

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: P853512

Luminaire Tested: SQ2-BBM-075U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853512
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-075U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

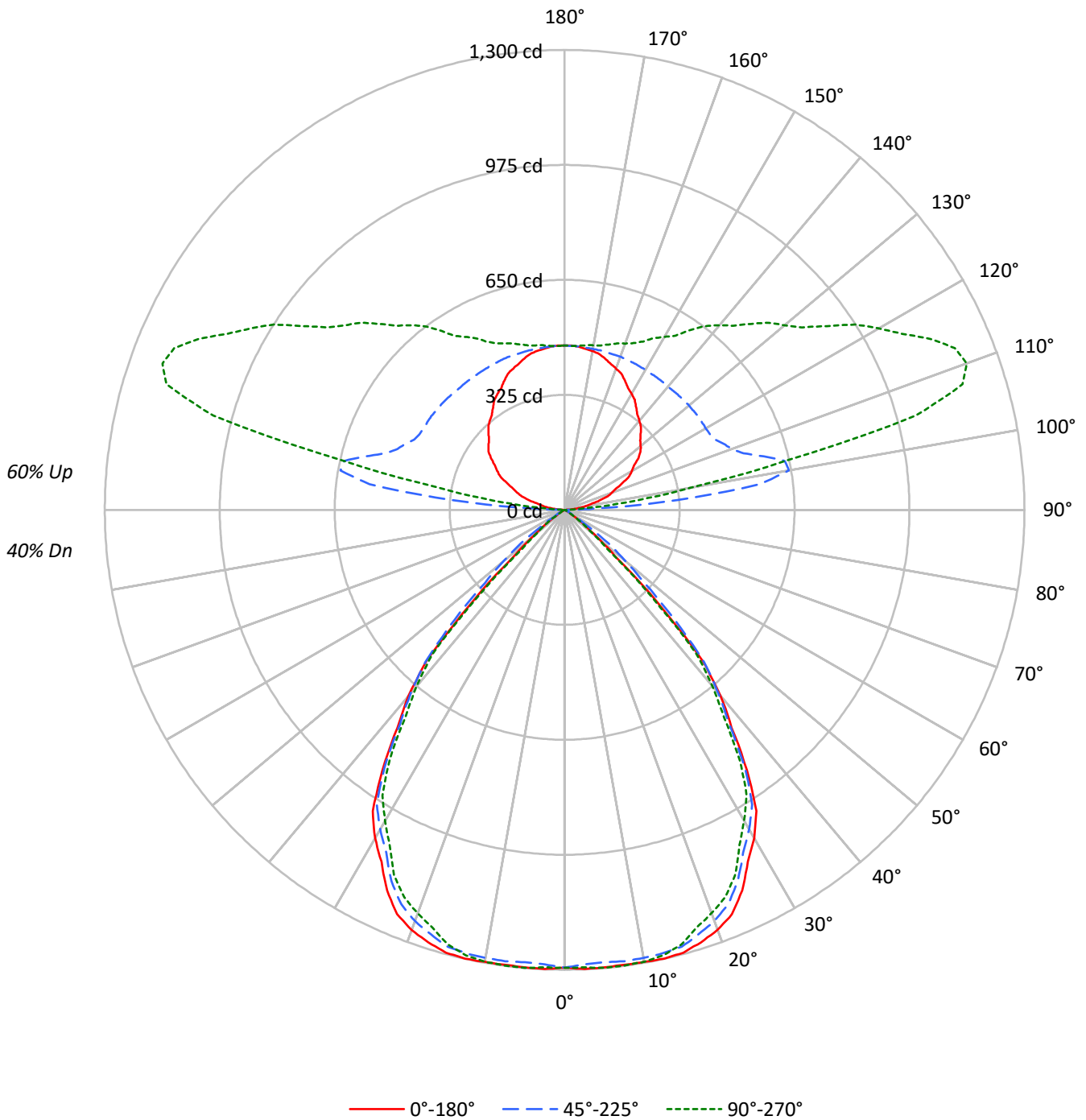
Lumens per Lamp: N/A
Luminaire Lumens: 4808.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 41.4
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 | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 | 40 |
| 1 | 97 | 94 | 90 | 87 | 89 | 86 | 83 | 80 | 71 | 69 | 67 | 57 | 56 | 55 | 44 | 43 | 43 | 37 |
| 2 | 90 | 84 | 78 | 74 | 82 | 77 | 72 | 69 | 64 | 61 | 58 | 52 | 50 | 48 | 41 | 40 | 39 | 34 |
| 3 | 83 | 75 | 69 | 64 | 76 | 69 | 64 | 59 | 58 | 54 | 51 | 47 | 45 | 43 | 38 | 36 | 35 | 31 |
| 4 | 77 | 68 | 61 | 56 | 70 | 62 | 57 | 52 | 53 | 48 | 45 | 43 | 41 | 38 | 35 | 33 | 32 | 28 |
| 5 | 71 | 61 | 54 | 49 | 65 | 57 | 50 | 46 | 48 | 43 | 40 | 40 | 37 | 34 | 32 | 30 | 29 | 25 |
| 6 | 66 | 55 | 48 | 43 | 61 | 51 | 45 | 41 | 44 | 39 | 36 | 37 | 33 | 31 | 30 | 28 | 26 | 23 |
| 7 | 61 | 51 | 43 | 38 | 56 | 47 | 41 | 36 | 40 | 36 | 32 | 34 | 30 | 28 | 28 | 26 | 24 | 21 |
| 8 | 57 | 46 | 39 | 35 | 53 | 43 | 37 | 33 | 37 | 32 | 29 | 31 | 28 | 25 | 26 | 24 | 22 | 20 |
| 9 | 54 | 42 | 36 | 31 | 49 | 40 | 34 | 30 | 34 | 30 | 26 | 29 | 26 | 23 | 24 | 22 | 20 | 18 |
| 10 | 50 | 39 | 33 | 28 | 46 | 37 | 31 | 27 | 32 | 27 | 24 | 27 | 24 | 21 | 23 | 20 | 19 | 17 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 20891 | 20891 | 20891 |
| 5° | 21032 | 20799 | 21063 |
| 10° | 21276 | 21087 | 21259 |
| 15° | 21660 | 21371 | 21274 |
| 20° | 21718 | 21256 | 20859 |
| 25° | 21148 | 20633 | 20307 |
| 30° | 19978 | 19442 | 18921 |
| 35° | 17710 | 17501 | 17008 |
| 40° | 14457 | 14254 | 13685 |
