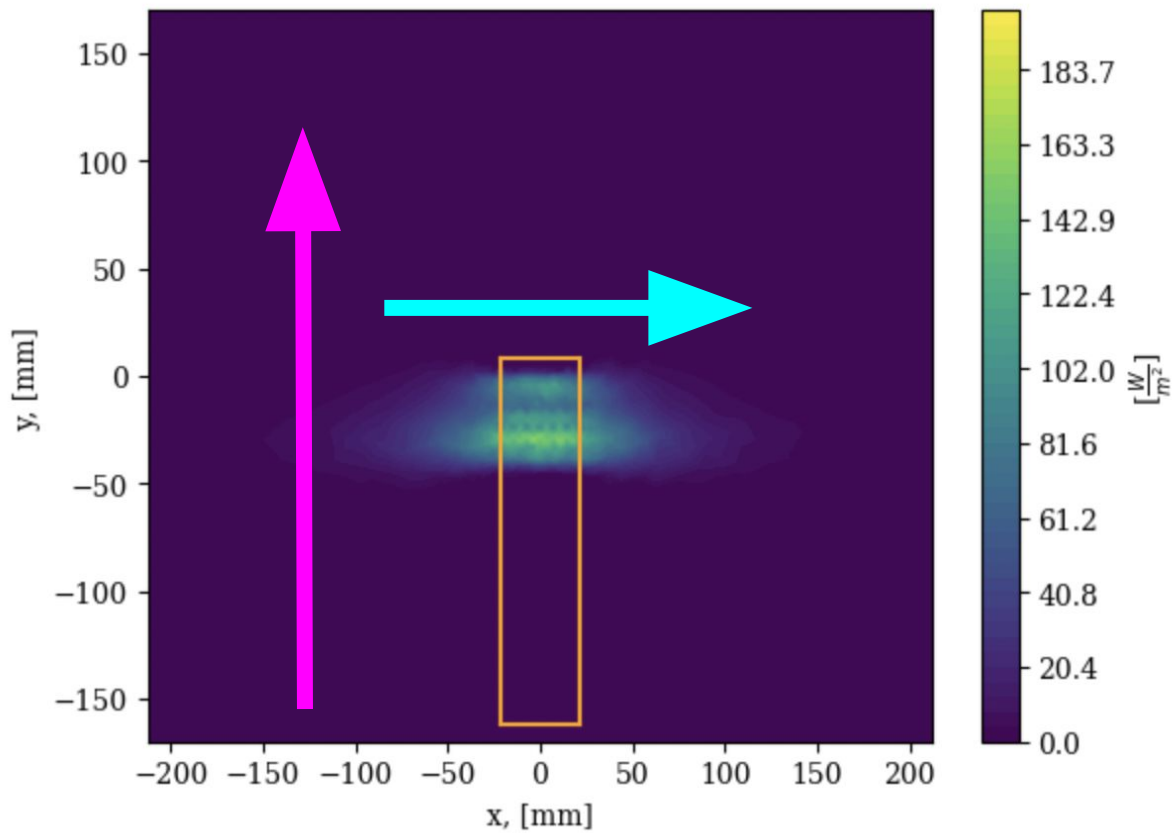# Simulation Progress
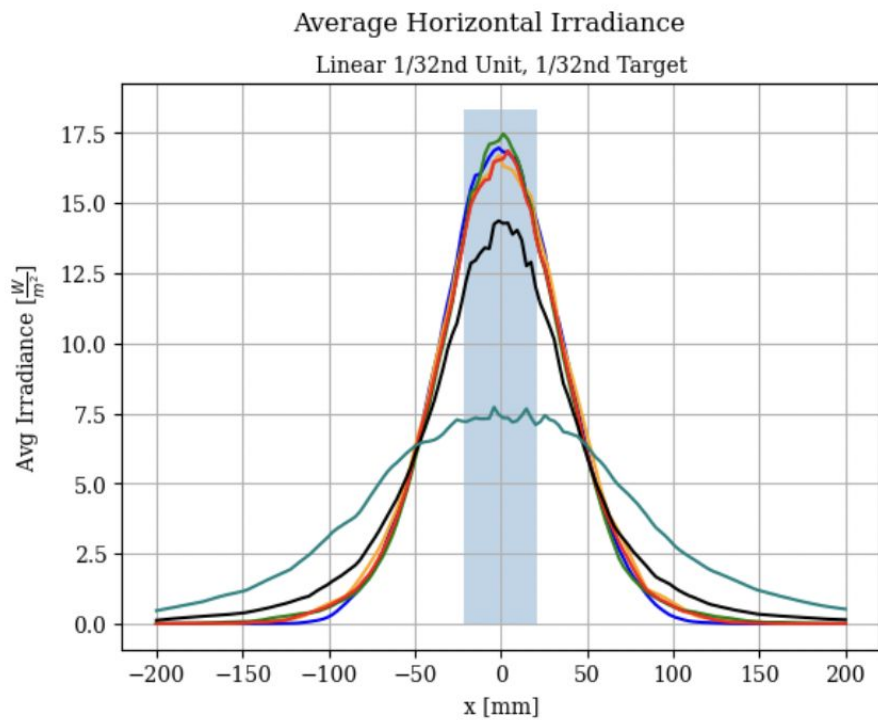
8/15/23

Surface Irradiance [$\frac{W}{m^2}$], Flat Bounds
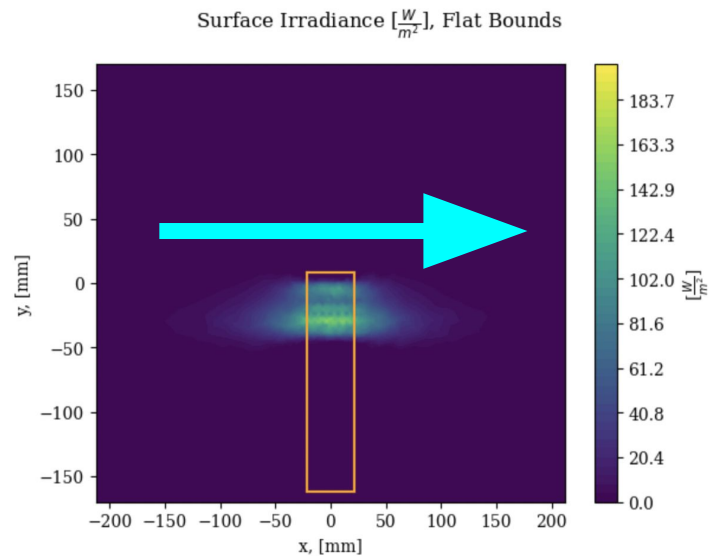
Averaged along horizontal axis

Averaged along vertical axis

Average Horizontal Irradiance

Linear 1/32nd Unit, 1/32nd Target

Surface Irradiance $[\frac{W}{m^2}]$, Flat Bounds

- Parabola Rot, p1=90.607, p2=12.58
- Parabola, p1=43.326, p2=5.5259, rotated parabola plane axis=45 degrees
- Parabola, p1=44.5259, p2=8.69, phi_parabola=0.313588
- Parabolic: p1=43.326, p2=5.5828
- Flat Bounds
- No Bounds
- Target, X Dimension

