

Mod™

P-ID-4600

Pendant-Mounted Indirect/Direct
FAI/ACC Only

Product Description

Linear modular indirect-direct luminaire with separate uplight and downlight chambers. Downlight available with a variety of shielding options. UL Listed. This fixture is Cradle to Cradle Silver Certified^{CM} by MBDC.

Ordering Guide

Product, lamping, & length							Options								
P -	ID -	46	Upper Lamp			Lower Lamp			SGL -	TCWM -	LP/ELB -	TW	2CWQ -	F -	120
Mounting	Distribution	Series	Lamp Count (indirect)	Nominal Length (ft)	Indirect Lamp Type	Lamp Count (direct)	Nominal Length (ft)	Direct Lamp Type	Baffle or Diffuser	Finish	Ballasts	Tandem Wiring	Pre-wiring	Other Options	Volts
P Pendant-mounted	ID Indirect/Direct	46	1,2 →	3 →	T8	1,2 →	3 →	T8	BA BW FP PAT.19 SGL XA	TCWM (textured matte white) is standard	ELB10 is std for T8 LP/ELB is std for T5 or T5HO	- →	1CWQ	F LP/EF	120 277
			1,2 →	4 →	T5	1,2 →	4 →	T5				TW →	2CWQ		
			2,4 →	6 →	T5HO	2,4 →	6 →	T5HO				see notes	see Other Options		
			2,4 →	8 →		2,4 →	8 →					see notes	see Ballast Options		
			see notes			see notes						see Baffle & Diffuser Options	see LiteColors™ for other finishes		

P-ID-4648T5/28T5-SGL-TCWM-LP/ELB-TW-2CWQ-F-120-FAI/ACC is a typical catalog number for a 4-lamp indirect (2 lamps in cross-section)/2-lamp direct (1 lamp in cross-section), 8-foot long, T5 fixture with soft glow lens, textured 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 cable.

Cross-section lamping				
				T5 also available in T5HO
1-T5/1-T5	2-T5/1-T5	1-T5/2-T5	2-T5/2-T5	
1-T8/1-T8	2-T8/1-T8	1-T8/2-T8	2-T8/2-T8	

Baffle & Diffuser Options

- BA** Blade Baffle, Metallic Gray. 3/8" high and 1/2" OC, steel, flush to bottom of fixture housing.
- BW** Blade Baffle, White. 3/8" high and 1/2" OC, steel, flush to bottom of fixture housing.
- FP** Lens. White acrylic, .100" thick, regressed.
- PAT.19** Lens. 3/16" square prisms, .156" thick extruded acrylic, regressed.
- SGL** Soft Glow Lens. Extruded, frosted acrylic, flush to bottom of fixture housing.
- XA** Lens. Diagonal 3/16" conical prisms, .100" thick extruded acrylic, regressed.

Ballast Options

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

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

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

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

Questions to Ask

- Row information, including desired fixture lengths?
- Lamp type? 3. Diffuser type? 4. White, LiteColor, or special color?
- Ballast options? 6. Tandem wiring? 7. Other options? 8. 120 or 277 volt?



Specifications

HOUSING. Die-formed and welded steel, with 3/8" return at housing bottom for rigidity and appearance, furnished with 6" long, steel splines for insertion at each side of housing at junction of fixtures in rows for precise alignment. 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.

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

LAMPING. Available in one-lamp and two-lamp T8, T5, or T5HO for both uplight and downlight chambers.

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 levels of light.

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

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

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 is pendant-mounted using Litecontrol's field adjustable cables.

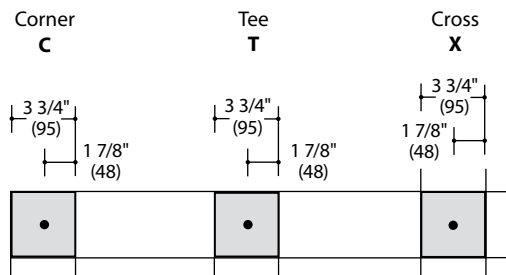
CERTIFICATION. Fixture and electrical components shall be UL and/or CUL Listed and shall bear the I.B.E.W., A.F. of L. label.  This fixture is Cradle to Cradle Certified^{CM} Silver by MBDC.

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

System Connectors

Catalog Number

Series	Connector	Finish
P-ID-4600	C	
P-ID-4600	T	
P-ID-4600	X	



P-ID-4600-C-CWM is a typical catalog number for a 90° corner connector finished Matte White.

