

Alphalite

PROJECT NAME

CATALOG NO.

TYPE

DATE

NOTE

INFINITY SERIES LED Volumetric Troffer

ILT-DB

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, retail, and other architectural spaces that demand energy demand reduction and high quality light.

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.

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. All components used have UL approval. UL Class 2. Power supply: SCP, OTP, OVP protection, FCC Part 15 Class B, UL8750 Class 2. DLC listed.

Warranty

5-year limited warranty. See complete warranty terms for details.

ILT-DB

Infinity Series

LED Volumetric Troffer - Dual Diffuser

2x2, 2x4, 1x4



Quick Ship Product

ILT-DB-22H/840

ILT-DB-22L/840

ILT-DB-24L/840

ILT-DB-24H/840

ORDERING INFORMATION

Sample Number: ILT-DB-22H/840

ILT	DB	22	H	8	40	(Blank)	(Blank)	
Series	Style	Size	Lumen Package	CRI	CCT	Input Voltage	Dimming	Options
ILT = Infinity LED Troffer	DB - Dual Diffuser	22 - 2'x2' 24 - 2'x4' 14 - 1'x4'	L - Low Wattage H - High Lumen * see energy data for details	8 - 82+ CRI 9 - 90+ CRI	30 - 3000K 35 - 3500K 40 - 4000K 50 - 5000K	(Blank) - 120V-277V 347 - 347V	(Blank) - 0-10V AB - Dual Relay PD - Phase Dimming DA - DALI	EM14 - Emergency Backup (1400 lumens) PIR - Integrated occupancy sensor (PIR) DL - Integrated daylight photocell



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SUMMARY

Input Voltage	120V-277V
Input Power	See energy data for details
Power Factor	> 0.95
THD (Max.)	20%
Efficacy	> 93 LPW
Delivered Lumens	See energy data for details
Controls/ Dimming	Full Range 0-10V dimming standard
Dimming Range	10-100%
CRI	> 82
CCT	3000K, 3500K, 4000K, 5000K
Operating Temp.	-20 ~ +55 C

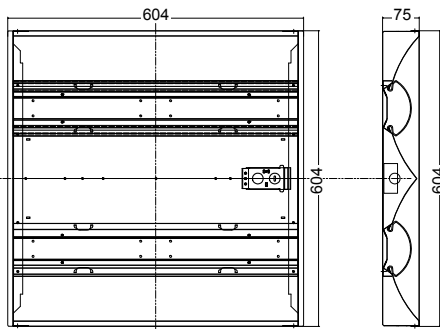
ENERGY PERFORMANCE DATA

	Lumen package	Input watts	Lumens	LPW	CCT
2 x 2	ILT-DB-22H/830	36	3378	93.8	3000K
	ILT-DB-22H/835	36	3440	97.6	3500K
	ILT-DB-22H/840	36	3510	99.2	4000K
	ILT-DB-22H/850	36	3638	101.1	5000K
	ILT-DB-22L/830	24	2038	84.9	3000K
	ILT-DB-22L/835	24	2090	98.9	3500K
	ILT-DB-22L/840	24	2160	99.6	4000K
2 x 4	ILT-DB-24L/830	42	4239	100.9	3000K
	ILT-DB-24L/835	42	4389	102.7	3500K
	ILT-DB-24L/840	42	4410	104.9	4000K
	ILT-DB-24L/850	42	4568	108.8	5000K
	ILT-DB-24H/830	68	6738	99.1	3000K
	ILT-DB-24H/835	68	6903	98.6	3500K
	ILT-DB-24H/840	68	7106	99.9	4000K
	ILT-DB-24H/850	68	7261	106.8	5000K

