

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: P855513

Luminaire Tested: SQ2-PP3-050D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855513
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PP3-050D-835-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

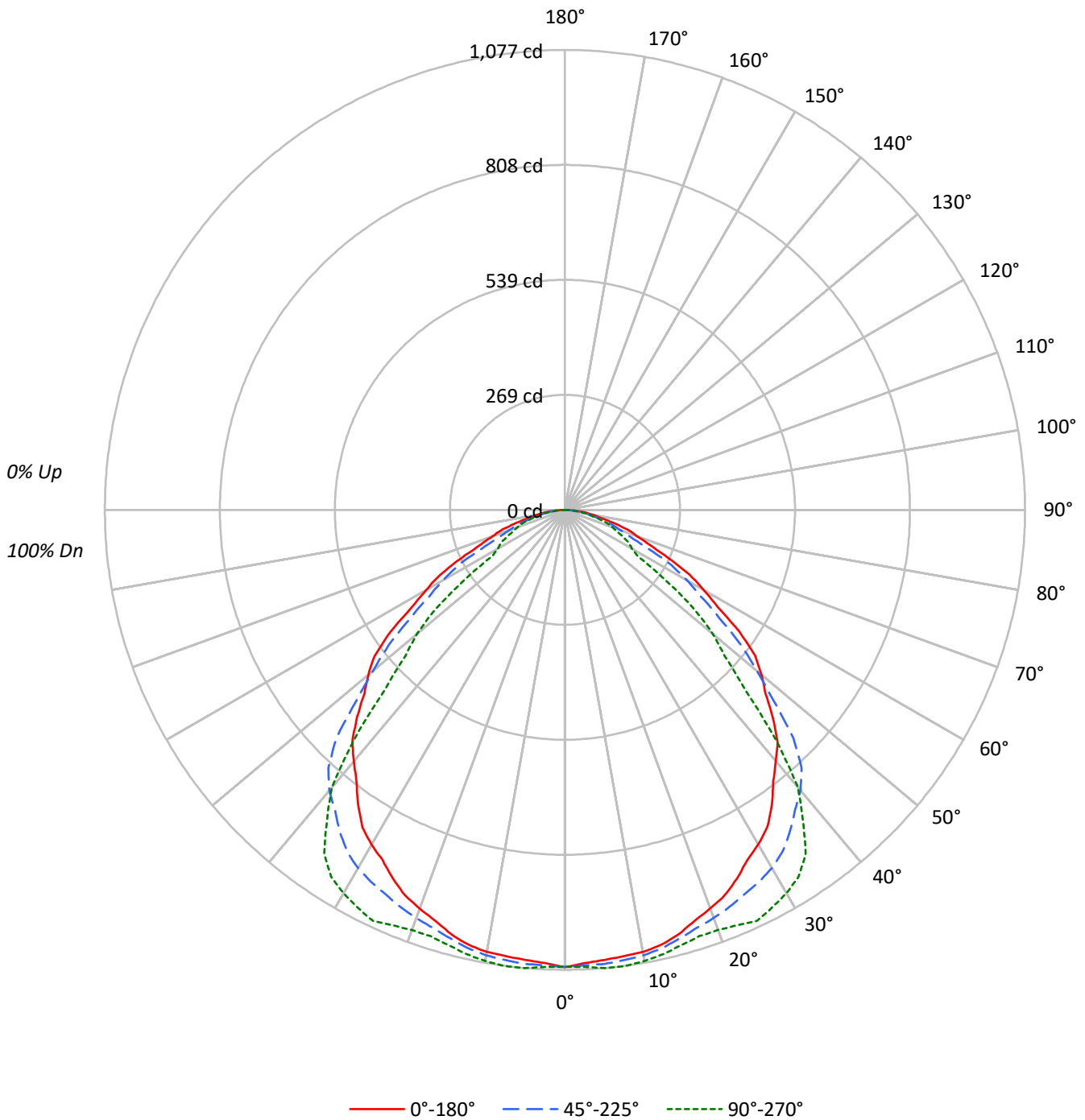
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2696.1 lumens
Efficiency: N/A
Efficacy: 151.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.41 / 1.4
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

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Luminous Intensity Polar Plot





