

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: P580280

Luminaire Tested: **HVSL12-8-LD4-2HI-40-UNV-O-EDD**

Issue Date: 12/16/2022



**Test Information**

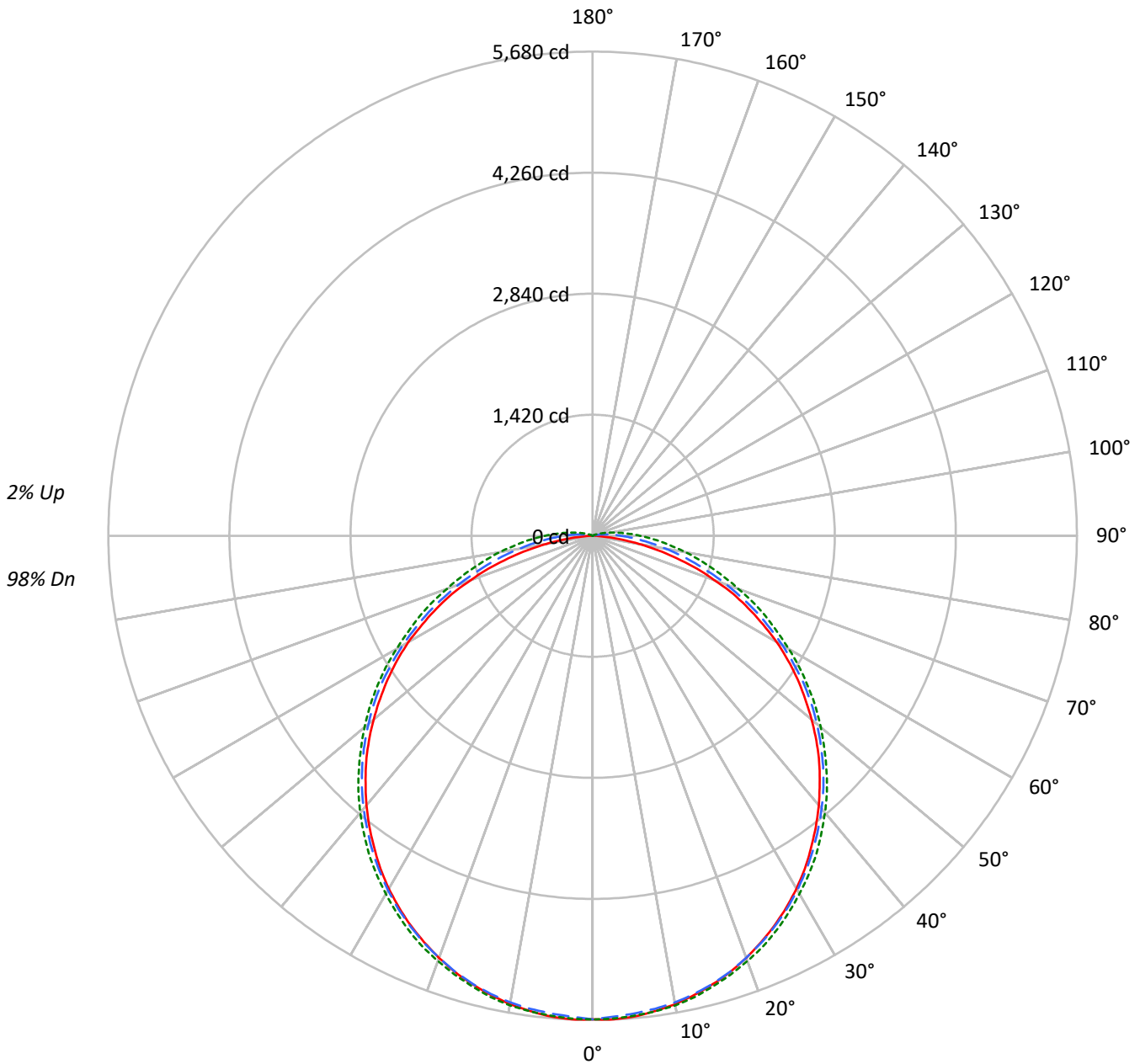
Test Method: LM-79-08  
Report Number: P580280  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/16/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HVSL12-8-LD4-2HI-40-UNV-O-EDD  
Description: 8 FOOT, 12INCH WIDE, HVSL LED LUMINAIRE, WITH 4000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17153.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 8' x H: 0.17')  
CIE Type: Direct  
  
