

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: CORELITE

Report Number: P183555

Luminaire Tested: **E2-WS-5L40-1D-UNV-4-STD-DM5**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P183555  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26966)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: E2-WS-5L40-1D-UNV-4-STD-DM5  
Description: CORELITE ELEMENT SUSPENDED DIRECT-INDIRECT LED LUMINAIRE, 4 FOOT.  
WaveStream WITH FROSTED LENS. 50% UP / 50% DOWN.  
Light Source: (336)4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7014.7 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.37 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 3.58' x H: 0.21')  
CIE Type: General Diffuse

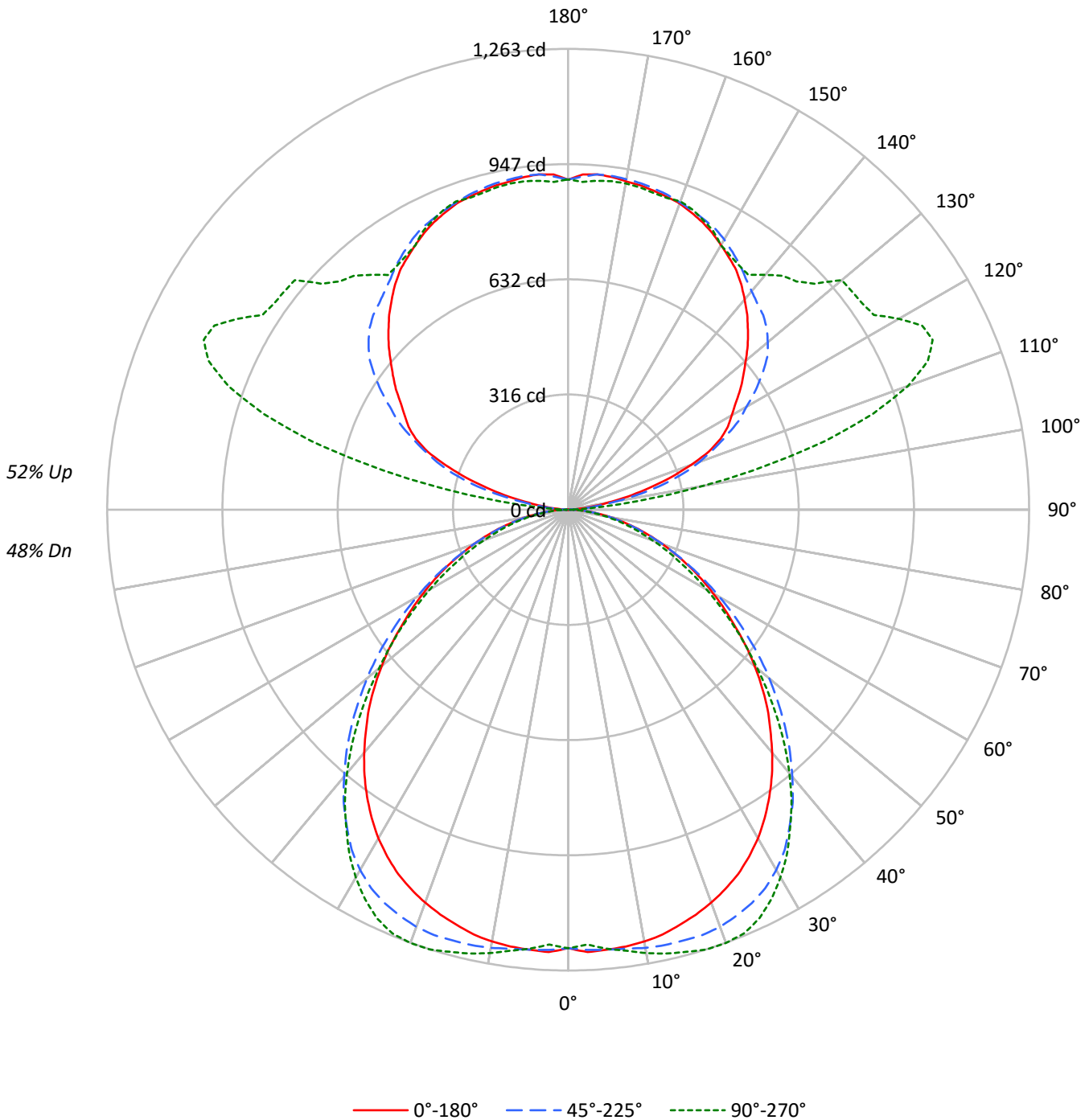
Input Watts (W): 79.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 68 | 68 | 68 | 55 | 55 | 55 | 48 |
| 1   | 98  | 93  | 89  | 86  | 90 | 86 | 83 | 80 | 72 | 70 | 68 | 60 | 58 | 57 | 49 | 47 | 46 | 41 |
| 2   | 89  | 82  | 75  | 70  | 82 | 75 | 70 | 66 | 64 | 60 | 56 | 53 | 50 | 48 | 43 | 41 | 39 | 35 |
| 3   | 81  | 72  | 64  | 59  | 74 | 66 | 60 | 55 | 56 | 51 | 48 | 47 | 43 | 40 | 38 | 36 | 33 | 29 |
| 4   | 74  | 64  | 56  | 50  | 68 | 59 | 52 | 47 | 50 | 45 | 41 | 42 | 38 | 35 | 34 | 31 | 29 | 25 |
| 5   | 68  | 57  | 49  | 43  | 63 | 52 | 45 | 40 | 45 | 39 | 35 | 37 | 33 | 30 | 31 | 28 | 25 | 22 |
| 6   | 63  | 51  | 43  | 37  | 58 | 47 | 40 | 35 | 40 | 35 | 30 | 34 | 30 | 26 | 28 | 25 | 22 | 19 |
| 7   | 58  | 46  | 38  | 32  | 53 | 43 | 36 | 30 | 36 | 31 | 27 | 31 | 26 | 23 | 25 | 22 | 20 | 17 |
| 8   | 54  | 42  | 34  | 29  | 49 | 39 | 32 | 27 | 33 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 | 15 |
| 9   | 50  | 38  | 30  | 25  | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 26 | 22 | 19 | 21 | 18 | 16 | 14 |
| 10  | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 14 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9626 | 9626 | 9626 |
| 5°  | 9684 | 9378 | 9260 |
| 10° | 9675 | 9213 | 9142 |
| 15° | 9621 | 9081 | 9056 |
| 20° | 9566 | 8955 | 8959 |
| 25° | 9481 | 8747 | 8684 |
| 30° | 9308 | 8432 | 8149 |
| 35° | 9028 | 7933 | 7468 |
| 40° | 8671 | 7320 | 6727 |
| 45° | 8273 | 6639 | 5906 |
| 50° | 7774 | 5913 | 5067 |
| 55° | 7198 | 5143 | 4302 |
