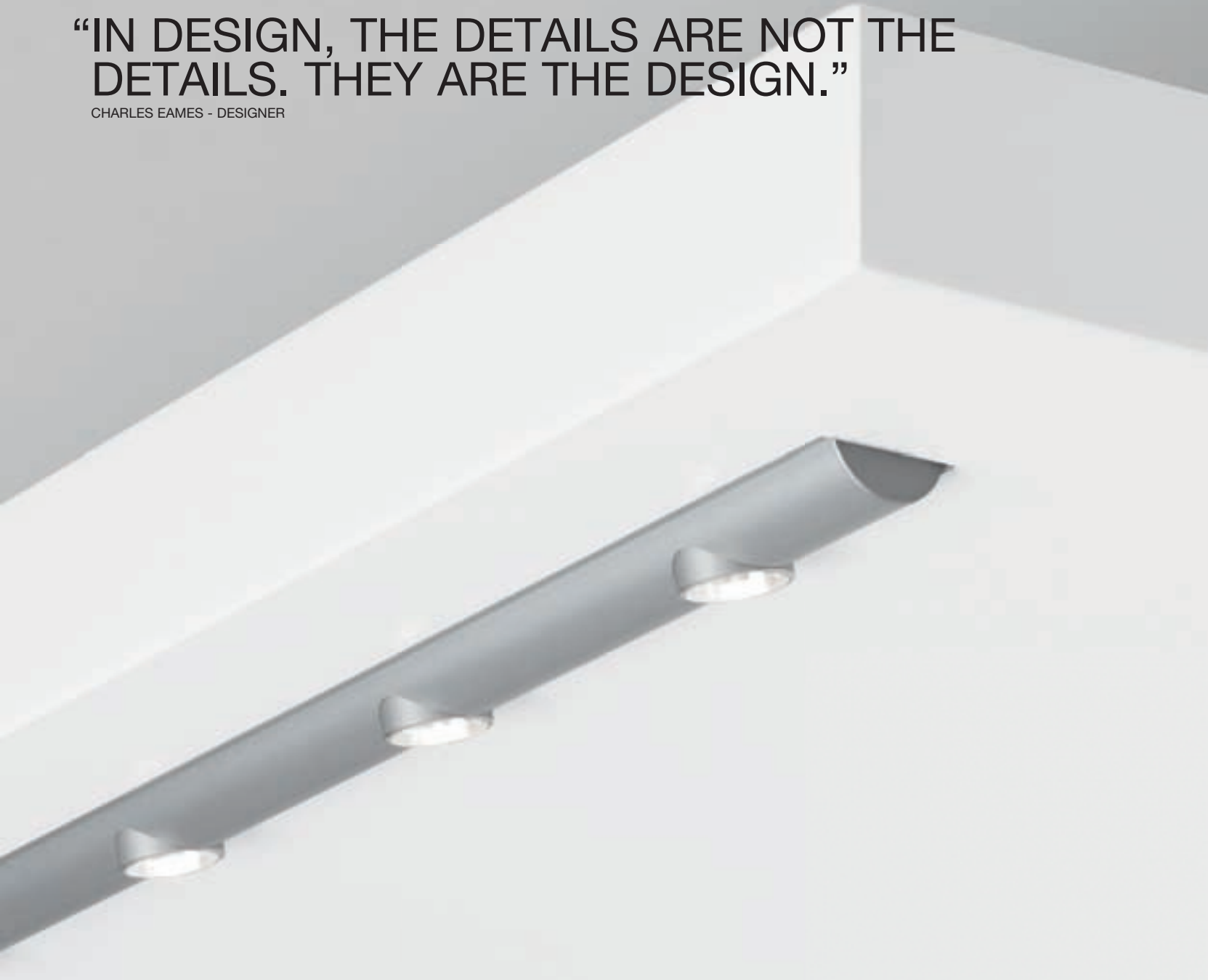


A person in silhouette is shown from the side, reaching out to touch a glowing red cylindrical structure. The scene is illuminated with vibrant red and blue light, creating a futuristic and artistic atmosphere. The background is dark, making the glowing elements stand out.

NANO 09

“IN DESIGN, THE DETAILS ARE NOT THE DETAILS. THEY ARE THE DESIGN.”

CHARLES EAMES - DESIGNER



NANO 1 4



NANO 2 8



NANO 3 12



LED WALLWASHER 16



NANO SOLO 22



STADIO 1 | 3 24



MICRO 1 26



MICRO 3 | 4 28



BEAM ANGLE e² LED | power LED

Recommended shelf distance

NANO LED Spot 18°		SPOT (S) 18°			
LED DISTANCE (MM)	H (MM)	3000K EM (LUX)	4000K EM (LUX)		
60	600	2500	2800		
60	1200	1250	1400		
60	1800	700	800		
120	600	1300	1470		
120	1200	640	720		
120	1800	360	410		

NANO LED Flood 2x25°		FLOOD (F) 45°			
LED DISTANCE (MM)	H (MM)	3000K EM (LUX)	4000K EM (LUX)		
60	300	2150	2400		
60	500	1250	1400		
60	700	720	810		
120	300	1150	1300		
120	500	660	750		
120	700	370	420		

NANO LED Wide flood 2x40°		WIDE FLOOD (W) 65°			
LED DISTANCE (MM)	H (MM)	3000K EM (LUX)	4000K EM (LUX)		
60	200	2000	2250		
60	350	1200	1350		
60	500	680	760		
120	200	1080	1200		
120	350	630	710		
120	500	350	400		

NANO LED Super wide flood 2x50°		SUPER WIDE FLOOD (X) 90°			
LED DISTANCE (MM)	H (MM)	3000K EM (LUX)	4000K EM (LUX)		
60	150	1900	2138		
60	250	1100	1230		
120	150	1350	1500		
120	250	830	940		

MOUNTING INSTRUCTION

1. Initial view of the fixture.
2. Arrow pointing up to the top of the fixture.
3. Screwdriver being used to adjust a component.
4. Two blue arrows pointing outwards from the fixture.
5. Close-up of the mounting bracket.
6. Arrow pointing to the 'click' mechanism.
7. Arrow pointing up to the 'click' mechanism.
8. Yellow cone diagram labeled '0°'.
9. Close-up of the fixture with 'NANO 2' label.
10. Yellow cone diagram labeled '30°'.
11. Close-up of the fixture with 'NANO 3' label.
12. Yellow cone diagram labeled '52°'.

EXPLODED VIEW

CHANNEL A CHANNEL A+ CHANNEL B

CHANNEL C CHANNEL D CHANNEL E CHANNEL F CHANNEL G

NANO 1 NANO 2 NANO 3

NANO 1

4



D
 Rechteckiges Leuchtenprofil, Aluminium natur oder schwarz eloxiert
 Wahlweise in drei Ausstrahlwinkeln 18/45/65° lieferbar
 Durchkontaktiertes elektr. Stecksystem ermöglicht werkzeuglose Montage
 Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
 Auf Wunsch mit Premiumbinning und mit Farbwiedergabeindex Ra >90
 Bestückung mit energieeffizienten 1,1W e² LED, Lebensdauer 50.000h
 Montagekanäle sind als Aufbau- oder Einbauvariante erhältlich
 Aluminiumprofilkanäle und LED Konverter 24V DC separat bestellen

E
 Square shaped profile made of natural or black anodised aluminium
 Three choices of beam angles 18/45/65°
 Versions with colour temperatures of 2700, 3000, 4000 and 6000K
 Toolless in line mounting of fixtures with cord and plug system
 Premium binning upon request with colour rendering index CRI >90
 Equipped with 1,1W e² LED, life time of 50.000h, operation with 24V DC
 Channels available as recessed or surface mounted systems
 Please order mounting channels and LED converter separately

TYPE		NANO 1 LED 24V DC	
	15 11,3 L 60	e² LED	CAPACITY L (MM) CODE 2x1,1W 120 007-1130##_ 3x1,1W 180 007-1132##_ 4x1,1W 240 007-1133##_ 5x1,1W 300 007-1134##_ 5x1,1W mixed 300 007-11340##_ 6x1,1W 360 007-1135##_ 10x1,1W 600 007-1136##_ 10x1,1W mixed 600 007-11360##_ See page 32 for XAL premium binning
	15 11,3 L 120	e² LED	NANO 1 LED 24V DC CAPACITY L (MM) CODE 3x1,1W 300 007-1154##_ 5x1,1W 600 007-1156##_ See page 32 for XAL premium binning
	15 11,3 L 18	e² LED	NANO 1 MIXED LED 24V DC CAPACITY L (MM) CODE 6x1,1W 300 007-11240##_ 12x1,1W 600 007-11260##_ See page 32 for XAL premium binning

LED COLOUR TEMPERATURE																						
e² LED	<table border="1"> <tr> <td>4</td> <td>5</td> </tr> <tr> <td>6</td> <td>8</td> </tr> </table>	4	5	6	8																	
4	5																					
6	8																					
	<table border="1"> <tr> <td>007-...41_</td> <td>2700K</td> <td>89 lm/led</td> </tr> <tr> <td>51_</td> <td>3000K</td> <td>89 lm/led</td> </tr> <tr> <td>61_</td> <td>4000K</td> <td>102 lm/led</td> </tr> <tr> <td>80_</td> <td>6000K</td> <td>118 lm/led</td> </tr> <tr> <td>0_</td> <td>3000 6000K</td> <td>89 118 lm/led</td> </tr> <tr> <td>1_</td> <td>2700 4000K</td> <td>89 102 lm/led</td> </tr> <tr> <td>2_</td> <td>2700 4500K</td> <td>77 lm/led</td> </tr> </table>	007-...41_	2700K	89 lm/led	51_	3000K	89 lm/led	61_	4000K	102 lm/led	80_	6000K	118 lm/led	0_	3000 6000K	89 118 lm/led	1_	2700 4000K	89 102 lm/led	2_	2700 4500K	77 lm/led
007-...41_	2700K	89 lm/led																				
51_	3000K	89 lm/led																				
61_	4000K	102 lm/led																				
80_	6000K	118 lm/led																				
0_	3000 6000K	89 118 lm/led																				
1_	2700 4000K	89 102 lm/led																				
2_	2700 4500K	77 lm/led																				

COLOUR	
	007-...6_ anodised aluminium
	8_ anodised black

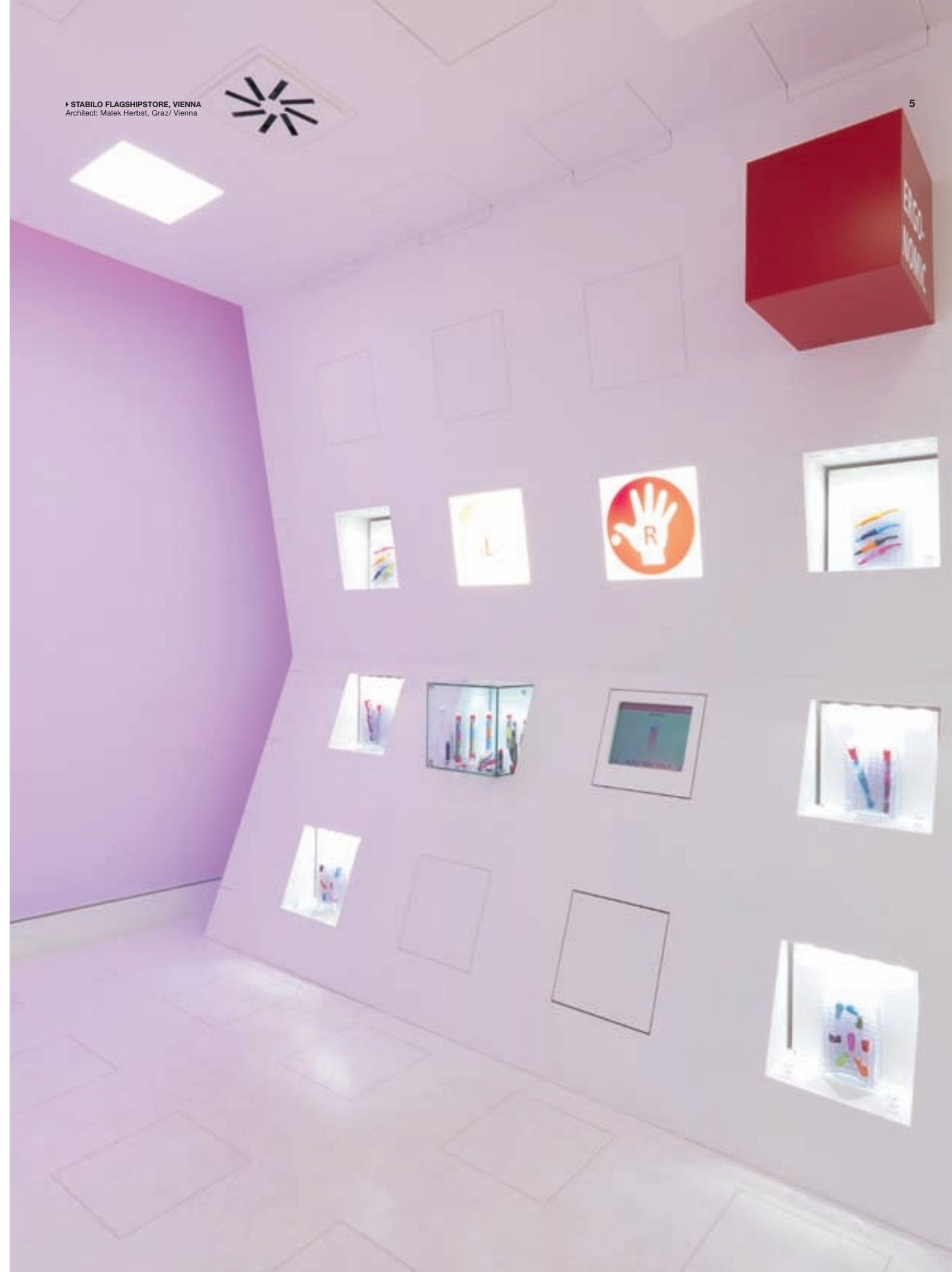
BEAM ANGLE	
007-...S_	spot 18°
E_	flood 45°
W_	wide flood 65°
total viewing angle	

