

Field-Adjustable T8 LED Tube

T8-L48-G13MB-16HE-PC850A

This field-adjustable LED tube from ConNexTube® enables luminaire manufacturers or electrical contractors to upgrade linear fluorescent fixtures to LED lighting in a few minutes, either in the factory or field installation. And further, people can field-adjust the light levels of luminaires easily by using our patented ConnSet® technology. This versatility allows OEMs and distributors to meet orders faster and more confidently while reducing costs and inventory.



These LED tubes are designed to operate as part of ConNexTube Type-C lighting systems, which feature Dim-to-Off capability and 12V-always-On auxiliary power to provide lighting control and wireless connectivity for LED fixtures at the lower cost. That results in a simpler, less expensive but powerful LED fixture that can enable every fixture to become a wireless node. The resulting advantages enable Networked Lighting Control with greater installation flexibility, good scalability, and optimized labor installation cost, suitable for many applications but particularly hard-to-wire applications.

SPECIFICATIONS

General	
Lamp Size	T8 LED Tube
Lamp Length	4-Foot
Lamp Base	G13 (Medium Bi-Pin)
Lamp Material	Polycarbonate (PC)
UL Type	Type C

Electrical Technical	
System Lamp Power (Adj) ^{Note 1}	18W ~ 9W
System Input Voltage	120 ~ 347Vac
Power Factor	> 0.95
THD	< 10%
Dimming Range	100% ~ 1%

Light Technical	
Output Lumens (Adj.)	2700 lm ~ 1400 lm
Bare Lamp Efficacy ^{Note 2}	165 lm/W
CCT (Nom)	5000 K
CRI (Nom)	≥ 82
Beam Angle (Nom)	> 190°

Safety and Reliability	
Anti-arcing Protection	Yes
Anti-shock Protection	Yes
RoHS Compliant	Yes
Lamp Category	HE
TM-21 Reported L70	> 60,000 hrs

UL / cUL Listed	FCC Compliant	DLC Qualified
UL1993, UL1598C	FCC Part15 Class A Non-consumer	DLC 5.1

Note 1: System lamp power measured at system input, inclusive of Type C driver losses.

Note 2: Bare lamp efficacy measured at lamp input only, exclusive of Type C driver losses.

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Field Adjustable Light Output

LED Tube Model No.	LED Ballast Model No.	CONNSET® Model No.	Lamp Lumen (per lamp)	Number of Lamps	System Input Power	System Output Lumens	System Efficacy (lm/W)	Power Factor
T8-L48-G13MB-16HE-PC850A	6-Lamps Ballast: LB-WLD0-100-6P16	Default	2700 lm	6	106.8 W	16,200 lm	152 LPW	0.99
		CS1-823	2500 lm	6	98.7 W	15,000 lm	152 LPW	0.97
		CS1-303	2200 lm	6	85.7 W	13,200 lm	154 LPW	0.98
		CS1-203	2000 lm	6	78.4 W	12,000 lm	153 LPW	0.98
		CS1-153	1800 lm	6	70.6 W	10,800 lm	153 LPW	0.97
		CS1-133	1600 lm	6	63.2 W	9,600 lm	152 LPW	0.96
		CS1-912	1400 lm	6	55.2 W	8,400 lm	153 LPW	0.96
	4-Lamps Ballast: LB-WLD0-065-4P16	Default	2700 lm	4	71.6 W	10,800 lm	151 LPW	0.98
		CS1-473	2500 lm	4	65.6 W	10,000 lm	152 LPW	0.98
		CS1-333	2400 lm	4	62.0 W	9,600 lm	155 LPW	0.98
		CS1-223	2200 lm	4	56.4 W	8,800 lm	156 LPW	0.98
		CS1-183	2000 lm	4	51.3 W	8,000 lm	156 LPW	0.98
		CS1-133	1900 lm	4	48.7 W	7,600 lm	156 LPW	0.97
		CS1-103	1700 lm	4	43.9 W	6,800 lm	155 LPW	0.97
		CS1-822	1600 lm	4	42.4 W	6,400 lm	151 LPW	0.96
		CS1-622	1400 lm	4	38.4 W	5,600 lm	146 LPW	0.96
	3-Lamps Ballast: LB-WLD0-050-3P16	Default	2700 lm	3	53.4 W	8,100 lm	152 LPW	0.99
		CS1-823	2500 lm	3	49.7 W	7,500 lm	151 LPW	0.99
		CS1-303	2200 lm	3	43.1 W	6,600 lm	153 LPW	0.98
		CS1-203	2000 lm	3	39.2 W	6,000 lm	153 LPW	0.98
		CS1-153	1800 lm	3	35.3 W	5,400 lm	153 LPW	0.98
		CS1-133	1600 lm	3	31.6 W	4,800 lm	152 LPW	0.97
		CS1-912	1400 lm	3	27.6 W	4,200 lm	152 LPW	0.97

