

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: P853564

Luminaire Tested: SQ2-BBM-150U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853564  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-150U-075D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

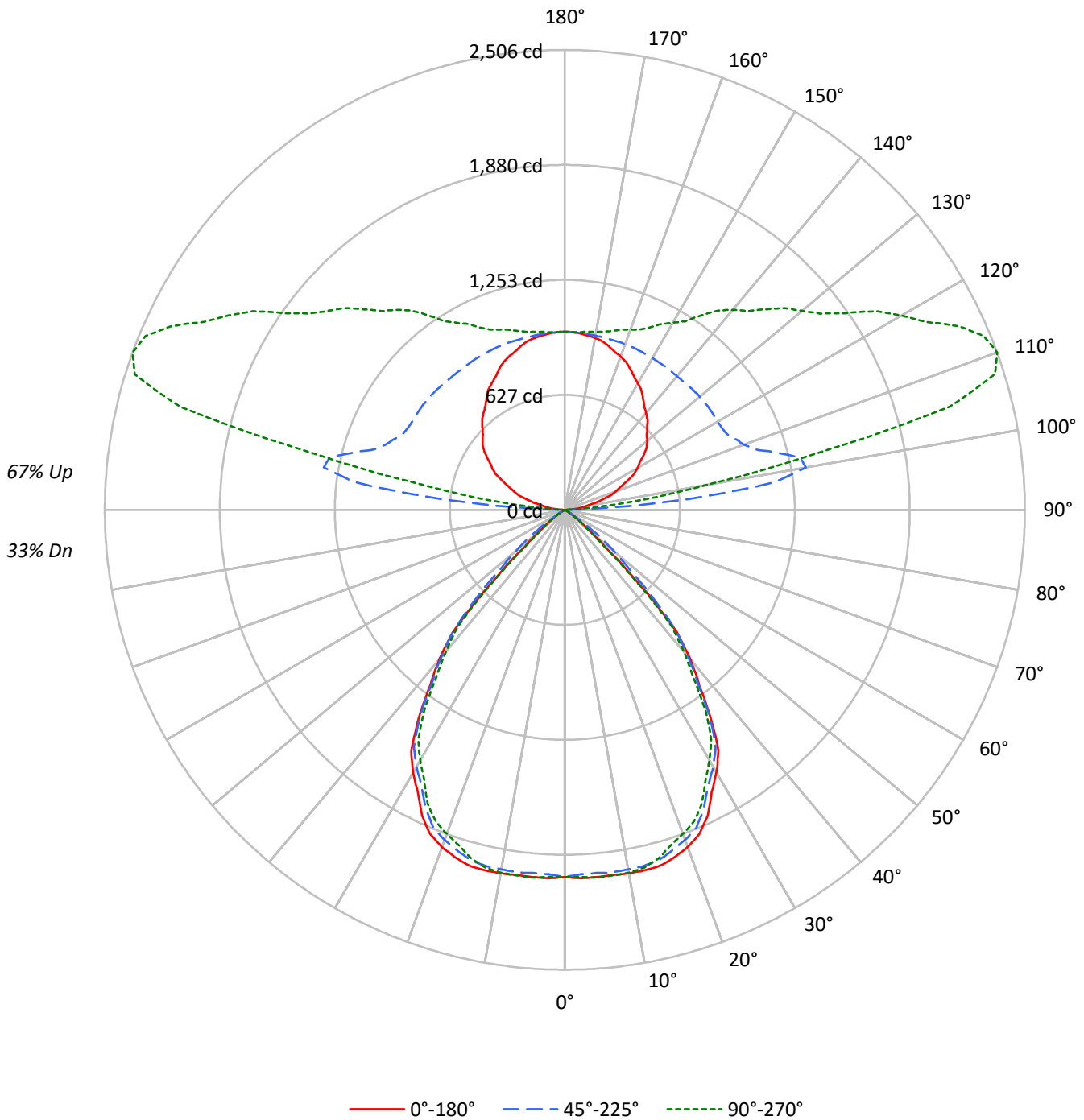
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8976.3 lumens  
Efficiency: N/A  
Efficacy: 106.7 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: Semi-Indirect  
  
Input Watts (W): 84.1  
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

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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   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 74 | 74 | 74 | 57 | 57 | 57 | 41 | 41 | 41 | 33 |
| 1   | 95  | 92  | 88  | 85  | 86 | 83 | 80 | 78 | 67 | 65 | 63 | 52 | 51 | 50 | 38 | 37 | 37 | 31 |
| 2   | 88  | 82  | 76  | 72  | 79 | 74 | 70 | 66 | 60 | 57 | 55 | 47 | 45 | 44 | 35 | 34 | 33 | 28 |
| 3   | 81  | 73  | 67  | 62  | 73 | 67 | 61 | 57 | 54 | 51 | 48 | 43 | 41 | 39 | 33 | 31 | 30 | 25 |
| 4   | 75  | 66  | 59  | 53  | 68 | 60 | 54 | 49 | 49 | 45 | 42 | 39 | 37 | 34 | 30 | 28 | 27 | 23 |
| 5   | 69  | 59  | 52  | 47  | 63 | 54 | 48 | 43 | 45 | 40 | 37 | 36 | 33 | 31 | 28 | 26 | 25 | 21 |
| 6   | 64  | 53  | 46  | 41  | 58 | 49 | 43 | 38 | 41 | 36 | 33 | 33 | 30 | 28 | 26 | 24 | 22 | 19 |
| 7   | 60  | 49  | 41  | 36  | 54 | 45 | 39 | 34 | 37 | 33 | 29 | 30 | 27 | 25 | 24 | 22 | 20 | 18 |
| 8   | 55  | 44  | 37  | 33  | 50 | 41 | 35 | 31 | 34 | 30 | 27 | 28 | 25 | 23 | 22 | 20 | 19 | 16 |
| 9   | 52  | 41  | 34  | 29  | 47 | 38 | 32 | 28 | 32 | 27 | 24 | 26 | 23 | 21 | 21 | 19 | 17 | 15 |
| 10  | 48  | 37  | 31  | 26  | 44 | 35 | 29 | 25 | 29 | 25 | 22 | 24 | 21 | 19 | 19 | 17 | 16 | 14 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 32301 | 32301 | 32301 |
| 5°  | 32554 | 32198 | 32603 |
| 10° | 32964 | 32619 | 32914 |
| 15° | 33558 | 33056 | 32889 |
| 20° | 33601 | 32895 | 32294 |
| 25° | 32771 | 31932 | 31486 |
| 30° | 30805 | 30134 | 29369 |
| 35° | 27340 | 27124 | 26315 |
| 40° | 22422 | 22042 | 21220 |
| 45° | 13369 | 15721 | 12545 |
| 50° | 4172  | 8724  | 3946  |
| 55° | 1576  | 3099  | 1576  |
| 60° | 97    | 872   | 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: 15721 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 191.3  | 2.1       |
