Data Sheet

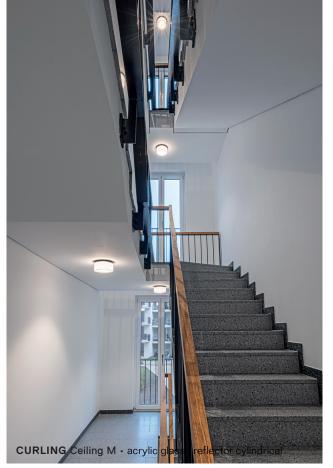


















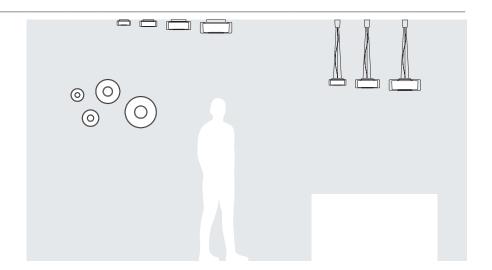
Win with CURLING

CURLING combines sustainable technology with a timelessly elegant form. Available in four different sizes with either a mouth-blown glass shade or an acrylic glass version, it comes with or without a conical whether in commercial or private spaces. or cylindrical inner reflector.

An opal diffuser beneath the light source ensures optimal light distribution. Optional optical inserts with microprismatics and various lenses produce even softer, glare-free light and offer different beam angles. The interplay of individual design elements allows for the perfect lighting atmosphere in any spatial situation. Smart design details make CURLING both a downlight and a ceiling light. Its numerous variants can be used in virtually any setting, The acrylic version is particularly well-suited for high-traffic areas in public and semi-public environments.

Design Jean-Marc da Costa, Manfred Wolf

overview



typologies		Ceiling	Suspension	Wall
	Glass XS	● new	-	• new
	Glass S	•	•	•
	Glas M	•	•	•
	Glass L	•	•	• new
	Acrylic Glass XS	● new	-	•
	Acrylic Glass S	•	•	•
	Acrylic Glass M	•	•	•



product features

modular item



DRIVER UNIT

- · LED ceiling surface mounted light
- · integrated control gear
- · dimmable via phase dimming TRIAC, DALI or CASAMBI
- · compatible with shades from the luminaire families DRAFT, DRUM und CURLING

CURLING

- · glass or acrylic glass shade · 4 sizes XS, S, M and L
- · convenient quick-assembly of the glass shade via bayonet catch
- · closed housing (IP40)

models



glass shade clear light: directed downwards, distributed all around



acrylic glass shade clear light: directed downwards, distributed all around



glass shade clear, reflector conical light: directed downwards, diffused all around



acrylic glass shade clear, reflector conical light: directed downwards, diffused all around



glass shade clear, reflector cylindrical light: directed downwards, diffused all around



acrylic glass shade clear, reflector cylindrical light: directed downwards, diffused all around



glass shade opal light: directed downwards, diffused all around



glass shade new silver light: directed downwards, distributed all around

materials

housing	· aluminium mirror polished
glass shade	mouth blown crystal glassnew silver, metal-coatedopal, overlay glass
acrylic glass shade	· highly trasnparent polycarbonate, unbreakable
insert	- conical or cylindrical - thin-walled, translucent diffuser for a harmonious room illumination
optics	· glass lenses or diffuser glasses

lighting technology

	· 2700 K · 3000 K · Dim2Warm (1800 bis 3000 K)
CRI ≥ 97 R9 ≥ 80	excellent color reproduction quality super-high CRI
2 SDCM	very high color consistency - minimal color temperature differences (MacAdam Step 2)
$\bigcirc\bigcirc\bigcirc\bigcirc$	Zhaga-compliant CoB holder - easy and solder-free LED assembly

accessories optics

		XS	S	М	L
diffuser lens		CU8556	CU8509	CU8509	CU8509
pure clear			CU8510	CU8510	CU8510
microprismatic anti-glare	giriting		CU8539	CU8536	CU8541
glass lens narrow	girling.	CU8549	CU8543	CU8555	CU8555
glass lens wide	girling.	CU8548	CU8552	CU8542	CU8542
glass lens narrow	gardy.	CU8551	CU8545	CU8554	CU8554
glass lens wide	giriting.	CU8550	CU8553	CU8546	CU8546
shielded	RT-T-T-T	CU8547	CU8532	CU8535	CU8537

technical data

variants		XS glass new	S glass	M glass	L glass
	sizes	Ø 96	Ø 110	Ø 160	Ø 210
		47 · 69	60	110	110
		Ø 138	Ø 175	Ø 250	
					Ø 325
	weight	0,7 kg	1,5 kg	2,7 kg	4,5 kg
		XS acrylic glass new	S acrylic glass	M acrylic glass	
	sizes	Ø 96	Ø 110	Ø 160	
		69	60	110	
		Ø 127	Ø 160	•	
				Ø 218	
	weight	0,4 kg	1,3 kg	2,4 kg	
ght source	size/type	ССТ	CRI	MacAdam SDCM	luminous flux (EEK)
	VO	2700K	Ra>97	2 Step	110 lm/W (E)
	XS new	3000K	Ra>97	2 Step	115 lm/W (E)
	C M I	2700K	Ra>97	2 Step	111 lm/W (E)
	S, M, L	3000 K	Ra > 97	2 Step	116lm/W (E)
	S Dim2Warm	1800 - 3000 K	Ra>95	3 Step	bis 97 lm/W (F)
	M Dim2Warm	1800 - 3000 K	Ra>95	3 Step	bis 101 lm/W (F)
		Other versions (CCT/CRI) a	vailable on request.		
		χς <mark>new</mark>	S	M	L
ontrol gear		XS new		IVI	
year	TDIAO				
ontrol gear	TRIAC phase dimming	8 W	11 W	20 W	34 W
	phase dimming	8W	11 W	20 W	34W
		8W	11 W	20 W	
o. year	phase dimming	8 W 8 W PushDim	11 W 11 W PushDim	20 W 20 W PushDim	34W PushDim emergency light

Please note: In addition to the DALI control gear, a DALI system requires a control gear and the appropriate bus wiring. In addition to the standard wiring L, N and PE, two further DALI control lines DA are required.



Ceiling

note

\rightarrow	through-wiring supported
emergency light	· optional suitability for installation in emergency lighting systems · according to IEC 61347-2-13, Annex J
	· control gear can be replaced by specialists · light source can be replaced by specialists
certificates	



 $\begin{tabular}{ll} \bot The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/. \end{tabular}$

CURLING XS new glass shade clear, glass lens narrow 40°

 CRI
 luminous efficacy
 power
 luminous flux

 2700 K
 Ra > 97/ R9>80
 70 lm/W
 8 W
 535 lm

 3000 K
 Ra > 97/ R9>80
 72 lm/W
 8 W
 562 lm



≤ 15,6

Light: directed downwards, narrow beam

CURLING XS new glass shade clear,

glass lens wide 55°

UGR



UGR ≤ 15,5

curling xs new glass shade clear, reflector cylindrical, diffuser lens

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	60 lm/W	8W	458lm
3000K	Ra>97/ R9>80	62lm/W	8W	481 lm



distribution (2700 K)	90°	90° m			
			١.,	87°	
	60 cd		/		
		_{50°} 1,0		253 lx	48 lx
		50		Ø 1,9 m	
	120 cd				
	150 cd			63 lx	12 lx
	180 cd	2,0		Ø 3,8 m	1214
	210 cd			20.011	
	30°	30° 3,0		28 lx	5 lx
		3,0	,	Ø 5,7 m	

Light: directed downwards, diffuse all around



lighting data

 $\stackrel{\square}{\longrightarrow}$ The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING XS new glass shade clear, reflector conical, diffuser lens

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	60 lm/W	8W	458lm
3000K	Ra>97/ R9>80	62 lm/W	8W	481 lm



distribution (2700K)	90° 90° "	87°
	60 cd 60° 1.	0 253 k 48 k
	120 cd 150 cd 180 cd	0 63 lx 12 lx
	210 cd	Ø 3,8 m
	3,	Ø 5,7 m

Light: directed downwards, diffuse all around

UGR ≤ 16,3

CURLING XS new glass shade opal, diffuser lens

		larimous emedey	power	Turimous nux
2700 K	Ra>97/ R9>80	60 lm/W	8W	463 lm
3000 K	Ra>97/ R9>80	63 lm/W	8W	486lm



distribution (2700 K)	60° 60° d 90° d 120° d 150° d 180° d 210° d 210° d 210° d	90° 236 kx Ø 2m 59 kx 11 kx
	30° 30° 3,0	26 lx 5 lx
		Ø 6 m

