

Alphalite

PROJECT NAME

CATALOG NO.

TYPE

DATE

NOTE

LED TROFFER RETROFIT KIT

IRT

DESCRIPTION

The Infinity LED Troffer Retrofit Kit series combines the benefits of long life, controllability, and energy savings with elegant design and superior quality of light. The IRT retrofit solution optimizes LED optics and electronics to deliver energy savings and high performance while being extremely quick and easy to install.

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. Easy and convenient installation utilizes existing luminaire body, reduces labor hours.

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 within existing troffer and louvers. Utilizes existing luminaire body, eliminating the need to remove and dispose of old hardware. LED module arrays and drivers accessible from fixture during service and operation, no need to access via plenum.

Optics

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.

Finish

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

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 QPL..

Warranty

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

IRT

Infinity Retrofit Kit Series

2x2 and 2x4



Quick Ship Product

ORDERING INFORMATION

Sample Number: IRT-24H44)/840

IRT	22	H(40)	8	40	(Blank)	(Blank)
Series IRT - Infinity LED Troffer Retrofit Kit	Form Factor 22 - 2'x2' 24 - 2'x4'	Lumen Package 2'x2': L(25) - 25W H(34) - 34W 2'x4': VL(25) - 25W L(38) - 38W H(44) - 44W *see energy data for details	CRI 8 - 83+ CRI	CCT 35 - 3500K 40 - 4000K 50 - 5000K	Input Voltage (Blank) - 120V-277V 347 - 347V	Dimming (Blank) - 0-10V
Options						
Controls MMS - Integrated bi-level dimming microwave motion sensor DL - Integrated daylight harvesting			Emergency Backup EM700 - 700lm EM1400 - 1400lm EM2000 - 2000lm			



Specifications and dimensions subject to change without notice.

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PERFORMANCE

SUMMARY

Input Voltage	120V-277V
Input Power	See energy data for details
Power Factor	> 0.95
THD (Max.)	20%
Efficacy	> 125 LPW
Delivered Lumens	See energy data for details
Controls/ Dimming	Full Range 0-10V dimming standard
Dimming Range	10-100%
CRI	> 83
CCT	3500K, 4000K, 5000K
Operating Temp.	-20 ~ +55 C
Rated Life	50,000 hours

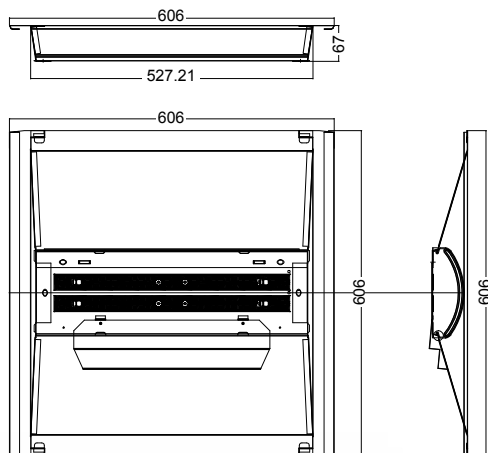
ENERGY PERFORMANCE DATA

	Lumen package	Rated Wattage	Tested Wattage	Lumens	LPW
2 x 2	IRT-22L(25)/835	25	24	3000	125
	IRT-22L(25)/840	25	24	3072	128
	IRT-22L(25)/850	25	24	3096	129
	IRT-22H(34)/835	34	33	4026	122
	IRT-22H(34)/840	34	33	4158	126
	IRT-22H(34)/850	34	33	4224	128
2 x 4	IRT-24VL(25)/835	25	24	3000	125
	IRT-24VL(25)/840	25	24	3072	128
	IRT-24VL(25)/850	25	24	3096	129
	IRT-24L(38)/835	38	36	4500	125
	IRT-24L(38)/840	38	36	4680	130
	IRT-24L(38)/850	38	36	4716	131
	IRT-24H(44)/835	44	41	5125	125
	IRT-24H(44)/840	44	41	5330	130
	IRT-24H(44)/850	44	41	5371	131

