Alphalite Inc.

PROJECT NAME

CATALOG NO.

TYPE | DATE

NOTE

INFINITY SERIES LED VOLUMETRIC TROFFER

ILT-CB Series

LED Volumetric Troffer - Center Diffuser

DESCRIPTION

The Infinity Volumetric LED Troffer series combines the benefits of long life, controllability, and energy savings with elegant design and superior quality of light. The ILT luminaires optimize LED optics and electronics to deliver energy savings and high performance.

APPLICATION
Indoor general/ambient illumination. Idea for offices, schools, retail, and other architectural spaces that demand energy demand reduction and high quality light.

0 -10V Continuous DIMMING

7 YEAR WARRANTY

SPECIFICATION FEATURES

Construction
Rugged construction: solid die-formed, cold-rolled steel. Interior utilizes highly reflective powder coat finish. All surfaces coated and baked post-fabrication with high gloss powder-paint. Diffuser lens provides even and consistent light while eliminating pixelation. Tool-less removal of diffuser allows access to LED array. LED module and driver are replaceable. Housing and optics maintain damp location rating with all internal components.

Electrical
Luminaire utilizes long life, high efficacy LEDs and a highly efficient, reliable LED driver. 120V-277V input voltage for increased versatility. 0-10V continuous dimming comes standard. Ideal when used in conjunction with controls and sensors. Comes equipped with quick disconnect for compliance with US code

Mounting
Installs recessed with T-bar grid. LED module arrays and drivers accessible from fixture during service and operation, no need to access via plenum.

Finish
Highly reflective powder coat finish. Baked white matte paint, applied after fabrication.

Optics
Volumetric effect achieved by delivering a comfortable mix of light to working and surrounding surfaces, creating balanced illumination throughout the environment. Occupants can realize a productive and comfortable atmosphere through enhanced light quality and distribution. Diffuser shape, pattern, and opacity designed in conjunction with precisely-engineered reflector cavity angles to distribute LED light consistently, reducing glare and pixelation.

Certifications / Regulatory
UL/cUL listed. Damp location rated. All components used have UL approval. UL Class 2. Power supply: SCP, OTP, OVP protection, FCC Part 15 Class B, UL8750 Class 2. DLC Premium listed.

Warranty
7-year limited warranty. See complete warranty terms for details.

Quick Ship Product

- ILT-CB-22L(26S)/835
- ILT-CB-22L(26S)/840
- ILT-CB-22H(35S)/840
- ILT-CB-24L(34S)/835
- ILT-CB-24L(34S)/840
- ILT-CB-24H(46S)/840
- ILT-CB-24H(60)/840
- ILT-CB-14L(26S)/840
- ILT-CB-14H(35S)/840

ORDERING INFORMATION

Sample Number: ILT-CB-24L(34S)/840

ILT-CB	24	L	8	40	(Blank)	(Blank)
Series	**Form Factor**	**Lumen Package**	**CRI**	**CCT**	**Input Voltage**	**Dimming**
ILT - Infinity LED Troffer, Center Diffuser	22 - 2'x2' 24 - 2'x4' 14 - 1'x4'	VL - Very Low Wattage L - Low Wattage H - High Lumen *See energy data for details	8 - 83+ CRI	35 - 3500K 40 - 4000K 50 - 5000K	(Blank) - 120V-277V	(Blank) - 0-10V Continuous Dimming

Options

Controls

DMMS - Integrated step dimming microwave motion sensor

MMS - Integrated step dimming microwave motion sensor with sync function

DL - Integrated daylight harvesting

SMC - Smart Control System

Emergency Backup

EM700 - 700lm

EM1400 - 1400lm

EM2000 - 2000lm

SUMMARY

Input Voltage	120V-277V
Input Power	See energy data for details
Power Factor	> 0.95
THD (Max.)	20%
Efficacy	> 121 LPW
Delivered Lumens	See energy data for details
Controls/ Dimming	Full Range 0-10V dimming standard
Dimming Range	0-10V Continuous (10-100%)
CRI	> 83
CCT	3500K, 4000K, 5000K
Operating Temp.	-20 ~ +55 C
Rated Life	70,000 hours

