

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: P734144

Luminaire Tested: **24FCZ2-30HE-SQR-B2750-W2D-CA125-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P734144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P388488)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-SQR-B2750-W2D-CA125-4000K
Description: 2X4 3000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT
AND SQR LENS, WITH, CA125 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

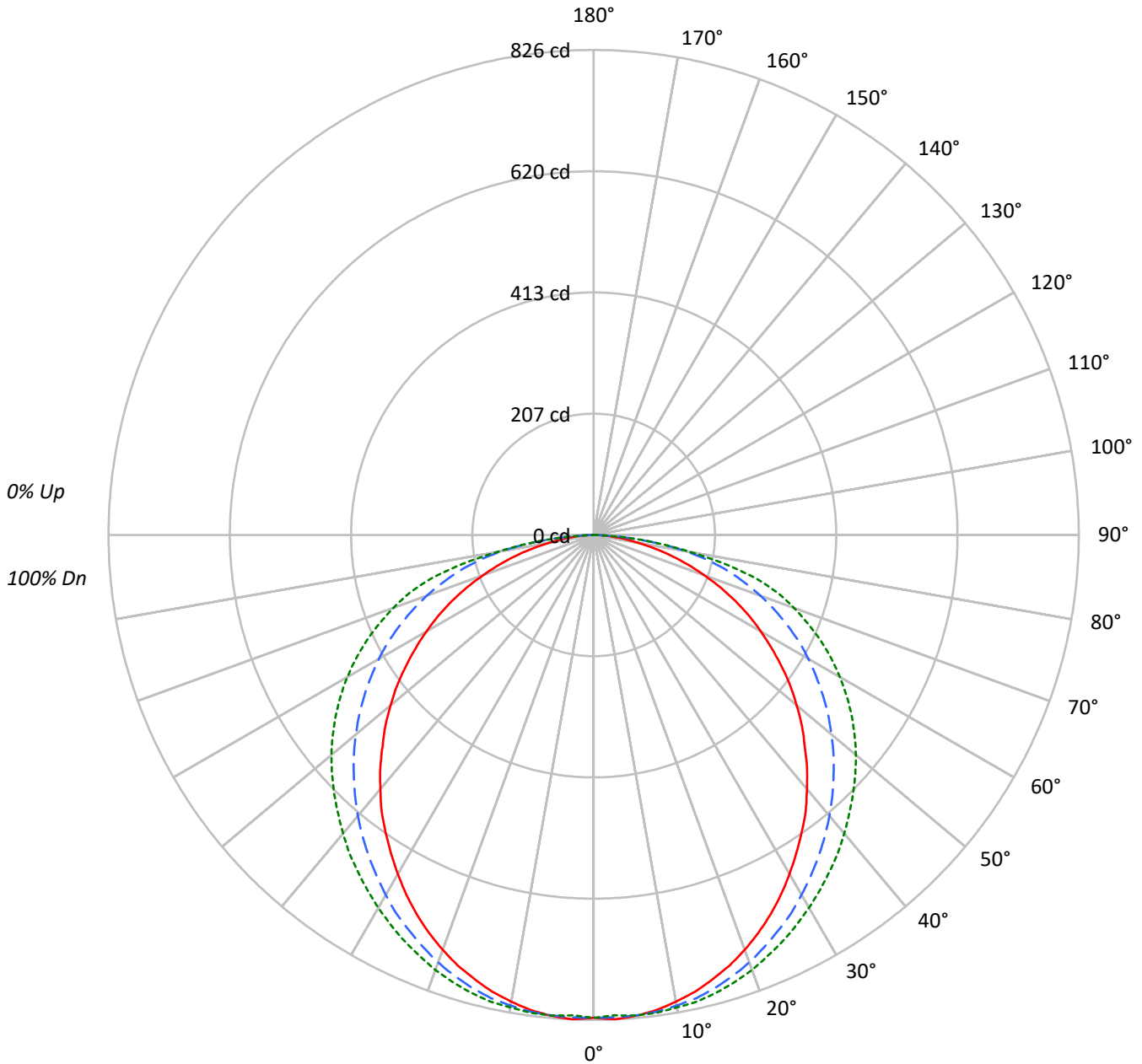
Lumens per Lamp: N/A
Luminaire Lumens: 2573.0 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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: P734144