| 10°-20°   | 560.3  | 6.2       |
| 20°-30°   | 824.3  | 9.2       |
| 30°-40°   | 842.5  | 9.4       |
| 40°-50°   | 485.4  | 5.4       |
| 50°-60°   | 83.7   | 0.9       |
| 60°-70°   | 3.0    | 0.0       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 1.4    | 0.0       |
| 90°-100°  | 369.5  | 4.1       |
| 100°-110° | 1209.8 | 13.5      |
| 110°-120° | 1196.0 | 13.3      |
| 120°-130° | 977.7  | 10.9      |
| 130°-140° | 797.9  | 8.9       |
| 140°-150° | 620.9  | 6.9       |
| 150°-160° | 447.1  | 5.0       |
| 160°-170° | 273.5  | 3.0       |
| 170°-180° | 92.4   | 1.0       |
| 0°-30°    | 1575.9 | 17.6      |
| 0°-40°    | 2418.4 | 26.9      |
| 0°-60°    | 2987.5 | 33.3      |
| 0°-90°    | 2991.9 | 33.3      |
| 90°-120°  | 2775.3 | 30.9      |
| 90°-150°  | 5171.8 | 57.6      |
| 90°-180°  | 5985.0 | 66.7      |
| 0°-180°   | 8976.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2001 | 2001  | 2001 | 2001  | 2001 |      |
| 5°   | 2009 | 2004  | 1987 | 2014  | 2012 | 192  |
| 15°  | 2008 | 2024  | 1978 | 1980  | 1968 | 565  |
| 25°  | 1840 | 1856  | 1792 | 1774  | 1767 | 839  |
| 35°  | 1387 | 1398  | 1376 | 1350  | 1335 | 857  |
| 45°  | 586  | 673   | 688  | 650   | 549  | 453  |
| 55°  | 56   | 64    | 110  | 62    | 56   | 59   |
| 65°  | 0    | 0     | 1    | 0     | 0    | 1    |
| 75°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 85°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 90°  | 1    | 3     | 8    | 7     | 8    | 3    |
| 95°  | 52   | 150   | 672  | 239   | 156  | 59   |
| 105° | 210  | 300   | 1201 | 2282  | 2168 | 222  |
| 115° | 379  | 453   | 976  | 2016  | 2367 | 374  |
| 125° | 527  | 588   | 962  | 1590  | 1868 | 469  |
| 135° | 635  | 702   | 954  | 1371  | 1546 | 491  |
| 145° | 742  | 797   | 952  | 1180  | 1292 | 465  |
| 155° | 846  | 874   | 958  | 1055  | 1096 | 390  |
| 165° | 924  | 933   | 962  | 999   | 1010 | 260  |
| 175° | 966  | 966   | 967  | 974   | 972  | 92   |
| 180° | 970  | 970   | 970  | 970   | 970  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2000.6 | 2000.6 | 2000.6 | 2000.6 | 2000.6 |
| 2.5°   | 2009.4 | 2003.9 | 1987.8 | 2006.1 | 2002.2 |
| 5°     | 2008.6 | 2003.7 | 1986.6 | 2013.6 | 2011.6 |
| 7.5°   | 2007.4 | 2004.1 | 1992.0 | 2014.1 | 2009.2 |
| 10°    | 2010.6 | 2009.6 | 1989.6 | 2012.5 | 2007.6 |
| 12.5°  | 2012.2 | 2018.3 | 1987.2 | 2005.2 | 1996.4 |