Average Vertical Irradiance
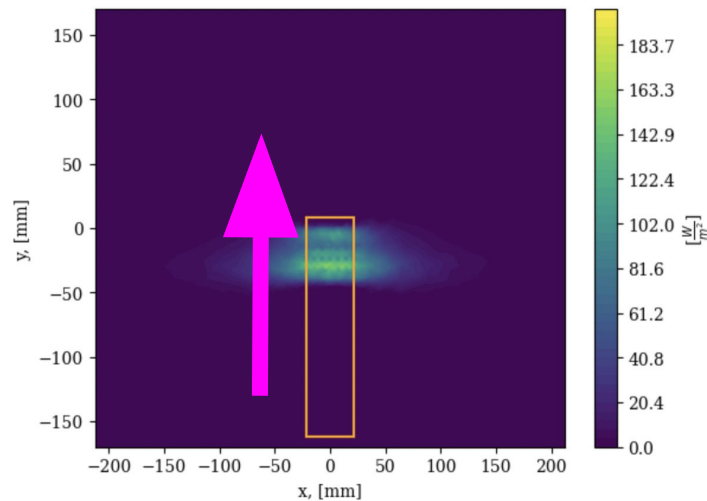### Linear 1/32nd Unit, 1/32nd Target
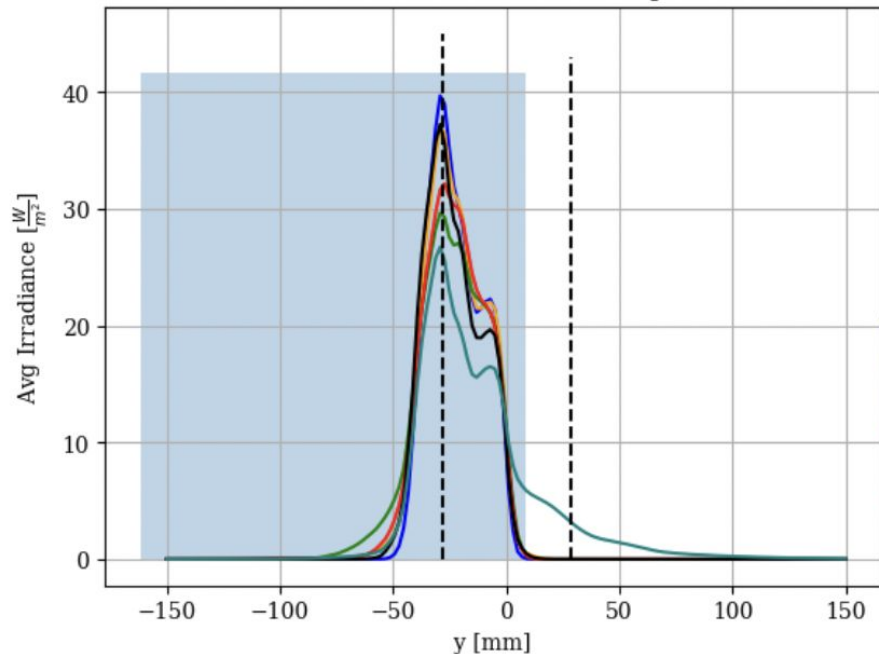
Surface Irradiance $[\frac{W}{m^2}]$, Flat Bounds

- Parabola Rot, p1=90.607, p2=12.58
- Parabola, p1=43.326, p2=5.5259, rotated parabola plane axis=45 degrees
- Parabola, p1=44.5259, p2=8.69, phi_parabola=0.313588
- Parabolic: p1=43.326, p2=5.5828
- Flat Bounds
- No Bounds
- - - Reflector Y Bounds
- Target, Y Dimension

Normalized [by Deposited Power] Average Horizontal Irradiance

Linear Model, 1/32nd Unit and Target

y-axis: Avg Irradiance $[\frac{W}{m^2}]$

x-axis: x [mm]

Legend:
- Parabola Rot, p1=90.607, p2=12.58
- Parabola, p1=43.326, p2=5.5259, rotated parabola plane axis=45 degrees
- Parabola, p1=44.5259, p2=8.69, phi_parabola=0.313588
- Parabolic: p1=43.326, p2=5.5828
- Flat Bounds
- No Bounds
- Target, X Dimension
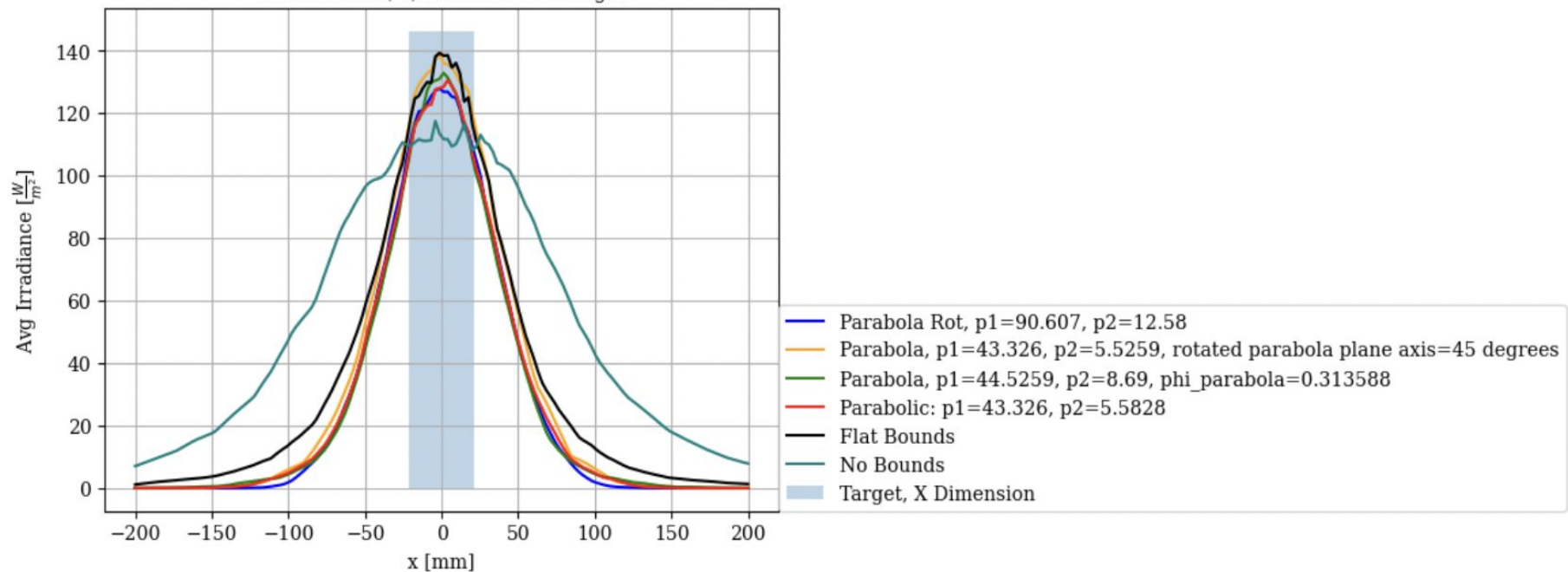
Normalized [by Deposited Power] Average Vertical Irradiance