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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 | 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 | 100 | 100 | 100 | 100 | 100 | | |
| | 1 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 89 | 92 | 89 | 87 | 89 | 86 | 84 | 82 | 82 | 82 | 82 | 82 | 82 | | |
| | 2 | 98 | 89 | 81 | 75 | 95 | 87 | 80 | 74 | 83 | 78 | 73 | 80 | 75 | 71 | 77 | 73 | 69 | 67 | 67 | 67 | 67 | 67 | 67 | | |
| | 3 | 89 | 77 | 69 | 62 | 86 | 76 | 68 | 61 | 73 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 | 56 | 56 | 56 | 56 | 56 | | |
| | 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 55 | 50 | 60 | 54 | 49 | 47 | 47 | 47 | 47 | 47 | 47 | | |
| | 5 | 74 | 61 | 51 | 44 | 72 | 60 | 51 | 44 | 57 | 50 | 44 | 55 | 49 | 43 | 54 | 48 | 43 | 41 | 41 | 41 | 41 | 41 | 41 | | |
| | 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 | 35 | 35 | 35 | 35 | 35 | | |
| | 7 | 63 | 49 | 40 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 | 31 | 31 | 31 | 31 | 31 | 31 | | |
| | 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 30 | 28 | 28 | 28 | 28 | 28 | 28 | | |
| | 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 | 25 | 25 | 25 | 25 | 25 | | |
| | 10 | 52 | 38 | 30 | 25 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 22 | 22 | 22 | 22 | 22 | 22 | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1161 | 1161 | 1161 |
| 5° | 1165 | 1164 | 1164 |
| 10° | 1157 | 1167 | 1171 |
| 15° | 1145 | 1167 | 1179 |
| 20° | 1129 | 1164 | 1184 |
| 25° | 1110 | 1158 | 1188 |
| 30° | 1087 | 1153 | 1195 |
| 35° | 1064 | 1151 | 1206 |
| 40° | 1041 | 1151 | 1223 |
| 45° | 1014 | 1153 | 1246 |
| 50° | 991 | 1160 | 1280 |
| 55° | 962 | 1173 | 1319 |
| 60° | 928 | 1192 | 1367 |
| 65° | 888 | 1214 | 1425 |
| 70° | 824 | 1245 | 1497 |
| 75° | 746 | 1288 | 1566 |
| 80° | 628 | 1291 | 1346 |
| 85° | 481 | 976 | 976 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 78.1 | 3.0 |
| 10°-20° | 224.6 | 8.7 |
| 20°-30° | 341.2 | 13.3 |
| 30°-40° | 415.0 | 16.1 |
| 40°-50° | 441.8 | 17.2 |
| 50°-60° | 420.8 | 16.4 |
| 60°-70° | 351.9 | 13.7 |
| 70°-80° | 234.6 | 9.1 |
| 80°-90° | 64.9 | 2.5 |
| 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° | 643.9 | 25.0 |
| 0°-40° | 1058.9 | 41.2 |
| 0°-60° | 1921.5 | 74.7 |
| 0°-90° | 2573.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2573.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 822 | 822 | 822 | 822 | 822 | |
| 5° | 822 | 817 | 822 | 822 | 822 | 78 |
| 15° | 783 | 785 | 799 | 805 | 807 | 221 |
| 25° | 713 | 722 | 744 | 756 | 763 | 328 |
| 35° | 618 | 636 | 668 | 690 | 700 | 387 |
| 45° | 508 | 535 | 578 | 610 | 624 | 393 |
| 55° | 391 | 425 | 477 | 518 | 536 | 349 |
| 65° | 266 | 305 | 364 | 409 | 427 | 263 |
| 75° | 137 | 180 | 236 | 276 | 287 | 145 |
| 85° | 30 | 55 | 60 | 60 | 60 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P734144

CATALOG NUMBER: 24FCZ2-30HE-SQR-B2750-W2D-CA125-4000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 822.4 | 822.4 | 822.4 | 822.4 | 822.4 |
| 2.5° | 825.8 | 819.9 | 822.4 | 822.4 | 819.1 |
| 5° | 822.4 | 817.3 | 821.6 | 821.6 | 821.6 |
| 7.5° | 816.6 | 812.3 | 819.1 | 820.8 | 820.8 |
| 10° | 807.2 | 805.5 | 814.0 | 816.6 | 817.3 |
| 12.5° | 797.0 | 796.1 | 808.1 | 811.4 | 814.0 |
| 15° | 783.3 | 785.1 | 798.7 | 804.6 | 807.2 |
| 17.5° | 769.0 | 772.3 | 787.6 | 796.1 | 798.7 |
| 20° | 752.0 | 757.0 | 774.9 | 783.3 | 788.5 |
| 22.5° | 733.3 | 740.9 | 759.6 | 769.7 | 775.7 |
| 25° | 712.9 | 722.1 | 743.5 | 756.2 | 763.0 |
| 27.5° | 690.8 | 702.7 | 727.3 | 741.7 | 748.5 |
| 30° | 666.9 | 680.5 | 707.8 | 724.8 | 733.3 |
| 32.5° | 642.3 | 658.4 | 688.3 | 706.9 | 717.1 |
| 35° | 617.7 | 635.6 | 667.8 | 689.9 | 700.1 |
| 37.5° | 593.1 | 610.8 | 646.6 | 670.4 | 683.2 |
| 40° | 565.0 | 586.2 | 624.5 | 650.8 | 663.6 |
| 42.5° | 537.9 | 560.7 | 601.6 | 630.4 | 644.1 |
| 45° | 508.0 | 535.3 | 577.7 | 610.1 | 624.5 |
| 47.5° | 480.9 | 508.0 | 554.0 | 588.0 | 604.1 |
| 50° | 451.2 | 480.0 | 528.5 | 565.9 | 582.9 |
| 52.5° | 422.2 | 452.1 | 503.0 | 542.9 | 559.9 |
| 55° | 390.9 | 424.8 | 476.7 | 518.3 | 536.1 |
| 57.5° | 359.4 | 396.0 | 449.4 | 492.8 | 510.7 |
| 60° | 328.8 | 366.2 | 422.2 | 465.6 | 484.3 |
| 62.5° | 298.2 | 335.6 | 394.2 | 438.4 | 456.3 |
| 65° | 265.9 | 305.0 | 363.6 | 408.7 | 426.6 |
| 67.5° | 233.6 | 274.4 | 333.0 | 378.1 | 395.1 |
| 70° | 199.6 | 243.0 | 301.7 | 345.8 | 362.8 |
| 72.5° | 168.3 | 211.6 | 269.3 | 312.7 | 328.8 |
| 75° | 136.8 | 180.1 | 236.2 | 276.2 | 287.2 |
| 77.5° | 106.2 | 149.5 | 199.6 | 226.0 | 228.6 |
| 80° | 77.3 | 118.1 | 158.9 | 166.5 | 165.6 |
| 82.5° | 51.8 | 88.3 | 109.6 | 110.4 | 113.0 |
| 85° | 29.7 | 55.2 | 60.3 | 59.5 | 60.3 |
| 87.5° | 11.9 | 19.5 | 17.0 | 12.7 | 12.7 |
| 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)