Planning for installation

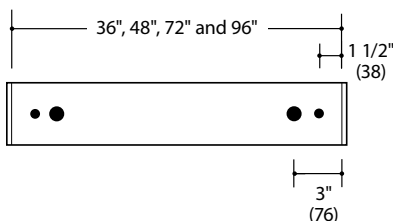
Suspension Assemblies

Provided with 3/32" diameter field adjustable aircraft cables (FAI/ACC) in 51" lengths (4' nominal). Longer length aircraft cables of 87" and 219" are available upon request. See Aircraft Cables sheets for further details.

Suspension mounting locations

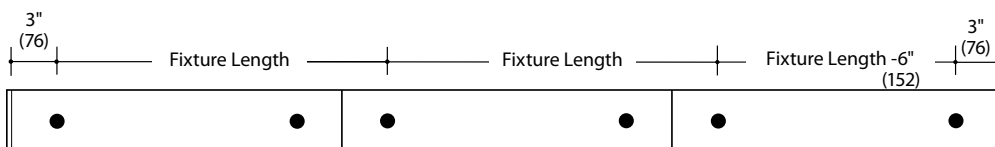
Pendant locations at ends of rows (or individual fixtures) are 3" from fixture end. Pendant locations at in-row joints are 3" from the joint. All pendant types attach to universal flat strap for mounting either at a fixture end or across two fixtures at a row joint. Strap attachment allows for horizontal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

Individual Fixture

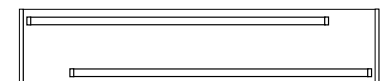


Fixture Lengths: 3', 4', 6' and 8'
 ● 7/8" diameter knockout, for pendant locations
 ● 5/8" diameter knockout, electrical feed

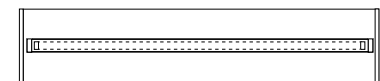
Row Diagram



Lamp Position

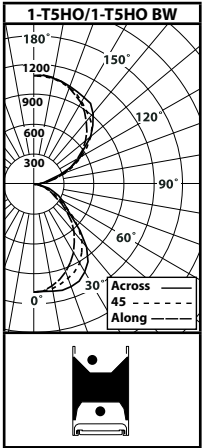


Lamp position for two-lamp T5, T5HO cross-section only. (Both indirect and direct chambers)



Lamp position for one-lamp T8, T5, T5HO cross-sections (Direct only).

Photometric data T5HO



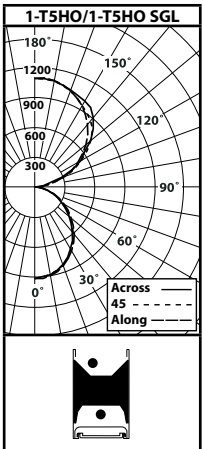
CANDLEPOWER SUMMARY					
ANGLE	0	22.5	45	67.5	90
180	1095	1095	1095	1095	1095
175	1106	1097	1090	1097	1101
165	1072	1069	1065	1078	1075
155	989	997	1008	1023	1030
145	891	890	917	978	995
135	754	760	833	848	841
125	594	613	651	640	610
115	412	464	444	433	417
105	225	257	208	159	142
95	44	49	53	51	49
90	3	9	9	4	3
85	28	24	22	25	25
75	107	106	105	121	157
65	196	202	220	246	273
55	341	384	391	371	391
45	537	591	645	652	659
35	710	766	840	912	950
25	869	898	972	1049	1076
15	996	996	1039	1090	1104
5	1080	1074	1080	1087	1084
0	1086	1086	1086	1086	1086

P-ID-4614T5HO/14T5HO-BW 65.8 % Efficiency																											
Litecontrol Certified Test Report P-ID-14T5HO-14T5HO-BW.IES																											
RCC	80					70					50					30					10					0	
RW	70	50	30	10		70	50	30	10		50	30	10	50	30	10	50	30	10	50	30	10	10	50	30	10	0
RCR																											
0	69	69	69	69		63	63	63	63		52	52	52	42	42	42	33	33	33	29							
1	64	61	58	56		58	56	54	52		46	45	43	38	37	36	29	29	28	25							
2	58	53	50	46		53	49	46	43		41	38	36	33	32	30	26	25	24	21							
3	53	47	43	39		48	43	39	36		36	33	31	30	28	26	23	22	21	18							
4	49	42	37	33		44	39	34	31		32	29	26	27	24	22	21	20	18	16							
5	45	37	32	28		41	34	30	27		29	26	23	24	21	19	19	17	16	14							
6	41	34	28	25		38	31	26	23		26	23	20	22	19	17	17	16	14	12							
7	38	30	25	22		35	28	24	20		24	20	18	20	17	15	16	14	13	11							
8	35	28	23	19		32	26	21	18		22	18	16	18	15	14	15	13	11	10							
9	33	25	20	17		30	23	19	16		20	17	14	17	14	12	14	12	10	9							
10	31	23	18	15		28	21	17	15		18	15	13	15	13	11	13	11	9	8							

