

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: P853517

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853517  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-075U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

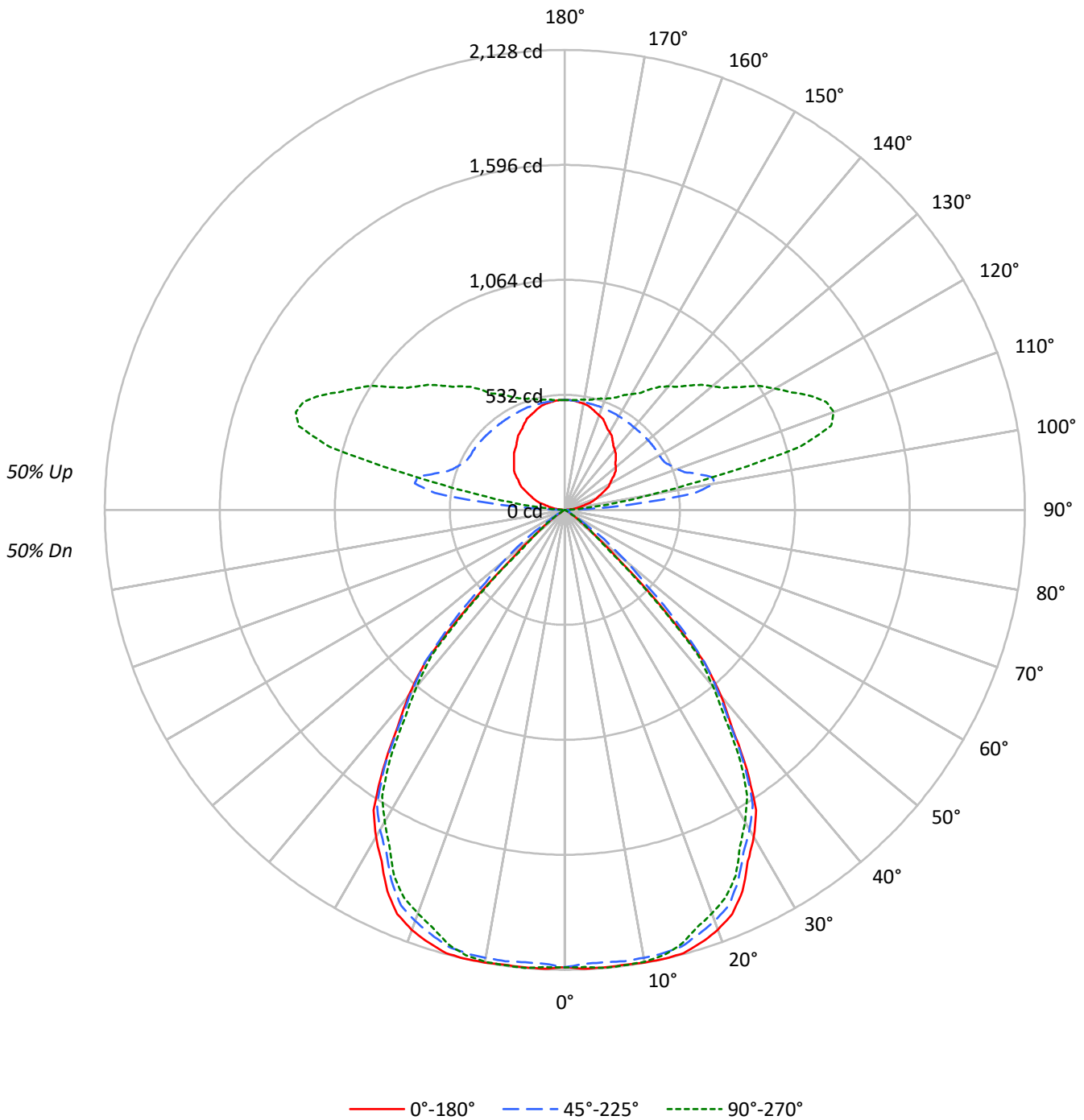
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6311.8 lumens  
Efficiency: N/A  
Efficacy: 124.0 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): 50.9  
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: P853517

