

Signify Classified - Internal
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: P686291

Luminaire Tested: SQ4R-F-075D-92765-1-UNV-STD-W-4_3000K

Issue Date: 5/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P686291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2203-586-27)
Test Lab: INNOVATION CENTER
Issue Date: 5/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4R-F-075D-92765-1-UNV-STD-W-4_3000K
Description: CORELITE SQ4R RECESSED LED LUMINAIRE WITH FROSTED LENS, WHITE TUNING 2700K-6500I
750 LUMENS PER FOOT
Light Source: 2700K AND 6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

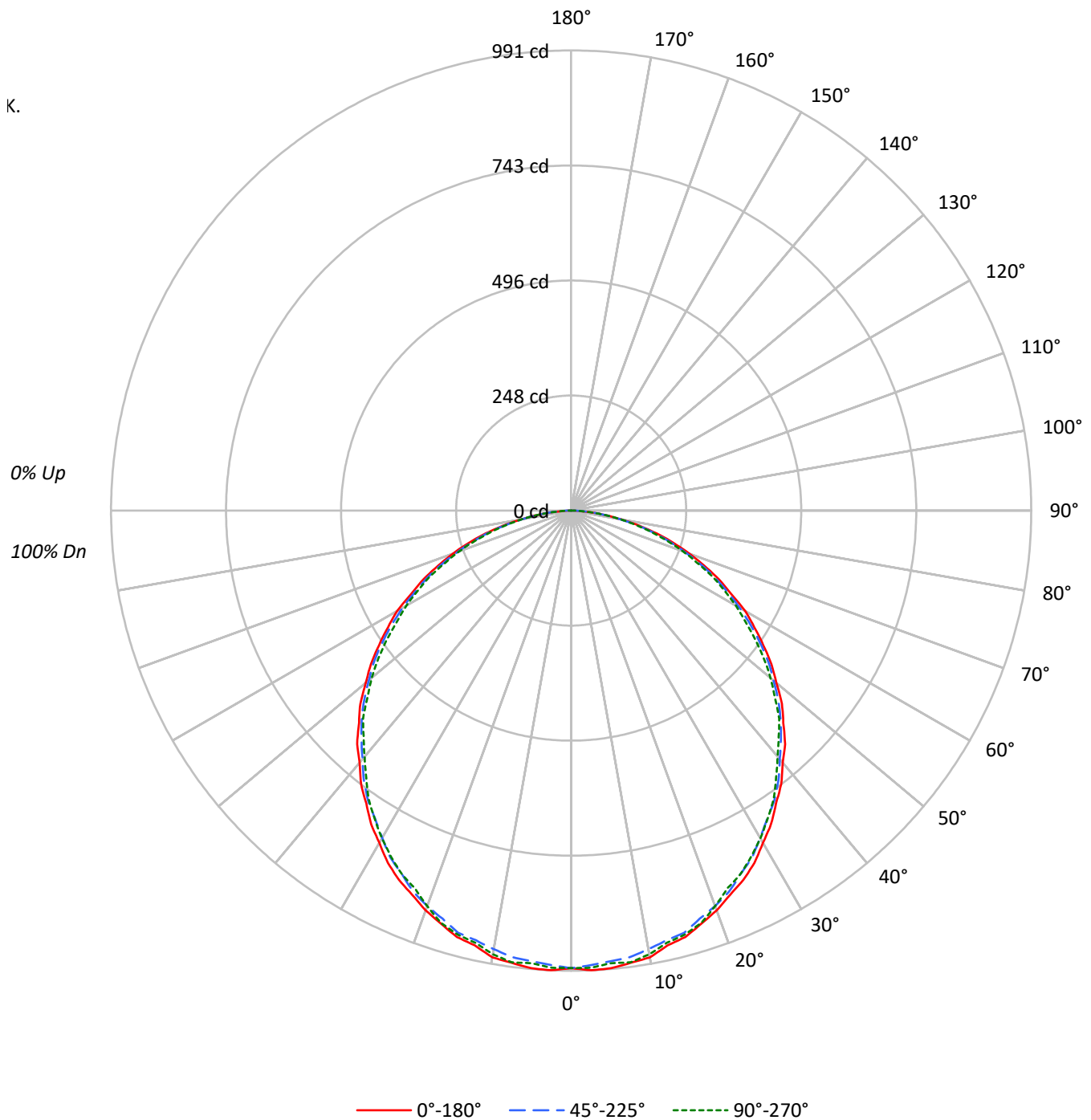
Lumens per Lamp: N/A
Luminaire Lumens: 2755.3 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.23 / 1.35
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Direct

