

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: **4SNLED-LD5-92HL-SLC-UNV-L835-CD1-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 (P27404)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SNLED-LD5-92HL-SLC-UNV-L835-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR SQUARE LENS
Light Source: -
Ballast/Driver: -

Summary

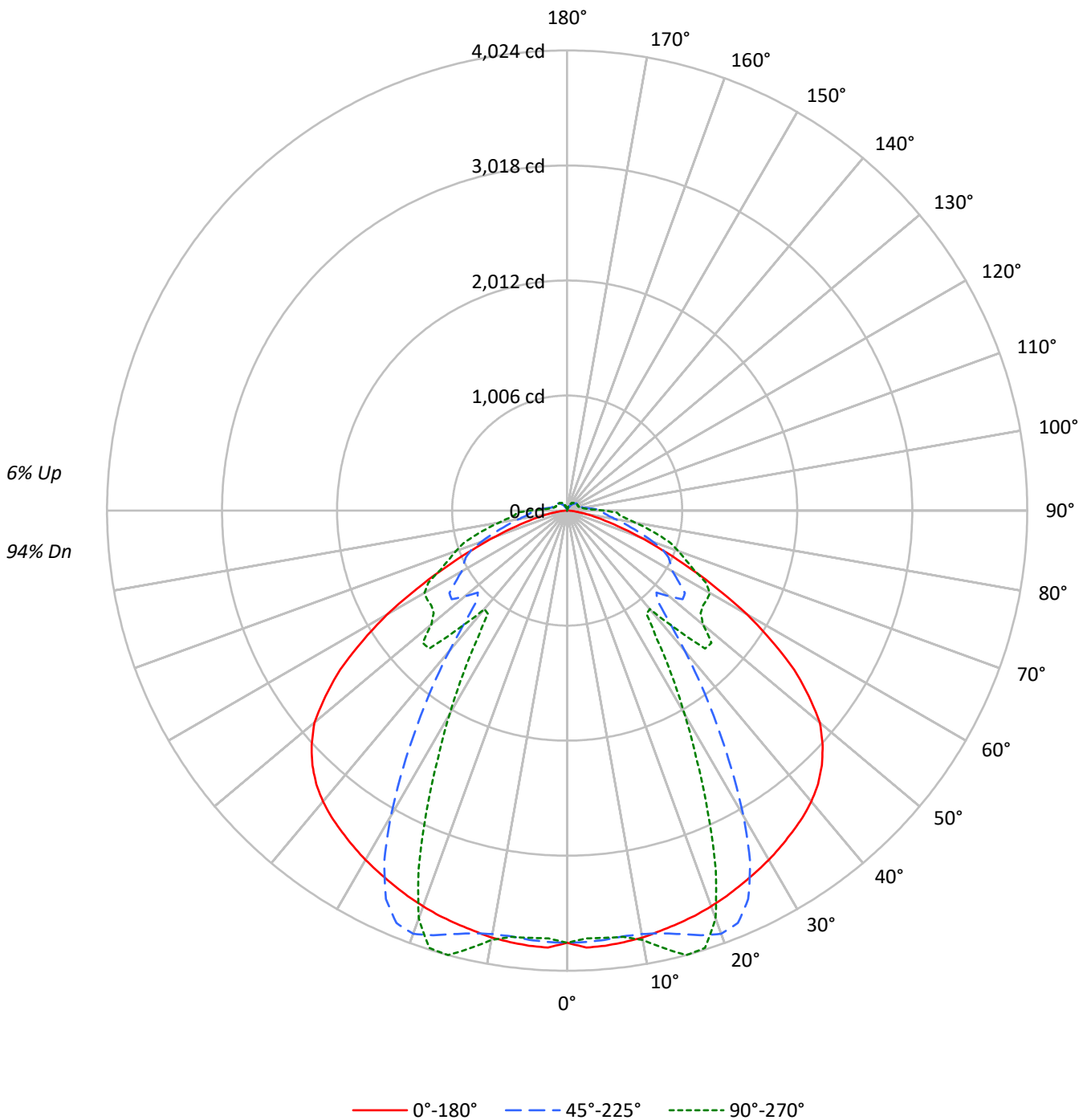
Lumens per Lamp: N/A
Luminaire Lumens: 9705.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1 / 1.08
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

Input Watts (W): 79
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: P#
CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L835-CD1-U

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 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 97 | 97 | 97 | 94 |
| 1 | 107 | 102 | 98 | 94 | 104 | 99 | 95 | 92 | 94 | 91 | 88 | 89 | 87 | 84 | 85 | 83 | 81 | 78 |
| 2 | 98 | 90 | 83 | 77 | 95 | 87 | 81 | 76 | 83 | 78 | 73 | 79 | 74 | 71 | 75 | 71 | 68 | 66 |
| 3 | 89 | 79 | 71 | 65 | 87 | 77 | 70 | 64 | 73 | 67 | 62 | 70 | 65 | 60 | 67 | 62 | 59 | 56 |
| 4 | 82 | 71 | 62 | 56 | 80 | 69 | 61 | 55 | 66 | 59 | 53 | 63 | 57 | 52 | 60 | 55 | 51 | 49 |
| 5 | 76 | 63 | 55 | 48 | 74 | 62 | 54 | 48 | 59 | 52 | 47 | 57 | 51 | 46 | 54 | 49 | 45 | 43 |
| 6 | 70 | 58 | 49 | 43 | 68 | 56 | 48 | 42 | 54 | 47 | 41 | 52 | 45 | 41 | 50 | 44 | 40 | 38 |
| 7 | 66 | 52 | 44 | 38 | 64 | 51 | 43 | 38 | 49 | 42 | 37 | 47 | 41 | 36 | 46 | 40 | 36 | 34 |
| 8 | 61 | 48 | 40 | 34 | 59 | 47 | 39 | 34 | 45 | 38 | 33 | 44 | 37 | 33 | 42 | 37 | 32 | 30 |
| 9 | 57 | 44 | 36 | 31 | 56 | 44 | 36 | 31 | 42 | 35 | 30 | 41 | 34 | 30 | 39 | 34 | 29 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 28 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 30531 | 30531 | 30531 |
| 5° | 30902 | 29816 | 29449 |
| 10° | 30941 | 29362 | 29347 |
