

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: P845462

Luminaire Tested: SQ2R-BBN-075D-940-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845462
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-BBN-075D-940-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, DISCREET OPTICS - BLACK BAFFLE, NARROW 35-DEGREE OPTIC
750 LUMENS PER FOOT
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

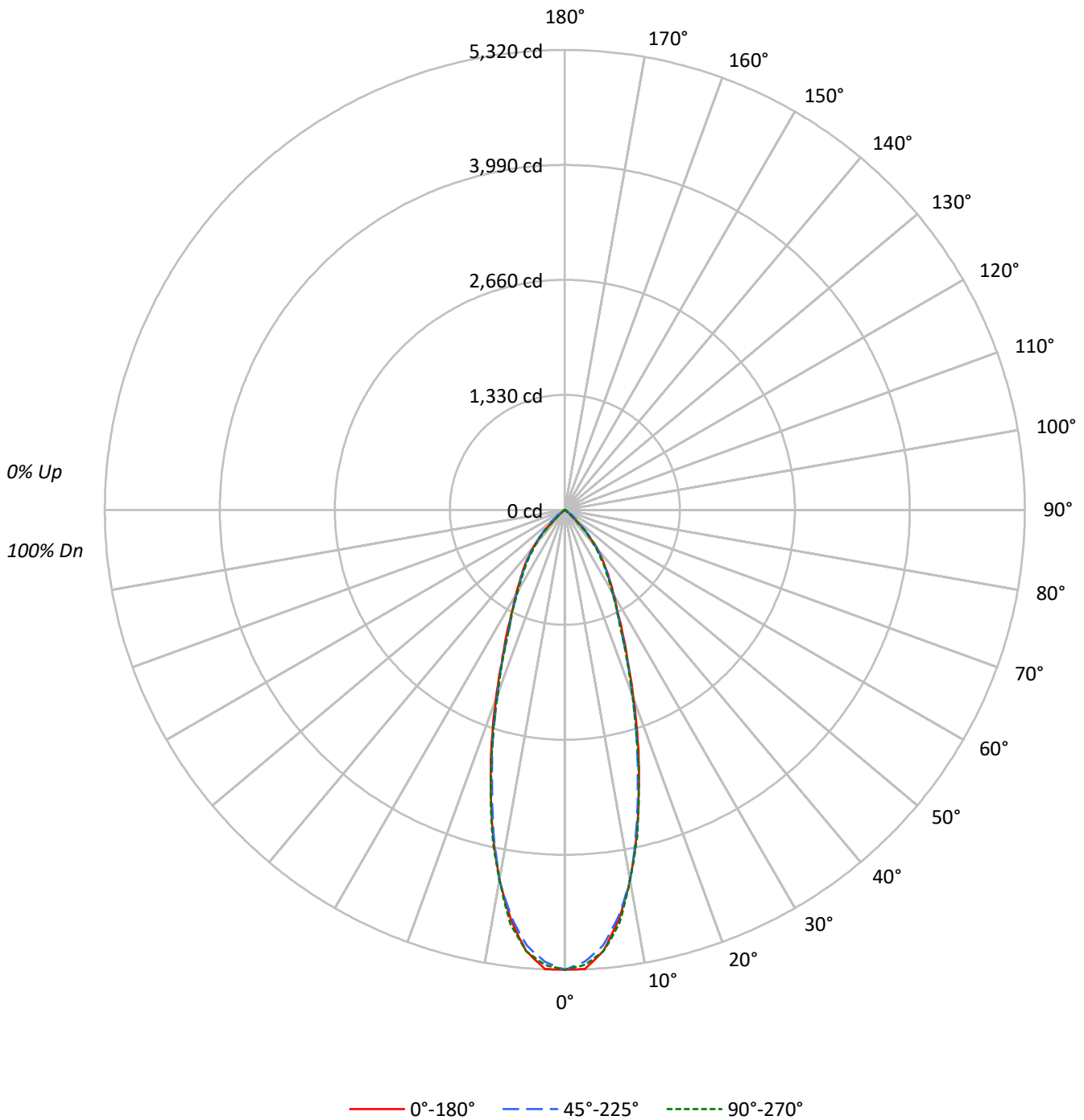
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2874.1 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.59 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.3
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 | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 94 |
| 2 | 109 | 104 | 100 | 97 | 106 | 102 | 99 | 96 | 99 | 96 | 94 | 96 | 94 | 92 | 93 | 91 | 90 | 88 |
| 3 | 103 | 97 | 93 | 89 | 101 | 96 | 92 | 88 | 93 | 90 | 87 | 91 | 88 | 85 | 89 | 86 | 84 | 83 |
| 4 | 99 | 91 | 86 | 82 | 97 | 90 | 85 | 82 | 88 | 84 | 81 | 86 | 83 | 80 | 84 | 81 | 79 | 77 |
| 5 | 94 | 86 | 80 | 76 | 92 | 85 | 80 | 76 | 83 | 79 | 75 | 82 | 78 | 75 | 80 | 77 | 74 | 73 |
| 6 | 90 | 81 | 75 | 71 | 88 | 80 | 75 | 71 | 79 | 74 | 71 | 78 | 73 | 70 | 76 | 73 | 70 | 68 |
| 7 | 86 | 77 | 71 | 67 | 84 | 76 | 71 | 67 | 75 | 70 | 67 | 74 | 69 | 66 | 73 | 69 | 66 | 65 |
| 8 | 82 | 73 | 67 | 63 | 81 | 72 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 63 | 69 | 65 | 62 | 61 |
| 9 | 78 | 69 | 64 | 60 | 77 | 69 | 63 | 60 | 68 | 63 | 59 | 67 | 62 | 59 | 66 | 62 | 59 | 58 |
| 10 | 75 | 66 | 60 | 57 | 74 | 65 | 60 | 57 | 65 | 60 | 56 | 64 | 59 | 56 | 63 | 59 | 56 | 55 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 85891 | 85891 | 85891 |
| 5° | 83018 | 81992 | 83065 |
| 10° | 71247 | 71293 | 71247 |
| 15° | 55301 | 54420 | 55173 |
| 20° | 39912 | 39087 | 39055 |
| 25° | 28299 | 27171 | 27223 |
| 30° | 21054 | 20519 | 20322 |
| 35° | 16383 | 15967 | 15626 |
| 40° | 12123 | 11820 | 11074 |
| 45° | 6195 | 7597 | 4991 |
| 50° | 1349 | 4190 | 987 |
| 55° | 377 | 1700 | 296 |
| 60° | 61 | 339 | 32 |
| 65° | 0 | 38 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 7597 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 463.0 | 16.1 |
| 10°-20° | 909.0 | 31.6 |
| 20°-30° | 727.9 | 25.3 |
| 30°-40° | 507.9 | 17.7 |
| 40°-50° | 233.8 | 8.1 |
| 50°-60° | 31.6 | 1.1 |
