Supplementary Materials

A. Spatial Fluence (Color Maps)

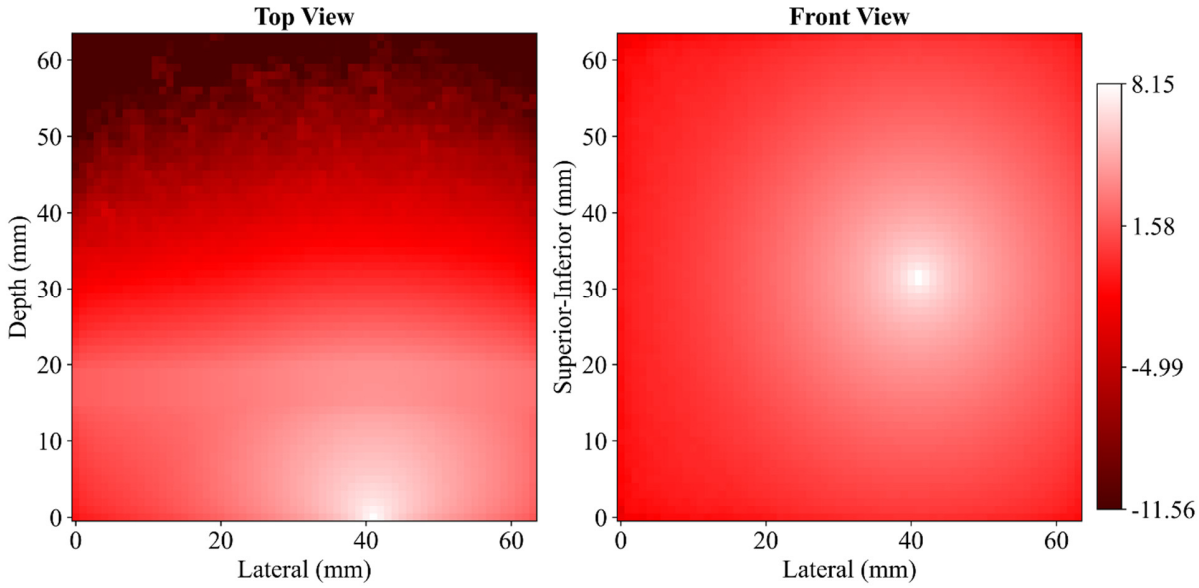


Figure S1 Spatial fluence color maps for cadaveric head #1 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

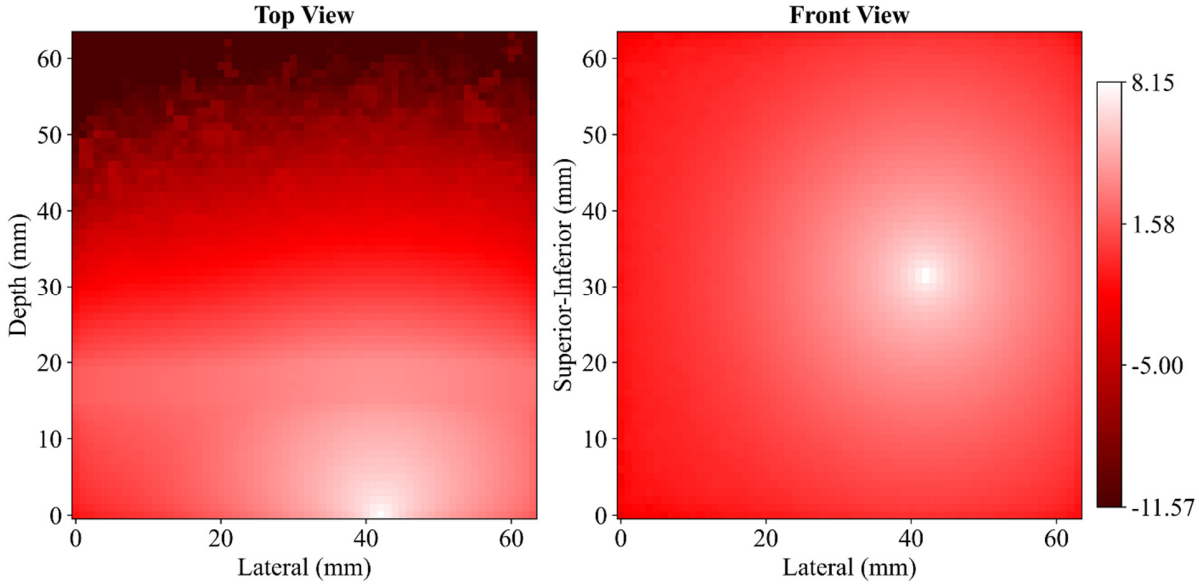


Figure S2 Spatial fluence color maps for cadaveric head #1 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

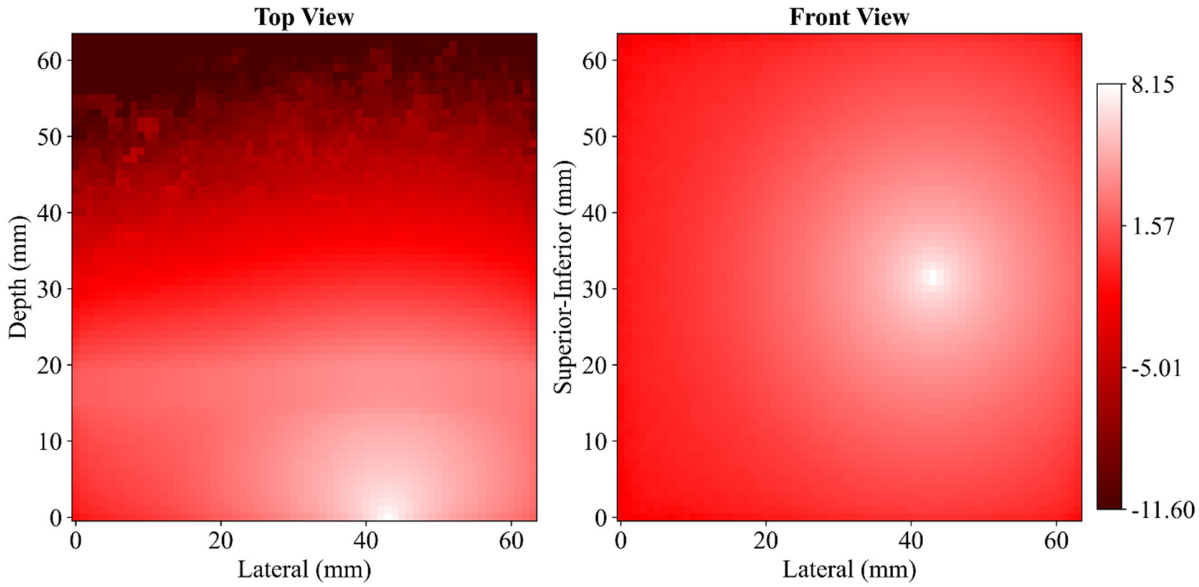


Figure S3 Spatial fluence color maps for cadaveric head #1 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

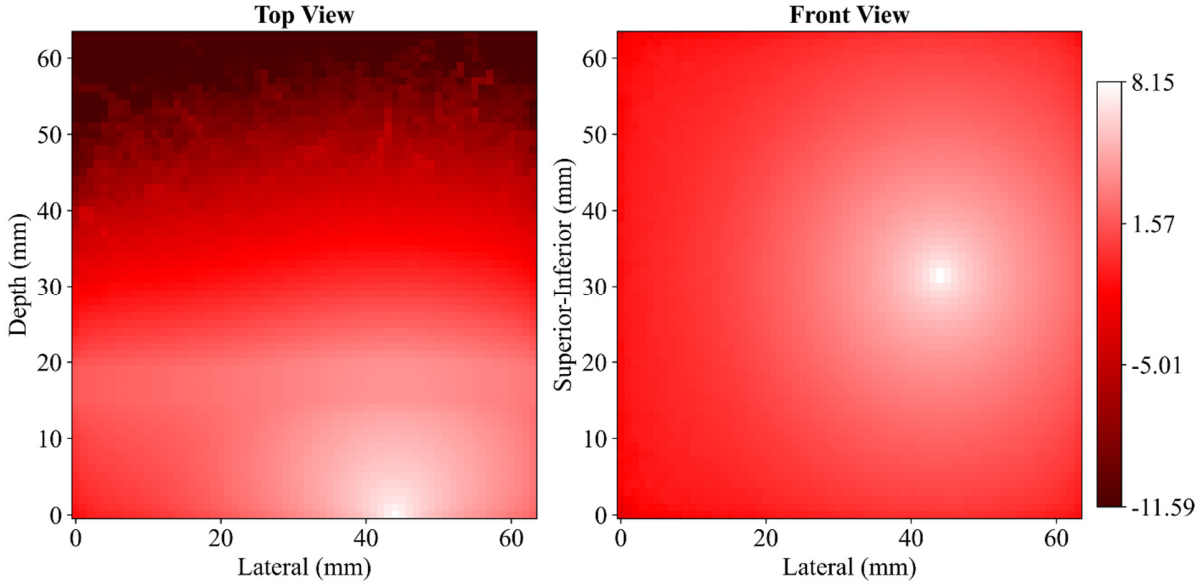


Figure S4 Spatial fluence color maps for cadaveric head #1 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

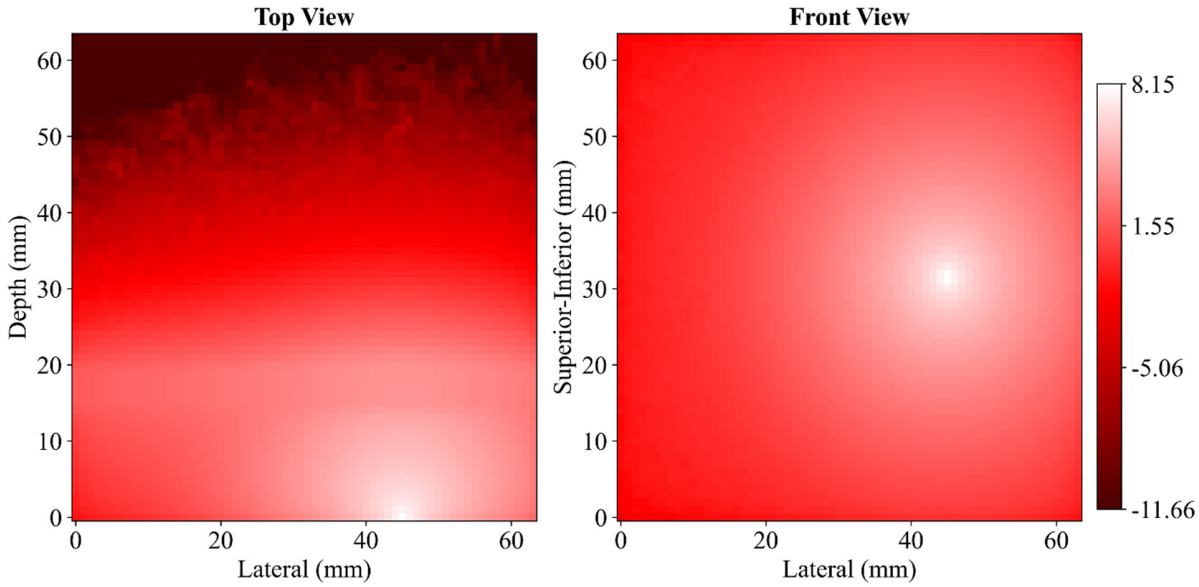


Figure S5 Spatial fluence color maps for cadaveric head #1 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

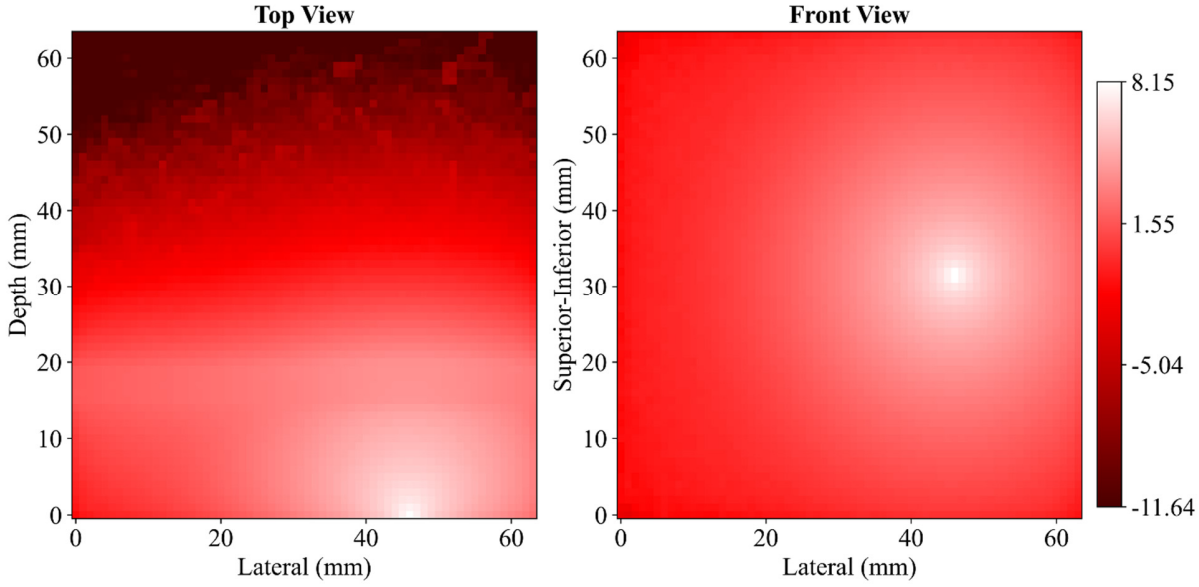


Figure S6 Spatial fluence color maps for cadaveric head #1 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

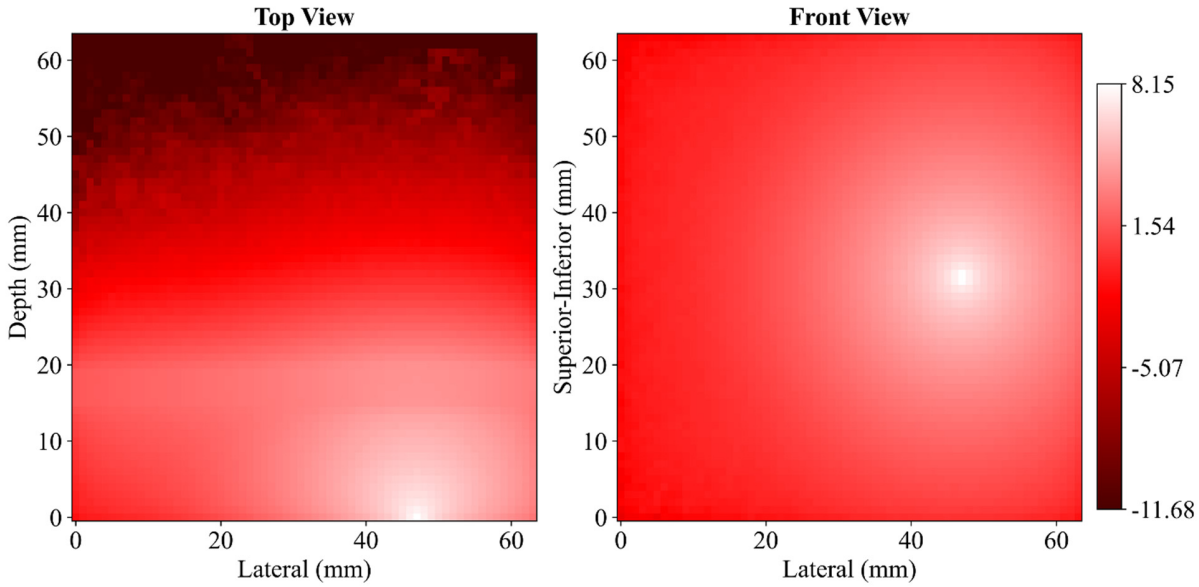


Figure S7 Spatial fluence color maps for cadaveric head #1 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

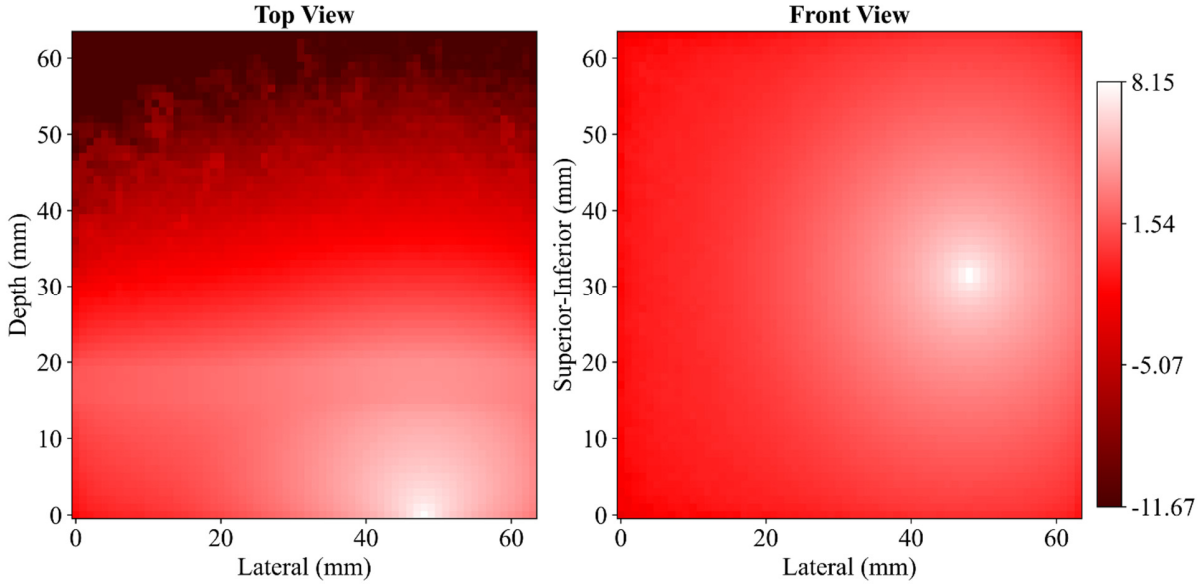


Figure S8 Spatial fluence color maps for cadaveric head #1 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

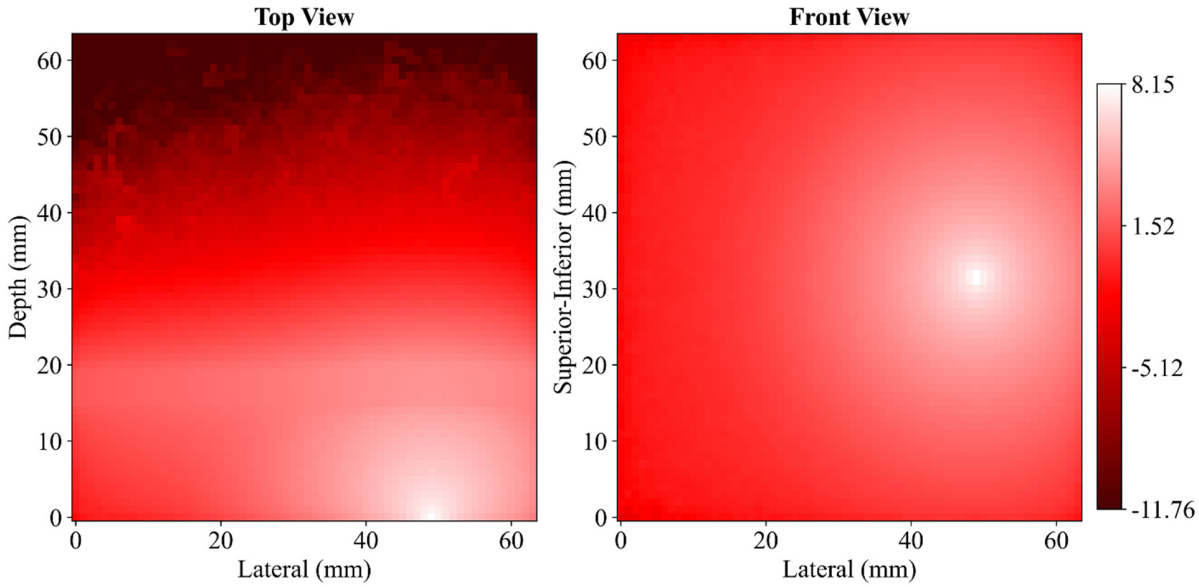


Figure S9 Spatial fluence color maps for cadaveric head #1 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

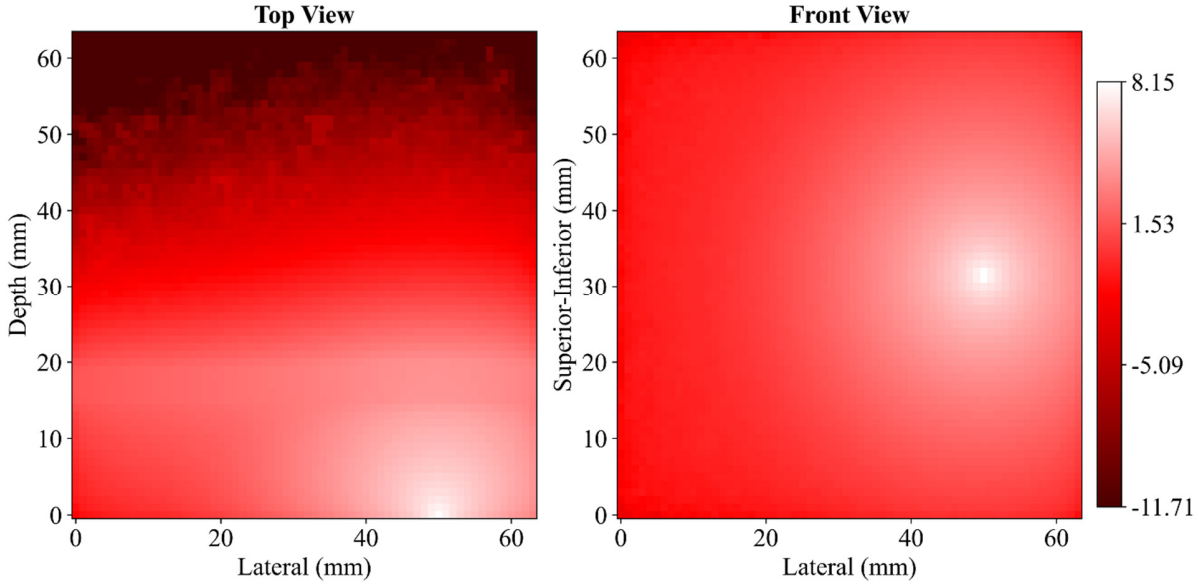


Figure S10 Spatial fluence color maps for cadaveric head #1 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

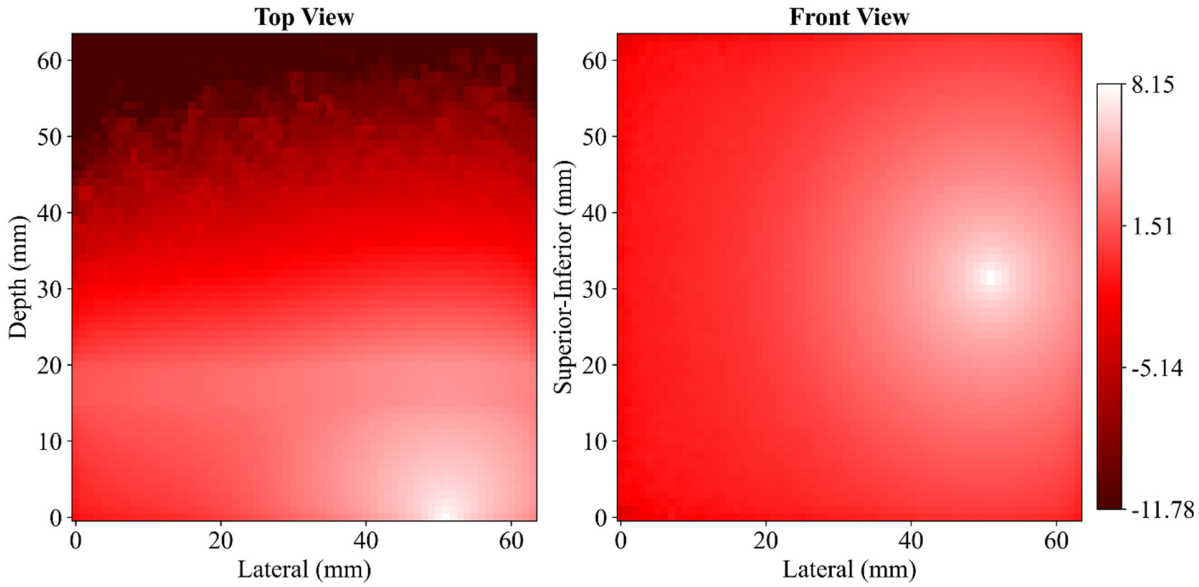


Figure S11 Spatial fluence color maps for cadaveric head #1 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

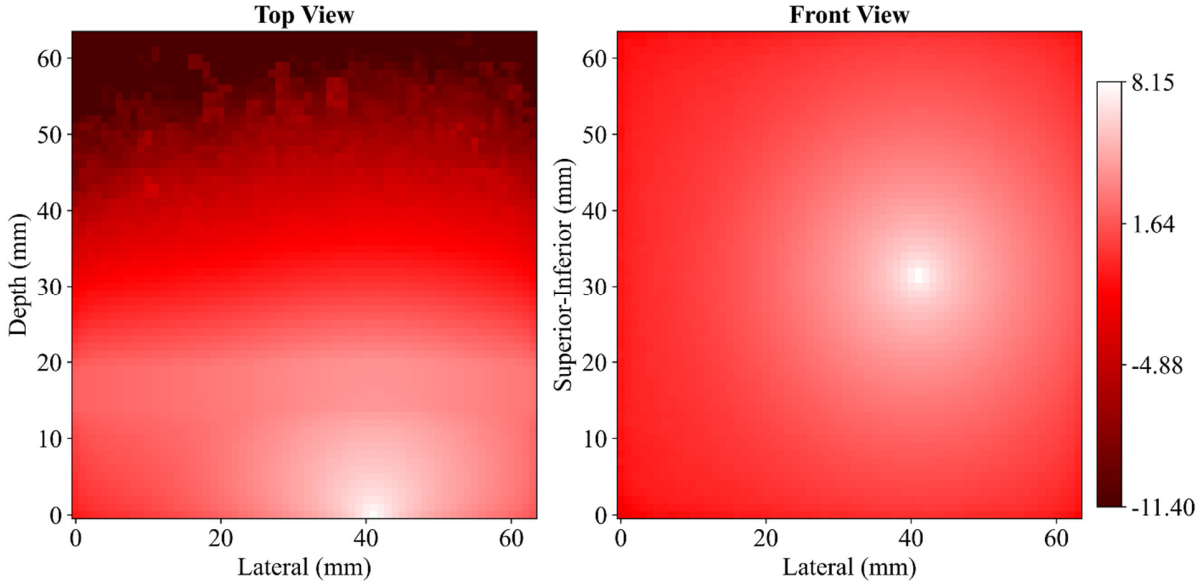


Figure S12 Spatial fluence color maps for cadaveric head #2 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

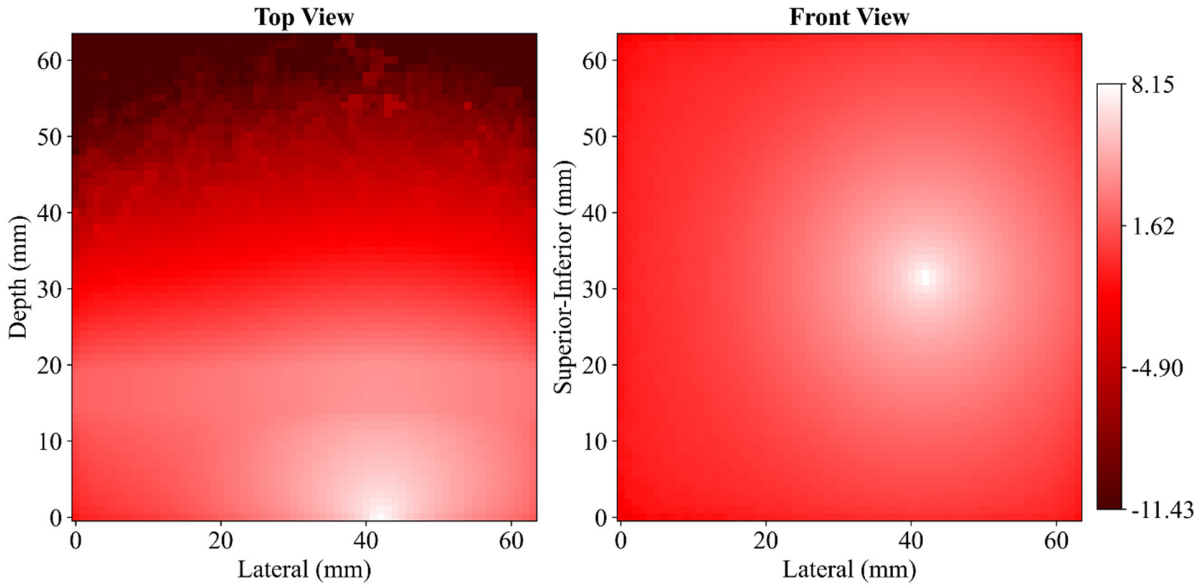


Figure S13 Spatial fluence color maps for cadaveric head #2 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

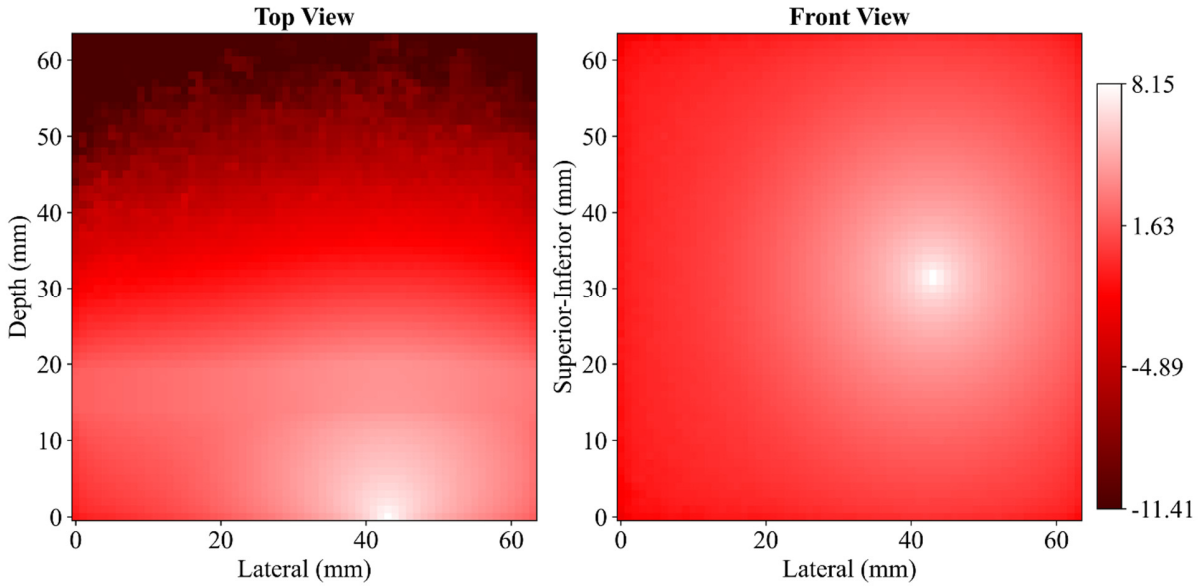


Figure S14 Spatial fluence color maps for cadaveric head #2 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

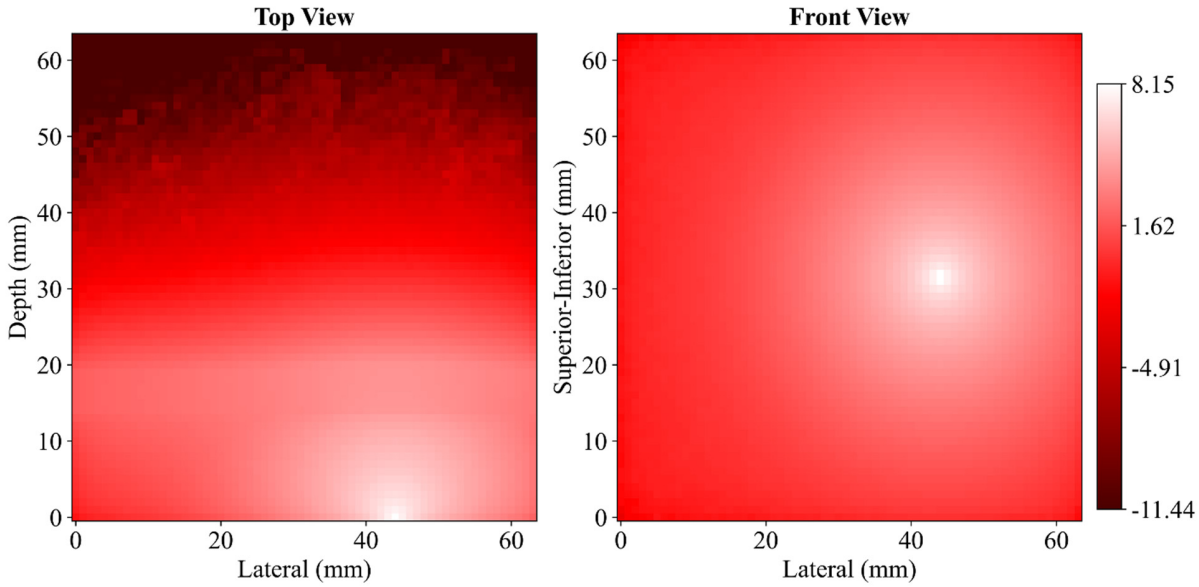


Figure S15 Spatial fluence color maps for cadaveric head #2 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

