

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: P518333

Luminaire Tested: **SQ4-BB-025U-075D-840-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

Test Information

Test Method: LM-79-2019
Report Number: P518333
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-32, 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-025U-075D-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

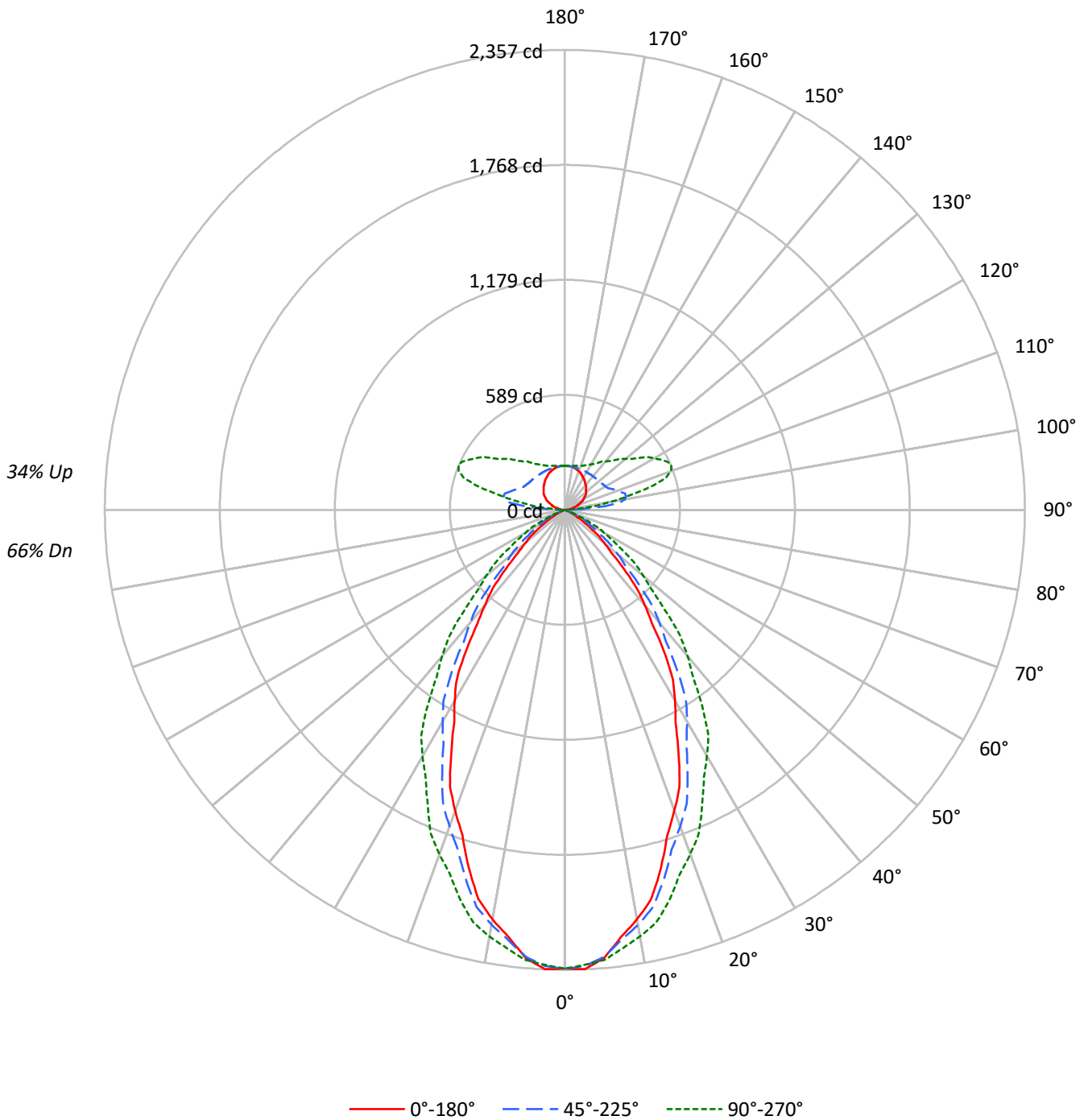
Lumens per Lamp: N/A
Luminaire Lumens: 4269.3 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 48.6
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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 | 66 | 66 | 66 | 66 | |
| 1 | 104 | 100 | 97 | 94 | 98 | 95 | 92 | 89 | 84 | 82 | 80 | 75 | 73 | 72 | 66 | 65 | 64 | 60 | 60 | 60 | 60 | |
| 2 | 96 | 90 | 85 | 81 | 91 | 86 | 81 | 77 | 77 | 73 | 71 | 69 | 66 | 64 | 61 | 59 | 58 | 54 | 54 | 54 | 54 | |
| 3 | 90 | 82 | 75 | 71 | 84 | 78 | 72 | 68 | 70 | 66 | 62 | 63 | 60 | 57 | 56 | 54 | 52 | 49 | 49 | 49 | 49 | |
| 4 | 83 | 74 | 67 | 62 | 79 | 71 | 65 | 60 | 64 | 59 | 56 | 58 | 54 | 51 | 52 | 49 | 47 | 44 | 44 | 44 | 44 | |
| 5 | 78 | 67 | 60 | 55 | 73 | 64 | 58 | 53 | 59 | 54 | 50 | 53 | 49 | 46 | 48 | 45 | 43 | 40 | 40 | 40 | 40 | |
| 6 | 72 | 62 | 55 | 49 | 68 | 59 | 53 | 48 | 54 | 49 | 45 | 49 | 45 | 42 | 45 | 42 | 39 | 37 | 37 | 37 | 37 | |
| 7 | 68 | 57 | 50 | 45 | 64 | 54 | 48 | 43 | 50 | 45 | 41 | 46 | 41 | 38 | 42 | 38 | 36 | 34 | 34 | 34 | 34 | |
| 8 | 63 | 52 | 45 | 41 | 60 | 50 | 44 | 39 | 46 | 41 | 37 | 43 | 38 | 35 | 39 | 36 | 33 | 31 | 31 | 31 | 31 | |
| 9 | 60 | 48 | 42 | 37 | 57 | 47 | 40 | 36 | 43 | 38 | 34 | 40 | 35 | 32 | 37 | 33 | 31 | 29 | 29 | 29 | 29 | |
| 10 | 56 | 45 | 38 | 34 | 53 | 43 | 37 | 33 | 40 | 35 | 32 | 37 | 33 | 30 | 34 | 31 | 28 | 27 | 27 | 27 | 27 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 14461 | 14461 | 14461 |
| 5° | 14229 | 14193 | 14299 |
| 10° | 13313 | 13491 | 13867 |
| 15° | 12103 | 12487 | 13183 |
| 20° | 10744 | 11302 | 12292 |
