

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
(formerly Eaton)

Brand: CORELITE

Report Number: P518720

Luminaire Tested: **SQ4-BB-100U-075D-930-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518720
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2009-966-12)
Test Lab: INNOVATION CENTER
Issue Date: 4/29/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: SQ4-BB-100U-075D-930-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

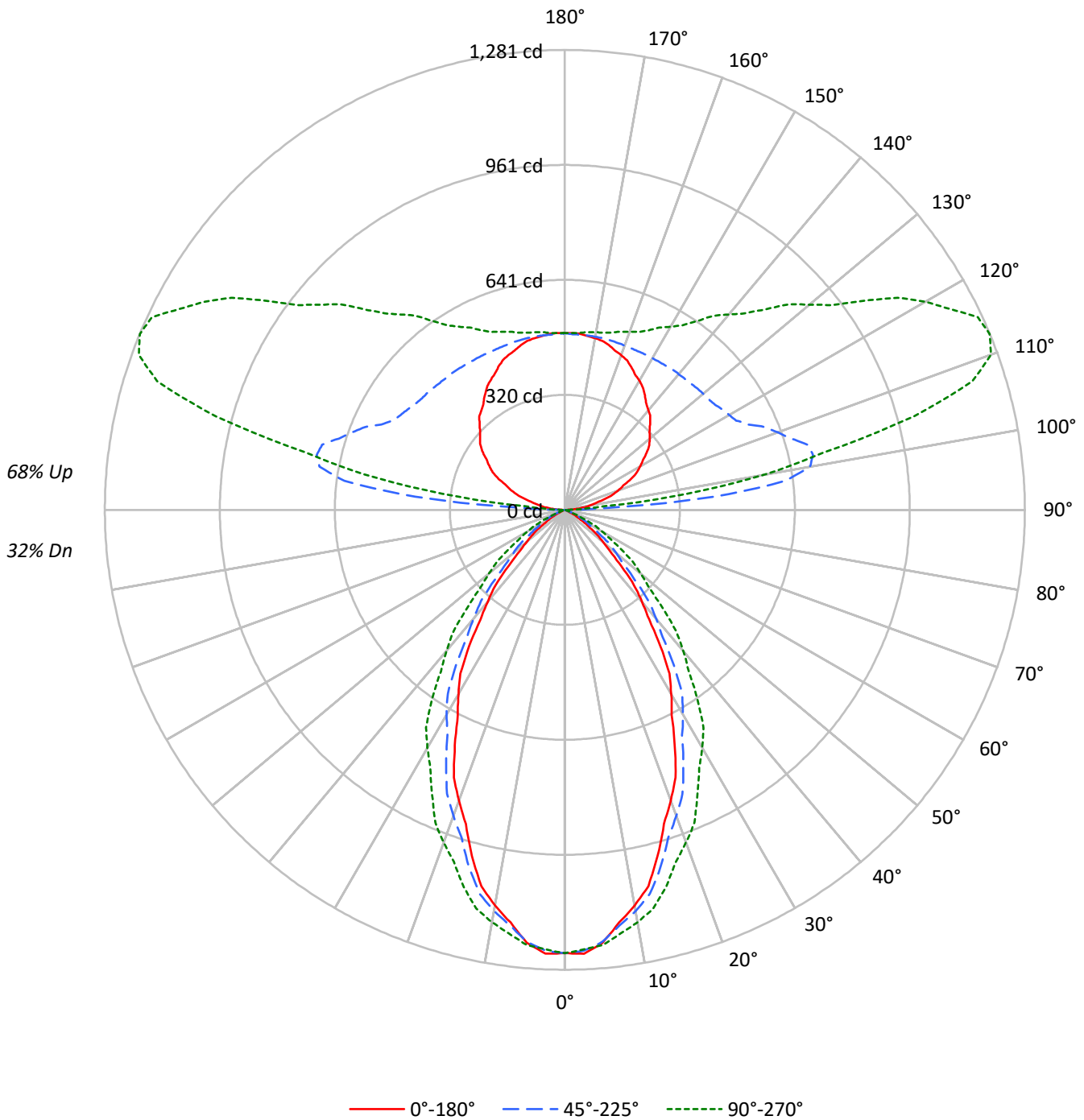
Lumens per Lamp: N/A
Luminaire Lumens: 4670.1 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 49.1
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: P518720
CATALOG NUMBER: SQ4-BB-100U-075D-930-1D-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P518720

