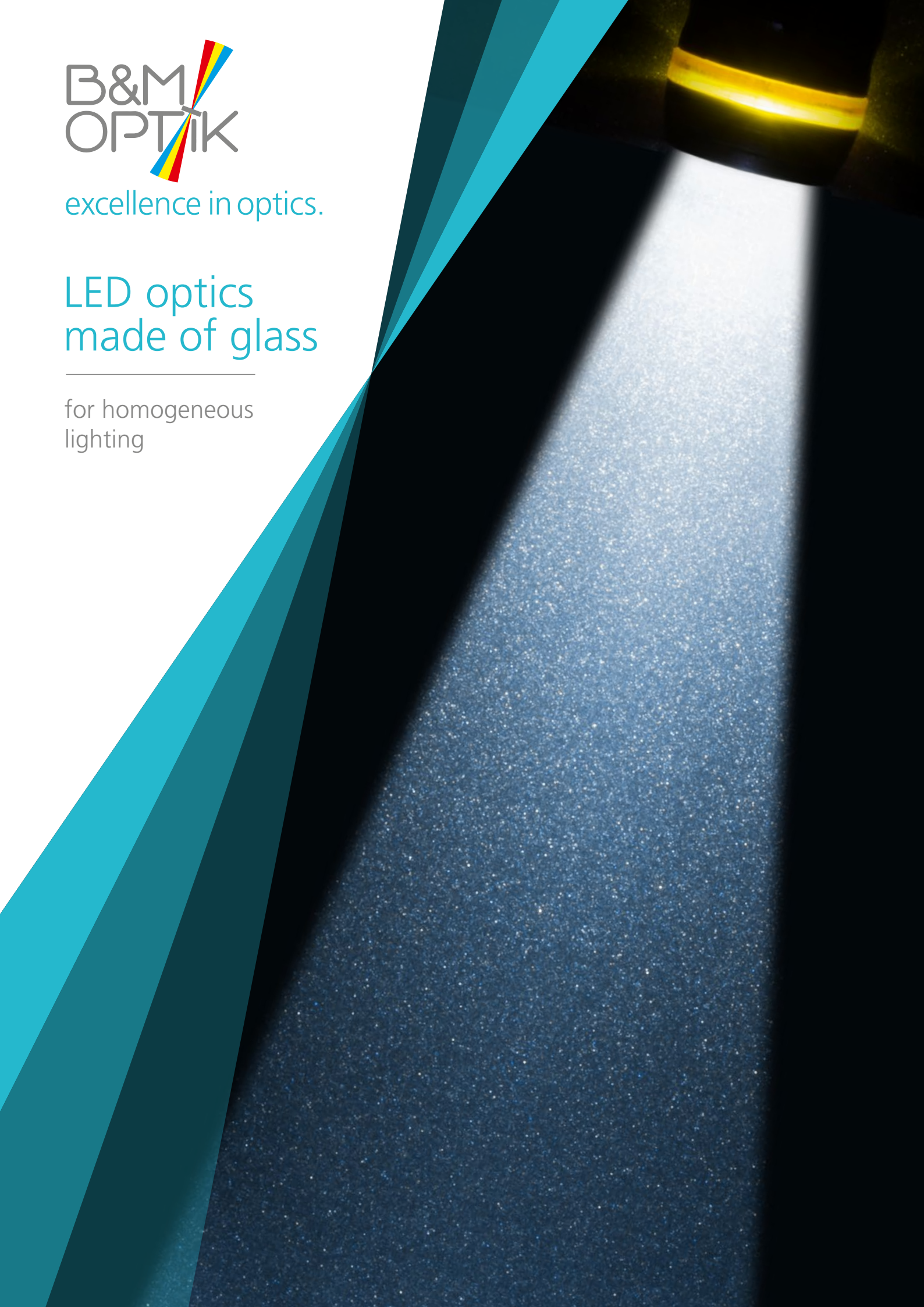




excellence in optics.

LED optics made of glass

for homogeneous
lighting





For a video with all the details, please refer to our website www.bm-optik.de, section LED.

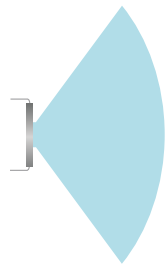
LED optics made of glass

B&M Optik GmbH offers standard optics for all types of LEDs

LEDs in comparison

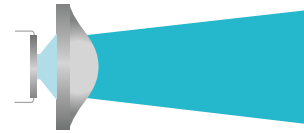
LED without optics

120° beam angle



LED with B&M glass optics

Reduction of the beam angle to 8° and 20-times the intensity with homogeneous lighting



Our advantage for you

- Individual adjustment of the beam angle with just one optic (8°–60°)
- Homogeneous lighting without colour effects
- Prevention of dice representation by special surface structures
- Standard aspheres for all LEDs available on the market
- Durability of optics even in case of negative external influences
- No heat generation problems with High-Power-LEDs
- Attractive high-quality glass design
- Simple modification to customer-specific requirements
- Low tool costs for moulded glass optics made to customer specifications

Structural lenses

Lenses with structural surface remove the need for diffusing plates and prevent the related loss of light. We offer these structures in three options:

smooth



medium



rough



Beam focusing (secondary optics)

Our moulded glass aspheres are suitable for all LED types (e.g. High-Power-LEDs with large-scale dice or normal LEDs with only one dice). The typical beam angle of an LED of 120° can be reduced to below 8° with our optics without

any difficulty (at the same maintaining high efficiency and homogeneous illumination). The angle may be modified individually by changing the distance between lens and LED.

