

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: P277674

Luminaire Tested: **FLD4BX30D010 EU4B3/58040 F4LBXVM1LIBL84**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277674
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35269)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FLD4BX30D010 EU4B3/58040 F4LBXVM1LIBL84
Description: FAILSAFE 4 INCH RECESSED LED DOWNLIGHT
4 INCH LED VANDAL RESISTANT, MEDIUM (50DEGREE BEAM), SPECULAR CLEAR,
BOTTOM LENS, 0.125 INCH CLEAR POLYCARBONATE
Light Source: (1) 4000K CCT, 80 CRI LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2438.1 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 0.71 / 0.76
Luminous Opening: Circular (Dia: 0.35' x H: 0')
CIE Type: Direct

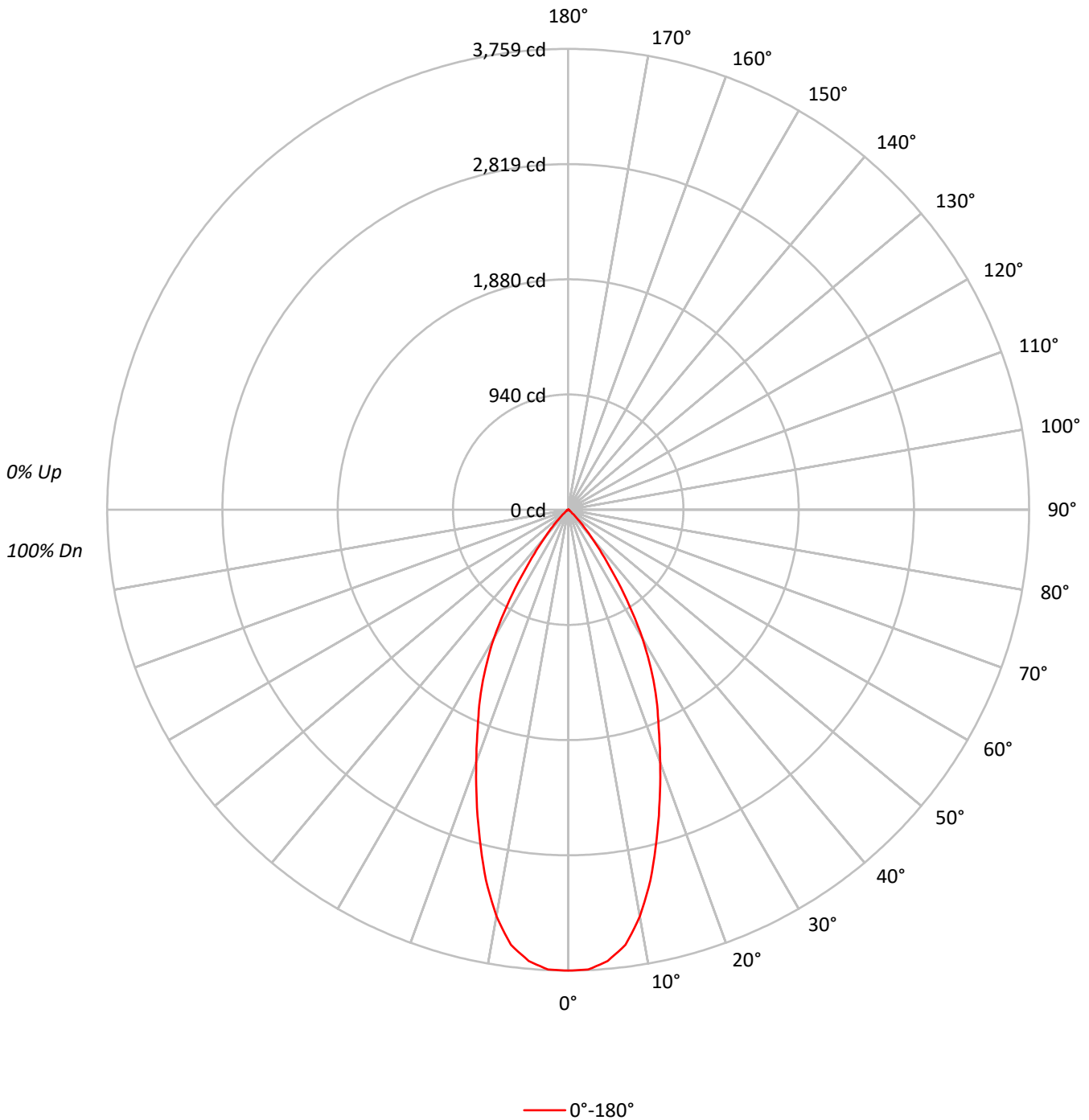
Input Watts (W): 28
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 |
| 2 | 109 | 104 | 100 | 97 | 106 | 102 | 99 | 96 | 99 | 96 | 94 | 96 | 94 | 92 | 93 | 92 | 90 | 88 |
| 3 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 88 | 94 | 90 | 87 | 91 | 88 | 86 | 89 | 87 | 84 | 83 |
| 4 | 99 | 92 | 87 | 83 | 97 | 91 | 86 | 82 | 88 | 84 | 81 | 87 | 83 | 80 | 85 | 82 | 79 | 78 |
| 5 | 94 | 86 | 81 | 77 | 93 | 85 | 80 | 77 | 84 | 79 | 76 | 82 | 78 | 75 | 81 | 77 | 75 | 73 |
| 6 | 90 | 82 | 76 | 72 | 88 | 81 | 76 | 72 | 79 | 75 | 71 | 78 | 74 | 71 | 77 | 73 | 70 | 69 |
| 7 | 86 | 77 | 72 | 68 | 85 | 76 | 71 | 67 | 75 | 70 | 67 | 74 | 70 | 67 | 73 | 69 | 66 | 65 |
| 8 | 82 | 73 | 68 | 64 | 81 | 73 | 67 | 64 | 71 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 61 |
| 9 | 78 | 69 | 64 | 60 | 77 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 66 | 62 | 59 | 58 |
| 10 | 75 | 66 | 61 | 57 | 74 | 66 | 60 | 57 | 65 | 60 | 57 | 64 | 60 | 57 | 63 | 59 | 56 | 55 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|--------|