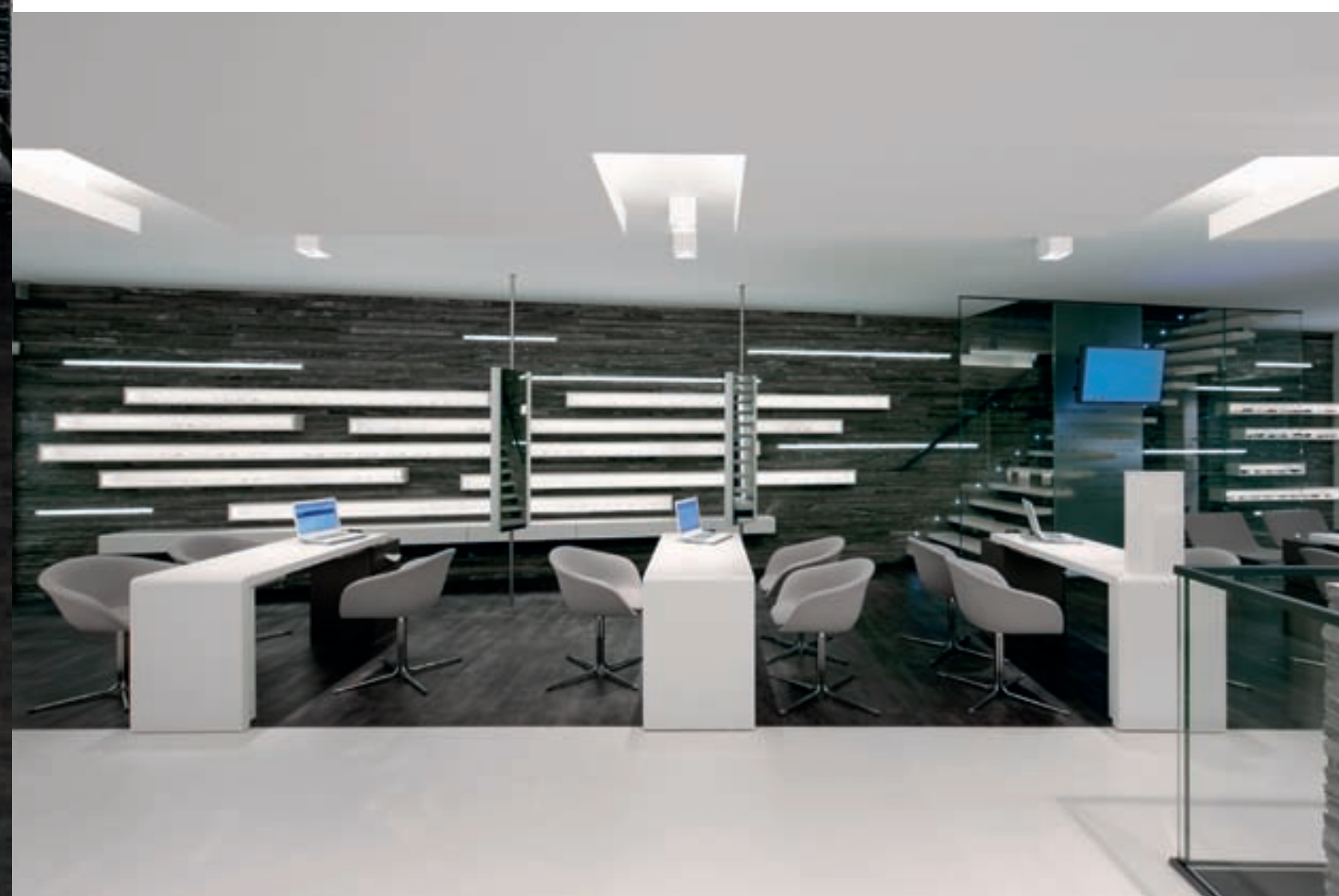
+ ACCESSORIES

Channels | End caps
 LED Converter
 Cable
 See page 18 | 21 for more accessories

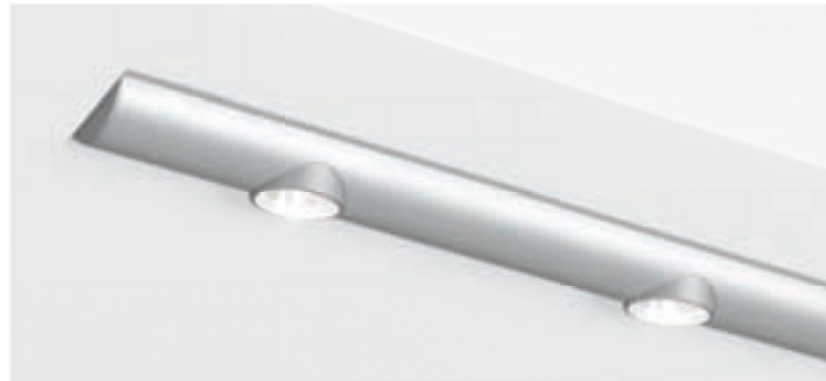
5

► STABLO FLAGSHIPSTORE, VIENNA
 Architect: Malek Herbst, Graz/ Vienna





NANO 2



D
 Rundes Leuchtenprofil 30° drehbar, Aluminium natur oder schwarz eloxiert
 Wahlweise in vier Ausstrahlwinkeln 18/45/65/90° lieferbar
 Durchkontaktiertes elektr. Stecksystem ermöglicht werkzeuglose Montage
 Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
 Auf Wunsch mit Premiumbinning und mit Farbwiedergabeindex Ra >90
 Bestückung mit energieeffizienten 1,1W e² LED, Lebensdauer 50.000h
 Montagekanäle sind als Aufbau- oder Einbauvariante erhältlich
 Aluminiumprofilkanäle und LED Konverter 24V DC separat bestellen

E
 Round shaped profile made of natural or black anodised aluminium
 up to 30° rotatable
 Four choices of beam angles 18/45/65/90°
 Toolless in line mounting of fixtures with cord and plug system
 Versions with colour temperatures of 2700, 3000, 4000 and 6000K
 Premium binning upon request with colour rendering index CRI >90
 Equipped with 1,1W e² LED, life time of 50.000h, operation with 24V DC
 Channels available as recessed or surface mounted systems
 Please order mounting channels and LED converter separately

TYPE					
		e ² LED	NANO 2 LED 24V DC		
			CAPACITY	L (MM)	CODE
			2x1,1W	120	007-1230###
			3x1,1W	180	007-1232###
			4x1,1W	240	007-1233###
		5x1,1W	300	007-1234###	
		5x1,1W mixed	300	007-12340##	
		6x1,1W	360	007-1235###	
		10x1,1W	600	007-1236###	
		10x1,1W mixed	600	007-12360##	
			See page 32 for XAL premium binning		
		e ² LED	NANO 2 LED 24V DC		
			CAPACITY	L (MM)	CODE
			3x1,1W	300	007-1254###
		5x1,1W	600	007-1256###	
			See page 32 for XAL premium binning		
		e ² LED	NANO 2 MIXED LED 24V DC		
			CAPACITY	L (MM)	CODE
			6x1,1W	300	007-12240##
		12x1,1W	600	007-12260##	
			See page 32 for XAL premium binning		

LED COLOUR TEMPERATURE						
e ² LED	4	5	007-...41_	2700K	89 lm/led	
			51_	3000K	89 lm/led	
			61_	4000K	102 lm/led	
			80_	6000K	118 lm/led	
		6	8	0_	3000 6000K	89 118 lm/led
				1_	2700 4000K	89 102 lm/led
			2_	2700 6000K	77 lm/led	

COLOUR			
		007-...6_	anodised aluminium
		8_	anodised black

BEAM ANGLE			
007-...S	spot 18°		
007-...E	flood 45°		
007-...W	wide flood 65°		
007-...X	super wide flood 90°		
	total viewing angle		

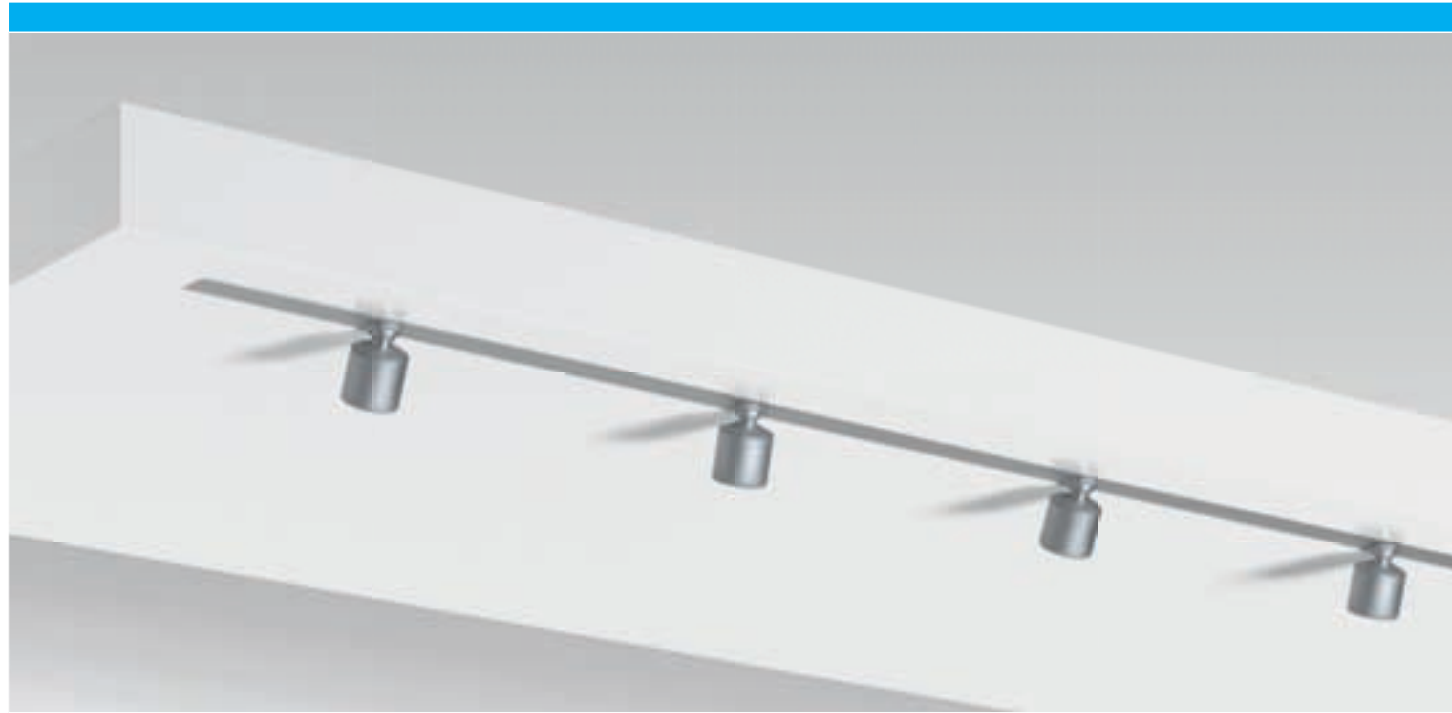
+ ACCESSORIES

Channels | End caps
 LED Converter
 Cable
 See page 18 | 21 for more accessories





NANO 3



D
 Rechteckiges Leuchtenprofil, Aluminium natur oder schwarz eloxiert
 Linsentechnik wahlweise in zwei Ausstrahlwinkeln 18/45° lieferbar
 LED-Spot mit geschütztem Kugelgelenk, 52° dreh- und schwenkbar
 Durchkontaktiertes elektr. Stecksystem ermöglicht werkzeuglose Montage
 NANO 3 zeichnet sich durch die kompakte Bauweise der Single LED Spots aus
 Bei NANO 3+ sind die Single LED Spots zusätzlich mit einer Blende für
 eine optimale Entblendung versehen
 Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
 Auf Wunsch mit Premiumbinning und mit Farbwiedergabeindex Ra >90
 Bestückung mit energieeffizienten 1,1W e² LED, Lebensdauer 50.000h
 Montagekanäle sind als Aufbau- oder Einbauvariante erhältlich
 Aluminiumprofilkanäle und LED Konverter 24V DC separat bestellen

