

VALUX®

VALUX®

Light - Passion - Style



VALUX PRODUCT CATALOGUE

About Us

Valux Lighting carries a wide range of lighting products for institutional, architectural, commercial, residential, garden and landscape, parking areas, street lighting and other applications

Since its establishment in 2000, the company has continuously improved the quality of the products and maintained its commitment to customer satisfaction by providing lighting solutions that meet project requirements.

Empowered by a team of committed, hardworking and dedicated professionals, that can provide reliable, efficient and cost-effective lighting solutions with innovative results and accuracy.

R&D

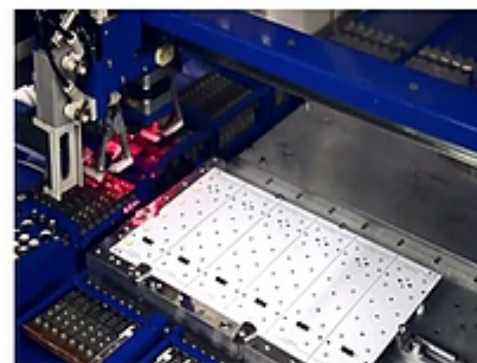
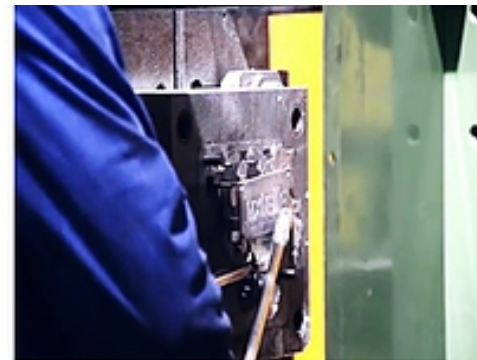
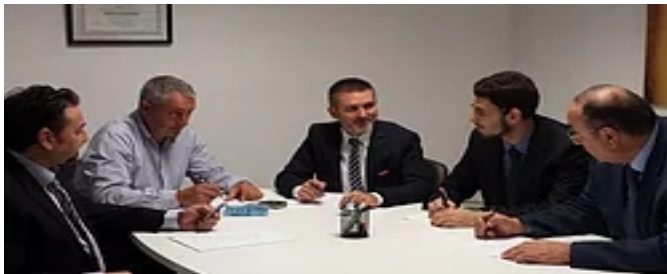
The pace of technology development is relentless. Valux aim to spark new innovation and push the frontiers of current technologies forward.

Light-emitting diodes (LED) have surpassed many conventional lighting technologies in terms of energy efficiency, long operating life, versatility and color quality.

LED reduce energy consumption, thereby reducing negative impacts on the environment.

Workforce

To carry out duties, our Engineers often move beyond day to day tactical roles. Equipped with automated machinery and programs in order to complete the tasks, this helps the company benchmark itself within the market.





The office – workplace and living space

Digitisation and globalisation are transforming office work and the way it is organised. In the knowledge society, it is more important than ever that office workers develop solutions from information. New room concepts promote creativity, correct lighting helps provide the motivation for good performance.

Sitting at a desk from 8 to 5? For many of the 18 million Germans with an office job today, those days are long gone. Part of their work is performed on the move, on clients' premises or at home. Emails are checked on a smartphone, research is done on a laptop at the airport, appointments are made by mobile phone.

New technologies and globalisation have transformed office life. Knowledge is the crucial resource. Nearly four fifths of all working people in the developed world today earn their living by knowledge-based activities. So it is all the more important to create office environments that cater first and foremost to employees and their needs: because employees are the ones that turn information into knowledge, develop projects as a team and forge new ideas with colleagues.

Think-tank

So the office of the future is – more than ever – a place for interaction. It is a place for exchanging information and ideas, a control centre and think-tank, a knowledge

interface where communication, cooperation and creativity lay crucial foundations for the success of the enterprise.

For 80 percent of all employees, “general sense of wellbeing in the office” is the main rating criterion for a workplace. That was revealed by a survey conducted in February 2011 by the market research institute Ipsos.

Rooms for creative knowledge workers

Against that background, more and more employers are asking themselves this question: How can employees be better supported, how can their creativity, flexibility and motivation be increased? As a study by the Fraunhofer Institute for Work Science and Organisation (IAO) shows, optimal office workplace design plays a major role here: in companies where design and furnishings are of a high quality, productivity increases by as much as 36 percent.

One-person and cellular offices on long corridors behind closed doors do not offer a physical environment conducive to inno-

[02] Office designs for the modern knowledge society are spacious and open. Work is performed not only at a desk but also in business lounges and at the espresso bar. Good lighting plays a major role in helping to ensure that employees and customers feel at home in the “living space office”.

[03] Optimal lighting facilitates the performance of visual tasks at the workplace and promotes communication.

Five theses on the office environment

In its 2010 “Trend Report on Office and Working Environments”, office expert Bene bundled together major developments and issues in the world of workplace design and floated five theses on the shape of things to come at the workplace:

1. The office of the future will be a knowledge factory.
2. Desk and computer will count less than space and dialogue.
3. Working life will be defined by cooperation and networking.
4. The office of the future will be a cult office.
5. Human technologies will cater to human needs.



Good light for a better working environment

Offices and office buildings call for creative lighting solutions. Good lighting inspires, promotes corporate culture and creates optimal working conditions for employees.

Open-plan office a nightmare? Properly planned, it need not be. According to the findings of a Forsa survey conducted in 2011, open office designs with space for team and solo work are far better than their reputation. The researchers found that 83 percent of employees working in large open offices are happy with their workplace; 20 percent are even very happy.

Employees want bright rooms and good lighting

So open office layouts also a thumbs-up from employees. But satisfaction is only achieved where architecture, space and design are of the right standard and where workrooms are tailored to occupants' needs. Major criteria here include spacious, attractive premises with an agreeable atmosphere and ergonomic furniture, a stimulating colour scheme, rest areas and, above all, high lighting quality. Employees rate the latter as the single most important criterion for an ideal workplace.

Light impacts on our mind and spirit more than any other medium. Both daylight and artificial light play a key role in determining the health and wellbeing of employees. Light facilitates visual tasks in the office, creates optimal conditions for communication and concentration and contributes substantially to higher productivity:

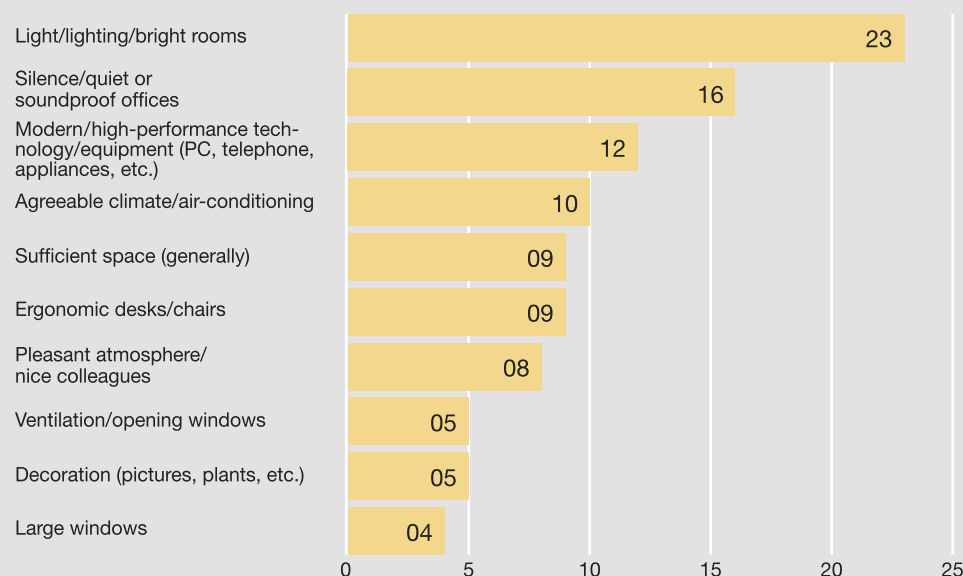
- Better visual conditions make for better visual performance at a desk, during presentations and in an interview; they also help boost concentration.
- Agreeable lighting creates an emotional bond with the workplace and has a motivating effect.
- Adjusting lighting according to the time of day and season as well as to individual needs increases user satisfaction.

Conversely, inadequate lighting has a negative impact on performance. The probability of mistakes being made increases.

[07 – 09] High lighting quality guarantees optimal working conditions: anyone who can see well and feels comfortable in an agreeable room atmosphere is more motivated and more efficient.

[10] A survey commissioned by Union Investment revealed that office employees attach particular importance to light, lighting and bright rooms.

Criteria for an ideal office workplace



Source: Union Investment, survey of 3,145 office workers in Germany, February 2011.

Question: "If you were to imagine the ideal office workplace for you, what would you consider particularly important?"

Reducing absenteeism

A good lighting installation is also a good investment because of its effect on down time: accidents are reduced and sick rates fall. Poor lighting leads to fatigue, headaches and illness. Major causes of absence are headaches (57%), back, neck and shoulder complaints (66%) and eye problems (42%).

With optimised lighting solutions that cater for all visual tasks and take account of personal needs, health problems can be significantly reduced and visual complaints cut by more than 50 percent.

Light for older employees

Good lighting for older employees is particularly important. In the wake of demographic change, the number of employees aged 50+ is going to rise sharply. Lighting needs to make allowance for that because the older we get, the more light we need. Catering to that need for more light means raising lighting levels but careful consideration also needs to be given to heightened sensitivity to glare, which is

another issue as we get older. Moreover, workplace lighting should permit individual adjustment to meet personal or task-specific requirements.

Lighting quality in the office

Professional lighting design today takes account of three dimensions of lighting quality:

- Visual quality: good light is essential for unimpaired vision and recognition of visual tasks, promotes visual performance and enhances visual comfort.
- Emotional quality: daylight and artificial lighting cast architecture and the workplace environment in the right light, make for atmosphere and a sense of wellbeing.
- Biological quality: light synchronises human biorhythms, regulates waking and sleeping phases and has a major influence on health and performance.

