

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: P413038

Luminaire Tested: **22PD-20-PC3-L835**

Issue Date: 9/15/2020



Test Information

Test Method: LM-79-08
Report Number: P413038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2008-911-15)
Test Lab: INNOVATION CENTER
Issue Date: 9/15/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22PD-20-PC3-L835
Description: 2000 LUMEN 2X2 PERCEIVE LED TROFFER WITH PYRAMID PATTERN OPTICS AND 80 CRI, 3500 CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

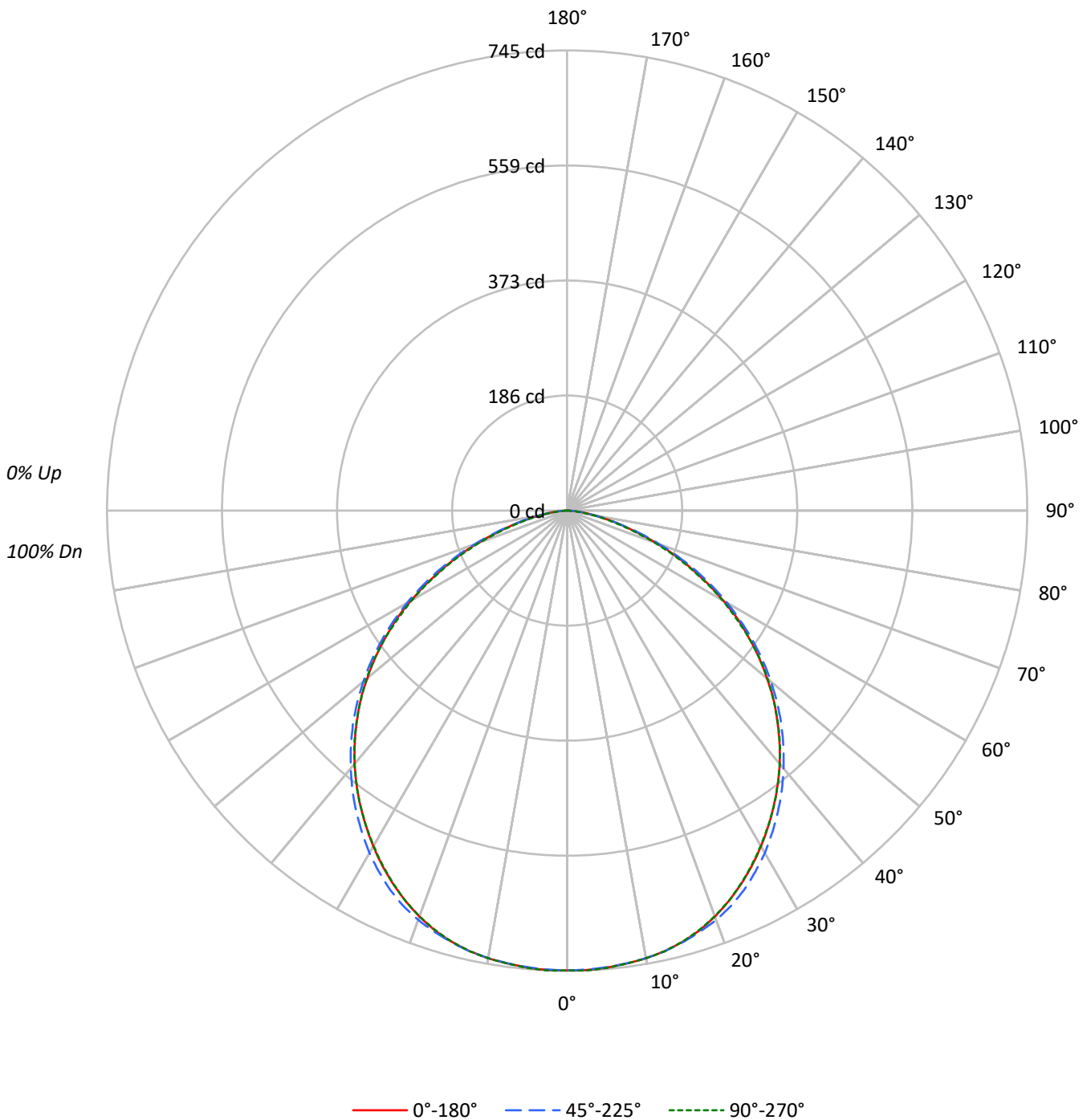
Lumens per Lamp: N/A
Luminaire Lumens: 2000.0 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.9
Input Voltage (V): NR
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: P413038

