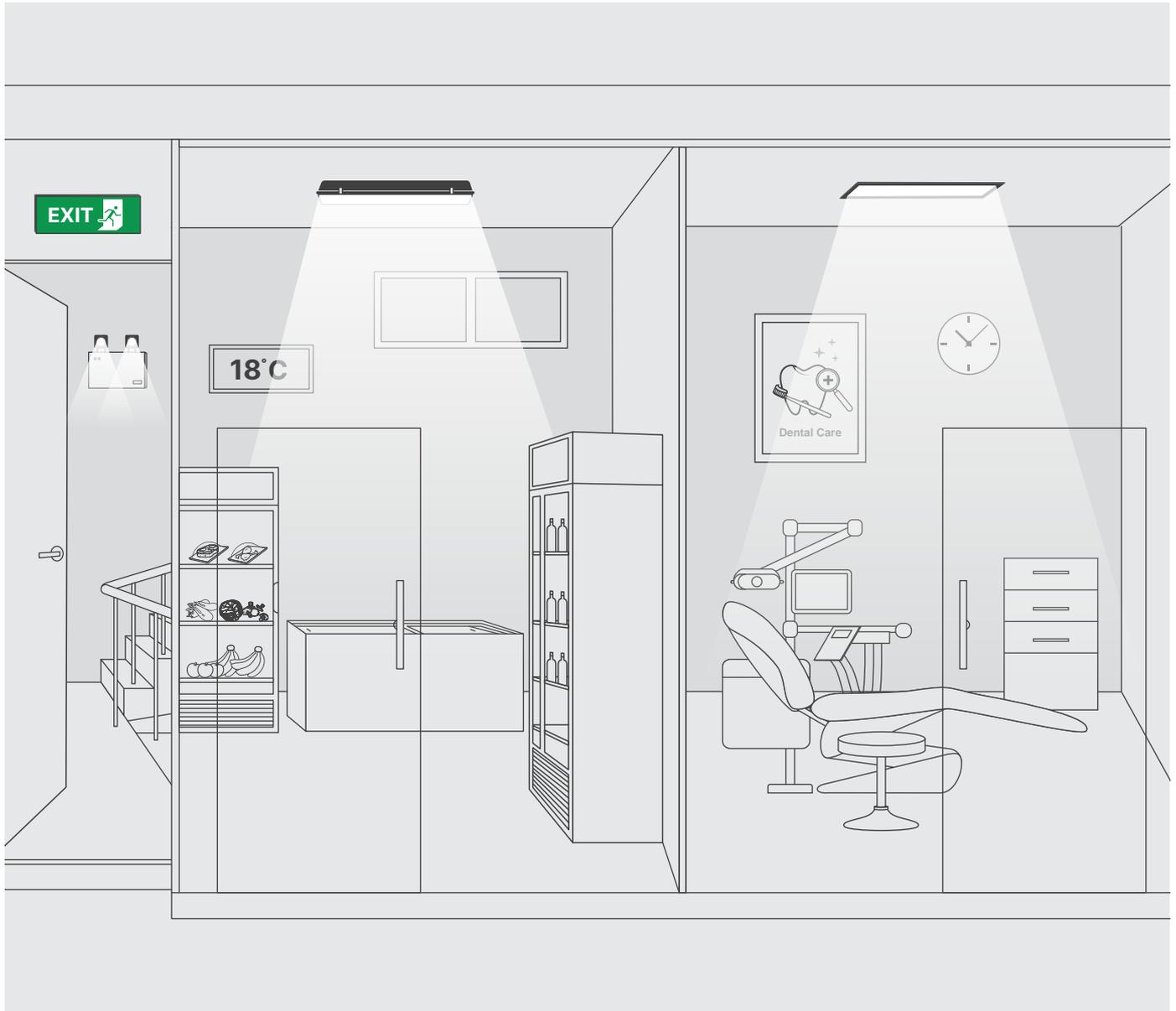L&E

Special Lighting

EXIT

18°C

Dental Care

EMERGENCY / EXIT SIGN
OBSTRUCTION LIGHT
CLEAN ROOM
COLD ROOM
WEATHERPROOF

PHILOSOPHY

1 UPHOLD FAIRNESS

2 DEDICATE TO QUALITY

3 HONEST AND PUNCTUAL

4 WORK TOGETHER AS A TEAM

VISION

To be the leading total lighting solution provider in ASEAN.

MISSION

DIERSE PRODUCTS
01

Offer diverse and complete range of lighting products to meet every sector's requirement.

WELL-COVERED NETWORK
02

Establish well-covered marketing networks accessible to various group of customers.

FULLY INTEGRATED SERVICES
03

Provide fully integrated services for customers' advantage.

HIGH STANDARD MANUFACTURING
04

Establish high standard facilities with modern and efficient manufacturing process to respond to the market requirement.

MODERN INNOVATION
05

Establish Lighting Innovation Center to proactively innovate and develop new products to meet market requirement and establish a world class testing laboratory to facilitate new products development and innovation.

TIMELINE

1993

Started with 25 million Baht registered capital and acquired the business from Yong Enterprise Ltd. Part., a company marketing fluorescent luminaire to electrical contractors. Expanded the business to cover government agencies and has become agents for many world-class Lighting manufacturers.

1994-1998

Expanded business by offering diverse range of lighting products. Provided lighting design and recommended proper use of lighting products to provide better value to customers. Expanded marketing network to cover project and wholesale activities.

1999

Strengthen the company competitiveness by acquiring T.S. Trunking Co. Ltd. (name has now been changed to L&E Manufacturing Co. Ltd.) which manufactures whole range of fluorescent lighting luminaries and trunking products. Started to expand to export market to benefit from the weak Baht at that time.

2000-2003

Expanded business to cover modern trade market and included extensive range of decorative lighting products for residential. Established the Lighting Application Center for demonstration to customers how lighting products can be effectively applied for various applications. Developed and improved MIS and logistics system so that the company can provide faster and better services to customers.

2004

Increased registered capital to 137.50 million Baht, became a public company and listed in the Stock Exchange of Thailand

2005

Expanded manufacturing facilities to enable the company to manufacture whole range of indoor and outdoor lighting luminaries. Established representative office in Vietnam.

MAJOR MILESTONE

Lighting & Equipment Public Company Limited operates a fully integrated business in lighting products, from research and product development, has its own IEC/ISO 17025 accredited laboratory and ISO 9001 accredited manufacturing factories as well as distributes the products to all customer groups in domestic and abroad. In addition, the company provides various services for maximum benefit to customers, i.e. recommend proper products including provide lighting designs for each application, as well as offer rental products and rental lighting systems for various events. The company has diverse and complete range of lighting products that can meet the requirement of all customer groups. i.e. residential, office, commercial building, department store, showroom, retail store, museum ,manufacturing factory, warehouse, historical structure, public park, stadium, street, airport, advertising box, etc.

2006
Granted 5 years corporate income tax holiday by Board of Investment for the factory expansion and manufacturing modernization of the company to improve productivity and reduce production cost.

2007
Increased registered capital to 305.70 million Baht and established lighting luminaire laboratory for research and develop of lighting products as well as product quality test to ensure that products delivered to customers have good quality and meet standard.

2008
Granted Top Corporate Governance Awards,mai from Stock Exchange of Thailand.
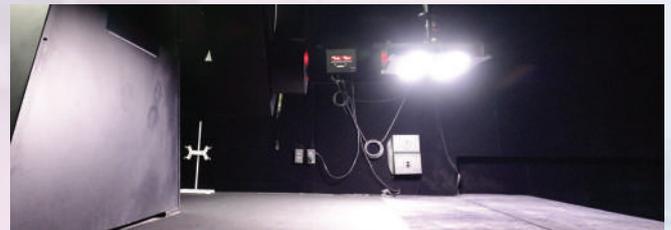
2009
Established Lighting Solution Center, the showroom that completed with diverse range of lighting products for various life-styles, experienced lighting designers to provide recommendation and lighting design to customers including lighting showcases for customers to experience light effect, to expand marketing channel to retail customers.

2010
Granted IEC/ISO 17025 accreditation for lighting luminaries laboratory and ISO 9001:2008 accreditation for lighting luminaries manufacturing. Granted Top Corporate Govenance Awards : mai from Stock Exchange of Thailand

2011
Established L&E Solid State Co. Ltd. to manufacture LED products which is the first Thai factory manufacturing LED lamps for lighting.

2012-2013

Constantly develop LED products and launch them into the market and expand business into AEC market.
Create slogan " L&E more than...light " for communication to the market.

L&E

more than light

2014

Penetrated into the consumer market by advertising it's LED lamps for the first time in the television media and other media. Increased registered capital to 494.2 million Baht. Reduced the company's PAR value from 5 Baht to 1 Baht. shift the transaction of the company's share from mai market to SET market. Opened an additional showroom, Lighting Solution Center on Ratchaprerk road.

2015

Opened new manufacturing factories and warehouses at Ladloomkaew district, Pathumtani province, total space 80,000 SQM. comprised of : Warehouse and distribution center, total space 16,000 SQM. Assembly factory total space 5,800 SQM. LED lamps, LED components and certain LED luminaires manufacturing. factories under the subsidiary : L&E Solid State Co.,Ltd., total space 8,500 SQM. lighting luminaires and lighting poles manufacturing. factories under the subsidiary : L&E Manufacturing Co.,Ltd., total space 7,600 SQM. Established L&E Myanmar Co.,Ltd. a subsidiary in Yangon, The Republic of the Union of Myanmar.

2016 - 2017

- Established a wholly-own subsidiary, the Lighting & Equipment (Vietnam) Co., Ltd. In Dong Nai, Vietnam with the intention to import lighting product from Head Office for resale in Vietnamese market, and to manufacture lighting products for sale in Vietnamese market as well as for sale to Head Office in Thailand.
- All the 3 manufacturing factories under the company L&E Manufacturing Co., Ltd. (LEM) at Latlumkaeo Pathumthani and L&E Solid State Co., Ltd. (LES) has been assessed and conformed to the environmental system ISO 14001:2015 (TIS 14001-2559)

2018

The Grand Opening ceremony of Lighting & Equipment (Vietnam) Co.,Ltd., 12 December 2018 at Amata Industrial Estate, Dong Nai City, Vietnam.

2019

L&E was certified as Thai Innovation and Invention account by Budget Bureau about 2 products Hortucultural LED Lighting and LED T8
- L&E Manufacturing Co.,Ltd. (LEM.) has been assesed and found to be conforming to the requirements of TIS 45001-2561 (ISO 45001-2018)

2020

- Aiming to the market for various innovative lighting products such as IOT products, lighting used in Agriculture and Medical industry, etc.
- Add a business model (Business Model) "Efficient Value Chain Management" to support mass production In order export to large customers abroad.

2021

New Business to the Lighting and Entertainment Technology Provider

TYPE OF LED LUMINAIRE

Product range of L&E LED luminaires are devided into 2 categories.
Each category use different LED light sources.

1. Empty luminaires

It is suitable to use with retrofit lamps as of easy maintenance and installation,
but not suitable for some application because its shape or technical term.

The most popular LED light sources for Empty luminaires are as follows:

- **LED-T8**, it become more and more popular to replace T5/T8 fluorescent lamps because low power consumption and low cost as well, but same lumen output as
  fluorescent lamps. This lamp easy to replace with existing conventional recessed or surface office or industrial luminaires, just replace it (no need to use existing ballast).
  Anyway, this kind of lamp has different wiring connection. Improper wiring connection may cause problem.

Warning

Please be noted that for the above mentioned lamps, most of them is recommended to use with indoor luminaires except some items indentified that can be used for outdoor
applications, but do not recommend to use with totally enclosed luminaires (except some luminaire has enough space for adequate heat dissipation)
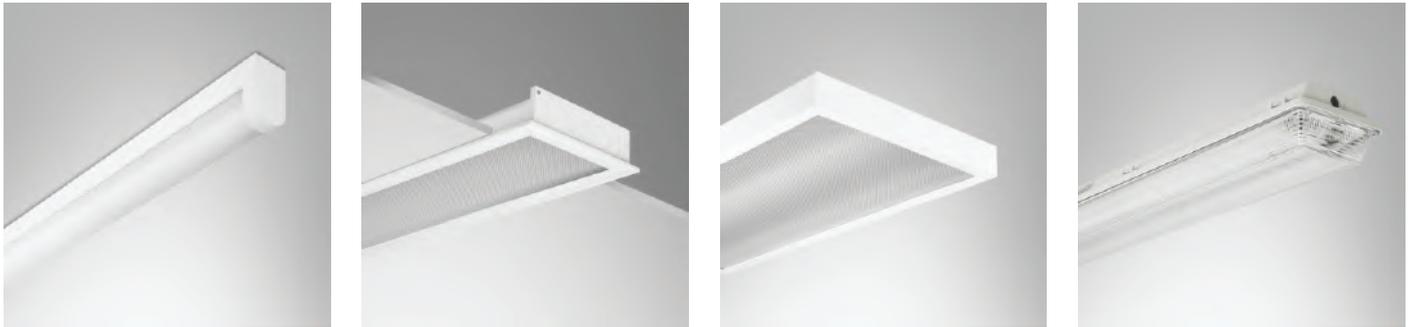
2. Completed set luminaires

Driver : Separated or integrated depend on each luminaire.
The LED light source for completed set lumininares are devided by 2 categories.

