

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P#

Luminaire Tested: 22D3X-LP-55-L950.ies

Issue Date: 12/20/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2307-104-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/20/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 22D3X-LP-55-L950.ies  
Description: 2x2 D3X-LP AT 5500LM 5000K 90CRI  
Light Source: -  
Ballast/Driver: -

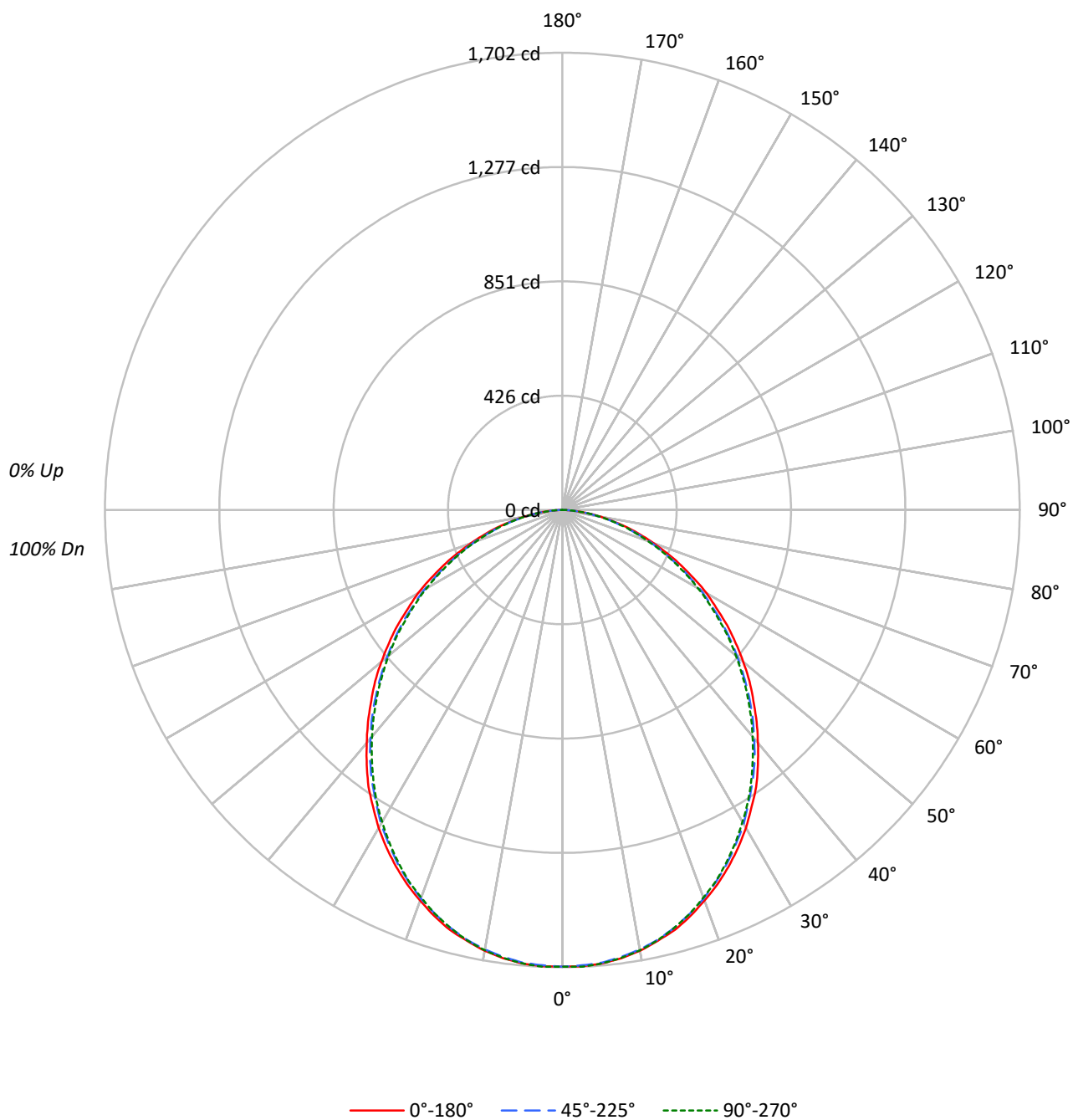
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4247.7 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 45.4  
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: 24 FT