Floor Cavity Reflectance .20

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	3351	37	57
90-0°	2569	29	43
180-0°	5920	66	100

LUMINANCE SUMMARY (cd/sq.m)			
ANGLE	0°	45°	90°
45	7853	9432	9637
55	6147	7049	7049
65	4796	5383	6680
75	4275	4195	6272
85	3322	2610	2966



CANDLEPOWER SUMMARY					
ANGLE	0	22.5	45	67.5	90
180	1086	1086	1086	1086	1086
175	1098	1090	1085	1094	1088
165	1061	1055	1057	1067	1057
155	986	982	988	1009	1010
145	881	877	903	959	972
135	745	744	814	826	825
125	583	603	637	620	600
115	410	452	435	436	422
105	215	246	211	166	144
95	39	46	50	49	46
90	4	7	10	7	2
85	41	33	31	31	34
75	142	141	136	132	130
65	268	264	256	251	245
55	402	399	386	380	372
45	539	535	523	525	512
35	674	666	664	656	653
25	788	777	782	781	774
15	875	864	862	871	860
5	918	907	903	908	898
0	915	915	915	915	915

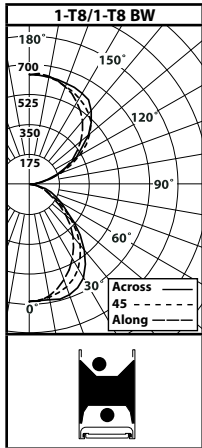
P-ID-4614T5HO/14T5HO-SGL 62.1 % Efficiency																											
Litecontrol Certified Test Report P-ID-4614T5HO-14T5HO-SGL.IES																											
RCC	80					70					50					30					10					0	
RW	70	50	30	10		70	50	30	10		50	30	10	50	30	10	50	30	10	50	30	10	10	50	30	10	0
RCR																											
0	65	65	65	65		59	59	59	59		49	49	49	39	39	39	30	30	30	26							
1	60	57	55	52		54	52	50	48		43	41	40	34	33	32	26	26	25	22							
2	54	50	46	43		49	45	42	40		37	35	33	30	28	27	23	22	21	18							
3	49	44	39	36		45	40	36	33		33	30	28	27	25	23	21	19	18	15							
4	45	39	34	30		41	35	31	28		29	26	24	24	21	20	18	17	16	13							
5	42	34	29	26		38	32	27	24		26	23	20	21	19	17	17	15	14	12							
6	38	31	26	22		35	28	24	21		24	20	18	19	17	15	15	13	12	10							
7	35	28	23	20		32	26	21	18		21	18	16	17	15	13	14	12	11	9							
8	33	25	21	17		30	23	19	16		20	16	14	16	14	12	13	11	10	8							
9	30	23	18	15		28	21	17	14		18	15	12	15	12	11	12	10	9	7							
10	28	21	17	14		26	20	16	13		16	13	11	14	11	10	11	9	8	7							

Floor Cavity Reflectance .20

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	3295	37	59
90-0°	2298	26	41
180-0°	5593	62	100

LUMINANCE SUMMARY (cd/sq.m)			
ANGLE	0°	45°	90°
45°	7882	7648	7487
55°	7247	6959	6706
65°	6557	6264	5994
75°	5673	5433	5194
85°	4864	3678	4034

Photometric data T8



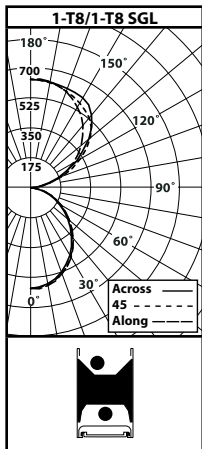
CANDLEPOWER SUMMARY					
ANGLE	0	22.5	45	67.5	90
180	636	636	636	636	636
175	644	632	636	637	635
165	624	618	622	629	629
155	580	578	593	617	619
145	517	520	558	592	598
135	435	450	506	514	507
125	340	372	402	388	372
115	238	281	270	248	239
105	128	153	129	117	108
95	26	37	33	32	29
90	3	4	6	4	3
85	15	15	13	8	16
75	65	62	68	77	97
65	121	123	133	151	170
55	216	234	246	253	259
45	335	362	388	404	416
35	447	471	515	549	566
25	547	557	604	648	662
15	625	622	650	680	688
5	679	670	673	680	676
0	678	678	678	678	678

