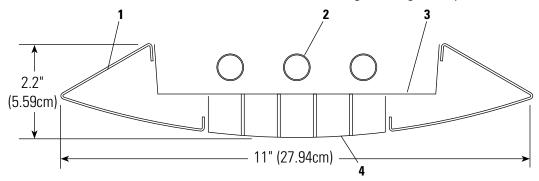
Page 1 of 4

Energos 3-Light T5 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 power feed 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.

#### Labels Included

UL, cUL, and IBEW

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#### **Features**

- Housing: 18 gauge steel. 6" (15.24cm) cast aluminum end caps. No exposed fasteners or hardware.
- Lamping: 3 T5 fluorescent lamps per 4' (121.92cm) section. Lamps by Lightolier as an option, see ordering information.
- Reflector: Precision die-formed premium anti-iridescent, highly reflective aluminum
- 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 white cord. 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.
- For runs that exceed conductor ampacity ratings order the appropriate number of SINGLE CABLE & CORD SETS.

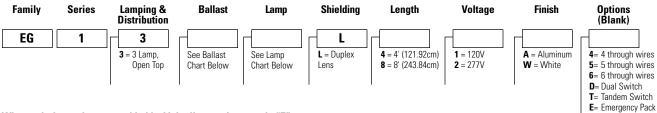
Job Information	Type:
Job Name:	
Cat. No.:	
Lamp(s):	
Notes:	

# PHILIPS LIGHTOLIER®

## Page 2 of 4

# Energos 3-Light T5 per 4' (121.92cm) (Nominal) Lens

#### **Module Ordering Information**



When ordering no lamps provided by Lightolier, use Lamp code "Z"

## **Module Ordering Specifications**

#### **Lamping and Distribution**

3 = 3 Lamp, Open Top

	_,			
Code	Lamp Type	Ballast Factor	Start Type	THD %
F	T5	1.00	Program	<10
G	T5H0	1.00	Program	<10
1	Dim T5	1.00/.01	Program	<10
J	Dim T5H0	1.00/.03	Program	<10

**Rallast Specifications** 

**Dimming:** Advance Mark-10 standard (no additional wires required) for T8 and T5HO fixtures. 5-wire dimming required for T5 (non-H0) 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 power feed 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	Finish
<b>4</b> = 4ft (48") (121.92cm)	<b>1</b> = 120VAC	<b>A</b> = Aluminum
8 - 8ft (96") (243 84cm)	<b>2</b> – 277\/ΔC	<b>W</b> – White

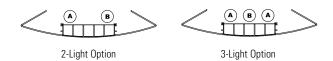
#### Wiring Options

Blank = Leave blank if ordering standard fixture.

- 4 = 4 through wires
- **5** = 5 through wires
- 6 = 6 through wires

#### **Feature Options**

D = Dual Switching (AKA A/B switching)



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



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.

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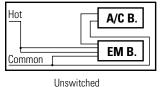
#### **Lamping Specifications**

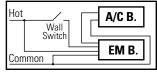
Code	Lamp Type	Wattage	Rated Output (Lumens)	Color (K)
M	T5	28	2600*	830
N	T5	28	2600*	835
0	T5	28	2600*	841
Р	T5	54	4450*	830
Q	T5	54	4450*	835
R	T5	54	4450*	841

\* 25°c Rating

#### **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.





Switched

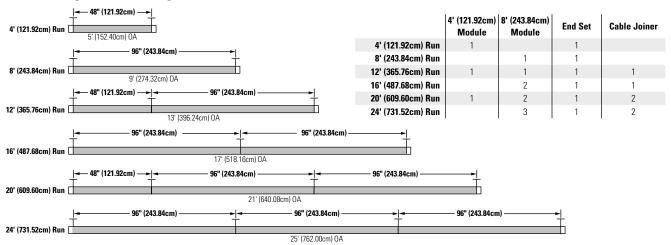
# Job Information Type:

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## Page 3 of 4

## Energos 3-Light T5 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.

#### 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.





#### **Power Feed End Set**

White, 3 Wire Cord: EG1EC36W White, 4 Wire Cord: EG1EC36W4 White, 5 Wire Cord: EG1EC36W5 Aluminum, 3 Wire Cord: EG1EC36A Aluminum, 4 Wire Cord: EG1EC36A4 Aluminum, 5 Wire Cord: EG1EC36A5



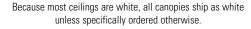
Single Cable & Power Cord: Single Cable & 4 Wire Power Cord: Single Cable & 5 Wire Power Cord:



EGCC36 EGCC36X4 EGCC36X5



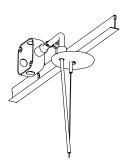
**Cable Assembly** Single Cable: EGC36



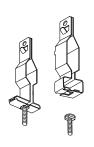
Both CGK and CGKP ship with two types of clips (standard and slot T).

