

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-N-UNV-L850-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 (P34185)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4ILED-LD5-16-N-UNV-L850-CD2-U
Description: Metalux 4' ILED WITH OPEN NARROW DISTRIBUTION
Light Source: (1) 5000 CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

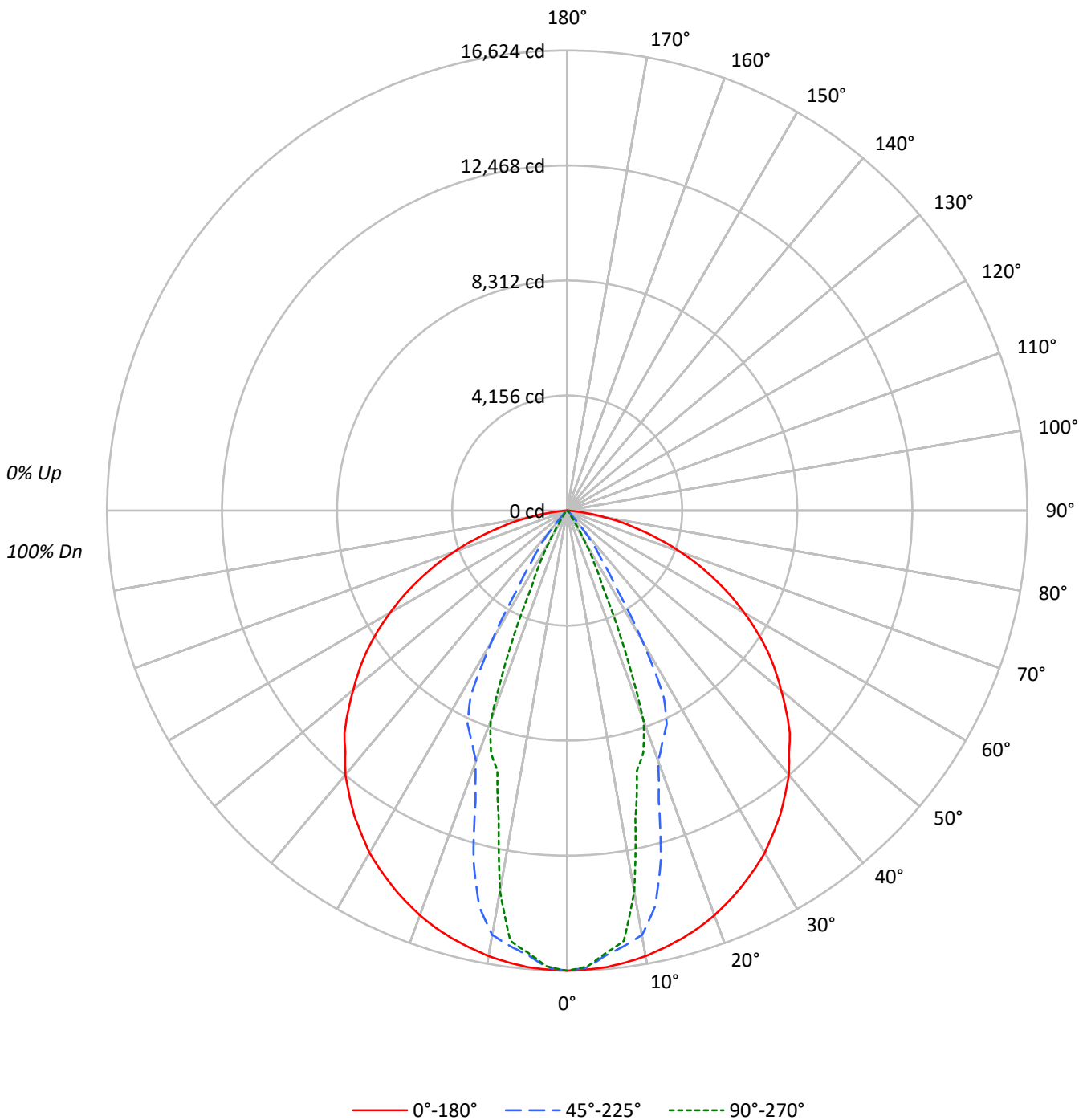
Lumens per Lamp: N/A
Luminaire Lumens: 16720.0 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 0.59 / 0.77
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 4' x H: 0.1')
CIE Type: Direct