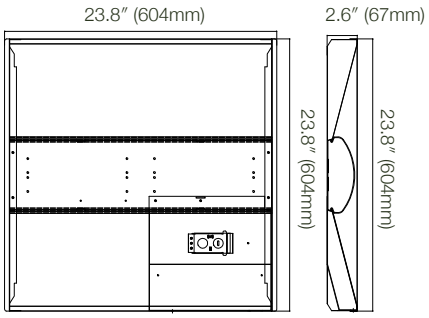
ENERGY PERFORMANCE DATA

Form Factor	Part No.	Rated Wattage (W)	Tested Wattage (W)	Delivered Lumens (lm)	Efficacy (lm/W)
2′x2′	ILT-CB-22VL(18S)/835	18	17	2128	122
	ILT-CB-22VL(18S)/840			2250	126
	ILT-CB-22VL(18S)/850			2268	127
	ILT-CB-22L(26S)/835	26	25	3075	121
	ILT-CB-22L(26S)/840			3250	125
	ILT-CB-22L(26S)/850			3276	127
	ILT-CB-22H(35S)/835	35	35	4243	122
	ILT-CB-22H(35S)/840			4410	126
	ILT-CB-22H(35S)/850			4445	127
2′x4′	ILT-CB-24VL(25S)/835	25	24	3341	140
	ILT-CB-24VL(25S)/840			3500	140
	ILT-CB-24VL(25S)/850			3550	142
	ILT-CB-24L(34S)/835	34	33	4119	125
	ILT-CB-24L(34S)/840			4284	127
	ILT-CB-24L(34S)/850			4290	130
	ILT-CB-24H(46S)/835	48	46	5620	125
	ILT-CB-24H(46S)/840			5970	127
	ILT-CB-24H(46S)/850			6115	130
	ILT-CB-24H(60)/835	60	58	7023	121
	ILT-CB-24H(60)/840			7500	127
	ILT-CB-24H(60)/850			7501	131
1′x4′	ILT-CB-14L(26)/835	26	26	3164	122
	ILT-CB-14L(26)/840			3276	126
	ILT-CB-14L(26)/850			3380	130
	ILT-CB-14H(35S)/835	35	35	4243	122
	ILT-CB-14H(35S)/840			4410	126
	ILT-CB-14H(35S)/850			4445	127

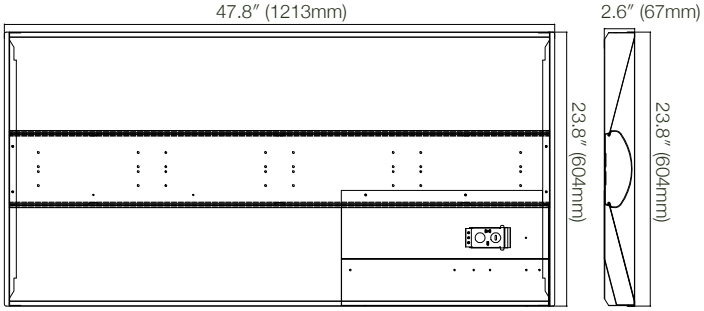
PHYSICAL PARAMETERS

DIMENSION

ILT-CB-22



ILT-CB-24



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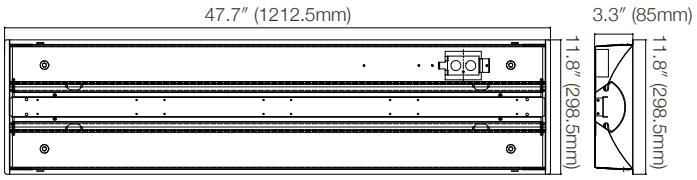
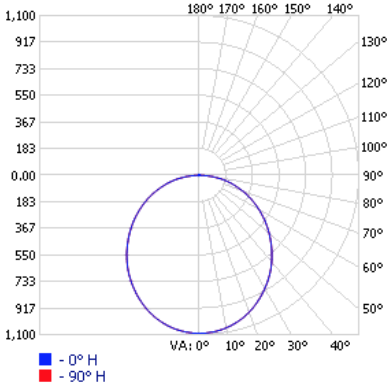


