

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: P853624

Luminaire Tested: SQ2-BBN-100U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853624
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBN-100U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

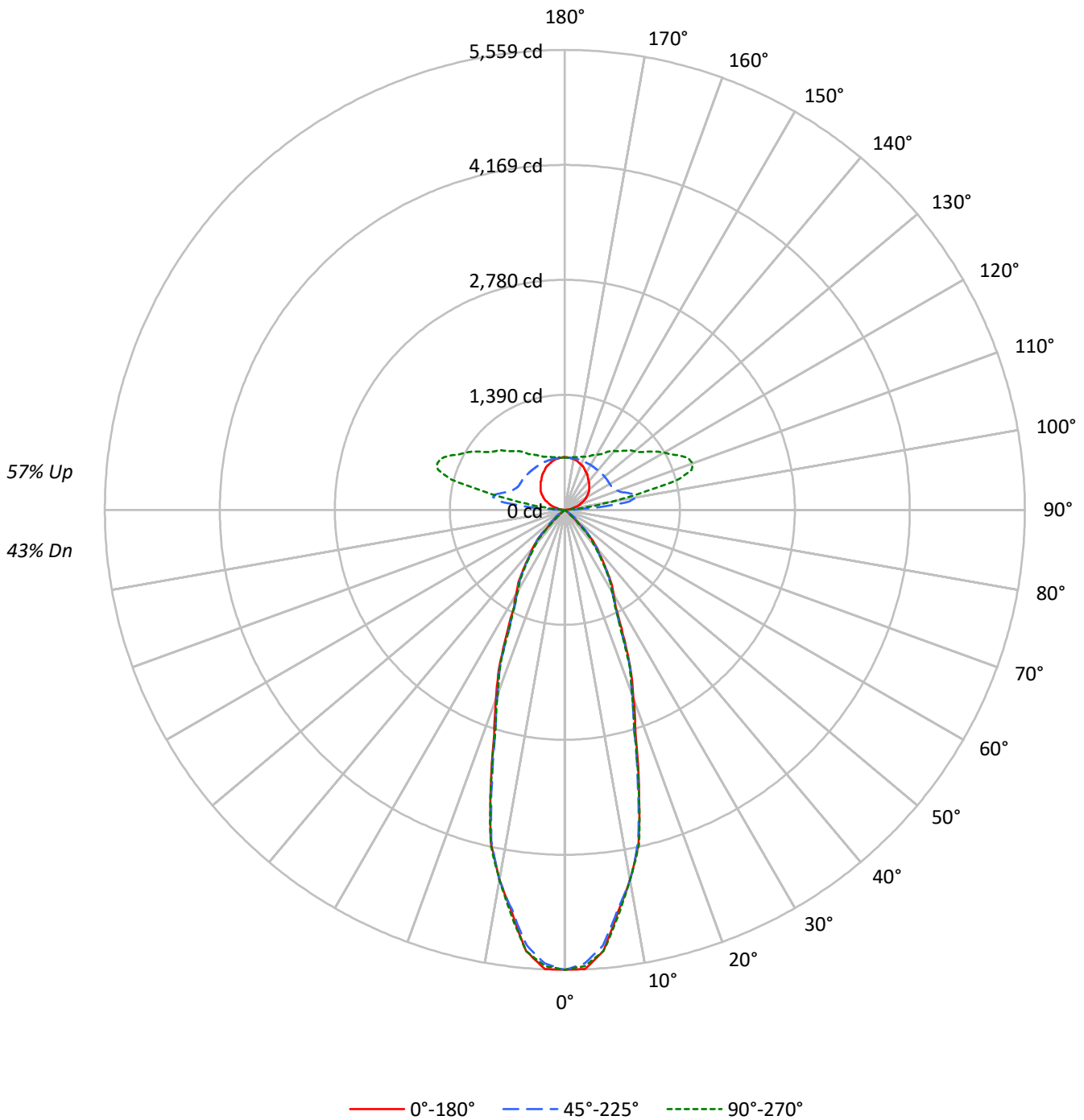
Lumens per Lamp: N/A
Luminaire Lumens: 6951.4 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.62
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.2
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 | 106 | 106 | 106 | 106 | 96 | 96 | 96 | 96 | 80 | 80 | 80 | 64 | 64 | 64 | 50 | 50 | 50 | 43 |
| 1 | 98 | 95 | 92 | 89 | 90 | 87 | 85 | 82 | 73 | 71 | 70 | 60 | 59 | 58 | 47 | 47 | 46 | 41 |
| 2 | 92 | 86 | 81 | 77 | 84 | 79 | 75 | 72 | 67 | 64 | 62 | 55 | 54 | 52 | 45 | 44 | 43 | 38 |
| 3 | 85 | 78 | 72 | 67 | 78 | 72 | 67 | 63 | 61 | 58 | 55 | 51 | 49 | 47 | 42 | 41 | 40 | 36 |
| 4 | 80 | 71 | 65 | 60 | 73 | 66 | 61 | 56 | 57 | 53 | 50 | 48 | 45 | 43 | 40 | 38 | 37 | 33 |
| 5 | 75 | 65 | 58 | 54 | 69 | 61 | 55 | 51 | 53 | 48 | 45 | 45 | 42 | 40 | 38 | 36 | 34 | 31 |
| 6 | 70 | 60 | 53 | 48 | 65 | 56 | 50 | 46 | 49 | 45 | 41 | 42 | 39 | 37 | 36 | 34 | 32 | 30 |
| 7 | 66 | 55 | 49 | 44 | 61 | 52 | 46 | 42 | 46 | 41 | 38 | 39 | 36 | 34 | 34 | 32 | 30 | 28 |
| 8 | 62 | 51 | 45 | 41 | 57 | 48 | 43 | 39 | 43 | 38 | 35 | 37 | 34 | 32 | 32 | 30 | 29 | 26 |
| 9 | 58 | 48 | 42 | 37 | 54 | 45 | 40 | 36 | 40 | 36 | 33 | 35 | 32 | 30 | 31 | 28 | 27 | 25 |
| 10 | 55 | 45 | 39 | 35 | 51 | 42 | 37 | 33 | 38 | 34 | 31 | 33 | 30 | 28 | 29 | 27 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 89755 | 89755 | 89755 |
| 5° | 86752 | 85681 | 86803 |
| 10° | 74453 | 74502 | 74453 |
| 15° | 57788 | 56867 | 57655 |
| 20° | 41708 | 40847 | 40813 |
| 25° | 29573 | 28395 | 28449 |