E
 Square shaped profile made of natural or black anodised aluminium
 Lense technology with two choices of beam angles 18/45°
 LED barrel spotlight with spherical joint, 52° rotatable and tiltable
 Toolless in line mounting of fixtures with cord and plug system
 NANO 3 is characterised by the compact design of the LED spots
 With NANO 3+ the single LED are equipped with an additional anti-glare ring
 Versions with colour temperatures of 2700, 3000, 4000 and 6000K
 Premium binning upon request with colour rendering index CRI >90
 Equipped with 1,1W e² LED, life time of 50.000h, operation with 24V DC
 Channels available as recessed or surface mounted systems
 Please order mounting channels and LED converter separately

TYPE		NANO 3 LED 24V DC	
		CAPACITY	X/L (MM) CODE
		1x1,1W	middle/150 007-1411###_
		2x1,1W	75/150 007-1441###_
		2x1,1W	150/300 007-1464###_
		2x1,1W	300/600 007-1476###_
		See page 32 for XAL premium binning	
TYPE		NANO 3+ LED 24V DC	
		CAPACITY	X/L (MM) CODE
		1x1,1W	middle/150 007-1311###_
		2x1,1W	75/150 007-1341###_
		2x1,1W	150/300 007-1364###_
		2x1,1W	300/600 007-1376###_
		See page 32 for XAL premium binning	

LED COLOUR TEMPERATURE			
e ² LED	4	5	
	6	8	
			007-...41... 2700K 89 lm/led
			51... 3000K 89 lm/led
		61... 4000K 102 lm/led	
		80... 6000K 116 lm/led	

COLOUR	
	007-...6... anodised aluminium
	8... anodised black

BEAM ANGLE	
007-...S... spot 18°	
E... flood 45°	
total viewing angle	

+ ACCESSORIES

Channels | End caps
 LED Converter
 Cable
 See page 18 | 21 for more accessories

► VITRINAS AUDEMARS PIQUET, MADRID
 Architect: Jorge Lobato, Madrid
 Lighting design: Lámparas Oliva, Madrid





LED WALLWASHER



D
 Rechteckiges Leuchtenprofil aus Aluminium
 Oberfläche natur oder schwarz eloxiert oder weiß pulverbeschichtet
 Asymmetrischer Aluminiumreflektor für homogene vertikale Ausleuchtung
 Durchkontaktiertes elektr. Stecksystem ermöglicht werkzeuglose Montage
 Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
 Auf Wunsch mit Premiumbinning und mit Farbwiedergabeindex Ra >90
 Bestückung mit energieeffizienten 1,1W e² LED, Lebensdauer 50.000h
 Betrieb mit LED Konverter 24V DC separat bestellen

E
 Square shaped profile made of aluminium
 Surface natural or black anodised or white powder-coated
 Homogeneous, vertical illumination level thanks to an asymmetric reflector
 No tools required for installing the contacted plug-socket-system
 Versions with colour temperatures of 2700, 3000, 4000 and 6000K
 Premium binning upon request with colour rendering index CRI >90
 Equipped with 1,1W e² LED, life time of 50.000h
 Operation with LED converter 24V DC order LED converter separately

TYPE		LED WALLWASHER LED 24V DC	
	e ² LED	CAPACITY	L (MM) CODE
		10x1,1W	574 007-1836##
		15x1,1W	874 007-1837##
		20x1,1W	1174 007-1838##
		25x1,1W	1474 007-1839##
		end caps	pair 007-191371#
	e ² LED	CAPACITY	L (MM) CODE
		5x1,1W	574 007-1856##
		8x1,1W	874 007-1857##
		10x1,1W	1174 007-1858##
		13x1,1W	1474 007-1859##
		end caps	pair 007-191371#

FITTING DIMENSION	

+ ACCESSORIES	
	LED Converter Splitter Cable See page 21 for more accessories

LED COLOUR TEMPERATURE		
e ² LED	4 5	007-...41 2700K 89 lm/led
		51 3000K 89 lm/led
		61 4000K 102 lm/led
		80 6000K 118 lm/led
COLOUR		
6 7 8	007-...6 anodised aluminium 7 white 8 anodised black	

► GIL COUTURE, VIENNA
 Interior design: Lejla Ganic, Don Gil, Vienna



CHANNELS

NANO 1 2 3			+ ACCESSORIES			
			NANO Channel A			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191100#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191104#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191106#	end caps A 1 for NANO 1 3	pair 007-191301#
			900	007-191107#	end caps A 2 for NANO 2	pair 007-191302#
			1200	007-191108#		
			3000	007-191109#		
			NANO Channel A+			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191160#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191164#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191166#	end caps A+ 1 for NANO 1 3	pair 007-191361#
			900	007-191167#	end caps A+ 2 for NANO 2	pair 007-191362#
			1200	007-191168#		
			3000	007-191169#		
			NANO Channel B			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191110#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191114#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191116#	end caps B/E 1 for NANO 1 3	pair 007-191311#
			900	007-191117#	end caps B/E 2 for NANO 2	pair 007-191312#
			1200	007-191118#		
			3000	007-191119#		
			NANO Channel C			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191120#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191124#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191126#	end caps C 1 for NANO 1 3	pair 007-191321#
			900	007-191127#	end caps C 2 for NANO 2	pair 007-191322#
			1200	007-191128#		
			3000	007-191129#		
			NANO Channel D			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191130#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191134#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191136#	end caps D1 for NANO 1 3	pair 007-191331#
			900	007-191137#	end caps D2 for NANO 2	pair 007-191332#
			1200	007-191138#		
			3000	007-191139#		
			NANO Channel D acryl cover (only for NANO 1)			
			L (MM)	CODE	TYPE	CODE
			per meter	007-191230#	end caps D acryl	007-191333#
			300	007-191234#	wall and ceiling fixing device D	007-191334#
			600	007-191236#		
			900	007-191237#		
			1200	007-191238#		
			NANO Channel E			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191140#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191144#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191146#	end caps B/E 1 for NANO 1 3	pair 007-191311#
			900	007-191147#	end caps B/E 2 for NANO 2	pair 007-191312#
			1200	007-191148#		
			3000	007-191149#		
			NANO Channel F			
			L (MM)	CODE	TYPE	L (MM) CODE
			per meter	007-191154#	blind cover 1 for NANO 1 3	1000 007-191287#
			300	007-191156#	blind cover 2 for NANO 2	600 007-191296#
			600	007-191157#		
			900	007-191157#		
			1200	007-191158#		
			NANO Channel G (only for NANO 2)			
			L (MM)	CODE	TYPE	L H (MM) CODE
			per meter	007-191170#	blind cover 2 for NANO 2	600 007-191296#
			300	007-191174#	end caps G 2 for NANO 2	pair 007-191372#
			600	007-191176#	wall and ceiling fixing device G	007-191374#
			900	007-191177#		
			1200	007-191178#		
			3000	007-191179#		

D Passend zu NANO 1/2/3 werden, für verschiedene Einbausituationen, die Channel A-G angeboten. Die Channel A-E und G sind für den Aufbau geeignet. Die Channel B, C und F sind für den unsichtbaren Einbau in Holzflächen konzipiert. Channel A+ bietet Platz für bis zu 3 Power Feeder hinter dem NANO Einsatz. Channel C bietet Platz für einen Power Feeder hinter dem NANO Einsatz. Channel F ist die Einbauvariante von Channel A. Der Anfang und das Ende jedes einzel gelieferten Channel F ist nach hinten abgeschrägt, so dass eine Freistellung für die Stromversorgung (NANO Power cable) vorhanden ist. Zu den Channel A-E und G werden Endabdeckungen passend für NANO 1/3 und NANO 2 angeboten.

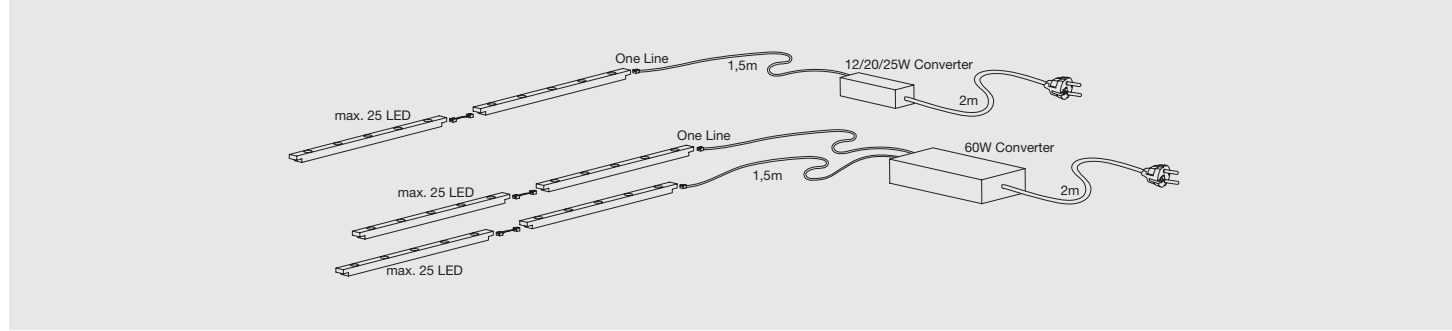
E Suitable for NANO 1/2/3 in different installation applications. Channel A-E and G can be surface mounted. Channel B, C and F can be recessed mounted for installation in wood surfaces. Channel A+ up to 3 power feeders can be placed behind the NANO inset. With channel C the power feeder can be placed behind the NANO inset. Channel F is a profile to be recessed mounted. Both ends of a channel F are conically shaped to offer space for the NANO Power cable. For Channel A to E and G special end caps NANO 1/3 and NANO 2 are available.

