

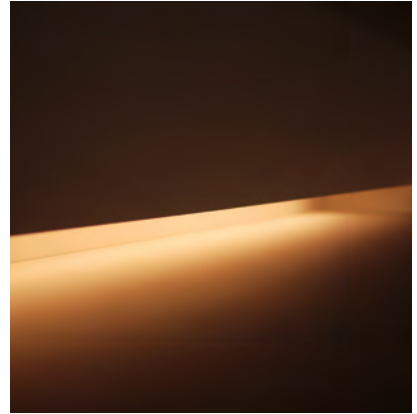
Linear

LiNi-R XL 208

Fixture Guide

KKDÖ

Indoor | Recessed | Mid dynamic output up to 630lm/m (213lm/ft)

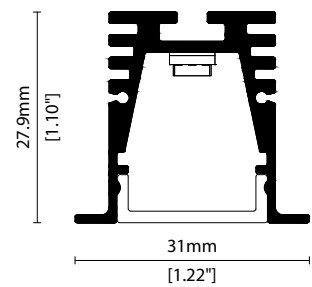


Key applications

- ✓ Ceiling
- ✓ Downlighting
- ✓ Interior
- ✓ Special effect
- ✓ Under cabinet

Key features

- ✓ Custom lengths
- ✓ Diffusion: Homogenous
- ✓ Direct view
- ✓ Dynamic white
- ✓ Extensive CCT range
- ✓ Form factor: Medium
- ✓ IP40
- ✓ Output mid



Warm dim (Dynamic white)

Output Luminance %

min DIM1 Input Level max

— CH1 (Warmer)
— CH2 (Cooler)

LEDmix 207

CCT Selection 1 CCT Selection 2

LEDmix 209

CCT Selection 1 CCT Selection 2

LEDmix **warm dim** (Dynamic white) is a pre-programmed dimming curve setting enabling two different colour temperatures (CCTs) to blend harmoniously to achieve a warming lighting effect when dimmed.

KKDC LEDmix strips allow two separate CCT selections to be specified within the same PCB strip.

Use the table opposite to help determine which 2 CCT selections you require according to your preferred cool to warm dimming range.

**Note: The blended CCT is approx. 'cool-end' result at 100% brightness based on using the KKDC LED CCT specification.*

CCT Selection 1	CCT Selection 2	
	Blended CCT*	PCB CCT
1900K~	2000K 2100K 2200K 2300K 2500K 2600K 2700K 3000K 3500K	2100K PCB 2300K PCB 2500K PCB 2700K PCB 3000K PCB 3200K PCB 3500K PCB 4000K PCB 5000K PCB
2100K~	2200K 2300K 2400K 2600K 2700K 2800K 3000K 3600K	2300K PCB 2500K PCB 2700K PCB 3000K PCB 3200K PCB 3500K PCB 4000K PCB 5000K PCB
2300K~	2400K 2500K 2700K 2800K 2900K 3100K 3700K	2500K PCB 2700K PCB 3000K PCB 3200K PCB 3500K PCB 4000K PCB 5000K PCB
2500K~	2600K 2800K 2800K 3000K 3200K 3800K	2700K PCB 3000K PCB 3200K PCB 3500K PCB 4000K PCB 5000K PCB
2700K~	2900K 3000K 3100K 3400K 3900K	3000K PCB 3200K PCB 3500K PCB 4000K PCB 5000K PCB
3000K~	3100K 3300K 3500K 4000K	3200K PCB 3500K PCB 4000K PCB 5000K PCB
3200K~	3300K 3600K 4100K	3500K PCB 4000K PCB 5000K PCB
3500K~	3700K 4300K	4000K PCB 5000K PCB
4000K~	5100K	5000K PCB

Tuneable white

Channel Mix Ratio %

min DIM1 Input Level max

— CH1 (Warmer)
— CH2 (Cooler)

LEDmix 207

CCT Selection 1 CCT Selection 2

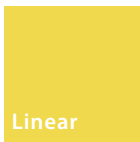
LEDmix 209

CCT Selection 1 CCT Selection 2

LEDmix **tunable white** enables two different LED colour temperatures (CCTs) to be specified within the same LEDmix strip.

Each CCT selection can then be independently controlled (via your dimming control system) to adjust the warm & cool light output (CCT selections) and thus tailor a blended light colour of your choosing.

CCT Selection 1	CCT Selection 2
1900K~	2100K 2300K 2500K 2700K 3000K 3200K 3500K 4000K 5000K
2100K~	2300K 2500K 2700K 3000K 3200K 3500K 4000K 5000K
2300K~	2500K 2700K 3000K 3200K 3500K 4000K 5000K
2500K~	2700K 3000K 3200K 3500K 4000K 5000K
2700K~	3000K 3200K 3500K 4000K 5000K
3000K~	3200K 3500K 4000K 5000K
3200K~	3500K 4000K 5000K
3500K~	4000K 5000K
4000K~	5000K



LiNi-R XL 208

Specification sheet



Dimension	H27.9/W31/L182.7-2016mm (H1.1/W1.22/L7.19-79.37in) (excluding spring clips)	
PCB increment	166.7mm increment/2000mm max (6.56in increment/78.74in max)	
LED pitch	23.8mm - 84LED/m (0.94in - 26LED/ft) between same coloured LEDs	
Chip	s-line	Toyoda Gosei
	k-line	Toyoda Gosei or Equivalent
Beam angle	110° (Diffused Cover)	
Colours	s-line	1900K/2100K/2300K/2500K/2700K/3000K/3500K/4000K/5000K
	k-line	1900K/2100K/2300K/2500K/2700K/3000K/3500K/4000K/5000K
Bin/Step	s-line	2.5-step MacAdam ellipse
	k-line	3-step MacAdam ellipse
CRI	≥ 90	
Lifetime	50,000 hours @ 25°C (50,000 hours @ 77°F)	
Operating temp	T _a = -25 to 55°C (T _c max = 67.6°C) T _a = -13 to 131°F (T _c max = 153.7°F)	
IP rating	IP40	
Finish	Silver anodised	
Cover/lens	Diffused	
Mounting	Recessed mounting via spring clip	
Power feed	Hardwire tails or male/female connectors	
Control	0-10V/1-10V/DMX/DALI	



LED Grading Key

Exclusive Grade

s s-line*	*KKDC tuned CCT range
2.5-step CCT range	CCT range

Base Grade

k k-line	3-step commercial range
	Energy Star CCTs

PERFORMANCE DATA @ 2100K + 5000K

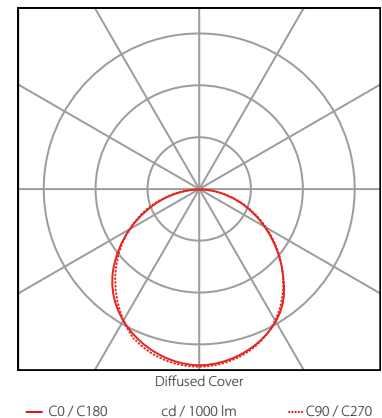
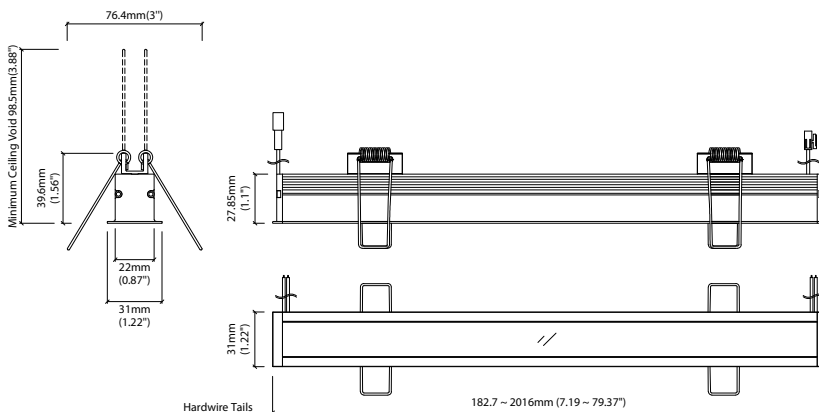
Power consumption	Supply voltage	Supply current
15.6W/m (4.75W/ft)	24V DC	0.65A/m (0.20A/ft)

Colour Rendering Index (CRI)

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
k-line	94	97	98	93	93	96	92	83	60	93	94	82	95	99

Diffused Cover

				CRI	R9	Rf	Rg
s-line	630lm/m (213lm/ft)	40.2lm/W		94	75	-	-
k-line	540lm/m (165lm/ft)	34.4lm/W		92	60	-	-




Data derived from independent UKAS / IESNA LM-79-08 accredited testing of production samples.