| 45° | 8522 | 10061 | 7930 |
| 50° | 2876 | 5606 | 2562 |
| 55° | 974 | 2004 | 1030 |
| 60° | 94 | 591 | 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: 10061 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 123.6 | 2.6 |
| 10°-20° | 361.9 | 7.5 |
| 20°-30° | 532.5 | 11.1 |
| 30°-40° | 544.1 | 11.3 |
| 40°-50° | 312.8 | 6.5 |
| 50°-60° | 54.7 | 1.1 |
| 60°-70° | 2.0 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 0.6 | 0.0 |
| 90°-100° | 175.7 | 3.7 |
| 100°-110° | 582.3 | 12.1 |
| 110°-120° | 578.0 | 12.0 |
| 120°-130° | 470.8 | 9.8 |
| 130°-140° | 382.6 | 8.0 |
| 140°-150° | 297.1 | 6.2 |
| 150°-160° | 214.1 | 4.5 |
| 160°-170° | 131.1 | 2.7 |
| 170°-180° | 44.3 | 0.9 |
| 0°-30° | 1018.0 | 21.2 |
| 0°-40° | 1562.1 | 32.5 |
| 0°-60° | 1929.7 | 40.1 |
| 0°-90° | 1932.2 | 40.2 |
| 90°-120° | 1336.0 | 27.8 |
| 90°-150° | 2486.4 | 51.7 |
| 90°-180° | 2876.0 | 59.8 |
| 0°-180° | 4808.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 1294 | 1294 | 1294 | 1294 | 1294 | |
| 5° | 1298 | 1295 | 1283 | 1302 | 1300 | 124 |
| 15° | 1296 | 1307 | 1278 | 1279 | 1273 | 365 |
| 25° | 1187 | 1197 | 1158 | 1146 | 1140 | 543 |
| 35° | 898 | 903 | 888 | 873 | 863 | 554 |
| 45° | 373 | 434 | 441 | 418 | 347 | 292 |
| 55° | 35 | 41 | 71 | 40 | 37 | 39 |
| 65° | 0 | 0 | 1 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 1 | 3 | 4 | 4 | 1 |
| 95° | 25 | 74 | 318 | 114 | 76 | 29 |
| 105° | 102 | 145 | 583 | 1100 | 1028 | 107 |
| 115° | 182 | 218 | 469 | 977 | 1142 | 180 |
| 125° | 254 | 282 | 461 | 768 | 905 | 226 |
| 135° | 304 | 335 | 457 | 659 | 743 | 235 |
| 145° | 353 | 379 | 456 | 567 | 620 | 221 |
| 155° | 403 | 417 | 459 | 506 | 525 | 186 |
| 165° | 442 | 447 | 461 | 479 | 484 | 125 |
| 175° | 463 | 463 | 464 | 466 | 466 | 44 |
| 180° | 464 | 464 | 464 | 464 | 464 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 1293.9 | 1293.9 | 1293.9 | 1293.9 | 1293.9 |
