

CC1.4 STATIC WHITE LIGHT ENGINES

HIGH PERFORMANCE LINEAR LIGHT ENGINE



LIGHT ENGINE CC1.4, CC, 20-21Vf, 90CRI, 74.6 mm

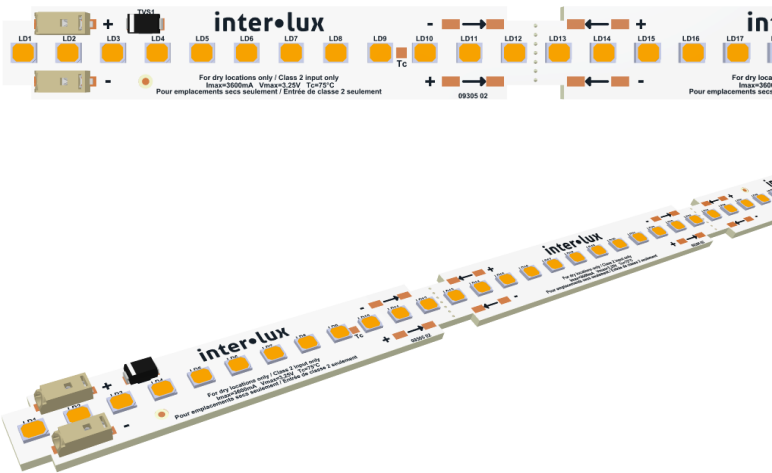
Issue Date	September, 2024
Issued by	Nascimento, K.

Applications

- Office Linear Lighting
- Pendant Light
- Troffers

Characteristics

- Module Efficacy – up to 198 lm/W
- L70 > 50,000 hours
- CRI > 90
- 03 SDCM
- CCTs 2,700K / 3,000K / 3,500K / 4,000K / 5,000K
- 05 years warranty



DRIVE CURRENTS

Parameter	Nominal	Max
LIGHT ENGINE CC1.4, CC, 20-21Vf, 90CRI, 74.6mm	660mA	2,880mA

