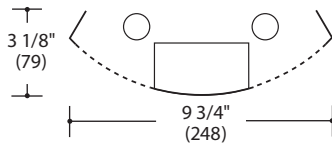




Type:
Project:

SAE Systems™
P-S/I-9800
Pendant-Mounted Semi-Indirect

Specifications



HOUSING. Die-formed and welded steel, with a series of slots 1/8" wide along length of fixture housing with white acrylic diffusing panels retained behind.

END CAPS. End caps are 14-gauge steel with no holes or knockouts, finished to match housing. Two fasteners on each end cap allow tight attachment to ends of fixtures without removing reflector. End caps are required at each end of row and on both ends of an individual fixture.

REFLECTOR. Die-formed steel with high-reflectance white finish is standard. A high-performance, die-formed specular aluminum reflector (**HPR**) is available as an option.

BALLAST. Electronic Ballast (**ELB**), 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.

LAMPING. Available in two-, three-, and four-lamp T8 cross-sections. In three-lamp configuration, center lamp is diagonally positioned along length to clear suspension hardware at fixture ends, and to provide symmetrical light distribution.

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

PRE-WIRING. 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 to accommodate special circuits such as night light and emergency, etc., in-field wiring will be required. See Pre-wiring Information for details.

SUSPENSION. Aircraft cable or rigid stem pendants attach to fixture using Litecontrol's easy-hang system, with one attachment plate for use at any support point. Mounting points in rows are "on module" at 48", 96", and 144" spacings. See Planning for Installation for details.

ROW JOINING. Litecontrol's at-joint flat strap supporting two fixtures allows simple fixture joining and installation. Support points are centered above the midpoint of joint "on seam" for aligned, symmetrical appearance. Fixture end headers are threaded in two locations to allow easy row joining without removing reflectors. Standard suspension provided is field adjustable aircraft cable (**FAI/ACC**) with a 51" length cable. See Aircraft Cables and Stems for details.

SYSTEM CONNECTORS. Corners, tees, and crosses available. Die-formed 20-gauge steel, same profile as the housing, smooth (without slots) 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.

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.

Note: Litecontrol reserves the right to change specifications without notice for product development and improvement.

Ordering guide

Product, lamping, & length					Options						
P -	S/I -	98	2	4	T8 -	TCWM -	TW -	ELB -	2CWQ -	EF -	120
Mounting	Distribution	Series	Lamp Count	Nominal Length (ft)	Lamp Type	Finish	Tandem Wiring	Ballast	Pre-Wiring	Other options	Volts
P Pendant-Mounted	S/I Semi-Indirect	98	2, 3, 4 → 4, 6, 8 → 6, 9, 12 →	4 8 12	T8	TCWM (Textured Matte White) is standard see LiteColors™ in Product Guide for other finishes	-- → TW → see notes	ELB is standard DA/ELB HEL/ELB ECO/ELB see Ballast Options	1CWQ 2CWQ	EF F HPR see Other options	120 277
Mounting Options - add to end of order number Aircraft Cables <input type="checkbox"/> FAI/ACC (field adjustable) <i>standard</i> <input type="checkbox"/> ACC (fixed) Stems <input type="checkbox"/> P6S (stem) <input type="checkbox"/> SC/P6 (sloped ceiling)			see notes								
Cross-section lamping 					P-S/I-9824T8-TCWM-TW-ELB-2CWQ-EF-120-FAI/ACC is a typical catalog number for a 2-lamp (2 lamps in cross-section), 4-foot long T8 fixture with slotted housing, Textured Matte White finish, tandem-wired electronic ballast, pre-wired with two-circuit branch wiring and quick-connects, emergency fluorescent ballast, 120 volts, mounted with field adjustable aircraft cables.						

Questions to Ask

1. 120 or 277 volt?
2. Row information, including desired fixture lengths?
3. White, LiteColor, or special color?
4. Tandem wiring?
5. Cables or stems, what length?
6. Other options?

