

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: P289482

Luminaire Tested: **4RSRK-RM-65-HE-L935**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P289482  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1810-975-8)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4RSRK-RM-65-HE-L935  
Description: 4ft RSRK, 650 LUMEN PER FOOT 90CRI 3500K CCT WITH ROUND MEDIUM LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

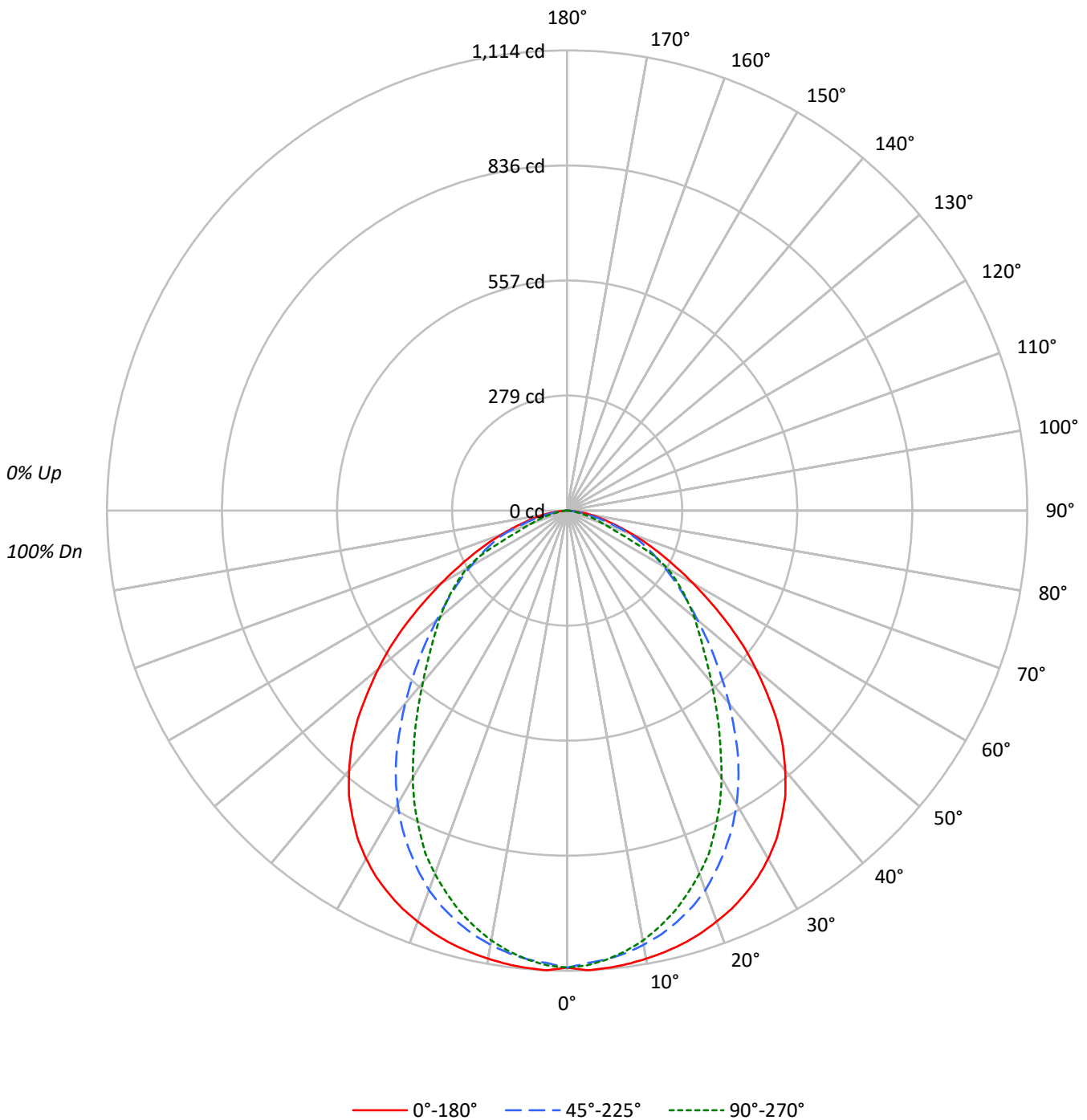
Lumens per Lamp: N/A  
Luminaire Lumens: 2348.9 lumens  
Efficiency: N/A  
Efficacy: 124.3 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.05 / 1.18  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 18.9  
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  | 50  | 30 | 10 | 50 | 30 | 10  | 0 |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |     |   |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    | 100 |   |  |   |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 101 | 97  | 100 | 97  | 94  | 96  | 94  | 92  | 92  | 91  | 89  | 87  |    |    |    |    | 87  |   |  |   |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  | 86  | 82  | 78  | 83  | 79  | 77  | 75  |    |    |    |    | 75  |   |  |   |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 66  | 64  |    |    |    |    | 64  |   |  |   |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 61  | 71  | 65  | 60  | 69  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    |    | 56  |   |  |   |
| 5   | 80  | 68  | 59  | 53  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |    |    |    |    | 49  |   |  |   |
| 6   | 74  | 61  | 53  | 47  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 57  | 51  | 46  | 56  | 50  | 46  | 44  |    |    |    |    | 44  |   |  |   |
| 7   | 69  | 56  | 48  | 42  | 67  | 55  | 48  | 42  | 54  | 47  | 42  | 52  | 46  | 41  | 51  | 45  | 41  | 39  |    |    |    |    | 39  |   |  |   |
| 8   | 64  | 52  | 44  | 38  | 63  | 51  | 43  | 38  | 50  | 43  | 38  | 48  | 42  | 37  | 47  | 42  | 37  | 35  |    |    |    |    | 35  |   |  |   |