| 2.5° | 1299.2 | 1296.2 | 1286.2 | 1297.6 | 1294.6 |
| 5° | 1297.7 | 1294.9 | 1283.3 | 1301.5 | 1299.6 |
| 7.5° | 1296.9 | 1294.7 | 1286.9 | 1302.8 | 1299.1 |
| 10° | 1297.7 | 1297.7 | 1286.2 | 1300.5 | 1296.7 |
| 12.5° | 1299.2 | 1303.0 | 1283.9 | 1295.1 | 1289.8 |
| 15° | 1295.8 | 1307.1 | 1278.5 | 1279.3 | 1272.7 |
| 17.5° | 1281.7 | 1297.0 | 1257.9 | 1248.6 | 1238.6 |
| 20° | 1264.0 | 1280.0 | 1237.1 | 1222.5 | 1214.0 |
| 22.5° | 1237.1 | 1252.3 | 1207.1 | 1194.8 | 1185.5 |
| 25° | 1187.1 | 1197.4 | 1158.2 | 1145.6 | 1139.9 |
| 27.5° | 1121.7 | 1126.9 | 1092.8 | 1079.7 | 1070.3 |
| 30° | 1071.6 | 1071.6 | 1042.8 | 1028.1 | 1014.9 |
| 32.5° | 1009.3 | 1006.3 | 987.4 | 970.4 | 957.9 |
| 35° | 898.5 | 903.2 | 887.9 | 873.2 | 862.9 |
| 37.5° | 775.9 | 780.4 | 764.8 | 748.1 | 740.9 |
| 40° | 685.9 | 689.7 | 676.3 | 658.7 | 649.3 |
| 42.5° | 575.1 | 595.4 | 583.2 | 564.0 | 551.6 |
| 45° | 373.2 | 434.4 | 440.6 | 417.8 | 347.3 |
| 47.5° | 194.5 | 258.5 | 305.5 | 233.3 | 163.5 |
| 50° | 114.5 | 155.9 | 223.2 | 127.4 | 102.0 |
| 52.5° | 73.7 | 91.7 | 157.0 | 81.5 | 68.9 |
| 55° | 34.6 | 41.2 | 71.2 | 40.3 | 36.6 |
| 57.5° | 12.9 | 19.3 | 32.1 | 19.5 | 14.0 |
| 60° | 2.9 | 8.5 | 18.3 | 5.7 | 1.0 |
| 62.5° | 0.6 | 2.5 | 10.6 | 1.1 | 0.2 |
| 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 | 0.2 | 0.6 | 0.8 | 0.8 |
| 90° | 0.0 | 0.9 | 2.9 | 3.8 | 3.8 |
| 92.5° | 7.7 | 29.7 | 87.5 | 28.4 | 23.8 |
| 95° | 25.0 | 73.9 | 318.3 | 113.6 | 76.0 |
| 97.5° | 46.0 | 97.1 | 555.7 | 324.1 | 204.8 |
| 100° | 60.6 | 109.5 | 643.4 | 552.6 | 366.4 |
| 102.5° | 76.7 | 124.1 | 638.0 | 844.5 | 638.0 |
| 105° | 101.9 | 145.2 | 582.8 | 1099.5 | 1028.0 |
| 107.5° | 127.7 | 166.3 | 529.9 | 1125.4 | 1179.8 |
