

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: P845478

Luminaire Tested: SQ2R-F-075D-930-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845478
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-1)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-F-075D-930-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH FROSTED LENS
750 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

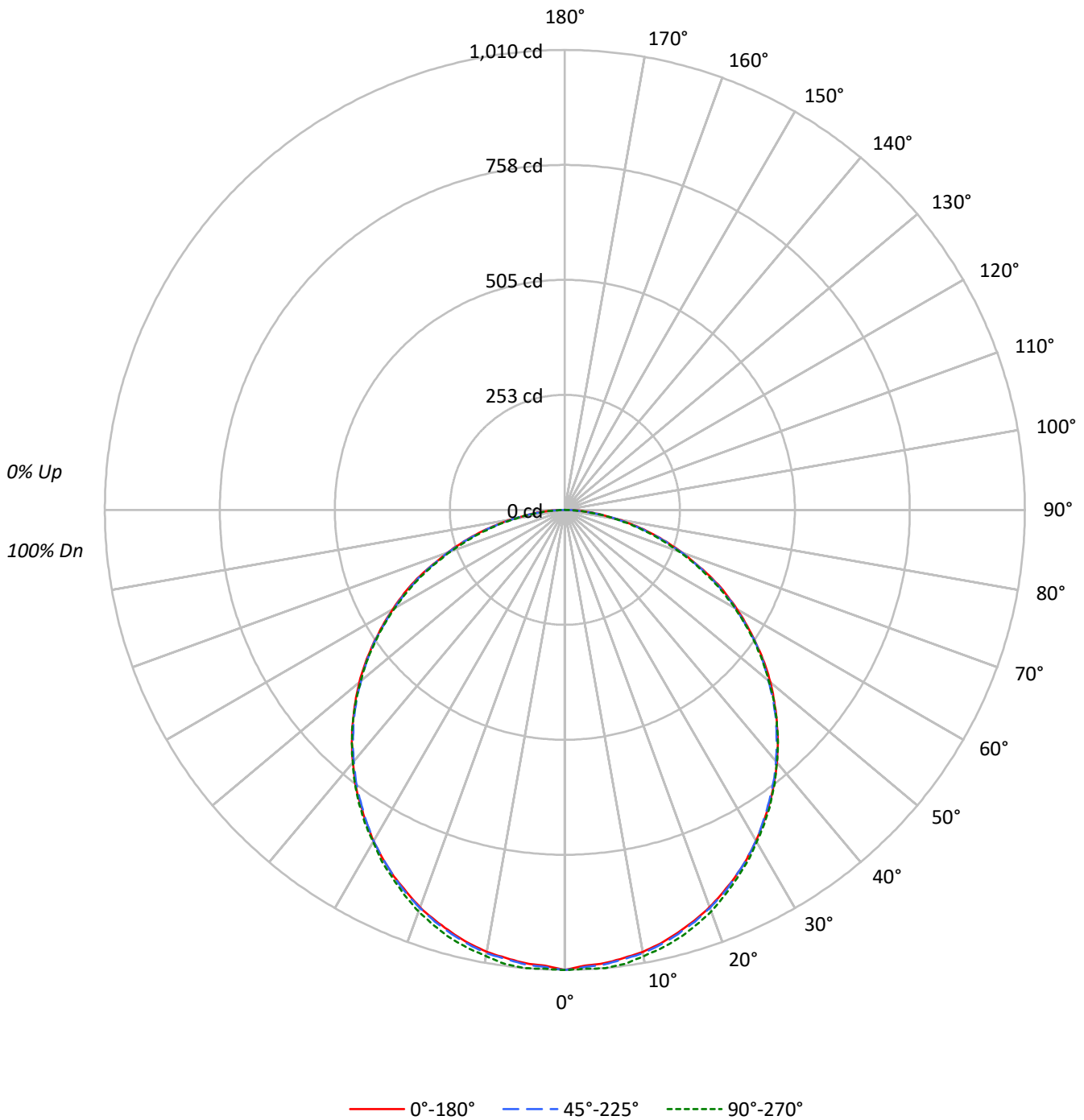
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2836.3 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
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

TEST NUMBER: P845478
CATALOG NUMBER: SQ2R-F-075D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845478