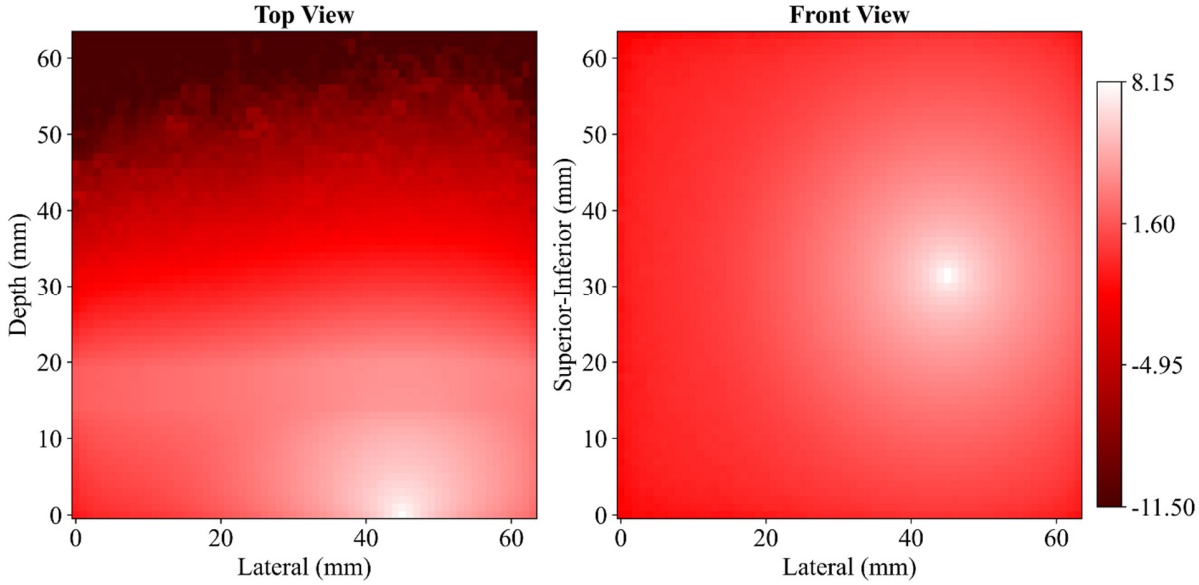


Figure S16 Spatial fluence color maps for cadaveric head #2 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

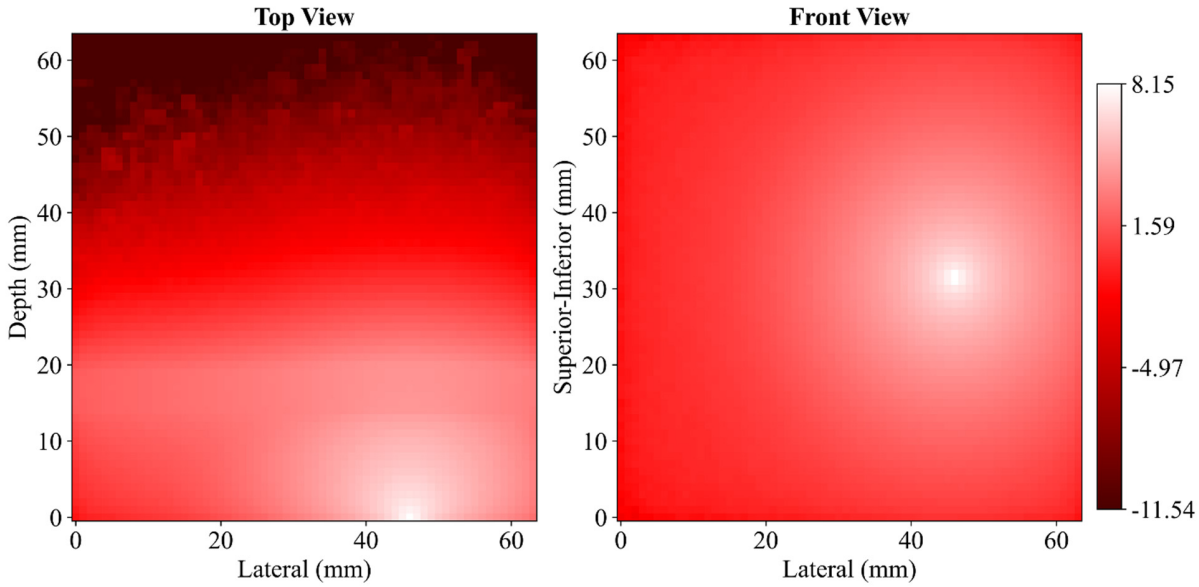


Figure S17 Spatial fluence color maps for cadaveric head #2 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

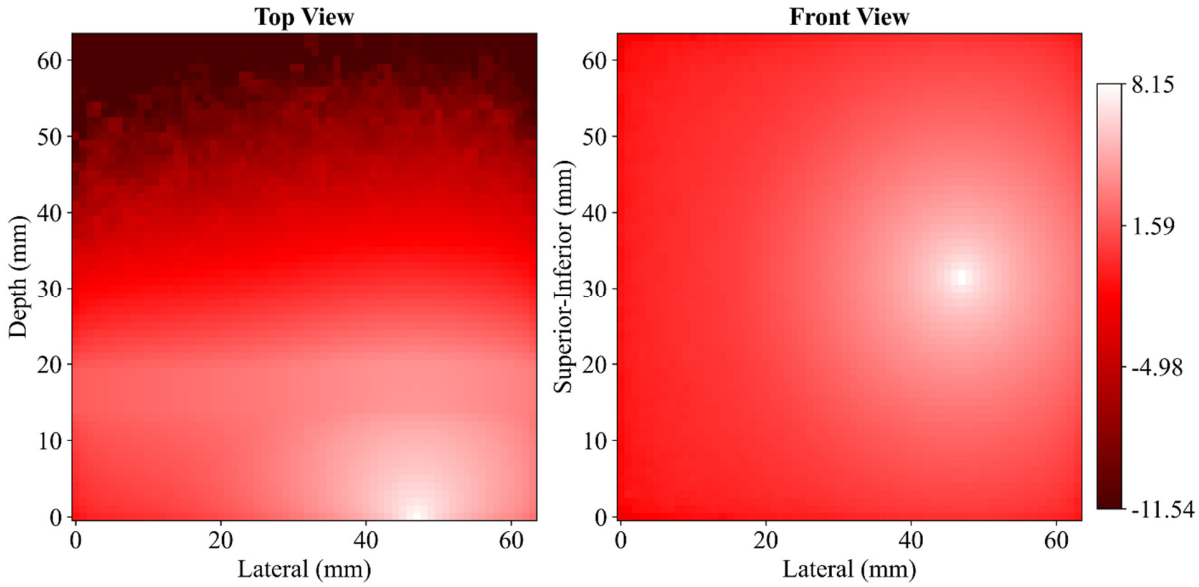


Figure S18 Spatial fluence color maps for cadaveric head #2 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

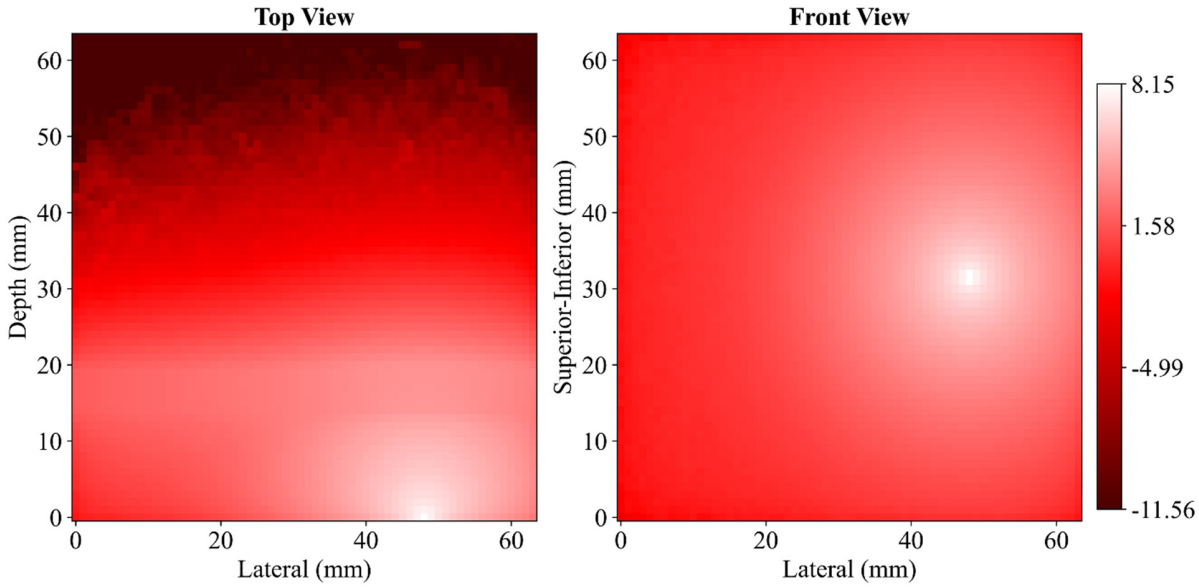


Figure S19 Spatial fluence color maps for cadaveric head #2 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

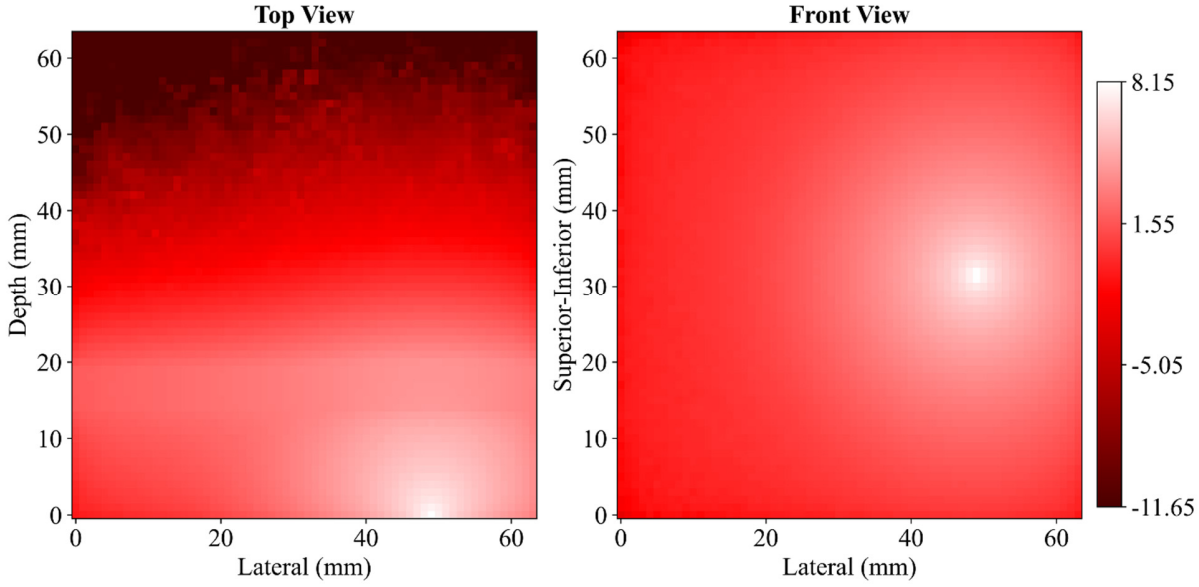


Figure S20 Spatial fluence color maps for cadaveric head #2 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

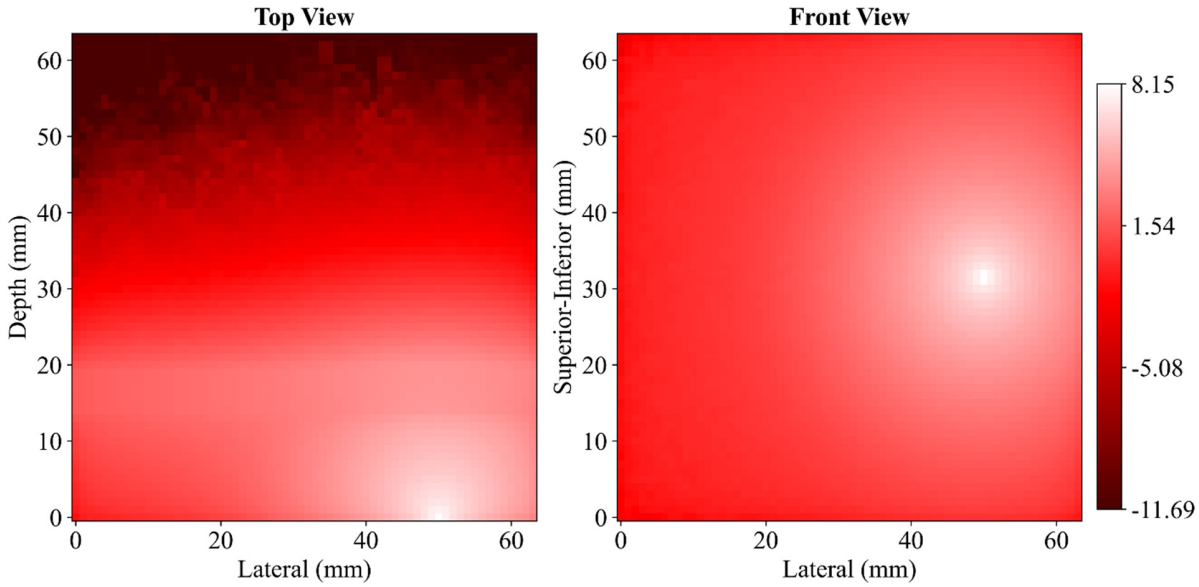


Figure S21 Spatial fluence color maps for cadaveric head #2 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

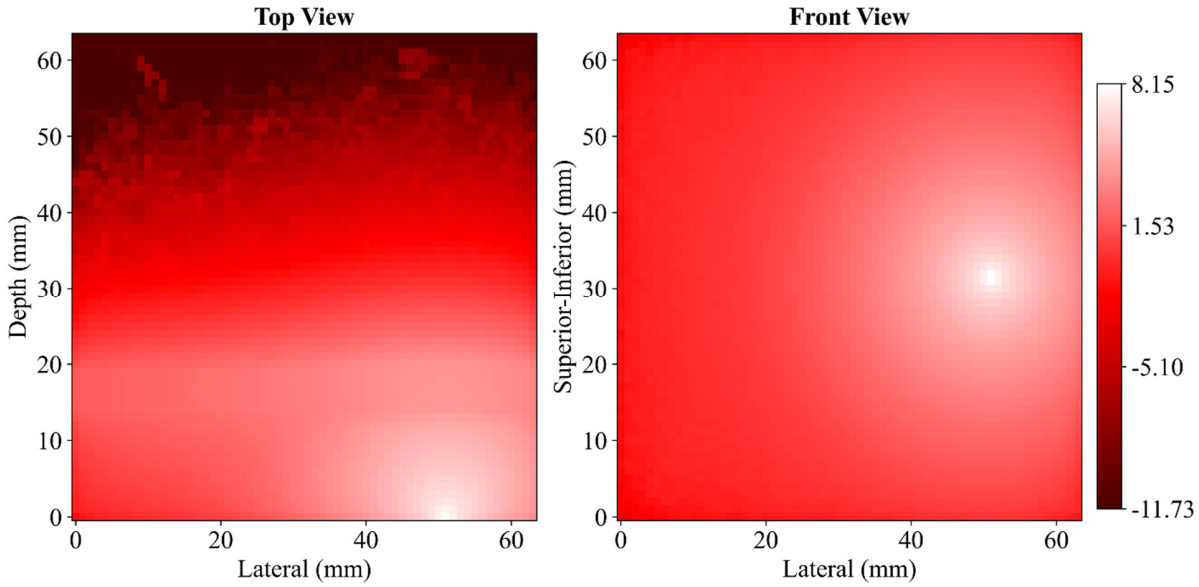


Figure S22 Spatial fluence color maps for cadaveric head #2 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

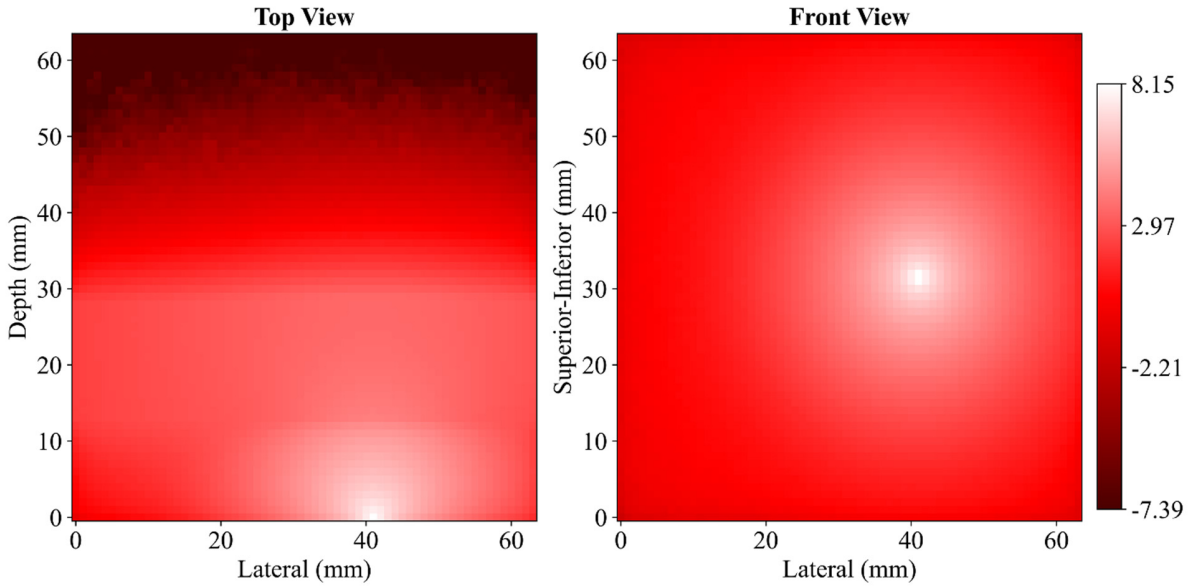


Figure S23 Spatial fluence color maps for cadaveric head #3 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

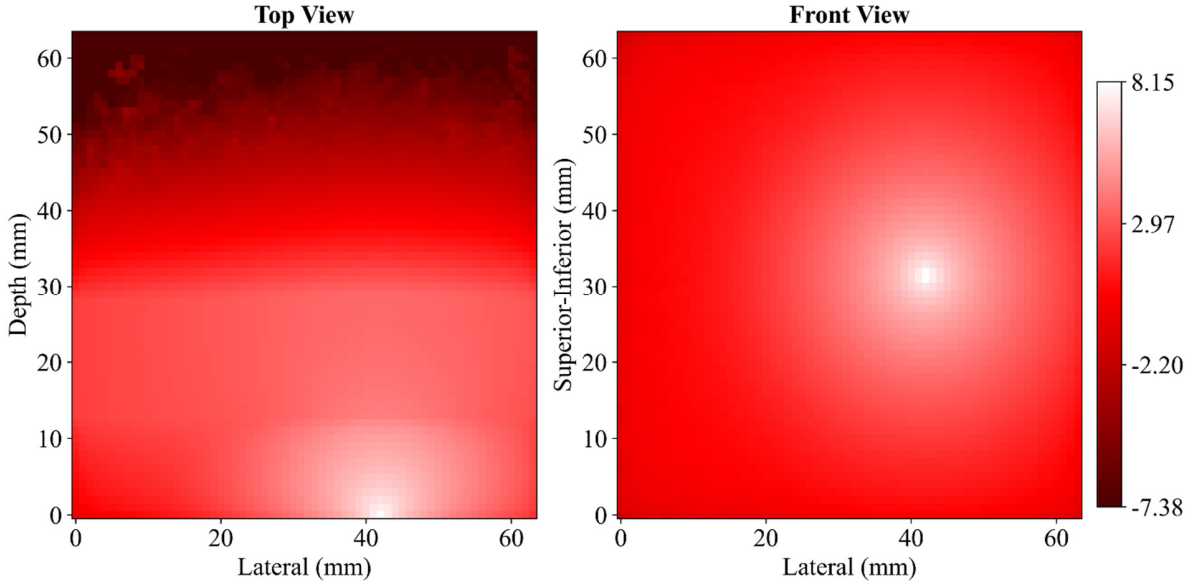


Figure S24 Spatial fluence color maps for cadaveric head #3 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

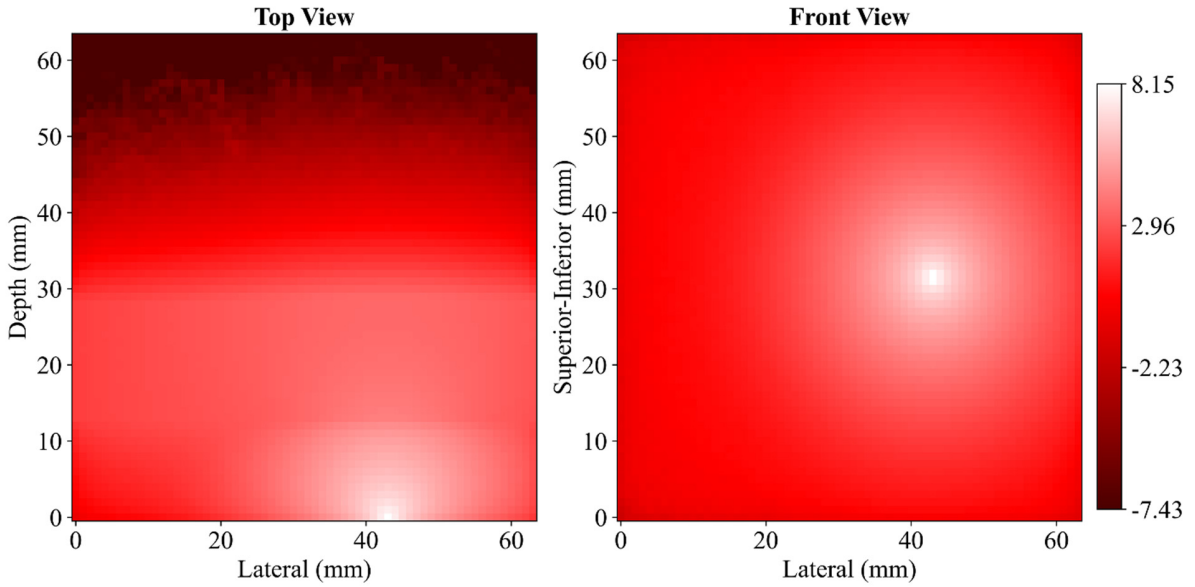


Figure S25 Spatial fluence color maps for cadaveric head #3 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

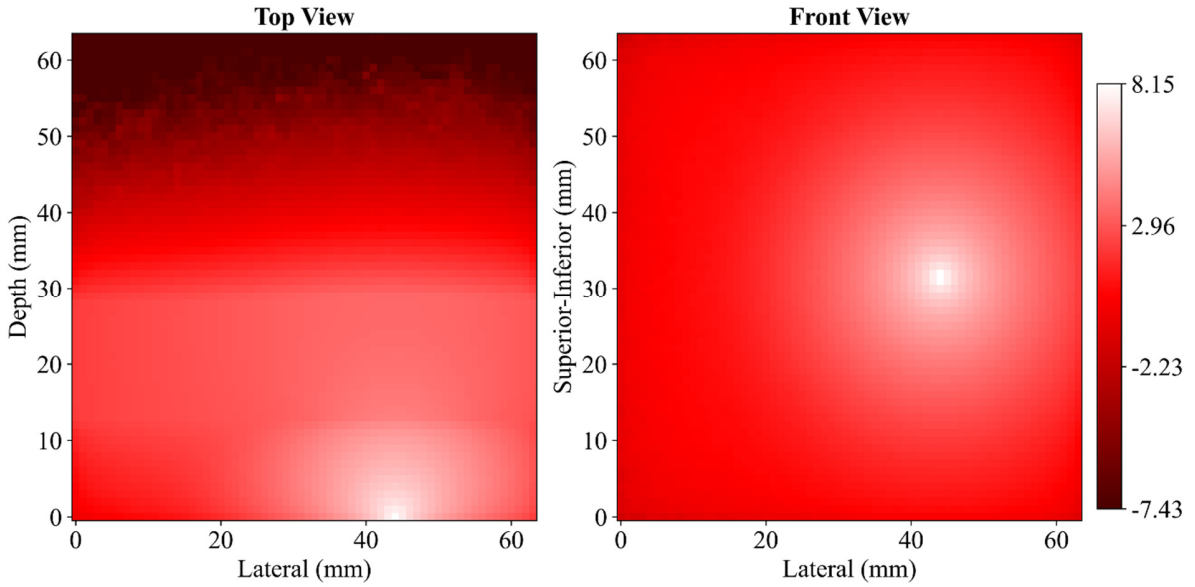


Figure S26 Spatial fluence color maps for cadaveric head #3 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

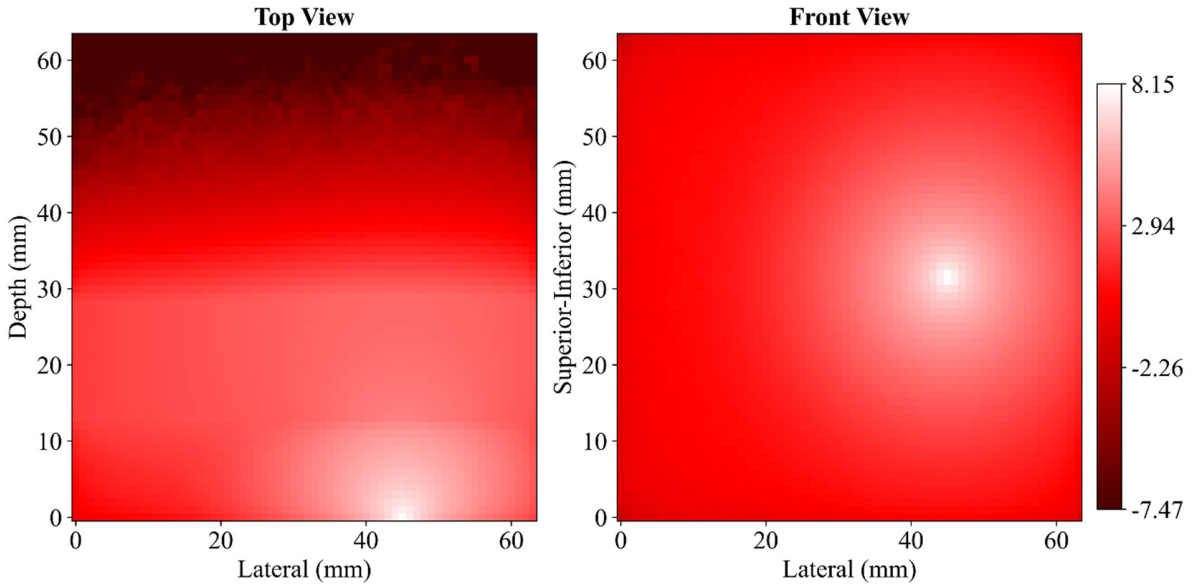


Figure S27 Spatial fluence color maps for cadaveric head #3 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

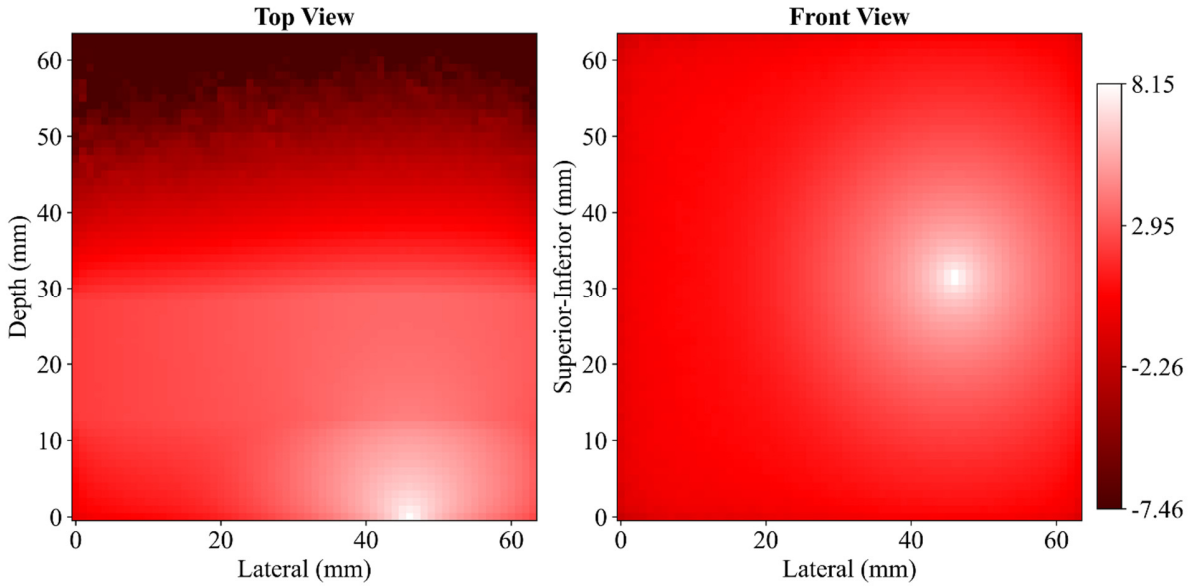


Figure S28 Spatial fluence color maps for cadaveric head #3 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

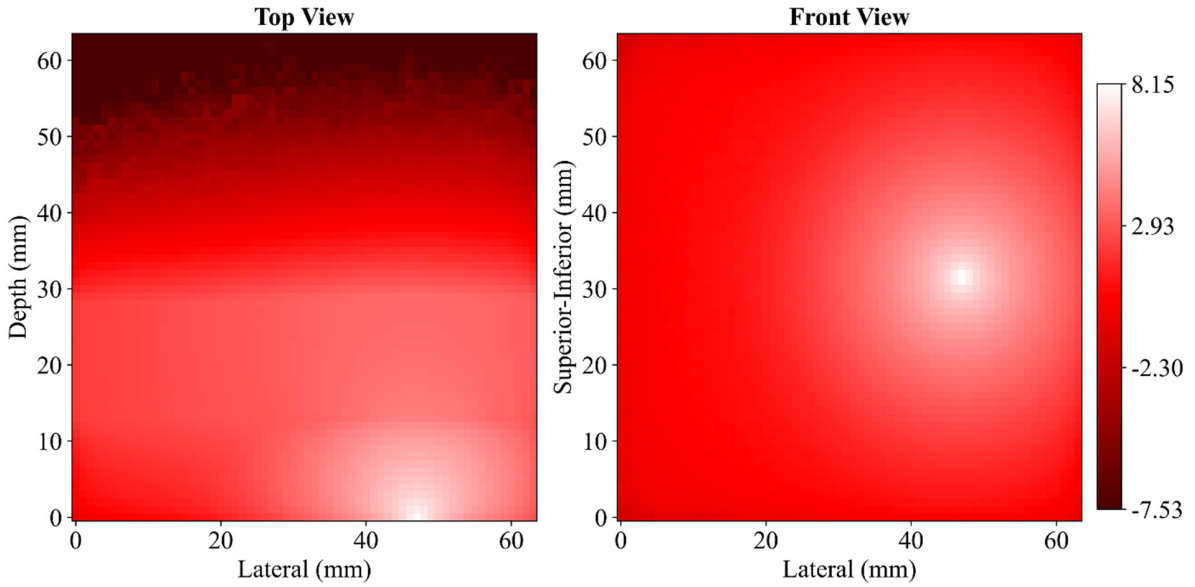


Figure S29 Spatial fluence color maps for cadaveric head #3 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

