

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: P1036384

Luminaire Tested: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K

Issue Date: 8/14/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036384  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P519276)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/14/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH, DIRECT ONLY 1250 LUMENS PER FOOT DC

Light Source: -  
Ballast/Driver: -

**Summary**

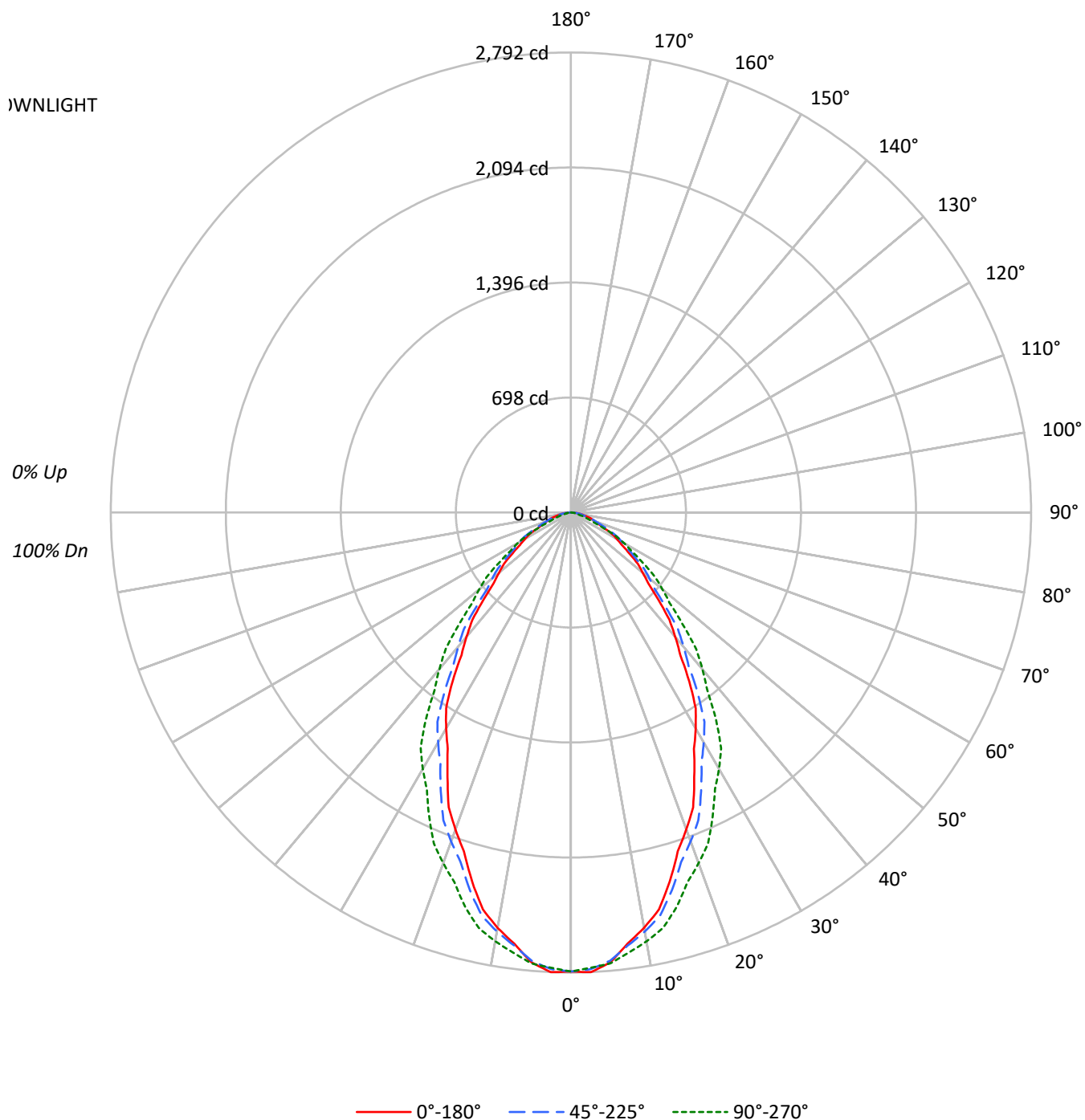
Lumens per Lamp: N/A  
Luminaire Lumens: 4059.0 lumens  
Efficiency: N/A  
Efficacy: 88.6 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 1 / 1.02  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 45.8  
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: 24 FT

