

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: P854280

Luminaire Tested: SQ2-PW1-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854280
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PW1-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

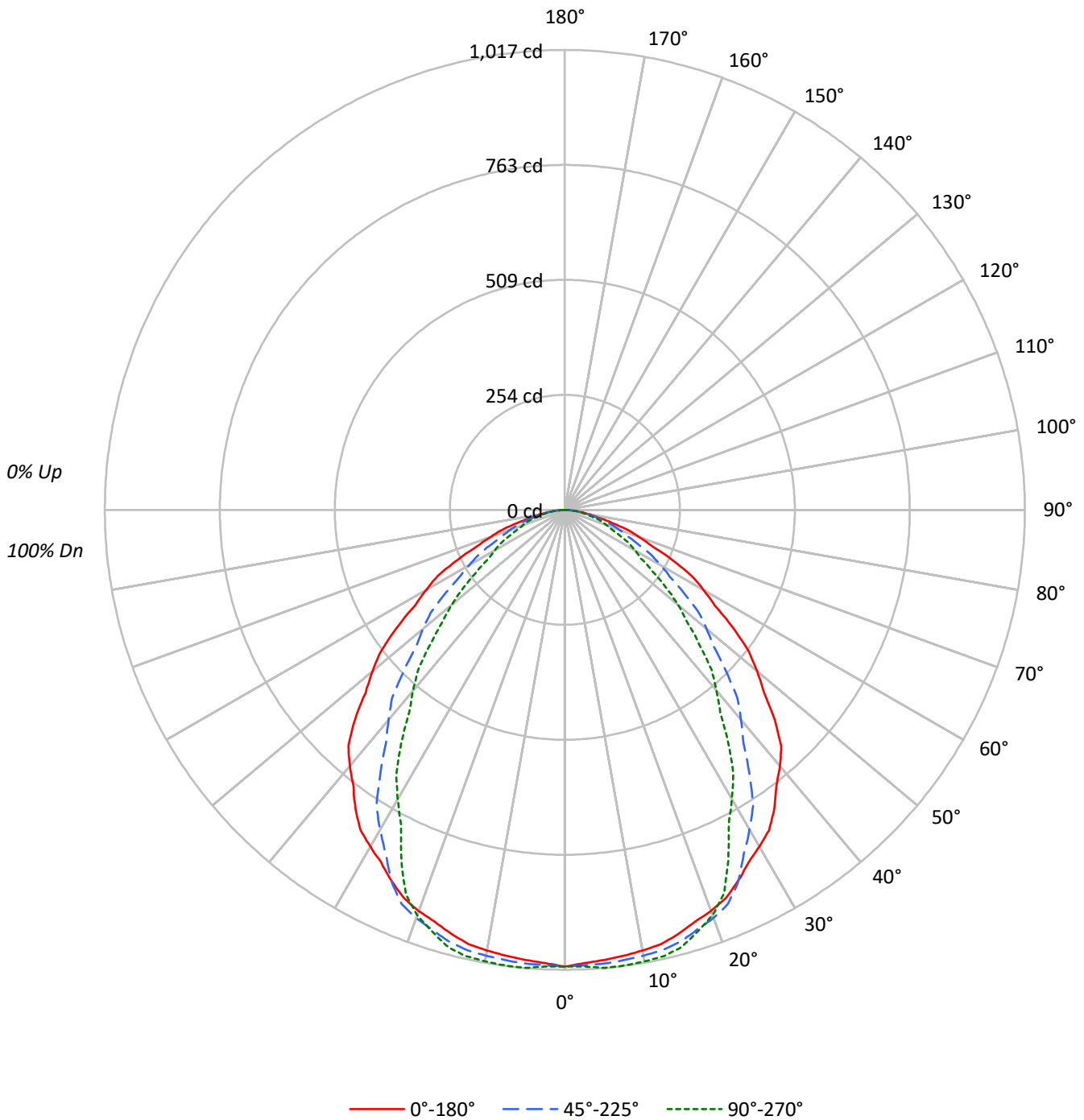
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2240.8 lumens
Efficiency: N/A
Efficacy: 125.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.8
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

TEST NUMBER: P854280
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Luminous Intensity Polar Plot





