**Tables**

*Supplement Table 1.* Dosimeter exposure, distance, and angle relative to the UV-C emitters for each placement strategy. Angles over 90 degrees were reported as 90 degrees.

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| **Setting** | **Sensor ID** | **Description** | **Orientation** | **Exposure classification, Distance in meters (Angle)** |
| **WRD** | **SP 1** | **SP 2** | **AUTO** |
| **C1** | S1 | Top bed rail | Horizontal | Indirect, 2.41 m (90) | Indirect, 1.19 m (90) | Indirect, 2.41 m (90) | Indirect, ~1 m (Variable) |
| S2 | Outer left bed rail | Left | Shadow, 2.2 m (90) | Direct, 0.55 m (29.02) | Shadow, 2.2 m (90) | Direct, ~1 m (Variable) |
| S3 | Inner left bed rail | Right | Direct, 2.16 m (62.08) | Shadow, 0.61 m (90) | Direct, 2.16 m (62.08) | Direct, ~1 m (Variable) |
| S4 | Inner right bed rail | Left | Shadow, 1.87 m (90) | Direct, 1.33 m (12.9) | Shadow, 1.87 m (90) | Direct, ~1 m (Variable) |
| S5 | Outer right bed rail | Right | Direct, 1.85 m (80.66) | Shadow, 1.41 m (90) | Direct, 1.85 m (80.66) | Direct, ~1 m (Variable) |
| S6 | Outer lower left bed rail | Left | Shadow, 1.52 m (90) | Direct, 0.76 m (59.04) | Shadow, 1.52 m (90) | Direct, ~1 m (Variable) |
| S7 | Mattress | Horizontal | Indirect, 1.19 m (90) | Indirect, 1.1 m (90) | Indirect, 1.19 m (90) | Indirect, ~1 m (Variable) |
| S8 | Outer lower right bed rail | Right | Direct, 0.96 m (72.45) | Shadow, 1.5 m (90) | Direct, 0.96 m (72.45) | Direct, ~1 m (Variable) |
| S9 | Bottom inner bed rail | Up | Shadow, 0.8 m (90) | Direct, 1.59 m (29.97) | Shadow, 0.8 m (90) | Direct, ~1 m (Variable) |
| S10 | Bottom outer bed rail | Down | Direct, 0.78 m (78.9) | Shadow, 1.65 m (90) | Direct, 0.78 m (78.9) | Direct, ~1 m (Variable) |
| **C2** | S1 | North wall | Down | Direct, 5.43 m (31.71) | Direct, 4.95 m (60.98) | Direct, 2.89 m (17.55) | Direct, ~1 m (Variable) |
| S2 | Anesthesia cabinet | Down | Direct, 4.18 m (10.32) | Direct, 3.01 m (26.89) | Direct, 3.09 m (28.51) | Direct, ~1 m (Variable) |
| S3 | Door | Left | Direct, 4.65 m (62.34) | Direct, 2.96 m (60.47) | Direct, 5.45 m (24.09) | Direct, ~1 m (Variable) |
| S4 | Anesthesia cart top | Horizontal | Indirect, 3.33 m (90) | Indirect, 2.37 m (90) | Indirect, 2.27 m (90) | Indirect, ~1 m (Variable) |
| S5 | Right wall | Left | Direct, 2.6 m (19.35) | Direct, 1.78 m (18.87) | Direct, 4.91 m (7.07) | Direct, ~1 m (Variable) |
| S6 | Surgical table | Right | Direct, 0.86 m (54.74) | Direct, 1.65 m (29.02) | Shadow, 2.04 m (90) | Direct, ~1 m (Variable) |
| S7 | Equipment on left wall | Right | Direct, 3.71 m (9.34) | Direct, 4.51 m (11.45) | Direct, 1.52 m (30.96) | Direct, ~1 m (Variable) |
| S8 | Top of computer station | Horizontal | Indirect, 2.12 m (90) | Indirect, 2.59 m (90) | Indirect, 4.98 m (90) | Indirect, ~1 m (Variable) |
| S9 | South wall | Up | Direct, 2.48 m (10.44) | Direct, 4.15 m (16.39) | Direct, 4.43 m (24.09) | Direct, ~1 m (Variable) |
| S10 | Left wall | Right | Direct, 4.4 m (13.63) | Direct, 5.66 m (24.61) | Direct, 3.17 m (60.03) | Direct, ~1 m (Variable) |
| **C3** | S1 | Left gurney rail | Left | Shadow, 3.24 m (90) | Direct, 1.7 m (79.86) | Shadow, 5.3 m (90) | Direct, ~1 m (Variable) |
| S2 | Gurney bumper | Down | Direct, 2.32 m (68.5) | Direct, 0.76 m (59.04) | Direct, 4.75 m (84.5) | Direct, ~1 m (Variable) |
| S3 | Right gurney rail | Right | Direct, 2.81 m (56.94) | Shadow, 1.91 m (90) | Direct, 4.73 m (19.53) | Direct, ~1 m (Variable) |
| S4 | Left gurney rail | Left | Shadow, 2.16 m (90) | Direct, 2.96 m (29.53) | Shadow, 3.35 m (90) | Direct, ~1 m (Variable) |
| S5 | Gurney bumper | Down | Direct, 0.91 m (0) | Direct, 2.78 m (80.66) | Direct, 2.63 m (80.14) | Direct, ~1 m (Variable) |
| S6 | Right gurney rail | Right | Shadow, 2.16 m (90) | Shadow, 3.48 m (90) | Direct, 2.83 m (30.6) | Direct, ~1 m (Variable) |
| S7 | Left gurney rail | Left | Direct, 2.62 m (59.83) | Direct, 4.58 m (20.09) | Shadow, 1.99 m (90) | Direct, ~1 m (Variable) |
| S8 | Gurney bumper | Down | Direct, 2.04 m (65.91) | Direct, 4.59 m (84.32) | Direct, 0.89 m (62.77) | Direct, ~1 m (Variable) |
| S9 | Right gurney rail | Right | Shadow, 3.02 m (90) | Shadow, 5.16 m (90) | Direct, 1.74 m (75.26) | Direct, ~1 m (Variable) |
| S10 | Right wall | Up | Direct, 1.52 m (0) | Direct, 3.38 m (59.65) | Direct, 3.26 m (58.72) | Direct, ~1 m (Variable) |
| **\*(WRD) whole-room disinfection; (SP) spot disinfection; (AUTO) autonomous disinfection.** |