- **LED-Module,** it has various shape such as square, circular, rectangular, etc.Moreover, size and shape can be made according to luminaire's supplier.
Therefore, luminaire's supplier will design their own designed luminaire in various shape to suit all kind of lighting applications.

LED-Module can be combined with reflector or lens in order to get different light distribution such as narrow light distribution, asymmetrical light distribution,
street lighting distribution, etc.

CRITERIA OF LUMINAIRES

IP code

IEC 60529 : Degrees of protection provided by enclosures

The first number : Degree of protected against Solid foreign objects

- 0 No protection
- 1 Protected against solid foreign objects of 50 mm Ø and greater.
- 2 Protected against solid foreign objects of 12.5 mm Ø and greater.
- 3 Protected against solid foreign objects of 2.5 mm Ø and greater.
- 4 Protected against solid foreign objects of 1.0 mm Ø and greater.
- 5 Dust-protected
- 6 Dust-tight

The second number : Degree of protected against water

- 0 No protection
- 1 Protected against vertically falling water drops.
- 2 Protected against vertically falling water drops when enclosure tilted up to 15°.
- 3 Protected against spraying water at angle up to 60°.
- 4 Protected against splashing water from any direction.
- 5 Protected against water jets from any direction.
- 6 Protected against powerful water jets from any direction.
- 7 Protected against the effects of temporary immersion in water.
- 8 Protected against the effects of continuous immersion in water.

Example:

IP 6 5 → Protected against water jets
→ Dust-tight

Protection against electric shock

IEC 60598-1 : Classification according to type of protection against electric shock.

Class I
Luminaires provided with basic insulation and ground wire connection.

Class II
Luminaires provided with double or reinforced insulation, no provision for ground wire connection.

Class III
Luminaires suitable for safety extra-low voltage (SELV) power supply (not exceed 50 VAC or 120 VDC).

* Protection against electric shock is also known as luminaires class/

protection class/insulation class.

Correlated Color Temperature (CCT)

ANSI C78.377-2017 : Chromaticity specifications for solid state lighting products

(LED products).

Nominal CCT Category (K)	CCT Range (K)
2200	2238 ± 102
2500	2460 ± 120
2700	2725 ± 145
3000	3045 ± 175
3500	3465 ± 245
4000	3985 ± 275
4500	4503 ± 243
5000	5029 ± 283
5700	5667 ± 355
6500	6532 ± 510

* CCT Range is "Target CCT and Tolerance (K)".

IK code

IEC 62262 : Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts.

IK00   There is no protection.

IK01   Protected against 0.14 joules of impact (equivalent to the impact of a 0.25kg mass dropped from 56mm above the impacted surface)

IK02   Protected against 0.2 joules of impact (equivalent to the impact of a 0.25kg mass dropped from 80mm above the impacted surface)

IK03   Protected against 0.35 joules of impact (equivalent to the impact of a 0.25kg mass dropped from 140mm above the impacted surface)

IK04   Protected against 0.5 joules of impact (equivalent to the impact of a 0.25kg mass dropped from 200mm above the impacted surface)

IK05   Protected against 0.7 joules of impact (equivalent to the impact of a 0.25kg mass dropped from 280mm above the impacted surface)

IK06   Protected against 1 joules of impact (equivalent to the impact of a 0.25kg mass dropped from 400mm above the impacted surface)

IK07   Protected against 2 joules of impact (equivalent to the impact of a 0.5kg mass dropped from 400mm above the impacted surface)

IK08   Protected against 5 joules of impact (equivalent to the impact of a 1.7kg mass dropped from 300mm above the impacted surface)

IK09   Protected against 10 joules of impact (equivalent to the impact of a 5kg mass dropped from 200mm above the impacted surface)

IK10   Protected against 20 joules of impact (equivalent to the impact of a 5kg mass dropped from 400mm above the impacted surface)

LED Lifetime

The lifetime of a LED (LED chip, LED module, LED COB) is defined as the time it takes until its light output, or lumen maintenance reach 70% of the initial output (L70).

Lamp Lifetime

Lamp (Retrofit lamp) lifetime is not the same meaning of LED lifetime, because of there are many other components that are used included driver, optic, mechanical fixing and housing.

Then, the lifetime of lamp (Retrofit lamp) is determined by considering "Time to 70% lumen maintenance of lamp (Retrofit lamp)" and "Lifetime of components".

Luminaire Lifetime

Luminaire lifetime is not the same meaning of LED lifetime, because of there are many other components that are used included driver, optic, mechanical fixing and housing.

Then, the lifetime of luminaire is determined by considering "Time to 70% lumen maintenance of luminaire" and "Lifetime of components".

LED Output

It is the luminous flux come out from LED (LED module, LED COB) in every direction and gather in total in term of lumen. Normally, this value is specified by LED Manufacturer.
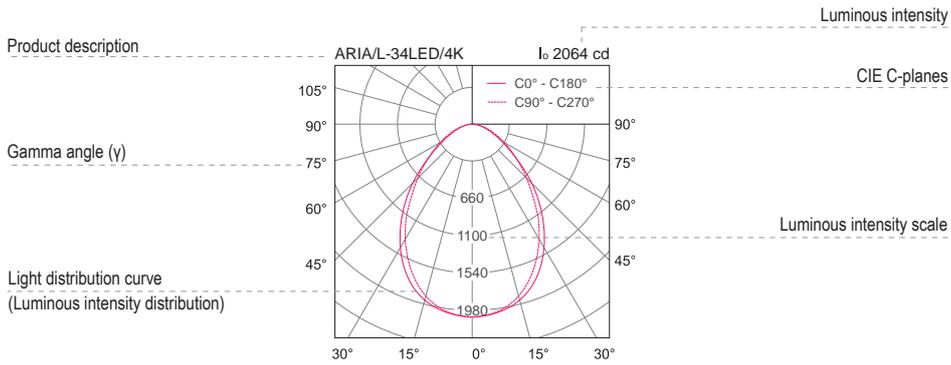
Lamp Output

It is the luminous flux come out from lamp (Retrofit lamp) in every direction and gather in total in term of lumen.
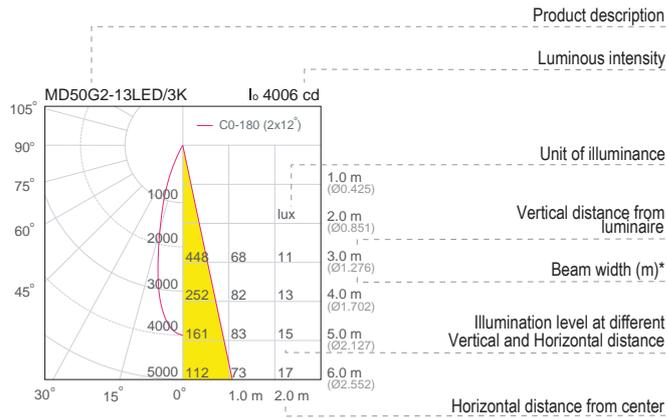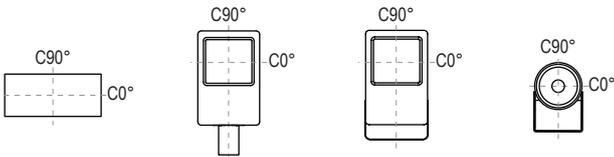
Luminaire Output

It is the luminous flux come out from luminaire in every direction and gather in total in term of lumen.

Normally, it is not equal to Lamp Output caused of there are many factor when fit lamp (Retrofit lamp) in luminaire, such as reflector, lens, housing, etc. These parts will effect or distort lumen output from lamp (Retrofit lamp).

Photometric data

Luminous intensity

Product description — ARIA/L-34LED/4K I_o 2064 cd

CIE C-planes

Legend:
— C0° - C180°
---- C90° - C270°

Gamma angle (γ)

Luminous intensity scale

Light distribution curve
(Luminous intensity distribution)

Gamma angles: 105°, 90°, 75°, 60°, 45° (left and right 90°, 75°, 60°, 45°)

Intensity scale values: 660, 1100, 1540, 1980

Horizontal axis: 30°, 15°, 0°, 15°, 30°

Remark : Relative position of luminaire to the co-ordinate system.

C90° — C0°

C90° — C0°

C90° — C0°

C90° — C0°

Product description

Luminous intensity

MD50G2-13LED/3K I_o 4006 cd

— C0-180 (2x12°)

Unit of illuminance

Gamma angles: 105°, 90°, 75°, 60°, 45°

Intensity scale: 1000, 2000, 3000, 4000, 5000

lux

			Vertical distance from luminaire
			1.0 m (Ø0.425)
			2.0 m (Ø0.851)
448	68	11	3.0 m (Ø1.276)
252	82	13	4.0 m (Ø1.702)
161	83	15	5.0 m (Ø2.127)
112	73	17	6.0 m (Ø2.552)

Beam width (m)*

Illumination level at different
Vertical and Horizontal distance

Horizontal distance from center

Horizontal axis: 30°, 15°, 0°, 1.0 m, 2.0 m

Remark : Beam width (m) is diameter of beam angle at different vertical distance.

Particular symbol

Ø123   Ceiling or wall, cutout for round recessed luminaire

290 x 630   Ceiling or wall, cutout for square recessed luminaire

30°   Vertical adjustment from 0º to 30º

358°   Horizontal adjustment from 0º to 358º

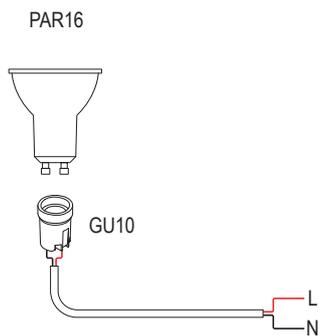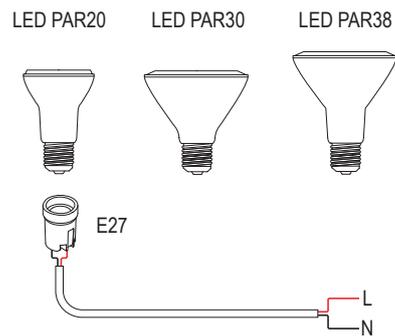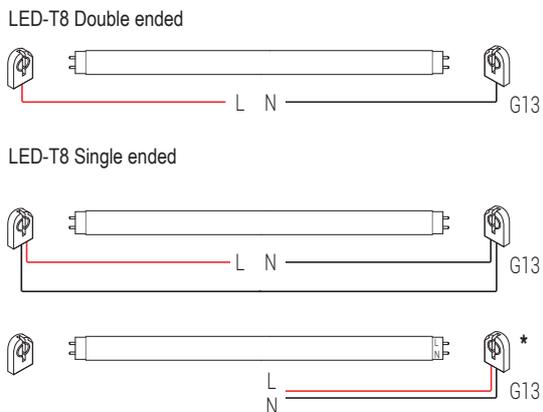30°   Two axis adjustment from 0º to 30º

WIRING Diagram

LED-BULB

LED-BULB   LED-CANDLE

E27

L
N

LED-MR16

LED-MR16

GU5.3

DRIVER

L
N

LED PAR16

PAR16

GU10

L
N

LED PAR20/30/38

LED PAR20   LED PAR30   LED PAR38

E27

L
N

LED-T8

LED-T8 Double ended

L   N   G13
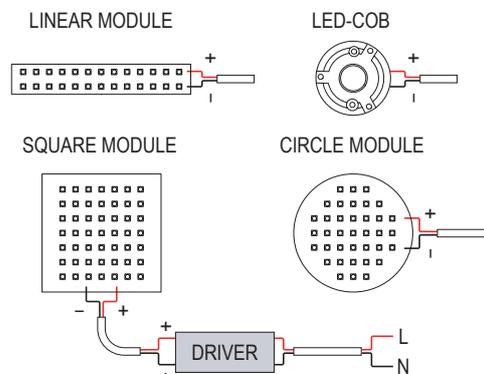
LED-T8 Single ended

L   N   G13

L
N   G13 *
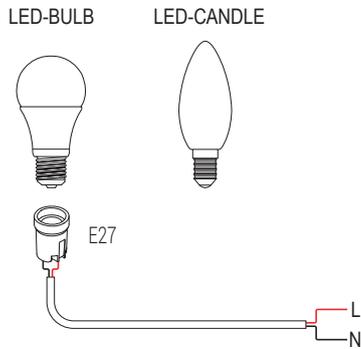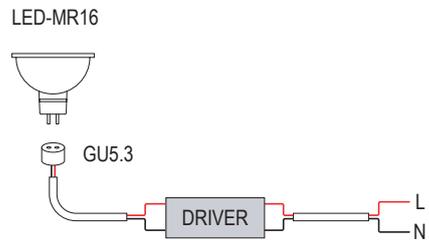
* Please make sure to put the lamp on the right side (L, N)

Remark
In Thailand the power system is 220V, 50Hz for other countries may difference.

