

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: P854369

Luminaire Tested: SQ2-WBM-075D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854369
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-075D-940-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

Summary

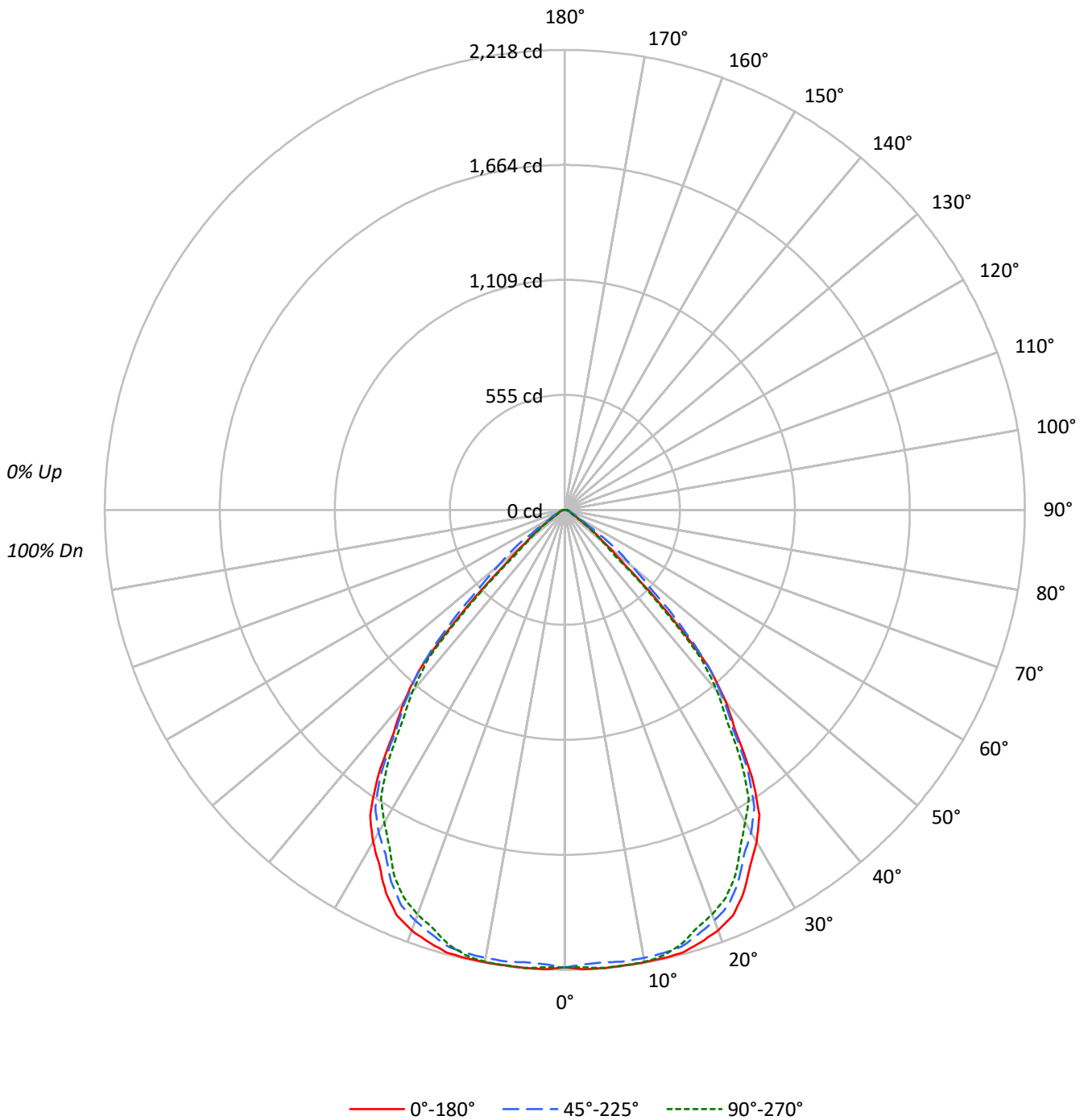
Lumens per Lamp: N/A
Luminaire Lumens: 3451.5 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
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

TEST NUMBER: P854369

CATALOG NUMBER: SQ2-WBM-075D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854369