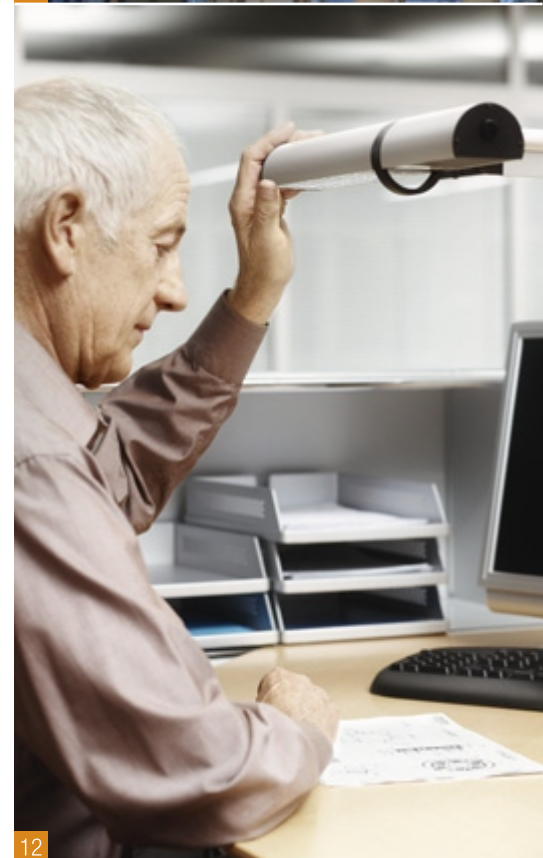
Employees and their expertise are an employer's most important resource and also the biggest cost factor. Hence the axiom: the company that invests in its employees' health and wellbeing gets a motivated and powerful team.

[11] Good lighting in office buildings offers lots of advantages: it boosts employee motivation and performance and creates atmosphere.

[12] Older people need more light than their younger colleagues. Supplementary light is provided by well-shielded desk lights.

[13 + 14] Field research shows that health problems and complaints about the working environment are reduced when the lighting situation is improved (Source: www.ergonomic.de/LichtundGesundheit.htm based on the study by Cakir, A. and Cakir, G.: "Licht und Gesundheit: Eine Untersuchung zum Stand der Beleuchtungstechnik in deutschen Büros", Ergonomic Institut für Arbeits- und Sozialforschung, Berlin, 1998).

[15] Agreeably uniform glare-free light in the office is provided by recessed luminaires; downlights mark the aisle area.





Workplace lighting

From PC to phone to team meeting – in modern office life, different activities follow one another in quick succession. Good lighting ensures optimal working conditions and an agreeable room atmosphere.

Computer work in the morning, team meeting at 11 a.m., video conference with colleagues overseas in the afternoon. For many who work in offices today, that could be a normal list of diary entries. The time is gone when people spent all day at one and the same desk. The modern office worker is mobile and works where he or she is needed.

Flexible lighting solutions support employees in their work, stimulating performance and promoting a sense of wellbeing. But the design of the lighting needs to meet not only the relevant standards but also aesthetic and ergonomic criteria and personal requirements – both at the workplace and in the “open office” around it.

Visual performance and visual comfort

Good workplace lighting is always attuned to the relevant visual tasks and guarantees visual performance and visual comfort. The more difficult the visual tasks, the higher the illuminance required: for reading and

writing, 500 lux is needed to meet the minimum requirement of the standard DIN EN 12464-1 “Lighting of work places – Part 1: Indoor work places”. More light is permitted, however, and professional lighting designers generally go beyond the minimum requirements of the standard.

Glare also needs to be avoided for compliance with current standards and workplace regulations. This applies to both glare caused by daylight and glare due to luminaires. While daylight incidence is regulated by window blinds, luminaires need to be positioned and angled so that their light does not dazzle room occupants – either directly or indirectly. High-quality systems limit glare by their design. Although modern VDUs have good anti-glare finishes, care should still be taken to ensure that no disturbing reflections appear on the screen.

Open office lighting

Large office landscapes permit the flexible room layouts and zoning needed for the formation of work groups and teams. Good lighting design structures the space available and uses different lighting systems to make a visual distinction between zones.

For the general lighting, a combination of direct and indirect light is recommended. A balanced distribution of light and shade makes for an agreeable visual ambience and promotes communication. It is also rated positively by employees – especially if it can be additionally regulated to meet individual requirements. Luminaires with asymmetric light distribution (wallwashers) cast light onto walls, which then bounce it back into the room. Large luminous ceilings are also in vogue. Both solutions offer an optimal basis for biologically effective lighting.

Where ceilings are low, the illuminance required can be provided by direct luminaires with all-round glare shielding; alternatively,

[28] Pendant luminaires with direct/indirect light distribution structure the open office space and provide glare-free lighting for the workplaces. A lighting management system ensures that the luminaires are switched and dimmed according to the time of day and whether persons are present.

[29] At workplaces with large windows, optimal interaction of daylight, supplementary lighting and lighting atmosphere plays a particularly important role. Adequate glare protection and the possibility of shading windows form part of the daylighting concept.

[30] Lighting systems with good glare suppression prevent discomforting reflections on the screens.

Minimum lighting requirements recommended by DIN EN 12464

Type of interior, task or activity	Illuminance on visual task plane \bar{E}_m / lx	UGR _L	U ₀	R _a	Remarks
Office work					
Filing, copying	300	19	0.4	80	
Writing, typewriting	500	19	0.6	80	DSE work governed by further requirements in DIN EN 12464-1, see 4.9
Reading, data processing					
Technical drawing	750	16	0.7	80	
CAD workplaces	500	19	0.6	80	DSE work governed by further requirements in DIN EN 12464-1, see 4.9
Conference and meeting rooms	500	19	0.6	80	Lighting should be controllable
Reception desk	300	22	0.6	80	
Archives	200	25	0.4	80	
Public areas					
Entrance halls	100	22	0.4	80	UGR only where applicable
Cloakrooms	200	25	0.4	80	
Waiting rooms	200	22	0.4	80	
Cash desks and service points	300	22	0.6	80	
Traffic zones in buildings					
Communication areas and corridors	100	28	0.4	40	<ul style="list-style-type: none"> ▪ Illuminance at floor level ▪ R_a and UGR similar to adjacent areas ▪ 150 lx if there are vehicles on the route ▪ Transition zone for entrances and exits ▪ Avoid glare for motorists and pedestrians
Staircases, escalators, travelators	100	25	0.4	40	Requires heightened contrasts on treads
Lifts	100	25	0.4	40	Illuminance in front of the lift min. $\bar{E}_m = 200$ lx
Loading ramps/bays	150	25	0.4	40	
Ancillary rooms					
Canteens, pantries	200	22	0.4	80	
Kitchens	500	22	0.6	80	
Rest rooms	100	22	0.4	80	
Rooms for physical exercise	300	22	0.4	80	
Changing rooms, washrooms, toilets, bathrooms	200	25	0.4	80	In each individual toilet if totally enclosed
Sanitation rooms	500	19	0.6	80	
Rooms for medical attention	500	16	0.6	90	4,000 K ≤ T _{CP} ≤ 5,000 K
Plant rooms, switch gear rooms	200	25	0.4	60	
Post rooms, switchboard	500	19	0.6	80	
Store and stockrooms	100	25	0.4	60	200 lx, where permanently manned
Dispatch packing handling areas	300	25	0.6	60	
Öffentliche Parkgaragen					
– Traffic lanes	75	25	0.4	40	1. Illuminance at floor level 2. Safety colours shall be recognisable
– Parking areas	75	–	0.4	40	1. Illuminance at floor level 2. Safety colours shall be recognisable 3. High vertical illuminance improves recognition of faces and sense of security
– In/out ramps (at night)	75	25	0.4	40	1. Illuminance at floor level 2. Safety colours shall be recognisable
– In/out ramps (during the day)	300	25	0.4	40	1. Illuminance at floor level 2. Safety colours shall be recognisable
– Ticket office	300	19	0.6	80	1. Avoid reflections in the windows 2. Avoid glare from outside

Notes on the tables:

\bar{E}_m = maintained illuminance in lux (lx)
 UGR_L = UGR limit, limitation of direct glare
 U₀ = uniformity of illuminance

R_a = colour rendering index of the light source
 T_{CP} = correlated colour temperature

Changing society: Healthcare enters a new age

The healthcare sector is in structural flux – not just in Germany but worldwide. In a society increasingly geared to comfort and wellness, hospitals are being transformed from a place for the sick and frail to a kind of "convalescence hotel".

This change in perception has implications for all areas of healthcare as well as for patients themselves. A sterile, uncomfortable atmosphere can only conflict with the aims of a hospital that seeks to offer comfortable, welcoming surroundings but at the same time has to ensure that its operations are energy and thus cost-efficient.

Hospitals today increasingly find themselves in competition for patients. Medical facilities alone do not offer enough distinguishing features; they are nowadays taken for granted. Whether a patient opts for one hospital or another is very often an instinctive choice. Ambience and sense of wellbeing play a major role here – and are particularly influenced by factors such as modern design and agreeable lighting. Warm tone lighting has a soothing effect, helps quell patient fears and thus makes for a greater sense of wellbeing in the ward. "Cold" high tech plays a less and less visible role in the day-to-day life of a hospital; the design of patient rooms is becoming more homely. Hospitals have recognised that the healing process can be promoted by a psychologically and physiologically supportive environment. With the right atmosphere and lighting, a hospital or care home can address the special needs of patients and staff. However, growing cost pressure on hos-

pital operators and shortages of medical personnel, especially doctors, are also appreciable factors today. Fewer and fewer beds are available to meet steadily rising demand. What is more, hospital stays are growing shorter and outpatient care is increasing. As a result of demographic change in our ageing society, this state of affairs will become increasingly significant in the future, because a balance needs to be maintained between quality and quantity of care on the one hand and the cost of delivering it on the other.

Efficient and attractive

Lighting should be checked for its energy and maintenance requirements. In many instances, it makes sense to invest in new systems because they are more efficient power consumers and thus make for considerably lower energy costs. Longer maintenance intervals also reduce servicing requirements and similarly cut costs.

Older people have specific lighting requirements, especially those in need of a higher level of care. Avoidance of glare, the need for significantly more light and variable lighting control to support the body's "internal clock" are particularly important. Whatever the specific requirements, however, hospital or retirement

home lighting needs to address an extremely wide range of tasks. Diverse rooms for diverse activities present a host of lighting requirements.