COLOUR	
	007-.....6 anodised aluminium
	007-.....8 anodised black

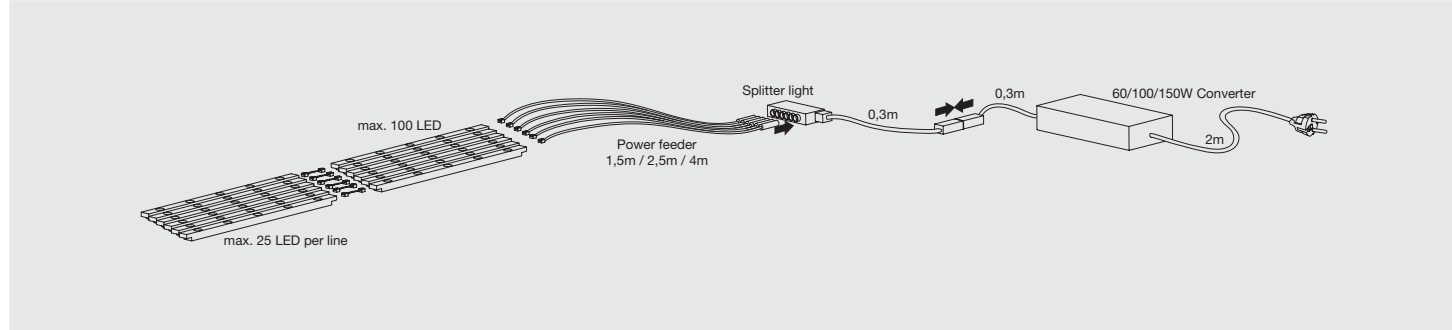


MANGO FASHION STORE, VIENNA
Architect: Damián Sánchez Carrillo, Barcelona

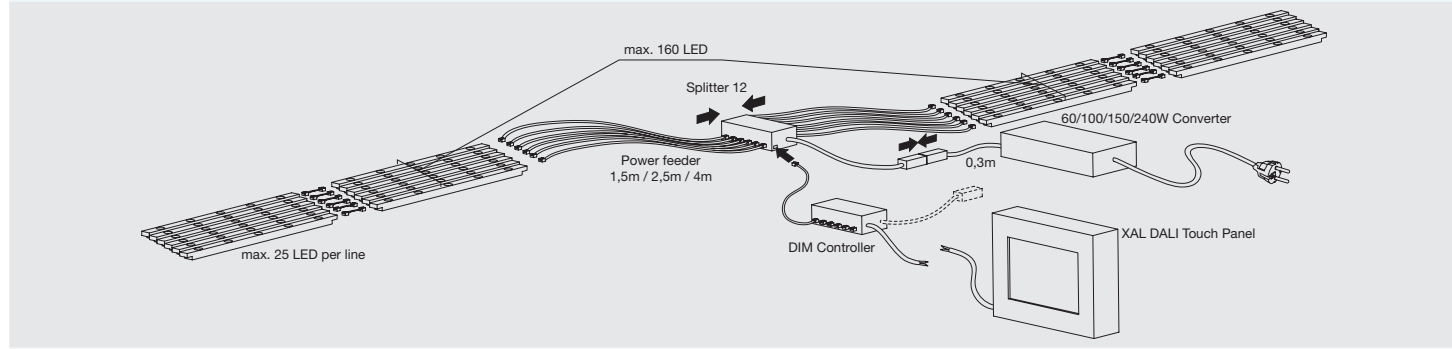
NANO ONE LINE NON DIMMABLE



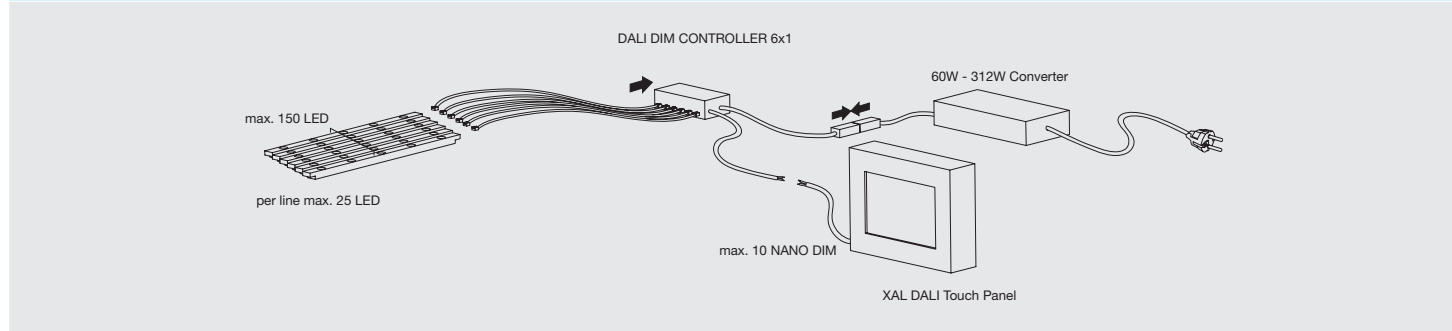
NANO SPLITTER LIGHT NON DIMMABLE



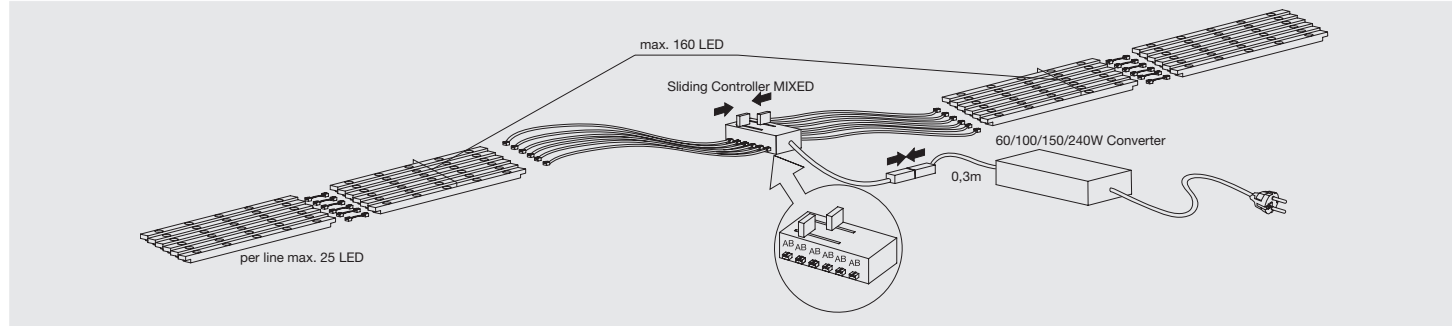
NANO SPLITTER DIMMABLE



NANO CONTROLLER DIMMABLE



NANO SPLITTER 2 COLOUR DIMMABLE



Calculation for the compatible converter: To each LED (1,1W) we add the power dissipation, the factor of safety and calculate 1,5W per LED

NANO ONE LINE NON DIMMABLE

	<p>NANO CONNECTION CABLE 3x0,252mm²</p> <p>L (MM)</p> <table border="1"> <tr><td>25</td><td>2xplug</td><td>CODE</td></tr> <tr><td>50</td><td>2xplug</td><td>007-1914010</td></tr> <tr><td>75</td><td>2xplug</td><td>007-1914110</td></tr> <tr><td>125</td><td>2xplug</td><td>007-1914210</td></tr> <tr><td>175</td><td>2xplug</td><td>007-1914310</td></tr> </table> <p>connection from NANO to NANO</p>	25	2xplug	CODE	50	2xplug	007-1914010	75	2xplug	007-1914110	125	2xplug	007-1914210	175	2xplug	007-1914310		<p>LED CONVERTER 24V DC, supply 100-240V AC</p> <table border="1"> <tr><th>CAPACITY</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>12W max. 8 LED</td><td>85/41/22</td><td>007-1921080</td></tr> <tr><td>20W max. 13 LED</td><td>167/39/30</td><td>007-1921180</td></tr> <tr><td>25W max. 15 LED UL appr.</td><td>158/44/32</td><td>007-1922180</td></tr> </table> <p>incl. 1,5m nano power cable and 2m power feeder</p>	CAPACITY	L/B/H (MM)	CODE	12W max. 8 LED	85/41/22	007-1921080	20W max. 13 LED	167/39/30	007-1921180	25W max. 15 LED UL appr.	158/44/32	007-1922180
25	2xplug	CODE																												
50	2xplug	007-1914010																												
75	2xplug	007-1914110																												
125	2xplug	007-1914210																												
175	2xplug	007-1914310																												
CAPACITY	L/B/H (MM)	CODE																												
12W max. 8 LED	85/41/22	007-1921080																												
20W max. 13 LED	167/39/30	007-1921180																												
25W max. 15 LED UL appr.	158/44/32	007-1922180																												
	<p>NANO POWER CABLE 2x0,252mm²</p> <p>Only for foreign converter</p> <p>L (MM)</p> <table border="1"> <tr><td>1500</td><td>1xplug end sleeve</td><td>CODE</td></tr> <tr><td>2500</td><td>1xplug end sleeve</td><td>007-1914520</td></tr> <tr><td>4000</td><td>1xplug end sleeve</td><td>007-1914620</td></tr> <tr><td>6000</td><td>1xplug end sleeve</td><td>007-1914720</td></tr> <tr><td>9000</td><td>1xplug end sleeve</td><td>007-1914820</td></tr> </table> <p>connection from NANO to foreign converter, non dimmable</p>	1500	1xplug end sleeve	CODE	2500	1xplug end sleeve	007-1914520	4000	1xplug end sleeve	007-1914620	6000	1xplug end sleeve	007-1914720	9000	1xplug end sleeve	007-1914820		<p>LED CONVERTER 24V DC, supply 100-240V AC</p> <table border="1"> <tr><th>CAPACITY</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>60W max. 40 LED</td><td>174/77/31</td><td>007-1921380</td></tr> </table> <p>incl. 2x1,5m nano power cable and 2m power feeder</p>	CAPACITY	L/B/H (MM)	CODE	60W max. 40 LED	174/77/31	007-1921380						
1500	1xplug end sleeve	CODE																												
2500	1xplug end sleeve	007-1914520																												
4000	1xplug end sleeve	007-1914620																												
6000	1xplug end sleeve	007-1914720																												
9000	1xplug end sleeve	007-1914820																												
CAPACITY	L/B/H (MM)	CODE																												
60W max. 40 LED	174/77/31	007-1921380																												

NANO SPLITTER LIGHT NON DIMMABLE

	<p>SPLITTER LIGHT non dimmable</p> <p>TYPE 1x6 6xsocket light</p> <p>L/B/H (MM) 93/44/18</p> <p>CODE 007-1925110</p> <p>feeder cable from splitter light to led converter incl. 0,3m power cable plug and play</p>		<p>LED CONVERTER 24V DC, supply 220-240V AC</p> <table border="1"> <tr><th>CAPACITY</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>60W max. 40 LED</td><td>174/77/31</td><td>007-1921310</td></tr> <tr><td>100W max. 66 LED</td><td>190/88/35</td><td>007-1921410</td></tr> </table> <p>incl. 0,3m power cable and 2m power feeder</p>	CAPACITY	L/B/H (MM)	CODE	60W max. 40 LED	174/77/31	007-1921310	100W max. 66 LED	190/88/35	007-1921410															
CAPACITY	L/B/H (MM)	CODE																									
60W max. 40 LED	174/77/31	007-1921310																									
100W max. 66 LED	190/88/35	007-1921410																									
	<p>NANO POWER CABLE 2x0,75mm²</p> <p>L (MM)</p> <table border="1"> <tr><td>1500</td><td>1xplug 1xplug light</td><td>CODE</td></tr> <tr><td>2500</td><td>1xplug 1xplug light</td><td>007-1914540</td></tr> <tr><td>4000</td><td>1xplug 1xplug light</td><td>007-1914640</td></tr> <tr><td>4000</td><td>1xplug 1xplug light</td><td>007-1914740</td></tr> </table> <p>connection from splitter light to NANO only for splitter light</p>	1500	1xplug 1xplug light	CODE	2500	1xplug 1xplug light	007-1914540	4000	1xplug 1xplug light	007-1914640	4000	1xplug 1xplug light	007-1914740		<p>LED CONVERTER 24V DC, 100-240V AC, UL approved</p> <table border="1"> <tr><th>CAPACITY</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>60W max. 40 LED</td><td>172/62/39</td><td>007-1922310</td></tr> <tr><td>100W max. 66 LED</td><td>222/68/39</td><td>007-1922410</td></tr> <tr><td>150W max. 100 LED</td><td>222/68/39</td><td>007-1922610</td></tr> </table> <p>incl. 0,3m power feeder and 0,3m power cable</p>	CAPACITY	L/B/H (MM)	CODE	60W max. 40 LED	172/62/39	007-1922310	100W max. 66 LED	222/68/39	007-1922410	150W max. 100 LED	222/68/39	007-1922610
1500	1xplug 1xplug light	CODE																									
2500	1xplug 1xplug light	007-1914540																									
4000	1xplug 1xplug light	007-1914640																									
4000	1xplug 1xplug light	007-1914740																									
CAPACITY	L/B/H (MM)	CODE																									
60W max. 40 LED	172/62/39	007-1922310																									
100W max. 66 LED	222/68/39	007-1922410																									
150W max. 100 LED	222/68/39	007-1922610																									
	<p>POWER CABLE lengthening 2x0,75mm²</p> <p>L (MM)</p> <table border="1"> <tr><td>1500</td><td>1xplug light 1xsocket light</td><td>CODE</td></tr> <tr><td>2500</td><td>1xplug light 1xsocket light</td><td>007-1914670</td></tr> <tr><td>4000</td><td>1xplug light 1xsocket light</td><td>007-1914770</td></tr> </table> <p>lengthening from splitter light to power cable</p>	1500	1xplug light 1xsocket light	CODE	2500	1xplug light 1xsocket light	007-1914670	4000	1xplug light 1xsocket light	007-1914770		<p>T SPLITTER LIGHT non dimmable</p> <p>TYPE 1 in 2 1xplug light 2xsocket light</p> <p>L/B/H (MM) 45/20/10</p> <p>CODE 007-1925010</p> <p>for power cable lengthening (fits to socket light)</p>															
1500	1xplug light 1xsocket light	CODE																									
2500	1xplug light 1xsocket light	007-1914670																									
4000	1xplug light 1xsocket light	007-1914770																									