TEST NUMBER: P854280

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|---|--|--|--|----|--|--|--|--|--|--|--|--|----|---|
| RF | 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 | 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 | 110 | 106 | 102 | 99 | 108 | 104 | 100 | 97 | 100 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | | | | | | | | | | | | | | | | | | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 85 | 82 | 78 | 82 | 79 | 76 | 74 | | | | | | | | | | | | | | | | | | | | |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 64 | | | | | | | | | | | | | | | | | | | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 61 | 71 | 65 | 60 | 69 | 63 | 59 | 67 | 62 | 58 | 56 | | | | | | | | | | | | | | | | | | | | |
| 5 | 80 | 68 | 59 | 53 | 78 | 67 | 59 | 53 | 65 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | | | | | | | | | | | | | | | | |
| 6 | 74 | 62 | 53 | 47 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 57 | 51 | 46 | 56 | 50 | 46 | 44 | | | | | | | | | | | | | | | | | | | | |
| 7 | 69 | 56 | 48 | 42 | 67 | 55 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 51 | 46 | 41 | 39 | | | | | | | | | | | | | | | | | | | | |
| 8 | 64 | 52 | 44 | 38 | 63 | 51 | 43 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 47 | 42 | 37 | 35 | | | | | | | | | | | | | | | | | | | | |
| 9 | 60 | 48 | 40 | 35 | 59 | 47 | 40 | 34 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 32 | | | | | | | | | | | | | | | | | | | | |
| 10 | 57 | 44 | 37 | 32 | 55 | 44 | 36 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16306 | 16306 | 16306 |
| 5° | 16196 | 16321 | 16477 |
| 10° | 16226 | 16415 | 16620 |
| 15° | 16222 | 16527 | 16720 |
| 20° | 16228 | 16509 | 16393 |
| 25° | 16140 | 16158 | 15232 |
| 30° | 16032 | 15224 | 13772 |
| 35° | 15906 | 14010 | 12435 |
| 40° | 15588 | 12770 | 10987 |
| 45° | 14979 | 11485 | 9597 |
| 50° | 13941 | 10268 | 8214 |
| 55° | 12752 | 9070 | 6660 |
| 60° | 11428 | 7889 | 5745 |
| 65° | 9994 | 6797 | 5108 |
| 70° | 8172 | 6038 | 4631 |
| 75° | 6363 | 5221 | 4261 |
| 80° | 4742 | 4472 | 3756 |
| 85° | 3205 | 3390 | 2130 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14979 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 96.2 | 4.3 |
| 10°-20° | 278.6 | 12.4 |
| 20°-30° | 410.0 | 18.3 |
| 30°-40° | 448.3 | 20.0 |
| 40°-50° | 402.2 | 17.9 |
| 50°-60° | 300.0 | 13.4 |
| 60°-70° | 189.6 | 8.5 |
| 70°-80° | 93.9 | 4.2 |
| 80°-90° | 22.0 | 1.0 |
| 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° | 784.8 | 35.0 |
| 0°-40° | 1233.1 | 55.0 |
| 0°-60° | 1935.3 | 86.4 |
| 0°-90° | 2240.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2240.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1010 | 1010 | 1010 | 1010 | 1010 | |
| 5° | 999 | 1015 | 1007 | 1008 | 1017 | 95 |
| 15° | 970 | 989 | 989 | 996 | 1000 | 274 |
| 25° | 906 | 926 | 907 | 869 | 855 | 417 |
| 35° | 807 | 798 | 711 | 649 | 631 | 503 |
| 45° | 656 | 603 | 503 | 440 | 420 | 503 |
| 55° | 453 | 410 | 322 | 253 | 237 | 405 |
| 65° | 262 | 240 | 178 | 143 | 134 | 259 |
| 75° | 102 | 110 | 84 | 70 | 68 | 112 |
| 85° | 17 | 22 | 18 | 12 | 12 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P854280