| 9   | 60  | 48  | 40  | 34  | 59  | 47  | 39  | 34  | 46  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |    |    |    |    | 32  |   |  |   |
| 10  | 57  | 44  | 37  | 32  | 55  | 44  | 36  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 29  |    |    |    |    | 29  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2978 | 2978 | 2978 |
| 5°  | 3003 | 2946 | 2948 |
| 10° | 3010 | 2917 | 2888 |
| 15° | 3023 | 2870 | 2798 |
| 20° | 3031 | 2801 | 2680 |
| 25° | 3037 | 2688 | 2520 |
| 30° | 3024 | 2550 | 2322 |
| 35° | 2976 | 2369 | 2102 |
| 40° | 2884 | 2143 | 1907 |
| 45° | 2733 | 1922 | 1765 |
| 50° | 2497 | 1723 | 1681 |
| 55° | 2217 | 1574 | 1600 |
| 60° | 1891 | 1450 | 1510 |
| 65° | 1596 | 1358 | 1077 |
| 70° | 1320 | 1236 | 731  |
| 75° | 1069 | 909  | 573  |
| 80° | 888  | 649  | 353  |
| 85° | 611  | 272  | 238  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 104.1  | 4.4       |
| 10°-20°   | 292.6  | 12.5      |
| 20°-30°   | 423.7  | 18.0      |
| 30°-40°   | 465.1  | 19.8      |
| 40°-50°   | 420.2  | 17.9      |
| 50°-60°   | 327.6  | 13.9      |
| 60°-70°   | 207.4  | 8.8       |
| 70°-80°   | 90.8   | 3.9       |
| 80°-90°   | 17.4   | 0.7       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 820.4  | 34.9      |
| 0°-40°    | 1285.5 | 54.7      |
| 0°-60°    | 2033.3 | 86.6      |
| 0°-90°    | 2348.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2348.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1106 | 1106  | 1106 | 1106  | 1106 |      |
| 5°  | 1112 | 1104  | 1091 | 1096  | 1091 | 106  |
| 15° | 1085 | 1065  | 1030 | 1018  | 1004 | 306  |
| 25° | 1023 | 978   | 905  | 871   | 849  | 471  |
| 35° | 906  | 825   | 721  | 663   | 640  | 566  |
| 45° | 718  | 604   | 505  | 475   | 464  | 551  |
| 55° | 472  | 379   | 336  | 340   | 341  | 422  |
| 65° | 251  | 208   | 213  | 204   | 169  | 251  |
| 75° | 103  | 106   | 87   | 63    | 55   | 112  |
| 85° | 20   | 19    | 9    | 8     | 8    | 26   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1106.5 | 1106.5 | 1106.5 | 1106.5 | 1106.5 |