[04] The modern hospital: medical facilities are supplemented by waiting areas, cafés and shops – with a great deal of importance attached to design, functionality and good lighting quality.

Patient rooms are designed to ever-higher standards. Here, lighting needs to be functional but also attractive.



Coloured light and its impact on human beings

The right lighting atmosphere can soothe and relax patients, especially in stress situations, e.g. before examinations, surgery or notification of examination results. Harmonious lighting has a positive effect on patients and can influence their condition. Light that changes colour and intensity generates an atmosphere that can have a variety of positive impacts on patients. Modern touchscreen control enables the colour atmosphere to be tuned to any situation. Yellow light soothes, green light promotes a sense of security and creativity and violet light, used sparingly, has a stimulating effect. Coloured lighting in a CT room, for instance, can allay fears, promote wellbeing and at the same time lower drop-out rates or help ensure that scans are successfully performed first time. Coloured light can also convey a special message, enhancing and personalising the image of the establishment.

Patient room lighting

With homely, well furnished patient rooms, a service-oriented hospital can make a positive lasting impression. Good – and above all variable – lighting is needed here to help it compete for "clients" from a position of strength.

Indirect lighting delivering at least 100 lux illuminance and warm-white light is particularly recommended for an agreeable, homely atmosphere in patient rooms. Indirect light makes a room look bigger, has a soothing effect and is thus generally preferred by patients. To rule out the risk of direct glare for bed-ridden patients, DIN 5035-3 requires that the average luminance of luminaires visible from the bed should be limited to 1,000 candela per square metre. It also stipulates that the brightness produced by the indirect lighting at the ceiling should not exceed 500 candela per square metre.

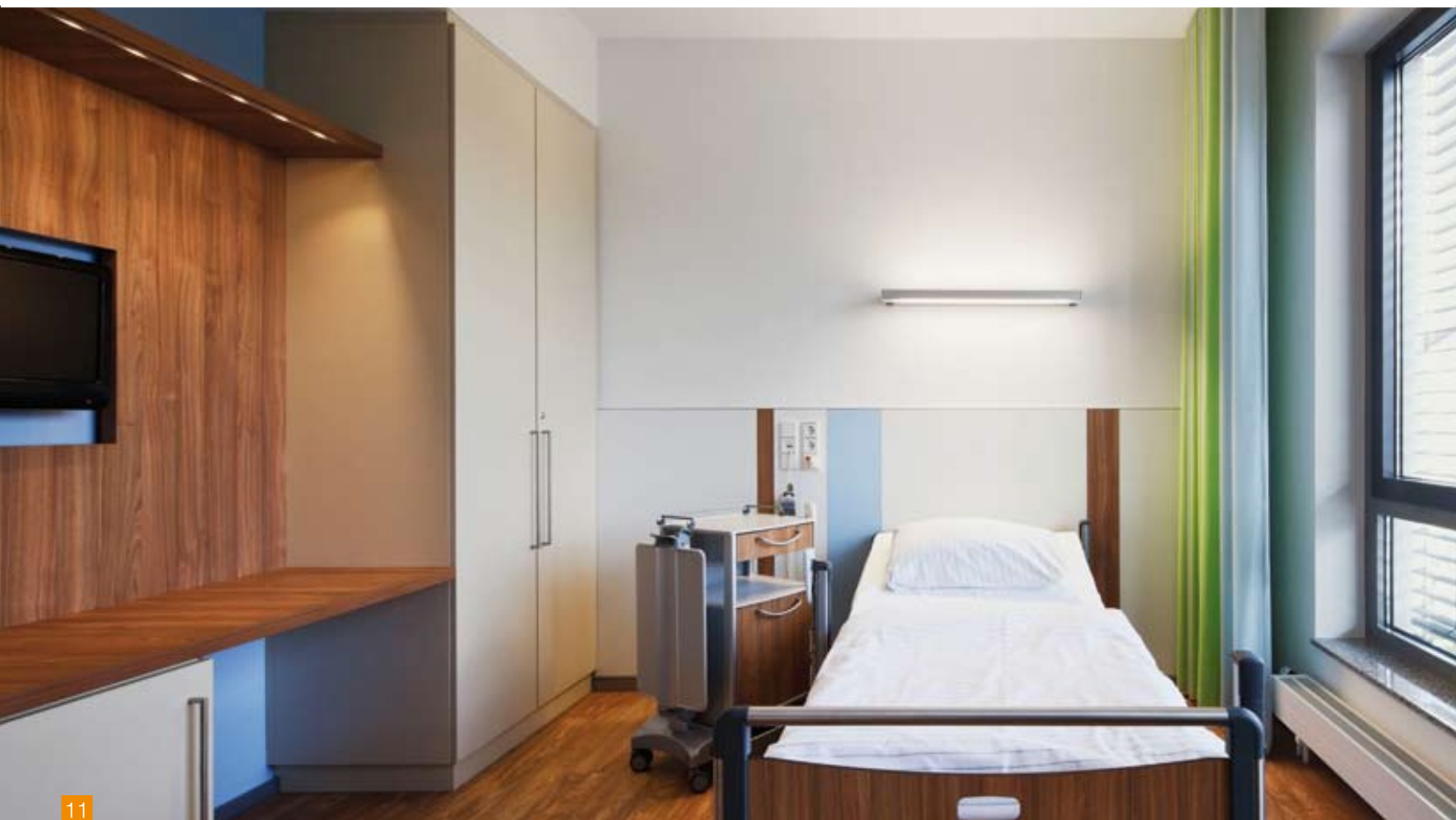
Reading lights – which are required for every hospital bed – need to deliver a minimum of 300 lux on the reading plane and should be individually switched so that

others sharing the room are not disturbed. For further details and for information about DIN 5035-3 requirements, see the grey box on the right. Where people may need to find their way at night in unfamiliar surroundings, orientation lighting is essential. Here, care needs to be taken to ensure that sleeping patients are not disturbed. One good solution is wide-angled LED lighting mounted below bed level and at doors. Night lighting is also required. This should deliver 5 lux illuminance on a plane 0.85 m above floor level so that sufficient light is available for a nurse to survey the room and perform simple tasks without unduly disturbing patients.

According to DIN EN 12464-1 and DIN 5035-3, illuminance on the examination plane needs to be 300 lux for nursing tasks

and simple examinations. Uniformity – the ratio of maximum to average illuminance – should be no less than 1:2. Examinations and treatments or emergencies require a minimum of 1,000 lux. Examination lighting needs to be glare-free for staff.

Owing to the variable requirements that need to be met in patient rooms, all luminaires need to be separately switched. The right lighting situation should always be easy to select. A lighting control system enables the different lighting scenarios to be conveniently stored and activated as required at the push of a button. Apart from the functional lighting essential for hospital operations, many hospitals today also install biologically effective lighting. This is lighting that produces adapts brightness and light



colour to the human circadian rhythm. It thus supports patients' natural active and resting phases, ensures a good night's sleep and generally promotes a swifter recovery.

More information about biologically effective lighting is found on pages 18 to 21.

Bright, colourful, attractive rooms help raise patients' spirits in the dull daily routine of hospital life. Modern lighting and supply systems are increasingly designed to be inconspicuous and homely. They thus contribute to the atmosphere that influences a patient's choice of hospital.



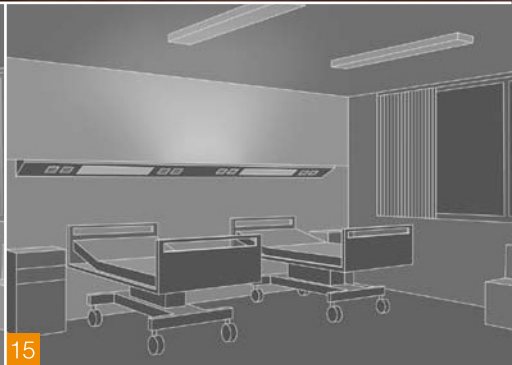
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Task or activity area (values according to DIN EN 12464-1 and DIN 5035-3)	\bar{E}_{Lux}	UGR _L	U _o	R _a
General lighting	100	19	0.4	80
Reading lighting	300	19	0.7	80
Simple examination	300	19	0.6	80
Examination and treatment	1,000	19	0.7	90
Night lighting	5	-	-	80
Bathrooms and toilets for patients	200	22	0.4	80

\bar{E}_{Lux} : illuminance, UGR_L: glare, U_o: uniformity, R_a: colour rendering

Glare limitation and reading light requirements at patients' beds

Gl300 lux illuminance is required for a patient reading in bed. DIN 5035-3 defines the reading plane as a plane 300 mm high and 900 mm wide inclined at 75° to the horizontal. The mid-point of the plane is 1,100 mm above floor level and 800 mm from the head of the bed (see also Fig. 67 in the chapter on standards on page 38). In the case of individually adjustable reading lights, it is sufficient if 300 lux is achieved over any 300 x 300 mm reading area within the reading plane.

To prevent direct glare for the patient in bed, the luminous surfaces of any luminaire visible from the bed need to be limited to 1,000 cd/m² luminance within the patient's direct field of vision. Direct field of vision is defined as all points that can be perceived by a person reclining in a horizontal position with head turned at any angle. The maximum permissible brightness of the ceiling in the patient's field of vision is 500 cd/m².

Coloured light turns waiting areas into feel-good zones. Dynamic colour sequencing helps patients relax and prepare for an anticipated examination or treatment.

Efficient downlights with a good colour rendering index facilitate flexible room use and make for an attractive lighting atmosphere.

Well-lit facade makes a positive impression on patients and visitors from the outset.