TEST NUMBER: P855513

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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 | 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 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 89 | 87 | | | | |
| 2 | 101 | 94 | 88 | 82 | 99 | 92 | 86 | 81 | 88 | 84 | 80 | 85 | 81 | 78 | 82 | 79 | 76 | 74 | | | | |
| 3 | 93 | 83 | 76 | 70 | 91 | 82 | 75 | 69 | 79 | 73 | 68 | 76 | 71 | 67 | 74 | 69 | 66 | 64 | | | | |
| 4 | 86 | 74 | 66 | 60 | 83 | 73 | 66 | 60 | 71 | 64 | 59 | 68 | 63 | 58 | 66 | 61 | 57 | 55 | | | | |
| 5 | 79 | 67 | 59 | 52 | 77 | 66 | 58 | 52 | 64 | 57 | 52 | 62 | 56 | 51 | 60 | 55 | 50 | 48 | | | | |
| 6 | 73 | 61 | 52 | 46 | 71 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 55 | 49 | 45 | 43 | | | | |
| 7 | 68 | 55 | 47 | 41 | 66 | 54 | 46 | 41 | 53 | 46 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 38 | | | | |
| 8 | 63 | 50 | 42 | 37 | 62 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 34 | | | | |
| 9 | 59 | 46 | 38 | 33 | 58 | 46 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 33 | 31 | | | | |
| 10 | 56 | 43 | 35 | 30 | 54 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 40 | 34 | 30 | 28 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17286 | 17286 | 17286 |
| 5° | 17149 | 17297 | 17460 |
| 10° | 17236 | 17365 | 17588 |
| 15° | 17195 | 17366 | 17630 |
| 20° | 17072 | 17481 | 17986 |
| 25° | 16976 | 17701 | 18930 |
| 30° | 16878 | 18060 | 19326 |
| 35° | 16640 | 18112 | 19362 |
| 40° | 16195 | 18080 | 17888 |
| 45° | 15712 | 17262 | 13618 |
| 50° | 15094 | 14724 | 11341 |
| 55° | 14049 | 12391 | 8155 |
| 60° | 12096 | 10634 | 5848 |
| 65° | 10204 | 8214 | 5750 |
| 70° | 8493 | 6463 | 5504 |
| 75° | 7199 | 5577 | 5153 |
| 80° | 6100 | 4844 | 4630 |
| 85° | 4817 | 3983 | 2519 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17262 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 101.9 | 3.8 |
| 10°-20° | 295.0 | 10.9 |
| 20°-30° | 462.2 | 17.1 |
| 30°-40° | 570.2 | 21.1 |
| 40°-50° | 536.8 | 19.9 |
| 50°-60° | 380.1 | 14.1 |
| 60°-70° | 216.6 | 8.0 |
| 70°-80° | 107.1 | 4.0 |
| 80°-90° | 26.2 | 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° | 859.1 | 31.9 |
| 0°-40° | 1429.3 | 53.0 |
| 0°-60° | 2346.2 | 87.0 |
| 0°-90° | 2696.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2696.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1071 | 1071 | 1071 | 1071 | 1071 | |
| 5° | 1058 | 1077 | 1067 | 1070 | 1077 | 101 |
| 15° | 1029 | 1043 | 1039 | 1049 | 1055 | 290 |
| 25° | 953 | 977 | 994 | 1034 | 1063 | 439 |
| 35° | 844 | 867 | 919 | 971 | 982 | 526 |
| 45° | 688 | 740 | 756 | 641 | 596 | 530 |
| 55° | 499 | 529 | 440 | 332 | 290 | 440 |
| 65° | 267 | 281 | 215 | 152 | 150 | 268 |
| 75° | 115 | 128 | 89 | 84 | 83 | 125 |
| 85° | 26 | 24 | 22 | 17 | 14 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P855513