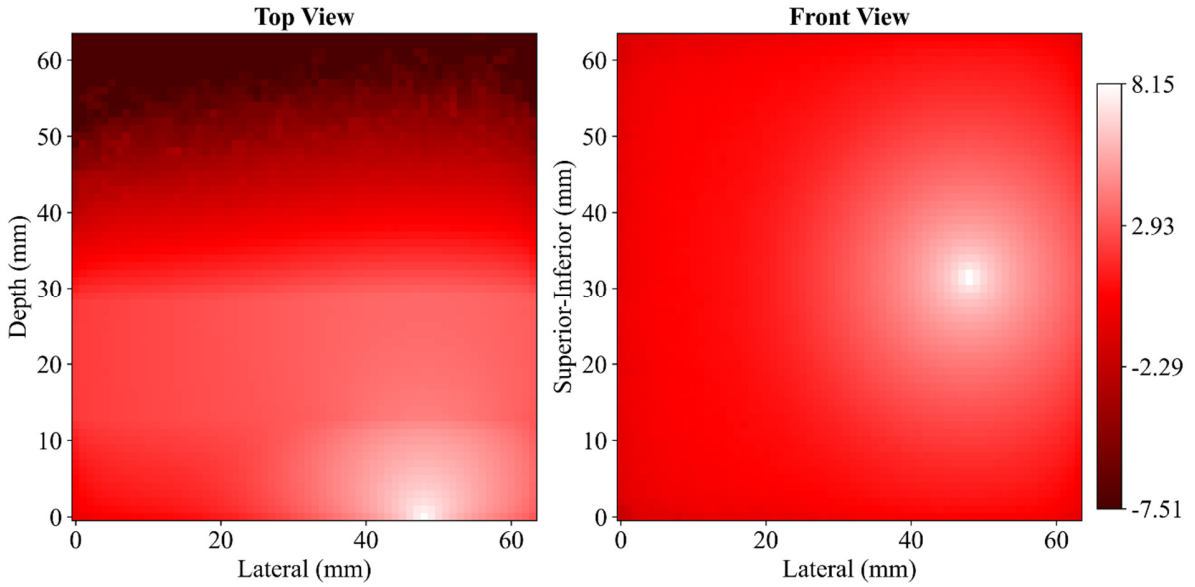


Figure S30 Spatial fluence color maps for cadaveric head #3 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

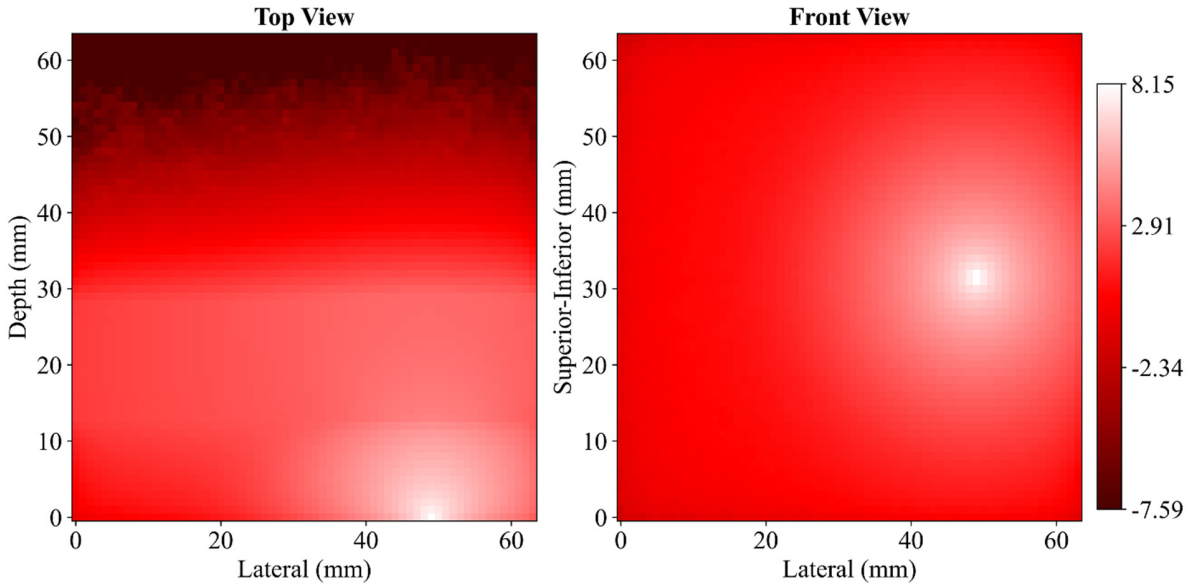


Figure S31 Spatial fluence color maps for cadaveric head #3 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

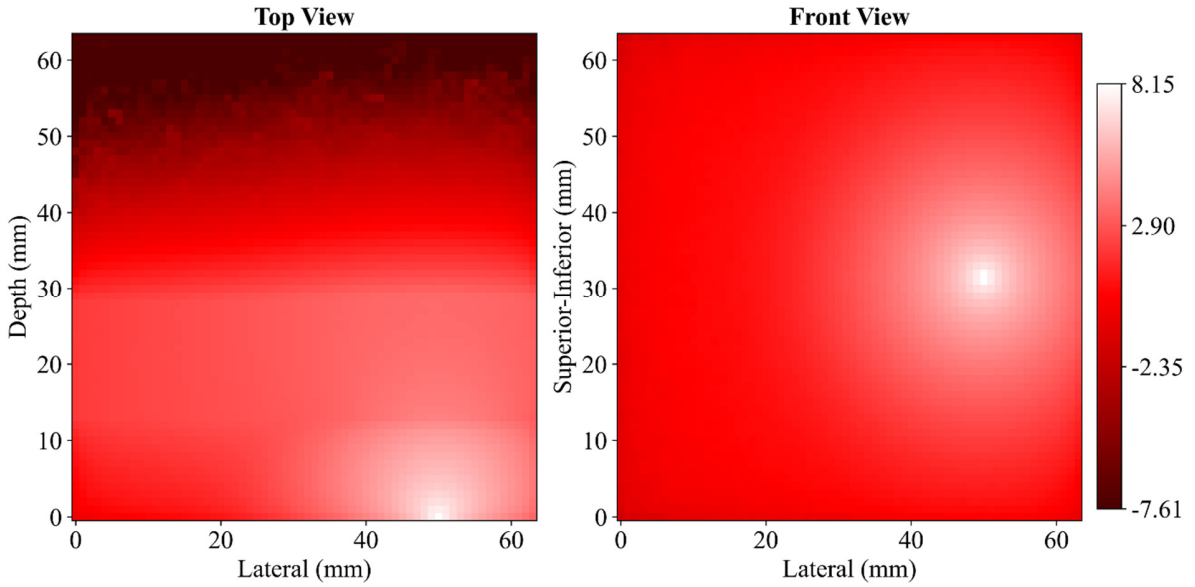


Figure S32 Spatial fluence color maps for cadaveric head #3 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

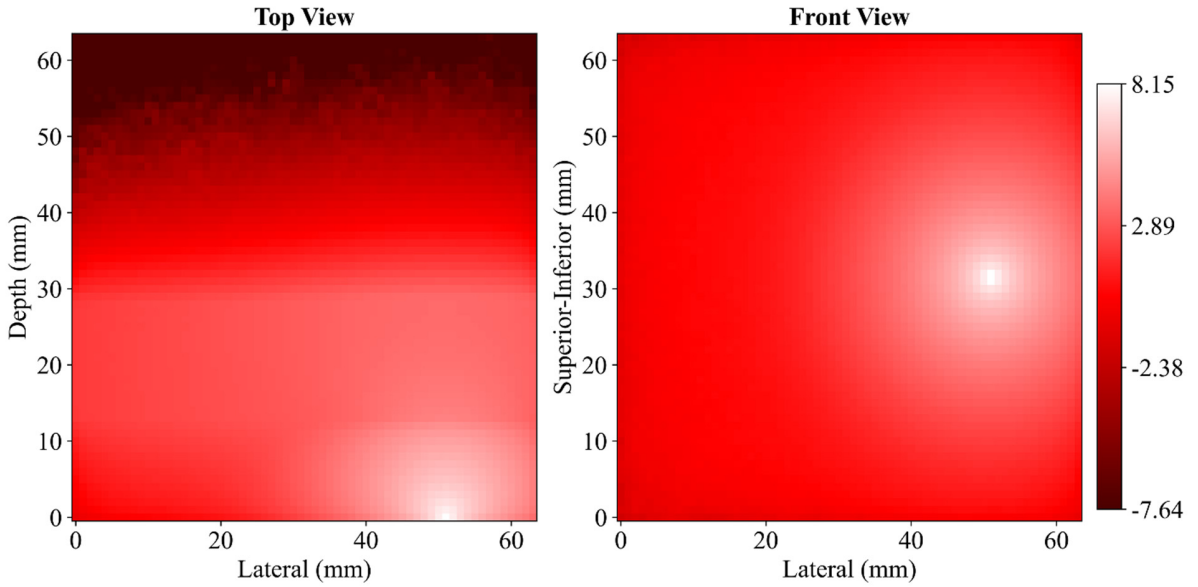


Figure S33 Spatial fluence color maps for cadaveric head #3 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

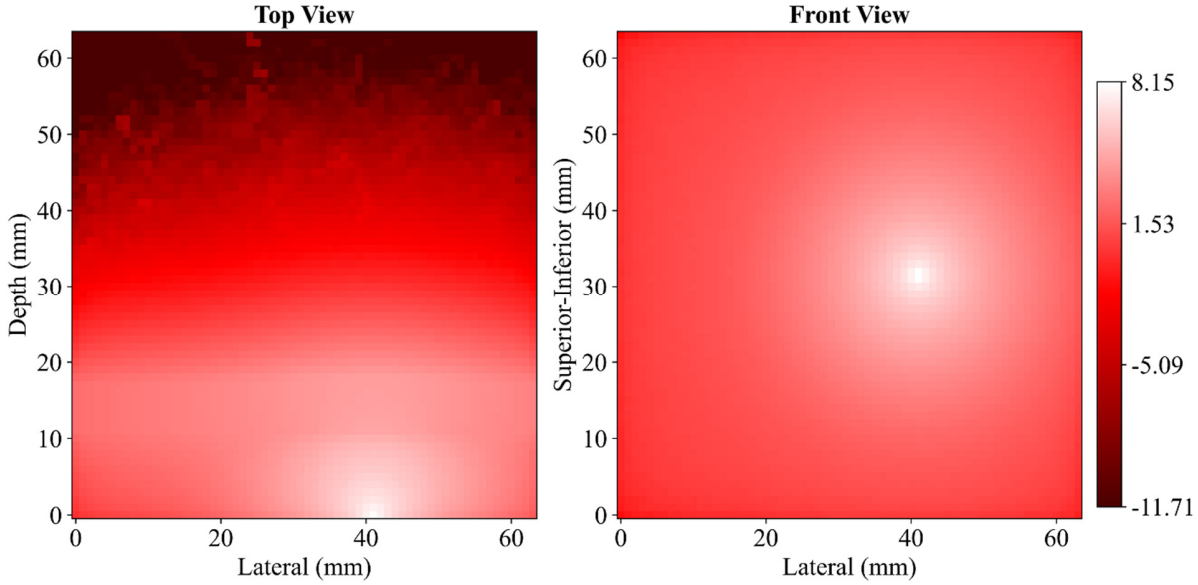


Figure S34 Spatial fluence color maps for cadaveric head #4 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

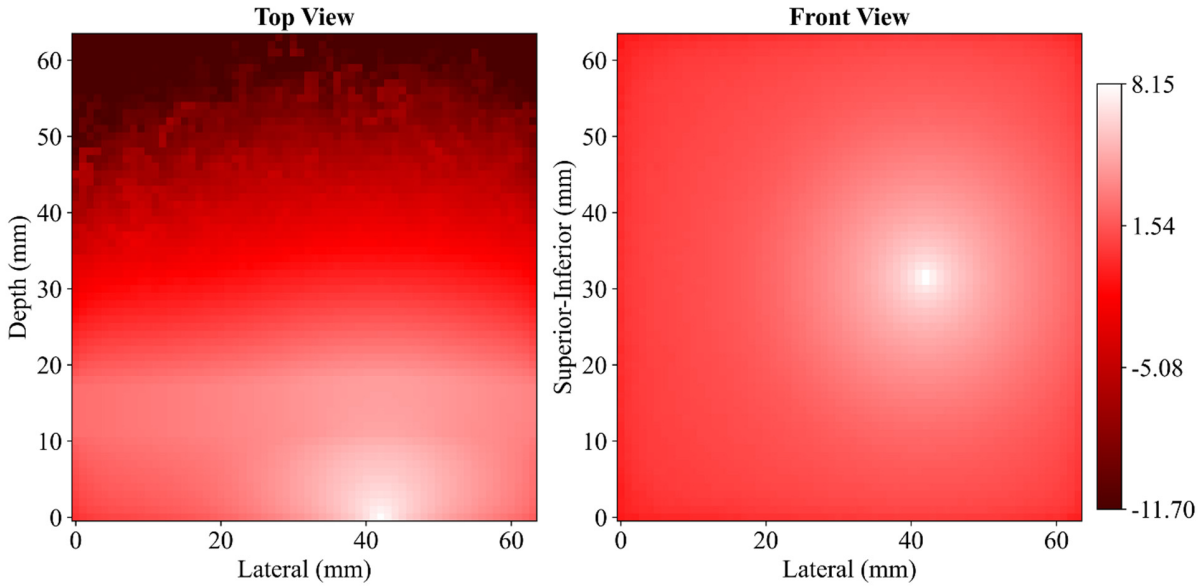


Figure S35 Spatial fluence color maps for cadaveric head #4 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

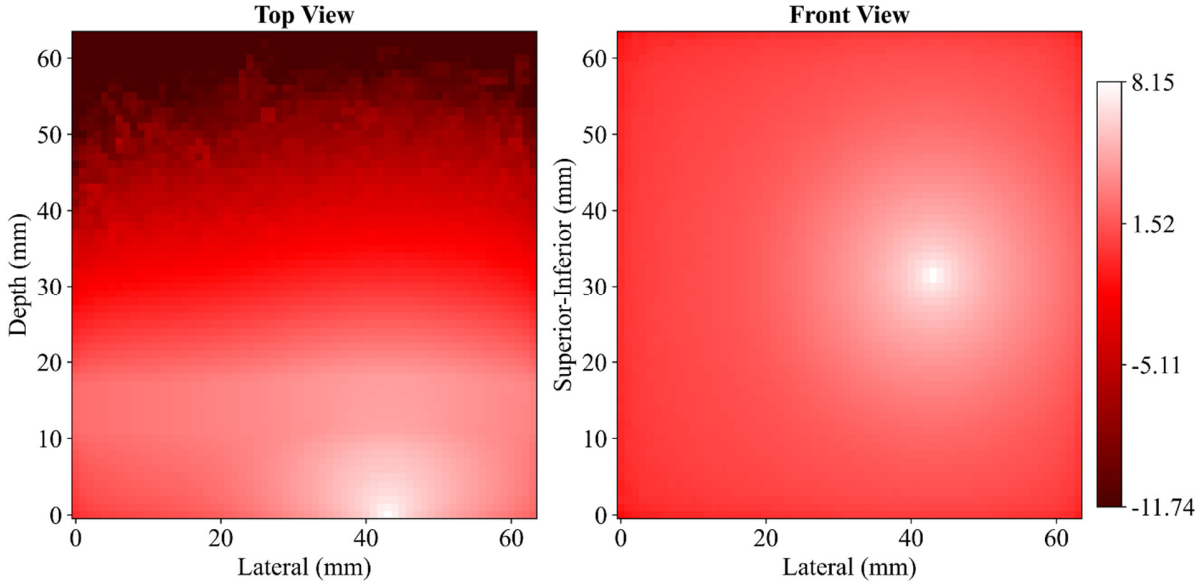


Figure S36 Spatial fluence color maps for cadaveric head #4 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

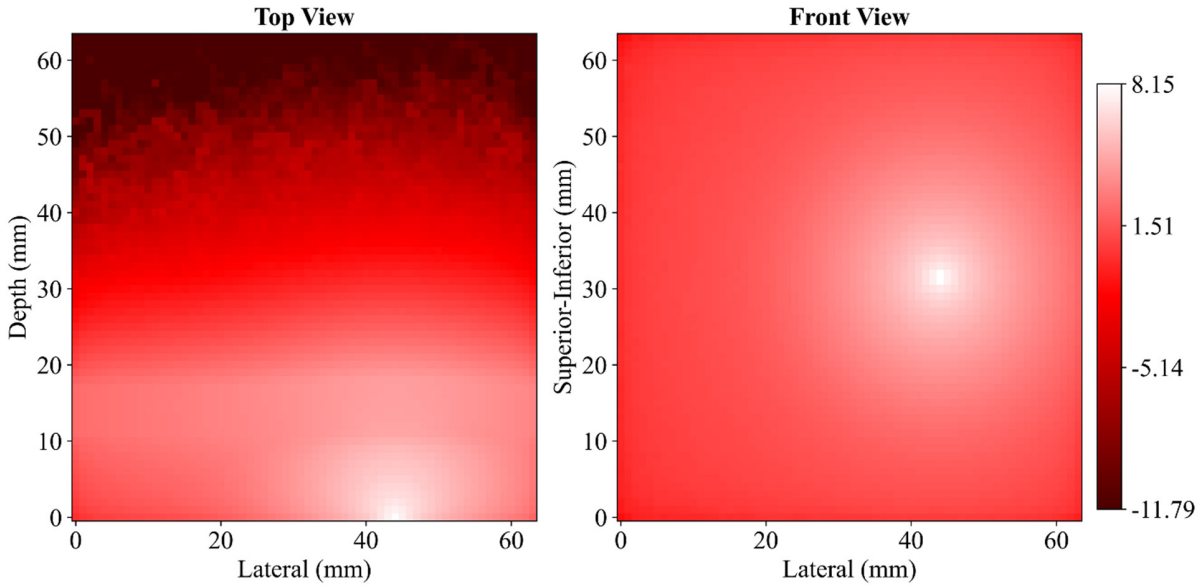


Figure S37 Spatial fluence color maps for cadaveric head #4 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

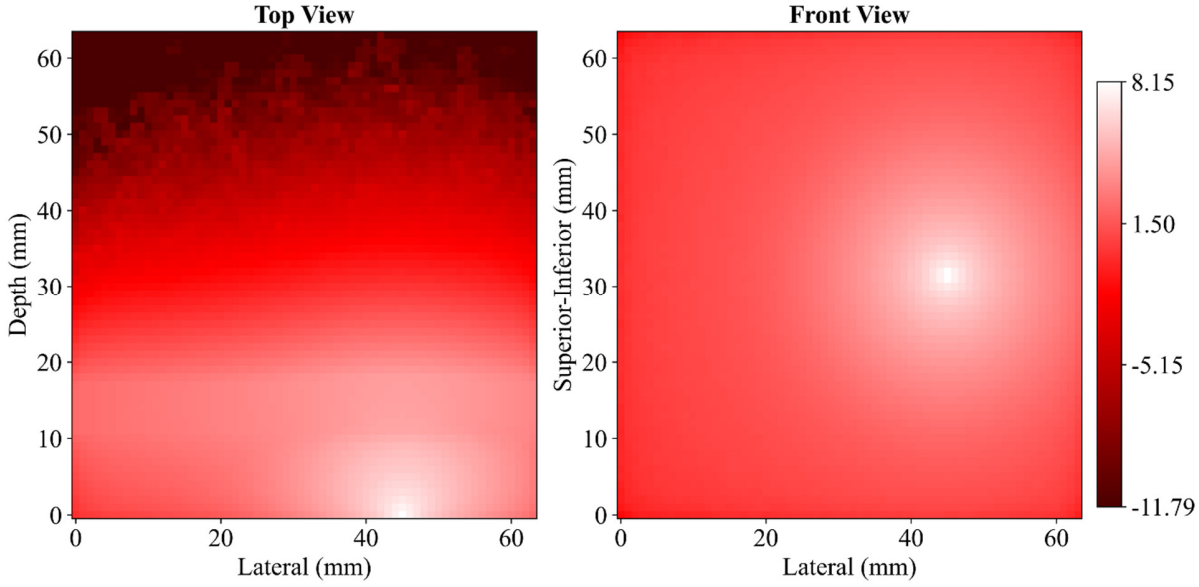


Figure S38 Spatial fluence color maps for cadaveric head #4 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

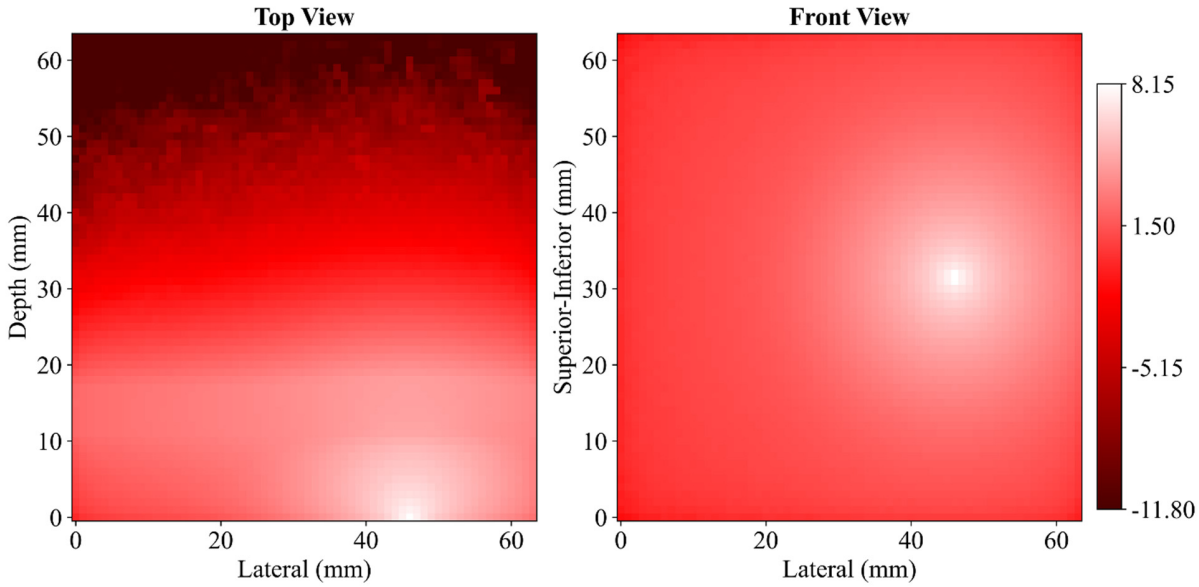


Figure S39 Spatial fluence color maps for cadaveric head #4 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

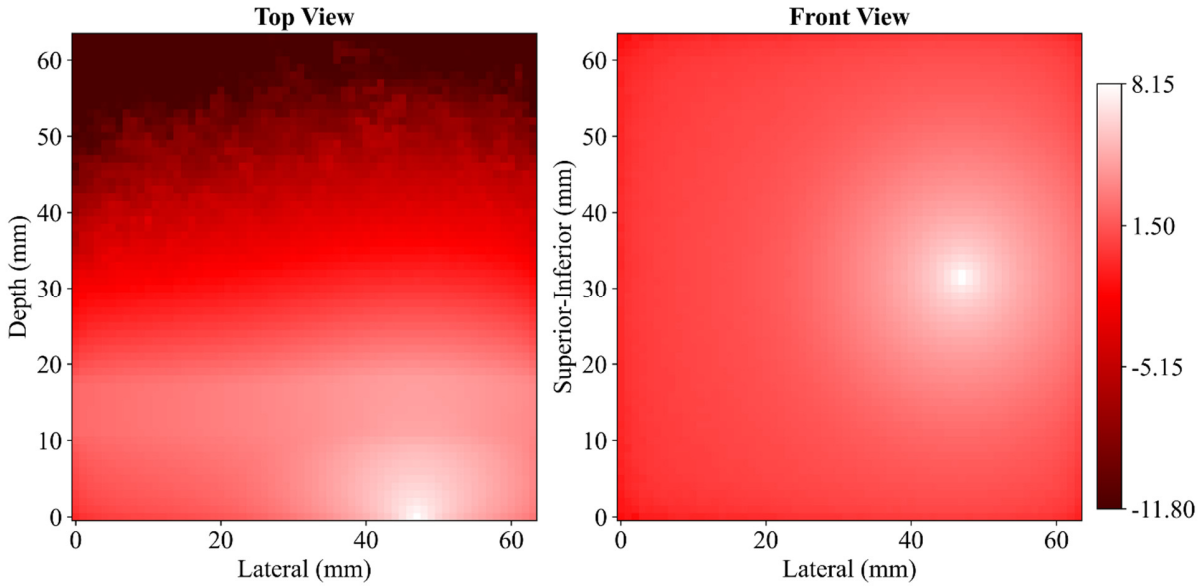


Figure S40 Spatial fluence color maps for cadaveric head #4 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

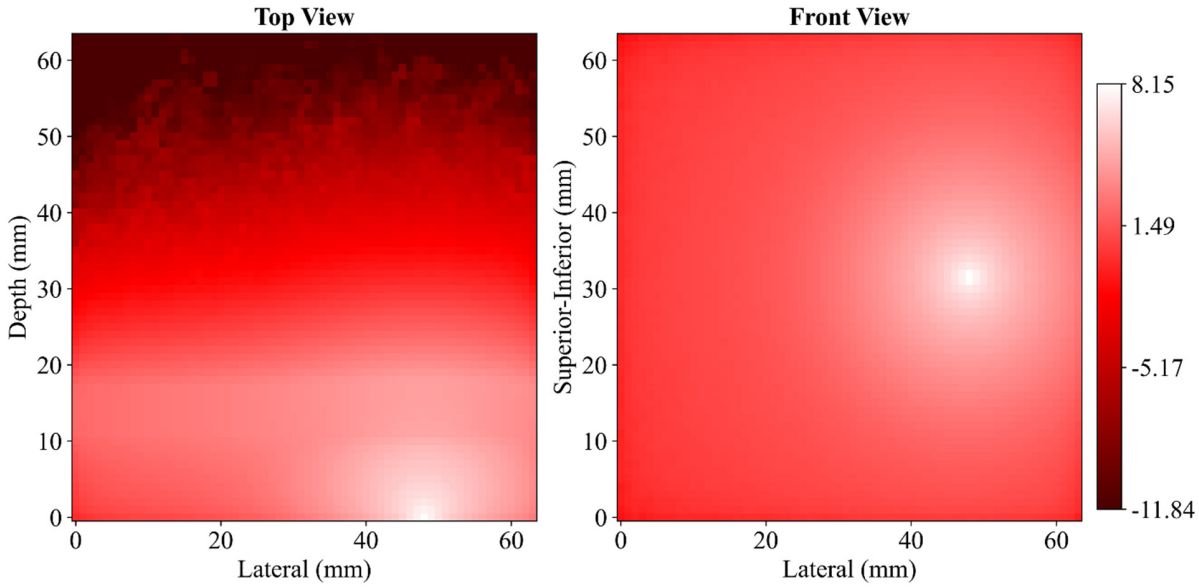


Figure S41 Spatial fluence color maps for cadaveric head #4 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

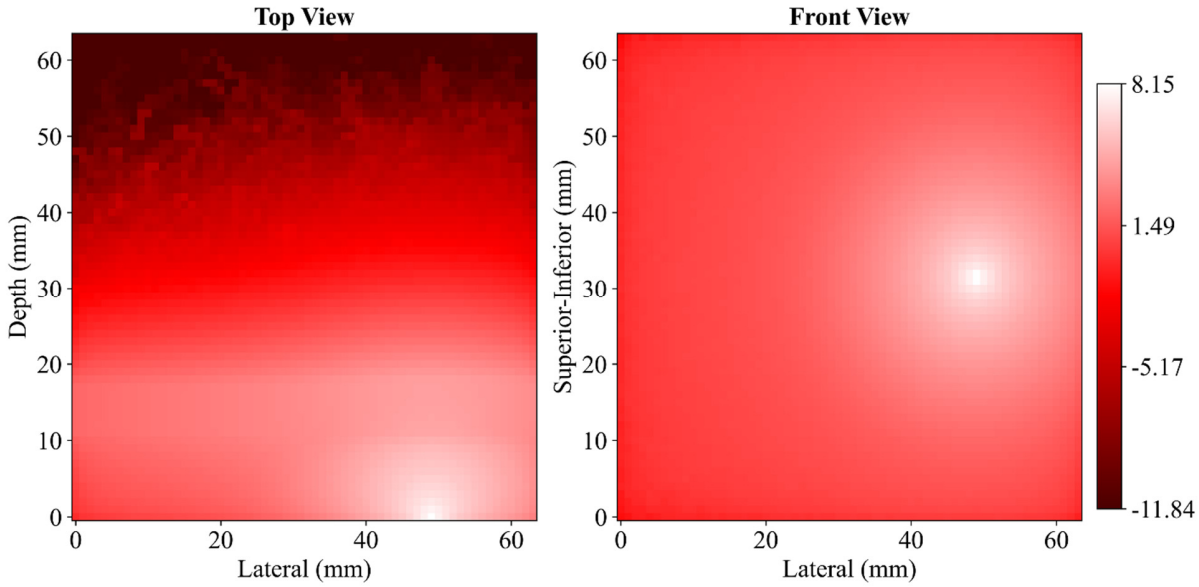


Figure S42 Spatial fluence color maps for cadaveric head #4 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

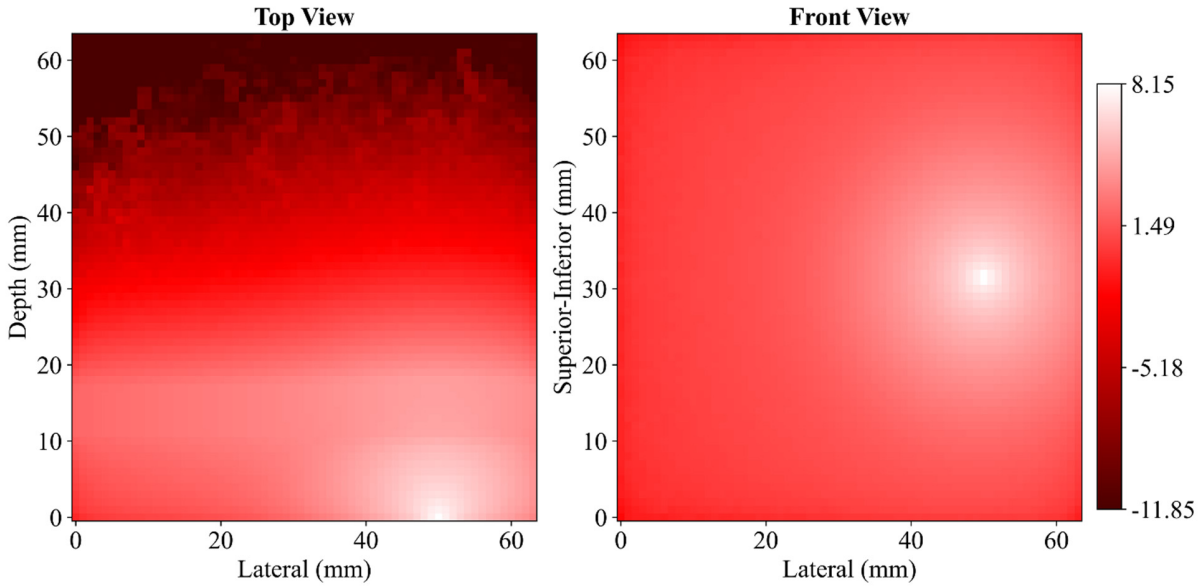


Figure S43 Spatial fluence color maps for cadaveric head #4 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

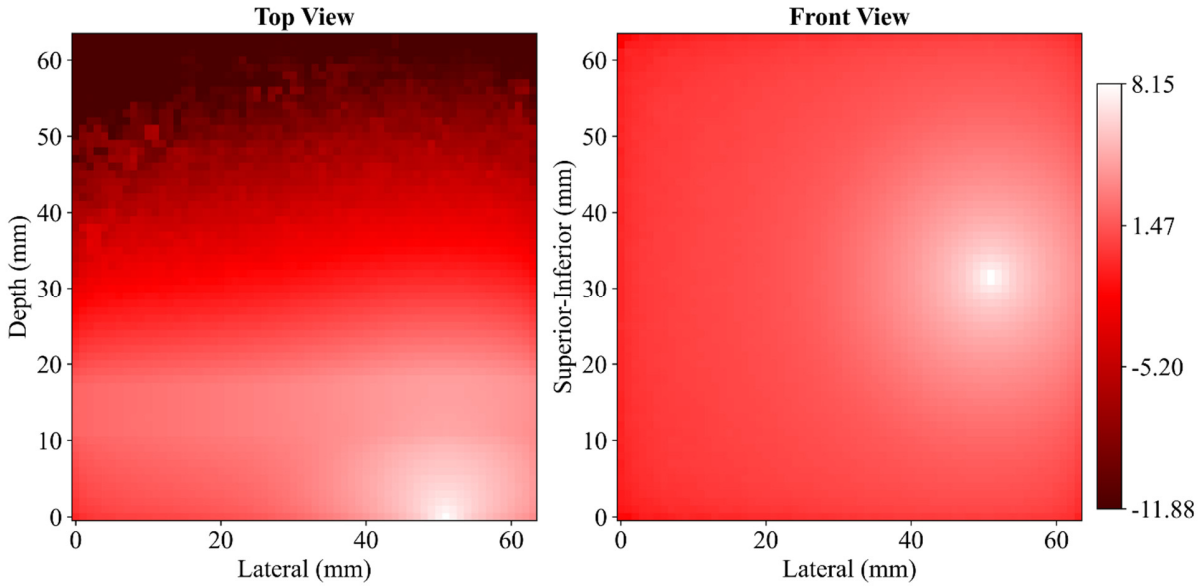


Figure S44 Spatial fluence color maps for cadaveric head #4 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

