

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: P580679

Luminaire Tested: **HVSL8-2-LD4-1STD-40-UNV-O-EDD-90**

Issue Date: 12/16/2022



Test Information

Test Method: LM-79-08
Report Number: P580679
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: HVSL8-2-LD4-1STD-40-UNV-O-EDD-90
Description: 2 FOOT, 8INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Summary

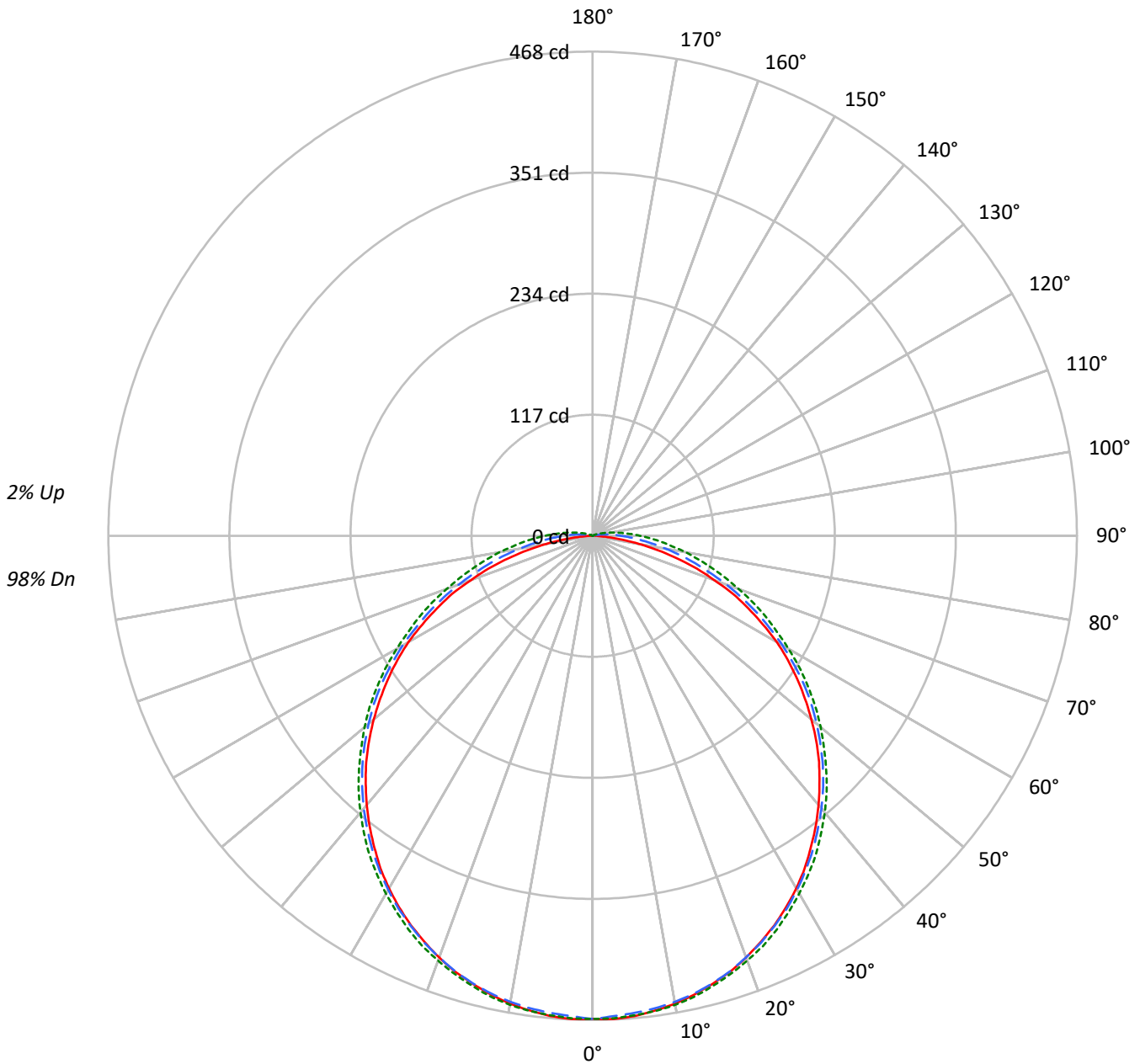
Lumens per Lamp: N/A
Luminaire Lumens: 1412.0 lumens
Efficiency: N/A
Efficacy: 84.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 2' x H: 0.17')
CIE Type: Direct