LiNi-R XL 208

Code Table



FIXTURE

Model	Finish	Cover	Grade ¹	LED	Colour (CCT)	Length Availability ²	IP	Cable Length	Power Feed ³	Input									
LiNi-R XL	RX	Silver Anodised	SA	Diffused	C	 s ⁴	208	1900K	19	m	182.7-2016mm 166.7mm increments	IP40	40	300mm/11.81"	0300	Single no sheath tail	S00X	DC 24V	g
								2100K	21										
								2300K	23	i	7.19-79.37in 6.56in increments			Single no sheath IP20 connector	S20X				
								2500K	25							(Specify length code OR total run length)	Double no sheath IP20 connector		
								2700K	27										
								3000K	30										
								3500K	35										
								4000K	40										
								5000K	50										

¹ Refer to **LED Grading Key** on **Specification sheet** page

² Refer to **Length Availability List** or enter total run length instead of length code

³ Refer to **Power Feed Options** on **Options** pages

⁴ LEDmix requires two colour temperature choices

Code Example:

RX	-	SA	-	C	-	s	-	208	-	2150	-	m	-	516	-	40	-	0300	-	D00X	-	g
LiNi-R XL		Silver Anodised		Diffused				208		2100K+5000K		516.1mm		IP40		300mm/11.81"		Double no sheath tail		DC 24V		

ACCESSORIES

Connection Accessories

KKCN-18	4 PIN LEDmix male & female 50mm/1.97" pair
KKCN-19	4 PIN LEDmix male & female 300mm/11.81" pair
KKCN-24	4 PIN LEDmix 300mm/11.81" extension lead

PSU/Driver

0-10V/1-10V/DALI/DMX

* Refer to **Driver/PSU Options** page for details or provide requirement and KKDC to offer the suitable option

* Refer to **Power feed** on **Accessories** pages

LED ENGINE VARIANTS (LED STRIP TYPE)

Colour	Output	LED	Lumen/m	Lumen/ft	W/m	W/ft	Spec Doc	Length	Increment
Single CCT	Low	352	190	59	5.5	1.67	LiNi-R XL 352	99.3-2016mm (3.91-79.37in)	83.3mm (3.28in)
	Low	504	510	155	12.5	3.81	LiNi-R XL 504	116-2016mm (4.57-79.37in)	100mm (3.94in)
	Mid	508	710	216	17.5	5.33	LiNi-R XL 508	87.4-2016mm (3.44-79.37in)	71.4mm (2.81in)
	Max	040	2000	610	40	12.2	LiNi-R XL A040	93-1516mm (3.66-59.68in)	38.46mm (1.51in)
Warm Dim/Dynamic White	Low	207	350	105	10.95	3.34	LiNi-R XL 207	99.3-2016mm (3.91-79.37in)	83.3mm (3.28in)
	Mid	208	630	213	15.6	4.75	LiNi-R XL 208	182.7-2016mm (7.19-79.37in)	166.7mm (6.56in)
RGB		501	Red 61 Green 132 Blue 22 RGB 192	Red 19 Green 40 Blue 7 RGB 59	15.6	4.75	LiNi-R XL RGB	99.3-2016mm (3.91-79.37in)	83.3mm (3.28in)