NANO SPLITTER | CONTROLLER DIMMABLE

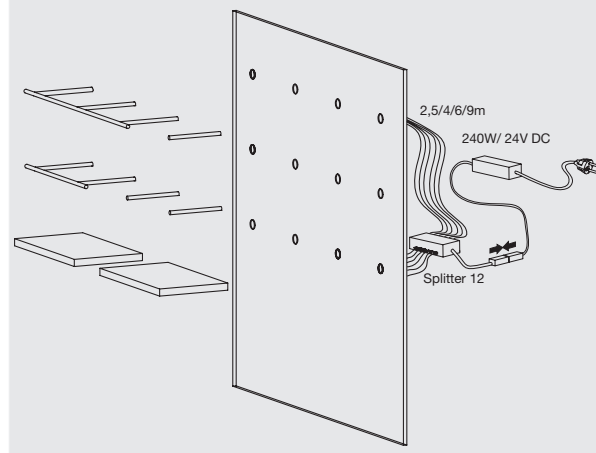
	<p>SPLITTER 6 12 supply 24V DC max. 9A</p> <p>TYPE 6x output max. 150 LED 12x output max. 200 LED</p> <p>L/B/H (MM) 100/50/30</p> <p>CODE 007-1925260 007-1925360</p> <p>incl. overload protection and 0,3m power cable only dimmable with controller plug and play</p>		<p>DALI DIM CONTROLLER supply 24V DC</p> <table border="1"> <tr><th>TYPE</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>6 addresses 6x1 output</td><td>100/50/30</td><td>007-1926030</td></tr> <tr><td>3 addresses 3x2 output</td><td>100/50/30</td><td>007-1926130</td></tr> <tr><td>2 addresses 2x3 output</td><td>100/50/30</td><td>007-1926330</td></tr> <tr><td>1 address 1x6 output</td><td>100/50/30</td><td>007-1926430</td></tr> </table> <p>connection from controller to NANO or controller to splitter 6 12 incl. 0,3m power cable plug and play</p>	TYPE	L/B/H (MM)	CODE	6 addresses 6x1 output	100/50/30	007-1926030	3 addresses 3x2 output	100/50/30	007-1926130	2 addresses 2x3 output	100/50/30	007-1926330	1 address 1x6 output	100/50/30	007-1926430									
TYPE	L/B/H (MM)	CODE																									
6 addresses 6x1 output	100/50/30	007-1926030																									
3 addresses 3x2 output	100/50/30	007-1926130																									
2 addresses 2x3 output	100/50/30	007-1926330																									
1 address 1x6 output	100/50/30	007-1926430																									
	<p>SPLITTER 2x6 supply 24V DC max. 10A</p> <p>TYPE 2 channels 2x6 output</p> <p>L/B/H (MM) 100/50/30</p> <p>CODE 007-1925560</p> <p>incl. overload protection and 0,3m power cable only dimmable with controller plug and play</p>		<p>1-10V DIM CONTROLLER supply 24V DC</p> <table border="1"> <tr><th>TYPE</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>3 channels 3x2 output</td><td>100/50/30</td><td>007-1926120</td></tr> <tr><td>1 channel 1x6 output</td><td>100/50/30</td><td>007-1926420</td></tr> </table> <p>connection from controller to NANO or controller to splitter 6 12 incl. 0,3m power cable plug and play</p>	TYPE	L/B/H (MM)	CODE	3 channels 3x2 output	100/50/30	007-1926120	1 channel 1x6 output	100/50/30	007-1926420															
TYPE	L/B/H (MM)	CODE																									
3 channels 3x2 output	100/50/30	007-1926120																									
1 channel 1x6 output	100/50/30	007-1926420																									
	<p>NANO CONNECTION CABLE 3x0,252mm²</p> <p>L (MM)</p> <table border="1"> <tr><td>25</td><td>2xplug</td><td>CODE</td></tr> <tr><td>50</td><td>2xplug</td><td>007-1914110</td></tr> <tr><td>75</td><td>2xplug</td><td>007-1914210</td></tr> <tr><td>125</td><td>2xplug</td><td>007-1914310</td></tr> <tr><td>175</td><td>2xplug</td><td>007-1914410</td></tr> </table> <p>connection from NANO to NANO</p>	25	2xplug	CODE	50	2xplug	007-1914110	75	2xplug	007-1914210	125	2xplug	007-1914310	175	2xplug	007-1914410		<p>PUSH-BUTTON DIM CONTROLLER supply 24V DC</p> <table border="1"> <tr><th>TYPE</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>3 channels 3x2 output</td><td>100/50/30</td><td>007-1926150</td></tr> <tr><td>1 channel 1x6 output</td><td>100/50/30</td><td>007-1926450</td></tr> </table> <p>connection from controller to NANO or controller to splitter 6 12 incl. 0,3m power cable plug and play</p>	TYPE	L/B/H (MM)	CODE	3 channels 3x2 output	100/50/30	007-1926150	1 channel 1x6 output	100/50/30	007-1926450
25	2xplug	CODE																									
50	2xplug	007-1914110																									
75	2xplug	007-1914210																									
125	2xplug	007-1914310																									
175	2xplug	007-1914410																									
TYPE	L/B/H (MM)	CODE																									
3 channels 3x2 output	100/50/30	007-1926150																									
1 channel 1x6 output	100/50/30	007-1926450																									
	<p>SPLITTER CONNECTION CABLE 3x0,252mm²</p> <p>L (MM)</p> <table border="1"> <tr><td>1500</td><td>2xplug</td><td>CODE</td></tr> <tr><td>2500</td><td>2xplug</td><td>007-1914510</td></tr> <tr><td>4000</td><td>2xplug</td><td>007-1914610</td></tr> <tr><td>6000</td><td>2xplug</td><td>007-1914710</td></tr> <tr><td>9000</td><td>2xplug</td><td>007-1914810</td></tr> </table> <p>connection from splitter to NANO</p>	1500	2xplug	CODE	2500	2xplug	007-1914510	4000	2xplug	007-1914610	6000	2xplug	007-1914710	9000	2xplug	007-1914810		<p>LED CONVERTER 24V DC, 220-240V AC</p> <table border="1"> <tr><th>CAPACITY</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>60W max. 40 LED</td><td>174/77/31</td><td>007-1921310</td></tr> <tr><td>100W max. 66 LED</td><td>190/88/35</td><td>007-1921410</td></tr> </table> <p>incl. 0,3m power cable and 2m power feeder</p>	CAPACITY	L/B/H (MM)	CODE	60W max. 40 LED	174/77/31	007-1921310	100W max. 66 LED	190/88/35	007-1921410
1500	2xplug	CODE																									
2500	2xplug	007-1914510																									
4000	2xplug	007-1914610																									
6000	2xplug	007-1914710																									
9000	2xplug	007-1914810																									
CAPACITY	L/B/H (MM)	CODE																									
60W max. 40 LED	174/77/31	007-1921310																									
100W max. 66 LED	190/88/35	007-1921410																									
	<p>SENSOR motion- brightness sensor</p> <p>L (MM) 120</p> <p>CODE 007-1927010</p> <p>connect with nano connection cable only available for NANO 1</p>		<p>LED CONVERTER 24V DC, 100-240V AC, UL approved</p> <table border="1"> <tr><th>CAPACITY</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>60W max. 40 LED</td><td>180/60/35</td><td>007-1922310</td></tr> <tr><td>100W max. 66 LED</td><td>222/68/39</td><td>007-1922410</td></tr> <tr><td>150W max. 100 LED</td><td>220/68/39</td><td>007-1922610</td></tr> <tr><td>240W max. 160 LED</td><td>237/68/39</td><td>007-1922810</td></tr> </table> <p>incl. 0,3m power feeder and 0,3m power cable</p>	CAPACITY	L/B/H (MM)	CODE	60W max. 40 LED	180/60/35	007-1922310	100W max. 66 LED	222/68/39	007-1922410	150W max. 100 LED	220/68/39	007-1922610	240W max. 160 LED	237/68/39	007-1922810									
CAPACITY	L/B/H (MM)	CODE																									
60W max. 40 LED	180/60/35	007-1922310																									
100W max. 66 LED	222/68/39	007-1922410																									
150W max. 100 LED	220/68/39	007-1922610																									
240W max. 160 LED	237/68/39	007-1922810																									
	<p>DALI DIM CONTROLLER 2 COLOUR MIXED supply 24V DC for dimming and colour change (warm white cool white)</p> <table border="1"> <tr><th>TYPE</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>6 addresses 3x1 output (*)</td><td>100/50/30</td><td>007-1926730</td></tr> <tr><td>2 addresses 1x3 output (*)</td><td>100/50/30</td><td>007-1926630</td></tr> </table> <p>incl. overload protection, 0,3m power cable plug and play only dimmable with 2 channels controller * for LED colour temperature 007-...0... mixed</p>	TYPE	L/B/H (MM)	CODE	6 addresses 3x1 output (*)	100/50/30	007-1926730	2 addresses 1x3 output (*)	100/50/30	007-1926630		<p>SLIDING CONTROLLER supply 24V DC for dimming and colour change (warm white cool white)</p> <table border="1"> <tr><th>TYPE</th><th>L/B/H (MM)</th><th>CODE</th></tr> <tr><td>2 channels 2x6 output</td><td>160/110/2</td><td>007-1925515</td></tr> <tr><td>2 colours mixed 1x12 output (*)</td><td>160/110/2</td><td>007-1925615</td></tr> </table> <p>fitting dimension 110/60</p> <p>incl. 0,3m power cable plug and play</p>	TYPE	L/B/H (MM)	CODE	2 channels 2x6 output	160/110/2	007-1925515	2 colours mixed 1x12 output (*)	160/110/2	007-1925615						
TYPE	L/B/H (MM)	CODE																									
6 addresses 3x1 output (*)	100/50/30	007-1926730																									
2 addresses 1x3 output (*)	100/50/30	007-1926630																									
TYPE	L/B/H (MM)	CODE																									
2 channels 2x6 output	160/110/2	007-1925515																									
2 colours mixed 1x12 output (*)	160/110/2	007-1925615																									



D
 Warenträgersystem aus gebürstetem Edelstahl mit integrierter Beleuchtung
 Ausstrahlwinkel Wide Flood 65°
 Elektrifizierte Steckbuchse für Bohrung Ø 16mm
 Horizontaler Buchsenabstand 500mm, vertikaler Buchsenabstand frei wählbar
 Für den Einbau in Glas-, Span- und MDF-Platten 8-24mm geeignet
 Jede Buchse ist bei Einbau in 19mm beschichtete Spanplatte mit 12kp belastbar, Fächer werden in MDF-Platte roh geliefert, wahlweise in weiß lackiert
 Varianten mit Lichtfarben 3000 und 4000K
 Bestückung mit energieeffizienten 1,1W e² LED, Lebensdauer 50.000h
 Betrieb mit LED Konverter 24V DC und Splitter separat bestellen

E
 Illuminated hanger system made of brushed stainless steel
 Beam angle wide flood 65°
 Electric socket for bore size Ø 16mm
 Horizontal distance between sockets 500mm, vertical distance arbitrary
 Suitable for installation in chipboards, glass- and MDF boards of 8-24mm
 If installed in a coated 19mm chipboard each socket can bear 12kp, the shelves come in unfinished MDF board or lacquered white (optional)
 Versions with colour temperatures of 3000 and 4000K
 Equipped with 1,1W e² LED, life time of 50.000h
 Operation with LED converter 24V DC, order LED converter separately

WIRING DIAGRAM



TYPE				
			SOCKET with electric plug, Ø 30mm for splitter	
			TYPE	CODE
			incl. power feeder 2500mm	007-1914630
			incl. power feeder 4000mm	007-1914730
			incl. power feeder 6000mm	007-1914830
			incl. power feeder 9000mm	007-1914930
			carrying force 12kp	
		e ² LED	CARRYING ARM LED 24V DC, Ø 20mm	
			CAPACITY	L (MM) CODE
			3x1,1W for 1 socket	210 007-1701#1#F
			3x1,1W for 1 socket	270 007-1702#1#F
			3x1,1W for 1 socket	330 007-1703#1#F
		e ² LED	CLOTHING HANGER FRAME LED 24V DC, Ø 25mm	
			CAPACITY	L (MM) CODE
			10x1,1W for 2 socket	650 007-1714#1#F
			20x1,1W for 3 socket	1250 007-1716#1#F
			socket distance 500mm	
		e ² LED	CLOTHING HANGER LED 24V DC, Ø 25mm with electric plug for splitter	
			CAPACITY MD L (MM) CODE	
			10x1,1W 500 650	007-1744#1#F
			15x1,1W 500 1000	007-1745#1#F
			20x1,1W 2x500 1250	007-1746#1#F
			no socket needed	
			incl. power feeder 2,5m	
			MD*=mounting distance (mm)	
		e ² LED	SHELF MDF LED 24V DC, Ø 40mm for socket	
			CAPACITY L/B (MM) CODE	
			10x1,1W for 2 socket 650/400	007-1724#10F
			20x1,1W for 3 socket 1250/400	007-1726#10F
			socket distance 500mm	
		e ² LED	SHELF 40mm + CLOTHING HANGER 25mm LED 24V DC, for socket	
			CAPACITY L (MM) CODE	
			2x10x1,1W for 2 socket 650	007-1734#1#F
			2x20x1,1W for 3 socket 1250	007-1736#1#F
			socket distance 500mm	

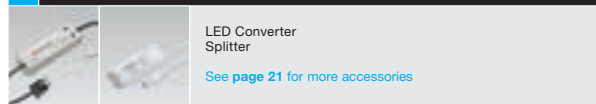
LED COLOUR TEMPERATURE

e ² LED	5	007-...5	3000K	89 lm/led
	6	007-...6	4000K	102 lm/led

COLOUR

	4	007-...4	chrome
	5	007-...5	stainless steel

+ ACCESSORIES





D
Vitrinenstrahler aus Messing, Oberfläche strato oder schwarz galvanisiert
Linsentechnik wahlweise in 3 Ausstrahlwinkeln 18(10)/25/45(40)° lieferbar
Schwenkbar, stufenlos höhenverstellbar und 360° drehbar
Inklusive Sockel, Schraubbefestigung und Verdrehschutz
Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
Bestückung mit 1,1W Power LED, Lebensdauer 50.000h
Inkl. 2m Kabel mit verpolisierbarem Stecker „plug“ für Betrieb mit Splitter 8 und LED Konverter 350mA oder Driver 1 bzw. Driver 4/8 und 24V DC Konverter

