

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: METALUX

Report Number: P276888

Luminaire Tested: **24CZ2-30HE-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276888
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-RDP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS
Light Source: (336) 80 CRI LEDS TUNED TO 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2030.9 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

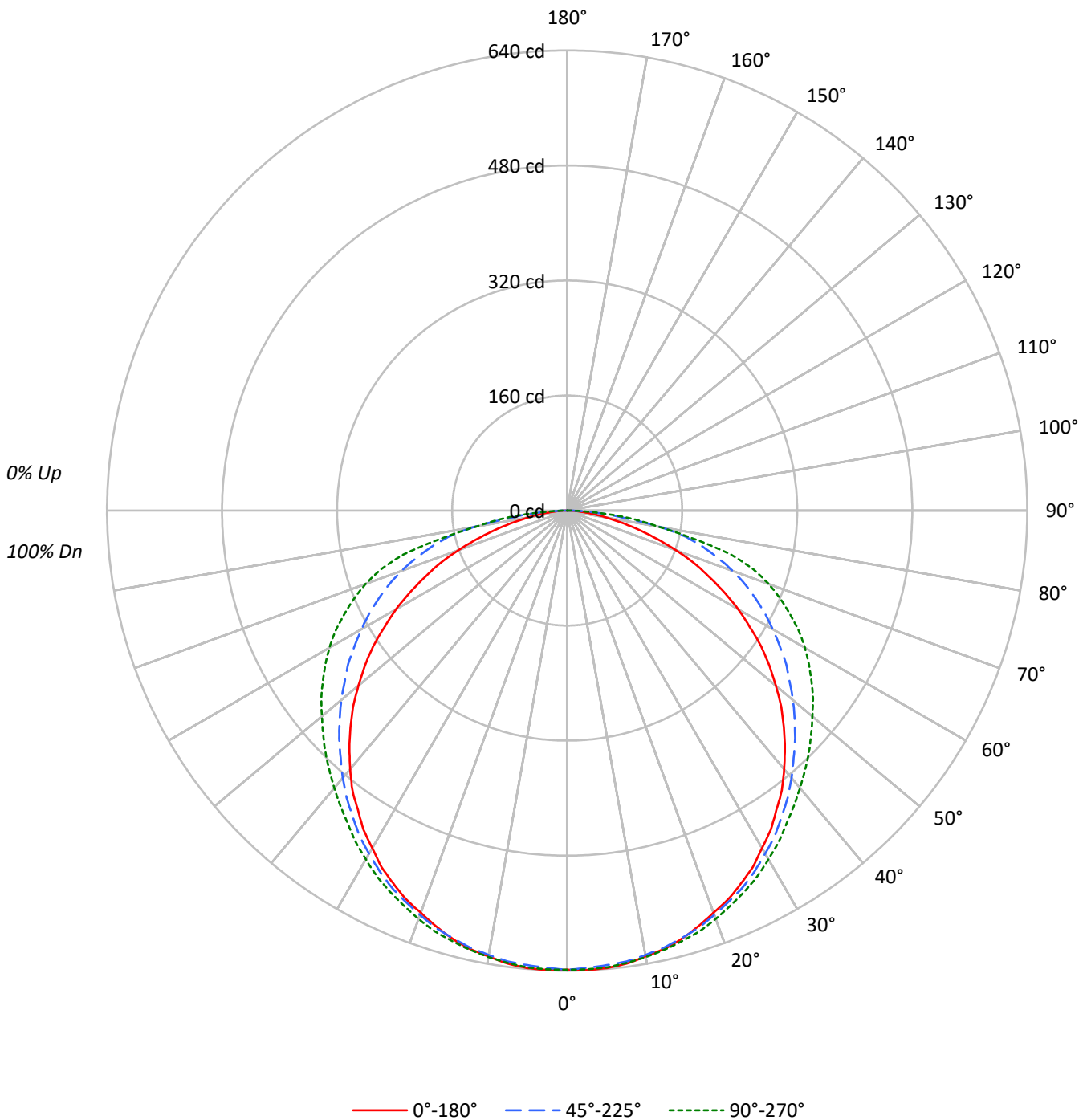
Input Watts (W): 20.181
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 108 | 103 | 98 | 94 | 105 | 100 | 96 | 92 | 96 | 93 | 89 | 92 | 89 | 87 | 88 | 86 | 84 | 82 |
| 2 | 97 | 89 | 81 | 75 | 95 | 87 | 80 | 74 | 83 | 77 | 72 | 80 | 75 | 71 | 77 | 73 | 69 | 67 |
| 3 | 88 | 77 | 68 | 62 | 86 | 76 | 68 | 61 | 72 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 51 | 64 | 57 | 51 | 62 | 55 | 50 | 59 | 54 | 49 | 47 |
| 5 | 74 | 60 | 51 | 44 | 72 | 59 | 51 | 44 | 57 | 49 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 40 |
| 6 | 68 | 54 | 45 | 38 | 66 | 53 | 45 | 38 | 51 | 44 | 38 | 50 | 43 | 37 | 48 | 42 | 37 | 35 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 26 | 37 | 31 | 26 | 24 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 34 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-----|------|------|
| 0° | 859 | 859 | 859 |
| 5° | 863 | 857 | 861 |
| 10° | 860 | 857 | 862 |
| 15° | 859 | 857 | 863 |
| 20° | 852 | 857 | 865 |
| 25° | 849 | 858 | 867 |
| 30° | 842 | 856 | 870 |
| 35° | 834 | 854 | 874 |
| 40° | 824 | 853 | 885 |
| 45° | 811 | 853 | 905 |
| 50° | 793 | 858 | 932 |
| 55° | 773 | 872 | 974 |
| 60° | 740 | 889 | 1027 |
| 65° | 693 | 920 | 1090 |
| 70° | 630 | 963 | 1173 |
| 75° | 534 | 1016 | 1225 |
| 80° | 422 | 1023 | 991 |
| 85° | 310 | 778 | 871 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.6 | 3.0 |
| 10°-20° | 174.4 | 8.6 |
| 20°-30° | 266.6 | 13.1 |
| 30°-40° | 326.0 | 16.0 |
| 40°-50° | 347.4 | 17.1 |
| 50°-60° | 332.1 | 16.4 |
| 60°-70° | 281.4 | 13.9 |
| 70°-80° | 189.1 | 9.3 |
| 80°-90° | 53.3 | 2.6 |
| 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° | 501.6 | 24.7 |
| 0°-40° | 827.5 | 40.7 |
| 0°-60° | 1507.1 | 74.2 |
| 0°-90° | 2030.9 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2030.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 639 | 639 | 639 | 639 | 639 | |
