

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-LD5-56SL-SLN-UNV-L830-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 (P27402)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SNLED-LD5-56SL-SLN-UNV-L830-CD1-U  
Description: 4FT LINEAR SNLED LED FIXTURE  
SQUARE NARROW LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

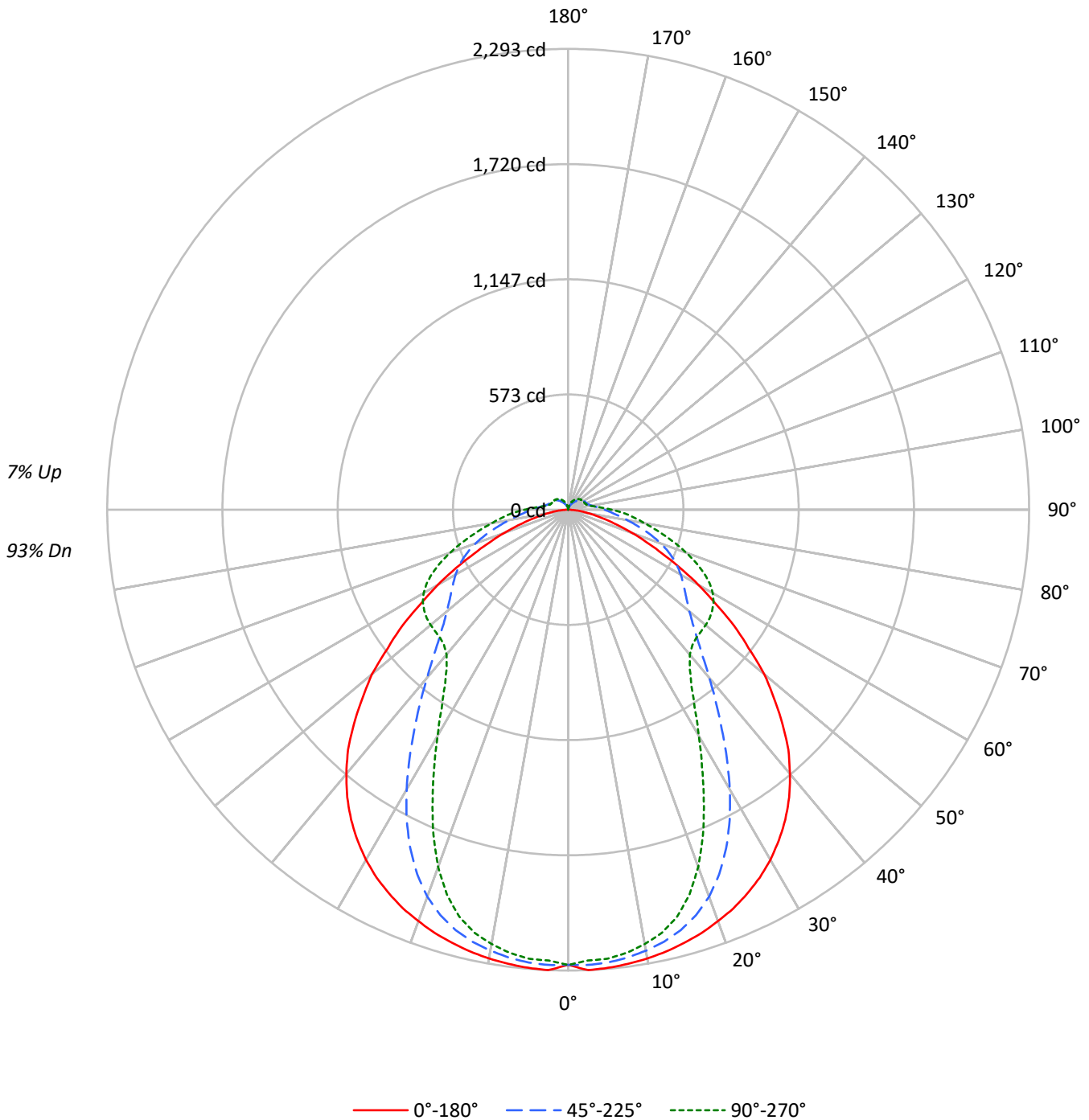
Lumens per Lamp: N/A  
Luminaire Lumens: 5695.0 lumens  
Efficiency: N/A  
Efficacy: 123.8 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 0.96 / 1.11  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.12')  
CIE Type: Direct

