Lighting Systems EG1-9

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Energos 2-Light T8 per 4' (121.92cm) (Nominal) Lens



Feature Specifications

Electrical

Connections: Wiring is via 18 gauge wire. All electrical connections for standard configurations are plug-and-play via 6-wire cannon plug connections. Connections are seated in end castings of fixtures, allowing for simultaneous mechanical/ electrical coupling. Connectors are male/female therefore modules must be installed male to female, starting from the power feed end set.



All static ballasts have the following features:

- Electronic
- High Power Factor
- Class A sound rating
- Metal can

Emergency Battery Pack: Emergency Battery packs are designed to operate when normal building power is interrupted. The battery packs operate for a minimum of 90 minutes without any power via a rechargeable battery source. The pack does not utilize the standard static ballast for any of its operation since the pack carries its own pseudo ballast. For this reason, Lightolier does not recommend remote mounting EM Packs because all of the socket wiring would need to carry throughout the powerfeed end set. The EM batteries, even in their largest, most expensive form, operate the fluorescent lamps at only half the lamp rated output. Emergency battery packs are available in the following outputs:

- 450 Lumens (Standard)
- 635 Lumens
- 1100 Lumens
- 1375 Lumens

Emergency battery packs can be used for emergency egress lighting since all listed packs operate for a minimum of 90 minutes, or can be used as momentary lighting for emergency circuit power transitions. Smaller packs are recommended for this purpose.

Dimming: T8 and T5HO lamps are dimmed with two wire ballasts. T8 lamps can be dimmed down to 5% and T5HO lamps can be dimmed down to 1%. T5 lamps require 5-wire dimming ballasts and can be dimmed down to 1%. A 5-wire power feed will be required for T5 (non-HO) dimming.

Factory installed ballast disconnect allows the ballast to be disconnected from and reconnected to incoming power under load without turning the entire circuit off.

Labels Included

UL, cUL, and IBEW

Features

- 1. Housing: 18 gauge steel. 6" (15.24cm) cast aluminum end caps. No exposed fasteners or hardware.
- 2. Lamping: 2 T8 fluorescent lamps per 4' (121.92cm) section. Lamps by Lightolier as an option, see ordering information.
- 3. Reflector: Precision die-formed premium anti-iridescent, highly reflective aluminum
- 4. Lens: Clear plastic 5-cell honeycomb lens with linear prismatic bottom surface. Lens curvature matches radius of housing.

Mountings

Cable suspension is on 48" (121.92cm) and 96" (243.84cm) centers and consists of a 4 1/2" (11.43cm) diameter canopy finished white enamel. A 1/16" (0.16cm) diameter stainless steel aircraft cable accomplishes suspension and is adjustable from 12" (30.48cm) to 36" (91.44cm). Power feed is 18-gauge SJT silver braided cord with a clear jacket. For special circuiting consult factory.

Finish

Powder coated, baked enamel, white or aluminum, as specified. Custom colors available, consult factory.

Ordering Instructions Individual Fixtures:

- 1. Order number of MODULES required. 2. Order one POWER FEED END SET per MODULE.
- **Continuous Rows:**
- 1. Determine run length.
- 2. Order the appropriate number of MODULES for the complete run.
- 3. Order one POWER FEED END SET for each run.
- 4. Order one CABLE ASSEMBLY per MODULE minus one per run.
- 5. For runs that exceed conductor ampacity ratings order the appropriate number of SINGLE CABLE & CORD SETS.

Job Information	Туре:
Job Name:	
Cat. No.:	
Lamp(s):	
Notes:	

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Energos 2-Light T8 per 4' (121.92cm) (Nominal) Lens

Module Ordering Information



Module Ordering Specifications

Lamping and Distribution

2 = 2 Lamp, Open Top

Ballast Specifications								
Code	Lamp Type	Ballast Factor	Start Type	THD %				
А	T8	0.78	Instant	<10				
В	Т8	0.88	Instant	<10				
С	T8	1.20	Instant	<20				
Н	Dim T8	1.00/.05	Program	<10				
Z	Т8	0.88	Instant	<20				

Dimming: Advance Mark-10 standard (no additional wires required) for T8 and T5HO fixtures. 5-wire dimming required for T5 (non-HO) fixtures. Optional dimming systems: Lutron ECO-10 and Hi-Lume (by others) require 4-wire modules and end sets. Mark-7, ULT, DALI and Lightolier HDF require 5-wire modules and end sets. Energos can accept ballasts not to exceed 1.7" (4.32cm) wide by 1.2" (3.05cm) high.

Shielding

L = Linear Prismatic Lens

Length	Voltage
4 = 4ft (48") (121.92cm)	1 = 120VAC
8 = 8ft (96") (243.84cm)	2 = 277VAC

Finish
A = Aluminum
W = White

Wiring Options

Blank = Leave blank if ordering standard fixture.

- $\mathbf{4} = 4$ through wires
- 5 = 5 through wires
- 6 = 6 through wires

Feature Options

D = Dual Switching (AKA A/B switching)



2-Light Option

3-Light Option

T = Tandem Switching (also available in 1-lamp configuration)

	[]
	[]
Α	В

Both Dual Switch and Tandem Switch fixtures ship with a 4th wire. Be sure to order the appropriate quantity of wires in the power feed.

Lamping Specifications								
Code	Lamp Type	Wattage	Rated Output (Lumens)	Color (K)				
А	T8	28	2725	830				
В	T8	28	2725	835				
С	T8	28	2725	841				
D	T8	30	2850	830				
E	T8	30	2850	835				
F	T8	30	2850	841				
G	T8	32	3000	830				
Н	T8	32	3000	835				
l l	T8	32	3000	841				
J	T8	32	3100	830				
К	T8	32	3100	835				
L	T8	32	3150	841				

Feature Options (continued)

E = Emergency Battery Pack (E): Battery packs provide 90 minutes of operation. Available lamp outputs: 450 Lumens (standard). Optional: 635, 1100 and 1375 Lumens. Standard Emergency wiring is to have Battery Pack operating a single lamp. All EM fixtures are wired as "switched" and include 4th through wire for the wall switch (see diagrams). All fixtures and power feeds in that run should be ordered to include a dedicated 4th through wire to carry the hot power all the way through the run to the EM pack.



Unswitched

A/C B. Wall Switch EM B.

Switched

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Energos 2-Light T8 per 4' (121.92cm) (Nominal) Lens

Fixture Lengths & Mounting Locations



Suspension and End Set Ordering Illustrations

Power Feeds

Consult Lamp and Ballast System data to determine input watt requirements for ballast used on project to determine loading for each run. Multiply the total number of ballasts by the input wattage per ballast, and to determine ampacity divide the total watts by the system voltage. 10 Amps for 3-wire end sets, 7 Amps for 4-wire and 5-wire end sets, maximum.



 Power Feed End Set

 White, 3 Wire Cord:
 EG1EC36W

 White, 4 Wire Cord:
 EG1EC36W4

 White, 5 Wire Cord:
 EG1EC36W5

 Aluminum, 3 Wire Cord:
 EG1EC36A4

 Aluminum, 5 Wire Cord:
 EG1EC36A5



Ceiling Grid Kit: CGK

Control

Consult appropriate ECS (Energos Control Systems) specification sheet for ordering product utilizing occupancy controls. ECS specification sheet numbers directly correlate to standard Energos specification sheet numbers.



 Cable/Cord Assembly

 Single Cable & Power Cord:
 EGCC36

 Single Cable & 4 Wire Power Cord:
 EGCC36X4

 Single Cable & 5 Wire Power Cord:
 EGCC36X5



Cable Assembly Single Cable: EGC36

Because most ceilings are white, all canopies ship as white unless specifically ordered otherwise.

Both CGK and CGKP ship with two types of clips (standard and slot T).

For mounting fixtures directly to the T grid, order one CGK per non-power suspension point and one CGKP per powered suspension point.

The CGKP will include a special canopy with flex coupler, grid clips and additional clips to mount the junction box to the top of the grid nearby. J-Box and flex conduit provided by others.





Type:

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Performance — Two Lamp Fixture With Open Top

Candlepower Curve



Cat. No.:

25°C Rating

	•	•			
		Candlep	ower		
Zone→	0	22	45	67	90
Degree					
Ļ		(Candelas		
180	794	794	794	794	794
175	795	802	815	817	824
165	765	813	870	910	931
155	710	802	916	974	1000
145	629	775	908	1009	1052
135	524	709	886	1033	1092
125	405	616	851	1024	1053
115	275	514	746	919	982
105	145	396	623	703	691
95	32	178	189	212	191
90	0	5	9	13	17
85	4	9	10	13	10
75	29	48	51	58	49
65	71	101	106	109	103
55	140	159	163	170	159
45	235	222	218	221	216
35	311	296	274	277	268
25	365	366	333	330	322
15	401	404	393	385	375
5	420	420	419	416	414
0	421	421	421	421	421

	Coefficients Of Utilization									
		% Effective Ceiling Cavity Reflectance								
			80			70			50	
				%	Wall	Refle	ectano	ce		
		50	30	10	50	30	10	50	30	10
	0	89	89	89	79	79	79	59	59	59
	1	78	74	71	69	66	63	52	50	48
.9	2	68	63	58	60	56	52	45	43	40
Rai	3	60	54	49	53	48	44	40	37	34
ìţ	4	53	46	41	47	41	37	36	32	29
Room Cavity Ratio	5	47	40	35	42	36	31	32	28	25
ш	6	42	35	30	37	31	27	28	24	21
Bo	7	38	31	26	33	28	24	26	22	19
	8	34	27	23	30	25	21	23	19	16
	9	31	24	20	27	22	18	21	17	15
	10	28	22	18	25	20	16	19	16	13
20% Floor Cavity Reflectance										

