

# Accessories Selection Guide

## LED DOUBLEDOME Optics

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### [Why the right accessories are important]

To turn any Sharp DOUBLEDOME LED into a luminaire with the desired beam shape, you need suitable optical accessories that focus and direct the rays of light in the right direction. Typically, an LED requires a specific optical component perfectly attuned to its mechanical and light-emitting characteristics that takes the application into account. If an LED is used for ceiling lighting in an office, for example, a reflector-lens combination, which pleasantly disperses the light and prevents any glare, is required. A soft cut-off lens, in contrast, will distribute the light over a wider area, providing an ideal option for residential lighting applications.

### [What accessories you need]

The optical accessories you require include: diffusers, reflectors, single or multiple lenses, and single lenses with a holder. The shape of the LED beam corresponding to the spot depends on the type of optic chosen. The use of a lens, for example, diffuses the distribution of light for a narrow, medium or wide beam. Lenses deliver good homogeneity while simultaneously protecting the LED against contamination.

### [Our recommended partners]


Sharp works closely with three reputed manufacturers of optical accessories: Diffractive Optics, IDEALEED and LEDIL. For a brief outline of these companies, see below; for more details, please refer to their website.

- **Diffractive Optics Ltd.**, a Hong Kong-based company with over 15 years of sound experience in precision lens design and manufacturing, ideally equipped to meet the growing demand for precision optical systems and components ([www.diffractive-optics.com](http://www.diffractive-optics.com)).
- **IDEALEED.it**, an Italian company formed several years ago, specialises in "innovative lighting technology" for a wide range of general lighting applications and customised solutions ([www.idealied.it](http://www.idealied.it)).
- **LEDIL**, a Finnish company with many years of experience in semiconductor optics, specialising in high-quality optics for leading LED manufacturers. LEDIL strives to offer the "best possible optical components for semiconductors: optically efficient, visually pleasing and mechanically well-engineered solutions" ([www.ledil.com](http://www.ledil.com)).

The list overleaf features details on the accessories available for DOUBLEDOME LEDs – arranged by component and recommended partner.



Lenses and holders	Application	Dimensions (ø x h in mm)	Beam angle (°)	Holder colour	Material	Fastening	Partner
 Single lenses and holders	General lighting	19.6 x 15.5	±58 x ±24/±61	No holder	PMMA	Position pins	LEDIL www.ledil.fi
	General lighting	9.9	±9/±14/±5 x ±16/±22	Black	PC	Position pins or snap fit	
	Beacon lighting	29 x 14.5	±52 x ±5	No holder	PMMA	Position pins	
 Single lenses and holders	General lighting	9 x 7.3	80	N/A	PMMA	N/A	IDEAL ED.IT www.ideal.ed.it
	General lighting	19 x 12.4	15/60	Transparent	PMMA	Fit in to holder	
	General lighting	23 x 15.5	N/A	Transparent	PC	Fit in	
 Single lenses and holders	Torch / Spotlight / General lighting	(51 x 43) x 14.3	10		PMMA	Glue	Diffractive Optics LTD. www.diffractive-optics.com
	Torch / General lighting	11.6 x 7.5	18/20/40/20 x 40	Black	PMMA	Glue	
	Torch / Spotlight / General lighting	16.8 x 10/9.6	8/10		PMMA	Glue	
	Torch / General lighting	17 x 10	15/25/8 x 45		PMMA	Glue	
	Torch / Spotlight / General lighting	19.8 x 11	10/25/40/10 x 35	Black	PMMA	Glue	
	Torch / Spotlight / General lighting	19.8 x 11.68	9		PMMA	Glue	
	Torch / General lighting	20 x 10.2/11	10/22/32		PMMA	Glue	
	Torch / Spotlight / General lighting	23.7 x 12.9	10		PMMA	Glue	
	Torch / Spotlight / General lighting	24 x 12.29	10		PC (UV)	Glue	
	General lighting	26 x 17.5	15		PMMA	Glue	
	Torch / General lighting	28 x 14.5	22/45		PMMA	Glue	
	General lighting	29.2 x 20 x 21.2	10 x 80		PMMA	Glue	
	Street lighting	29.9 x 10.4 x 9.62	110 x 70		PC	Screw	
	Torch / Spotlight / General lighting	30 x 14.5	10		PMMA	Glue	
	Torch / Spotlight / General lighting	32 x 15.32	5	White	ABS	Screw	
	General lighting	38 x 15.4	10		PMMA	Glue	
	Torch / Spotlight / General lighting	41.5 x 10.43	5		PMMA	Glue	
	General lighting	54.5 x 12.5	10		PC	Glue	
General lighting	56.8 x 18.5/26	10		PC	Screw		
Miner lamp	60 x 16.8/22.17	3/8		PS/PC	Glue		
 Multiple lenses	Spotlight / Indoor lighting	35	±12/±14	No holder	PMMA	Integrating to housing using lens gaps	LEDIL www.ledil.fi
	Spotlight / Indoor lighting / General lighting	50	±6/±9/±29	No holder	PMMA	Position pins (glue needed)	
	Spotlight / Indoor lighting / General lighting	35	±11/±15/±21/±28	No holder	PA	Position pins (glue needed)	
	Spotlight / Torch / Indoor lighting / General lighting	35	±6/±12/±19	No holder	PA	Position pins (glue needed)	
 Multiple lenses	General lighting	20.9 x 8.2	22/32		PC	Glue	Diffractive Optics LTD. www.diffractive-optics.com
	Side emitting	21.4 x 10	13		PMMA	Glue	
	General lighting	22.8 x 7.5	20/40/20 x 40		PMMA	Glue	
	General lighting	33.5 x 7.5	20/40		PMMA	Glue	
	General lighting	35 x 12.8/13.75	10/25		PMMA	Glue	
	General lighting	36 x 9.5	30		PMMA	Glue	
	General lighting	38 x 35	15		PMMA	Glue	
	General lighting	40.4 x 10	25/10 x 45/10		PMMA	Glue	
	General lighting	43.6 x 12.5	30/37		PC	Glue	
	General lighting	45 x 9.5	10		PMMA	Glue	
General lighting	86 x 14.8	13/20		PMMA	Glue		

Reflectors	Application	Dimensions (ø x h in mm)	Beam angle (°)	Holder colour	Material	Fastening	Partner
	Torch / Spotlight	20.5 x 17.2	5		PC	Screw	Diffractive Optics LTD. www.diffractive-optics.com
	Torch / Spotlight	23.84 x 18.6	8		PC	Screw	
	General lighting	35 x 17.5/20	5/50		PC	Screw	
	Tunnel lamp	38 x 38 x 33.84	54 x 68		PC	Glue	
	Tunnel lamp	42 x 42 x 32.5	54 x 68		PC	Glue	

Subject to alterations and modifications  
For detailed information and more accessories, please refer to the partner's website.

# SHARP

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