LED-MODULE/LED-COB

LINEAR MODULE   LED-COB

+   +
‒   ‒

SQUARE MODULE   CIRCLE MODULE

+
‒

‒   +

+   L
‒   N

DRIVER

GUIDE TO CATALOGUE

1. Product category

2. Product model

3. Brand name

4. Product information

5. Dimension in mm.

6. Typical Product description

7. Total input power, but for other products use Retrofit Lamp show range of power.

8. Photometric data (IES file is available)

9. Related products : LED-T8 is a light source for this product.

LED Clean Room

LRCRM300/RO/CT

Application

Clean room is designed for unique application which is require limitation of dust such as food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Rear opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000 or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear are available as option)
Mounting	Recessed
Power	2S : 14-18W (2 lamps)
	2L : 28-32W (2 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
Luminaire Output	2S : 14/16/18W : 1525 lm
	2L : 28/32W : 3050 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2X18W
	28-32W : T5 2x28W/T8 2X36W

Ordering Data

Model	Watt
LRCRM300/RO/2S/CT-XXLED-T8	14-18W
LRCRM300/RO/2L/CT-XXLED-T8	28-32W

LRCRM300/RO/2S

LRCRM300/RO/2L

Related Products

LED-T8

GUIDE TO ORDER

Page no.	Typical product description				Additional product description		
	Model	Model's detail	Power	Lamp type	Color Temperature	Light Distribution	Other
1	EGL5	-	-XX	LED	/XXK	-	-XXX
9	RCRML300/FO	/2L	-XX	LED	/XXK	-	Specified by
14	LLCSE	/1L	-XX	LED-T8	/XXK	-	Company

The above samples identify " Typical product description " only
Full of product description comprised of "Typical product description "+ Additional product description

Emergency/Exit Sign

If customer would like to order luminaire model **EGL5 with 2x9W, 3500K**
The full name is " **EGL5-209LED/3.5K-XXXX** "

EGL5

ESL4

ERL4

EWL4

Clean Room

The luminaires have various of power and light color (CCT) in case customer would like to order
model **RCRML300/FO with 36W, 4000K**
The full name is " **RCRML300/FO/2L-36LED/4K-XXXX** "

LRCRM300/FO/CT

LRCRM600/RO/CT

RCRML300/FO

SCRML300

Cold Room/Weatherproof

The luminaires have various of power and light color (CCT) in case customer would like to order
model **LLCSE/CT with LED-T8 14W, 4000K**
The full name is " **LLCSE/CT/1L-14LED-T8/4K** "

LLCSE/CT

LLWPF/CT

LWPFL102

CONTENT

Light Sources

Special Lighting

LED Light Sources (LED Module/Lamps)

LED Module

LED
LINEAR MODULE

LED-LINEAR MODULE

LED

LED-COB

LED-COB

LED Lamps

LED

LAMP

LED-CANDLE

LED-BULB/LPF

LED-MR16

LED-PAR16

LED-PAR20

LED-PAR30

LED-T8/INVESTMENT/CT

LED-T8/STD/CT

LED-T8/PREMUIM/CT

Light Sources

LED Module/Lamps

LED Module

⏚ TIS LED-LINEAR MODULE
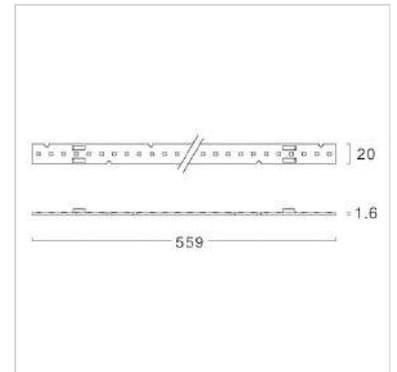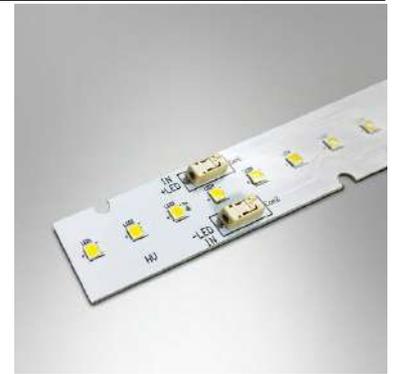
Application

The LED Linear Module is designed
to replace T8 fluorescent lamp which
meet lux level requirement,but less
power consumption and more longer
lifetime.

Specification

Structure	PCB LED TYPE
Power	16.5W
Light Source	LED-SMD
Colour Temperature	3000/4000K/6500K
LED Output	2200lm
Control Gear	Separted driver is required
LED Lifetime	50,000 hrs.
Remarks	Compatible with L&E driver or other brands ,240mA : (16.5W)

Ordering Data

Model	Watt
L&E# LSM 66LED/V1/830/2ft/2200lm/56-67V/240mA	16.5W
L&E# LSM 66LED/V1/840/2ft/2200lm/56-67V/240mA	16.5W
L&E# LSM 66LED/V1/865/2ft/2200lm/56-67V/240mA	16.5W

Related Products
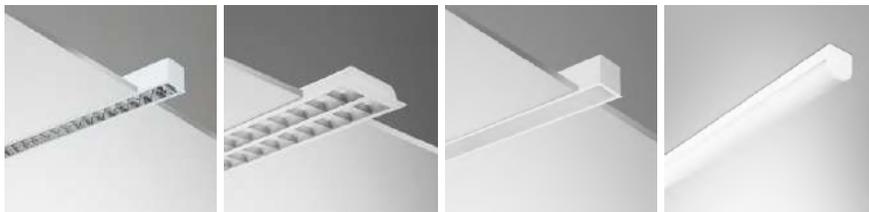
Recessed Luminare	Recessed Luminare	Recessed Luminare	Recessed Luminare

LED Module

⏚ TIS LED-COB

Application
This is a very powerful LED light source
which is replaced compact metal halide
lamp

Specification

Housing	Robust plastic material
Description	Operating case temp. -40-80 degree
	CRI > 90
Mounting	Fix thermal pad or grease on back
	side and fix to heatsink
Power	2000LM(21W)
	3000LM(32W)
	3000LM(32W)
Light Source	LED-COB
Colour Temperature	940/930
LED Output	105-141 Lumen/Watt
Control Gear	Separate driver
LED Lifetime	50,000 hrs.
Equivalent	Compact metal halide : 35/70W
Remarks	Compatible with L&E driver or other
	brands ,500/800mA : (21/ 32W) *

Ordering Data

Model	Watt
L&E#LED- MODULE-2000LM/930	21W
L&E#LED-MODULE-3000LM/930	32W
L&E#LED-MODULE-3000LM/940	32W
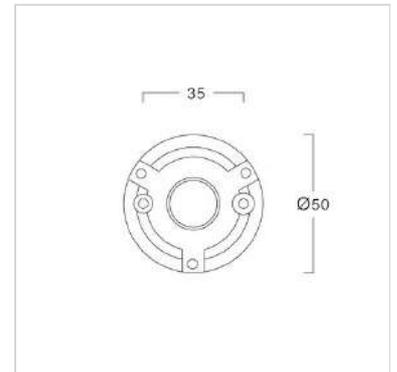
Related Products

| Track Light	Surface downlight	Recessed downlight	Recessed downlight

LED Lamp

LED-CANDLE

Application

This lamp is designed to replace
CANDLE halogen lamp for energy saving,
long life time and low maintenance
cost.

Specification

Description	Dimmable
	Do not use in enclosed fixture
	CRI > 80
Body Colour	White
Power	6W
Lamp Holder	E14
Colour Temperature	2700K
Lamp Output	470 lm
Control Gear	Built-in driver
Power Supply	220VAC,50Hz
Lamp Lifetime	25,000 hrs.
Equivalent	Candle lamp

Ordering Data

Model	Watt
L&E#LED-CANDLE-470LM/827/6W/E14/Clear/Dim	6W
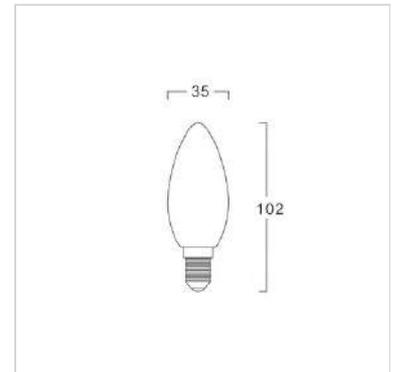
Related Products

Decorative   Decorative

LED Lamp

⏚ TIS LED-BULB/LPF

Application

This LED lamp is designed to replace
conventional lamp which is safe cost and
save energy depending on each lamp types.
There is no UV,long lifetime,etc.

Specification

Housing	Aluminium inside cover with plastic
Description	Do not use with enclosed fixtures
	Operating temperature -20 / +40 degree
Body Colour	White
Power	5-15W , Pf 0.5 ,CRI >80
Light Source	LED-SMD
Lamp Holder	E27
Colour Temperature	3000K/4000K/6500K
Lamp Output	5W:470 lm,510lm
	7W:630lm,690lm
	9W:810lm,850lm
	10W:980lm
	11W:1050lm
	13W:1350lm
	15W:1450lm
Control Gear	Built-in driver
Power Supply	220VAC,50Hz
Lamp Lifetime	25,000 hrs.

Ordering Data

Model	Watt
L&E#LED-Bulb-470LM/830/5W/E27	5W
L&E#LED-Bulb-510LM/865/5W/E27	5W
L&E#LED-Bulb-630LM/830/7W/E27(G3)	7W
L&E#LED-Bulb-690LM/865/7W/E27(G3)	7W
L&E#LED-Bulb-810LM/830/9W/E27(G3)	9W
L&E#LED-Bulb-850LM/840/9W/E27(G3)	9W
L&E#LED-Bulb-850LM/865/9W/E27(G3)	9W
L&E#LED-Bulb-980LM/865/10W/E27 (G3)	10W
L&E#LED-Bulb-1050LM/830/11W/E27(G3)	11W
L&E#LED-Bulb-1050LM/840/11W/E27(G3)	11W
L&E#LED-Bulb-1050LM/865/11W/E27(G3)	11W
L&E#LED-Bulb-1350LM/830/13W/E27	13W
L&E#LED-Bulb-1350LM/865/13W/E27	13W
L&E#LED-Bulb-1450LM/830/15W/E27	15W
L&E#LED-Bulb-1450LM/865/15W/E27	15W

A60 (5/7/8/9/10/11W)

Ø60
113

A70(13/15W)

Ø70
130
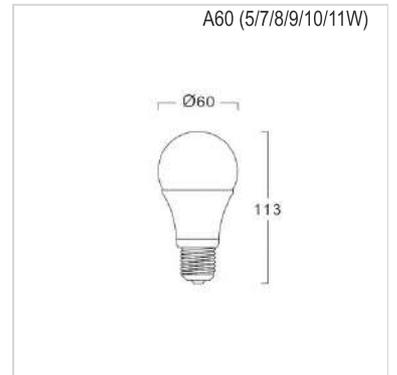
Related Products

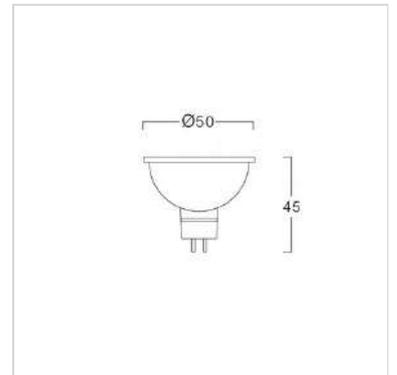| Recessed Downlight	Recessed Downlight	Surface downlight	Surface downlight

LED Lamp

L&E

⏚ TIS **LED-MR16**

Application
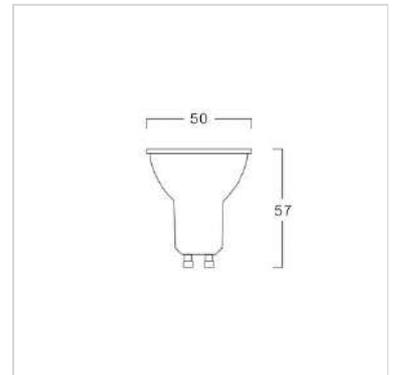This lamp is designed to replace
MR16 halogen lamp for energy saving,
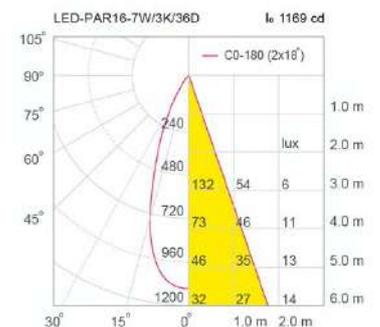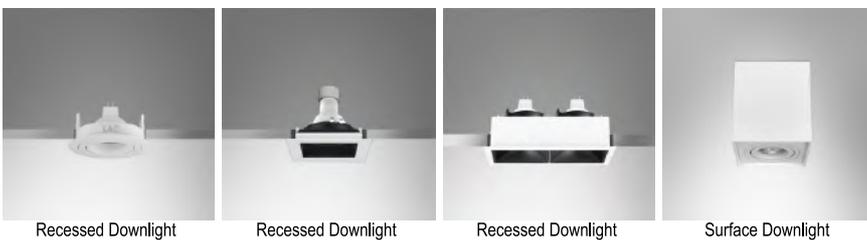long life time and low maintenance cost

Specification

Housing	Plastic with inside aluminium
Description	Non-dimmable
	Do not use in enclosed fixture
Body Colour	White
Power	6W
Light Source	LED-SMD
Colour Temperature	2700/3000/4000/6500K - CRI 80
Lamp Output	550 lm
Beam Angle	36/60degree
Control Gear	Separated transformer
Power Supply	12V AC/DC
Lamp Lifetime	15,000 hrs.
Equivalent	MR16 35/50W

