

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: P229608

Luminaire Tested: **22RLN-LD5-20-RDP-UNV-L830-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229608
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36060)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RLN-LD5-20-RDP-UNV-L830-CD1-U
Description: METALUX 2X2 RLN LED TROFFER WITH RDP LENS
Light Source: (126)3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1570.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.38 / 1.41
Luminous Opening: Rectangular (W 1.83' x L: 1.83' x H: 0')
CIE Type: Direct

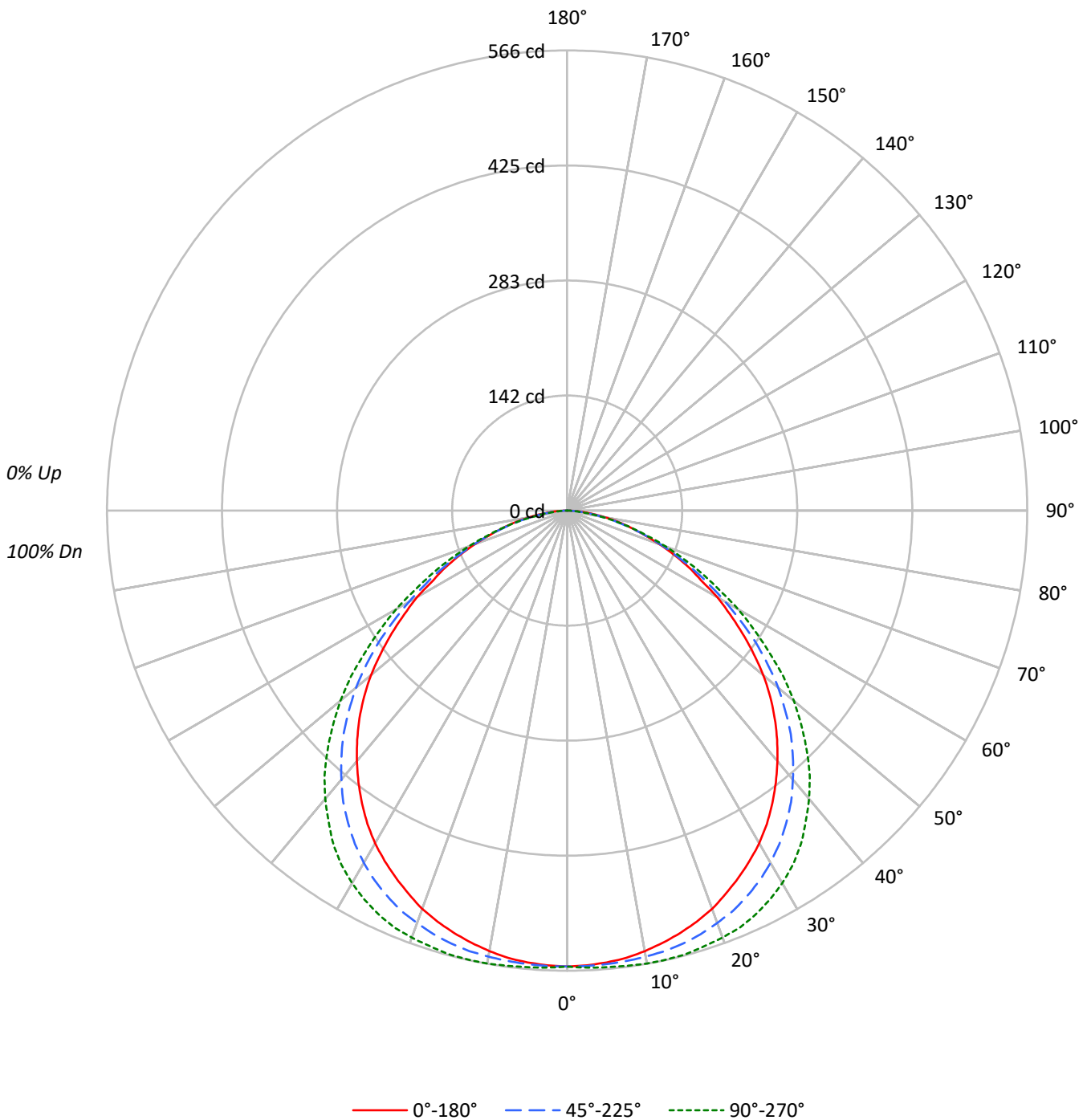
Input Watts (W): 16.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 94 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 76 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 63 | 57 | 81 | 71 | 63 | 56 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 58 | 54 | 52 |
| 5 | 77 | 64 | 56 | 49 | 75 | 63 | 55 | 49 | 61 | 54 | 48 | 59 | 53 | 48 | 57 | 52 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 49 | 43 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 64 | 52 | 44 | 38 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 40 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1796 | 1796 | 1796 |
| 5° | 1794 | 1800 | 1812 |
| 10° | 1789 | 1811 | 1839 |
| 15° | 1783 | 1828 | 1872 |
| 20° | 1777 | 1839 | 1905 |
| 25° | 1761 | 1850 | 1938 |
| 30° | 1747 | 1850 | 1957 |
| 35° | 1719 | 1836 | 1960 |
| 40° | 1682 | 1806 | 1935 |
| 45° | 1635 | 1761 | 1888 |
| 50° | 1569 | 1689 | 1813 |
| 55° | 1469 | 1582 | 1689 |
| 60° | 1366 | 1439 | 1556 |
| 65° | 1252 | 1295 | 1383 |
| 70° | 1133 | 1151 | 1205 |
| 75° | 999 | 974 | 1010 |
| 80° | 869 | 797 | 762 |
| 85° | 706 | 529 | 459 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.4 | 3.4 |
| 10°-20° | 155.7 | 9.9 |
| 20°-30° | 241.2 | 15.4 |
| 30°-40° | 293.6 | 18.7 |
| 40°-50° | 299.0 | 19.0 |
| 50°-60° | 252.2 | 16.1 |
| 60°-70° | 170.6 | 10.9 |
| 70°-80° | 85.2 | 5.4 |
| 80°-90° | 19.0 | 1.2 |
| 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° | 450.4 | 28.7 |
| 0°-40° | 744.0 | 47.4 |
| 0°-60° | 1295.2 | 82.5 |
| 0°-90° | 1570.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1570.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 561 | 561 | 561 | 561 | 561 | |
| 5° | 558 | 559 | 560 | 563 | 564 | 53 |
| 15° | 538 | 542 | 551 | 561 | 565 | 152 |
| 25° | 498 | 506 | 523 | 541 | 548 | 230 |
| 35° | 440 | 449 | 470 | 492 | 501 | 275 |
| 45° | 361 | 368 | 389 | 409 | 417 | 278 |
| 55° | 263 | 267 | 283 | 297 | 302 | 235 |
| 65° | 165 | 162 | 171 | 179 | 182 | 163 |
| 75° | 81 | 78 | 79 | 80 | 82 | 86 |
| 85° | 19 | 16 | 14 | 12 | 12 | 22 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P229608

