

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: P296410

Luminaire Tested: **22RLN-LD5-20-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P296410
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-085-11)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22RLN-LD5-20-UNV-L82765-W2A1-U-5700K
Description: RLN LED 2x2 TUNABLE WHITE TROFFER WITH STANDARD LENS
Light Source: (252) 80 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2091.0 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.23 / 1.3
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

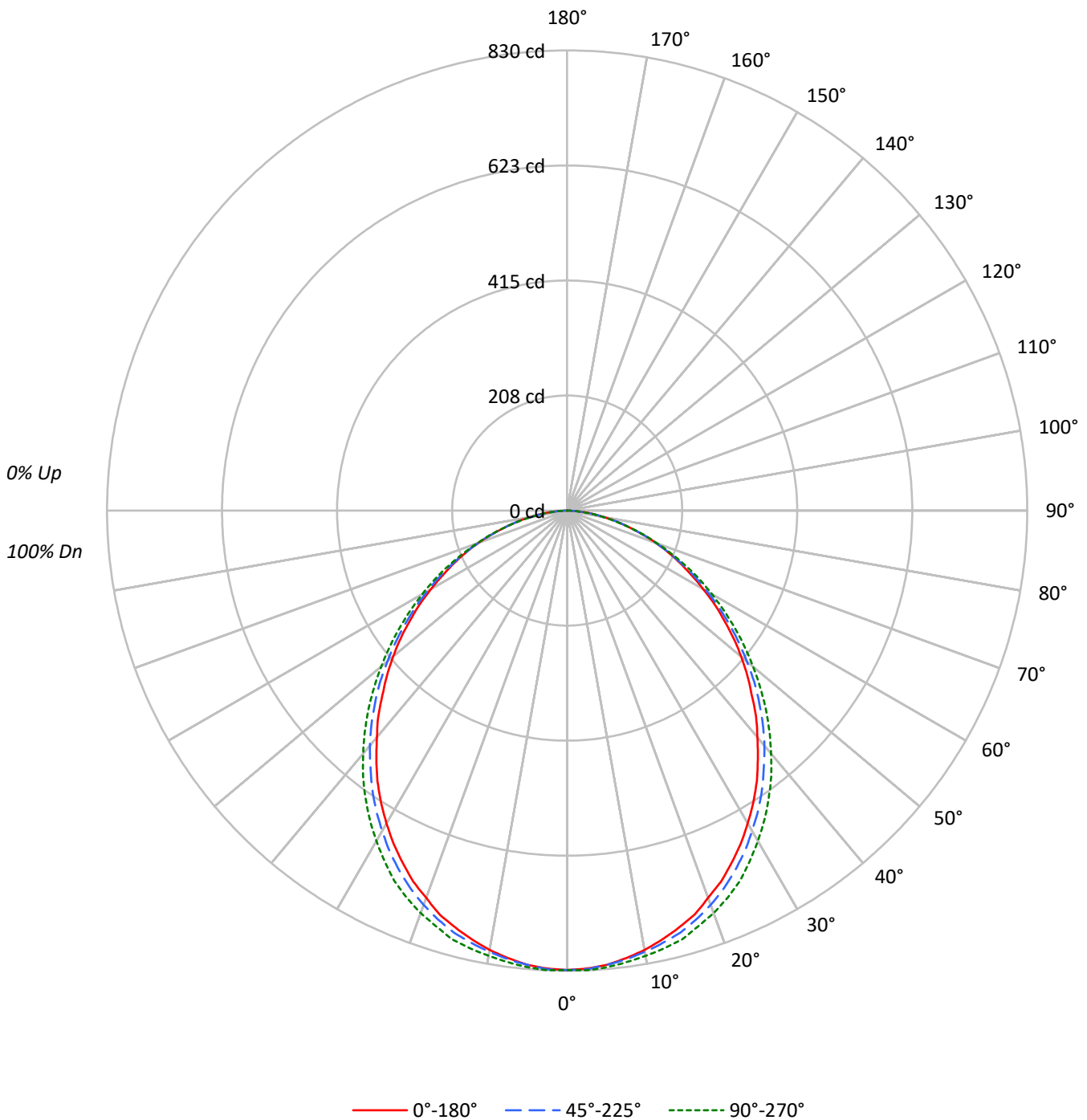
Input Watts (W): 15.903
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P296410