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

### Luminous Intensity Polar Plot





TEST NUMBER: P853517

CATALOG NUMBER: SQ2-BBM-075U-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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 50 |    |    |    |   |
| 1   | 100 | 96  | 93  | 90  | 92 | 89 | 87 | 84 | 76 | 74 | 72 | 64 | 63 | 62 | 53 | 52 | 51 | 46 |    |    |    |   |
| 2   | 93  | 86  | 81  | 77  | 86 | 80 | 76 | 72 | 69 | 66 | 63 | 59 | 57 | 55 | 49 | 48 | 47 | 42 |    |    |    |   |
| 3   | 86  | 78  | 72  | 67  | 79 | 73 | 67 | 63 | 63 | 59 | 56 | 54 | 51 | 49 | 45 | 44 | 42 | 38 |    |    |    |   |
| 4   | 80  | 71  | 64  | 59  | 74 | 66 | 60 | 56 | 57 | 53 | 50 | 49 | 46 | 44 | 42 | 40 | 38 | 35 |    |    |    |   |
| 5   | 74  | 64  | 57  | 52  | 69 | 60 | 54 | 49 | 53 | 48 | 44 | 46 | 42 | 40 | 39 | 37 | 35 | 32 |    |    |    |   |
| 6   | 69  | 58  | 51  | 46  | 64 | 55 | 49 | 44 | 48 | 43 | 40 | 42 | 38 | 36 | 36 | 34 | 32 | 29 |    |    |    |   |
| 7   | 64  | 53  | 46  | 41  | 60 | 50 | 44 | 40 | 44 | 40 | 36 | 39 | 35 | 32 | 34 | 31 | 29 | 27 |    |    |    |   |
| 8   | 60  | 49  | 42  | 37  | 56 | 46 | 40 | 36 | 41 | 36 | 33 | 36 | 32 | 30 | 31 | 29 | 27 | 24 |    |    |    |   |
| 9   | 56  | 45  | 38  | 34  | 52 | 43 | 37 | 32 | 38 | 33 | 30 | 33 | 30 | 27 | 29 | 27 | 25 | 23 |    |    |    |   |
| 10  | 53  | 42  | 35  | 31  | 49 | 39 | 34 | 30 | 35 | 30 | 27 | 31 | 28 | 25 | 27 | 25 | 23 | 21 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 34165 | 34165 | 34165 |
| 5°  | 34431 | 34054 | 34483 |
| 10° | 34864 | 34500 | 34813 |
| 15° | 35493 | 34962 | 34785 |
| 20° | 35538 | 34792 | 34156 |
| 25° | 34659 | 33774 | 33302 |
| 30° | 32582 | 31871 | 31062 |
| 35° | 28917 | 28687 | 27831 |
| 40° | 23716 | 23313 | 22445 |
| 45° | 14139 | 16630 | 13269 |
| 50° | 4413  | 9226  | 4175  |
| 55° | 1669  | 3277  | 1669  |
| 60° | 103   | 924   | 36    |
| 65° | 0     | 42    | 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: 16630 cd/sqm