TEST NUMBER: P#  
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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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 105 | 101 | 97  | 107 | 102 | 99  | 95  | 98  | 95  | 92  |  | 94  | 92  | 89  |  | 91  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  |  | 83  | 79  | 75  |  | 80  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  |
| 4   | 84  | 72  | 64  | 57  | 81  | 71  | 63  | 57  | 68  | 61  | 56  |  | 66  | 60  | 55  |  | 64  |
| 5   | 77  | 65  | 56  | 49  | 75  | 64  | 55  | 49  | 61  | 54  | 49  |  | 59  | 53  | 48  |  | 58  |
| 6   | 71  | 58  | 50  | 43  | 69  | 57  | 49  | 43  | 56  | 48  | 43  |  | 54  | 47  | 42  |  | 52  |
| 7   | 66  | 53  | 44  | 38  | 65  | 52  | 44  | 38  | 51  | 43  | 38  |  | 49  | 43  | 38  |  | 48  |
| 8   | 62  | 49  | 40  | 34  | 60  | 48  | 40  | 34  | 47  | 39  | 34  |  | 45  | 39  | 34  |  | 44  |
| 9   | 58  | 45  | 37  | 31  | 56  | 44  | 36  | 31  | 43  | 36  | 31  |  | 42  | 35  | 31  |  | 41  |
| 10  | 54  | 41  | 33  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 32  | 28  |  | 38  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4574 | 4574 | 4574 |
| 5°  | 4578 | 4569 | 4578 |
| 10° | 4552 | 4538 | 4548 |
| 15° | 4509 | 4486 | 4486 |
| 20° | 4431 | 4407 | 4397 |
| 25° | 4348 | 4308 | 4293 |
| 30° | 4245 | 4193 | 4167 |
| 35° | 4132 | 4054 | 4027 |
| 40° | 3979 | 3901 | 3872 |
| 45° | 3827 | 3737 | 3705 |
| 50° | 3679 | 3558 | 3530 |
| 55° | 3511 | 3384 | 3336 |
| 60° | 3335 | 3189 | 3144 |
| 65° | 3105 | 2954 | 2921 |
| 70° | 2837 | 2731 | 2664 |
| 75° | 2588 | 2429 | 2446 |
| 80° | 2230 | 2098 | 2125 |
| 85° | 1726 | 1673 | 1568 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3827 cd/sqm

TEST NUMBER: P#

CATALOG NUMBER: 22D3X-LP-55-L950.ies

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 160.6  | 3.8       |
| 10°-20°   | 454.0  | 10.7      |
| 20°-30°   | 668.7  | 15.7      |
| 30°-40°   | 773.5  | 18.2      |
| 40°-50°   | 760.5  | 17.9      |
| 50°-60°   | 648.1  | 15.3      |
| 60°-70°   | 464.4  | 10.9      |
| 70°-80°   | 252.2  | 5.9       |
| 80°-90°   | 65.8   | 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°    | 1283.2 | 30.2      |
| 0°-40°    | 2056.8 | 48.4      |
| 0°-60°    | 3465.3 | 81.6      |
| 0°-90°    | 4247.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4247.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1700 | 1700  | 1700 | 1700  | 1700 |      |
| 5°  | 1695 | 1691  | 1691 | 1691  | 1695 | 161  |
| 15° | 1618 | 1612  | 1610 | 1608  | 1610 | 456  |
| 25° | 1464 | 1458  | 1451 | 1448  | 1446 | 674  |
| 35° | 1258 | 1248  | 1234 | 1228  | 1226 | 784  |
| 45° | 1006 | 999   | 982  | 974   | 974  | 777  |
| 55° | 748  | 735   | 721  | 713   | 711  | 668  |
| 65° | 488  | 477   | 464  | 459   | 459  | 483  |
| 75° | 249  | 240   | 234  | 230   | 235  | 263  |
| 85° | 56   | 56    | 54   | 52    | 51   | 68   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P#