E
Cabinet spotlight made of brass, surface strato or black galvanized
Lens technology with three choices of beam angles 18(10)/25/45(40)°
Tilttable and 360° rotatable, height adjustable
Including socket, screw fastening and overtight protection
Versions with colour temperatures of 2700, 3000, 4000 and 6000K
Equipped with 1x1,1W power LED, life time 50.000h
Incl. 2m cable with plugs for Splitter 8 operation with LED converter 350mA or Driver 1 or Driver 4/8 and 24V DC converter

TYPE	
	<p>STADIO 1 LED 350mA CAPACITY 1x1,1W plug incl. 2m power cable CODE 007-5110###_</p>
	<p>STADIO 3 LED 350mA CAPACITY 3x1,1W plug incl. 2m power cable CODE 007-5130###_</p>

LED COLOUR TEMPERATURE													
power LED	<table border="1"> <tr> <td>4</td> <td>5</td> </tr> <tr> <td>6</td> <td>8</td> </tr> </table>	4	5	6	8								
4	5												
6	8												
	<table border="1"> <tr> <td>007-...41...</td> <td>2700K</td> <td>89 lm/led</td> </tr> <tr> <td>51...</td> <td>3000K</td> <td>89 lm/led</td> </tr> <tr> <td>61...</td> <td>4000K</td> <td>102 lm/led</td> </tr> <tr> <td>80...</td> <td>6000K</td> <td>116 lm/led</td> </tr> </table>	007-...41...	2700K	89 lm/led	51...	3000K	89 lm/led	61...	4000K	102 lm/led	80...	6000K	116 lm/led
007-...41...	2700K	89 lm/led											
51...	3000K	89 lm/led											
61...	4000K	102 lm/led											
80...	6000K	116 lm/led											

COLOUR	
	<p>007-...6... strato 8... black</p>

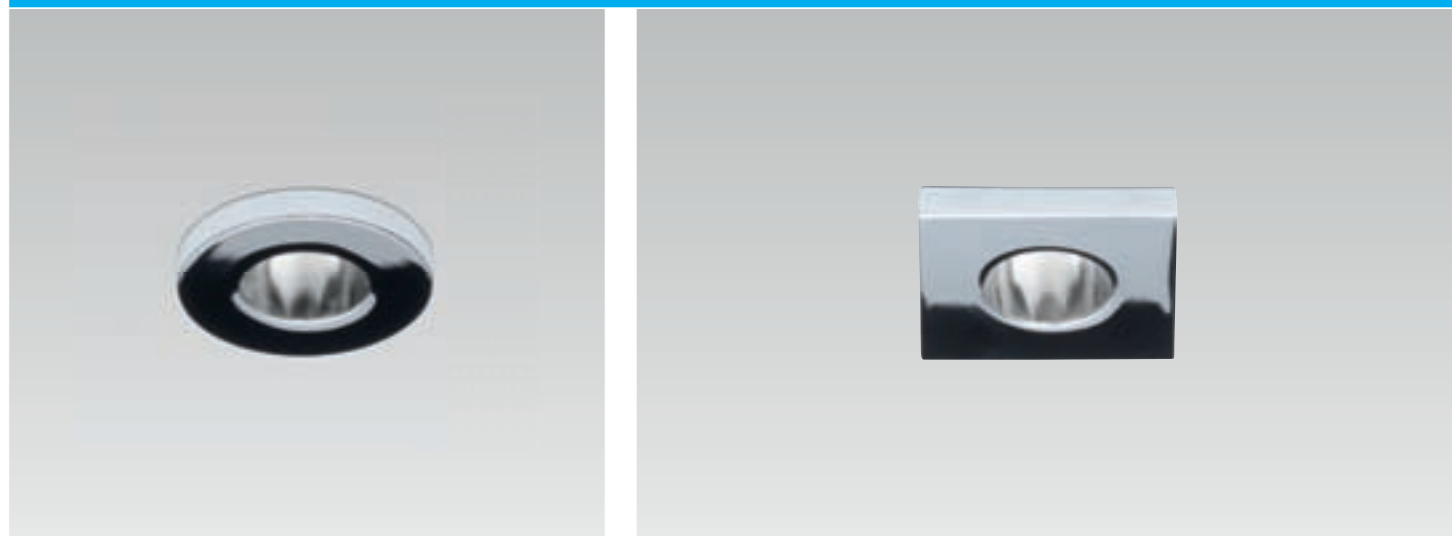
BEAM ANGLE	
007-...S	STADIO 1 spot 18°
M	STADIO 3 spot 10°
E	medium 25° medium 20°
	flood 45° flood 35°
	total viewing angle

+ ACCESSORIES	
	LED Converter 350mA + Splitter 8
	LED Converter 24V DC + Driver 1 or Driver 4/8
See page 31 for more accessories	

▶ ANTON HELDWEIN JEWELLERY STORE, VIENNA
Architect: Dipl. Ing. Andreas Burghardt, Vienna



MICRO 1



D
 Leuchtenkörper aus Aluminium natur oder schwarz eloxiert
 Miniaturisiertes Leuchtendesign, Einbau in Holzplatten möglich
 Wahlweise in 2 Ausstrahlwinkeln 45/65° lieferbar
 Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
 Bestückung mit 1,1W Power LED, Lebensdauer 50.000h
 Auf Wunsch mit Premiumbinning und mit Farbwiedergabeindex Ra >90
 Durchkontaktiertes elektr. Stecksystem ermöglicht werkzeuglose Montage
 Inkl. 2m Kabel mit verpolisiertem Stecker „plug“ für Betrieb mit Splitter 8 und
 LED Konverter 350mA oder Driver 1 bzw. Driver 4|8 und 24V DC Konverter

E
 Housing made of natural or black anodized aluminium
 Minimized design for installation in wooden plates
 Two choices of beam angles 45/65°
 Versions with colour temperatures of 2700, 3000, 4000 and 6000K
 Equipped with 1,1W Power LED, life time of 50.000h, operation with 24V DC
 Premium binning upon request with colour rendering index CRI > 90
 Toolless in line mounting of fixtures with cord and plug system
 Incl. 2m cable with plugs for Splitter 8 operation with LED converter
 350mA or Driver 1 or Driver 4|8 and 24V DC converter

TYPE			
	ϕ 20 26 ϕ 30	power LED	MICRO ROUND 1 LED 350mA CAPACITY 1x1,1W plug incl. 2m power cable CODE 007-1510###_
	ϕ 20 26 30 30	power LED	MICRO SQUARE 1 LED 350mA CAPACITY 1x1,1W plug incl. 2m power cable CODE 007-1511###_
	ϕ 30 29 ϕ 37	power LED	MICRO BALL 1 LED 350mA CAPACITY 1x1,1W plug incl. 2m power cable CODE 007-1512###_

LED COLOUR TEMPERATURE			
power LED	4	5	007-...41... 2700K 89lm/led
	6	8	007-...51... 3000K 89lm/led
			007-...61... 4000K 102lm/led
			007-...80... 6000K 118lm/led

COLOUR	
	007-...4... chrome 007-...6... anodised aluminium 007-...8... anodised black

BEAM ANGLE	
	007-...E... flood 45° 007-...W... wide flood 65° total viewing angle

+ ACCESSORIES	
	LED Converter 350mA + Splitter 8 LED Converter 24V DC + Driver 1 or Driver 4 8 See page 31 for more accessories


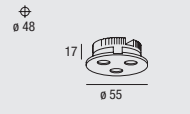

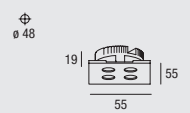
► PRIVATE RESIDENCE, GRAZ
 Architect: INNOCAD, Graz






D
 Leuchtenkörper aus Aluminium natur oder schwarz eloxiert, weiß pulverbeschichtet oder chrom galvanisiert
 Miniaturisiertes Leuchtdesign, Einbau in Holzplatten möglich
 Wahlweise in 2 Ausstrahlwinkeln 45/65° lieferbar
 Varianten mit Lichtfarben 2700, 3000, 4000 und 6000K
 Bestückung mit 1,1W Power LED, Lebensdauer 50.000h
 Auf Wunsch mit Premiumbinning und mit Farbwiedergabeindex Ra >90
 Durchkontaktiertes elektr. Stecksystem ermöglicht werkzeuglose Montage
 Inkl. 2m Kabel mit verpolterem Stecker „plug“ für Betrieb mit Splitter 8 und LED Konverter 350mA oder Driver 1 bzw. Driver 4/8 und 24V DC Konverter

E
 Housing made of natural or black anodized aluminium, white powder-coated or chrome galvanised
 Minimized design for installation in wooden plates
 Two choices of beam angles 45/65°
 Versions with colour temperatures of 2700, 3000, 4000 and 6000K
 Equipped with 1,1W Power LED, life time of 50.000h, operation with 24V DC
 Premium binning upon request with colour rendering index CRI >90
 Toolless in line mounting of fixtures with cord and plug system
 Incl. 2m cable with plugs for Splitter 8 operation with LED converter 350mA or Driver 1 or Driver 4/8 and 24V DC converter

TYPE			
		power LED	MICRO ROUND 3 LED 350mA CAPACITY 3x1,1W plug incl. 2m power cable CODE 007-1530###_
		power LED	MICRO SQUARE 4 LED 350mA CAPACITY 4x1,1W plug incl. 2m power cable CODE 007-1541###_

LED COLOUR TEMPERATURE			
power LED	4	5	007-...41... 2700K 89lm/led
	6	8	51... 3000K 89lm/led
			61... 4000K 102lm/led
			80... 6000K 118lm/led

COLOUR			
	4	6	007-...4... chrome
			6... anodised aluminium
			7... white
			8... anodised black

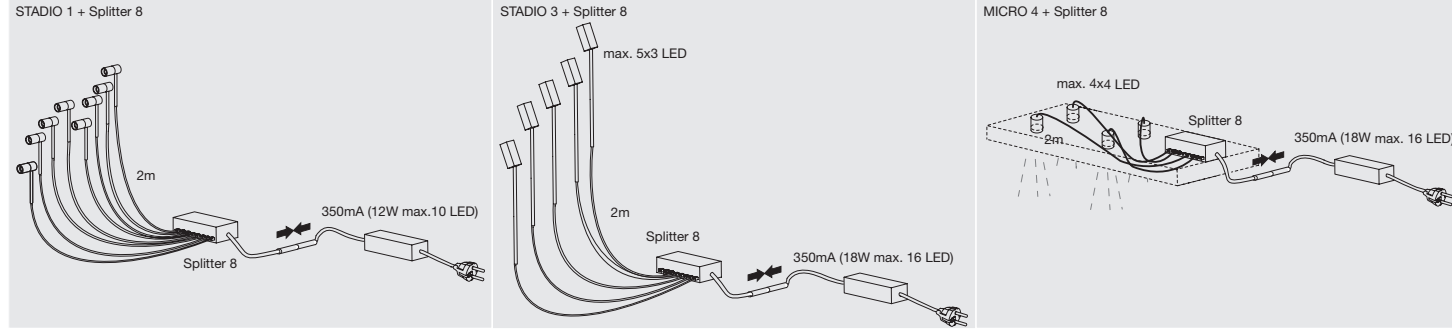
BEAM ANGLE	
007-...E... flood 45°	
007-...W... wide flood 65°	
total viewing angle	

+ ACCESSORIES

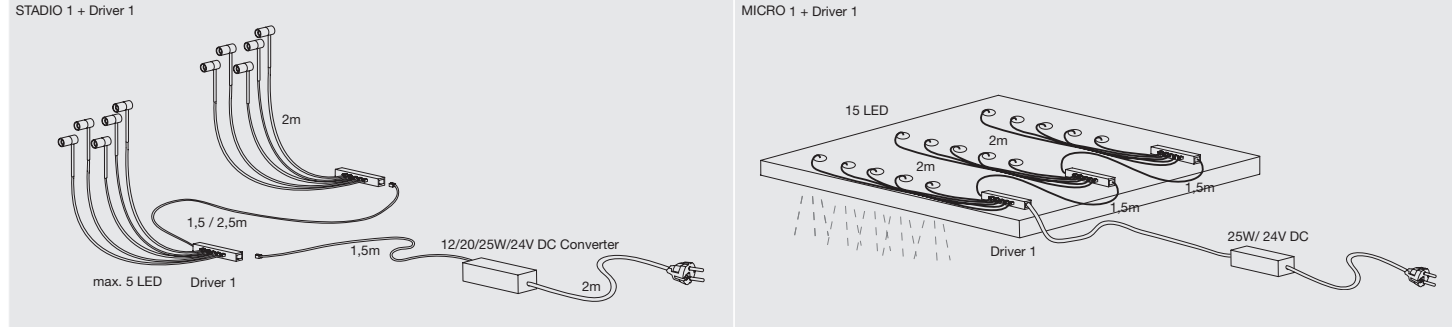
LED Converter 350mA + Splitter 8
 LED Converter 24V DC + Driver 1 or Driver 4/8
[See page 31 for more accessories](#)



