

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: P26863

Luminaire Tested: **4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx**

Test Date: 10/06/15



Test Information

Test Method: LM-79-08
Report Number: P26863
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P26863)
Test Lab: INNOVATION CENTER-P2
Test Date: 10/06/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx
Description: METALUX LED STAIRWELL 5600 LM DBL ROW WITH WIDE OPAQUE LENS
Light Source: (224) EATON 4000K LEDS
(2) 2UT217056A8404A, (4) 2UT119028A8404A
Ballast/Driver: (2) OSRAM ELECTRONIC DRIVER
OT50W0580CC

Summary

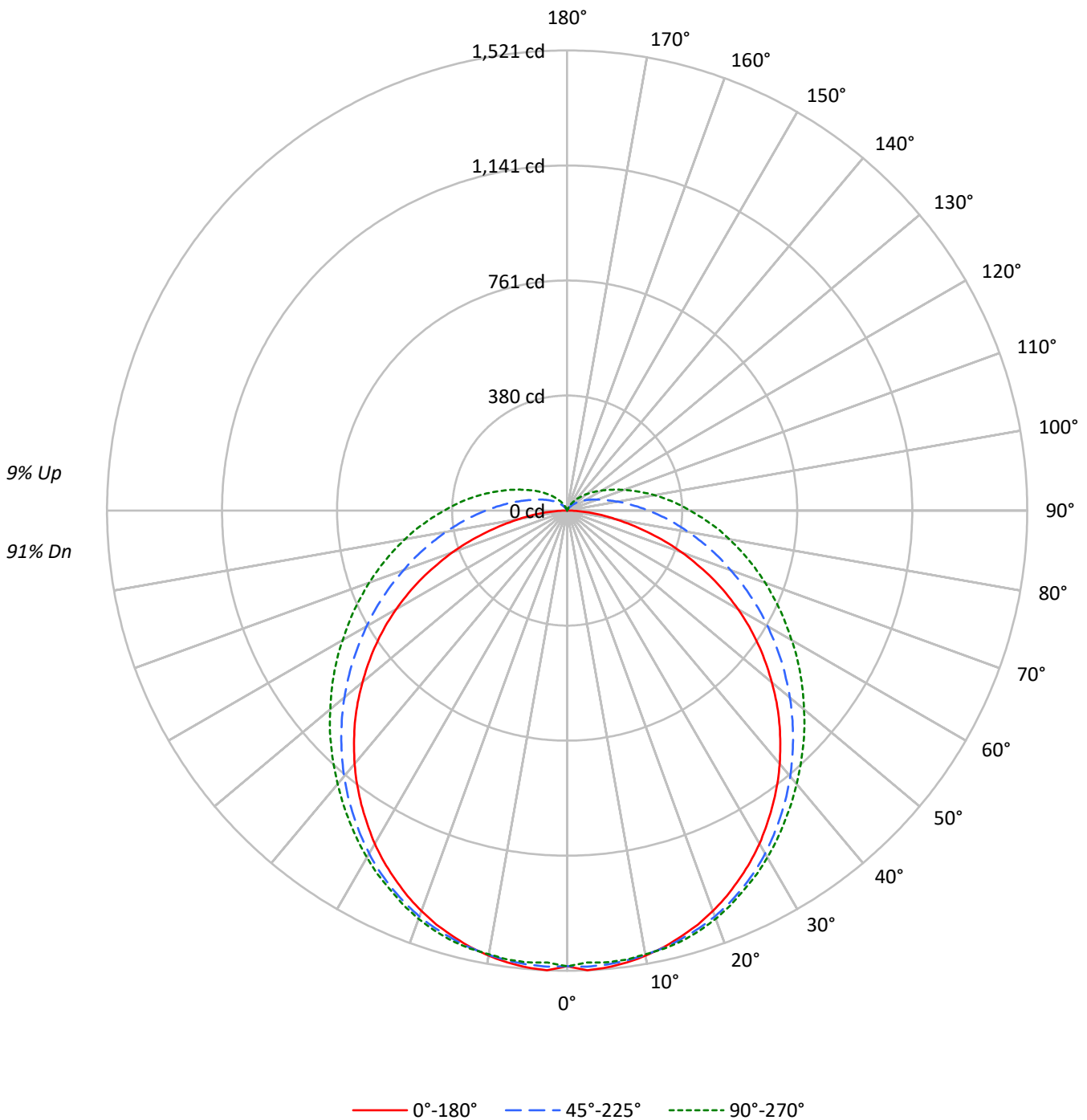
Lumens per Lamp: N/A
Luminaire Lumens: 5537.6 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.75' x H: 0.17')
CIE Type: Direct