| 5° | 639 | 638 | 635 | 638 | 638 | 61 |
| 15° | 616 | 616 | 616 | 620 | 620 | 174 |
| 25° | 572 | 574 | 578 | 583 | 584 | 264 |
| 35° | 508 | 512 | 520 | 530 | 532 | 318 |
| 45° | 426 | 433 | 448 | 467 | 476 | 329 |
| 55° | 329 | 342 | 372 | 401 | 415 | 293 |
| 65° | 218 | 240 | 289 | 327 | 342 | 216 |
| 75° | 103 | 140 | 195 | 229 | 236 | 110 |
| 85° | 20 | 41 | 50 | 54 | 56 | 25 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 638.7 | 638.7 | 638.7 | 638.7 | 638.7 |
| 2.5° | 639.7 | 639.7 | 636.6 | 638.7 | 638.7 |
| 5° | 638.7 | 637.7 | 634.6 | 637.7 | 637.7 |
| 7.5° | 635.6 | 634.6 | 632.6 | 635.6 | 634.6 |
| 10° | 629.6 | 629.6 | 627.6 | 630.6 | 630.6 |
| 12.5° | 624.6 | 623.5 | 622.5 | 626.6 | 625.6 |
| 15° | 616.5 | 616.5 | 615.5 | 620.5 | 619.5 |
| 17.5° | 606.4 | 607.4 | 608.4 | 612.5 | 613.5 |
| 20° | 595.3 | 597.4 | 598.4 | 604.4 | 604.4 |
| 22.5° | 585.3 | 586.3 | 588.3 | 594.3 | 594.3 |
| 25° | 572.2 | 574.2 | 578.2 | 583.3 | 584.3 |
| 27.5° | 559.1 | 560.1 | 565.1 | 572.2 | 573.2 |
| 30° | 542.0 | 545.0 | 551.0 | 559.1 | 560.1 |
| 32.5° | 526.8 | 529.9 | 536.9 | 545.0 | 547.0 |
| 35° | 507.7 | 511.7 | 519.8 | 529.9 | 531.9 |
| 37.5° | 490.6 | 493.6 | 503.7 | 514.8 | 517.8 |
| 40° | 469.4 | 475.5 | 485.5 | 498.6 | 503.7 |
| 42.5° | 448.3 | 454.3 | 466.4 | 483.5 | 489.6 |
| 45° | 426.1 | 433.2 | 448.3 | 467.4 | 475.5 |
| 47.5° | 403.9 | 412.0 | 429.1 | 451.3 | 460.4 |
| 50° | 378.8 | 388.8 | 410.0 | 435.2 | 445.2 |
| 52.5° | 354.6 | 366.7 | 389.8 | 418.0 | 431.1 |
| 55° | 329.4 | 341.5 | 371.7 | 400.9 | 415.0 |
| 57.5° | 301.2 | 317.3 | 350.6 | 383.8 | 398.9 |
| 60° | 275.0 | 290.1 | 330.4 | 366.7 | 381.8 |
| 62.5° | 246.8 | 266.9 | 310.3 | 348.5 | 363.7 |
| 65° | 217.6 | 239.7 | 289.1 | 327.4 | 342.5 |
| 67.5° | 191.4 | 215.6 | 268.0 | 306.2 | 321.3 |
| 70° | 160.2 | 190.4 | 244.8 | 283.1 | 298.2 |
| 72.5° | 131.0 | 164.2 | 220.6 | 257.9 | 272.0 |
| 75° | 102.7 | 140.0 | 195.4 | 228.7 | 235.7 |
| 77.5° | 76.6 | 115.8 | 169.2 | 183.3 | 178.3 |
| 80° | 54.4 | 92.7 | 132.0 | 124.9 | 127.9 |
| 82.5° | 35.3 | 70.5 | 81.6 | 92.7 | 95.7 |
| 85° | 20.1 | 41.3 | 50.4 | 54.4 | 56.4 |
| 87.5° | 9.1 | 15.1 | 20.1 | 20.1 | 19.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)