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1009.9 | 1009.9 | 1009.9 | 1009.9 | 1009.9 |
| 2.5° | 1003.0 | 1015.8 | 1007.6 | 1008.4 | 1010.7 |
| 5° | 999.3 | 1015.3 | 1007.0 | 1008.2 | 1016.6 |
| 7.5° | 994.3 | 1010.5 | 1004.3 | 1007.8 | 1016.1 |
| 10° | 989.7 | 1006.6 | 1001.2 | 1006.2 | 1013.7 |
| 12.5° | 983.5 | 1001.2 | 997.4 | 1003.1 | 1010.7 |
| 15° | 970.5 | 989.3 | 988.7 | 995.6 | 1000.3 |
| 17.5° | 955.3 | 974.1 | 973.2 | 974.9 | 977.2 |
| 20° | 944.5 | 963.3 | 960.8 | 954.1 | 954.1 |
| 22.5° | 929.1 | 949.4 | 943.1 | 924.7 | 918.7 |
| 25° | 906.0 | 925.8 | 907.0 | 869.2 | 855.0 |
| 27.5° | 879.1 | 895.1 | 857.4 | 803.6 | 784.1 |
| 30° | 859.9 | 872.1 | 816.6 | 757.5 | 738.7 |
| 32.5° | 839.9 | 844.6 | 775.0 | 713.6 | 693.3 |
| 35° | 807.0 | 798.5 | 710.8 | 648.8 | 630.9 |
| 37.5° | 768.1 | 742.9 | 649.0 | 584.1 | 564.4 |
| 40° | 739.6 | 703.9 | 605.9 | 541.0 | 521.3 |
| 42.5° | 708.1 | 663.3 | 565.2 | 500.3 | 479.8 |
| 45° | 656.0 | 603.3 | 503.0 | 440.1 | 420.3 |
| 47.5° | 597.3 | 545.0 | 444.9 | 384.0 | 367.0 |
| 50° | 555.0 | 504.2 | 408.8 | 347.7 | 327.0 |
| 52.5° | 511.9 | 466.4 | 373.4 | 310.6 | 282.4 |
| 55° | 453.0 | 409.8 | 322.2 | 252.6 | 236.6 |
| 57.5° | 392.4 | 355.0 | 275.8 | 212.6 | 199.5 |
| 60° | 353.9 | 321.0 | 244.3 | 191.1 | 177.9 |
| 62.5° | 317.0 | 287.9 | 213.5 | 171.1 | 160.2 |
| 65° | 261.6 | 240.0 | 177.9 | 143.1 | 133.7 |
| 67.5° | 207.8 | 195.7 | 147.9 | 117.4 | 111.2 |
| 70° | 173.1 | 169.4 | 127.9 | 102.8 | 98.1 |
| 72.5° | 143.1 | 144.6 | 108.7 | 89.0 | 85.8 |
| 75° | 102.0 | 109.5 | 83.7 | 70.2 | 68.3 |
| 77.5° | 69.4 | 80.7 | 61.9 | 51.9 | 50.4 |
| 80° | 51.0 | 62.3 | 48.1 | 40.4 | 40.4 |
| 82.5° | 35.6 | 44.6 | 34.2 | 30.4 | 30.4 |
| 85° | 17.3 | 22.0 | 18.3 | 12.5 | 11.5 |
| 87.5° | 4.6 | 6.9 | 3.1 | 2.3 | 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 | 20.67 | 22.17 | 21.03 | 22.49 | 22.80 | 17.16 | 18.66 | 17.52 | 18.97 | 19.29 |
| | 3H | 22.04 | 23.38 | 22.42 | 23.71 | 24.07 | 18.41 | 19.75 | 18.78 | 20.08 | 20.44 |
| | 4H | 22.44 | 23.70 | 22.84 | 24.05 | 24.43 | 18.88 | 20.14 | 19.28 | 20.49 | 20.87 |
| | 6H | 22.67 | 23.84 | 23.09 | 24.20 | 24.60 | 19.23 | 20.39 | 19.64 | 20.76 | 21.15 |
| | 8H | 22.72 | 23.83 | 23.15 | 24.22 | 24.62 | 19.32 | 20.43 | 19.75 | 20.82 | 21.22 |
| | 12H | 22.74 | 23.80 | 23.17 | 24.18 | 24.61 | 19.35 | 20.41 | 19.78 | 20.79 | 21.22 |
| 4H | 2H | 20.85 | 22.11 | 21.25 | 22.46 | 22.84 | 17.91 | 19.17 | 18.31 | 19.52 | 19.90 |
| | 3H | 22.45 | 23.49 | 22.86 | 23.89 | 24.29 | 19.36 | 20.40 | 19.77 | 20.80 | 21.20 |
| | 4H | 22.98 | 23.92 | 23.41 | 24.33 | 24.77 | 19.93 | 20.86 | 20.36 | 21.28 | 21.72 |
| | 6H | 23.34 | 24.16 | 23.80 | 24.60 | 25.06 | 20.36 | 21.18 | 20.82 | 21.62 | 22.08 |
| | 8H | 23.43 | 24.20 | 23.90 | 24.64 | 25.11 | 20.48 | 21.24 | 20.94 | 21.69 | 22.15 |
| | 12H | 23.48 | 24.16 | 23.96 | 24.64 | 25.11 | 20.53 | 21.21 | 21.01 | 21.69 | 22.16 |
| 8H | 4H | 23.06 | 23.82 | 23.53 | 24.27 | 24.74 | 20.30 | 21.06 | 20.76 | 21.50 | 21.97 |
| | 6H | 23.52 | 24.15 | 24.02 | 24.64 | 25.12 | 20.82 | 21.45 | 21.32 | 21.94 | 22.42 |
| | 8H | 23.67 | 24.23 | 24.18 | 24.74 | 25.23 | 20.99 | 21.55 | 21.50 | 22.06 | 22.55 |
| | 12H | 23.76 | 24.26 | 24.27 | 24.75 | 25.32 | 21.08 | 21.57 | 21.59 | 22.07 | 22.63 |
| 12H | 4H | 23.05 | 23.73 | 23.53 | 24.21 | 24.68 | 20.34 | 21.02 | 20.82 | 21.50 | 21.97 |
| | 6H | 23.51 | 24.08 | 24.03 | 24.59 | 25.08 | 20.89 | 21.46 | 21.41 | 21.97 | 22.45 |
| | 8H | 23.70 | 24.20 | 24.21 | 24.69 | 25.26 | 21.10 | 21.60 | 21.61 | 22.09 | 22.66 |