

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P709914

Luminaire Tested: DL2R-BB-M-050D-940-UNV-STD-W-4

Issue Date: 3/5/2020

**Test Information**

Test Method: LM-79-2019  
Report Number: P709914  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/5/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: DL2R-BB-M-050D-940-UNV-STD-W-4  
Description: CORELITE DISCREET DL2R RECESSED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

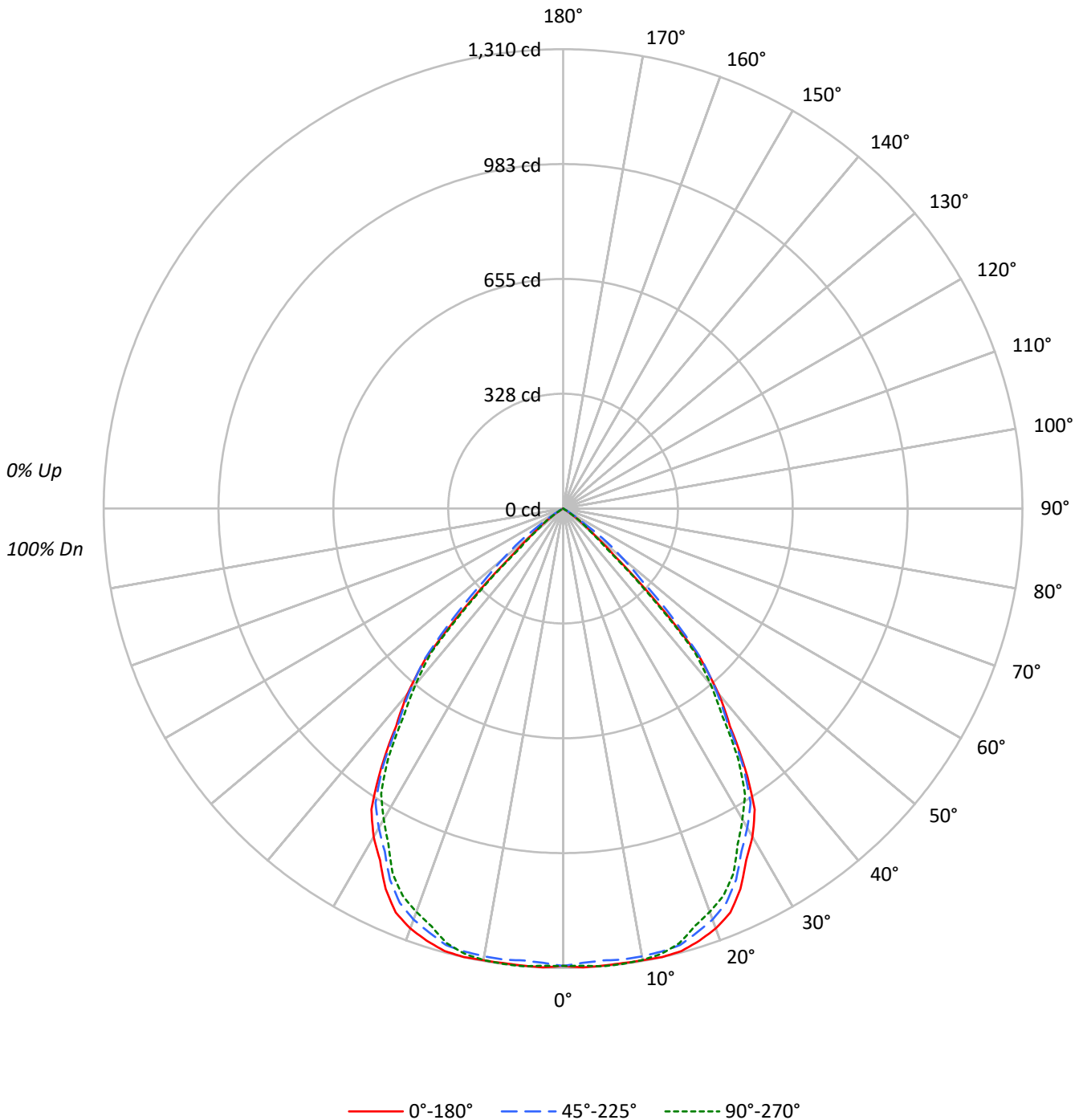
Lumens per Lamp: N/A  
Luminaire Lumens: 1946.9 lumens  
Efficiency: N/A  
Efficacy: 117.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): 120  
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: 24 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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | 100 | 100 |
| 1   | 113 | 110 | 107 | 105 | 110 | 108 | 105 | 103 | 104 | 102 | 100 | 100 | 98  | 97  | 96  | 95  | 94  | 92  | 92  | 92  |
| 2   | 106 | 101 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 92  | 90  | 93  | 90  | 88  | 90  | 88  | 86  | 84  | 84  | 84  |
| 3   | 100 | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 89  | 84  | 81  | 86  | 82  | 79  | 84  | 81  | 78  | 76  | 76  | 76  |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 78  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  | 70  | 70  | 70  |
| 5   | 88  | 79  | 72  | 67  | 86  | 78  | 72  | 67  | 76  | 70  | 66  | 74  | 69  | 66  | 72  | 68  | 65  | 63  | 63  | 63  |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 65  | 61  | 70  | 65  | 60  | 69  | 64  | 60  | 67  | 63  | 60  | 58  | 58  | 58  |
| 7   | 78  | 67  | 61  | 56  | 76  | 67  | 60  | 56  | 65  | 59  | 55  | 64  | 59  | 55  | 63  | 58  | 55  | 53  | 53  | 53  |
| 8   | 73  | 63  | 56  | 51  | 72  | 62  | 55  | 51  | 61  | 55  | 51  | 60  | 54  | 51  | 59  | 54  | 50  | 49  | 49  | 49  |
| 9   | 69  | 58  | 52  | 47  | 68  | 58  | 51  | 47  | 57  | 51  | 47  | 56  | 50  | 47  | 55  | 50  | 46  | 45  | 45  | 45  |
| 10  | 65  | 54  | 48  | 43  | 64  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 51  | 47  | 43  | 42  | 42  | 42  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 21056 | 21056 | 21056 |
| 5°  | 21199 | 20964 | 21230 |
| 10° | 21445 | 21254 | 21430 |
| 15° | 21832 | 21539 | 21443 |
| 20° | 21892 | 21424 | 21026 |
| 25° | 21316 | 20799 | 20469 |
| 30° | 20139 | 19594 | 19071 |
| 35° | 17852 | 17639 | 17142 |
| 40° | 14573 | 14366 | 13795 |
| 45° | 8590  | 10140 | 7994  |
| 50° | 2899  | 5652  | 2582  |
| 55° | 982   | 2021  | 1036  |
| 60° | 94    | 594   | 32    |
| 65° | 0     | 38    | 0     |
| 70° | 0     | 0     | 0     |
| 75° | 0     | 0     | 0     |
| 80° | 0     | 0     | 0     |
