

## SAE Systems

P-S/I-9800 & LS-P-S/I-9800  
Pendant-Mounted Semi-Indirect

### Product Description

Graceful arcuate-shaped housing with 1/8" slots for a soft, luminous appearance. UL listed. Cradle to Cradle Certified.<sup>CM</sup>

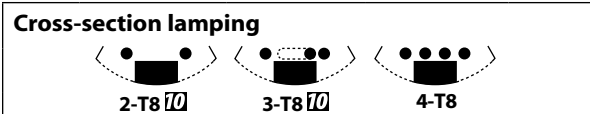
### Ordering Guide

Product, lamping, & length					Options						
P -	S/I -	98	2	4	T8 -	TCWM -	ELB10	TW -	2CWQ -	ECSS -	120
Mounting <b>P</b> Pendant-mounted <b>LS-P</b> LiteSpeed Pendant-mounted	Distribution <b>S/I</b> Slotted Indirect	Series <b>98</b>	Lamp Count <b>2, 3, 4</b> → <b>4, 6, 8</b> → <b>6, 9, 12</b> → see notes	Nominal Length (ft) <b>4</b> <b>8</b> <b>12</b>	Lamp Type <b>T8</b>	Finish <b>TCWM</b> (textured matte white) is standard  see <b>LiteColors™</b> in product guide for other finishes	allast  <b>ELB10</b> is standard  <b>DA/MK7</b> <b>DL/ECO</b> <b>DO/HEL</b> <b>LPD/CS/e</b>  see <b>Ballast Options</b>	Tandem Wiring <b>--</b> → <b>TW</b> →  see notes	Pre-wiring <b>1CWQ</b> <b>2CWQ</b>	Other Options <b>EF</b> <b>ECSS</b> <b>F</b> <b>HPR</b>  see <b>Other Options</b>	Volts  <b>120</b> <b>277</b>
<b>Mounting Options</b> - add to end of catalog number <b>Aircraft cables</b> <input type="checkbox"/> <b>FAI/ACC</b> (field adjustable)  standard <b>Stems</b> <input type="checkbox"/> <b>P6S</b> (stem) <input type="checkbox"/> <b>SC/P6</b> (sloped ceiling) <input type="checkbox"/> <b>EQ/P6</b> (earthquake)					<b>notes:</b> Lamp count = the total number of lamps in fixture Tandem-wiring not available for one-lamp cross-section fixtures <b>For ordering guide information in shaded areas, choose selection by reading ACROSS the shaded areas for correct specifications.</b>						

**P-S/I-9824T8-TCWM-ELB10-TW-2CWQ-F-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, electronic ballast, tandem-wired, pre-wired with two-circuit branch wiring and quick-connects, fuse, 120 volts, mounted with field adjustable aircraft cables.

### LiteSpeed Quick-Ship

Many configurations of this fixture are available in our Litespeed 10-day quick-ship program. The "10-day" icon in the descriptions below shows which options are available in Litespeed. Litespeed orders are shipped within 10 working days of receipt of a released, cleared order. An "LS" prefix is required in front of the ordering number to have the order handled as Litespeed. Other configurations not indicated here may be available for 10-day shipment; contact Customer Service for availability. Some restrictions may apply to large orders. All Litespeed fixtures are supplied in textured white finish (TCWM).



### 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. 3-lamp in cross section fixtures, the fixture is wired such that the inline center lamps are switched separately from the inline outer lamps.

### Ballast Options

Specify in place of **ELB10**, contact factory for availability/compatibility with lamping:  
**DA/MK7** Advance Mark VII 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](http://litecontrol.com/cs) or contact the factory.

### Other Options

**EF** Emergency Fluorescent Ballast. Battery-powered ballast from a UL Listed manufacturer will operate one T8 lamp for 1 1/2 hours.

**ECSS** End Cap Shelf-Style. Die-cast shelf-style end caps with no exposed fasteners.

**F** Fuse. Slow or fast blow, determined by Litecontrol.

**HPR** High Performance Reflector. Die-formed, specular anodized aluminum.

### Questions to Ask

- Row information, including desired fixture lengths? **2.** Lamp type?
- White, Litecolor or special color? **4.** Ballast options? **5.** Tandem wiring?
- Controls solutions? **7.** Other options? **8.** 120 or 277 volt? **9.** Cables or stems, what length?