Notes: For the full configuration matrix, contact ConNexTube or your local representative.

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Field Adjustable Light Output

LED Tube Model No.	LED Ballast Model No.	CONNSET® Model No.	Lamp Lumen (per lamp)	Number of Lamps	System Input Power	System Output Lumens	System Efficacy (lm/W)	Power Factor
T8-L48-G13MB-16HE-PC850A	2-Lamps Ballast: LB-WLD0-035-2P16	Default	2700 lm	2	35.8 W	5,400 lm	151 LPW	0.98
		CS1-473	2500 lm	2	32.8 W	5,000 lm	152 LPW	0.98
		CS1-333	2400 lm	2	31.0 W	4,800 lm	155 LPW	0.98
		CS1-223	2200 lm	2	28.2 W	4,400 lm	156 LPW	0.98
		CS1-183	2000 lm	2	25.7 W	4,000 lm	156 LPW	0.97
		CS1-103	1700 lm	2	22.0 W	3,400 lm	155 LPW	0.97
		CS1-822	1600 lm	2	21.2 W	3,200 lm	151 LPW	0.96
		CS1-622	1400 lm	2	19.2 W	2,800 lm	146 LPW	0.95

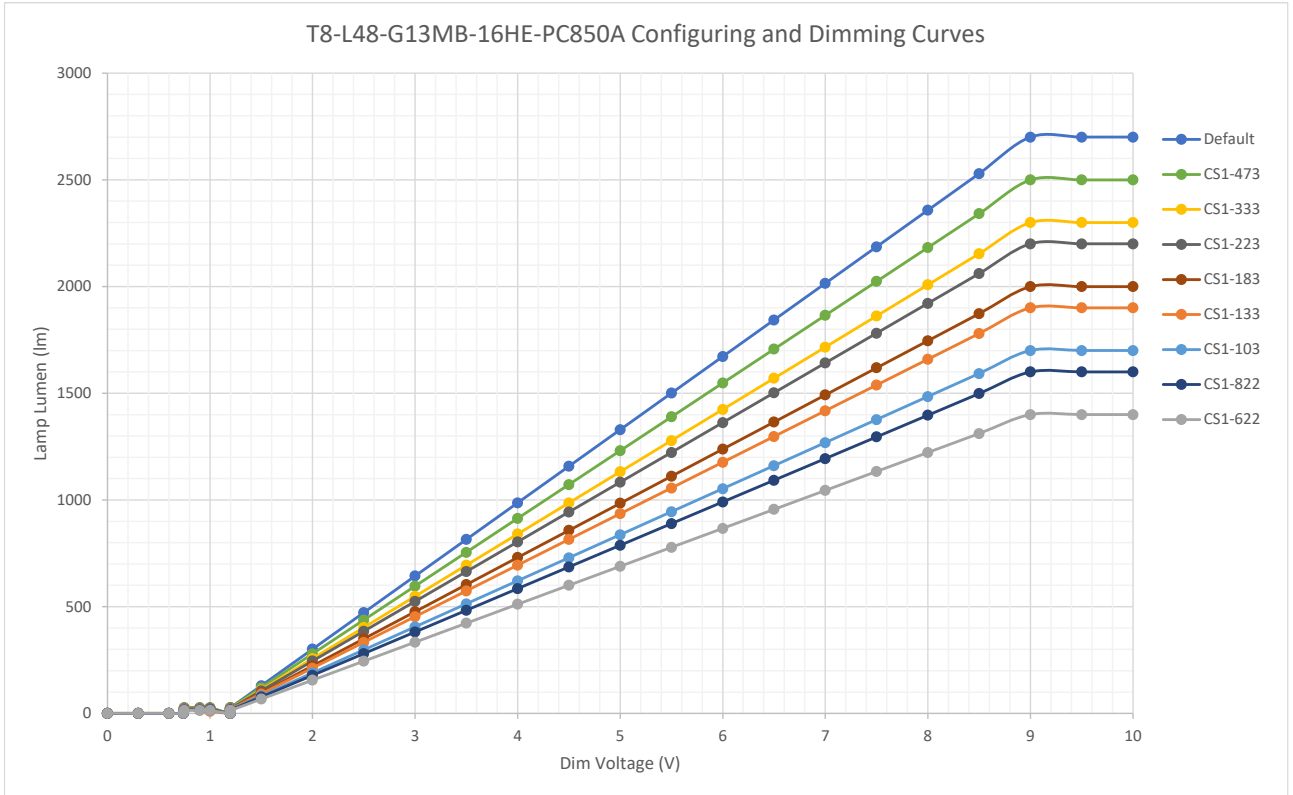
Notes: For the full configuration matrix, contact ConNexTube or your local representative.