| 15° | 31026 | 29776 | 30588 |
| 20° | 31314 | 30662 | 28711 |
| 25° | 31704 | 29468 | 22107 |
| 30° | 32330 | 24680 | 15725 |
| 35° | 33131 | 18692 | 10648 |
| 40° | 34143 | 13588 | 9016 |
| 45° | 34918 | 9857 | 14175 |
| 50° | 34967 | 10915 | 13452 |
| 55° | 32684 | 12561 | 13284 |
| 60° | 27848 | 11495 | 14120 |
| 65° | 20949 | 11593 | 12916 |
| 70° | 14703 | 10552 | 12022 |
| 75° | 9633 | 8841 | 10787 |
| 80° | 6147 | 7573 | 8981 |
| 85° | 3313 | 7199 | 8060 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L835-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 359.4 | 3.7 |
| 10°-20° | 1085.5 | 11.2 |
| 20°-30° | 1576.8 | 16.2 |
| 30°-40° | 1506.6 | 15.5 |
| 40°-50° | 1378.1 | 14.2 |
| 50°-60° | 1272.4 | 13.1 |
| 60°-70° | 1010.7 | 10.4 |
| 70°-80° | 623.8 | 6.4 |
| 80°-90° | 339.7 | 3.5 |
| 90°-100° | 171.7 | 1.8 |
| 100°-110° | 107.9 | 1.1 |
| 110°-120° | 91.4 | 0.9 |
| 120°-130° | 74.6 | 0.8 |
| 130°-140° | 53.6 | 0.6 |
| 140°-150° | 33.0 | 0.3 |
| 150°-160° | 15.7 | 0.2 |
| 160°-170° | 4.1 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 3021.7 | 31.1 |
| 0°-40° | 4528.3 | 46.7 |
| 0°-60° | 7178.8 | 74.0 |
| 0°-90° | 9153.1 | 94.3 |
| 90°-120° | 371.0 | 3.8 |
| 90°-150° | 532.2 | 5.5 |
| 90°-180° | 552.0 | 5.7 |
| 0°-180° | 9705.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3778 | 3778 | 3778 | 3778 | 3778 | |
| 5° | 3820 | 3761 | 3768 | 3748 | 3750 | 363 |
| 15° | 3740 | 3689 | 3833 | 3975 | 4024 | 1058 |
| 25° | 3608 | 3678 | 3748 | 3173 | 2913 | 1667 |
| 35° | 3432 | 3377 | 2276 | 1567 | 1363 | 2152 |
| 45° | 3151 | 2198 | 1110 | 1417 | 1706 | 2422 |
| 55° | 2423 | 1127 | 1258 | 1353 | 1448 | 2134 |
| 65° | 1169 | 731 | 980 | 1191 | 1219 | 1182 |
| 75° | 344 | 390 | 587 | 778 | 830 | 391 |
| 85° | 48 | 166 | 333 | 453 | 460 | 62 |
| 90° | 2 | 124 | 298 | 353 | 326 | 3 |
| 95° | 0 | 115 | 206 | 182 | 172 | 0 |
| 105° | 0 | 104 | 127 | 115 | 114 | 0 |