Task or activity area (values according to DIN EN 12464-1 and DIN 5035-3)	\bar{E}_{Lux}	UGR_L	U_o	R_a
Waiting rooms	200	22	0.40	80
Corridors: during the day	200	22	0.40	80
Corridors: during the night	50	22	0.40	80
Multiple use corridors	200	22	0.60	80
Corridors in surgical suites	300	19	0.60	80
Day rooms	200	22	0.60	80
Passenger and visitor lifts	100	22	0.60	80
Service lifts	200	22	0.60	80
Staff office	500	19	0.60	80
Staff rooms	300	19	0.60	80

\bar{E}_{Lux} : illuminance, UGR_L : glare, U_o : uniformity, R_a : colour rendering



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Facade lighting

highlights a building at night and gives it a totally different appearance from during the day. However, an interesting and attractive design of light and shadow can only be produced by a combination of lights positioned close to and at a distance from the building. Special architectural features can be emphasised by glancing light from asymmetrical recessed ground lights set close to the building. The emission characteristics and thus illuminating effect of the luminaires can be adjusted by the use of reflectors and lenses. But glancing light does more than just brighten walls; it also underlines their materiality and surface structure. Details such as window reveals, cornices and plasterwork can additionally be highlighted by energy efficient LED wall luminaires without causing light pollution.



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Doctor's surgery lighting

Light is needed for a wide range of activities in a doctor's surgery. From patient interviews in the consulting room to examinations in the examination room, to computer work at the reception desk – each activity requires its own specific lighting solution.

The reception is the calling card of a doctor's surgery. It is also the area where all information comes together. Reception lighting should therefore be bright and cheerful and at the same time help create an ergonomically correct VDU workplace for surgery staff. With vertical lighting – bounced off illuminated walls – the field of vision of patients and staff is well illuminated and the room seems generally larger.

To create the most positive reception possible and provide an orientation aid for visitors, the lighting designer should work with higher illuminance values over the counter to draw a dividing line between the reception and the waiting area.

Pendant luminaires or planar light are the recommended options for illuminating this brighter zone. Another elegant way to draw attention to the reception is to use light to accentuate the counter itself. (see Fig. 77).

Reassuring light for the waiting room

A warm lighting atmosphere has a relaxing and reassuring effect in the waiting room. The general lighting here can also be very usefully supplemented by static or changing coloured light. DIN 5035-3 requires a background brightness of 200 lux for waiting rooms. To ensure sufficient light for patients, however, a higher level of illuminance is recommended.

Consulting room, examinations and treatment

As a general rule, the illuminance required for a doctor's consulting room is 500 lux. On examination planes in examination and treatment rooms, it needs to be higher still: 1,000 lux. Moreover, certain medical specialisations call for even higher lighting levels or for lighting catering to very special requirements.

Ophthalmology

Ophthalmic medicine is concerned with the diagnosis and treatment of eye and sight disorders. The surgeries where it is practised have very special lighting requirements: many eye examinations can



Minimum lighting requirements for compliance with DIN EN 12464-1 and DIN 5035-3

Task or activity area	E_m Lux	UGR _L	U _o	R _a
Examination rooms (general)				
General lighting	500	19	0.6	80
Examination and treatment	1,000	19	0.7	80
Plaster rooms	500	19	0.6	80
Dental treatment rooms				
General lighting	500	19	0.6	90
At the patient	1,000	-	0.7	90
Operating cavity	5,000	-	-	85
Colour matching teeth	1,000	-	0.7	90
Eye examination rooms				
General lighting	300	19	0.6	80
Examination of the outer eye	1,000	-	-	90
Reading and colour vision tests with vision charts	500	16	0.7	90
Scanner rooms				
General lighting	300	19	0.6	80
Scanners with image enhancers and television systems	50	19	-	80
Direct viewing on visual display units	30	-	-	80

E_m : Lux: illuminance, UGR: glare, U_o: uniformity, R_a: colour rendering

Radiology

Radiologists often require a darkened room to analyse the results of their work on the monitor. Dimmable and, above all, glare-free general lighting is particularly important here. However, the emotional state of patients – and thus their sense of wellbeing and confidence – can also be positively influenced by the right lighting concept. The use of dynamically changing light colours and illuminance levels – as well as coloured light – has a calming effect.

Dermatology

Dermatologists diagnose and treat a wide variety of disorders of the skin. In order to do so, they need excellent lighting to permit accurate identification of minute changes in tissue colour. Neutral white or daylight white light is a must here and the colour rendering index needs to be R_a 90 or higher. For compliance with DIN 5035-3, the 500 lux general lighting is supplemented by an examination light delivering at least 1,000 lux. Apart from that, special LED examination lights permit tailored adjustment of light colour and intensity so that the visual task is optimally supported, e.g. to prevent reflections on wet skin.

Gynaecology and obstetrics

For gynaecological examinations, DIN 5035-3 requires 500 lux general lighting and at least 1,000 lux for examinations. To ensure that colours are rendered naturally, the examination light should have a very good colour rendering index of R_a 90 or higher. LED examination lights offer major advantages because they cause minimal heat gain. The absence of disturbing heat sources at the point of treatment or diagnosis, especially during lengthy examinations, raises the comfort level for both patient and physician. The lighting also needs to be easy and intuitive to operate so that the medical team can concentrate on the task in hand without unnecessary distractions.

For deliveries in gynaecological surgeries or hospitals, dimmable indirect lighting is the solution of choice. 300 lux general lighting is required and supplementary coloured or colour change lighting can be provided for reassurance and relaxation. The lighting control unit can be conveniently operated via touch panel or PC. Any lighting atmosphere can thus be activated at the push of a button.

- Medical equipment often seems cold, technical and intimidating. Lighting can help overcome that impression by creating an atmosphere that produces a positive emotional response.
- Waiting area bathed in warm balanced light boosts confidence and has a reassuring effect on patients.
- Indirect lighting in combination with controlled coloured light makes for an agreeable lighting atmosphere and can be regulated to have an activating or calming effect on persons in the room.
- LED examination lights have the compelling advantage of generating little heat and allowing light colour and brightness to be adjusted.



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Minimum lighting requirements for compliance with DIN EN 12464-1 and DIN 5035-3

Task or activity area	E_{lux}	UGR _L	U _o	R_a
Delivery rooms				
General lighting	300	19	0.6	
Examination and treatment	1,000	19	0.7	80
Dialysis				
Pre-op and recovery rooms	500	19	0.6	80
General lighting for comfort	100	19	0.4	80
Reading light	300	19	0.7	80
Dermatology				
General lighting	500	19	0.6	90
Endoscopy rooms				
General lighting	300	19	0.6	80
Endoscopic examinations	50	-	-	80
Ear examination rooms				
General lighting	300	19	0.6	80
Ear examination	1,000	-	-	90

E_{lux} : illuminance, UGR_L: glare, U_o: uniformity, R_a : colour rendering



Good lighting for a better learning environment

Light is the key to visual perception and human emotion. In a learning environment, good lighting plays a major role in permitting optimal absorption of information by students.

Our entire life is shaped by learning processes. Every individual goes through experiences in life and, as a result, acquires – consciously or subconsciously – the cultural, social, intellectual and physical abilities, knowledge and skills that mould and define his or her character. Everyone has heard the expression "life-long learning". Today, there is also an "EU Educational Programme for Life-Long Learning in Germany" with sub-programmes for projects in schools, higher education, vocational education and training, and adult education.

Light is a major factor in this context because, as the key to visual perception – the source of most of the sensory messages to our brain – it plays an absolutely crucial role in learning. Students permanently find themselves in learning situations. The better the lighting is suited to those situations, the more information can be absorbed, processed and stored, i.e. learnt.

The right lighting creates optimal conditions for effective learning, motivating learners and enabling them to concentrate for longer

periods. A balanced lighting atmosphere contributes crucially to a sense of wellbeing and makes for a positive learning environment. Quite simply, we learn better in the right light!

Poor lighting is often found annoying; it can distract us from what we are doing and at worst can even be harmful. So apart from taking design requirements and energy issues into account, any plan for a lighting installation should always focus primarily on the people who will use the lighting, because, depending on their age, they may have widely differing lighting needs.

Modern educational establishments are well designed to cater for the diverse needs of learners. So is the lighting installed in them. This booklet takes a closer look at the requirements lighting needs to meet to support different tasks in different rooms.

As in real life, the focus is chiefly on schools, colleges and universities. The "Lighting Specials" in the booklet provide more in depth information on specific issues.

The right light creates a perfect environment for effective learning. Alert students are more motivated and more attentive.

Poor light quickly gives rise to fatigue, whereas good lighting contributes significantly to a successful study experience.

Balanced lighting impacts positively on our sense of wellbeing and creates ideal conditions for the transfer of knowledge.

Classroom lighting

Modern education is based on encouragement and challenge. And much of the learning process is visual. Good lighting is a vital requirement for concentration and fatigue-free work and plays a crucial role in helping increase student attentiveness.

Life-long learning is more important than ever. And the foundations on which we build to meet the ever-rising challenges of vocational life are laid during our younger years. Anyone who enjoys learning learns more easily and more effectively – from childhood through to old age. At nursery, primary and secondary schools, vocational colleges and universities, young people receive an education that shapes their entire life.

Rigid seating arrangements and unvarying "chalk and talk" instruction in the classroom are now a thing of the past. Most schools have abandoned fixed arrangements of desks. New forms of communication have taken their place. The purpose of flexible solutions is to tailor the room to learning objectives. The face of the classroom changes according to needs, permitting both direct instruction and group work. When students present projects, for instance, the classroom becomes a stage and auditorium. Supporting different types

of learning and teaching situation also calls for flexible lighting – because that is what ultimately ensures that the scenarios required can be realised visually.

Flexible room use

With the right choice of lighting and a correct arrangement of luminaires, rooms can be put to flexible use. For perfectly free room use, the lighting system needs to create good lighting conditions for all room users whatever the arrangement of desks and/or chairs. To guarantee that, a room-related lighting solution is recommended, which means that all walls, including the rear wall, are well illuminated. To avoid marked differences in luminance along changing lines of sight – which cause visual fatigue and undermine concentration – it is important to ensure uniform brightness throughout the room.