CATALOG NUMBER: SQ2-WBM-075D-940-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 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 94 | 93 | 91 | | | | 91 |
| 2 | 106 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 87 | 85 | 83 | | | | 83 |
| 3 | 99 | 92 | 86 | 81 | 97 | 90 | 85 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 83 | 79 | 77 | 75 | | | | 75 |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 75 | 71 | 79 | 74 | 70 | 77 | 73 | 70 | 68 | | | | 68 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 62 | | | | 62 |
| 6 | 82 | 71 | 64 | 59 | 80 | 70 | 64 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 | | | | 56 |
| 7 | 77 | 66 | 59 | 54 | 75 | 65 | 59 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 61 | 57 | 53 | 51 | | | | 51 |
| 8 | 72 | 61 | 54 | 49 | 71 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 | | | | 47 |
| 9 | 68 | 57 | 50 | 45 | 67 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 43 | | | | 43 |
| 10 | 64 | 53 | 46 | 42 | 63 | 53 | 46 | 42 | 52 | 46 | 42 | 51 | 45 | 42 | 50 | 45 | 41 | 40 | | | | 40 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 35626 | 35626 | 35626 |
| 5° | 35950 | 35504 | 35934 |
| 10° | 36315 | 35967 | 36297 |
| 15° | 36918 | 36441 | 36264 |
| 20° | 37094 | 36221 | 35677 |
| 25° | 36332 | 35258 | 34673 |
| 30° | 34472 | 33486 | 32421 |
| 35° | 31003 | 30356 | 29250 |
| 40° | 25417 | 25037 | 24078 |
| 45° | 15892 | 18091 | 14926 |
| 50° | 6217 | 10547 | 5687 |
| 55° | 3068 | 4912 | 3037 |
| 60° | 1434 | 2357 | 1298 |
| 65° | 1291 | 1375 | 1211 |
| 70° | 1246 | 1298 | 1199 |
| 75° | 1254 | 1254 | 1123 |
| 80° | 1181 | 1181 | 1079 |
| 85° | 1167 | 982 | 982 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18091 cd/sqm

TEST NUMBER: P854369

CATALOG NUMBER: SQ2-WBM-075D-940-UNV-STD-W-4

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 211.0 | 6.1 |
| 10°-20° | 616.9 | 17.9 |
| 20°-30° | 912.0 | 26.4 |
| 30°-40° | 943.7 | 27.3 |
| 40°-50° | 567.7 | 16.4 |
| 50°-60° | 135.9 | 3.9 |
| 60°-70° | 37.1 | 1.1 |
| 70°-80° | 20.8 | 0.6 |
| 80°-90° | 6.5 | 0.2 |
| 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° | 1739.9 | 50.4 |
| 0°-40° | 2683.6 | 77.8 |
| 0°-60° | 3387.1 | 98.1 |
| 0°-90° | 3451.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3451.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 2206 | 2206 | 2206 | 2206 | 2206 | |
| 5° | 2218 | 2211 | 2191 | 2220 | 2217 | 212 |
| 15° | 2209 | 2225 | 2180 | 2180 | 2170 | 622 |
| 25° | 2039 | 2056 | 1979 | 1958 | 1946 | 932 |
| 35° | 1573 | 1571 | 1540 | 1505 | 1484 | 966 |
| 45° | 696 | 790 | 792 | 753 | 654 | 538 |
| 55° | 109 | 122 | 174 | 116 | 108 | 109 |
| 65° | 34 | 35 | 36 | 34 | 32 | 34 |
| 75° | 20 | 20 | 20 | 19 | 18 | 21 |
| 85° | 6 | 6 | 5 | 5 | 5 | 7 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P854369

CATALOG NUMBER: SQ2-WBM-075D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 2206.5 | 2206.5 | 2206.5 | 2206.5 | 2206.5 |
| 2.5° | 2217.5 | 2211.7 | 2193.8 | 2212.3 | 2208.2 |
| 5° | 2218.1 | 2210.9 | 2190.6 | 2220.2 | 2217.1 |
| 7.5° | 2215.8 | 2212.7 | 2197.2 | 2219.5 | 2214.8 |
| 10° | 2215.0 | 2216.0 | 2193.8 | 2217.0 | 2213.9 |
| 12.5° | 2214.1 | 2222.6 | 2190.4 | 2208.5 | 2201.2 |
| 15° | 2208.6 | 2225.2 | 2180.1 | 2179.8 | 2169.5 |
| 17.5° | 2185.1 | 2204.8 | 2144.5 | 2127.9 | 2115.3 |
| 20° | 2158.9 | 2178.6 | 2108.1 | 2081.6 | 2076.4 |
| 22.5° | 2117.4 | 2138.7 | 2063.3 | 2034.1 | 2025.6 |
| 25° | 2039.4 | 2055.9 | 1979.1 | 1957.7 | 1946.3 |
| 27.5° | 1935.3 | 1944.4 | 1872.2 | 1847.8 | 1832.1 |
| 30° | 1849.0 | 1853.1 | 1796.1 | 1763.8 | 1739.0 |
| 32.5° | 1746.6 | 1750.7 | 1700.5 | 1670.0 | 1650.1 |
| 35° | 1572.9 | 1570.8 | 1540.1 | 1504.7 | 1484.0 |
| 37.5° | 1355.6 | 1358.5 | 1334.3 | 1306.3 | 1285.4 |
| 40° | 1205.9 | 1207.9 | 1187.9 | 1147.6 | 1142.4 |
| 42.5° | 1023.1 | 1054.1 | 1027.1 | 995.7 | 971.5 |
| 45° | 696.0 | 790.1 | 792.3 | 753.0 | 653.7 |
| 47.5° | 393.1 | 500.2 | 562.1 | 449.3 | 328.8 |
| 50° | 247.5 | 319.9 | 419.9 | 266.7 | 226.4 |
| 52.5° | 175.6 | 212.4 | 316.7 | 187.6 | 166.3 |
| 55° | 109.0 | 122.4 | 174.5 | 116.2 | 107.9 |
| 57.5° | 64.7 | 78.6 | 99.2 | 78.6 | 65.6 |
| 60° | 44.4 | 55.8 | 73.0 | 51.6 | 40.2 |
| 62.5° | 38.5 | 43.3 | 57.8 | 40.7 | 36.8 |
| 65° | 33.8 | 34.9 | 36.0 | 33.8 | 31.7 |
| 67.5° | 29.8 | 30.9 | 30.0 | 29.8 | 27.9 |
| 70° | 26.4 | 27.5 | 27.5 | 26.4 | 25.4 |
| 72.5° | 23.9 | 24.9 | 24.1 | 23.9 | 22.0 |
| 75° | 20.1 | 20.1 | 20.1 | 19.0 | 18.0 |
| 77.5° | 15.2 | 16.3 | 15.2 | 15.2 | 14.2 |
| 80° | 12.7 | 13.7 | 12.7 | 12.7 | 11.6 |
| 82.5° | 10.2 | 10.4 | 10.2 | 10.1 | 9.1 |
| 85° | 6.3 | 6.3 | 5.3 | 5.3 | 5.3 |
| 87.5° | 1.7 | 2.5 | 1.7 | 1.7 | 1.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P854369