Input Watts (W): 46  
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



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### Luminous Intensity Polar Plot





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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   | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 95 | 95 | 95 | 93 |
| 1   | 107 | 102 | 97  | 93  | 103 | 99  | 94  | 91  | 93  | 90  | 87  | 88  | 85  | 83  | 83 | 81 | 79 | 76 |
| 2   | 97  | 89  | 82  | 76  | 94  | 86  | 80  | 75  | 81  | 76  | 72  | 77  | 73  | 69  | 73 | 70 | 66 | 64 |
| 3   | 89  | 78  | 70  | 64  | 86  | 76  | 69  | 63  | 72  | 66  | 61  | 68  | 63  | 59  | 65 | 61 | 57 | 54 |
| 4   | 82  | 70  | 61  | 55  | 79  | 68  | 60  | 54  | 65  | 58  | 52  | 61  | 55  | 51  | 58 | 53 | 49 | 47 |
| 5   | 75  | 63  | 54  | 47  | 73  | 61  | 53  | 47  | 58  | 51  | 46  | 55  | 49  | 44  | 53 | 48 | 43 | 41 |
| 6   | 70  | 57  | 48  | 42  | 67  | 55  | 47  | 41  | 53  | 46  | 40  | 51  | 44  | 39  | 48 | 43 | 39 | 36 |
| 7   | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 37  | 48  | 41  | 36  | 46  | 40  | 35  | 44 | 39 | 35 | 32 |
| 8   | 61  | 47  | 39  | 33  | 59  | 46  | 39  | 33  | 44  | 37  | 32  | 43  | 36  | 32  | 41 | 35 | 31 | 29 |
| 9   | 57  | 44  | 36  | 30  | 55  | 43  | 35  | 30  | 41  | 34  | 29  | 40  | 33  | 29  | 38 | 33 | 28 | 27 |
| 10  | 53  | 40  | 33  | 28  | 52  | 40  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 35 | 30 | 26 | 24 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 18300 | 18300 | 18300 |
| 5°  | 18511 | 17896 | 17616 |
| 10° | 18504 | 17401 | 16891 |
| 15° | 18511 | 16819 | 15927 |
| 20° | 18519 | 15951 | 14304 |
| 25° | 18527 | 14617 | 12113 |
| 30° | 18438 | 12861 | 9963  |
| 35° | 18175 | 10943 | 8349  |
| 40° | 17644 | 9268  | 7548  |
| 45° | 16708 | 8054  | 7491  |
| 50° | 15435 | 7362  | 7753  |
| 55° | 13592 | 7077  | 8024  |
| 60° | 11468 | 6976  | 8135  |
| 65° | 9224  | 6821  | 7882  |
| 70° | 7409  | 6469  | 7268  |
| 75° | 5587  | 5854  | 6450  |
| 80° | 4123  | 5258  | 5738  |
| 85° | 2760  | 4960  | 5279  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 214.2  | 3.8       |
| 10°-20°   | 605.6  | 10.6      |
| 20°-30°   | 846.5  | 14.9      |
| 30°-40°   | 878.1  | 15.4      |
| 40°-50°   | 811.2  | 14.2      |
| 50°-60°   | 724.2  | 12.7      |
| 60°-70°   | 586.9  | 10.3      |
| 70°-80°   | 390.4  | 6.9       |
| 80°-90°   | 223.5  | 3.9       |
| 90°-100°  | 123.7  | 2.2       |
| 100°-110° | 83.7   | 1.5       |
| 110°-120° | 69.7   | 1.2       |
| 120°-130° | 56.7   | 1.0       |
| 130°-140° | 40.9   | 0.7       |
| 140°-150° | 24.7   | 0.4       |
| 150°-160° | 11.9   | 0.2       |
| 160°-170° | 3.1    | 0.1       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1666.3 | 29.3      |
| 0°-40°    | 2544.4 | 44.7      |
| 0°-60°    | 4079.8 | 71.6      |
| 0°-90°    | 5280.6 | 92.7      |
| 90°-120°  | 277.2  | 4.9       |
| 90°-150°  | 399.4  | 7.0       |
| 90°-180°  | 414.0  | 7.3       |
| 0°-180°   | 5695.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2265 | 2265  | 2265 | 2265  | 2265 |      |
| 5°   | 2288 | 2250  | 2262 | 2246  | 2243 | 218  |
| 15°  | 2231 | 2184  | 2165 | 2116  | 2095 | 630  |
| 25°  | 2108 | 2015  | 1859 | 1664  | 1596 | 971  |
| 35°  | 1883 | 1676  | 1333 | 1119  | 1069 | 1175 |
| 45°  | 1508 | 1195  | 907  | 875   | 902  | 1159 |
| 55°  | 1008 | 762   | 709  | 824   | 875  | 896  |
| 65°  | 515  | 461   | 577  | 707   | 744  | 520  |
| 75°  | 200  | 250   | 389  | 476   | 496  | 219  |
| 85°  | 40   | 116   | 229  | 293   | 301  | 46   |
| 90°  | 2    | 82    | 181  | 218   | 216  | 3    |
| 95°  | 2    | 69    | 144  | 154   | 149  | 1    |
| 105° | 1    | 60    | 103  | 100   | 96   | 1    |
| 115° | 1    | 54    | 92   | 90    | 88   | 1    |
| 125° | 1    | 46    | 81   | 85    | 83   | 1    |
| 135° | 2    | 34    | 64   | 75    | 75   | 1    |
| 145° | 2    | 22    | 44   | 58    | 62   | 1    |
| 155° | 2    | 14    | 28   | 36    | 44   | 1    |
| 165° | 2    | 8     | 14   | 18    | 24   | 0    |
| 175° | 0    | 0     | 0    | 0     | 0    | 0    |
| 180° | 0    | 0     | 0    | 0     | 0    | 0    |



