

**Ciros™**  
**P-ID-5200**  
Pendant-Mounted Indirect/Direct

### Product Description

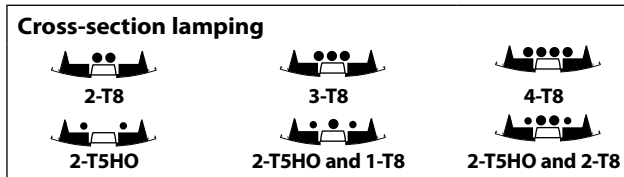
A curved extruded aluminum Indirect/Direct luminaire with subtle detailing and sculpted end caps. UL Listed. This fixture is Cradle to Cradle Silver Certified™ by MBDC.

U.S. Patent No. D431,086

### Ordering Guide

Product, Lamping, & Length						Options									
P -	ID -	52	Outer Lamp			Inner Lamp			PBSS -	CWM -	LP/ELB -	TW -	2CWQ-	F -	120
Mounting	Distribution	Series	Lamp Count	Nominal Length (ft)	Lamp Type	Lamp Count*	Nominal Length* (ft)	Lamp Type*	Baffle or Diffuser	Finish	Ballast	Tandem Wiring	Circuiting	Other options	Volts
P Pendant-Mounted	ID Indirect/Direct	52	2, 3, 4 →	3, 4 →	T8	2, 4 →	3, 4 →	T8	PBSS PBCWM PBBA PBSS/O PBCWM/O PBBA/O FP PRF/O/CWM PRF/O/CSL PRF/O/CBC WSS/O/CWM WSS/O/CSL WSS/O/CBC XA see Diffusers	CWM (Matte White) is standard  see LiteColors™ for other finishes	LP/ELB is standard  LPD/ELB see notes	→ →	1CWQ	DSR F LP/EF see Other options	120 277
			4, 6, 8 →	6, 8 →	T5HO		6, 8 →	T8				→ →	2CWQ		
<b>Mounting Options - add to end of order number</b> <b>Aircraft Cables</b> <input type="checkbox"/> FAI/ACC (field adjustable) std.  <b>Stems</b> <input type="checkbox"/> P6S (stem) <input type="checkbox"/> SC/P6 (sloped ceiling) <input type="checkbox"/> EQ/P6 (earthquake)			2 →	3, 4 →	T5HO	1, 2 →	3, 4 →	T8				see notes			
			4 →	6, 8 →	T5	2, 4 →	6, 8 →								
			6 →	12 →		3, 6 →	12 →								
			see notes			see notes									

**P-ID-5248T5HO/48T8-PBSS-CWM-LP/ELB-TW-2CWQ-F-120-FAI/ACC** is a typical catalog number for a 4-lamp T5HO/4-lamp T8 (4 lamps in cross-section), 8-foot long T5HO/T8 fixture with parabolic baffles, Matte White finish, tandem-wired low-profile electronic ballast, pre-wired with two-circuit branch wiring and quick-connects, fuse, 120 volts, mounted with field adjustable aircraft cables.



### Ballast options

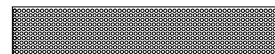
Specify in place of LP/ELB:  
**LPD/ELB** Low-profile Dimming Ballast. Manufactured by a UL Listed manufacturer, as available, determined by Litecontrol. Contact factory for availability.

### Other options

- F** Fuse. Slow or fast blow, determined by Litecontrol.
- DSR** Distribution Separator Reflector. Allows fixtures to deliver separate uplight and downlight with three- or four-lamp cross-section. Downlight lamps are one- or two-lamp T8 and, require tandem wiring (TW) to provide separate switching of downlight. No tools required for installation. Finish is Matte White.
- LP/EF** Low-profile Emergency Fluorescent Ballast. Battery-powered ballast from a UL Listed manufacturer will operate one T8, T5, or T5HO lamp for 1 1/2 hours. Contact factory for availability.

### Baffle & Diffuser Options

- PBSS** Parabolic Baffles. Semi-specular, low iridescence anodized aluminum. Cross-blades are .75" high x 1.34" OC. Lengthwise shielding is 32°. Recommended for use with T8 lamping.
- PBCWM** Parabolic Baffles finished Matte White. Cross-blades are .75" high x 1.34" OC. Lengthwise shielding is 32°. Recommended for use with T8 lamping.
- PBBA** Parabolic Baffles finished Aluminum Gray. Cross-blades are .75" high x 1.34" OC. Lengthwise shielding is 32°. Recommended for use with T8 lamping.
- PBSS/O** Parabolic Baffles. Semi-specular, low iridescence anodized aluminum. Cross-blades are .75" high x 1.34" OC. Lengthwise shielding is 32°. Matte White acrylic overlay. Recommended for use with T5HO lamping.
- PBCWM/O** Parabolic Baffles finished Matte White. Cross-blades are .75" high x 1.34" OC. Lengthwise shielding is 32°. Matte White acrylic overlay. Recommended for use with T5HO lamping.
- PBBA/O** Parabolic Baffles finished Aluminum Gray. Cross-blades are .75" high x 1.34" OC. Lengthwise shielding is 32°. Matte White acrylic overlay. Recommended for use with T5HO lamping.
- FP** White Acrylic Diffuser, .100" thick.
- PRF/O/CWM, PRF/O/CSL, PRF/O/CBC** Die-formed, 20-gauge steel perforated panels. Pattern has .187" staggered holes .250" OC, 51% open. Available in CWM (Matte White), CSL (Light Silver) or CBC (Camera Black) with white acrylic overlay.
- WSS/O/CWM, WSS/O/CSL, WSS/O/CBC** Die-formed, 20-gauge steel patterned panels. Three 1/2" squares, .718" OC, spaced 1.5" OC. Available in CWM (Matte White), CSL (Light Silver) or CBC (Camera Black) with white acrylic overlay.
- XA** Lens. Diagonal 3/16" conical prisms, .100" thick extruded acrylic.



