

LINEAR LM 4400lm 47.5in 8xx



Product features

- Module efficacy: up to 200 lm/W
- Available with color temperature: 3000K, 3500K, 4000K and 5000K
- Further color temperatures by demand
- High initial color consistency: ≤ 3 SDCM
- Average lifetime (L80 B50): >100,000 h (temperature at $T_c = 55^\circ\text{C}$)
- UL Recognized

Product family benefits

- LED module for industry and office application
- Long lifetime support
- High energy efficacy and long lifetime provide optimized total cost of ownership
- Slim width and Zhaga compliant form factor provide excellent design-in options and assembly
- Adjustable luminous flux, efficacy and lifetime
- System approach (LED Module + Driver)

Areas of application

- Industry
- Office
- Retail



Technical data

Electrical data

Parameter	Min	Typ	Max
Nominal voltage	37.9 V	38.2 V	38.5 V
Nominal current		600 mA	
Type of current		DC	
On-mode power		22.9 W	
Energy consumption in on mode		22.9 kWh/1000h	

Note: voltage tolerance +/- 0.7%

Photometrical data (simulation by Tp 45°C and nominal current 600mA)

Correlated color temperature CCT	3000 K	3500 K	4000 K	5000 K
Useful luminous flux (Φ_{use})	3948 ... 4540 lm	4069 ... 4680 lm	4220 ... 4857 lm	4220 ... 4857 lm
Luminous efficacy	185 lm/W	191 lm/W	198 lm/W	198 lm/W
Color Rendering Index	80	80	80	80
Colour consistency (McAdam ellipses)	< 3	< 3	< 3	< 3
R9	> 0	> 0	> 0	> 0

Note: Lumen output tolerance +/- 7%

Light technical data

Starting time	0 s
Warm-up time (60 %)	0 s
Rated beam angle	120°

Absolute ratings

Current through the LED module (I-max)	1440 mA
Case temperature (Tc-max)	85 °C
Working voltage (U-max)	60 Vdc

The maximum suggested current given is for a typical non-lensed luminaire design with good thermal transfer capability. Luminaires with non-optimal thermal behavior will require a current reduction to meet the same maximum Case temperature. The thermal testing must be used to verify Tc-life is never exceeded for your specific luminaire.

LED module information

Number of LEDs per module	112
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LIN-4400-830-47.5in-1R

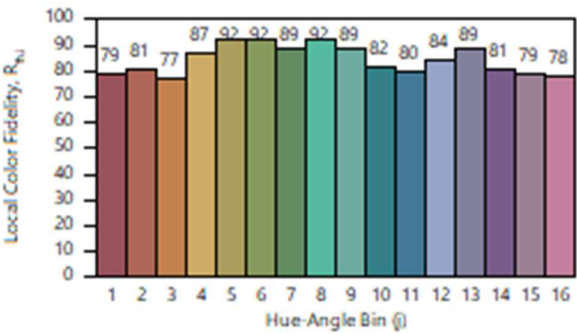
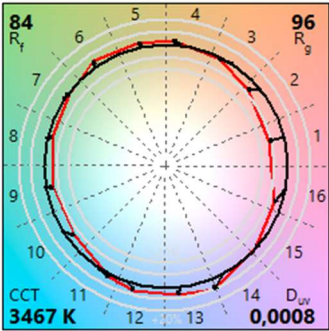
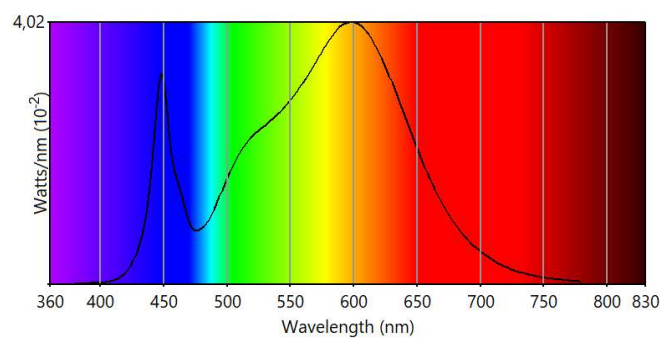
Forward Current (mA)	Forward Voltage (V)	Power Consumption (W)	Flux Output (lm)	Efficacy (lm/W)
320	37.4	12.0	2310	193
400	37.6	15.1	2873	190
480	37.9	18.2	3427	188
560	38.1	21.4	3974	186
600	38.2	22.6	4245	185
640	38.3	24.5	4515	184
720	38.5	27.7	5050	182
800	38.7	31.0	5583	180
880	38.9	34.2	6113	178
960	39.1	37.5	6642	177
1040	39.2	40.8	7170	175
1120	39.4	44.2	7697	174
1200	39.6	47.5	8223	173
1280	39.8	50.9	8749	171
1360	40.0	54.4	9274	170
1440	40.2	57.8	9798	169

