

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: P232277

Luminaire Tested: **22RDIA-20-UNV-L835-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-078-16-R2)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RDIA-20-UNV-L835-CD1-U
Description: METALUX 2X2 OVATION LED TROFFER
AIR VENTED VERSION
Light Source: (196) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

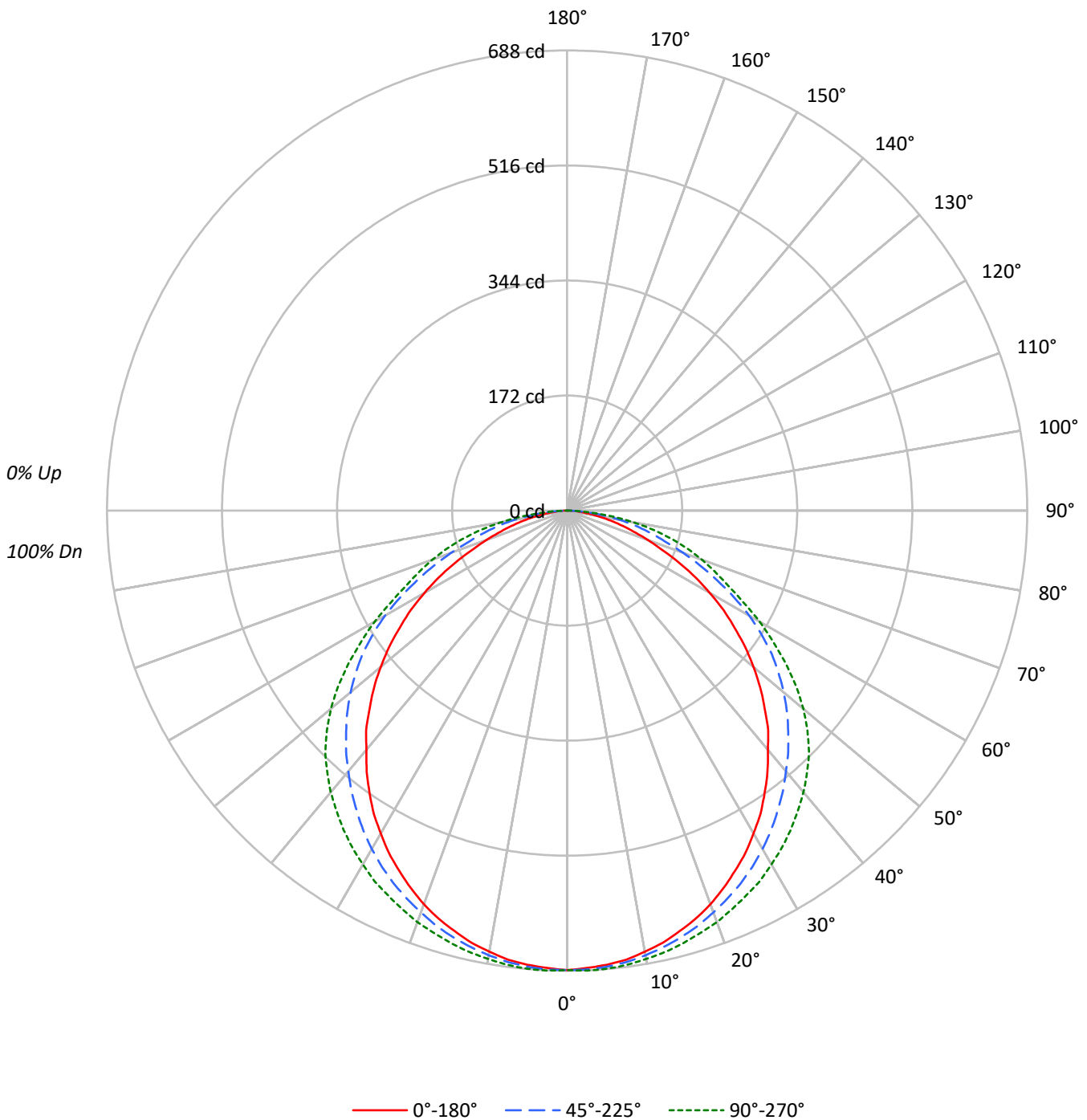
Lumens per Lamp: N/A
Luminaire Lumens: 1966.0 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.39
Luminous Opening: Rectangular (W 1.67' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.9
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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 94 | 91 | 89 | 90 | 88 | 86 | 84 |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 74 | 79 | 75 | 72 | 70 |
| 3 | 90 | 80 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 82 | 70 | 62 | 55 | 80 | 69 | 61 | 54 | 67 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2219 | 2219 | 2219 |
| 5° | 2209 | 2219 | 2229 |
| 10° | 2196 | 2214 | 2232 |
| 15° | 2176 | 2207 | 2239 |
| 20° | 2153 | 2197 | 2250 |
| 25° | 2117 | 2189 | 2260 |
| 30° | 2078 | 2178 | 2278 |
| 35° | 2030 | 2162 | 2297 |
| 40° | 1968 | 2146 | 2318 |
| 45° | 1907 | 2134 | 2336 |
| 50° | 1828 | 2123 | 2315 |
| 55° | 1721 | 2102 | 2247 |
| 60° | 1593 | 2032 | 2148 |
| 65° | 1409 | 1896 | 2029 |
| 70° | 1211 | 1741 | 2023 |
| 75° | 1029 | 1607 | 1997 |
| 80° | 831 | 1488 | 1848 |
| 85° | 626 | 1160 | 1419 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 65.1 | 3.3 |
| 10°-20° | 186.4 | 9.5 |
| 20°-30° | 283.3 | 14.4 |
| 30°-40° | 343.4 | 17.5 |
| 40°-50° | 359.3 | 18.3 |
| 50°-60° | 323.5 | 16.5 |
| 60°-70° | 236.5 | 12.0 |
| 70°-80° | 133.6 | 6.8 |
| 80°-90° | 34.9 | 1.8 |
| 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° | 534.8 | 27.2 |
| 0°-40° | 878.1 | 44.7 |
| 0°-60° | 1560.9 | 79.4 |
| 0°-90° | 1966.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1966.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 687 | 687 | 687 | 687 | 687 | |
| 5° | 682 | 683 | 685 | 687 | 688 | 65 |
| 15° | 651 | 654 | 660 | 667 | 670 | 184 |
| 25° | 594 | 601 | 614 | 629 | 634 | 274 |
| 35° | 515 | 525 | 548 | 573 | 583 | 322 |
| 45° | 418 | 434 | 467 | 499 | 512 | 322 |
| 55° | 306 | 331 | 373 | 394 | 399 | 274 |
| 65° | 184 | 217 | 248 | 263 | 266 | 183 |
| 75° | 82 | 103 | 129 | 152 | 160 | 88 |
| 85° | 17 | 22 | 31 | 36 | 38 | 21 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P232277

