

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: P734325

Luminaire Tested: **24FCZ2-35HE-HRP-B2750-W2D-CP187-5000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P734325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P295011)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35HE-HRP-B2750-W2D-CP187-5000K
Description: 2X4 3500 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT
AND HRP LENS, WITH, CP187 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

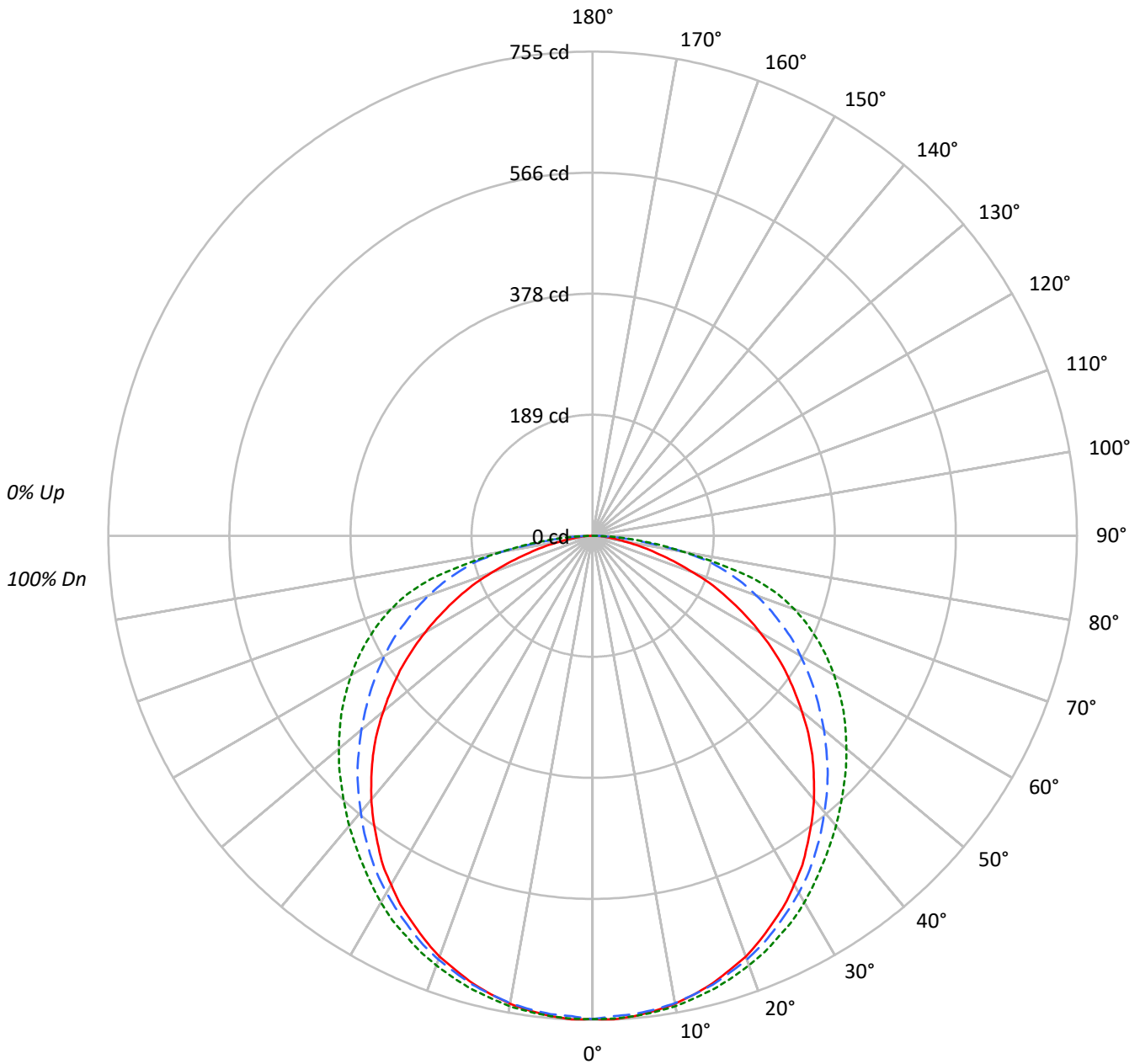
Lumens per Lamp: N/A
Luminaire Lumens: 2323.0 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 26
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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Luminous Intensity Polar Plot





TEST NUMBER: P734325

CATALOG NUMBER: 24FCZ2-35HE-HRP-B2750-W2D-CP187-5000K

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 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 108 | 103 | 98 | 94 | 105 | 101 | 96 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 86 | 84 | 82 | | | | | | | | | | | | | | | | | | | |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 67 | | | | | | | | | | | | | | | | | | | |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 68 | 63 | 58 | 56 | | | | | | | | | | | | | | | | | | | |
| 4 | 81 | 68 | 59 | 52 | 79 | 67 | 59 | 52 | 65 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 48 | | | | | | | | | | | | | | | | | | | |
| 5 | 74 | 61 | 52 | 45 | 72 | 60 | 51 | 45 | 58 | 50 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 41 | | | | | | | | | | | | | | | | | | | |
| 6 | 69 | 55 | 46 | 39 | 67 | 54 | 45 | 39 | 52 | 44 | 38 | 50 | 43 | 38 | 49 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | |
| 7 | 63 | 50 | 41 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 46 | 39 | 34 | 44 | 38 | 33 | 31 | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 28 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 25 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 38 | 30 | 25 | 50 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 24 | 35 | 29 | 24 | 23 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1064 | 1064 | 1064 |
| 5° | 1065 | 1061 | 1065 |
| 10° | 1062 | 1061 | 1068 |
| 15° | 1056 | 1059 | 1069 |
| 20° | 1049 | 1056 | 1071 |
| 25° | 1036 | 1051 | 1072 |
| 30° | 1024 | 1048 | 1076 |
| 35° | 1007 | 1042 | 1077 |
| 40° | 989 | 1036 | 1088 |
| 45° | 967 | 1035 | 1105 |
| 50° | 935 | 1033 | 1134 |
| 55° | 902 | 1041 | 1175 |
| 60° | 851 | 1057 | 1227 |
| 65° | 786 | 1082 | 1296 |
| 70° | 686 | 1120 | 1381 |
| 75° | 557 | 1177 | 1427 |
| 80° | 410 | 1154 | 1154 |
| 85° | 316 | 852 | 960 |