CATALOG NUMBER: 22PD-20-PC3-L835

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 | 110 | 105 | 101 | 97 | 107 | 103 | 99 | 96 | 99 | 96 | 93 | | 95 | 92 | 90 | | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 86 | 80 | 97 | 90 | 84 | 79 | 87 | 82 | 77 | | 83 | 79 | 76 | | 80 | 77 | 74 | 72 |
| 3 | 91 | 81 | 73 | 67 | 89 | 80 | 72 | 67 | 77 | 70 | 65 | | 74 | 69 | 64 | | 71 | 67 | 63 | 61 |
| 4 | 84 | 72 | 64 | 57 | 82 | 71 | 63 | 57 | 68 | 61 | 56 | | 66 | 60 | 55 | | 64 | 59 | 54 | 52 |
| 5 | 77 | 65 | 56 | 49 | 75 | 63 | 55 | 49 | 61 | 54 | 49 | | 59 | 53 | 48 | | 58 | 52 | 47 | 45 |
| 6 | 71 | 58 | 49 | 43 | 69 | 57 | 49 | 43 | 55 | 48 | 43 | | 54 | 47 | 42 | | 52 | 46 | 42 | 40 |
| 7 | 66 | 53 | 44 | 38 | 64 | 52 | 44 | 38 | 50 | 43 | 38 | | 49 | 42 | 37 | | 48 | 42 | 37 | 35 |
| 8 | 62 | 48 | 40 | 34 | 60 | 48 | 40 | 34 | 46 | 39 | 34 | | 45 | 38 | 34 | | 44 | 38 | 33 | 31 |
| 9 | 58 | 44 | 36 | 31 | 56 | 44 | 36 | 31 | 43 | 35 | 30 | | 41 | 35 | 30 | | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 53 | 40 | 33 | 28 | 39 | 32 | 28 | | 38 | 32 | 28 | | 38 | 32 | 27 | 26 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2003 | 2003 | 2003 |
| 5° | 2006 | 2005 | 2007 |
| 10° | 2011 | 2010 | 2011 |
| 15° | 2013 | 2016 | 2013 |
| 20° | 2003 | 2019 | 2002 |
| 25° | 1980 | 2012 | 1978 |
| 30° | 1950 | 1989 | 1948 |
| 35° | 1917 | 1955 | 1917 |
| 40° | 1881 | 1914 | 1881 |
| 45° | 1831 | 1867 | 1834 |
| 50° | 1768 | 1803 | 1775 |
| 55° | 1687 | 1720 | 1687 |
| 60° | 1573 | 1612 | 1562 |
| 65° | 1411 | 1461 | 1393 |
| 70° | 1207 | 1250 | 1172 |
| 75° | 958 | 985 | 909 |
| 80° | 687 | 711 | 652 |
| 85° | 454 | 469 | 423 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 70.6 | 3.5 |
| 10°-20° | 204.0 | 10.2 |
| 20°-30° | 309.5 | 15.5 |
| 30°-40° | 369.7 | 18.5 |
| 40°-50° | 376.0 | 18.8 |
| 50°-60° | 325.2 | 16.3 |
| 60°-70° | 223.8 | 11.2 |
| 70°-80° | 101.6 | 5.1 |
| 80°-90° | 19.7 | 1.0 |
| 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° | 584.2 | 29.2 |
| 0°-40° | 953.9 | 47.7 |
| 0°-60° | 1655.0 | 82.8 |
| 0°-90° | 2000.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2000.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 744 | 744 | 744 | 744 | 744 | |
