

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: P231433

Luminaire Tested: **SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P231433
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1708-240-3)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22
Description: STEELER WHITE REFRACTOR LENS AND CONICAL DROP
Light Source: (240) 5000 CCT, 80 CRI LEDS
Ballast/Driver: (1) ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15025.0 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.43 / 1.55
Luminous Opening: Vertical Cylinder (Dia: 1.67' x H: 1.17')
CIE Type: Semi-Direct

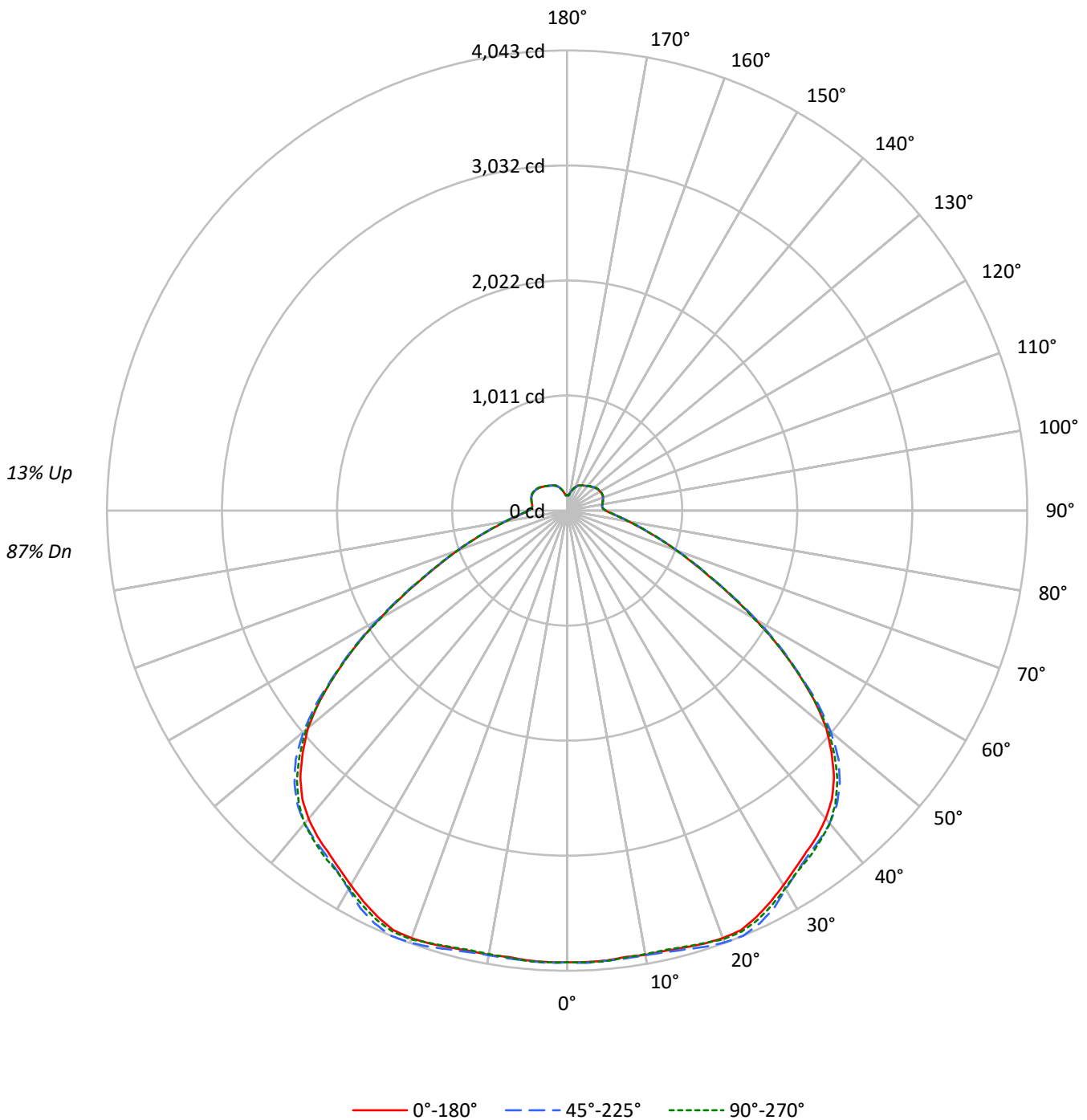
Input Watts (W): 110.74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231433