| 115° | 0 | 85 | 122 | 109 | 104 | 1 |
| 125° | 2 | 69 | 109 | 105 | 100 | 1 |
| 135° | 2 | 48 | 87 | 95 | 92 | 1 |
| 145° | 2 | 30 | 60 | 77 | 82 | 1 |
| 155° | 3 | 18 | 37 | 48 | 58 | 1 |
| 165° | 3 | 10 | 18 | 23 | 32 | 1 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3778.1 | 3778.1 | 3778.1 | 3778.1 | 3778.1 |
| 2.5° | 3824.9 | 3769.7 | 3776.4 | 3764.7 | 3744.6 |
| 5° | 3819.9 | 3761.3 | 3768.0 | 3748.0 | 3749.6 |
| 7.5° | 3806.5 | 3746.3 | 3754.6 | 3751.3 | 3759.7 |
| 10° | 3791.4 | 3727.9 | 3759.7 | 3788.1 | 3813.2 |
| 12.5° | 3764.7 | 3707.8 | 3784.8 | 3868.4 | 3920.2 |
| 15° | 3739.6 | 3689.4 | 3833.3 | 3975.4 | 4023.9 |
| 17.5° | 3714.5 | 3682.7 | 3893.5 | 4017.2 | 4010.5 |
| 20° | 3682.7 | 3679.4 | 3938.6 | 3896.8 | 3794.8 |
| 22.5° | 3647.6 | 3681.1 | 3903.5 | 3597.4 | 3396.7 |
| 25° | 3607.5 | 3677.7 | 3748.0 | 3172.6 | 2913.4 |
| 27.5° | 3567.3 | 3662.7 | 3465.3 | 2707.7 | 2451.8 |
| 30° | 3527.2 | 3622.5 | 3084.0 | 2282.9 | 2050.4 |
| 32.5° | 3480.4 | 3535.6 | 2669.2 | 1906.6 | 1692.5 |
| 35° | 3431.9 | 3376.7 | 2276.2 | 1567.1 | 1363.0 |
| 37.5° | 3381.7 | 3147.6 | 1923.3 | 1269.4 | 1138.9 |
| 40° | 3321.5 | 2859.9 | 1598.9 | 1088.8 | 1123.9 |
| 42.5° | 3246.2 | 2535.4 | 1312.9 | 1142.3 | 1386.5 |
| 45° | 3150.9 | 2197.6 | 1110.5 | 1416.6 | 1705.9 |
| 47.5° | 3030.5 | 1873.1 | 1060.3 | 1622.3 | 1712.6 |
| 50° | 2885.0 | 1575.4 | 1165.7 | 1555.4 | 1548.7 |
| 52.5° | 2664.2 | 1327.9 | 1272.7 | 1418.2 | 1471.8 |
| 55° | 2423.4 | 1127.2 | 1257.7 | 1353.0 | 1448.3 |
| 57.5° | 2119.0 | 991.8 | 1154.0 | 1339.6 | 1450.0 |
| 60° | 1816.3 | 901.5 | 1065.4 | 1338.0 | 1441.7 |
| 62.5° | 1481.8 | 819.5 | 1020.2 | 1306.2 | 1368.1 |
| 65° | 1169.0 | 730.9 | 980.1 | 1190.8 | 1219.2 |
| 67.5° | 896.4 | 640.5 | 909.8 | 1062.0 | 1118.9 |
| 70° | 675.7 | 551.9 | 799.4 | 963.3 | 1033.6 |
| 72.5° | 486.7 | 468.3 | 685.7 | 876.4 | 950.0 |