TEST NUMBER: P1036384

CATALOG NUMBER: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K

### Luminous Intensity Polar Plot



TEST NUMBER: P1036384

CATALOG NUMBER: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K

**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   | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 99  | 101 | 99  | 96  |  | 97  | 95  | 93  |  | 94  |
| 2   | 103 | 97  | 91  | 87  | 101 | 95  | 90  | 86  | 92  | 87  | 84  |  | 88  | 85  | 82  |  | 85  |
| 3   | 96  | 87  | 81  | 75  | 94  | 86  | 80  | 75  | 83  | 78  | 73  |  | 80  | 76  | 72  |  | 78  |
| 4   | 89  | 79  | 72  | 66  | 87  | 78  | 71  | 66  | 76  | 70  | 65  |  | 74  | 68  | 64  |  | 71  |
| 5   | 83  | 72  | 65  | 59  | 81  | 71  | 64  | 59  | 69  | 63  | 58  |  | 67  | 62  | 58  |  | 66  |
| 6   | 78  | 66  | 59  | 53  | 76  | 65  | 58  | 53  | 64  | 57  | 53  |  | 62  | 56  | 52  |  | 61  |
| 7   | 73  | 61  | 53  | 48  | 71  | 60  | 53  | 48  | 59  | 52  | 48  |  | 58  | 52  | 47  |  | 56  |
| 8   | 68  | 57  | 49  | 44  | 67  | 56  | 49  | 44  | 55  | 48  | 44  |  | 53  | 48  | 43  |  | 52  |
| 9   | 64  | 53  | 45  | 40  | 63  | 52  | 45  | 40  | 51  | 45  | 40  |  | 50  | 44  | 40  |  | 49  |
| 10  | 61  | 49  | 42  | 37  | 60  | 48  | 42  | 37  | 48  | 41  | 37  |  | 47  | 41  | 37  |  | 46  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 25700 | 25700 | 25700 |
| 5°  | 25380 | 25287 | 25437 |
| 10° | 23978 | 24196 | 24755 |
| 15° | 22134 | 22650 | 23664 |
| 20° | 20101 | 20856 | 22236 |
| 25° | 18030 | 19013 | 20717 |
| 30° | 16121 | 17173 | 19140 |
| 35° | 14096 | 15115 | 17278 |
| 40° | 11863 | 12806 | 14956 |
| 45° | 9791  | 10635 | 12488 |
| 50° | 8173  | 8912  | 10402 |
| 55° | 6939  | 7647  | 8590  |
| 60° | 5932  | 6632  | 6857  |
| 65° | 4724  | 5576  | 4427  |
| 70° | 4187  | 4351  | 2703  |
| 75° | 3875  | 3533  | 1658  |
| 80° | 3570  | 3246  | 1424  |
| 85° | 3218  | 2985  | 1175  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12488 cd/sqm