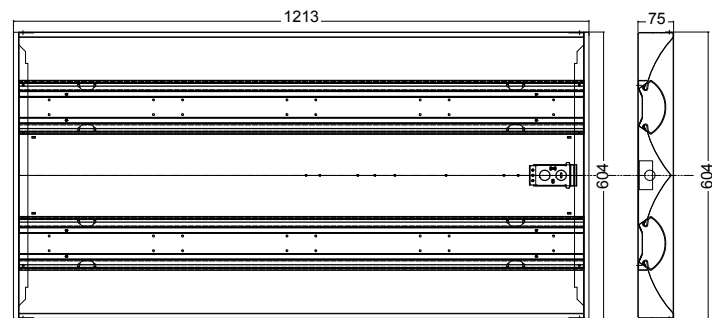
PHYSICAL PARAMETERS

DIMENSION

ILT-DB-22



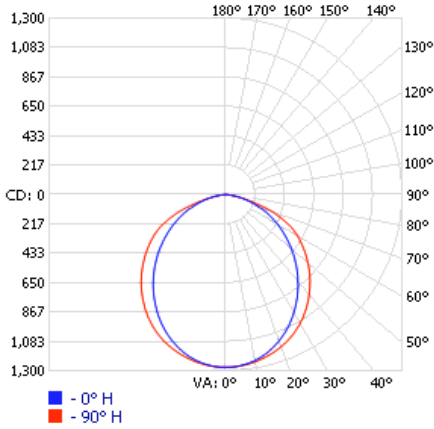
ILT-DB-24



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ILT-DB-22H/830



Candlepower

ANGLE IN DEG	0	45	90
0	1275	1275	1275
5	1266	1268	1269
10	1243	1248	1253
15	1203	1215	1228
20	1149	1171	1195
25	1082	1118	1152
30	1005	1056	1097
35	921	985	1033
40	829	905	959
45	736	818	879
50	638	727	794
55	540	634	706
60	445	539	613
65	352	445	499
70	251	347	360
75	167	228	198
80	89	106	65
85	20	1	0
90	0	0	0

Coefficients of Utilization - Zonal Cavity Method

RCC	EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
	80	70				50			30		10	0						
RW %:	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1	
RCR: 0	1.09	1.05	1.01	0.97	1.07	1.02	0.99	0.86	0.98	0.95	0.92	0.94	0.92	0.89	0.91	0.89	0.87	0.85
1	0.99	0.91	0.85	0.79	0.97	0.9	0.83	0.72	0.86	0.81	0.76	0.83	0.78	0.75	0.8	0.76	0.73	0.71
2	0.91	0.8	0.72	0.66	0.88	0.79	0.71	0.61	0.76	0.69	0.64	0.73	0.68	0.63	0.7	0.66	0.62	0.6
3	0.83	0.71	0.62	0.56	0.81	0.7	0.62	0.53	0.67	0.6	0.55	0.65	0.59	0.54	0.63	0.58	0.53	0.51
4	0.76	0.64	0.55	0.48	0.74	0.62	0.54	0.46	0.6	0.53	0.47	0.58	0.52	0.47	0.57	0.51	0.46	0.44
5	0.71	0.57	0.48	0.42	0.69	0.56	0.48	0.41	0.55	0.47	0.41	0.53	0.46	0.41	0.51	0.45	0.41	0.39
6	0.65	0.52	0.43	0.37	0.64	0.51	0.43	0.36	0.5	0.42	0.37	0.48	0.41	0.36	0.47	0.41	0.36	0.34
7	0.61	0.47	0.39	0.33	0.59	0.47	0.39	0.32	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.32	0.3
8	0.57	0.44	0.35	0.3	0.55	0.43	0.35	0.29	0.42	0.35	0.3	0.41	0.34	0.29	0.4	0.34	0.29	0.27
9	0.53	0.4	0.32	0.27	0.52	0.4	0.32	0.27	0.39	0.32	0.27	0.38	0.31	0.27	0.37	0.31	0.27	0.25
10	0.53	0.4	0.32	0.26	0.52	0.39	0.32	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.3	0.26	0.24