| 60°-70° | 1.0 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.0 | 0.0 |
| 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° | 2099.9 | 73.1 |
| 0°-40° | 2607.7 | 90.7 |
| 0°-60° | 2873.2 | 100.0 |
| 0°-90° | 2874.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2874.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 5320 | 5320 | 5320 | 5320 | 5320 | |
| 5° | 5122 | 5094 | 5059 | 5121 | 5125 | 463 |
| 15° | 3308 | 3352 | 3256 | 3302 | 3301 | 913 |
| 25° | 1588 | 1552 | 1525 | 1548 | 1528 | 740 |
| 35° | 831 | 831 | 810 | 796 | 793 | 520 |
| 45° | 271 | 325 | 333 | 304 | 219 | 217 |
| 55° | 13 | 21 | 60 | 17 | 10 | 16 |
| 65° | 0 | 0 | 1 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 5319.7 | 5319.7 | 5319.7 | 5319.7 | 5319.7 |
| 2.5° | 5315.8 | 5290.9 | 5233.4 | 5286.1 | 5269.8 |
| 5° | 5122.2 | 5094.4 | 5058.9 | 5121.2 | 5125.1 |
| 7.5° | 4779.9 | 4789.5 | 4748.3 | 4828.8 | 4826.0 |
| 10° | 4345.7 | 4352.4 | 4348.5 | 4371.5 | 4345.7 |
| 12.5° | 3842.4 | 3874.0 | 3812.6 | 3850.0 | 3870.2 |
| 15° | 3308.4 | 3351.5 | 3255.7 | 3301.7 | 3300.7 |
| 17.5° | 2810.8 | 2807.0 | 2756.2 | 2768.6 | 2763.9 |
| 20° | 2322.9 | 2316.2 | 2274.9 | 2268.2 | 2273.0 |
| 22.5° | 1904.9 | 1892.4 | 1884.8 | 1865.6 | 1872.3 |
| 25° | 1588.5 | 1552.1 | 1525.2 | 1548.3 | 1528.1 |
| 27.5° | 1311.5 | 1312.4 | 1289.4 | 1292.3 | 1300.0 |
| 30° | 1129.3 | 1122.6 | 1100.6 | 1101.5 | 1090.0 |
| 32.5° | 967.3 | 975.0 | 946.2 | 939.5 | 928.0 |
| 35° | 831.2 | 831.2 | 810.1 | 795.7 | 792.8 |
| 37.5° | 699.8 | 698.9 | 682.6 | 663.4 | 656.7 |
| 40° | 575.2 | 570.4 | 560.8 | 535.9 | 525.4 |
| 42.5° | 433.3 | 450.6 | 441.0 | 416.1 | 398.8 |
| 45° | 271.3 | 325.0 | 332.7 | 303.9 | 218.6 |
| 47.5° | 132.3 | 194.6 | 235.8 | 164.9 | 84.4 |
| 50° | 53.7 | 99.7 | 166.8 | 71.9 | 39.3 |
| 52.5° | 25.9 | 43.1 | 113.1 | 34.5 | 21.1 |
| 55° | 13.4 | 21.1 | 60.4 | 17.3 | 10.5 |
| 57.5° | 5.8 | 10.5 | 25.9 | 8.6 | 4.8 |
| 60° | 1.9 | 3.8 | 10.5 | 2.9 | 1.0 |
| 62.5° | 0.0 | 1.0 | 3.8 | 1.0 | 0.0 |
| 65° | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| 67.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H | 2H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 12H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 6H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 8H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |