

Mod™ P-D-4400, S-D-4400
Pendant or Surface-Mounted Direct
P-D-44ST, S-D-44ST
Staggered Lamp Direct (see page 3)
P-D-44SL, S-D-44SL
Seamless Lamp Direct (see page 4)

CS™ Control Solutions available

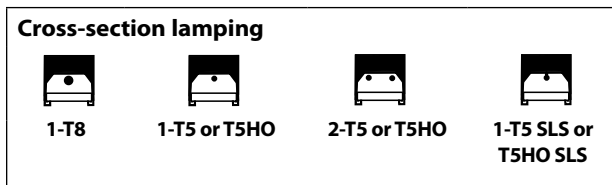
Product Description

Linear modular direct luminaire with a variety of lamp and shielding options. Available with seamless lamps and with staggered lamps to minimize socket shadows. UL Listed. This fixture is Cradle to Cradle Silver Certified™ by MBDC.

Ordering Guide

Product, lamping, & length						Options						
P -	D -	44	4	6	T5HO -	PBSS -	CWM -	LP/ELB -	TW -	2CWQ -	F -	120
Mounting P Pendant-mounted S Surface-mounted see notes	Distribution D Direct	Series 44	Lamp count 1 → 2 → 1, 2 → 2, 4 → see notes	Nominal length (ft) 2,3,4 → 6,8 → 2,3,4 → 6,8 →	Lamp type T8 T5 T5HO	Baffle or Diffuser BW PBSS SGL See Baffle and Diffuser Options	Finish CWM (matte white) is standard see Product Finishes	Ballast ELB10 is std. for T8 LP/ELB is std. for T5 or T5HO DA/MK7 DA/MK10 DL/ECO DO/HEL LPD/CS/e see Ballast Options	Tandem wiring -- → TW → see notes	Circuiting 1CWQ 2CWQ	Other options F LP/EF see Other Options	Volts 120 277
Mounting Options - add to end of catalog number Aircraft cables <input type="checkbox"/> FAI/ACC (field adjustable) <i>standard</i> Stems <input type="checkbox"/> P6S (stem) <input type="checkbox"/> SC/P6 (sloped ceiling) <input type="checkbox"/> EQ/P6 (earthquake)						notes: Lamp count = total number of lamps in the fixture Tandem wiring not available for one-lamp cross-section fixtures For ordering guide information in shaded areas, choose selection by reading ACROSS the shaded areas for correct specifications.						

P-D-4446T5HO-PBSS-CWM-LP/ELB-TW-2CWQ-F-120-FAI/ACC is a typical catalog number for a 4-lamp (2 lamps in cross-section), 6-foot long, high-output T5 fixture with semi-specular parabolic baffle, matte white finish, low-profile electronic ballast, tandem-wired, pre-wired with two-circuit branch wiring and quick-connects, fuse, 120 volts, mounted with field adjustable aircraft cables.



Baffle & Diffuser Options

BW Blade Baffle, White. 3/8" high x 1/2" OC, steel, regressed.
PBSS Parabolic Baffle, Semi-specular Aluminum. 1 13/32" high x 2" OC, anodized aluminum.
SGL Soft Glow Lens. Extruded, frosted acrylic, flush to bottom of fixture housing.

Ballast Options **CS_e**

Specify in place of **ELB10** or **LP/ELB**, contact factory for availability/compatibility with lamping:

DA/MK7 Advance Mark VII dimming ballast
DA/MK10 Advance Mark X dimming ballast
DL/ECO Lutron ECO-10 dimming ballast
DO/HEL OSRAM SYLVANIA dimming ballast

To have the fixture enabled for Lutron EcoSystem compatibility:

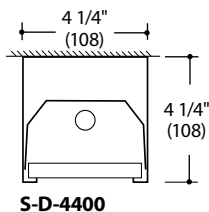
LPD/CS/e EcoSystem low-profile dimming electronic ballasts installed at the factory, along with all required internal EcoSystem wiring. For other configurations of the Lutron EcoSystem components, including custom device connection feeds to enable connection to ceiling-mounted sensors and control devices, consult litecontrol.com/cs or contact the factory.

