

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: **8ILED-LD5-28-W-FLUPL-UNV-L835-CD4-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 (P34183)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8ILED-LD5-28-W-FLUPL-UNV-L835-CD4-U
Description: Metalux 8' ILED WITH FROST LENS WITH UPL DISTRIBUTION

Light Source: (1) 3500 CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

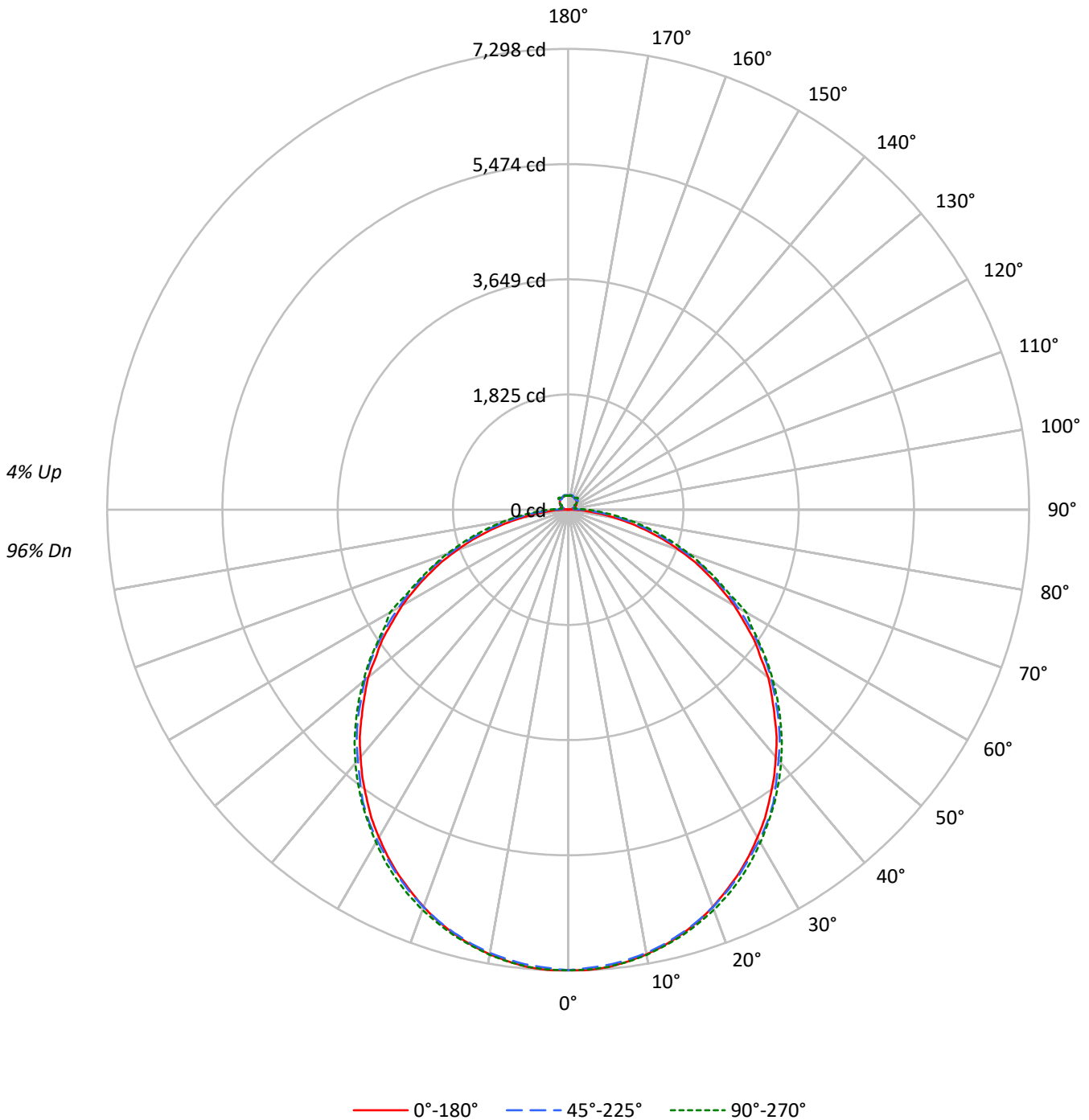
Lumens per Lamp: N/A
Luminaire Lumens: 21529.0 lumens
Efficiency: N/A
Efficacy: 105.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.35
Luminous Opening: Rectangular w/ Sides (W: 0.92' x L: 8' x H: 0.1')
CIE Type: Direct