| 5° | 743 | 742 | 742 | 742 | 743 | 71 |
| 15° | 723 | 723 | 724 | 722 | 722 | 204 |
| 25° | 667 | 673 | 678 | 672 | 666 | 307 |
| 35° | 584 | 594 | 595 | 593 | 584 | 365 |
| 45° | 481 | 490 | 491 | 490 | 482 | 371 |
| 55° | 360 | 366 | 367 | 366 | 360 | 321 |
| 65° | 222 | 228 | 230 | 228 | 219 | 220 |
| 75° | 92 | 96 | 95 | 94 | 87 | 99 |
| 85° | 15 | 16 | 15 | 15 | 14 | 19 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 744.5 | 744.5 | 744.5 | 744.5 | 744.5 |
| 2.5° | 744.5 | 743.5 | 743.8 | 744.0 | 745.4 |
| 5° | 742.6 | 741.9 | 742.1 | 742.1 | 743.1 |
| 7.5° | 739.5 | 739.3 | 739.3 | 739.0 | 739.7 |
| 10° | 736.0 | 735.5 | 735.7 | 735.5 | 736.0 |
| 12.5° | 730.5 | 730.5 | 730.7 | 730.0 | 730.5 |
| 15° | 722.7 | 723.2 | 723.6 | 722.5 | 722.5 |
| 17.5° | 712.7 | 713.9 | 715.1 | 713.0 | 711.8 |
| 20° | 699.5 | 702.3 | 705.2 | 701.9 | 699.0 |
| 22.5° | 684.1 | 688.8 | 693.1 | 687.9 | 684.1 |
| 25° | 666.8 | 672.7 | 677.7 | 671.5 | 666.3 |
| 27.5° | 648.1 | 654.7 | 659.5 | 654.3 | 647.2 |
| 30° | 627.7 | 635.8 | 640.1 | 635.1 | 626.8 |
| 32.5° | 606.0 | 615.4 | 618.0 | 615.0 | 605.5 |
| 35° | 583.5 | 593.9 | 595.1 | 592.9 | 583.5 |
| 37.5° | 560.0 | 570.0 | 570.9 | 569.7 | 560.0 |
| 40° | 535.4 | 544.6 | 544.9 | 544.9 | 535.4 |
| 42.5° | 509.1 | 518.1 | 518.1 | 517.9 | 509.8 |
| 45° | 481.2 | 489.9 | 490.6 | 490.2 | 481.9 |
| 47.5° | 453.5 | 460.1 | 461.3 | 460.3 | 453.0 |
| 50° | 422.4 | 429.3 | 430.7 | 429.8 | 424.1 |
| 52.5° | 391.7 | 398.0 | 399.5 | 398.8 | 392.4 |
| 55° | 359.5 | 365.6 | 366.6 | 365.8 | 359.5 |
| 57.5° | 328.4 | 332.5 | 333.4 | 332.0 | 323.9 |
| 60° | 292.2 | 297.9 | 299.5 | 297.9 | 290.3 |
| 62.5° | 257.2 | 263.3 | 264.7 | 262.4 | 254.3 |
| 65° | 221.6 | 227.8 | 229.5 | 227.6 | 218.8 |
| 67.5° | 188.0 | 192.5 | 193.9 | 191.8 | 183.8 |
| 70° | 153.4 | 159.1 | 158.9 | 156.0 | 148.9 |
| 72.5° | 119.3 | 127.2 | 125.7 | 124.1 | 116.3 |
| 75° | 92.1 | 95.7 | 94.7 | 93.8 | 87.4 |
| 77.5° | 65.8 | 70.1 | 67.7 | 68.0 | 62.5 |
| 80° | 44.3 | 48.3 | 45.9 | 45.0 | 42.1 |
| 82.5° | 28.2 | 29.8 | 29.4 | 28.9 | 26.3 |
| 85° | 14.7 | 15.6 | 15.2 | 14.7 | 13.7 |
| 87.5° | 5.7 | 6.2 | 5.7 | 5.7 | 5.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)