| 25° | 9356 | 10097 | 11294 |
| 30° | 8014 | 8894 | 10349 |
| 35° | 6644 | 7550 | 9207 |
| 40° | 5105 | 6037 | 7845 |
| 45° | 3691 | 4571 | 6313 |
| 50° | 2515 | 3407 | 5006 |
| 55° | 1634 | 2464 | 3891 |
| 60° | 937 | 1735 | 2812 |
| 65° | 249 | 1060 | 1423 |
| 70° | 122 | 327 | 408 |
| 75° | 55 | 26 | 0 |
| 80° | 39 | 0 | 0 |
| 85° | 0 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 214.6 | 5.0 |
| 10°-20° | 548.7 | 12.9 |
| 20°-30° | 686.9 | 16.1 |
| 30°-40° | 634.5 | 14.9 |
| 40°-50° | 426.4 | 10.0 |
| 50°-60° | 220.2 | 5.2 |
| 60°-70° | 69.0 | 1.6 |
| 70°-80° | 4.3 | 0.1 |
| 80°-90° | 1.3 | 0.0 |
| 90°-100° | 110.0 | 2.6 |
| 100°-110° | 289.3 | 6.8 |
| 110°-120° | 300.0 | 7.0 |
| 120°-130° | 240.6 | 5.6 |
| 130°-140° | 188.8 | 4.4 |
| 140°-150° | 144.9 | 3.4 |
| 150°-160° | 104.4 | 2.4 |
| 160°-170° | 63.9 | 1.5 |
| 170°-180° | 21.6 | 0.5 |
| 0°-30° | 1450.2 | 34.0 |
| 0°-40° | 2084.7 | 48.8 |
| 0°-60° | 2731.3 | 64.0 |
| 0°-90° | 2805.9 | 65.7 |
| 90°-120° | 699.3 | 16.4 |
| 90°-150° | 1273.6 | 29.8 |
| 90°-180° | 1463.0 | 34.3 |
| 0°-180° | 4269.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 2351 | 2351 | 2351 | 2351 | 2351 | |
| 5° | 2304 | 2281 | 2299 | 2307 | 2316 | 214 |
| 15° | 1901 | 1894 | 1961 | 2027 | 2070 | 529 |
| 25° | 1379 | 1390 | 1488 | 1590 | 1664 | 632 |
| 35° | 885 | 907 | 1006 | 1124 | 1226 | 548 |
| 45° | 424 | 450 | 526 | 628 | 726 | 333 |
| 55° | 152 | 178 | 230 | 295 | 363 | 142 |
| 65° | 17 | 33 | 73 | 88 | 98 | 29 |
| 75° | 2 | 2 | 1 | 0 | 0 | 3 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 1 | 4 | 12 | 6 | 6 | 1 |
| 95° | 14 | 57 | 190 | 98 | 67 | 16 |
| 105° | 52 | 79 | 320 | 486 | 453 | 55 |
| 115° | 93 | 112 | 256 | 511 | 583 | 91 |
| 125° | 129 | 144 | 233 | 394 | 465 | 114 |
| 135° | 153 | 169 | 226 | 318 | 360 | 119 |
| 145° | 178 | 189 | 223 | 271 | 292 | 112 |
| 155° | 201 | 207 | 223 | 245 | 252 | 92 |
| 165° | 217 | 220 | 223 | 232 | 234 | 61 |
| 175° | 226 | 226 | 224 | 227 | 227 | 21 |
| 180° | 226 | 226 | 226 | 226 | 226 | |



