



LBL-HE-2820

Product Specification

LBL-HE-2820

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Product Specification

Model Name	LBL-HE-2820
Issue Date	2016.11.07



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

LBL-HE-2820

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■ Optical Characteristics (Tc=55°C)

LHE-2820-830

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	1040	1150		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		3000		K
Color Rendering Index ⁽³⁾	80			-

LHE-2820-835

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	1090	1190		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		3500		K
Color Rendering Index ⁽³⁾	80			-

LHE-2820-840

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	1130	1220		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		4000		K
Color Rendering Index ⁽³⁾	80			-

LHE-2820-850

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	1160	1230		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		5000		K
Color Rendering Index ⁽³⁾	80			-

LHE-2820-930

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	850	950		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		3000		K
Color Rendering Index ⁽³⁾	90			-

LHE-2820-935

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	900	970		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		3500		K
Color Rendering Index ⁽³⁾	90			-

LHE-2820-940

Parameter	Min.	Typical	Max.	Unit
Luminous Flux ⁽¹⁾	930	1000		lm
Forward Current		350		mA
Color Temperature ⁽²⁾		4000		K
Color Rendering Index ⁽³⁾	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 ± 3 .
- (4) Color consistency is 3 SDCM, measurement tolerance ± 0.005 on x,y.

■ Electrical Characteristics (Tc=55°C)

Parameter	Min	Typ	Max	Unit
Nominal Current		350		mA
Forward Voltage ⁽¹⁾	18.5	19.5	20.5	V

Notes:

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

■ Max Rating

Parameter	Min	Typ	Max	Unit
Current I _{max}			700	mA
Case Temperature T _c max			85	°C

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

Parameter	Min	Typ	Max	Unit
Thermal Resistance Junction to heat sink		1.5		°C/W
Thermal Resistance Junction to solder pad ⁽¹⁾		17		°C/W

Notes:

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

■ Lifetime

Parameter	Nominal	Life ⁽¹⁾	Max ⁽²⁾
T _c (°C)	55	80	85
Current (mA)	350	600	700

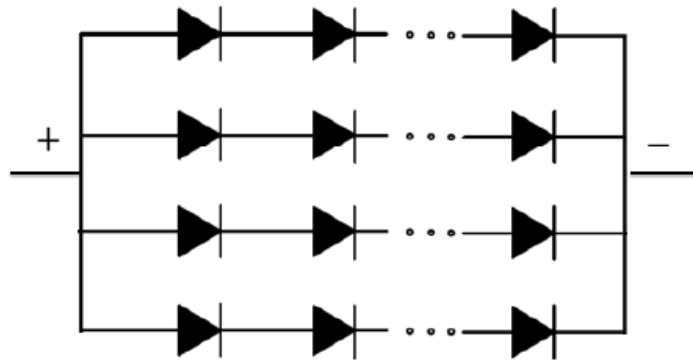
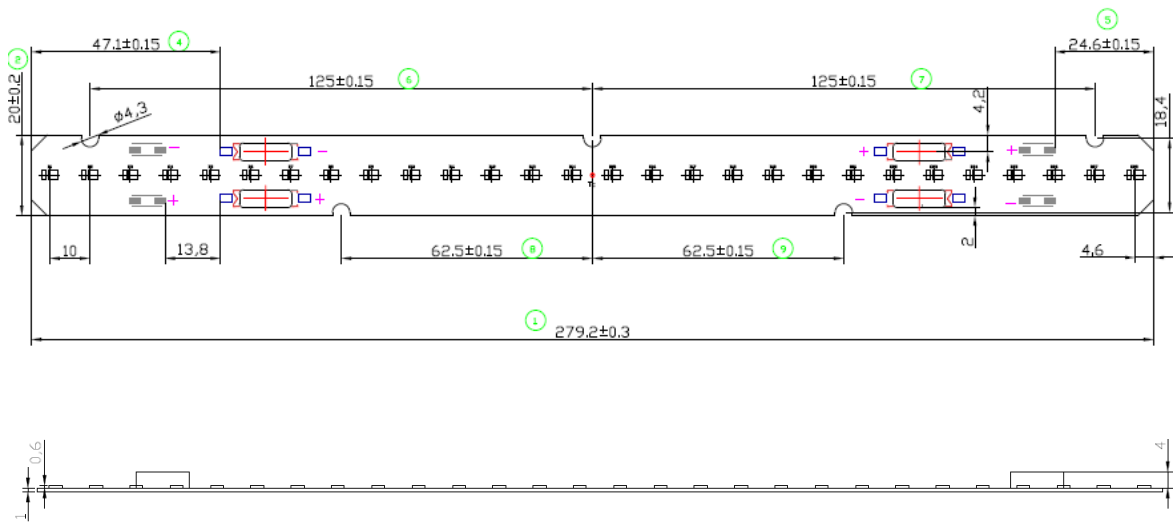
Notes:

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

(2) Maximum value for operation.