MODULE TEMPERATURES

Parameter	Nominal	Max
Tc (case temperature at Tc point)	75 °C	90 °C

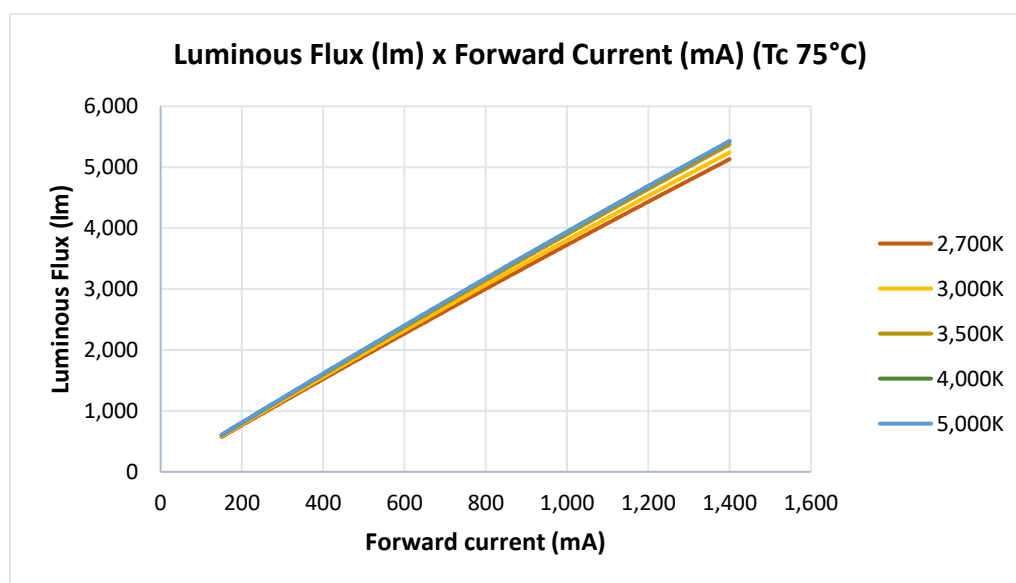
PRODUCT PART NUMBER

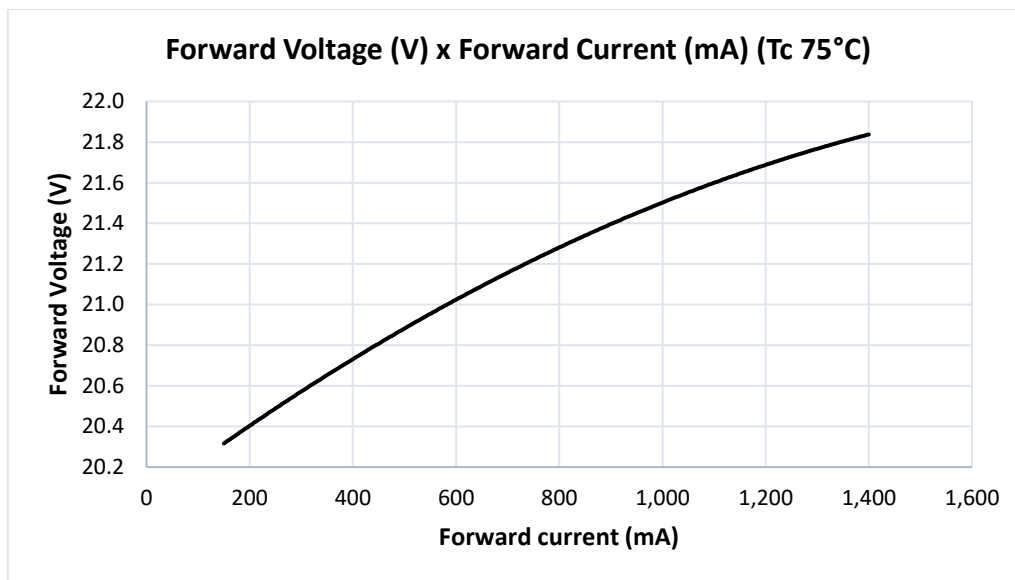
610-20860-927- 74.6mm	610-20861-930- 74.6mm	610-20862-935- 74.6mm	610-20863-940- 74.6mm	610-20863-950- 74.6mm
80481400100	80480900100	80481500100	80481600100	80692300100
2,700K	3,000K	3,500K	4,000K	5,000K

TECHNICAL INFORMATION

CCT	LED Driver Current (mA)	# LEDs	Luminous Flux (lm)	Luminous Flux Density (lm/ft)	Forward Voltage (V)	LED Forward Current (mA)	TC (°C)	Power (W)	Power Density (W/ft)	Efficacy (lm/W)
2,700K	150	96	571	286	20.3	12.5	75	3.0	1.5	187
2,700K	300	96	1,147	574	20.6	25.0	75	6.2	3.1	186
2,700K	600	96	2,270	1,135	21.0	50.0	75	12.6	6.3	180
2,700K	950	96	3,542	1,771	21.4	79.2	75	20.4	10.2	174
2,700K	1,400	96	5,131	2,566	21.8	116.7	75	30.6	15.3	168
3,000K	150	96	584	292	20.3	12.5	75	3.0	1.5	191
3,000K	300	96	1,172	586	20.6	25.0	75	6.2	3.1	190
3,000K	600	96	2,319	1,160	21.0	50.0	75	12.6	6.3	184
3,000K	950	96	3,619	1,810	21.4	79.2	75	20.4	10.2	178
3,000K	1,400	96	5,243	2,621	21.8	116.7	75	30.6	15.3	171
3,500K	150	96	598	299	20.3	12.5	75	3.0	1.5	196
3,500K	300	96	1,201	600	20.6	25.0	75	6.2	3.1	195
3,500K	600	96	2,377	1,188	21.0	50.0	75	12.6	6.3	188
3,500K	950	96	3,708	1,854	21.4	79.2	75	20.4	10.2	182
3,500K	1,400	96	5,371	2,686	21.8	116.7	75	30.6	15.3	176
4,000K	150	96	605	302	20.3	12.5	75	3.0	1.5	198
4,000K	300	96	1,213	607	20.6	25.0	75	6.2	3.1	197
4,000K	600	96	2,401	1,200	21.0	50.0	75	12.6	6.3	190
4,000K	950	96	3,747	1,873	21.4	79.2	75	20.4	10.2	184
4,000K	1,400	96	5,427	2,713	21.8	116.7	75	30.6	15.3	177
5,000K	150	96	605	302	20.3	12.5	75	3.0	1.5	198
5,000K	300	96	1,213	607	20.6	25.0	75	6.2	3.1	197
5,000K	600	96	2,401	1,200	21.0	50.0	75	12.6	6.3	190
5,000K	950	96	3,747	1,873	21.4	79.2	75	20.4	10.2	184
5,000K	1,400	96	5,427	2,713	21.8	116.7	75	30.6	15.3	177