* Performance data: s-line, diffused cover, 2100K + 5000K

LiNi-R XL 208

Length Availability List

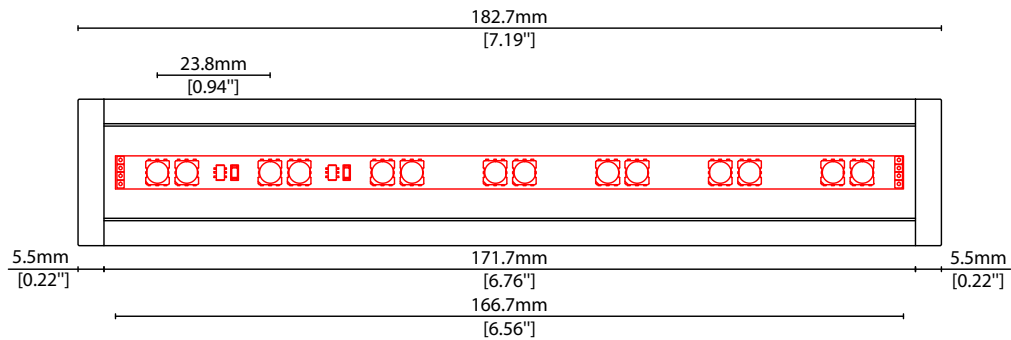


Length Code		Fixture Length ¹		LED Strip ²		End Cap Dimension ³		Wattage (W)	Output (lm)
Metric	Imperial(US)	Metric	Imperial(US)	Metric	Imperial(US)	Metric	Imperial(US)		MIX (Test Data)
m0183	i0007	183mm	7.19in	167mm	6.56in	11mm	0.43in	2.60	80
m0349	i0014	349mm	13.75in	333mm	13.12in	11mm	0.43in	5.20	161
m0516	i0020	516mm	20.32in	500mm	19.69in	11mm	0.43in	7.80	241
m0683	i0027	683mm	26.88in	667mm	26.25in	11mm	0.43in	10.40	321
m0849	i0033	849mm	33.44in	833mm	32.81in	11mm	0.43in	13.00	402
m1016	i0040	1016mm	40.00in	1000mm	39.37in	11mm	0.43in	15.60	482
m1183	i0047	1183mm	46.56in	1167mm	45.93in	11mm	0.43in	18.20	562
m1349	i0053	1349mm	53.12in	1333mm	52.49in	11mm	0.43in	20.80	643
m1516	i0060	1516mm	59.69in	1500mm	59.06in	11mm	0.43in	23.40	723
m1683	i0066	1683mm	66.25in	1667mm	65.62in	11mm	0.43in	26.00	803
m1849	i0073	1849mm	72.81in	1833mm	72.18in	11mm	0.43in	28.60	884
m2016	i0079	2016mm	79.37in	2000mm	78.74in	11mm	0.43in	31.20	964

¹ Actual total overall length of light fixture (LED strip + end caps + void/wire hole)

² Actual length of PCB strip

³ Actual length of 2x end caps





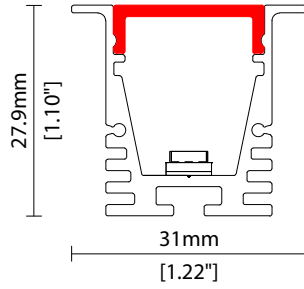
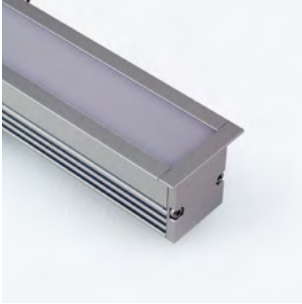
LiNi-R XL 208

Options



COVER/LENS OPTIONS

* Options are an integral part of the fixture ordering codes. Please refer to **Code Table** pages.

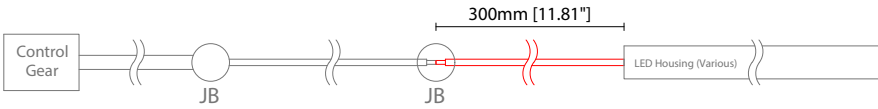


C Diffused cover

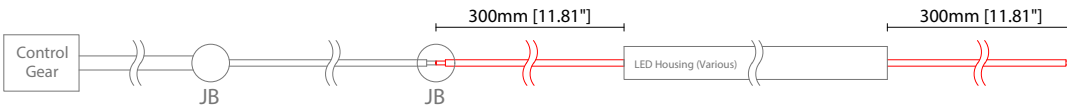
W31/H27.9mm (W1.22/H1.10")

POWER FEED OPTIONS

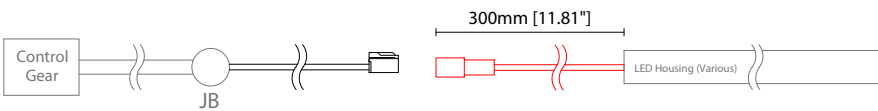
0300 S00X 300mm (11.81") Single no sheath tail