Input Watts (W): 16.8
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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Luminous Intensity Polar Plot





TEST NUMBER: P580679

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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° | 3770 | 3770 | 3770 |
| 5° | 3749 | 3676 | 3689 |
| 10° | 3711 | 3601 | 3616 |
| 15° | 3665 | 3520 | 3527 |
| 20° | 3617 | 3431 | 3440 |
| 25° | 3562 | 3339 | 3353 |
| 30° | 3500 | 3243 | 3253 |
| 35° | 3424 | 3137 | 3155 |
| 40° | 3345 | 3027 | 3040 |
| 45° | 3261 | 2907 | 2916 |
| 50° | 3153 | 2770 | 2783 |
| 55° | 3036 | 2620 | 2635 |
| 60° | 2898 | 2428 | 2463 |
| 65° | 2688 | 2215 | 2293 |
| 70° | 2397 | 1967 | 2095 |
| 75° | 1998 | 1696 | 1915 |
| 80° | 1433 | 1428 | 1750 |
| 85° | 688 | 1156 | 1594 |



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CATALOG NUMBER: HVSL8-2-LD4-1STD-40-UNV-O-EDD-90

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 44.2 | 3.1 |
| 10°-20° | 126.8 | 9.0 |
| 20°-30° | 192.3 | 13.6 |
| 30°-40° | 232.6 | 16.5 |
| 40°-50° | 242.7 | 17.2 |
| 50°-60° | 221.9 | 15.7 |
| 60°-70° | 173.0 | 12.2 |
| 70°-80° | 108.2 | 7.7 |
| 80°-90° | 49.1 | 3.5 |
| 90°-100° | 16.5 | 1.2 |
| 100°-110° | 4.1 | 0.3 |
| 110°-120° | 0.6 | 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° | 363.3 | 25.7 |
| 0°-40° | 595.9 | 42.2 |
| 0°-60° | 1060.4 | 75.1 |
| 0°-90° | 1390.8 | 98.5 |
| 90°-120° | 21.2 | 1.5 |
| 90°-150° | 21.2 | 1.5 |
| 90°-180° | 21.0 | 1.5 |
| 0°-180° | 1412.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0° | 467 | 467 | 467 | 467 | 467 | |
| 5° | 466 | 465 | 463 | 465 | 465 | 44 |
| 15° | 448 | 449 | 448 | 450 | 450 | 127 |
| 25° | 415 | 416 | 416 | 420 | 420 | 191 |
| 35° | 368 | 369 | 371 | 375 | 376 | 230 |
| 45° | 309 | 312 | 315 | 318 | 319 | 238 |
| 55° | 241 | 244 | 249 | 252 | 254 | 216 |
| 65° | 166 | 169 | 175 | 182 | 184 | 164 |
| 75° | 84 | 89 | 102 | 114 | 119 | 90 |
| 85° | 14 | 27 | 46 | 61 | 66 | 18 |
| 90° | 0 | 10 | 27 | 41 | 46 | 1 |
| 95° | 0 | 3 | 14 | 26 | 30 | 0 |
| 105° | 0 | 0 | 2 | 7 | 9 | 0 |
| 115° | 0 | 0 | 0 | 1 | 2 | 0 |
| 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: P580679

