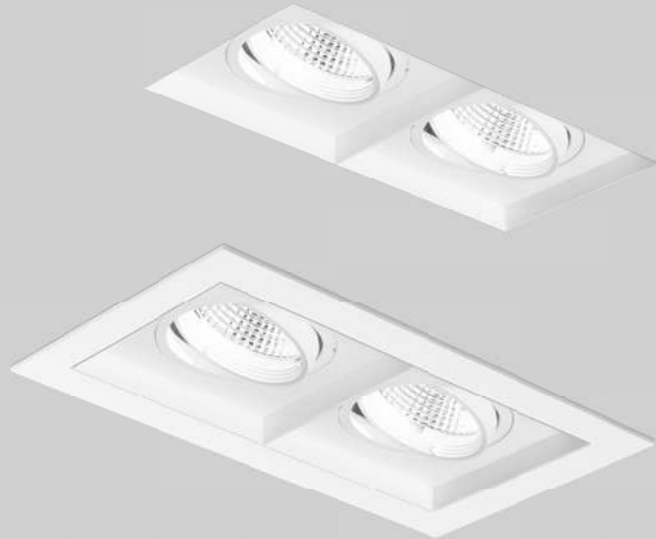


KARO 80

trim / trimless

xal.com/karo



Quickinfo

GENERAL

recessed (with trim / trimless)
IP20

LED

COB LED module
up to 84lm/W
2700K, 3000K, 4000K, CWD
CRI ≥ 90
Binning initial ≤ 3 MacAdam

ESTIMATED LED LIFETIME

L80/50 000h

OPTICAL

direct illumination
beam angle 6°, 27°, 37°
optical accessories

ELECTRICAL

non DIM, DIM DALI

PHYSICAL

aluminium
powder-coated

Description

DE Ein- bzw. zweiflammiges Einbaugehäuse, optional mit umlaufendem Rand; Einsatz: rundes Strahlerelement aus Aluminiumdruckguss; werkzeuglose Montage im Montageset durch Kugelschnappsystem; 360° dreh- und 35° schwenkbar; Oberfläche weiß oder schwarz pulverbeschichtet; Einbau in unterschiedlichen Gehäusen möglich; optische Aufsätze sind als Zubehör erhältlich; passive Kühlung der LEDs durch optimierte Kühlkörpergeometrie; COB (Chip on Board) Technologie für höchste Effizienz; keine Bildung von Mehrfachschatten; energieeffiziente LEDs mit sehr guter Farbwiedergabe; Binning initial ≤ 3 MacAdam; lieferbar in den Lichtfarben 2700K, 3000K und 4000K; optional mit CWD (Colour Warm Dimming); CRI ≥ 90; min. 80% des Lichtstromes nach 50 000h Lebensdauer hochwertiger Reflektor mit sphärischer Facettenoptik; präzise Abstrahlcharakteristik mit drei verschiedenen Ausstrahlwinkeln; werkzeuglos einsetz- bzw. austauschbar; Schutzart IP20; SK II; optional DALI-dimmbar

EN Single or double lamp recessed housing, optionally with trim; insert: round spotlight element in die-cast aluminium; installation without tools in mounting set with ball catch system; 360° rotatable and 35° tiltable; surface powder coated in white or black; installation possible in different housings; optical attachments available as accessories; passive cooling of LEDs with optimised heat sink geometry; COB (Chip on Board) technology for maximum efficiency; no multiple shadows; energy-efficient LEDs with very good colour rendering; binning initial ≤ 3 MacAdam; available in the light colours 2700K, 3000K and 4000K; optional with CWD (Colour Warm Dimming); CRI ≥ 90; min. 80% of the luminous flux after 50 000 hours; high quality reflector with spherical facet finish; precise radiation characteristic with three different beam angles; installed and exchanged without tools; protection class IP20; PC II; optional DALI dimmable

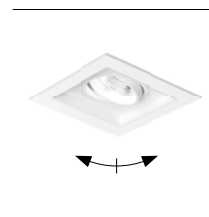
Features



exchangeable light engine



patented ball catch system



rotation adjustment 360°, tilt adjustm. 35°



skimmed into plasterboard ceiling (trimless)

