

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-L935-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-L935-CD1-U
Description: 4FT LINEAR SNLED LED FIXTURE
CLEAR SQUARE LENS
Light Source: -
Ballast/Driver: -

Summary

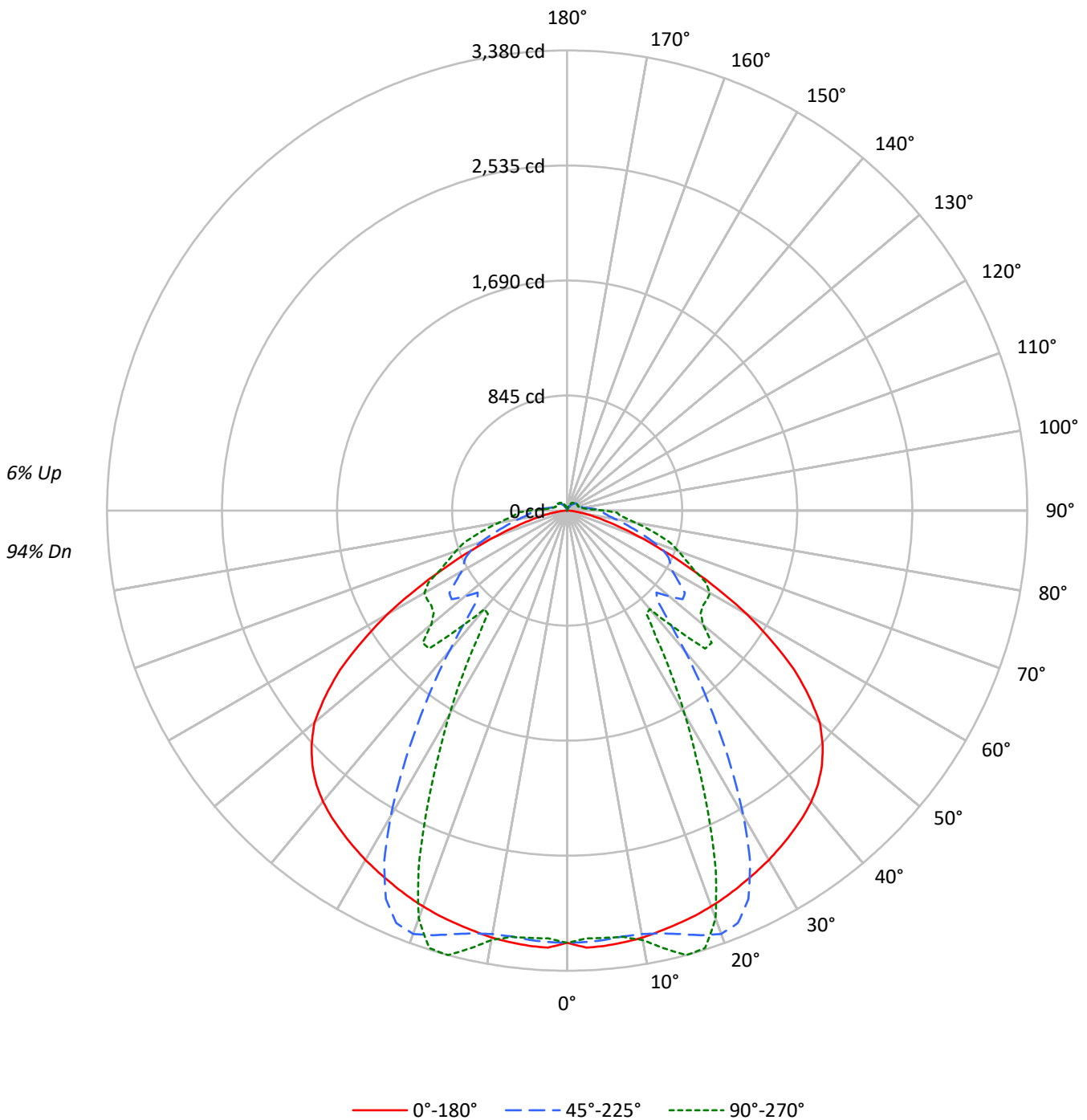
Lumens per Lamp: N/A
Luminaire Lumens: 8153.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1 / 1.08
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')
CIE Type: Direct

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-L935-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L935-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 | 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 | 64 | 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° | 25648 | 25648 | 25648 |
| 5° | 25960 | 25048 | 24740 |
| 10° | 25993 | 24666 | 24654 |
| 15° | 26065 | 25013 | 25696 |
| 20° | 26306 | 25759 | 24119 |
| 25° | 26634 | 24755 | 18572 |
| 30° | 27159 | 20733 | 13210 |
| 35° | 27833 | 15703 | 8945 |
| 40° | 28683 | 11415 | 7575 |
| 45° | 29334 | 8281 | 11908 |
| 50° | 29375 | 9170 | 11301 |
| 55° | 27457 | 10553 | 11159 |
| 60° | 23394 | 9656 | 11862 |
| 65° | 17600 | 9738 | 10850 |
| 70° | 12350 | 8865 | 10100 |
| 75° | 8092 | 7428 | 9063 |
| 80° | 5167 | 6363 | 7544 |
| 85° | 2781 | 6048 | 6772 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L935-CD1-U

