

DF045

Technical Datasheet



Diffuser

A diffuser can be any translucent material that scatters light, most commonly applied in the form of a panel or cover that is placed directly over a light source. Its main purpose is to diffuse (or “spread out”) light in a more uniform manner. It can help reduce the sharpness of shadows or greatly reduce harsh, unwanted glare

Specification Highlights

USEFUL RANGE :	400-1100nm	DIFFUSE LIGHT TRANSMISSION :	43%
THICKNESS :	2mm	PARALLEL LIGHT TRANSMISSION :	2%
COLOR TEMPERATURE :	6750K	HAZE :	96%
TOTAL LIGHT TRANSMISSION :	45%		

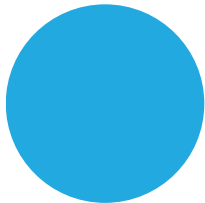
Revised 06/05/2023

Full Specifications

Useful Range :	400-1100nm	Diffuse Light Transmission :	43%
Thickness :	2mm	Parallel Light Transmission :	2%
Color Temperature :	6750K	Haze :	96%
Total Light Transmission :	45%		

How to Order

This Item is cut to order and is therefore available in nearly any shape and size. To order, please reference the tables below to generate a part number or provide a custom drawing and send a quote request to support@machinevisiondirect.com



For Circular Parts

DF045-D _____
 DIAMETER IN MM

EXAMPLE PART NUMBERS:

10.75mm Diameter:

20mm Diameter:

32mm Diameter:

DF045-D10.75

DF045-D20

DF045-D32



For Square Parts

DF045-R _____
 SIDE LENGTH IN MM

EXAMPLE PART NUMBERS:

10.75mm Square:

20mm Square:

32mm Square:

DF045-R10.75

DF045-R20

DF045-R32



For Rectangular Parts

DF045-R _____ x _____
 LENGTH IN MM WIDTH IN MM

EXAMPLE PART NUMBERS:

10.75mm x 20mm Rectangle:

30mm x 20mm Rectangle:

32mm x 24mm Rectangle:

DF045-R10.75x20

DF045-R30x20

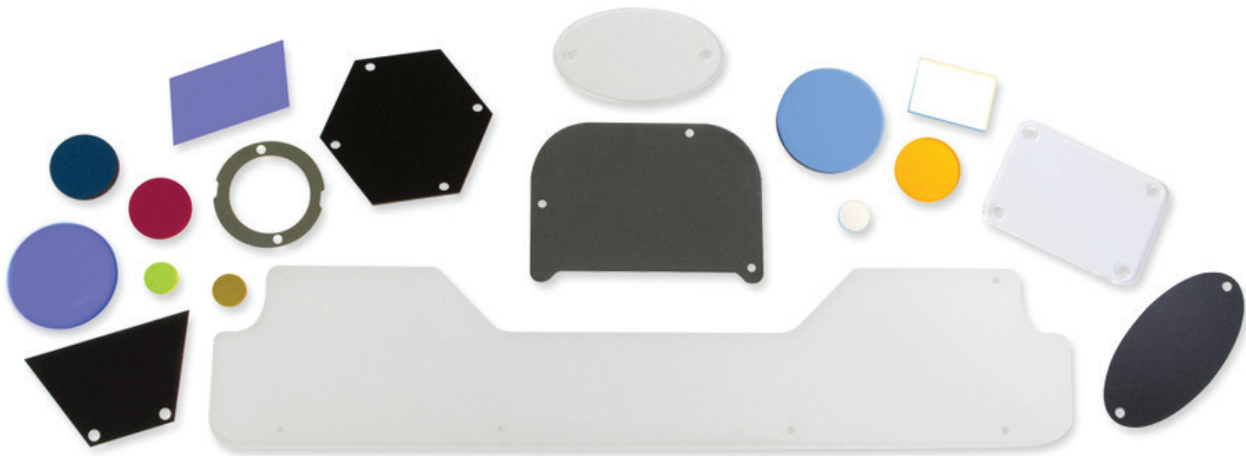
DF045-R32x24



For Custom Parts
Send us a Drawing

support@machinevisiondirect.com

CUSTOM CUT TO ORDER



MidOpt is the industry leader in machine vision filters and optical solutions, and custom shape and size requests are our specialty. All MidOpt filters can be precision cut to your exact specifications and system requirements—in high volumes and with short lead times (custom shapes and sizes are typically fabricated with one day to two week lead times). A wide variety of shapes are available, and custom sizing options up to 165mm sq. are possible for most filters. Acrylic filters can be custom cut up to 900mm sq.

ABOUT DIFFUSERS

A diffuser can be any translucent material that scatters light, most commonly applied in the form of a panel or cover that is placed directly over a light source. Its main purpose is to diffuse (or “spread out”) light in a more uniform manner. It can help reduce the sharpness of shadows or greatly reduce harsh, unwanted glare. One common application is to eliminate lamp filament or LED “hot spots”, which can at times be very intense. A diffuser is commonly used over LED light sources to distribute light output more evenly over a given area while also affording some protection for the LEDs.

Machine Vision Direct offers both glass and acrylic options. Various thicknesses and specific transmission levels (from 5 – 93%) can be provided. Common diffuser types include ground glass, molded/textured acrylic, thin plastic film, flashed or solid opal glass, molded/textured glass and diffractive diffusers. The latter are generally much more costly but can be used to manipulate LED light output to provide a more precise spatial configuration and intensity profile, all while keeping light loss due to back-scattering to a minimum.