Tandem Wiring & Circuiting Options

1CWQ Fixture is wired with a single-circuit so that all lamps are switched together.
TW-2CWQ Fixtures wired with two circuits. 2-lamp in cross section fixtures, the fixture is wired such that the inline lamps are switched separately.

Other Options

F Fuse. Slow or fast blow, determined by Litecontrol.
LP/EF Low-profile Emergency Fluorescent Ballast. Battery-powered ballast from a UL Listed manufacturer will operate one lamp for 1 1/2 hours.



Questions to Ask

1. Row information, including desired fixture lengths?
2. Lamp type?
3. Diffuser type?
4. White or special finish?
5. Ballast options?
6. Control solutions?
7. Tandem wiring?
8. Other options?
9. 120 or 277 volt?

Quick Find 44d

litecontrol.com

Specifications

HOUSING. Die-formed and welded steel, with 3/8" regression at housing bottom for rigidity and appearance, furnished with 6" long, steel splines for precise alignment at each joint. End headers have clearance holes for easy row installation and are notched under lamps for more even diffuser luminance and continuous baffle appearance.

END CAPS. Steel, 14-gauge, with no holes or knockouts, finished to match housing. Two fasteners on each end cap allow tight attachment to ends of individual fixtures and ends of rows.

REFLECTOR. Die-formed steel with high-reflectance white finish.

LAMPING. Available in one-lamp T8, T5 SLS, T5HO SLS and one- or two-lamp T5 or T5HO in cross-section. Easy baffle removal to access/replace lamps without tools. Staggered lamping available see page 3 for details.

BALLAST. Electronic Ballast (**ELB10** - for T8 lamping) or Low-profile Electronic Ballast (**LP/ELB** - for T5 or T5HO lamping) high power factor, thermally protected Class P, Sound Rated A, less than 10% THD, manufactured by a UL Listed manufacturer, as available, determined by Litecontrol. Ballasts with a voltage range of 120 to 277 will be used when fixture configuration and ballast availability allow. The minimum number of ballasts will be used.


TANDEM WIRING. When selected from Ordering Guide below, fixtures wired to switch in-line lamps separately, providing two (two-lamp cross-section fixtures only) levels of light.

BALLAST DISCONNECT. Fixture supplied with a ballast disconnect device to enable compliance with the NEC.

CIRCUITING. Fixtures are supplied with #12 AWG type THHN wire for branch circuits. One end will have factory-installed push-in quick-connects. The other end will be stripped back 1/2" for quick connection in field. For fixtures with special circuits such as night light and emergency, in-field wiring may be required. See Pre-wiring information in the Litecontrol Product Guide for details.

SYSTEM CONNECTORS. Corners, tees, and crosses available. Die-formed steel. Bottom and exposed sides to be smooth with no exposed fasteners or knockouts. Each system connector shall have a rigid cross-member with a .687" diameter stem hole at center to accept any of Litecontrol's pendant assemblies.

SUSPENSION. Fixture may be either surface-mounted or pendant-mounted using Litecontrol's standard suspension system.

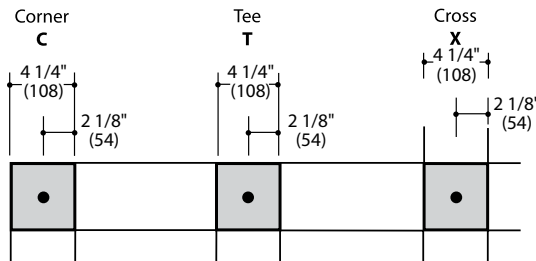
CERTIFICATION. Fixture and electrical components shall be UL and/or CUL Listed and shall bear the I.B.E.W., A.F. of L. label.  This fixture is Cradle to Cradle Certified™ Silver by MBDC. Note: Litecontrol reserves the right to change specifications without notice for product development and improvement.