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 301.9 | 3.7 |
| 10°-20° | 911.9 | 11.2 |
| 20°-30° | 1324.7 | 16.2 |
| 30°-40° | 1265.6 | 15.5 |
| 40°-50° | 1157.7 | 14.2 |
| 50°-60° | 1069.0 | 13.1 |
| 60°-70° | 849.1 | 10.4 |
| 70°-80° | 524.1 | 6.4 |
| 80°-90° | 285.4 | 3.5 |
| 90°-100° | 144.2 | 1.8 |
| 100°-110° | 90.6 | 1.1 |
| 110°-120° | 76.8 | 0.9 |
| 120°-130° | 62.7 | 0.8 |
| 130°-140° | 45.0 | 0.6 |
| 140°-150° | 27.7 | 0.3 |
| 150°-160° | 13.2 | 0.2 |
| 160°-170° | 3.4 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 2538.5 | 31.1 |
| 0°-40° | 3804.1 | 46.7 |
| 0°-60° | 6030.8 | 74.0 |
| 0°-90° | 7689.3 | 94.3 |
| 90°-120° | 311.6 | 3.8 |
| 90°-150° | 447.1 | 5.5 |
| 90°-180° | 464.0 | 5.7 |
| 0°-180° | 8153.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3174 | 3174 | 3174 | 3174 | 3174 | |
| 5° | 3209 | 3160 | 3166 | 3149 | 3150 | 305 |
| 15° | 3142 | 3099 | 3220 | 3340 | 3380 | 889 |
| 25° | 3031 | 3090 | 3149 | 2665 | 2448 | 1401 |
| 35° | 2883 | 2837 | 1912 | 1316 | 1145 | 1808 |
| 45° | 2647 | 1846 | 933 | 1190 | 1433 | 2034 |
| 55° | 2036 | 947 | 1057 | 1137 | 1217 | 1793 |
| 65° | 982 | 614 | 823 | 1000 | 1024 | 993 |
| 75° | 289 | 327 | 493 | 653 | 697 | 328 |
| 85° | 41 | 139 | 280 | 381 | 386 | 52 |
| 90° | 1 | 104 | 250 | 296 | 274 | 2 |
| 95° | 0 | 97 | 173 | 153 | 145 | 0 |
| 105° | 0 | 87 | 107 | 97 | 96 | 0 |
| 115° | 0 | 72 | 103 | 91 | 87 | 1 |
| 125° | 1 | 58 | 91 | 88 | 84 | 1 |
| 135° | 1 | 41 | 73 | 80 | 77 | 1 |
| 145° | 1 | 25 | 51 | 65 | 69 | 1 |
| 155° | 3 | 16 | 31 | 41 | 49 | 1 |
| 165° | 3 | 8 | 16 | 20 | 27 | 1 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3173.9 | 3173.9 | 3173.9 | 3173.9 | 3173.9 |
| 2.5° | 3213.2 | 3166.9 | 3172.5 | 3162.6 | 3145.8 |
| 5° | 3209.0 | 3159.8 | 3165.5 | 3148.6 | 3150.0 |
| 7.5° | 3197.8 | 3147.2 | 3154.2 | 3151.4 | 3158.4 |
| 10° | 3185.1 | 3131.7 | 3158.4 | 3182.3 | 3203.4 |
| 12.5° | 3162.6 | 3114.9 | 3179.5 | 3249.8 | 3293.3 |
| 15° | 3141.6 | 3099.4 | 3220.2 | 3339.7 | 3380.4 |
| 17.5° | 3120.5 | 3093.8 | 3270.8 | 3374.8 | 3369.2 |
| 20° | 3093.8 | 3091.0 | 3308.8 | 3273.6 | 3187.9 |
| 22.5° | 3064.3 | 3092.4 | 3279.3 | 3022.1 | 2853.5 |
| 25° | 3030.6 | 3089.6 | 3148.6 | 2665.3 | 2447.5 |
| 27.5° | 2996.9 | 3076.9 | 2911.2 | 2274.7 | 2059.7 |
| 30° | 2963.1 | 3043.2 | 2590.8 | 1917.8 | 1722.5 |
| 32.5° | 2923.8 | 2970.2 | 2242.4 | 1601.7 | 1421.9 |
| 35° | 2883.1 | 2836.7 | 1912.2 | 1316.5 | 1145.1 |
| 37.5° | 2840.9 | 2644.2 | 1615.7 | 1066.4 | 956.8 |
| 40° | 2790.3 | 2402.5 | 1343.2 | 914.7 | 944.2 |
| 42.5° | 2727.1 | 2130.0 | 1102.9 | 959.6 | 1164.7 |
| 45° | 2647.0 | 1846.2 | 932.9 | 1190.0 | 1433.1 |
| 47.5° | 2545.9 | 1573.6 | 890.8 | 1362.8 | 1438.7 |
| 50° | 2423.6 | 1323.5 | 979.3 | 1306.6 | 1301.0 |
| 52.5° | 2238.2 | 1115.6 | 1069.2 | 1191.4 | 1236.4 |
| 55° | 2035.8 | 947.0 | 1056.6 | 1136.6 | 1216.7 |
| 57.5° | 1780.1 | 833.2 | 969.4 | 1125.4 | 1218.1 |
| 60° | 1525.8 | 757.3 | 895.0 | 1124.0 | 1211.1 |
| 62.5° | 1244.8 | 688.4 | 857.0 | 1097.3 | 1149.3 |
| 65° | 982.1 | 614.0 | 823.3 | 1000.4 | 1024.2 |
| 67.5° | 753.1 | 538.1 | 764.3 | 892.2 | 939.9 |
| 70° | 567.6 | 463.6 | 671.6 | 809.3 | 868.3 |
| 72.5° | 408.9 | 393.4 | 576.0 | 736.2 | 798.0 |
| 75° | 289.4 | 327.4 | 493.2 | 653.3 | 696.9 |
| 77.5° | 199.5 | 266.9 | 422.9 | 562.0 | 597.1 |
| 80° | 130.7 | 213.6 | 359.7 | 483.3 | 507.2 |
| 82.5° | 78.7 | 171.4 | 311.9 | 422.9 | 435.5 |
| 85° | 40.7 | 139.1 | 279.6 | 380.8 | 386.4 |
| 87.5° | 12.6 | 116.6 | 261.3 | 361.1 | 368.1 |
| 90° | 1.4 | 104.0 | 250.1 | 296.5 | 274.0 |
| 92.5° | 0.0 | 98.3 | 216.4 | 202.3 | 181.2 |
| 95° | 0.0 | 96.9 | 172.8 | 153.1 | 144.7 |
| 97.5° | 0.0 | 94.1 | 141.9 | 127.9 | 123.6 |
| 100° | 0.0 | 91.3 | 122.2 | 112.4 | 111.0 |
| 102.5° | 0.0 | 89.9 | 111.0 | 102.6 | 101.2 |
| 105° | 0.0 | 87.1 | 106.8 | 96.9 | 95.5 |
| 107.5° | 0.0 | 82.9 | 104.0 | 94.1 | 91.3 |
| 110° | 0.0 | 78.7 | 104.0 | 92.7 | 88.5 |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-92HL-SLC-UNV-L935-CD1-U