| 60° | 6671 | 4380 | 3575 |
| 65° | 6140 | 3635 | 2897 |
| 70° | 5517 | 2919 | 2288 |
| 75° | 4858 | 2221 | 1716 |
| 80° | 4076 | 1528 | 1143 |
| 85° | 3081 | 816  | 552  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 115.4  | 1.6       |
| 10°-20°   | 344.3  | 4.9       |
| 20°-30°   | 540.6  | 7.7       |
| 30°-40°   | 642.8  | 9.2       |
| 40°-50°   | 626.9  | 8.9       |
| 50°-60°   | 516.5  | 7.4       |
| 60°-70°   | 359.2  | 5.1       |
| 70°-80°   | 197.5  | 2.8       |
| 80°-90°   | 58.9   | 0.8       |
| 90°-100°  | 79.3   | 1.1       |
| 100°-110° | 406.4  | 5.8       |
| 110°-120° | 623.8  | 8.9       |
| 120°-130° | 651.3  | 9.3       |
| 130°-140° | 596.0  | 8.5       |
| 140°-150° | 509.2  | 7.3       |
| 150°-160° | 403.1  | 5.7       |
| 160°-170° | 256.2  | 3.7       |
| 170°-180° | 87.3   | 1.2       |
| 0°-30°    | 1000.4 | 14.3      |
| 0°-40°    | 1643.2 | 23.4      |
| 0°-60°    | 2786.6 | 39.7      |
| 0°-90°    | 3402.1 | 48.5      |
| 90°-120°  | 1109.5 | 15.8      |
| 90°-150°  | 2866.0 | 40.9      |
| 90°-180°  | 3613.0 | 51.5      |
| 0°-180°   | 7014.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1202 | 1202  | 1202 | 1202  | 1202 |      |
| 5°   | 1210 | 1199  | 1210 | 1208  | 1208 | 115  |
| 15°  | 1178 | 1181  | 1222 | 1249  | 1255 | 333  |
| 25°  | 1102 | 1119  | 1190 | 1225  | 1237 | 507  |
| 35°  | 961  | 984   | 1058 | 1064  | 1061 | 600  |
| 45°  | 773  | 802   | 840  | 823   | 811  | 594  |
| 55°  | 558  | 585   | 596  | 570   | 552  | 501  |
| 65°  | 364  | 376   | 370  | 350   | 335  | 361  |
| 75°  | 191  | 197   | 188  | 176   | 170  | 203  |
| 85°  | 56   | 59    | 53   | 47    | 44   | 58   |
| 90°  | 0    | 3     | 3    | 3     | 3    | 5    |
| 95°  | 29   | 32    | 38   | 82    | 91   | 42   |
| 105° | 229  | 229   | 270  | 594   | 729  | 243  |
| 115° | 461  | 455   | 476  | 834   | 1102 | 448  |
| 125° | 576  | 611   | 649  | 870   | 984  | 515  |
| 135° | 696  | 708   | 755  | 826   | 884  | 537  |
| 145° | 802  | 805   | 820  | 811   | 817  | 501  |
| 155° | 870  | 867   | 878  | 878   | 876  | 401  |
| 165° | 905  | 905   | 911  | 902   | 899  | 256  |
| 175° | 923  | 914   | 923  | 917   | 905  | 88   |
| 180° | 905  | 905   | 905  | 905   | 905  |      |