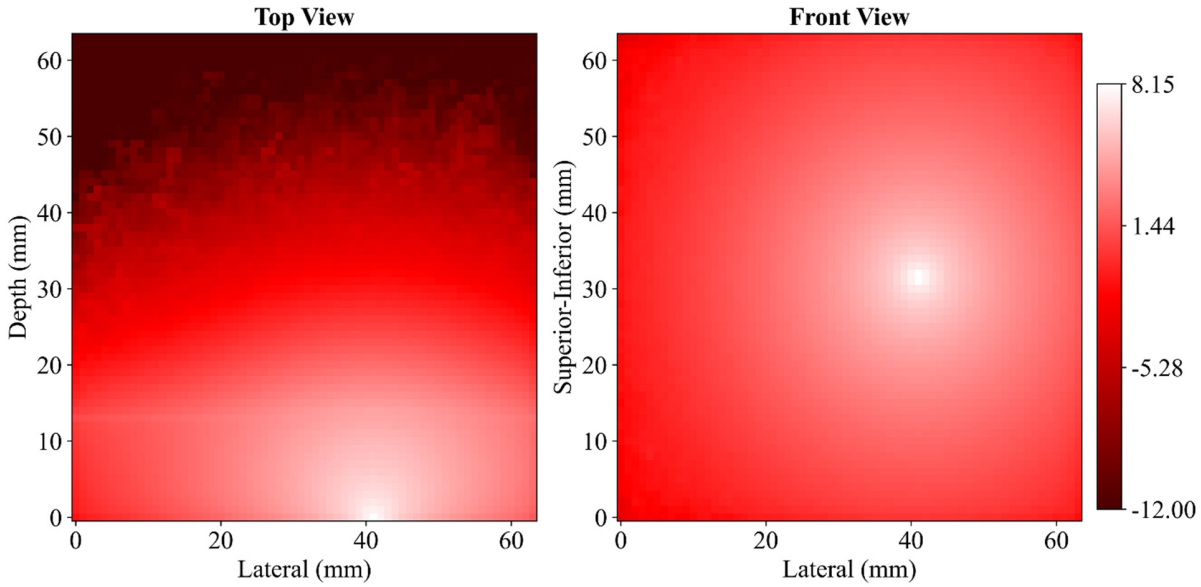


Figure S45 Spatial fluence color maps for cadaveric head #5 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

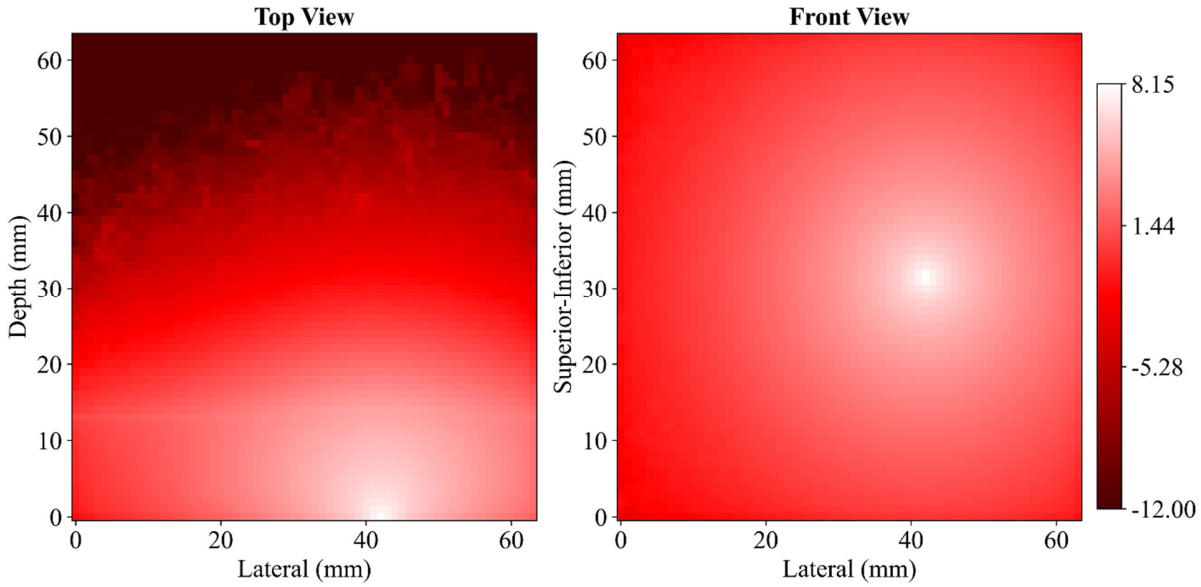


Figure S46 Spatial fluence color maps for cadaveric head #5 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

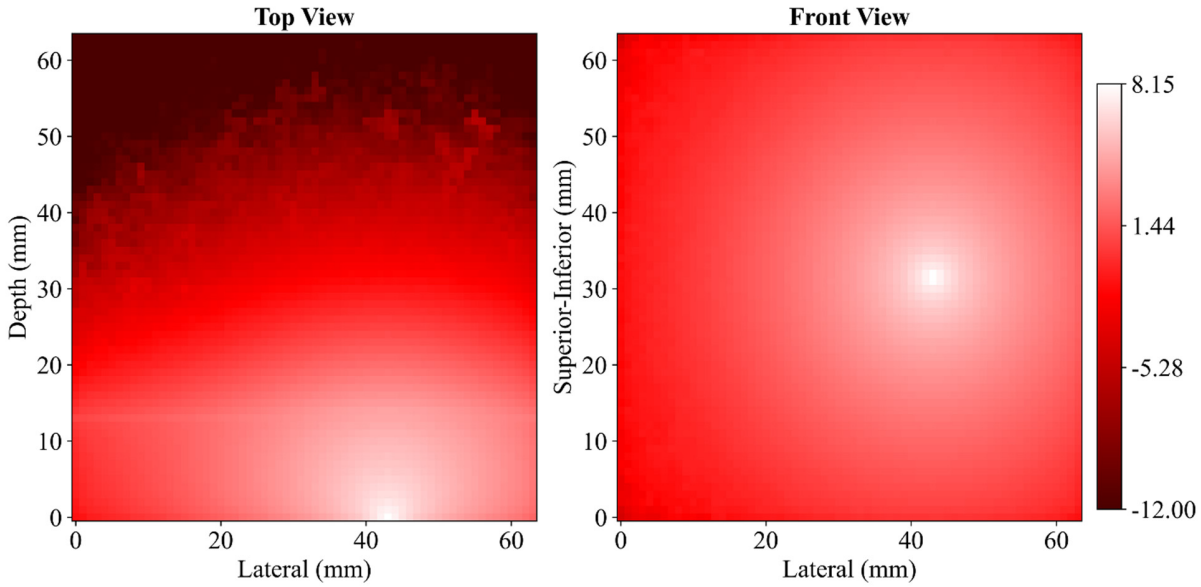


Figure S47 Spatial fluence color maps for cadaveric head #5 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

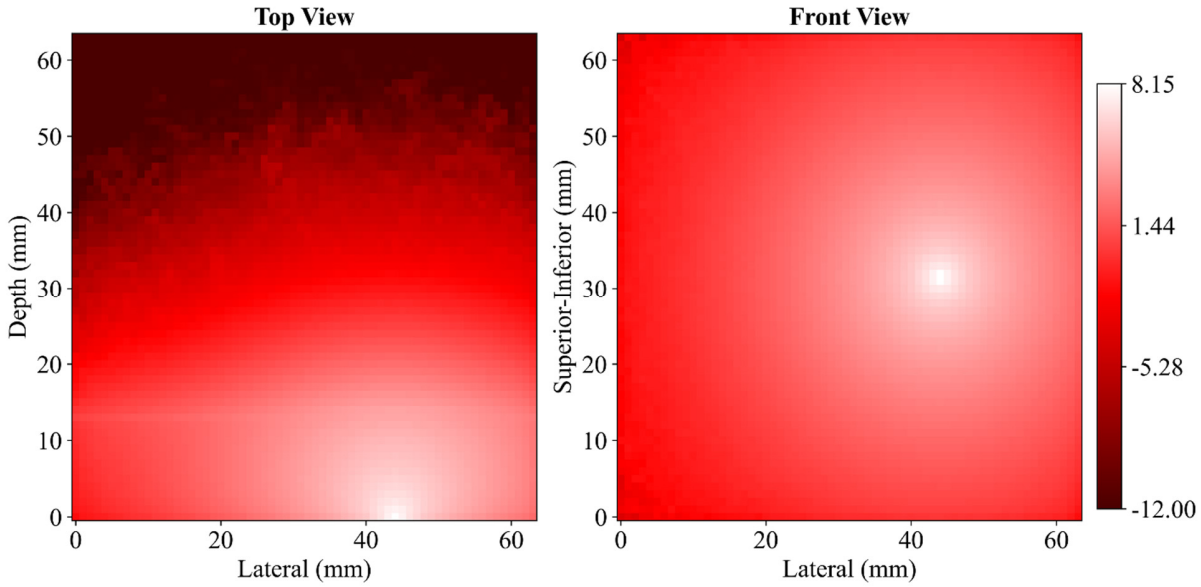


Figure S48 Spatial fluence color maps for cadaveric head #5 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

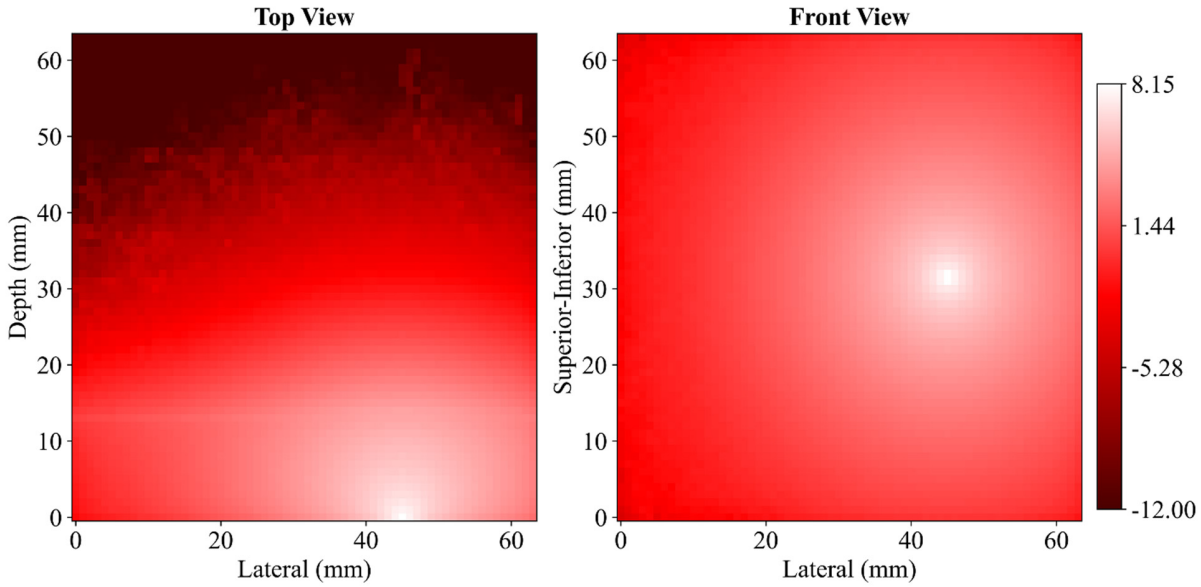


Figure S49 Spatial fluence color maps for cadaveric head #5 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

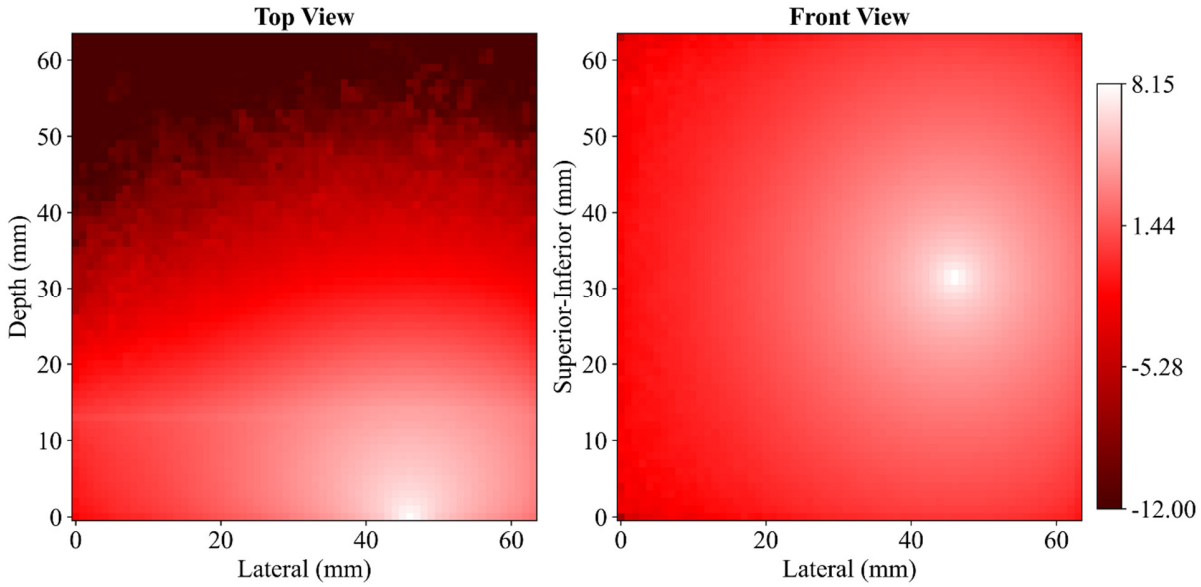


Figure S50 Spatial fluence color maps for cadaveric head #5 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

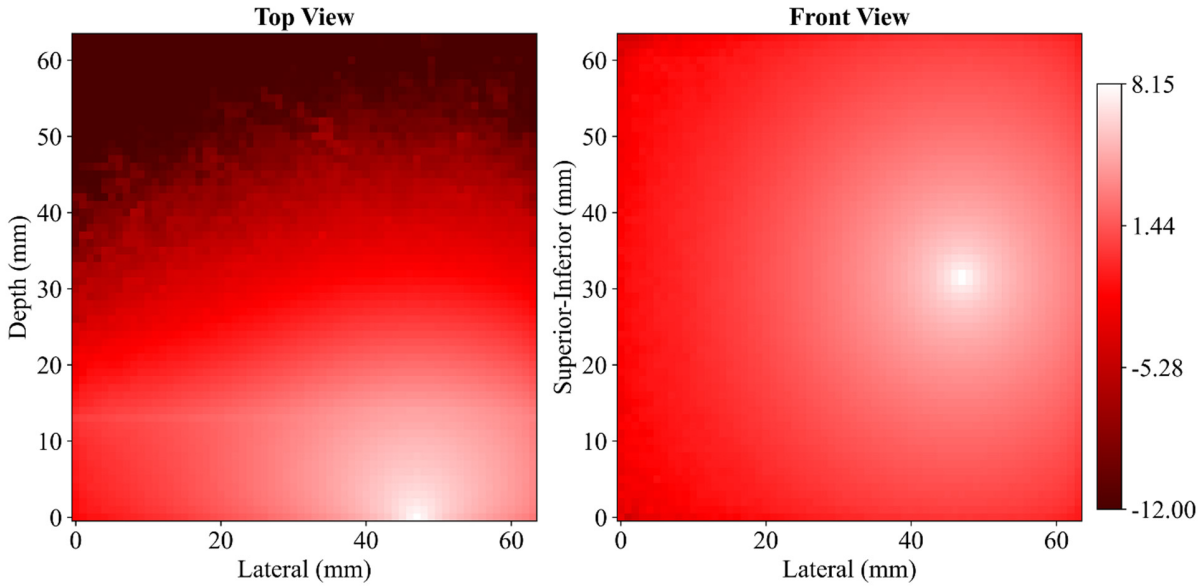


Figure S51 Spatial fluence color maps for cadaveric head #5 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

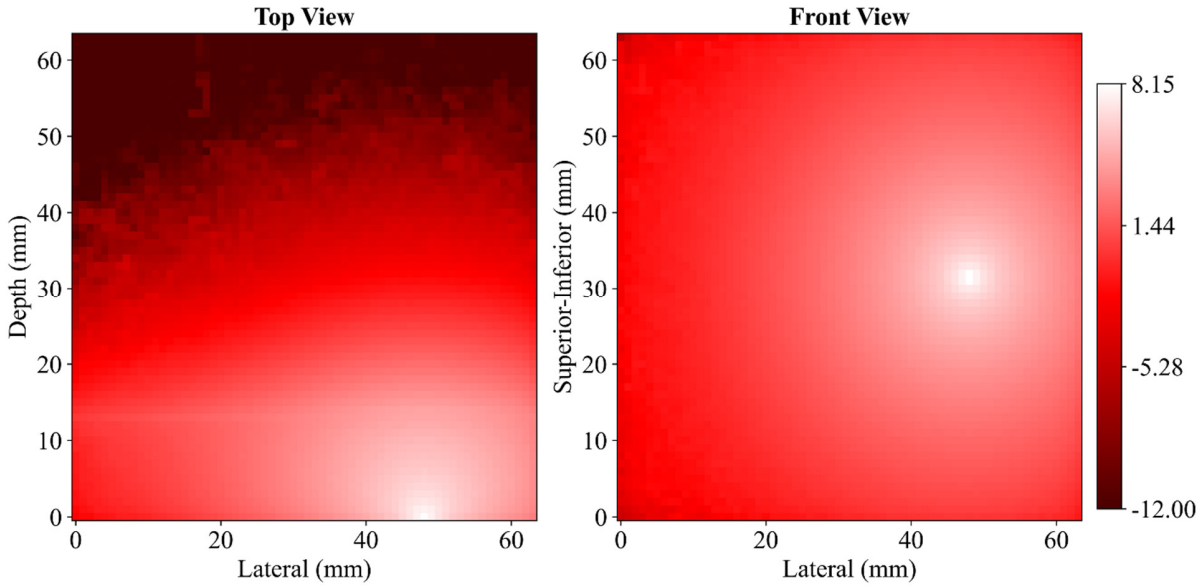


Figure S52 Spatial fluence color maps for cadaveric head #5 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

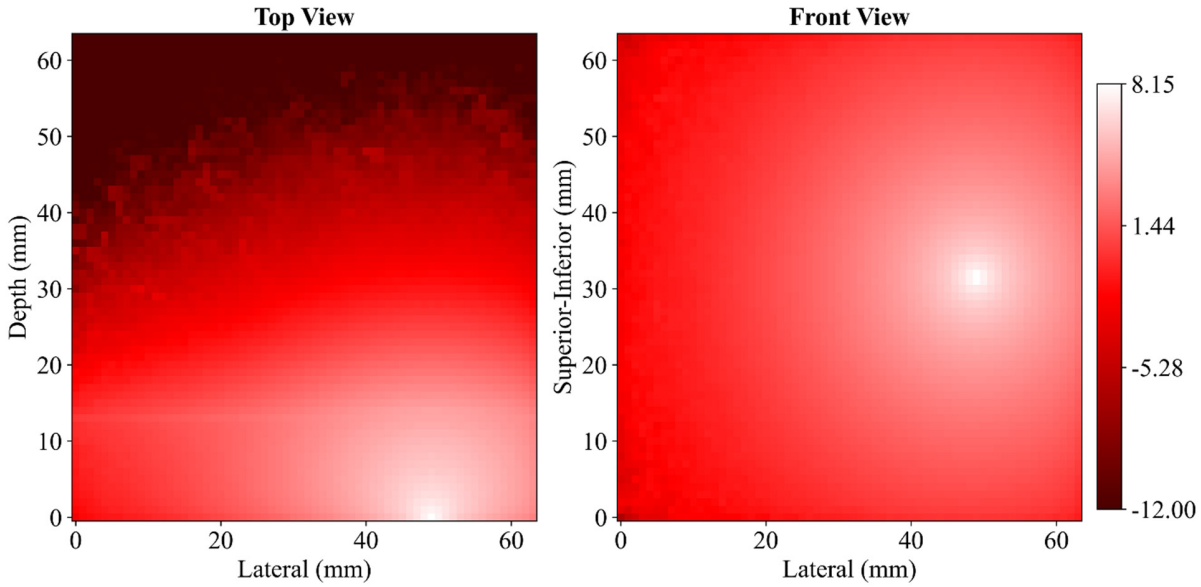


Figure S53 Spatial fluence color maps for cadaveric head #5 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

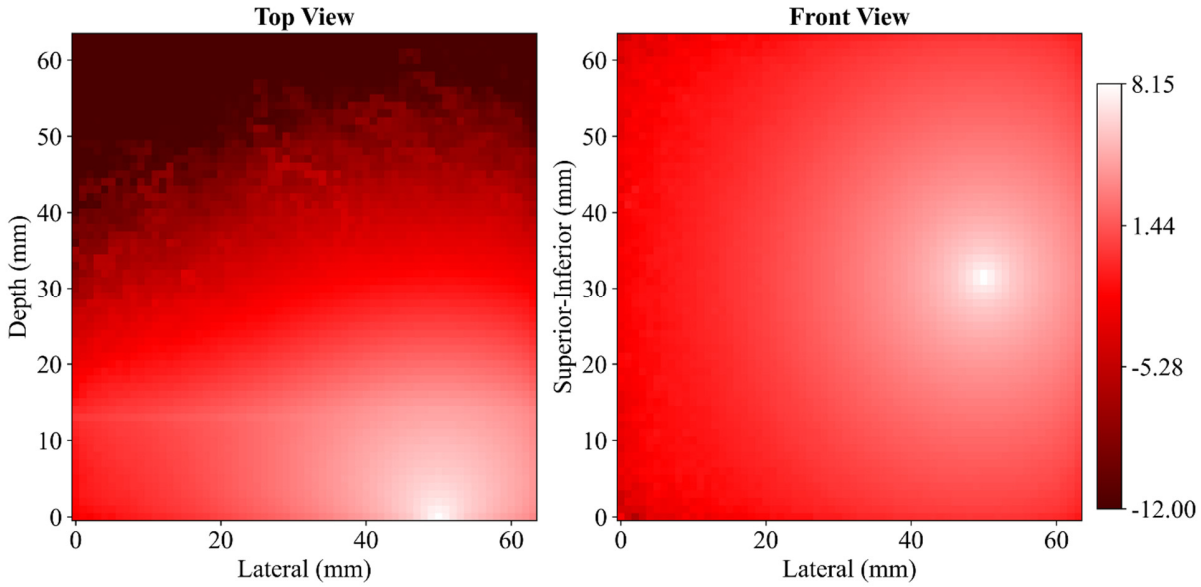


Figure S54 Spatial fluence color maps for cadaveric head #5 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

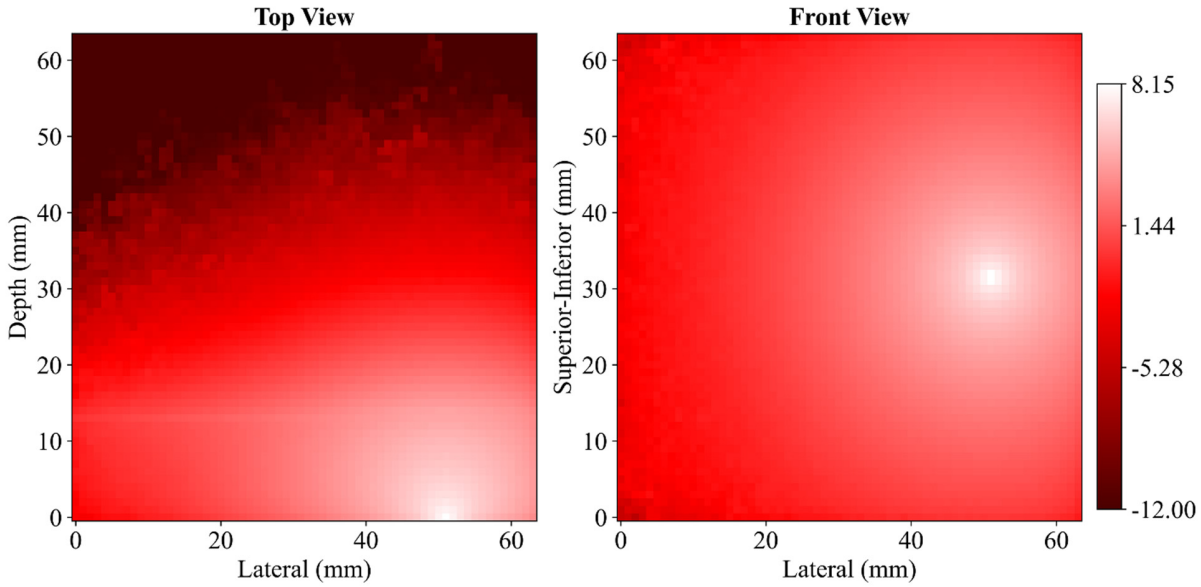


Figure S55 Spatial fluence color maps for cadaveric head #5 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

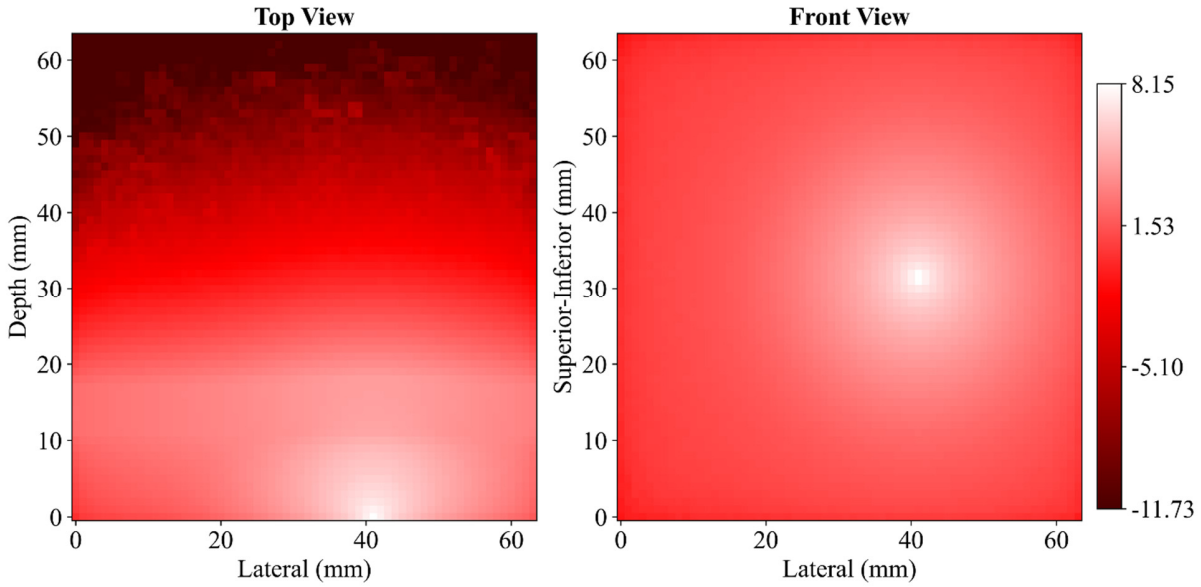


Figure S56 Spatial fluence color maps for cadaveric head #6 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

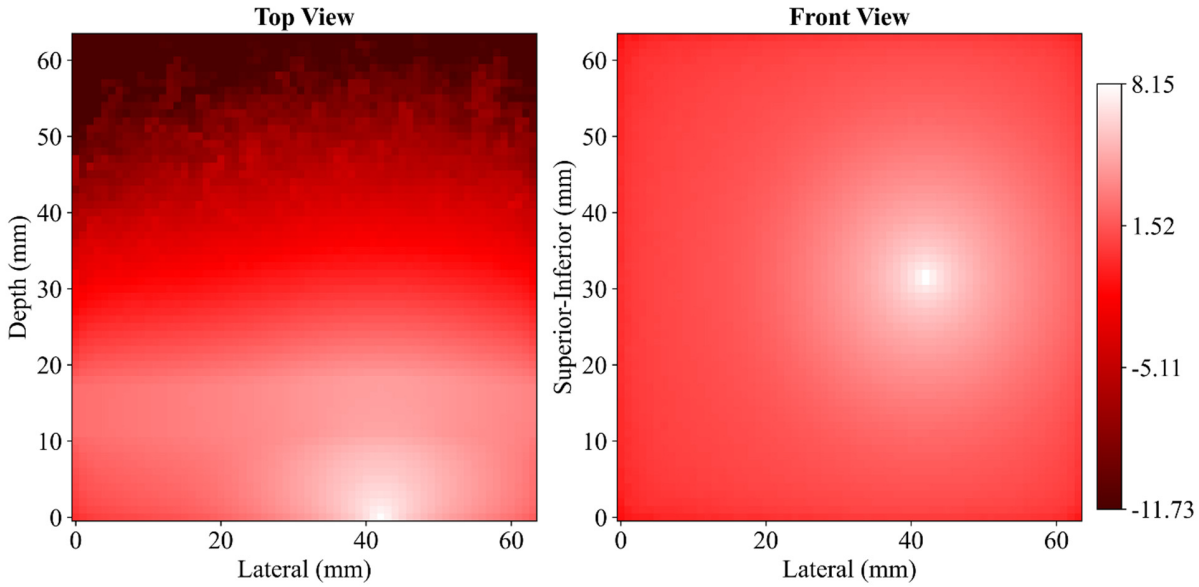


Figure S57 Spatial fluence color maps for cadaveric head #6 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

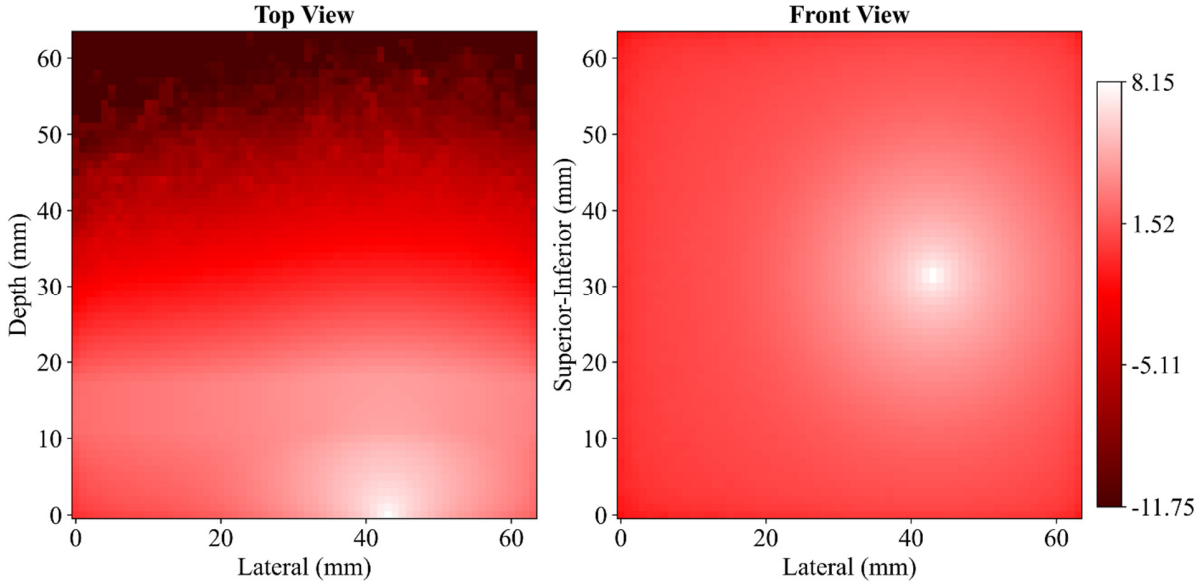


Figure S58 Spatial fluence color maps for cadaveric head #6 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

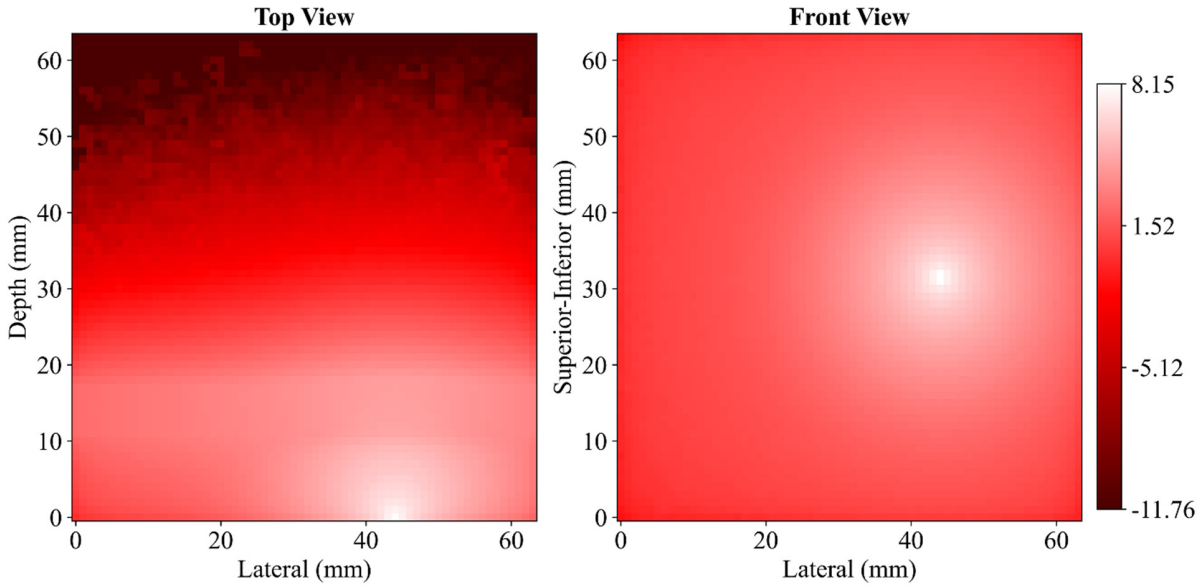


Figure S59 Spatial fluence color maps for cadaveric head #6 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