Ballast options

Specify in place of **ELB**, contact factory for availability/compatibility with lampping:

- DA/ELB** Advance Mark VII Dimming Ballast.
HEL/ELB Osram Sylvania Dimming Ballast.
ECO/ELB Lutron ECO-10 Dimming Ballast.

Other options

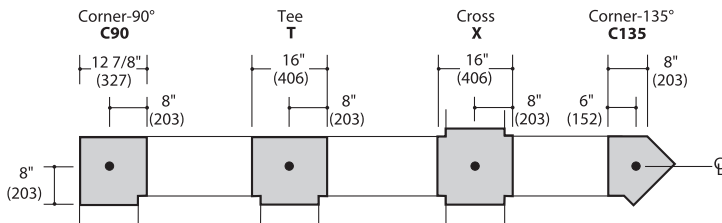
- EF** Emergency Fluorescent Ballast. Battery-powered ballast from a UL Listed manufacturer will operate one T8 lamp for 1 1/2 hours.
F Fuse. Slow or fast blow, determined by Litecontrol.
HPR High Performance Reflector. Die-formed, specular anodized aluminum.

System connectors

Catalog Number

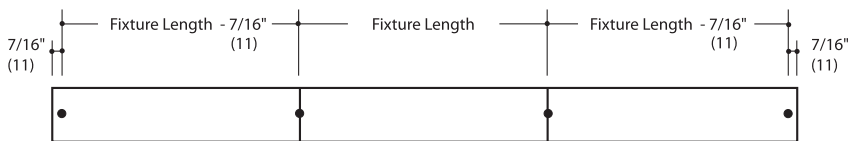
Series	Connector	Finish
P-I-9800	C90	
P-I-9800	C135	
P-I-9800	T	
P-I-9800	X	

P-I-9800-C90-TCWM is a typical catalog number for a 90° corner connector finished Textured Matte White.



Planning for installation

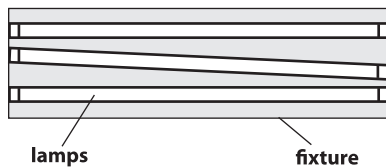
Row diagram



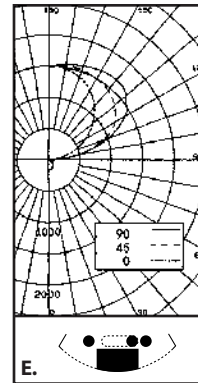
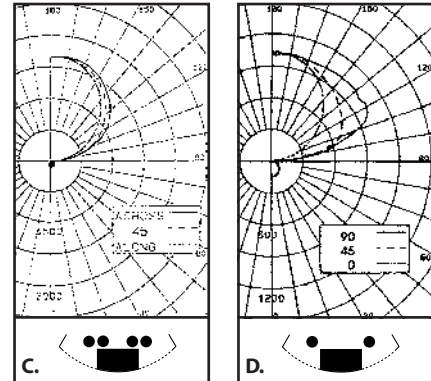
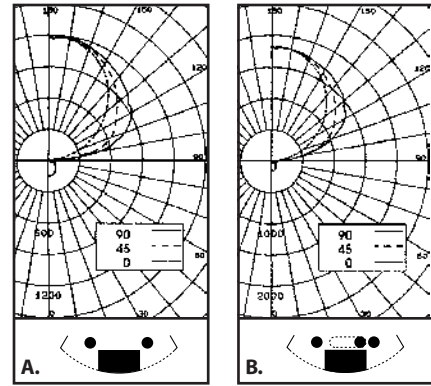
Fixture Lengths: 4', 8', 12'
 • Indicates pendant locations

Top view: 3-lamp T8 position

Center lamp is inserted *diagonally* on 3-lamp T8 fixtures only



Photometric data



A. P-S/I-9824T8 85.7% Efficiency
 Litecontrol Certified Test Report # 25821001

B. P-S/I-9834T8 81.8% Efficiency
 Litecontrol Certified Test Report # 25831001

C. P-S/I-9844T8 74.7% Efficiency
 Litecontrol Certified Test Report # 25841000

D. P-S/I-9824T8-HPR 82.0% Efficiency
 Litecontrol Certified Test Report # 25821000

E. P-S/I-9834T8-HPR 78.6% Efficiency
 Litecontrol Certified Test Report # 25831000

For complete photometric information, see website.

Click on Quick Find 98s



litecontrol.com

LITECONTROL ... an employee owned company

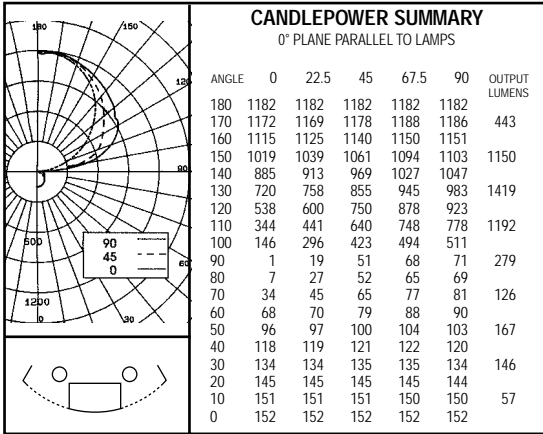
100 Hawks Avenue Hanson MA 02341 781 294 0100

FAX 781 293 2849

info@litecontrol.com

litecontrol.com

PHOTOMETRIC DATA: STANDARD REFLECTOR



P-S/I-9824T8 85.7 % Efficiency
Litecontrol Certified Test Report # 25821001

RCC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RW																					
0	.84	.84	.84	.84	.73	.73	.73	.73	.53	.53	.53	.34	.34	.34	.17	.17	.17	.09			
1	.76	.73	.69	.66	.66	.63	.61	.57	.46	.44	.43	.30	.29	.28	.15	.14	.14	.07			
2	.69	.63	.58	.54	.60	.55	.51	.47	.40	.37	.35	.26	.24	.23	.13	.12	.12	.06			
3	.63	.55	.50	.45	.55	.48	.43	.40	.35	.32	.29	.23	.21	.19	.11	.11	.10	.05			
4	.57	.49	.42	.38	.50	.43	.37	.33	.31	.27	.25	.20	.18	.16	.10	.09	.08	.04			
5	.52	.42	.37	.32	.45	.38	.32	.28	.27	.24	.21	.18	.16	.14	.09	.08	.07	.04			
6	.48	.38	.32	.27	.42	.34	.28	.24	.25	.21	.18	.16	.14	.12	.08	.07	.06	.03			
7	.44	.34	.28	.23	.38	.30	.25	.21	.22	.18	.16	.14	.12	.10	.07	.06	.05	.03			
8	.41	.31	.25	.20	.35	.27	.22	.18	.20	.16	.13	.13	.11	.09	.07	.05	.05	.02			
9	.38	.28	.22	.18	.33	.24	.19	.16	.18	.14	.12	.12	.10	.08	.06	.05	.04	.02			
10	.35	.25	.19	.16	.30	.22	.17	.14	.16	.13	.10	.11	.08	.07	.05	.04	.04	.02			

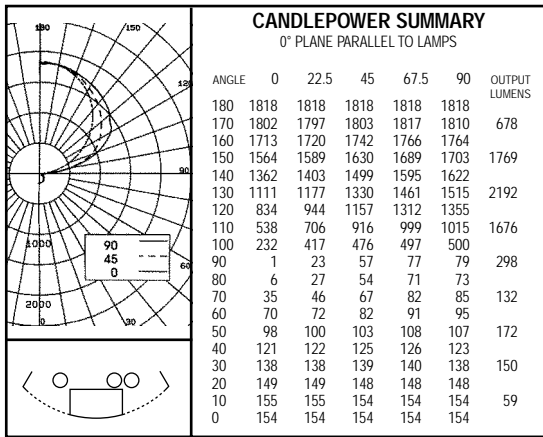
Floor Cavity Reflectance 20

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	4433	76.44	89.19
90-0°	537	9.27	10.81
180-0°	4971	85.71	100.00

LUMINANCE SUMMARY (fL)