Input Watts (W): 204
Input Voltage (V):
Input Current (A_{in}): 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#
CATALOG NUMBER: 8ILED-LD5-28-W-FLUPL-UNV-L835-CD4-U

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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 103 | 103 | 103 | 98 | 98 | 98 | 96 |
| 1 | 107 | 103 | 98 | 94 | 104 | 100 | 96 | 92 | 95 | 91 | 89 | 90 | 87 | 85 | 86 | 84 | 82 | 79 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 83 | 77 | 73 | 79 | 74 | 70 | 75 | 72 | 68 | 66 |
| 3 | 89 | 78 | 70 | 63 | 86 | 76 | 69 | 63 | 73 | 66 | 61 | 69 | 64 | 59 | 66 | 62 | 58 | 55 |
| 4 | 81 | 69 | 60 | 54 | 79 | 68 | 59 | 53 | 65 | 58 | 52 | 62 | 56 | 51 | 59 | 54 | 50 | 47 |
| 5 | 75 | 62 | 53 | 46 | 72 | 60 | 52 | 46 | 58 | 50 | 45 | 55 | 49 | 44 | 53 | 48 | 43 | 41 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 48 | 42 | 38 | 36 |
| 7 | 64 | 50 | 42 | 36 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 34 | 32 |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 40 | 35 | 30 | 28 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 37 | 31 | 27 | 25 |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10706 | 10706 | 10706 |
| 5° | 10702 | 10584 | 10607 |
| 10° | 10634 | 10465 | 10468 |
| 15° | 10538 | 10313 | 10306 |
| 20° | 10408 | 10144 | 10130 |
| 25° | 10255 | 9953 | 9938 |
| 30° | 10082 | 9766 | 9704 |
| 35° | 9892 | 9571 | 9465 |
| 40° | 9693 | 9257 | 9199 |
| 45° | 9474 | 9006 | 8896 |
| 50° | 9302 | 8703 | 8560 |
| 55° | 9036 | 8347 | 8192 |
| 60° | 8722 | 7920 | 8045 |
| 65° | 8288 | 7418 | 7269 |
| 70° | 7754 | 6828 | 6719 |
| 75° | 7037 | 6095 | 6026 |
| 80° | 6049 | 5170 | 5244 |
| 85° | 4841 | 4105 | 4358 |



TEST NUMBER: P#

CATALOG NUMBER: 8ILED-LD5-28-W-FLUPL-UNV-L835-CD4-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 689.3 | 3.2 |
| 10°-20° | 1964.1 | 9.1 |
| 20°-30° | 2951.2 | 13.7 |
| 30°-40° | 3530.9 | 16.4 |
| 40°-50° | 3630.0 | 16.9 |
| 50°-60° | 3269.3 | 15.2 |
| 60°-70° | 2512.6 | 11.7 |
| 70°-80° | 1495.8 | 6.9 |
| 80°-90° | 542.0 | 2.5 |
| 90°-100° | 116.8 | 0.5 |
| 100°-110° | 97.1 | 0.5 |
| 110°-120° | 114.5 | 0.5 |
| 120°-130° | 141.6 | 0.7 |
| 130°-140° | 154.6 | 0.7 |
| 140°-150° | 132.7 | 0.6 |
| 150°-160° | 99.9 | 0.5 |
| 160°-170° | 64.9 | 0.3 |
| 170°-180° | 21.8 | 0.1 |
| 0°-30° | 5604.5 | 26.0 |
| 0°-40° | 9135.4 | 42.4 |
| 0°-60° | 16034.7 | 74.5 |
| 0°-90° | 20585.1 | 95.6 |
| 90°-120° | 328.4 | 1.5 |
| 90°-150° | 757.4 | 3.5 |
| 90°-180° | 944.0 | 4.4 |
| 0°-180° | 21529.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 7294 | 7294 | 7294 | 7294 | 7294 | |
| 5° | 7271 | 7268 | 7237 | 7264 | 7268 | 690 |
| 15° | 6958 | 6962 | 6943 | 6973 | 6981 | 1962 |
| 25° | 6369 | 6380 | 6392 | 6437 | 6448 | 2933 |
| 35° | 5569 | 5637 | 5663 | 5674 | 5686 | 3486 |
| 45° | 4621 | 4670 | 4712 | 4757 | 4753 | 3572 |
| 55° | 3594 | 3609 | 3662 | 3692 | 3700 | 3201 |
| 65° | 2450 | 2473 | 2530 | 2579 | 2582 | 2429 |
| 75° | 1299 | 1336 | 1420 | 1499 | 1495 | 1379 |
| 85° | 328 | 393 | 483 | 555 | 581 | 361 |
| 90° | 8 | 98 | 196 | 268 | 291 | 26 |
| 95° | 26 | 64 | 94 | 136 | 151 | 27 |
| 105° | 79 | 68 | 87 | 140 | 125 | 82 |
| 115° | 125 | 140 | 98 | 102 | 102 | 123 |
| 125° | 159 | 159 | 181 | 147 | 128 | 142 |
| 135° | 185 | 181 | 208 | 219 | 215 | 144 |
| 145° | 204 | 208 | 200 | 219 | 234 | 128 |
| 155° | 215 | 230 | 215 | 208 | 208 | 100 |
| 165° | 223 | 230 | 238 | 230 | 223 | 63 |
| 175° | 226 | 226 | 230 | 226 | 219 | 22 |
| 180° | 223 | 223 | 223 | 223 | 223 | |



