

# BETO system

ceiling / suspended

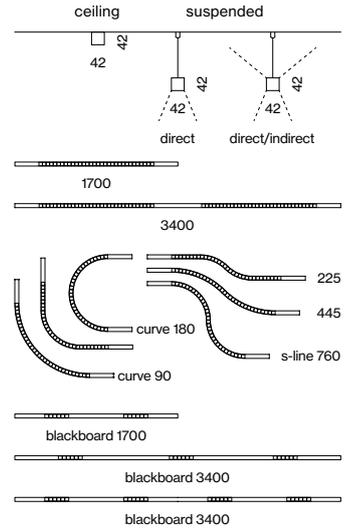
**EN** Luminaire housing from extruded aluminium profile, angular design (only 42 × 42 mm); no visible screws; for lighting systems; linear, S-shaped or CURVE segment (90° or 180°); powder coated; pendant fitting with cable suspension; height adjustment without tools; with feeder cable; extruded profile for improved thermal management; high-gloss reflector with faceted design; direct or direct / indirect light distribution, or with high-quality aluminium-vaporised micro-faceted reflector for homogeneous vertical lighting intensity; indirect light component with integrated PC boards and high-quality lens system for max., homog. ceiling illumination, separately controllable; energy-eff. LEDs – very good colour rendering

**DE** Leuchtenkörper aus Aluminiumstrangpressprofil, kantige Ausführung (nur 42 × 42 mm); keine sichtbaren Schrauben; für Lichtsysteme; linear, S-förmig, oder CURVE Element (90° bzw. 180°); pulverbeschichtet; abgependelt mit Seilabhängung; werkzeuglose Höhenverstellung; inkl. Einspeiseleitung; Strangpressprofil für verbessertes Thermomanagement; hochglänzender Reflektor mit Facettenoptik; direkte bzw. direkt / indirekte Abstrahlcharakteristik, oder mit hochwert. aluminiumbedampften microfacettierten Refl. für homogene vertikale Beleuchtung; Indirektlichtanteil mit eigenen Platinen u. hochwertiger Linsenoptik für max., homog. Deckenaufhellung, separat steuerbar; energie-eff. LEDs – sehr gute Farbwiedergabe

## Quickinfo

3000 K, 4000 K, TW  
 CRI ≥ 80, CRI ≥ 90, 3 SDCM  
 UGR ≤ 19 / 65° ≤ 1500 cd/m<sup>2</sup>  
 L 3400 direct up to 161lm/W  
 L 3400 D/I up to 164lm/W  
 L 3400 blackboard up to 131lm/W  
 L90 @ 50 000 h  
 DALI-2, DALI-2 sensor  
 reflector (UGR ≤ 19)

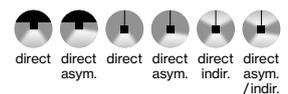
## Types



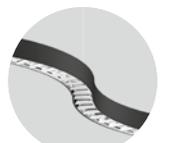
## Colours



## Light distributions



DiiA® standards  
251, 252, 253



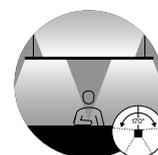
curve  
elements



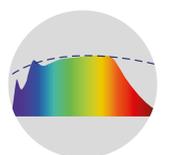
single  
luminaire



DIN EN 12464-1  
UGR ≤ 19



glare-free direct  
and 170° indirect  
illumination



CRI ≥ 98  
XPECTRUM

### Order options

#### COLOUR TEMPERATURE

3000 K (CRI ≥ 90)	0
4000 K (CRI ≥ 90)	1
3000 K (CRI ≥ 80)	5
4000 K (CRI ≥ 80)	6
tunable white 2700–6500 K*	

\*DALI-2 DT8, CRI ≥ 90

#### CONTROL

DALI-2	3
DALI-2 sensor*	7

\*brightness & presence  
only linear 3400 mm (not blackboard)

#### MATERIAL COLOUR

○ pure white RAL 9010	7
● jet black RAL 9005	8

#### REFLECTOR COLOUR

✓ chrome	R
● dark chrome*	B

\*not available for blackboard wallwash.,  
blackboard wallwasher/indirect

#### LIGHT OPTIC COVER

reflector (UGR ≤ 19)

### Options on request

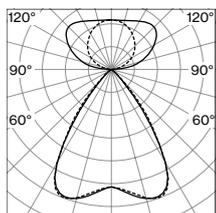
#### COLOUR RENDERING INDEX

CRI ≥ 98 XPECTRUM

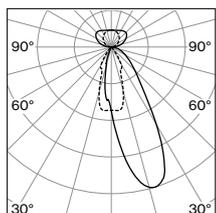
#### SYSTEM SOLUTION

continuous reflector  
individual length

### Light distributions

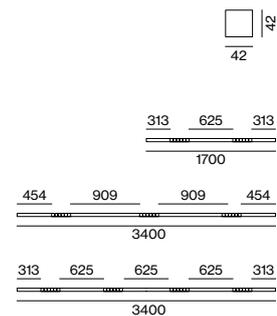
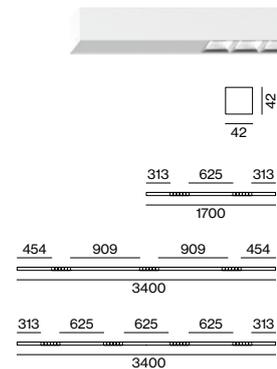
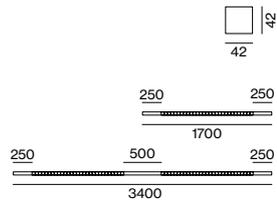
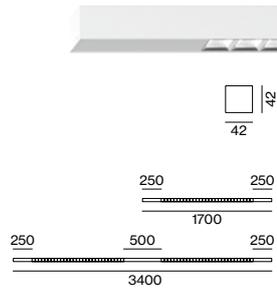


reflector (UGR ≤ 16)  
direct/indirect power

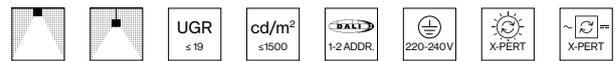


blackboard  
direct/indirect

**LUMINOUS FLUX** value calculated for  
CRI ≥ 80, colour white, reflector chrome;  
reflector black -29%

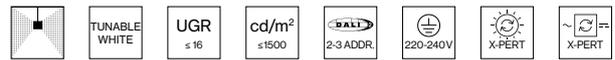


### BETO linear ceiling/suspended system



#### DIRECT

SYS. POWER	COLOUR TEMP.	LUM. FLUX	L (mm)	ORDER CODE
22.6 W (1 × DALI)	3000 K	3170 lm	1700	074-6006
45 W (2 × DALI)	4000 K	3610 lm		
	3000 K	6360 lm	3400	074-6009
	4000 K	7240 lm		



#### DIRECT / INDIRECT POWER

SYS. POWER	COLOUR TEMP.	LUM. FLUX	L (mm)	ORDER CODE
51 W (2 × DALI)	3000 K	↓ 3170 / ↑ 3710 lm	1700	074-6036
	4000 K	↓ 3610 / ↑ 4220 lm		
95 W (3 × DALI)	3000 K	↓ 6350 / ↑ 7330 lm	3400	074-6039
	4000 K	↓ 7220 / ↑ 8350 lm		
106 W (3 × DALI)	3000 K	↓ 5930 lm	3400	074-60D95
	2700–6500 K	↑ 6870 lm		
106 W (3 × DALI)	4000 K	↓ 6410 lm	3400	074-60D96
	2700–6500 K	↑ 6870 lm		

### BETO linear blackboard ceiling/suspended system



#### WALLWASHER

SYS. POWER	COLOUR TEMP.	LUM. FLUX	L (mm)	ORDER CODE
47 W (1 × DALI)	3000 K	5020 lm	1700	074-7706
	4000 K	5120 lm		
71 W (2 × DALI)	3000 K	7530 lm	3400	074-7719
	4000 K	7680 lm		
93 W (2 × DALI)	3000 K	10000 lm	3400	074-7729
	4000 K	10200 lm		



#### WALLWASHER / INDIRECT

SYS. POWER	COLOUR TEMP.	LUM. FLUX	L (mm)	ORDER CODE
76 W (2 × DALI)	3000 K	↓ 5020 / ↑ 3710 lm	1700	074-7736
	4000 K	↓ 5120 / ↑ 4220 lm		
122 W (3 × DALI)	3000 K	↓ 7530 / ↑ 7590 lm	3400	074-7749
	4000 K	↓ 7680 / ↑ 8640 lm		
144 W (3 × DALI)	3000 K	↓ 10000 / ↑ 7590 lm	3400	074-7759
	4000 K	↓ 10200 / ↑ 8640 lm		

### More components and accessories

see next page

**Order options**

**COLOUR TEMPERATURE**

3000 K (CRI ≥ 90)	0
4000 K (CRI ≥ 90)	1
3000 K (CRI ≥ 80)	5
4000 K (CRI ≥ 80)	6

**CONTROL**

DALI-2	
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**MATERIAL COLOUR**

○ pure white RAL 9010	7
● jet black RAL 9005	8

**REFLECTOR COLOUR**

↗ chrome	R
● dark chrome	B

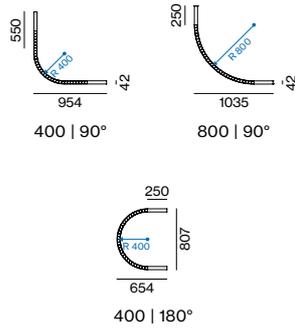
**LIGHT OPTIC COVER**

reflector (UGR ≤ 16)	
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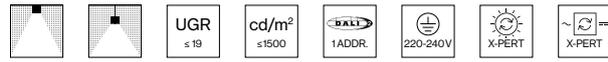
**Options on request**

**COLOUR RENDERING INDEX**

CRI ≥ 98 XPECTRUM	
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**BETO curve ceiling/suspended system**



**DIRECT**

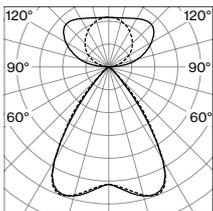
SYS. POWER	COLOUR TEMP.	LUM. FLUX	R (mm)	ORDER CODE
22.6 W	3000 K	3170 lm	400   90°	074-7101::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	800   90°	074-7103::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	400   180°	074-7102::3
	4000 K	3610 lm		



**DIRECT/INDIRECT POWER**

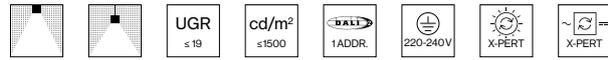
S. POWER	COLOUR TEMP.	LUM. FLUX	R (mm)	ORDER CODE
53 W	3000 K	↓ 3170 / ↑ 3960 lm	400   90°	074-7131::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	800   90°	074-7133::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	400   180°	074-7132::3
	4000 K	↓ 3610 / ↑ 4510 lm		

**Light distribution**



reflector (UGR ≤ 16)  
direct/indirect power

**BETO s-line ceiling/suspended system**



**DIRECT**

SYS. POWER	COLOUR TEMP.	LUM. FLUX	TYPE	ORDER CODE
22.6 W	3000 K	3170 lm	225 L	074-7201::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	225 R	074-7202::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	445 L	074-7205::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	445 R	074-7206::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	760 L	074-7203::3
	4000 K	3610 lm		
22.6 W	3000 K	3170 lm	760 R	074-7204::3
	4000 K	3610 lm		



**DIRECT/INDIRECT POWER**

S. POWER	COLOUR TEMP.	LUM. FLUX	TYPE	ORDER CODE
53 W	3000 K	↓ 3170 / ↑ 3960 lm	225 L	074-7231::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	225 R	074-7232::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	445 L	074-7235::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	445 R	074-7236::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	760 L	074-7233::3
	4000 K	↓ 3610 / ↑ 4510 lm		
53 W	3000 K	↓ 3170 / ↑ 3960 lm	760 R	074-7234::3
	4000 K	↓ 3610 / ↑ 4510 lm		

**LUMINOUS FLUX** value calculated for CRI ≥ 80, colour white, reflector chrome; reflector black -29%

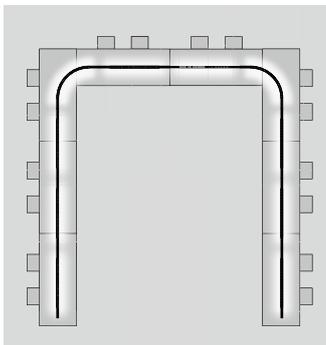
### Order options

MATERIAL COLOUR		<input checked="" type="checkbox"/>
○ pure white RAL 9010	7	
● jet black RAL 9005	8	

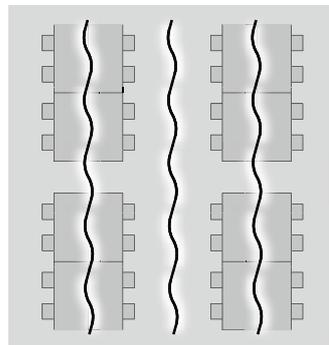
### Accessories

<b>END CAPS</b>		
<b>TYPE</b>	end caps (pair)	<b>ORDER CODE</b> 074-609001 <input checked="" type="checkbox"/>
<b>LINEAR CONNECTOR</b>		
<b>TYPE</b>	mechanical linear connector ceiling	<b>ORDER CODE</b> 074-6091110
	mechanical linear connector suspended*	074-6091120
		*incl. 1500mm cable suspension
<b>CORNER CONNECTOR 90°</b>		
<b>TYPE</b>	corner connector 90°	<b>ORDER CODE</b> 074-609121 <input checked="" type="checkbox"/>
		incl. through wire 5 × 1.5 mm <sup>2</sup> ; order two mechanical linear connectors separately
<b>BLIND COVER</b>		
<b>TYPE</b>	blind cover 250 mm	<b>ORDER CODE</b> 074-609910 <input checked="" type="checkbox"/>
	blind cover 500 mm	074-609911 <input checked="" type="checkbox"/>
		order 1 × blind cover 500 mm for each linear connector and 1 × 250 mm for each end
<b>CEILING FASTENER / CABLE SUSPENSION / POWER FEEDER</b>		
<b>TYPE</b>	ceiling fastener	<b>L (mm)</b> 67
	cable suspension	1500
	canopy/feeder cable 5 × 1.5 mm <sup>2</sup>	1500
	through wire 5 × 1.5 mm <sup>2</sup> (10 pieces)	
		<b>ORDER CODE</b> 050-204121 <input checked="" type="checkbox"/>
		005-2152110
		005-221241 <input checked="" type="checkbox"/>
		004-90005
for electrical system configuration see luminaire data sheet at xal.com		

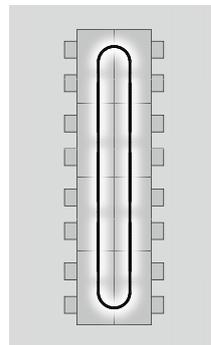
### Arrangement examples (top view)



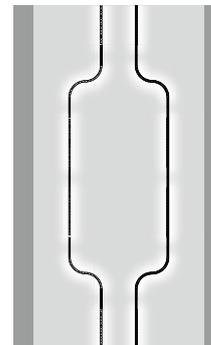
**BETO curve 90**  
conference/seminar



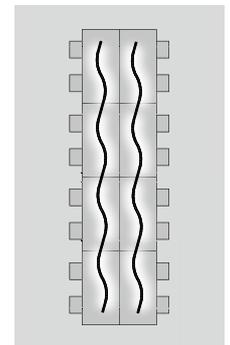
**BETO s-line 445**  
office



**BETO curve 180**  
conference/seminar

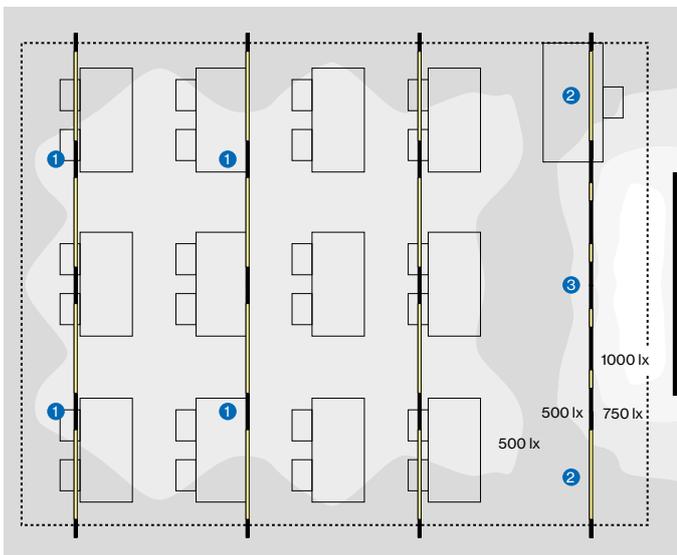


**BETO s-line 760**  
corridor



**BETO s-line 445**  
conference/seminar

### Technical data (top view)



- ① **BETO 3400** ceiling system, 45W, 4000K
- ② **BETO 1700** ceiling system, 22.6W, 4000K
- ③ **BETO 3400** blackboard ceiling system, 93W, 4000K

ROOM VALUES		CALCULATION SURFACE .....	
Room dimensions	9.5 × 7.5 × 3 m	Surface dimensions	8.5 × 6.5
Reflection factor	0.7   0.5   0.2	Surface height	0.75
Maintenance factor	0.8	Average illuminance (E <sub>m</sub> )	> 500 lx
Mounting height	3 m	Uniformity (U <sub>0</sub> )	> 0.6

GLARE EVALUATION	
Table Classification X=4H   Y=8H   S=0.25H	
UGR transversal	≤ 19
UGR axial	≤ 19