ANGLE	0°	45°	90°
45°	169	156	151
55°	160	148	148
65°	134	149	166
75°	73	172	198
85°	25	232	266



P-S/I-9834T8 81.8 % Efficiency
Litecontrol Certified Test Report # 25831001

RCC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RW																					
0	.79	.79	.79	.79	.69	.69	.69	.69	.49	.49	.49	.31	.31	.31	.14	.14	.14	.06			
1	.72	.69	.66	.63	.62	.60	.57	.54	.43	.41	.40	.27	.26	.25	.12	.12	.12	.05			
2	.65	.60	.55	.51	.57	.52	.48	.45	.37	.35	.32	.23	.22	.21	.11	.10	.10	.04			
3	.60	.53	.47	.43	.52	.46	.41	.37	.33	.30	.27	.21	.19	.18	.09	.09	.08	.03			
4	.54	.46	.40	.36	.47	.40	.35	.31	.29	.26	.23	.18	.16	.15	.08	.08	.07	.03			
5	.50	.40	.35	.30	.43	.36	.30	.27	.26	.22	.19	.16	.14	.13	.07	.07	.06	.02			
6	.46	.36	.30	.26	.39	.32	.26	.23	.23	.19	.17	.14	.12	.11	.07	.06	.05	.02			
7	.42	.33	.26	.22	.36	.28	.23	.20	.20	.17	.14	.13	.11	.09	.06	.05	.04	.02			
8	.39	.29	.23	.19	.33	.25	.20	.17	.18	.15	.13	.12	.10	.08	.05	.04	.04	.02			
9	.36	.26	.21	.17	.31	.23	.18	.15	.17	.13	.11	.11	.09	.07	.05	.04	.03	.01			
10	.33	.24	.18	.15	.29	.21	.16	.13	.15	.12	.10	.10	.08	.06	.04	.04	.03	.01			

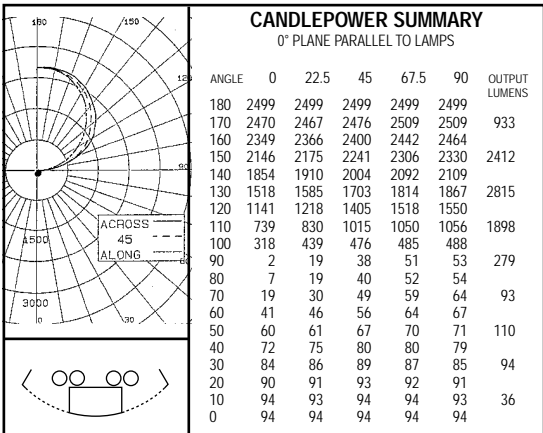
Floor Cavity Reflectance 20

ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	6559	75.39	92.17
90-0°	557	6.40	7.83
180-0°	7116	81.80	100.00

LUMINANCE SUMMARY (fL)

ANGLE	0°	45°	90°
45°	174	160	156
55°	164	152	155
65°	136	153	170
75°	77	181	211
85°	25	243	279



P-S/I-9844T8 74.7 % Efficiency
Litecontrol Certified Test Report # 25841000

RCC	80				70				50				30				10				0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RW																					
0	.72	.72	.72	.72	.62	.62	.62	.62	.43	.43	.43	.26	.26	.26	.11	.11	.11	.03			
1	.65	.62	.60	.57	.56	.54	.51	.49	.38	.36	.35	.23	.22	.21	.09	.09	.09	.02			
2	.59	.54	.50	.46	.51	.47	.43	.40	.33	.31	.29	.20	.19	.18	.08	.07	.07	.02			
3	.54	.48	.43	.39	.46	.41	.37	.34	.29	.26	.24	.17	.16	.15	.07	.06	.06	.02			
4	.49	.42	.36	.32	.42	.36	.32	.28	.25	.23	.20	.15	.14	.13	.06	.06	.05	.01			
5	.45	.36	.31	.27	.39	.32	.27	.24	.23	.20	.17	.14	.12	.11	.05	.05	.04	.01			
6	.41	.33	.27	.23	.35	.28	.24	.20	.20	.17	.15	.12	.11	.09	.05	.04	.04	.01			
7	.38	.29	.24	.20	.32	.25	.21	.18	.18	.15	.13	.11	.09	.08	.04	.04	.03	.01			
8	.35	.26	.21	.17	.30	.23	.18	.15	.16	.13	.11	.10	.08	.07	.04	.03	.03	.01			
9	.32	.24	.19	.15	.28	.21	.16	.13	.15	.12	.10	.09	.07	.06	.04	.03	.02	.01			
10	.30	.22	.17	.13	.26	.19	.15	.12	.13	.11	.08	.08	.06	.05	.03	.03	.02	.01			