Standard configuration

COLOUR TEMPERATURE ☐☐
3000K 5

CONTROL ◀▶
non DIM 1

MATERIAL COLOUR ☑
white 7



REFLECTOR ▲
flood 37° F

Extended configuration

COLOUR TEMPERATURE ☐☐
2700K 4
4000K 6

CONTROL ◀▶
DIM DALI 3

MATERIAL COLOUR ☑
black 8



+5% surcharges

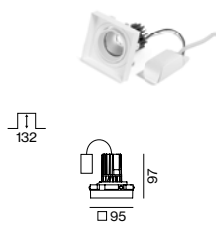
REFLECTOR ▲
medium 27° M

LENS ▲
super spot 6° (only 8W non DIM) V

Options on request

CONTROL
phase-cut DIM

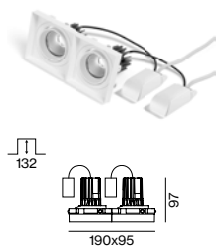
MOUNTING ACCESSORIES
concrete mounting housing



KARO 80 1 lamp



SYS. POWER	COLOUR TEMP.	LUMINOUS FLUX	ORDER CODE
8W	2700K 3000K 4000K	630lm 660lm 700lm	0 4 8 - 4 3 1 0 :: 1 ☐▲
10W CWD	1800-3000K (CRI ≥ 95)	500lm	0 4 8 - 4 3 1 0 0 3 ☐M
12W	2700K 3000K 4000K	950lm 980lm 1050lm	0 4 8 - 4 3 1 2 :: ☐▲



KARO 80 2 lamps



SYS. POWER	COLOUR TEMP.	LUMINOUS FLUX	ORDER CODE
2×8W	2700K 3000K 4000K	2×630lm 2×660lm 2×700lm	0 4 8 - 4 3 2 0 :: 1 ☐▲
2×10W CWD	1800-3000K (CRI ≥ 95)	2×500lm	0 4 8 - 4 3 2 0 0 3 ☐M
2×12W	2700K 3000K 4000K	2×950lm 2×980lm 2×1050lm	0 4 8 - 4 3 2 2 :: ☐▲

LIGHT DISTRIBUTION for 12W, 3000K (1 lamp)

super spot 6° (8W)			medium 27°			flood 37°		
h (m)	E (lx)	ø (m)	h (m)	E (lx)	ø (m)	h (m)	E (lx)	ø (m)
1	21750	ø0,11	1	2534	ø0,48	1	1826	ø0,68
2	5437	ø0,21	2	633	ø0,96	2	456	ø1,36
3	2416	ø0,32	3	281	ø1,44	3	202	ø2,03
4	1359	ø0,43	4	158	ø1,92	4	114	ø2,71
5	870	ø0,53	5	101	ø2,40	5	73	ø3,39

Mounting accessories

TRIMLESS MOUNTING SET

for installation in plasterboard ceilings 5-25mm

TYPE	L-W-H (mm)	ORDER CODE
1 lamp	108·108·39	0 4 8 - 4 0 9 1 1 1 6
2 lamps	203·108·39	0 4 8 - 4 0 9 2 1 1 6

MOUNTING SET WITH TRIM

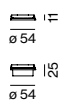
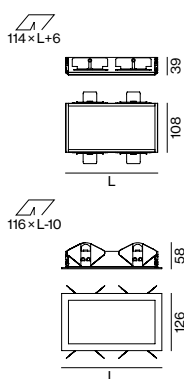
for installation in plasterboard ceilings 5-25mm

TYPE	L-W-H (mm)	ORDER CODE
1 lamp white	126·126·58	0 4 8 - 4 0 9 1 2 1 7
1 lamp black	126·126·58	0 4 8 - 4 0 9 1 2 1 8
2 lamps white	221·126·58	0 4 8 - 4 0 9 2 2 1 7
2 lamps black	221·126·58	0 4 8 - 4 0 9 2 2 1 8

Optical accessories

TYPE	ORDER CODE
honeycomb louver	0 4 8 - 2 0 9 1 3 1 ☐
linear prismatic lens	0 4 8 - 2 0 9 2 3 1 ☐
snoot	0 4 8 - 2 0 9 1 1 1 ☐
snoot with honeycomb louver	0 4 8 - 2 0 9 1 2 1 ☐

use only 1 optical accessory

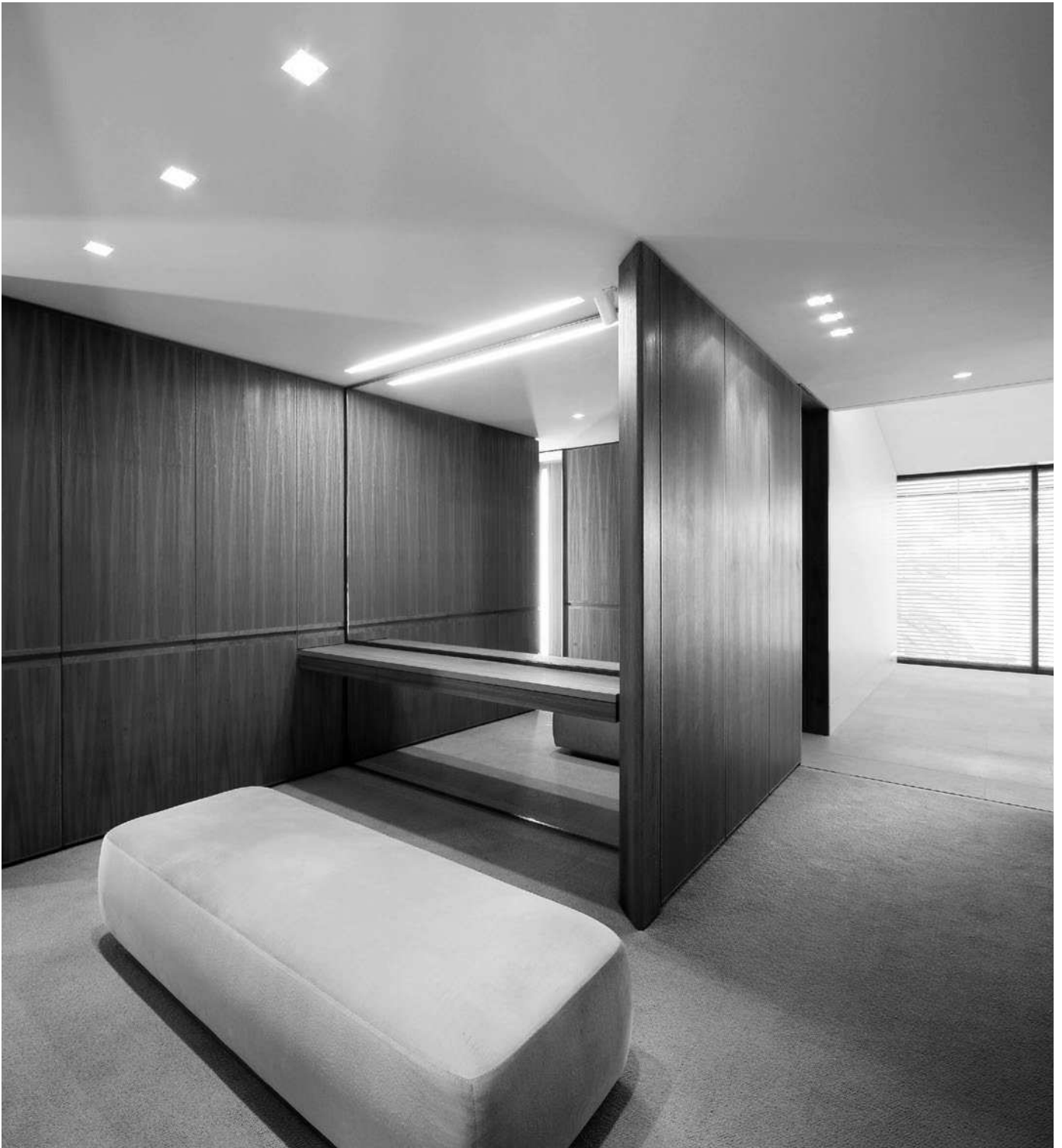


Inspiration

Private Residence
Sydney, Australia

ARCHITECT
Tzannes and Associates
Sydney, Australia

PRODUCT
KARO 80 trimless

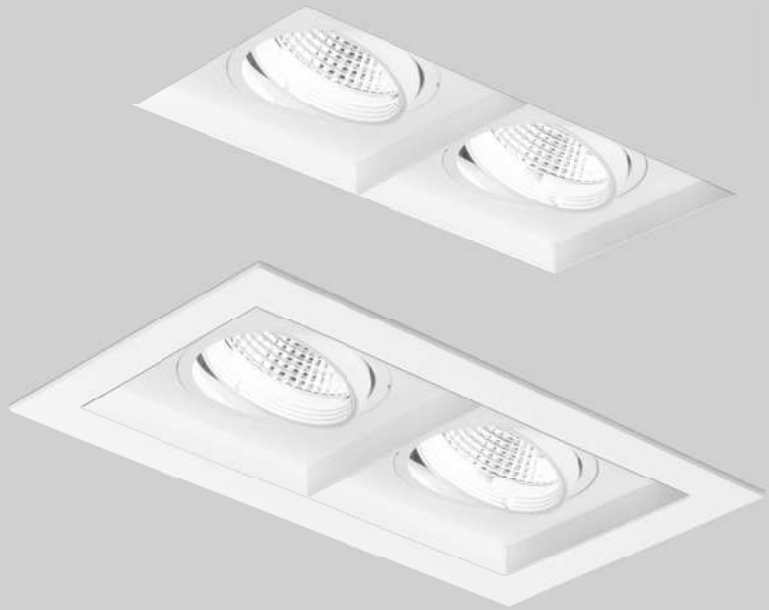




KARO 100

trim/trimless

xal.com/karo



Quickinfo

GENERAL

recessed (with trim/trimless)
IP20

LED

COB LED module
up to 93lm/W
2700K, 3000K, 4000K, CWD
CRI ≥ 90
Binning initial ≤ 3 MacAdam

ESTIMATED LED LIFETIME

L80/50 000h

OPTICAL

direct illumination
beam angle 18°, 24°, 36°
optical accessories

ELECTRICAL

non DIM, DIM DALI

PHYSICAL

aluminium
powder-coated

Description

DE Ein- bzw. zweiflammiges Einbaugehäuse, optional mit umlaufendem Rand; Einsatz: rundes Strahlerelement aus Aluminiumdruckguss; werkzeuglose Montage im Montageset durch Kugelschnappsystem; 360° dreh- und 35° schwenkbar; Oberfläche weiß oder schwarz pulverbeschichtet; Einbau in unterschiedlichen Gehäusen möglich; optische Aufsätze sind als Zubehör erhältlich; passive Kühlung der LEDs durch optimierte Kühlkörpergeometrie; COB (Chip on Board) Technologie für höchste Effizienz; keine Bildung von Mehrfachschatten; energieeffiziente LEDs