TEST NUMBER: P183555

CATALOG NUMBER: E2-WS-5L40-1D-UNV-4-STD-DM5

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1201.7 | 1201.7 | 1201.7 | 1201.7 | 1201.7 |
| 2.5°   | 1213.5 | 1198.8 | 1207.6 | 1204.6 | 1192.9 |
| 5°     | 1210.5 | 1198.8 | 1210.5 | 1207.6 | 1207.6 |
| 7.5°   | 1207.6 | 1195.8 | 1213.5 | 1219.3 | 1219.3 |
| 10°    | 1201.7 | 1192.9 | 1219.3 | 1228.1 | 1234.0 |
| 12.5°  | 1192.9 | 1187.0 | 1222.3 | 1239.9 | 1245.8 |
| 15°    | 1178.2 | 1181.1 | 1222.3 | 1248.7 | 1254.6 |
| 17.5°  | 1163.5 | 1172.3 | 1222.3 | 1251.6 | 1263.4 |
| 20°    | 1145.9 | 1157.6 | 1216.4 | 1251.6 | 1263.4 |
| 22.5°  | 1125.3 | 1140.0 | 1204.6 | 1242.8 | 1257.5 |
| 25°    | 1101.8 | 1119.4 | 1189.9 | 1225.2 | 1237.0 |
| 27.5°  | 1072.4 | 1093.0 | 1169.4 | 1198.8 | 1204.6 |
| 30°    | 1040.1 | 1060.7 | 1140.0 | 1160.6 | 1163.5 |
| 32.5°  | 1001.9 | 1028.3 | 1104.7 | 1116.5 | 1116.5 |
| 35°    | 960.8  | 984.3  | 1057.7 | 1063.6 | 1060.7 |
| 37.5°  | 916.7  | 943.1  | 1010.7 | 1007.8 | 1004.8 |
| 40°    | 869.7  | 896.1  | 954.9  | 949.0  | 943.1  |
| 42.5°  | 819.7  | 849.1  | 899.1  | 887.3  | 878.5  |
| 45°    | 772.7  | 802.1  | 840.3  | 822.7  | 810.9  |
| 47.5°  | 719.8  | 749.2  | 778.6  | 761.0  | 743.3  |
| 50°    | 667.0  | 693.4  | 719.8  | 690.5  | 675.8  |
| 52.5°  | 614.1  | 640.5  | 658.1  | 631.7  | 614.1  |
| 55°    | 558.2  | 584.7  | 596.4  | 570.0  | 552.4  |
| 57.5°  | 508.3  | 528.9  | 537.7  | 511.2  | 493.6  |
| 60°    | 458.3  | 476.0  | 478.9  | 455.4  | 437.8  |
| 62.5°  | 411.3  | 426.0  | 423.1  | 399.6  | 384.9  |
| 65°    | 364.3  | 376.1  | 370.2  | 349.6  | 334.9  |
| 67.5°  | 317.3  | 326.1  | 320.3  | 302.6  | 290.9  |
| 70°    | 273.2  | 282.1  | 273.2  | 255.6  | 246.8  |
| 72.5°  | 232.1  | 238.0  | 229.2  | 214.5  | 205.7  |
| 75°    | 191.0  | 196.9  | 188.0  | 176.3  | 170.4  |
| 77.5°  | 152.8  | 155.7  | 149.8  | 141.0  | 135.2  |
| 80°    | 117.5  | 120.5  | 114.6  | 108.7  | 102.8  |
| 82.5°  | 85.2   | 88.1   | 82.3   | 79.3   | 73.5   |
| 85°    | 55.8   | 58.8   | 52.9   | 47.0   | 44.1   |
| 87.5°  | 26.4   | 29.4   | 23.5   | 20.6   | 17.6   |
