

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: P#

Luminaire Tested: **24CZ-LD5-35-SQP-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-35-SQP-UNV-L840-CD1-U  
Description:

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2462.0 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')  
CIE Type: Direct

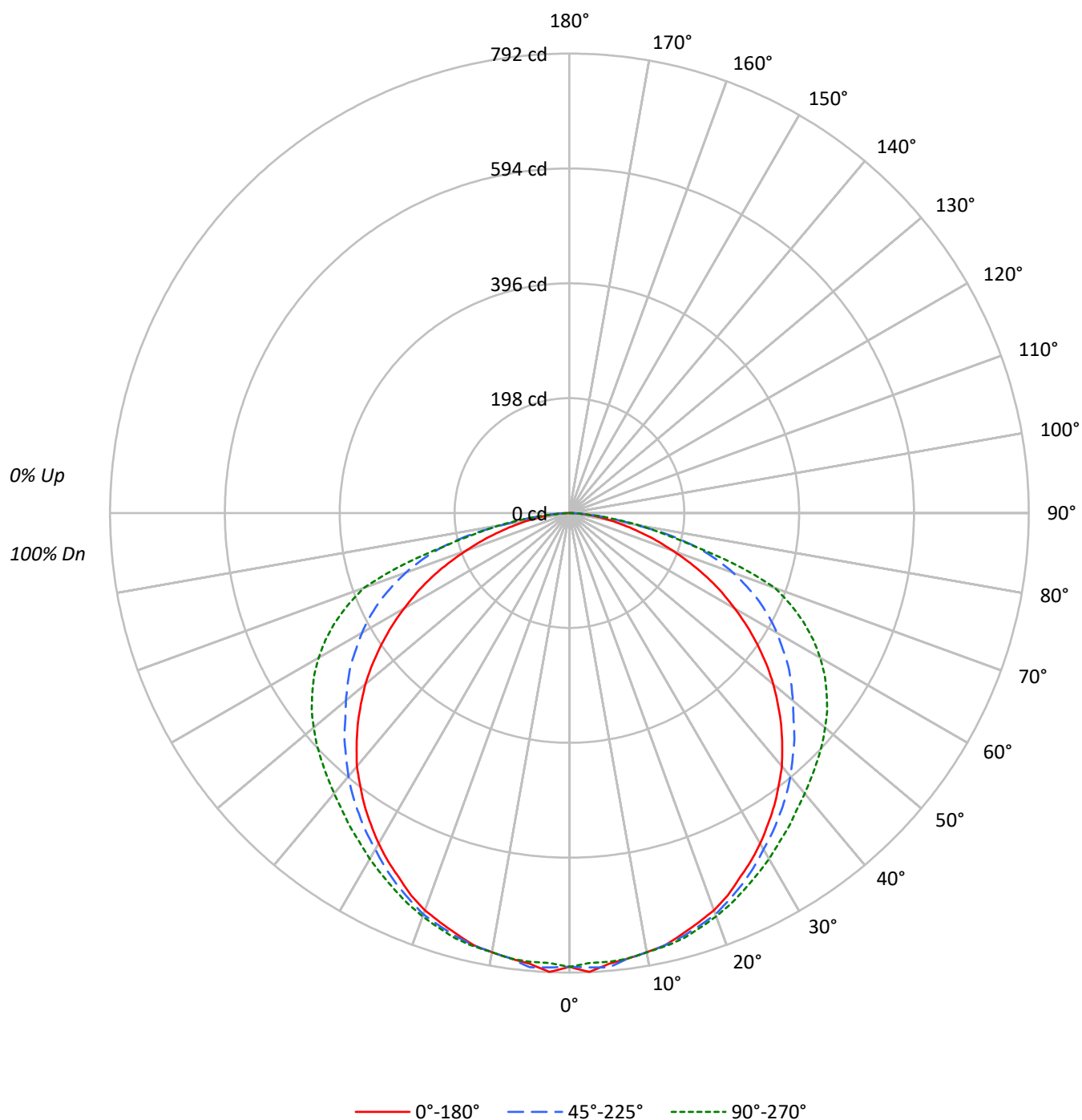
Input Watts (W): 25.32  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 87  | 89  | 87  | 85  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 84  | 78  | 73  | 80  | 76  | 71  | 77  | 73  | 70  |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 64  | 59  | 68  | 63  | 58  |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 56  | 50  | 60  | 54  | 50  |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 44  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 39  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 33  | 44  | 38  | 33  |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 40  | 34  | 29  |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 35  | 28  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1052 | 1052 | 1052 |
| 5°  | 1051 | 1056 | 1044 |
| 10° | 1045 | 1040 | 1041 |
| 15° | 1040 | 1037 | 1043 |
| 20° | 1034 | 1034 | 1040 |
| 25° | 1018 | 1022 | 1037 |
| 30° | 1007 | 1009 | 1039 |
| 35° | 994  | 1002 | 1047 |
| 40° | 980  | 997  | 1064 |
| 45° | 958  | 991  | 1095 |
| 50° | 933  | 990  | 1137 |
| 55° | 896  | 1005 | 1185 |
| 60° | 848  | 1018 | 1236 |
| 65° | 791  | 1033 | 1281 |
| 70° | 697  | 1031 | 1303 |
| 75° | 591  | 987  | 988  |
| 80° | 480  | 672  | 739  |
| 85° | 367  | 367  | 338  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 74.2   | 3.0       |
| 10°-20°   | 213.2  | 8.7       |
| 20°-30°   | 324.9  | 13.2      |
| 30°-40°   | 397.6  | 16.1      |
| 40°-50°   | 427.8  | 17.4      |
| 50°-60°   | 414.4  | 16.8      |
| 60°-70°   | 351.0  | 14.3      |
| 70°-80°   | 212.2  | 8.6       |
| 80°-90°   | 46.6   | 1.9       |
| 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°    | 612.4  | 24.9      |
| 0°-40°    | 1010.0 | 41.0      |
| 0°-60°    | 1852.2 | 75.2      |
| 0°-90°    | 2462.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2462.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 782 | 782   | 782 | 782   | 782 |      |
| 5°  | 780 | 780   | 786 | 782   | 776 | 74   |
| 15° | 751 | 753   | 755 | 757   | 759 | 212  |
| 25° | 694 | 698   | 706 | 711   | 715 | 320  |
| 35° | 616 | 620   | 633 | 650   | 660 | 385  |
| 45° | 516 | 526   | 549 | 583   | 604 | 398  |
| 55° | 396 | 413   | 461 | 514   | 541 | 354  |
| 65° | 262 | 291   | 361 | 419   | 446 | 258  |
| 75° | 124 | 168   | 228 | 231   | 226 | 134  |
| 85° | 31  | 36    | 38  | 36    | 34  | 35   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P#