mit sehr guter Farbwiedergabe; Binning initial ≤ 3 MacAdam; lieferbar in den Lichtfarben 2700K, 3000K und 4000K; optional mit CWD (Colour Warm Dimming); CRI ≥ 90; min. 80% des Lichtstromes nach 50 000h Lebensdauer hochwertiger Reflektor mit sphärischer Facettenoptik; präzise Abstrahlcharakteristik mit drei verschiedenen Ausstrahlwinkeln; werkzeuglos einsetz- bzw. austauschbar; Schutzart IP20; SK II; optional DALI-dimmbar

EN Single or double lamp recessed housing, optionally with trim; insert: round spotlight element in die-cast aluminium; installation without tools in mounting set with ball catch system; 360° rotatable and 35° tiltable; surface powder coated in white or black; installation possible in different housings; optical attachments available as accessories; passive cooling of LEDs with optimised heat sink geometry; COB (Chip on Board) technology for maximum efficiency; no multiple shadows; energy-efficient LEDs with very good colour rendering; binning initial ≤ 3 MacAdam; available in the light colours 2700K, 3000K and 4000K; optional with CWD (Colour Warm Dimming); CRI ≥ 90; min. 80% of the luminous flux after 50 000 hours; high quality reflector with spherical facet finish; precise radiation characteristic with three different beam angles; installed and exchanged without tools; protection class IP20; PC II; optional DALI dimmable