Ordering Data

Model	Watt
L&E#LED-MR16-550LM/827/6W/GU5.3/36D	6W
L&E#LED-MR16-550LM/830/6W/GU5.3/36D	6W
L&E#LED-MR16-550LM/830/6W/GU5.3/60D	6W
L&E#LED-MR16-550LM/840/6W/GU5.3/36D	6W
L&E#LED-MR16-550LM/840/6W/GU5.3/60D	6W
L&E#LED-MR16-550LM/865/6W/GU5.3/36D	6W

Ø50

45

LED-MR16-6W/3K/36D   I₀ 1259 cd

LED-MR16-6W/3K/60D   I₀ 635 cd

Related Products

Track Light	Surface Downlight	Recessed Downlight	Recessed Downlight
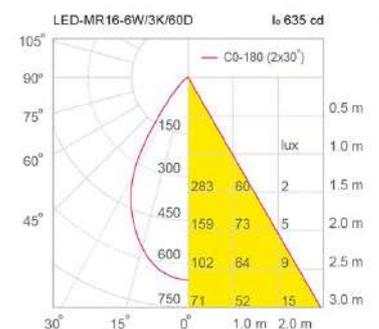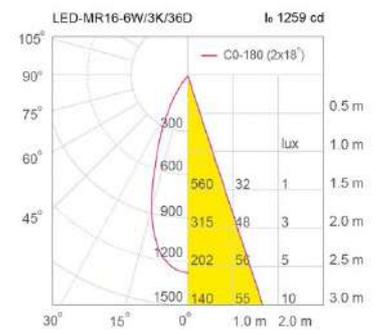
LED Lamp

⏚ TIS LED-PAR16

Application
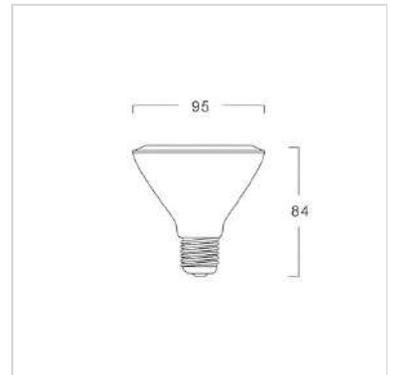
This lamp is designed to replace
PAR16 halogen lamp for energy saving,
long life time and low maintenance
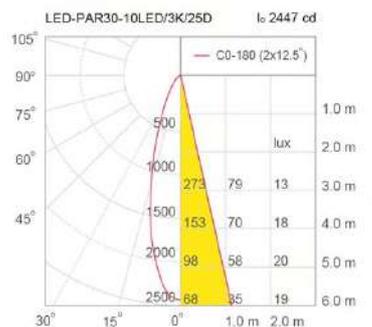cost.

Specification

Housing	Plastic with inside aluminium
Description	Dimmable
	Do not use in enclosed fixture
Body Colour	White
Power	7W
Light Source	LED-SMD
Colour Temperature	3000K/4000K
Lamp Output	620 lm
Beam Angle	36 degree
Power Supply	220VAC,50Hz
Lamp Lifetime	15,000 hrs.
Equivalent	PAR16 35/50W

Ordering Data

Model	Watt
L&E#LED-PAR16-620LM/830/7W/GU10/36D/Dim	7W
L&E#LED-PAR16-620LM/840/7W/GU10/36D/Dim	7W

Related Products

| Recessed Downlight | Recessed Downlight | Recessed Downlight | Surface Downlight |

LED-PAR16-7W/3K/36D   Io 1169 cd

LED Lamp

⏚ TIS LED-PAR20

Application
This lamp is designed to replace
PAR20 halogen lamp for energy saving,
long life time and low maintenance
cost.

Specification

Housing	Plastic with inside aluminium
Description	Non-Dimmable
	Do not use in enclosed fixture
Body Colour	White
Power	6W
Light Source	LED-SMD
Colour Temperature	3000K
Lamp Output	540lm
Beam Angle	25 degree
Power Supply	220VAC,50Hz
Lamp Lifetime	20000 hrs.
Equivalent	PAR20 50-75W

Ordering Data

Model	Watt
L&E#PAR20-540LM/830/6W/E27/25D	6W

Related Products

Track Light   Track Light   Surface Downlight

LED Lamp

⏚ TIS **LED-PAR30**

Application

This lamp is designed to replace
PAR30 halogen lamp for energy saving,
long life time and low maintenance
cost.

Specification

Housing	Plastic with inside aluminium
Description	Non-Dimmable
	Do not use in enclosed fixture
Body Colour	White
Power	10W
Light Source	LED-SMD
Colour Temperature	3000K
Lamp Output	950lm
Beam Angle	25 degree
Power Supply	220VAC,50Hz
Lamp Lifetime	20,000 hrs.
Equivalent	PAR30 75-100W

Ordering Data

Model	Watt
L&E#PAR30-950LM/830/10W/E27/25D	10W

95

84

LED-PAR30-10LED/3K/25D   I₀ 2447 cd

Related Products

Track Light	Track Light	Surface Downlight

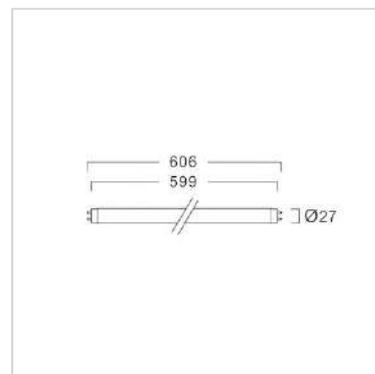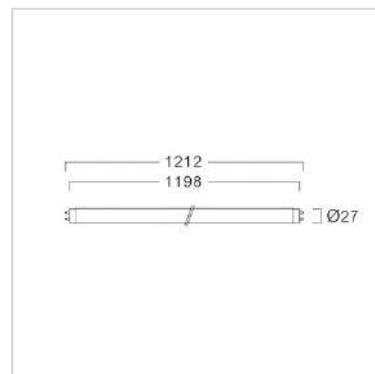# LED Lamp

L&E

⏚ TIS LED-T8/INVESTMENT/CT

Application

This LED lamp is designed to replace
conventional lamp which is safe cost and
save energy depending on each lamp types.
There is no UV,long lifetime,etc.

Specification

Housing	Frosted Glass Tube
Description	Energy saving up to 70%
	No UV
	Non-dimmable
	840 : 4000K
	865 : 6500K
	TIS 1955-2551 and TIS 2779-2562
Power	7W, Pf >0.9, CRI>80 and THDi <20%
	14W, Pf >0.9, CRI>80 and THDi <20%
Light Source	LED-SMD
Lamp Holder	G13
Colour Temperature	4000/6500K
Lamp Output	1100lm/2100 lm
Beam Angle	> 200 degree
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Lamp Lifetime	25,000 hrs.
Equivalent	T8:18/36W

Ordering Data

Model	Watt
L&E#Investment LED-T8-1100LM/840/7W/CT	7W
L&E#Investment LED-T8-1100LM/865/7W/CT	7W
L&E#Investment LED-T8-2100LM/840/14W/CT	14W
L&E#Investment LED-T8-2100LM/865/14W/CT	14W

1212
1198
Ø27

606
599
Ø27

WIRING Diagram

LED-T8 Single ended

L N   G13

Related Products

Recessed Luminaire	Recessed Luminaire	Surface Luminaire	Pendant Luminaire
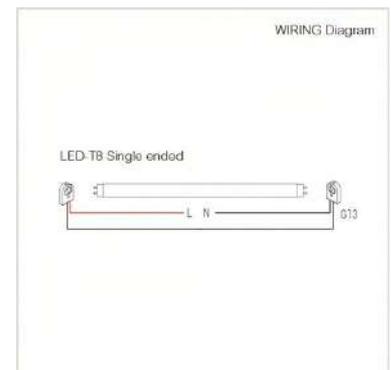
LED Lamp

LED-T8/STD/CT

Application
This LED lamp is designed to replace
conventional lamp which is safe cost and
save energy depending on each lamp types.
There is no UV,long lifetime,etc.

Specification

Housing	High quality plastic
Description	Energy saving up to 65%
	No UV
	Non-dimmable
	830 : 3000K
	840 : 4000K
	865 : 6500K
	TIS 1955-2551 and TIS 2779-2562
Safety	9W, Pf >0.9, CRI>80 and THDi <15% *
	16W, Pf >0.9, CRI>80 and THDi <15% *
Power	9/16W
Light Source	LED-SMD
Colour Temperature	3000/4000/6500K
Lamp Output	1050/2000/2100lm
	(See.Detial in ordering data)
Beam Angle	> 160 degree
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Lamp Lifetime	40,000 hrs.
Equivalent	T8:18/36W

Ordering Data

Model	Watt
L&E#STD LED-T8-1050LM/830/9W/CT	9W
L&E#STD LED-T8-1050LM/840/9W/CT	9W
L&E#STD LED-T8-1050LM/865/9W/CT	9W
L&E#STD LED-T8-2000LM/830/16W/CT	16W
L&E#STD LED-T8-2100LM/840/16W/CT	16W
L&E#STD LED-T8-2100LM/865/16W/CT	16W

1212
1198
Ø27

606
599
Ø27

WIRING Diagram

LED-T8 Single ended
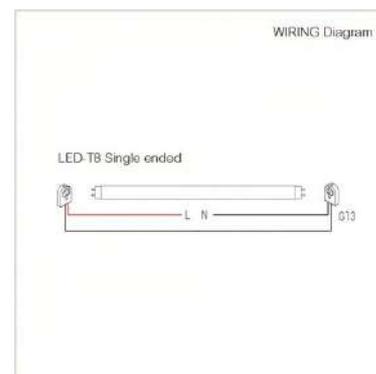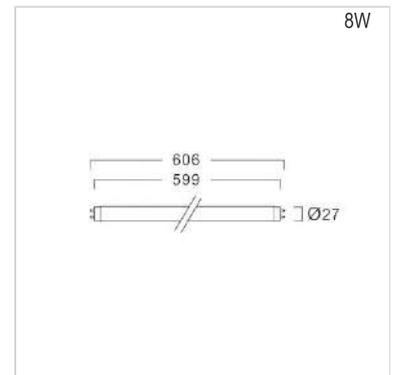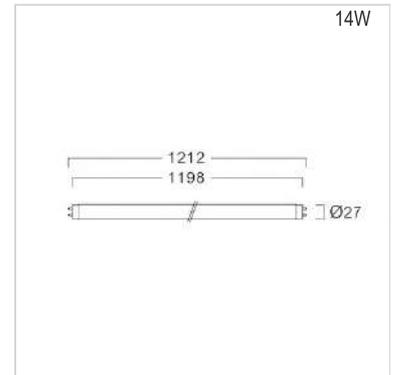
L N

G13

Related Products
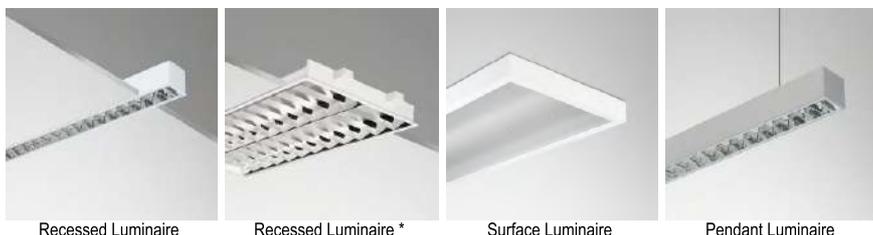
| Recessed Luminaire | Recessed Luminaire * | Surface Luminaire | Pendant Luminaire |

LED Lamp

⏚ TIS LED-T8/PREMIUM/CT

Application

This LED lamp is designed to replace
conventional lamp which is safe cost and
save energy depending on each lamp types.
There is no UV,long lifetime,etc.

