

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: **4ILED-LD5-16-W-TWBWG-UNV-L840-CD2-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 (P34176)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4ILED-LD5-16-W-TWBWG-UNV-L840-CD2-U  
Description: Metalux 4' ILED WITH THIN WHITE BAFFLE-HEAVY DUTY WIREGUARD  
DISTRIBUTION

Light Source: (1) 4000 CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

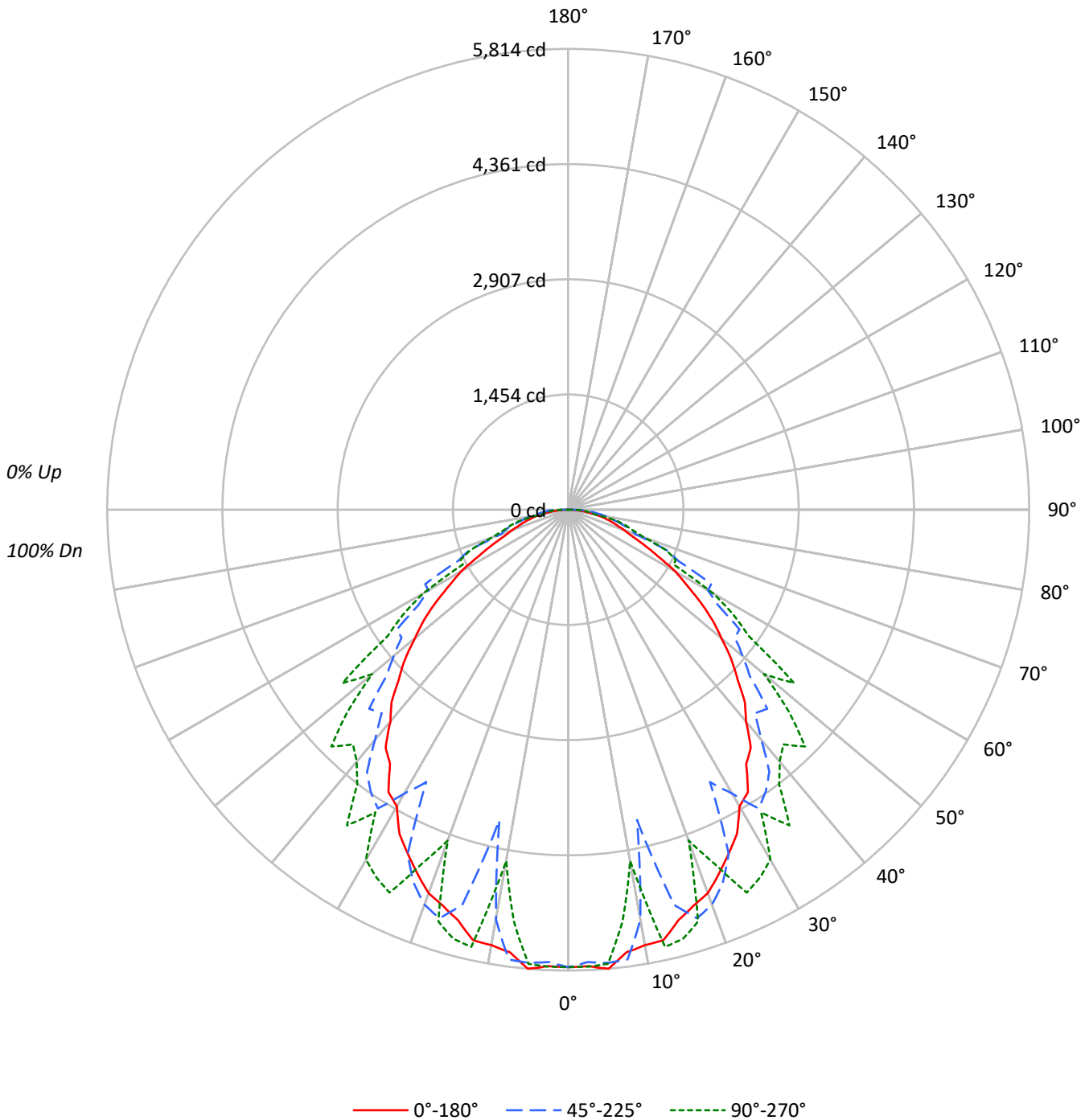
Lumens per Lamp: N/A  
Luminaire Lumens: 14023.0 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.24 / 1.28  
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 126.6  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 87  | 82  | 77  | 83  | 79  | 75  | 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  | 69  | 62  | 56  | 66  | 60  | 55  | 64  | 59  | 55  | 53  |
| 5   | 77  | 65  | 56  | 50  | 75  | 64  | 56  | 49  | 62  | 54  | 49  | 60  | 53  | 48  | 58  | 52  | 48  | 46  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 49  | 43  | 56  | 48  | 43  | 54  | 48  | 43  | 53  | 47  | 42  | 40  |
| 7   | 66  | 53  | 45  | 39  | 65  | 52  | 44  | 38  | 51  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |
| 8   | 62  | 49  | 40  | 34  | 60  | 48  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |
| 9   | 58  | 45  | 37  | 31  | 56  | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 29  |
| 10  | 54  | 41  | 33  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 28  | 26  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16943 | 16943 | 16943 |
| 5°  | 17095 | 16769 | 16788 |
| 10° | 16557 | 15399 | 13155 |
| 15° | 16194 | 15295 | 16547 |
| 20° | 15934 | 16009 | 13334 |
| 25° | 15326 | 14855 | 16430 |
| 30° | 14440 | 13284 | 16256 |
| 35° | 13793 | 14590 | 16190 |
| 40° | 13095 | 13449 | 14558 |
| 45° | 12227 | 13467 | 15815 |
| 50° | 11195 | 11781 | 13033 |
| 55° | 10052 | 11883 | 12288 |
| 60° | 8778  | 10259 | 10388 |
| 65° | 7008  | 8836  | 8428  |
| 70° | 5985  | 6126  | 6694  |
| 75° | 5619  | 5849  | 5953  |
| 80° | 5070  | 5462  | 3529  |
| 85° | 4456  | 4848  | 3355  |