System connectors

Catalog Number

Series	Connector	Finish
P-D, S-D-4400	C	
P-D, S-D-4400	T	
P-D, S-D-4400	X	

P-D-4400-C-CWM is a typical catalog number for a 90° corner connector finished Matte White.



Planning for installation

Suspension Assemblies

Provided with P6S (5/8" dia., 3/8" NPT) stems, or 3/32" diameter field adjustable aircraft cables (**FAI/ACC**) in 51" lengths (4' nominal). Stems with 0-45° swivel joints are available. Longer length aircraft cables of 87" and 219" are available upon request. See Stems & Aircraft Cables sheets for further details.

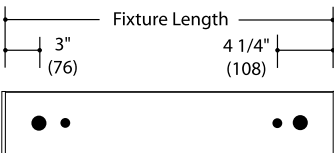
Stem Lengths

P6S stems are available in eight standard lengths from 6" to 36" (nominal). The actual ceiling-to-top-of-fixture dimensions for each of the standard lengths are: 6", 9", 12", 15", 18", 24", 28", and 36". Refer to Standard Length Stem Assemblies sheet for dimensional information on sloped ceiling (**SC/P6**) and earthquake (**EQ/P6**) stem assemblies.

Suspension mounting locations

Pendant locations at ends of rows (or individual fixtures) are 3" from fixture end. Pendant locations at in-row joints are 3" from the joint. All pendant types (cable or stem) attach to universal flat strap for mounting either at a fixture end or across two fixtures at a row joint. Strap attachment allows for horizontal adjustment to "fine-tune" side-to-side leveling.

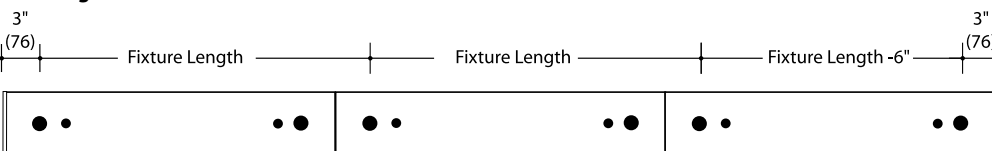
Individual Fixture



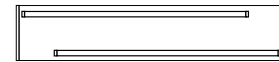
Fixture Lengths: 2', 3', 4', 6', and 8'

- 7/8" diameter knockout for pendant locations
- 5/8" diameter knockout electrical feed

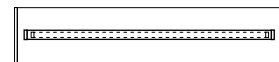
Row Diagram



Lamp Position



Lamp position for two-lamp T5, T5HO cross-section only. This lamp positioning applies to individual fixtures. Please see page 3 for ordering staggered lamp configurations in continuous rows.



Lamp position for one-lamp T8, T5, T5HO cross-sections. Dotted line shows T5 and T5HO positions.

LITECONTROL

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Staggered Lamp 44ST Description

Staggered lamping options on our Mod fixtures help to minimize the dark areas commonly associated with lamp sockets and the ends of lamps. With our staggered lamp Mods, we use 3' and 4' lamps to achieve the row length you request; we avoid using 2' lamps if possible to minimize differences in lamp brightness and color appearance. The overlap of the lamps at the stagger is nominally 4". We vary this overlap from 3.5" to 6" to satisfy on-module row length requirements if necessary. Staggered lamping is available with any of our standard baffle and diffuser options. UL Listed. This fixture is Cradle to Cradle Silver Certified™ by MBDC.