TECHNICAL GRAPHS





LED TYPE

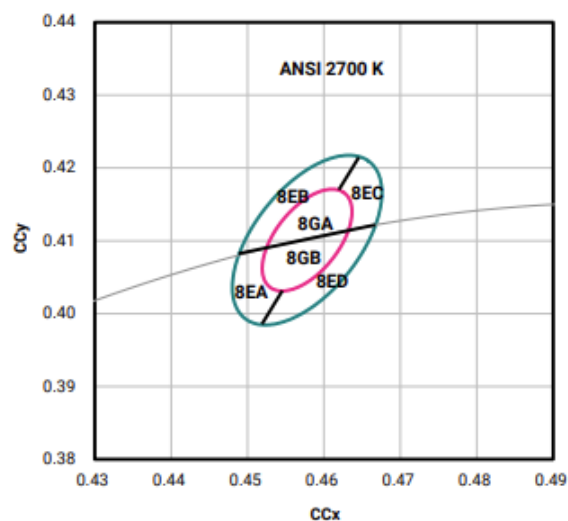
Manufacturer: CREE
LED Series: 2835 N Class Pro9

LED COLOR VARIANCE

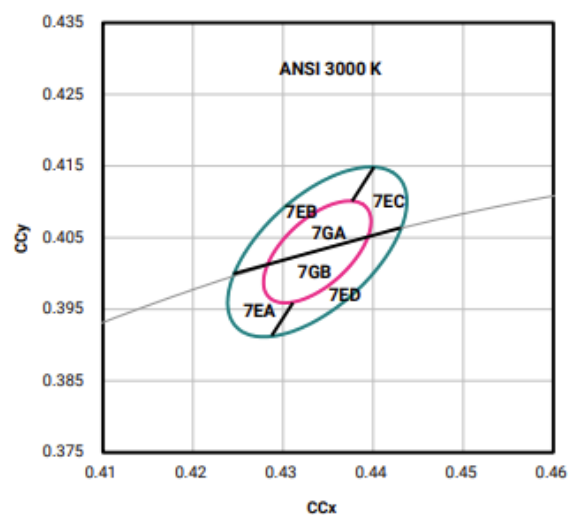
CCT	Center Point		Major Axis	Minor Axis	Ellipse Rotation Angle
	x	y			
2,700K	0.4578	0.4101	0.0081	0.0042	53.70
3,000K	0.4338	0.4030	0.00834	0.00408	53.22
3,500K	0.4073	0.3917	0.00927	0.00414	54.00
4,000K	0.3818	0.3797	0.00939	0.00402	53.72
5,000K	0.3447	0.3553	0.00822	0.00354	59.62

LED BINNING STRUCTURE

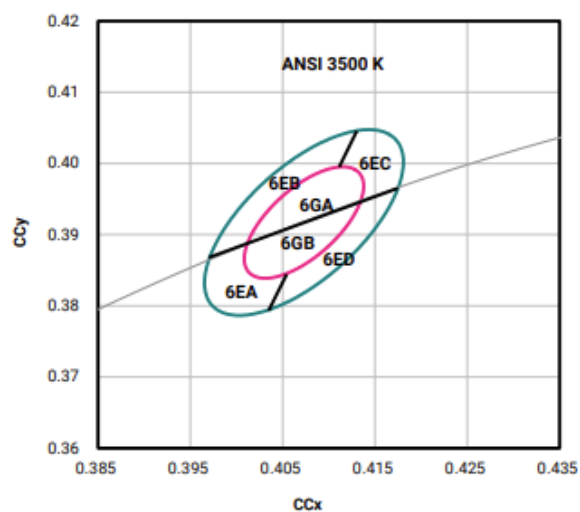
2700K – 3 STEP BINS



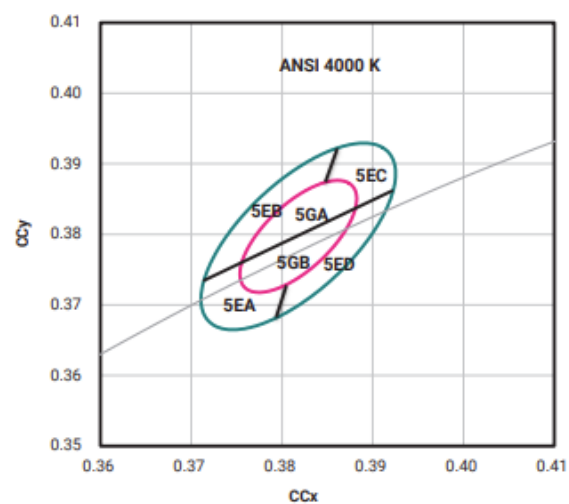
3000K – 3 STEP BINS

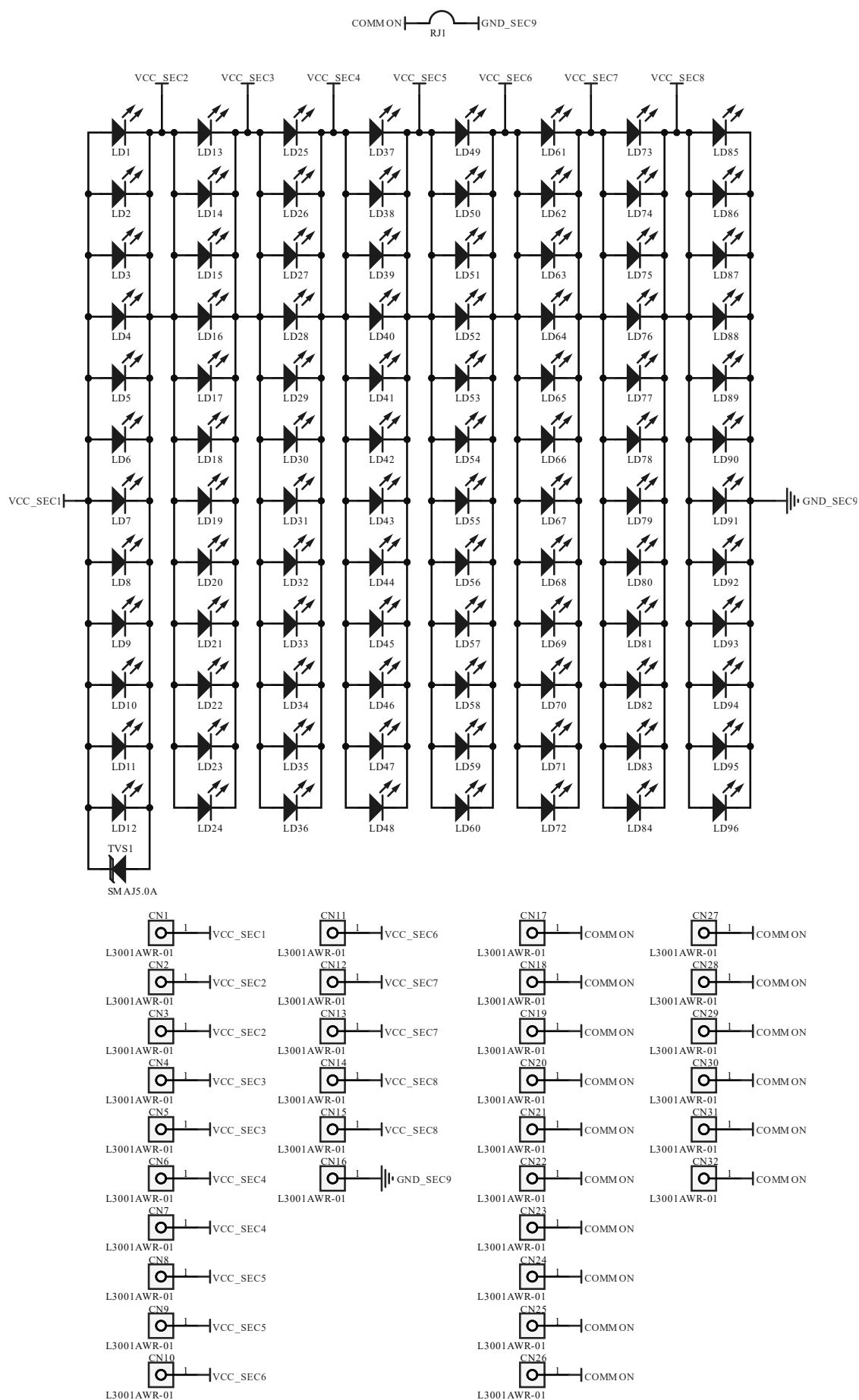


3500K – 3 STEP BINS

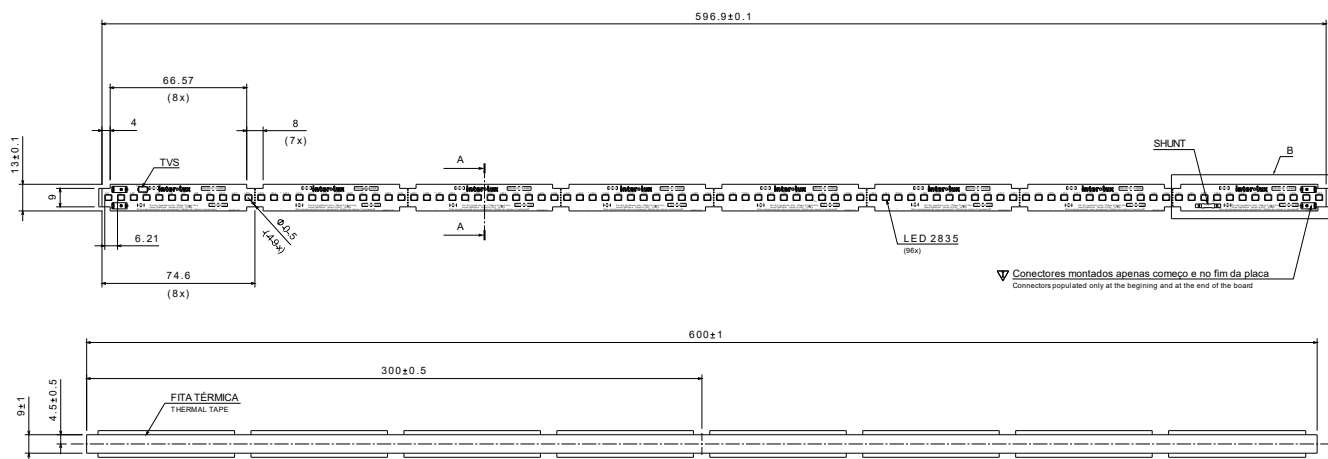


4000K – 3 STEP BINS

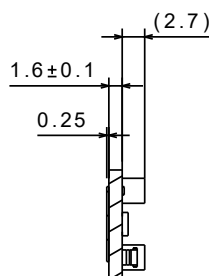