Linear Model, 1/32nd Unit and Target

Legend:
- Parabola Rot, p1=90.607, p2=12.58
- Parabola, p1=43.326, p2=5.5259, rotated parabola plane axis=45 degrees
- Parabola, p1=44.5259, p2=8.69, phi_parabola=0.313588
- Parabolic: p1=43.326, p2=5.5828
- Flat Bounds
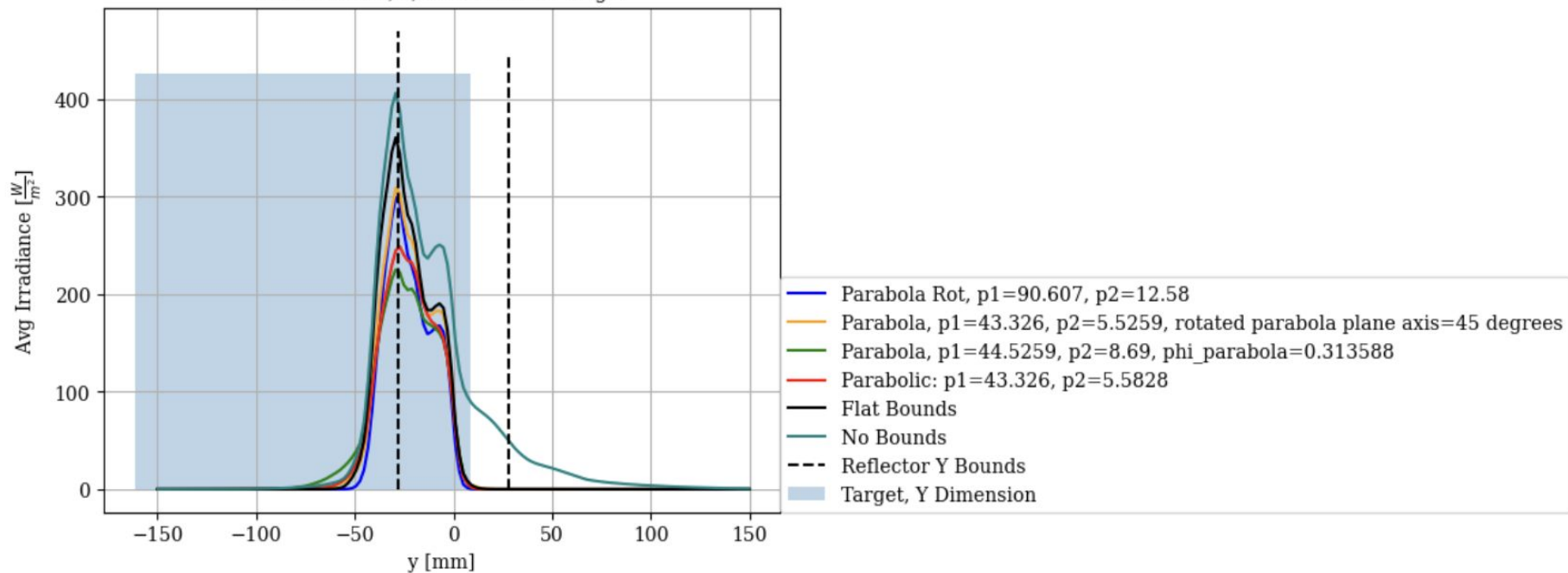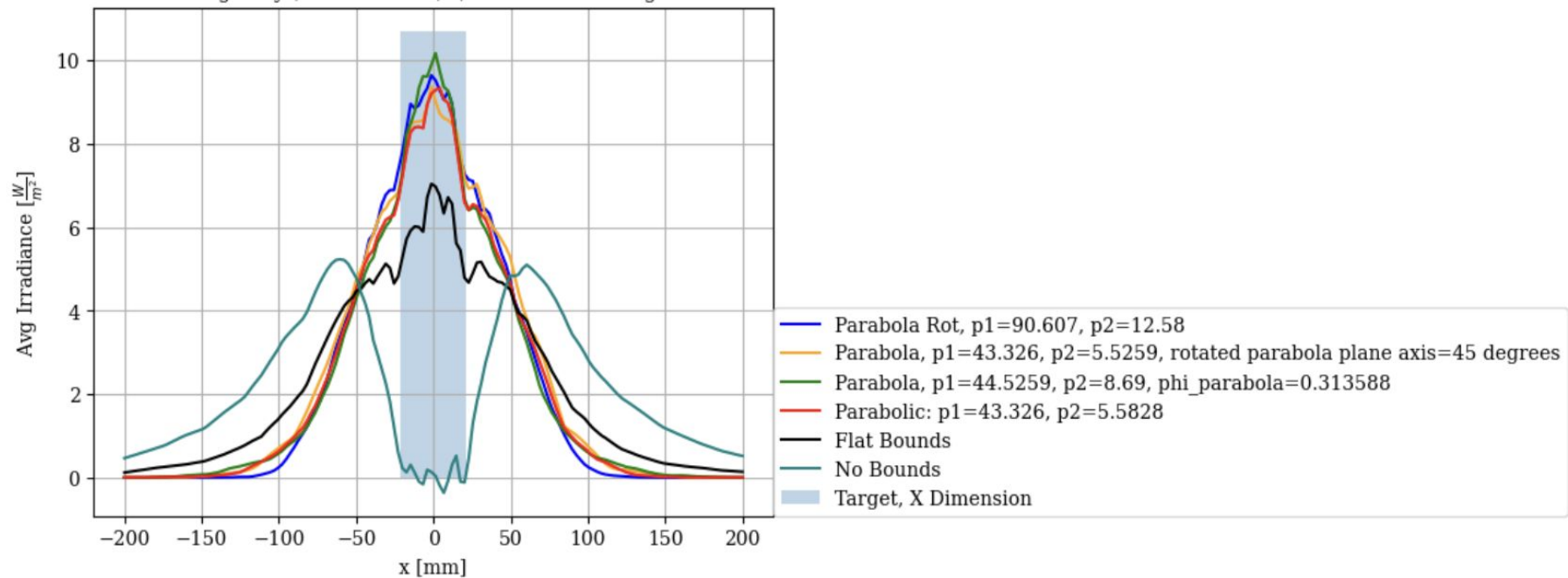- No Bounds
- Reflector Y Bounds
- Target, Y Dimension

X-axis: y [mm]

Y-axis: Avg Irradiance [$\frac{W}{m^2}$]

Average Horizontal Irradiance

Edge Rays, Linear Model, 1/32nd Unit and Target

Legend:
- Parabola Rot, p1=90.607, p2=12.58
- Parabola, p1=43.326, p2=5.5259, rotated parabola plane axis=45 degrees
- Parabola, p1=44.5259, p2=8.69, phi_parabola=0.313588
- Parabolic: p1=43.326, p2=5.5828
- Flat Bounds
- No Bounds
- Target, X Dimension