TEST NUMBER: P853517

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

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 202.3  | 3.2       |
| 10°-20°   | 592.6  | 9.4       |
| 20°-30°   | 871.8  | 13.8      |
| 30°-40°   | 891.1  | 14.1      |
| 40°-50°   | 513.4  | 8.1       |
| 50°-60°   | 88.5   | 1.4       |
| 60°-70°   | 3.2    | 0.1       |
| 70°-80°   | 0.0    | 0.0       |
| 80°-90°   | 0.6    | 0.0       |
| 90°-100°  | 192.3  | 3.0       |
| 100°-110° | 637.5  | 10.1      |
| 110°-120° | 632.7  | 10.0      |
| 120°-130° | 515.4  | 8.2       |
| 130°-140° | 418.8  | 6.6       |
| 140°-150° | 325.3  | 5.2       |
| 150°-160° | 234.4  | 3.7       |
| 160°-170° | 143.5  | 2.3       |
| 170°-180° | 48.5   | 0.8       |
| 0°-30°    | 1666.8 | 26.4      |
| 0°-40°    | 2557.9 | 40.5      |
| 0°-60°    | 3159.7 | 50.1      |
| 0°-90°    | 3163.6 | 50.1      |
| 90°-120°  | 1462.5 | 23.2      |
| 90°-150°  | 2722.0 | 43.1      |
| 90°-180°  | 3148.0 | 49.9      |
| 0°-180°   | 6311.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2116 | 2116  | 2116 | 2116  | 2116 |      |
| 5°   | 2124 | 2119  | 2101 | 2130  | 2128 | 203  |
| 15°  | 2123 | 2141  | 2092 | 2094  | 2081 | 598  |
| 25°  | 1946 | 1963  | 1896 | 1877  | 1869 | 888  |
| 35°  | 1467 | 1478  | 1455 | 1428  | 1412 | 906  |
| 45°  | 619  | 711   | 728  | 688   | 581  | 479  |
| 55°  | 59   | 68    | 116  | 66    | 59   | 63   |
| 65°  | 0    | 0     | 1    | 0     | 0    | 1    |
| 75°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 85°  | 0    | 0     | 0    | 0     | 0    | 0    |
| 90°  | 0    | 1     | 3    | 4     | 4    | 1    |
| 95°  | 27   | 81    | 348  | 124   | 83   | 31   |
| 105° | 112  | 159   | 638  | 1204  | 1126 | 118  |
| 115° | 199  | 238   | 514  | 1070  | 1251 | 197  |
| 125° | 278  | 309   | 504  | 840   | 991  | 247  |
| 135° | 333  | 367   | 500  | 721   | 814  | 257  |
| 145° | 386  | 415   | 499  | 620   | 679  | 242  |
| 155° | 441  | 457   | 502  | 554   | 575  | 203  |
| 165° | 484  | 489   | 504  | 524   | 530  | 137  |
| 175° | 506  | 506   | 508  | 511   | 510  | 48   |
| 180° | 508  | 508   | 508  | 508   | 508  |      |