CATALOG NUMBER: 22RLN-LD5-20-UNV-L82765-W2A1-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P296410

CATALOG NUMBER: 22RLN-LD5-20-UNV-L82765-W2A1-U-5700K

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 | | | |
| 1 | 109 | 105 | 101 | 97 | 107 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 90 | 91 | 89 | 87 | 85 | | | | | 85 | | | |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 74 | 71 | | | | | 71 | | | |
| 3 | 91 | 81 | 73 | 67 | 89 | 79 | 72 | 66 | 77 | 70 | 65 | 74 | 68 | 64 | 71 | 67 | 63 | 61 | | | | | 61 | | | |
| 4 | 84 | 72 | 64 | 57 | 81 | 71 | 63 | 57 | 68 | 61 | 56 | 66 | 60 | 55 | 64 | 59 | 54 | 52 | | | | | 52 | | | |
| 5 | 77 | 65 | 56 | 49 | 75 | 64 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 58 | 52 | 48 | 46 | | | | | 46 | | | |
| 6 | 71 | 58 | 50 | 43 | 70 | 57 | 49 | 43 | 56 | 48 | 43 | 54 | 47 | 42 | 52 | 47 | 42 | 40 | | | | | 40 | | | |
| 7 | 66 | 53 | 44 | 38 | 65 | 52 | 44 | 38 | 51 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | | 36 | | | |
| 8 | 62 | 49 | 40 | 34 | 60 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | | 32 | | | |
| 9 | 58 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 31 | 29 | | | | | 29 | | | |
| 10 | 54 | 41 | 33 | 28 | 53 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 28 | 26 | | | | | 26 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2230 | 2230 | 2230 |
| 5° | 2222 | 2222 | 2233 |
| 10° | 2199 | 2208 | 2228 |
| 15° | 2170 | 2196 | 2231 |
| 20° | 2129 | 2168 | 2212 |
| 25° | 2083 | 2127 | 2189 |
| 30° | 2025 | 2073 | 2138 |
| 35° | 1959 | 2014 | 2082 |
| 40° | 1875 | 1945 | 2011 |
| 45° | 1793 | 1865 | 1928 |
| 50° | 1715 | 1772 | 1833 |
| 55° | 1624 | 1673 | 1732 |
| 60° | 1526 | 1566 | 1622 |
| 65° | 1434 | 1461 | 1507 |
| 70° | 1337 | 1337 | 1362 |
| 75° | 1193 | 1193 | 1193 |
| 80° | 1051 | 1018 | 1018 |
| 85° | 837 | 806 | 741 |



TEST NUMBER: P296410

CATALOG NUMBER: 22RLN-LD5-20-UNV-L82765-W2A1-U-5700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 78.2 | 3.7 |
| 10°-20° | 222.2 | 10.6 |
| 20°-30° | 330.1 | 15.8 |
| 30°-40° | 383.1 | 18.3 |
| 40°-50° | 377.2 | 18.0 |
| 50°-60° | 319.3 | 15.3 |
| 60°-70° | 227.7 | 10.9 |
| 70°-80° | 122.3 | 5.9 |
| 80°-90° | 30.8 | 1.5 |
| 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° | 630.5 | 30.2 |
| 0°-40° | 1013.6 | 48.5 |
| 0°-60° | 1710.1 | 81.8 |
| 0°-90° | 2091.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2091.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 829 | 829 | 829 | 829 | 829 | |
| 5° | 823 | 823 | 823 | 826 | 827 | 78 |
| 15° | 779 | 781 | 788 | 796 | 801 | 219 |
| 25° | 702 | 704 | 716 | 730 | 737 | 323 |
| 35° | 596 | 597 | 613 | 628 | 634 | 372 |
| 45° | 471 | 474 | 490 | 502 | 507 | 364 |
| 55° | 346 | 347 | 357 | 366 | 369 | 310 |
| 65° | 225 | 225 | 229 | 234 | 237 | 223 |
| 75° | 115 | 114 | 115 | 115 | 115 | 123 |
| 85° | 27 | 26 | 26 | 24 | 24 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P296410