*Supplement Table 2.* Median, mean, and standard deviation of UV-C dosage per challenge setting, emitter, and placement strategy.

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|  |  | **ME (mJ/ cm2)** | **CAE (mJ/ cm2)** |
| **Setting** | **Sensor ID** | **WRD** | **SP** | **AUTO** | **AUTO** |
| **C1** | S1 | 0.00 | 17.09 | 17.70 | 21.17 |
| S2 | 0.00 | 223.47 | 41.18 | 112.83 |
| S3 | 34.89 | 14.61 | 55.81 | 73.39 |
| S4 | 0.00 | 84.84 | 33.19 | 47.30 |
| S5 | 0.00 | 0.00 | 180.33 | 320.37 |
| S6 | 0.00 | 364.37 | 220.40 | 102.03 |
| S7 | 41.06 | 73.90 | 83.25 | 71.54 |
| S8 | 54.38 | 18.36 | 206.97 | 148.43 |
| S9 | 0.00 | 75.52 | 56.25 | 89.52 |
| S10 | 59.07 | 38.51 | 181.47 | 86.20 |
|  C1 Median; Mean (SD) | 0; 18.94 (25.3) | 56.21; 91.07 (115.69) | 69.75; 107.65 (79.78) | 87.86; 107.28 (82.57) |
| **C2** | S1 | 17.33 | 67.31 | 125.17 | 137.71 |
| S2 | 57.57 | 48.17 | 44.12 | 79.12 |
| S3 | 25.39 | 36.88 | 38.00 | 97.31 |
| S4 | 0.00 | 0.00 | 1.19 | 6.65 |
| S5 | 167.23 | 192.37 | 131.55 | 111.77 |
| S6 | 773.97 | 76.39 | 58.71 | 61.22 |
| S7 | 47.78 | 205.47 | 135.90 | 124.90 |
| S8 | 0.00 | 0.00 | 3.54 | 9.47 |
| S9 | 170.00 | 74.08 | 118.63 | 126.23 |
| S10 | 65.11 | 1.48 | 73.98 | 75.29 |
|  **C2 Median; Mean (SD)** | 52.67; 132.44 (233.64) | 57.74; 70.21 (74.13) | 66.34; 73.08 (52.1) | 88.21; 82.97 (46.47) |
| **C3** | S1 | 0.00 | 13.08 | 95.65 | 255.37 |
| S2 | 28.72 | 132.27 | 77.20 | 116.10 |
| S3 | 95.67 | 21.09 | 93.59 | 139.33 |
| S4 | 0.00 | 37.14 | 56.08 | 99.46 |
| S5 | 622.50 | 4.01 | 86.94 | 113.20 |
| S6 | 0.00 | 40.69 | 135.30 | 194.73 |
| S7 | 100.19 | 18.37 | 151.57 | 225.93 |
| S8 | 29.32 | 225.97 | 113.94 | 94.98 |
| S9 | 0.00 | 0.00 | 62.94 | 107.33 |
| S10 | 392.93 | 12.68 | 98.90 | 127.23 |
|  **C3 Median; Mean (SD)** | 29.02; 126.93 (211.26) | 19.73; 50.53 (72.41) | 94.62; 97.21 (29.96) | 121.67; 147.37 (57.09) |
| **\*(ME) modified emitter; (CAE) commercially-available emitter; (WRD) whole-room disinfection; (SP) spot disinfection; (AUTO) autonomous disinfection.** |