Input Watts (W): 54.6
Input Voltage (V): 120.00
Input Current (Ain): 0.45737
Voltage Rise (V): NR
Power Factor: 0.9972
Total Harmonic Distortion (THDi): 7.94%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 24 HR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P26863

CATALOG NUMBER: 4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx

Luminous Intensity Polar Plot





TEST NUMBER: P26863

CATALOG NUMBER: 4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx

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 | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 106 | 106 | 106 | 99 | 99 | 99 | 93 | 93 | 93 | 91 |
| 1 | 104 | 99 | 94 | 89 | 101 | 95 | 91 | 87 | 89 | 86 | 82 | 84 | 81 | 78 | 79 | 76 | 74 | 71 |
| 2 | 94 | 85 | 77 | 71 | 91 | 82 | 75 | 69 | 77 | 71 | 66 | 72 | 68 | 63 | 68 | 64 | 61 | 58 |
| 3 | 85 | 74 | 65 | 58 | 82 | 72 | 64 | 57 | 67 | 60 | 55 | 63 | 57 | 53 | 59 | 55 | 51 | 48 |
| 4 | 78 | 65 | 56 | 49 | 75 | 63 | 55 | 48 | 59 | 52 | 46 | 56 | 50 | 45 | 53 | 47 | 43 | 40 |
| 5 | 71 | 58 | 49 | 42 | 69 | 56 | 48 | 41 | 53 | 45 | 40 | 50 | 44 | 38 | 47 | 42 | 37 | 35 |
| 6 | 66 | 52 | 43 | 36 | 63 | 51 | 42 | 36 | 48 | 40 | 35 | 45 | 39 | 33 | 43 | 37 | 32 | 30 |
| 7 | 61 | 47 | 38 | 32 | 59 | 46 | 37 | 31 | 43 | 36 | 30 | 41 | 34 | 30 | 39 | 33 | 29 | 26 |
| 8 | 57 | 43 | 34 | 28 | 55 | 42 | 34 | 28 | 40 | 32 | 27 | 38 | 31 | 26 | 36 | 30 | 26 | 24 |
| 9 | 53 | 39 | 31 | 25 | 51 | 38 | 30 | 25 | 36 | 29 | 24 | 35 | 28 | 24 | 33 | 27 | 23 | 21 |
| 10 | 50 | 36 | 28 | 23 | 48 | 35 | 28 | 23 | 34 | 27 | 22 | 32 | 26 | 21 | 31 | 25 | 21 | 19 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11527 | 11527 | 11527 |
| 5° | 11603 | 11232 | 11087 |
| 10° | 11522 | 10923 | 10732 |
| 15° | 11410 | 10625 | 10423 |
| 20° | 11286 | 10332 | 10068 |
| 25° | 11129 | 10001 | 9675 |
| 30° | 10961 | 9645 | 9312 |
| 35° | 10748 | 9261 | 8937 |
| 40° | 10529 | 8884 | 8588 |
| 45° | 10281 | 8494 | 8266 |
| 50° | 9986 | 8105 | 7956 |
| 55° | 9675 | 7719 | 7682 |
| 60° | 9282 | 7325 | 7413 |
| 65° | 8747 | 6958 | 7196 |
| 70° | 8058 | 6600 | 7013 |
| 75° | 7001 | 6302 | 6874 |
| 80° | 5668 | 6060 | 6811 |
| 85° | 4135 | 5924 | 6832 |