PRF Diffuser



WSS Diffuser

### Questions to Ask

1. Row information, including desired fixture lengths?
2. Lamp type? 3. Baffle or Diffuser options? 4. White, LiteColor or special color?
5. Tandem wiring? 6. Other options? 7. 120 or 277 volt? 8. Cables or stems, what length?

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## Specifications

**HOUSING.** Two-sided housing, 6063 T6 extruded aluminum. For precise row joining, alignment splines slide into slots at end of housing.

**END CAPS.** Die-cast sculptured aluminum, 4" long, with no holes or knockouts. Required at ends of individual fixtures and ends of rows, finished to match housing.

**REFLECTORS.** Die-formed high-reflectance aluminum for T8 fixtures. Die-formed steel with high-reflectance white finish for T5 and T5HO fixtures.

**LAMPING.** Available in T8, T5 and T5HO for the outer lamp positions and T8 for the inner (center) lamp position(s).

**BALLAST.** Low-profile, Electronic Ballast (**LP/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.

**TANDEM WIRING.** When selected from Ordering Guide below, fixtures wired to switch in-line lamps separately, providing two or three 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.

**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.

**SYSTEM CONNECTORS.** Components to provide system connections between two (corner), three (tee), or four (cross) fixtures are available. Contact factory for details of connectors and suspension hardware required for a specific application.

**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.

**FAI/ACC** field adjustable 51" is standard. See Aircraft Cables and Stems for details.

**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.

## 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.

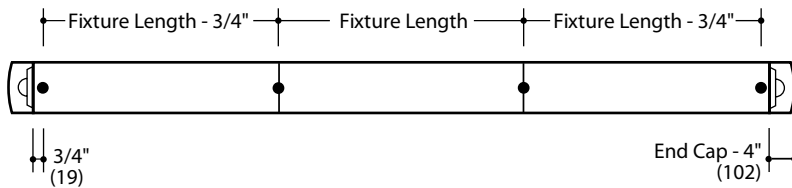
### Stem Lengths

P6S stems are available in eight standard lengths from 6" to 36" (nominal). For Ciros, 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 3/4" from fixture end. Pendant locations at in-row joints are at 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.

### Row diagram



Fixture Lengths: 3'-3", 4'-3", 6'-6", 8'-6", 12'-9"