TEST NUMBER: P518333

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 2351.1 | 2351.1 | 2351.1 | 2351.1 | 2351.1 |
| 2.5° | 2356.6 | 2334.3 | 2340.2 | 2340.1 | 2333.8 |
| 5° | 2304.5 | 2281.1 | 2298.8 | 2307.0 | 2315.9 |
| 7.5° | 2207.1 | 2188.9 | 2222.8 | 2248.3 | 2266.7 |
| 10° | 2131.6 | 2116.0 | 2160.0 | 2194.7 | 2220.3 |
| 12.5° | 2044.2 | 2032.2 | 2085.4 | 2133.0 | 2165.7 |
| 15° | 1900.7 | 1894.0 | 1961.0 | 2026.8 | 2070.2 |
| 17.5° | 1746.9 | 1746.7 | 1823.1 | 1904.8 | 1957.1 |
| 20° | 1641.4 | 1644.7 | 1726.7 | 1816.8 | 1877.9 |
| 22.5° | 1535.8 | 1543.6 | 1631.1 | 1725.1 | 1795.1 |
| 25° | 1378.6 | 1389.7 | 1487.8 | 1589.6 | 1664.1 |
| 27.5° | 1227.5 | 1243.8 | 1347.0 | 1452.8 | 1543.5 |
| 30° | 1128.4 | 1147.3 | 1252.3 | 1363.7 | 1457.1 |
| 32.5° | 1031.0 | 1053.5 | 1155.9 | 1273.6 | 1368.8 |
| 35° | 884.9 | 907.2 | 1005.5 | 1123.9 | 1226.2 |
| 37.5° | 734.1 | 755.9 | 852.0 | 968.4 | 1079.0 |
| 40° | 635.8 | 660.3 | 751.9 | 864.7 | 977.1 |
| 42.5° | 546.7 | 571.1 | 657.2 | 768.1 | 874.3 |
| 45° | 424.3 | 449.9 | 525.5 | 627.8 | 725.7 |
| 47.5° | 322.8 | 350.6 | 417.0 | 509.6 | 598.8 |
| 50° | 262.8 | 290.6 | 356.0 | 437.6 | 523.2 |
| 52.5° | 214.5 | 241.4 | 300.5 | 377.4 | 455.9 |
| 55° | 152.4 | 178.0 | 229.8 | 295.0 | 362.8 |
| 57.5° | 105.3 | 127.3 | 173.8 | 228.2 | 281.4 |
| 60° | 76.2 | 97.3 | 141.0 | 185.3 | 228.6 |
| 62.5° | 50.7 | 70.1 | 112.8 | 146.7 | 175.9 |
| 65° | 17.1 | 32.6 | 72.8 | 87.8 | 97.8 |
| 67.5° | 8.6 | 10.4 | 38.2 | 40.3 | 43.7 |
| 70° | 6.8 | 6.8 | 18.2 | 19.4 | 22.7 |
| 72.5° | 5.0 | 5.0 | 7.3 | 9.3 | 10.0 |
| 75° | 2.3 | 2.3 | 1.1 | 0.0 | 0.0 |
| 77.5° | 1.1 | 1.1 | 0.9 | 0.0 | 0.0 |
| 80° | 1.1 | 1.1 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.3 | 0.9 | 2.3 | 1.2 | 1.2 |
| 90° | 1.4 | 4.3 | 11.6 | 5.8 | 5.8 |