ILT-CB-22L(26S)/835



Zonal Lumen Summary

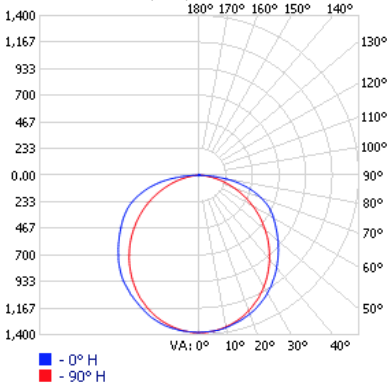
ZONE	LUMENS	% LUMINAIRE
0-30	837.8	26.80%
0-40	1,364.70	43.60%
0-60	2,402.90	76.70%
60-90	722.1	23.10%
70-100	330.1	10.50%
90-120	2.8	0.10%
0-90	3,125.00	99.80%
90-180	6.2	0.20%
0-180	3,131.20	100%

Coefficients of Utilization - Zonal Cavity Method

EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.08	1.03	0.99	0.95	1.05	1.01	0.97	0.83	0.97	0.93	0.9	0.93	0.9	0.87	0.89	0.87	0.85	0.83
2	0.98	0.9	0.83	0.77	0.95	0.88	0.81	0.7	0.84	0.79	0.74	0.81	0.76	0.72	0.78	0.74	0.71	0.68
3	0.89	0.79	0.7	0.63	0.87	0.77	0.69	0.59	0.74	0.67	0.62	0.71	0.65	0.61	0.68	0.64	0.59	0.57
4	0.82	0.69	0.6	0.54	0.79	0.68	0.6	0.51	0.66	0.58	0.52	0.63	0.57	0.52	0.61	0.55	0.51	0.49
5	0.75	0.62	0.53	0.46	0.73	0.61	0.52	0.44	0.59	0.51	0.45	0.57	0.5	0.45	0.55	0.49	0.44	0.42
6	0.69	0.56	0.47	0.4	0.67	0.55	0.46	0.39	0.53	0.45	0.4	0.51	0.44	0.39	0.5	0.44	0.39	0.37
7	0.64	0.51	0.42	0.35	0.63	0.5	0.41	0.34	0.48	0.41	0.35	0.47	0.4	0.35	0.45	0.39	0.34	0.32
8	0.6	0.46	0.38	0.32	0.58	0.45	0.37	0.31	0.44	0.37	0.31	0.43	0.36	0.31	0.42	0.35	0.31	0.29
9	0.56	0.42	0.34	0.28	0.54	0.42	0.34	0.28	0.41	0.33	0.28	0.39	0.33	0.28	0.38	0.32	0.28	0.26
10	0.52	0.39	0.31	0.26	0.51	0.39	0.31	0.25	0.38	0.3	0.26	0.37	0.3	0.25	0.36	0.3	0.25	0.24

ILT-CB-24L(34S)/835



Zonal Lumen Summary

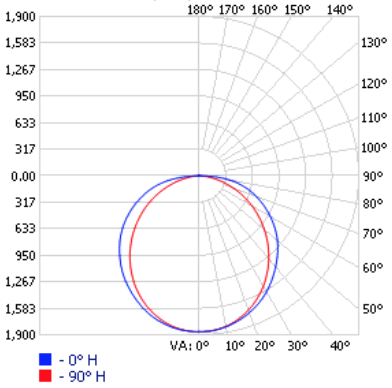
ZONE	LUMENS	% LUMINAIRE
0-30	1,069.70	25.50%
0-40	1,753.30	41.80%
0-60	3,131.40	74.70%
60-90	1,053.70	25.10%
70-100	502.5	12%
90-120	3.6	0.10%
0-90	4,185.10	99.80%
90-180	7.1	0.20%
0-180	4,192.20	100%