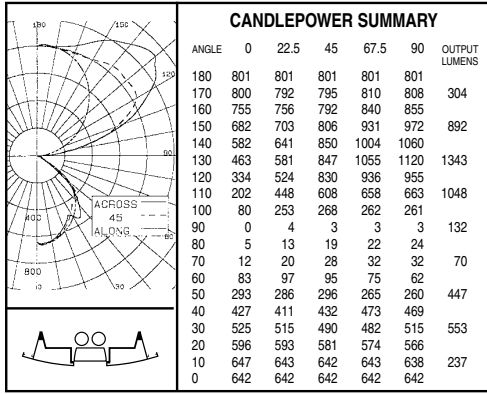
● Indicates pendant locations

LITECONTROL

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Photometric data 2 lamp T8

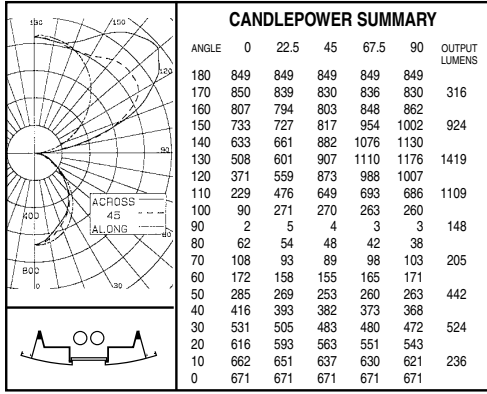


		P-ID-5224T8-PBSS-LP/ELB 86.5% Efficiency																	
		Litecontrol Certified Test Report #27221340																	
RCC		80			70			50			30			10			0		
RW		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
R	0	.88	.88	.88	.88	.78	.78	.78	.78	.61	.61	.61	.44	.44	.44	.30	.30	.30	.23
R	1	.81	.77	.74	.72	.72	.69	.67	.64	.54	.52	.51	.40	.39	.38	.27	.27	.26	.20
R	2	.74	.68	.63	.59	.66	.61	.57	.54	.48	.45	.43	.36	.34	.33	.25	.24	.23	.18
R	3	.68	.60	.55	.50	.61	.54	.50	.46	.43	.40	.37	.32	.30	.29	.23	.21	.20	.16
R	4	.62	.54	.48	.43	.56	.49	.43	.39	.38	.35	.32	.29	.27	.25	.20	.19	.18	.14
R	5	.57	.47	.42	.37	.51	.43	.38	.34	.34	.31	.28	.26	.24	.22	.19	.17	.16	.13
R	6	.53	.43	.37	.32	.47	.39	.33	.29	.31	.27	.24	.24	.21	.19	.17	.15	.14	.11
R	7	.48	.39	.32	.28	.43	.35	.29	.25	.28	.24	.21	.21	.19	.17	.15	.14	.12	.10
R	8	.45	.35	.28	.24	.40	.31	.26	.22	.25	.21	.18	.19	.17	.15	.14	.12	.11	.09
R	9	.41	.31	.25	.21	.37	.28	.23	.19	.23	.19	.16	.17	.15	.13	.13	.11	.10	.08
R	10	.38	.28	.23	.19	.34	.26	.21	.17	.21	.17	.14	.16	.13	.11	.11	.10	.08	.07

Floor Cavity Reflectance .20

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	3702	63.84	73.81
90-0°	1314	22.66	26.19
180-0°	5017	86.50	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	1993	2181	2039
55°	1383	1247	903
65°	219	411	366
75°	104	357	433
85°	88	576	532



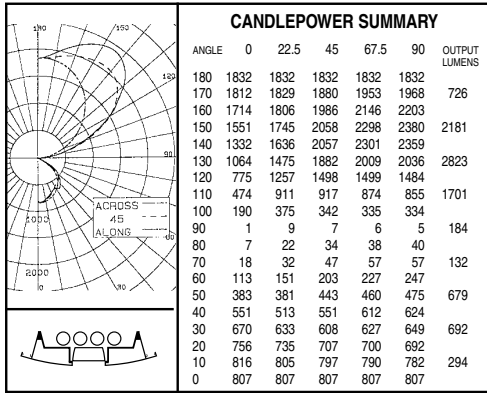
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		Litecontrol Certified Test Report #27221010																	
RCC		80			70			50			30			10			0		
RW		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
R	0	.93	.93	.93	.93	.83	.83	.83	.83	.65	.65	.65	.48	.48	.48	.32	.32	.32	.25
R	1	.85	.82	.78	.75	.76	.73	.70	.67	.57	.55	.54	.42	.41	.40	.29	.28	.28	.21
R	2	.78	.71	.66	.62	.69	.64	.60	.56	.50	.47	.45	.38	.36	.34	.26	.25	.24	.19
R	3	.71	.63	.57	.52	.64	.57	.52	.47	.45	.41	.38	.34	.31	.29	.23	.22	.21	.16
R	4	.65	.56	.49	.44	.58	.50	.45	.40	.40	.36	.33	.30	.27	.25	.21	.19	.18	.14
R	5	.60	.49	.43	.38	.53	.45	.39	.34	.36	.31	.28	.27	.24	.22	.19	.17	.16	.12
R	6	.55	.45	.38	.33	.49	.40	.34	.30	.32	.28	.24	.24	.21	.19	.17	.15	.14	.11
R	7	.51	.40	.33	.28	.45	.36	.30	.26	.29	.24	.21	.22	.19	.17	.16	.14	.12	.10
R	8	.47	.36	.29	.25	.42	.32	.27	.23	.26	.22	.19	.20	.17	.15	.14	.12	.11	.08
R	9	.43	.33	.26	.22	.39	.29	.24	.20	.23	.19	.16	.18	.15	.13	.13	.11	.09	.07
R	10	.40	.30	.23	.19	.36	.27	.21	.17	.21	.17	.14	.16	.13	.11	.12	.10	.08	.07

Floor Cavity Reflectance .20

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	3885	66.99	73.13
90-0°	1427	24.62	26.87
180-0°	5313	91.61	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	1917	1727	1733
55°	1504	1354	1455
65°	1212	1051	1225
75°	1264	1072	1120
85°	1369	709	710

