

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: P734329

Luminaire Tested: **24FCZ2-35HE-HRP-B2750-W2D-CP250-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P734329
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-CP250-4000K
Description: 2X4 3500 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT
AND HRP LENS, WITH, CP250 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

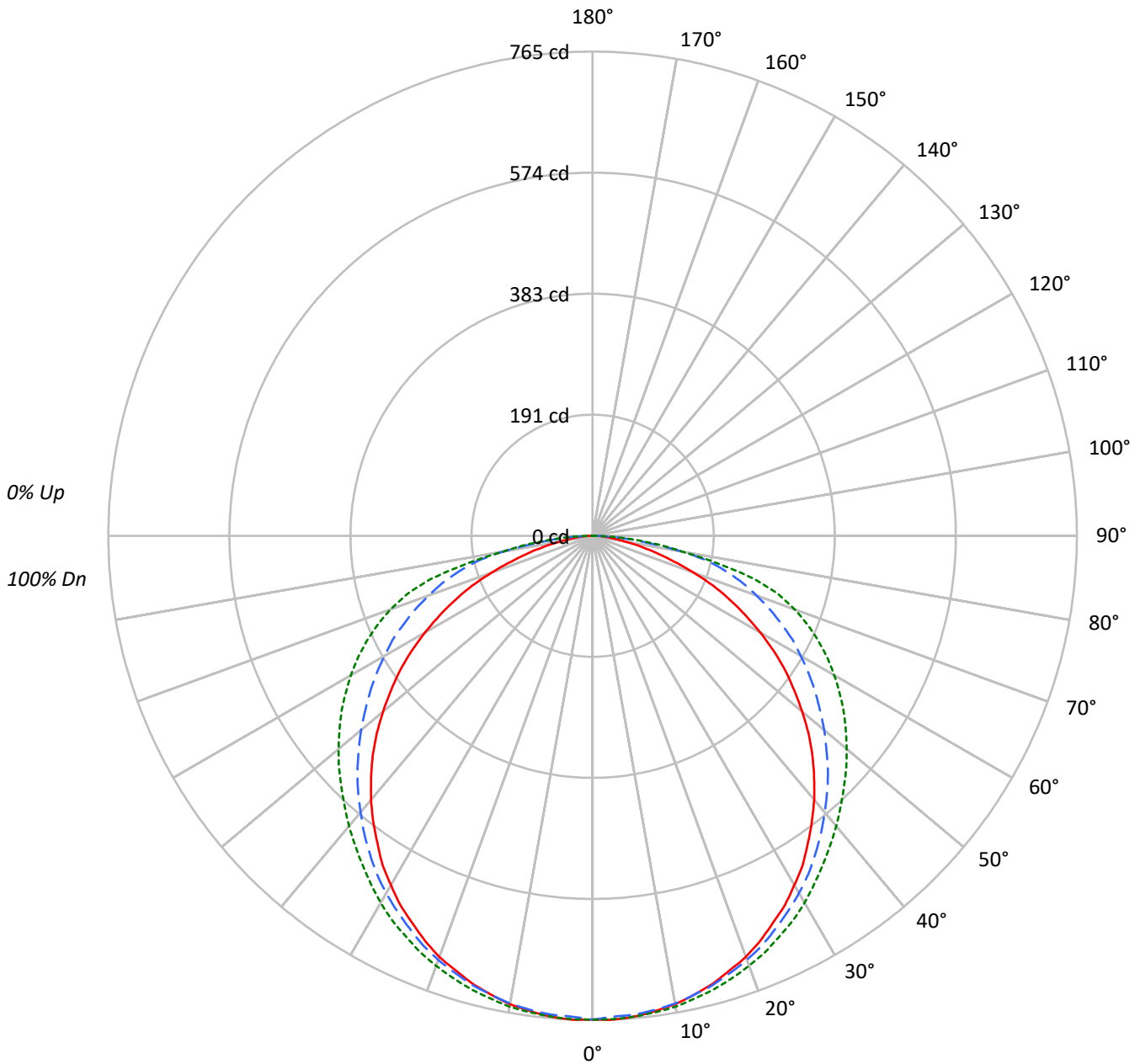
Lumens per Lamp: N/A
Luminaire Lumens: 2356.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P734329

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Luminous Intensity Polar Plot





TEST NUMBER: P734329

CATALOG NUMBER: 24FCZ2-35HE-HRP-B2750-W2D-CP250-4000K

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° | 1079 | 1079 | 1079 |
| 5° | 1080 | 1076 | 1080 |
| 10° | 1077 | 1076 | 1083 |
| 15° | 1071 | 1074 | 1084 |
| 20° | 1064 | 1071 | 1086 |
| 25° | 1051 | 1066 | 1087 |
| 30° | 1038 | 1063 | 1091 |
| 35° | 1021 | 1057 | 1093 |
| 40° | 1003 | 1050 | 1103 |
| 45° | 980 | 1049 | 1120 |
| 50° | 949 | 1048 | 1150 |
| 55° | 915 | 1056 | 1192 |
| 60° | 863 | 1072 | 1244 |
| 65° | 797 | 1097 | 1314 |
| 70° | 696 | 1136 | 1400 |
| 75° | 565 | 1194 | 1447 |
| 80° | 416 | 1171 | 1171 |
| 85° | 321 | 863 | 973 |