TEST NUMBER: P#

CATALOG NUMBER: 8ILED-LD5-28-W-FLUPL-UNV-L835-CD4-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 7294.1 | 7294.1 | 7294.1 | 7294.1 | 7294.1 |
| 2.5° | 7297.8 | 7294.1 | 7263.9 | 7286.5 | 7290.3 |
| 5° | 7271.4 | 7267.6 | 7237.4 | 7263.9 | 7267.6 |
| 7.5° | 7218.6 | 7218.6 | 7188.4 | 7218.6 | 7222.3 |
| 10° | 7150.6 | 7150.6 | 7128.0 | 7154.4 | 7158.2 |
| 12.5° | 7063.8 | 7067.5 | 7044.9 | 7075.1 | 7075.1 |
| 15° | 6958.1 | 6961.8 | 6943.0 | 6973.2 | 6980.7 |
| 17.5° | 6837.2 | 6837.2 | 6829.7 | 6863.7 | 6867.4 |
| 20° | 6693.8 | 6712.7 | 6697.6 | 6735.3 | 6742.9 |
| 22.5° | 6531.4 | 6550.3 | 6550.3 | 6591.8 | 6603.2 |
| 25° | 6369.1 | 6380.4 | 6391.7 | 6437.1 | 6448.4 |
| 27.5° | 6187.9 | 6210.5 | 6214.3 | 6263.4 | 6274.7 |
| 30° | 5991.6 | 6029.3 | 6048.2 | 6078.4 | 6085.9 |
| 32.5° | 5795.2 | 5844.3 | 5867.0 | 5882.1 | 5885.8 |
| 35° | 5568.7 | 5636.7 | 5663.1 | 5674.4 | 5685.7 |
| 37.5° | 5349.7 | 5406.4 | 5413.9 | 5455.4 | 5466.8 |
| 40° | 5111.9 | 5179.8 | 5179.8 | 5228.9 | 5240.3 |
| 42.5° | 4885.4 | 4900.5 | 4957.1 | 4991.1 | 5006.2 |
| 45° | 4621.1 | 4670.2 | 4711.7 | 4757.0 | 4753.2 |
| 47.5° | 4371.9 | 4436.1 | 4447.4 | 4488.9 | 4500.3 |
| 50° | 4134.1 | 4179.4 | 4202.0 | 4236.0 | 4236.0 |
| 52.5° | 3839.6 | 3900.0 | 3949.1 | 3967.9 | 3979.3 |
| 55° | 3594.2 | 3609.3 | 3662.1 | 3692.3 | 3699.9 |
| 57.5° | 3295.9 | 3333.7 | 3382.8 | 3420.5 | 3439.4 |
| 60° | 3035.4 | 3058.1 | 3099.6 | 3152.5 | 3258.2 |
| 62.5° | 2740.9 | 2767.4 | 2820.2 | 2978.8 | 2869.3 |
| 65° | 2450.2 | 2472.9 | 2529.5 | 2578.6 | 2582.4 |
| 67.5° | 2174.6 | 2197.3 | 2276.6 | 2291.7 | 2303.0 |
| 70° | 1868.8 | 1899.0 | 1967.0 | 2016.1 | 2034.9 |
| 72.5° | 1589.4 | 1615.9 | 1683.8 | 1740.5 | 1759.3 |
| 75° | 1298.7 | 1336.5 | 1419.5 | 1498.8 | 1495.1 |
| 77.5° | 1023.1 | 1091.1 | 1159.0 | 1223.2 | 1242.1 |
| 80° | 766.4 | 819.3 | 909.9 | 977.8 | 1004.3 |
| 82.5° | 536.1 | 596.5 | 687.1 | 755.1 | 781.5 |
| 85° | 328.5 | 392.6 | 483.3 | 555.0 | 581.4 |
| 87.5° | 158.6 | 222.7 | 320.9 | 392.6 | 422.8 |
| 90° | 7.6 | 98.2 | 196.3 | 268.1 | 290.7 |
| 92.5° | 15.1 | 56.6 | 128.4 | 185.0 | 203.9 |
| 95° | 26.4 | 64.2 | 94.4 | 135.9 | 151.0 |
| 97.5° | 37.8 | 56.6 | 83.1 | 109.5 | 120.8 |
| 100° | 52.9 | 56.6 | 94.4 | 98.2 | 105.7 |
| 102.5° | 64.2 | 60.4 | 90.6 | 98.2 | 98.2 |
| 105° | 79.3 | 68.0 | 86.8 | 139.7 | 124.6 |
| 107.5° | 90.6 | 94.4 | 83.1 | 98.2 | 105.7 |
| 110° | 101.9 | 109.5 | 90.6 | 105.7 | 105.7 |



