

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: P189021

Luminaire Tested: **RZL-NL-680L8840-1D-UNV-STD-W-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P189021  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P34812)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: RZL-NL-680L8840-1D-UNV-STD-W-4  
Description: RZL LINEAR LED FIXTURE  
WITH SOLID ALUMINUM SIDES, FROSTED LINEAR PRISMATIC LENS AND INLAY  
Light Source: (224) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6973.2 lumens  
Efficiency: N/A  
Efficacy: 123.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.25 / 1.34  
Luminous Opening: Rectangular (W 0.53' x L: 3.83' x H: 0')  
CIE Type: Direct

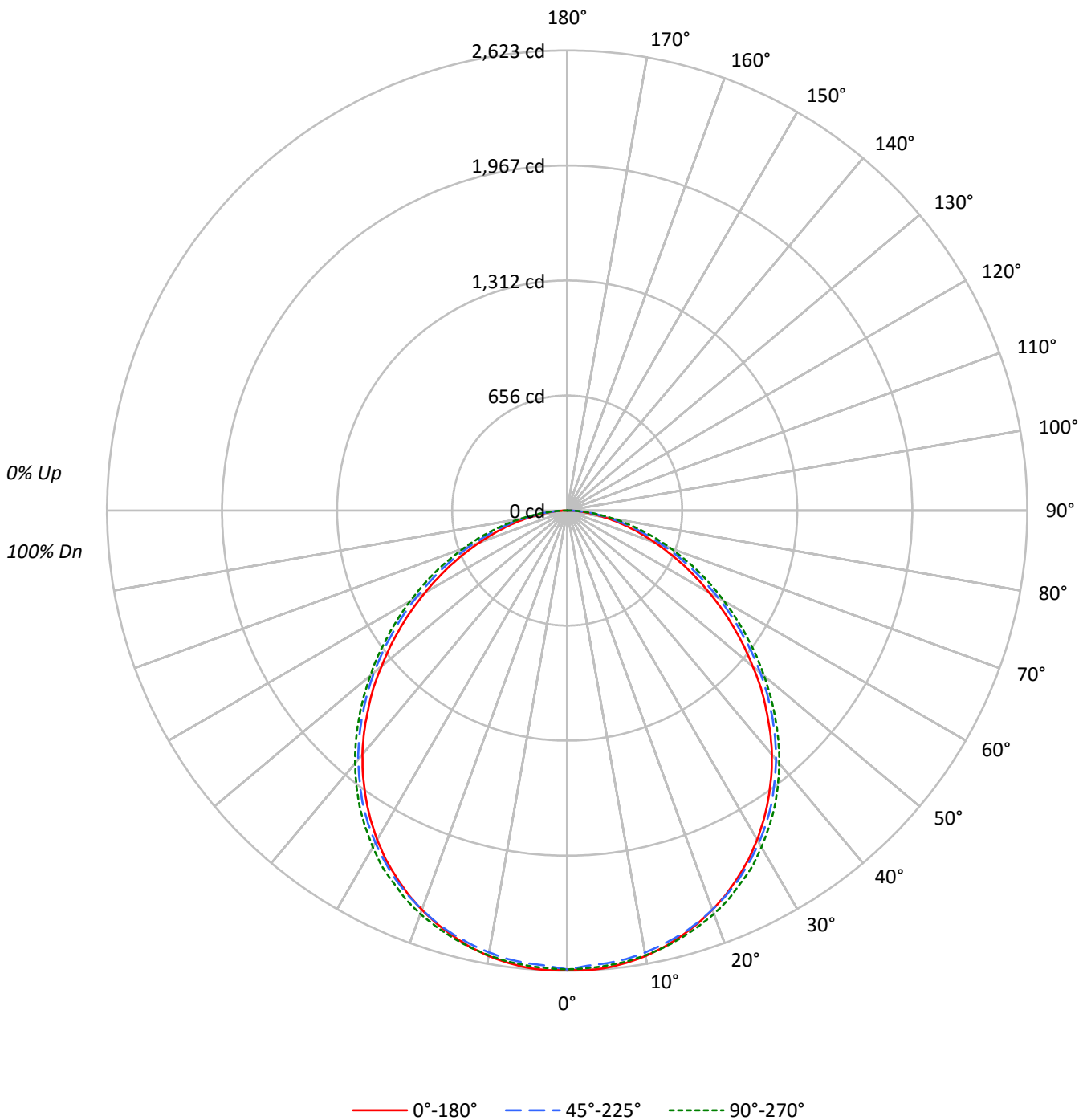
Input Watts (W): 56.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 97  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 85  | 79  | 97  | 90  | 83  | 78  | 86  | 81  | 76  | 83  | 78  | 75  | 80  | 76  | 73  | 71  |
| 3   | 91  | 81  | 73  | 66  | 88  | 79  | 72  | 66  | 76  | 70  | 64  | 73  | 68  | 63  | 71  | 66  | 62  | 60  |
| 4   | 83  | 72  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 52  |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 45  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 48  | 42  | 55  | 48  | 42  | 53  | 47  | 42  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 38  | 64  | 52  | 43  | 38  | 50  | 43  | 37  | 49  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 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°  | 13772 | 13772 | 13772 |
| 5°  | 13825 | 13690 | 13763 |
| 10° | 13786 | 13674 | 13761 |
| 15° | 13689 | 13638 | 13740 |
| 20° | 13565 | 13565 | 13707 |
| 25° | 13390 | 13458 | 13606 |
| 30° | 13167 | 13295 | 13464 |
| 35° | 12862 | 13071 | 13250 |
| 40° | 12479 | 12734 | 12926 |
| 45° | 11948 | 12294 | 12501 |
| 50° | 11321 | 11776 | 12004 |
| 55° | 10621 | 11133 | 11452 |
| 60° | 9840  | 10475 | 10890 |
| 65° | 9042  | 9765  | 10314 |
| 70° | 8174  | 8996  | 9673  |
| 75° | 7311  | 8208  | 8963  |
| 80° | 6328  | 7383  | 8156  |
| 85° | 5322  | 6446  | 7001  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 247.5  | 3.5       |
| 10°-20°   | 709.1  | 10.2      |
| 20°-30°   | 1070.4 | 15.4      |
| 30°-40°   | 1270.5 | 18.2      |
| 40°-50°   | 1271.0 | 18.2      |
| 50°-60°   | 1083.1 | 15.5      |
| 60°-70°   | 774.2  | 11.1      |
| 70°-80°   | 427.4  | 6.1       |
| 80°-90°   | 120.1  | 1.7       |
| 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°    | 2026.9 | 29.1      |
| 0°-40°    | 3297.4 | 47.3      |
| 0°-60°    | 5651.6 | 81.0      |