CATALOG NUMBER: 24CZ-LD5-35-SQP-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 782.0 | 782.0 | 782.0 | 782.0 | 782.0 |
| 2.5°  | 791.6 | 789.6 | 783.9 | 780.1 | 776.3 |
| 5°    | 780.1 | 780.1 | 785.8 | 782.0 | 776.3 |
| 7.5°  | 774.3 | 774.3 | 774.3 | 783.9 | 774.3 |
| 10°   | 768.6 | 770.5 | 768.6 | 776.3 | 768.6 |
| 12.5° | 762.9 | 762.9 | 762.9 | 764.8 | 764.8 |
| 15°   | 751.4 | 753.3 | 755.2 | 757.1 | 759.0 |
| 17.5° | 739.9 | 741.8 | 745.7 | 747.6 | 749.5 |
| 20°   | 728.5 | 730.4 | 736.1 | 736.1 | 739.9 |
| 22.5° | 713.2 | 713.2 | 720.8 | 722.7 | 728.5 |
| 25°   | 694.0 | 697.9 | 705.5 | 711.3 | 715.1 |
| 27.5° | 676.8 | 680.7 | 688.3 | 696.0 | 701.7 |
| 30°   | 657.7 | 661.5 | 669.2 | 680.7 | 688.3 |
| 32.5° | 636.7 | 640.5 | 652.0 | 665.4 | 673.0 |
| 35°   | 615.7 | 619.5 | 632.9 | 650.1 | 659.6 |
| 37.5° | 592.7 | 598.4 | 613.7 | 632.9 | 644.3 |
| 40°   | 569.8 | 575.5 | 592.7 | 613.7 | 630.9 |
| 42.5° | 543.0 | 550.6 | 569.8 | 598.4 | 617.6 |
| 45°   | 516.2 | 525.8 | 548.7 | 583.1 | 604.2 |
| 47.5° | 487.6 | 497.1 | 523.9 | 567.9 | 590.8 |
| 50°   | 458.9 | 470.3 | 502.8 | 550.6 | 575.5 |
| 52.5° | 428.3 | 439.8 | 481.8 | 533.4 | 560.2 |
| 55°   | 395.8 | 413.0 | 460.8 | 514.3 | 541.1 |
| 57.5° | 363.3 | 382.4 | 435.9 | 493.3 | 522.0 |
| 60°   | 328.9 | 351.8 | 413.0 | 470.3 | 499.0 |
| 62.5° | 296.4 | 321.2 | 388.1 | 445.5 | 474.2 |
| 65°   | 261.9 | 290.6 | 361.4 | 418.7 | 445.5 |
| 67.5° | 225.6 | 261.9 | 330.8 | 386.2 | 413.0 |
| 70°   | 189.3 | 231.3 | 300.2 | 351.8 | 376.7 |
| 72.5° | 156.8 | 200.8 | 265.8 | 309.7 | 309.7 |
| 75°   | 124.3 | 168.3 | 227.5 | 231.3 | 225.6 |
| 77.5° | 95.6  | 137.7 | 177.8 | 162.5 | 166.3 |
| 80°   | 70.7  | 105.2 | 112.8 | 118.5 | 122.4 |
| 82.5° | 47.8  | 70.7  | 72.7  | 76.5  | 76.5  |
| 85°   | 30.6  | 36.3  | 38.2  | 36.3  | 34.4  |
| 87.5° | 13.4  | 15.3  | 11.5  | 7.6   | 5.7   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)