

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: P29268

Luminaire Tested: **4CWPLD4040C**

Test Date: 02/15/17



**Test Information**

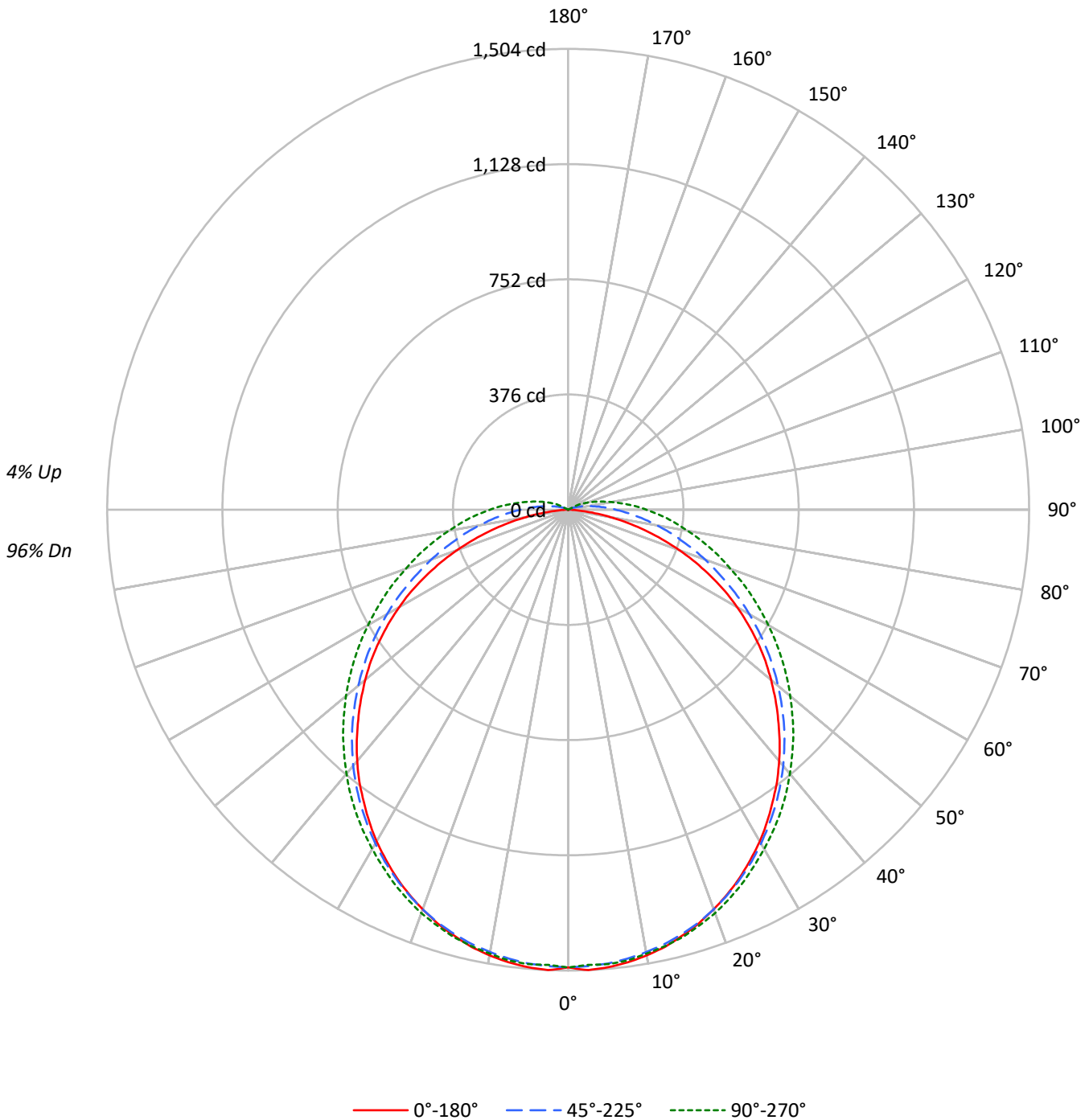
Test Method: LM-79-08  
Report Number: P29268  
Test Lab: INNOVATION CENTER-P2  
Test Date: 02/15/17  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4CWPLD4040C  
Description: 4' LOW PROFILE LED WRAP 4000LM  
Light Source: (180) REFOND 2835, 4000K LEDS  
RT-40HI32DS-EF-N-Y  
Ballast/Driver: (1) TCL ELECTRONIC DRIVER  
045W0A92-R-1B-00