Distribution								
Zone Lumens % Lamp % Lumin								
0-90	966	17	19					
90-180	4108	72	81					
0-180	5074	89	100					

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Ballast and Lamp Ordering Combinations

Desgn.	Lamp Type (T8 or T5)	Ballast Factor (BF)	Ballast THD (%)	Lamp Rated Wattage	Lamp Rated Output	Lamp Color (Kelvin)	IES Output (Lumens)	System Input Watts	System Efficacy (lum/watt)	System Lamp Life (Hours)	Start Type
AA	T8	0.78	<10	28	2725	830	2415	21	101.21	18000	Instant
AB	T8	0.78	<10	28	2725	835	2415	21	101.21	18000	Instant
AC	T8	0.78	<10	28	2725	841	2415	21	101.21	18000	Instant
AD	T8	0.78	<10	30	2850	830	2526	22.5	98.80	18000	Instant
AE	T8	0.78	<10	30	2850	835	2526	22.5	98.80	18000	Instant
AF	T8	0.78	<10	30	2850	841	2526	22.5	98.80	18000	Instant
AG	T8	0.78	<10	32	3000	830	2659	24	97.50	18000	Instant
AH	T8	0.78	<10	32	3000	835	2659	24	97.50	18000	Instant
AI	T8	0.78	<10	32	3000	841	2659	24	97.50	18000	Instant
AJ	T8	0.78	<10	32	3100	830	2748	24	100.75	18000	Instant
AK	T8	0.78	<10	32	3100	835	2748	24	100.75	18000	Instant
AL	T8	0.78	<10	32	3150	841	2792	24	102.38	18000	Instant
BA	T8	0.88	<10	28	2725	830	2725	24	99.92	18000	Instant
BB	T8	0.88	<10	28	2725	835	2725	24	99.92	18000	Instant
BC	T8	0.88	<10	28	2725	841	2725	24	99.92	18000	Instant
BD	T8	0.88	<10	30	2850	830	2850	26	96.46	18000	Instant
BE	T8	0.88	<10	30	2850	835	2850	26	96.46	18000	Instant
BF	T8	0.88	<10	30	2850	841	2850	26	96.46	18000	Instant
BG	T8	0.88	<10	32	3000	830	3000	27.5	96.00	18000	Instant
BH	T8	0.88	<10	32	3000	835	3000	27.5	96.00	18000	Instant
BI	T8	0.88	<10	32	3000	841	3000	27.5	96.00	18000	Instant
BJ	T8	0.88	<10	32	3100	830	3100	27.5	99.20	18000	Instant
BK	T8	0.88	<10	32	3100	835	3100	27.5	99.20	18000	Instant
BL	T8	0.88	<10	32	3150	841	3150	27.5	100.80	18000	Instant
CA	T8	1.2	<20	28	2725	830	3716	34.5	94.78	18000	Instant
СВ	T8	1.2	<20	28	2725	835	3716	34.5	94.78	18000	Instant
CC	T8	1.2	<20	28	2725	841	3716	34.5	94.78	18000	Instant
CD	T8	1.2	<20	30	2850	830	3886	36.5	93.70	18000	Instant
CE	T8	1.2	<20	30	2850	835	3886	36.5	93.70	18000	Instant
CF	T8	1.2	<20	30	2850	841	3886	36.5	93.70	18000	Instant
CG	T8	1.2	<20	32	3000	830	4091	39	92.31	18000	Instant
CH	T8	1.2	<20	32	3000	835	4091	39	92.31	18000	Instant
CI	T8	1.2	<20	32	3000	841	4091	39	92.31	18000	Instant
CJ	T8	1.2	<20	32	3100	830	4227	39	95.38	18000	Instant
CK	T8	1.2	<20	32	3100	835	4227	39	95.38	18000	Instant
CL	T8	1.2	<20	32	3150	841	4296	39	96.92	18000	Instant
HG	T8 DIM	1.0 / .05	<10	32	2850	830	2850 /143	34/8	83.80	NA	Program
HH	T8 DIM	1.0 / .05	<10	32	2850	835	2850 /143	34/8	83.80	NA	Program
HI	T8 DIM	1.0 / .05	<10	32	2850	841	2850 /143	34 / 8	83.80	NA	Program

Notes:

*25°C Rating

All data is per 1 lamp on a two lamp system at 277 VAC. Data is based on Osram Sylvania Specifications When ordering generic ballasts and no lamps provided by Lightolier, use Ballast Code "Z" and Lamp code "Z"

Do not alter lumen values or ballast factor light losses when completing calculations using Energos IES files. Files have already been adjusted. The lumen value for the lamp (within a Lighting Design program) will be the IES Output value shown on this table.

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