Specification

Housing	High quality plastic *
Description	Energy saving up to 70%
	No UV
	Non-dimmable
	830 : 3000K
	840 : 4000K
	865 : 6500K
	TIS 1955-2551 and TIS 2779-2562
Power	8W, Pf >0.9, CRI>80 and THDi <10%
	14W, Pf >0.9, CRI>80 and THDi <10%
Light Source	LED-SMD
Colour Temperature	3000/4000/6500K
Lamp Output	1050/2000/2100lm
	(See.Detial in ordering data)
Beam Angle	> 160 degree
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Lamp Lifetime	50,000 hrs.
Equivalent	T8:18/36W

Ordering Data

Model	Watt
L&E#Premium LED-T8-1050LM/840/8W/CT	8W
L&E#Premium LED-T8-1050LM/865/8W/CT	8W
L&E#Premium LED-T8-2000LM/830/14W/CT	14W
L&E#Premium LED-T8-2100LM/840/14W/CT	14W
L&E#Premium LED-T8-2100LM/865/14W/CT	14W

14W

1212
1198
Ø27

8W

606
599
Ø27

WIRING Diagram

LED-T8 Single ended
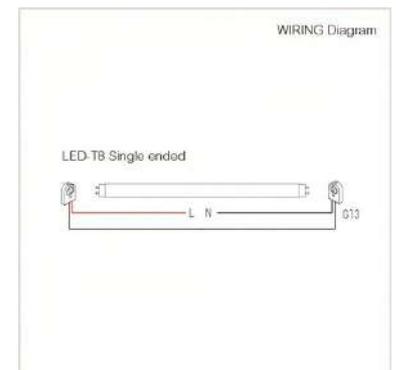
L   N
G13

Related Products
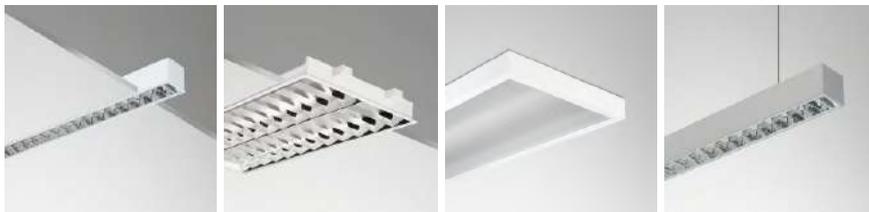
Recessed Luminaire   Recessed Luminaire   Surface Luminaire   Pendant Luminaire

Special Lighting

Special Lighting (Emergency/Exit Sign/Obstruction Light/Cold Room)

Emergency/Exit Sign Luminaires

LED
LED MODULE

EGL5 (2x9W)	ESL4 (10W)	ERL4 (10W)	EWL4 (10W)

Obstruction Light

LED-BULB

OBR1/SH (7W)	OBR1/DH (2x7W)

LED
LED MODULE

OBR3/SH (14W)	OBR3/DH (2x14W)

Cold Room Luminaires

LED
LED MODULE

CAL620 (70W)	CAL621 (150W)

LED-T8

LLCSE/CT (7-32W)

Special Lighting (Clean Room/Weatherproof)

Clean Room Luminaires

LED-T8

LRCRM300 /FO/CT (14-32W)

LRCRM600 /FO/CT (14-48W)

LRCRM300 /RO/CT (14-32W)

LRCRM600 /RO/CT (14-48W)

RCRML300/FO (16/32W)

RCRML600/FO (32W)

LLBCM/CT (7-16W)

LSCRM300/CT (14-32W)

LSCRM600/CT (14-48W)

LED LINEAR MODULE

RCRML300/FO (18-36W)

RCRML600/FO (36W)

SCRML300 (16/32W)

SCRML600 (32W)

Weatherproof Luminaires

LED-T8

LLWPF/CT (7-32W)

LWPFL102 (11-38W)

Special Lighting
Emergency/Exit Sign/Obstruction Light/Cold Room

LED Emergency / Exit Sign

L&E

⏚ TIS **EGL5**

Application

This luminaire is designed to use for safety
reason in case of emergency situation.

Specification

Housing	Electro-galvanized steel
Finishing	Epoxy powder coated in white grey
Charger	Fully automatic solid stage with constant voltage and limit current charging
Battery	Lithium Iron Phosphate, 3.2V 6Ah
Dimension	220x65x220 mm.
Mounting	Surface
Safety	Low-high voltage cut-off to protect under discharge, over charge of battery. AC/DC fuse is well prepared to protect input and output short circuit
Power	2x9W
Light Source	LED Module
Colour Temperature	3500K
Luminaire Output	2x420 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	20
Equivalent	2xHAL 55W
Remarks	3 Hrs. Back-up time

Ordering Data

Model	Watt
EGL5-209LED	2X9W
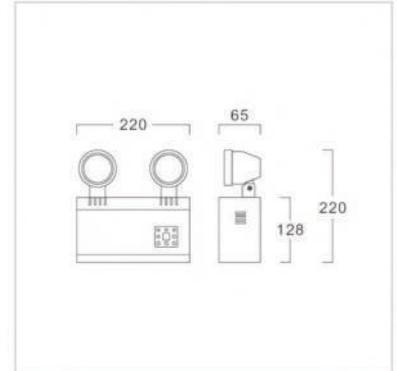
LED Emergency / Exit Sign

TIS **ESL4**

Application

This luminaire is designed to use for safety reason in case of emergency situation.

Specification

Housing	Die-formed cold rolled steel
Finishing	Powder coated in white
Charger	Fully automatic solid stage with constant voltage and limit current charging
Battery	Lithium Iron Phosphate, 3.2V 2.7Ah
Dimension	375x58x247 mm.
Mounting	Surface ceiling mount
Safety	Low-high voltage cut-off to protect under discharge, over charge of battery. AC/DC fuse is well prepared to protect input and output short circuit
Power	10W
Light Source	LED Module
Power Supply	220-240VAC,50Hz
Power Factor	> 0.65
Insulation Class	I
IP Rating	20
Equivalent	T8 10W
Remarks	3 Hrs. Back-up time

Ordering Data

Model	Watt
ESL4/D-10LED	10W
ESL4/S-10LED	10W

Face design

EF 01	EF 02	EF 03	EF 04

EF 05	EF 06	EF 07	EF 09
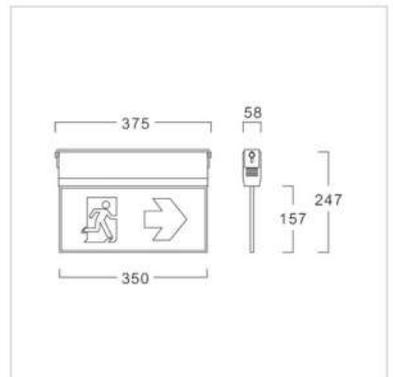
LED Emergency / Exit Sign

TIS **ERL4**

Application
This luminaire is designed to use for safety
reason in case of emergency situation.

Specification

Housing	Die-formed cold rolled steel
Finishing	Powder coated in white
Charger	Fully automatic solid stage with constant voltage and limit current charging
Battery	Lithium Iron Phosphate, 3.2V 2.7Ah
Dimension	425x145x221 mm.
Mounting	Recessed ceiling mounted
Safety	Low-high voltage cut-off to protect under discharge, over charge of battery. AC/DC fuse is well prepared to protect input and output short circuit
Power	10W
Light Source	LED Module
Power Supply	220-240VAC,50Hz
Power Factor	> 0.65
Insulation Class	I
IP Rating	20
Equivalent	T8 10W
Remarks	3 Hrs. Back-up time

Ordering Data

Model	Watt
ERL4/D-10LED	10W
ERL4/S-10LED	10W

Face design

EF 01	EF 02	EF 03	EF 04
EF 05	EF 06	EF 07	EF 09
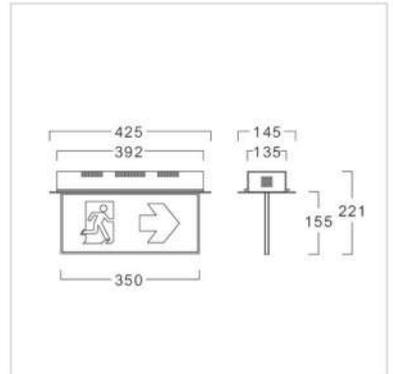
LED Emergency / Exit Sign

TIS **EWL4**

Application
This luminaire is designed to use for safety
reason in case of emergency situation.

Specification

Housing	Die-formed cold rolled steel
Finishing	Powder coated in white
Charger	Fully automatic solid stage with constant voltage and limit current charging
Battery	Lithium Iron Phosphate, 3.2V 2.7Ah
Dimension	360x51x165 mm.
Mounting	Surface wall mounted
Safety	Low-high voltage cut-off to protect under discharge, over charge of battery. AC/DC fuse is well prepared to protect input and output short circuit
Power	10W
Light Source	LED Module
Power Supply	220-240VAC,50Hz
Power Factor	> 0.65
Insulation Class	I
IP Rating	20
Equivalent	T8 10W
Remarks	3 Hrs. Back-up time

Ordering Data

Model	Watt
EWL4/D-10LED	10W
EWL4/S-10LED	10W

Face design

EF 01	EF 02	EF 03	EF 04
EF 05	EF 06	EF 07	EF 09
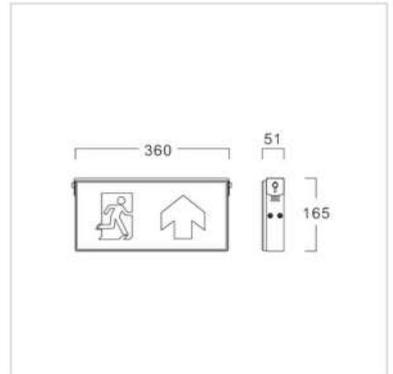
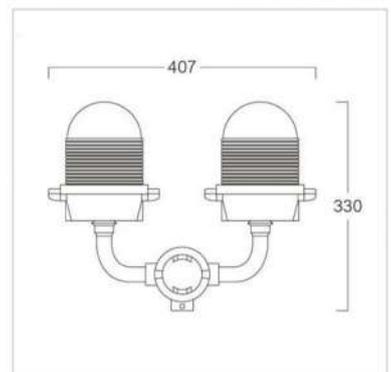# Obstruction Light

⏚ OBR1/SH

Application

Obstruction Lights, serve as critical safety features to alert pilots about tall structures that could pose hazards during air navigation, prevent collisions with obstacles such as tall buildings, towers, or antennas. They provide a continuous and steady illumination, helping pilots identify and avoid these structures in low visibility conditions.

Specification

Housing	Die-cast aluminium
Finishing	Powder coated in black
Lens	Red globe made of polycarbonate
Gasket	Silicone rubber
Dimension	173x330 mm.
Mounting	Threaded 3/4" bottom hub
Power	7W
Light Source	LED-BULB
Beam Angle	360 degree
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	65
Lamp Lifetime	25,000 hrs.

Ordering Data

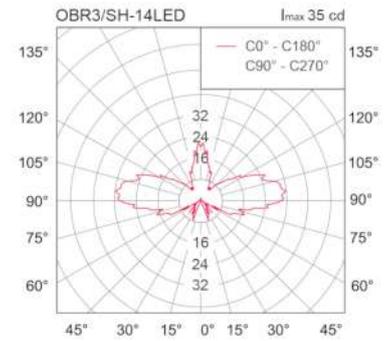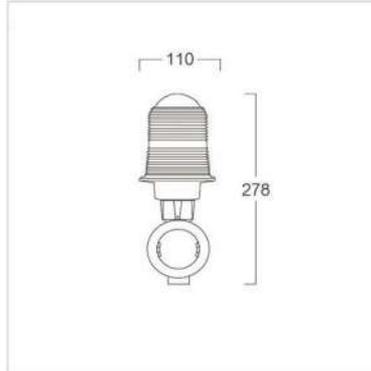| Model	Watt
OBR1/SH-E27	7W

⏚ OBR1/DH

Application

Obstruction Lights, serve as critical safety features to alert pilots about tall structures that could pose hazards during air navigation, prevent collisions with obstacles such as tall buildings, towers, or antennas. They provide a continuous and steady illumination, helping pilots identify and avoid these structures in low visibility conditions.

Specification

Housing	Die-cast aluminium
Finishing	Powder coated in black
Lens	Red globe made of polycarbonate
Gasket	Silicone rubber
Dimension	407x330 mm.
Mounting	Threaded 3/4" bottom hub
Power	2x7W
Light Source	LED-BULB
Beam Angle	360 degree
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	65
Lamp Lifetime	25,000 hrs.

Ordering Data

| Model	Watt
OBR1/DH-E27	2X7W

⏚ OBR3/SH

Application

Obstruction Lights, serve as critical safety features to alert pilots about tall structures that could pose hazards during air navigation, prevent collisions with obstacles such as tall buildings, towers, or antennas. They provide a continuous and steady illumination, helping pilots identify and avoid these structures in low visibility conditions.

Specification

Housing	Die-cast aluminium
Finishing	Powder coated in yellow
Lens	Red globe made of glass
Gasket	Silicone rubber
Dimension	110x278 mm.
Mounting	Threaded 3/4" bottom hub
Power	14W
Light Source	LED Module
Beam Angle	360 degree
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	66
Luminaire Lifetime	50,000 hrs.

Ordering Data

Model	Watt
OBR3/SH-14LED	14W

OBR3/SH-14LED   Imax 35 cd

⏚ OBR3/DH

Application

Obstruction Lights, serve as critical safety features to alert pilots about tall structures that could pose hazards during air navigation, prevent collisions with obstacles such as tall buildings, towers, or antennas. They provide a continuous and steady illumination, helping pilots identify and avoid these structures in low visibility conditions.

Specification

Housing	Die-cast aluminium
Finishing	Powder coated in yellow
Lens	Red globe made of glass
Gasket	Silicone rubber
Dimension	442x415 mm.
Mounting	Threaded 3/4" bottom hub
Power	2x14W
Light Source	LED Module
Beam Angle	360 degree
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	66
Luminaire Lifetime	50,000 hrs.