The primary purpose of the lighting is to illuminate the room evenly to suit the relevant teaching situation. Natural daylight

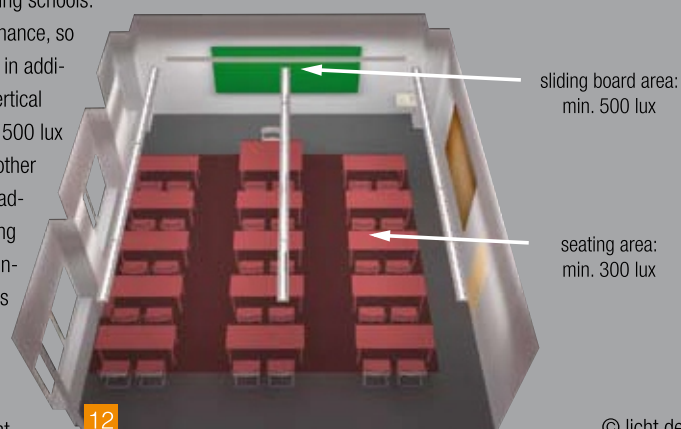
is preferred where it is available. Artificial light, which should be dimmable, supplements daylight as required. Disturbing glare that interferes with concentration can be avoided by fitting luminaires with appropriate optical systems or by installing curtains or blinds. This enables daylight incidence to be regulated, depending on the position of the sun.

In the area of the board, separately switched, dimmable luminaires are needed to permit reflection-free vision. The same requirement applies to any secondary boards or the class wall newspaper, which should be uniformly illuminated by dedicated wallwashers. Moreover, cabinets and shelves in the classroom need to be bathed in sufficiently bright light to enable papers and objects to be stored away and found without any difficulty.

Classroom illuminance levels:

For classrooms, DIN EN 12464-1 recommends an illuminance of 300 lux. However, the level required for compliance with the standard should be regarded as an absolute minimum. A higher illuminance of 500 lux is better for achieving good classroom results; it is also the brightness recommended for practical training rooms and rooms in evening schools.

Boards require uniform illuminance, so they require separate lighting in addition to the general lighting. Vertical illuminance here needs to be 500 lux for standard compliance. Another way in which lighting can be adjusted to suit changing learning and teaching situations and enhance learning performance is through the use of a lighting management system, which adapts the lighting flexibly to meet the needs of the relevant visual task.



The low-key design of recessed luminaires makes them useful where lighting quality needs to be combined with streamlined architecture.

Pendant luminaires with direct and indirect lighting components brighten the ceiling and thus make for a spacious and agreeable lighting atmosphere in the room.

Seating areas, board and flipchart have their own dedicated lighting here. Separate switching and dimming circuits make for greater convenience and permit significant energy savings.



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Reflected glare and veiling reflections can be a major source of interference for someone working at a screen.

A low colour rendering index makes even the most beautiful bouquet of flowers look dull and unattractive. With lamps that render colours well, everything – including persons, books and work materials – is perceived more naturally.



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[80] Minimum shielding angle for luminaires

[81, 82] To avoid disturbing shadows, light for right-handed persons should fall on the work surface from above and from the left.

[83, 84] Where glossy books and papers are present, reflected glare can



83



84

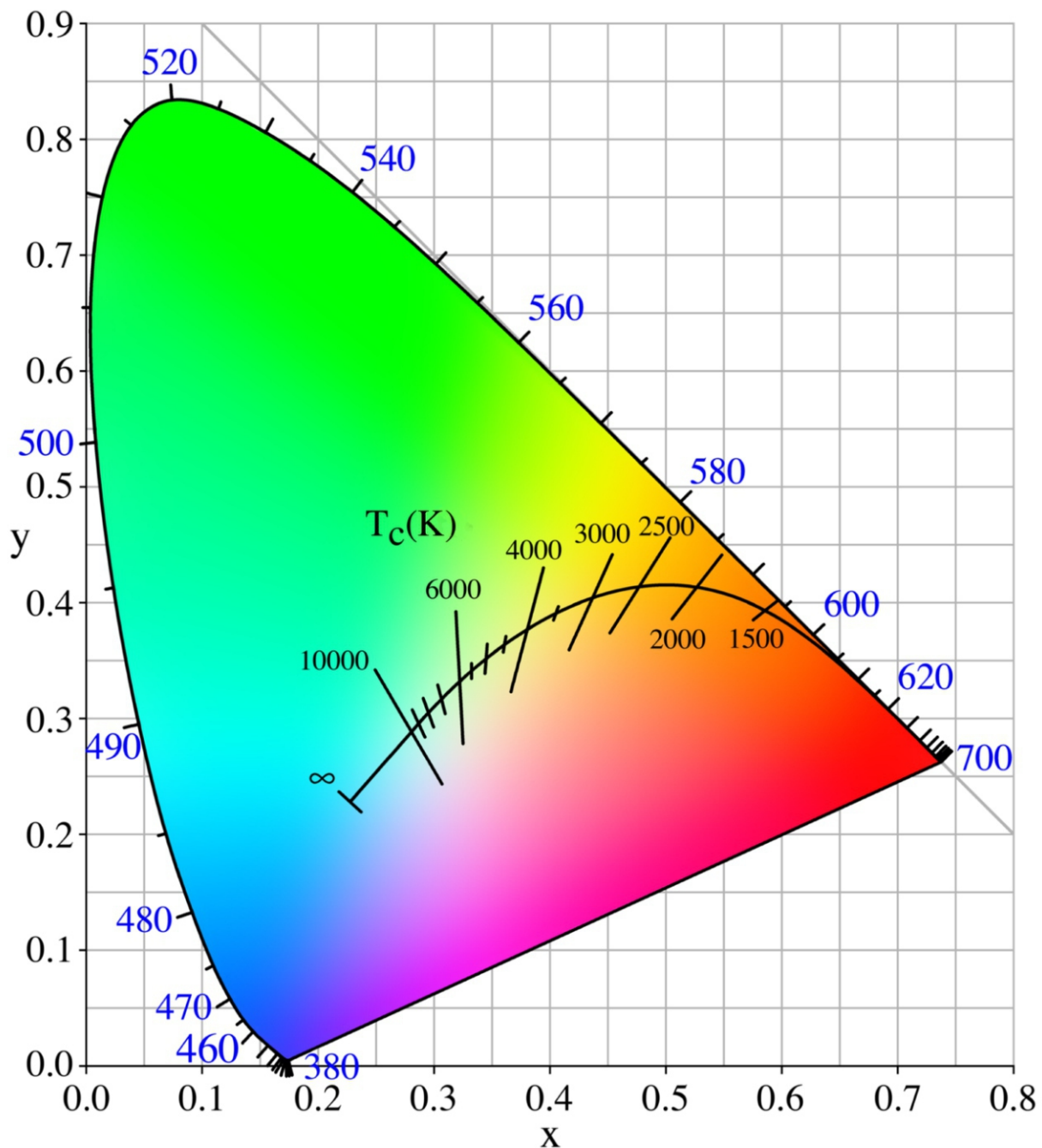
cause major problems for someone trying to study. So it needs to be avoided. The disturbing effects of reflected glare can be prevented by using luminaires with direct-indirect lighting components and ensuring that they are correctly positioned.

Extract from DIN EN 12464-1 2011(D) Source: Beuth Verlag, Berlin.

Type of interior, task or activity	E_m lux	UGR _L	U ₀	R _a	Remarks
Educational premises – Nursery schools, play schools					
Play rooms	300	22	0.4	80	
Nurseries	300	22	0.4	80	
Handicraft rooms	300	19	0.6	80	
Educational premises – Educational buildings					
Classrooms, tutorial rooms	300	19	0.6	80	Lighting should be controllable
Classrooms for evening classes and adult education	500	19	0.6	80	Lighting should be controllable
Lecture halls	500	19	0.6	80	Lighting should be controllable to meet different A/V requirements
Blackboards, greenboards, whiteboards	500	19	0.7	80	1. Specular reflections need to be avoided. 2. Appropriate vertical illuminance required for speakers/teachers
Demonstration table	500	19	0.7	80	In lecture halls 750 lux.
Art rooms	500	19	0.6	80	
Art rooms in art schools	750	19	0.7	90	5,000 K < colour temperature < 6500 K
Technical drawing rooms	750	16	0.7	80	
Practical rooms and laboratories	500	19	0.6	80	
Handicraft rooms	500	19	0.6	80	
Teaching workshops	500	19	0.6	80	
Music practice rooms	300	19	0.6	80	
Computer practice rooms (menu-driven)	300	19	0.6	80	DSE work
Language laboratories	300	19	0.6	80	
Preparation rooms and workshops	500	22	0.6	80	
Entrance halls	200	22	0.4	80	
Circulation areas, corridors	100	25	0.4	80	
Stairs	150	25	0.4	80	
Student common rooms and assembly halls	200	22	0.4	80	
Teachers rooms	300	19	0.6	80	
Library: bookshelves	200	19	0.6	80	
Library: reading areas	500	19	0.6	80	
Stock rooms for teaching materials	100	25	0.4	80	
Sports halls, gymnasiums, swimming pools	300	22	0.6	80	For training conditions see EN 12193
School canteens	200	22	0.4	80	
Break rooms	100	22	0.4	80	
Kitchens	500	22	0.6	80	
Cloakrooms, washrooms, bathrooms, toilets	200	25	0.4	80	In each individual toilet, if fully fitted.

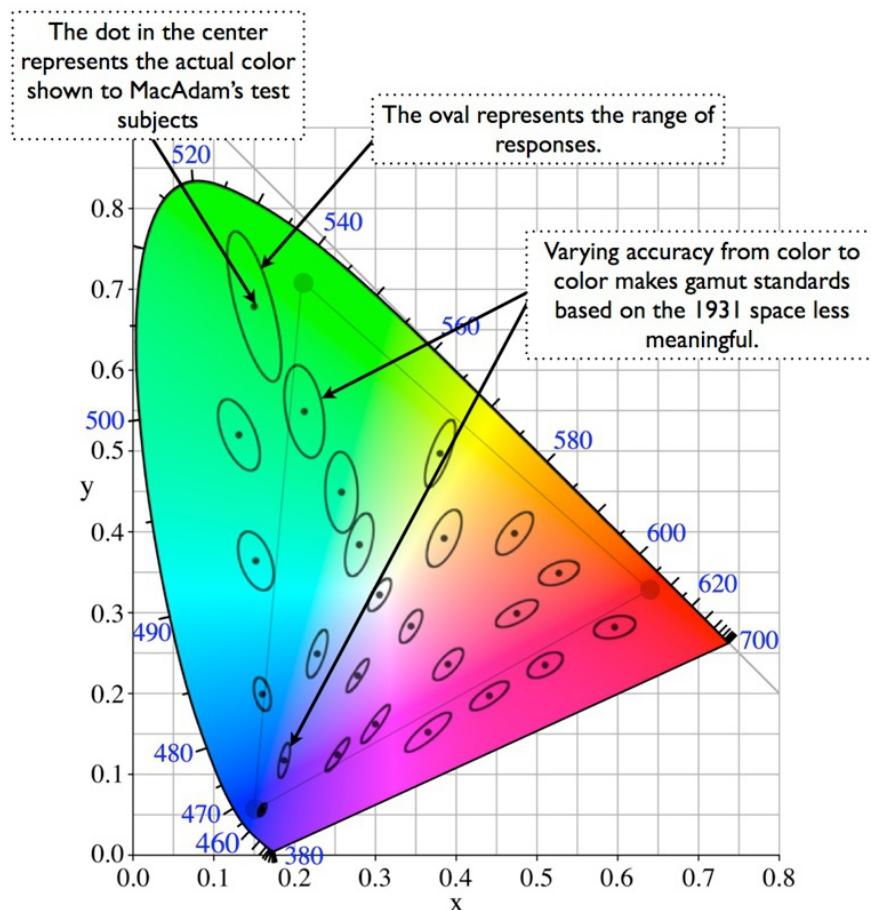
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MacAdam Ellipse.