| 2.5°  | 1113.8 | 1107.6 | 1096.5 | 1105.0 | 1102.1 |
| 5°    | 1111.6 | 1104.3 | 1090.7 | 1096.5 | 1091.4 |
| 7.5°  | 1107.6 | 1098.8 | 1080.8 | 1082.6 | 1076.4 |
| 10°   | 1101.7 | 1089.9 | 1067.5 | 1065.3 | 1056.9 |
| 12.5° | 1094.3 | 1078.6 | 1051.0 | 1043.3 | 1032.3 |
| 15°   | 1085.2 | 1065.0 | 1030.1 | 1017.6 | 1004.4 |
| 17.5° | 1073.4 | 1047.7 | 1006.2 | 986.0  | 971.0  |
| 20°   | 1058.4 | 1027.5 | 978.0  | 951.5  | 935.8  |
| 22.5° | 1042.6 | 1004.4 | 942.7  | 915.2  | 897.6  |
| 25°   | 1022.8 | 978.0  | 905.3  | 871.1  | 848.8  |
| 27.5° | 1000.4 | 947.5  | 864.9  | 822.7  | 800.3  |
| 30°   | 973.2  | 911.9  | 820.5  | 769.8  | 747.4  |
| 32.5° | 943.1  | 871.5  | 772.0  | 718.1  | 692.0  |
| 35°   | 906.0  | 824.9  | 721.0  | 663.4  | 639.9  |
| 37.5° | 867.8  | 774.6  | 663.7  | 610.1  | 589.9  |
| 40°   | 820.9  | 721.4  | 610.1  | 560.9  | 543.0  |
| 42.5° | 772.8  | 662.3  | 556.5  | 515.8  | 501.1  |
| 45°   | 718.1  | 604.3  | 505.1  | 475.0  | 463.7  |
| 47.5° | 656.8  | 546.6  | 457.8  | 439.1  | 431.0  |
| 50°   | 596.5  | 489.0  | 411.5  | 404.2  | 401.6  |
| 52.5° | 536.7  | 432.5  | 371.5  | 372.2  | 370.8  |
| 55°   | 472.5  | 378.9  | 335.5  | 340.3  | 341.0  |
| 57.5° | 408.6  | 327.8  | 301.8  | 310.6  | 311.3  |
| 60°   | 351.3  | 284.1  | 269.5  | 280.1  | 280.5  |
| 62.5° | 298.5  | 243.4  | 240.1  | 250.4  | 238.3  |
| 65°   | 250.7  | 208.5  | 213.3  | 204.1  | 169.2  |
| 67.5° | 208.1  | 179.5  | 187.2  | 142.8  | 120.0  |
| 70°   | 167.8  | 151.2  | 157.1  | 106.5  | 92.9   |
| 72.5° | 132.5  | 127.8  | 118.9  | 83.0   | 72.3   |
| 75°   | 102.8  | 105.7  | 87.4   | 62.8   | 55.1   |
| 77.5° | 78.6   | 85.9   | 63.5   | 45.2   | 37.8   |
| 80°   | 57.3   | 64.2   | 41.9   | 27.2   | 22.8   |
| 82.5° | 37.8   | 40.4   | 22.0   | 14.0   | 12.1   |
| 85°   | 19.8   | 18.7   | 8.8    | 8.1    | 7.7    |
| 87.5° | 8.4    | 4.8    | 4.4    | 3.7    | 3.7    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)