Photometric data 4 lamp T8

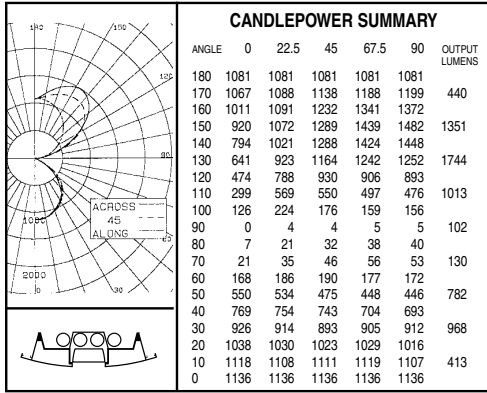


		P-ID-5244T8-PBSS-LP/ELB 81.1% Efficiency																	
		Litecontrol Certified Test Report #27241340																	
RCC		80			70			50			30			10			0		
RW		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
R	0	.81	.81	.81	.81	.71	.71	.71	.71	.54	.54	.54	.38	.38	.38	.23	.23	.23	.16
R	1	.74	.71	.68	.65	.65	.63	.60	.58	.47	.46	.45	.33	.33	.32	.20	.20	.20	.14
R	2	.68	.62	.58	.54	.60	.55	.51	.48	.42	.39	.37	.30	.28	.27	.18	.18	.17	.12
R	3	.62	.55	.50	.45	.55	.49	.44	.41	.37	.34	.32	.27	.25	.23	.17	.16	.15	.11
R	4	.57	.49	.43	.38	.50	.43	.38	.35	.33	.30	.27	.24	.22	.20	.15	.14	.13	.10
R	5	.52	.43	.37	.33	.46	.39	.33	.30	.30	.26	.23	.21	.19	.17	.14	.12	.11	.08
R	6	.48	.39	.33	.28	.42	.34	.29	.25	.27	.23	.20	.19	.17	.15	.12	.11	.10	.07
R	7	.44	.35	.29	.24	.39	.31	.26	.22	.24	.20	.18	.17	.15	.13	.11	.10	.09	.06
R	8	.40	.31	.25	.21	.36	.28	.23	.19	.21	.18	.15	.16	.13	.11	.10	.09	.08	.06
R	9	.37	.28	.22	.18	.33	.25	.20	.17	.19	.16	.13	.14	.12	.10	.09	.08	.07	.05
R	10	.35	.25	.20	.16	.31	.23	.18	.15	.18	.14	.12	.13	.10	.09	.08	.07	.06	.04

Floor Cavity Reflectance .20

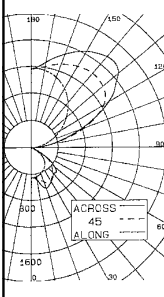
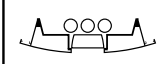
ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	7591	65.44	80.73
90-0°	1812	15.62	19.27
180-0°	9403	81.06	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	2586	2864	3044
55°	1819	2311	2662
65°	310	768	750
75°	164	596	732
85°	177	930	976



Photometric data 3 lamp T8

CANDLEPOWER SUMMARY						
ANGLE	0	22.5	45	67.5	90	OUTPUT LUMENS
180	1164	1164	1164	1164	1164	
170	1157	1172	1216	1274	1287	472
160	1093	1169	1313	1437	1476	
150	989	1143	1380	1583	1647	1474
140	849	1080	1418	1671	1753	
130	677	985	1385	1629	1684	2111
120	491	865	1237	1321	1316	
110	299	701	819	779	760	1416
100	119	335	304	298	295	
90	0	6	6	6	5	159
80	6	18	27	31	33	
70	13	26	40	47	47	108
60	74	126	177	183	177	
50	223	346	377	434	450	575
40	308	453	485	503	516	
30	369	457	579	589	591	562
20	413	439	554	641	655	
10	443	447	465	486	494	188
0	451	451	451	451	451	

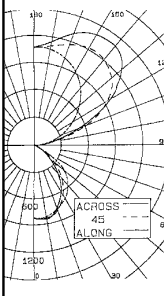
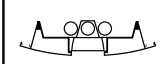



P-ID-5234T8-PBSS-LP/ELB 81.1% Efficiency																			
Litecontrol Certified Test Report #27231340																			
RCC	80				70				50				30						
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR	0	.81	.81	.81	.81	.72	.72	.72	.72	.54	.54	.54	.38	.38	.38	.24	.24	.24	.17
1	.74	.71	.68	.66	.66	.63	.61	.58	.48	.46	.45	.34	.33	.32	.21	.21	.20	.15	
2	.68	.62	.58	.54	.60	.55	.52	.48	.42	.40	.38	.30	.29	.28	.19	.18	.18	.13	
3	.62	.55	.50	.45	.55	.49	.45	.41	.38	.35	.32	.27	.25	.24	.17	.16	.16	.11	
4	.57	.49	.43	.38	.50	.44	.39	.35	.33	.30	.27	.24	.22	.20	.16	.14	.14	.10	
5	.52	.43	.37	.33	.46	.39	.33	.30	.30	.26	.23	.22	.19	.18	.14	.13	.12	.09	
6	.48	.39	.32	.28	.42	.34	.29	.25	.27	.23	.20	.19	.17	.15	.13	.11	.10	.07	
7	.44	.34	.28	.24	.39	.31	.26	.22	.24	.20	.18	.17	.15	.13	.11	.10	.09	.06	
8	.40	.31	.25	.21	.36	.28	.23	.19	.21	.18	.15	.16	.13	.11	.10	.09	.08	.06	
9	.37	.28	.22	.18	.33	.25	.20	.16	.19	.16	.13	.14	.12	.10	.09	.08	.07	.05	
10	.35	.25	.20	.16	.31	.23	.18	.14	.18	.14	.12	.13	.10	.09	.08	.07	.06	.04	
Floor Cavity Reflectance .20																			