CATALOG NUMBER: HVSL8-2-LD4-1STD-40-UNV-O-EDD-90

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 0° | 467.0 | 467.0 | 467.0 | 467.0 | 467.0 |
| 2.5° | 467.6 | 466.9 | 464.8 | 466.9 | 466.8 |
| 5° | 466.0 | 465.1 | 463.0 | 465.2 | 465.2 |
| 7.5° | 462.9 | 462.6 | 460.7 | 463.3 | 463.3 |
| 10° | 459.3 | 459.2 | 457.6 | 460.4 | 460.5 |
| 12.5° | 454.2 | 454.7 | 453.2 | 455.9 | 456.2 |
| 15° | 448.3 | 449.1 | 447.8 | 450.4 | 450.3 |
| 17.5° | 441.8 | 442.2 | 441.4 | 444.2 | 444.1 |
| 20° | 433.8 | 434.3 | 433.6 | 436.6 | 436.9 |
| 22.5° | 424.8 | 425.6 | 425.5 | 428.6 | 429.5 |
| 25° | 415.4 | 415.7 | 416.1 | 419.7 | 420.3 |
| 27.5° | 404.9 | 405.5 | 406.2 | 409.4 | 410.1 |
| 30° | 393.5 | 394.3 | 395.2 | 398.5 | 399.4 |
| 32.5° | 381.4 | 382.2 | 383.3 | 387.6 | 388.1 |
| 35° | 367.7 | 369.4 | 370.9 | 374.6 | 376.2 |
| 37.5° | 354.1 | 356.1 | 357.6 | 361.5 | 362.7 |
| 40° | 339.6 | 341.7 | 344.0 | 348.2 | 349.0 |
| 42.5° | 324.5 | 327.0 | 329.7 | 333.5 | 334.8 |
| 45° | 309.4 | 312.1 | 314.6 | 317.7 | 319.3 |
| 47.5° | 293.0 | 295.7 | 298.8 | 302.3 | 303.3 |
| 50° | 276.0 | 279.2 | 282.5 | 285.8 | 287.6 |
| 52.5° | 258.6 | 262.5 | 266.2 | 269.7 | 271.4 |
| 55° | 241.4 | 244.3 | 248.8 | 252.4 | 254.1 |
| 57.5° | 223.6 | 226.0 | 230.1 | 236.0 | 236.9 |
| 60° | 205.4 | 207.6 | 211.8 | 216.7 | 218.6 |
| 62.5° | 185.4 | 188.4 | 192.8 | 198.9 | 200.7 |
| 65° | 165.9 | 168.8 | 174.6 | 181.5 | 184.4 |
| 67.5° | 147.1 | 148.1 | 155.6 | 162.8 | 167.4 |
| 70° | 124.8 | 128.6 | 137.3 | 146.2 | 149.7 |
| 72.5° | 105.7 | 109.4 | 119.0 | 129.5 | 133.9 |
| 75° | 84.0 | 89.2 | 102.2 | 114.4 | 118.7 |
| 77.5° | 65.0 | 70.7 | 86.8 | 99.1 | 104.0 |
| 80° | 45.4 | 54.3 | 71.8 | 85.7 | 91.0 |
| 82.5° | 28.5 | 39.5 | 58.2 | 72.8 | 77.5 |
| 85° | 14.5 | 26.9 | 46.1 | 61.0 | 66.4 |
| 87.5° | 3.9 | 17.4 | 35.9 | 50.1 | 55.6 |
| 90° | 0.1 | 10.0 | 27.2 | 40.8 | 45.8 |
| 92.5° | 0.1 | 5.6 | 20.3 | 32.5 | 37.5 |
| 95° | 0.1 | 2.6 | 14.1 | 25.5 | 29.5 |
| 97.5° | 0.1 | 1.1 | 9.7 | 19.3 | 23.2 |
| 100° | 0.1 | 0.6 | 6.2 | 14.0 | 17.4 |
| 102.5° | 0.2 | 0.3 | 3.9 | 10.0 | 12.8 |
| 105° | 0.2 | 0.3 | 2.3 | 6.8 | 9.1 |



TEST NUMBER: P580679

CATALOG NUMBER: HVSL8-2-LD4-1STD-40-UNV-O-EDD-90

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-----|-------|-----|
| 112.5° | 0.3 | 0.3 | 0.4 | 1.9 | 2.8 |
| 115° | 0.3 | 0.3 | 0.4 | 1.2 | 1.8 |
| 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° | 0.2 | 0.3 | 1.3 | 4.6 | 6.3 |
| 110° | 0.3 | 0.3 | 0.8 | 2.9 | 4.2 |



(END OF REPORT)