| 15°    | 2007.6 | 2024.2 | 1977.6 | 1980.3 | 1967.6 |
| 17.5°  | 1985.2 | 2008.7 | 1946.6 | 1935.1 | 1917.1 |
| 20°    | 1955.6 | 1983.0 | 1914.5 | 1895.2 | 1879.5 |
| 22.5°  | 1913.9 | 1939.0 | 1873.7 | 1849.6 | 1837.1 |
| 25°    | 1839.5 | 1856.1 | 1792.4 | 1774.3 | 1767.4 |
| 27.5°  | 1734.0 | 1738.7 | 1690.7 | 1668.1 | 1659.3 |
| 30°    | 1652.3 | 1652.3 | 1616.3 | 1591.9 | 1575.3 |
| 32.5°  | 1557.0 | 1554.7 | 1529.0 | 1502.2 | 1485.6 |
| 35°    | 1387.1 | 1397.9 | 1376.1 | 1349.7 | 1335.1 |
| 37.5°  | 1203.2 | 1207.3 | 1190.8 | 1162.4 | 1150.1 |
| 40°    | 1063.8 | 1064.8 | 1045.8 | 1025.4 | 1006.8 |
| 42.5°  | 901.3  | 921.1  | 903.3  | 871.1  | 863.5  |
| 45°    | 585.5  | 672.6  | 688.5  | 650.2  | 549.4  |
| 47.5°  | 294.2  | 402.7  | 470.6  | 365.5  | 258.8  |
| 50°    | 166.1  | 230.7  | 347.3  | 193.3  | 157.1  |
| 52.5°  | 110.9  | 139.5  | 240.8  | 126.4  | 105.9  |
| 55°    | 56.0   | 63.9   | 110.1  | 61.9   | 56.0   |
| 57.5°  | 19.0   | 29.6   | 47.8   | 30.6   | 21.0   |
| 60°    | 3.0    | 12.8   | 27.0   | 9.8    | 1.0    |
| 62.5°  | 0.6    | 3.3    | 16.6   | 2.7    | 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°  | 0.2    | 0.6    | 1.6    | 1.4    | 1.6    |
| 90°    | 1.0    | 2.9    | 8.0    | 7.0    | 8.0    |
| 92.5°  | 16.9   | 61.8   | 189.7  | 61.7   | 49.4   |
| 95°    | 51.8   | 150.2  | 671.7  | 239.3  | 155.5  |
| 97.5°  | 94.1   | 198.1  | 1152.4 | 697.1  | 432.1  |
| 100°   | 123.6  | 223.0  | 1333.4 | 1190.7 | 789.3  |
| 102.5° | 157.1  | 254.1  | 1313.5 | 1754.5 | 1360.1 |
| 105°   | 210.3  | 299.9  | 1200.8 | 2281.5 | 2167.5 |
| 107.5° | 262.7  | 344.9  | 1091.0 | 2330.8 | 2456.1 |
| 110°   | 297.0  | 376.9  | 1038.4 | 2273.4 | 2506.3 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 112.5° | 329.7 | 407.2 | 1006.5 | 2173.7 | 2472.0 |
| 115°   | 378.7 | 452.7 | 975.6  | 2016.0 | 2366.8 |
| 117.5° | 426.3 | 495.5 | 963.9  | 1861.1 | 2217.3 |
| 120°   | 457.4 | 522.7 | 960.7  | 1770.8 | 2117.7 |
| 122.5° | 485.3 | 549.0 | 960.7  | 1692.9 | 2014.8 |
| 125°   | 527.2 | 587.6 | 961.7  | 1589.8 | 1867.5 |
| 127.5° | 562.7 | 624.2 | 960.5  | 1513.9 | 1755.5 |
| 130°   | 585.0 | 647.3 | 959.7  | 1467.9 | 1686.2 |
| 132.5° | 604.9 | 668.8 | 957.3  | 1428.4 | 1626.4 |
| 135°   | 634.8 | 702.0 | 953.7  | 1371.2 | 1545.6 |
| 137.5° | 666.3 | 732.9 | 951.5  | 1311.7 | 1469.3 |
