

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: P854373

Luminaire Tested: SQ2-WBM-0U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854373
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-0U-125D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

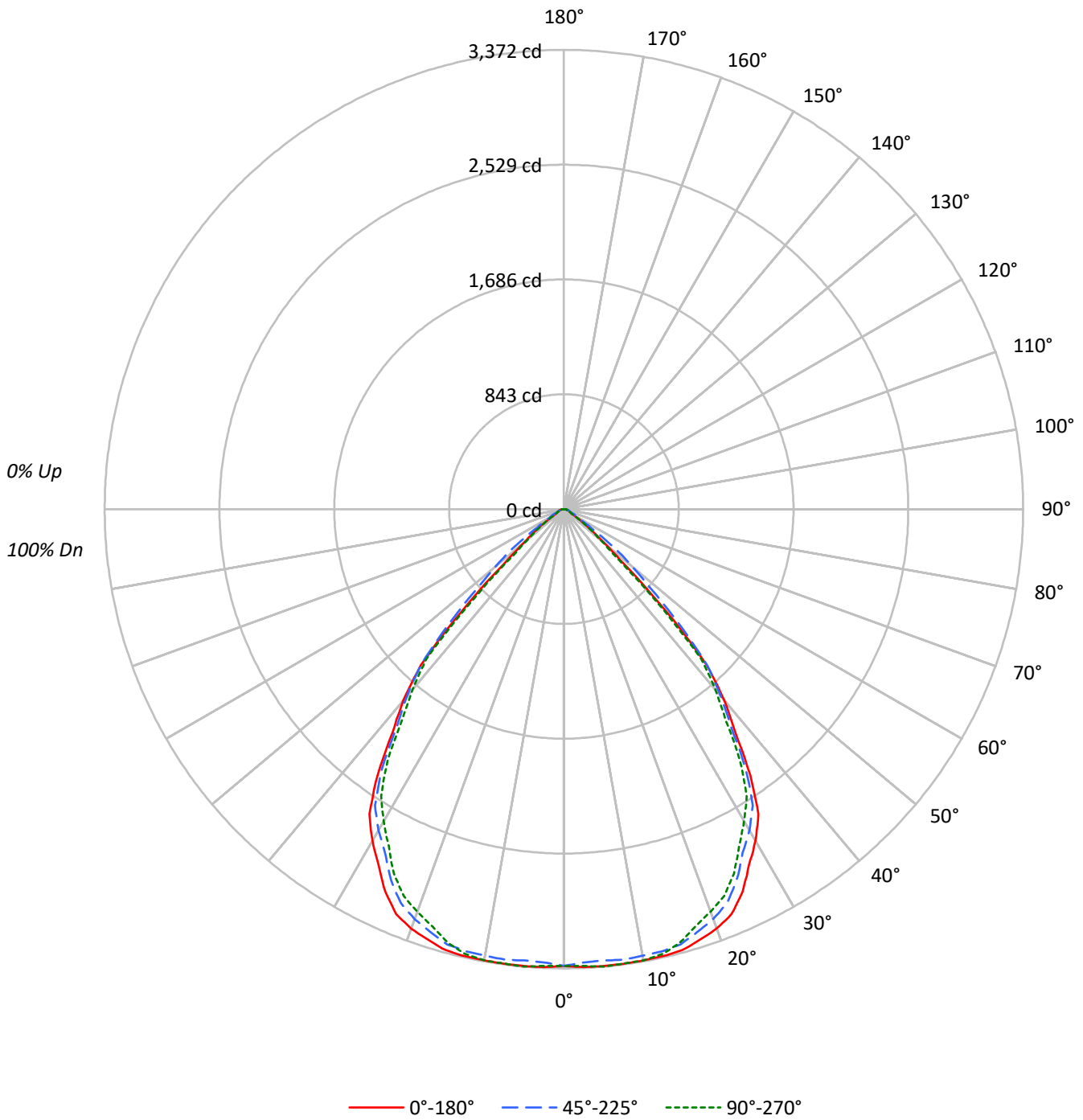
Lumens per Lamp: N/A
Luminaire Lumens: 5238.3 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 49.7
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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 |
| 3 | 99 | 92 | 86 | 81 | 97 | 90 | 85 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 79 | 77 | 75 |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 68 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 62 |
| 6 | 82 | 71 | 64 | 59 | 80 | 70 | 64 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 61 | 57 | 53 | 51 |
| 8 | 72 | 61 | 54 | 49 | 71 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 41 | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 54150 | 54150 | 54150 |
| 5° | 54576 | 53921 | 54653 |
| 10° | 55159 | 54575 | 55174 |
| 15° | 56043 | 55305 | 55079 |
| 20° | 56319 | 55046 | 54055 |
| 25° | 55258 | 53511 | 52602 |
| 30° | 52431 | 50765 | 49329 |
| 35° | 47015 | 45896 | 44475 |
| 40° | 38598 | 37747 | 36368 |
| 45° | 24135 | 27407 | 21895 |
| 50° | 9543 | 16211 | 8528 |
| 55° | 4631 | 7364 | 4574 |
| 60° | 2173 | 3604 | 1989 |
| 65° | 1948 | 2094 | 1876 |
| 70° | 1907 | 1954 | 1770 |
| 75° | 1859 | 1859 | 1678 |
| 80° | 1785 | 1785 | 1609 |
| 85° | 1612 | 1612 | 1612 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 27407 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 320.4 | 6.1 |
| 10°-20° | 936.6 | 17.9 |
| 20°-30° | 1384.7 | 26.4 |
| 30°-40° | 1430.8 | 27.3 |
| 40°-50° | 860.9 | 16.4 |
| 50°-60° | 206.9 | 4.0 |
| 60°-70° | 56.5 | 1.1 |
| 70°-80° | 31.5 | 0.6 |
| 80°-90° | 9.9 | 0.2 |
| 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° | 2641.8 | 50.4 |
| 0°-40° | 4072.6 | 77.7 |
| 0°-60° | 5140.5 | 98.1 |