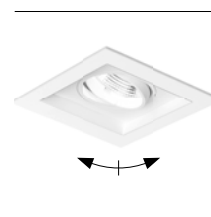
Features



exchangeable light engine



patented ball catch system



rotation adjustment 360°, tilt adjustm. 35°



skimmed into plasterboard ceiling (trimless)

Standard configuration

COLOUR TEMPERATURE
3000K 5

CONTROL
non DIM 1

MATERIAL COLOUR
white 7

7

REFLECTOR
flood 36° F

Extended configuration

COLOUR TEMPERATURE
2700K 4
4000K 6

CONTROL
DIM DALI 3

MATERIAL COLOUR
black 8

8

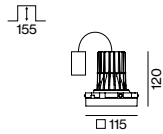
+5% surcharges

REFLECTOR
spot 18° (only for non CWD) S
medium 24° M

Options on request

CONTROL
phase-cut DIM

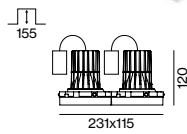
MOUNTING ACCESSORIES
concrete mounting housing



KARO 100 1 lamp



SYS. POWER	COLOUR TEMP.	LUMINOUS FLUX	ORDER CODE
15 W	2700K	1360 lm	0 4 8 - 4 4 1 0 :: □ ▲
	3000K	1410 lm	
	4000K	1510 lm	
15 W CWD	1800-3000K (CRI ≥ 95)	1030 lm	0 4 8 - 4 4 1 1 0 3 □ F
27 W	2700K	2140 lm	0 4 8 - 4 4 1 2 :: □ ▲
	3000K	2220 lm	
	4000K	2370 lm	



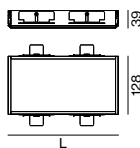
KARO 100 2 lamps



SYSTEM POWER	COLOUR TEMP.	LUMINOUS FLUX	ORDER CODE
2 × 15 W	2700K	2 × 1360 lm	0 4 8 - 4 4 2 0 :: □ ▲
	3000K	2 × 1410 lm	
	4000K	2 × 1510 lm	
2 × 15 W CWD	1800-3000K	2 × 1030 lm	0 4 8 - 4 4 2 1 0 3 □ F
2 × 27 W	2700K	2 × 2140 lm	0 4 8 - 4 4 2 2 :: □ ▲
	3000K	2 × 2220 lm	
	4000K	2 × 2370 lm	

LIGHT DISTRIBUTION for 27W, 3000K (1 lamp)

spot 18°			medium 24°			flood 36°		
h (m)	E (lx)	ø (m)	h (m)	E (lx)	ø (m)	h (m)	E (lx)	ø (m)
1	14162	ø0,31	1	9171	ø0,42	1	5376	ø0,65
2	3540	ø0,62	2	2292	ø0,84	2	1344	ø1,31
3	1573	ø0,93	3	1019	ø1,27	3	597	ø1,96
4	885	ø1,24	4	573	ø1,69	4	336	ø2,61
5	566	ø1,55	5	366	ø2,11	5	215	ø3,27

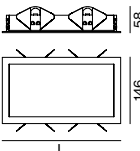


Mounting accessories

TRIMLESS MOUNTING SET

for installation in plasterboard ceilings 5-25mm

TYPE	L-W-H (mm)	ORDER CODE
1 lamp	128·128·39	0 4 8 - 4 1 9 1 1 1 6
2 lamps	243·128·39	0 4 8 - 4 1 9 2 1 1 6



MOUNTING SET WITH TRIM

for installation in plasterboard ceilings 5-25mm

TYPE	L-W-H (mm)	ORDER CODE
1 lamp white	146·146·58	0 4 8 - 4 1 9 1 2 1 7
1 lamp black	146·146·58	0 4 8 - 4 1 9 1 2 1 8
2 lamps white	261·146·58	0 4 8 - 4 1 9 2 2 1 7
2 lamps black	261·146·58	0 4 8 - 4 1 9 2 2 1 8

Optical accessories

TYPE	ORDER CODE
honeycomb louver	0 4 8 - 2 1 9 1 3 1 □
linear prismatic lens	0 4 8 - 2 1 9 2 3 1 □
snoot	0 4 8 - 2 1 9 1 1 1 □
snoot with honeycomb louver	0 4 8 - 2 1 9 1 2 1 □

use only 1 optical accessory



Inspiration

Weber Store
Berlin, Germany

ARCHITECT
Gruschwitz GmbH Design & Realisierung
Munich, Germany

PRODUCT
KARO 100 trim



Inspiration

Dallmayr Academy
Munich, Germany

ARCHITECT
Arnold / Werner
Munich, Germany

PRODUCT
KARO 100 trimless





KARO 150

trim/trimless

xal.com/karo



Quickinfo

GENERAL

recessed (with trim/trimless)
IP20

LED

COB LED module
up to 101lm/W
3000K, 4000
CRI ≥ 90
Binning initial ≤ 3 MacAdam

ESTIMATED LED LIFETIME

L80/50 000h

OPTICAL

direct illumination
beam angle 14°, 25°, 41°
optical accessories

ELECTRICAL

non DIM, DIM DALI

PHYSICAL

aluminium
powder-coated

Description

DE Ein- bzw. zweiflammiges Einbaugehäuse, optional mit umlaufendem Rand; Einsatz: rundes Strahlerelement aus Aluminiumdruckguss; werkzeuglose Montage im Montageset durch Kugelschnappsystem; 360° dreh- und 35° schwenkbar; Oberfläche weiß oder schwarz pulverbeschichtet; Einbau in unterschiedlichen Gehäusen möglich; optische Aufsätze sind als Zubehör erhältlich; passive Kühlung der LEDs durch optimierte Kühlkörpergeometrie; COB (Chip on Board) Technologie für höchste Effizienz; keine Bildung von Mehrfachschatten; energieeffiziente LEDs mit sehr guter Farbwiedergabe; Binning initial ≤ 3 MacAdam; lieferbar in den Lichtfarben 3000K und 4000K; CRI ≥ 90; min. 80% des Lichtstromes nach 50 000h Lebensdauer hochwertiger Aluminiumreflektor mit sphärischer Facettenoptik; hochglänzend eloxiert; präzise Abstrahlcharakteristik mit drei verschiedenen Ausstrahlwinkeln; werkzeuglos einsetz- bzw. austauschbar; Schutzart IP20; SK II; optional DALI-dimmbar

EN Single or double lamp recessed housing, optionally with trim; insert: round spotlight element in die-cast aluminium; installation without tools in mounting set with ball catch system; 360° rotatable and 35° tiltable; surface powder coated in white or black; installation possible in different housings; optical attachments available as accessories; passive cooling of LEDs with optimised heat sink geometry; COB (Chip on Board) technology for maximum efficiency; no multiple shadows; energy-efficient LEDs with very good colour rendering; binning initial ≤ 3 MacAdam; available in the light colours 3000K and 4000K; CRI ≥ 90; min. 80% of the luminous flux after 50 000 hours; high quality aluminium reflector with spherical facet finish; high gloss anodised; precise radiation characteristic with three different beam angles; installed and exchanged without tools; protection class IP20; PC II; optional DALI dimmable

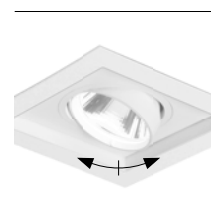
Features



exchangeable light engine



patented ball catch system



rotation adjustment 360°, tilt adjustm. 35°



skimmed into plasterboard ceiling (trimless)

Standard configuration

COLOUR RENDERING INDEX

CRI ≥ 90

COLOUR TEMPERATURE ☐☐
3000K 5

CONTROL ◀▶
non DIM 1

MATERIAL COLOUR ☑
white 7

7

REFLECTOR ▲
flood 41° F

Extended configuration

COLOUR TEMPERATURE ☐☐
4000K 6

CONTROL ◀▶
DIM DALI 3

MATERIAL COLOUR ☑
black 8

8

+5% surcharges

REFLECTOR ▲
spot 14° S
medium 25° M

Options on request

SPECIAL COLOUR

vogue	CRI ≥ 90
gallery	CRI 98
gourmet	CRI ≥ 80
fresh meat & fish	CRI ≥ 80
pastry	CRI ≥ 80
brilliant white	CRI ≥ 90