| 140°   | 688.6 | 752.9 | 950.7  | 1274.0 | 1423.1 |
| 142.5° | 710.9 | 771.4 | 950.7  | 1233.8 | 1368.9 |
| 145°   | 742.4 | 797.0 | 951.7  | 1179.5 | 1292.5 |
| 147.5° | 775.5 | 820.9 | 953.1  | 1132.2 | 1217.6 |
| 150°   | 796.2 | 836.2 | 954.7  | 1104.8 | 1176.9 |
| 152.5° | 817.0 | 852.2 | 955.5  | 1082.2 | 1141.8 |
| 155°   | 846.1 | 874.3 | 957.7  | 1055.3 | 1096.2 |
| 157.5° | 872.2 | 892.6 | 959.9  | 1034.1 | 1063.7 |
| 160°   | 888.9 | 905.5 | 960.7  | 1022.0 | 1045.4 |
| 162.5° | 903.3 | 916.7 | 960.7  | 1012.3 | 1029.4 |
| 165°   | 923.8 | 932.6 | 961.7  | 998.8  | 1009.5 |
| 167.5° | 941.1 | 945.4 | 962.9  | 988.3  | 994.2  |
| 170°   | 950.7 | 952.7 | 963.7  | 982.6  | 984.6  |
| 172.5° | 957.9 | 959.1 | 966.1  | 978.6  | 979.0  |
| 175°   | 965.7 | 965.7 | 966.7  | 973.6  | 971.6  |
| 177.5° | 969.6 | 968.9 | 968.0  | 972.8  | 969.6  |
| 180°   | 969.6 | 969.6 | 969.6  | 969.6  | 969.6  |

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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 | 1.23 | 0.00           | 0.00 | 0.00 | 0.00 | 0.84 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.98 | 0.00           | 0.00 | 0.00 | 0.00 | 0.60 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.85 | 0.00           | 0.00 | 0.00 | 0.00 | 0.46 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.71 | 0.00           | 0.00 | 0.00 | 0.00 | 0.32 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.63 | 0.00           | 0.00 | 0.00 | 0.00 | 0.24 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.55 | 0.00           | 0.00 | 0.00 | 0.00 | 0.17 |
| 4H              | 2H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.86 | 0.00           | 0.00 | 0.00 | 0.00 | 0.47 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.59 | 0.00           | 0.00 | 0.00 | 0.00 | 0.21 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.45 | 0.00           | 0.00 | 0.00 | 0.00 | 0.07 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.30 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.21 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.13 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H              | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.21 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.08 | 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 | 0.13 | 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 |