Ordering Data

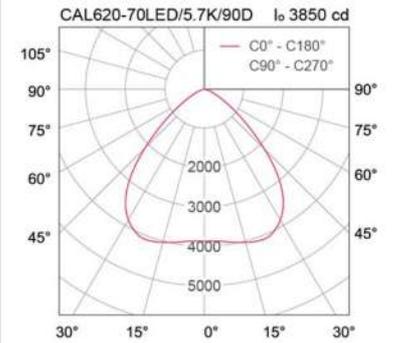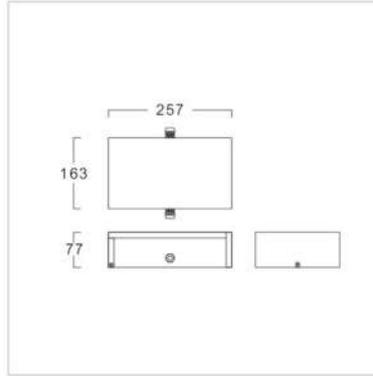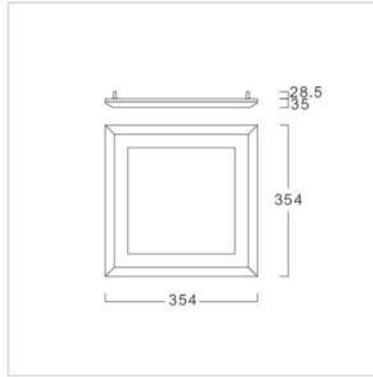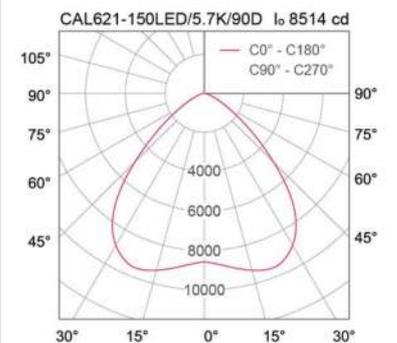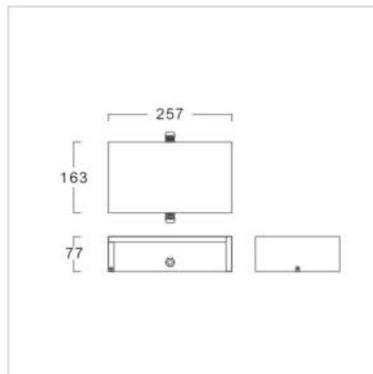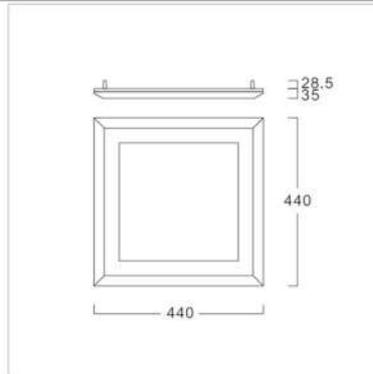| Model	Watt
OBR3/DH-14LED	2X14W

OBR3/DH-14LED   Imax 35 cd
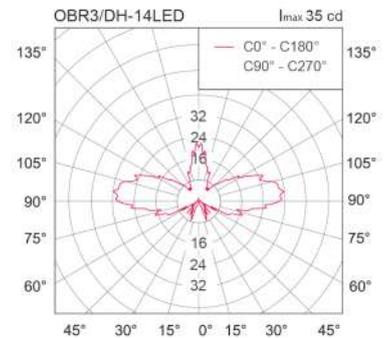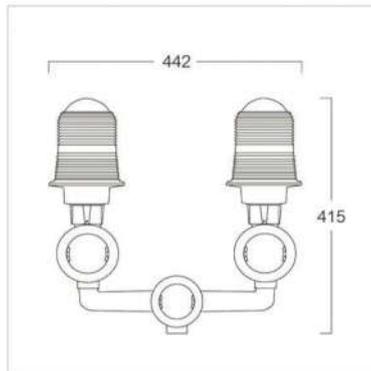
LED Cold Room

⏚ TIS CAL620

Application
Cold room luminaire is designed to use for
cold room storages which is required
stability of lumen output for long term using.

Specification

Housing	Die-formed stainless steel grade 304
Front Cover	Polycarbonate
Lens	Polycarbonate
Dimension	354x354x63.5 mm.
Mounting	Surface
Power	70W
Light Source	LED Module
Colour Temperature	3000/4000/5700K
Luminaire Output	9680 lm
Beam Angle	30/50/90/115 degree
Control Gear	Separate driver
Power Supply	220-240VAC,50Hz
Power Factor	>0.95
Insulation Class	I
IP Rating	66
Ambient Temperature (ta)	-40 to 30 C
Luminaire Lifetime	50,000 hrs.
Equivalent	MH 150W

Ordering Data

Model	Watt
CAL620-70LED	70W

CAL620-70LED/5.7K/90D I₀ 3850 cd

⏚ TIS CAL621

Application
Cold room luminaire is designed to use for
cold room storages which is required
stability of lumen output for long term using.

Specification

Housing	Die-formed stainless steel grade 304
Front Cover	Polycarbonate
Lens	Polycarbonate
Dimension	440x440x63.5 mm.
Mounting	Surface
Power	150W
Light Source	LED Module
Colour Temperature	3000/4000/5700K
Luminaire Output	20970 lm
Beam Angle	30/50/90/115 degree
Control Gear	Separate driver
Power Supply	220-240VAC,50Hz
Power Factor	>0.95
Insulation Class	I
IP Rating	66
Ambient Temperature (ta)	-40 to 30 C
Luminaire Lifetime	50,000 hrs.
Equivalent	MH 400W

Ordering Data

Model	Watt
CAL621-150LED	150W

CAL621-150LED/5.7K/90D I₀ 8514 cd

Special Lighting

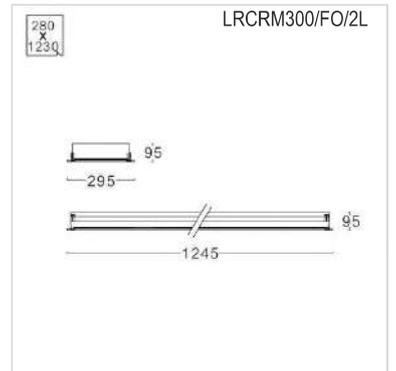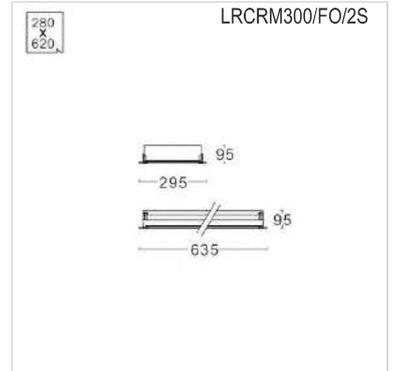Clean Room/Wheatherproof

LRCRM300/FO/CT

Application

Clean room is designed for unique application
which is require limitation of dust such as
food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Recessed
Power	2S : 14-18W (2 lamps)
	2L : 28-32W (2 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
Luminaire Output	2S : 14/16/18W : 1525 lm
	2L : 28/32W : 3050 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2X18W
	28-32W : T5 2x28W/T8 2X36W

Ordering Data

Model	Watt
LRCRM300/FO/2S/CT-XXLED-T8	14-18W
LRCRM300/FO/2L/CT-XXLED-T8	28-32W

LRCRM300/FO/2S

LRCRM300/FO/2L

Related Products

LED-T8

LRCRM300/FO/2L-2X14LED-T8/4K   Io 1373 cd
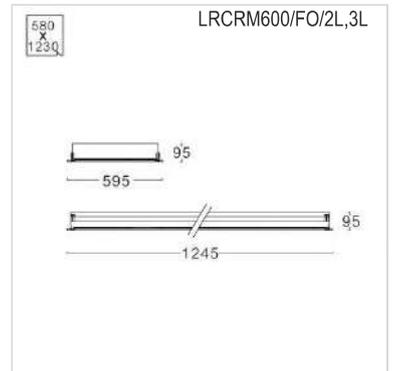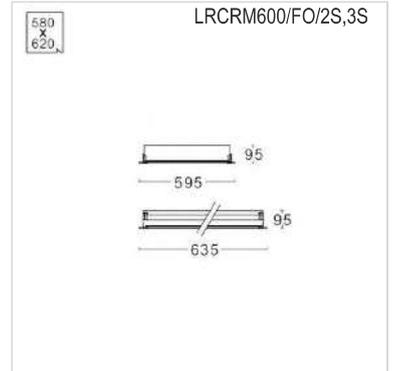
LED Clean Room

LRCRM600/FO/CT

Application
Clean room is designed for unique application
which is require limitation of dust such as
food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Recessed
Power	2S : 14-18W (2 lamps)
	3S : 21-27W (3 lamps)
	2L : 28-32W (2 lamps)
	3L : 42-48W (3 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	3S : L&E : 3x7/8/9W : 3x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
	3L : L&E : 3x14/16W : 3x2100 lm
Luminaire Output	2S : 14/16/18W : 1585 lm
	3S : 21/24/27W : 2380 lm
	2L : 28/32W : 3175 lm
	3L : 42/48W : 4760 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2x18W
	21-27W : T5 3x14W/T8 3x18W
	28-32W : T5 2x28W/T8 2x36W
	42-48W : T5 3x28W/T8 3x36W

Ordering Data
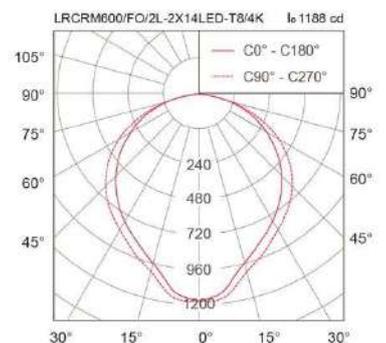
Model	Watt
LRCRM600/FO/2S/CT-XXLED-T8	14-18W
LRCRM600/FO/3S/CT-XXLED-T8	21-27W
LRCRM600/FO/2L/CT-XXLED-T8	28-32W
LRCRM600/FO/3L/CT-XXLED-T8	42-48W

LRCRM600/FO/2S,3S

LRCRM600/FO/2L,3L

Related Products

LED-T8

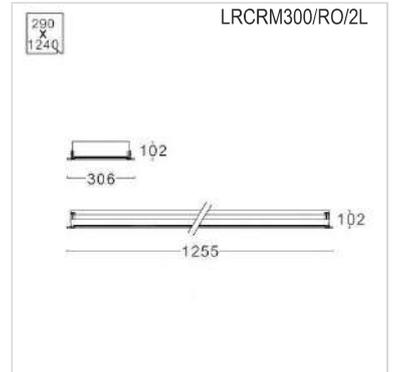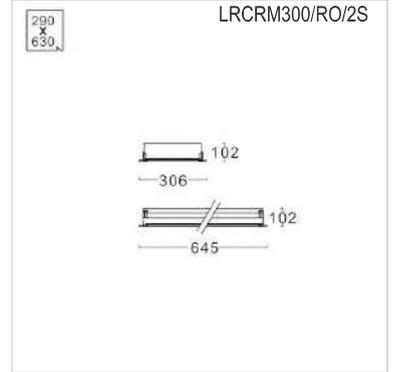LRCRM600/FO/2L-2X14LED-T8/4K   I₀ 1188 cd

LED Clean Room

Application

Clean room is designed for unique application
which is require limitation of dust such as
food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Rear opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Recessed
Power	2S : 14-18W (2 lamps)
	2L : 28-32W (2 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
Luminaire Output	2S : 14/16/18W : 1525 lm
	2L : 28/32W : 3050 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2X18W
	28-32W : T5 2x28W/T8 2X36W

Ordering Data

Model	Watt
LRCRM300/RO/2S/CT-XXLED-T8	14-18W
LRCRM300/RO/2L/CT-XXLED-T8	28-32W

LRCRM300/RO/2S

LRCRM300/RO/2L

Related Products

LED-T8

LRCRM300/RO/2L-2X14LED-T8/4K   I₀ 1373 cd
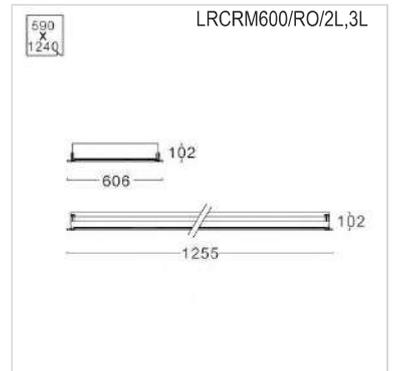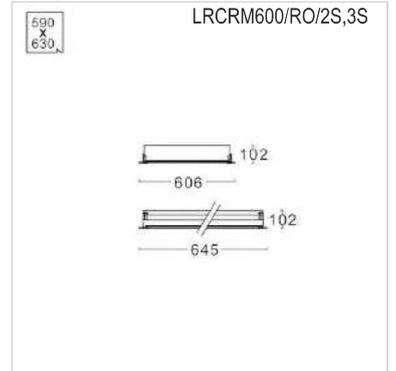
LED Clean Room

⏚ TIS **LRCRM600/RO/CT**

Application

Clean room is designed for unique application
which is require limitation of dust such as
food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Rear opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Recessed
Power	2S : 14-18W (2 lamps)
	3S : 21-27W (3 lamps)
	2L : 28-32W (2 lamps)
	3L : 42-48W (3 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	3S : L&E : 3x7/8/9W : 3x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
	3L : L&E : 3x14/16W : 3x2100 lm
Luminaire Output	2S : 14/16/18W : 1585 lm
	3S : 21/24/27W : 2380 lm
	2L : 28/32W : 3175 lm
	3L : 42/48W : 4760 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2x18W
	21-27W : T5 3x14W/T8 3x18W
	28-32W : T5 2x28W/T8 2x36W
	42-48W : T5 3x28W/T8 3x36W