De-lamping Performance

Ballasts	Num. of Lamp	System Output Lumens	System Input Power	#1 Lamp Lumen	#2 Lamp Lumen	#3 Lamp Lumen	#4 Lamp Lumen	#5 Lamp Lumen	#6 Lamp Lumen
6-lamps Ballast	6	16,200 lm	107 W	2700 lm	2700 lm	2700 lm	2700 lm	2700 lm	2700 lm
	5	13,500 lm	90 W	2700 lm	2700 lm	2700 lm	2700 lm	2700 lm	0
	4	10,800 lm	73 W	2700 lm	2700 lm	2700 lm	2700 lm	0	0
	3	8,100 lm	57 W	2700 lm	2700 lm	2700 lm	0	0	0
	2	5,400 lm	40 W	2700 lm	2700 lm	0	0	0	0
	1	2,700 lm	24 W	2700 lm	0	0	0	0	0
4-lamps Ballast	4	10,800 lm	72 W	2700 lm	2700 lm	2700 lm	2700 lm	NA	NA
	3	8,100 lm	55 W	2700 lm	2700 lm	2700 lm	0	NA	NA
	2	5,400 lm	39 W	2700 lm	2700 lm	0	0	NA	NA
	1	2,700 lm	23 W	2700 lm	0	0	0	NA	NA
3-lamps Ballast	3	8,100 lm	53 W	2700 lm	2700 lm	2700 lm	NA	NA	NA
	2	5,400 lm	38 W	2700 lm	2700 lm	0	NA	NA	NA
	1	2,700 lm	22 W	2700 lm	0	0	NA	NA	NA
2-lamps Ballast	2	5,400 lm	36 W	2700 lm	2700 lm	NA	NA	NA	NA
	1	2,700 lm	20 W	2700 lm	0	NA	NA	NA	NA