| 85° | 0     | 0     | 0     |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 10140 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 124.6  | 6.4       |
| 10°-20°   | 364.8  | 18.7      |
| 20°-30°   | 536.8  | 27.6      |
| 30°-40°   | 548.4  | 28.2      |
| 40°-50°   | 315.3  | 16.2      |
| 50°-60°   | 55.1   | 2.8       |
| 60°-70°   | 2.0    | 0.1       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 1026.1 | 52.7      |
| 0°-40°    | 1574.5 | 80.9      |
| 0°-60°    | 1944.9 | 99.9      |
| 0°-90°    | 1946.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1946.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1304 | 1304  | 1304 | 1304  | 1304 |      |
| 5°  | 1308 | 1305  | 1294 | 1312  | 1310 | 125  |
| 15° | 1306 | 1317  | 1289 | 1290  | 1283 | 368  |
| 25° | 1196 | 1207  | 1168 | 1155  | 1149 | 547  |
| 35° | 906  | 910   | 895  | 880   | 870  | 559  |
| 45° | 376  | 438   | 444  | 421   | 350  | 294  |
| 55° | 35   | 42    | 72   | 41    | 37   | 40   |
| 65° | 0    | 0     | 1    | 0     | 0    | 0    |
| 75° | 0    | 0     | 0    | 0     | 0    | 0    |
| 85° | 0    | 0     | 0    | 0     | 0    | 0    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1304.1 | 1304.1 | 1304.1 | 1304.1 | 1304.1 |
| 2.5°  | 1309.6 | 1306.5 | 1296.4 | 1308.0 | 1304.9 |
| 5°    | 1308.0 | 1305.1 | 1293.5 | 1311.8 | 1309.9 |
| 7.5°  | 1307.3 | 1305.0 | 1297.2 | 1313.1 | 1309.4 |
| 10°   | 1308.0 | 1308.0 | 1296.4 | 1310.8 | 1307.1 |
| 12.5° | 1309.6 | 1313.4 | 1294.1 | 1305.3 | 1300.1 |
| 15°   | 1306.1 | 1317.4 | 1288.6 | 1289.5 | 1282.8 |
| 17.5° | 1292.0 | 1307.3 | 1267.8 | 1258.5 | 1248.5 |
| 20°   | 1274.1 | 1290.2 | 1246.9 | 1232.2 | 1223.7 |
| 22.5° | 1246.9 | 1262.2 | 1216.7 | 1204.2 | 1195.0 |
| 25°   | 1196.5 | 1207.0 | 1167.5 | 1154.7 | 1149.0 |
| 27.5° | 1130.6 | 1135.8 | 1101.5 | 1088.3 | 1078.8 |
| 30°   | 1080.2 | 1080.2 | 1051.0 | 1036.2 | 1022.9 |
| 32.5° | 1017.3 | 1014.3 | 995.2  | 978.1  | 965.5  |
| 35°   | 905.7  | 910.3  | 894.9  | 880.2  | 869.7  |
| 37.5° | 782.1  | 786.7  | 770.8  | 754.0  | 746.8  |
| 40°   | 691.4  | 695.1  | 681.6  | 663.9  | 654.5  |
| 42.5° | 579.6  | 600.1  | 587.8  | 568.5  | 556.0  |
| 45°   | 376.2  | 437.8  | 444.1  | 421.1  | 350.1  |
| 47.5° | 196.1  | 260.5  | 307.9  | 235.2  | 164.8  |
| 50°   | 115.4  | 157.1  | 225.0  | 128.3  | 102.8  |
| 52.5° | 74.2   | 92.5   | 158.2  | 82.1   | 69.4   |
| 55°   | 34.9   | 41.5   | 71.8   | 40.6   | 36.8   |
| 57.5° | 13.0   | 19.4   | 32.4   | 19.6   | 14.1   |
| 60°   | 2.9    | 8.6    | 18.4   | 5.7    | 1.0    |
| 62.5° | 0.5    | 2.5    | 10.6   | 1.1    | 0.2    |
| 65°   | 0.0    | 0.0    | 1.0    | 0.0    | 0.0    |
| 67.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)