| 0°-90° | 5238.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5238.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3354 | 3354 | 3354 | 3354 | 3354 | |
| 5° | 3367 | 3357 | 3327 | 3374 | 3372 | 321 |
| 15° | 3353 | 3378 | 3309 | 3309 | 3295 | 945 |
| 25° | 3102 | 3125 | 3004 | 2961 | 2953 | 1418 |
| 35° | 2385 | 2380 | 2328 | 2284 | 2256 | 1468 |
| 45° | 1057 | 1200 | 1200 | 1135 | 959 | 819 |
| 55° | 164 | 185 | 262 | 177 | 162 | 167 |
| 65° | 51 | 54 | 55 | 51 | 49 | 52 |
| 75° | 30 | 32 | 30 | 29 | 27 | 31 |
| 85° | 9 | 10 | 9 | 9 | 9 | 10 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P854373

CATALOG NUMBER: SQ2-WBM-0U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3353.8 | 3353.8 | 3353.8 | 3353.8 | 3353.8 |
| 2.5° | 3366.1 | 3357.8 | 3331.5 | 3362.1 | 3356.9 |
| 5° | 3367.3 | 3356.9 | 3326.9 | 3373.9 | 3372.1 |
| 7.5° | 3366.7 | 3361.2 | 3335.7 | 3371.9 | 3364.6 |
| 10° | 3364.4 | 3367.2 | 3328.8 | 3368.2 | 3365.3 |
| 12.5° | 3362.8 | 3375.4 | 3324.9 | 3352.7 | 3345.3 |
| 15° | 3352.8 | 3378.2 | 3308.6 | 3309.2 | 3295.1 |
| 17.5° | 3316.3 | 3347.1 | 3256.8 | 3230.1 | 3212.2 |
| 20° | 3277.8 | 3307.9 | 3203.7 | 3163.9 | 3146.0 |
| 22.5° | 3217.8 | 3245.6 | 3129.9 | 3089.3 | 3074.5 |
| 25° | 3101.8 | 3125.3 | 3003.7 | 2961.2 | 2952.7 |
| 27.5° | 2945.4 | 2955.4 | 2843.7 | 2802.0 | 2787.5 |
| 30° | 2812.3 | 2813.2 | 2722.9 | 2673.2 | 2645.9 |
| 32.5° | 2657.6 | 2651.1 | 2581.3 | 2531.4 | 2497.4 |
| 35° | 2385.3 | 2379.6 | 2328.5 | 2283.7 | 2256.4 |
| 37.5° | 2065.2 | 2064.2 | 2015.5 | 1976.8 | 1949.4 |
| 40° | 1831.3 | 1837.8 | 1790.9 | 1742.4 | 1725.5 |
| 42.5° | 1551.2 | 1599.9 | 1560.0 | 1507.1 | 1496.2 |
| 45° | 1057.0 | 1200.0 | 1200.3 | 1134.8 | 958.9 |
| 47.5° | 604.6 | 758.8 | 863.9 | 668.8 | 496.5 |
| 50° | 379.9 | 496.5 | 645.4 | 407.2 | 339.5 |
| 52.5° | 269.9 | 327.1 | 477.6 | 286.4 | 253.3 |
| 55° | 164.5 | 185.2 | 261.6 | 176.7 | 162.5 |
| 57.5° | 99.6 | 119.0 | 151.6 | 118.5 | 100.0 |
| 60° | 67.3 | 85.2 | 111.6 | 78.5 | 61.6 |
| 62.5° | 59.6 | 66.2 | 87.7 | 61.8 | 55.4 |
| 65° | 51.0 | 53.8 | 54.8 | 50.9 | 49.1 |
| 67.5° | 45.0 | 46.9 | 46.0 | 44.9 | 42.1 |