TEST NUMBER: P734329

CATALOG NUMBER: 24FCZ2-35HE-HRP-B2750-W2D-CP250-4000K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 72.4 | 3.1 |
| 10°-20° | 207.9 | 8.8 |
| 20°-30° | 316.6 | 13.4 |
| 30°-40° | 384.4 | 16.3 |
| 40°-50° | 406.1 | 17.2 |
| 50°-60° | 383.2 | 16.3 |
| 60°-70° | 318.6 | 13.5 |
| 70°-80° | 209.6 | 8.9 |
| 80°-90° | 57.2 | 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° | 596.9 | 25.3 |
| 0°-40° | 981.3 | 41.7 |
| 0°-60° | 1770.6 | 75.2 |
| 0°-90° | 2356.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2356.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 764 | 764 | 764 | 764 | 764 | |
| 5° | 762 | 762 | 759 | 762 | 762 | 72 |
| 15° | 733 | 734 | 735 | 742 | 742 | 207 |
| 25° | 675 | 679 | 684 | 696 | 698 | 311 |
| 35° | 593 | 600 | 614 | 629 | 634 | 371 |
| 45° | 491 | 501 | 526 | 551 | 561 | 378 |
| 55° | 372 | 388 | 429 | 470 | 484 | 331 |
| 65° | 239 | 266 | 328 | 377 | 394 | 236 |
| 75° | 104 | 151 | 219 | 259 | 265 | 112 |
| 85° | 20 | 43 | 53 | 59 | 60 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P734329

CATALOG NUMBER: 24FCZ2-35HE-HRP-B2750-W2D-CP250-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 764.4 | 764.4 | 764.4 | 764.4 | 764.4 |
| 2.5° | 765.4 | 764.4 | 760.4 | 764.4 | 764.4 |
| 5° | 762.5 | 762.5 | 759.4 | 762.5 | 762.5 |
| 7.5° | 757.5 | 757.5 | 755.5 | 759.4 | 759.4 |
| 10° | 751.6 | 751.6 | 750.5 | 755.5 | 755.5 |
| 12.5° | 742.7 | 743.7 | 742.7 | 748.6 | 748.6 |
| 15° | 732.8 | 733.8 | 734.8 | 741.7 | 741.7 |
| 17.5° | 720.0 | 722.0 | 723.9 | 731.9 | 732.8 |
| 20° | 708.2 | 709.2 | 713.1 | 722.0 | 723.0 |
| 22.5° | 692.3 | 695.4 | 700.3 | 709.2 | 712.1 |
| 25° | 674.7 | 678.6 | 684.5 | 696.4 | 698.3 |
| 27.5° | 657.8 | 660.9 | 668.7 | 681.5 | 685.5 |
| 30° | 637.2 | 642.1 | 652.0 | 664.8 | 669.7 |
| 32.5° | 617.5 | 622.3 | 634.2 | 648.1 | 652.0 |
| 35° | 592.8 | 599.6 | 613.5 | 629.3 | 634.2 |
| 37.5° | 569.1 | 576.0 | 592.8 | 610.5 | 616.5 |
| 40° | 544.4 | 552.3 | 570.1 | 590.9 | 598.7 |
| 42.5° | 517.8 | 528.7 | 548.4 | 571.1 | 580.0 |
| 45° | 491.2 | 501.1 | 525.7 | 551.3 | 561.2 |
| 47.5° | 462.5 | 474.4 | 501.1 | 531.6 | 543.4 |
| 50° | 432.0 | 446.8 | 477.4 | 511.0 | 523.8 |
| 52.5° | 401.4 | 418.1 | 452.7 | 490.2 | 504.0 |
| 55° | 371.8 | 387.6 | 429.0 | 469.5 | 484.3 |
| 57.5° | 339.3 | 359.0 | 404.4 | 447.8 | 462.5 |
| 60° | 305.8 | 327.5 | 379.7 | 425.1 | 440.8 |
| 62.5° | 272.3 | 296.9 | 356.1 | 401.4 | 418.1 |
| 65° | 238.7 | 266.3 | 328.5 | 376.8 | 393.5 |
| 67.5° | 206.1 | 236.8 | 302.7 | 351.2 | 367.9 |
| 70° | 168.7 | 207.1 | 275.2 | 322.5 | 339.3 |
| 72.5° | 134.2 | 178.6 | 248.6 | 293.0 | 307.8 |
| 75° | 103.6 | 150.9 | 219.0 | 259.4 | 265.3 |
| 77.5° | 76.0 | 123.3 | 188.3 | 202.2 | 203.2 |
| 80° | 51.2 | 98.7 | 144.1 | 142.0 | 144.1 |
| 82.5° | 33.5 | 73.9 | 90.8 | 101.6 | 102.6 |
| 85° | 19.8 | 43.4 | 53.3 | 59.2 | 60.1 |
| 87.5° | 9.9 | 14.8 | 18.8 | 19.8 | 21.7 |
| 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)