P-ID-4614T8/14T8-BW 62% Efficiency																		
Litecontrol Certified Test Report P-ID-4614T8-14T8-BW.IES																		
RCC	80				70				50				30	10	0			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	66	66	66	66	60	60	60	60	50	50	50	40	40	40	32	32	32	27
1	60	58	55	53	55	53	51	49	44	43	41	36	35	34	28	28	27	24
2	55	51	47	44	50	46	43	41	39	37	35	32	30	29	25	24	23	20
3	50	45	40	37	46	41	37	34	34	32	29	28	26	25	22	21	20	17
4	46	40	35	31	42	37	32	29	31	28	25	25	23	21	20	19	17	15
5	42	35	30	27	39	33	28	25	28	24	22	23	20	19	18	17	15	13
6	39	32	27	23	36	29	25	22	25	22	19	21	18	16	17	15	14	12
7	36	29	24	21	33	27	22	19	23	19	17	19	16	14	15	13	12	10
8	34	26	21	18	31	24	20	17	21	17	15	17	15	13	14	12	11	9
9	31	24	19	16	29	22	18	15	19	16	13	16	13	12	13	11	10	9
10	29	22	17	15	27	20	16	14	17	14	12	15	12	11	12	10	9	8

Floor Cavity Reflectance .20

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	2006	35	56
90-0°	1592	28	44
180-0°	3599	62	100

LUMINANCE SUMMARY (cd/sq.m)			
ANGLE	0°	45°	90°
45	4899	5674	6083
55	3894	4435	4669
65	2961	3254	4159
75	2597	2717	3875
85	1780	1542	1898



CANDLEPOWER SUMMARY					
ANGLE	0	22.5	45	67.5	90
180	637	637	637	637	637
175	642	636	634	637	635
165	622	617	622	629	627
155	579	577	592	616	617
145	518	520	557	592	596
135	434	452	505	513	509
125	339	374	400	387	372
115	238	281	269	247	233
105	131	151	129	112	110
95	27	37	30	30	28
90	3	3	2	4	2
85	26	23	21	18	18
75	92	86	88	85	83
65	170	170	166	161	159
55	256	256	251	247	243
45	346	346	343	337	330
35	434	432	429	427	419
25	510	506	507	506	495
15	566	560	559	561	555
5	595	589	587	588	584
0	591	591	591	591	591

P-ID-4614T8/14T8-SGL 60.2% Efficiency																		
Litecontrol Certified Test Report P-ID-4614T8-14T8-SGL.IES																		
RCC	80				70				50				30	10	0			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	63	63	63	63	58	58	58	58	48	48	48	38	38	38	30	30	30	26
1	58	55	53	51	53	51	49	47	42	40	39	34	33	32	26	26	25	22
2	53	48	45	42	48	44	41	39	37	34	32	30	28	27	23	22	21	18
3	48	42	38	35	44	39	35	32	32	30	27	26	24	23	21	19	18	15
4	44	38	33	29	40	35	30	27	29	26	23	23	21	19	18	17	16	13
5	40	33	29	25	37	31	27	23	26	23	20	21	19	17	17	15	14	12
6	37	30	25	22	34	28	23	20	23	20	18	19	17	15	15	13	12	10
7	34	27	22	19	31	25	21	18	21	18	15	17	15	13	14	12	11	9
8	32	25	20	17	29	23	19	16	19	16	14	16	13	12	13	11	10	8
9	30	22	18	15	27	21	17	14	18	14	12	14	12	10	12	10	9	7
10	28	21	16	13	25	19	15	13	16	13	11	13	11	9	11	9	8	7

Floor Cavity Reflectance .20

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	2004	35	57
90-0°	1486	26	43
180-0°	3489	60	100

LUMINANCE SUMMARY (cd/sq.m)			
ANGLE	0°	45°	90°
45	5060	5016	4826
55	4615	4525	4381
65	4159	4062	3890
75	3676	3516	3316
85	3085	2491	2136