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-16-W-TWBWG-UNV-L840-CD2-U

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 526.3   | 3.8       |
| 10°-20°   | 1476.7  | 10.5      |
| 20°-30°   | 2134.9  | 15.2      |
| 30°-40°   | 2673.8  | 19.1      |
| 40°-50°   | 2602.8  | 18.6      |
| 50°-60°   | 2227.9  | 15.9      |
| 60°-70°   | 1382.1  | 9.9       |
| 70°-80°   | 719.2   | 5.1       |
| 80°-90°   | 279.3   | 2.0       |
| 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°    | 4138.0  | 29.5      |
| 0°-40°    | 6811.7  | 48.6      |
| 0°-60°    | 11642.4 | 83.0      |
| 0°-90°    | 14023.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 14023.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5771 | 5771  | 5771 | 5771  | 5771 |      |
| 5°  | 5814 | 5796  | 5738 | 5715  | 5751 | 543  |
| 15° | 5364 | 5384  | 5160 | 5633  | 5604 | 1518 |
| 25° | 4787 | 3968  | 4789 | 4923  | 5330 | 2200 |
| 35° | 3916 | 4082  | 4341 | 4306  | 4863 | 2475 |
| 45° | 3019 | 2710  | 3552 | 3632  | 4225 | 2335 |
| 55° | 2034 | 2227  | 2636 | 3146  | 2775 | 1819 |
| 65° | 1063 | 1193  | 1531 | 1296  | 1497 | 1079 |
| 75° | 542  | 629   | 698  | 750   | 738  | 573  |
| 85° | 170  | 226   | 300  | 345   | 224  | 182  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 5771.4 | 5771.4 | 5771.4 | 5771.4 | 5771.4 |
| 2.5°  | 5764.7 | 5740.1 | 5713.2 | 5760.2 | 5769.2 |
| 5°    | 5813.9 | 5796.0 | 5737.8 | 5715.4 | 5751.3 |
| 7.5°  | 5632.6 | 5670.7 | 5724.4 | 5433.5 | 5245.5 |
| 10°   | 5578.9 | 5558.8 | 5252.2 | 4043.8 | 4498.1 |
| 12.5° | 5561.0 | 5536.4 | 4010.2 | 5621.5 | 5648.3 |
| 15°   | 5364.1 | 5384.2 | 5160.5 | 5632.6 | 5603.6 |
| 17.5° | 5243.3 | 4965.8 | 5404.4 | 5498.4 | 5446.9 |
| 20°   | 5147.0 | 4328.0 | 5301.4 | 5050.8 | 4437.6 |
| 22.5° | 4970.2 | 3690.2 | 5095.6 | 4052.7 | 4840.5 |
| 25°   | 4786.7 | 3967.7 | 4789.0 | 4923.3 | 5330.5 |
| 27.5° | 4610.0 | 4495.8 | 3873.7 | 5138.1 | 5234.3 |
| 30°   | 4321.3 | 4457.8 | 4133.3 | 5030.7 | 5097.8 |
| 32.5° | 4220.6 | 4256.4 | 4469.0 | 4750.9 | 4527.2 |
| 35°   | 3916.2 | 4081.8 | 4341.4 | 4305.6 | 4862.8 |
| 37.5° | 3782.0 | 3828.9 | 4166.9 | 4533.9 | 4368.3 |
| 40°   | 3488.8 | 3560.4 | 3788.7 | 4005.7 | 4146.7 |
| 42.5° | 3298.6 | 3059.1 | 3482.1 | 3882.7 | 4016.9 |
| 45°   | 3018.8 | 2710.0 | 3551.5 | 3632.0 | 4225.0 |
| 47.5° | 2790.6 | 2692.1 | 3108.4 | 3779.7 | 3779.7 |
| 50°   | 2524.3 | 2654.1 | 2871.1 | 3376.9 | 3224.7 |
| 52.5° | 2296.0 | 2472.8 | 2649.6 | 2936.0 | 3591.7 |
| 55°   | 2034.2 | 2226.7 | 2636.2 | 3146.4 | 2774.9 |
| 57.5° | 1776.8 | 1940.2 | 2237.8 | 2410.2 | 2475.1 |
| 60°   | 1559.8 | 1718.7 | 2034.2 | 2166.2 | 2103.6 |
| 62.5° | 1280.0 | 1481.5 | 2034.2 | 1707.5 | 1497.1 |
| 65°   | 1063.0 | 1192.8 | 1530.7 | 1295.7 | 1497.1 |
| 67.5° | 872.8  | 1007.0 | 1360.6 | 1251.0 | 1333.8 |
| 70°   | 745.2  | 841.4  | 899.6  | 1118.9 | 1013.7 |
| 72.5° | 637.8  | 707.2  | 823.5  | 845.9  | 841.4  |
| 75°   | 541.6  | 628.8  | 698.2  | 749.7  | 738.5  |
| 77.5° | 449.8  | 572.9  | 575.1  | 689.3  | 599.7  |
| 80°   | 342.4  | 391.6  | 496.8  | 449.8  | 337.9  |
| 82.5° | 250.6  | 306.6  | 378.2  | 389.4  | 297.6  |
| 85°   | 170.1  | 226.0  | 299.9  | 344.6  | 223.8  |
| 87.5° | 78.3   | 154.4  | 243.9  | 308.8  | 203.6  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)