CATALOG NUMBER: 22D3X-LP-55-L950.ies

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1699.8 | 1699.8 | 1699.8 | 1699.8 | 1699.8 |
| 2.5°  | 1699.8 | 1698.1 | 1696.4 | 1698.1 | 1701.5 |
| 5°    | 1694.7 | 1691.3 | 1691.3 | 1691.3 | 1694.7 |
| 7.5°  | 1682.9 | 1679.5 | 1677.8 | 1679.5 | 1681.2 |
| 10°   | 1666.0 | 1662.6 | 1660.9 | 1662.6 | 1664.3 |
| 12.5° | 1642.2 | 1640.6 | 1638.9 | 1638.9 | 1640.6 |
| 15°   | 1618.5 | 1611.8 | 1610.1 | 1608.4 | 1610.1 |
| 17.5° | 1584.7 | 1583.0 | 1576.2 | 1576.2 | 1576.2 |
| 20°   | 1547.4 | 1544.1 | 1539.0 | 1535.6 | 1535.6 |
| 22.5° | 1508.5 | 1505.1 | 1496.6 | 1493.3 | 1495.0 |
| 25°   | 1464.5 | 1457.7 | 1450.9 | 1447.5 | 1445.9 |
| 27.5° | 1417.1 | 1410.3 | 1400.1 | 1395.1 | 1395.1 |
| 30°   | 1366.3 | 1361.2 | 1349.4 | 1342.6 | 1340.9 |
| 32.5° | 1310.4 | 1307.0 | 1290.1 | 1286.7 | 1286.7 |
| 35°   | 1257.9 | 1247.8 | 1234.2 | 1227.5 | 1225.8 |
| 37.5° | 1195.3 | 1188.5 | 1175.0 | 1166.5 | 1164.8 |
| 40°   | 1132.6 | 1124.2 | 1110.6 | 1103.9 | 1102.2 |
| 42.5° | 1070.0 | 1061.5 | 1048.0 | 1039.5 | 1037.8 |
| 45°   | 1005.7 | 998.9  | 982.0  | 973.5  | 973.5  |
| 47.5° | 944.7  | 931.2  | 915.9  | 909.2  | 907.5  |
| 50°   | 878.7  | 866.8  | 849.9  | 843.1  | 843.1  |
| 52.5° | 812.7  | 804.2  | 785.6  | 782.2  | 778.8  |
| 55°   | 748.3  | 734.8  | 721.2  | 712.8  | 711.1  |
| 57.5° | 678.9  | 667.1  | 653.5  | 646.7  | 646.7  |
| 60°   | 619.7  | 604.4  | 592.6  | 584.1  | 584.1  |
| 62.5° | 551.9  | 538.4  | 526.5  | 521.5  | 519.8  |
| 65°   | 487.6  | 477.4  | 463.9  | 458.8  | 458.8  |
| 67.5° | 423.3  | 414.8  | 402.9  | 397.9  | 399.6  |
| 70°   | 360.6  | 355.5  | 347.1  | 340.3  | 338.6  |
| 72.5° | 303.1  | 296.3  | 287.8  | 286.1  | 286.1  |
| 75°   | 248.9  | 240.4  | 233.6  | 230.3  | 235.3  |
| 77.5° | 193.0  | 187.9  | 184.5  | 182.8  | 184.5  |
| 80°   | 143.9  | 137.1  | 135.4  | 137.1  | 137.1  |
| 82.5° | 99.9   | 96.5   | 94.8   | 94.8   | 94.8   |
| 85°   | 55.9   | 55.9   | 54.2   | 52.5   | 50.8   |
| 87.5° | 22.0   | 22.0   | 23.7   | 23.7   | 25.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CIE UGR TABLE:**