| | 0° |
| 0° | 410722 |
| 5° | 405250 |
| 10° | 373523 |
| 15° | 314890 |
| 20° | 254835 |
| 25° | 205295 |
| 30° | 152872 |
| 35° | 88459 |
| 40° | 42546 |
| 45° | 17723 |
| 50° | 5847 |
| 55° | 2629 |
| 60° | 2010 |
| 65° | 1189 |
| 70° | 735 |
| 75° | 971 |
| 80° | 0 |
| 85° | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 342.7 | 14.1 |
| 10°-20° | 772.2 | 31.7 |
| 20°-30° | 773.0 | 31.7 |
| 30°-40° | 427.9 | 17.6 |
| 40°-50° | 101.0 | 4.1 |
| 50°-60° | 14.5 | 0.6 |
| 60°-70° | 5.4 | 0.2 |
| 70°-80° | 1.5 | 0.1 |
| 80°-90° | 0.0 | 0.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 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° | 1887.8 | 77.4 |
| 0°-40° | 2315.7 | 95.0 |
| 0°-60° | 2431.2 | 99.7 |
| 0°-90° | 2438.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2438.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|------|------|
| 0° | 3759 | |
| 5° | 3695 | 343 |
| 15° | 2784 | 772 |
| 25° | 1703 | 773 |
| 35° | 663 | 428 |
| 45° | 115 | 101 |
| 55° | 14 | 15 |
| 65° | 5 | 5 |
| 75° | 2 | 2 |
| 85° | 0 | 0 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|-------|--------|
| 0° | 3759.1 |
| 2.5° | 3754.5 |
| 5° | 3694.9 |
| 7.5° | 3580.1 |
| 10° | 3366.7 |
| 12.5° | 3095.9 |
| 15° | 2783.8 |
| 17.5° | 2480.8 |
| 20° | 2191.7 |
| 22.5° | 1925.5 |
| 25° | 1702.9 |
| 27.5° | 1461.9 |
| 30° | 1211.7 |
| 32.5° | 929.5 |
| 35° | 663.2 |
| 37.5° | 449.8 |
| 40° | 298.3 |
| 42.5° | 188.2 |
| 45° | 114.7 |
| 47.5° | 66.6 |
| 50° | 34.4 |
| 52.5° | 18.4 |
| 55° | 13.8 |
| 57.5° | 11.5 |
| 60° | 9.2 |
| 62.5° | 6.9 |
| 65° | 4.6 |
| 67.5° | 4.6 |
| 70° | 2.3 |
| 72.5° | 2.3 |
| 75° | 2.3 |
| 77.5° | 0.0 |
| 80° | 0.0 |
| 82.5° | 0.0 |
| 85° | 0.0 |
| 87.5° | 0.0 |
| 90° | 0.0 |

(END OF REPORT)