Average Vertical Irradiance

Edge Rays, Linear Model, 1/32nd Unit and Target

Legend:
- Parabola Rot, p1=90.607, p2=12.58
- Parabola, p1=43.326, p2=5.5259, rotated parabola plane axis=45 degrees
- Parabola, p1=44.5259, p2=8.69, phi_parabola=0.313588
- Parabolic: p1=43.326, p2=5.5828
- Flat Bounds
- No Bounds
- Reflector Y Bounds
- Target, Y Dimension

x-axis: y [mm]

y-axis: Avg Irradiance $[\frac{W}{m^2}]$
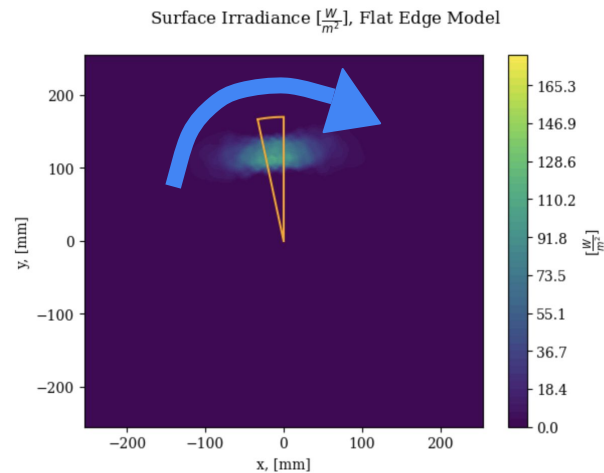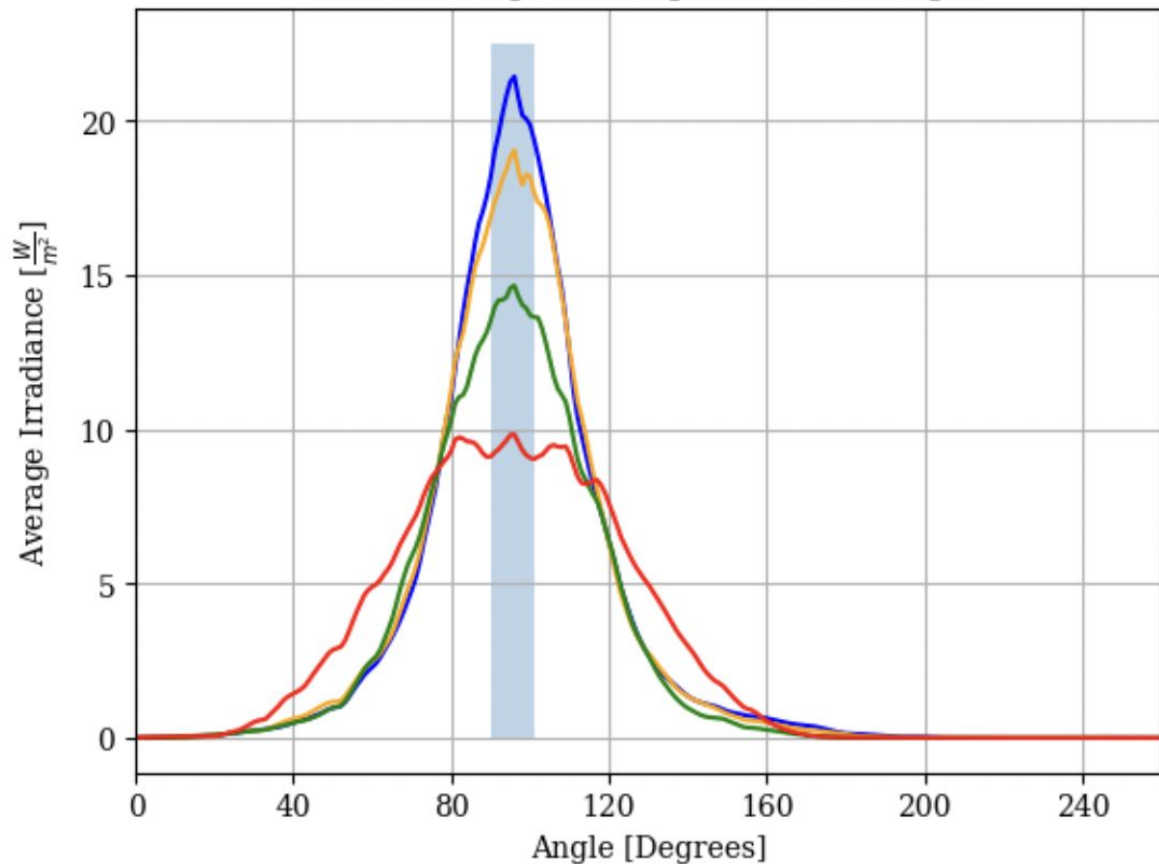
Surface Irradiance [$\frac{W}{m^2}$], Flat Edge Model

Averaged along radial axis

Averaged along azimuthal axis
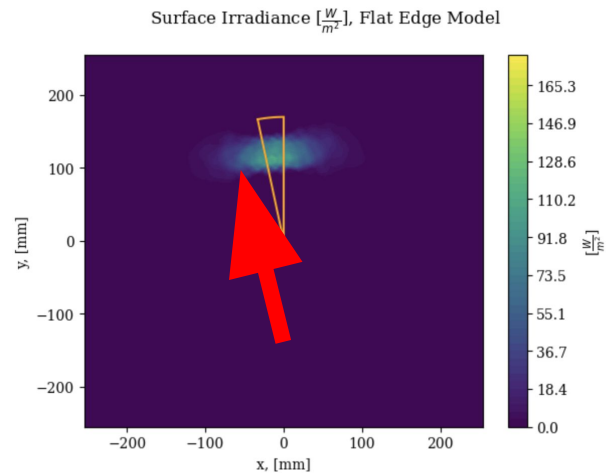
Angular Distribution of (Average) Irradiance