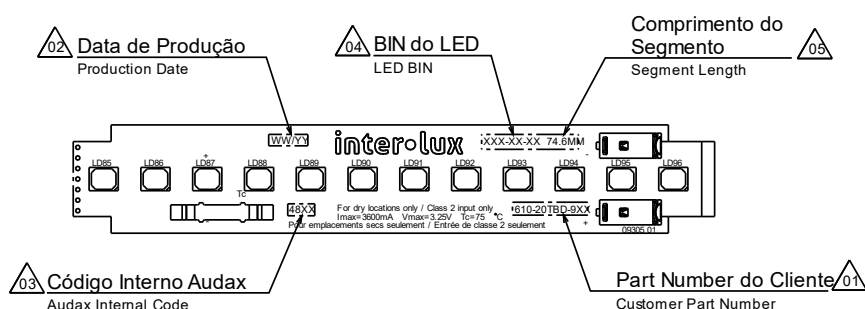
MECHANICAL DRAWING



Gravação a Laser Frontal na PCI PCB Frontal Laser Marking

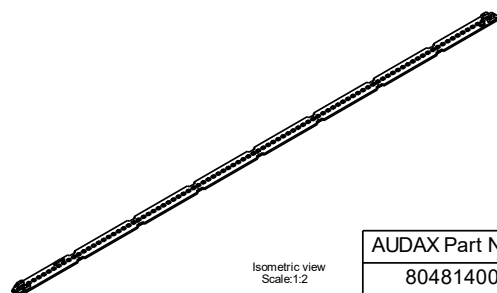


Section view A-A
Scale:2:1



As gravações devem existir em todos os segmentos
The laser mark must exist in all segments

Detail B
Scale:2:1



Isometric view
Scale:1:2

AUDAX Part Number	Inter-Lux Part Number	Description	CCT	CRI
80481400100	610-20860-927-74.6MM	96 LEDS 927 596,9X13MM CC1.4	2700K	90
80480900100	610-20861-930-74.6MM	96 LEDS 930 596,9X13MM CC1.4	3000K	90
80481500100	610-20862-935-74.6MM	96 LEDS 935 596,9X13MM CC1.4	3500K	90
80481600100	610-20863-940-74.6MM	96 LEDS 940 596,9X13MM CC1.4	4000K	90
80692300100	610-20863-950-74.6MM	96 LEDS 950 596,9X13MM CC1.4	5000K	90

Notas:

- Peça isenta de rebarbas e imperfeições
- Tolerâncias não indicadas ver tolerâncias gerais
- Dimensões não especificadas seguir conforme modelo matemático

Notes:

- Product don't have must be sharp edges and burrs;
- General tolerance according to description on technical drawing header;
- Other dimensions see on 3D model.

01	Part Number do Cliente Customer Part Number	Ex: 610-20860-927
02	Data de Produção Production Date	SS - Semana / AA - Ano WW - Week / YY - Year
03	Código Interno Audax Audax Internal Code	Ex: 4814
04	BIN do LED LED BIN	Ex: 8GA-C8-AD
05	Comprimento do Segmento Segment Length	74.6MM

WIRING

Parameter	Nominal	Max
Wire gauge	24 AWG	22 AWG
Wire gauge	0.2mm ²	0.3mm ²

Both stranded or solid wires can be used.

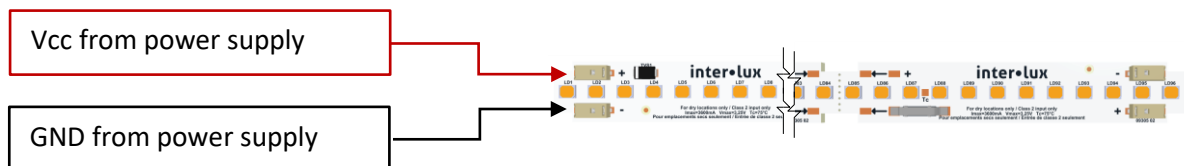
To supply power to the board from the left side, a jumper wire between "-" (top) and "+" (bottom) is needed on the last board segment. The bottom connectors are common to each other to work as a return current path.

Jumper wire required on opposite side from feed wires to close circuit

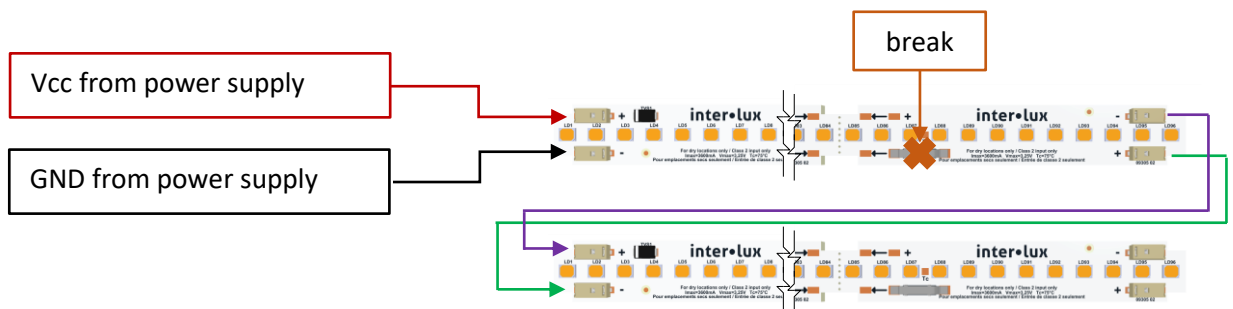
POWER SUPPLY

To properly connect the power supply to the board, please follow the instructions below:

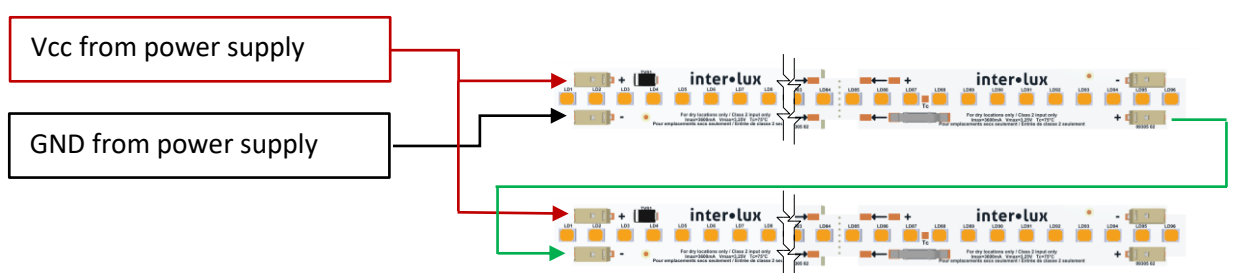
For a single board: Find the positive and negative connectors, as shown in the image below. Then, connect the Vcc (red) from the driver to the positive connector, and the GND (black) from the driver to the negative connector.



For board connected in series: Find the positive and negative connectors, as shown in the image below. Then, connect the Vcc from the driver to the first positive connector (red), and the GND (black) from the driver to the first negative connector. Break the shunt (orange) at the end of the first board (and all subsequent ones), keeping the shunt on the last board of the array. Also, connect the last negative connector to the positive connector of the next board (purple), and connect the last positive connector to the negative connector of the next board (green). In this configuration, the overall current remains the same, but the voltage will increase.



For board connected in parallel: Find the positive and negative connectors, as shown in the image below. Then, connect the Vcc from the driver to all the first positive connectors (red). Next, connect the GND from the power supply to the first negative connectors (black). Also connect the last positive connector to the positive connector of the next board (green). In this configuration, the overall voltage remains the same, but the current will increase.

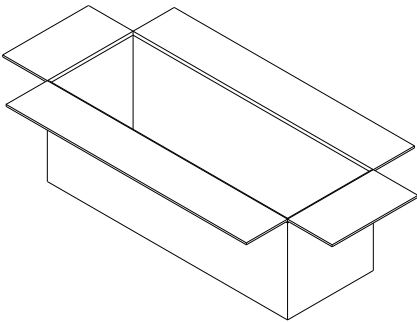
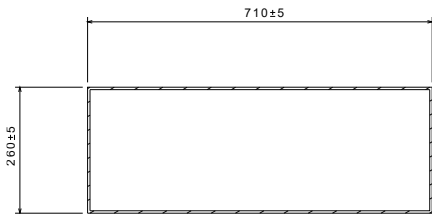


Typical Properties

Property	Standard	Unit	TT900
Color	-	-	White
Fillers	-	-	Ceramic
Thickness	-	mm/inches	0,25/0,010"
Volume Resistivity	-	ohms.cm	> 10 ¹²
90° Peel Test (@ 60°C)	-	/25mm	> 2.650
Adhesion Strength	-	N/25mm	> 18,0
Dielectric Strength	ASTM D149	Kv/mm	> 4,0
Thermal Impedance	AMD2240	°C.in2/W	0,85
Thermal Conductivity	ASTM D22470	W/m.k	> 1,0
Thermal Resistance	-	°C	-20 to 120
Flammability Class	UL 94	-	V0

PACKING

CARDBOARD BOX 710mm x 250mm x 250mm



Minimum Packing Quantity: 400pcs

*Each cardboard box contains only one CCT/Part Number

REVISION HISTORY

VERSION	ENGINEER IN CHARGE	DATE	CHANGE
00	KN	September 14, 2023	Release
01	KN	August 14, 2023	Electric and Photometric data updated
02	KN	September 27, 2024	Metallic shunt added
03	KN	September 30, 2024	Review at all tables, graphs and values

Documentation Acknowledgement

The parties hereby acknowledge the revision of the present datasheet.

X


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