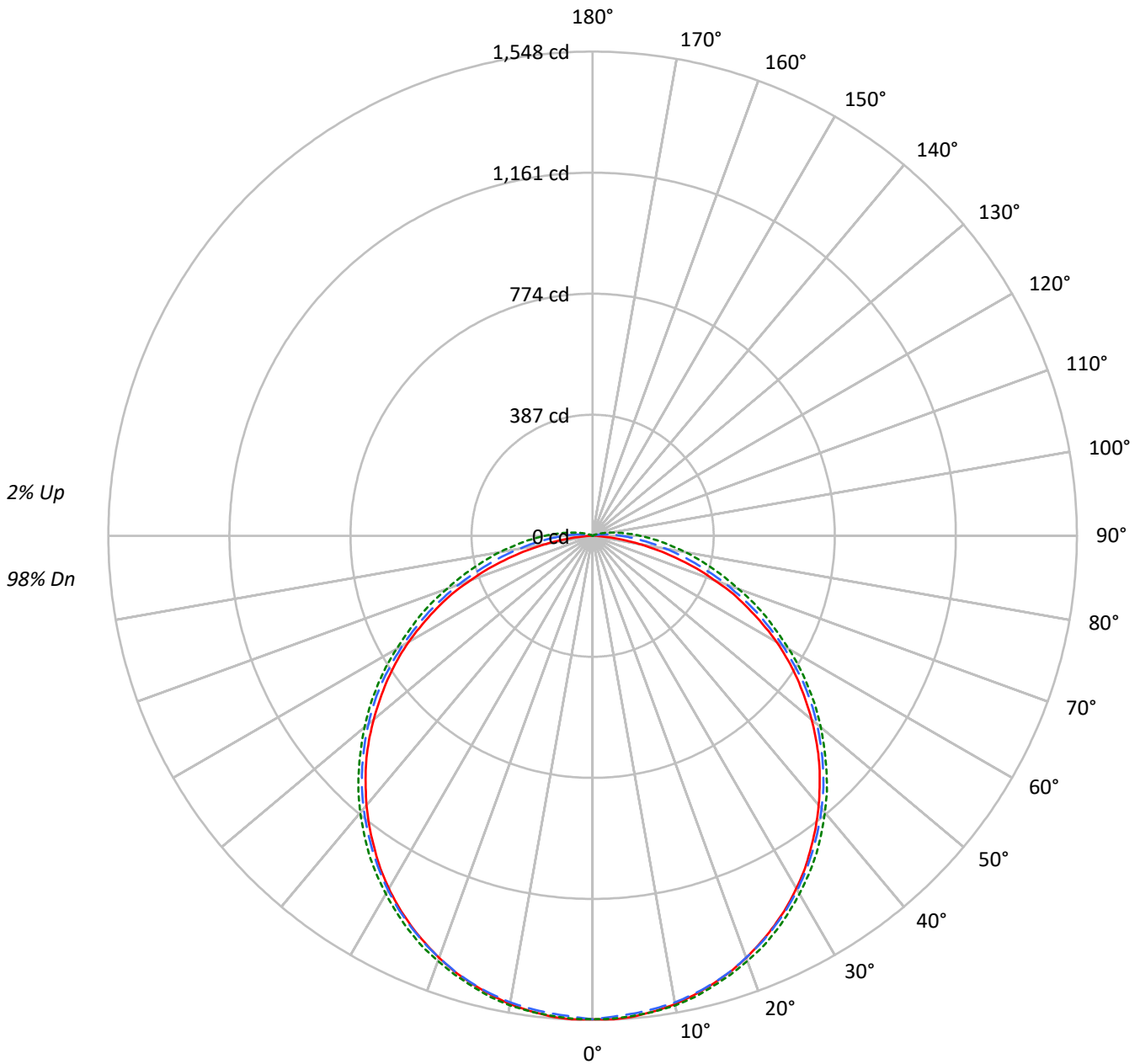
Lumens per Lamp: N/A
Luminaire Lumens: 4674.0 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 47.5
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: HVSL8-4-LD4-2LO-30-UNV-O-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P580764