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	5610	64.49	79.52
90-0°	1445	16.61	20.48
180-0°	7055	81.10	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	1465	2378	2859
55°	1108	2062	2318
65°	219	649	604
75°	119	491	627
85°	88	797	798

CANDLEPOWER SUMMARY						
ANGLE	0	22.5	45	67.5	90	OUTPUT LUMENS
180	1067	1067	1067	1067	1067	
170	1060	1066	1099	1137	1149	425
160	1006	1052	1165	1261	1298	
150	918	1021	1218	1346	1389	1282
140	797	968	1203	1349	1400	
130	648	874	1120	1235	1266	1711
120	487	734	937	974	971	
110	315	556	599	542	519	1062
100	139	242	191	174	168	
90	0	4	5	6	6	104
80	5	14	22	25	26	
70	14	23	30	36	36	81
60	121	113	102	95	91	
50	432	356	274	231	222	487
40	583	552	475	426	413	
30	689	700	642	612	601	690
20	764	777	778	764	752	
10	816	814	829	843	843	308
0	816	816	816	816	816	

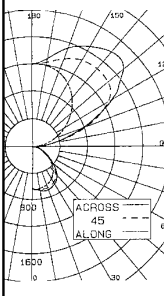
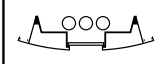



P-ID-5234T8-PBSS-LP/ELB-DSR 70.6% Efficiency																			
Litecontrol Certified Test Report #27331340																			
RCC	80				70				50				30						
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR	0	.72	.72	.72	.72	.64	.64	.64	.64	.49	.49	.49	.36	.36	.36	.24	.24	.24	.18
1	.66	.63	.61	.58	.59	.56	.54	.52	.44	.43	.41	.32	.32	.31	.22	.21	.21	.16	
2	.60	.56	.52	.48	.54	.50	.47	.44	.39	.37	.35	.29	.28	.27	.20	.19	.19	.15	
3	.55	.49	.45	.41	.49	.44	.41	.37	.35	.32	.30	.26	.25	.23	.18	.17	.17	.13	
4	.51	.44	.39	.35	.45	.40	.35	.32	.31	.28	.26	.24	.22	.20	.17	.16	.15	.12	
5	.47	.39	.34	.30	.42	.35	.31	.28	.28	.25	.23	.21	.19	.18	.15	.14	.13	.10	
6	.43	.35	.30	.26	.38	.32	.27	.24	.25	.22	.20	.19	.17	.16	.14	.13	.12	.09	
7	.40	.32	.26	.23	.35	.29	.24	.21	.23	.20	.17	.18	.15	.14	.13	.11	.10	.08	
8	.37	.29	.23	.20	.33	.26	.21	.18	.21	.18	.15	.16	.14	.12	.11	.10	.09	.07	
9	.34	.26	.21	.17	.30	.23	.19	.16	.19	.16	.13	.14	.12	.11	.10	.09	.08	.06	
10	.31	.23	.19	.15	.28	.21	.17	.14	.17	.14	.12	.13	.11	.09	.09	.08	.07	.06	
Floor Cavity Reflectance .20																			

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	4564	52.47	74.36
90-0°	1573	18.09	25.64
180-0°	6138	70.56	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	2810	2066	1716
55°	2101	1206	1024
65°	301	457	421
75°	134	387	478
85°	88	620	665

CANDLEPOWER SUMMARY						
ANGLE	0	22.5	45	67.5	90	OUTPUT LUMENS
180	1199	1199	1199	1199	1199	
170	1194	1206	1246	1296	1308	485
160	1138	1202	1355	1489	1529	
150	1038	1184	1446	1622	1680	1525
140	899	1140	1462	1711	1791	
130	726	1040	1432	1669	1723	2182
120	533	901	1270	1335	1328	
110	331	730	821	776	759	1440
100	134	335	301	296	294	
90	2	5	5	5	5	175
80	75	72	63	53	50	
70	138	123	118	130	136	271
60	223	215	214	228	235	
50	345	347	364	377	380	604
40	467	492	522	546	551	
30	551	582	621	648	646	653
20	608	625	660	688	687	
10	638	637	650	668	669	248
0	627	627	627	627	627	

