

ESL- ECONOMY LED STREET LIGHT











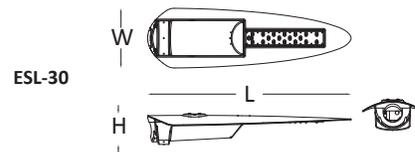
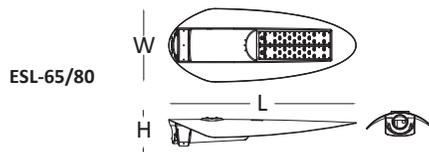



Compliant with the following standards:

IEC /EN 60598-1: 2008
 IEC /EN 60598-2-3/A1: 2011
 EN 62493:2010
 IEC62471: 2008
 IEC62471-2:2009
 EN 55015: 2013
 EN61547:2009
 EN61000-3-2/A2:2009
 EN 61000-3-3:2013
 (EU) 1194/2012:2012-12-12
 (EC) 244/2009:2009-03-18

1000 hours salt mist test reports are furnished upon request.

DIMENSIONAL DRAWING



FEATURES & BENEFITS

- 1) Revolutionary mechanical and thermal solution, integrating part of the die cast aluminium housing with the heat sink. The heat conductivity and radiation perform the best for much longer LED L70 lifespan. No dust, leaves or other pollution substances are accumulated, zero concern and possibility to block the heat radiation.
- 2) Truly classic cobrahead style LED streetlight, which makes it possible to remain the classic urban street landscape after the HID solution is replaced.
- 3) Powered by the worldwide best LED, LED drivers, and other key components.
- 4) Compliant with cULus, DLC, CE (lvd, emc, rohs, Erp directives), and CB standards.
- 5) Low profile design, compliant with KISS principle for product design, less uncertainty because its concise mechanical structure, ensure it most reliable performance.
- 6) Human centered design, and extremely easy for installation and maintenance.
- 7) The most competitive in cost performance, and one of the best ownership costs. 10 years limited warranty, free from maintenance for 10 years at least, the most competitive in operating cost, soonest in return on investment (ROI) or payback.
- 8) Class II rated led lighting luminaire.
- 9) Environmentally friendly packaging materials (EPE).

APPLICATIONS

Municipal and rural street, roadway, or area lighting.

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ORDERING INFORMATION

Example 1: ESL-30-T2M-50K-GR-00

Example 2: ESL-80-T2M-50K-GR-PC

Product ID	Power (W)	Or	Product ID	Power (W)	Optic Lens	CCT* (ANSI)	Housing Color**	Lighting Control
ESL	30 30W	Or	ESL	65 65W	T2M	30K 3045 ±175K	GR Grey (RAL:7004)	BLANK Not required
					T5U			
ESL	80 80W	Or	ESL	80 80W	T5V	40K 3985 ±275K	BK Black (RAL:9011)	PC Photocell
					T5W			
					T5S			
					T5M			
					T5L			
					T5D			
ESL	80 80W	Or	ESL	80 80W	T5D	50K 5028 ±283K	WH White (RAL:9010)	
						57K 5665 ±355K	BZ Bronze (RAL:8017)	

Notes:

● **CCT*:**

- LEDs at 5000k CCT are always in stock largely to support prompt delivery of finished products.
- LEDs at 3000k, 4000k, 5700k CCT are in stock as well, but the quantity is small to meet small needs, and the shipment for the finished products with these LEDs cannot be made sooner than those with LEDs at 5000k CCT.
- LEDs at CCT or wavelength (unit nm) which is not in stock are available upon request, but the lead time for the finished products with these types of LEDs cannot be soon, also the unit price is higher.

● **Housing Color**:**

- GR (Grey) housings are always in stock largely to support prompt delivery of finished products.
- BK (Black), WH (White), BZ (Bronze) housing are available too, and the unit price of the finished product with these types of housings may be different from that with grey housing, but the lead time is longer relatively.
- Other housing colors which are not mentioned can be customized, but the unit price is higher, the lead time is much longer.

● **Optic Lens Options:**

- 1) T2M: Type II Medium
- 2) T5U: 10°
- 3) T5V: 25°
- 4) T5W: 40°
- 5) T5S: 60°
- 6) T5M: 90°
- 7) T5L: 120°
- 8) T5D: Glare resistant diffuser.

