

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: P572201

Luminaire Tested: 24ID-70-L840-DBD

Issue Date: 10/5/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P572201  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2109-397-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/5/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: 24ID-70-L840-DBD  
Description: 7000 LUMEN, 2X4 INDEPTH TROFFER WITH 2IN DROPPED DOUBLE BARRELL LENS AND 4000K, 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

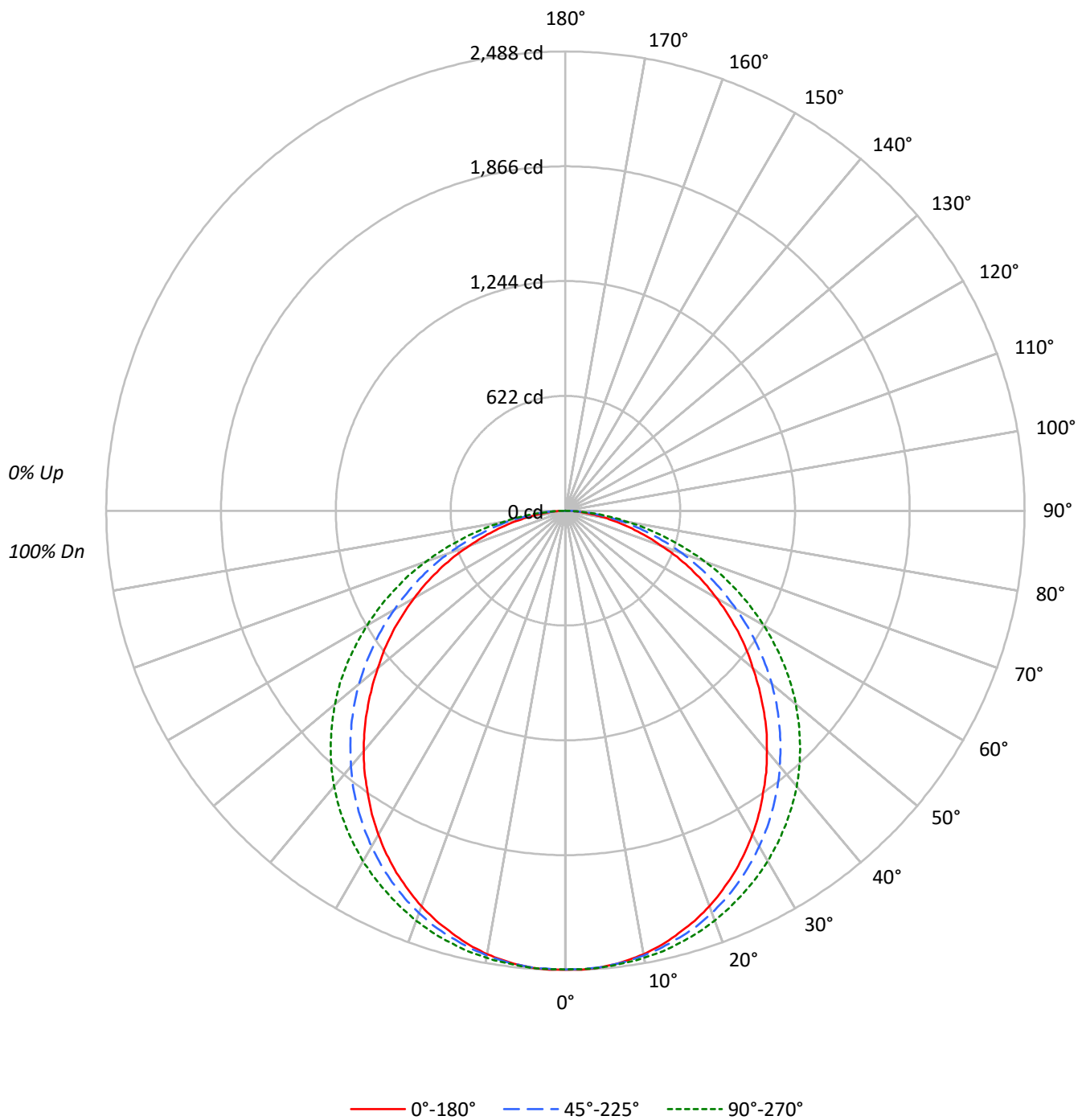
Lumens per Lamp: N/A  
Luminaire Lumens: 7091.0 lumens  
Efficiency: N/A  
Efficacy: 108.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.17')  
CIE Type: Direct