TEST NUMBER: P#

CATALOG NUMBER: 8ILED-LD5-28-W-FLUPL-UNV-L835-CD4-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 113.3 | 124.6 | 98.2 | 98.2 | 105.7 |
| 115° | 124.6 | 139.7 | 98.2 | 101.9 | 101.9 |
| 117.5° | 135.9 | 143.5 | 117.0 | 109.5 | 109.5 |
| 120° | 143.5 | 147.2 | 147.2 | 109.5 | 117.0 |
| 122.5° | 151.0 | 154.8 | 166.1 | 120.8 | 117.0 |
| 125° | 158.6 | 158.6 | 181.2 | 147.2 | 128.4 |
| 127.5° | 166.1 | 166.1 | 192.5 | 173.7 | 154.8 |
| 130° | 173.7 | 166.1 | 203.9 | 188.8 | 181.2 |
| 132.5° | 181.2 | 173.7 | 207.6 | 203.9 | 196.3 |
| 135° | 185.0 | 181.2 | 207.6 | 219.0 | 215.2 |
| 137.5° | 192.5 | 188.8 | 200.1 | 230.3 | 226.5 |
| 140° | 196.3 | 196.3 | 200.1 | 230.3 | 237.9 |
| 142.5° | 200.1 | 200.1 | 200.1 | 226.5 | 237.9 |
| 145° | 203.9 | 207.6 | 200.1 | 219.0 | 234.1 |
| 147.5° | 207.6 | 215.2 | 200.1 | 215.2 | 222.7 |
| 150° | 211.4 | 219.0 | 200.1 | 211.4 | 215.2 |
| 152.5° | 215.2 | 226.5 | 207.6 | 207.6 | 211.4 |
| 155° | 215.2 | 230.3 | 215.2 | 207.6 | 207.6 |
| 157.5° | 219.0 | 230.3 | 219.0 | 207.6 | 207.6 |
| 160° | 219.0 | 234.1 | 226.5 | 215.2 | 211.4 |
| 162.5° | 222.7 | 234.1 | 234.1 | 222.7 | 219.0 |
| 165° | 222.7 | 230.3 | 237.9 | 230.3 | 222.7 |
| 167.5° | 226.5 | 230.3 | 237.9 | 234.1 | 226.5 |
| 170° | 226.5 | 230.3 | 234.1 | 234.1 | 226.5 |
| 172.5° | 226.5 | 230.3 | 234.1 | 230.3 | 226.5 |
| 175° | 226.5 | 226.5 | 230.3 | 226.5 | 219.0 |
| 177.5° | 226.5 | 226.5 | 226.5 | 222.7 | 219.0 |
| 180° | 222.7 | 222.7 | 222.7 | 222.7 | 222.7 |

(END OF REPORT)