1/32 Unit Edge Coverings, Arc Model/Target

Surface Irradiance $[\frac{W}{m^2}]$, Flat Edge Model

Parabolic: 44.5259, 8.69, 0.313588
Parabolic: 43.326, 5.5828
Flat
None
Target

Radial Distribution of (Average) Irradiance

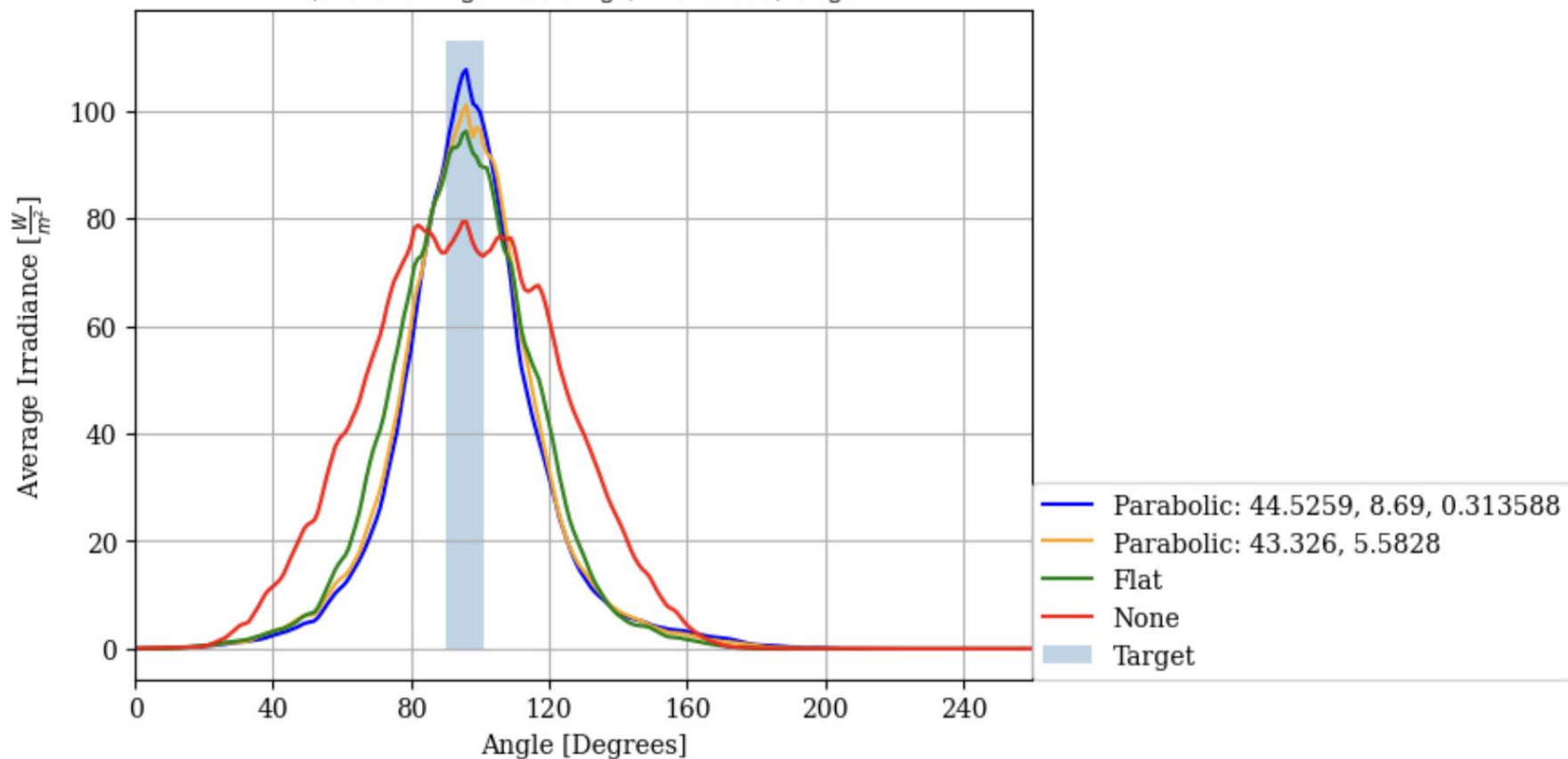1/32 Unit Edge Coverings, Arc Model/Target

Surface Irradiance $[\frac{W}{m^2}]$, Flat Edge Model

Legend:
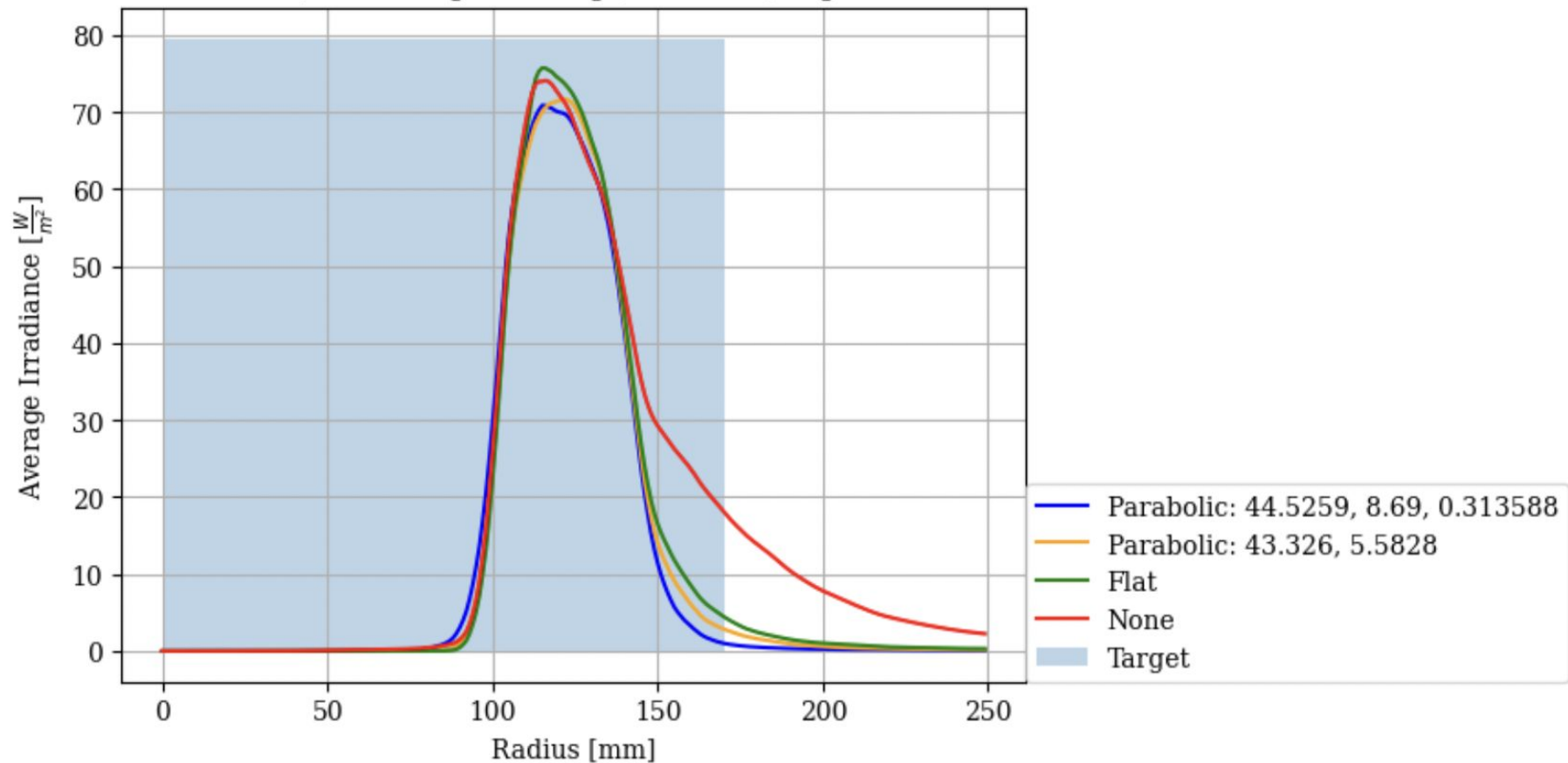- Parabolic: 44.5259, 8.69, 0.313588
- Parabolic: 43.326, 5.5828
- Flat
- None
- Target
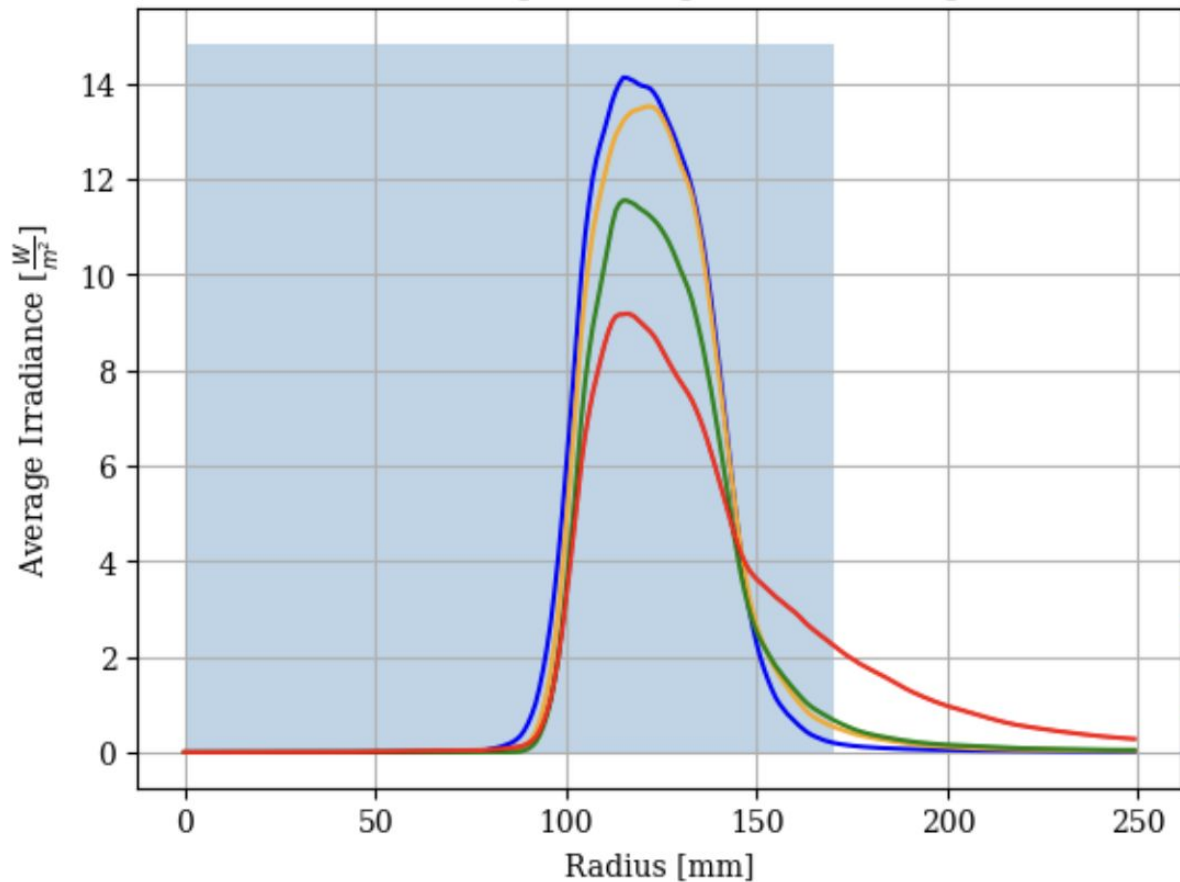
Normalized [by Power] Angular Distribution of (Average) Irradiance