TEST NUMBER: P853517

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

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2116.0 | 2116.0 | 2116.0 | 2116.0 | 2116.0 |
| 2.5°   | 2125.3 | 2119.5 | 2102.4 | 2121.8 | 2117.6 |
| 5°     | 2124.4 | 2119.2 | 2101.1 | 2129.7 | 2127.6 |
| 7.5°   | 2123.2 | 2119.6 | 2106.9 | 2130.2 | 2125.1 |
| 10°    | 2126.5 | 2125.5 | 2104.3 | 2128.5 | 2123.4 |
| 12.5°  | 2128.2 | 2134.6 | 2101.8 | 2120.8 | 2111.5 |
| 15°    | 2123.4 | 2141.0 | 2091.6 | 2094.5 | 2081.0 |
| 17.5°  | 2099.7 | 2124.5 | 2058.8 | 2046.7 | 2027.7 |
| 20°    | 2068.3 | 2097.3 | 2024.9 | 2004.4 | 1987.9 |
| 22.5°  | 2024.3 | 2050.8 | 1981.7 | 1956.2 | 1943.0 |
| 25°    | 1945.5 | 1963.1 | 1895.8 | 1876.6 | 1869.3 |
| 27.5°  | 1834.0 | 1838.9 | 1788.2 | 1764.3 | 1755.0 |
| 30°    | 1747.6 | 1747.6 | 1709.5 | 1683.7 | 1666.1 |
| 32.5°  | 1646.8 | 1644.3 | 1617.2 | 1588.8 | 1571.2 |
| 35°    | 1467.1 | 1478.5 | 1455.4 | 1427.6 | 1412.0 |
| 37.5°  | 1272.5 | 1276.9 | 1259.4 | 1229.5 | 1216.4 |
| 40°    | 1125.2 | 1126.2 | 1106.1 | 1084.5 | 1064.9 |
| 42.5°  | 953.3  | 974.2  | 955.4  | 921.4  | 913.3  |
| 45°    | 619.2  | 711.3  | 728.3  | 687.7  | 581.1  |
| 47.5°  | 311.2  | 425.9  | 497.7  | 386.5  | 273.7  |
| 50°    | 175.7  | 244.0  | 367.3  | 204.5  | 166.2  |
| 52.5°  | 117.3  | 147.5  | 254.7  | 133.7  | 112.0  |
| 55°    | 59.3   | 67.6   | 116.4  | 65.5   | 59.3   |
| 57.5°  | 20.1   | 31.3   | 50.6   | 32.4   | 22.2   |
| 60°    | 3.2    | 13.5   | 28.6   | 10.4   | 1.1    |
| 62.5°  | 0.6    | 3.5    | 17.6   | 2.9    | 0.2    |
| 65°    | 0.0    | 0.0    | 1.1    | 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    | 1.0    | 3.2    | 4.2    | 4.2    |
| 92.5°  | 8.4    | 32.5   | 95.8   | 31.1   | 26.1   |
| 95°    | 27.4   | 80.9   | 348.5  | 124.3  | 83.2   |
| 97.5°  | 50.3   | 106.3  | 608.3  | 354.8  | 224.2  |
| 100°   | 66.3   | 119.9  | 704.3  | 604.9  | 401.1  |
| 102.5° | 84.0   | 135.9  | 698.4  | 924.5  | 698.4  |
| 105°   | 111.6  | 159.0  | 638.0  | 1203.7 | 1125.5 |
| 107.5° | 139.8  | 182.0  | 580.1  | 1232.1 | 1291.6 |
| 110°   | 155.8  | 198.0  | 550.6  | 1204.0 | 1324.4 |



TEST NUMBER: P853517

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

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 172.7 | 214.0 | 532.9 | 1154.2 | 1307.6 |
| 115°   | 199.0 | 238.1 | 513.8 | 1069.6 | 1250.7 |
| 117.5° | 225.1 | 259.9 | 506.8 | 988.7  | 1178.7 |
| 120°   | 241.1 | 275.1 | 504.3 | 938.0  | 1122.3 |
| 122.5° | 255.4 | 288.6 | 504.3 | 896.4  | 1066.7 |
| 125°   | 277.9 | 308.8 | 504.3 | 840.4  | 990.7  |
| 127.5° | 296.5 | 326.7 | 503.0 | 798.0  | 926.5  |
| 130°   | 307.4 | 339.3 | 502.2 | 773.3  | 888.6  |
| 132.5° | 317.5 | 350.3 | 501.3 | 752.8  | 856.6  |
| 135°   | 332.7 | 366.7 | 500.1 | 721.2  | 813.8  |
| 137.5° | 349.1 | 381.8 | 498.8 | 690.6  | 772.3  |
| 140°   | 360.1 | 392.0 | 498.0 | 670.2  | 745.4  |
| 142.5° | 370.2 | 401.3 | 498.8 | 649.8  | 716.8  |
| 145°   | 386.4 | 415.2 | 499.0 | 620.4  | 679.1  |
| 147.5° | 403.9 | 427.9 | 499.2 | 595.4  | 639.1  |
| 150°   | 414.8 | 436.4 | 500.1 | 580.9  | 618.0  |
| 152.5° | 424.9 | 445.7 | 500.9 | 569.0  | 598.6  |
| 155°   | 441.1 | 456.6 | 502.2 | 554.2  | 574.8  |
| 157.5° | 456.9 | 468.9 | 503.5 | 543.8  | 558.4  |
| 160°   | 465.3 | 475.6 | 504.3 | 536.1  | 547.5  |
| 162.5° | 473.8 | 481.6 | 504.3 | 531.0  | 539.9  |
| 165°   | 484.3 | 489.4 | 504.3 | 524.4  | 529.6  |
| 167.5° | 494.0 | 496.7 | 505.4 | 518.5  | 521.1  |
| 170°   | 499.0 | 500.1 | 505.4 | 515.9  | 516.9  |
| 172.5° | 502.4 | 503.4 | 506.2 | 513.4  | 513.6  |
| 175°   | 506.4 | 506.4 | 507.5 | 510.6  | 509.6  |
| 177.5° | 508.5 | 508.5 | 507.7 | 509.3  | 507.7  |
| 180°   | 508.5 | 508.5 | 508.5 | 508.5  | 508.5  |