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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° | 6240 | 6240 | 6240 |
| 5° | 6228 | 6101 | 6106 |
| 10° | 6186 | 5991 | 5984 |
| 15° | 6133 | 5871 | 5837 |
| 20° | 6075 | 5736 | 5695 |
| 25° | 6007 | 5597 | 5550 |
| 30° | 5928 | 5449 | 5385 |
| 35° | 5828 | 5286 | 5222 |
| 40° | 5724 | 5115 | 5031 |
| 45° | 5612 | 4929 | 4826 |
| 50° | 5466 | 4713 | 4605 |
| 55° | 5308 | 4477 | 4362 |
| 60° | 5120 | 4170 | 4077 |
| 65° | 4815 | 3827 | 3795 |
| 70° | 4377 | 3423 | 3467 |
| 75° | 3753 | 2980 | 3169 |
| 80° | 2822 | 2545 | 2897 |
| 85° | 1509 | 2106 | 2637 |



TEST NUMBER: P580764

CATALOG NUMBER: HVSL8-4-LD4-2LO-30-UNV-O-EDD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 146.3 | 3.1 |
| 10°-20° | 419.6 | 9.0 |
| 20°-30° | 636.7 | 13.6 |
| 30°-40° | 769.9 | 16.5 |
| 40°-50° | 803.3 | 17.2 |
| 50°-60° | 734.5 | 15.7 |
| 60°-70° | 572.5 | 12.2 |
| 70°-80° | 358.2 | 7.7 |
| 80°-90° | 162.7 | 3.5 |
| 90°-100° | 54.5 | 1.2 |
| 100°-110° | 13.7 | 0.3 |
| 110°-120° | 2.2 | 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° | 1202.6 | 25.7 |
| 0°-40° | 1972.5 | 42.2 |
| 0°-60° | 3510.2 | 75.1 |
| 0°-90° | 4603.6 | 98.5 |
| 90°-120° | 70.4 | 1.5 |
| 90°-150° | 70.4 | 1.5 |
| 90°-180° | 70.0 | 1.5 |
| 0°-180° | 4674.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1546 | 1546 | 1546 | 1546 | 1546 | |
| 5° | 1543 | 1540 | 1533 | 1540 | 1540 | 146 |
| 15° | 1484 | 1486 | 1482 | 1491 | 1490 | 419 |
| 25° | 1375 | 1376 | 1378 | 1389 | 1391 | 634 |
| 35° | 1217 | 1223 | 1228 | 1240 | 1245 | 762 |
| 45° | 1024 | 1033 | 1042 | 1052 | 1057 | 789 |
| 55° | 799 | 809 | 824 | 836 | 841 | 714 |
| 65° | 549 | 559 | 578 | 601 | 610 | 543 |
| 75° | 278 | 295 | 338 | 379 | 393 | 296 |
| 85° | 48 | 89 | 153 | 202 | 220 | 61 |
| 90° | 0 | 33 | 90 | 135 | 152 | 2 |
| 95° | 0 | 9 | 47 | 84 | 98 | 0 |
| 105° | 1 | 1 | 8 | 23 | 30 | 1 |
| 115° | 1 | 1 | 2 | 4 | 6 | 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: P580764