| 110° | 142.3 | 180.9 | 503.0 | 1099.8 | 1209.8 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 157.7 | 195.5 | 486.8 | 1054.3 | 1194.4 |
| 115° | 181.8 | 217.5 | 469.3 | 977.0 | 1142.5 |
| 117.5° | 205.6 | 237.4 | 463.0 | 903.1 | 1076.7 |
| 120° | 220.2 | 251.3 | 460.6 | 856.8 | 1025.1 |
| 122.5° | 233.3 | 263.6 | 460.6 | 818.8 | 974.4 |
| 125° | 253.9 | 282.1 | 460.6 | 767.7 | 904.9 |
| 127.5° | 270.8 | 298.5 | 459.5 | 728.9 | 846.3 |
| 130° | 280.8 | 310.0 | 458.7 | 706.3 | 811.7 |
| 132.5° | 290.0 | 319.9 | 458.0 | 687.6 | 782.4 |
| 135° | 303.9 | 334.9 | 456.8 | 658.7 | 743.4 |
| 137.5° | 318.9 | 348.8 | 455.6 | 630.8 | 705.5 |
| 140° | 328.9 | 358.0 | 454.9 | 612.2 | 680.9 |
| 142.5° | 338.1 | 366.5 | 455.6 | 593.6 | 654.7 |
| 145° | 352.9 | 379.3 | 455.8 | 566.7 | 620.3 |
| 147.5° | 368.9 | 390.9 | 456.0 | 543.9 | 583.7 |
| 150° | 378.9 | 398.6 | 456.8 | 530.7 | 564.5 |
| 152.5° | 388.1 | 407.1 | 457.6 | 519.7 | 546.8 |
| 155° | 402.9 | 417.0 | 458.7 | 506.3 | 525.1 |
| 157.5° | 417.4 | 428.3 | 459.9 | 496.7 | 510.1 |
| 160° | 425.1 | 434.5 | 460.6 | 489.7 | 500.1 |
| 162.5° | 432.8 | 439.9 | 460.6 | 485.1 | 493.1 |
| 165° | 442.4 | 447.1 | 460.6 | 479.0 | 483.7 |
| 167.5° | 451.2 | 453.7 | 461.6 | 473.6 | 476.0 |
| 170° | 455.8 | 456.8 | 461.6 | 471.2 | 472.2 |
| 172.5° | 458.9 | 459.9 | 462.4 | 468.9 | 469.1 |
| 175° | 462.6 | 462.6 | 463.5 | 466.4 | 465.5 |
| 177.5° | 464.5 | 464.5 | 463.7 | 465.2 | 463.7 |
| 180° | 464.5 | 464.5 | 464.5 | 464.5 | 464.5 |



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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 | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 |
| | 3H | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 4H | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 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 | 0.08 | 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 |