



# **LBL-ST-2820**

## **Product Specification**

## LBL-ST-2820

LBL-ST-2820

Product Specification

<b>Model Name</b>	LBL-ST-2820
<b>Issue Date</b>	2016.11.07



Model Name	Dimension (mm)	CCT (K)	CRI	Ordering Code
LBL-ST-2820	280*20*1.0	3000	80	LST-2820-830
		3500	80	LST-2820-835
		4000	80	LST-2820-840
		5000	80	LST-2820-850
		3000	90	LST-2820-930
		3500	90	LST-2820-935
		4000	90	LST-2820-940

### ■ Feature

- ✓ Excellent flexibility for Linear application design
- ✓ Variation of color temperatures (3000K, 3500K, 4000K, 5000K)
- ✓ 5 years warranty
- ✓ CRI >90 available
- ✓ 3 SDCM binning
- ✓ Compliant with Zhaga Book 7
- ✓ Narrow width 20mm

### ■ Application

- ✓ Office lighting
- ✓ General Lighting
- ✓ Industry
- ✓ Retail

## Characteristic

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### ■ Optical Characteristics (Tc=55°C)

#### LST-2820-830

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	910	980		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		3000		K
Color Rendering Index <sup>(3)</sup>	80			-

#### LST-2820-835

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	910	1010		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		3500		K
Color Rendering Index <sup>(3)</sup>	80			-

#### LST-2820-840

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	980	1050		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		4000		K
Color Rendering Index <sup>(3)</sup>	80			-

#### LST-2820-850

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	980	1070		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		5000		K
Color Rendering Index <sup>(3)</sup>	80			-

### LST-2820-930

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	750	810		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		3000		K
Color Rendering Index <sup>(3)</sup>	90			-

### LST-2820-935

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	750	830		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		3500		K
Color Rendering Index <sup>(3)</sup>	90			-

### LST-2820-940

Parameter	Min.	Typical	Max.	Unit
Luminous Flux <sup>(1)</sup>	800	860		lm
Forward Current		350		mA
Color Temperature <sup>(2)</sup>		4000		K
Color Rendering Index <sup>(3)</sup>	90			-

Notes:

- (1) Measurement tolerance of luminous flux is  $\pm 7\%$ .
- (2) Correlated Color Temperature is derived from the CIE 1931 Chromaticity diagram.
- (3) Measurement tolerance of CRI is  $\pm 3$ .
- (4) Color consistency is 3 SDCM, measurement tolerance  $\pm 0.005$  on x,y.

### ■ Electrical Characteristics (Tc=55°C)

Parameter	Min	Typ	Max	Unit
Nominal Current		350		mA
Forward Voltage <sup>(1)</sup>	20.0	21.1	22.1	V

Notes:

(1) The forward voltage tolerance is  $\pm 3\%$ .

### ■ Max Rating

Parameter	Min	Typ	Max	Unit
Current I <sub>max</sub>			520	mA
Case Temperature T <sub>c</sub> max			85	°C

### ■ Thermal Characteristic (350mA, Tc=55°C)

Parameter	Min	Typ	Max	Unit
Thermal Resistance Junction to heat sink		2.5		°C/W
Thermal Resistance Junction to solder pad <sup>(1)</sup>		42		°C/W

Notes:

(1) The thermal resistance, junction to solder pad, is per LED

### ■ Lifetime

Parameter	Nominal	Life <sup>(1)</sup>	Max <sup>(2)</sup>
T <sub>c</sub> (°C)	55	80	85
Current (mA)	350	400	520