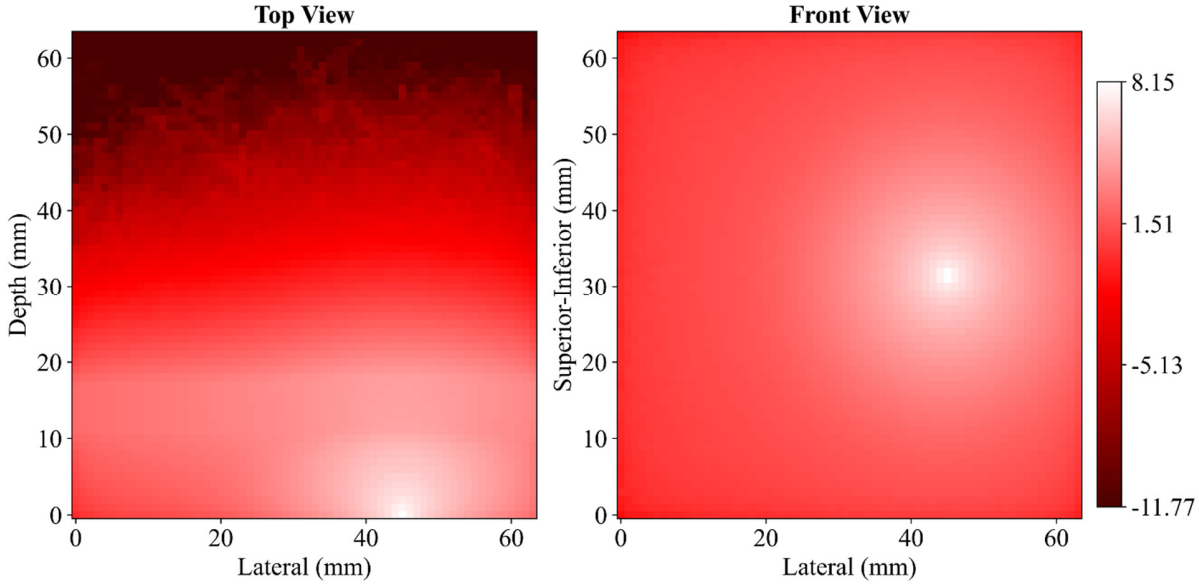


Figure S60 Spatial fluence color maps for cadaveric head #6 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

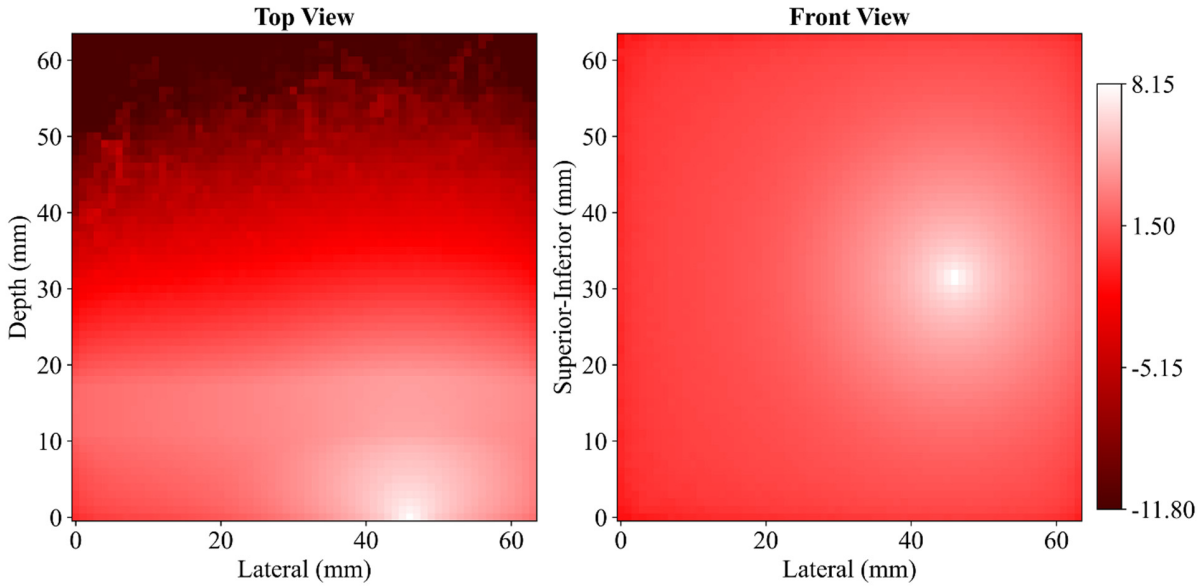


Figure S61 Spatial fluence color maps for cadaveric head #6 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

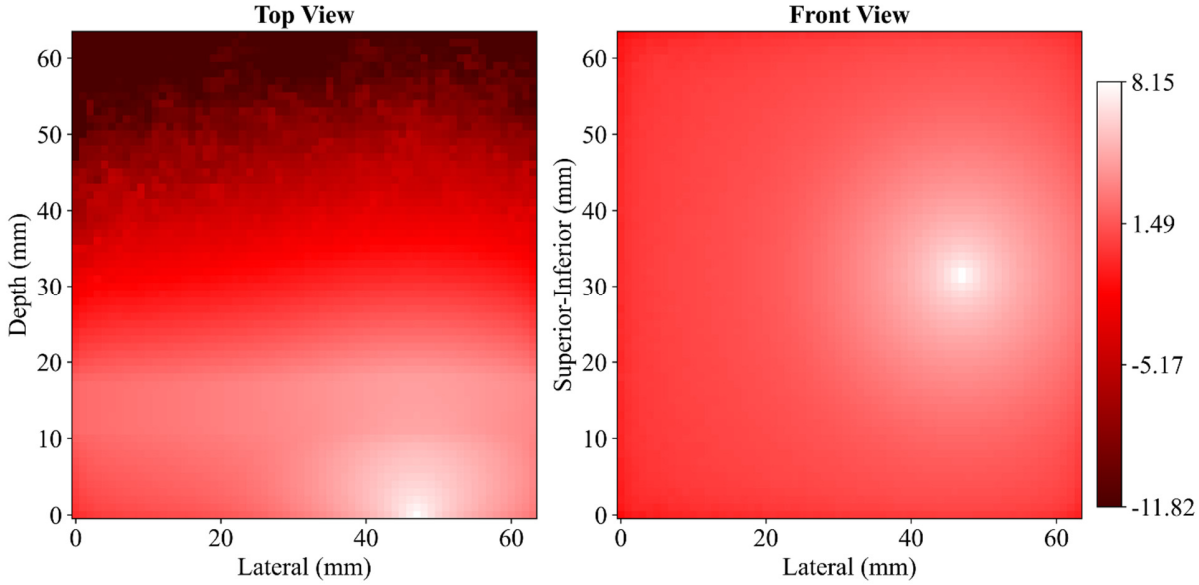


Figure S62 Spatial fluence color maps for cadaveric head #6 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

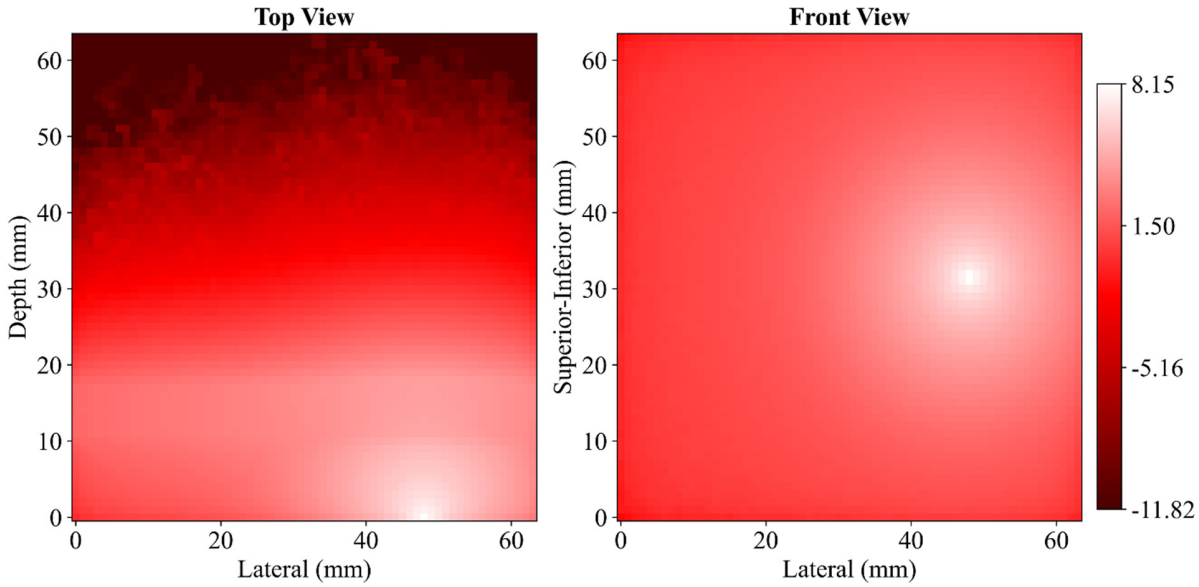


Figure S63 Spatial fluence color maps for cadaveric head #6 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

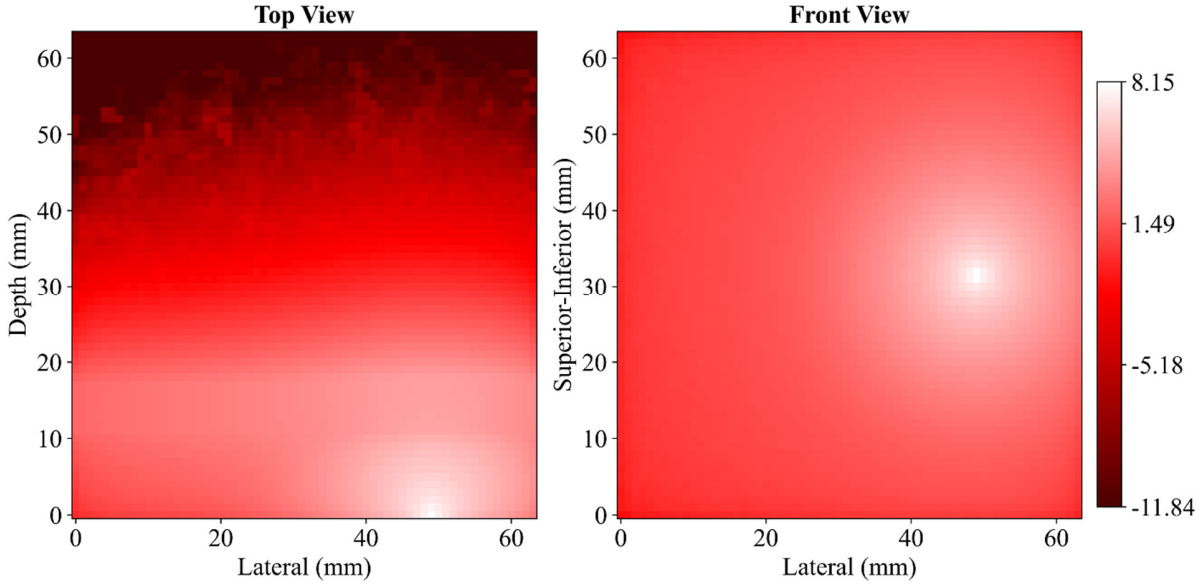


Figure S64 Spatial fluence color maps for cadaveric head #6 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

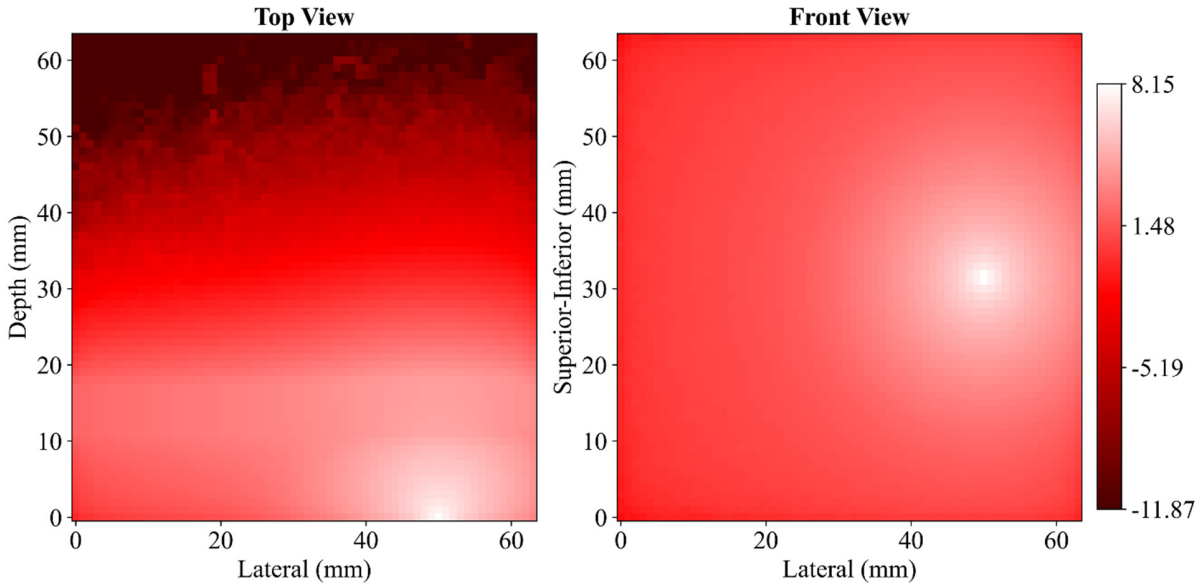


Figure S65 Spatial fluence color maps for cadaveric head #6 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

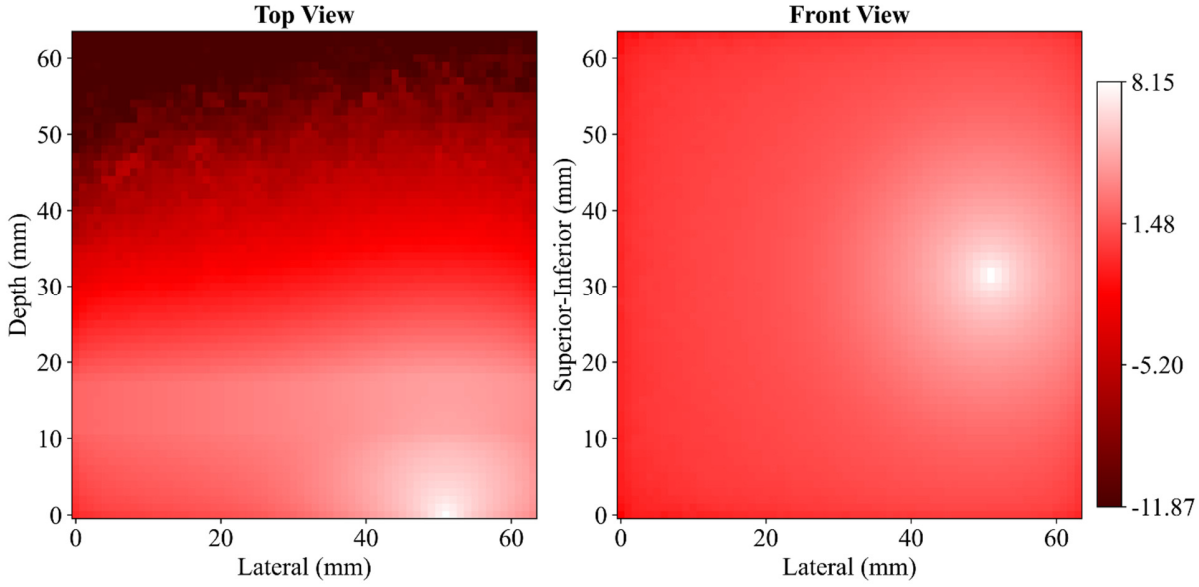


Figure S66 Spatial fluence color maps for cadaveric head #6 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

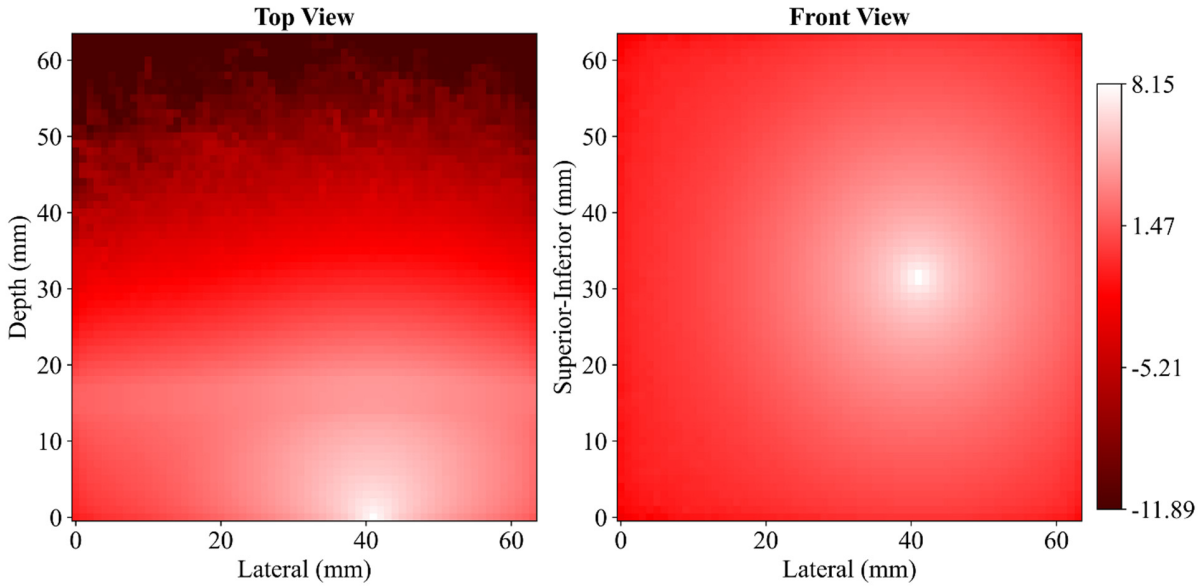


Figure S67 Spatial fluence color maps for cadaveric head #7 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

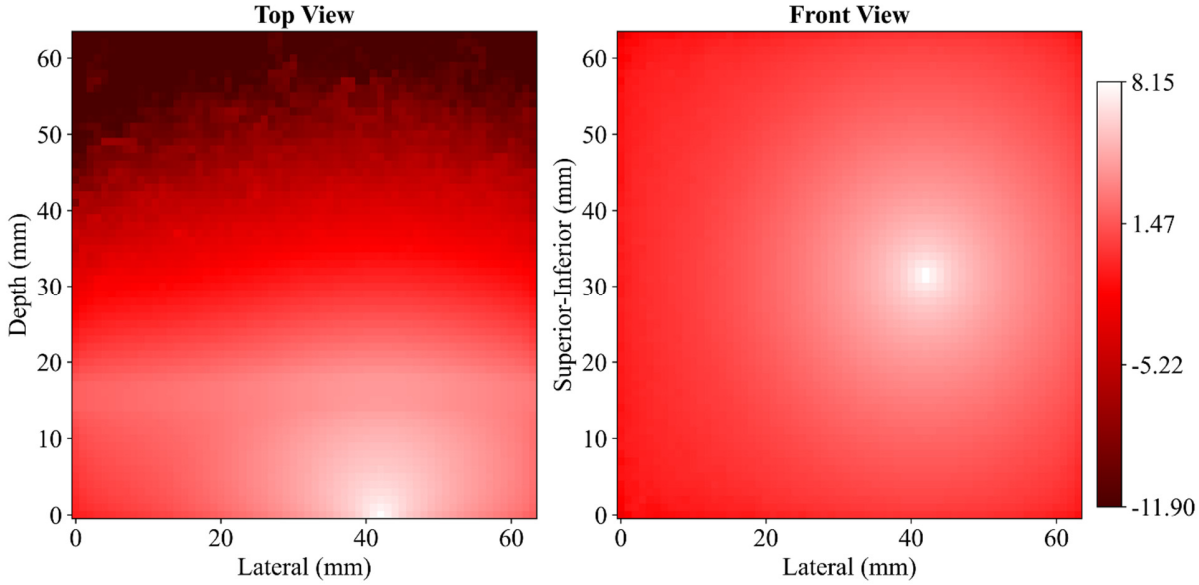


Figure S68 Spatial fluence color maps for cadaveric head #7 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

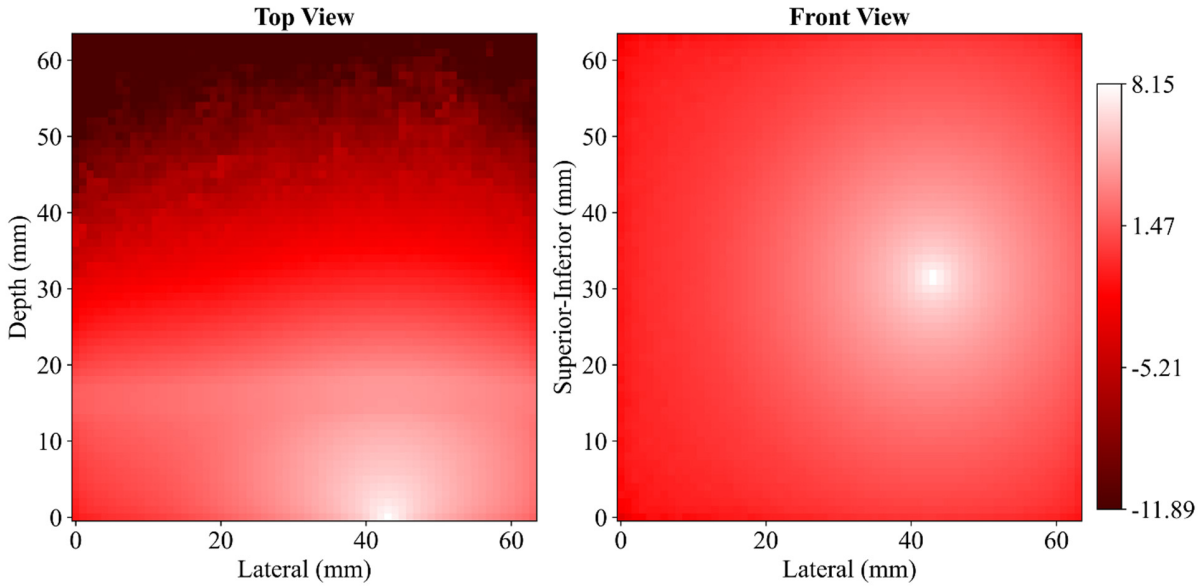


Figure S69 Spatial fluence color maps for cadaveric head #7 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

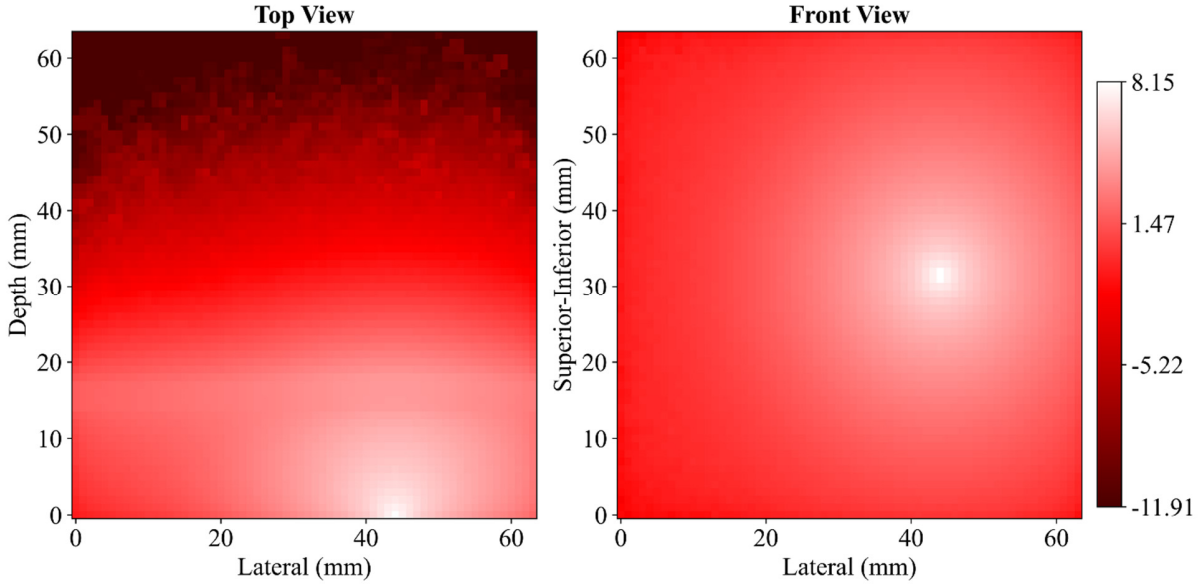


Figure S70 Spatial fluence color maps for cadaveric head #7 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

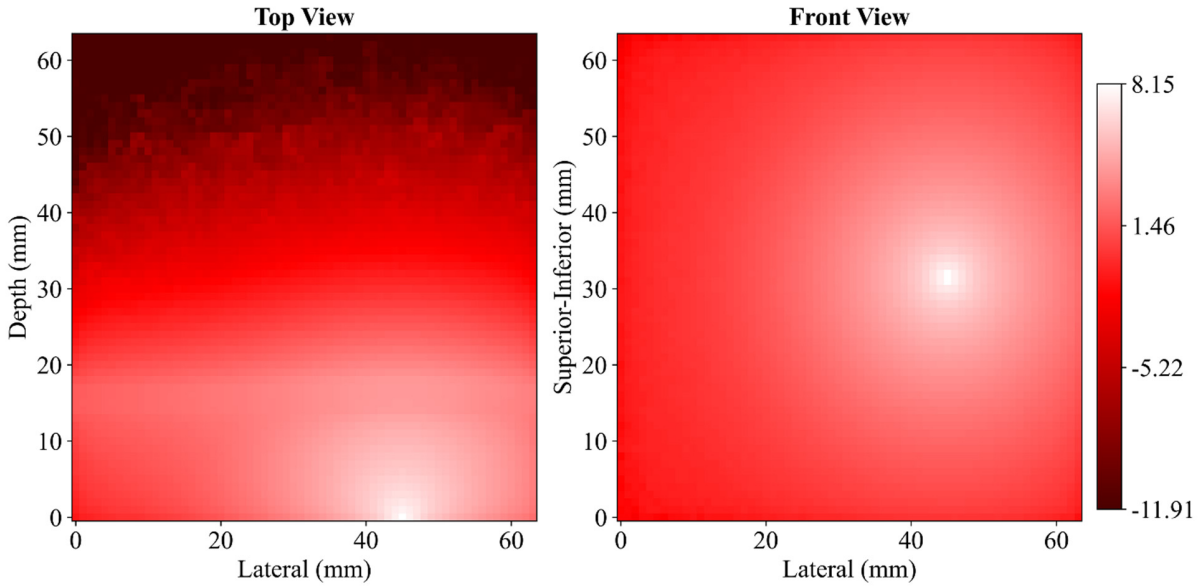


Figure S71 Spatial fluence color maps for cadaveric head #7 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

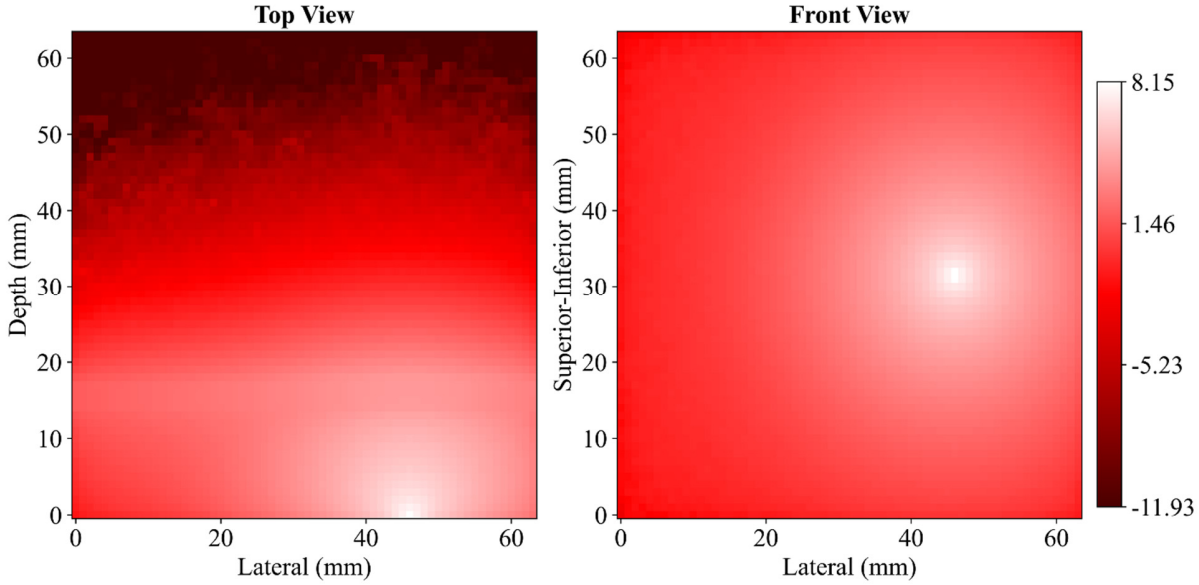


Figure S72 Spatial fluence color maps for cadaveric head #7 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

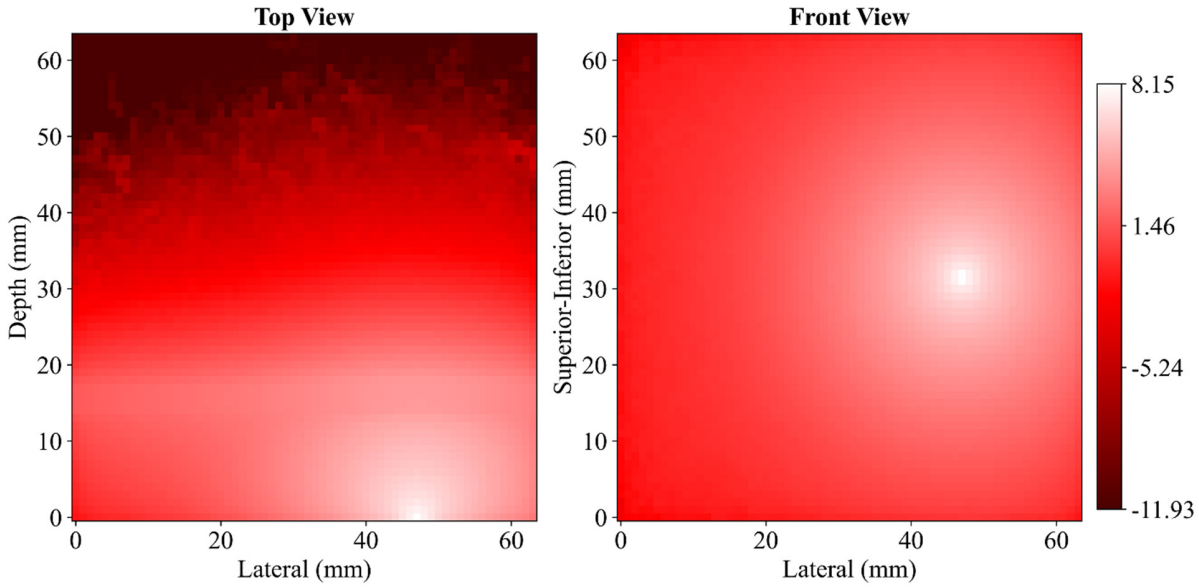


Figure S73 Spatial fluence color maps for cadaveric head #7 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