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1070.6 | 1070.6 | 1070.6 | 1070.6 | 1070.6 |
| 2.5° | 1062.4 | 1077.5 | 1067.8 | 1069.6 | 1071.5 |
| 5° | 1058.1 | 1076.9 | 1067.2 | 1069.6 | 1077.3 |
| 7.5° | 1054.0 | 1073.3 | 1063.8 | 1067.8 | 1077.3 |
| 10° | 1051.3 | 1068.0 | 1059.2 | 1065.1 | 1072.8 |
| 12.5° | 1043.2 | 1058.9 | 1051.1 | 1058.7 | 1065.6 |
| 15° | 1028.7 | 1043.1 | 1038.9 | 1049.2 | 1054.7 |
| 17.5° | 1009.0 | 1026.5 | 1026.4 | 1041.0 | 1046.8 |
| 20° | 993.6 | 1014.6 | 1017.4 | 1035.7 | 1046.8 |
| 22.5° | 977.3 | 1001.9 | 1006.5 | 1034.1 | 1053.1 |
| 25° | 952.9 | 977.2 | 993.6 | 1033.9 | 1062.6 |
| 27.5° | 924.3 | 948.4 | 982.3 | 1027.4 | 1050.2 |
| 30° | 905.3 | 928.5 | 968.7 | 1015.6 | 1036.6 |
| 32.5° | 881.8 | 905.9 | 948.8 | 999.3 | 1018.5 |
| 35° | 844.2 | 867.4 | 918.9 | 971.2 | 982.3 |
| 37.5° | 801.0 | 827.4 | 885.0 | 914.2 | 914.8 |
| 40° | 768.4 | 802.7 | 857.8 | 863.1 | 848.7 |
| 42.5° | 736.7 | 780.7 | 819.8 | 795.9 | 732.0 |
| 45° | 688.1 | 740.1 | 756.0 | 640.6 | 596.4 |
| 47.5° | 636.2 | 687.6 | 662.2 | 537.3 | 506.8 |
| 50° | 600.9 | 649.6 | 586.2 | 480.3 | 451.5 |
| 52.5° | 561.1 | 604.4 | 518.3 | 425.6 | 381.8 |
| 55° | 499.1 | 528.9 | 440.2 | 331.8 | 289.7 |
| 57.5° | 424.4 | 445.4 | 376.4 | 249.1 | 201.9 |
| 60° | 374.6 | 391.2 | 329.3 | 204.3 | 181.1 |
| 62.5° | 329.3 | 344.1 | 280.4 | 177.4 | 169.3 |
| 65° | 267.1 | 281.4 | 215.0 | 151.6 | 150.5 |
| 67.5° | 212.5 | 228.3 | 165.0 | 132.4 | 131.0 |
| 70° | 179.9 | 196.6 | 136.9 | 118.8 | 116.6 |
| 72.5° | 152.8 | 168.5 | 116.1 | 104.3 | 103.0 |
| 75° | 115.4 | 127.7 | 89.4 | 83.7 | 82.6 |
| 77.5° | 83.7 | 91.4 | 66.5 | 63.6 | 62.5 |
| 80° | 65.6 | 68.9 | 52.1 | 50.9 | 49.8 |
| 82.5° | 49.3 | 48.2 | 39.4 | 38.3 | 36.2 |
| 85° | 26.0 | 23.8 | 21.5 | 16.9 | 13.6 |
| 87.5° | 8.1 | 8.1 | 3.6 | 2.7 | 2.7 |
| 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 | 21.34 | 22.87 | 21.71 | 23.18 | 23.49 | 17.74 | 19.26 | 18.10 | 19.58 | 19.89 |
| | 3H | 22.49 | 23.85 | 22.87 | 24.18 | 24.54 | 18.89 | 20.26 | 19.27 | 20.58 | 20.95 |
| | 4H | 22.86 | 24.14 | 23.26 | 24.49 | 24.86 | 19.39 | 20.66 | 19.79 | 21.01 | 21.39 |
| | 6H | 23.11 | 24.28 | 23.52 | 24.65 | 25.04 | 19.76 | 20.94 | 20.18 | 21.31 | 21.70 |
| | 8H | 23.17 | 24.30 | 23.60 | 24.68 | 25.09 | 19.87 | 20.99 | 20.29 | 21.38 | 21.78 |
| | 12H | 23.21 | 24.28 | 23.64 | 24.66 | 25.09 | 19.90 | 20.98 | 20.33 | 21.36 | 21.79 |
| 4H | 2H | 21.53 | 22.81 | 21.93 | 23.16 | 23.53 | 18.53 | 19.81 | 18.93 | 20.16 | 20.54 |
| | 3H | 22.90 | 23.95 | 23.31 | 24.35 | 24.76 | 19.84 | 20.90 | 20.25 | 21.30 | 21.70 |
| | 4H | 23.40 | 24.35 | 23.83 | 24.76 | 25.20 | 20.42 | 21.37 | 20.86 | 21.79 | 22.22 |
| | 6H | 23.77 | 24.59 | 24.23 | 25.04 | 25.50 | 20.90 | 21.72 | 21.35 | 22.16 | 22.62 |
| | 8H | 23.88 | 24.64 | 24.34 | 25.09 | 25.56 | 21.03 | 21.80 | 21.49 | 22.24 | 22.71 |
| | 12H | 23.94 | 24.63 | 24.42 | 25.10 | 25.58 | 21.09 | 21.77 | 21.57 | 22.25 | 22.72 |
| 8H | 4H | 23.46 | 24.23 | 23.93 | 24.68 | 25.14 | 20.74 | 21.51 | 21.21 | 21.95 | 22.42 |
| | 6H | 23.92 | 24.55 | 24.41 | 25.04 | 25.52 | 21.31 | 21.94 | 21.81 | 22.44 | 22.91 |
| | 8H | 24.07 | 24.64 | 24.59 | 25.15 | 25.64 | 21.50 | 22.07 | 22.01 | 22.58 | 23.07 |
| | 12H | 24.19 | 24.69 | 24.70 | 25.18 | 25.75 | 21.60 | 22.10 | 22.11 | 22.60 | 23.16 |
| 12H | 4H | 23.45 | 24.14 | 23.93 | 24.62 | 25.09 | 20.78 | 21.46 | 21.26 | 21.94 | 22.41 |
| | 6H | 23.90 | 24.48 | 24.42 | 24.99 | 25.48 | 21.36 | 21.93 | 21.88 | 22.44 | 22.93 |
| | 8H | 24.10 | 24.61 | 24.61 | 25.10 | 25.67 | 21.60 | 22.10 | 22.11 | 22.60 | 23.16 |