| Reflectances:   |      |                  |      |      |      |      |                |      |      |      |      |
|-----------------|------|------------------|------|------|------|------|----------------|------|------|------|------|
| Ceiling         |      | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Wall            |      | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Reference plane |      | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room Dimensions |      | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| X=2H            | Y=2H | 16.3             | 17.9 | 16.6 | 18.2 | 18.5 | 16.0           | 17.6 | 16.4 | 17.9 | 18.2 |
|                 | 3H   | 17.9             | 19.4 | 18.3 | 19.7 | 20.0 | 17.6           | 19.1 | 18.0 | 19.4 | 19.8 |
|                 | 4H   | 18.5             | 19.9 | 18.9 | 20.2 | 20.6 | 18.2           | 19.6 | 18.6 | 19.9 | 20.3 |
|                 | 6H   | 18.9             | 20.2 | 19.3 | 20.6 | 20.9 | 18.6           | 19.9 | 19.1 | 20.3 | 20.6 |
|                 | 8H   | 19.1             | 20.3 | 19.5 | 20.6 | 21.0 | 18.8           | 20.0 | 19.2 | 20.4 | 20.8 |
|                 | 12H  | 19.1             | 20.3 | 19.6 | 20.7 | 21.1 | 18.8           | 20.0 | 19.3 | 20.4 | 20.8 |
| 4H              | 2H   | 16.8             | 18.2 | 17.2 | 18.5 | 18.9 | 16.6           | 18.0 | 17.0 | 18.3 | 18.7 |
|                 | 3H   | 18.7             | 19.8 | 19.1 | 20.2 | 20.6 | 18.4           | 19.6 | 18.8 | 20.0 | 20.4 |
|                 | 4H   | 19.4             | 20.4 | 19.8 | 20.8 | 21.3 | 19.1           | 20.2 | 19.6 | 20.6 | 21.0 |
|                 | 6H   | 19.9             | 20.8 | 20.4 | 21.3 | 21.7 | 19.7           | 20.6 | 20.1 | 21.0 | 21.5 |
|                 | 8H   | 20.1             | 20.9 | 20.6 | 21.4 | 21.8 | 19.8           | 20.7 | 20.3 | 21.1 | 21.6 |
|                 | 12H  | 20.2             | 21.0 | 20.7 | 21.4 | 21.9 | 20.0           | 20.7 | 20.4 | 21.2 | 21.6 |
| 8H              | 4H   | 19.6             | 20.5 | 20.1 | 20.9 | 21.4 | 19.4           | 20.2 | 19.9 | 20.7 | 21.2 |
|                 | 6H   | 20.3             | 21.0 | 20.8 | 21.5 | 21.9 | 20.1           | 20.8 | 20.6 | 21.2 | 21.7 |
|                 | 8H   | 20.5             | 21.1 | 21.0 | 21.6 | 22.1 | 20.3           | 20.9 | 20.8 | 21.4 | 21.9 |
|                 | 12H  | 20.7             | 21.2 | 21.2 | 21.7 | 22.3 | 20.5           | 21.0 | 21.0 | 21.5 | 22.1 |
| 12H             | 4H   | 19.7             | 20.4 | 20.1 | 20.9 | 21.4 | 19.4           | 20.2 | 19.9 | 20.7 | 21.1 |
|                 | 6H   | 20.3             | 21.0 | 20.8 | 21.4 | 22.0 | 20.1           | 20.7 | 20.6 | 21.2 | 21.7 |
|                 | 8H   | 20.6             | 21.2 | 21.1 | 21.6 | 22.2 | 20.4           | 20.9 | 20.9 | 21.4 | 22.0 |













(END OF REPORT)