CATALOG NUMBER: SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22

Luminous Intensity Polar Plot





TEST NUMBER: P231433

CATALOG NUMBER: SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22

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 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 104 | 104 | 104 | 97 | 97 | 97 | 90 | 90 | 90 | 87 | | | | |
| 1 | 106 | 101 | 96 | 92 | 101 | 97 | 93 | 90 | 91 | 87 | 85 | 85 | 82 | 80 | 79 | 77 | 75 | 72 | | | | |
| 2 | 96 | 88 | 81 | 75 | 92 | 85 | 79 | 73 | 79 | 74 | 70 | 74 | 70 | 66 | 69 | 66 | 63 | 60 | | | | |
| 3 | 87 | 77 | 69 | 62 | 84 | 74 | 67 | 61 | 70 | 63 | 58 | 65 | 60 | 56 | 61 | 57 | 53 | 51 | | | | |
| 4 | 80 | 68 | 59 | 53 | 77 | 66 | 58 | 52 | 62 | 55 | 50 | 58 | 52 | 48 | 54 | 50 | 46 | 43 | | | | |
| 5 | 73 | 61 | 52 | 45 | 70 | 59 | 50 | 44 | 55 | 48 | 43 | 52 | 46 | 41 | 49 | 44 | 39 | 37 | | | | |
| 6 | 68 | 54 | 45 | 39 | 65 | 53 | 44 | 38 | 50 | 42 | 37 | 47 | 41 | 36 | 44 | 39 | 35 | 32 | | | | |
| 7 | 62 | 49 | 40 | 34 | 60 | 48 | 40 | 34 | 45 | 38 | 33 | 42 | 36 | 32 | 40 | 35 | 31 | 28 | | | | |
| 8 | 58 | 45 | 36 | 30 | 56 | 43 | 35 | 30 | 41 | 34 | 29 | 39 | 33 | 28 | 37 | 31 | 27 | 25 | | | | |
| 9 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 38 | 31 | 26 | 36 | 30 | 25 | 34 | 28 | 24 | 22 | | | | |
| 10 | 51 | 37 | 30 | 24 | 49 | 37 | 29 | 24 | 35 | 28 | 23 | 33 | 27 | 23 | 31 | 26 | 22 | 20 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19584 | 19584 | 19584 |
| 5° | 18226 | 18240 | 18255 |
| 10° | 17160 | 17175 | 17132 |
| 15° | 16386 | 16460 | 16363 |
| 20° | 15846 | 16014 | 15891 |
| 25° | 15146 | 15390 | 15252 |
| 30° | 14293 | 14446 | 14416 |
| 35° | 13587 | 13702 | 13778 |
| 40° | 13023 | 13224 | 13230 |
| 45° | 12230 | 12498 | 12386 |
| 50° | 11059 | 11256 | 11144 |
| 55° | 9329 | 9379 | 9338 |
| 60° | 7381 | 7454 | 7340 |
| 65° | 5568 | 5630 | 5594 |
| 70° | 4278 | 4295 | 4261 |
| 75° | 3267 | 3310 | 3278 |
| 80° | 2581 | 2604 | 2573 |
| 85° | 2090 | 2124 | 2111 |



