

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: P580731

Luminaire Tested: **HVSL8-4-LD4-1HI-30-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580731
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-LD4-1HI-30-UNV-O-EDD-90
Description: 4 FOOT, 8INCH WIDE, HVSL LED LUMINAIRE, WITH 3000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

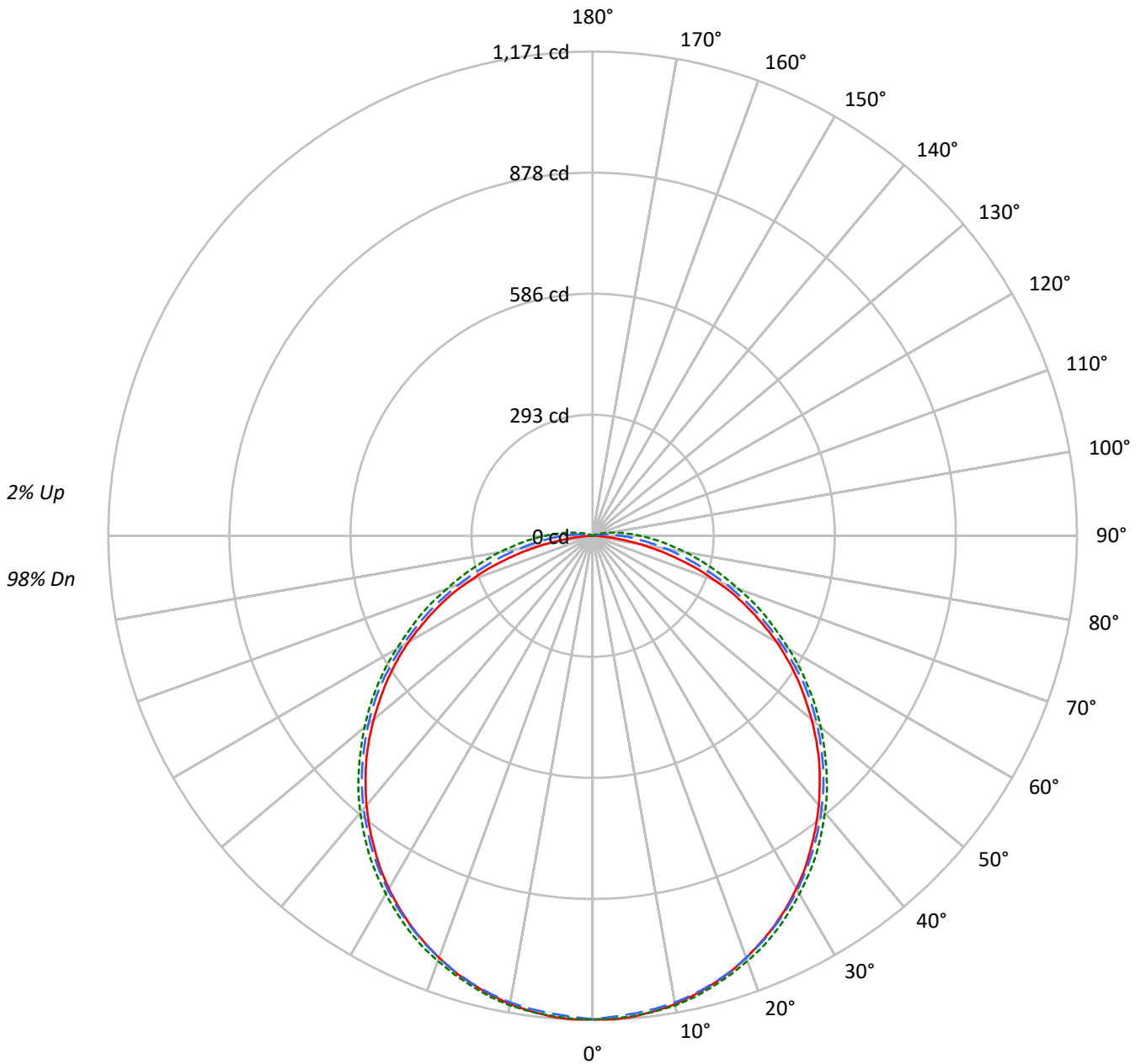
Lumens per Lamp: N/A
Luminaire Lumens: 3536.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (A_{in}): 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-LD4-1HI-30-UNV-O-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P580731