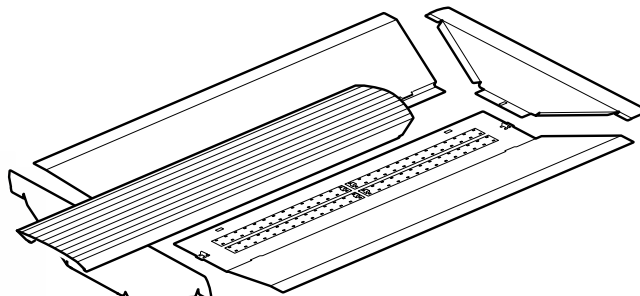
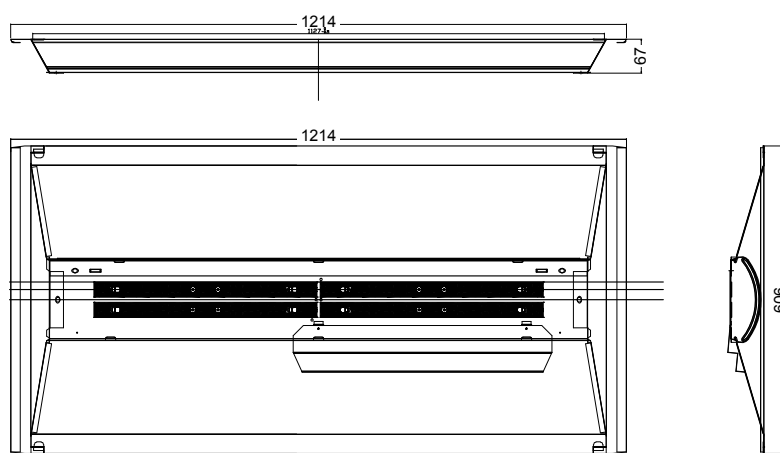
PHYSICAL PARAMETERS

DIMENSION

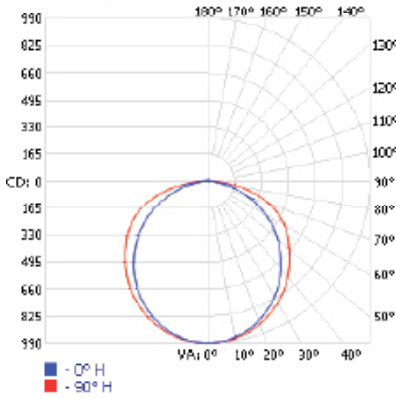
IRT-22



IRT-24



IRT-22H/840



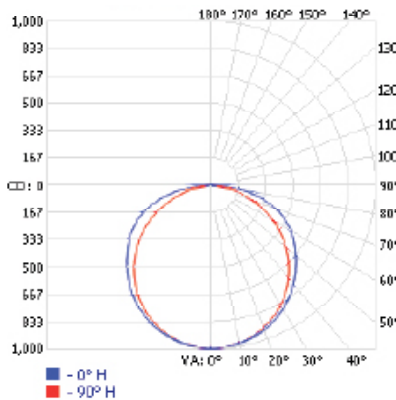
Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	767.5	25.80%
0-40	1,259.40	42.40%
0-60	2,258.60	76%
60-90	711.7	24%
70-100	315.8	10.60%
90-120	0.4	0%
0-90	2,970.30	100%
90-180	1.1	0%
0-180	2,971.40	100%

Coefficients of Utilization - Zonal Cavity Method

		EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%									
		30		10		0					
RCC	80	70	50	30	0	70	50	30	0	50	30
1	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06
2	1.08	1.03	0.99	0.95	1.05	1.01	0.97	0.83	0.97	0.93	0.9
3	0.98	0.89	0.82	0.76	0.95	0.87	0.81	0.69	0.84	0.78	0.74
4	0.89	0.78	0.7	0.63	0.86	0.76	0.69	0.58	0.73	0.67	0.61
5	0.81	0.69	0.6	0.53	0.79	0.68	0.59	0.5	0.65	0.58	0.52
6	0.75	0.61	0.52	0.45	0.73	0.6	0.52	0.43	0.58	0.5	0.45
7	0.69	0.55	0.46	0.39	0.67	0.54	0.46	0.38	0.52	0.45	0.39
8	0.64	0.5	0.41	0.35	0.62	0.49	0.41	0.34	0.48	0.4	0.34
9	0.59	0.46	0.37	0.31	0.58	0.45	0.37	0.3	0.44	0.36	0.31
10	0.55	0.42	0.33	0.28	0.54	0.41	0.33	0.27	0.4	0.33	0.28

IRT-24VL/840



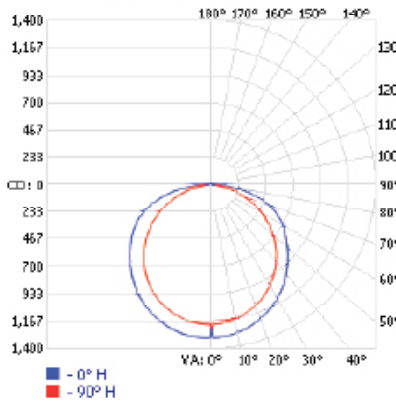
Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	778.3	25%
0-40	1,282.10	41.20%
0-60	2,319.20	74.60%
60-90	788.9	25.40%
70-100	367.7	11.80%
90-120	1.2	0%
0-90	3,108.00	99.90%
90-180	2.4	0.10%
0-180	3,110.50	100%