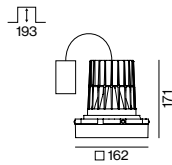
REFLECTOR
wide flood 58°



KARO 150 1 lamp



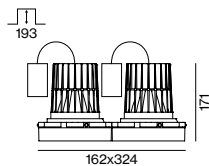
SYSTEM POWER	COLOUR TEMP.	LUMINOUS FLUX	ORDER CODE
28 W	3000 K	2670 lm	0 4 8 - 4 5 1 0 ☐☐▲
44 W	3000 K	3590 lm	0 4 8 - 4 5 1 1 ☐☐▲
52 W	3000 K	4270 lm	0 4 8 - 4 5 1 2 ☐☐▲
	4000 K	2860 lm	
	4000 K	3850 lm	
	4000 K	4580 lm	



KARO 150 2 lamps



SYSTEM POWER	COLOUR TEMP.	LUMINOUS FLUX	ORDER CODE
2 × 28 W	3000 K	2 × 2670 lm	0 4 8 - 4 5 2 0 ☐☐▲
2 × 44 W	3000 K	2 × 3590 lm	0 4 8 - 4 5 2 1 ☐☐▲
2 × 52 W	3000 K	2 × 4270 lm	0 4 8 - 4 5 2 2 ☐☐▲
	4000 K	2 × 2860 lm	
	4000 K	2 × 3850 lm	
	4000 K	2 × 4580 lm	



LIGHT DISTRIBUTION for 52 W, 3000 K (1 lamp)

spot 14°			medium 25°			flood 41°		
h (m)	E (lx)	ø (m)	h (m)	E (lx)	ø (m)	h (m)	E (lx)	ø (m)
1	38175	ø0,24	1	17350	ø0,44	1	7656	ø0,74
2	9543	ø0,49	2	4337	ø0,87	2	1914	ø1,48
3	4241	ø0,73	3	1927	ø1,31	3	850	ø2,22
4	2385	ø0,97	4	1084	ø1,75	4	478	ø2,96
5	1527	ø1,21	5	694	ø2,18	5	306	ø3,70

Mounting accessories

TRIMLESS MOUNTING SET

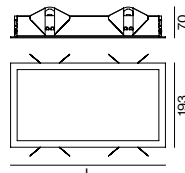
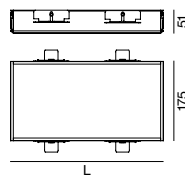
for installation in plasterboard ceilings 5-25 mm

TYPE	L-W-H (mm)	ORDER CODE
1 lamp	175-175-51	0 4 8 - 4 2 9 1 1 1 6
2 lamps	337-175-51	0 4 8 - 4 2 9 2 1 1 6

MOUNTING SET WITH TRIM

for installation in plasterboard ceilings 5-25 mm

TYPE	L-W-H (mm)	ORDER CODE
1 lamp white	193-193-70	0 4 8 - 4 2 9 1 2 1 7
1 lamp black	193-193-70	0 4 8 - 4 2 9 1 2 1 8
2 lamps white	355-193-70	0 4 8 - 4 2 9 2 2 1 7
2 lamps black	355-193-70	0 4 8 - 4 2 9 2 2 1 8



Optical accessories

TYPE	ORDER CODE
honeycomb louver	0 4 8 - 2 2 9 1 3 1 ☐
linear prismatic lens	0 4 8 - 2 2 9 2 3 1 ☐
snoot	0 4 8 - 2 2 9 1 1 1 ☐
snoot with honeycomb louver	0 4 8 - 2 2 9 1 2 1 ☐

use only 1 optical accessory



Inspiration

Fashion Outlet
Oelde, Germany

PRODUCT
KARO 150 trimless
TIMO 80 free

ARCHITECT
drewe+strenge architekten bda
Bielefeld, Germany

LIGHTING DESIGN
drewe+strenge architekten bda
Bielefeld, Germany