Input Watts (W): 32.7
Input Voltage (V): 120
Input Current (A_{in}): 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 | 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 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 82 | 70 | 62 | 55 | 80 | 69 | 61 | 54 | 67 | 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 | 43 | 36 | 63 | 51 | 42 | 36 | 49 | 41 | 36 | 48 | 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 | 34 | 29 | 39 | 33 | 29 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 32 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 9486 | 9486 | 9486 |
| 5° | 9562 | 9415 | 9455 |
| 10° | 9551 | 9375 | 9484 |
| 15° | 9476 | 9379 | 9421 |
| 20° | 9386 | 9286 | 9286 |
| 25° | 9319 | 9173 | 9173 |
| 30° | 9184 | 9046 | 9061 |
| 35° | 9043 | 8962 | 8929 |
| 40° | 8904 | 8782 | 8696 |
| 45° | 8798 | 8685 | 8629 |
| 50° | 8644 | 8519 | 8395 |
| 55° | 8478 | 8339 | 8129 |
| 60° | 8339 | 8073 | 7887 |
| 65° | 8007 | 7786 | 7661 |
| 70° | 7634 | 7324 | 7206 |
| 75° | 7105 | 6844 | 6640 |
| 80° | 6060 | 5910 | 5910 |
| 85° | 4430 | 4584 | 4430 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 8817 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 93.3 | 3.4 |
| 10°-20° | 266.2 | 9.7 |
| 20°-30° | 400.0 | 14.5 |
| 30°-40° | 477.5 | 17.3 |
| 40°-50° | 492.7 | 17.9 |
| 50°-60° | 443.7 | 16.1 |
| 60°-70° | 337.6 | 12.3 |
| 70°-80° | 193.8 | 7.0 |
| 80°-90° | 50.4 | 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° | 759.5 | 27.6 |
| 0°-40° | 1237.0 | 44.9 |
| 0°-60° | 2173.4 | 78.9 |
| 0°-90° | 2755.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2755.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 985 | 985 | 985 | 985 | 985 | |
| 5° | 989 | 985 | 974 | 985 | 978 | 94 |
| 15° | 951 | 946 | 941 | 944 | 945 | 268 |
| 25° | 877 | 870 | 864 | 866 | 864 | 404 |
| 35° | 769 | 768 | 762 | 760 | 760 | 482 |
| 45° | 646 | 648 | 638 | 632 | 634 | 499 |
| 55° | 505 | 506 | 497 | 493 | 484 | 452 |
| 65° | 352 | 347 | 342 | 335 | 336 | 347 |
| 75° | 191 | 185 | 184 | 180 | 178 | 201 |
| 85° | 40 | 42 | 42 | 42 | 40 | 50 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 |
| 2.5° | 990.8 | 990.8 | 979.8 | 986.7 | 985.3 |
| 5° | 989.4 | 985.3 | 974.2 | 985.3 | 978.4 |
| 7.5° | 982.5 | 975.6 | 970.1 | 977.0 | 981.1 |
| 10° | 977.0 | 975.6 | 959.0 | 967.3 | 970.1 |
| 12.5° | 959.0 | 965.9 | 947.9 | 953.5 | 953.5 |
| 15° | 950.7 | 946.5 | 941.0 | 943.8 | 945.2 |
| 17.5° | 932.7 | 929.9 | 921.6 | 928.6 | 931.3 |
| 20° | 916.1 | 911.9 | 906.4 | 907.8 | 906.4 |
| 22.5° | 895.3 | 892.6 | 888.4 | 888.4 | 880.1 |
| 25° | 877.3 | 870.4 | 863.5 | 866.3 | 863.5 |
| 27.5° | 855.2 | 849.7 | 842.8 | 844.1 | 840.0 |
| 30° | 826.1 | 827.5 | 813.7 | 813.7 | 815.1 |
| 32.5° | 801.2 | 795.7 | 786.0 | 786.0 | 787.4 |