Light: directed downwards, diffuse all around

UGR ≤ 16,7

The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING S

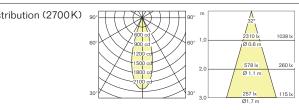
glass shade clear		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	90 lm/W	11 W	978 lm
	3000 K	Ra>97/ R9>80	94 lm/W	11 W	1027 lm
	distribution (2700K)	90°	522 k 118 k 0 1.7 m 2.0 130 k 30 k 0 3.4 m	Light: directed downw distributed all around	ards,
	LIGB	< 18 9			

CURLING S

glass shade clear, glass lens narrow 32°

	CRI	luminous efficacy	power	luminous flux	
2700 K	Ra>97/ R9>80	89lm/W	11 W	968 lm	
3000 K	Ra>97/ R9>80	93 lm/W	11 W	1016lm	
distribution (270	00K) 90°	90° m A	Light: directed	d downwards,	





narrow beam

UGR ≤ 17,2

CURLING S

glass shade clear,

glass lens wide 59°		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	86lm/W	11 W	947 lm
	3000K	Ra>97/ R9>80	90 lm/W	11 W	994lm
	distribution (2700 K)	90 90 90 90 90 90 90 90 90 90 90 90 90 9	962 k 289 k 0 1.1 m 216 k 72 k 0 2.2 m	Light: directed downw wide beam	ards,
	LICD	* 10 O			

UGR ≤ 16,3

lighting data

 $\stackrel{\square}{\longrightarrow}$ The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING S

glass shade clear, reflector conical, diffuser lens

diffuser lens		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	64lm/W	11 W	697 lm
	3000 K	Ra>97/ R9>80	67lm/W	11 W	732lm
	distribution (2700 K)	90° 100 cd 60° 25° cd 300 cd 30° cd 3	77° 418 k 100 k	Light: directed downward diffuse all around	ards,

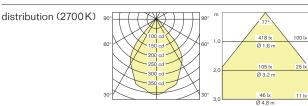
UGR ≤ 15,6

CURLING S

glass shade clear, reflector cylindrical, diffuser lens

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	64lm/W	11 W	697 lm
3000K	Ra>97/ R9>80	67 lm/W	11 W	732lm





Light: directed downwards, diffuse all around

UGR ≤ 15,6

CURLING S glass shade opal,

 diffuser lens
 CRI
 luminous efficacy
 power
 luminous flux

 2700 K
 Ra > 97/ R9 > 80
 65 lm/W
 11 W
 704 lm

 3000 K
 Ra > 97/ R9 > 80
 70 lm/W
 11 W
 754 lm



distribution (2700 K)	90° m 120 cd 60° 1.80 cd 60° 1.0	86° 372 k 73 k
	240 cd 360 cd 420 cd 480 cd	93 lx 18 lx Ø 3.7 m
	30° 3,0	41 lx 8 lx Ø 5,6 m

Light: directed downwards, diffuse all around



The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING S

glass shade new silver

	CRI	luminous efficacy	power	luminous flux	
2700 K	Ra>97/ R9>80	61 lm/W	11 W	654 lm	
3000 K	Ra>97/ R9>80	63 lm/W	11 W	678lm	



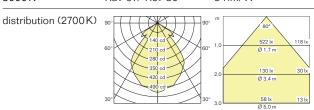
Light: directed downwards, distributed all around

CURLING S

acrylic glass shade clear

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	90 lm/W	11 W	978 lm
3000 K	Ra>97/ R9>80	94 lm/W	11 W	1027 lm





Light: directed downwards, distributed all around

CURLING S

acrylic glass shade clear, reflector conical dif

liffuser lens		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	64lm/W	11 W	697 lm
	3000 K	Ra>97/ R9>80	67lm/W	11 W	732lm
	distribution (2700K)	90°	, m	Light: directed downwa	ards,



()	90°	m	777°
	100 cd 150 cd 60°	1,0	418 lx 100 lx Ø 1,6 m
	200 cd 250 cd 300 cd	2,0	105 lx 25 lx
	30° 350 cd		Ø 3,2 m 46 lx 11 lx
		3,0	Ø 4.8 m

Light: directed downwards, diffuse all around

UGR	≤ 15,6

lighting data

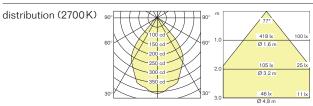
 $\stackrel{\square}{\longrightarrow}$ The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING S

acrylic glass shade clear, reflector cylindrical, diffuser lens

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	64lm/W	11 W	697 lm
3000 K	Ra>97/ R9>80	67 lm/W	11 W	732lm