Input Watts (W): 182.4  
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: P580280  
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### Luminous Intensity Polar Plot





TEST NUMBER: P580280

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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°  | 7633 | 7633 | 7633 |
| 5°  | 7632 | 7510 | 7524 |
| 10° | 7595 | 7422 | 7425 |
| 15° | 7544 | 7318 | 7294 |
| 20° | 7488 | 7195 | 7166 |
| 25° | 7419 | 7068 | 7034 |
| 30° | 7338 | 6929 | 6876 |
| 35° | 7232 | 6772 | 6722 |
| 40° | 7122 | 6606 | 6533 |
| 45° | 7005 | 6421 | 6325 |
| 50° | 6848 | 6203 | 6100 |
| 55° | 6681 | 5961 | 5848 |
| 60° | 6482 | 5631 | 5546 |
| 65° | 6142 | 5258 | 5254 |
| 70° | 5643 | 4809 | 4907 |
| 75° | 4922 | 4316 | 4620 |
| 80° | 3818 | 3856 | 4405 |
| 85° | 2201 | 3439 | 4285 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 536.9   | 3.1       |
| 10°-20°   | 1539.9  | 9.0       |
| 20°-30°   | 2336.6  | 13.6      |
| 30°-40°   | 2825.3  | 16.5      |
| 40°-50°   | 2948.0  | 17.2      |
| 50°-60°   | 2695.4  | 15.7      |
| 60°-70°   | 2101.2  | 12.2      |
| 70°-80°   | 1314.4  | 7.7       |
| 80°-90°   | 597.0   | 3.5       |
| 90°-100°  | 200.1   | 1.2       |
| 100°-110° | 50.2    | 0.3       |
| 110°-120° | 7.9     | 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°    | 4413.4  | 25.7      |
| 0°-40°    | 7238.8  | 42.2      |
| 0°-60°    | 12882.2 | 75.1      |
| 0°-90°    | 16894.8 | 98.5      |
| 90°-120°  | 258.2   | 1.5       |
| 90°-150°  | 258.2   | 1.5       |
| 90°-180°  | 258.0   | 1.5       |
| 0°-180°   | 17153.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 5673 | 5673  | 5673 | 5673  | 5673 |      |
| 5°   | 5661 | 5650  | 5625 | 5652  | 5652 | 538  |
| 15°  | 5446 | 5455  | 5440 | 5471  | 5470 | 1537 |
| 25°  | 5046 | 5050  | 5055 | 5098  | 5106 | 2325 |
| 35°  | 4467 | 4487  | 4506 | 4551  | 4570 | 2796 |
| 45°  | 3758 | 3792  | 3822 | 3860  | 3878 | 2896 |
| 55°  | 2933 | 2968  | 3022 | 3067  | 3087 | 2620 |
| 65°  | 2015 | 2050  | 2121 | 2205  | 2240 | 1994 |
| 75°  | 1020 | 1083  | 1241 | 1390  | 1442 | 1088 |
| 85°  | 176  | 326   | 560  | 741   | 806  | 223  |
| 90°  | 1    | 122   | 330  | 496   | 556  | 7    |
| 95°  | 1    | 32    | 171  | 310   | 358  | 1    |
| 105° | 3    | 4     | 28   | 83    | 111  | 3    |
| 115° | 4    | 4     | 5    | 15    | 21   | 3    |
| 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: P580280