Coefficients of Utilization - Zonal Cavity Method

		EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%									
		30		10		0					
RCC	80	70	50	30	0	70	50	30	0	50	30
1	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06
2	1.08	1.03	0.98	0.94	1.05	1	0.96	0.83	0.96	0.93	0.89
3	0.97	0.89	0.81	0.75	0.95	0.87	0.8	0.68	0.83	0.77	0.73
4	0.88	0.77	0.69	0.62	0.86	0.76	0.68	0.58	0.73	0.66	0.6
5	0.81	0.68	0.59	0.52	0.78	0.67	0.58	0.49	0.64	0.57	0.51
6	0.74	0.61	0.51	0.44	0.72	0.6	0.51	0.42	0.57	0.5	0.44
7	0.68	0.55	0.45	0.39	0.66	0.54	0.45	0.37	0.52	0.44	0.38
8	0.63	0.49	0.4	0.34	0.62	0.49	0.4	0.33	0.47	0.39	0.34
9	0.59	0.45	0.36	0.3	0.57	0.44	0.36	0.29	0.43	0.35	0.3
10	0.55	0.41	0.33	0.27	0.54	0.41	0.33	0.26	0.39	0.32	0.27

IRT-24L/840



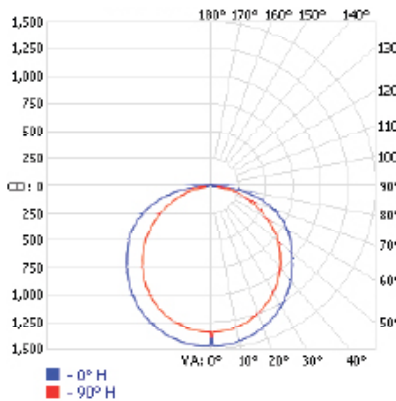
Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	968.2	25.10%
0-40	1,593.60	41.20%
0-60	2,877.40	74.50%
60-90	983.4	25.40%
70-100	461.1	11.90%
90-120	1.8	0%
0-90	3,860.80	99.90%
90-180	4	0.10%
0-180	3,864.80	100%

Coefficients of Utilization - Zonal Cavity Method

		EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%									
		30		10		0					
RCC	80	70	50	30	0	70	50	30	0	50	30
1	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06
2	1.08	1.03	0.98	0.94	1.05	1	0.96	0.83	0.96	0.92	0.89
3	0.97	0.89	0.81	0.75	0.95	0.87	0.8	0.68	0.83	0.77	0.73
4	0.88	0.77	0.69	0.62	0.86	0.76	0.68	0.57	0.73	0.66	0.6
5	0.81	0.68	0.59	0.52	0.78	0.67	0.58	0.49	0.64	0.57	0.51
6	0.74	0.61	0.51	0.44	0.72	0.6	0.51	0.42	0.57	0.5	0.44
7	0.68	0.55	0.45	0.39	0.66	0.54	0.45	0.37	0.52	0.44	0.38
8	0.63	0.49	0.4	0.34	0.62	0.49	0.4	0.33	0.47	0.39	0.34
9	0.59	0.45	0.36	0.3	0.57	0.44	0.36	0.29	0.43	0.35	0.3
10	0.55	0.41	0.33	0.27	0.54	0.41	0.33	0.26	0.39	0.32	0.27

IRT-24H/840



Zonal Lumen Summary

ZONE	LUMENS	% LUMINAIRE
0-30	1,090.00	25.10%
0-40	1,793.50	41.30%
0-60	3,236.00	74.60%
60-90	1,097.60	25.30%
70-100	512.4	11.80%
90-120	2.2	0.10%
0-90	4,333.60	99.90%
90-180	4.7	0.10%
0-180	4,338.30	100%

Coefficients of Utilization - Zonal Cavity Method

		EFFECTIVE FLOOR CAVITY REFLECTANCE: 20%									
		30		10		0					
RCC	80	70	50	30	0	70	50	30	0	50	30
1	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06
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3	0.97	0.89	0.81	0.75	0.95	0.87	0.8	0.68	0.83	0.77	0.73
4	0.88	0.77	0.69	0.62	0.86	0.76	0.68	0.58	0.73	0.66	0.6
5	0.81	0.68	0.59	0.52	0.78	0.67	0.58	0.49	0.64	0.57	0.51
6	0.74	0.61	0.51	0.45	0.72	0.6	0.51	0.43	0.57	0.5	0.44
7	0.68	0.55	0.45	0.39	0.66	0.54	0.45	0.37	0.52	0.44	0.38
8	0.63	0.49	0.4	0.34	0.62	0.49	0.4	0.33	0.47	0.39	0.34
9	0.59	0.45	0.36	0.3	0.57	0.44	0.36	0.29	0.43	0.35	0.3
10	0.55	0.41	0.33	0.27	0.54	0.41	0.33	0.27	0.39	0.32	0.27