

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: P242601

Luminaire Tested: **CL4DR-F-80D830-UNV-STD-W-4**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P242601  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: CL4DR-F-80D830-UNV-STD-W-4  
Description: CL 4" DIRECT RECESSED WITH FROSTED FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

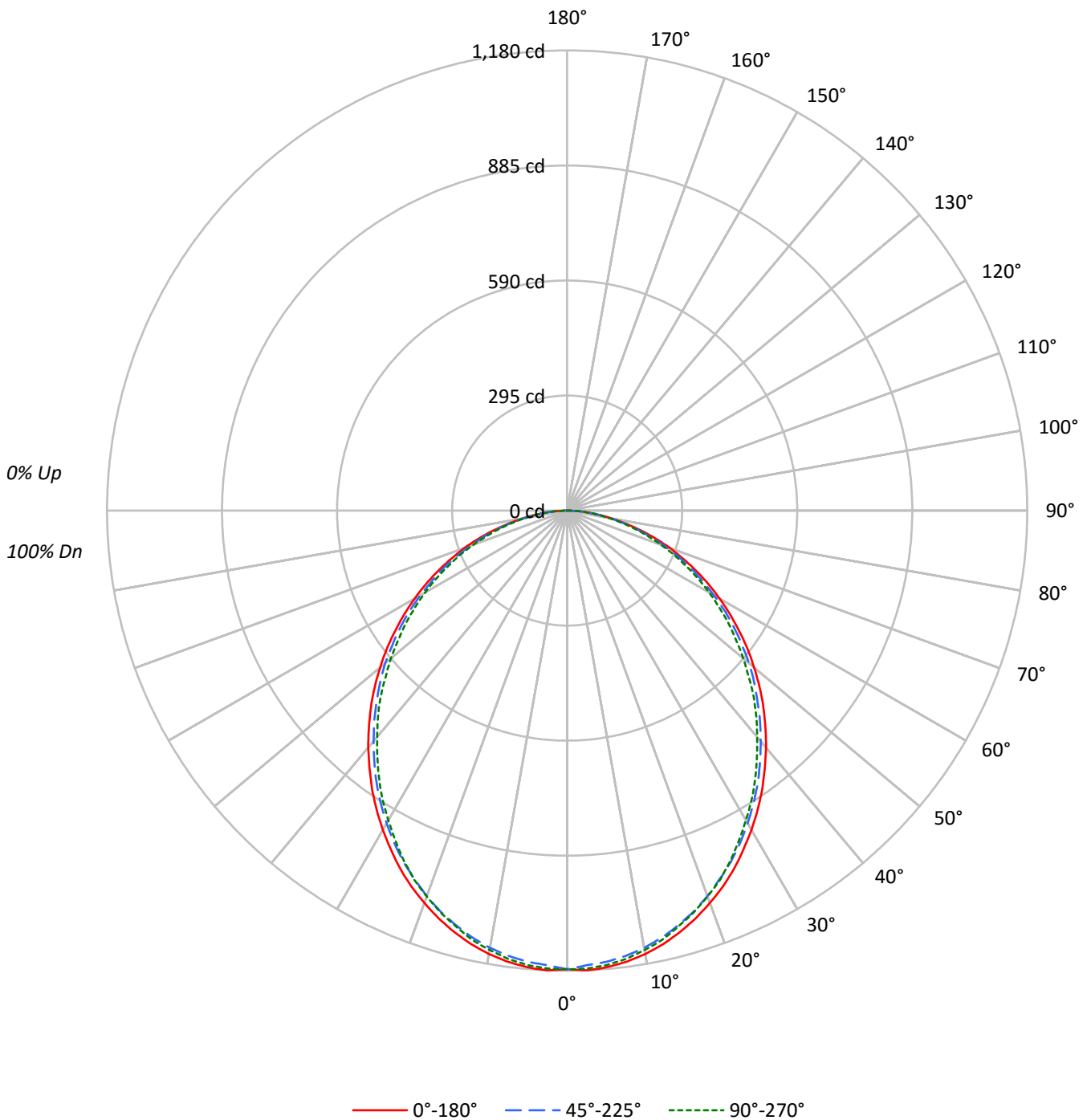
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3019.2 lumens  
Efficiency: N/A  
Efficacy: 115.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