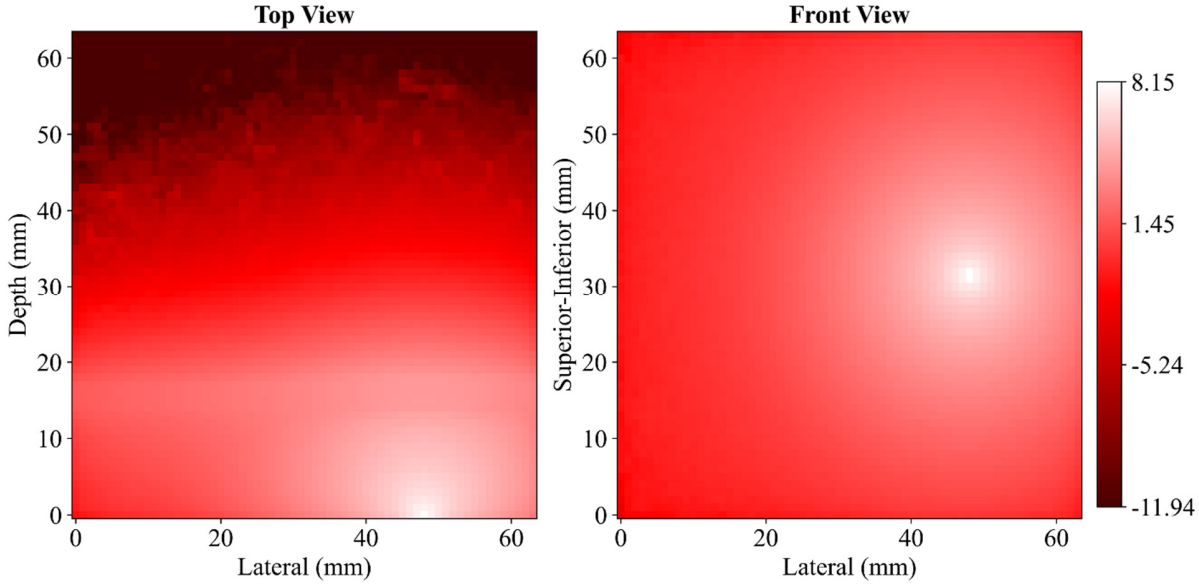


Figure S74 Spatial fluence color maps for cadaveric head #7 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

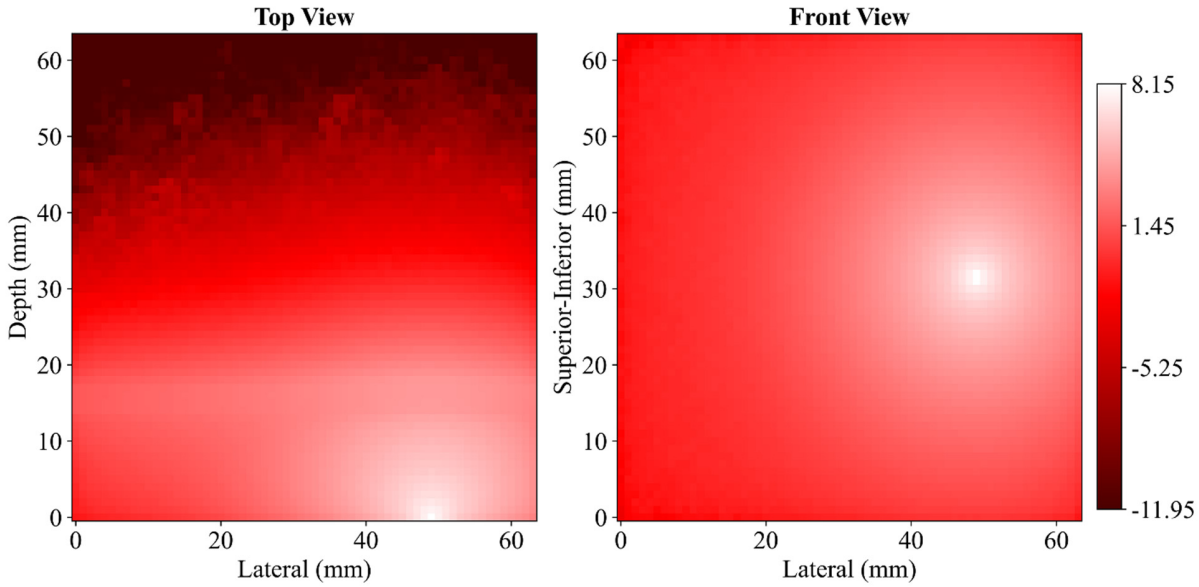


Figure S75 Spatial fluence color maps for cadaveric head #7 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

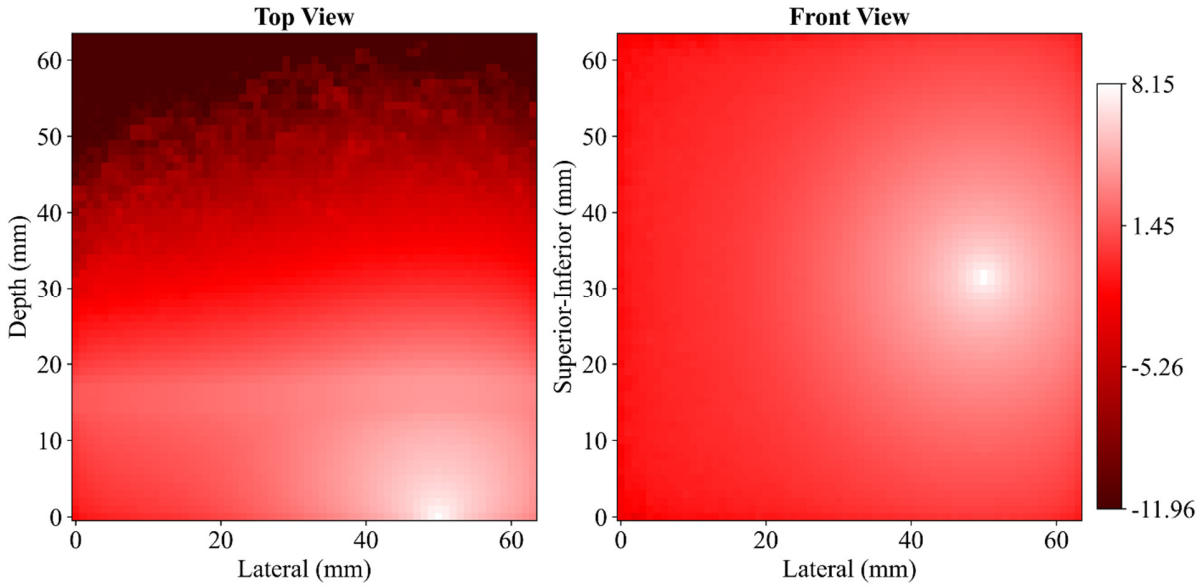


Figure S76 Spatial fluence color maps for cadaveric head #7 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

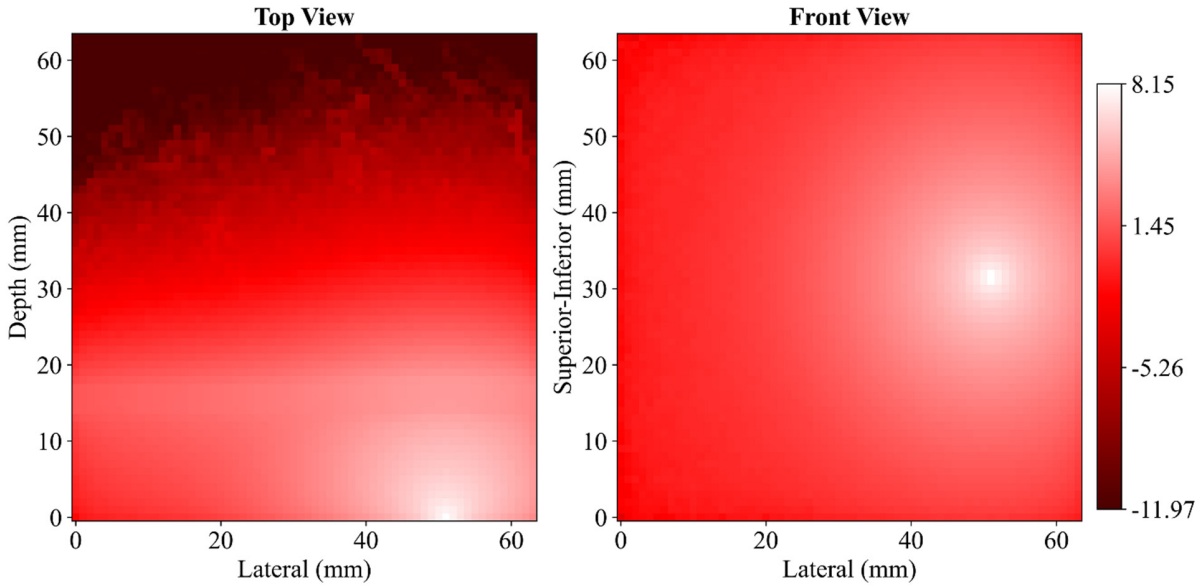


Figure S77 Spatial fluence color maps for cadaveric head #7 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

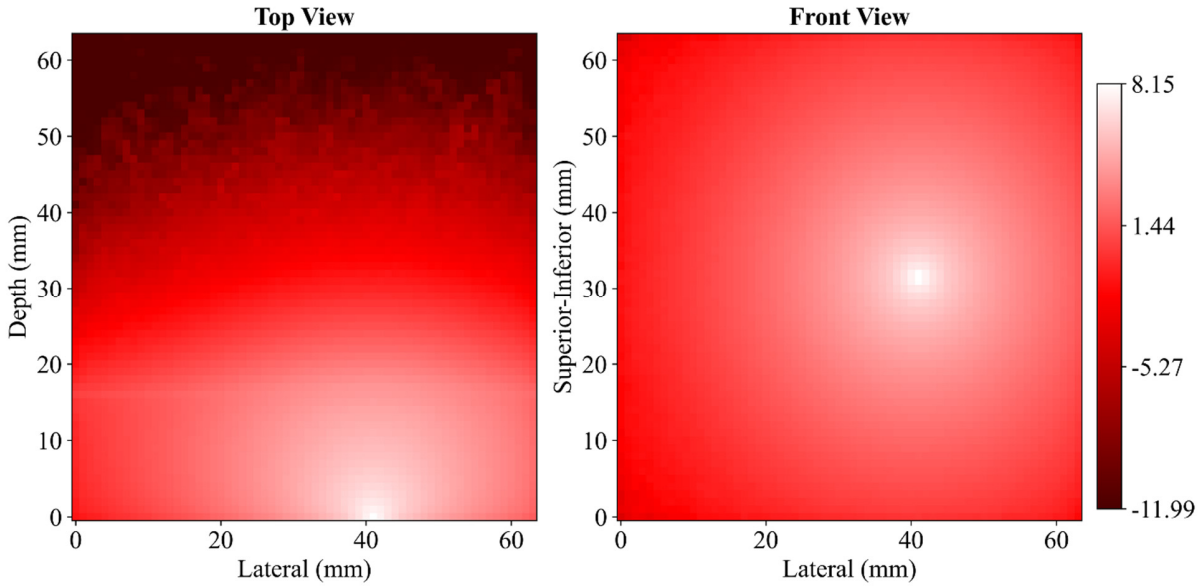


Figure S78 Spatial fluence color maps for cadaveric head #8 at 19 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

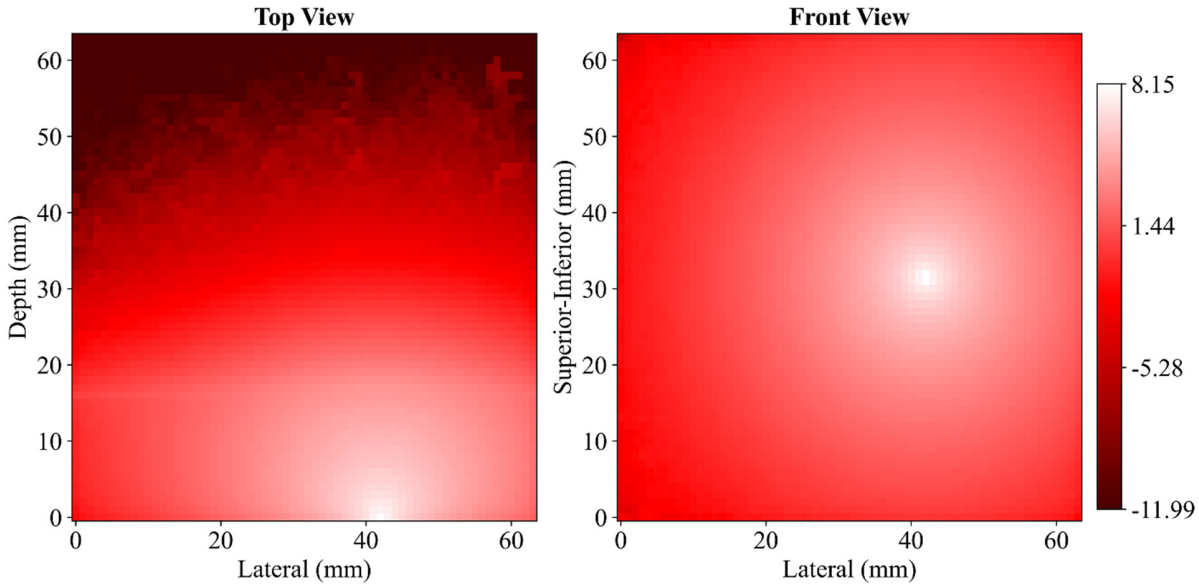


Figure S79 Spatial fluence color maps for cadaveric head #8 at 21 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

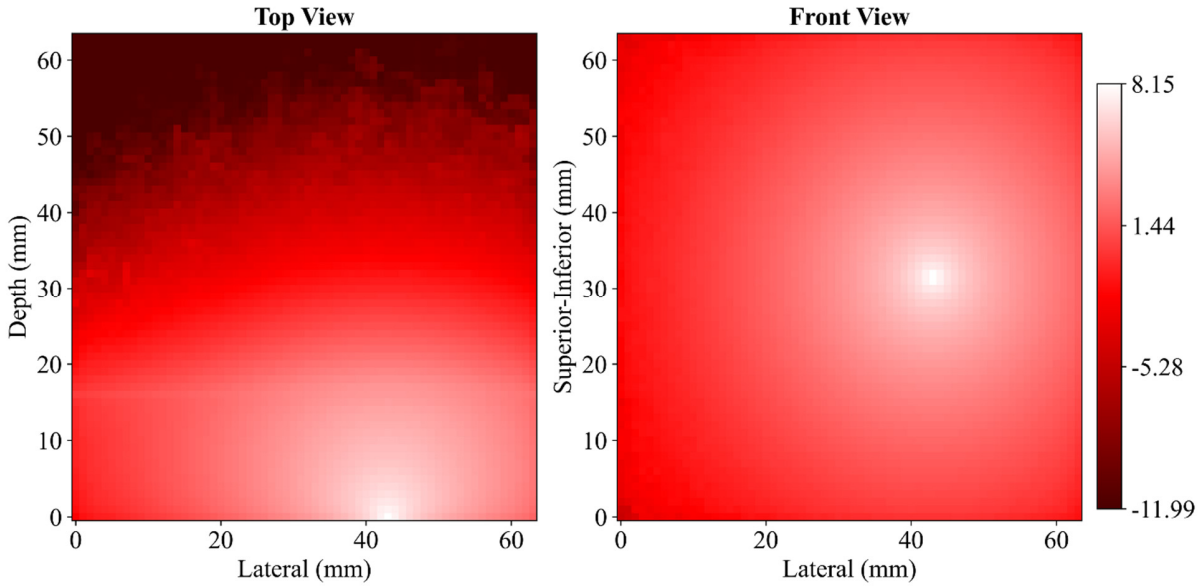


Figure S80 Spatial fluence color maps for cadaveric head #8 at 23 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

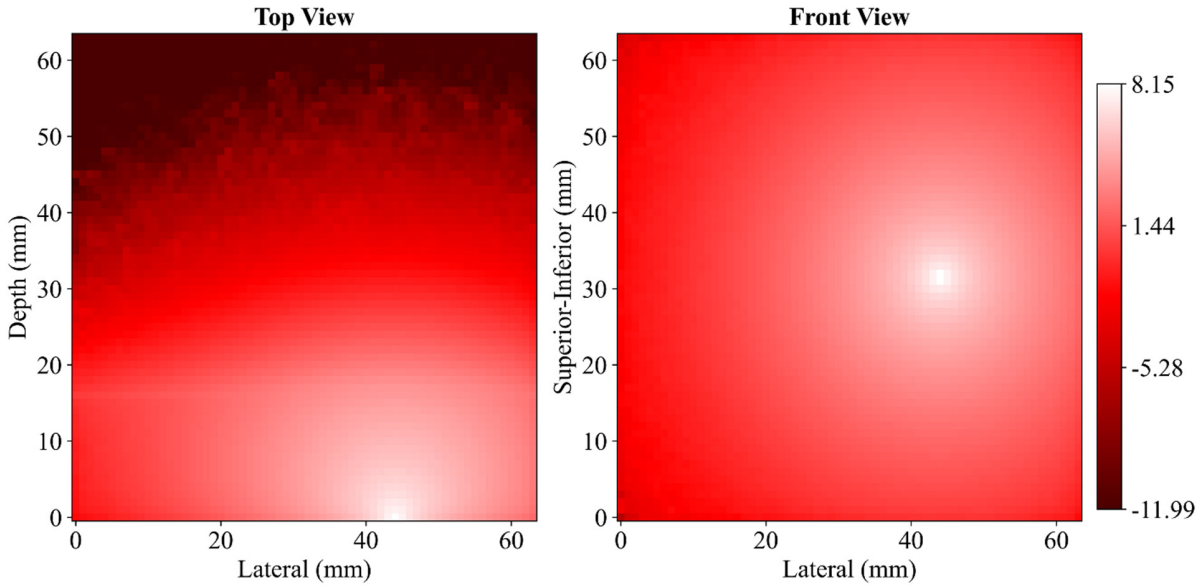


Figure S81 Spatial fluence color maps for cadaveric head #8 at 25 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

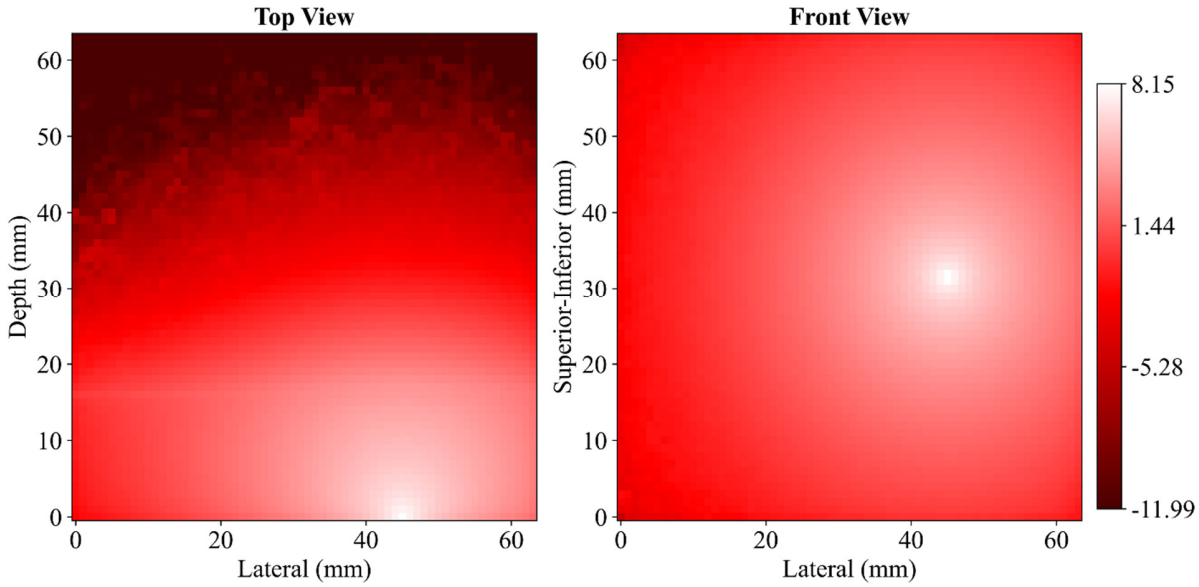


Figure S82 Spatial fluence color maps for cadaveric head #8 at 27 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

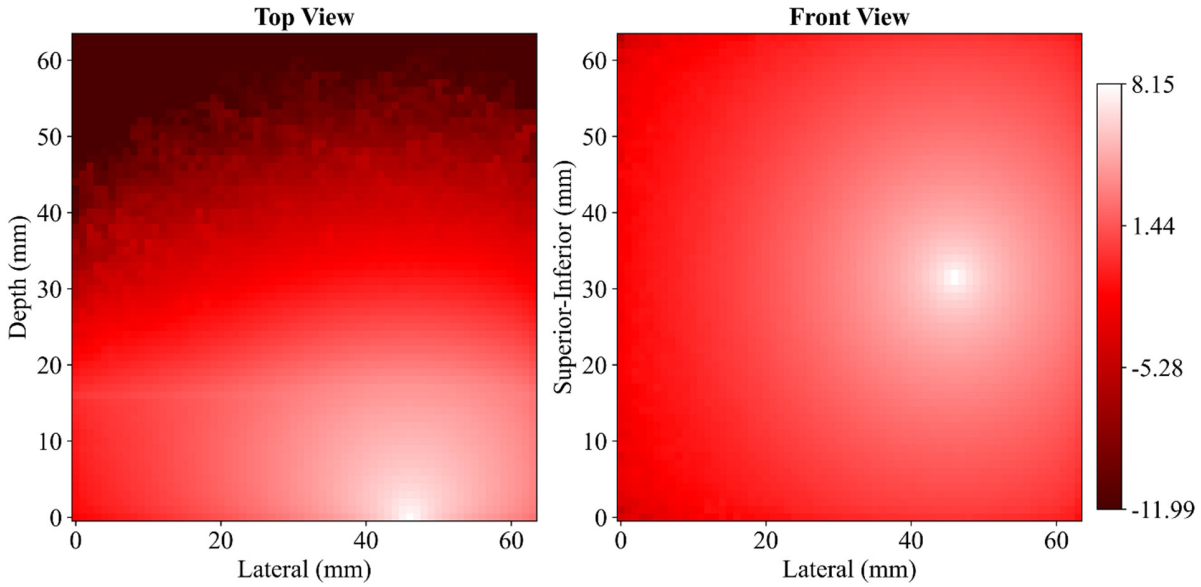


Figure S83 Spatial fluence color maps for cadaveric head #8 at 29 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

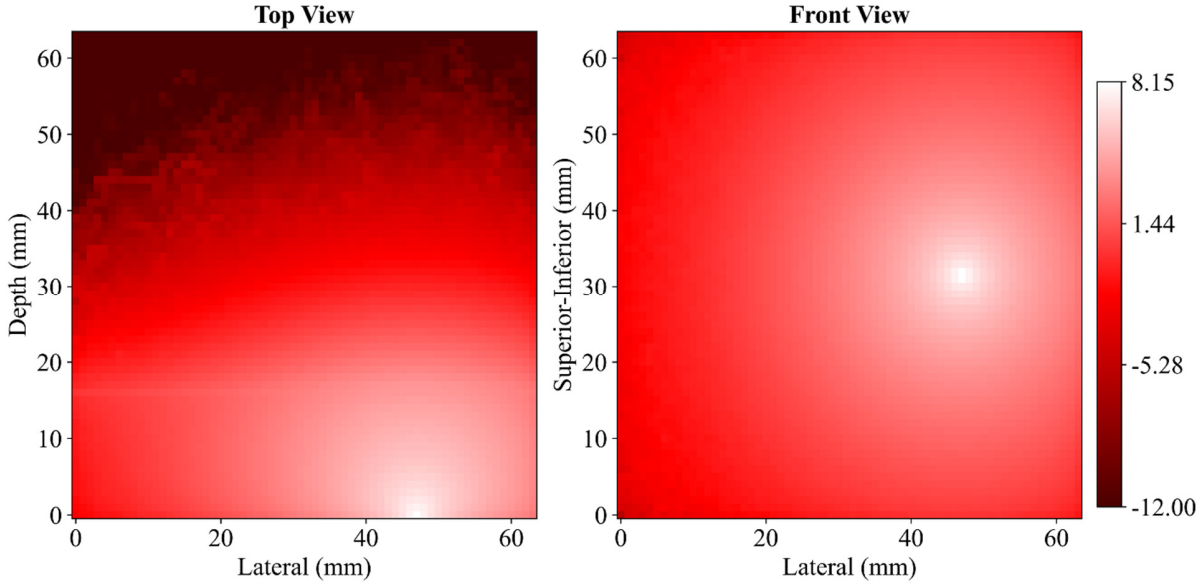


Figure S84 Spatial fluence color maps for cadaveric head #8 at 31 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

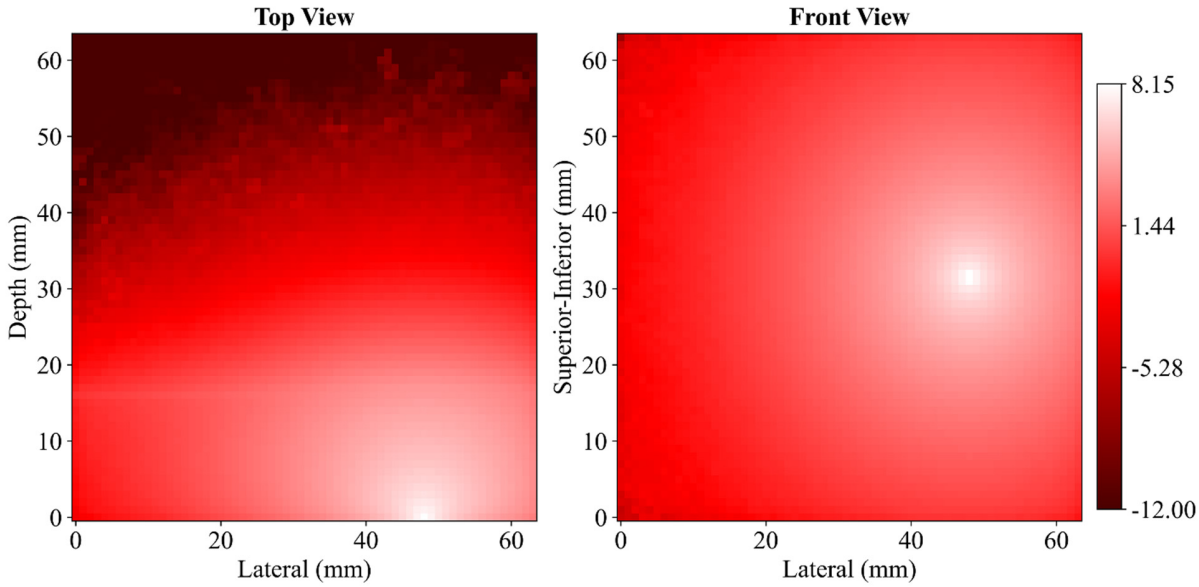


Figure S85 Spatial fluence color maps for cadaveric head #8 at 33 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

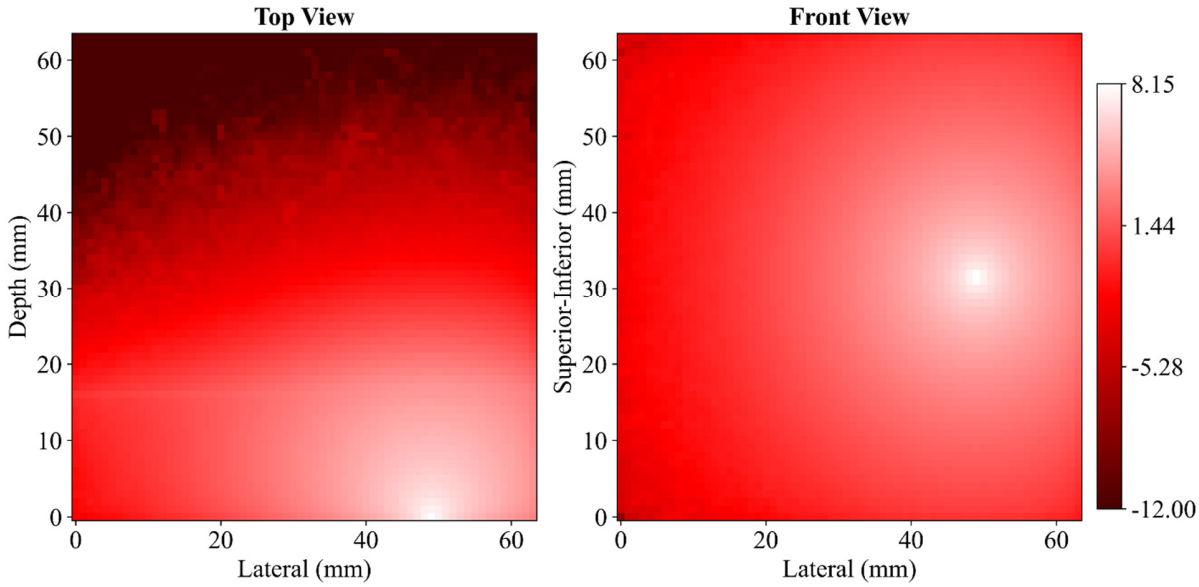


Figure S86 Spatial fluence color maps for cadaveric head #8 at 35 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

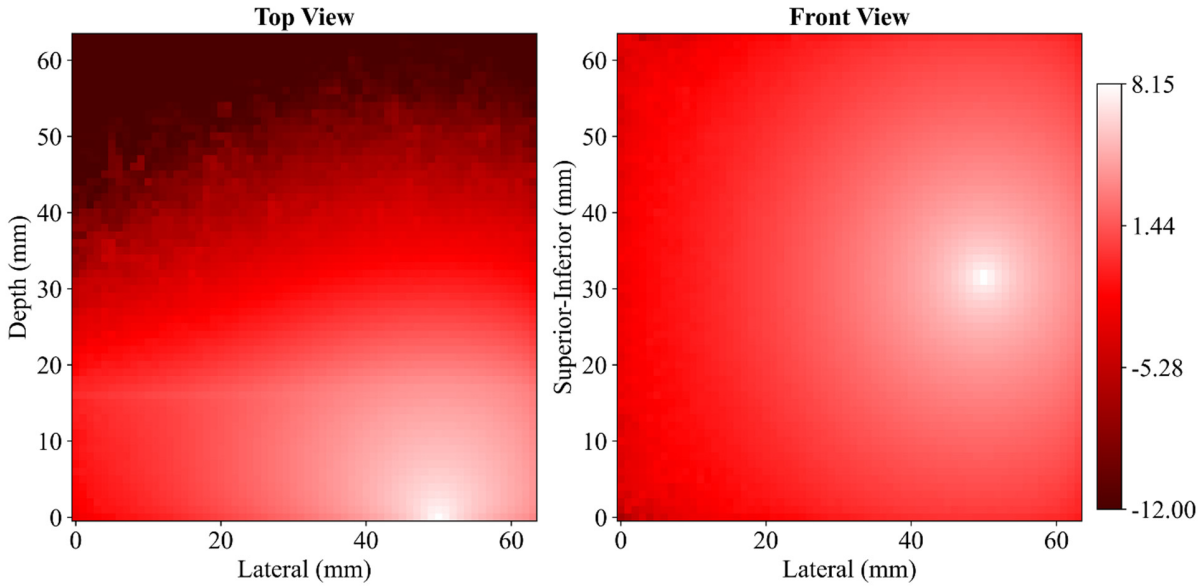


Figure S87 Spatial fluence color maps for cadaveric head #8 at 37 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

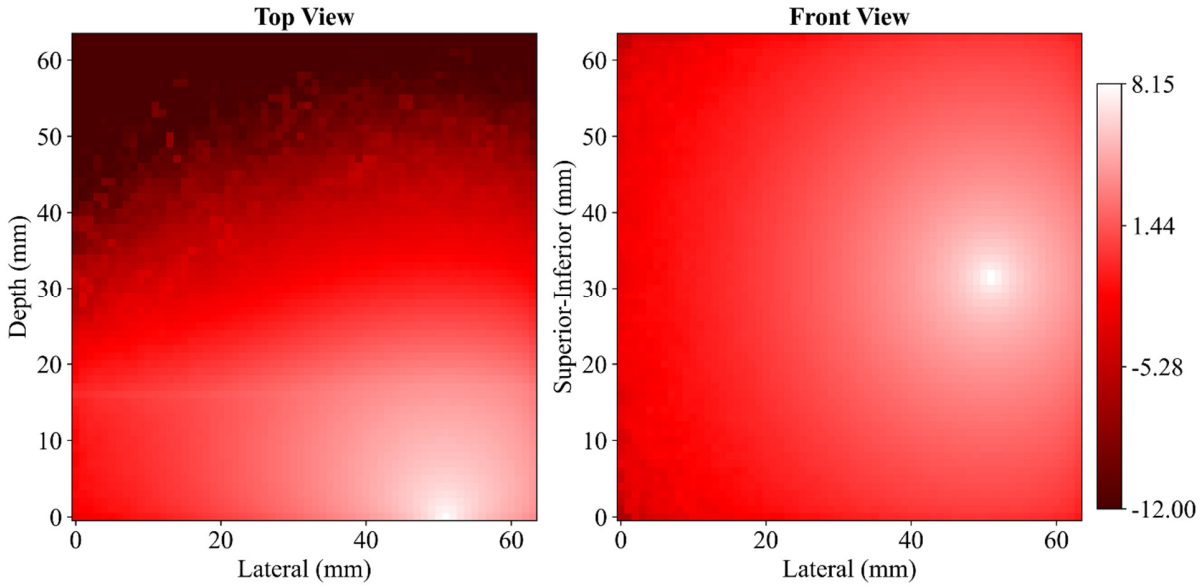


Figure S88 Spatial fluence color maps for cadaveric head #8 at 39 mm source-detector separation from top view (left) and front view (right). The bright white spots indicate the position of the light source. The color bar represents photon fluence in a logarithmic scale to enhance visibility across a wide dynamic range.