1/32 Unit Edge Coverings, Arc Model/Target

Y-axis: Average Irradiance $[\frac{W}{m^2}]$

X-axis: Angle [Degrees]

Legend:
- Parabolic: 44.5259, 8.69, 0.313588
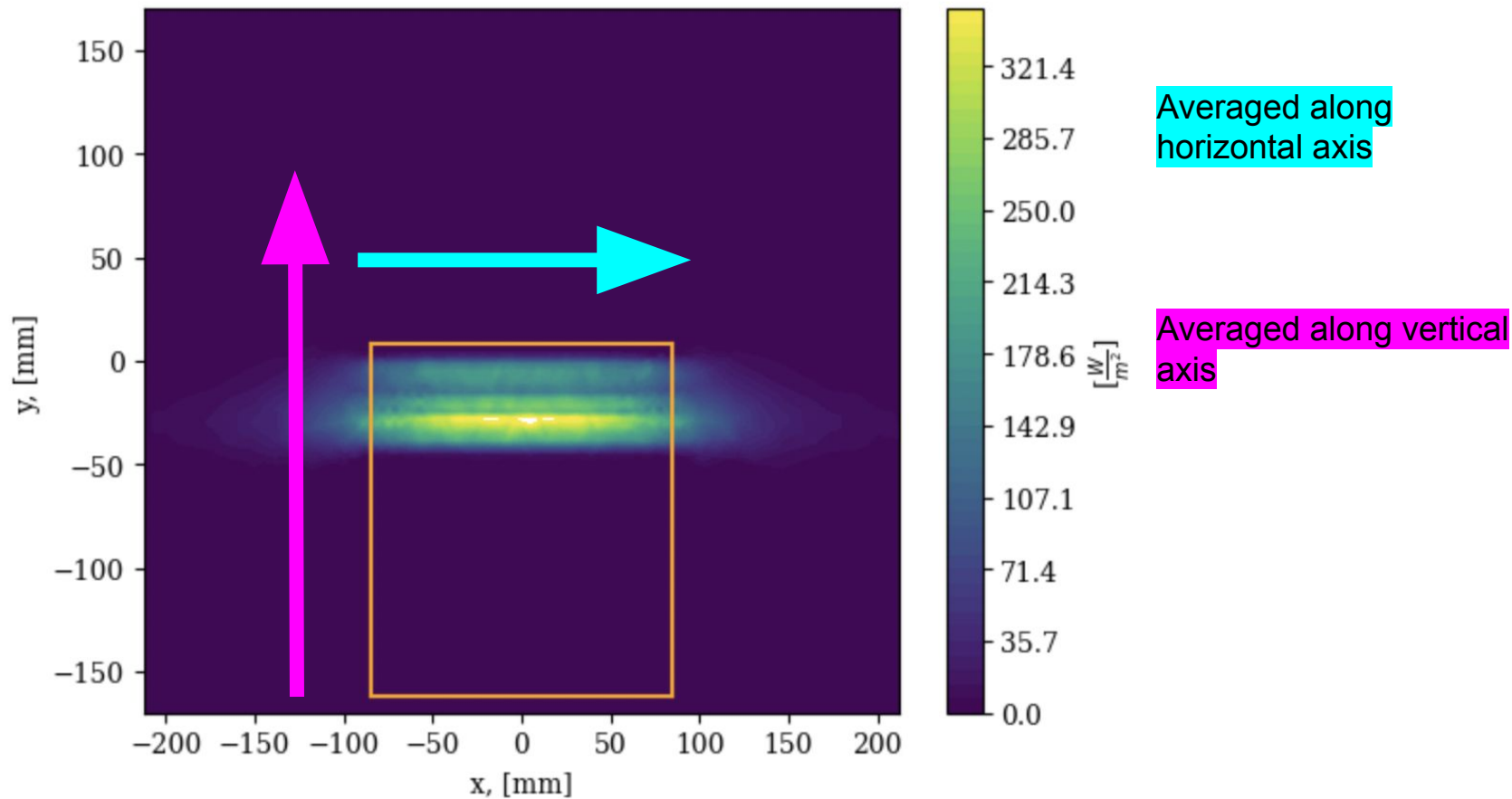- Parabolic: 43.326, 5.5828
- Flat
- None
- Target