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.



Ceiling Grid Kit, Power: CGKP



Ceiling Grid Kit: CGK

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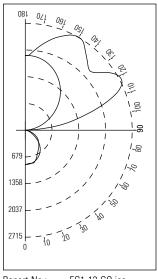


## Page 4 of 4

# Energos 3-Light T5 per 4' (121.92cm) (Nominal) Lens

#### **Performance** — Three Lamp Fixture With Open Top

Candlepower Curve



 Report No.:
 EG1-13-GQ.ies

 Lamps:
 3-FP54/835/HO

 Lumens:
 4450

 Efficiency:
 90.2

Cat. No.: EG13GQL 25°C Rating

	Candlepower							
Zone→ Degree	0	22	45	67	90			
Degree 1			Candela	S				
180	1863	1863	1863	1863	1863			
175	1865	1881	1911	1922	1950			
165	1800	1946	2140	2264	2320			
155	1673	1975	2312	2526	2620			
145	1476	1931	2388	2569	2571			
135	1234	1817	2156	2200	2224			
125	952	1617	1733	2222	2512			
115	645	1161	1863	2509	2647			
105	336	892	1554	1669	1638			
95	69	431	457	486	394			
90	0	0	0	0	0			
85	12	20	25	28	27			
75	75	110	127	135	127			
65	168	230	244	264	255			
55	315	364	364	379	386			
45	501	499	468	482	473			
35	646	637	606	578	576			
25	755	752	757	722	697			
15	821	817	826	837	840			
5	854	859	855	845	837			
0	854	854	854	854	854			

Coefficients Of Utilization
% Effective Ceiling Cavity Reflectance
80 70 50
% Wall Reflectance

	00				70			30			
				%	Wal	Refle	ectano	е			
		50	30	10	50	30	10	50	30	10	
	0	90	90	90	79	79	79	59	59	59	
	1	78	75	72	69	66	64	52	50	48	
9	2	68	63	59	60	56	52	45	43	40	
ğ	3	60	54	49	53	48	44	40	36	34	
Room Cavity Katio	4	53	46	41	47	41	37	35	32	29	
	5	47	40	35	42	36	31	32	28	24	
	6	42	35	30	37	31	27	28	24	21	
	7	38	31	26	33	28	24	25	21	18	
	8	34	27	23	30	25	21	23	19	16	
	9	31	24	20	27	22	18	21	17	14	
	10	28	22	18	25	20	16	19	15	13	
20% Floor Cavity Reflectance											

Distribution

Zone	Lumens	% Lamp	% Luminaire
0-90	2385	16	18
90-180	11152	74	82
0-180	13536	90	100

## **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 Efficiency (lum/watt)	System Lamp Life (Hours)	Start Type
FM	T5	1	<10	28	2600	830	2600	31.0	83.9	20000	Program
FN	T5	1	<10	28	2600	835	2600	31.0	83.9	20000	Program
FO	T5	1	<10	28	2600	841	2600	31.0	83.9	20000	Program
GP	HO	1	<10	54	4450	830	4450	58.5	76.1	20000	Program
GQ	HO	1	<10	54	4450	835	4450	58.5	76.1	20000	Program
GR	H0	1	<10	54	4450	841	4450	58.5	76.1	20000	Program
IM	T5 DIM	1.0 / .01	<10	28	2600	830	2600 /26	33.5 / 8	77.6	NA	Program
IN	T5 DIM	1.0 / .01	<10	28	2600	835	2600 /26	33.5 / 8	77.6	NA	Program
10	T5 DIM	1.0 / .01	<10	28	2600	841	2600 /26	33.5 / 8	77.6	NA	Program
JP	T5H0 DIM	1.0 / .03	<10	54	4450	830	4450 /134	63 /12.5	70.6	NA	Program
JQ	T5H0 DIM	1.0 / .03	<10	54	4450	835	4450 /134	63 /12.5	70.6	NA	Program
JR	T5H0 DIM	1.0 / .03	<10	54	4450	841	4450 /134	63 /12.5	70.6	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 no lamps provided by Lightolier, use Lamp code "Z".

The lumen value for the lamp (within a Lighting Design program) will be the IES Output value shown on this table.

Job Information

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