Note: voltage tolerance +/- 0.7%, Lumen output tolerance +/- 7%

LIN-4400-835-47.5in-1R

Forward Current (mA)	Forward Voltage (V)	Power Consumption (W)	Flux Output (lm)	Efficacy (lm/W)
320	37.4	12.0	2380	199
400	37.6	15.1	2961	197
480	37.9	18.2	3532	194
560	38.1	21.4	4096	192
600	38.2	22.6	4375	191
640	38.3	24.5	4653	190
720	38.5	27.7	5205	188
800	38.7	31.0	5754	186
880	38.9	34.2	6300	184
960	39.1	37.5	6845	182
1040	39.2	40.8	7389	181
1120	39.4	44.2	7932	179
1200	39.6	47.5	8475	178
1280	39.8	50.9	9017	177
1360	40.0	54.4	9558	176
1440	40.2	57.8	10098	174

Note: voltage tolerance +/- 0.7%, Lumen output tolerance +/- 7%



LIN-4400-840-47.5in-1R

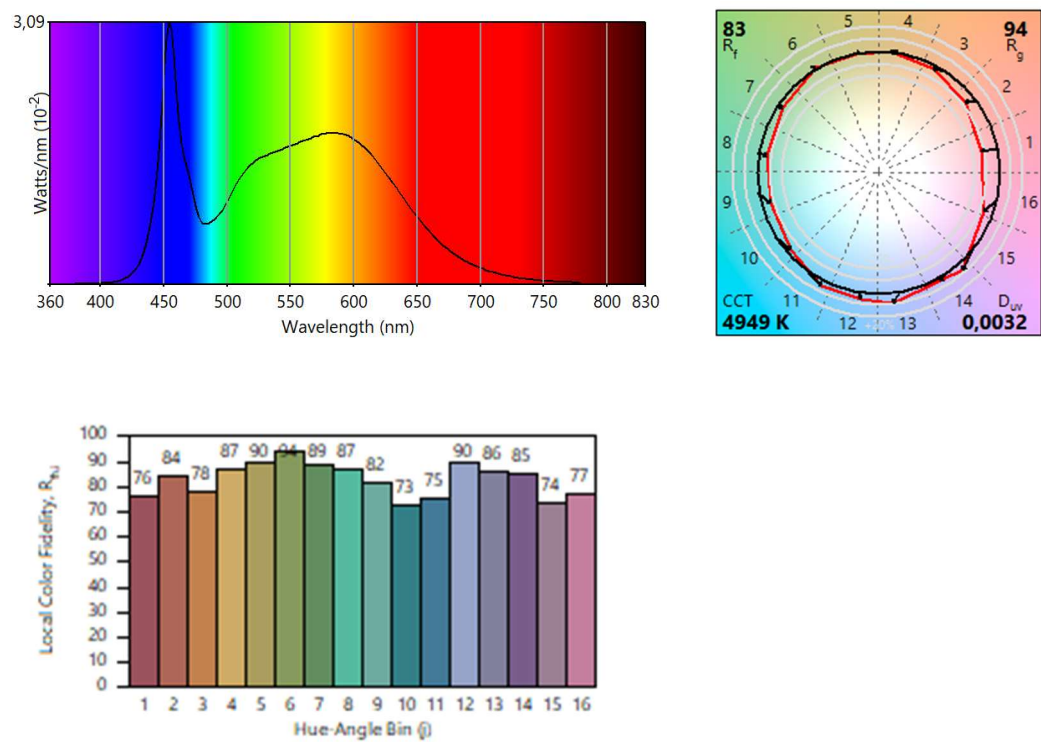
Forward Current (mA)	Forward Voltage (V)	Power Consumption (W)	Flux Output (lm)	Efficacy (lm/W)
320	37.4	12.0	2470	206
400	37.6	15.1	3073	204
480	37.9	18.2	3666	201
560	38.1	21.4	4250	199
600	38.2	22.6	4540	198
640	38.3	24.5	4828	197
720	38.5	27.7	5401	195
800	38.7	31.0	5971	193
880	38.9	34.2	6538	191
960	39.1	37.5	7103	189
1040	39.2	40.8	7668	188
1120	39.4	44.2	8231	186
1200	39.6	47.5	8795	185
1280	39.8	50.9	9357	183
1360	40.0	54.4	9918	182
1440	40.2	57.8	10478	181