- 1 - **Single light engine.** 1-10V dimming interface (wire) are available based on customization request.
- 2 - **Double light engine.** 1-10V dimming interface (wire) are available based on customization request.
- 3: Photocell is available based on customization request.

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BRIEF SPECIFICATIONS

Model No.	ESL-30	ESL-65	ESL-80*
Lumens @ 5000K	3162	36	8388
System Power	30W	65W	80W
Efficacy*	105 lm/W	105 lm/W	100 lm/W
Input	90-305V	90-305V	120-277V
Driver	Meanwell	Meanwell	Philips
Net Weight	3.2Kg	4.6Kg	4.6Kg
Gross Weight	4.2kg	5.9kg	5.9kg
Dimensions (L x W x H)	714 x 210 x 107mm	718 x 283 x 107mm	718 x 283 x 107mm
Carton Dimensions (L x W x H)	810 x 295 x 160mm	810 x 365 x 160mm	810 x 365 x 160mm
EPA (1 Fixture at 0° mount)	0.822sq.ft	0.827sq.ft	0.827sq.ft

General specifications for all the above models.

Electrical:

1. Power Factor: >0.95 at full load.
2. Total Harmonic Distortion: <20% at full load.

Lifetime and working temperature:

3. Reported L70 Lifetime: >60,000 hours .
Calculated L70 Lifetime: >100,000 hours.
4. Ambient Temperature (Ta): -40 to 50 degrees celcius (-40 to 122 degrees Fahrenheit).

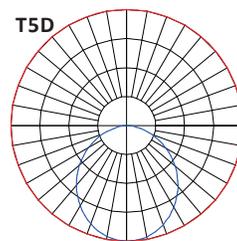
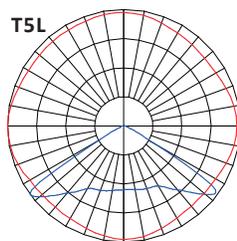
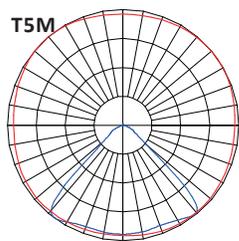
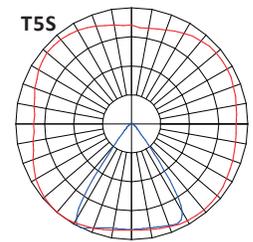
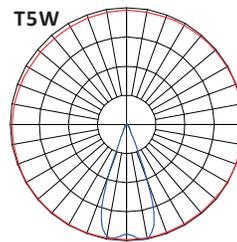
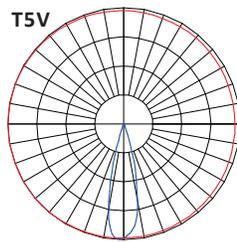
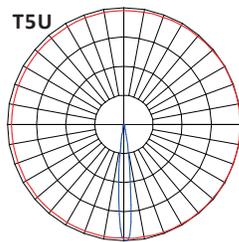
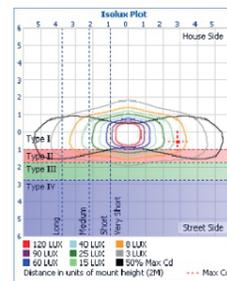
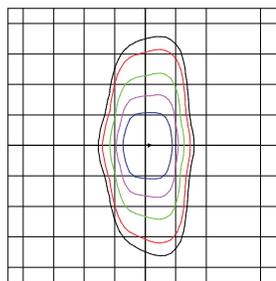
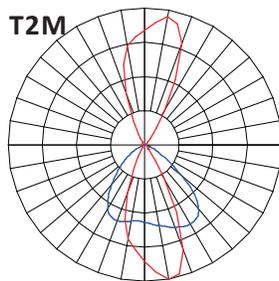
Typical Luminous Efficacy:

5. Typical Luminous Efficacy: 5000K CCT, Ra>70.
6. System Efficacy and power are customized, e.g. 130 lm/W.

Materials:

7. LED option: CREE or PHILIPS Lumileds.
8. LED Driver Origin: PHILIPS or MEANWELL.
9. 45° and 80° are powered by 120-277V AC 50/60Hz Philips branded LED driver.
10. Suitable for 42-60mm(1.653"- 2.375") outer diameter horizontal tennon mounting.
11. Optional NEMA photocell with its receptacle, or shorting cap with its receptacle.
12. Optional bird spike to avoid bird waste pollution.
13. Worldwide top brand quick connector for tool-free wiring, and terminal block for easiest wiring, two axis T-shaped bubble level for ease of leveling and tilting angle setup as well.
14. Extruded aluminium alloy heat sink with anodized finish. 304 graded stainless steel protective cover to protect UV resistant polycarbonate lenses.

PHOTOMETRICS



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SIMULATION CALCULATION SUMMARY REFERENCE



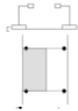
Pole Arrangement: Single Sided

MH=Mounting Height (unit: m)

Area = Pole Spacing x Road Width (unit: m)

Lav* (cd/sq.m.) and Eav* (lux) are the values based on Dialux simulation calculations for one typical section of street.

Model No.		ESL25		ESL40		ESL60		ESL40		ESL60		ESL90	
T2M lens		Lav* cd/m2	Eav*/lx										
MH	Area												
6	35 x 7	0.60	8.54	0.91	13	1.23	18	0.96	14	1.44	21	2.05	29
8	35 x 7	0.39	5.20	0.60	7.92	0.81	11	0.63	8	0.95	12	1.35	18
10	40 x 10.5	0.31	3.88	0.47	5.90	0.63	8	0.49	6	0.74	9	1.06	13



Pole Arrangement: Opposite (double rows opposing)

MH=Mounting Height (unit: m)

Area = Pole Spacing x Road Width (unit: m)

Lav* (cd/sq.m.) and Eav* (lux) are the values based on Dialux simulation calculations for one typical section of street.

Model No.		ESL25		ESL40		ESL60		ESL40		ESL60		ESL90	
T2M lens		Lav* cd/m2	Eav*/lx										
MH	Area												
6	35 x 7	0.59	8.54	0.90	13	1.21	18	0.95	14	1.42	21	2.03	29
8	35 x 7	0.41	5.88	0.63	8.95	0.85	12	0.66	9.40	0.99	14	1.42	20
10	40 x 10.5	0.35	4.93	0.53	7.50	0.71	10	0.56	7.88	0.84	12	1.19	17

STREET/ROADWAY LIGHTING CRITERIA

(ANSI / IESNA_RP-8-2000)

Road and Pedestrian Conflict area		Average Luminance	Uniformity Ratio	Uniformity Ratio	Veiling Luminance Ratio
Road	Pedestrian Conflict area	L_{avg} (cd/m^2)	L_{avg}/L_{min} Maximum Allowed	L_{max}/L_{min} Maximum Allowed	L_{Vmax}/L_{avg} Maximum Allowed
Freeway Class A	-	0.6	3.5	6.0	0.3
Freeway Class B	-	0.4	3.5	6.0	0.3
Expressway	High	1.0	3.0	5.0	0.3
	Medium	0.8	3.0	5.0	0.3
	Low	0.6	3.5	5.0	0.3
Major	High	1.2	3.0	5.0	0.3
	Medium	0.9	3.0	6.0	0.3
	Low	0.6	3.5	5.0	0.3
Collector	High	0.8	3.0	6.0	0.3
	Medium	0.6	3.5	8.0	0.3
	Low	0.4	4.0	6.0	0.3
Local	High	0.6	6.0	10	0.3
	Medium	0.6	6.0	10	0.3
	Low	0.6	6.0	10	0.3

(CIE115)

LIGHTING CLASS	EXTENT OF APPLICATION				
	$L(cd.m^2)$ Minimum Maintained	U_0 Minimum	TI(%) Maximum Initial	UL Minimum	SR Minimum
M1	2.0	0.4	10	0.7	0.5
M2	1.5	0.4	10	0.7	0.5
M3	1.0	0.4	10	0.5	0.5
M4	0.75	0.4	15	-	-
M5	0.5	0.4	15	-	-