Normalized [by Power] Radial Distribution of (Average) Irradiance
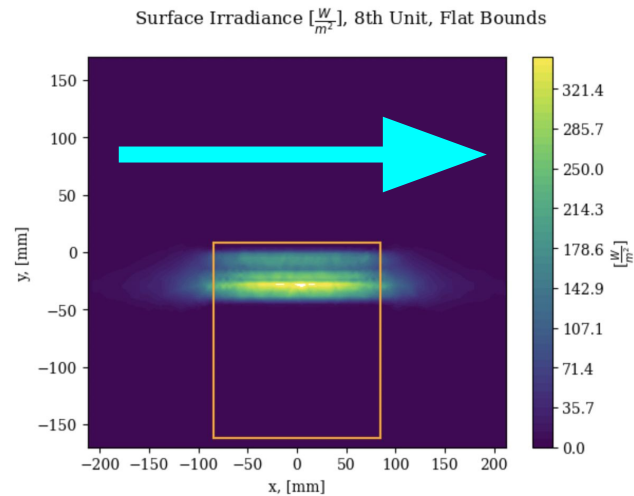
1/32 Unit Edge Coverings, Arc Model/Target

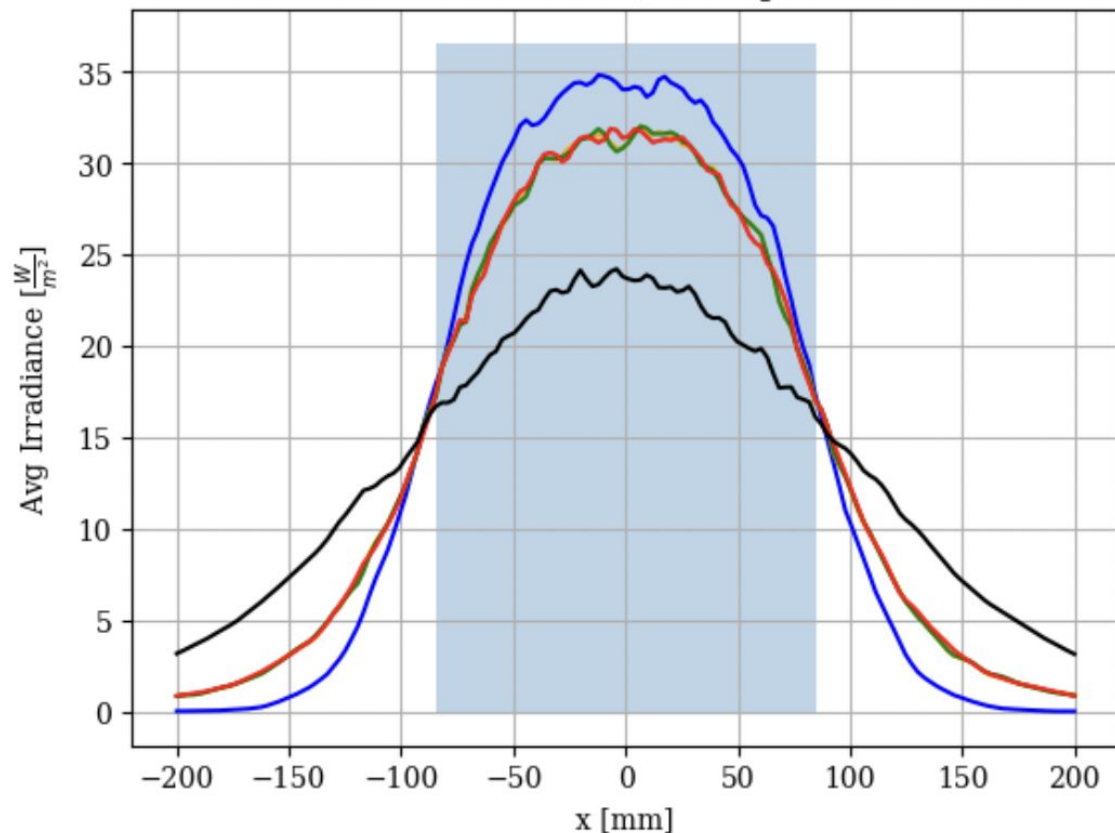Surface Irradiance [$\frac{W}{m^2}$], 8th Unit, Flat Bounds

Averaged along horizontal axis

Averaged along vertical axis

Average Horizontal Irradiance

Linear Model, 8th Target

Surface Irradiance $[\frac{W}{m^2}]$, 8th Unit, Flat Bounds

Legend:
- 4 1/32nd Units, Optimized Parabola
- 8th Unit, Optimized Parabola, phi_parab
- 8th Unit, Optimized Parabola
- 8th Unit, Flat Bounds
- 8th Unit, No Bounds
- Target, X Dimension