Note: voltage tolerance +/- 0.7%, Lumen output tolerance +/- 7%

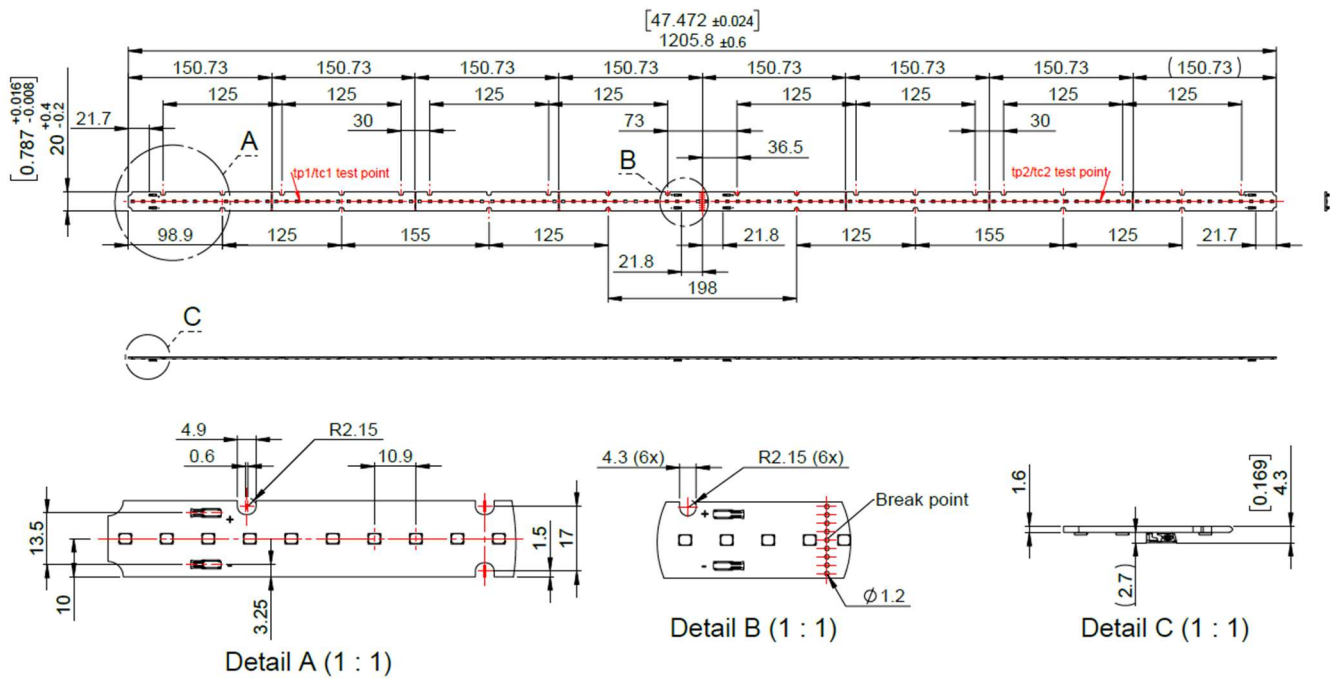
LIN-4400-850-47.5in-1R

Forward Current (mA)	Forward Voltage (V)	Power Consumption (W)	Flux Output (lm)	Efficacy (lm/W)
320	37.4	12.0	2470	206
400	37.6	15.1	3073	204
480	37.9	18.2	3666	201
560	38.1	21.4	4250	199
600	38.2	22.6	4540	198
640	38.3	24.5	4828	197
720	38.5	27.7	5401	195
800	38.7	31.0	5971	193
880	38.9	34.2	6538	191
960	39.1	37.5	7103	189
1040	39.2	40.8	7668	188
1120	39.4	44.2	8231	186
1200	39.6	47.5	8795	185
1280	39.8	50.9	9357	183
1360	40.0	54.4	9918	182
1440	40.2	57.8	10478	181

Note: voltage tolerance +/- 0.7%, Lumen output tolerance +/- 7%



Dimensions & weight



Product weight	80 g
Height	0.17 inch (5 mm)
Length	47.5 inch (1206 mm)
Width	0.79 inch (20 mm)

Temperatures & operating conditions

Performance temp. acc. to IEC 62717	45 °C
Maximum temperature at tc test point	85 °C
Temperature range at storage	-30...85 °C
Ambient temperature range	-20...+75 °C