TEST NUMBER: P231433

CATALOG NUMBER: SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 378.4 | 2.5 |
| 10°-20° | 1129.8 | 7.5 |
| 20°-30° | 1828.0 | 12.2 |
| 30°-40° | 2323.6 | 15.5 |
| 40°-50° | 2575.9 | 17.1 |
| 50°-60° | 2206.8 | 14.7 |
| 60°-70° | 1411.4 | 9.4 |
| 70°-80° | 804.9 | 5.4 |
| 80°-90° | 467.2 | 3.1 |
| 90°-100° | 345.3 | 2.3 |
| 100°-110° | 343.4 | 2.3 |
| 110°-120° | 335.8 | 2.2 |
| 120°-130° | 294.0 | 2.0 |
| 130°-140° | 231.2 | 1.5 |
| 140°-150° | 168.3 | 1.1 |
| 150°-160° | 111.6 | 0.7 |
| 160°-170° | 55.8 | 0.4 |
| 170°-180° | 13.7 | 0.1 |
| 0°-30° | 3336.2 | 22.2 |
| 0°-40° | 5659.9 | 37.7 |
| 0°-60° | 10442.6 | 69.5 |
| 0°-90° | 13126.0 | 87.4 |
| 90°-120° | 1024.5 | 6.8 |
| 90°-150° | 1717.9 | 11.4 |
| 90°-180° | 1899.0 | 12.6 |
| 0°-180° | 15025.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3969 | 3969 | 3969 | 3969 | 3969 | |
| 5° | 3967 | 3966 | 3970 | 3966 | 3973 | 378 |
| 15° | 3974 | 3982 | 3992 | 3978 | 3968 | 1128 |
| 25° | 3938 | 3962 | 4002 | 3963 | 3966 | 1814 |
| 35° | 3664 | 3700 | 3695 | 3716 | 3715 | 2300 |
| 45° | 3315 | 3343 | 3388 | 3365 | 3357 | 2542 |
| 55° | 2465 | 2478 | 2478 | 2473 | 2468 | 2195 |
| 65° | 1389 | 1402 | 1404 | 1406 | 1395 | 1402 |
| 75° | 742 | 745 | 751 | 746 | 744 | 801 |
| 85° | 413 | 419 | 420 | 416 | 417 | 368 |
| 90° | 338 | 339 | 341 | 339 | 338 | 187 |
| 95° | 309 | 309 | 311 | 310 | 310 | 254 |
| 105° | 324 | 324 | 325 | 325 | 325 | 342 |
| 115° | 338 | 339 | 339 | 341 | 341 | 335 |
| 125° | 327 | 328 | 328 | 329 | 330 | 293 |
| 135° | 297 | 298 | 297 | 298 | 299 | 231 |
| 145° | 267 | 267 | 266 | 266 | 267 | 168 |
| 155° | 243 | 243 | 239 | 241 | 243 | 112 |
| 165° | 195 | 195 | 194 | 193 | 194 | 56 |
| 175° | 134 | 134 | 134 | 134 | 134 | 14 |
| 180° | 135 | 135 | 135 | 135 | 135 | |



TEST NUMBER: P231433

CATALOG NUMBER: SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3969.3 | 3969.3 | 3969.3 | 3969.3 | 3969.3 |
| 2.5° | 3970.1 | 3976.7 | 3977.5 | 3972.6 | 3972.6 |
| 5° | 3966.9 | 3966.1 | 3970.1 | 3966.1 | 3973.4 |
| 7.5° | 3954.7 | 3955.5 | 3967.7 | 3960.4 | 3959.5 |
| 10° | 3963.6 | 3955.5 | 3966.9 | 3957.1 | 3957.1 |
| 12.5° | 3962.8 | 3961.2 | 3974.2 | 3962.8 | 3954.7 |
| 15° | 3974.2 | 3981.5 | 3992.1 | 3978.3 | 3968.5 |
| 17.5° | 3990.5 | 3999.5 | 4019.0 | 3993.0 | 3984.8 |
| 20° | 3997.0 | 4001.1 | 4039.4 | 4001.1 | 4008.4 |
| 22.5° | 3989.7 | 3995.4 | 4042.7 | 3995.4 | 4005.2 |
| 25° | 3938.4 | 3962.0 | 4001.9 | 3962.8 | 3966.1 |
| 27.5° | 3873.2 | 3913.1 | 3935.9 | 3917.2 | 3904.1 |
| 30° | 3799.8 | 3852.8 | 3840.6 | 3862.6 | 3832.4 |
| 32.5° | 3727.3 | 3778.6 | 3757.5 | 3790.0 | 3760.7 |
| 35° | 3663.7 | 3699.6 | 3694.7 | 3715.9 | 3715.1 |
| 37.5° | 3607.5 | 3628.7 | 3645.0 | 3654.0 | 3655.6 |
| 40° | 3534.2 | 3563.5 | 3588.8 | 3583.1 | 3590.4 |
| 42.5° | 3442.9 | 3474.7 | 3507.3 | 3490.2 | 3488.5 |
| 45° | 3315.0 | 3342.7 | 3387.5 | 3364.7 | 3357.3 |
| 47.5° | 3151.2 | 3203.3 | 3234.3 | 3209.8 | 3188.7 |
| 50° | 2971.1 | 2997.2 | 3024.1 | 3010.2 | 2993.9 |
| 52.5° | 2735.6 | 2737.2 | 2769.8 | 2751.1 | 2738.0 |
| 55° | 2465.0 | 2478.1 | 2478.1 | 2473.2 | 2467.5 |
| 57.5° | 2191.2 | 2201.0 | 2207.5 | 2200.2 | 2191.2 |
| 60° | 1902.8 | 1913.4 | 1921.5 | 1918.2 | 1892.2 |
| 62.5° | 1633.0 | 1643.6 | 1648.5 | 1638.7 | 1641.2 |
| 65° | 1388.6 | 1401.6 | 1404.1 | 1405.7 | 1395.1 |
| 67.5° | 1188.1 | 1197.9 | 1203.6 | 1198.7 | 1197.9 |
| 70° | 1022.7 | 1025.1 | 1026.8 | 1030.0 | 1018.6 |
| 72.5° | 872.7 | 873.6 | 877.6 | 878.4 | 871.9 |
| 75° | 741.5 | 744.8 | 751.3 | 746.4 | 744.0 |
| 77.5° | 633.2 | 638.1 | 641.3 | 642.9 | 639.7 |
| 80° | 550.0 | 550.9 | 554.9 | 551.7 | 548.4 |
| 82.5° | 477.5 | 477.5 | 480.0 | 480.0 | 478.3 |
| 85° | 413.1 | 418.9 | 419.7 | 416.4 | 417.2 |
| 87.5° | 370.0 | 372.4 | 373.2 | 371.6 | 370.8 |
| 90° | 338.2 | 339.0 | 340.6 | 339.0 | 338.2 |
| 92.5° | 317.8 | 319.4 | 320.3 | 319.4 | 320.3 |
| 95° | 308.8 | 308.8 | 311.3 | 309.7 | 309.7 |
| 97.5° | 308.8 | 308.8 | 311.3 | 310.5 | 309.7 |
| 100° | 312.9 | 313.7 | 314.5 | 314.5 | 314.5 |
| 102.5° | 317.8 | 318.6 | 319.4 | 319.4 | 319.4 |
| 105° | 323.5 | 324.3 | 325.1 | 325.1 | 325.1 |
| 107.5° | 329.2 | 330.0 | 330.8 | 330.8 | 330.8 |
| 110° | 334.9 | 334.1 | 335.7 | 335.7 | 336.5 |