B. Sensitivity at Depth vs. Depth (2D Plots)

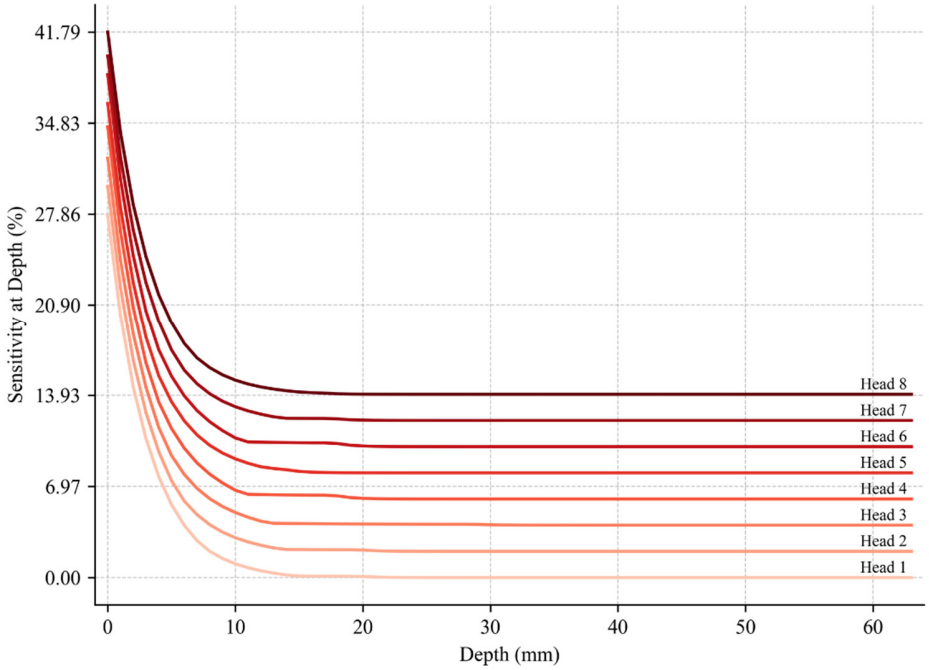


Figure S89 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 19 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

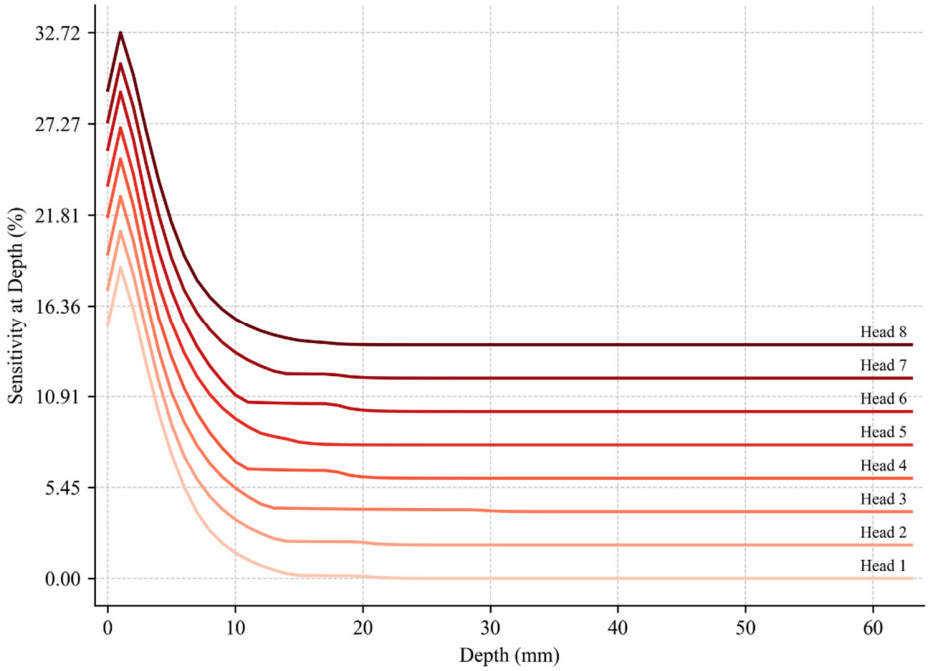


Figure S90 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 21 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

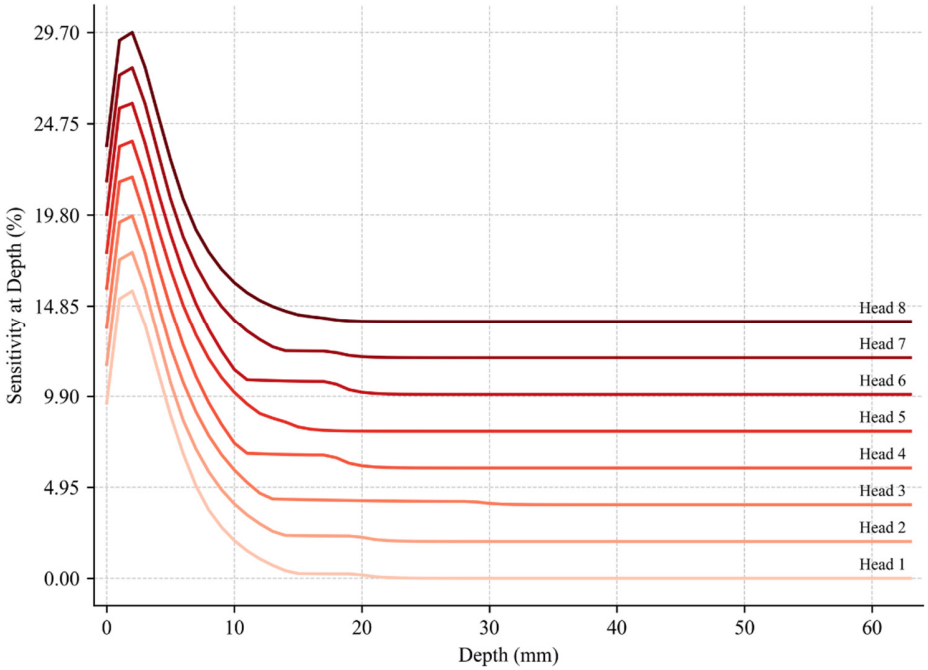


Figure S91 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 23 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

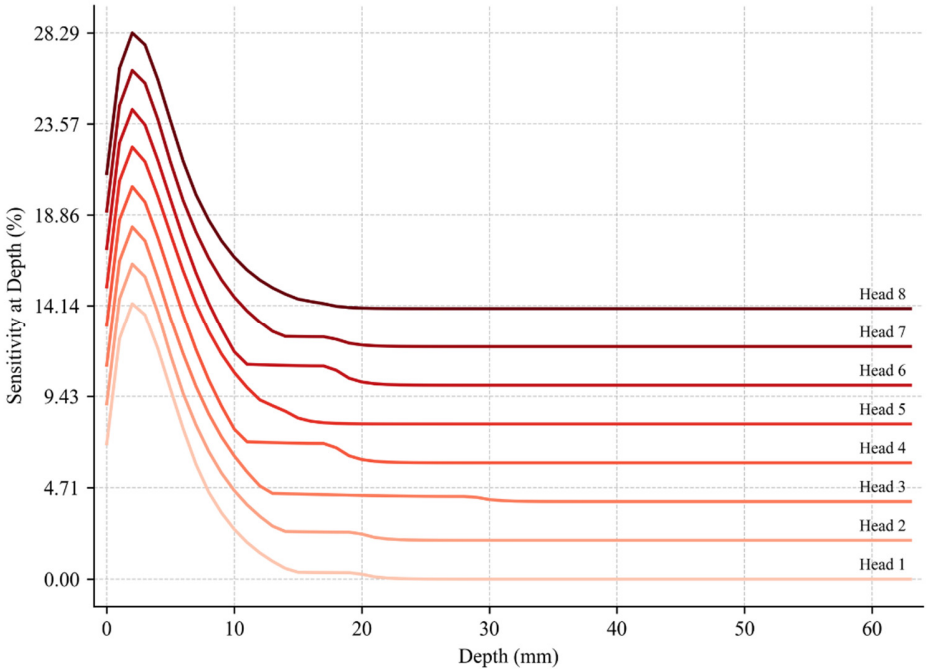


Figure S92 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 25 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

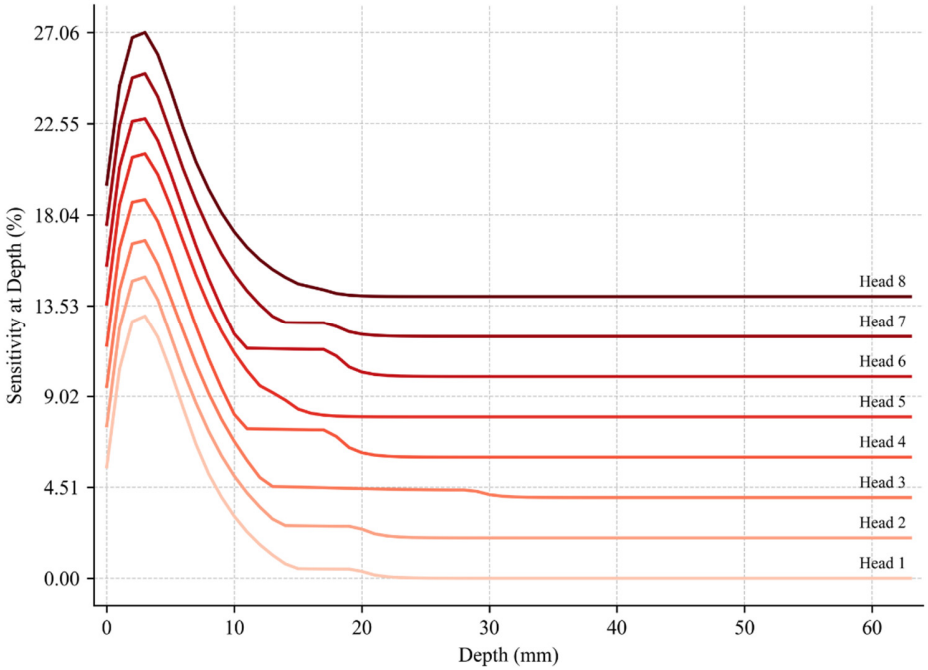


Figure S93 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 27 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

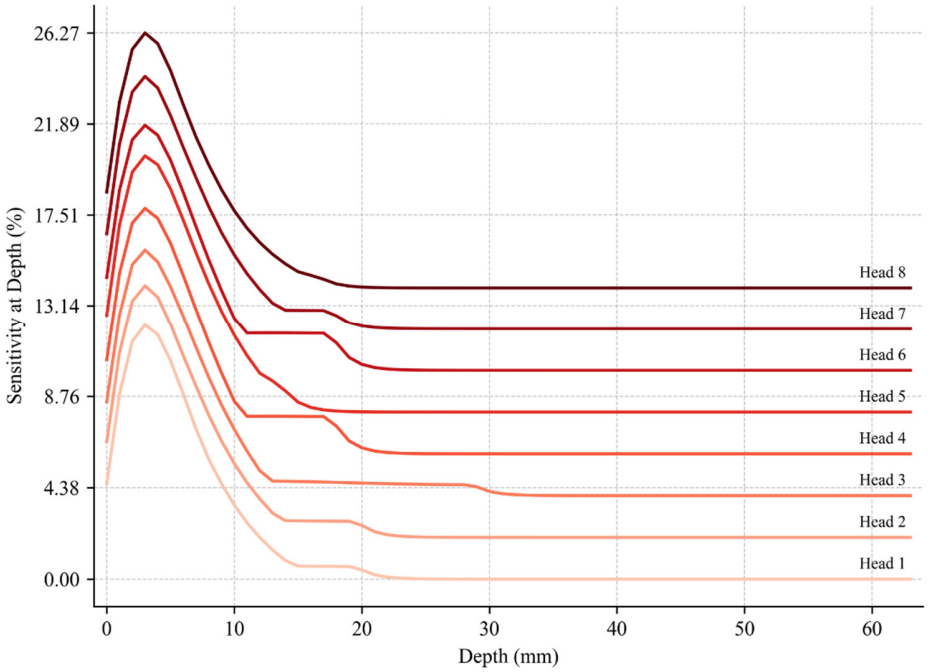


Figure S94 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 29 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

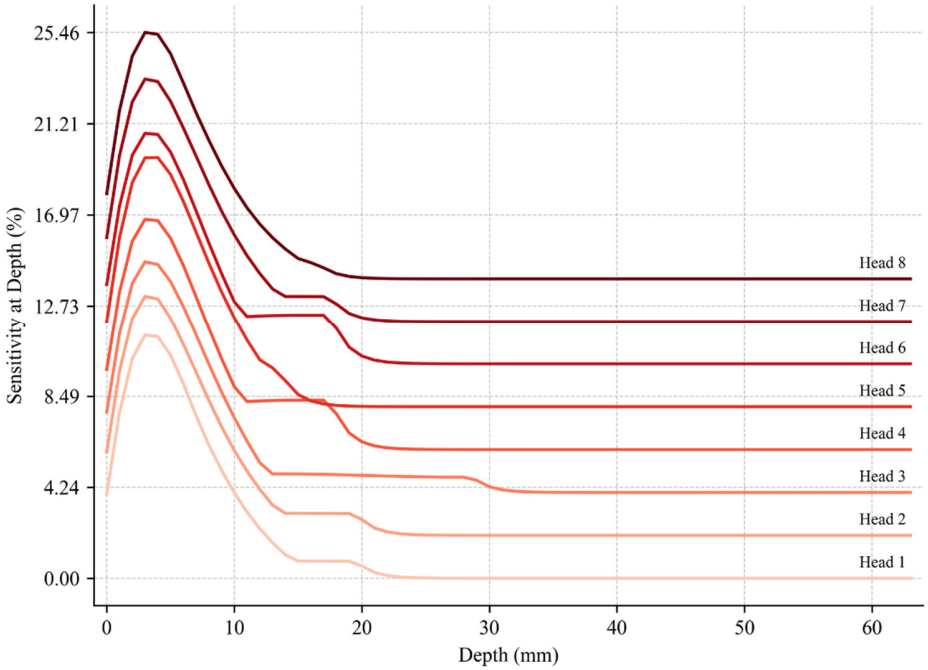


Figure S95 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 31 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

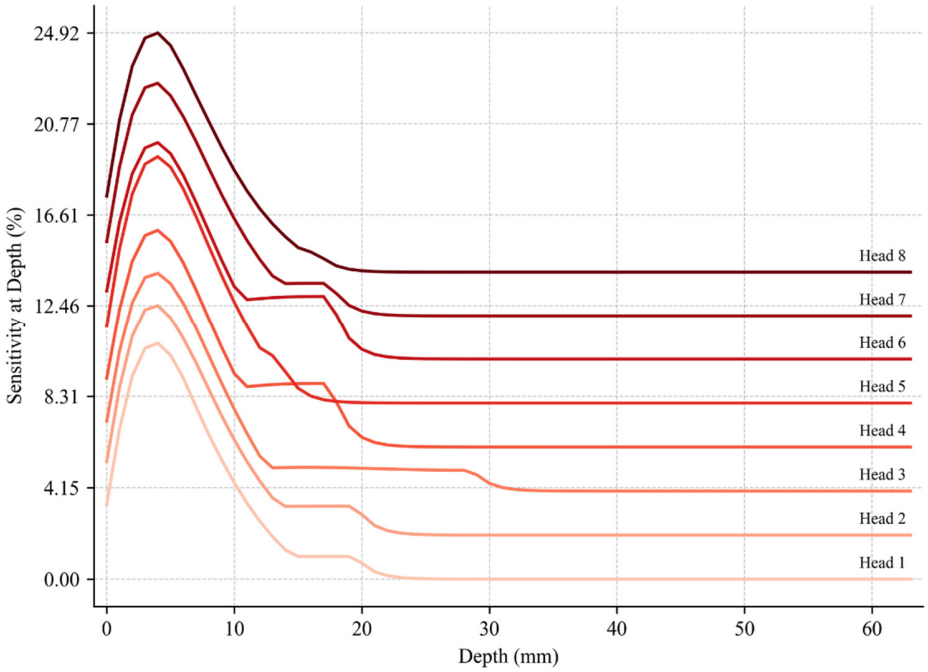


Figure S96 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 33 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

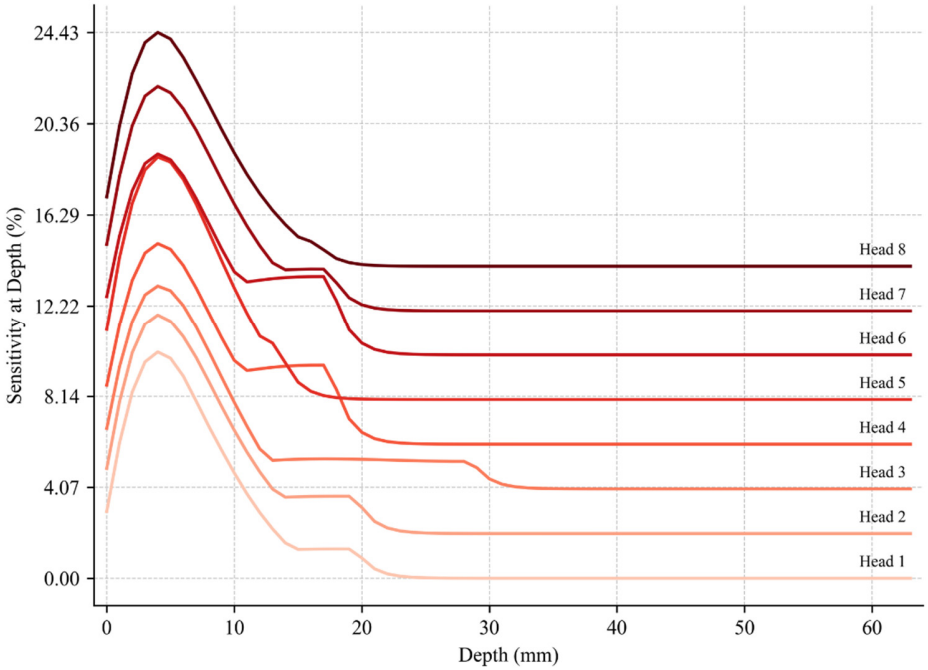


Figure S97 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 35 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

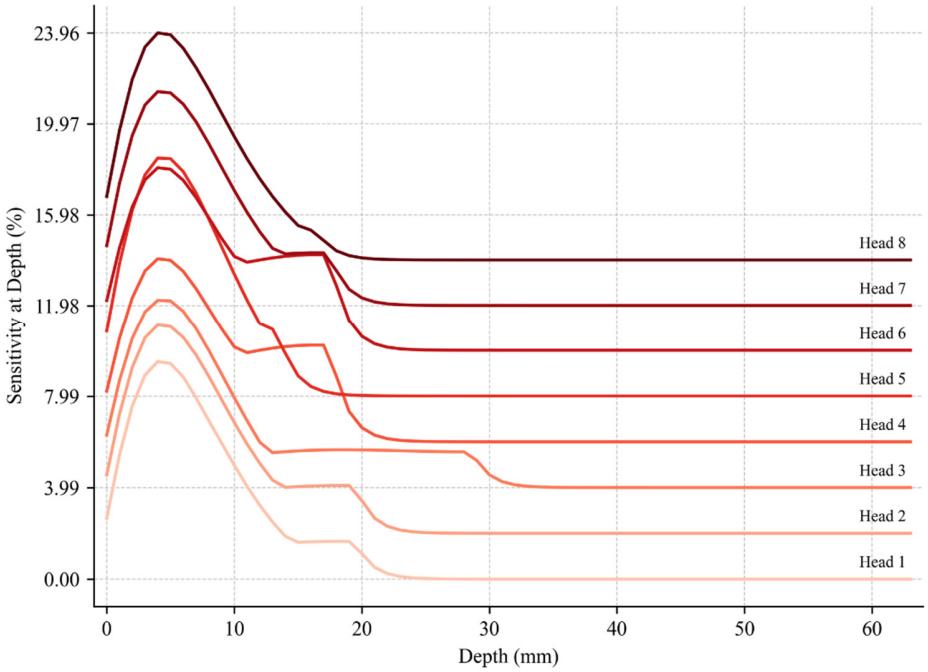


Figure S98 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 37 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

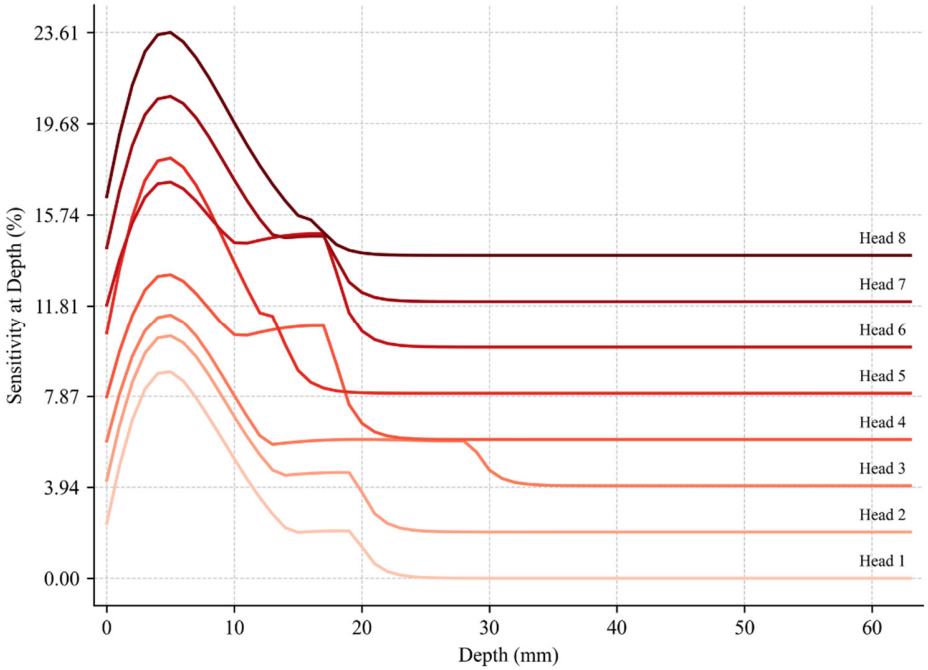


Figure S99 Sensitivity at depth vs. depth 2D plots for all cadaveric heads at 39 mm source-detector separation. Curves correspond to Heads #1–8, shown from lightest to darkest red. For clarity, curves for Heads #2–8 are vertically shifted in 2% increments to reduce overlap.

C. Sensitivity at Depth vs. Source-Detector Separation (Box Plots)

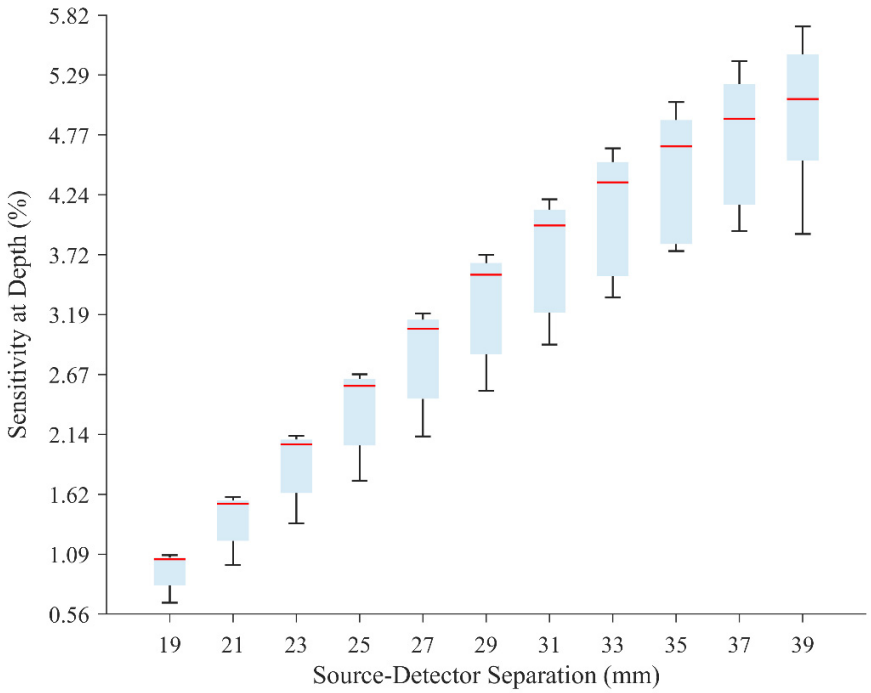


Figure S100 Sensitivity at depth vs. source-detector separation box plots at 10 mm depth. (Each box plot is generated over all cadaveric heads).

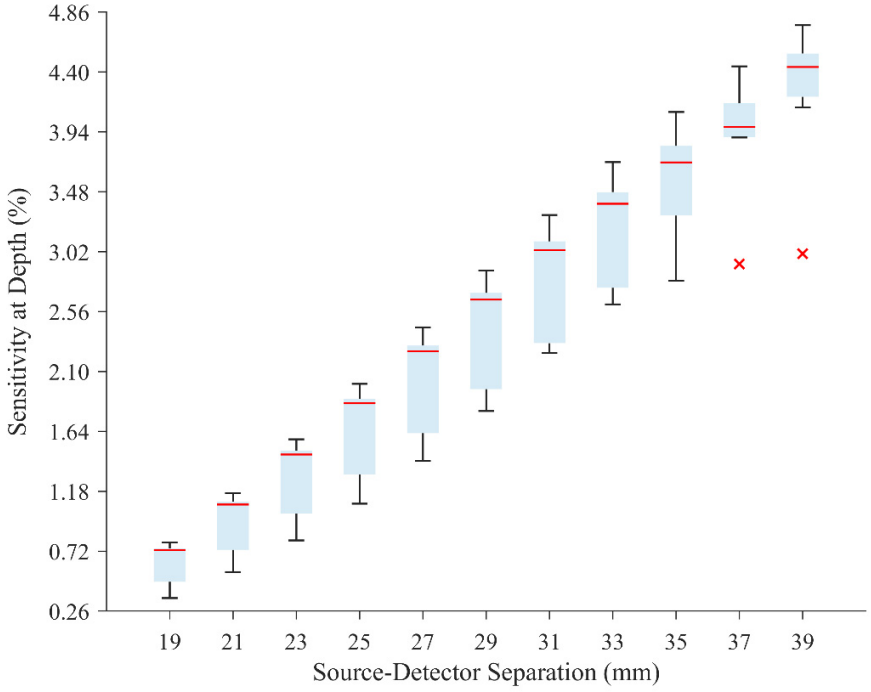


Figure S101 Sensitivity at depth vs. source-detector separation box plots at 11 mm depth. (Each box plot is generated over all cadaveric heads).

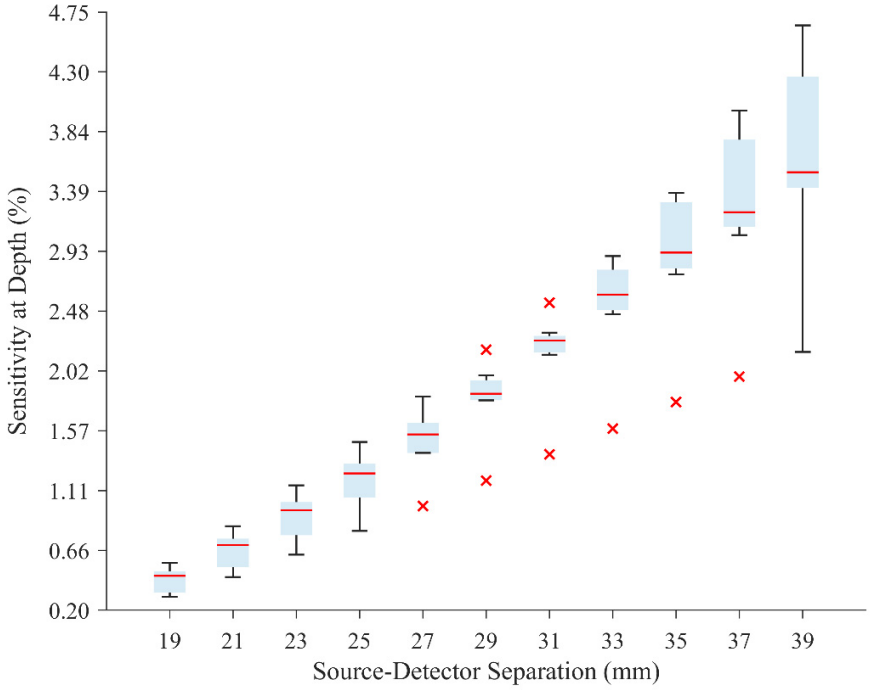


Figure S102 Sensitivity at depth vs. source-detector separation box plots at 12 mm depth. (Each box plot is generated over all cadaveric heads).

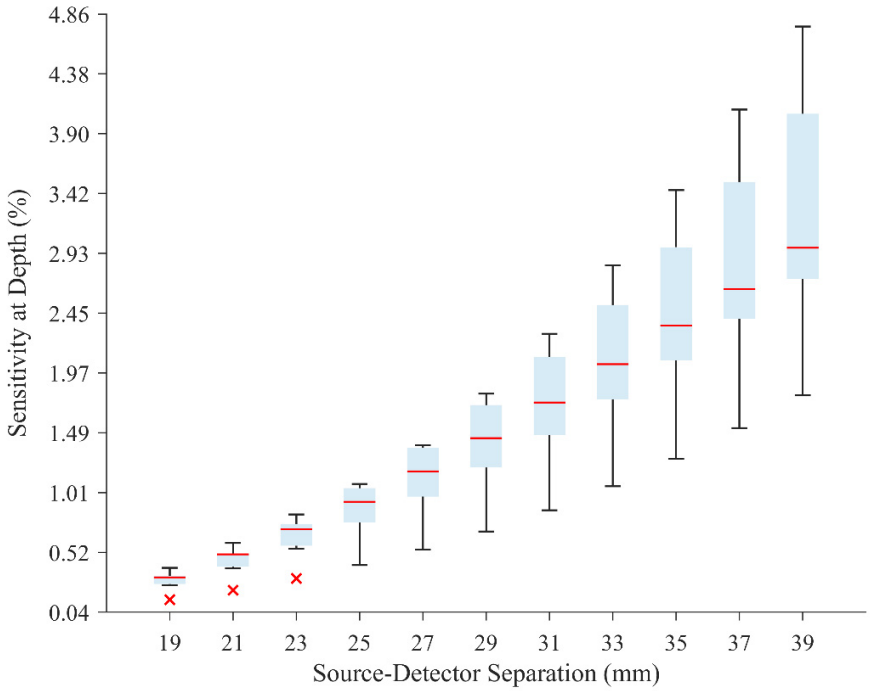


Figure S103 Sensitivity at depth vs. source-detector separation box plots at 13 mm depth. (Each box plot is generated over all cadaveric heads).

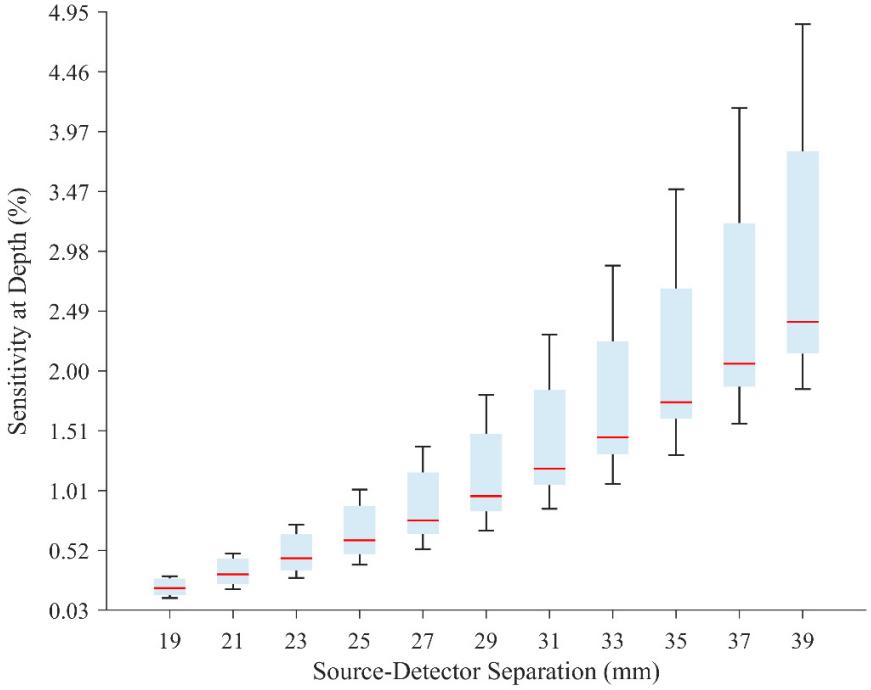


Figure S104 Sensitivity at depth vs. source-detector separation box plots at 14 mm depth. (Each box plot is generated over all cadaveric heads).