Wiring

Input wire cross section	0.20 ... 0.75 mm ² (AWG 18...24)	Solid wires
	0.20 ... 0.50 mm ² (AWG 20...24)	Stranded, tinned wires
	0.20 ... 0.75 mm ² (AWG 18...24)	Stranded wires
Strip length	7.5 ... 9.5 mm	
Recommended tool for contact opening	BJB 46.110.U801-0	

Lifespan

Number of switching cycles	100000
Lumen maintenance factor LMF	96
L70B50 lifetime	100000 h

Lumen maintenance

		Operation current	LxBy					
		x	70		80		90	
		y	10	50	10	50	10	50
tc [°C] =	45	I = 600 mA	100000	100000	100000	100000	63000	71000
		I = 800 mA	100000	100000	100000	100000	62000	70000
		I = 1000 mA	100000	100000	100000	100000	61000	69000
		I = 1200 mA	100000	100000	100000	100000	60000	68000
		I = 1400 mA	100000	100000	100000	100000	59000	66000
		I = 1600 mA	100000	100000	100000	100000	58000	66000
tc [°C] =	55	I = 600 mA	100000	100000	100000	100000	56000	64000
		I = 800 mA	100000	100000	100000	100000	56000	63000
		I = 1000 mA	100000	100000	100000	100000	54000	62000
		I = 1200 mA	100000	100000	100000	100000	54000	61000
		I = 1400 mA	100000	100000	100000	100000	53000	60000
		I = 1600 mA	100000	100000	100000	100000	52000	59000
tc [°C] =	65	I = 600 mA	100000	100000	100000	100000	51000	57000
		I = 800 mA	100000	100000	100000	100000	50000	57000
		I = 1000 mA	100000	100000	100000	100000	49000	55000
		I = 1200 mA	100000	100000	99000	100000	48000	55000
		I = 1400 mA	100000	100000	97000	100000	47000	54000
		I = 1600 mA	100000	100000	96000	100000	47000	53000
tc [°C] =	75	I = 600 mA	100000	100000	94000	100000	46000	52000
		I = 800 mA	100000	100000	93000	100000	45000	51000
		I = 1000 mA	100000	100000	91000	100000	44000	50000
		I = 1200 mA	100000	100000	91000	100000	44000	50000
		I = 1400 mA	100000	100000	89000	100000	43000	49000
		I = 1600 mA	100000	100000	88000	100000	43000	48000
tc [°C] =	85	I = 600 mA	100000	100000	86000	100000	41000	47000
		I = 800 mA	100000	100000	85000	99000	41000	46000
		I = 1000 mA	100000	100000	84000	97000	40000	46000
		I = 1200 mA	100000	100000	83000	97000	40000	45000
		I = 1400 mA	100000	100000	82000	95000	39000	44000
		I = 1600 mA	100000	100000	81000	94000	39000	44000

Additional product data

Lighting technology used	LED
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Certificates & application

Standards	UL Recognized
Environmental	RoHS/Reach
Type of protection	IP00
Overheating Protection	No
Dimming	Yes

Logistical Data

Product description	9-part number	EAN10	EAN40	Shipping Units per Box
LIN-4400-830-47.5in-1R	Tbd.	6942736279975	6942736279982	50
LIN-4400-835-47.5in-1R	9AM5434800O60-0000	6937186198563	6937186198754	50
LIN-4400-840-47.5in-1R	9AM5434900O60-0000	6937186198570	6937186198761	50
LIN-4400-850-47.5in-1R	9AM5435000O60-0000	6937186198587	6937186198778	50

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit

Safety Information:

- The LED module itself and all its components must not be mechanically stressed.

The modules are intended for operation with matching INVENTRONICS Drivers.

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the UL mark.

Also check for the mark of an independent authorized certification institute.

Please see the relevant brochure for more detailed information (see "Related and Further Information")

- Installation of LED modules (with power supplies) needs to be made regarding all applicable electrical and safety standards.
Only qualified personnel should be allowed to perform installations.
- Pay attention to standard ESD precautions when installing the module.
- Photobiological safety according to IEC/TR 62471, risk group RG 2 by nominal current
- Use the LED Modules on control-gear with max. voltage U-out < 60V.
- The LED Module can't be powered on outside the complete luminaire or without appropriate protection.

Sales and technical support:

INVENTRONICS

2825 S. Tulsa Avenue
Oklahoma City OK 73108
United States
www.inventronicsglobal.com

Sales and technical support are given by the local INVENTRONICS subsidiaries.

On our worldwide homepage all INVENTRONICS subsidiaries are listed with complete address and phone numbers.

Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.