Input Watts (W): 65.6  
Input Voltage (V):  
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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  |  | 93  | 91  | 88  |  | 90  |
| 2   | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  |  | 82  | 77  | 73  |  | 79  |
| 3   | 90  | 79  | 71  | 65  | 87  | 78  | 70  | 64  | 75  | 68  | 63  |  | 72  | 66  | 62  |  | 69  |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 54  |  | 64  | 58  | 53  |  | 62  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  |  | 58  | 51  | 46  |  | 56  |
| 6   | 70  | 56  | 47  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 40  |  | 52  | 45  | 40  |  | 50  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  |  | 47  | 41  | 36  |  | 46  |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  |  | 43  | 37  | 32  |  | 42  |
| 9   | 56  | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 29  |  | 39  |
| 10  | 53  | 40  | 32  | 26  | 52  | 39  | 31  | 26  | 38  | 31  | 26  |  | 37  | 31  | 26  |  | 36  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3344 | 3344 | 3344 |
| 5°  | 3336 | 3322 | 3327 |
| 10° | 3309 | 3291 | 3312 |
| 15° | 3265 | 3257 | 3299 |
| 20° | 3216 | 3218 | 3284 |
| 25° | 3153 | 3166 | 3265 |
| 30° | 3075 | 3105 | 3250 |
| 35° | 2981 | 3035 | 3228 |
| 40° | 2884 | 2956 | 3202 |
| 45° | 2771 | 2866 | 3159 |
| 50° | 2644 | 2764 | 3104 |
| 55° | 2527 | 2636 | 3026 |
| 60° | 2373 | 2497 | 2917 |
| 65° | 2197 | 2332 | 2771 |
| 70° | 1945 | 2124 | 2561 |
| 75° | 1680 | 1829 | 2249 |
| 80° | 1329 | 1487 | 1759 |
| 85° | 916  | 921  | 1057 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 3159 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 235.6  | 3.3       |
| 10°-20°   | 676.1  | 9.5       |
| 20°-30°   | 1024.8 | 14.5      |
| 30°-40°   | 1232.8 | 17.4      |
| 40°-50°   | 1272.7 | 17.9      |
| 50°-60°   | 1143.6 | 16.1      |
| 60°-70°   | 870.7  | 12.3      |
| 70°-80°   | 499.9  | 7.1       |
| 80°-90°   | 134.9  | 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°    | 1936.5 | 27.3      |
| 0°-40°    | 3169.3 | 44.7      |
| 0°-60°    | 5585.5 | 78.8      |
| 0°-90°    | 7091.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7091.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2486 | 2486  | 2486 | 2486  | 2486 |      |
| 5°  | 2479 | 2481  | 2479 | 2476  | 2481 | 235  |
| 15° | 2370 | 2382  | 2393 | 2409  | 2421 | 669  |
| 25° | 2165 | 2186  | 2220 | 2266  | 2285 | 997  |
| 35° | 1868 | 1900  | 1962 | 2047  | 2080 | 1169 |
| 45° | 1517 | 1552  | 1639 | 1752  | 1798 | 1170 |
| 55° | 1141 | 1171  | 1266 | 1388  | 1443 | 1018 |
| 65° | 752  | 786   | 872  | 973   | 1026 | 743  |
| 75° | 374  | 408   | 468  | 535   | 567  | 396  |
| 85° | 88   | 101   | 120  | 127   | 134  | 102  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2485.5 | 2485.5 | 2485.5 | 2485.5 | 2485.5 |
| 2.5°  | 2487.8 | 2487.8 | 2483.2 | 2480.9 | 2485.5 |
| 5°    | 2478.6 | 2480.9 | 2478.6 | 2476.3 | 2480.9 |
| 7.5°  | 2462.4 | 2464.8 | 2464.8 | 2467.1 | 2471.7 |
| 10°   | 2439.4 | 2444.0 | 2446.3 | 2453.2 | 2460.1 |
| 12.5° | 2409.4 | 2414.0 | 2423.2 | 2434.8 | 2444.0 |
| 15°   | 2370.2 | 2381.7 | 2393.3 | 2409.4 | 2420.9 |
| 17.5° | 2328.7 | 2342.6 | 2361.0 | 2381.7 | 2395.6 |
| 20°   | 2280.3 | 2296.4 | 2319.5 | 2347.2 | 2363.3 |
| 22.5° | 2225.0 | 2245.7 | 2273.4 | 2308.0 | 2326.4 |
| 25°   | 2165.0 | 2185.8 | 2220.4 | 2266.5 | 2284.9 |
| 27.5° | 2098.2 | 2121.2 | 2162.7 | 2215.7 | 2241.1 |
| 30°   | 2026.7 | 2052.0 | 2100.5 | 2165.0 | 2192.7 |
| 32.5° | 1950.6 | 1978.3 | 2033.6 | 2107.4 | 2137.3 |