| 92.5° | 6.1 | 29.3 | 64.8 | 28.7 | 18.5 |
| 95° | 14.5 | 56.9 | 189.6 | 97.7 | 66.6 |
| 97.5° | 25.2 | 62.5 | 283.7 | 225.6 | 166.2 |
| 100° | 33.3 | 67.3 | 312.6 | 316.8 | 246.0 |
| 102.5° | 40.2 | 71.9 | 320.7 | 394.6 | 334.0 |
| 105° | 52.1 | 79.0 | 319.9 | 485.6 | 453.0 |
| 107.5° | 64.3 | 89.2 | 301.6 | 532.8 | 540.7 |
| 110° | 72.4 | 95.0 | 286.6 | 545.0 | 578.9 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 80.5 | 102.0 | 272.7 | 537.3 | 589.4 |
| 115° | 92.6 | 112.4 | 256.2 | 511.1 | 583.3 |
| 117.5° | 104.5 | 122.6 | 244.9 | 474.8 | 554.9 |
| 120° | 111.4 | 128.4 | 240.3 | 450.4 | 528.3 |
| 122.5° | 118.4 | 135.4 | 236.8 | 426.1 | 502.8 |
| 125° | 128.8 | 144.4 | 233.0 | 393.8 | 464.6 |
| 127.5° | 137.2 | 153.1 | 229.8 | 367.8 | 427.5 |
| 130° | 141.8 | 158.8 | 228.7 | 351.5 | 406.7 |
| 132.5° | 146.5 | 163.5 | 227.5 | 337.5 | 387.0 |
| 135° | 153.4 | 169.0 | 225.8 | 317.9 | 360.4 |
| 137.5° | 160.7 | 175.9 | 225.5 | 303.3 | 338.1 |
| 140° | 166.4 | 180.6 | 224.3 | 291.7 | 324.2 |
| 142.5° | 171.1 | 184.1 | 224.3 | 283.4 | 311.5 |
| 145° | 178.0 | 189.3 | 222.9 | 271.1 | 292.4 |
| 147.5° | 185.0 | 196.0 | 222.9 | 260.9 | 278.5 |
| 150° | 189.6 | 199.5 | 222.9 | 255.1 | 269.2 |
| 152.5° | 194.2 | 201.9 | 222.9 | 250.3 | 261.1 |
| 155° | 201.2 | 206.8 | 222.9 | 244.8 | 251.8 |
| 157.5° | 206.4 | 211.8 | 222.9 | 239.8 | 244.9 |
| 160° | 209.9 | 214.1 | 222.9 | 237.4 | 240.3 |
| 162.5° | 213.3 | 216.5 | 222.9 | 235.1 | 237.9 |
| 165° | 217.1 | 219.9 | 222.9 | 231.6 | 234.5 |
| 167.5° | 220.6 | 222.0 | 224.3 | 230.2 | 231.3 |
| 170° | 222.9 | 224.3 | 224.3 | 230.1 | 230.1 |
| 172.5° | 224.0 | 224.3 | 224.3 | 228.9 | 227.8 |
| 175° | 225.8 | 225.8 | 224.3 | 227.2 | 227.2 |
| 177.5° | 225.8 | 225.8 | 224.6 | 226.9 | 225.8 |
| 180° | 225.8 | 225.8 | 225.8 | 225.8 | 225.8 |

(END OF REPORT)