Light: directed downwards, diffuse all around

UGR ≤ 15,6

 $\stackrel{..}{\square} \ \ \text{The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/}.$

CURLING M

glass shade clear		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	87 lm/W	20W	1670 lm
	3000 K	Ra>97/ R9>80	91lm/W	20W	1754lm
	distribution (2700K)	90° 140 cd 90° 60° 210° cd 90° 60° 210° cd 90° 60° 420° cd 93° cd	904 k 211 k 0 1.6 m 226 k 53 k 0 3.3 m	Light: directed downw distributed all around	ards,
	UGR	≤ 19.9			

CURLING M

glass shade clear, glass lens narrow

w 35°		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	87 lm/W	20W	1701 lm
	3000 K	Ra>97/ R9>80	92lm/W	20W	1786 lm
	distribution (2700 K)	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°	1.0 35 4262 lx 1863 lx 0 0 0.6 m 1006 lx 466 lx	Light: directed downwanarrow beam	ards,



UGR ≤ 13,1

CURLING M

glass shade clear.

glass snade clear, glass lens wide 48°		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	84 lm/W	20W	1622 lm
	3000K	Ra>97/ R9>80	89 lm/W	20W	1703 lm
	distribution (2700 K)	90° 600 dd 600 dd 600 dd 600 1200 dd 1500 dd 1500 dd 2100 dd 300 300 300 300 300 300 300 300 30	/2459 lx 943 lx	Light: directed downw wide beam	ards,
	LICD	< 10.0			



 $\stackrel{\square}{\longrightarrow}$ The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING M

glass shade clear, reflector conical, diffuse

ser lens		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	59lm/W	20W	1129 lm
	3000 K	Ra>97/ R9>80	62lm/W	20W	1185lm
	distribution (2700 K)	90° 90° 90° 60° 60° 60° 60° 60° 60° 60° 60° 60° 6	811 1.0 685 k 150 k	Light: directed downwa diffuse all around	ards,



UGR	≤ 16

CURLING M glass shade clear, reflector cylindrical,

diffuser lens	,	CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	59 lm/W	20W	1129 lm
	3000K	Ra>97/ R9>80	62lm/W	20W	1185lm
	distribution (2700 K)	90°	0° m	Light: directed downw	vards,



UGR

stribution (2700K)	90° m 180 cd 60° 1.0 270 cd 450 cd 540 cd 540 cd 530 cd 30° and 30° and 30	81° 685 k 0 1.7 m 171 k 0 3.4 m 76 k 17 k
	30° 3,0	76 lx 17 lx Ø 5,2m

≤ 16

CURLING M

glass shade opal, diffuser lens

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	57 lm/W	20W	1108lm
3000 K	Ra>97/ R9>80	59lm/W	20W	1157 lm
distribution (2700K)	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°	1.0 586 kr 115 kr 0 1.9 m 2.0 0 3.7 m	Light: directed downwa diffuse all around	ards,



UGR	≤ 15,5

The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/.

CURLING M

glass shade new silver

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	57 lm/W	20W	1108lm
3000 K	Ra>97/ R9>80	59 lm/W	20W	1157 lm

Light: directed downwards, distributed all around



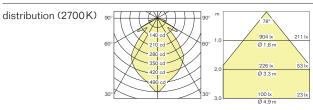
CURLING M

acrylic glass shade clear

	CRI	luminous efficacy	power	luminous flux
2700 K	Ra>97/ R9>80	87 lm/W	20W	1670 lm
3000 K	Ra>97/ R9>80	91lm/W	20 W	1754lm



UGR



≤ 19,9

Light: directed downwards, distributed all around

CURLING M
acrylic glass shad

clear, reflector conical, diffuser lens

	OH	luminous emcacy	power	Idiffillous flux
2700 K	Ra>97/ R9>80	59lm/W	20W	1129 lm
3000 K	Ra>97/ R9>80	62lm/W	20W	1185lm



	017 1.02 00	02, * * *
distribution (2700 K)	90° 180 od 60° 270 od 60° 450 od 540 od 630	81° 685 k 01,7 m 2,0 171 k 38 k

Light: directed downwards, diffuse all around



UGR ≤ 16

lighting data

 $\begin{tabular}{ll} \bot The photometric data (EULUMDAT) can be downloaded from http://serien.com/downloads/. \end{tabular}$