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4752.9 lumens  
Efficiency: N/A  
Efficacy: 110.5 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.27 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: Direct  
  
Input Watts (W): 43  
Input Voltage (V): 120.0  
Input Current (Ain): 0.360  
Voltage Rise (V): NR  
Power Factor: 0.9972  
Total Harmonic Distortion (THDi): 5.99  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 8 HR  
Ambient Temperature (°C): 25.0  
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   | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 96 |
| 1   | 106 | 101 | 96  | 92  | 103 | 98  | 94  | 90  | 93  | 90  | 86  | 89  | 86  | 83  | 85 | 82 | 80 | 78 |
| 2   | 96  | 87  | 80  | 74  | 93  | 85  | 78  | 73  | 81  | 75  | 70  | 77  | 72  | 68  | 73 | 70 | 66 | 64 |
| 3   | 88  | 76  | 68  | 61  | 85  | 74  | 67  | 60  | 71  | 64  | 59  | 68  | 62  | 57  | 65 | 60 | 56 | 53 |
| 4   | 80  | 67  | 58  | 51  | 77  | 66  | 57  | 51  | 63  | 55  | 50  | 60  | 54  | 49  | 57 | 52 | 47 | 45 |
| 5   | 73  | 60  | 51  | 44  | 71  | 59  | 50  | 44  | 56  | 49  | 43  | 54  | 47  | 42  | 52 | 46 | 41 | 39 |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 37  | 49  | 42  | 37  | 47 | 41 | 36 | 34 |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 39  | 33  | 46  | 38  | 33  | 44  | 38  | 32  | 43 | 37 | 32 | 30 |
| 8   | 58  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 42  | 35  | 29  | 41  | 34  | 29  | 39 | 33 | 29 | 27 |
| 9   | 55  | 41  | 33  | 27  | 53  | 40  | 32  | 27  | 39  | 32  | 26  | 37  | 31  | 26  | 36 | 30 | 26 | 24 |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 29  | 24  | 36  | 29  | 24  | 35  | 28  | 24  | 34 | 28 | 23 | 22 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 12061 | 12061 | 12061 |
| 5°  | 12125 | 11852 | 11808 |
| 10° | 12063 | 11625 | 11549 |
| 15° | 11960 | 11400 | 11311 |
| 20° | 11835 | 11147 | 11032 |
| 25° | 11689 | 10868 | 10730 |
| 30° | 11514 | 10559 | 10419 |
| 35° | 11297 | 10245 | 10123 |
| 40° | 11093 | 9906  | 9800  |
| 45° | 10837 | 9544  | 9490  |
| 50° | 10588 | 9142  | 9154  |
| 55° | 10306 | 8731  | 8826  |
| 60° | 9927  | 8281  | 8495  |
| 65° | 9380  | 7800  | 8182  |
| 70° | 8618  | 7346  | 7878  |
| 75° | 7467  | 6894  | 7713  |
| 80° | 5821  | 6530  | 7576  |
| 85° | 3367  | 6332  | 7756  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 141.4  | 3.0       |
| 10°-20°   | 405.1  | 8.5       |
| 20°-30°   | 612.6  | 12.9      |
| 30°-40°   | 738.3  | 15.5      |
| 40°-50°   | 770.7  | 16.2      |
| 50°-60°   | 712.2  | 15.0      |
| 60°-70°   | 576.0  | 12.1      |
| 70°-80°   | 396.8  | 8.3       |
| 80°-90°   | 225.8  | 4.8       |
| 90°-100°  | 112.1  | 2.4       |
| 100°-110° | 48.7   | 1.0       |
| 110°-120° | 13.1   | 0.3       |
| 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°    | 1159.1 | 24.4      |
| 0°-40°    | 1897.5 | 39.9      |
| 0°-60°    | 3380.3 | 71.1      |
| 0°-90°    | 4579.1 | 96.3      |
| 90°-120°  | 173.8  | 3.7       |
| 90°-150°  | 173.8  | 3.7       |
| 90°-180°  | 174.0  | 3.7       |
| 0°-180°   | 4752.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1494 | 1494  | 1494 | 1494  | 1494 |      |
| 5°   | 1499 | 1483  | 1487 | 1491  | 1489 | 142  |
| 15°  | 1439 | 1425  | 1434 | 1443  | 1444 | 406  |
| 25°  | 1325 | 1315  | 1329 | 1339  | 1345 | 610  |
| 35°  | 1163 | 1159  | 1179 | 1197  | 1207 | 728  |
| 45°  | 969  | 972   | 996  | 1024  | 1039 | 748  |
| 55°  | 754  | 761   | 790  | 833   | 851  | 673  |
| 65°  | 513  | 526   | 576  | 636   | 658  | 507  |
| 75°  | 258  | 296   | 379  | 453   | 478  | 274  |
| 85°  | 45   | 118   | 218  | 295   | 323  | 57   |
| 90°  | 1    | 62    | 155  | 230   | 255  | 2    |
| 95°  | 1    | 28    | 105  | 171   | 195  | 1    |
| 105° | 2    | 4     | 39   | 83    | 102  | 2    |
| 115° | 1    | 1     | 11   | 32    | 43   | 1    |
| 125° | 0    | 0     | 0    | 0     | 0    | 0    |
| 135° | 0    | 0     | 0    | 0     | 0    | 0    |
| 145° | 0    | 0     | 0    | 0     | 0    | 0    |
| 155° | 0    | 0     | 0    | 0     | 0    | 0    |
| 165° | 0    | 0     | 0    | 0     | 0    | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P29268  
 CATALOG NUMBER: 4CWPLD4040C