| 70° | 40.4 | 42.3 | 41.4 | 40.3 | 37.5 |
| 72.5° | 35.8 | 37.7 | 36.7 | 35.7 | 33.7 |
| 75° | 29.8 | 31.7 | 29.8 | 28.8 | 26.9 |
| 77.5° | 23.1 | 24.8 | 23.9 | 23.0 | 21.2 |
| 80° | 19.2 | 20.2 | 19.2 | 19.2 | 17.3 |
| 82.5° | 15.4 | 15.6 | 14.6 | 14.6 | 13.5 |
| 85° | 8.7 | 9.6 | 8.7 | 8.7 | 8.7 |
| 87.5° | 3.1 | 3.1 | 3.1 | 3.1 | 2.3 |
| 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 | 10.96 | 12.14 | 11.32 | 12.45 | 12.77 | 10.63 | 11.81 | 10.99 | 12.12 | 12.44 |
| | 3H | 11.50 | 12.53 | 11.88 | 12.87 | 13.23 | 11.16 | 12.19 | 11.54 | 12.52 | 12.89 |
| | 4H | 11.78 | 12.74 | 12.19 | 13.09 | 13.48 | 11.41 | 12.37 | 11.82 | 12.72 | 13.11 |
| | 6H | 12.02 | 12.90 | 12.44 | 13.27 | 13.67 | 11.63 | 12.50 | 12.04 | 12.88 | 13.27 |
| | 8H | 12.10 | 12.93 | 12.54 | 13.32 | 13.73 | 11.70 | 12.53 | 12.13 | 12.92 | 13.33 |
| | 12H | 12.15 | 12.94 | 12.58 | 13.32 | 13.75 | 11.75 | 12.54 | 12.19 | 12.93 | 13.36 |
| 4H | 2H | 11.01 | 11.97 | 11.42 | 12.33 | 12.71 | 10.71 | 11.67 | 11.12 | 12.02 | 12.41 |
| | 3H | 11.77 | 12.55 | 12.18 | 12.95 | 13.36 | 11.46 | 12.23 | 11.87 | 12.64 | 13.05 |
| | 4H | 12.18 | 12.87 | 12.62 | 13.29 | 13.74 | 11.83 | 12.52 | 12.27 | 12.94 | 13.39 |
| | 6H | 12.56 | 13.15 | 13.03 | 13.60 | 14.07 | 12.18 | 12.78 | 12.65 | 13.22 | 13.70 |
| | 8H | 12.69 | 13.24 | 13.16 | 13.69 | 14.17 | 12.30 | 12.86 | 12.78 | 13.31 | 13.78 |
| | 12H | 12.78 | 13.27 | 13.27 | 13.75 | 14.23 | 12.40 | 12.88 | 12.89 | 13.37 | 13.84 |
| 8H | 4H | 12.27 | 12.83 | 12.75 | 13.27 | 13.75 | 11.95 | 12.50 | 12.42 | 12.95 | 13.42 |
| | 6H | 12.77 | 13.21 | 13.27 | 13.71 | 14.20 | 12.42 | 12.87 | 12.92 | 13.37 | 13.85 |
| | 8H | 12.97 | 13.37 | 13.50 | 13.89 | 14.39 | 12.61 | 13.01 | 13.14 | 13.53 | 14.03 |
| | 12H | 13.14 | 13.50 | 13.66 | 13.99 | 14.57 | 12.78 | 13.14 | 13.30 | 13.63 | 14.21 |
| 12H | 4H | 12.26 | 12.74 | 12.75 | 13.23 | 13.70 | 11.94 | 12.42 | 12.43 | 12.91 | 13.39 |
| | 6H | 12.77 | 13.18 | 13.30 | 13.70 | 14.19 | 12.43 | 12.84 | 12.96 | 13.36 | 13.85 |
| | 8H | 13.03 | 13.38 | 13.55 | 13.88 | 14.46 | 12.68 | 13.04 | 13.20 | 13.53 | 14.11 |