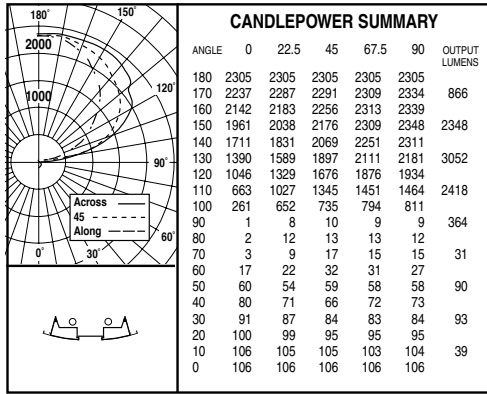
P-ID-5234T8-XA-LP/ELB 87.0% Efficiency																			
Litecontrol Certified Test Report #27231010																			
RCC	80				70				50				30						
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR	0	.88	.88	.88	.88	.78	.78	.78	.78	.60	.60	.60	.43	.43	.43	.28	.28	.28	.21
1	.80	.77	.74	.71	.71	.68	.66	.63	.53	.51	.49	.38	.37	.36	.25	.24	.24	.18	
2	.73	.67	.62	.58	.65	.60	.56	.52	.46	.44	.41	.34	.32	.31	.22	.21	.21	.15	
3	.67	.59	.53	.49	.59	.53	.48	.44	.41	.38	.35	.30	.28	.26	.20	.19	.18	.13	
4	.61	.52	.46	.41	.54	.47	.42	.37	.37	.33	.30	.27	.24	.22	.18	.17	.15	.12	
5	.56	.46	.40	.35	.50	.42	.36	.32	.32	.29	.25	.24	.21	.19	.16	.15	.13	.10	
6	.51	.42	.35	.30	.46	.37	.31	.27	.29	.25	.22	.22	.19	.17	.15	.13	.12	.09	
7	.47	.37	.31	.26	.42	.33	.28	.24	.26	.22	.19	.19	.17	.15	.13	.11	.10	.08	
8	.44	.33	.27	.23	.39	.30	.24	.21	.24	.20	.17	.18	.15	.13	.12	.10	.09	.07	
9	.40	.30	.24	.20	.36	.27	.22	.18	.21	.17	.14	.16	.13	.11	.11	.09	.08	.06	
10	.37	.27	.21	.17	.33	.25	.19	.16	.19	.15	.13	.14	.12	.10	.10	.08	.07	.05	
Floor Cavity Reflectance .20																			

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	5768	66.31	76.18
90-0°	1803	20.74	23.82
180-0°	7572	87.04	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	2227	2438	2585
55°	1879	1934	2048
65°	1558	1417	1637
75°	1592	1430	1448
85°	1679	930	931

CANDLEPOWER SUMMARY						
ANGLE	0	22.5	45	67.5	90	OUTPUT LUMENS
180	1052	1052	1052	1052	1052	
170	1048	1054	1087	1127	1132	421
160	995	1043	1159	1260	1283	
150	907	1015	1213	1349	1384	1279
140	787	966	1207	1365	1409	
130	641	871	1133	1259	1284	1726
120	480	739	954	989	982	
110	310	565	604	542	520	1069
100	137					

Photometric data 2 lamp T5HO



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																					
RCR																					
0	.89	.89	.89	.89	.77	.77	.77	.77	.53	.53	.53	.32	.32	.32	.12	.12	.12	.03			
1	.81	.77	.74	.71	.70	.66	.64	.61	.46	.45	.43	.28	.27	.26	.10	.10	.10	.02			
2	.74	.67	.62	.58	.63	.58	.54	.50	.40	.38	.36	.24	.23	.22	.09	.09	.08	.02			
3	.67	.59	.53	.48	.58	.51	.46	.42	.36	.33	.30	.21	.20	.18	.08	.08	.07	.02			
4	.61	.52	.45	.40	.52	.45	.40	.35	.32	.28	.25	.19	.17	.16	.07	.07	.06	.01			
5	.56	.45	.39	.34	.48	.40	.34	.30	.28	.24	.22	.17	.15	.13	.06	.06	.05	.01			
6	.51	.41	.34	.29	.44	.36	.30	.26	.25	.21	.19	.15	.13	.11	.06	.05	.05	.01			
7	.47	.37	.30	.25	.40	.32	.26	.22	.22	.19	.16	.14	.11	.10	.05	.04	.04	.01			
8	.44	.33	.26	.22	.37	.29	.23	.19	.20	.16	.14	.12	.10	.09	.05	.04	.03	.01			
9	.40	.30	.23	.19	.34	.26	.20	.17	.18	.15	.12	.11	.09	.08	.04	.04	.03	.01			
10	.37	.27	.21	.17	.32	.23	.18	.15	.17	.13	.11	.10	.08	.07	.04	.03	.03	.01			

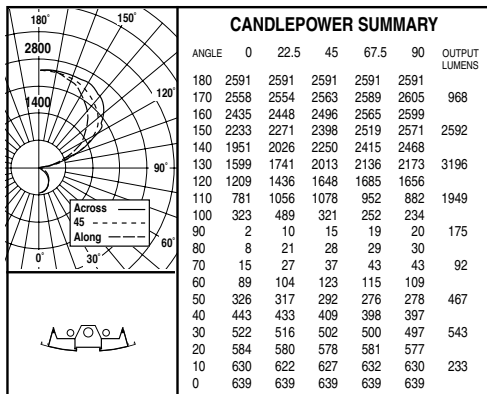
Floor Cavity Reflectance .20

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	9034	90.34	97.22
90-0°	258	2.59	2.78
180-0°	9292	92.93	100.00