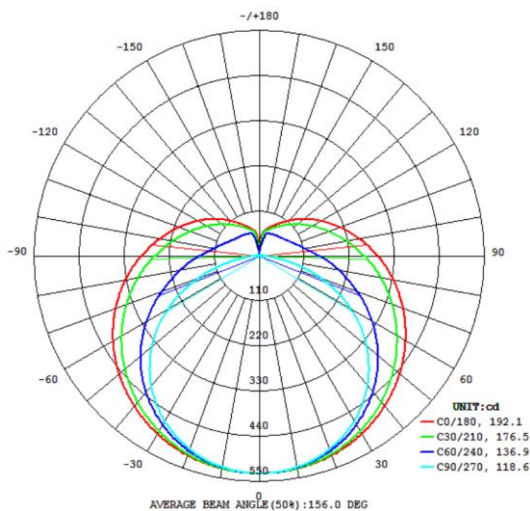
Notes: Intended for use within ConNexTube Type-C lighting systems.

Dimming Curves

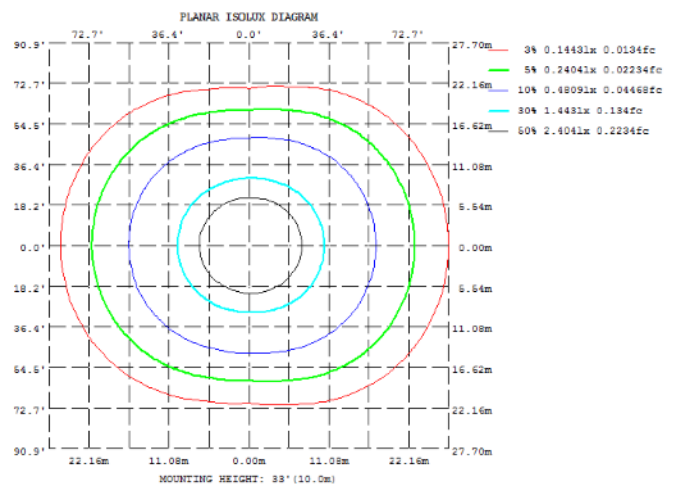


Notes: Curves shown under ConNexTube Type-C system configuration.

Zonal Lumen Distribution

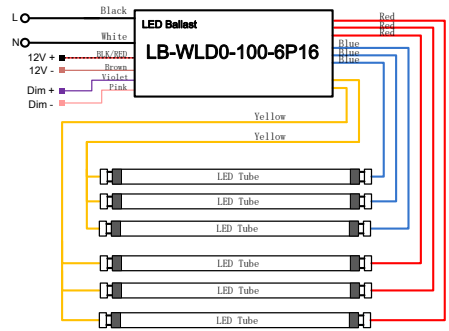
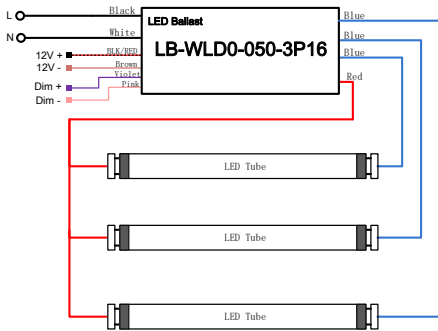
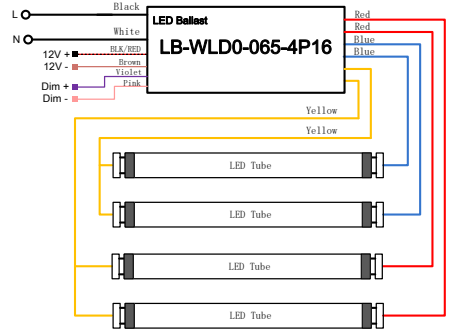
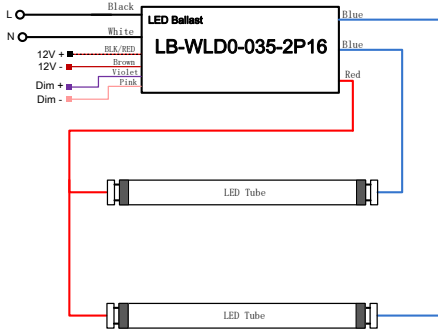


ISOLUX Plot



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Wiring Diagrams (Representative wiring diagrams for ConNexTube Type-C systems)



Notes: Disconnect power before installation.