Input Watts (W): 26.2  
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: 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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 73  | 70  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 67  | 63  | 70  | 66  | 62  | 60  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 44  |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 47  | 41  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 37  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 28  | 52  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10456 | 10456 | 10456 |
| 5°  | 10488 | 10361 | 10437 |
| 10° | 10421 | 10277 | 10328 |
| 15° | 10296 | 10131 | 10157 |
| 20° | 10128 | 9950  | 9959  |
| 25° | 9937  | 9743  | 9716  |
| 30° | 9704  | 9500  | 9413  |
| 35° | 9461  | 9246  | 9123  |
| 40° | 9209  | 8957  | 8793  |
| 45° | 8945  | 8673  | 8507  |
| 50° | 8654  | 8420  | 8159  |
| 55° | 8341  | 8093  | 7829  |
| 60° | 8027  | 7724  | 7490  |
| 65° | 7673  | 7374  | 7078  |
| 70° | 7274  | 6908  | 6638  |
| 75° | 6670  | 6343  | 6182  |
| 80° | 5933  | 5692  | 5549  |
| 85° | 5191  | 4997  | 4906  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 110.9  | 3.7       |
| 10°-20°   | 312.4  | 10.3      |
| 20°-30°   | 459.7  | 15.2      |
| 30°-40°   | 534.4  | 17.7      |
| 40°-50°   | 534.3  | 17.7      |
| 50°-60°   | 467.4  | 15.5      |
| 60°-70°   | 347.0  | 11.5      |
| 70°-80°   | 196.9  | 6.5       |
| 80°-90°   | 56.4   | 1.9       |
| 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°    | 882.9  | 29.2      |
| 0°-40°    | 1417.3 | 46.9      |
| 0°-60°    | 2419.0 | 80.1      |
| 0°-90°    | 3019.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3019.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1176 | 1176  | 1176 | 1176  | 1176 |      |
| 5°  | 1175 | 1172  | 1161 | 1172  | 1170 | 112  |
| 15° | 1119 | 1115  | 1101 | 1106  | 1104 | 315  |
| 25° | 1013 | 1007  | 993  | 994   | 991  | 466  |
| 35° | 872  | 865   | 852  | 846   | 841  | 545  |
| 45° | 712  | 705   | 690  | 680   | 677  | 549  |
| 55° | 538  | 535   | 522  | 511   | 505  | 482  |
| 65° | 365  | 360   | 351  | 341   | 336  | 361  |
| 75° | 194  | 190   | 185  | 181   | 180  | 206  |
| 85° | 51   | 51    | 49   | 49    | 48   | 58   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1176.3 | 1176.3 | 1176.3 | 1176.3 | 1176.3 |
| 2.5°  | 1180.1 | 1177.2 | 1166.9 | 1176.3 | 1175.4 |
| 5°    | 1175.4 | 1171.6 | 1161.2 | 1171.6 | 1169.7 |
| 7.5°  | 1166.9 | 1163.1 | 1151.8 | 1160.3 | 1159.3 |
| 10°   | 1154.6 | 1150.8 | 1138.6 | 1146.1 | 1144.2 |
| 12.5° | 1138.6 | 1134.8 | 1121.6 | 1130.1 | 1127.3 |
| 15°   | 1118.8 | 1115.0 | 1100.9 | 1106.5 | 1103.7 |
| 17.5° | 1096.2 | 1091.5 | 1078.3 | 1082.0 | 1080.2 |
| 20°   | 1070.7 | 1066.0 | 1051.9 | 1054.7 | 1052.8 |
| 22.5° | 1043.4 | 1036.8 | 1022.7 | 1028.3 | 1024.5 |
| 25°   | 1013.2 | 1006.6 | 993.4  | 994.4  | 990.6  |
| 27.5° | 979.3  | 972.7  | 960.5  | 958.6  | 953.9  |
| 30°   | 945.4  | 937.8  | 925.6  | 921.8  | 917.1  |
| 32.5° | 909.6  | 903.0  | 889.8  | 885.0  | 880.3  |
| 35°   | 871.9  | 865.3  | 852.1  | 845.5  | 840.7  |
| 37.5° | 832.3  | 826.6  | 812.5  | 805.9  | 799.3  |
| 40°   | 793.6  | 786.1  | 771.9  | 762.5  | 757.8  |
| 42.5° | 752.2  | 748.4  | 732.4  | 721.0  | 718.2  |
| 45°   | 711.6  | 705.0  | 689.9  | 679.6  | 676.7  |
| 47.5° | 669.2  | 664.5  | 650.4  | 639.0  | 631.5  |
| 50°   | 625.8  | 622.1  | 608.9  | 595.7  | 590.0  |
| 52.5° | 583.4  | 578.7  | 564.6  | 553.3  | 545.7  |
| 55°   | 538.2  | 535.4  | 522.2  | 510.9  | 505.2  |
| 57.5° | 495.8  | 493.0  | 479.8  | 468.4  | 462.8  |
| 60°   | 451.5  | 446.8  | 434.5  | 426.0  | 421.3  |
| 62.5° | 408.1  | 404.4  | 391.2  | 383.6  | 378.9  |
| 65°   | 364.8  | 360.1  | 350.6  | 341.2  | 336.5  |
| 67.5° | 320.5  | 316.7  | 307.3  | 297.8  | 296.9  |
| 70°   | 279.9  | 273.3  | 265.8  | 258.3  | 255.4  |
| 72.5° | 236.6  | 230.0  | 224.3  | 218.7  | 215.8  |
| 75°   | 194.2  | 189.5  | 184.7  | 181.0  | 180.0  |
| 77.5° | 152.7  | 150.8  | 146.1  | 145.2  | 142.3  |
| 80°   | 115.9  | 113.1  | 111.2  | 109.3  | 108.4  |
| 82.5° | 80.1   | 79.2   | 79.2   | 78.2   | 77.3   |
| 85°   | 50.9   | 50.9   | 49.0   | 49.0   | 48.1   |
| 87.5° | 24.5   | 23.6   | 22.6   | 22.6   | 22.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)