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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 |
| 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° | 4721 | 4721 | 4721 |
| 5° | 4711 | 4615 | 4620 |
| 10° | 4680 | 4533 | 4527 |
| 15° | 4639 | 4441 | 4416 |
| 20° | 4596 | 4339 | 4308 |
| 25° | 4544 | 4234 | 4198 |
| 30° | 4484 | 4122 | 4074 |
| 35° | 4409 | 3999 | 3950 |
| 40° | 4330 | 3870 | 3807 |
| 45° | 4245 | 3729 | 3651 |
| 50° | 4135 | 3566 | 3484 |
| 55° | 4016 | 3387 | 3300 |
| 60° | 3873 | 3155 | 3084 |
| 65° | 3643 | 2896 | 2871 |
| 70° | 3310 | 2590 | 2623 |
| 75° | 2840 | 2254 | 2398 |
| 80° | 2136 | 1926 | 2192 |
| 85° | 1142 | 1593 | 1995 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 110.7 | 3.1 |
| 10°-20° | 317.5 | 9.0 |
| 20°-30° | 481.7 | 13.6 |
| 30°-40° | 582.4 | 16.5 |
| 40°-50° | 607.7 | 17.2 |
| 50°-60° | 555.6 | 15.7 |
| 60°-70° | 433.2 | 12.2 |
| 70°-80° | 270.9 | 7.7 |
| 80°-90° | 123.1 | 3.5 |
| 90°-100° | 41.3 | 1.2 |
| 100°-110° | 10.4 | 0.3 |
| 110°-120° | 1.6 | 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° | 909.8 | 25.7 |
| 0°-40° | 1492.2 | 42.2 |
| 0°-60° | 2655.6 | 75.1 |
| 0°-90° | 3482.8 | 98.5 |
| 90°-120° | 53.2 | 1.5 |
| 90°-150° | 53.2 | 1.5 |
| 90°-180° | 53.0 | 1.5 |
| 0°-180° | 3536.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1170 | 1170 | 1170 | 1170 | 1170 | |
| 5° | 1167 | 1165 | 1160 | 1165 | 1165 | 111 |
| 15° | 1123 | 1125 | 1122 | 1128 | 1128 | 317 |
| 25° | 1040 | 1041 | 1042 | 1051 | 1053 | 479 |
| 35° | 921 | 925 | 929 | 938 | 942 | 576 |
| 45° | 775 | 782 | 788 | 796 | 800 | 597 |
| 55° | 605 | 612 | 623 | 632 | 636 | 540 |
| 65° | 416 | 423 | 437 | 455 | 462 | 411 |
| 75° | 210 | 223 | 256 | 286 | 297 | 224 |
| 85° | 36 | 67 | 116 | 153 | 166 | 46 |
| 90° | 0 | 25 | 68 | 102 | 115 | 1 |
| 95° | 0 | 7 | 35 | 64 | 74 | 0 |
| 105° | 1 | 1 | 6 | 17 | 23 | 1 |
| 115° | 1 | 1 | 1 | 3 | 4 | 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: P580731