**CANDELA DISTRIBUTION (FULL):**

|        | 0°   | 22.5° | 45°  | 67.5° | 90°  |
|--------|------|-------|------|-------|------|
| 0°     | 1494 | 1494  | 1494 | 1494  | 1494 |
| 2.5°   | 1504 | 1487  | 1491 | 1495  | 1487 |
| 5°     | 1499 | 1483  | 1487 | 1491  | 1489 |
| 7.5°   | 1490 | 1474  | 1478 | 1483  | 1484 |
| 10°    | 1477 | 1461  | 1466 | 1472  | 1471 |
| 12.5°  | 1461 | 1445  | 1452 | 1458  | 1459 |
| 15°    | 1439 | 1425  | 1434 | 1443  | 1444 |
| 17.5°  | 1416 | 1402  | 1413 | 1422  | 1423 |
| 20°    | 1388 | 1376  | 1388 | 1397  | 1401 |
| 22.5°  | 1358 | 1348  | 1360 | 1369  | 1374 |
| 25°    | 1325 | 1315  | 1329 | 1339  | 1345 |
| 27.5°  | 1288 | 1278  | 1295 | 1307  | 1312 |
| 30°    | 1250 | 1241  | 1258 | 1273  | 1279 |
| 32.5°  | 1208 | 1201  | 1219 | 1236  | 1244 |
| 35°    | 1163 | 1159  | 1179 | 1197  | 1207 |
| 37.5°  | 1119 | 1115  | 1136 | 1156  | 1168 |
| 40°    | 1071 | 1070  | 1091 | 1113  | 1125 |
| 42.5°  | 1021 | 1021  | 1044 | 1070  | 1082 |
| 45°    | 969  | 972   | 996  | 1024  | 1039 |
| 47.5°  | 917  | 921   | 945  | 977   | 992  |
| 50°    | 864  | 869   | 894  | 929   | 946  |
| 52.5°  | 811  | 816   | 842  | 883   | 899  |
| 55°    | 754  | 761   | 790  | 833   | 851  |
| 57.5°  | 696  | 704   | 736  | 784   | 803  |
| 60°    | 637  | 645   | 683  | 735   | 754  |
| 62.5°  | 577  | 587   | 630  | 685   | 706  |
| 65°    | 513  | 526   | 576  | 636   | 658  |
| 67.5°  | 450  | 467   | 524  | 589   | 612  |
| 70°    | 386  | 408   | 475  | 542   | 563  |
| 72.5°  | 321  | 351   | 426  | 496   | 521  |
| 75°    | 258  | 296   | 379  | 453   | 478  |
| 77.5°  | 198  | 245   | 337  | 411   | 436  |
| 80°    | 140  | 196   | 293  | 371   | 394  |
| 82.5°  | 88   | 154   | 255  | 332   | 359  |
| 85°    | 45   | 118   | 218  | 295   | 323  |
| 87.5°  | 14   | 87    | 185  | 261   | 288  |