| 35° | 769.4 | 768.0 | 762.5 | 759.7 | 759.7 |
| 37.5° | 743.1 | 743.1 | 733.4 | 729.3 | 725.1 |
| 40° | 708.5 | 709.9 | 698.8 | 697.5 | 691.9 |
| 42.5° | 682.2 | 679.5 | 668.4 | 667.0 | 661.5 |
| 45° | 646.2 | 647.6 | 637.9 | 632.4 | 633.8 |
| 47.5° | 615.8 | 611.7 | 604.7 | 599.2 | 595.0 |
| 50° | 577.1 | 575.7 | 568.8 | 564.6 | 560.5 |
| 52.5° | 543.8 | 539.7 | 535.5 | 525.9 | 523.1 |
| 55° | 505.1 | 506.5 | 496.8 | 492.6 | 484.3 |
| 57.5° | 467.7 | 466.4 | 458.0 | 451.1 | 444.2 |
| 60° | 433.1 | 429.0 | 419.3 | 412.4 | 409.6 |
| 62.5° | 387.5 | 386.1 | 379.2 | 373.6 | 370.9 |
| 65° | 351.5 | 347.3 | 341.8 | 334.9 | 336.3 |
| 67.5° | 310.0 | 307.2 | 301.7 | 296.1 | 293.4 |
| 70° | 271.2 | 267.1 | 260.2 | 257.4 | 256.0 |
| 72.5° | 231.1 | 226.9 | 221.4 | 215.9 | 217.3 |
| 75° | 191.0 | 185.4 | 184.0 | 179.9 | 178.5 |
| 77.5° | 149.5 | 146.7 | 143.9 | 142.5 | 141.2 |
| 80° | 109.3 | 110.7 | 106.6 | 105.2 | 106.6 |
| 82.5° | 74.7 | 74.7 | 73.3 | 72.0 | 73.3 |
| 85° | 40.1 | 41.5 | 41.5 | 41.5 | 40.1 |
| 87.5° | 13.8 | 16.6 | 18.0 | 18.0 | 16.6 |
| 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 | 19.64 | 21.28 | 20.01 | 21.60 | 21.91 | 19.40 | 21.04 | 19.77 | 21.35 | 21.67 |
| | 3H | 21.48 | 22.96 | 21.86 | 23.29 | 23.65 | 21.21 | 22.69 | 21.58 | 23.02 | 23.38 |
| | 4H | 22.17 | 23.56 | 22.56 | 23.91 | 24.29 | 21.87 | 23.27 | 22.27 | 23.62 | 24.00 |
| | 6H | 22.65 | 23.95 | 23.06 | 24.31 | 24.70 | 22.36 | 23.66 | 22.77 | 24.02 | 24.41 |
| | 8H | 22.80 | 24.03 | 23.22 | 24.42 | 24.82 | 22.51 | 23.75 | 22.93 | 24.14 | 24.54 |
| | 12H | 22.88 | 24.06 | 23.31 | 24.44 | 24.87 | 22.60 | 23.78 | 23.03 | 24.16 | 24.59 |
| 4H | 2H | 20.26 | 21.65 | 20.65 | 22.00 | 22.38 | 20.07 | 21.46 | 20.46 | 21.81 | 22.19 |
| | 3H | 22.31 | 23.48 | 22.72 | 23.88 | 24.28 | 22.09 | 23.26 | 22.49 | 23.66 | 24.05 |
| | 4H | 23.12 | 24.18 | 23.55 | 24.60 | 25.03 | 22.88 | 23.94 | 23.31 | 24.35 | 24.79 |
| | 6H | 23.74 | 24.67 | 24.19 | 25.11 | 25.56 | 23.49 | 24.41 | 23.94 | 24.85 | 25.31 |
| | 8H | 23.93 | 24.80 | 24.39 | 25.24 | 25.70 | 23.68 | 24.55 | 24.14 | 24.99 | 25.45 |
| | 12H | 24.05 | 24.83 | 24.52 | 25.30 | 25.77 | 23.80 | 24.58 | 24.28 | 25.06 | 25.53 |
| 8H | 4H | 23.42 | 24.29 | 23.88 | 24.73 | 25.20 | 23.21 | 24.07 | 23.67 | 24.52 | 24.98 |
| | 6H | 24.15 | 24.87 | 24.64 | 25.36 | 25.84 | 23.93 | 24.65 | 24.42 | 25.14 | 25.61 |
| | 8H | 24.41 | 25.06 | 24.92 | 25.56 | 26.05 | 24.19 | 24.83 | 24.70 | 25.34 | 25.83 |
| | 12H | 24.59 | 25.16 | 25.10 | 25.65 | 26.21 | 24.37 | 24.95 | 24.88 | 25.44 | 26.00 |
| 12H | 4H | 23.45 | 24.23 | 23.93 | 24.71 | 25.18 | 23.24 | 24.02 | 23.72 | 24.50 | 24.97 |
| | 6H | 24.20 | 24.85 | 24.71 | 25.35 | 25.84 | 23.98 | 24.63 | 24.49 | 25.14 | 25.62 |
| | 8H | 24.51 | 25.08 | 25.02 | 25.57 | 26.13 | 24.30 | 24.87 | 24.80 | 25.36 | 25.92 |