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 5673.2 | 5673.2 | 5673.2 | 5673.2 | 5673.2 |
| 2.5°   | 5679.9 | 5671.8 | 5646.4 | 5671.8 | 5670.5 |
| 5°     | 5661.1 | 5650.4 | 5625.0 | 5651.8 | 5651.8 |
| 7.5°   | 5623.7 | 5619.7 | 5596.9 | 5627.7 | 5627.7 |
| 10°    | 5579.6 | 5578.2 | 5559.5 | 5592.9 | 5594.3 |
| 12.5°  | 5518.0 | 5523.4 | 5506.0 | 5538.1 | 5542.1 |
| 15°    | 5445.8 | 5455.2 | 5440.5 | 5471.2 | 5469.9 |
| 17.5°  | 5366.9 | 5372.3 | 5361.6 | 5396.3 | 5395.0 |
| 20°    | 5269.3 | 5276.0 | 5267.9 | 5304.1 | 5308.1 |
| 22.5°  | 5161.0 | 5170.3 | 5169.0 | 5206.4 | 5217.1 |
| 25°    | 5045.9 | 5050.0 | 5055.3 | 5098.1 | 5106.1 |
| 27.5°  | 4918.9 | 4925.6 | 4934.9 | 4973.7 | 4981.7 |
| 30°    | 4779.8 | 4790.5 | 4801.2 | 4841.3 | 4852.0 |
| 32.5°  | 4632.7 | 4643.4 | 4656.8 | 4708.9 | 4714.3 |
| 35°    | 4466.9 | 4486.9 | 4505.6 | 4551.1 | 4569.8 |
| 37.5°  | 4301.0 | 4326.4 | 4343.8 | 4392.0 | 4406.7 |
| 40°    | 4125.8 | 4151.2 | 4179.3 | 4230.1 | 4239.5 |
| 42.5°  | 3942.6 | 3972.0 | 4005.5 | 4050.9 | 4067.0 |
| 45°    | 3758.0 | 3791.5 | 3822.2 | 3859.7 | 3878.4 |
| 47.5°  | 3558.8 | 3592.2 | 3629.7 | 3672.5 | 3684.5 |
| 50°    | 3352.8 | 3391.6 | 3431.7 | 3471.8 | 3493.2 |
| 52.5°  | 3141.5 | 3188.3 | 3233.8 | 3276.6 | 3296.6 |
| 55°    | 2932.9 | 2967.7 | 3022.5 | 3066.6 | 3086.7 |
| 57.5°  | 2716.2 | 2745.6 | 2795.1 | 2867.3 | 2878.0 |
| 60°    | 2495.6 | 2522.3 | 2573.1 | 2632.0 | 2656.0 |
| 62.5°  | 2252.2 | 2288.3 | 2341.8 | 2416.7 | 2438.0 |
| 65°    | 2015.4 | 2050.2 | 2121.1 | 2205.3 | 2240.1 |
| 67.5°  | 1786.7 | 1798.8 | 1889.7 | 1978.0 | 2034.2 |
| 70°    | 1516.6 | 1562.1 | 1667.7 | 1776.0 | 1818.8 |
| 72.5°  | 1283.9 | 1329.4 | 1445.7 | 1572.8 | 1626.3 |
| 75°    | 1020.4 | 1083.3 | 1241.1 | 1389.5 | 1441.7 |
| 77.5°  | 789.1  | 858.6  | 1053.9 | 1203.6 | 1263.8 |
| 80°    | 551.0  | 659.3  | 872.0  | 1040.5 | 1106.0 |
| 82.5°  | 346.4  | 480.1  | 707.5  | 884.0  | 941.5  |
| 85°    | 176.5  | 326.3  | 560.4  | 740.9  | 806.4  |
| 87.5°  | 46.8   | 211.3  | 436.0  | 608.5  | 675.4  |
| 90°    | 1.3    | 121.7  | 330.3  | 496.2  | 556.4  |
| 92.5°  | 1.3    | 68.2   | 246.1  | 394.5  | 456.0  |
| 95°    | 1.3    | 32.1   | 171.2  | 310.3  | 358.4  |
| 97.5°  | 1.3    | 13.4   | 117.7  | 234.0  | 282.2  |
| 100°   | 1.3    | 6.7    | 74.9   | 169.8  | 211.3  |
| 102.5° | 2.7    | 4.0    | 46.8   | 121.7  | 155.1  |
| 105°   | 2.7    | 4.0    | 28.1   | 82.9   | 111.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90°  |
|--------|-----|-------|-----|-------|------|
| 112.5° | 4.0 | 4.0   | 5.3 | 22.7  | 33.4 |
| 115°   | 4.0 | 4.0   | 5.3 | 14.7  | 21.4 |
| 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° | 2.7 | 4.0 | 16.0 | 56.2 | 76.2 |
| 110°   | 4.0 | 4.0 | 9.4  | 34.8 | 50.8 |



(END OF REPORT)