In the study of color vision, a MacAdam ellipse is a region on a chromaticity diagram which contains all colors which are indistinguishable, to the average human eye, from the color at the center of the ellipse. The contour of the ellipse therefore represents the just noticeable differences of chromaticity.

Standard Deviation Color Matching in LED lighting uses deviations relative to MacAdam ellipses to describe color precision of a light source.



MacAdam Ellipses on CIE 1931

The lifetime of a LED module inside a luminaire is related to the luminous flux depreciation at a given ambient temperature. L70, L80 or L90 indicates how many lumens (in percentage related to the initial lumens) that remains after end-of-life. L70 is simply a measure of the time taken for a light source to degrade to 70% of its original output.

It is usually measured in hours and usually refers to degradation of total light output ie lumens. As in “my new LED L70 is 123hours” (not a good result, must try harder).

LM79, more properly referred to as “LM-79-08” is a Test Method authored by the Illuminating Engineering Society of North America (IESNA) titled “Approved Method: Electrical and Photometric

Measurements of Solid-State Lighting Products”. This essentially defines a set of methodologies

for laboratory testing of solid state luminaires and other light sources.

LM80, more properly referred to as “LM-80-08” is also a Test Method authored by the IESNA. It is titled “Approved Method: Measuring Lumen Maintenance of LED Light Sources”.

In contrast to LM79 this defines a test method for long-term life testing of component-level LED devices.

LM80 is not much use on its own and does not of itself define how to extrapolate lab-measured LED lifetime test data to enable future lifetime prediction. That’s where TM21 comes in.

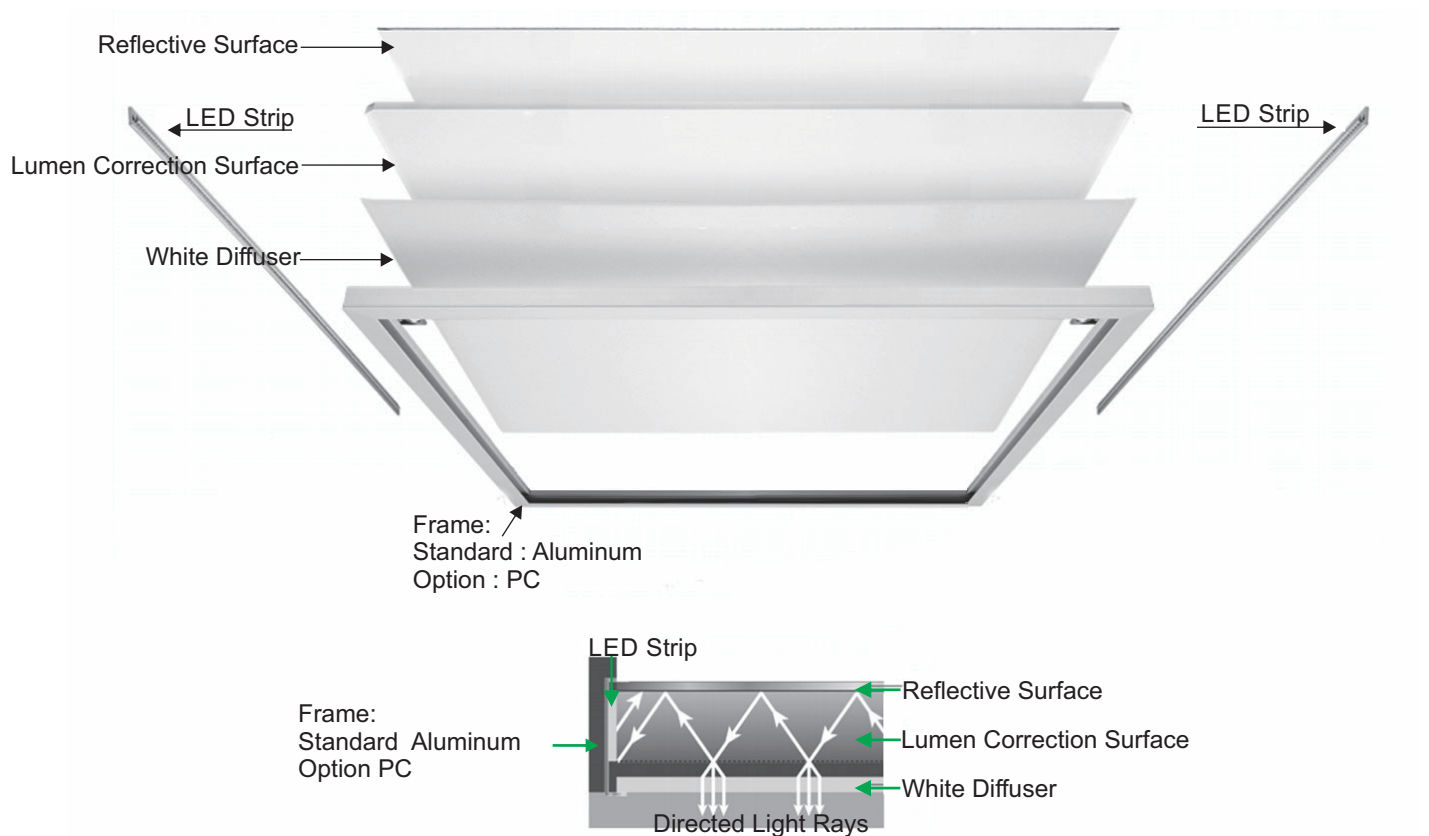
Full name “TM-21-11”, titled “Projecting Long Term Lumen Maintenance of LED Light Sources”, Tm21 details how to extrapolate short-term LED component test data to predict future performance.

LED PANELS SLIM LDLP

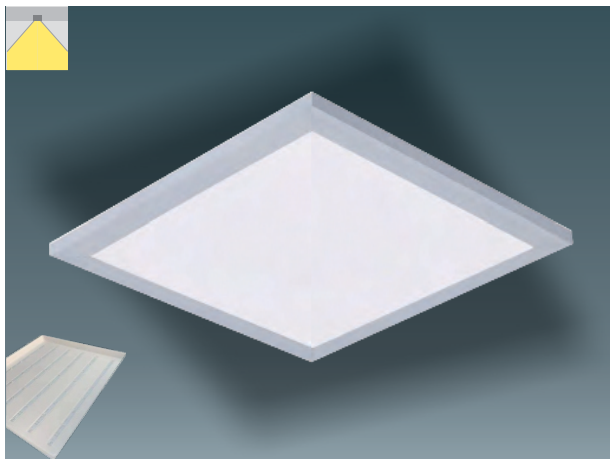


Lighting-Spain **by Luxilum**

LED PANEL SLIM LDLP



SLIM LED Panel

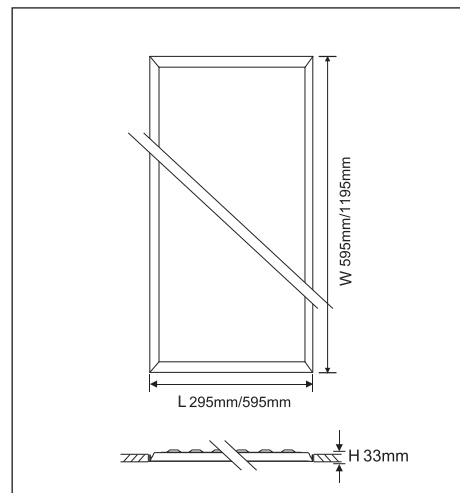


Multi application LED Panel Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited for recess installation.

Application:
Offices, Kitchens, Laundry, Corridors.

Product Feature

- Housing high quality sheet steel with aluminum frame, painted with epoxy polyester powder coat white color.
 - LED module installed on the top of the frame complete with high reflectance LENS covering each LED in the module for better light distribution and output 120Lm/W and 3 SCDM with UGR<19> ,22.
 - Opal diffuser topped with laser printed PMMA light distribution plate with 95% reflective film to ensure proper rays distribution.
 - LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
 - Symmetric light distribution optic 80° ,110° .
 - Heat resistant wiring 220V/240V 50/60Hz, protection class II.
 - No maintenance LED chambre.
 - Spring clips suitable for drop gypsum ceiling.
 - Built in Electronic driver.
 - Dimensions of fixture 38W H=33mm LxW=595x595mm cutout 595x595mm
38W H=33mm LxW=1195x295mm cutout 1195x295mm
52W H=33mm LxW=1195x595mm cutout 1195x595mm
 - Ingress Protection IP44/54.
 - Operating temperature -20° to +50°.
- for other wattage and sizes please consult factory.