| 0°-90°    | 6973.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6973.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2616 | 2616  | 2616 | 2616  | 2616 |      |
| 5°  | 2616 | 2606  | 2590 | 2609  | 2604 | 248  |
| 15° | 2511 | 2509  | 2502 | 2525  | 2521 | 708  |
| 25° | 2305 | 2310  | 2317 | 2347  | 2342 | 1062 |
| 35° | 2001 | 2013  | 2034 | 2057  | 2062 | 1251 |
| 45° | 1605 | 1626  | 1651 | 1679  | 1679 | 1238 |
| 55° | 1157 | 1178  | 1213 | 1245  | 1248 | 1036 |
| 65° | 726  | 742   | 784  | 821   | 828  | 721  |
| 75° | 359  | 369   | 404  | 434   | 441  | 383  |
| 85° | 88   | 93    | 107  | 116   | 116  | 103  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2615.8 | 2615.8 | 2615.8 | 2615.8 | 2615.8 |
| 2.5°  | 2622.7 | 2613.4 | 2597.2 | 2613.4 | 2611.1 |
| 5°    | 2615.8 | 2606.5 | 2590.3 | 2608.8 | 2604.2 |
| 7.5°  | 2599.5 | 2590.3 | 2578.7 | 2594.9 | 2592.6 |
| 10°   | 2578.7 | 2569.4 | 2557.8 | 2578.7 | 2574.0 |
| 12.5° | 2548.5 | 2543.9 | 2532.3 | 2555.5 | 2550.8 |
| 15°   | 2511.4 | 2509.1 | 2502.1 | 2525.3 | 2520.7 |
| 17.5° | 2469.7 | 2467.3 | 2465.0 | 2490.5 | 2485.9 |
| 20°   | 2421.0 | 2421.0 | 2421.0 | 2446.5 | 2446.5 |
| 22.5° | 2367.6 | 2367.6 | 2372.3 | 2400.1 | 2400.1 |
| 25°   | 2305.0 | 2309.7 | 2316.6 | 2346.8 | 2342.1 |
| 27.5° | 2240.1 | 2244.7 | 2254.0 | 2286.5 | 2286.5 |
| 30°   | 2165.9 | 2172.8 | 2186.8 | 2214.6 | 2214.6 |
| 32.5° | 2087.0 | 2096.3 | 2112.6 | 2140.4 | 2140.4 |
| 35°   | 2001.2 | 2012.8 | 2033.7 | 2056.9 | 2061.5 |
| 37.5° | 1910.8 | 1920.1 | 1943.3 | 1973.4 | 1973.4 |
| 40°   | 1815.7 | 1829.6 | 1852.8 | 1880.7 | 1880.7 |
| 42.5° | 1713.7 | 1727.6 | 1755.4 | 1780.9 | 1783.3 |
| 45°   | 1604.7 | 1625.6 | 1651.1 | 1678.9 | 1678.9 |
| 47.5° | 1498.0 | 1516.6 | 1546.7 | 1569.9 | 1574.6 |
| 50°   | 1382.1 | 1407.6 | 1437.7 | 1463.2 | 1465.6 |
| 52.5° | 1270.8 | 1294.0 | 1326.4 | 1356.6 | 1358.9 |
| 55°   | 1157.1 | 1178.0 | 1212.8 | 1245.3 | 1247.6 |
| 57.5° | 1048.2 | 1069.0 | 1106.1 | 1138.6 | 1140.9 |
| 60°   | 934.5  | 953.1  | 994.8  | 1027.3 | 1034.2 |
| 62.5° | 830.2  | 848.7  | 885.8  | 925.3  | 929.9  |
| 65°   | 725.8  | 742.1  | 783.8  | 820.9  | 827.9  |
| 67.5° | 626.1  | 640.0  | 681.8  | 716.6  | 723.5  |
| 70°   | 531.0  | 545.0  | 584.4  | 619.2  | 628.4  |
| 72.5° | 442.9  | 454.5  | 491.6  | 524.1  | 533.4  |
| 75°   | 359.4  | 368.7  | 403.5  | 433.6  | 440.6  |
| 77.5° | 280.6  | 289.9  | 320.0  | 347.8  | 352.5  |
| 80°   | 208.7  | 215.7  | 243.5  | 264.4  | 269.0  |
| 82.5° | 146.1  | 153.0  | 171.6  | 187.8  | 190.2  |
| 85°   | 88.1   | 92.8   | 106.7  | 115.9  | 115.9  |
| 87.5° | 41.7   | 41.7   | 48.7   | 51.0   | 48.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)