| 90°    | 1    | 62    | 155  | 230   | 255  |
| 92.5°  | 1    | 43    | 129  | 198   | 225  |
| 95°    | 1    | 28    | 105  | 171   | 195  |
| 97.5°  | 2    | 18    | 84   | 146   | 168  |
| 100°   | 2    | 11    | 67   | 122   | 144  |
| 102.5° | 2    | 7     | 51   | 102   | 122  |
| 105°   | 2    | 4     | 39   | 83    | 102  |
| 107.5° | 2    | 3     | 29   | 67    | 84   |
| 110°   | 1    | 2     | 21   | 53    | 68   |



TEST NUMBER: P29268

CATALOG NUMBER: 4CWPLD4040C

**CANDELA DISTRIBUTION (continued):**

|        | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----|-------|-----|-------|-----|
| 112.5° | 1  | 1     | 16  | 42    | 54  |
| 115°   | 1  | 1     | 11  | 32    | 43  |
| 117.5° | 0  | 0     | 0   | 0     | 0   |
| 120°   | 0  | 0     | 0   | 0     | 0   |
| 122.5° | 0  | 0     | 0   | 0     | 0   |
| 125°   | 0  | 0     | 0   | 0     | 0   |
| 127.5° | 0  | 0     | 0   | 0     | 0   |
| 130°   | 0  | 0     | 0   | 0     | 0   |
| 132.5° | 0  | 0     | 0   | 0     | 0   |
| 135°   | 0  | 0     | 0   | 0     | 0   |
| 137.5° | 0  | 0     | 0   | 0     | 0   |
| 140°   | 0  | 0     | 0   | 0     | 0   |
| 142.5° | 0  | 0     | 0   | 0     | 0   |
| 145°   | 0  | 0     | 0   | 0     | 0   |
| 147.5° | 0  | 0     | 0   | 0     | 0   |
| 150°   | 0  | 0     | 0   | 0     | 0   |
| 152.5° | 0  | 0     | 0   | 0     | 0   |
| 155°   | 0  | 0     | 0   | 0     | 0   |
| 157.5° | 0  | 0     | 0   | 0     | 0   |
| 160°   | 0  | 0     | 0   | 0     | 0   |
| 162.5° | 0  | 0     | 0   | 0     | 0   |
| 165°   | 0  | 0     | 0   | 0     | 0   |
| 167.5° | 0  | 0     | 0   | 0     | 0   |
| 170°   | 0  | 0     | 0   | 0     | 0   |
| 172.5° | 0  | 0     | 0   | 0     | 0   |
| 175°   | 0  | 0     | 0   | 0     | 0   |
| 177.5° | 0  | 0     | 0   | 0     | 0   |
| 180°   | 0  | 0     | 0   | 0     | 0   |

(END OF REPORT)