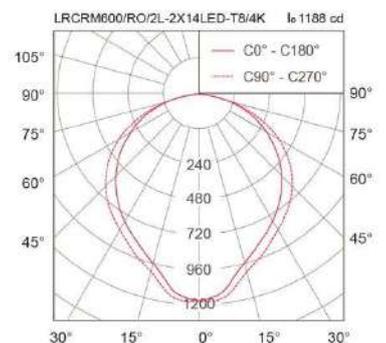## Ordering Data

Model	Watt
LRCRM600/RO/2S/CT-XXLED-T8	14-18W
LRCRM600/RO/3S/CT-XXLED-T8	21-27W
LRCRM600/RO/2L/CT-XXLED-T8	28-32W
LRCRM600/RO/3L/CT-XXLED-T8	42-48W

LRCRM600/RO/2S,3S

LRCRM600/RO/2L,3L

Related Products

LED-T8

LRCRM600/RO/2L-2X14LED-T8/4K   Io 1188 cd

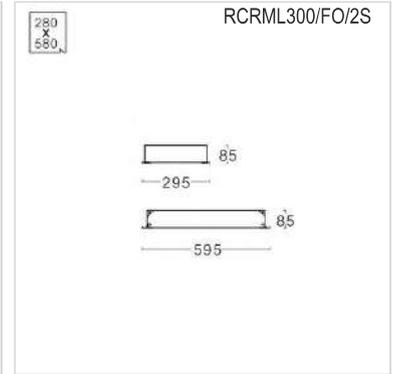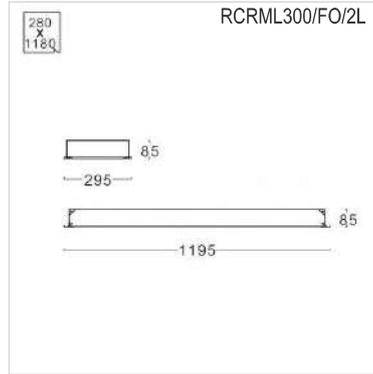# LED Clean Room

L&E

⏚ TIS RCRML300/FO

Application
Clean room is designed for unique application
which is require limitation of dust such as
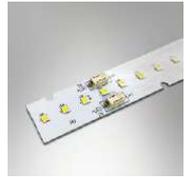food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Recessed
Power	16/32W
Light Source	LED Module
Colour Temperature	4000/6500K
Luminaire Output	2S : 16W : 1695 lm
	2L : 32W : 3295 lm
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Power Factor	>0.9
Insulation Class	I
IP Rating	50
Luminaire Lifetime	30,000 hrs.
Equivalent	16W : T5 2x14W/T8 2X18W
	32W : T5 2x28W/T8 2x36W

RCRML300/FO/2L

280 X 1180

85
←295→
85
1195

RCRML300/FO/2S

280 580

85
←295→
85
595

Related Products

LED Strip Module

Ordering Data

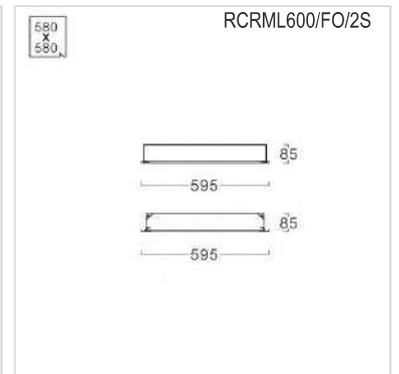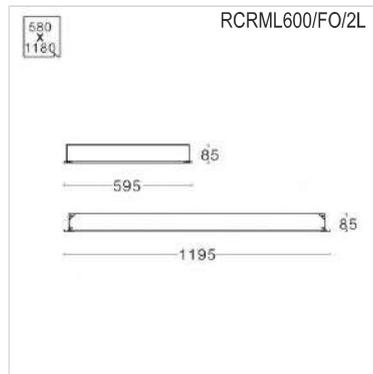| Model	Watt
RCRML300/FO/2S-16LED	16W
RCRML300/FO/2L-32LED	32W

⏚ TIS RCRML600/FO

Application
Clean room is designed for unique application
which is require limitation of dust such as
food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Recessed
Power	2S : 32W
	2L : 32W
Light Source	LED Module
Colour Temperature	4000/6500K
Luminaire Output	2S : 32W : 3390 lm
	2L : 32W : 3295 lm
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Power Factor	>0.9
Insulation Class	I
IP Rating	50
Luminaire Lifetime	30,000 hrs.
Equivalent	32W : T5 2x28W/T8 2x36W

RCRML600/FO/2L

580 X 1180

85
←595→
85
1195

RCRML600/FO/2S

580 580

85
←595→
85
595

Related Products

LED Strip Module

Ordering Data

Model	Watt
RCRML600/FO/2L-32LED	32W
RCRML600/FO/2S-32LED	32W

LED Clean Room

⏚ TIS LLBCM/CT

Application

Clean room is designed for unique application
which is require limitation of dust such as
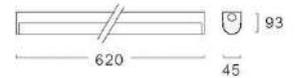food processing areas,control rooms,etc.

Specification

Housing	Extruded aluminium
Finishing	Powder coated in white
Diffuser	Opal plastic
Mounting	Surface
Power	1S : 7-9W (1 lamp)
	1L : 14-16W (1 lamp)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	1S : L&E : 7/8/9W : 1050 lm
	1L : L&E : 14/16W : 2100 lm
Luminaire Output	1S : 7/8/9W : 940 lm
	1L : 14/16W : 1880 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	7-9W : T5 1x14W/T8 1x18W
	14-16W : T5 1x28W/T8 1x36W

Ordering Data

Model	Watt
LLBCM/1S/CT-XXLED-T8	7-9W
LLBCM/1L/CT-XXLED-T8	14-16W

LLBCM/1S

620   93   45

LLBCM/1L

1230   93   45

Related Products

LED-T8

LLBCM/1L-14LED-T8/4K   Io 490 cd

LED Clean Room

L&E

Application

Clean room is designed for unique application
which is require limitation of dust such as
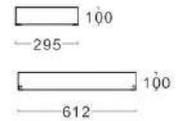food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Surface
Power	2S : 14-18W (2 lamps)
	2L : 28-32W (2 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
Luminaire Output	2S : 14/16/18W : 1525 lm
	2L : 28/32W : 3050 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2X18W
	28-32W : T5 2x28W/T8 2X36W

Ordering Data

Model	Watt
LSCRM300/FO/2S/CT-XXLED-T8	14-18W
LSCRM300/FO/2L/CT-XXLED-T8	28-32W

LSCRM300/FO/2S

295
100
612
100

LSCRM300/FO/2L

295
100
1222
100

Related Products

LED-T8

LSCRM300/FO/2L-2X14LED-T8/4K   Io 1373 cd

C0° - C180°
C90° - C270°

280
560
840
1120
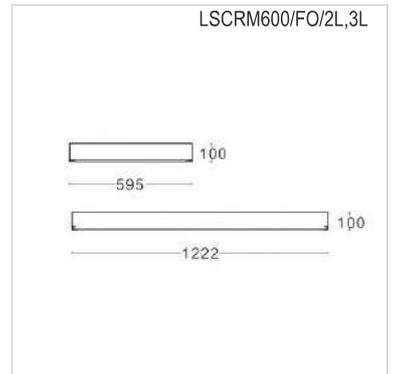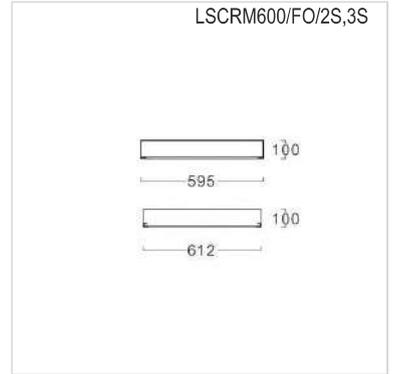1400
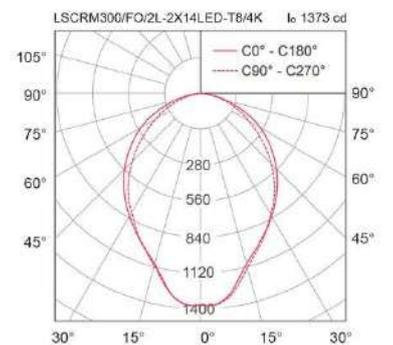
LED Clean Room

⏚ TIS **LSCRM600/CT**

Application

Clean room is designed for unique application
which is require limitation of dust such as
food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000
	or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear
	are available as option)
Mounting	Surface
Power	2S : 14-18W (2 lamps)
	3S : 21-27W (3 lamps)
	2L : 28-32W (2 lamps)
	3L : 42-48W (3 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	2S : L&E : 2x7/8/9W : 2x1050 lm
	3S : L&E : 3x7/8/9W : 3x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
	3L : L&E : 3x14/16W : 3x2100 lm
Luminaire Output	2S : 14/16/18W : 1585 lm
	3S : 21/24/27W : 2380 lm
	2L : 28/32W : 3175 lm
	3L : 42/48W : 4760 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	50
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	14-18W : T5 2x14W/T8 2x18W
	21-27W : T5 3x14W/T8 3x18W
	28-32W : T5 2x28W/T8 2x36W
	42-48W : T5 3x28W/T8 3x36W

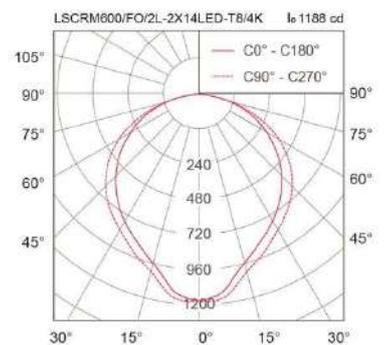## Ordering Data

Model	Watt
LSCRM600/FO/2S/CT-XXLED-T8	14-18W
LSCRM600/FO/3S/CT-XXLED-T8	21-27W
LSCRM600/FO/2L/CT-XXLED-T8	28-32W
LSCRM600/FO/3L/CT-XXLED-T8	42-48W

LSCRM600/FO/2S,3S

LSCRM600/FO/2L,3L

Related Products

LED-T8

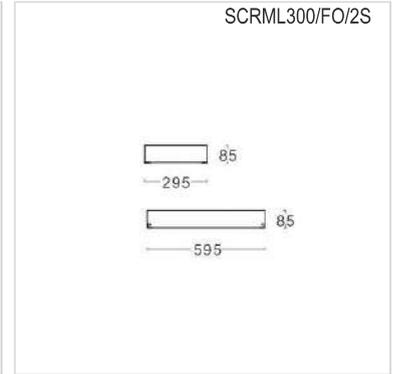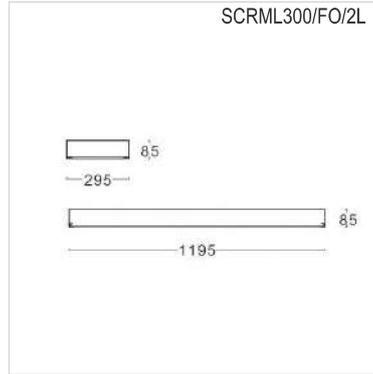LSCRM600/FO/2L-2X14LED-T8/4K   I₀ 1188 cd

LED Clean Room

⏚ TIS SCRML300

Application
Clean room is designed for unique application which is require limitation of dust such as food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000 or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear are available as option)
Mounting	Surface
Power	16/32W
Light Source	LED Module
Colour Temperature	4000/6500K
Luminaire Output	2S : 16W : 1695 lm
	2L : 32W : 3295 lm
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Power Factor	>0.9
Insulation Class	I
IP Rating	50
Luminaire Lifetime	30,000 hrs.
Equivalent	16W : T5 2x14W/T8 2x18W
	32W : T5 2x28W/T8 2x36W

Ordering Data

Model	Watt
SCRML300/FO/2S-16LED	16W
SCRML300/FO/2L-32LED	32W

SCRML300/FO/2L
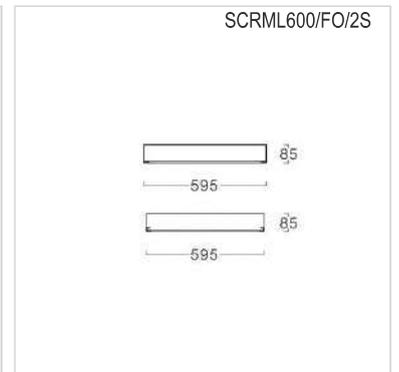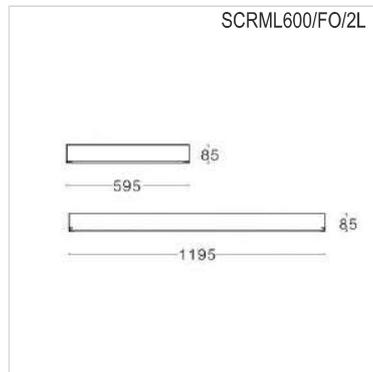
SCRML300/FO/2S

Related Products

LED Strip Module

⏚ TIS SCRML600

Application
Clean room is designed for unique application which is require limitation of dust such as food processing areas,control rooms,etc.