Floor Cavity Reflectance 20

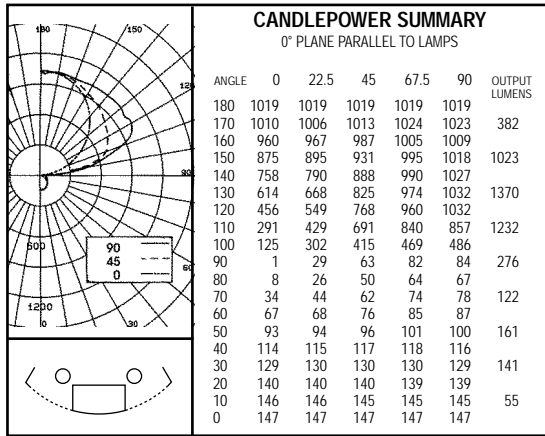
ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	8257	71.53	95.79
90-0°	364	3.14	4.21
180-0°	8662	74.68	100.00

LUMINANCE SUMMARY (fL)

ANGLE	0°	45°	90°
45°	105	92	88
55°	97	86	92
65°	81	95	104
75°	51	106	113
85°	13	120	125

PHOTOMETRIC DATA: HIGH PERFORMANCE REFLECTOR

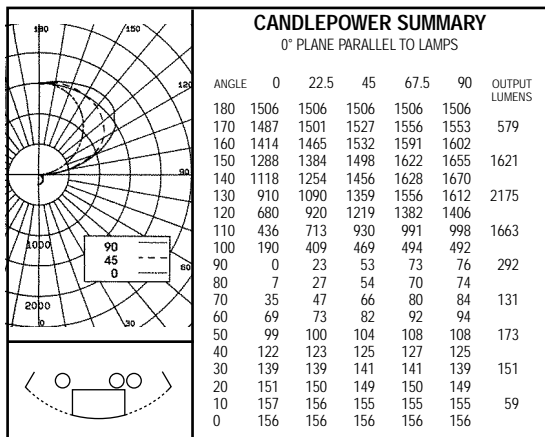


RCC	80			70			50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
RCR	0	.80	.80	.80	.80	.70	.70	.70	.70	.51	.51	.51	.33	.33	.33	
	1	.73	.69	.66	.64	.63	.60	.58	.55	.44	.42	.41	.28	.28	.27	
	2	.66	.60	.55	.51	.57	.53	.49	.45	.38	.36	.33	.25	.23	.22	
	3	.60	.53	.47	.43	.52	.46	.42	.38	.34	.31	.28	.22	.20	.19	
	4	.55	.47	.41	.36	.48	.41	.36	.32	.30	.26	.24	.19	.17	.16	
	5	.50	.41	.35	.30	.44	.36	.31	.27	.26	.23	.20	.17	.15	.13	
	6	.46	.37	.30	.26	.40	.32	.27	.23	.23	.20	.17	.15	.13	.12	
	7	.42	.33	.27	.22	.37	.29	.24	.20	.21	.17	.15	.14	.12	.10	
	8	.39	.30	.23	.19	.34	.26	.21	.17	.19	.15	.13	.13	.10	.09	
	9	.36	.27	.21	.17	.31	.23	.18	.15	.17	.14	.11	.11	.09	.08	
	10	.33	.24	.19	.15	.29	.21	.16	.13	.16	.12	.10	.10	.08	.07	