CURLING M

acrylic glass shade clear, reflector cylindrical, diffuser lens

	CRI luminous efficacy		power	luminous flux
2700 K	Ra>97/ R9>80	59 lm/W	20W	1129 lm
3000 K	Ra>97/ R9>80	62lm/W	20W	1185lm
distribution (2700 K)	90° 186 ed 90° 60° 270 ed 450 ed 450 ed 560° ed 60°	1.0 685 k 150 k 0 1.7 m 150 k 0 3.4 m	Light: directed downwa diffuse all around	ards,



UGR ≤ 16

CURLING L

glass shade clear		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	85 lm/W	34W	2915lm
	3000 K	Ra>97/ R9>80	89lm/W	34W	3060 lm
	distribution (2700K)	90° 140 cd 90° 60° 280 cd 90° 60° 420 cd 90°	78° 10 1616 k 387 k 0 1.6 m 2.0 404 k 97 k	Light: directed downw distributed all around	vards,
	UGR	≤ 20,2			

CURLING L glass shade clear, reflector conical,

reflector conical, diffuser lens		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	64lm/W	34W	2159 lm
	3000 K	Ra>97/ R9>80	67 lm/W	34W	2267m
	distribution (2700 K)	90° 340 cd 60° 60° 60° 60° 60° 60° 60° 60° 60° 60°	1403 lx 311 lx	te.	
	UGR	≤ 15,6			

CURLING L glass shade clear, reflector cylindrical,

diffuser lens		CRI	luminous efficacy	power	luminous flux
	2700 K	Ra>97/ R9>80	64lm/W	34W	2159 lm
	3000 K	Ra>97/ R9>80	67 lm/W	34W	2267m
	distribution (2700 K)	90 349 cd 60 60 60 60 60 1190 cd 1190 cd 30 30	0 1.0 1403 kt 311 kt 0 1.7 m 351 kt 78 kt 0 3.4 m	Light: directed downw diffuse all around	vards,
	UGR	≤ 15,6			

Information

+C indicates products with pre-programmed CASAMBI module integrated in the luminaire. The CASAMBI functionality is basically applicable to all our products. For the different possibilities of integration (depending on the temperature)—in the luminaire, in the suspended ceiling, in the switch or the distribution box) we will be pleased to inform you. CASAMBI is a lighting control system which is operated via Bluetooth and can be integrated completely into the luminaire or behind the light switch. It is controlled via mobile devices using the free CASAMBI app, making its operation simple and intuitive. CASAMBI expands the possibilities of control with new options such as dimming, the programming of specific scenarios or groups, automations and many more. For further information, please visit www.casambi.com.

CCT (Correlated Color Temperature) is the colour temperature of an LED and is specified in Kelvin (K).

CCT We supply LED lights with a colour temperature of 2700 K at short notice.

LED lights with a color temperature of 3000 K and higher usually have longer delivery times.

CRI Colour Rendering Index

Dim2Warm refers to a luminaire functionality that imitates the pleasant dimming behavior of classic incandescent lamps. When dimmed, the light not only becomes darker, but also changes its colour to warm white tone.

DALI 5-core mains cable required for control via DALI or 1–10 V.

1-10 V All LED luminaires operated with DALI power supply units are suitable for use in emergency lighting systems.

Lumen The luminous flux (lumen) specifications are nominal values, i.e. pure module luminous flux values The luminous flux indicates how much light radiates in all directions.

TW Luminaires with this characteristic have variable colour temperature control from warm to cool white light.

UGR Unified Glare Rating

IP Protection class

LOR The luminaire operating efficiency is given as a LOR value (Light Output Ratio) in percent.

The crossed-out wheelie bin indicates that this electrical appliance must not be disposed of via household waste. In order to protect human health and the environment against potentially hazardous substances, at the end of its lifecycle this product can be taken to a collection point close to you and disposed of free of charge there. This separate disposal enables electrical appliances to be reused or recycled.

At www.serien.com/downloads you will find helpful information and the latest technical data:

Data sheets, catalogues, price lists, lighting data (EULUMDAT), 3D CAD data, EU Energy labels, declarations of conformity, returns form, FAQs, assembly instructions, drilling templates and other service instructions.

This data sheet supersedes all previously published data sheet. The drawings shown in this document are for informational purposes only. Although great care has been taken when creating them, their proportions may not correctly reflect the proportions of the real product.

All values are rated values. Power and luminous flux are subject to an initial tolerance of +/- 10%.

Tolerance of color temperature: +/-150 K. When not otherwise indicated the values apply for an ambient temperature of 25 °C.

The specified nominal and measured values refer to the illuminants used at the time the data sheet was prepared. Omissions excepted.