Input Watts (W): 126.6
Input Voltage (V):
Input Current (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



TEST NUMBER: P#
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Luminous Intensity Polar Plot





TEST NUMBER: P#

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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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 | | | | 90 |
| 2 | 105 | 99 | 94 | 89 | 102 | 97 | 92 | 88 | 93 | 90 | 86 | 90 | 87 | 84 | 87 | 85 | 83 | 81 | | | | 81 |
| 3 | 98 | 90 | 84 | 79 | 96 | 89 | 83 | 78 | 86 | 81 | 77 | 83 | 79 | 76 | 81 | 78 | 75 | 73 | | | | 73 |
| 4 | 92 | 83 | 76 | 71 | 90 | 81 | 75 | 70 | 79 | 74 | 70 | 77 | 72 | 69 | 75 | 71 | 68 | 66 | | | | 66 |
| 5 | 86 | 76 | 69 | 64 | 85 | 75 | 69 | 64 | 73 | 68 | 63 | 72 | 67 | 63 | 70 | 66 | 62 | 60 | | | | 60 |
| 6 | 81 | 71 | 64 | 59 | 80 | 70 | 63 | 58 | 68 | 62 | 58 | 67 | 62 | 58 | 65 | 61 | 57 | 55 | | | | 55 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 58 | 54 | 64 | 58 | 53 | 62 | 57 | 53 | 61 | 56 | 53 | 51 | | | | 51 |
| 8 | 73 | 62 | 55 | 50 | 71 | 61 | 54 | 50 | 60 | 54 | 50 | 59 | 53 | 49 | 58 | 53 | 49 | 48 | | | | 48 |
| 9 | 69 | 58 | 51 | 46 | 67 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 46 | 44 | | | | 44 |
| 10 | 65 | 54 | 48 | 43 | 64 | 54 | 48 | 43 | 53 | 47 | 43 | 52 | 47 | 43 | 51 | 46 | 43 | 41 | | | | 41 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 48801 | 48801 | 48801 |
| 5° | 48673 | 47132 | 46829 |
| 10° | 48498 | 45640 | 40808 |
| 15° | 48322 | 38727 | 28734 |
| 20° | 48169 | 29069 | 24295 |
| 25° | 47890 | 26412 | 9433 |
| 30° | 47717 | 17478 | 4021 |
| 35° | 47264 | 7437 | 888 |
| 40° | 46775 | 3278 | 634 |
| 45° | 46089 | 784 | 294 |
| 50° | 44745 | 483 | 158 |
| 55° | 43653 | 307 | 162 |
| 60° | 41572 | 277 | 168 |
| 65° | 38820 | 287 | 177 |
| 70° | 34896 | 303 | 190 |
| 75° | 28657 | 351 | 211 |
| 80° | 20333 | 402 | 191 |
| 85° | 6510 | 424 | 235 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1527.0 | 9.1 |
| 10°-20° | 3644.7 | 21.8 |
| 20°-30° | 3985.1 | 23.8 |
| 30°-40° | 2884.0 | 17.2 |
| 40°-50° | 2152.3 | 12.9 |
| 50°-60° | 1256.8 | 7.5 |
| 60°-70° | 781.3 | 4.7 |
| 70°-80° | 407.5 | 2.4 |
| 80°-90° | 81.4 | 0.5 |
| 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° | 9156.8 | 54.8 |
| 0°-40° | 12040.8 | 72.0 |
| 0°-60° | 15449.8 | 92.4 |
| 0°-90° | 16720.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 16720.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0° | 16624 | 16624 | 16624 | 16624 | 16624 | |