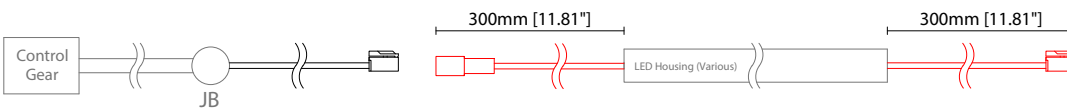
0300 D00X 300mm (11.81") Double no sheath tail



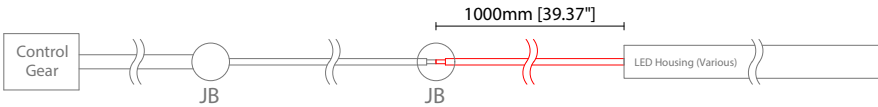
0300 S20X 300mm (11.81") Single no sheath IP20 connector



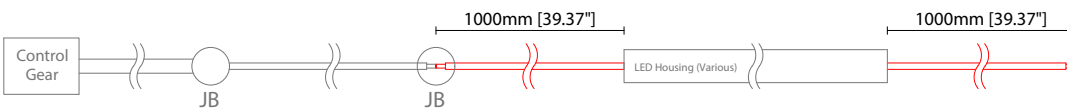
0300 D20X 300mm (11.81") Double no sheath IP20 connector



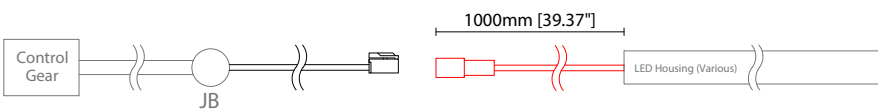
1000 S00X 1000mm (39.37") Single no sheath tail



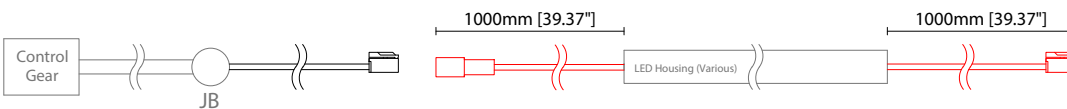
1000 D00X 1000mm (39.37") Double no sheath tail



1000 S20X 1000mm (39.37") Single no sheath IP20 connector



1000 D20X 1000mm (39.37") Double no sheath IP20 connector

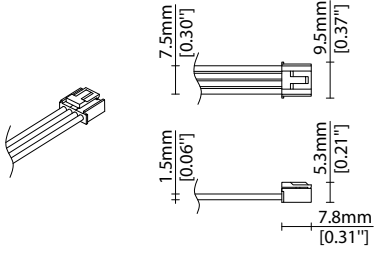


Key

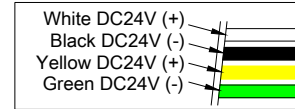
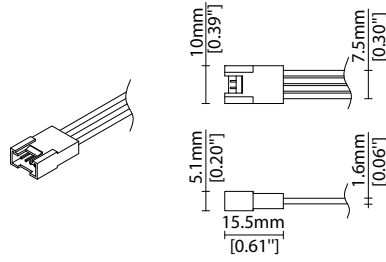
Control Gear Power supply, sub-controllers & control systems
 JB Junction box / cable connection

POWER FEED OPTIONS (CONTINUED)

4 Pin LEDmix Female Connector

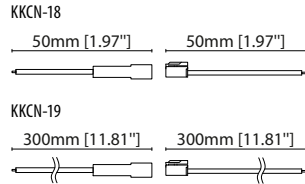


4 Pin LEDmix Male Connector

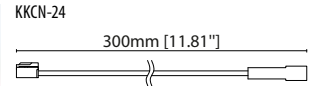


POWER FEED

Note: Accessories are to be ordered separately with corresponding code shown below.



KKCN-18 50mm (1.97in) pair
KKCN-19 300mm (11.81in) pair
 4 PIN LEDmix male + female connector set



KKCN-24
 4 PIN LEDmix 300mm (11.81in) extension lead

KKDC CONTROL



IP20
 Plastic housing
 L170/W59/H29mm
 (L6.69/W2.32/H1.14in)

KKDM-06 1-10V
 visDIM dimmable sub-controller
 (4 x 8A max @ 12-36V)



IP20
 Plastic housing
 L170/W53.4/H28mm
 (L6.69/W2.10/H1.10in)

KKSC-05 DMX
 visDIM dimmable sub-controller
 (4 x 5A max @ 12-36V)