Click on  
**Quick Find 98s**



[litecontrol.com](http://litecontrol.com)

## 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.  This fixture is Cradle to Cradle Certified<sup>CM</sup> Silver by MBDC.

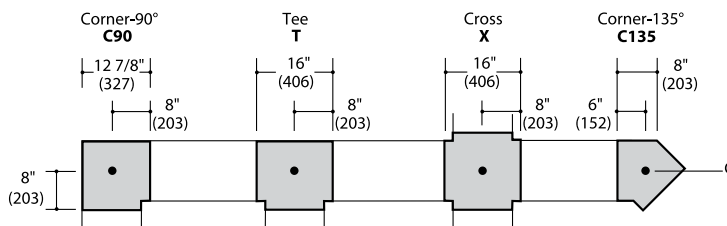
Note: Litecontrol reserves the right to change specifications without notice for product development and improvement.

## System connectors

### Catalog Number

Series	Connector	Finish
P-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

### 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.

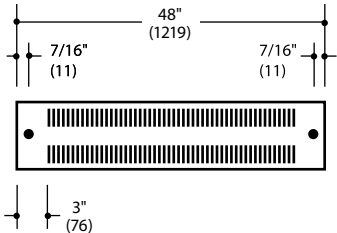
### Stem lengths

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.

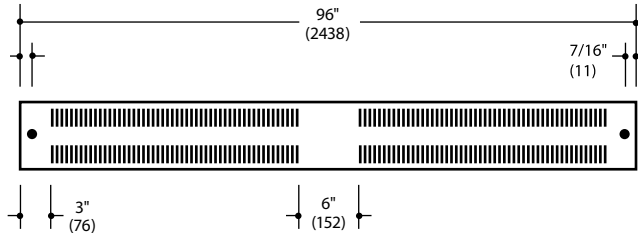
### Suspension mounting locations

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.

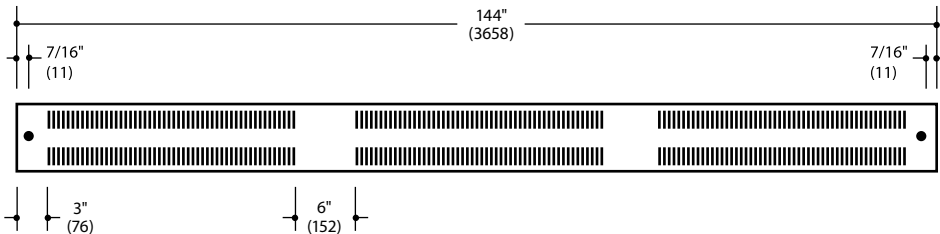
#### Individual fixture (4')



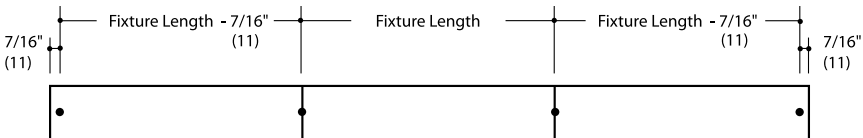
#### Individual fixture (8')