ANGLE	0°	45°	90°
45°	119	109	111
55°	87	95	95
65°	17	53	51
75°	14	64	64
85°	14	109	109

Photometric data 2 lamp T5HO/1 lamp T8



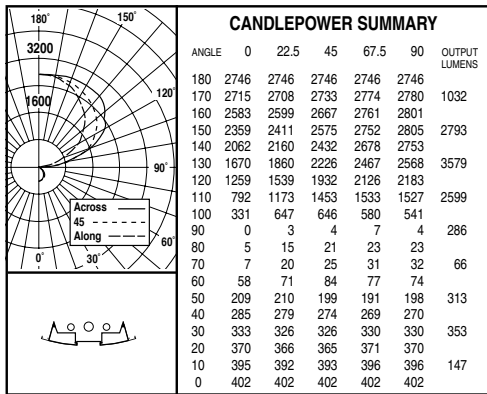
RCC	80				70				50				30				10	0		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0					
RW																				
RCR																				
0	.78	.78	.78	.78	.68	.68	.68	.68	.50	.50	.50	.33	.33	.33	.18	.18	.18	.10		
1	.71	.68	.65	.63	.62	.60	.57	.55	.44	.42	.41	.29	.29	.28	.16	.16	.15	.09		
2	.65	.59	.55	.51	.57	.52	.49	.45	.39	.36	.34	.26	.25	.24	.14	.14	.13	.08		
3	.59	.53	.47	.43	.52	.46	.42	.38	.34	.31	.29	.23	.22	.20	.13	.12	.12	.07		
4	.54	.46	.41	.36	.47	.41	.36	.33	.30	.27	.25	.21	.19	.17	.12	.11	.10	.06		
5	.50	.41	.35	.31	.43	.36	.31	.28	.27	.24	.21	.19	.17	.15	.11	.10	.09	.06		
6	.46	.37	.31	.27	.40	.33	.28	.24	.24	.21	.18	.17	.15	.13	.10	.09	.08	.05		
7	.42	.33	.27	.23	.37	.29	.24	.21	.22	.18	.16	.15	.13	.11	.09	.08	.07	.04		
8	.39	.30	.24	.20	.34	.26	.21	.18	.20	.16	.14	.14	.11	.10	.08	.07	.06	.04		
9	.36	.27	.21	.17	.31	.24	.19	.16	.18	.15	.12	.12	.10	.09	.07	.06	.05	.03		
10	.33	.24	.19	.15	.29	.22	.17	.14	.16	.13	.11	.11	.09	.08	.06	.05	.05	.03		

Floor Cavity Reflectance .20

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	8855	68.65	86.77
90-0°	1350	10.47	13.23
180-0°	10206	79.12	100.00

ANGLE	0°	45°	90°
45°	661	594	571
55°	478	443	424
65°	73	157	160
75°	50	151	165
85°	95	245	245



RCC	80				70				50				30				10	0		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0					
RW																				
RCR																				
0	.84	.84	.84	.84	.73	.73	.73	.73	.52	.52	.52	.33	.33	.33	.15	.15	.15	.07		
1	.77	.73	.70	.67	.66	.63	.61	.58	.45	.44	.43	.29	.28	.27	.14	.13	.13	.06		
2	.70	.64	.59	.55	.60	.56	.52	.48	.40	.37	.35	.25	.24	.23	.12	.12	.11	.05		
3	.64	.56	.51	.46	.55	.49	.44	.41	.35	.32	.30	.23	.21	.20	.11	.10	.10	.05		
4	.58	.50	.43	.39	.50	.43	.38	.34	.31	.28	.25	.20	.18	.17	.10	.09	.08	.04		
5	.53	.43	.38	.33	.46	.39	.33	.29	.28	.24	.22	.18	.16	.14	.09	.08	.07	.04		
6	.49	.39	.33	.28	.42	.34	.29	.25	.25	.21	.19	.16	.14	.12	.08	.07	.06	.03		
7	.45	.35	.29	.24	.39	.31	.25	.22	.22	.19	.16	.14	.12	.11	.07	.06	.06	.03		
8	.41	.32	.25	.21	.36	.28	.22	.19	.20	.17	.14	.13	.11	.09	.06	.06	.05	.02		
9	.38	.28	.22	.18	.33	.25	.20	.16	.18	.15	.12	.12	.10	.08	.06	.05	.04	.02		
10	.36	.26	.20	.16	.31	.23	.18	.14	.17	.13	.11	.11	.09	.07	.05	.04	.04	.02		

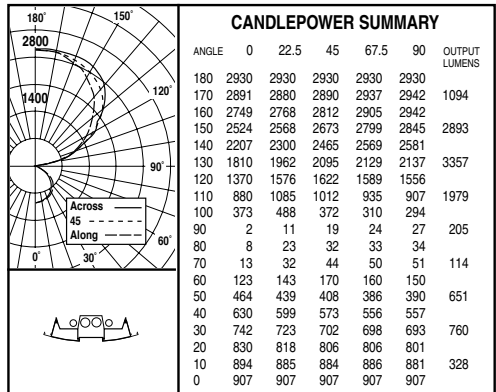
Floor Cavity Reflectance .20

ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	10272	79.63	92.05
90-0°	887	6.88	7.95
180-0°	11159	86.51	100.00