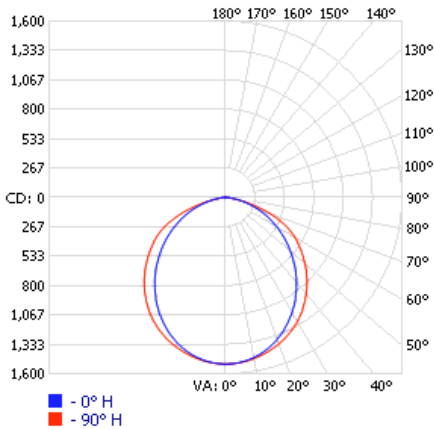
Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	977.8	28.30%
0-40	1,590.60	46%
0-60	2,782.20	80.50%
60-90	675.5	19.50%
70-100	244	7.10%
90-120	0	0%
0-90	3,457.70	100%
90-180	0	0%
0-180	3,457.70	100%

Average Luminance (cd/m2)

ANGLE IN DEG	0	45	90
0	290235	290235	290235
45	41849	48204	106969
55	27979	34113	83553
65	17229	22686	59345
75	7985	11343	24424
85	960	69	0

ILT-DB-24L/830



Candlepower

ANGLE IN DEG	0	45	90
0	1511	1511	1511
5	1502	1503	1504
10	1475	1479	1484
15	1430	1441	1454
20	1368	1387	1413
25	1292	1323	1362
30	1205	1250	1300
35	1103	1165	1222
40	1000	1075	1138
45	891	973	1045
50	771	866	939
55	657	755	836
60	541	646	727
65	426	534	598
70	318	424	433
75	209	292	255
80	114	148	103
85	40	40	14
90	10	4	1

Coefficients of Utilization - Zonal Cavity Method

RCC	EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%																	
	80	70				50			30		10	0						
RW %:	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
RCR: 0	1.09	1.04	1	0.96	1.06	1.02	0.98	0.85	0.98	0.95	0.92	0.94	0.91	0.89	0.9	0.88	0.86	0.84
1	0.99	0.91	0.84	0.78	0.96	0.89	0.83	0.71	0.85	0.8	0.76	0.82	0.78	0.74	0.79	0.75	0.72	0.7
2	0.9	0.8	0.72	0.65	0.88	0.78	0.71	0.61	0.75	0.69	0.63	0.72	0.67	0.62	0.7	0.65	0.61	0.59
3	0.83	0.71	0.62	0.55	0.8	0.69	0.61	0.52	0.67	0.6	0.54	0.64	0.58	0.53	0.62	0.57	0.53	0.5
4	0.76	0.63	0.54	0.47	0.74	0.62	0.54	0.45	0.6	0.52	0.47	0.58	0.51	0.46	0.56	0.5	0.46	0.44
5	0.7	0.57	0.48	0.41	0.68	0.56	0.47	0.4	0.54	0.46	0.41	0.52	0.46	0.4	0.51	0.45	0.4	0.38
6	0.65	0.51	0.43	0.37	0.63	0.51	0.42	0.35	0.49	0.42	0.36	0.48	0.41	0.36	0.46	0.4	0.36	0.34
7	0.61	0.47	0.38	0.33	0.59	0.46	0.38	0.32	0.45	0.38	0.32	0.44	0.37	0.32	0.43	0.36	0.32	0.3
8	0.57	0.43	0.35	0.29	0.55	0.43	0.35	0.29	0.41	0.34	0.29	0.4	0.34	0.29	0.39	0.33	0.29	0.27
9	0.53	0.4	0.32	0.27	0.52	0.39	0.32	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.3	0.26	0.24
10	0.53	0.4	0.32	0.26	0.52	0.39	0.32	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.3	0.26	0.24

Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	1,160.30	27.70%
0-40	1,890.70	45.20%
0-60	3,320.60	79.40%
60-90	861.6	20.60%
70-100	337.3	8.10%
90-120	0.3	0%
0-90	4,182.20	100%
90-180	0.3	0%
0-180	4,182.50	100%



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-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