CATALOG NUMBER: SQ2R-F-075D-930-UNV-STD-W-4

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 | 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 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | | | | |
| 2 | 99 | 91 | 84 | 78 | 96 | 89 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 70 | | | | |
| 3 | 90 | 79 | 71 | 65 | 88 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 59 | | | | |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 | | | | |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 | | | | |
| 6 | 70 | 57 | 48 | 41 | 68 | 56 | 47 | 41 | 54 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 38 | | | | |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 35 | 33 | | | | |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 44 | 37 | 32 | 42 | 36 | 32 | 30 | | | | |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 29 | 27 | | | | |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16314 | 16314 | 16314 |
| 5° | 16198 | 16242 | 16376 |
| 10° | 16159 | 16203 | 16316 |
| 15° | 16060 | 16107 | 16267 |
| 20° | 15966 | 15988 | 16131 |
| 25° | 15818 | 15818 | 15916 |
| 30° | 15655 | 15655 | 15705 |
| 35° | 15465 | 15412 | 15520 |
| 40° | 15262 | 15203 | 15262 |
| 45° | 15025 | 14961 | 15025 |
| 50° | 14800 | 14659 | 14694 |
| 55° | 14452 | 14415 | 14336 |
| 60° | 14092 | 14002 | 13914 |
| 65° | 13673 | 13517 | 13356 |
| 70° | 12869 | 12803 | 12543 |
| 75° | 12108 | 11853 | 11510 |
| 80° | 10749 | 10497 | 10107 |
| 85° | 8670 | 7910 | 7392 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 15118 cd/sqm



TEST NUMBER: P845478

CATALOG NUMBER: SQ2R-F-075D-930-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 95.6 | 3.4 |
| 10°-20° | 273.1 | 9.6 |
| 20°-30° | 410.8 | 14.5 |
| 30°-40° | 491.5 | 17.3 |
| 40°-50° | 507.1 | 17.9 |
| 50°-60° | 457.5 | 16.1 |
| 60°-70° | 349.1 | 12.3 |
| 70°-80° | 200.6 | 7.1 |
| 80°-90° | 51.1 | 1.8 |
| 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° | 779.4 | 27.5 |
| 0°-40° | 1270.9 | 44.8 |
| 0°-60° | 2235.6 | 78.8 |
| 0°-90° | 2836.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2836.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1010 | 1010 | 1010 | 1010 | 1010 | |
| 5° | 999 | 1013 | 1002 | 1004 | 1010 | 95 |
| 15° | 961 | 973 | 964 | 966 | 973 | 271 |
| 25° | 888 | 898 | 888 | 889 | 893 | 409 |
| 35° | 785 | 790 | 782 | 785 | 787 | 491 |
| 45° | 658 | 662 | 655 | 657 | 658 | 508 |
| 55° | 513 | 516 | 512 | 509 | 509 | 459 |
| 65° | 358 | 356 | 354 | 351 | 350 | 352 |
| 75° | 194 | 193 | 190 | 186 | 184 | 205 |
| 85° | 47 | 44 | 43 | 38 | 40 | 55 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P845478

CATALOG NUMBER: SQ2R-F-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1010.4 | 1010.4 | 1010.4 | 1010.4 | 1010.4 |
| 2.5° | 1002.1 | 1017.2 | 1004.9 | 1007.6 | 1009.0 |
| 5° | 999.4 | 1013.1 | 1002.1 | 1003.5 | 1010.4 |
| 7.5° | 992.5 | 1007.6 | 995.2 | 998.0 | 1006.2 |
| 10° | 985.6 | 999.4 | 988.3 | 989.7 | 995.2 |
| 12.5° | 974.6 | 988.3 | 977.3 | 980.1 | 985.6 |
| 15° | 960.8 | 973.2 | 963.6 | 966.3 | 973.2 |
| 17.5° | 945.7 | 959.4 | 948.4 | 952.6 | 956.7 |
| 20° | 929.2 | 940.2 | 930.5 | 931.9 | 938.8 |
| 22.5° | 908.5 | 919.5 | 911.3 | 911.3 | 916.8 |
| 25° | 887.9 | 897.5 | 887.9 | 889.2 | 893.4 |
| 27.5° | 864.5 | 872.7 | 864.5 | 865.8 | 870.0 |
| 30° | 839.7 | 847.9 | 839.7 | 841.1 | 842.4 |
| 32.5° | 812.1 | 819.0 | 810.8 | 812.1 | 816.3 |
| 35° | 784.6 | 790.1 | 781.9 | 784.6 | 787.4 |
| 37.5° | 755.7 | 759.8 | 753.0 | 754.3 | 757.1 |
| 40° | 724.1 | 728.2 | 721.3 | 722.7 | 724.1 |
| 42.5° | 692.4 | 695.1 | 688.3 | 689.6 | 692.4 |
| 45° | 658.0 | 662.1 | 655.2 | 656.6 | 658.0 |
| 47.5° | 623.6 | 626.3 | 620.8 | 619.4 | 622.2 |
| 50° | 589.2 | 590.5 | 583.6 | 583.6 | 585.0 |
| 52.5° | 552.0 | 553.4 | 549.2 | 546.5 | 547.9 |
| 55° | 513.4 | 516.2 | 512.1 | 509.3 | 509.3 |
| 57.5° | 474.9 | 477.7 | 472.1 | 470.8 | 470.8 |
| 60° | 436.4 | 437.7 | 433.6 | 432.2 | 430.9 |
| 62.5° | 397.8 | 397.8 | 393.7 | 392.3 | 390.9 |
| 65° | 357.9 | 356.5 | 353.8 | 351.0 | 349.6 |
| 67.5° | 312.5 | 313.8 | 311.1 | 307.0 | 307.0 |
| 70° | 272.6 | 273.9 | 271.2 | 265.7 | 265.7 |
| 72.5° | 234.0 | 232.6 | 231.3 | 227.1 | 224.4 |
| 75° | 194.1 | 192.7 | 190.0 | 185.8 | 184.5 |
| 77.5° | 154.2 | 152.8 | 151.4 | 145.9 | 147.3 |
| 80° | 115.6 | 114.3 | 112.9 | 108.7 | 108.7 |
| 82.5° | 81.2 | 78.5 | 77.1 | 73.0 | 73.0 |
| 85° | 46.8 | 44.0 | 42.7 | 38.5 | 39.9 |
| 87.5° | 16.5 | 15.1 | 13.8 | 11.0 | 11.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P845478