TEST NUMBER: P#

CATALOG NUMBER: 4SNLED-LD5-56SL-SLN-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2264.6 | 2264.6 | 2264.6 | 2264.6 | 2264.6 |
| 2.5°   | 2293.1 | 2255.7 | 2267.5 | 2257.7 | 2244.9 |
| 5°     | 2288.2 | 2249.8 | 2261.6 | 2245.9 | 2242.9 |
| 7.5°   | 2279.3 | 2240.9 | 2247.8 | 2229.1 | 2224.2 |
| 10°    | 2267.5 | 2227.2 | 2228.1 | 2201.6 | 2194.7 |
| 12.5°  | 2251.8 | 2207.5 | 2201.6 | 2165.2 | 2155.3 |
| 15°    | 2231.1 | 2183.9 | 2165.2 | 2116.0 | 2095.3 |
| 17.5°  | 2208.5 | 2153.3 | 2115.0 | 2039.2 | 2006.7 |
| 20°    | 2178.0 | 2116.0 | 2049.0 | 1933.9 | 1890.6 |
| 22.5°  | 2147.4 | 2070.7 | 1963.4 | 1809.9 | 1751.8 |
| 25°    | 2108.1 | 2014.6 | 1859.1 | 1664.2 | 1596.3 |
| 27.5°  | 2063.8 | 1948.6 | 1739.0 | 1514.6 | 1441.8 |
| 30°    | 2011.6 | 1868.9 | 1607.1 | 1368.0 | 1299.1 |
| 32.5°  | 1950.6 | 1779.4 | 1468.4 | 1236.1 | 1172.1 |
| 35°    | 1882.7 | 1676.0 | 1332.6 | 1119.0 | 1068.8 |
| 37.5°  | 1805.0 | 1562.9 | 1206.6 | 1024.5 | 992.0  |
| 40°    | 1716.4 | 1439.8 | 1090.5 | 951.7  | 940.9  |
| 42.5°  | 1620.9 | 1319.8 | 991.1  | 904.4  | 914.3  |
| 45°    | 1507.7 | 1194.8 | 907.4  | 874.9  | 901.5  |
| 47.5°  | 1388.7 | 1072.7 | 839.5  | 858.2  | 896.6  |
| 50°    | 1273.5 | 959.6  | 786.3  | 847.4  | 892.6  |
| 52.5°  | 1130.8 | 858.2  | 744.0  | 837.5  | 886.7  |
| 55°    | 1007.8 | 761.7  | 708.6  | 823.7  | 874.9  |
| 57.5°  | 866.1  | 675.1  | 677.1  | 806.0  | 857.2  |
| 60°    | 748.0  | 596.4  | 646.6  | 781.4  | 830.6  |
| 62.5°  | 627.9  | 525.5  | 613.1  | 748.9  | 793.2  |
| 65°    | 514.7  | 460.6  | 576.7  | 706.6  | 744.0  |
| 67.5°  | 420.2  | 401.5  | 535.4  | 655.5  | 686.9  |
| 70°    | 340.5  | 347.4  | 490.1  | 598.4  | 624.9  |
| 72.5°  | 261.8  | 297.2  | 440.9  | 537.4  | 560.0  |
| 75°    | 199.8  | 250.0  | 388.7  | 476.3  | 496.0  |
| 77.5°  | 147.6  | 208.6  | 341.5  | 421.2  | 438.0  |