Floor Cavity Reflectance 20

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	4232	72.97	89.01
90-0°	522	9.01	10.99
180-0°	4232	81.98	100.00

ANGLE	0°	45°	90°
45°	163	152	145
55°	157	143	144
65°	134	142	158
75°	77	166	192
85°	38	221	257



RCC	80			70			50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
RCR	0	.76	.76	.76	.76	.66	.66	.66	.66	.47	.47	.47	.30	.30	.30	
	1	.69	.66	.63	.61	.60	.57	.55	.52	.41	.40	.38	.26	.25	.24	
	2	.63	.57	.53	.49	.54	.50	.46	.43	.36	.33	.31	.23	.21	.20	
	3	.57	.50	.45	.41	.50	.44	.39	.36	.31	.29	.26	.20	.18	.17	
	4	.52	.44	.39	.34	.45	.39	.34	.30	.28	.25	.22	.18	.16	.14	
	5	.48	.39	.33	.29	.41	.34	.29	.26	.25	.21	.19	.16	.14	.12	
	6	.44	.35	.29	.25	.38	.30	.25	.22	.22	.19	.16	.14	.12	.11	
	7	.40	.31	.25	.21	.35	.27	.22	.19	.20	.16	.14	.13	.11	.09	
	8	.37	.28	.22	.19	.32	.24	.20	.16	.18	.14	.12	.11	.09	.08	
	9	.34	.25	.20	.16	.30	.22	.17	.14	.16	.13	.11	.10	.08	.07	
	10	.32	.23	.18	.14	.28	.20	.16	.13	.15	.11	.09	.09	.07	.06	

Floor Cavity Reflectance 20

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	6276	72.14	91.83
90-0°	558	6.42	8.17
180-0°	6835	78.56	100.00

ANGLE	0°	45°	90°
45°	176	162	158
55°	162	152	156
65°	139	155	172
75°	77	178	211
85°	33	243	279

PRE-WIRING INFORMATION

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. Each quick-connect joins two leads with each lead pushed into the device for a secure, positive connection.

Single-circuit option (1CWO) will contain:

- (1) black lead wired to ballast(s) black lead for connection to "HOT" feed.
- (1) white lead wired to ballast(s) white lead for connection to "COMMON" feed.
- (1) green lead bonded to fixture for connection to "GROUND" feed.

Two-circuit option (2CWO) will contain:

- (1) black lead wired to ballast(s) black lead for connection to "HOT" feed of one switch leg of circuit.
- (1) red lead wired to ballast(s) black lead for connection to "HOT" feed of other switch leg of circuit.
- (1) white lead wired to ballast(s) white lead for connection to "COMMON" feed.
- (1) green lead bonded to fixture for connection to "GROUND" feed.

Pigtails for feed points or ends of rows are not furnished by Litecontrol. NOTE: All unused leads must be capped off.

Rated ampacity of feed cords provided by Litecontrol (if applicable) shall be the limiting factor in the number of fixtures that can be fed from a single cord.

These standard options do not provide for those installations where special circuits within the fixtures are involved, such as night/emergency, dimming controls, light level sensors, or Master/Slave fixtures. The installing electrical contractor will furnish and install the branch circuit wiring for those fixtures required by the specific situation.