CATALOG NUMBER: 22RLN-LD5-20-UNV-L82765-W2A1-U-5700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 828.8 | 828.8 | 828.8 | 828.8 | 828.8 |
| 2.5° | 826.7 | 826.7 | 827.8 | 828.8 | 829.9 |
| 5° | 822.6 | 822.6 | 822.6 | 825.7 | 826.7 |
| 7.5° | 814.2 | 815.3 | 816.3 | 819.4 | 821.5 |
| 10° | 804.8 | 805.9 | 808.0 | 813.2 | 815.3 |
| 12.5° | 792.3 | 795.5 | 798.6 | 805.9 | 809.0 |
| 15° | 778.8 | 780.9 | 788.2 | 795.5 | 800.7 |
| 17.5° | 764.2 | 765.2 | 773.6 | 784.0 | 786.1 |
| 20° | 743.3 | 746.5 | 756.9 | 767.3 | 772.5 |
| 22.5° | 724.6 | 726.7 | 738.1 | 751.7 | 755.8 |
| 25° | 701.6 | 703.7 | 716.2 | 729.8 | 737.1 |
| 27.5° | 677.7 | 679.7 | 693.3 | 707.9 | 713.1 |
| 30° | 651.6 | 653.7 | 667.2 | 682.9 | 688.1 |
| 32.5° | 624.5 | 626.6 | 641.2 | 654.7 | 662.0 |
| 35° | 596.3 | 597.4 | 613.0 | 627.6 | 633.9 |
| 37.5° | 565.1 | 568.2 | 582.8 | 597.4 | 604.7 |
| 40° | 533.8 | 536.9 | 553.6 | 567.1 | 572.4 |
| 42.5° | 504.6 | 508.8 | 522.3 | 534.8 | 540.0 |
| 45° | 471.2 | 474.4 | 490.0 | 501.5 | 506.7 |
| 47.5° | 441.0 | 444.1 | 457.7 | 469.1 | 472.3 |
| 50° | 409.7 | 411.8 | 423.3 | 433.7 | 437.9 |
| 52.5° | 378.4 | 379.5 | 389.9 | 400.3 | 403.5 |
| 55° | 346.1 | 347.2 | 356.6 | 365.9 | 369.1 |
| 57.5° | 315.9 | 315.9 | 324.2 | 331.5 | 334.7 |
| 60° | 283.6 | 283.6 | 290.9 | 298.2 | 301.3 |
| 62.5° | 253.3 | 253.3 | 260.6 | 265.9 | 270.0 |
| 65° | 225.2 | 225.2 | 229.4 | 233.5 | 236.7 |
| 67.5° | 198.1 | 195.0 | 199.1 | 204.3 | 203.3 |
| 70° | 169.9 | 166.8 | 169.9 | 172.0 | 173.1 |
| 72.5° | 141.8 | 139.7 | 141.8 | 142.8 | 144.9 |
| 75° | 114.7 | 113.6 | 114.7 | 114.7 | 114.7 |
| 77.5° | 91.7 | 88.6 | 90.7 | 89.7 | 88.6 |
| 80° | 67.8 | 66.7 | 65.7 | 64.6 | 65.7 |
| 82.5° | 46.9 | 45.9 | 45.9 | 43.8 | 43.8 |
| 85° | 27.1 | 26.1 | 26.1 | 24.0 | 24.0 |
| 87.5° | 10.4 | 10.4 | 9.4 | 9.4 | 9.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)