| 80°    | 104.3  | 172.2  | 297.2  | 373.0  | 385.8  |
| 82.5°  | 69.9   | 141.7  | 260.8  | 329.7  | 341.5  |
| 85°    | 40.4   | 116.1  | 229.3  | 293.3  | 301.2  |
| 87.5°  | 16.7   | 96.4   | 203.7  | 255.9  | 259.8  |
| 90°    | 2.0    | 81.7   | 181.1  | 218.5  | 216.5  |
| 92.5°  | 2.0    | 73.8   | 161.4  | 183.1  | 178.1  |
| 95°    | 2.0    | 68.9   | 143.7  | 153.5  | 148.6  |
| 97.5°  | 2.0    | 65.9   | 127.9  | 131.9  | 127.0  |
| 100°   | 1.0    | 64.0   | 117.1  | 117.1  | 112.2  |
| 102.5° | 1.0    | 62.0   | 109.2  | 106.3  | 102.4  |
| 105°   | 1.0    | 60.0   | 103.3  | 100.4  | 95.5   |
| 107.5° | 1.0    | 59.0   | 99.4   | 96.4   | 91.5   |
| 110°   | 1.0    | 57.1   | 96.4   | 93.5   | 89.6   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45°  | 67.5° | 90°  |
|--------|-----|-------|------|-------|------|
| 112.5° | 1.0 | 56.1  | 94.5 | 92.5  | 87.6 |
| 115°   | 1.0 | 54.1  | 91.5 | 90.5  | 87.6 |
| 117.5° | 1.0 | 52.2  | 89.6 | 89.6  | 86.6 |
| 120°   | 1.0 | 50.2  | 86.6 | 88.6  | 85.6 |
| 122.5° | 1.0 | 48.2  | 83.7 | 86.6  | 83.7 |
| 125°   | 1.0 | 46.3  | 80.7 | 84.6  | 82.7 |
| 127.5° | 2.0 | 43.3  | 76.8 | 82.7  | 80.7 |
| 130°   | 1.0 | 40.4  | 72.8 | 80.7  | 79.7 |
| 132.5° | 2.0 | 37.4  | 68.9 | 77.7  | 77.7 |
| 135°   | 2.0 | 34.4  | 64.0 | 74.8  | 74.8 |
| 137.5° | 2.0 | 30.5  | 59.0 | 70.9  | 71.8 |
| 140°   | 2.0 | 27.6  | 54.1 | 66.9  | 68.9 |
| 142.5° | 2.0 | 24.6  | 49.2 | 63.0  | 65.9 |
| 145°   | 2.0 | 21.7  | 44.3 | 58.1  | 62.0 |
| 147.5° | 2.0 | 19.7  | 39.4 | 52.2  | 58.1 |
| 150°   | 2.0 | 16.7  | 35.4 | 47.2  | 53.1 |
| 152.5° | 2.0 | 14.8  | 31.5 | 42.3  | 49.2 |
| 155°   | 2.0 | 13.8  | 27.6 | 36.4  | 44.3 |
| 157.5° | 2.0 | 11.8  | 23.6 | 31.5  | 39.4 |
| 160°   | 2.0 | 9.8   | 19.7 | 27.6  | 33.5 |
| 162.5° | 2.0 | 8.9   | 16.7 | 22.6  | 29.5 |
| 165°   | 2.0 | 7.9   | 13.8 | 17.7  | 23.6 |
| 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)