CATALOG NUMBER: SQ4-BB-100U-075D-930-1D-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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 39 | 39 | 39 | 32 |
| 1 | 95 | 91 | 88 | 85 | 85 | 82 | 79 | 77 | 66 | 64 | 62 | 50 | 49 | 48 | 36 | 36 | 35 | 29 |
| 2 | 87 | 81 | 75 | 71 | 78 | 73 | 69 | 65 | 59 | 56 | 53 | 46 | 44 | 42 | 33 | 32 | 31 | 26 |
| 3 | 80 | 72 | 66 | 60 | 72 | 65 | 60 | 56 | 53 | 49 | 46 | 41 | 39 | 37 | 31 | 29 | 28 | 23 |
| 4 | 74 | 64 | 57 | 52 | 67 | 59 | 53 | 48 | 48 | 44 | 40 | 38 | 35 | 33 | 28 | 27 | 25 | 21 |
| 5 | 68 | 58 | 51 | 45 | 62 | 53 | 47 | 42 | 43 | 39 | 36 | 34 | 31 | 29 | 26 | 24 | 23 | 19 |
| 6 | 63 | 52 | 45 | 40 | 57 | 48 | 42 | 37 | 39 | 35 | 32 | 31 | 28 | 26 | 24 | 22 | 21 | 18 |
| 7 | 59 | 48 | 40 | 35 | 53 | 44 | 37 | 33 | 36 | 32 | 28 | 29 | 26 | 24 | 22 | 20 | 19 | 16 |
| 8 | 55 | 43 | 36 | 32 | 49 | 40 | 34 | 30 | 33 | 29 | 25 | 27 | 24 | 21 | 21 | 19 | 17 | 15 |
| 9 | 51 | 40 | 33 | 28 | 46 | 37 | 31 | 27 | 31 | 26 | 23 | 25 | 22 | 19 | 19 | 17 | 16 | 14 |
| 10 | 48 | 37 | 30 | 26 | 43 | 34 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 | 18 | 16 | 15 | 13 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11393 | 11393 | 11393 |
| 5° | 11210 | 11182 | 11265 |
| 10° | 10489 | 10629 | 10926 |
| 15° | 9535 | 9837 | 10386 |
| 20° | 8464 | 8904 | 9684 |
| 25° | 7371 | 7955 | 8897 |
| 30° | 6313 | 7008 | 8153 |
| 35° | 5235 | 5948 | 7253 |
| 40° | 4023 | 4756 | 6181 |
| 45° | 2907 | 3601 | 4974 |
| 50° | 1981 | 2684 | 3944 |
| 55° | 1288 | 1942 | 3066 |
| 60° | 738 | 1367 | 2216 |
| 65° | 196 | 834 | 1122 |
| 70° | 97 | 259 | 321 |
| 75° | 43 | 21 | 0 |
| 80° | 32 | 0 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P518720