CATALOG NUMBER: 22RDIA-20-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 687.1 | 687.1 | 687.1 | 687.1 | 687.1 |
| 2.5° | 684.6 | 685.1 | 686.6 | 688.5 | 688.5 |
| 5° | 681.6 | 682.6 | 684.6 | 686.6 | 687.6 |
| 7.5° | 677.1 | 678.1 | 680.6 | 684.1 | 685.1 |
| 10° | 669.7 | 671.6 | 675.1 | 679.1 | 680.6 |
| 12.5° | 661.7 | 663.7 | 668.2 | 673.6 | 676.1 |
| 15° | 650.8 | 653.7 | 660.2 | 667.2 | 669.7 |
| 17.5° | 639.8 | 642.3 | 650.8 | 659.2 | 662.2 |
| 20° | 626.4 | 629.4 | 639.3 | 650.3 | 654.7 |
| 22.5° | 611.0 | 616.0 | 627.4 | 640.3 | 644.8 |
| 25° | 594.1 | 600.6 | 614.5 | 629.4 | 634.4 |
| 27.5° | 577.2 | 583.2 | 600.1 | 617.0 | 624.4 |
| 30° | 557.3 | 565.3 | 584.1 | 603.5 | 611.0 |
| 32.5° | 537.9 | 546.4 | 567.2 | 588.6 | 597.6 |
| 35° | 515.0 | 525.0 | 548.4 | 572.7 | 582.7 |
| 37.5° | 492.2 | 503.1 | 529.5 | 555.8 | 566.2 |
| 40° | 466.8 | 480.2 | 509.1 | 538.4 | 549.8 |
| 42.5° | 444.9 | 456.9 | 489.2 | 520.0 | 531.0 |
| 45° | 417.6 | 434.0 | 467.3 | 498.6 | 511.6 |
| 47.5° | 391.7 | 408.2 | 445.9 | 476.8 | 487.2 |
| 50° | 363.9 | 383.3 | 422.6 | 452.9 | 460.9 |
| 52.5° | 335.6 | 358.4 | 398.2 | 425.6 | 431.5 |
| 55° | 305.7 | 330.6 | 373.4 | 394.2 | 399.2 |
| 57.5° | 277.4 | 303.8 | 344.5 | 361.9 | 364.9 |
| 60° | 246.6 | 275.4 | 314.7 | 328.1 | 332.6 |
| 62.5° | 216.3 | 246.6 | 281.9 | 293.8 | 296.8 |
| 65° | 184.4 | 217.3 | 248.1 | 263.0 | 265.5 |
| 67.5° | 153.6 | 187.4 | 215.8 | 230.2 | 239.1 |
| 70° | 128.3 | 159.1 | 184.4 | 204.3 | 214.3 |
| 72.5° | 103.4 | 130.7 | 152.6 | 178.5 | 187.9 |
| 75° | 82.5 | 102.9 | 128.8 | 151.6 | 160.1 |
| 77.5° | 63.1 | 77.6 | 104.9 | 123.8 | 131.2 |
| 80° | 44.7 | 56.2 | 80.0 | 95.0 | 99.4 |
| 82.5° | 28.3 | 37.8 | 54.7 | 65.6 | 68.6 |
| 85° | 16.9 | 22.4 | 31.3 | 35.8 | 38.3 |
| 87.5° | 8.9 | 8.5 | 9.9 | 10.4 | 10.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)