IP20
 Plastic housing
 L170/W59/H29mm
 (L6.69/W2.32/H1.14in)

KKDL-02 DALI
 visDIM dimmable sub-controller
 (4 x 8A max @ 12-36V)



IP20
 Plastic housing
 L166/W53.4/H23mm
 (L6.54/W2.10/H0.91in)

KKDL-03 DALI
 visDIM dimmable sub-controller
 (4 x 5A max @ 12-36V)

AVAILABLE PSU OPTIONS

Control Mode	PSU (Order Code)	Input Voltage AC	Output Voltage DC	Rated Output Current	Rated Power	Dim %	IP Rating
Switched	CEN-60-24	90-295V	24V	2.5A	60W	-	IP67
	HLG-60H-24	90-305V	24V	2.5A	60W	-	IP67
	HLG-100H-24	90-305V	24V	4.0A	100W	-	IP67
	HLG-150H-24	90-305V	24V	6.3A	150W	-	IP67
	HLG-240H-24	90-305V	24V	10A	240W	-	IP67
0-10V (1-10V)	PWM-40-24	90-305V	24V	1.67A	40W	100-0.15 (100-10)	IP67
	PWM-60-24	90-305V	24V	2.5A	60W	100-0.15 (100-10)	IP67
	PWM-90-24	90-305V	24V	3.67A	90W	100-0.15 (100-10)	IP67
	PWM-120-24	90-305V	24V	5.0A	120W	100-0.15 (100-10)	IP67
DALI	LIN100A1	120-277V	24V	1A per channel	100W	100-0.1	IP66/IP40
DMX RGB	LIN100A1	120-277V	24V	1.33A per channel	100W	100-0.1	IP66/IP40
DMX RGBW	LIN100A1	120-277A	24V	1A per channel	100W	100-0.1	IP66/IP40

Flicker Free Options - Combination of PSU+ sub-controller

Control Mode	PSU (Order Code)	Sub-controller (Order Code)	Input Voltage AC	Output Voltage DC	Rated Output Current	Rated Power	Dim %	IP Rating PSU/ Sub-controller
0-10V or 1-10V	CEN-60-24	KKDM-06	90-295V	24V	2.5A	60W	100-0.9	IP67/IP20
	HLG-60H-24	KKDM-06	90-295V	24V	2.5A	60W	100-0.9	IP67/IP20
	HLG-100H-24	KKDM-06	90-295V	24V	4.0A	100W	100-0.9	IP67/IP20
	HLG-150H-24	KKDM-06	90-295V	24V	6.3A	150W	100-0.9	IP67/IP20
	HLG-240H-24	KKDM-06	90-295V	24V	10.0A	240W	100-0.9	IP67/IP20
DALI	CEN-60-24	KKDL-02/03	90-295V	24V	2.5A	60W	100-0.1	IP67/IP20
	HLG-60H-24	KKDL-02/03	90-305V	24V	2.5A	60W	100-0.1	IP67/IP20
	HLG-100H-24	KKDL-02/03	90-305V	24V	4.0A	100W	100-0.1	IP67/IP20
	HLG-150H-24	KKDL-02/03	90-305V	24V	6.3A	150W	100-0.1	IP67/IP20
	HLG-240H-24	KKDL-02/03	90-305V	24V	10.0A	240W	100-0.1	IP67/IP20
DMX RGB	CEN-60-24	KKSC-05	90-295V	24V	2.5A	60W	100-0.9	IP67/IP20
	HLG-60H-24	KKSC-05	90-305V	24V	2.5A	60W	100-0.9	IP67/IP20
	HLG-100H-24	KKSC-05	90-305V	24V	4A	100W	100-0.9	IP67/IP20
	HLG-150H-24	KKSC-05	90-305V	24V	6.3A	150W	100-0.9	IP67/IP20
	HLG-240H-24	KKSC-05	90-305V	24V	10.0A	240W	100-0.9	IP67/IP20

¹ The items shown above cover the most frequently used specification but does not exhaust the possible options

² PSU and/or driver can be chosen from the table, or KKDC may recommend the best option upon receipt of the controls requirement and installation environment

³ Electrical shop drawing will include detailed information of PSU and relevant control drivers

⁴ Cut sheets are available on the controls section of www.kkdc.lighting or upon request