#### Individual fixture (12')



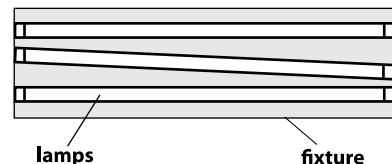
### Row diagram

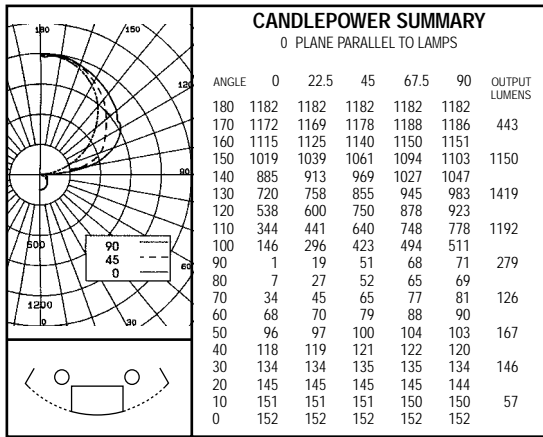


Fixture Lengths: 4', 8', 12'  
• Indicates pendant locations

### Top view: 1-lamp and 3-lamp T8 lamp position

Center lamp is inserted *diagonally* on 1-lamp and 3-lamp T8 fixtures



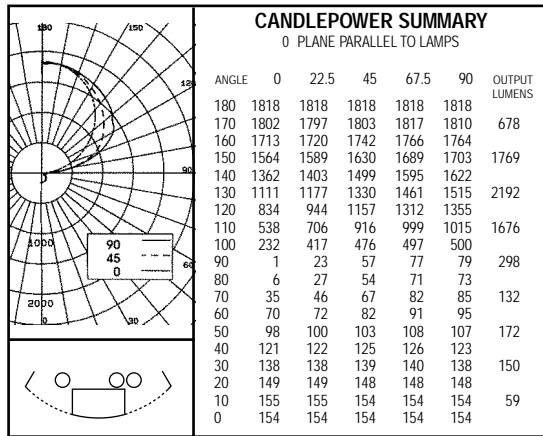


RCC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	.84	.84	.84	.84	.73	.73	.73	.73	.53	.53	.53	.34	.34	.34	.17	.17	.17	.09
1	.76	.73	.69	.66	.66	.63	.61	.57	.46	.44	.43	.30	.29	.28	.15	.14	.14	.07
2	.69	.63	.58	.54	.60	.55	.51	.47	.40	.37	.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

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

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

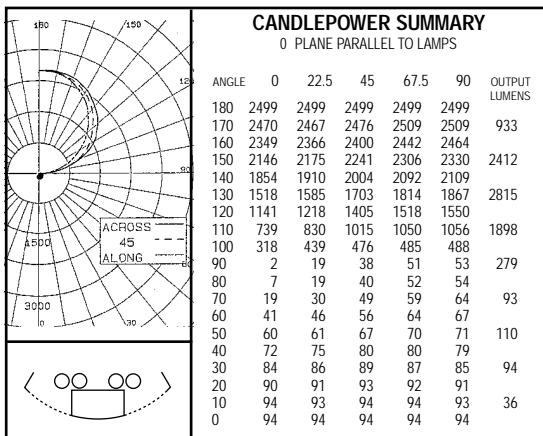


RCC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	.79	.79	.79	.79	.69	.69	.69	.69	.49	.49	.49	.31	.31	.31	.14	.14	.14	.06
1	.72	.69	.66	.63	.62	.60	.57	.54	.43	.41	.40	.27	.26	.25	.12	.12	.12	.05
2	.65	.60	.55	.51	.57	.52	.48	.45	.37	.35	.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

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

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

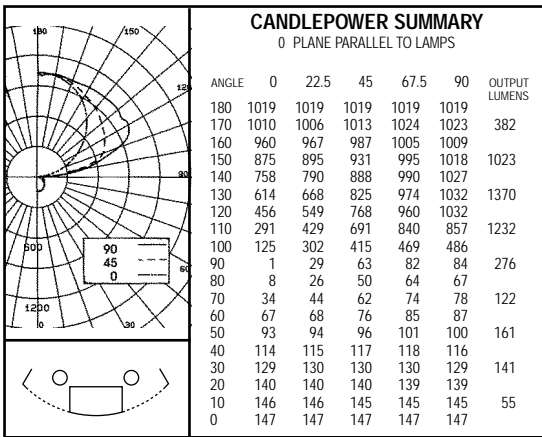


RCC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	.72	.72	.72	.72	.62	.62	.62	.62	.43	.43	.43	.26	.26	.26	.11	.11	.11	.03
1	.65	.62	.60	.57	.56	.54	.51	.49	.38	.36	.35	.23	.22	.21	.09	.09	.09	.02
2	.59	.54	.50	.46	.51	.47	.43	.40	.33	.31	.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