| 35°   | 1867.6 | 1899.9 | 1962.1 | 2047.4 | 2079.7 |
| 37.5° | 1786.9 | 1819.2 | 1888.3 | 1980.6 | 2017.5 |
| 40°   | 1699.3 | 1733.9 | 1807.6 | 1909.1 | 1950.6 |
| 42.5° | 1611.7 | 1641.6 | 1724.6 | 1833.0 | 1876.8 |
| 45°   | 1517.1 | 1551.7 | 1639.3 | 1752.3 | 1798.4 |
| 47.5° | 1422.6 | 1459.5 | 1551.7 | 1667.0 | 1715.4 |
| 50°   | 1325.8 | 1365.0 | 1459.5 | 1577.1 | 1630.1 |
| 52.5° | 1235.8 | 1268.1 | 1365.0 | 1484.8 | 1540.2 |
| 55°   | 1141.3 | 1171.3 | 1265.8 | 1388.0 | 1443.3 |
| 57.5° | 1042.2 | 1076.7 | 1171.3 | 1286.6 | 1341.9 |
| 60°   | 945.3  | 979.9  | 1069.8 | 1185.1 | 1240.4 |
| 62.5° | 850.8  | 883.1  | 970.7  | 1081.4 | 1136.7 |
| 65°   | 751.6  | 786.2  | 871.5  | 973.0  | 1026.0 |
| 67.5° | 654.8  | 691.7  | 772.4  | 864.6  | 920.0  |
| 70°   | 551.1  | 592.6  | 670.9  | 756.3  | 800.1  |
| 72.5° | 458.8  | 498.0  | 569.5  | 645.6  | 687.1  |
| 75°   | 373.5  | 408.1  | 468.0  | 534.9  | 567.2  |
| 77.5° | 288.2  | 325.1  | 378.1  | 428.9  | 454.2  |
| 80°   | 212.1  | 246.7  | 288.2  | 322.8  | 334.3  |
| 82.5° | 145.3  | 170.6  | 200.6  | 219.0  | 235.2  |
| 85°   | 87.6   | 101.4  | 119.9  | 126.8  | 133.7  |
| 87.5° | 36.9   | 41.5   | 48.4   | 46.1   | 48.4   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 14.80            | 16.44 | 15.16 | 16.76 | 17.07 | 16.27          | 17.91 | 16.63 | 18.22 | 18.54 |
|                 | 3H   | 16.37            | 17.85 | 16.74 | 18.18 | 18.54 | 18.17          | 19.65 | 18.54 | 19.98 | 20.34 |
|                 | 4H   | 16.89            | 18.29 | 17.28 | 18.63 | 19.01 | 18.87          | 20.27 | 19.27 | 20.62 | 20.99 |
|                 | 6H   | 17.21            | 18.51 | 17.62 | 18.88 | 19.27 | 19.36          | 20.66 | 19.77 | 21.03 | 21.42 |
|                 | 8H   | 17.30            | 18.54 | 17.72 | 18.93 | 19.33 | 19.51          | 20.75 | 19.93 | 21.13 | 21.53 |
|                 | 12H  | 17.34            | 18.53 | 17.77 | 18.91 | 19.34 | 19.58          | 20.77 | 20.01 | 21.15 | 21.58 |
| 4H              | 2H   | 15.55            | 16.95 | 15.95 | 17.30 | 17.68 | 16.72          | 18.12 | 17.12 | 18.47 | 18.85 |
|                 | 3H   | 17.32            | 18.50 | 17.73 | 18.89 | 19.29 | 18.84          | 20.01 | 19.25 | 20.41 | 20.81 |
|                 | 4H   | 17.94            | 19.01 | 18.37 | 19.42 | 19.86 | 19.67          | 20.73 | 20.10 | 21.15 | 21.58 |
|                 | 6H   | 18.38            | 19.31 | 18.83 | 19.75 | 20.20 | 20.30          | 21.23 | 20.75 | 21.67 | 22.12 |
|                 | 8H   | 18.49            | 19.36 | 18.95 | 19.80 | 20.27 | 20.48          | 21.35 | 20.94 | 21.79 | 22.26 |
|                 | 12H  | 18.56            | 19.34 | 19.04 | 19.82 | 20.29 | 20.60          | 21.38 | 21.08 | 21.86 | 22.33 |
| 8H              | 4H   | 18.33            | 19.20 | 18.79 | 19.64 | 20.10 | 19.87          | 20.74 | 20.32 | 21.18 | 21.64 |
|                 | 6H   | 18.86            | 19.59 | 19.36 | 20.08 | 20.55 | 20.59          | 21.31 | 21.08 | 21.80 | 22.28 |
|                 | 8H   | 19.03            | 19.68 | 19.54 | 20.19 | 20.67 | 20.84          | 21.49 | 21.34 | 21.99 | 22.48 |
|                 | 12H  | 19.14            | 19.72 | 19.65 | 20.21 | 20.77 | 21.01          | 21.58 | 21.51 | 22.07 | 22.63 |
| 12H             | 4H   | 18.38            | 19.16 | 18.86 | 19.63 | 20.10 | 19.87          | 20.66 | 20.35 | 21.13 | 21.60 |
|                 | 6H   | 18.94            | 19.59 | 19.44 | 20.09 | 20.58 | 20.61          | 21.26 | 21.11 | 21.76 | 22.25 |
|                 | 8H   | 19.16            | 19.73 | 19.66 | 20.22 | 20.78 | 20.90          | 21.47 | 21.40 | 21.96 | 22.52 |