| 30° | 22001 | 21442 | 21237 |
| 35° | 17120 | 16685 | 16330 |
| 40° | 12669 | 12353 | 11571 |
| 45° | 6473 | 7937 | 5215 |
| 50° | 1409 | 4378 | 1032 |
| 55° | 394 | 1776 | 310 |
| 60° | 65 | 355 | 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: 7937 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 480.7 | 6.9 |
| 10°-20° | 947.7 | 13.6 |
| 20°-30° | 764.5 | 11.0 |
| 30°-40° | 531.1 | 7.6 |
| 40°-50° | 245.3 | 3.5 |
| 50°-60° | 34.4 | 0.5 |
| 60°-70° | 1.2 | 0.0 |
| 70°-80° | 0.0 | 0.0 |
| 80°-90° | 1.5 | 0.0 |
| 90°-100° | 264.7 | 3.8 |
| 100°-110° | 800.7 | 11.5 |
| 110°-120° | 781.7 | 11.2 |
| 120°-130° | 638.8 | 9.2 |
| 130°-140° | 521.4 | 7.5 |
| 140°-150° | 405.9 | 5.8 |
| 150°-160° | 292.6 | 4.2 |
| 160°-170° | 179.1 | 2.6 |
| 170°-180° | 60.5 | 0.9 |
| 0°-30° | 2192.9 | 31.5 |
| 0°-40° | 2724.0 | 39.2 |
| 0°-60° | 3003.8 | 43.2 |
| 0°-90° | 3006.4 | 43.2 |
| 90°-120° | 1847.1 | 26.6 |
| 90°-150° | 3413.2 | 49.1 |
| 90°-180° | 3945.0 | 56.8 |
| 0°-180° | 6951.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 5559 | 5559 | 5559 | 5559 | 5559 | |
| 5° | 5353 | 5324 | 5286 | 5352 | 5356 | 481 |
| 15° | 3457 | 3501 | 3402 | 3450 | 3449 | 952 |
| 25° | 1660 | 1623 | 1594 | 1617 | 1597 | 777 |
| 35° | 869 | 869 | 846 | 831 | 828 | 544 |
| 45° | 284 | 338 | 348 | 316 | 228 | 229 |
| 55° | 14 | 22 | 63 | 18 | 11 | 18 |
| 65° | 0 | 0 | 1 | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 | 0 | 0 | 0 |
| 85° | 0 | 0 | 0 | 0 | 0 | 0 |
| 90° | 0 | 2 | 12 | 7 | 6 | 2 |
| 95° | 33 | 104 | 500 | 185 | 116 | 39 |
| 105° | 139 | 196 | 786 | 1493 | 1419 | 146 |
| 115° | 248 | 296 | 636 | 1316 | 1546 | 245 |
| 125° | 346 | 384 | 627 | 1039 | 1223 | 308 |
| 135° | 415 | 459 | 623 | 896 | 1008 | 321 |
| 145° | 485 | 521 | 623 | 771 | 843 | 304 |
| 155° | 552 | 571 | 627 | 691 | 718 | 254 |