CATALOG NUMBER: 22RLN-LD5-20-RDP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 560.8 | 560.8 | 560.8 | 560.8 | 560.8 |
| 2.5° | 559.8 | 559.8 | 560.8 | 561.8 | 562.7 |
| 5° | 557.9 | 558.9 | 559.8 | 562.7 | 563.7 |
| 7.5° | 555.0 | 556.0 | 558.9 | 562.7 | 564.7 |
| 10° | 550.2 | 552.2 | 557.0 | 562.7 | 565.6 |
| 12.5° | 544.5 | 547.4 | 555.0 | 561.8 | 565.6 |
| 15° | 537.8 | 541.6 | 551.2 | 560.8 | 564.7 |
| 17.5° | 530.1 | 534.9 | 546.4 | 557.0 | 561.8 |
| 20° | 521.4 | 527.2 | 539.7 | 553.1 | 558.9 |
| 22.5° | 509.9 | 517.6 | 533.0 | 548.3 | 555.0 |
| 25° | 498.4 | 506.1 | 523.4 | 540.6 | 548.3 |
| 27.5° | 485.9 | 494.5 | 512.8 | 532.0 | 539.7 |
| 30° | 472.5 | 480.1 | 500.3 | 520.5 | 529.1 |
| 32.5° | 457.1 | 464.8 | 485.9 | 507.0 | 516.6 |
| 35° | 439.8 | 449.4 | 469.6 | 491.7 | 501.3 |
| 37.5° | 421.6 | 430.2 | 452.3 | 473.4 | 482.1 |
| 40° | 402.4 | 411.0 | 432.1 | 454.2 | 462.9 |
| 42.5° | 382.2 | 390.8 | 411.0 | 432.1 | 441.7 |
| 45° | 361.1 | 367.8 | 388.9 | 409.1 | 416.8 |
| 47.5° | 339.0 | 343.8 | 363.9 | 383.2 | 390.8 |
| 50° | 315.0 | 319.8 | 339.0 | 356.3 | 363.9 |
| 52.5° | 289.0 | 292.9 | 311.1 | 326.5 | 335.1 |
| 55° | 263.1 | 267.0 | 283.3 | 296.7 | 302.5 |
| 57.5° | 237.2 | 239.1 | 253.5 | 267.0 | 272.7 |
| 60° | 213.2 | 213.2 | 224.7 | 235.3 | 243.0 |
| 62.5° | 185.3 | 188.2 | 196.9 | 207.4 | 210.3 |
| 65° | 165.2 | 162.3 | 170.9 | 178.6 | 182.5 |
| 67.5° | 142.1 | 140.2 | 146.0 | 152.7 | 154.6 |
| 70° | 121.0 | 118.1 | 122.9 | 126.8 | 128.7 |
| 72.5° | 98.9 | 97.9 | 99.9 | 102.8 | 103.7 |
| 75° | 80.7 | 77.8 | 78.7 | 79.7 | 81.6 |
| 77.5° | 64.3 | 59.5 | 60.5 | 59.5 | 60.5 |
| 80° | 47.1 | 43.2 | 43.2 | 42.3 | 41.3 |
| 82.5° | 31.7 | 29.8 | 27.8 | 25.9 | 25.0 |
| 85° | 19.2 | 16.3 | 14.4 | 12.5 | 12.5 |
| 87.5° | 7.7 | 5.8 | 4.8 | 4.8 | 4.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)