



RPC Photonics, Inc.

Engineered Diffuser™ BSDF Data:

0-degree Sample Rotation, 0-degree Angle of Incidence

Formatted for Zemax

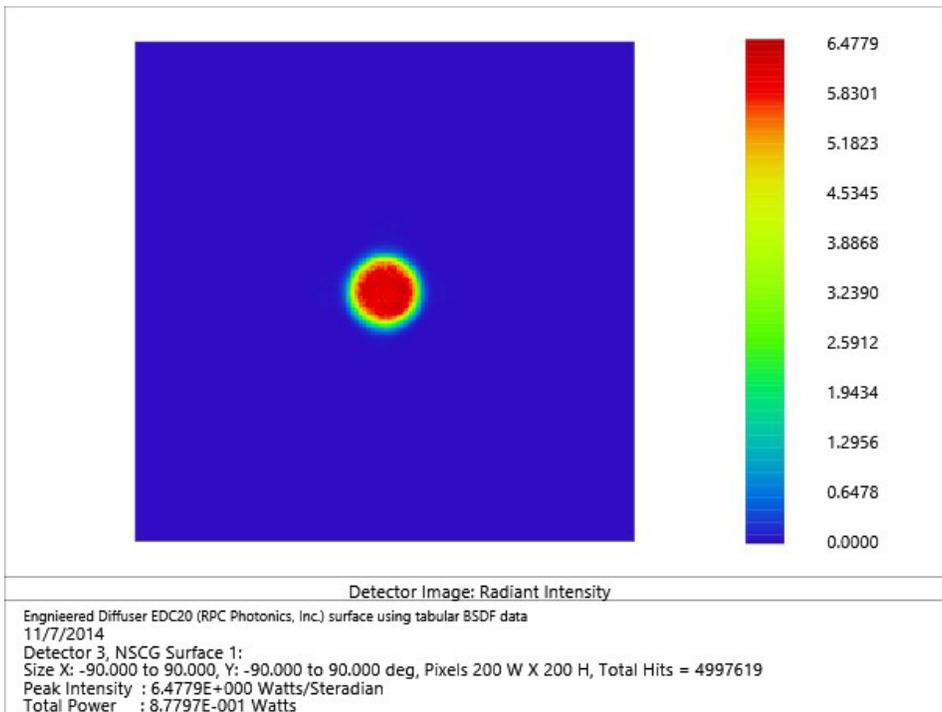
The enclosed BSDF data files contain scatter data formatted according the BSDF Data Interchange file format developed by RadiantZemax LLC and described in the Zemax Knowledge Base. The BSDF data formatting does not assume rotational symmetry for the scattered light.

The files are named with the Engineered Diffuser™ diffuser type sample rotation angle and angle of incidence. For example, the file *EDC20 0-0z.bsdf* contains data for the EDC20 diffuser with a single sample rotation of 0 degrees and angle of incidence of 0 degrees (normal incidence).

The first few lines of each file contain comments with the diffuser type and the date the data was measured at RPC Photonics, Inc. The BSDF data provided are from measurements of representative diffuser samples. Actual scatter distributions may vary from diffuser to diffuser.

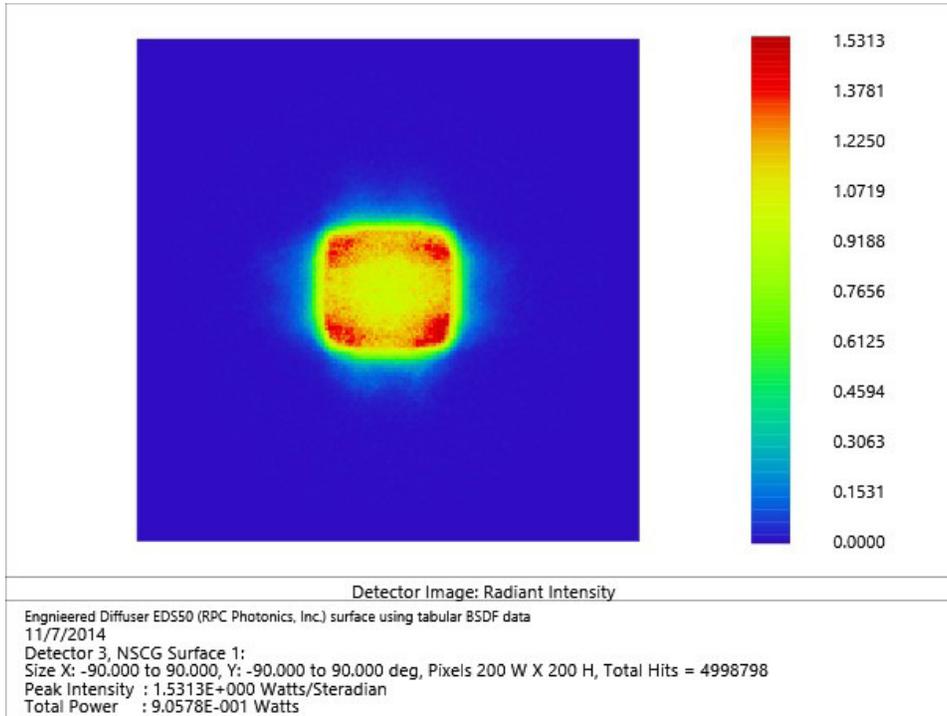
Isotropic Diffusers

Isotropic diffusers with symmetric or isotropic data, such as the circular diffusers EDC20 and EDC50, need data only for various angles of incidence. We have included BSDF data for 0 degree Sample Rotation and 0 degree angle of incidence.



Anisotropic Diffusers

For the non-symmetric or anisotropic diffusers such as the EDS20 and EDS50, BSDF measurements not only at various angles of incidence but also at multiple Sample Rotation angles are required to fully model the diffuser performance. We have included BSDF data for 0 degree Sample Rotation and 0 degree angle of incidence.



Note to Zemax and OpticStudio users:

Zemax formatted BSDF data is currently only being supplied for Engineered Diffusers™ at a single sample rotation of 0 degrees and angle of incidence of 0 degrees (normal incidence). The BSDF files formatted for Zemax have been tested with Zemax OpticStudio 15.5 SP3 Professional (64-bit) Version March 15, 2016. Earlier Zemax versions may not properly model Engineered Diffusers™ for non-normal angle of incidence and/or non-zero sample rotation.

RPC Photonics is working with Zemax to enable the full range of Sample Rotation and Angle of Incidence evaluation, using BSDF data, of both isotropic and anisotropic Engineered Diffusers™ in OpticStudio.

OpticStudio is a Registered Trademark of Zemax, LLC.