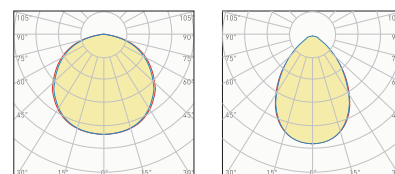


Product Options

LDL606038	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	4560Lm
CRI≤	80
IP rating	IP44/54

LDL123038	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	4560Lm
CRI≤	80
IP rating	IP44/54

LDL126052	
Wattage	52W
CCT	3000K,4000K,5000K
Lumen	6240Lm
CRI≤	80
IP rating	IP44/54



How to order

LDL606038 -38 -000

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Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

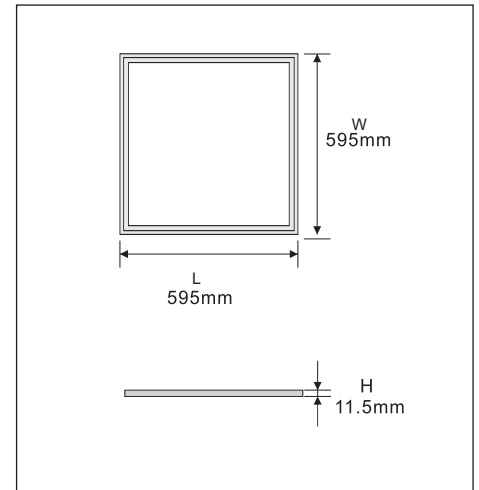
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SLIM LDLP1 LED Panel



Multi application LED Panel Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited for recess installation.

Application:
Offices, Kitchens, Laundry, Corridors.



Product Feature

- Housing high quality aluminum frame, painted with epoxy polyester powder coat white color dust and moisture proof . installed on flammable surfaces
- LED module installed on the sides of the frame 130Lm/W and 3 SCDM with UGR<19.
- White diffuser topped with laser printed PMMA light distribution plate with 95% reflective film to ensure proper rays distribution anti breakage .
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 110°-120° with cutoff distribution 30° for visual comfort.
- Heat resistant wiring 220V/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Lay in or spring clips suitable for drop gypsum ceiling.
- Remote electronic driver flicker free .and high power factor
- Dimensions of fixture H=11.5mm LxW=595x595mm cutout 595x595mm
- Ingress Protection IP44/54.

Note1: Fixture available with non metallic frame for MRI and CT scan rooms.
(Self Extinguishing Shatter Proof Poly-Carbonate)

Note2: Fixture available as frame-less, diffuser is held without a frame.



Product Options

LDLP1638	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	4940Lm
CRI≤	80
IP rating	IP44/54

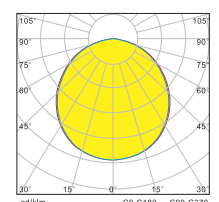


Optional accessories

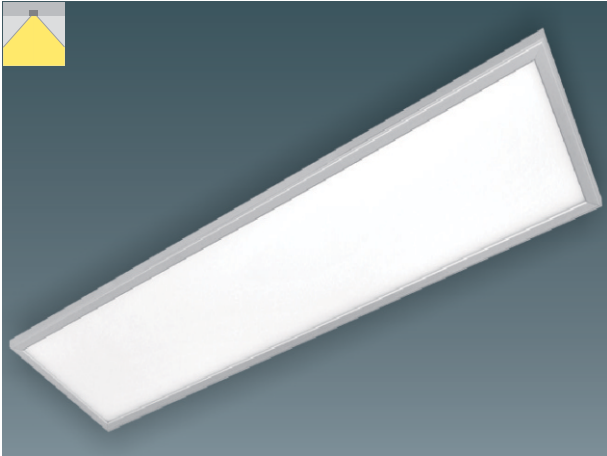


How to order
LDLP1638 -38 -000
Product code-Power-Driver
Driver
000 Electronic
001 Dimming 1-10V
002 DALI

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SLIM LDLP2 LED Panel



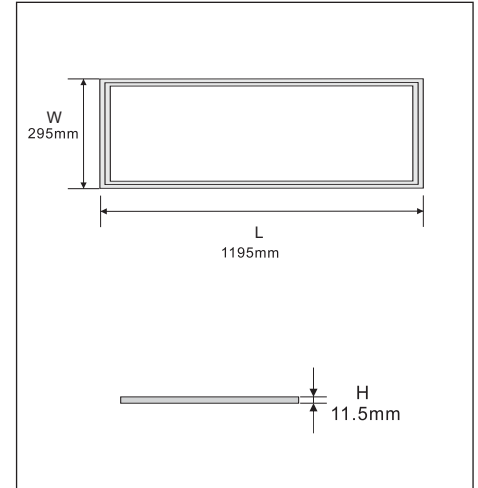
Multi application LED Panel Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited for recess installation..

Application:

Offices, Kitchens, Laundry, Corridors.

Product Feature

- Housing high quality aluminum frame, painted with epoxy polyester powder coat white color dust and moisture proof . installed on flammable surfaces
- LED module installed on the sides of the frame 130Lm/W and 3 SCDM with UGR<19.
- White diffuser topped with laser printed PMMA light distribution plate with 95% reflective film to ensure proper rays distribution anti breakage .
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 110°-120° with cutoff distribution 30° for visual comfort.
- Heat resistant wiring 220V/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Lay in or spring clips suitable for drop gypsum ceiling.
- Remote electronic driver flicker free .and high power factor
- Dimensions of fixture H=11.5mm LxW=1195x295mm cutout 1195x295mm
- Ingress Protection IP44/54.



Note1: Fixture available with non metallic frame for MRI and CT scan rooms.
(Self Extinguishing Shatter Proof Poly-Carbonate)

Note2: Fixture available as frame-less, diffuser is held without a frame.

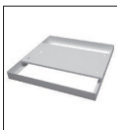
Product Options

LDLP2538	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	4940Lm
CRI≤	80
IP rating	IP44/54

Optional accessories



Kit for gypsum ceiling



Kit for surface mounting with frame



Kit for suspend installation



Kit for surface installation without frame

How to order

LDLP2542 -42 -000

Product code-Power-Driver
Driver

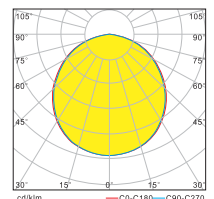
000 Electronic

001 Dimming 1-10V

002 DALI

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SLIM LDLP3 LED Panel

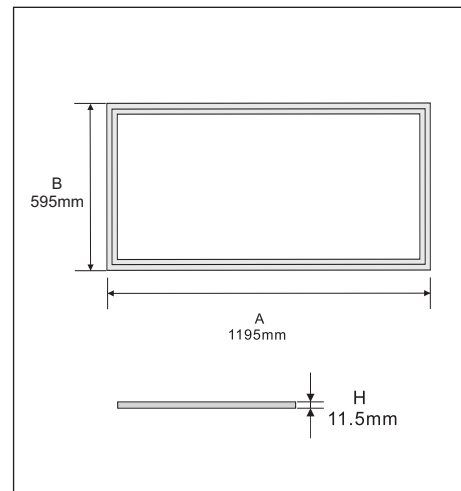


Multi application LED Panel Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited for recess installation..

Application:
Offices, Kitchens, Laundry, Corridors.

Product Feature

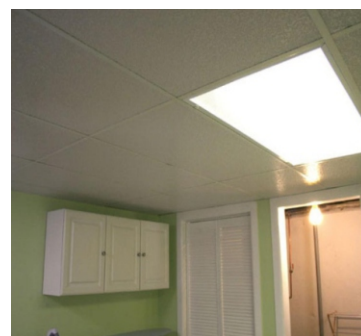
- Housing high quality aluminum frame, painted with epoxy polyester powder coat white color dust and moisture proof . installed on flammable surfaces
- LED module installed on the sides of the frame 130Lm/W and 3 SCDM with UGR<19.
- White diffuser topped with laser printed PMMA light distribution plate with 95% reflective film to ensure proper rays distribution anti breakage .
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 110°-120° with cutoff distribution 30° for visual comfort.
- Heat resistant wiring 220V/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Lay in or spring clips suitable for drop gypsum ceiling.
- Remote electronic driver flicker free .and high power factor
- Dimensions of fixture H=11.5mm LxW=1195x595mm cutout 1195x595mm
- Ingress Protection IP44/54.



Note: Fixture available with non metallic frame
(Self Extinguishing Shatter Proof Poly-Carbonate)

Product Options

LDLP3565	
Wattage	65W
CCT	3000K,4000K,5000K
Lumen	8450Lm
CRI≤	80
IP rating	IP44/54

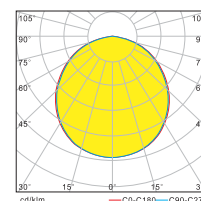


Optional accessories



How to order
LDLP3565 -65 -000
↓ ↓ ↓
Product code-Power-Driver
Driver
000 Electronic
001 Dimming 1-10V
002 DALI

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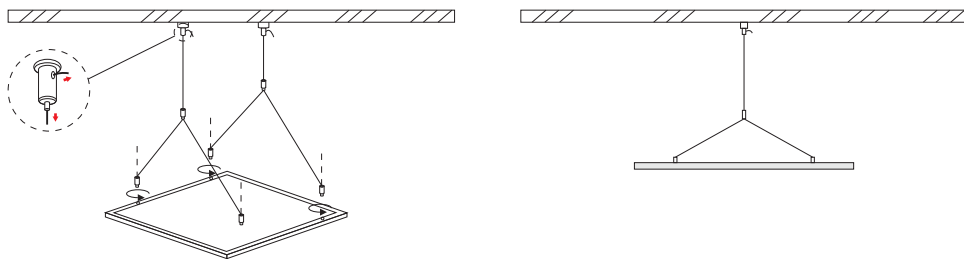
Installation Options

Suspended Installation



Kit for suspend installation

Attach the suspension kit onto the LED panel and ceiling using the special mounting rivets and the stainless steel wire cable.

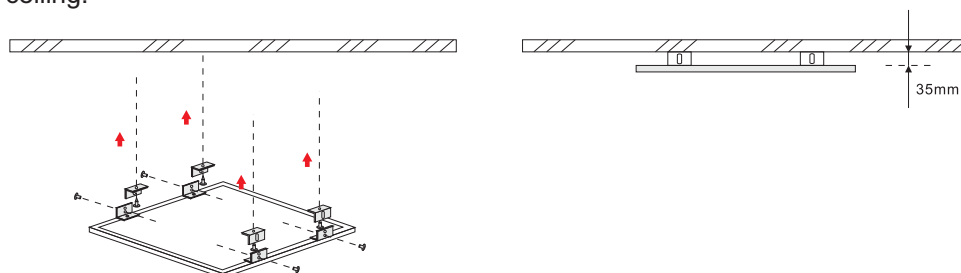


Surface with 2L Shape Brackets



Kit for surface installation without frame

Attach the special brackets onto the LED panel and ceiling.