CATALOG NUMBER: HVSL8-4-LD4-1HI-30-UNV-O-EDD-90

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1169.5 | 1169.5 | 1169.5 | 1169.5 | 1169.5 |
| 2.5° | 1170.9 | 1169.2 | 1164.0 | 1169.2 | 1168.9 |
| 5° | 1167.0 | 1164.8 | 1159.6 | 1165.1 | 1165.1 |
| 7.5° | 1159.3 | 1158.5 | 1153.8 | 1160.1 | 1160.1 |
| 10° | 1150.2 | 1149.9 | 1146.1 | 1153.0 | 1153.2 |
| 12.5° | 1137.5 | 1138.6 | 1135.0 | 1141.7 | 1142.5 |
| 15° | 1122.6 | 1124.6 | 1121.5 | 1127.9 | 1127.6 |
| 17.5° | 1106.4 | 1107.5 | 1105.3 | 1112.4 | 1112.2 |
| 20° | 1086.2 | 1087.6 | 1086.0 | 1093.4 | 1094.2 |
| 22.5° | 1063.9 | 1065.8 | 1065.6 | 1073.3 | 1075.5 |
| 25° | 1040.2 | 1041.0 | 1042.1 | 1050.9 | 1052.6 |
| 27.5° | 1014.0 | 1015.4 | 1017.3 | 1025.3 | 1027.0 |
| 30° | 985.3 | 987.5 | 989.7 | 998.0 | 1000.2 |
| 32.5° | 955.0 | 957.2 | 960.0 | 970.7 | 971.8 |
| 35° | 920.8 | 925.0 | 928.8 | 938.2 | 942.0 |
| 37.5° | 886.6 | 891.9 | 895.5 | 905.4 | 908.4 |
| 40° | 850.5 | 855.8 | 861.5 | 872.0 | 874.0 |
| 42.5° | 812.7 | 818.8 | 825.7 | 835.1 | 838.4 |
| 45° | 774.7 | 781.6 | 787.9 | 795.7 | 799.5 |
| 47.5° | 733.6 | 740.5 | 748.2 | 757.1 | 759.5 |
| 50° | 691.2 | 699.2 | 707.4 | 715.7 | 720.1 |
| 52.5° | 647.6 | 657.3 | 666.6 | 675.5 | 679.6 |
| 55° | 604.6 | 611.8 | 623.1 | 632.2 | 636.3 |
| 57.5° | 559.9 | 566.0 | 576.2 | 591.1 | 593.3 |
| 60° | 514.4 | 520.0 | 530.4 | 542.6 | 547.5 |
| 62.5° | 464.3 | 471.7 | 482.7 | 498.2 | 502.6 |
| 65° | 415.5 | 422.6 | 437.3 | 454.6 | 461.8 |
| 67.5° | 368.3 | 370.8 | 389.6 | 407.8 | 419.3 |
| 70° | 312.6 | 322.0 | 343.8 | 366.1 | 374.9 |
| 72.5° | 264.7 | 274.0 | 298.0 | 324.2 | 335.2 |
| 75° | 210.4 | 223.3 | 255.8 | 286.4 | 297.2 |
| 77.5° | 162.7 | 177.0 | 217.2 | 248.1 | 260.5 |
| 80° | 113.6 | 135.9 | 179.8 | 214.5 | 228.0 |
| 82.5° | 71.4 | 99.0 | 145.8 | 182.2 | 194.1 |
| 85° | 36.4 | 67.3 | 115.5 | 152.7 | 166.2 |
| 87.5° | 9.6 | 43.6 | 89.9 | 125.4 | 139.2 |
| 90° | 0.3 | 25.1 | 68.1 | 102.3 | 114.7 |
| 92.5° | 0.3 | 14.1 | 50.7 | 81.3 | 94.0 |
| 95° | 0.3 | 6.6 | 35.3 | 64.0 | 73.9 |
| 97.5° | 0.3 | 2.8 | 24.3 | 48.2 | 58.2 |
| 100° | 0.3 | 1.4 | 15.4 | 35.0 | 43.6 |
| 102.5° | 0.6 | 0.8 | 9.6 | 25.1 | 32.0 |
| 105° | 0.6 | 0.8 | 5.8 | 17.1 | 22.9 |



TEST NUMBER: P580731

CATALOG NUMBER: HVSL8-4-LD4-1HI-30-UNV-O-EDD-90

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.8 | 0.8 | 1.1 | 4.7 | 6.9 |
| 115° | 0.8 | 0.8 | 1.1 | 3.0 | 4.4 |
| 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 | 0.8 | 3.3 | 11.6 | 15.7 |
| 110° | 0.8 | 0.8 | 1.9 | 7.2 | 10.5 |



(END OF REPORT)