Coefficients of Utilization - Zonal Cavity Method

EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.08	1.03	0.98	0.94	1.05	1	0.96	0.83	0.96	0.92	0.89	0.92	0.89	0.86	0.88	0.86	0.84	0.82
2	0.97	0.89	0.81	0.75	0.95	0.87	0.8	0.69	0.83	0.78	0.73	0.8	0.75	0.71	0.77	0.73	0.69	0.67
3	0.89	0.77	0.69	0.62	0.86	0.76	0.68	0.58	0.73	0.66	0.6	0.7	0.64	0.59	0.67	0.62	0.58	0.56
4	0.81	0.68	0.59	0.52	0.79	0.67	0.58	0.49	0.64	0.57	0.51	0.62	0.56	0.5	0.6	0.54	0.5	0.47
5	0.74	0.61	0.52	0.45	0.72	0.6	0.51	0.43	0.58	0.5	0.44	0.56	0.49	0.43	0.54	0.48	0.43	0.41
6	0.69	0.55	0.46	0.39	0.67	0.54	0.45	0.37	0.52	0.44	0.38	0.5	0.43	0.38	0.49	0.42	0.38	0.36
7	0.64	0.5	0.41	0.34	0.62	0.49	0.4	0.33	0.47	0.4	0.34	0.46	0.39	0.34	0.44	0.38	0.33	0.31
8	0.59	0.45	0.37	0.31	0.57	0.45	0.36	0.3	0.43	0.36	0.3	0.42	0.35	0.3	0.41	0.34	0.3	0.28
9	0.55	0.42	0.33	0.27	0.54	0.41	0.33	0.27	0.4	0.32	0.27	0.39	0.32	0.27	0.38	0.31	0.27	0.25
10	0.52	0.38	0.3	0.25	0.5	0.38	0.3	0.24	0.37	0.3	0.25	0.36	0.29	0.25	0.35	0.29	0.24	0.23

ILT-CB-24H(46S)/835



Zonal Lumen Summary

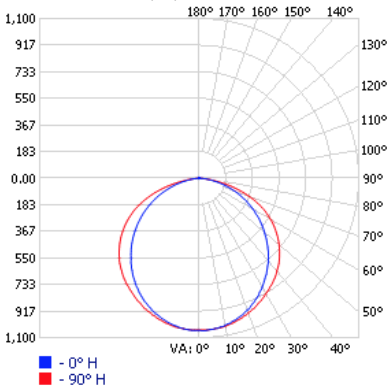
ZONE	LUMENS	% LUMINAIRE
0-30	1,439.90	25.80%
0-40	2,356.20	42.20%
0-60	4,200.50	75.20%
60-90	1,372.00	24.60%
70-100	654.5	11.70%
90-120	5	0.10%
0-90	5,572.50	99.80%
90-180	9.7	0.20%
0-180	5,582.20	100%

Coefficients of Utilization - Zonal Cavity Method

EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.08	1.03	0.98	0.94	1.05	1	0.96	0.83	0.96	0.93	0.89	0.92	0.89	0.87	0.88	0.86	0.84	0.82
2	0.98	0.89	0.82	0.76	0.95	0.87	0.8	0.69	0.83	0.78	0.73	0.8	0.75	0.71	0.77	0.73	0.7	0.67
3	0.89	0.78	0.69	0.62	0.86	0.76	0.68	0.58	0.73	0.66	0.61	0.7	0.64	0.6	0.68	0.63	0.58	0.56
4	0.81	0.69	0.6	0.53	0.79	0.67	0.59	0.5	0.65	0.57	0.51	0.62	0.56	0.51	0.6	0.55	0.5	0.48
5	0.74	0.61	0.52	0.45	0.72	0.6	0.51	0.43	0.58	0.5	0.44	0.56	0.49	0.44	0.54	0.48	0.43	0.41
6	0.69	0.55	0.46	0.39	0.67	0.54	0.45	0.38	0.52	0.44	0.39	0.5	0.44	0.38	0.49	0.43	0.38	0.36
7	0.64	0.5	0.41	0.35	0.62	0.49	0.4	0.33	0.47	0.4	0.34	0.46	0.39	0.34	0.45	0.38	0.34	0.32
8	0.59	0.45	0.37	0.31	0.58	0.45	0.36	0.3	0.43	0.36	0.3	0.42	0.35	0.3	0.41	0.35	0.3	0.28
9	0.55	0.42	0.33	0.28	0.54	0.41	0.33	0.27	0.4	0.33	0.27	0.39	0.32	0.27	0.38	0.32	0.27	0.25
10	0.52	0.38	0.3	0.25	0.51	0.38	0.3	0.25	0.37	0.3	0.25	0.36	0.29	0.25	0.35	0.29	0.25	0.23

ILT-CB-14L(26)/835



Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	815.1	26%
0-40	1,340.80	42.80%
0-60	2,418.50	77.10%
60-90	711	22.70%
70-100	295.9	9.40%
90-120	2.8	0.10%
0-90	3,129.50	99.80%
90-180	6.2	0.20%
0-180	3,135.70	100%