CATALOG NUMBER: SQ2-WBM-075D-940-UNV-STD-W-4

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 | 9.52 | 10.70 | 9.88 | 11.01 | 11.33 | 9.18 | 10.36 | 9.54 | 10.67 | 10.98 |
| | 3H | 10.05 | 11.08 | 10.43 | 11.41 | 11.78 | 9.71 | 10.75 | 10.09 | 11.08 | 11.45 |
| | 4H | 10.33 | 11.29 | 10.73 | 11.64 | 12.03 | 9.97 | 10.93 | 10.38 | 11.28 | 11.67 |
| | 6H | 10.57 | 11.45 | 10.99 | 11.82 | 12.22 | 10.19 | 11.07 | 10.61 | 11.45 | 11.84 |
| | 8H | 10.66 | 11.49 | 11.09 | 11.88 | 12.29 | 10.27 | 11.10 | 10.70 | 11.49 | 11.90 |
| | 12H | 10.72 | 11.51 | 11.15 | 11.89 | 12.32 | 10.31 | 11.10 | 10.74 | 11.48 | 11.91 |
| 4H | 2H | 9.57 | 10.53 | 9.98 | 10.88 | 11.27 | 9.26 | 10.22 | 9.66 | 10.57 | 10.96 |
| | 3H | 10.31 | 11.09 | 10.73 | 11.50 | 11.90 | 10.01 | 10.79 | 10.43 | 11.20 | 11.60 |
| | 4H | 10.72 | 11.41 | 11.16 | 11.83 | 12.28 | 10.39 | 11.08 | 10.83 | 11.51 | 11.95 |
| | 6H | 11.11 | 11.70 | 11.58 | 12.15 | 12.62 | 10.75 | 11.35 | 11.22 | 11.79 | 12.26 |
| | 8H | 11.25 | 11.80 | 11.72 | 12.25 | 12.72 | 10.87 | 11.42 | 11.34 | 11.87 | 12.35 |
| | 12H | 11.35 | 11.84 | 11.84 | 12.32 | 12.80 | 10.95 | 11.43 | 11.44 | 11.92 | 12.40 |
| 8H | 4H | 10.81 | 11.37 | 11.29 | 11.82 | 12.29 | 10.51 | 11.07 | 10.99 | 11.52 | 11.99 |
| | 6H | 11.32 | 11.77 | 11.83 | 12.27 | 12.75 | 10.99 | 11.44 | 11.49 | 11.94 | 12.42 |
| | 8H | 11.53 | 11.94 | 12.06 | 12.46 | 12.95 | 11.18 | 11.58 | 11.70 | 12.10 | 12.59 |
| | 12H | 11.72 | 12.08 | 12.24 | 12.57 | 13.15 | 11.32 | 11.68 | 11.84 | 12.18 | 12.75 |
| 12H | 4H | 10.80 | 11.28 | 11.29 | 11.77 | 12.25 | 10.51 | 10.99 | 11.00 | 11.48 | 11.95 |
| | 6H | 11.33 | 11.73 | 11.85 | 12.25 | 12.74 | 11.00 | 11.41 | 11.53 | 11.93 | 12.42 |
| | 8H | 11.59 | 11.95 | 12.11 | 12.45 | 13.02 | 11.24 | 11.60 | 11.76 | 12.10 | 12.67 |