TEST NUMBER: P26863

CATALOG NUMBER: 4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 143.0 | 2.6 |
| 10°-20° | 412.4 | 7.4 |
| 20°-30° | 629.3 | 11.4 |
| 30°-40° | 764.9 | 13.8 |
| 40°-50° | 810.0 | 14.6 |
| 50°-60° | 768.4 | 13.9 |
| 60°-70° | 654.9 | 11.8 |
| 70°-80° | 497.0 | 9.0 |
| 80°-90° | 336.6 | 6.1 |
| 90°-100° | 215.5 | 3.9 |
| 100°-110° | 135.8 | 2.5 |
| 110°-120° | 83.3 | 1.5 |
| 120°-130° | 48.3 | 0.9 |
| 130°-140° | 24.8 | 0.4 |
| 140°-150° | 10.3 | 0.2 |
| 150°-160° | 2.8 | 0.1 |
| 160°-170° | 0.4 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1184.6 | 21.4 |
| 0°-40° | 1949.6 | 35.2 |
| 0°-60° | 3527.9 | 63.7 |
| 0°-90° | 5016.5 | 90.6 |
| 90°-120° | 434.6 | 7.8 |
| 90°-150° | 518.0 | 9.4 |
| 90°-180° | 521.0 | 9.4 |
| 0°-180° | 5537.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1506 | 1506 | 1506 | 1506 | 1506 | |
| 5° | 1516 | 1498 | 1506 | 1499 | 1499 | 144 |
| 15° | 1457 | 1445 | 1465 | 1469 | 1472 | 411 |
| 25° | 1345 | 1344 | 1375 | 1376 | 1383 | 620 |
| 35° | 1186 | 1195 | 1231 | 1241 | 1254 | 742 |
| 45° | 992 | 1011 | 1056 | 1083 | 1103 | 765 |
| 55° | 771 | 801 | 864 | 914 | 941 | 689 |
| 65° | 529 | 577 | 669 | 744 | 776 | 523 |
| 75° | 276 | 356 | 488 | 584 | 618 | 294 |
| 85° | 71 | 182 | 334 | 437 | 473 | 77 |
| 90° | 4 | 122 | 269 | 371 | 406 | 6 |
| 95° | 0 | 82 | 214 | 313 | 348 | 0 |
| 105° | 0 | 40 | 133 | 213 | 243 | 0 |
| 115° | 0 | 24 | 85 | 142 | 163 | 0 |
| 125° | 0 | 13 | 54 | 92 | 107 | 0 |
| 135° | 0 | 6 | 30 | 57 | 66 | 0 |
| 145° | 1 | 3 | 14 | 29 | 35 | 1 |
| 155° | 1 | 1 | 5 | 9 | 13 | 0 |
| 165° | 1 | 0 | 1 | 2 | 2 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P26863