CATALOG NUMBER: HVSL8-4-LD4-2LO-30-UNV-O-EDD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1545.9 | 1545.9 | 1545.9 | 1545.9 | 1545.9 |
| 2.5° | 1547.7 | 1545.5 | 1538.6 | 1545.5 | 1545.1 |
| 5° | 1542.6 | 1539.7 | 1532.8 | 1540.0 | 1540.0 |
| 7.5° | 1532.4 | 1531.3 | 1525.1 | 1533.5 | 1533.5 |
| 10° | 1520.4 | 1520.0 | 1514.9 | 1524.0 | 1524.4 |
| 12.5° | 1503.6 | 1505.1 | 1500.3 | 1509.1 | 1510.2 |
| 15° | 1483.9 | 1486.5 | 1482.5 | 1490.8 | 1490.5 |
| 17.5° | 1462.4 | 1463.9 | 1461.0 | 1470.4 | 1470.1 |
| 20° | 1435.8 | 1437.6 | 1435.5 | 1445.3 | 1446.4 |
| 22.5° | 1406.3 | 1408.9 | 1408.5 | 1418.7 | 1421.6 |
| 25° | 1375.0 | 1376.1 | 1377.5 | 1389.2 | 1391.4 |
| 27.5° | 1340.3 | 1342.2 | 1344.7 | 1355.3 | 1357.5 |
| 30° | 1302.4 | 1305.4 | 1308.3 | 1319.2 | 1322.1 |
| 32.5° | 1262.4 | 1265.3 | 1268.9 | 1283.1 | 1284.6 |
| 35° | 1217.2 | 1222.6 | 1227.7 | 1240.1 | 1245.2 |
| 37.5° | 1172.0 | 1178.9 | 1183.6 | 1196.8 | 1200.8 |
| 40° | 1124.2 | 1131.2 | 1138.8 | 1152.7 | 1155.2 |
| 42.5° | 1074.3 | 1082.3 | 1091.4 | 1103.8 | 1108.2 |
| 45° | 1024.0 | 1033.1 | 1041.5 | 1051.7 | 1056.8 |
| 47.5° | 969.7 | 978.8 | 989.0 | 1000.7 | 1004.0 |
| 50° | 913.6 | 924.2 | 935.1 | 946.0 | 951.9 |
| 52.5° | 856.0 | 868.8 | 881.2 | 892.8 | 898.3 |
| 55° | 799.2 | 808.7 | 823.6 | 835.6 | 841.1 |
| 57.5° | 740.1 | 748.2 | 761.6 | 781.3 | 784.2 |
| 60° | 680.0 | 687.3 | 701.1 | 717.2 | 723.7 |
| 62.5° | 613.7 | 623.5 | 638.1 | 658.5 | 664.3 |
| 65° | 549.2 | 558.7 | 578.0 | 600.9 | 610.4 |
| 67.5° | 486.9 | 490.1 | 514.9 | 539.0 | 554.3 |
| 70° | 413.3 | 425.6 | 454.4 | 484.0 | 495.6 |
| 72.5° | 349.8 | 362.2 | 393.9 | 428.6 | 443.1 |
| 75° | 278.1 | 295.2 | 338.2 | 378.6 | 392.8 |
| 77.5° | 215.0 | 234.0 | 287.2 | 328.0 | 344.4 |
| 80° | 150.1 | 179.7 | 237.6 | 283.5 | 301.4 |
| 82.5° | 94.4 | 130.8 | 192.8 | 240.9 | 256.6 |
| 85° | 48.1 | 88.9 | 152.7 | 201.9 | 219.7 |
| 87.5° | 12.8 | 57.6 | 118.8 | 165.8 | 184.0 |
| 90° | 0.4 | 33.2 | 90.0 | 135.2 | 151.6 |
| 92.5° | 0.4 | 18.6 | 67.1 | 107.5 | 124.3 |
| 95° | 0.4 | 8.7 | 46.6 | 84.5 | 97.7 |
| 97.5° | 0.4 | 3.6 | 32.1 | 63.8 | 76.9 |
| 100° | 0.4 | 1.8 | 20.4 | 46.3 | 57.6 |
| 102.5° | 0.7 | 1.1 | 12.8 | 33.2 | 42.3 |
| 105° | 0.7 | 1.1 | 7.7 | 22.6 | 30.2 |



TEST NUMBER: P580764

CATALOG NUMBER: HVSL8-4-LD4-2LO-30-UNV-O-EDD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 1.1 | 1.1 | 1.5 | 6.2 | 9.1 |
| 115° | 1.1 | 1.1 | 1.5 | 4.0 | 5.8 |
| 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° | 0.7 | 1.1 | 4.4 | 15.3 | 20.8 |
| 110° | 1.1 | 1.1 | 2.6 | 9.5 | 13.8 |



(END OF REPORT)