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-----|-------|-------|-------|------|
| 112.5° | 0.0 | 74.5 | 104.0 | 91.3 | 87.1 |
| 115° | 0.0 | 71.7 | 102.6 | 91.3 | 87.1 |
| 117.5° | 1.4 | 68.8 | 101.2 | 91.3 | 87.1 |
| 120° | 0.0 | 66.0 | 98.3 | 91.3 | 85.7 |
| 122.5° | 1.4 | 61.8 | 95.5 | 89.9 | 85.7 |
| 125° | 1.4 | 57.6 | 91.3 | 88.5 | 84.3 |
| 127.5° | 1.4 | 53.4 | 87.1 | 85.7 | 81.5 |
| 130° | 1.4 | 49.2 | 82.9 | 84.3 | 80.1 |
| 132.5° | 1.4 | 45.0 | 77.3 | 81.5 | 78.7 |
| 135° | 1.4 | 40.7 | 73.1 | 80.1 | 77.3 |
| 137.5° | 1.4 | 36.5 | 67.4 | 75.9 | 75.9 |
| 140° | 1.4 | 32.3 | 61.8 | 73.1 | 74.5 |
| 142.5° | 1.4 | 29.5 | 56.2 | 70.2 | 71.7 |
| 145° | 1.4 | 25.3 | 50.6 | 64.6 | 68.8 |
| 147.5° | 1.4 | 22.5 | 45.0 | 59.0 | 64.6 |
| 150° | 1.4 | 19.7 | 39.3 | 53.4 | 59.0 |
| 152.5° | 1.4 | 16.9 | 35.1 | 46.4 | 54.8 |
| 155° | 2.8 | 15.5 | 30.9 | 40.7 | 49.2 |
| 157.5° | 2.8 | 12.6 | 25.3 | 35.1 | 42.1 |
| 160° | 2.8 | 11.2 | 22.5 | 29.5 | 37.9 |
| 162.5° | 2.8 | 9.8 | 18.3 | 25.3 | 32.3 |
| 165° | 2.8 | 8.4 | 15.5 | 19.7 | 26.7 |
| 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)