CATALOG NUMBER: 4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|------|-------|------|
| 0° | 1506 | 1506 | 1506 | 1506 | 1506 |
| 2.5° | 1521 | 1503 | 1509 | 1503 | 1495 |
| 5° | 1516 | 1498 | 1506 | 1499 | 1499 |
| 7.5° | 1507 | 1490 | 1500 | 1496 | 1497 |
| 10° | 1494 | 1478 | 1491 | 1489 | 1489 |
| 12.5° | 1478 | 1463 | 1480 | 1480 | 1483 |
| 15° | 1457 | 1445 | 1465 | 1469 | 1472 |
| 17.5° | 1435 | 1424 | 1448 | 1453 | 1456 |
| 20° | 1408 | 1401 | 1428 | 1430 | 1436 |
| 22.5° | 1379 | 1374 | 1403 | 1405 | 1412 |
| 25° | 1345 | 1344 | 1375 | 1376 | 1383 |
| 27.5° | 1310 | 1310 | 1344 | 1347 | 1356 |
| 30° | 1272 | 1275 | 1309 | 1313 | 1324 |
| 32.5° | 1229 | 1237 | 1271 | 1278 | 1290 |
| 35° | 1186 | 1195 | 1231 | 1241 | 1254 |
| 37.5° | 1141 | 1153 | 1190 | 1203 | 1218 |
| 40° | 1093 | 1107 | 1147 | 1163 | 1180 |
| 42.5° | 1043 | 1060 | 1102 | 1123 | 1142 |
| 45° | 992 | 1011 | 1056 | 1083 | 1103 |
| 47.5° | 939 | 961 | 1009 | 1041 | 1064 |
| 50° | 883 | 909 | 961 | 999 | 1022 |
| 52.5° | 828 | 855 | 912 | 957 | 982 |
| 55° | 771 | 801 | 864 | 914 | 941 |
| 57.5° | 713 | 746 | 814 | 872 | 900 |
| 60° | 653 | 690 | 765 | 829 | 857 |
| 62.5° | 591 | 633 | 718 | 788 | 816 |
| 65° | 529 | 577 | 669 | 744 | 776 |
| 67.5° | 465 | 520 | 622 | 704 | 735 |
| 70° | 404 | 464 | 575 | 664 | 696 |
| 72.5° | 339 | 408 | 532 | 623 | 657 |
| 75° | 276 | 356 | 488 | 584 | 618 |
| 77.5° | 216 | 308 | 446 | 546 | 581 |
| 80° | 161 | 262 | 407 | 510 | 544 |
| 82.5° | 114 | 220 | 369 | 473 | 510 |
| 85° | 71 | 182 | 334 | 437 | 473 |
| 87.5° | 35 | 151 | 300 | 403 | 439 |
| 90° | 4 | 122 | 269 | 371 | 406 |
| 92.5° | 0 | 101 | 240 | 343 | 377 |
| 95° | 0 | 82 | 214 | 313 | 348 |
| 97.5° | 0 | 67 | 191 | 286 | 320 |
| 100° | 0 | 56 | 169 | 260 | 293 |
| 102.5° | 0 | 47 | 150 | 235 | 267 |
| 105° | 0 | 40 | 133 | 213 | 243 |
| 107.5° | 0 | 35 | 118 | 193 | 220 |
| 110° | 0 | 31 | 106 | 174 | 200 |



TEST NUMBER: P26863

CATALOG NUMBER: 4SWLED-LD4-56HL-LW-UNV-L840-CD2-SVPDx

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----|-------|-----|-------|-----|
| 112.5° | 0 | 27 | 95 | 157 | 181 |
| 115° | 0 | 24 | 85 | 142 | 163 |
| 117.5° | 0 | 21 | 76 | 128 | 147 |
| 120° | 0 | 18 | 68 | 115 | 133 |
| 122.5° | 0 | 16 | 60 | 103 | 120 |
| 125° | 0 | 13 | 54 | 92 | 107 |
| 127.5° | 0 | 11 | 47 | 83 | 96 |
| 130° | 0 | 9 | 41 | 73 | 85 |
| 132.5° | 0 | 7 | 35 | 65 | 75 |
| 135° | 0 | 6 | 30 | 57 | 66 |
| 137.5° | 1 | 5 | 25 | 49 | 58 |
| 140° | 1 | 4 | 21 | 42 | 49 |
| 142.5° | 1 | 4 | 17 | 35 | 42 |
| 145° | 1 | 3 | 14 | 29 | 35 |
| 147.5° | 1 | 3 | 10 | 23 | 29 |
| 150° | 1 | 2 | 8 | 18 | 23 |
| 152.5° | 1 | 2 | 6 | 13 | 18 |
| 155° | 1 | 1 | 5 | 9 | 13 |
| 157.5° | 1 | 1 | 4 | 6 | 8 |
| 160° | 1 | 1 | 2 | 5 | 6 |
| 162.5° | 1 | 1 | 1 | 3 | 4 |
| 165° | 1 | 0 | 1 | 2 | 2 |
| 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)