TEST NUMBER: P734325

CATALOG NUMBER: 24FCZ2-35HE-HRP-B2750-W2D-CP187-5000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.4 | 3.1 |
| 10°-20° | 205.0 | 8.8 |
| 20°-30° | 312.1 | 13.4 |
| 30°-40° | 379.0 | 16.3 |
| 40°-50° | 400.4 | 17.2 |
| 50°-60° | 377.8 | 16.3 |
| 60°-70° | 314.2 | 13.5 |
| 70°-80° | 206.7 | 8.9 |
| 80°-90° | 56.3 | 2.4 |
| 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° | 588.6 | 25.3 |
| 0°-40° | 967.6 | 41.7 |
| 0°-60° | 1745.8 | 75.2 |
| 0°-90° | 2323.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2323.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 754 | 754 | 754 | 754 | 754 | |
| 5° | 752 | 752 | 749 | 752 | 752 | 71 |
| 15° | 723 | 724 | 724 | 731 | 731 | 204 |
| 25° | 665 | 669 | 675 | 687 | 688 | 307 |
| 35° | 584 | 591 | 605 | 620 | 625 | 366 |
| 45° | 484 | 494 | 518 | 544 | 553 | 373 |
| 55° | 367 | 382 | 423 | 463 | 478 | 327 |
| 65° | 235 | 262 | 324 | 372 | 388 | 233 |
| 75° | 102 | 149 | 216 | 256 | 262 | 110 |
| 85° | 20 | 43 | 53 | 58 | 59 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P734325

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 753.7 | 753.7 | 753.7 | 753.7 | 753.7 |
| 2.5° | 754.7 | 753.7 | 749.8 | 753.7 | 753.7 |
| 5° | 751.8 | 751.8 | 748.8 | 751.8 | 751.8 |
| 7.5° | 746.9 | 746.9 | 744.9 | 748.8 | 748.8 |
| 10° | 741.1 | 741.1 | 740.0 | 744.9 | 744.9 |
| 12.5° | 732.3 | 733.3 | 732.3 | 738.1 | 738.1 |
| 15° | 722.6 | 723.5 | 724.5 | 731.4 | 731.4 |
| 17.5° | 710.0 | 711.9 | 713.8 | 721.6 | 722.6 |
| 20° | 698.3 | 699.2 | 703.1 | 711.9 | 712.8 |
| 22.5° | 682.6 | 685.7 | 690.5 | 699.2 | 702.1 |
| 25° | 665.2 | 669.1 | 675.0 | 686.6 | 688.5 |
| 27.5° | 648.6 | 651.6 | 659.3 | 671.9 | 675.9 |
| 30° | 628.3 | 633.1 | 642.8 | 655.5 | 660.3 |
| 32.5° | 608.8 | 613.6 | 625.3 | 639.0 | 642.8 |
| 35° | 584.5 | 591.2 | 605.0 | 620.5 | 625.3 |
| 37.5° | 561.2 | 567.9 | 584.5 | 601.9 | 607.8 |
| 40° | 536.8 | 544.6 | 562.1 | 582.6 | 590.3 |
| 42.5° | 510.5 | 521.2 | 540.7 | 563.1 | 571.9 |
| 45° | 484.3 | 494.1 | 518.4 | 543.6 | 553.4 |
| 47.5° | 456.1 | 467.7 | 494.1 | 524.1 | 535.8 |
| 50° | 426.0 | 440.5 | 470.7 | 503.8 | 516.4 |
| 52.5° | 395.8 | 412.3 | 446.3 | 483.4 | 497.0 |
| 55° | 366.6 | 382.2 | 423.0 | 462.9 | 477.5 |
| 57.5° | 334.6 | 354.0 | 398.7 | 441.5 | 456.1 |
| 60° | 301.5 | 322.9 | 374.4 | 419.1 | 434.7 |
| 62.5° | 268.4 | 292.7 | 351.1 | 395.8 | 412.3 |
| 65° | 235.4 | 262.5 | 323.9 | 371.5 | 388.0 |
| 67.5° | 203.3 | 233.4 | 298.5 | 346.3 | 362.7 |
| 70° | 166.3 | 204.2 | 271.3 | 318.0 | 334.6 |
| 72.5° | 132.3 | 176.1 | 245.1 | 288.9 | 303.4 |
| 75° | 102.1 | 148.8 | 215.9 | 255.8 | 261.6 |
| 77.5° | 74.9 | 121.6 | 185.7 | 199.4 | 200.4 |
| 80° | 50.5 | 97.3 | 142.0 | 140.0 | 142.0 |
| 82.5° | 33.1 | 72.9 | 89.5 | 100.2 | 101.1 |
| 85° | 19.5 | 42.8 | 52.6 | 58.3 | 59.3 |
| 87.5° | 9.7 | 14.6 | 18.5 | 19.5 | 21.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)