| 90°    | 0.0    | 2.9    | 2.9    | 2.9    | 2.9    |
| 92.5°  | 8.8    | 11.8   | 11.8   | 17.6   | 17.6   |
| 95°    | 29.4   | 32.3   | 38.2   | 82.3   | 91.1   |
| 97.5°  | 64.6   | 67.6   | 82.3   | 193.9  | 214.5  |
| 100°   | 108.7  | 114.6  | 138.1  | 329.1  | 373.1  |
| 102.5° | 167.5  | 170.4  | 205.7  | 470.1  | 552.4  |
| 105°   | 229.2  | 229.2  | 270.3  | 593.5  | 728.7  |
| 107.5° | 293.8  | 285.0  | 332.0  | 693.4  | 875.6  |
| 110°   | 358.5  | 346.7  | 382.0  | 761.0  | 990.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°    |
|--------|-------|-------|-------|-------|--------|
| 112.5° | 417.2 | 402.5 | 429.0 | 802.1 | 1066.5 |
| 115°   | 461.3 | 455.4 | 476.0 | 834.4 | 1101.8 |
| 117.5° | 493.6 | 502.4 | 525.9 | 857.9 | 1093.0 |
| 120°   | 517.1 | 546.5 | 564.1 | 878.5 | 1046.0 |
| 122.5° | 543.6 | 584.7 | 608.2 | 872.6 | 993.1  |
| 125°   | 575.9 | 611.1 | 649.3 | 869.7 | 984.3  |
| 127.5° | 605.3 | 628.8 | 687.5 | 872.6 | 981.3  |
| 130°   | 634.6 | 655.2 | 714.0 | 852.1 | 978.4  |
| 132.5° | 667.0 | 681.6 | 737.5 | 822.7 | 916.7  |
| 135°   | 696.3 | 708.1 | 755.1 | 825.6 | 884.4  |
| 137.5° | 725.7 | 731.6 | 766.9 | 828.6 | 869.7  |
| 140°   | 752.2 | 755.1 | 781.5 | 808.0 | 840.3  |
| 142.5° | 778.6 | 781.5 | 799.2 | 802.1 | 810.9  |
| 145°   | 802.1 | 805.0 | 819.7 | 810.9 | 816.8  |
| 147.5° | 819.7 | 822.7 | 837.4 | 825.6 | 825.6  |
| 150°   | 837.4 | 837.4 | 855.0 | 843.2 | 837.4  |
| 152.5° | 855.0 | 852.1 | 869.7 | 860.9 | 860.9  |
| 155°   | 869.7 | 866.8 | 878.5 | 878.5 | 875.6  |
| 157.5° | 881.4 | 878.5 | 887.3 | 893.2 | 890.3  |
| 160°   | 893.2 | 890.3 | 896.1 | 896.1 | 899.1  |
| 162.5° | 899.1 | 899.1 | 904.9 | 896.1 | 896.1  |
| 165°   | 904.9 | 904.9 | 910.8 | 902.0 | 899.1  |
| 167.5° | 910.8 | 910.8 | 916.7 | 907.9 | 904.9  |
| 170°   | 913.8 | 913.8 | 919.6 | 910.8 | 907.9  |
| 172.5° | 919.6 | 916.7 | 922.6 | 913.8 | 907.9  |
| 175°   | 922.6 | 913.8 | 922.6 | 916.7 | 904.9  |
| 177.5° | 919.6 | 910.8 | 913.8 | 904.9 | 899.1  |
| 180°   | 904.9 | 904.9 | 904.9 | 904.9 | 904.9  |

(END OF REPORT)