Coefficients of Utilization - Zonal Cavity Method

EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%

RCC %:	80				70				50			30			10			0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1
1	1.08	1.04	0.99	0.95	1.06	1.01	0.97	0.84	0.97	0.94	0.91	0.93	0.9	0.88	0.89	0.87	0.85	0.83
2	0.98	0.9	0.83	0.77	0.96	0.88	0.81	0.7	0.84	0.79	0.74	0.81	0.76	0.72	0.78	0.74	0.71	0.69
3	0.89	0.79	0.7	0.64	0.87	0.77	0.69	0.59	0.74	0.67	0.62	0.71	0.65	0.61	0.69	0.64	0.6	0.57
4	0.82	0.69	0.6	0.54	0.79	0.68	0.6	0.51	0.65	0.58	0.52	0.63	0.57	0.52	0.61	0.55	0.51	0.49
5	0.75	0.62	0.53	0.46	0.73	0.61	0.52	0.44	0.59	0.51	0.45	0.56	0.5	0.45	0.55	0.49	0.44	0.42
6	0.69	0.56	0.46	0.4	0.67	0.55	0.46	0.38	0.53	0.45	0.39	0.51	0.44	0.39	0.49	0.43	0.39	0.36
7	0.64	0.5	0.41	0.35	0.62	0.49	0.41	0.34	0.48	0.4	0.35	0.46	0.4	0.34	0.45	0.39	0.34	0.32
8	0.6	0.46	0.37	0.31	0.58	0.45	0.37	0.3	0.44	0.36	0.31	0.42	0.36	0.31	0.41	0.35	0.3	0.29
9	0.56	0.42	0.34	0.28	0.54	0.41	0.33	0.27	0.4	0.33	0.28	0.39	0.32	0.28	0.38	0.32	0.27	0.26
10	0.52	0.39	0.31	0.25	0.51	0.38	0.31	0.25	0.37	0.3	0.25	0.36	0.3	0.25	0.35	0.29	0.25	0.23

-DMMS/MMS control pre-commissioning

Sample Number: -DMMS (10-3M-L3-S10M)

10	3M	L3	S10M	(Blank)
Detection Area	**Hold Time**	**Low Mode**	**Stand-by Period**	**Daylight Sensor**
10 - 100%	NM - ∞	L5 - 50%	SN - ∞	(Blank) - Disable
7 - 75%	20M - 20 min.	L3 - 30%	S1H - 1 hr.	D100 - 100 lux
5 - 50%	3M - 3 min.	L2 - 20%	S30M - 30 min.	D50 - 50 lux
1 - 10%	30S - 30 sec.	L1 - 10%	S10M - 10 min.	D25 - 25 lux
	5S - 5 sec.		S5M - 5 min.	D10 - 10 lux
			S5S - 5 sec.	D5 - 5 lux
			(Blank) - Disable	D2 - 2 lux

Detection Area: Detection area can be reduced to fit precisely each application.
Hold Time: The time period the luminaire remains at 100% illumination after no motion detected.
Low Mode: The selected low light level after the hold time.
Stand-by Period: The time period the luminaire remains at "Low Mode" before it completely switched off in the long absence of people.
When set to "∞" mode, the low light level is maintained until motion is detected.
Daylight Sensor: The sensor can be set to only allow the luminaire to illuminate below a defined ambient brightness threshold.
When set to "Disable" mode, the daylight sensor will switch on the luminaire when motion is detected regardless of ambient light level.
Noted that daylight sensor is active only when the luminaire switches off

WIRELESS SMART CONTROL SYSTEM (ASMC)

The Alphalite Wireless Smart Control System is an ideal choice to provide convenient control of lighting. The LED controller uses wireless technology to communicate with other self-powered products in the system and provides an amazingly simple solution for dimming control of LED lighting

APPLICATION
Versatile solution for general purpose applications. Ideal for multi level building, offices, school, warehouse, manufacturing facilities, and spaces that demand energy demand reduction and high quality light.

BENEFITS
- Reliable, longer indoor range wireless communication
- Easy Design-in
- License-free
- Self-powered
- Lower energy costs
- Lower installation costs
- Strength of interoperability
- Convenient access to replaceable, standard components reduces life cycle costs