PLANNING FOR INSTALLATION

SUSPENSION ASSEMBLIES

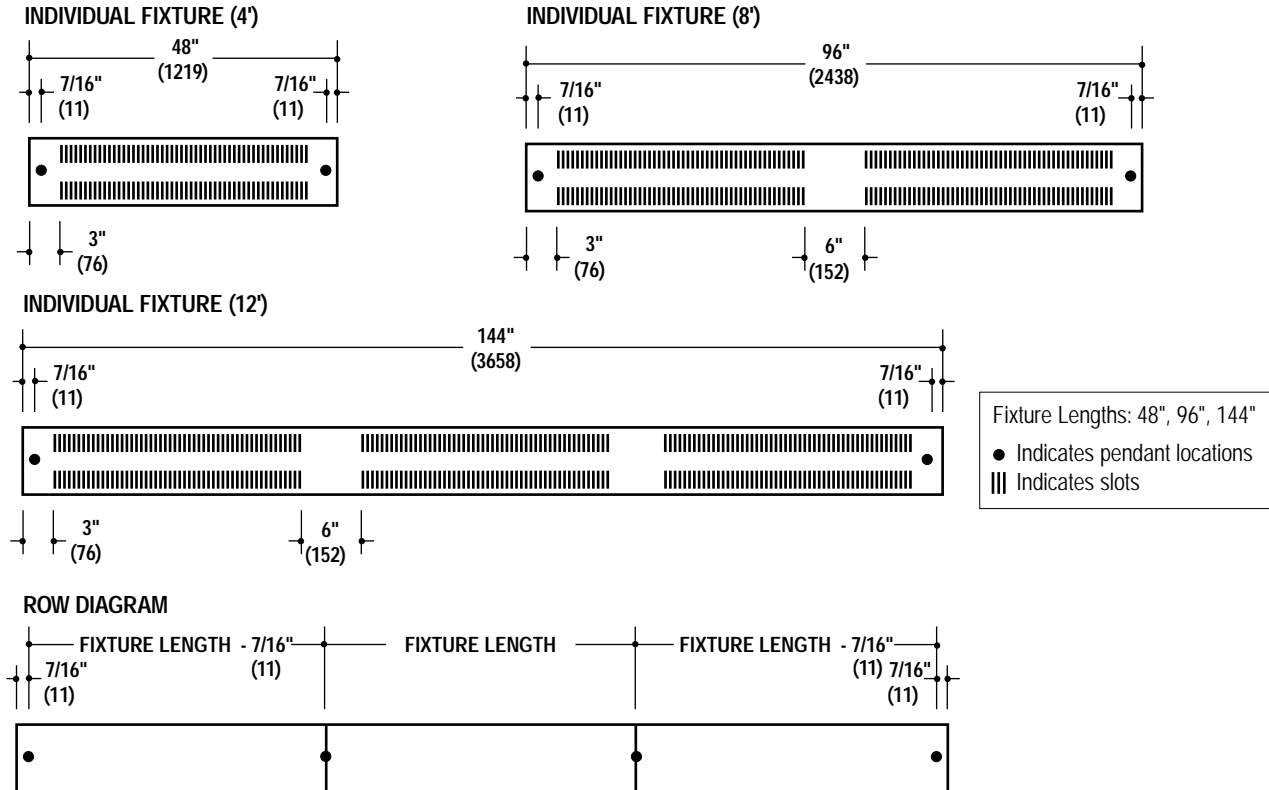
Provided with 3/32" diameter field-adjustable aircraft cables (FAI/ACC) in 51" lengths (4' nominal). Lengths of 87" and 219" are available upon request. Fixed length cable assemblies (with 1/4 - 20 stud adjustment for leveling purposes) are also available as an option in nominal lengths of 9", 12", 18", 24" and 36". Refer to *Aircraft Cables* sheet for further details.

STEM LENGTHS

P6S stems are available in five fixed lengths: 9", 12", 18", 24", and 36". Stems with 0-45° swivel joints are also available as Sloped Ceiling (SC/P6) and Earthquake (EQ/P6) assemblies. Refer to *Stems* sheet for further details.

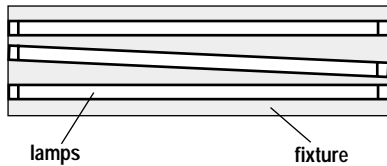
SUSPENSION MOUNTING LOCATIONS

Pendant locations at ends of rows or individual fixtures are 7/16" from fixture end. Pendant locations for in-row joints are at the joint.



TOP VIEW - T8 3-LAMP POSITION

Center lamp is inserted *diagonally* on 3-lamp T8 fixtures only



QUESTIONS TO ASK:

1. 120 or 277 volt?
2. Row information, including desired fixture lengths?
3. White, LiteColor, or special color?
4. Tandem wiring?
5. Cables or stems, what length?
6. Other options?