Preliminary

Staggered Lamp Ordering Guide

Product, lamping, & length						Options					
P -	D -	44ST	2	T5 -	24 -	PBSS -	CWM -	LP/ELB -	1CWQ -	F -	120
Mounting P Pendant-mounted S Surface-mounted	Distribution D Direct	Series 44ST	Lamps in cross-section 1,2 → see notes	Lamp Type T8 T5HO T5	Row Length (enter row length in feet)	Baffle or Diffuser BW* PBSS* SGL see Baffle and Diffuser Options	Finish CWM (matte white) is standard see Product Finishes	Ballast ELB10 is std. for T8 LP/ELB is std. for T5 or T5HO DA/MK7 DA/MK10 DL/ECO DO/HEL LPD/CS/e see Ballast Options	Circuiting 1CWQ	Other options F LP/EF see Other Options	Volts 120 277
Mounting Options - add to end of catalog number Aircraft cables <input type="checkbox"/> FAI/ACC (field adjustable) standard Stems <input type="checkbox"/> P6S (stem) <input type="checkbox"/> SC/P6 (sloped ceiling) <input type="checkbox"/> EQ/P6 (earthquake)						notes: Lamps=number lamps in cross-section. For ordering guide information in shaded areas, choose selection by reading ACROSS the shaded areas for correct specifications. *Not available with 2-lamp T8					

P-D-44ST2T5-24-PBSS-CWM-LP/ELB-TW-2CWQ-F-120-FAI/ACC is a typical catalog number for a 2-lamp (2 lamps in cross-section), 24-foot long row, T5 staggered lamp fixture with semi-specular parabolic baffle, matte white finish, low-profile electronic ballast, tandem-wired, pre-wired with two-circuit branch wiring and quick-connects, fuse, 120 volts, mounted with field adjustable aircraft cables.

Refer to page 1 for full details on ordering options.

Staggered Lamp Ordering Procedure

1. Complete a product ordering code for each unique row length using the Ordering Guide above.
2. Submit your application drawings to us showing row lengths (optional but it really helps!).
3. We return our layout drawings to you indicating the lamp lengths used, the actual lamp overlaps at the staggered sockets, and the number of ballasts used, including emergency.
4. You approve our layout as submitted or request revisions; we work with you until you approve the submitted layouts.
5. Once an approved submittal is returned, we manufacture and ship your order.



Seamless Lamp 44SL Description

The seamless T5 lamp (SLS) from OSRAM SYLVANIA provides for a clean, continuous line of light that is not broken by the dark areas associated with lamp sockets. To ensure that the brightness of the lens remains uniform throughout the fixture, we vary the length of the fixtures to match the lamping, so that dark areas at the ends of the fixtures are also minimized. UL Listed. This fixture is Cradle to Cradle Silver Certified™ by MBDC.

Preliminary

Seamless Lamp Ordering Guide

Product, lamping, & length						Options						
P -	D -	44SL	2	4 -	T5 SLS -	SGL -	CWM -	LP/ELB -	--	1CWQ -	F -	120
Mounting P Pendant-mounted S Surface-mounted	Distribution D Direct	Series 44SL	Lamp Count 1,2 → 2,4 → see notes	Nominal Length (ft) 2,3,4 6,8 see Actual Fixture Lengths	Lamp Type T5 SLS* T5HO SLS see Lamp Type	Diffuser SGL	Finish CWM (matte white) is standard see Product Finishes	Ballast LP/ELB is std. for T5 or T5HO	Tandem wiring -- → TW → see notes	Circuiting 1CWQ 2CWQ	Other options F LP/EF see Other Options	Volts 120 277
Mounting Options - add to end of catalog number Aircraft cables <input type="checkbox"/> FAI/ACC (field adjustable) standard Stems <input type="checkbox"/> P6S (stem) <input type="checkbox"/> SC/P6 (sloped ceiling) <input type="checkbox"/> EQ/P6 (earthquake)						notes: Lamp count = total number of lamps in the fixture Tandem wiring not available for one-lamp cross-section fixtures For ordering guide information in shaded areas, choose selection by reading ACROSS the shaded areas for correct specifications.						

P-D-44SL24T5SLS-SGL-CWM-LP/ELB-1CWQ-F-120-FAI/ACC is a typical catalog number for a 2-lamp (2 lamps in cross-section), 4-foot long, T5 seamless lamp fixture with soft glow lens, matte white finish, low-profile electronic ballast, pre-wired with one-circuit branch wiring and quick-connects, fuse, 120 volts, mounted with field adjustable aircraft cables.