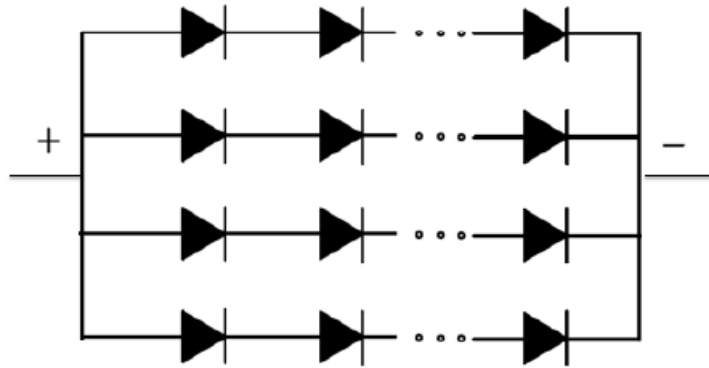
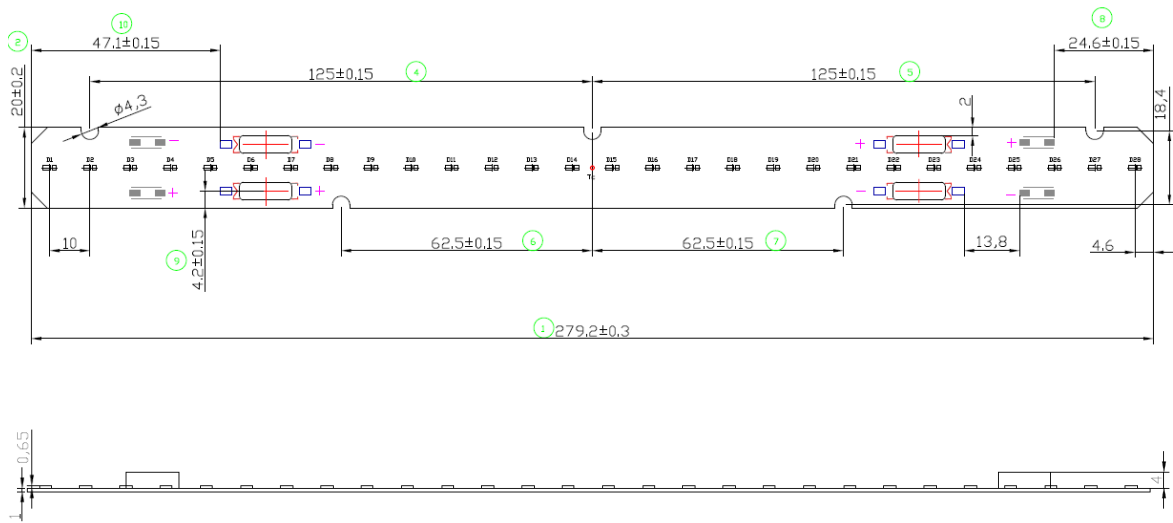
Notes:

(1) Value at which lifetime is specified. (max current for warranty)

(2) Maximum value for operation.