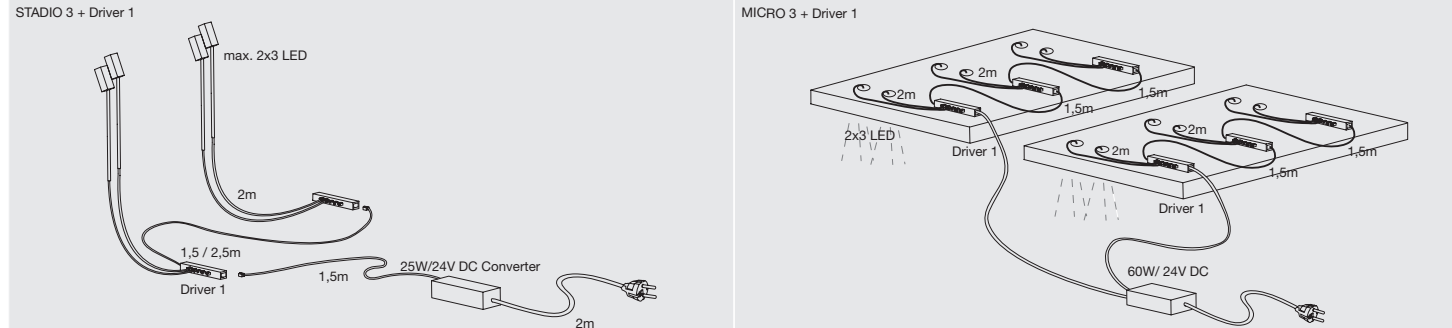
STADIO | MICRO CONSTANT CURRENT 350mA NON DIMMABLE



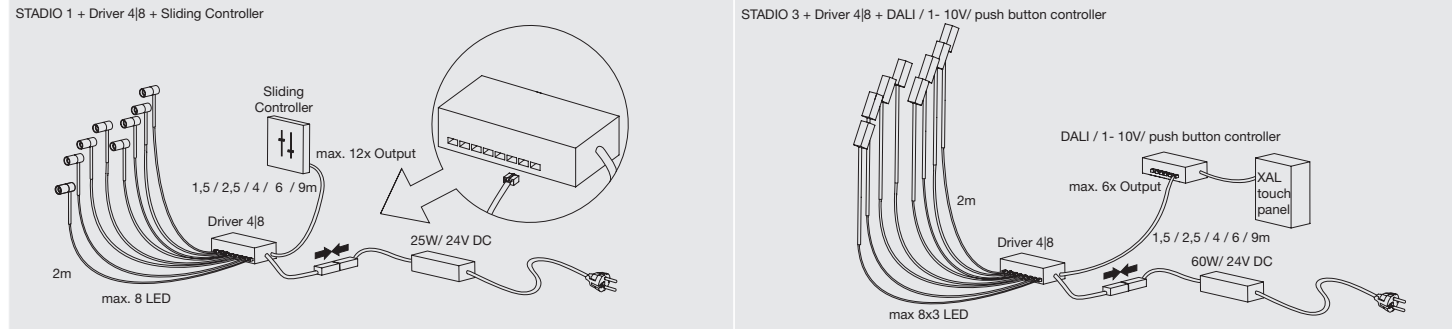
STADIO | MICRO CONSTANT VOLTAGE 24V DC NON DIMMABLE



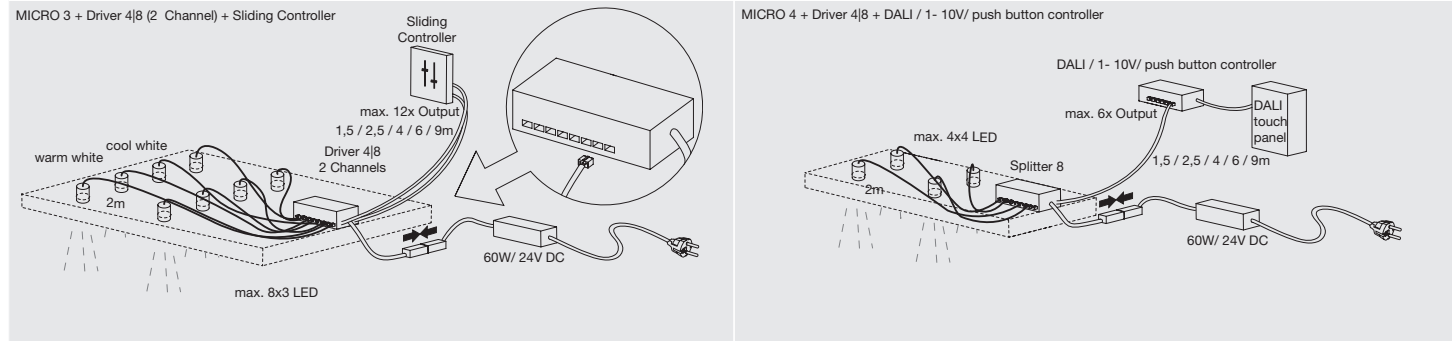
STADIO | MICRO CONSTANT VOLTAGE 24V DC NON DIMMABLE



STADIO CONSTANT VOLTAGE 24V DC DIMMABLE



MICRO CONSTANT VOLTAGE 24V DC DIMMABLE



Calculation for the compatible converter: To each LED (1,1W) we add the power dissipation, the factor of safety and calculate 1,5W per LED

STADIO | MICRO CONSTANT CURRENT 350mA NON DIMMABLE

	SPLITTER 8	TYPE output 8x	L/B/H (MM) 100/50/30	CODE 007-1925710
	power LED	incl. inrush current limiter only for led converter 350mA plug and play		
	LED CONVERTER 350mA, supply 100-240V AC	CAPACITY	L/B/H (MM)	CODE
	power LED	8W max. 6 LED UL appr. 85/40/22 12W max. 10 LED UL appr. 167/39/30 18W max. 16 LED UL appr. 153/67/31	007-1921080 007-1924410 007-1924510	

D Die XAL Leuchtenserien MICRO und STADIO sind für den Betrieb mit 350mA ausgelegt. XAL bietet drei Anschlussmöglichkeiten an:

CONSTANT CURRENT 350mA Serienschaltung mit Splitter 8: Die MICRO oder STADIO Leuchten werden über den Splitter 8 und LED Konverter 350mA mit verpolisierbarem Stecker angeschlossen. Am Splitter müssen die verwendeten Ausgänge zu- bzw. abgeschaltet werden. Anschlussfertige 350mA Konverter mit 3 Leistungsstufen sind verfügbar.

E The XAL light series MICRO and STADIO is made for operation with 350mA. XAL offers three connection types:

CONSTANT CURRENT 350mA serial connection with splitter 8: MICRO or STADIO can be connected with an easy plug and play PHR2-plug to the splitter and LED converter 350mA. There are three different 350mA converters available.

STADIO | MICRO CONSTANT VOLTAGE 24V DC NON DIMMABLE

	DRIVER 1 350mA, supply 24V DC	TYPE output 5x for max. 6 LED	L/B/H (MM) 100/18/13	CODE 007-1928810
	power LED	incl. 4 connection plugs only for led converter 24V DC, plug and play		
	CONNECTION CABLE 3x0,252mm²	L (MM)	CODE	
	power LED	1500 2xplug 2500 2xplug for max. 2x driver 1	007-1914510 007-1914610	connection from driver 1 to driver 1
	LED CONVERTER 24V DC, supply 100-240V AC	CAPACITY	L/B/H (MM)	CODE
	power LED	12W max. 8 LED 85/41/22 20W max. 13 LED 167/39/30 25W max. 15 LED UL appr. 158/44/32	007-1921180 007-1921180 007-1922180	

D **CONSTANT VOLTAGE 24V DC** mit Driver 1 und LED Konverter 24V DC: Mehrere Driver 1 können mittels connection cable, in Parallelschaltung verbunden werden. Innerhalb des Driver 1 werden die LED in Serienschaltung betrieben, alle fünf Steckplätze müssen mit STADIO | MICRO oder mittels der mitgelieferten connection plug belegt sein.

Bei Serienschaltungen kann der Stromkreis durch Ausfall einer LED unterbrochen werden. Bei Parallelschaltungen mit Driver 4|8 (siehe unten) wirkt sich der Ausfall einzelner LED nicht auf die restlichen Stromkreise aus, d.h. alle übrigen LED leuchten unbeeinträchtigt weiter.

E **CONSTANT VOLTAGE 24V DC** with Driver 1 and LED converter 24V DC: Several Drivers 1 can be connected in parallel using a connection cable. Within a Driver 1 the LED are connected in series, all five slots must be occupied either by STADIO | MICRO or by the connection plugs included in the delivery.

With serial connection, the failure of a single LED can lead to a break of the electric circuit. With a parallel connection using the driver 4|8 (see below) a failure of single LED does not affect the circuit, i.e. the remaining LED will continue to give light.

STADIO | MICRO CONSTANT VOLTAGE 24V DC DIMMABLE

	DRIVER 4 8 350mA, supply 24V DC	TYPE 1 channel 2 channels	L/B/H (MM) 100/50/30 100/50/30	CODE 007-1928770 007-1928670
	power LED	incl. 0,3m power cable only for led converter 24V DC 25/60W plug and play		
	LED CONVERTER 24V DC, supply 100-240V AC	CAPACITY 25W max. 15 LED UL appr.	L/B/H (MM) 158/44/32	CODE 007-1922110
	power LED	incl. 0,3m power cable and 2m power feeder only for driver 4 8		
	LED CONVERTER 24V DC, supply 220-240V AC	CAPACITY 60W max. 40 LED	L/B/H (MM) 174/77/31	CODE 007-1921310
	power LED	incl. 0,3m power cable and 2m power feeder only for driver 4 8		
	SLIDING CONTROLLER supply 24V DC for dimming and colour change (warm white cool white)	TYPE 2 channels 2x6 output 2 colours mixed 1x12 output (*)	L/B/H (MM) 160/110/2 160/110/2 110/60	CODE 007-1925515 007-1925615 007-1925615
	power LED	incl. 0,3m power cable plug and play * for LED colour temperature 007-...0... mixed		
	DALI DIM CONTROLLER supply 24V DC	TYPE 6 addresses 6x1 output 3 addresses 3x2 output 2 addresses 2x3 output 1 address 1x6 output	L/B/H (MM) 100/50/30 100/50/30 100/50/30 100/50/30	CODE 007-1926030 007-1926130 007-1926330 007-1926430
	power LED	connection from controller to NANO or controller to splitter plug and play		
	1-10V DIM CONTROLLER supply 24V DC	TYPE 3 channels 3x2 output 1 channel 1x6 output	L/B/H (MM) 100/50/30 100/50/30	CODE 007-1926120 007-1926420
	power LED	connection from controller to NANO or controller to splitter plug and play		
	PUSH-BUTTON DIM CONTROLLER supply 24V DC	TYPE 3 channels 3x2 output 1 channel 1x6 output	L/B/H (MM) 100/50/30 100/50/30	CODE 007-1926150 007-1926450
	power LED	connection from controller to NANO or controller to splitter plug and play		
	CONTROLLER DIM CABLE 3x0,252mm²	L (MM)	CODE	
	power LED	1500 2xplug 2500 2xplug 4000 2xplug 6000 2xplug 9000 2xplug	007-1914510 007-1914610 007-1914710 007-1914810 007-1914910	connection from controller to driver

D **CONSTANT CURRENT 24V DC DIMMABLE** Parallelschaltung mit Driver 4|8 und LED Konverter 24V DC:

Dieser Splitter gibt parallel an vier Ausgängen 350mA für je 6 LED oder an acht Ausgängen 350mA für je 3 LED aus. Der Driver 4|8 ist als Ein- und Zweikanalausführung erhältlich und dimmbar. Bei der Zweikanalausführung sind 2x2 Ausgänge für je 6 LED oder 2x4 Ausgänge für je 3 LED dimm und steuerbar. So sind mittels Schieberegler zwei verschiedene Lichtfarben mischbar. Als Stromversorgung dient ein LED Konverter 24V DC mit 25W (bis 15 LED) oder 60W (bis 40 LED).