| 5° | 16553 | 16493 | 16127 | 16077 | 16043 | ### |
| 15° | 16006 | 15444 | 13066 | 10218 | 9731 | 4520 |
| 25° | 14957 | 12697 | 8515 | 4439 | 3060 | 6900 |
| 35° | 13419 | 8185 | 2213 | 479 | 267 | 8390 |
| 45° | 11379 | 5349 | 207 | 141 | 78 | 8737 |
| 55° | 8834 | 1036 | 68 | 78 | 37 | 7865 |
| 65° | 5888 | 86 | 50 | 47 | 31 | 5822 |
| 75° | 2762 | 52 | 42 | 34 | 26 | 2961 |
| 85° | 248 | 34 | 26 | 24 | 16 | 471 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: 4ILED-LD5-16-N-UNV-L850-CD2-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------|---------|---------|---------|---------|
| 0° | 16623.7 | 16623.7 | 16623.7 | 16623.7 | 16623.7 |
| 2.5° | 16597.6 | 16618.5 | 16519.1 | 16519.1 | 16490.3 |
| 5° | 16553.1 | 16493.0 | 16126.7 | 16077.0 | 16043.0 |
| 7.5° | 16456.3 | 16220.9 | 15862.5 | 15797.1 | 15684.7 |
| 10° | 16341.2 | 15927.9 | 15566.9 | 14635.7 | 13953.0 |
| 12.5° | 16179.1 | 15684.7 | 14661.9 | 12354.7 | 11407.7 |
| 15° | 16006.4 | 15444.0 | 13066.2 | 10217.5 | 9731.0 |
| 17.5° | 15802.4 | 15124.9 | 10991.8 | 9370.0 | 9160.7 |
| 20° | 15559.1 | 14606.9 | 9626.3 | 8786.7 | 8085.6 |
| 22.5° | 15274.0 | 13803.9 | 9009.0 | 7303.5 | 5412.2 |
| 25° | 14957.4 | 12697.4 | 8514.6 | 4439.1 | 3060.5 |
| 27.5° | 14625.2 | 11389.4 | 7536.3 | 2696.9 | 2090.1 |
| 30° | 14279.9 | 10044.9 | 5438.4 | 1933.1 | 1260.8 |
| 32.5° | 13837.9 | 8946.2 | 3298.6 | 1088.2 | 562.4 |
| 35° | 13419.3 | 8185.0 | 2213.0 | 478.7 | 266.8 |
| 37.5° | 12935.4 | 7659.2 | 1616.6 | 253.7 | 188.3 |
| 40° | 12461.9 | 7146.5 | 923.4 | 191.0 | 180.5 |
| 42.5° | 11865.5 | 6508.2 | 389.8 | 180.5 | 128.2 |
| 45° | 11379.0 | 5349.4 | 206.7 | 141.3 | 78.5 |
| 47.5° | 10735.5 | 3662.2 | 138.6 | 109.9 | 49.7 |
| 50° | 10089.3 | 2262.7 | 117.7 | 86.3 | 39.2 |
| 52.5° | 9474.6 | 1498.9 | 86.3 | 81.1 | 36.6 |
| 55° | 8833.7 | 1035.9 | 68.0 | 78.5 | 36.6 |
| 57.5° | 8122.2 | 510.1 | 57.5 | 75.9 | 34.0 |
| 60° | 7387.2 | 198.8 | 54.9 | 73.2 | 34.0 |
| 62.5° | 6660.0 | 109.9 | 52.3 | 60.2 | 31.4 |
| 65° | 5888.3 | 86.3 | 49.7 | 47.1 | 31.4 |
| 67.5° | 5124.5 | 70.6 | 47.1 | 44.5 | 31.4 |
| 70° | 4344.9 | 62.8 | 44.5 | 39.2 | 28.8 |
| 72.5° | 3549.7 | 57.5 | 41.9 | 39.2 | 26.2 |
| 75° | 2762.3 | 52.3 | 41.9 | 34.0 | 26.2 |
| 77.5° | 2066.5 | 49.7 | 39.2 | 34.0 | 20.9 |
| 80° | 1373.3 | 44.5 | 36.6 | 28.8 | 18.3 |
| 82.5° | 758.6 | 41.9 | 31.4 | 26.2 | 18.3 |
| 85° | 248.5 | 34.0 | 26.2 | 23.5 | 15.7 |
| 87.5° | 39.2 | 23.5 | 20.9 | 20.9 | 13.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)