Refer to page 1 for full details on ordering options.

* Note: The standard output SLS lamp is not available until September 2011.

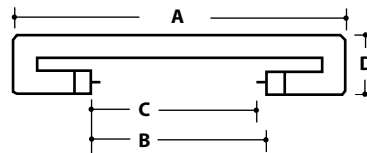
Nominal Lengths	Actual Fixture Lengths (inches)				
	2	3	4	6	8
T5 SLS/ T5HO SLS	23.125 (587mm)	34.94 (887mm)	46.75 (1187mm)	69.875 (1775mm)	93.5 (2375mm)

Lamp Type

T5 SLS T5 fluorescent lamp, standard output, seamless lamp design.
T5HO SLS T5 fluorescent lamp, high output, seamless lamp design.



Photo courtesy OSRAM SYLVANIA Inc. and Paul Kevin Picone/PIC Corp



Lamp Wattage	A Max. (mm)	B Max. (mm)	C Max. (mm)	D Diameter Max. (mm)
28W and 54W	1182	1083	1075	38
21W and 39W	882	781	775	38
14W and 24W	582	481	475	38

Photometric data T8

1-T8 PBSS		CANDLEPOWER SUMMARY						P-D-4414T8-PBSS 39.6% Efficiency Litecontrol Certified Test Report #11042004														ZONAL LUMEN SUMMARY								
		ANGLE	0	22.5	45	67.5	90	OUTPUT LUMENS	RCC	80			70			50			30			10			0	ZONE	LUMENS	% LAMP	% LUMINAIRE	
		RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	180-90°	90-0°	180-0°				
		90	4	5	2	4	5		0	.47	.47	.47	.47	.46	.46	.46	.46	.44	.44	.44	.42	.42	.42	.40	.40	.40	.40	0	.00	.00
		85	5	5	5	5	4	5	1	.45	.43	.42	.41	.44	.43	.42	.41	.41	.40	.39	.39	.39	.38	.38	.37	.37	.36	1148	39.59	100.00
		80	4	2	2	5	5	4	2	.42	.40	.38	.36	.41	.39	.37	.36	.38	.36	.35	.37	.35	.34	.35	.35	.34	.33	1148	39.59	100.00
		75	2	4	4	2	5	4	3	.39	.36	.34	.32	.39	.36	.34	.32	.35	.33	.32	.34	.32	.31	.33	.32	.31				
		70	5	4	6	5	2	21	4	.37	.33	.31	.29	.36	.33	.31	.29	.32	.30	.28	.31	.29	.28	.30	.29	.28				
		65	7	5	4	20	29	21	5	.34	.31	.28	.26	.34	.30	.28	.26	.29	.27	.25	.29	.27	.25	.28	.26	.25				
		60	20	20	40	85	131		6	.32	.28	.25	.23	.32	.28	.25	.23	.27	.25	.23	.26	.24	.23	.26	.24	.23				
		55	78	74	106	159	195	109	7	.30	.26	.23	.21	.29	.25	.23	.21	.25	.22	.21	.24	.22	.20	.24	.22	.20				
		50	184	174	175	209	238		8	.28	.23	.21	.19	.27	.23	.20	.19	.23	.20	.18	.22	.20	.18	.22	.20	.18				
		45	308	297	243	245	252	207	9	.26	.21	.18	.16	.25	.21	.18	.16	.21	.18	.16	.20	.18	.16	.20	.18	.16				
		40	414	414	331	282	271		10	.24	.19	.17	.15	.24	.19	.17	.15	.19	.16	.15	.19	.16	.15	.18	.16	.15				
		35	496	500	442	369	336	272		Floor Cavity Reflectance .20																				
		30	555	558	540	486	454																							
		25	602	603	617	594	563	275																						
		20	641	642	657	663	652																							
		15	669	663	672	692	692	192																						
		10	689	681	691	696	696																							
		5	700	696	696	697	696	67																						
		0	699	699	699	699	699																							