-----



TEST NUMBER: P853517

CATALOG NUMBER: SQ2-BBM-075U-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 | 0.06             | 0.76 | 1.05 | 1.74 | 3.03 | 0.00           | 0.38 | 0.67 | 1.36 | 2.65 |
|                 | 3H   | 0.00             | 0.49 | 0.87 | 1.48 | 2.78 | 0.00           | 0.11 | 0.49 | 1.10 | 2.40 |
|                 | 4H   | 0.00             | 0.35 | 0.77 | 1.34 | 2.65 | 0.00           | 0.00 | 0.39 | 0.96 | 2.27 |
|                 | 6H   | 0.00             | 0.19 | 0.67 | 1.18 | 2.51 | 0.00           | 0.00 | 0.29 | 0.80 | 2.13 |
|                 | 8H   | 0.00             | 0.10 | 0.62 | 1.11 | 2.43 | 0.00           | 0.00 | 0.24 | 0.73 | 2.05 |
|                 | 12H  | 0.00             | 0.01 | 0.56 | 1.02 | 2.36 | 0.00           | 0.00 | 0.18 | 0.64 | 1.98 |
| 4H              | 2H   | 0.00             | 0.35 | 0.79 | 1.34 | 2.66 | 0.00           | 0.00 | 0.41 | 0.96 | 2.28 |
|                 | 3H   | 0.00             | 0.05 | 0.59 | 1.07 | 2.39 | 0.00           | 0.00 | 0.21 | 0.69 | 2.01 |
|                 | 4H   | 0.00             | 0.00 | 0.48 | 0.90 | 2.25 | 0.00           | 0.00 | 0.10 | 0.52 | 1.87 |
|                 | 6H   | 0.00             | 0.00 | 0.38 | 0.75 | 2.10 | 0.00           | 0.00 | 0.00 | 0.37 | 1.72 |
|                 | 8H   | 0.00             | 0.00 | 0.32 | 0.65 | 2.01 | 0.00           | 0.00 | 0.00 | 0.27 | 1.63 |
|                 | 12H  | 0.00             | 0.00 | 0.26 | 0.56 | 1.93 | 0.00           | 0.00 | 0.00 | 0.18 | 1.55 |
| 8H              | 4H   | 0.00             | 0.00 | 0.32 | 0.65 | 2.01 | 0.00           | 0.00 | 0.00 | 0.27 | 1.63 |
|                 | 6H   | 0.00             | 0.00 | 0.22 | 0.52 | 1.87 | 0.00           | 0.00 | 0.00 | 0.14 | 1.49 |
|                 | 8H   | 0.00             | 0.00 | 0.17 | 0.41 | 1.78 | 0.00           | 0.00 | 0.00 | 0.03 | 1.40 |
|                 | 12H  | 0.00             | 0.00 | 0.10 | 0.30 | 1.72 | 0.00           | 0.00 | 0.00 | 0.00 | 1.34 |
| 12H             | 4H   | 0.00             | 0.00 | 0.26 | 0.56 | 1.93 | 0.00           | 0.00 | 0.00 | 0.18 | 1.55 |
|                 | 6H   | 0.00             | 0.00 | 0.17 | 0.41 | 1.78 | 0.00           | 0.00 | 0.00 | 0.03 | 1.40 |
|                 | 8H   | 0.00             | 0.00 | 0.10 | 0.30 | 1.72 | 0.00           | 0.00 | 0.00 | 0.00 | 1.34 |