CATALOG NUMBER: SQ4-BB-100U-075D-930-1D-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 112.7 | 2.4 |
| 10°-20° | 288.2 | 6.2 |
| 20°-30° | 360.8 | 7.7 |
| 30°-40° | 333.3 | 7.1 |
| 40°-50° | 223.9 | 4.8 |
| 50°-60° | 115.7 | 2.5 |
| 60°-70° | 36.2 | 0.8 |
| 70°-80° | 2.3 | 0.0 |
| 80°-90° | 1.1 | 0.0 |
| 90°-100° | 230.4 | 4.9 |
| 100°-110° | 635.9 | 13.6 |
| 110°-120° | 655.9 | 14.0 |
| 120°-130° | 527.0 | 11.3 |
| 130°-140° | 414.2 | 8.9 |
| 140°-150° | 317.7 | 6.8 |
| 150°-160° | 228.3 | 4.9 |
| 160°-170° | 139.6 | 3.0 |
| 170°-180° | 47.1 | 1.0 |
| 0°-30° | 761.7 | 16.3 |
| 0°-40° | 1094.9 | 23.4 |
| 0°-60° | 1434.5 | 30.7 |
| 0°-90° | 1474.1 | 31.6 |
| 90°-120° | 1522.1 | 32.6 |
| 90°-150° | 2781.0 | 59.5 |
| 90°-180° | 3196.0 | 68.4 |
| 0°-180° | 4670.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1235 | 1235 | 1235 | 1235 | 1235 | |
| 5° | 1210 | 1198 | 1207 | 1212 | 1216 | 112 |
| 15° | 998 | 995 | 1030 | 1064 | 1087 | 278 |
| 25° | 724 | 730 | 781 | 835 | 874 | 332 |
| 35° | 465 | 476 | 528 | 590 | 644 | 288 |
| 45° | 223 | 236 | 276 | 330 | 381 | 175 |
| 55° | 80 | 94 | 121 | 155 | 191 | 75 |
| 65° | 9 | 17 | 38 | 46 | 51 | 15 |
| 75° | 1 | 1 | 1 | 0 | 0 | 2 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 2 | 3 | 6 | 7 | 8 | 2 |
| 95° | 34 | 125 | 418 | 172 | 112 | 36 |
| 105° | 113 | 175 | 700 | 1068 | 1006 | 121 |
| 115° | 203 | 245 | 564 | 1116 | 1269 | 200 |
| 125° | 279 | 317 | 511 | 864 | 1014 | 248 |
| 135° | 335 | 371 | 497 | 700 | 789 | 259 |
| 145° | 389 | 416 | 490 | 596 | 641 | 243 |
| 155° | 438 | 453 | 486 | 535 | 552 | 202 |
| 165° | 475 | 481 | 489 | 508 | 512 | 134 |
| 175° | 492 | 493 | 490 | 497 | 495 | 47 |
| 180° | 492 | 492 | 492 | 492 | 492 | |



TEST NUMBER: P518720

CATALOG NUMBER: SQ4-BB-100U-075D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1234.9 | 1234.9 | 1234.9 | 1234.9 | 1234.9 |
| 2.5° | 1237.7 | 1226.0 | 1229.1 | 1229.0 | 1225.8 |
| 5° | 1210.4 | 1198.1 | 1207.4 | 1211.7 | 1216.3 |
| 7.5° | 1159.2 | 1149.6 | 1167.5 | 1180.8 | 1190.5 |
| 10° | 1119.6 | 1111.4 | 1134.5 | 1152.7 | 1166.2 |
| 12.5° | 1073.7 | 1067.4 | 1095.3 | 1120.3 | 1137.5 |
| 15° | 998.3 | 994.8 | 1029.9 | 1064.5 | 1087.3 |
| 17.5° | 917.5 | 917.4 | 957.5 | 1000.5 | 1027.9 |
| 20° | 862.1 | 863.8 | 906.9 | 954.2 | 986.3 |
| 22.5° | 806.6 | 810.7 | 856.7 | 906.0 | 942.8 |
| 25° | 724.1 | 729.9 | 781.4 | 834.9 | 874.0 |
| 27.5° | 644.7 | 653.3 | 707.5 | 763.0 | 810.7 |
| 30° | 592.6 | 602.6 | 657.8 | 716.2 | 765.3 |
| 32.5° | 541.5 | 553.3 | 607.1 | 668.9 | 718.9 |
| 35° | 464.8 | 476.5 | 528.1 | 590.3 | 644.0 |
| 37.5° | 385.6 | 397.0 | 447.5 | 508.6 | 566.7 |
| 40° | 334.0 | 346.8 | 394.9 | 454.2 | 513.2 |
| 42.5° | 287.1 | 300.0 | 345.2 | 403.4 | 459.2 |
| 45° | 222.8 | 236.3 | 276.0 | 329.7 | 381.2 |
| 47.5° | 169.5 | 184.1 | 219.0 | 267.6 | 314.5 |
| 50° | 138.0 | 152.6 | 187.0 | 229.8 | 274.8 |
| 52.5° | 112.7 | 126.8 | 157.8 | 198.2 | 239.4 |
| 55° | 80.1 | 93.5 | 120.7 | 154.9 | 190.6 |
| 57.5° | 55.3 | 66.9 | 91.3 | 119.9 | 147.8 |
| 60° | 40.0 | 51.1 | 74.1 | 97.3 | 120.1 |
| 62.5° | 26.6 | 36.8 | 59.3 | 77.1 | 92.4 |
| 65° | 9.0 | 17.1 | 38.2 | 46.1 | 51.4 |
| 67.5° | 4.5 | 5.5 | 20.1 | 21.2 | 22.9 |
| 70° | 3.6 | 3.6 | 9.6 | 10.2 | 11.9 |
| 72.5° | 2.6 | 2.6 | 3.8 | 4.9 | 5.3 |
| 75° | 1.2 | 1.2 | 0.6 | 0.0 | 0.0 |
| 77.5° | 0.6 | 0.6 | 0.5 | 0.0 | 0.0 |
| 80° | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.3 | 0.6 | 1.3 | 1.4 | 1.6 |
| 90° | 1.6 | 3.1 | 6.3 | 7.1 | 7.9 |
| 92.5° | 14.2 | 58.8 | 105.1 | 38.4 | 29.9 |
| 95° | 33.8 | 124.6 | 417.9 | 171.8 | 111.8 |
| 97.5° | 56.0 | 139.6 | 619.1 | 476.6 | 345.2 |
| 100° | 72.4 | 148.6 | 693.4 | 698.3 | 567.4 |
| 102.5° | 88.1 | 158.8 | 707.8 | 862.7 | 738.7 |
| 105° | 113.3 | 174.9 | 699.7 | 1068.1 | 1005.8 |
| 107.5° | 140.1 | 194.9 | 660.6 | 1167.2 | 1190.0 |
| 110° | 159.0 | 208.2 | 630.4 | 1188.5 | 1262.4 |