Definition of lines

Our cylindrical lenses enable the generation of light strips.

We offer a large range of standard lenses.

RGB-LED light mixing

We offer the best optics for all RGB-LEDs to achieve dynamic colour appearances. Standard 4-chip LEDs as well as large-sized RGB

applications may be mixed in a homogeneous manner.

All values in mm

Ø	EFL	asph.Ø	Ct.	Material	R2	-SAS / FFL	S'R2 / BFL	Texture	Article no.
5,00	3,70	5,00	2,00	LIBA2000	Plan	3,70	2,4	without	A.2856.0501Li
7,90	5,70	7,90	2,40	F2	Plan	5,70	4,22	without	A.0499.0791
9,90	7,80	9,90	4,00	LIBA2000	Plan	7,80	5,2	without	A.2791.0991Li
12,00	12,50	12,00	4,50	LIBA2000	Plan	12,50	9,5	without	A.5692.1201Li
16,00	15,00	16,00	6,00	LIBA2000	Plan	15,00	11,06	without	A.2831.1601Li
18,00	13,50	18,00	7,40	LIBA2000	Plan	13,50	8,64	without	A.2873.1801Li
20,00	11,00	19,80	10,90	LIBA2000	17,70	8,68	4,86	rough	A.3829.2001Li x
24,00	18,00	24,00	10,40	LIBA2000	Plan	18,00	11,2	without	A.2869.2401Li
24,00	18,00	24,00	11,70	LIBA2000	Plan	18,00	10,44	medium	A.4569.2401Li
26,00	27,50	26,00	8,50	LIBA2000	Plan	27,50	21,91	without	A.2984.2601Li
26,00	27,50	26,00	9,00	LIBA2000	Plan	27,50	21,59	medium	A.4559.2601Li
30,00	11,80	30,00	8,00	LIBA2000	-40,00	11,09	6,79	fresnel	Y.3939.3001 x
35,00	27,50	31,60	16,20	LIBA2000	300	27,50	17,6	smooth	A.4389.3501
35,00	27,50	31,60	15,00	LIBA2000	Plan	27,50	17,64	without	A.2841.3501Li
40,00	28,50	36,00	15,00	LIBA2000	Plan	28,50	18,6	without	A.1999.4002Li
40,00	28,50	36,00	17,70	LIBA2000	Plan	28,50	16,9	smooth	A.1999.4003Li
40,00	28,50	36,00	17,70	LIBA2000	Plan	28,50	16,9	medium	A.4819.4001Li
40,00	28,50	36,00	17,70	LIBA2000	Plan	28,50	16,9	rough	A.4809.4001Li
45,00	37,00	45,00	16,50	LIBA2000	Plan	37,00	26,2	rough	A.3599.4501Li x
51,90	34,00	49,00	23,70	LIBA2000	Plan	34,00	18,42	without	A.0910.5192Li
51,90	34,00	48,00	24,20	LIBA2000	Plan	34,00	18,1	smooth	A.4609.5191Li
51,90	34,00	48,00	24,20	Tritan	Plan	34,00	18,1	smooth	A.4609.5191Tr
51,90	34,00	48,00	24,20	LIBA2000	Plan	34,00	18,1	medium	A.5389.5191Li
51,90	34,00	48,00	24,20	Tritan	Plan	34,00	18,1	medium	A.5389.5191Tr
51,90	34,00	48,00	24,20	LIBA2000	Plan	34,00	18,1	rough	A.4789.5191Li
51,90	34,00	48,00	24,20	Tritan	Plan	34,00	18,1	rough	A.4789.5191Tr
51,90	76,50	49,80	11,70	LIBA2000	40	76,50	68,6	smooth	P.5019.5191Li
51,90	76,50	49,80	11,70	LIBA2000	40	76,50	68,6	medium	P.5419.5191Li
51,90	76,50	49,80	11,70	LIBA2000	40	76,50	68,6	rough	P.4859.5191Li
63,00	52,00	59,00	23,40	Borosilicate	Plan	52,00	36,10	without	A.1267.6301
64,00	55,00	60,00	23,40	Borosilicate	Plan	55,00	39,10	without	A.1267.6401
68,00	51,50	68,00	25,80	LIBA2000	Plan	51,50	34,54	without	A.0910.6801
70,00	51,50	68,00	30,00	LIBA2000	Plan	51,50	31,8	smooth	A.4629.7002Li
70,00	51,50	68,00	30,00	Tritan	Plan	51,50	31,8	smooth	A.4629.7002Tr
70,00	51,50	68,00	30,00	LIBA2000	Plan	51,50	31,8	medium	A.5209.7001Li
70,00	51,50	68,00	30,00	Tritan	Plan	51,50	31,8	medium	A.5209.7001Tr
73,50	63,00	70,70	28,30	Borosilicate	Plan	63,00	43,80	without	A.1267.7401

We also offer plastic optics for special applications according to individual specifications or calculations.

Special LED lenses



LED case

Request free individual sample optics or check our range of offers in well-arranged cases. We would be pleased to assist you in innovative approaches and new developments.



For a video with all the details, please refer to our website www.bm-optik.de, section LED.



excellence in optics.

We would like to invite you to
our premises to introduce you
to our new developments.

B&M Optik GmbH
Am Fleckenberg 20 · D-65549 Limburg, Germany
Phone +49(0)6431 9860-0 · Fax +49(0)6431 9860-20
www.bm-optik.de · office.limburg@bm-optik.de