TEST NUMBER: P1036384

CATALOG NUMBER: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 255.5  | 6.3       |
| 10°-20°   | 664.6  | 16.4      |
| 20°-30°   | 860.8  | 21.2      |
| 30°-40°   | 842.9  | 20.8      |
| 40°-50°   | 645.2  | 15.9      |
| 50°-60°   | 429.9  | 10.6      |
| 60°-70°   | 234.6  | 5.8       |
| 70°-80°   | 97.8   | 2.4       |
| 80°-90°   | 27.7   | 0.7       |
| 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°    | 1780.9 | 43.9      |
| 0°-40°    | 2623.8 | 64.6      |
| 0°-60°    | 3698.9 | 91.1      |
| 0°-90°    | 4059.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4059.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2786 | 2786  | 2786 | 2786  | 2786 |      |
| 5°  | 2740 | 2713  | 2730 | 2737  | 2746 | 255  |
| 15° | 2317 | 2309  | 2371 | 2436  | 2478 | 647  |
| 25° | 1771 | 1776  | 1868 | 1949  | 2035 | 814  |
| 35° | 1252 | 1258  | 1342 | 1432  | 1534 | 778  |
| 45° | 750  | 765   | 815  | 877   | 957  | 585  |
| 55° | 431  | 449   | 475  | 494   | 534  | 391  |
| 65° | 216  | 234   | 255  | 223   | 203  | 225  |
| 75° | 109  | 109   | 99   | 68    | 46   | 116  |
| 85° | 30   | 30    | 28   | 18    | 11   | 35   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1036384

CATALOG NUMBER: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2785.5 | 2785.5 | 2785.5 | 2785.5 | 2785.5 |
| 2.5°  | 2792.4 | 2767.5 | 2773.9 | 2773.6 | 2765.8 |
| 5°    | 2740.4 | 2712.7 | 2730.4 | 2736.8 | 2746.5 |
| 7.5°  | 2638.6 | 2617.8 | 2650.2 | 2674.0 | 2693.3 |
| 10°   | 2559.4 | 2541.4 | 2582.7 | 2617.5 | 2642.4 |
| 12.5° | 2467.6 | 2452.3 | 2503.5 | 2550.0 | 2582.9 |
| 15°   | 2317.3 | 2309.0 | 2371.3 | 2435.7 | 2477.5 |
| 17.5° | 2156.8 | 2152.7 | 2224.1 | 2299.3 | 2352.7 |
| 20°   | 2047.3 | 2046.2 | 2124.2 | 2202.8 | 2264.7 |
| 22.5° | 1936.9 | 1939.3 | 2021.5 | 2103.2 | 2174.0 |
| 25°   | 1771.1 | 1775.8 | 1867.7 | 1949.0 | 2035.1 |
| 27.5° | 1617.8 | 1620.0 | 1714.7 | 1800.7 | 1892.6 |
| 30°   | 1513.2 | 1519.1 | 1612.0 | 1701.1 | 1796.6 |
| 32.5° | 1408.6 | 1415.6 | 1506.6 | 1598.5 | 1695.9 |
| 35°   | 1251.5 | 1257.6 | 1342.0 | 1432.4 | 1534.0 |
| 37.5° | 1089.6 | 1097.9 | 1172.9 | 1258.1 | 1358.3 |
| 40°   | 985.0  | 997.2  | 1063.3 | 1143.9 | 1241.8 |
| 42.5° | 884.3  | 899.3  | 960.7  | 1037.0 | 1125.3 |
| 45°   | 750.4  | 764.8  | 815.1  | 876.8  | 957.1  |
| 47.5° | 635.0  | 651.6  | 690.4  | 743.5  | 811.8  |
| 50°   | 569.4  | 585.2  | 620.9  | 660.2  | 724.7  |
| 52.5° | 511.9  | 527.4  | 559.2  | 589.6  | 644.7  |
| 55°   | 431.4  | 449.4  | 475.4  | 493.6  | 534.0  |
| 57.5° | 365.5  | 382.7  | 403.4  | 411.4  | 436.1  |
| 60°   | 321.5  | 340.6  | 359.4  | 358.3  | 371.6  |
| 62.5° | 281.4  | 297.7  | 316.3  | 303.3  | 304.1  |
| 65°   | 216.4  | 234.4  | 255.4  | 223.3  | 202.8  |
| 67.5° | 174.9  | 178.5  | 200.3  | 155.8  | 131.4  |
| 70°   | 155.2  | 155.2  | 161.3  | 120.6  | 100.2  |
| 72.5° | 136.7  | 136.7  | 131.2  | 97.9   | 76.6   |
| 75°   | 108.7  | 108.7  | 99.1   | 68.1   | 46.5   |
| 77.5° | 83.8   | 83.0   | 75.8   | 50.6   | 33.8   |
| 80°   | 67.2   | 67.2   | 61.1   | 40.1   | 26.8   |
| 82.5° | 52.6   | 52.6   | 47.3   | 31.3   | 19.9   |
| 85°   | 30.4   | 30.4   | 28.2   | 18.3   | 11.1   |
| 87.5° | 10.8   | 10.8   | 9.7    | 5.8    | 5.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P1036384