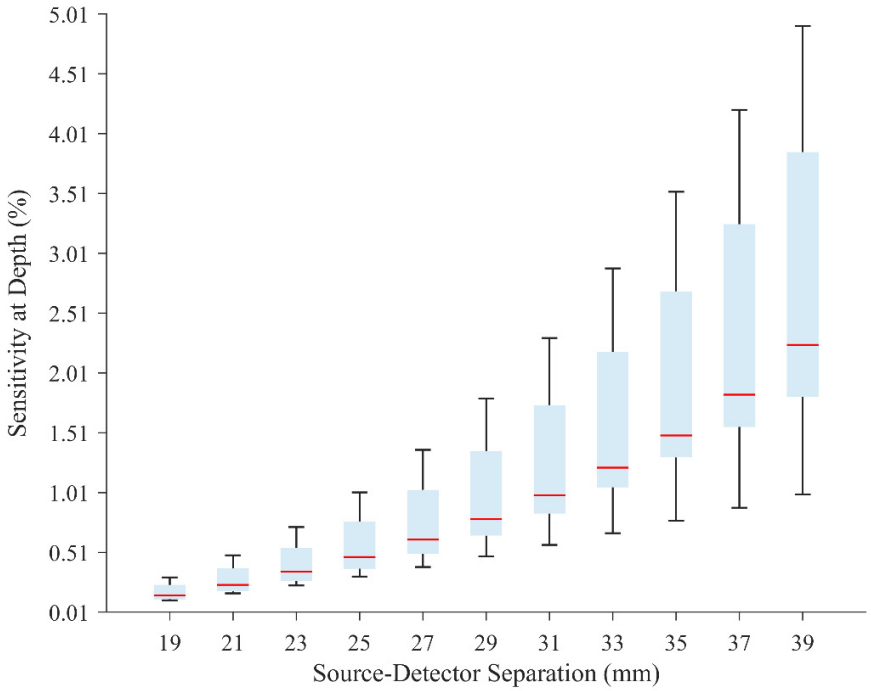


Figure S105 Sensitivity at depth vs. source-detector separation box plots at 15 mm depth. (Each box plot is generated over all cadaveric heads).

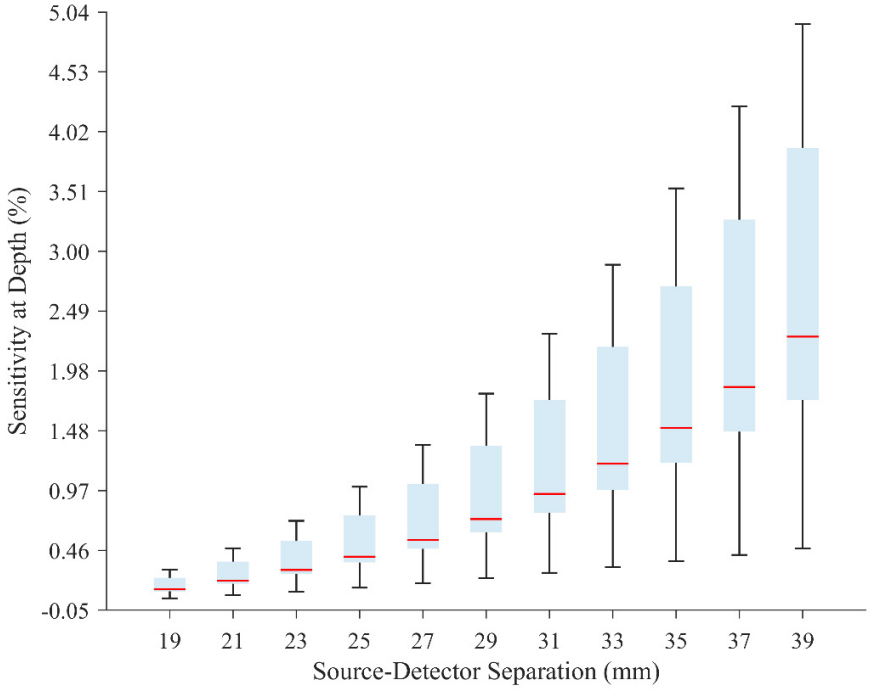


Figure S106 Sensitivity at depth vs. source-detector separation box plots at 16 mm depth. (Each box plot is generated over all cadaveric heads).

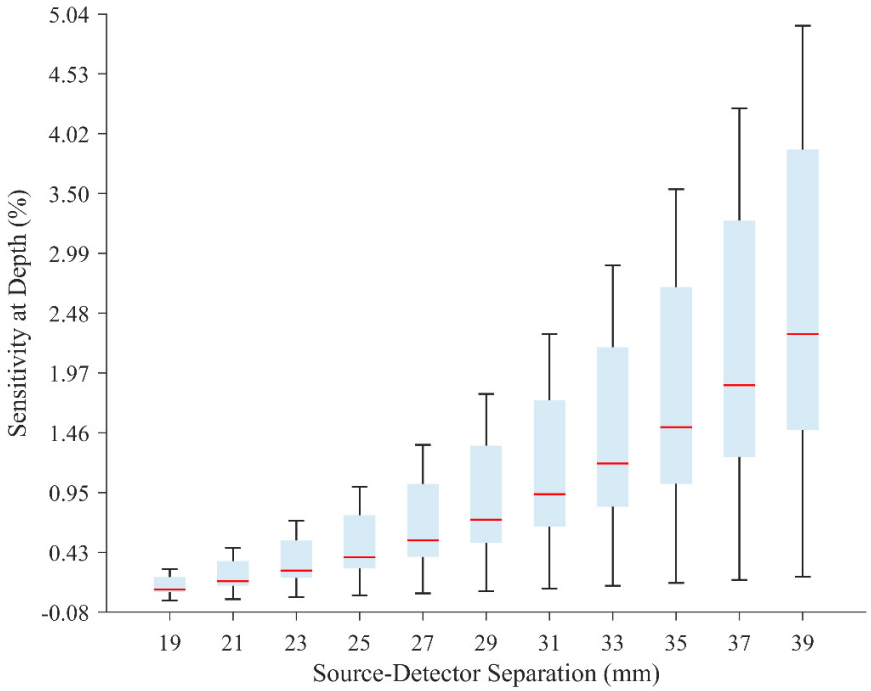


Figure S107 Sensitivity at depth vs. source-detector separation box plots at 17 mm depth. (Each box plot is generated over all cadaveric heads).

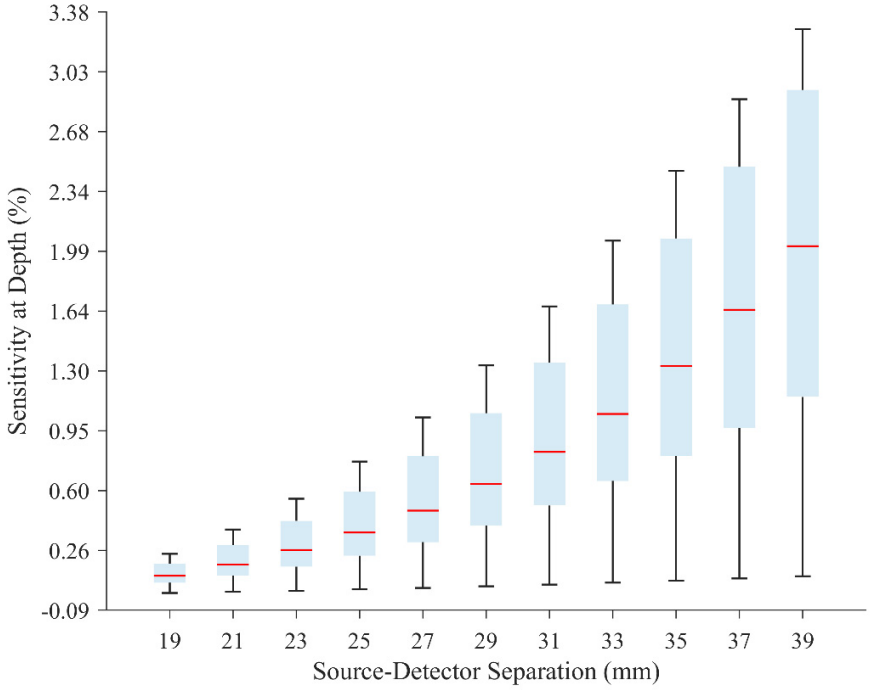


Figure S108 Sensitivity at depth vs. source-detector separation box plots at 18 mm depth. (Each box plot is generated over all cadaveric heads).

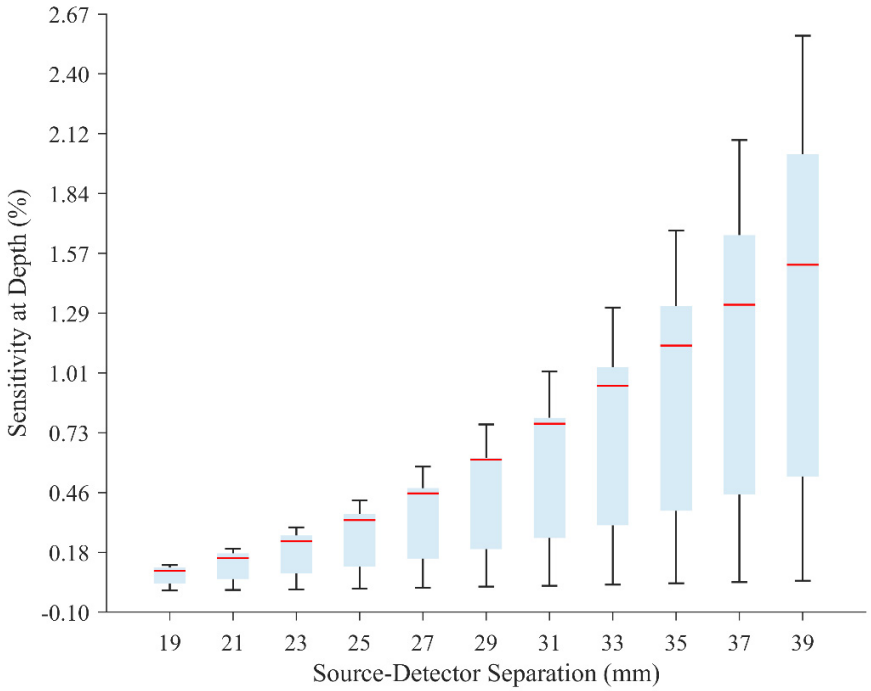


Figure S109 Sensitivity at depth vs. source-detector separation box plots at 19 mm depth. (Each box plot is generated over all cadaveric heads).

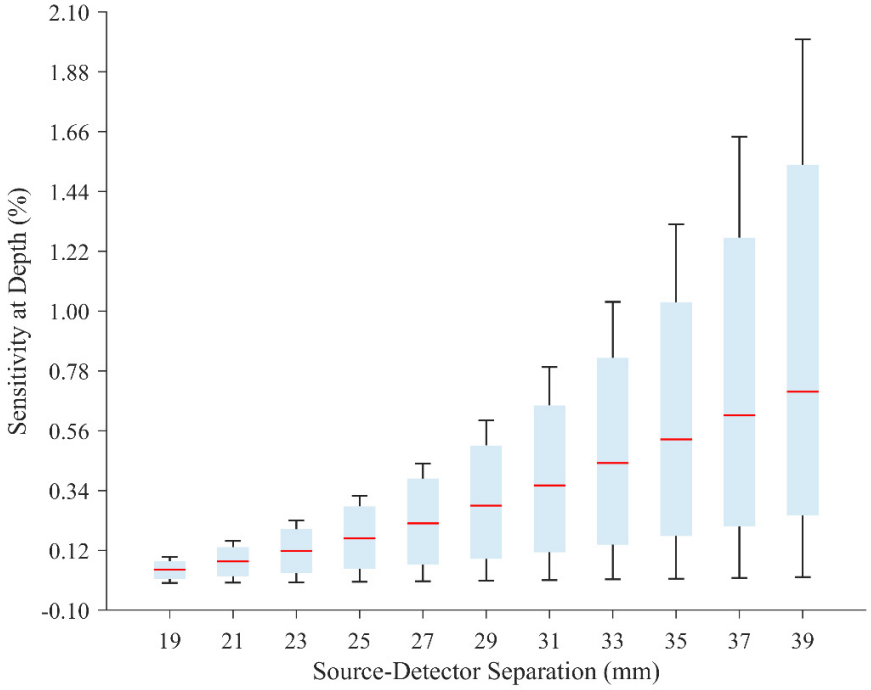


Figure S110 Sensitivity at depth vs. source-detector separation box plots at 20 mm depth. (Each box plot is generated over all cadaveric heads).

D. Photon Count vs. Path Length (Histograms)

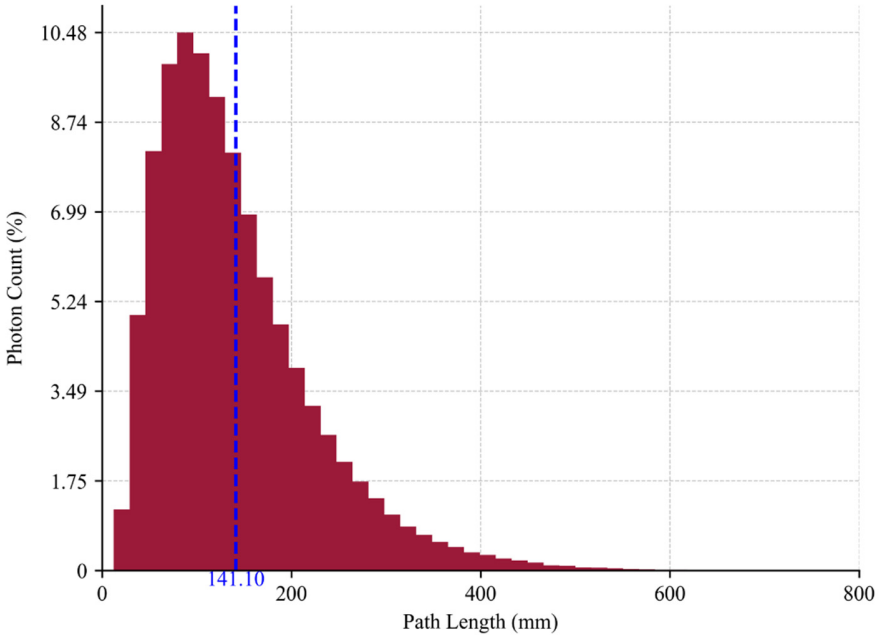


Figure S111 Photon count vs. path length histogram at 19 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

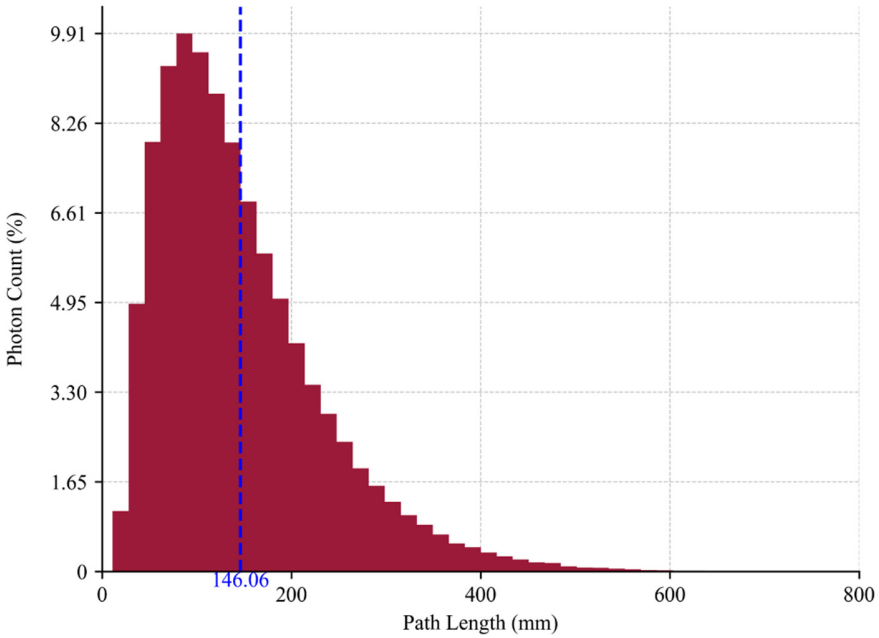


Figure S112 Photon count vs. path length histogram at 21 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

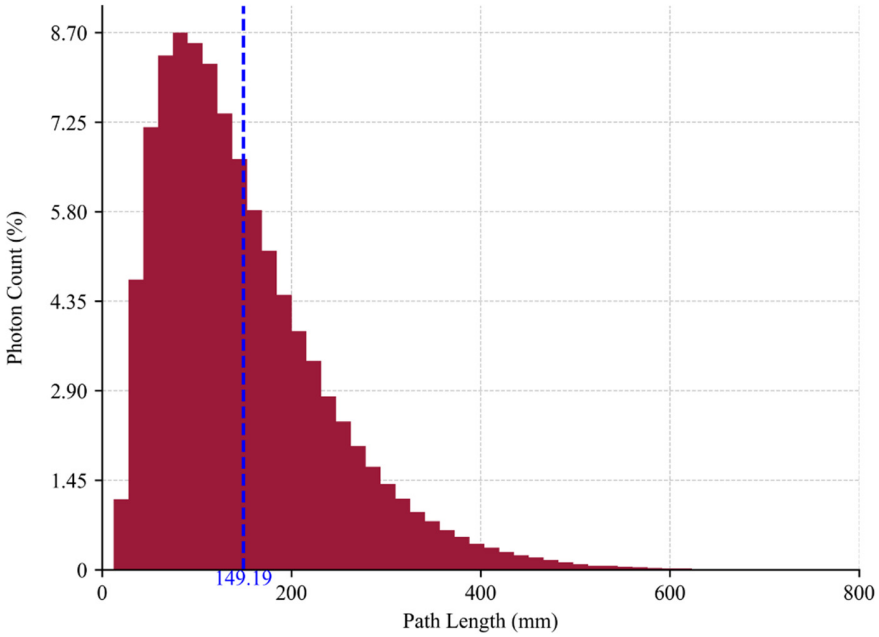


Figure S113 Photon count vs. path length histogram at 23 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

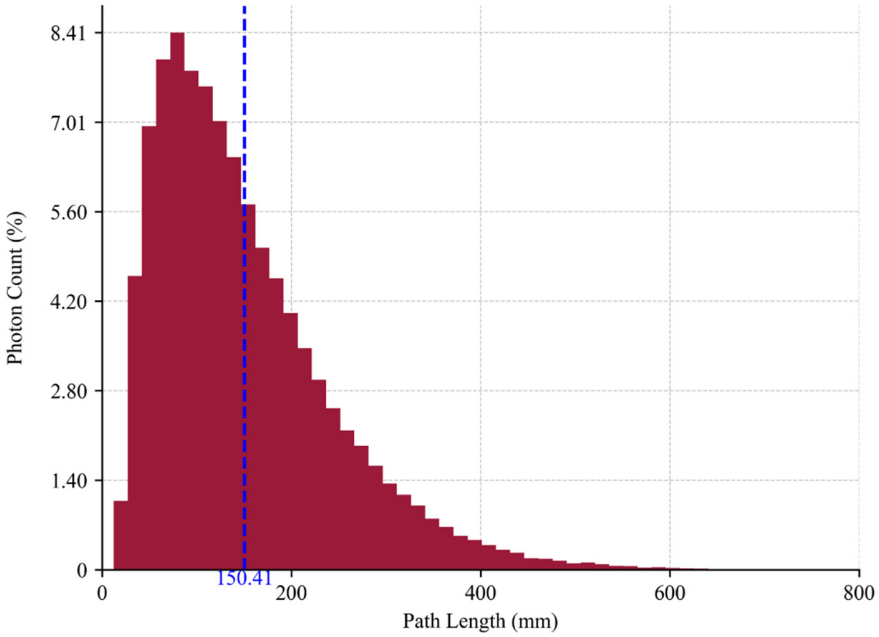


Figure S114 Photon count vs. path length histogram at 25 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

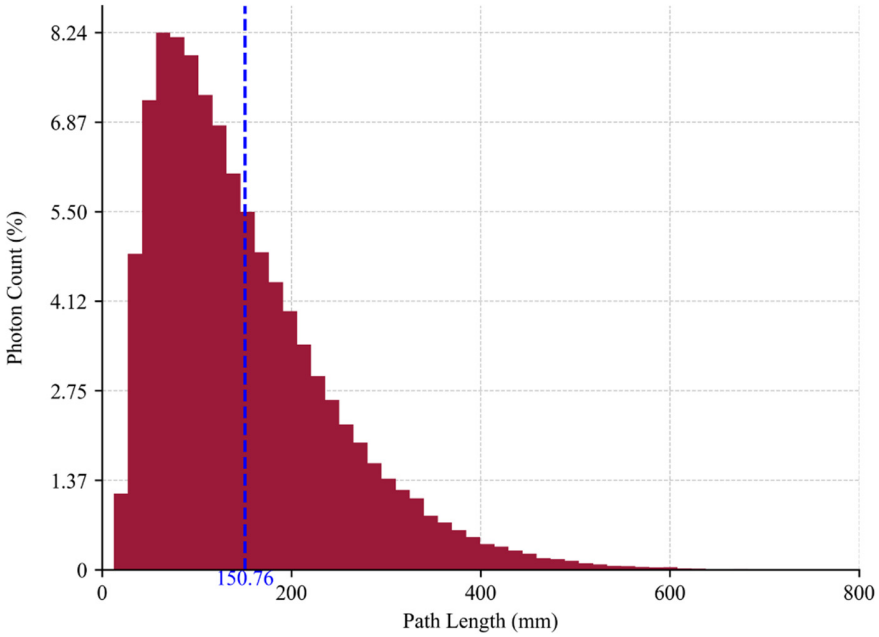


Figure S115 Photon count vs. path length histogram at 27 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

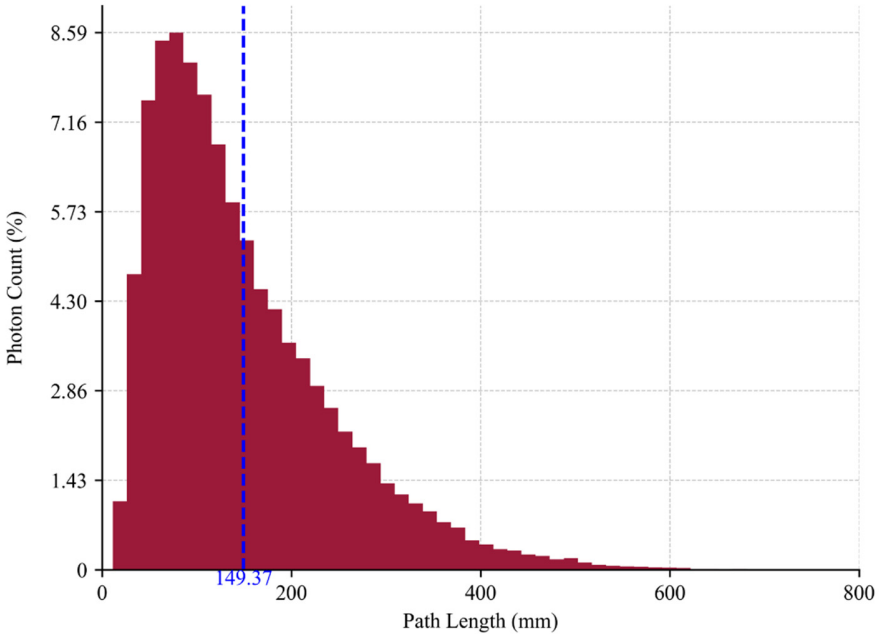


Figure S116 Photon count vs. path length histogram at 29 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

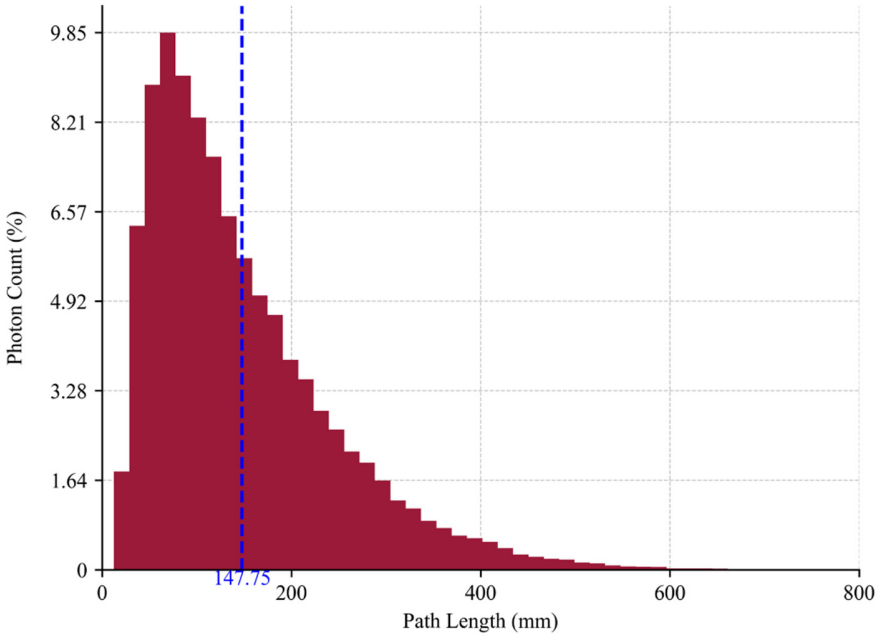


Figure S117 Photon count vs. path length histogram at 31 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

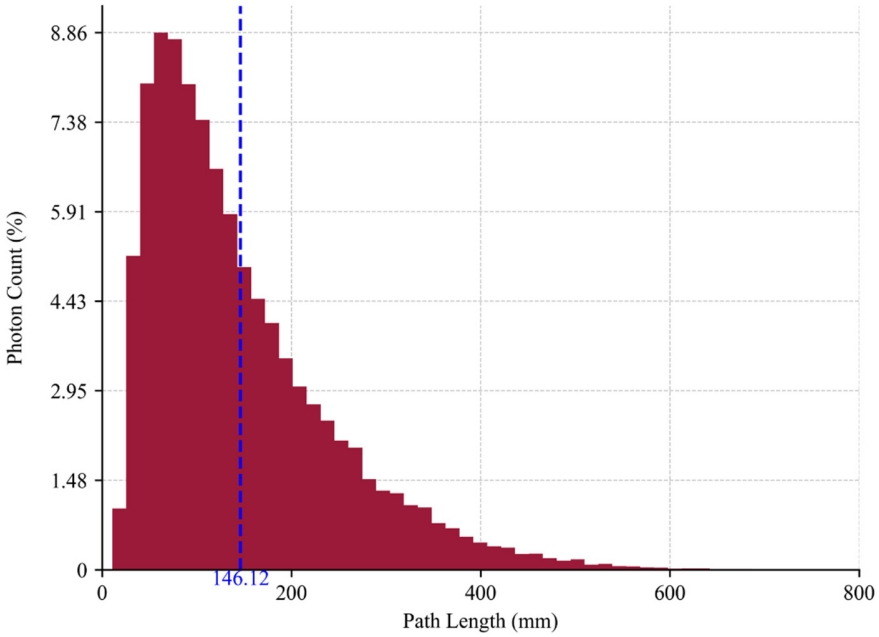


Figure S118 Photon count vs. path length histogram at 33 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

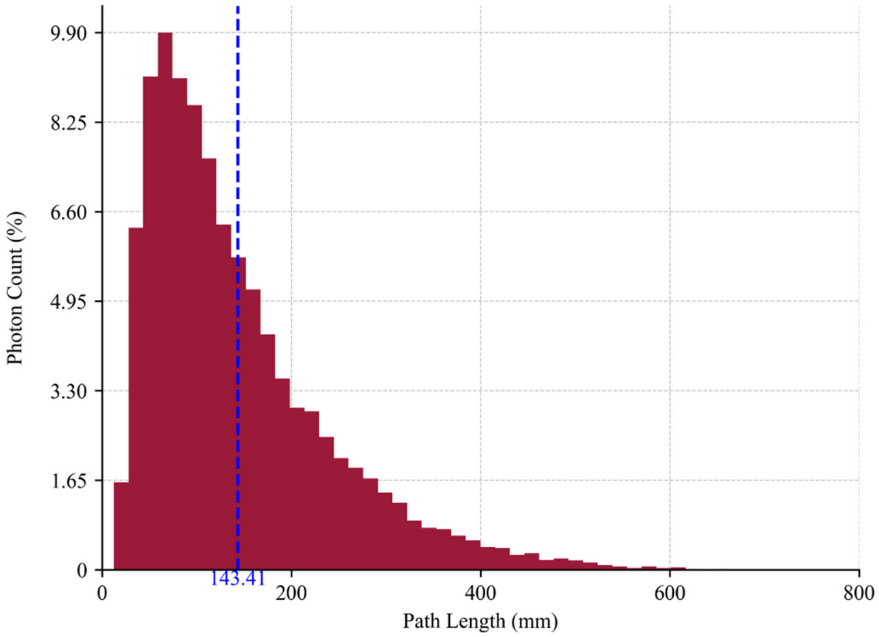


Figure S119 Photon count vs. path length histogram at 35 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

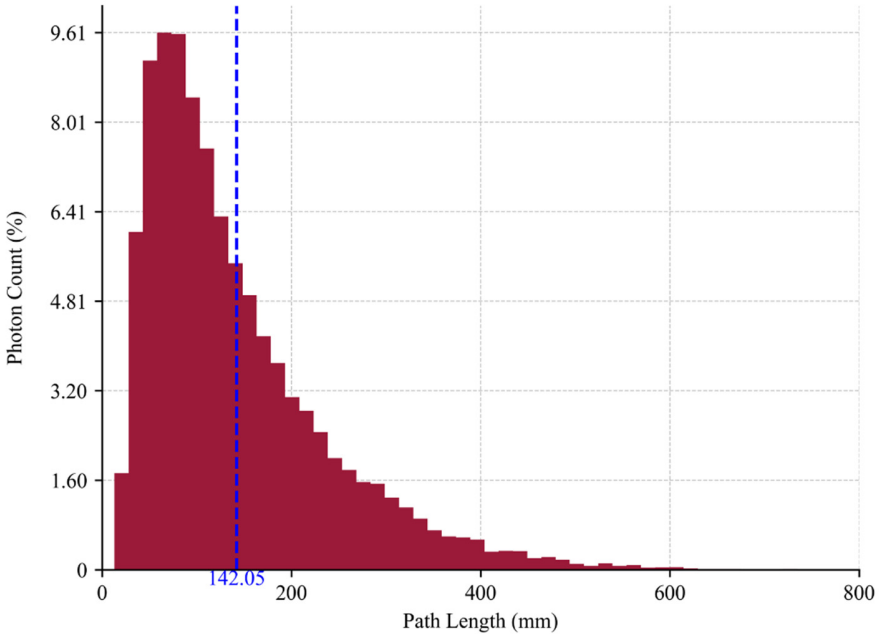


Figure S120 Photon count vs. path length histogram at 37 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.

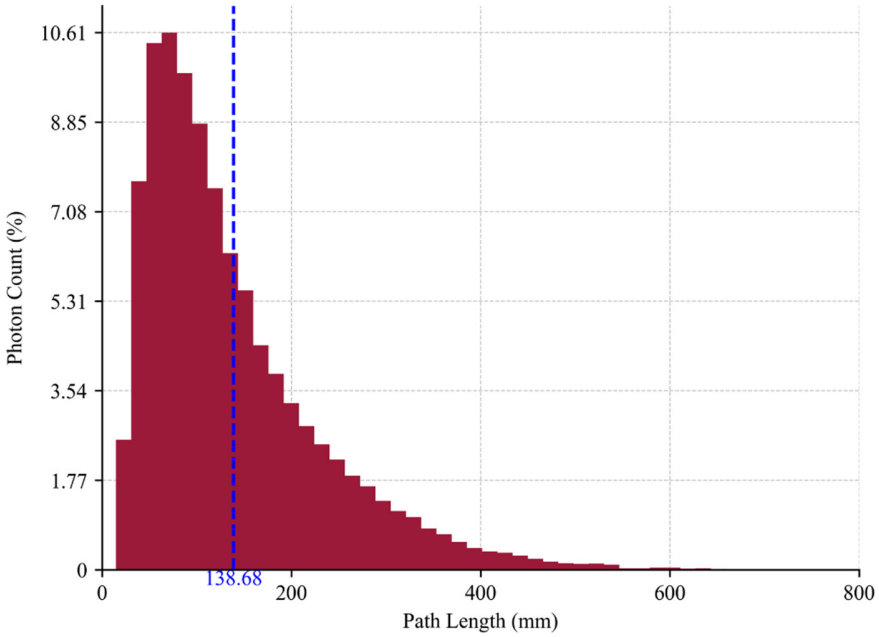


Figure S121 Photon count vs. path length histogram at 39 mm source-detector separation. Each histogram bin is generated over mean across all cadaveric heads for that data range. Vertical blue dashed line shows mean across all data.