Average Vertical Irradiance

Linear Model, 8th Target
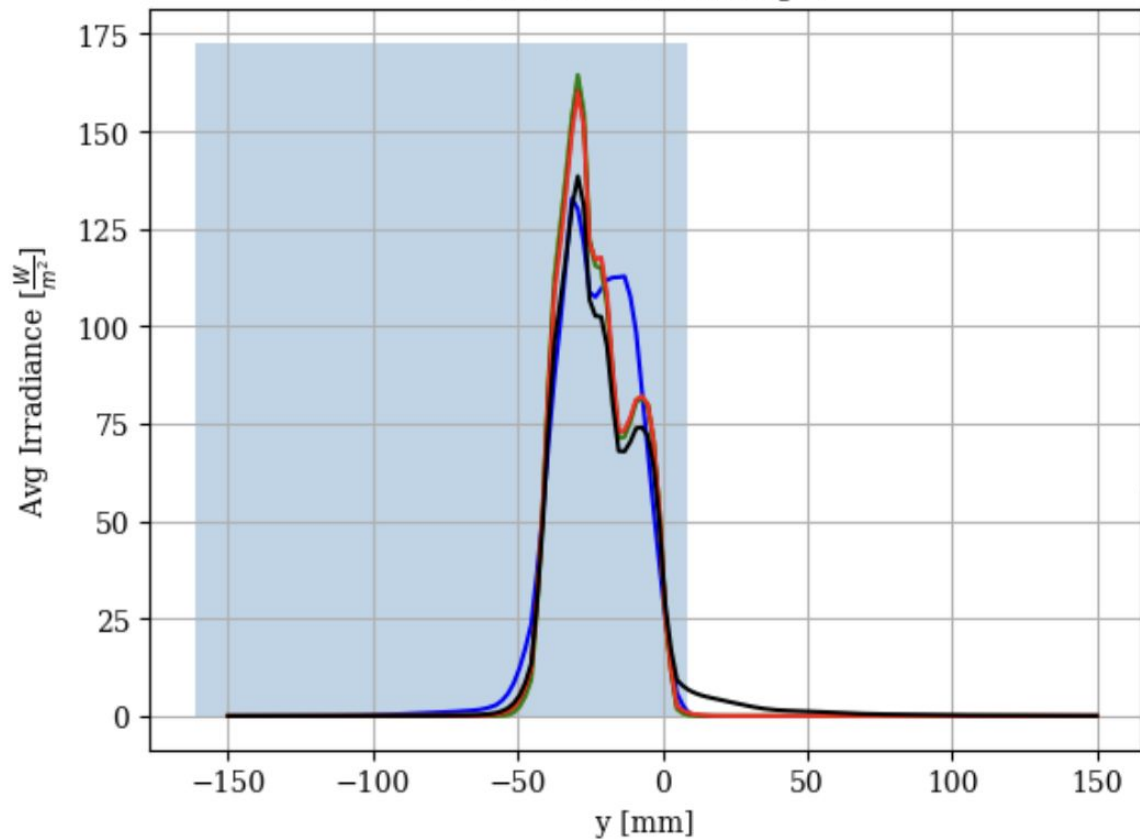
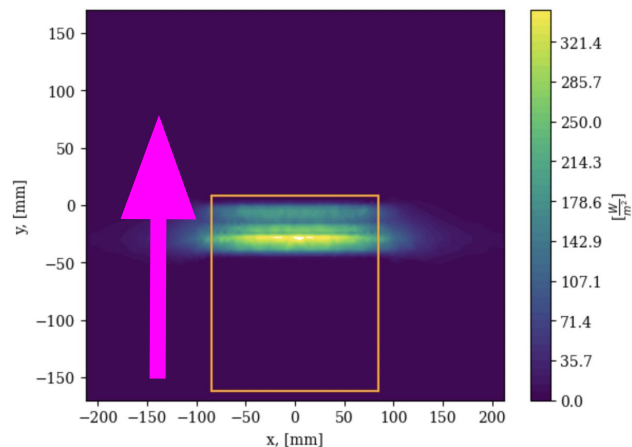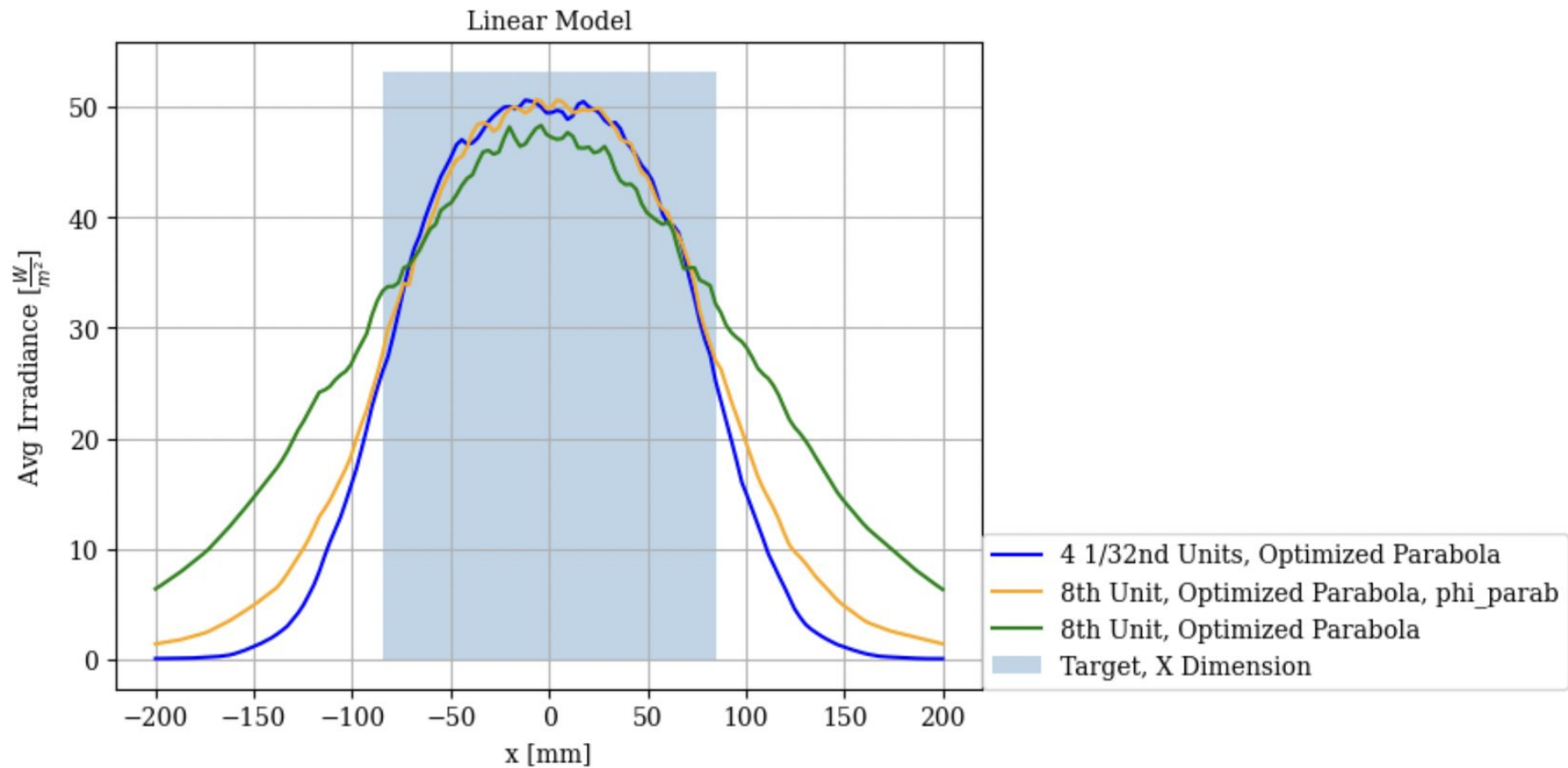Surface Irradiance $[\frac{W}{m^2}]$, 8th Unit, Flat Bounds

Legend:
- 4 1/32nd Units, Optimized Parabola
- 8th Unit, Optimized Parabola, phi_parab
- 8th Unit, Optimized Parabola
- 8th Unit, Flat Bounds
- 8th Unit, No Bounds
- Target, Y Dimension

Normalized [by Deposited Power] Average Horizontal Irradiance

Normalized [by Deposited Power] Average Vertical Irradiance

Linear Model

Legend:
- 4 1/32nd Units, Optimized Parabola
- 8th Unit, Optimized Parabola, phi_parab
- 8th Unit, Optimized Parabola
- Target, Y Dimension

Axis labels: Avg Irradiance [$\frac{W}{m^2}$], y [mm]