TEST NUMBER: P518720

CATALOG NUMBER: SQ4-BB-100U-075D-930-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 176.0 | 223.4 | 602.1 | 1171.7 | 1280.6 |
| 115° | 203.0 | 245.4 | 563.5 | 1115.5 | 1268.7 |
| 117.5° | 226.7 | 268.8 | 538.2 | 1036.5 | 1210.7 |
| 120° | 242.4 | 284.0 | 528.1 | 983.0 | 1158.5 |
| 122.5° | 257.5 | 297.2 | 519.9 | 933.1 | 1099.3 |
| 125° | 278.6 | 317.1 | 510.8 | 864.4 | 1014.5 |
| 127.5° | 296.5 | 335.0 | 505.4 | 806.3 | 935.8 |
| 130° | 308.5 | 347.0 | 502.9 | 770.8 | 888.5 |
| 132.5° | 319.8 | 356.5 | 500.4 | 741.0 | 847.6 |
| 135° | 335.3 | 371.4 | 496.6 | 700.1 | 789.4 |
| 137.5° | 352.6 | 385.5 | 494.7 | 665.8 | 742.0 |
| 140° | 362.0 | 394.3 | 493.5 | 642.9 | 709.9 |
| 142.5° | 372.7 | 402.6 | 492.2 | 622.6 | 681.6 |
| 145° | 388.8 | 415.7 | 490.3 | 596.0 | 641.4 |
| 147.5° | 404.2 | 427.8 | 488.6 | 573.6 | 608.8 |
| 150° | 415.5 | 434.8 | 487.9 | 560.2 | 588.7 |
| 152.5° | 424.4 | 442.4 | 487.3 | 548.8 | 572.3 |
| 155° | 438.4 | 453.0 | 486.4 | 534.8 | 551.7 |
| 157.5° | 451.3 | 462.5 | 486.5 | 524.6 | 536.1 |
| 160° | 458.8 | 468.8 | 487.2 | 518.8 | 527.3 |
| 162.5° | 465.1 | 473.9 | 487.8 | 513.8 | 520.4 |
| 165° | 474.6 | 480.7 | 488.7 | 507.7 | 511.6 |
| 167.5° | 481.8 | 485.5 | 489.5 | 504.0 | 505.3 |
| 170° | 485.6 | 488.7 | 489.5 | 502.1 | 502.1 |
| 172.5° | 488.7 | 490.6 | 489.5 | 499.6 | 499.0 |
| 175° | 491.9 | 492.7 | 489.5 | 496.6 | 495.0 |
| 177.5° | 493.1 | 492.5 | 489.4 | 493.7 | 492.5 |
| 180° | 491.9 | 491.9 | 491.9 | 491.9 | 491.9 |

(END OF REPORT)