CATALOG NUMBER: SQ4R-WB-125D-B2750-1D-UNV-W2A\_2700K

**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 | 17.03            | 18.40 | 17.39 | 18.72 | 19.03 | 17.65          | 19.03 | 18.02 | 19.34 | 19.65 |
|                 | 3H   | 18.00            | 19.23 | 18.38 | 19.56 | 19.92 | 18.11          | 19.33 | 18.49 | 19.66 | 20.03 |
|                 | 4H   | 18.44            | 19.58 | 18.84 | 19.93 | 20.31 | 18.19          | 19.33 | 18.59 | 19.68 | 20.06 |
|                 | 6H   | 18.75            | 19.80 | 19.16 | 20.17 | 20.56 | 18.20          | 19.25 | 18.61 | 19.62 | 20.01 |
|                 | 8H   | 18.88            | 19.88 | 19.31 | 20.27 | 20.67 | 18.19          | 19.19 | 18.62 | 19.58 | 19.98 |
|                 | 12H  | 18.96            | 19.91 | 19.39 | 20.30 | 20.73 | 18.18          | 19.13 | 18.61 | 19.51 | 19.94 |
| 4H              | 2H   | 17.52            | 18.66 | 17.92 | 19.01 | 19.39 | 18.03          | 19.18 | 18.44 | 19.53 | 19.91 |
|                 | 3H   | 18.68            | 19.62 | 19.10 | 20.02 | 20.43 | 18.67          | 19.60 | 19.08 | 20.01 | 20.41 |
|                 | 4H   | 19.22            | 20.06 | 19.65 | 20.48 | 20.92 | 18.80          | 19.64 | 19.24 | 20.06 | 20.50 |
|                 | 6H   | 19.64            | 20.36 | 20.10 | 20.81 | 21.27 | 18.87          | 19.60 | 19.33 | 20.04 | 20.51 |
|                 | 8H   | 19.82            | 20.49 | 20.28 | 20.94 | 21.41 | 18.88          | 19.56 | 19.35 | 20.00 | 20.47 |
|                 | 12H  | 19.94            | 20.54 | 20.43 | 21.02 | 21.50 | 18.88          | 19.48 | 19.37 | 19.96 | 20.44 |
| 8H              | 4H   | 19.33            | 20.00 | 19.80 | 20.45 | 20.92 | 18.95          | 19.62 | 19.42 | 20.07 | 20.54 |
|                 | 6H   | 19.86            | 20.42 | 20.37 | 20.91 | 21.39 | 19.10          | 19.65 | 19.60 | 20.15 | 20.63 |
|                 | 8H   | 20.13            | 20.62 | 20.65 | 21.14 | 21.63 | 19.15          | 19.65 | 19.67 | 20.16 | 20.65 |
|                 | 12H  | 20.33            | 20.77 | 20.85 | 21.27 | 21.83 | 19.19          | 19.62 | 19.70 | 20.12 | 20.69 |
| 12H             | 4H   | 19.31            | 19.91 | 19.79 | 20.39 | 20.86 | 18.95          | 19.55 | 19.44 | 20.04 | 20.51 |
|                 | 6H   | 19.87            | 20.37 | 20.39 | 20.88 | 21.37 | 19.13          | 19.63 | 19.65 | 20.15 | 20.64 |
|                 | 8H   | 20.19            | 20.63 | 20.70 | 21.12 | 21.69 | 19.24          | 19.68 | 19.75 | 20.17 | 20.74 |

END OF REPORT

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE

7 of 7