CATALOG NUMBER: SQ2R-F-075D-930-UNV-STD-W-4

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 | 21.47 | 23.11 | 21.83 | 23.42 | 23.74 | 21.39 | 23.03 | 21.75 | 23.34 | 23.66 |
| | 3H | 23.30 | 24.78 | 23.68 | 25.11 | 25.47 | 23.18 | 24.66 | 23.56 | 24.99 | 25.35 |
| | 4H | 23.99 | 25.39 | 24.39 | 25.74 | 26.11 | 23.84 | 25.24 | 24.24 | 25.59 | 25.96 |
| | 6H | 24.50 | 25.80 | 24.91 | 26.16 | 26.55 | 24.31 | 25.61 | 24.72 | 25.97 | 26.36 |
| | 8H | 24.66 | 25.90 | 25.08 | 26.29 | 26.68 | 24.46 | 25.69 | 24.88 | 26.08 | 26.48 |
| | 12H | 24.76 | 25.94 | 25.19 | 26.33 | 26.75 | 24.53 | 25.72 | 24.96 | 26.10 | 26.53 |
| 4H | 2H | 22.10 | 23.50 | 22.50 | 23.85 | 24.22 | 22.04 | 23.44 | 22.44 | 23.79 | 24.16 |
| | 3H | 24.16 | 25.33 | 24.57 | 25.73 | 26.13 | 24.05 | 25.22 | 24.46 | 25.62 | 26.02 |
| | 4H | 24.98 | 26.04 | 25.41 | 26.45 | 26.89 | 24.83 | 25.90 | 25.27 | 26.31 | 26.74 |
| | 6H | 25.61 | 26.54 | 26.06 | 26.98 | 27.43 | 25.43 | 26.36 | 25.88 | 26.80 | 27.25 |
| | 8H | 25.82 | 26.69 | 26.28 | 27.13 | 27.59 | 25.61 | 26.48 | 26.07 | 26.93 | 27.39 |
| | 12H | 25.96 | 26.74 | 26.44 | 27.21 | 27.68 | 25.73 | 26.51 | 26.21 | 26.98 | 27.45 |
| 8H | 4H | 25.29 | 26.16 | 25.75 | 26.60 | 27.06 | 25.16 | 26.03 | 25.62 | 26.47 | 26.94 |
| | 6H | 26.04 | 26.76 | 26.53 | 27.25 | 27.72 | 25.87 | 26.59 | 26.36 | 27.08 | 27.56 |
| | 8H | 26.31 | 26.96 | 26.82 | 27.47 | 27.95 | 26.12 | 26.77 | 26.63 | 27.27 | 27.76 |
| | 12H | 26.52 | 27.09 | 27.02 | 27.58 | 28.14 | 26.29 | 26.86 | 26.80 | 27.35 | 27.91 |
| 12H | 4H | 25.32 | 26.10 | 25.80 | 26.57 | 27.04 | 25.20 | 25.98 | 25.68 | 26.45 | 26.92 |
| | 6H | 26.09 | 26.74 | 26.60 | 27.24 | 27.73 | 25.93 | 26.58 | 26.44 | 27.08 | 27.57 |
| | 8H | 26.42 | 26.99 | 26.92 | 27.48 | 28.04 | 26.23 | 26.80 | 26.74 | 27.30 | 27.86 |