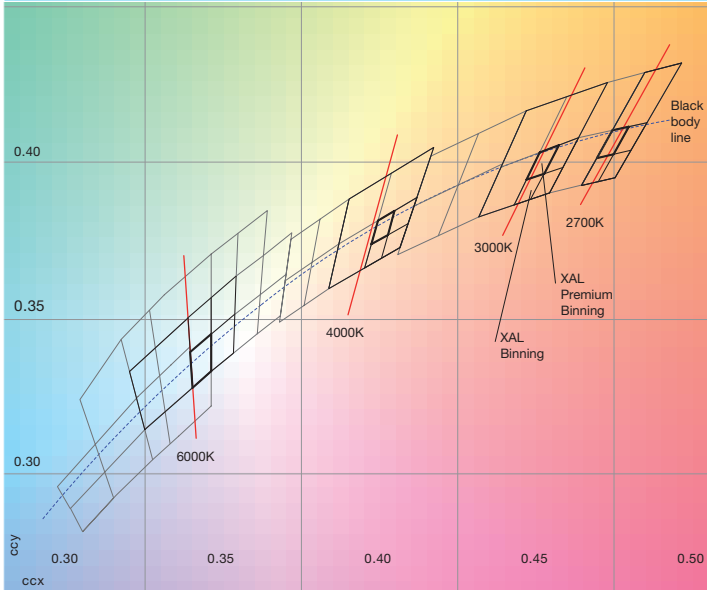
Bei Parallelschaltungen wirkt sich der Ausfall einzelner LED nicht auf die restlichen Stromkreise aus, d.h. alle übrigen LED leuchten unbeeinträchtigt weiter.

E **CONSTANT CURRENT 24V DC DIMMABLE** parallel connection with Driver 4|8 and LED converter 24V DC:

The splitter feeds parallel at four exits 350mA for each with 6 LED or at eight exits 350mA for each with 3 LED each. The driver 4|8 is dimmable and available as one- or two-channel version. The two-channel can control and dimm 2x2 exits for each 6 LED or 2x4 exits for each 3 LED. With this driver and a separate sliding controller two different light colours are mixable. There are two power supplies available - converter 24V DC with 25W for up to 15 LED or 60W for up to 40 LED.

With parallel connection, a failure of single LED does not affect the circuit, i.e. the remaining LED will continue to give light.

CRI CHROMATICITY DIAGRAM



D Durch die rasante Weiterentwicklung in der LED-Herstellung ergibt sich die Herausforderung der eindeutigen Klassifizierung (Binning) in Lichtfarben und Helligkeitsklassen (Flux). Die Kunden verlangen ein homogenes Lichtfarbbild, d.h. das Binning sollte eine möglichst kleine Bandbreite sowohl in der Lichtfarbe als auch in der Abweichung von der Black Body Kurve haben. LED einer Lichtfarbe (z.B. 3000K) werden von LED Herstellern in vier Lichtfarbquadranten geliefert (siehe CRI Diagramm). Von den LED Herstellern wird jedes Halbjahr die nächst höhere Helligkeitsklasse (Flux) angeboten. Um LED mit den exakt gleichen Kennwerten auszuliefern, was besonders wichtig für eine Nachlieferung ist, versieht XAL alle Artikel mit einem Zahlenschlüssel der über Lichtfarbe, Binning, Flux und Ra-Index Auskunft gibt.

XAL Binning: XAL liefert bei der Bestellung einer Lichtfarbe (z.B. 3000K) ausschließlich LED eines Lichtfarbquadranten. Das XAL-Binning eignet sich für alle Standardanwendungen wie mittlere bis große Beleuchtungsabstände, farbige Waren und Flächen (Nuancen in der Lichtfarbe sind erkennbar).

XAL Premium Binning: Für Anwendungen, bei denen eine besonders einheitliche Lichtfarbe gewünscht wird, wie weiße Flächen und kurze Beleuchtungsabstände, bietet XAL ein Premium Binning an. Die bereits in Lichtfarbquadranten sortierten LED werden nochmals in vier Bereiche unterteilt. Dieser mittels optischer Messinstrumente durchgeführte Selektionsprozess garantiert dem Kunden höchste Homogenität in der Lichtfarbe und eine minimale Abweichung von der Black Body Kurve (siehe CRI Diagramm).

XAL High CRI Binning: Für Anwendungen, die einen besonders hohen Farbwiedergabeindex fordern, bietet XAL Ra-optimierte LED mit einem Farbwiedergabeindex Ra>90 an. Diese LED eignen sich besonders für Beleuchtungen in Museen und Textildesigns.

XAL High CRI Premium Binning: Für Anwendungen, die eine besonders einheitliche Lichtfarbe und einen besonders hohen Farbwiedergabeindex fordern, bietet XAL ein Ra-optimiertes Premium Binning an. Die in Lichtfarbquadranten sortierten LED, mit Farbwiedergabeindex Ra>90, werden nochmals in vier Bereiche unterteilt. Dieser mittels optischer Messinstrumente durchgeführte Selektionsprozess garantiert dem Kunden höchste Homogenität in der Lichtfarbe und eine minimale Abweichung von der Black Body Kurve. So werden nur LED ausgeliefert, die die Objekte in Echtfarben wiedergeben (siehe CRI Diagramm).

POWER RATINGS

D Leistungsangabe bei Leuchtdioden, Hinweis der Entwickler:

LED sind, wie alle Halbleiter, Fertigungstoleranzen unterworfen. Optische, elektrische und mechanische Parameter wie Helligkeit, Farbtemperatur, Farbwiedergabeindex oder Vorwärtsspannung können teilweise um mehr als 30% variieren. Aus diesem Grunde verwendet XAL nur selektierte, unseren Spezifikationen entsprechende LED. Wir sind davon überzeugt, dass die ausschlaggebenden Kriterien, um unsere Kunden zufrieden zu stellen, die optischen Parameter sind. Deshalb sind dort unsere Toleranzen am geringsten. Auf der anderen Seite bedeutet das aber auch, dass Parameter, die nicht „sichtbar“ sind, größere Toleranzen aufweisen können.

Einer dieser Parameter ist die Vorwärtsspannung. LED-Chip Hersteller spezifizieren ihre Chips mit sehr großen Toleranzen (z.B. 2.55V – 3.99V). Diese Vorwärtsspannung steht in direkter Beziehung zur Leistungsaufnahme, was bedeutet, dass eine LED vom selben Typ, mit denselben optischen Parametern eine Leistungsaufnahme von 0.93W bis 1.39W bei 350mA Konstantstrom aufweisen kann.

Typische Vorwärtsspannungen wie wir sie im Moment bei Raumtemperatur messen, liegen bei 3.3V (+-0.2V) und entsprechen einer Leistungsaufnahme von 1.15W (+-0.07W). Während des Betriebes erwärmt sich die LED auf 70°C und mehr, was ein Sinken der Vorwärtsspannung um -0.2V zur Folge hat. Die Leistungsaufnahme reduziert sich dadurch typischerweise auf 1.08W. Alle e² LED in unserem Katalog werden mit 1.1W, dem derzeitigen Durchschnittswert, angegeben. Es liegt im Bereich des Möglichen, daß Kunden LED erhalten, die den optischen Spezifikationen aus dem Katalog entsprechen, deren Leistungsaufnahme jedoch geringfügig größer oder kleiner sein kann.

Um die Lebensdauer der LED zu gewährleisten, darf das Leuchtenprofil auf der Reflektorseite nicht verkleidet werden. In Vitrinen ist für ausreichende Luftzirkulation zu sorgen. NANO ist ausgelegt für Umgebungstemperaturen von max. 35°C. Für LED Ausfälle, die durch unsachgemäßen Einbau entstehen, übernimmt XAL keine Garantie oder Gewährleistung.

XAL BINNING e² LED | power LED

LED COLOUR	XAL BINNING	XAL PREMIUM	CRI INDEX RA	FLUX	TYPE
2700K	+/- 75K	+/- 37K	83	89 lm/led	C8-P4
2700K	+/- 75K	+/- 37K	83	96 lm/led*	C8-Q2
2700K high CRI	+/- 100K	+/- 40K	93	77 lm/led	SH-T1
3000K	+/- 82K	+/- 40K	85	89 lm/led	C7-P4
3000K	+/- 82K	+/- 40K	85	96 lm/led*	C7-Q2
3000K high CRI	+/- 100K	+/- 40K	93	77 lm/led	SJ-T1
4000K	+/- 150K	+/- 75K	83	102 lm/led	C5-Q3
4000K	+/- 150K	+/- 75K	83	110 lm/led*	C5-Q4
4500K high CRI	+/- 165K	+/- 75K	93	77 lm/led	ST-T1
6000K	+/- 350K	+/- 175K	75	118 lm/led	CW-Q5
6000K	+/- 350K	+/- 175K	75	125 lm/led*	CW-R2
colour mixed					
3000/6000K	+/- 82-350K		85-75	89-118 lm/led	C7P4WQ5
2700/4000K	+/- 75-150K		83	89-102 lm/led	C8P45Q3
2700/4500K high CRI	+/- 100-175K		93	77 lm/led	SHT-T1
* Expected 4th Quarter 2009					
007-----0	XAL binning (6000K)			CRI 70-79	
1	XAL binning (2700-4000K)			CRI 80-89	
2	XAL high CRI binning (2700-4500K)			CRI 90-99	
3	XAL premium binning (6000K)			CRI 70-79	
4	XAL premium binning (2700-4000K)			CRI 80-89	
5	XAL high CRI premium binning (2700-4500K)			CRI 90-99	

CODE DESCRIPTION

007-1130### - C7A Q3
 Flux
 Chromaticity coordinate
 LED type
 Beam angle (spot | medium | flood | wide flood)
 Colour code
 CRI Index Ra (XAL binning | premium or high CRI binning)
 LED colour temperature (K)

E The market of LED is developing very fast and the challenge for manufacturers of LED luminaires is to be able to perfectly evaluate and categorize the LED into colours of light (binning) and brightness classes (flux). The customers require a homogeneous light colour picture and therefore the binning should have an as small as possible bandwidth in the colour of light and in the distance from the Black Body curve. Each LED light colour (e.g. 3000K) are usually delivered out of 4 light colour quadrants (see CRI diagram) by the LED manufacturers. At the same time each half-year a next higher brightness class (flux) is offered. In order to deliver LED with accurately same characteristic values for a customer's replacement or subsequent delivery, XAL provides all articles with a code which exactly records the kelvin, binning, flux and CRI index.

XAL Binning: XAL ensures that for all supplies only the LED out of one light colour quadrant are applied. Since there might be still recognizable nuances in the colour of light, the XAL standard binning is suitable for all standard applications with middle to large lighting distances, and for coloured goods and surfaces.

XAL Premium Binning: For applications which require a particularly uniform colour of light, XAL offers a premium selected binning. This might be the case when applying the luminaire on white surfaces with very short distance. In case of XAL Premium Binning the LED out of one standard light colour quadrant will be divided in an additional light colour quadrant. This manual selection process is accomplished by means of optical measuring instruments and guarantees the customer the highest homogeneity in the colour of light and a minimum deviation from the Black Body curve (see CRI diagram).

XAL High CRI Binning: For applications where a particularly high colour rendering index (CRI) is required, XAL can offer a XAL High CRI LED selection with a colour rendering index (CRI) Ra>90. These are particularly suitable for lighting in museums and fashion shops.

XAL High CRI Premium Binning: For applications where a particularly uniform colour of light and a particularly high colour rendering index (CRI) are required, XAL can offer a High CRI Premium Binning. In this case the LED out of one standard light colour quadrant with a colour rendering index (CRI) Ra>90 will be divided in an additional light colour quadrant again. This manual selection process is accomplished by means of optical measuring instruments and guarantees to the customer an excellent colour rendering and the highest homogeneity in the colour of light and a minimum deviation from the Black Body curve (see CRI diagram).

E Power ratings for LED products, note from the engineers:

LED light sources are, like every other semiconductor device, subject to manufacturing tolerances. Optical, electrical and mechanical parameters like light intensity, colour temperature, colour rendering index or forward voltage may vary by more than 30%. Therefore XAL only uses selected LED light sources that match our specifications. We believe that the key criteria to satisfy our customers are the optical parameters of our products and so specifications on these are the tightest. On the other hand this means that parameters you „do not see“ can have wider tolerances.

One of these parameters is the forward voltage of our LED. LED chip manufacturers specify their LED light sources with huge tolerances in forward voltage (e.g. 2.55V - 3.99V). This forward voltage is directly related to the input power, which means that the same type of LED with the same optical characteristics can have an input power of 0.93W to 1.39W at a constant current of 350mA.

Typical forward voltages we measure at the moment are around 3.3V (+-0.2V) at room temperature, yielding an input power of 1.15W (+-0.07W). During operation the LED temperature may rise to 70°C and more, resulting in a forward voltage drop of -0.2V. This reduces the input power typically to 1.08W.

All e² LED light sources are rated 1.1W in this catalogue. This is our average value at present. Our customers may receive LED light sources that match the optical characteristics as stated in our catalogue, but consume a little more or a little less power.

In order to ensure the full life time of the LED luminaires the light profile on the reflector side may not be covered. If mounted in cabinets a sufficient circulation of air has to be provided. NANO is approved for an environmental temperature of max. 35°C. XAL can not take over warranty or guarantee for damages caused as a result of inappropriate installation.



WWW.XAL.COM