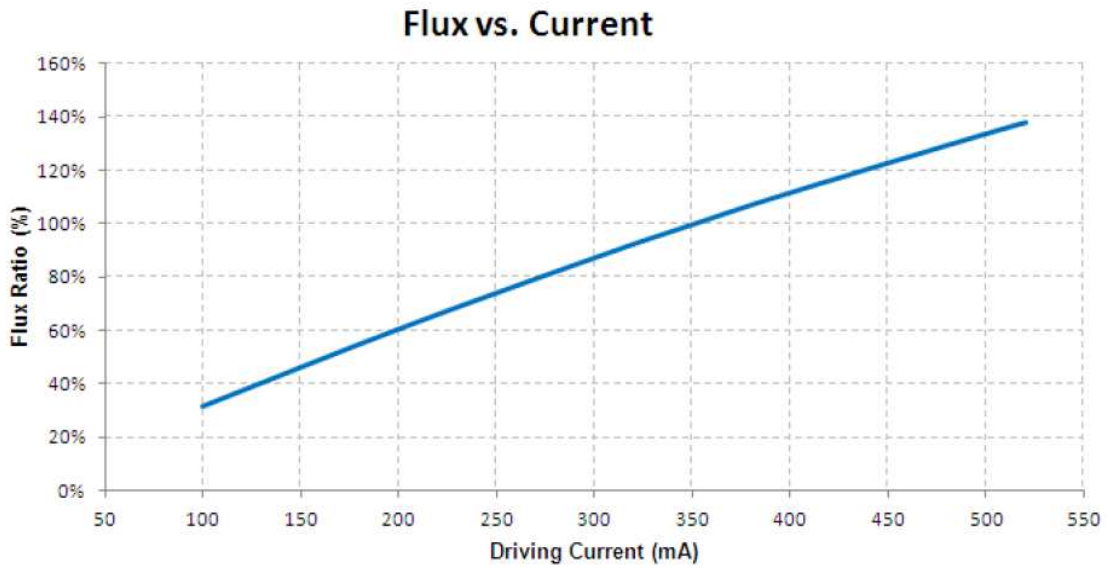
### ■ Mechanical Characteristic

Parameter	Min	Typ	Max	Unit
Length	278.90	279.20	279.50	mm
Width	19.80	20.00	20.20	mm
Height (Exclude Connector)	0.85	1.00	1.15	mm
Height (Include Connector)	4.65	5.00	5.35	mm

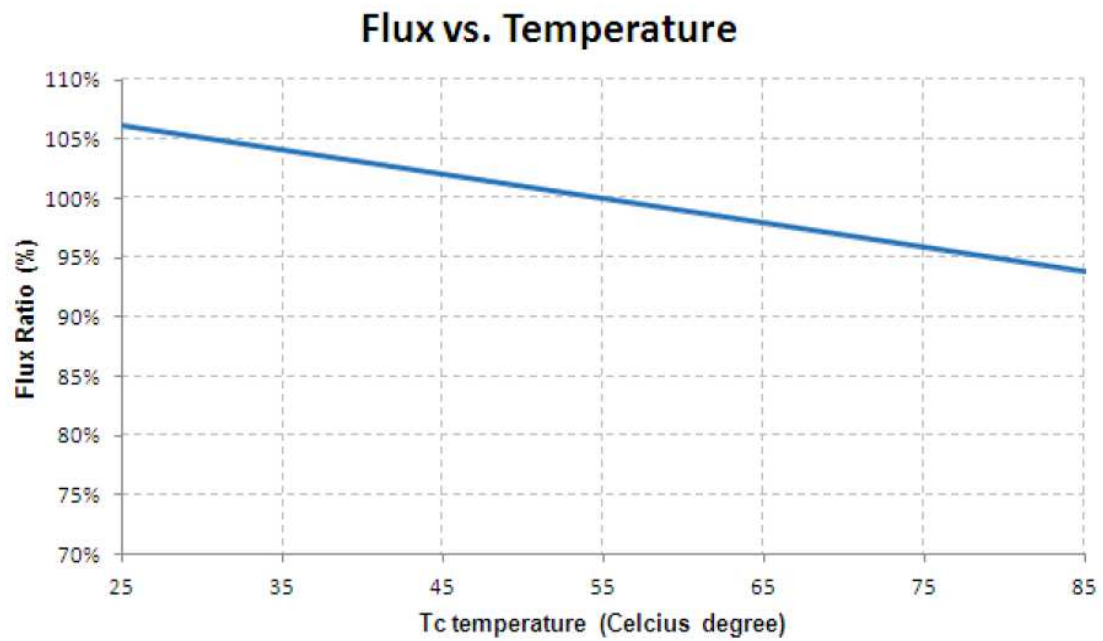


The electric circuit is 7 series 4 parallel.

■ Flux vs. Current



■ Flux vs. Temperature (Tc)



## Revision History

LBL-ST-2820

Product Specification

Date	Contents	Writer
2016.09.02	Product Specification version1	Jacqueline
2016.10.13	Product Specification version2	Jacqueline
2016.11.07	Voltage range revised	Jacqueline

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