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

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



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

RCC RW	70				50				30				10				0	
	70	80	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	.17	.17	.17	.09
1	.73	.69	.66	.64	.63	.60	.58	.55	.44	.42	.41	.28	.28	.27	.14	.14	.14	.07
2	.66	.60	.55	.51	.57	.53	.49	.45	.38	.36	.33	.25	.23	.22	.12	.12	.11	.06
3	.60	.53	.47	.43	.52	.46	.42	.38	.34	.31	.28	.22	.20	.19	.11	.10	.09	.05
4	.55	.47	.41	.36	.48	.41	.36	.32	.30	.26	.24	.19	.17	.16	.10	.09	.08	.04
5	.50	.41	.35	.30	.44	.36	.31	.27	.26	.23	.20	.17	.15	.13	.09	.08	.07	.03
6	.46	.37	.30	.26	.40	.32	.27	.23	.23	.20	.17	.15	.13	.12	.08	.07	.06	.03
7	.42	.33	.27	.22	.37	.29	.24	.20	.21	.17	.15	.14	.12	.10	.07	.06	.05	.03
8	.39	.30	.23	.19	.34	.26	.21	.17	.19	.15	.13	.13	.10	.09	.06	.05	.04	.02
9	.36	.27	.21	.17	.31	.23	.18	.15	.17	.14	.11	.11	.09	.08	.06	.05	.04	.02
10	.33	.24	.19	.15	.29	.21	.16	.13	.16	.12	.10	.10	.08	.07	.05	.04	.03	.02

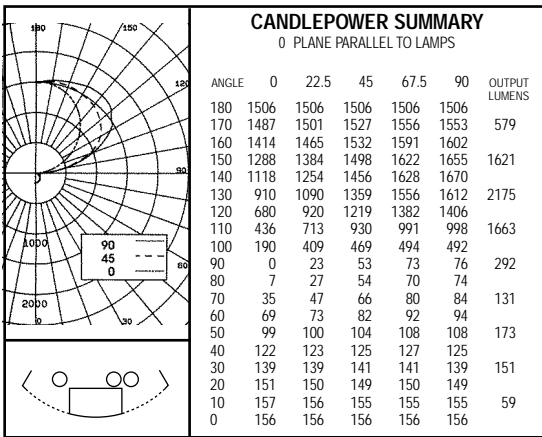
Floor Cavity Reflectance 20

**ZONAL LUMEN SUMMARY**

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

**LUMINANCE SUMMARY (fL)**

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



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

RCC RW	70				50				30				10				0	
	70	80	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	.14	.14	.14	.06
1	.69	.66	.63	.61	.60	.57	.55	.52	.41	.40	.38	.26	.25	.24	.12	.12	.11	.05
2	.63	.57	.53	.49	.54	.50	.46	.43	.36	.33	.31	.23	.21	.20	.10	.10	.09	.04
3	.57	.50	.45	.41	.50	.44	.39	.36	.31	.29	.26	.20	.18	.17	.09	.09	.08	.03
4	.52	.44	.39	.34	.45	.39	.34	.30	.28	.25	.22	.18	.16	.14	.08	.07	.07	.03
5	.48	.39	.33	.29	.41	.34	.29	.26	.25	.21	.19	.16	.14	.12	.07	.06	.06	.02
6	.44	.35	.29	.25	.38	.30	.25	.22	.22	.19	.16	.14	.12	.11	.07	.06	.05	.02
7	.40	.31	.25	.21	.35	.27	.22	.19	.20	.16	.14	.13	.11	.09	.06	.05	.04	.02
8	.37	.28	.22	.19	.32	.24	.20	.16	.18	.14	.12	.11	.09	.08	.05	.04	.04	.02
9	.34	.25	.20	.16	.30	.22	.17	.14	.16	.13	.11	.10	.08	.07	.05	.04	.03	.01
10	.32	.23	.18	.14	.28	.20	.16	.13	.15	.11	.09	.09	.07	.06	.04	.03	.03	.01

Floor Cavity Reflectance 20

**ZONAL LUMEN SUMMARY**

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

**LUMINANCE SUMMARY (fL)**

ANGLE	0	45	90
45	176	162	158
55	162	152	156
65	139	155	172
75	77	178	211
85	13	243	279