| 165° | 604 | 611 | 630 | 654 | 662 | 170 |
| 175° | 632 | 632 | 633 | 638 | 636 | 60 |
| 180° | 634 | 634 | 634 | 634 | 634 | |



TEST NUMBER: P853624

CATALOG NUMBER: SQ2-BBN-100U-075D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 5559.0 | 5559.0 | 5559.0 | 5559.0 | 5559.0 |
| 2.5° | 5555.8 | 5535.4 | 5486.9 | 5530.7 | 5517.3 |
| 5° | 5352.6 | 5324.2 | 5286.5 | 5351.7 | 5355.7 |
| 7.5° | 4904.2 | 4913.4 | 4878.4 | 4950.3 | 4942.7 |
| 10° | 4541.2 | 4548.0 | 4544.2 | 4567.6 | 4541.2 |
| 12.5° | 4120.4 | 4147.7 | 4096.2 | 4132.5 | 4143.7 |
| 15° | 3457.2 | 3501.3 | 3402.1 | 3450.2 | 3449.2 |
| 17.5° | 2835.3 | 2830.8 | 2779.6 | 2788.6 | 2785.6 |
| 20° | 2427.4 | 2420.5 | 2377.3 | 2370.4 | 2375.3 |
| 22.5° | 2077.9 | 2066.4 | 2051.1 | 2033.8 | 2040.3 |
| 25° | 1660.0 | 1622.8 | 1593.9 | 1617.4 | 1596.9 |
| 27.5° | 1332.4 | 1331.8 | 1308.0 | 1310.7 | 1314.6 |
| 30° | 1180.1 | 1173.3 | 1150.1 | 1150.8 | 1139.1 |
| 32.5° | 1044.7 | 1049.6 | 1021.0 | 1015.4 | 1003.6 |
| 35° | 868.6 | 868.6 | 846.5 | 831.4 | 828.5 |
| 37.5° | 705.3 | 703.5 | 687.8 | 666.4 | 658.8 |
| 40° | 601.1 | 596.2 | 586.1 | 559.8 | 549.0 |
| 42.5° | 482.5 | 495.6 | 485.9 | 459.5 | 443.2 |
| 45° | 283.5 | 338.4 | 347.6 | 315.6 | 228.4 |
| 47.5° | 121.8 | 182.2 | 232.0 | 151.2 | 78.7 |
| 50° | 56.1 | 103.1 | 174.3 | 74.4 | 41.1 |
| 52.5° | 32.9 | 56.4 | 129.4 | 43.5 | 25.8 |
| 55° | 14.0 | 21.9 | 63.1 | 17.9 | 11.0 |
| 57.5° | 5.2 | 9.5 | 23.8 | 7.7 | 4.2 |
| 60° | 2.0 | 4.0 | 11.0 | 3.0 | 1.0 |
| 62.5° | 0.4 | 1.6 | 5.4 | 1.4 | 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 | 0.4 | 2.4 | 1.4 | 1.2 |
| 90° | 0.0 | 1.9 | 11.9 | 6.9 | 6.0 |
| 92.5° | 11.1 | 45.0 | 161.6 | 53.6 | 38.6 |
| 95° | 32.8 | 103.9 | 499.6 | 184.6 | 116.4 |
| 97.5° | 63.5 | 132.2 | 787.4 | 521.0 | 317.3 |