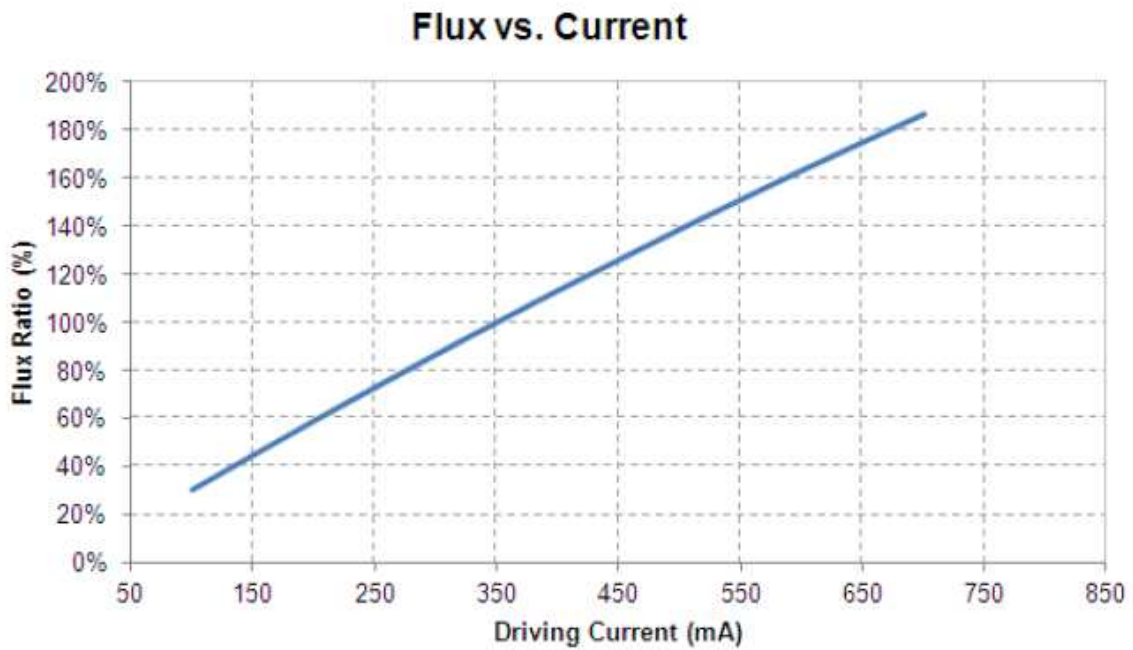
■ Mechanical Characteristic

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

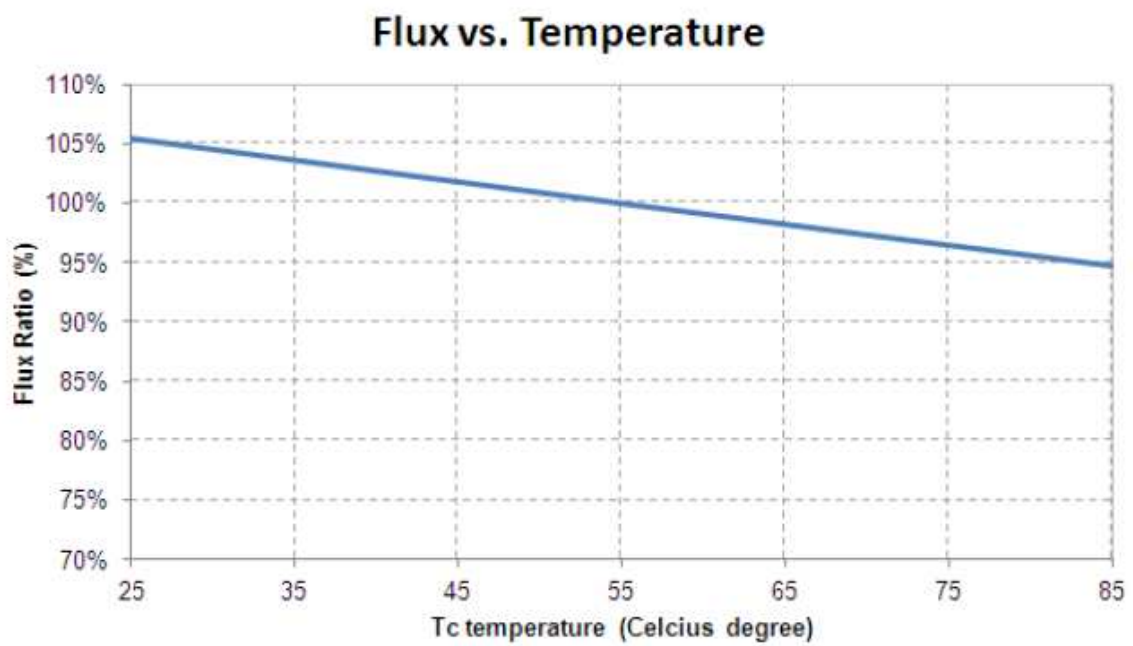


The electric circuit is 7 series 4 parallel.

■ Flux vs. Current



■ Flux vs. Temperature (Tc)



Revision History

LBL-HE-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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