| 75° | 344.5 | 389.7 | 587.0 | 777.7 | 829.5 |
| 77.5° | 237.5 | 317.8 | 503.4 | 669.0 | 710.8 |
| 80° | 155.5 | 254.2 | 428.1 | 575.3 | 603.8 |
| 82.5° | 93.7 | 204.0 | 371.3 | 503.4 | 518.5 |
| 85° | 48.5 | 165.6 | 332.8 | 453.2 | 459.9 |
| 87.5° | 15.1 | 138.8 | 311.1 | 429.8 | 438.2 |
| 90° | 1.7 | 123.8 | 297.7 | 352.9 | 326.1 |
| 92.5° | 0.0 | 117.1 | 257.6 | 240.8 | 215.7 |
| 95° | 0.0 | 115.4 | 205.7 | 182.3 | 172.3 |
| 97.5° | 0.0 | 112.1 | 168.9 | 152.2 | 147.2 |
| 100° | 0.0 | 108.7 | 145.5 | 133.8 | 132.1 |
| 102.5° | 0.0 | 107.0 | 132.1 | 122.1 | 120.4 |
| 105° | 0.0 | 103.7 | 127.1 | 115.4 | 113.7 |
| 107.5° | 0.0 | 98.7 | 123.8 | 112.1 | 108.7 |
| 110° | 0.0 | 93.7 | 123.8 | 110.4 | 105.4 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L835-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-------|-------|-------|
| 112.5° | 0.0 | 88.6 | 123.8 | 108.7 | 103.7 |
| 115° | 0.0 | 85.3 | 122.1 | 108.7 | 103.7 |
| 117.5° | 1.7 | 82.0 | 120.4 | 108.7 | 103.7 |
| 120° | 0.0 | 78.6 | 117.1 | 108.7 | 102.0 |
| 122.5° | 1.7 | 73.6 | 113.7 | 107.0 | 102.0 |
| 125° | 1.7 | 68.6 | 108.7 | 105.4 | 100.3 |
| 127.5° | 1.7 | 63.6 | 103.7 | 102.0 | 97.0 |
| 130° | 1.7 | 58.5 | 98.7 | 100.3 | 95.3 |
| 132.5° | 1.7 | 53.5 | 92.0 | 97.0 | 93.7 |
| 135° | 1.7 | 48.5 | 87.0 | 95.3 | 92.0 |
| 137.5° | 1.7 | 43.5 | 80.3 | 90.3 | 90.3 |
| 140° | 1.7 | 38.5 | 73.6 | 87.0 | 88.6 |
| 142.5° | 1.7 | 35.1 | 66.9 | 83.6 | 85.3 |
| 145° | 1.7 | 30.1 | 60.2 | 76.9 | 82.0 |
| 147.5° | 1.7 | 26.8 | 53.5 | 70.2 | 76.9 |
| 150° | 1.7 | 23.4 | 46.8 | 63.6 | 70.2 |
| 152.5° | 1.7 | 20.1 | 41.8 | 55.2 | 65.2 |
| 155° | 3.3 | 18.4 | 36.8 | 48.5 | 58.5 |
| 157.5° | 3.3 | 15.1 | 30.1 | 41.8 | 50.2 |
| 160° | 3.3 | 13.4 | 26.8 | 35.1 | 45.2 |
| 162.5° | 3.3 | 11.7 | 21.7 | 30.1 | 38.5 |
| 165° | 3.3 | 10.0 | 18.4 | 23.4 | 31.8 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)