TEST NUMBER: P231433

CATALOG NUMBER: SSLED-LD5-15-W-UNV-L850-CD1-U-FRR22-CLCDL22

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 337.4 | 338.2 | 338.2 | 339.0 | 339.8 |
| 115° | 338.2 | 339.0 | 339.0 | 340.6 | 340.6 |
| 117.5° | 338.2 | 338.2 | 339.0 | 339.8 | 340.6 |
| 120° | 334.9 | 335.7 | 336.5 | 337.4 | 338.2 |
| 122.5° | 332.5 | 332.5 | 333.3 | 334.1 | 334.9 |
| 125° | 326.8 | 327.6 | 328.4 | 329.2 | 330.0 |
| 127.5° | 321.1 | 321.1 | 321.9 | 322.7 | 323.5 |
| 130° | 314.5 | 314.5 | 315.4 | 316.2 | 317.0 |
| 132.5° | 305.6 | 306.4 | 306.4 | 307.2 | 308.0 |
| 135° | 297.4 | 298.2 | 297.4 | 298.2 | 299.1 |
| 137.5° | 289.3 | 289.3 | 288.5 | 289.3 | 290.1 |
| 140° | 280.3 | 281.1 | 280.3 | 281.1 | 281.1 |
| 142.5° | 273.0 | 274.6 | 273.8 | 273.8 | 274.6 |
| 145° | 267.3 | 267.3 | 266.5 | 266.5 | 267.3 |
| 147.5° | 260.8 | 261.6 | 260.8 | 260.8 | 260.8 |
| 150° | 254.2 | 255.1 | 253.4 | 254.2 | 254.2 |
| 152.5° | 249.4 | 250.2 | 246.1 | 249.4 | 249.4 |
| 155° | 242.8 | 242.8 | 238.8 | 241.2 | 242.8 |
| 157.5° | 233.9 | 233.1 | 230.6 | 233.1 | 232.2 |
| 160° | 222.5 | 223.3 | 220.8 | 221.6 | 220.8 |
| 162.5° | 207.8 | 209.4 | 208.6 | 208.6 | 207.8 |
| 165° | 194.8 | 194.8 | 193.9 | 193.1 | 193.9 |
| 167.5° | 180.1 | 180.1 | 179.3 | 180.1 | 179.3 |
| 170° | 162.2 | 163.8 | 163.0 | 163.8 | 162.2 |
| 172.5° | 144.2 | 143.4 | 143.4 | 143.4 | 143.4 |
| 175° | 134.5 | 134.5 | 133.6 | 133.6 | 134.5 |
| 177.5° | 133.6 | 133.6 | 134.5 | 132.8 | 132.8 |
| 180° | 135.3 | 135.3 | 135.3 | 135.3 | 135.3 |

(END OF REPORT)