Product Naming

T8 - L48 - G13MB - 16HE - PC850A

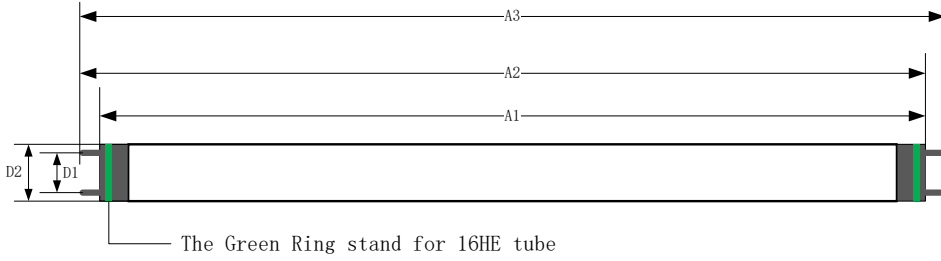
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Number	Meaning	Options
①	Lamp Size	T5 stands for T5 tube lamp; T8 stands for T8 tube lamp; T12 stands for T12 tube lamp
②	Lamp Length	L24 stands for 2Ft; L36 stands for 3Ft; L48 stands for 4Ft; L96 stands for 8Ft
③	Lamp Base	G5MNB stands for G5 Miniature Bi-Pin; G13MB stands for G13 Medium Bi-Pin; FA8SG stands for FA8 Single Pin; R17DC stands for Recessed Double Contact
④	Light Output	16HE stands for 16W High Efficiency; 26HO stands for 26W High Output
⑤	Tube Material	GL stands for Glass tube; PC stands for Polycarbonate (PC)
⑥	CRI	8 stands for CRI>80; 9 stands for CRI>90
⑦	CCT	35 stands for CCT 3500K; 40 stands for CCT 4000K; 50 stands for CCT 5000K
⑧	Product Version	Letter A, B, C stands for product version

Notes: 16HE / 26HO refers to the nominal bare lamp input power

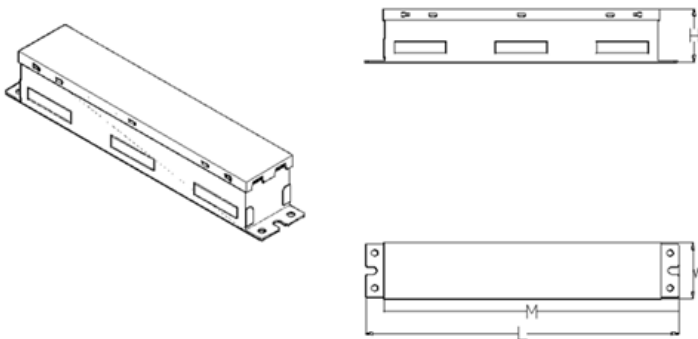
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LED Tube Profile and Installation Dimensions



Items	Dimension (mm)
A1	1198
A2	1205
A3	1212
D1	12.0
D2	25.4

External LED Ballast (Type C Driver) Mechanical Profile



Dimension	Unit (mm)	Unit (inch)
Length (L)	241.3	9.5
Width (W)	43.2	1.7
Height (H)	30.5	1.2
Mounting (M)	229.0	9.0

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Revision History

Change Date	Version	Description of Change		
		Item	From	To
2023-10-01	V1.0	Datasheet Release	/	/
2023-10-20	V2.0	Publish datasheets per CCT		
2024-04-12	V3.0	Add De-lamping data	/	De-lamping Data
2025-11-15	V3.1	Clarified bare-lamp vs system definitions; corrected formatting; no change to certified performance		



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