| 100° | 82.6 | 149.7 | 879.7 | 850.5 | 571.2 |
| 102.5° | 104.1 | 168.9 | 860.6 | 1192.9 | 951.0 |
| 105° | 139.3 | 195.8 | 786.2 | 1493.1 | 1419.1 |
| 107.5° | 172.8 | 226.7 | 714.5 | 1522.8 | 1608.4 |
| 110° | 195.1 | 246.6 | 678.7 | 1485.4 | 1641.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 216.6 | 266.6 | 657.2 | 1422.6 | 1619.6 |
| 115° | 247.8 | 295.5 | 635.9 | 1315.9 | 1545.5 |
| 117.5° | 278.8 | 324.0 | 628.4 | 1215.9 | 1451.0 |
| 120° | 299.5 | 342.4 | 626.0 | 1157.5 | 1383.3 |
| 122.5° | 318.7 | 359.1 | 626.0 | 1106.2 | 1314.8 |
| 125° | 346.3 | 384.3 | 627.0 | 1039.2 | 1223.1 |
| 127.5° | 368.8 | 408.1 | 626.0 | 988.6 | 1145.4 |
| 130° | 383.1 | 424.0 | 626.0 | 959.6 | 1101.7 |
| 132.5° | 395.9 | 437.5 | 625.2 | 933.1 | 1064.2 |
| 135° | 415.0 | 458.8 | 623.0 | 896.2 | 1008.1 |
| 137.5° | 436.3 | 477.9 | 623.0 | 856.8 | 960.5 |
| 140° | 449.8 | 490.7 | 623.0 | 831.2 | 929.5 |
| 142.5° | 463.4 | 502.7 | 622.2 | 807.8 | 893.7 |
| 145° | 484.7 | 520.7 | 623.0 | 770.9 | 842.9 |
| 147.5° | 505.9 | 536.5 | 624.2 | 740.5 | 795.7 |
| 150° | 519.5 | 547.7 | 625.0 | 723.6 | 770.3 |
| 152.5° | 532.2 | 557.3 | 625.8 | 709.0 | 747.2 |
| 155° | 552.3 | 570.8 | 627.0 | 691.2 | 717.5 |
| 157.5° | 569.8 | 584.8 | 628.2 | 678.1 | 696.4 |
| 160° | 580.2 | 592.8 | 629.0 | 670.1 | 683.7 |
| 162.5° | 590.5 | 600.1 | 629.7 | 662.8 | 674.1 |
| 165° | 604.1 | 610.9 | 629.9 | 654.0 | 661.8 |
| 167.5° | 615.6 | 619.1 | 631.1 | 647.1 | 650.4 |
| 170° | 622.0 | 623.9 | 631.9 | 643.9 | 644.9 |
| 172.5° | 626.0 | 627.1 | 631.9 | 640.7 | 640.9 |
| 175° | 631.9 | 631.9 | 632.9 | 637.9 | 635.9 |
| 177.5° | 634.7 | 633.9 | 633.1 | 635.5 | 633.9 |
| 180° | 633.9 | 633.9 | 633.9 | 633.9 | 633.9 |



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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 |