Specification

Housing	Die-formed cold roll steel
	Service method : Front opening
	Sealing : Triple gasketing system
Description	Can use for clean room class 10,000 or higher
Finishing	Powder coated in white
Diffuser	Prismatic (Opal,stipple,clear are available as option)
Mounting	Surface
Power	32W
Light Source	LED Module
Colour Temperature	4000/6500K
Luminaire Output	2S : 32W : 3390 lm
	2L : 32W : 3295 lm
Control Gear	Built-in driver
Power Supply	220-240VAC,50Hz
Power Factor	>0.9
Insulation Class	I
IP Rating	50
Luminaire Lifetime	30,000 hrs.
Equivalent	16W : T5 2x14W/T8 2x18W
	32W : T5 2x28W/T8 2x36W

Ordering Data

Model	Watt
SCRML600/FO/2L-32LED	32W
SCRML600/FO/2S-32LED	32W

SCRML600/FO/2L

SCRML600/FO/2S

Related Products

LED Strip Module

LED Cold Room

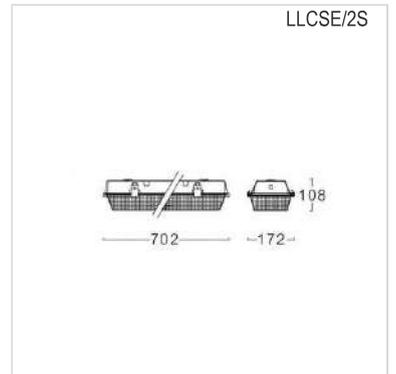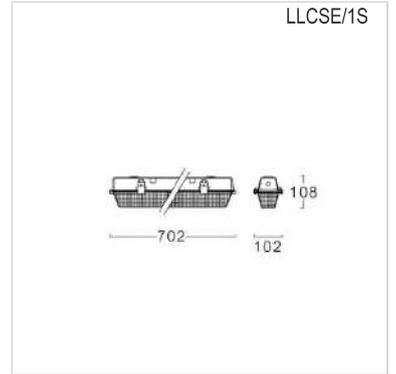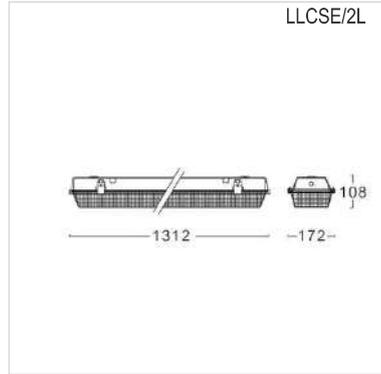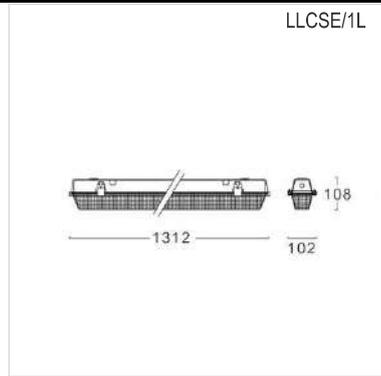⏚ TIS **LLCSE/CT**

Application

Cold room luminaire is designed to use for
cold room storages which is required
stability of lumen output for long term using.

Specification

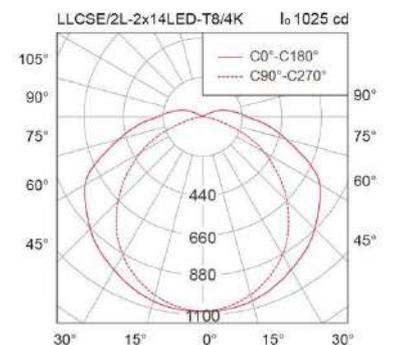|	
Housing	Compression moulded glass reinforced polyester (GRP),gear tray made of die-formed cold rolled steel finished high gloss baked white polyester powder
Description	Luminaire: can use in cold storage room up to -30 degree celsius ambient temperrature
Diffuser	Injection moulded clear prismatic UV stablilized polycarbonate (PC)
Mounting	Surface
Power	1S : 7-9W (1 lamp)
	1L : 14-16W (1 lamp)
	2S : 14-18W (2 lamps)
	2L : 28-32W (2 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	1S : L&E : 7/8/9W : 1050 lm
	1L : L&E : 14/16W : 2100 lm
	2S : L&E : 2x7/8/9W : 2x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
Luminaire Output	1S : 7/8/9W : 908 lm
	1L : 14/16W : 1815 lm
	2S : 14/16/18W : 1795 lm
	2L : 28/32W : 3590 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	65
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	7-9W : T5 1x14W/T8 1x18W
	14-16W : T5 1x28W/T8 1x36W
	14-18W : T5 2x14W/T8 2x18W
	28-32W : T5 2x28W/T8 2x36W

Ordering Data

Model	Watt
LLCSE/1S/CT-XXLED-T8	7-9W
LLCSE/1L/CT-XXLED-T8	14-16W
LLCSE/2S/CT-XXLED-T8	14-18W
LLCSE/2L/CT-XXLED-T8	28-32W

LLCSE/1L

LLCSE/2L

LLCSE/1S

LLCSE/2S

Related Products

Cable gland

Polycarbonate clip

Stainless steel clip

Suspension Bracket for 1 lamp

Suspension Bracket for 2 lamps

LED-T8

LLCSE/2L-2x14LED-T8/4K   I₀ 1025 cd
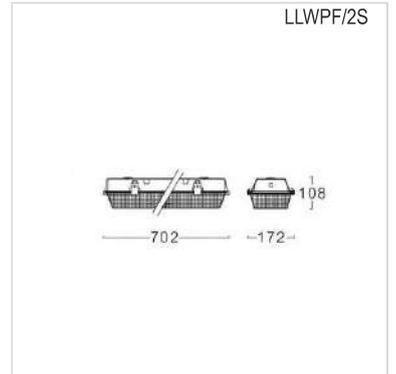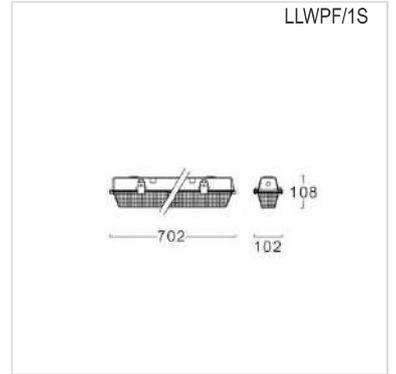
LED Weatherproof

⏚ TIS **LLWPF/CT**

Application
Weatherproof luminaire is designed to use
for clean rooms,factories,warehouses,
garages,storage rooms,cold rooms,etc.

Specification

Housing	Compression moulded glass reinforced polyester (GRP),gear tray made of die-formed cold rolled steel finished high gloss baked white polyester powder
Diffuser	Injection moulded clear prismatic UV stablilized polycarbonate (PC)
Mounting	Surface or suspension wire
Power	1S : 7-9W (1 lamp)
	1L : 14-16W (1 lamp)
	2S : 14-18W (2 lamps)
	2L : 28-32W (2 lamps)
Light Source	LED-T8
Lamp Holder	G13
Colour Temperature	3000/4000/6500K
Lamp Output	1S : L&E : 7/8/9W : 1050 lm
	1L : L&E : 14/16/18W : 2100 lm
	2S : L&E : 2x7/8/9W : 2x1050 lm
	2L : L&E : 2x14/16W : 2x2100 lm
Luminaire Output	1S : 7/8/9W : 908 lm
	1L : 14/16W : 1815 lm
	2S : 14/16/18W : 1795 lm
	2L : 28/32W : 3590 lm
Power Supply	220-240VAC,50Hz
Insulation Class	I
IP Rating	65
LED Lifetime	L&E : 25,000/40,000/50,000 hrs.
Equivalent	7-9W : T5 1x14W/T8 1x18W
	14-16W : T5 1x28W/T8 1x36W
	14-18W : T5 2x14W/T8 2x18W
	28-32W : T5 2x28W/T8 2x36W
Remarks	Recommend installing fixtures downward below the canopy

Ordering Data

Model	Watt
LLWPF/1S/CT-XXLED-T8	7-9W
LLWPF/1L/CT-XXLED-T8	14-16W
LLWPF/2S/CT-XXLED-T8	14-18W
LLWPF/2L/CT-XXLED-T8	28-32W

LLWPF/1L

LLWPF/2L

LLWPF/1S

LLWPF/2S

Related Products

Cable gland

Polycarbonate clip

Stainless steel clip

Suspension Bracket for 1lamp(Stainless)

Suspension Bracket for 2lamps(Stainless)

LED-T8

LLWPF/2L-2x14LED-T8/4K   Io 1025 cd
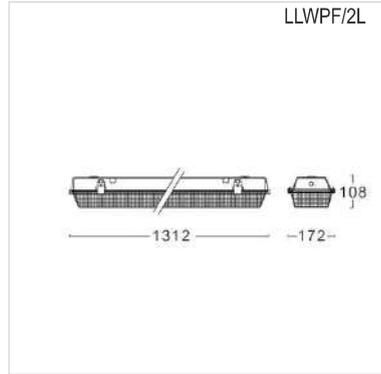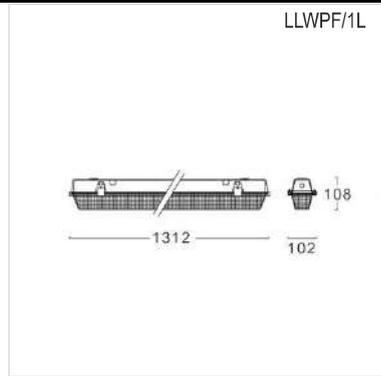
LED Weatherproof

L&E

⏚ TIS **LWPFL102**

Application

Weatherproof luminaire is designed to use
for clean rooms,factories,warehouses,
garages,storage rooms,cold rooms,etc.
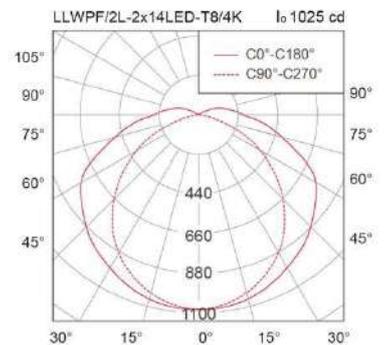
Specification

|	
Housing	Compression moulded glass reinforced polyester (GRP),gear tray made of die-formed cold rolled steel finished high gloss baked white polyester powder
Diffuser	Injection moulded frosted prismatic UV stablilized polycarbonate (PC)
Mounting	Surface or suspended
Power	1S : 11/14/16/18W 1L : 22/28/32/38W
Light Source	LED Module
Colour Temperature	4000/6500K
Luminaire Output	1S : 11W : 1470 lm, 14W : 1860 lm 1S : 16W : 2185 lm, 18W : 2505 lm 1L : 22W : 2940 lm, 28W : 3720 lm 1L : 32W : 4370 lm, 38W : 5010 lm
Beam Angle	105x157 degree
Control Gear	Built-in
Power Supply	220-240VAC,50Hz
Power Factor	>0.9
Insulation Class	I
IP Rating	65
Luminaire Lifetime	30,000 hrs.

Ordering Data

Model	Watt
LWPFL102/1S-11LED	11W
LWPFL102/1S-14LED	14W
LWPFL102/1S-16LED	16W
LWPFL102/1S-19LED	19W
LWPFL102/1L-22LED	22W
LWPFL102/1L-28LED	28W
LWPFL102/1L-32LED	32W
LWPFL102/1L-38LED	38W

LWPFL102/1S

702   108   102

LWPFL102/1L

1312   108   102
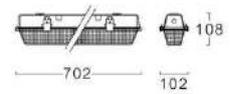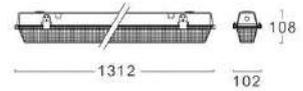
Related Products

Cable gland   Polycarbonate diffuser clips   Stainless steel clip   Suspension Bracket

LED Strip Module

LWPFL102/1L-32LED/4K   Io 1305 cd

C0° - C180°
C90° - C270°

Map 1 (Showroom)

Vibhavadi Rangsit rd.

Ladprao **M**

Ratchadapisek **M**

Sutthisan rd.

Ladprao rd.

Pakin Building

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Fortune

Robinson

M Sutthisan

Ratchadapisek rd.

Big C

M Huai Khwang

Rama 9. rd.

M Central Rama 9.

Rama 9.

M Thailand Cultural Centre

L&E | lighting solution center

Showroom : 9, Pakin Building, Ratchada
-pisek Rd., Dindaeng, Bangkok, 10400
Tel. 662-246-1164-66 Fax. 662-246-1161
E-mail : lscshop@lighting.co.th
　　lightingthailand

Map 2 (Ratchapruek Branch)

L&E | lighting solution center

Ratchapruek Branch : 3rd Floor
The Crystal SB Rachapruek
Tel : 02-118-7501
E-mail : lscshop@lighting.co.th,
　　asm01-lsc@lighting.co.th

Lotus bangyai

Kanchanaphisek Frontage Road

Nakhon In Frontage Road

Ratchapruek Road

Circle Rama V

Nakhon In Frontage Road

Rama V Bridge

Chao Phraya River

Lotus Nakhon In

L&E | lighting solution center
THE CRYSTAL SB RATCHAPRUEK

Ratchapruk Road

Bang Kruai-Sai Noi

Rama VII Bridge

Charan Sanitwong Road

Sirinthorn Road

Krungtonburi Bridge

Borommaratchachonnani Frontage Road

to Som Dat Pa Pinklao Bridge

Tang Hua Seng
Major Pinklao

Taling Chan
Police Station

Central Pinklao

L&E

more than light

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Tel. : +66 2246 1164 66
Fax. : +66 2246 1161

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Yangon, Myanmar.
Email : le_myanmar@lighting.co.th

Tel. : +95 94 5001 0468

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        chinh@lighting.co.th

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