ANGLE	0°	45°	90°
45°	423	405	393
55°	309	300	284
65°	45	110	115
75°	32	114	128
85°	14	163	191

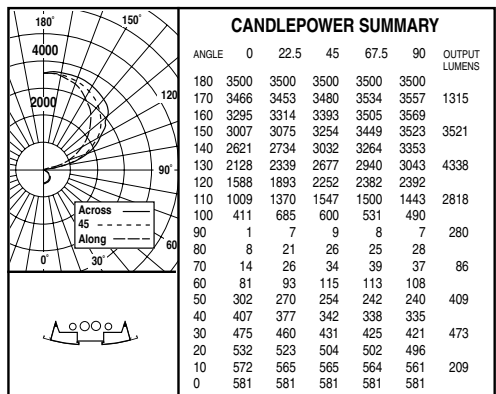
Photometric data 2 lamp T5HO/2 lamp T8



P-ID-5224T5HO/2T8-PBSS/0-DSR-LP/ELB 72.0% Efficiency Litecontrol Certified Test Report #27349580																								
RCC	80				70				50				30				10				0			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR	0	.71	.71	.71	.71	.63	.63	.63	.63	.47	.47	.47	.32	.32	.32	.18	.18	.18	.12					
1	.65	.62	.60	.58	.57	.55	.53	.51	.41	.40	.39	.28	.28	.27	.17	.16	.16	.11						
2	.60	.55	.51	.47	.52	.48	.45	.42	.36	.34	.32	.25	.24	.23	.15	.14	.14	.09						
3	.55	.48	.44	.40	.48	.43	.39	.36	.32	.30	.28	.23	.21	.20	.14	.13	.12	.08						
4	.50	.43	.38	.34	.44	.38	.34	.30	.29	.26	.24	.20	.18	.17	.12	.11	.11	.07						
5	.46	.38	.33	.29	.40	.34	.29	.26	.26	.23	.20	.18	.16	.15	.11	.10	.09	.07						
6	.42	.34	.29	.25	.37	.30	.26	.22	.23	.20	.18	.16	.14	.13	.10	.09	.08	.06						
7	.39	.31	.25	.22	.34	.27	.23	.19	.21	.18	.15	.15	.13	.11	.09	.08	.07	.05						
8	.36	.27	.22	.19	.31	.24	.20	.17	.19	.16	.13	.13	.11	.10	.08	.07	.06	.04						
9	.33	.25	.20	.16	.29	.22	.18	.15	.17	.14	.12	.12	.10	.09	.07	.06	.06	.04						
10	.31	.22	.18	.14	.27	.20	.16	.13	.15	.12	.10	.11	.09	.08	.07	.06	.05	.03						
Floor Cavity Reflectance .20																								

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	9502	60.14	83.56
90-0°	1870	11.84	16.44
180-0°	11372	71.98	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	938	818	803
55°	672	621	592
65°	92	197	202
75°	46	174	193
85°	95	204	177



P-ID-5224T5HO/2T8-PBSS/0-LP/ELB 85.1% Efficiency Litecontrol Certified Test Report #27249580																								
RCC	80				70				50				30				10				0			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR	0	.83	.83	.83	.83	.72	.72	.72	.72	.51	.51	.51	.33	.33	.33	.16	.16	.16	.08					
1	.76	.72	.69	.66	.65	.63	.60	.57	.45	.44	.42	.29	.28	.27	.14	.14	.13	.07						
2	.69	.63	.58	.54	.60	.55	.51	.48	.40	.37	.35	.26	.24	.23	.13	.12	.12	.06						
3	.63	.56	.50	.45	.54	.48	.44	.40	.35	.32	.30	.23	.21	.20	.11	.11	.10	.05						
4	.57	.49	.43	.38	.50	.43	.38	.34	.31	.28	.25	.20	.18	.17	.10	.09	.09	.05						
5	.53	.43	.37	.33	.46	.38	.33	.29	.28	.24	.22	.18	.16	.15	.09	.08	.08	.04						
6	.48	.39	.33	.28	.42	.34	.29	.25	.25	.21	.19	.16	.14	.13	.08	.07	.07	.04						
7	.44	.35	.28	.24	.38	.30	.25	.21	.22	.19	.16	.15	.13	.11	.07	.07	.06	.03						
8	.41	.31	.25	.21	.35	.27	.22	.19	.20	.17	.14	.13	.11	.10	.07	.06	.05	.03						
9	.38	.28	.22	.18	.33	.25	.20	.16	.18	.15	.12	.12	.10	.08	.06	.05	.04	.02						
10	.35	.26	.20	.16	.30	.22	.18	.14	.17	.13	.11	.11	.09	.07	.06	.05	.04	.02						
Floor Cavity Reflectance .20																								

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	% LAMP	% LUMINAIRE
180-90°	12250	77.53	91.16
90-0°	1188	7.52	8.84
180-0°	13438	85.06	100.00

LUMINANCE SUMMARY (fL)			
ANGLE	0°	45°	90°
45°	597	507	489
55°	441	399	395
65°	67	143	146
75°	41	142	151
85°	68	231	218