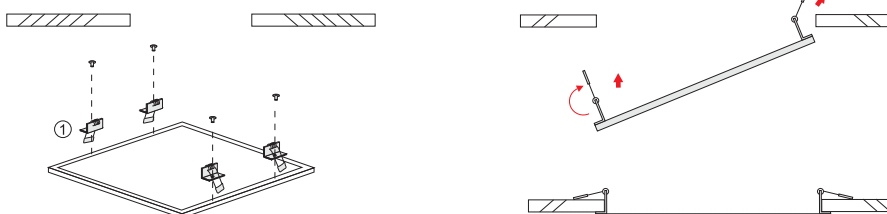


Recessed for Gypsum Ceiling



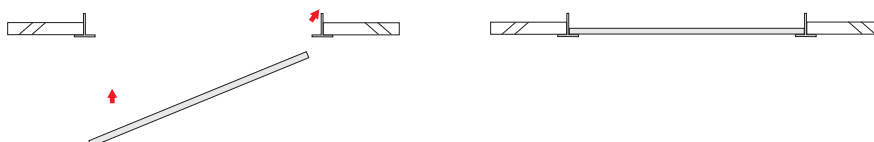
Kit for gypsum ceiling

Attach the special spring brackets onto the LED panel and install in the ceiling

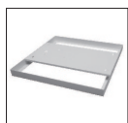


Recessed for T Type Ceiling

Attach the special spring brackets onto the LED panel and install in the ceiling

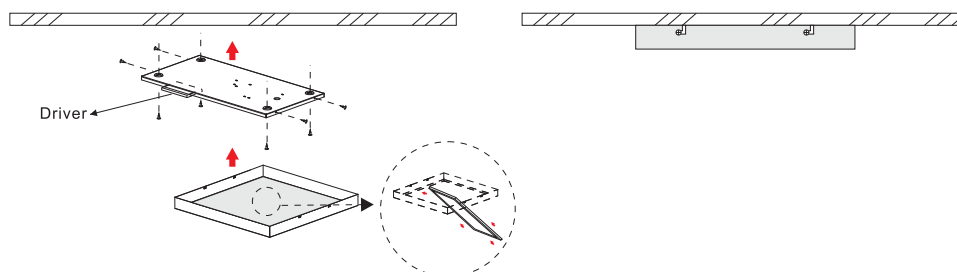


Surface With Special Frame



Kit for surface mounting with frame

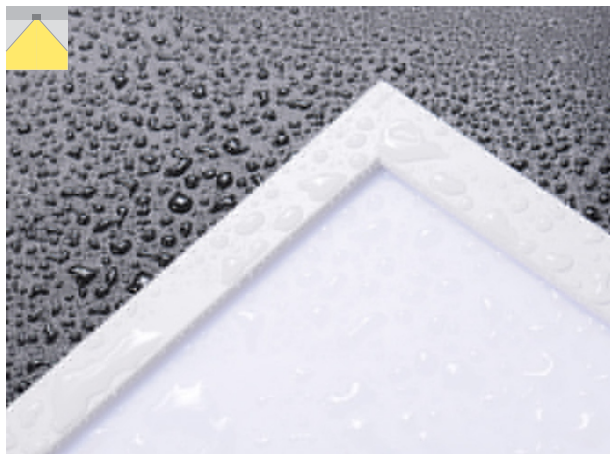
Attach the ceiling frame onto the ceiling then push the LED panel inside.





SLIM LDLPIP1

Clean Room and IP65 LED Panel



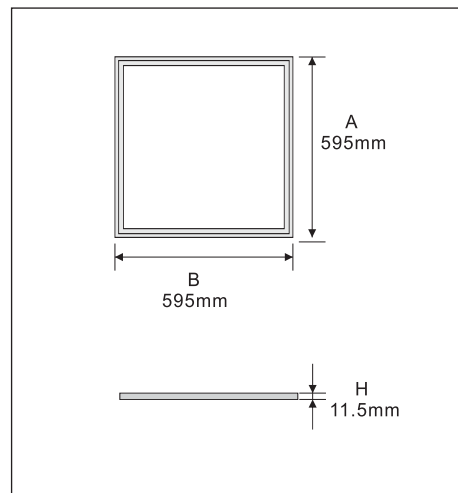
Multi application water proof and clean room LED Panel Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited for recess installation.

Application:

Hospital ER, Hospital Corridor, High Humidity Areas.

Product Feature

- Housing high quality aluminum frame, painted with epoxy polyester powder coat white color.
- LED module installed on the sides of the frame 130Lm/W and 3 SCDM with UGR<19.
- White diffuser topped with laser printed PMMA light distribution plate with 95% reflective film to ensure proper rays distribution.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 110°.
- Heat resistant wiring.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver.
- Dimensions of fixture H=11.5mm Dia=595x595mm cutout 595x595mm
- Ingress Protection IP65.

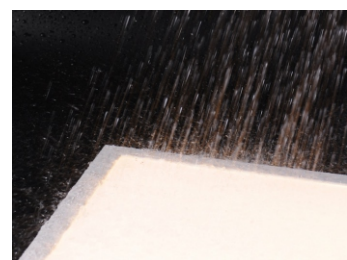
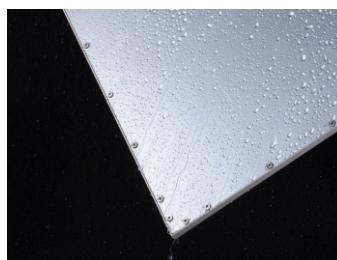


Note: clean room fixture is IP65 with smooth opal diffuser maintenance free and complete with box frame.



Product Options

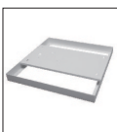
LDLPIP138	
Wattage	38W
CCT	3000K,4000K,6000K
Lumen	4940Lm
CRI≤	80
IP rating	IP65



Optional accessories



Kit for gypsum ceiling



Kit for surface mounting with frame



Kit for suspend installation



Kit for surface installation without frame



How to order

LDLPIP138 -38 -000

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Product code-Power-Driver

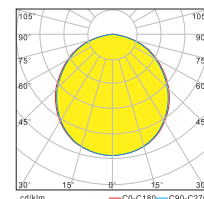
Driver

000 Electronic

001 Dimming 1-10V

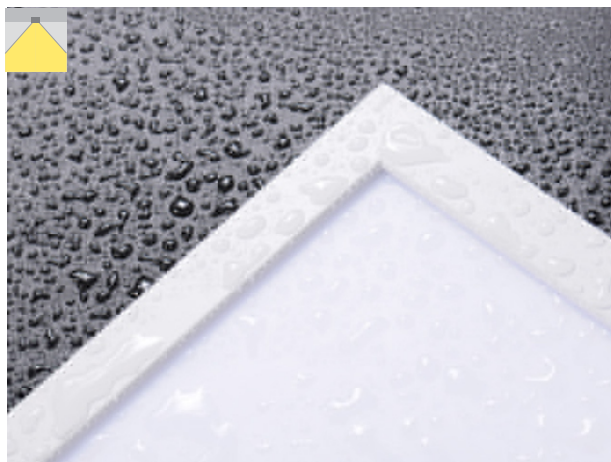
002 DALI

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SLIM LDLPIP2

Clean Room and IP65 LED Panel



Product Feature

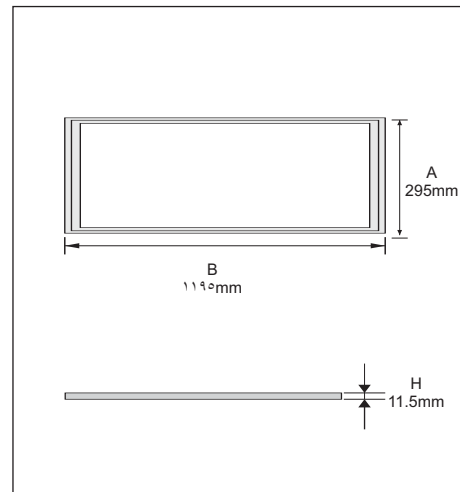
- Housing high quality aluminum frame, painted with epoxy polyester powder coat white color.
- LED module installed on the sides of the frame 130Lm/W and 3 SCDM with UGR<19.
- White diffuser topped with laser printed PMMA light distribution plate with 95% reflective film to ensure proper rays distribution.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 110°.
- Heat resistant wiring.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver.
- Dimensions of fixture H=11.5mm Dia=1195x295mm cutout 1195x295mm
- Ingress Protection IP65.



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Application:

Hospital ER, Hospital Corridor, High Humidity Areas.

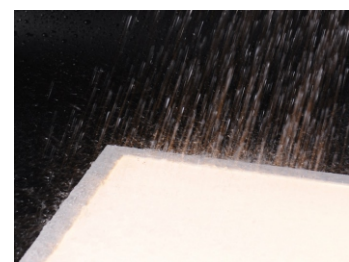
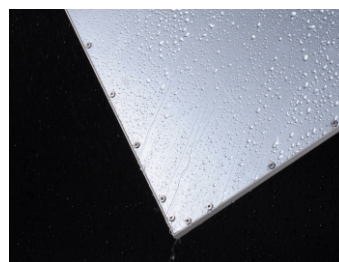


Note: clean room fixture is IP65 with smooth opal diffuser maintenance free and complete with box frame.

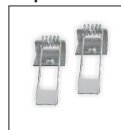


Product Options

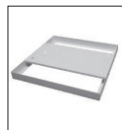
LDLPIP238	
Wattage	38W
CCT	3000K,4000K,6000K
Lumen	4940Lm
CRI≤	80
IP rating	IP65



Optional accessories



Kit for gypsum ceiling



Kit for surface mounting with



Kit for suspend installation



Kit for surface installation



How to order

LDLPIP238 -38 -000

Product code-Power-Driver

Driver

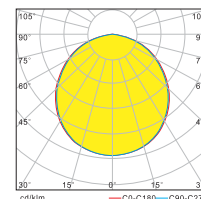
000 Electronic

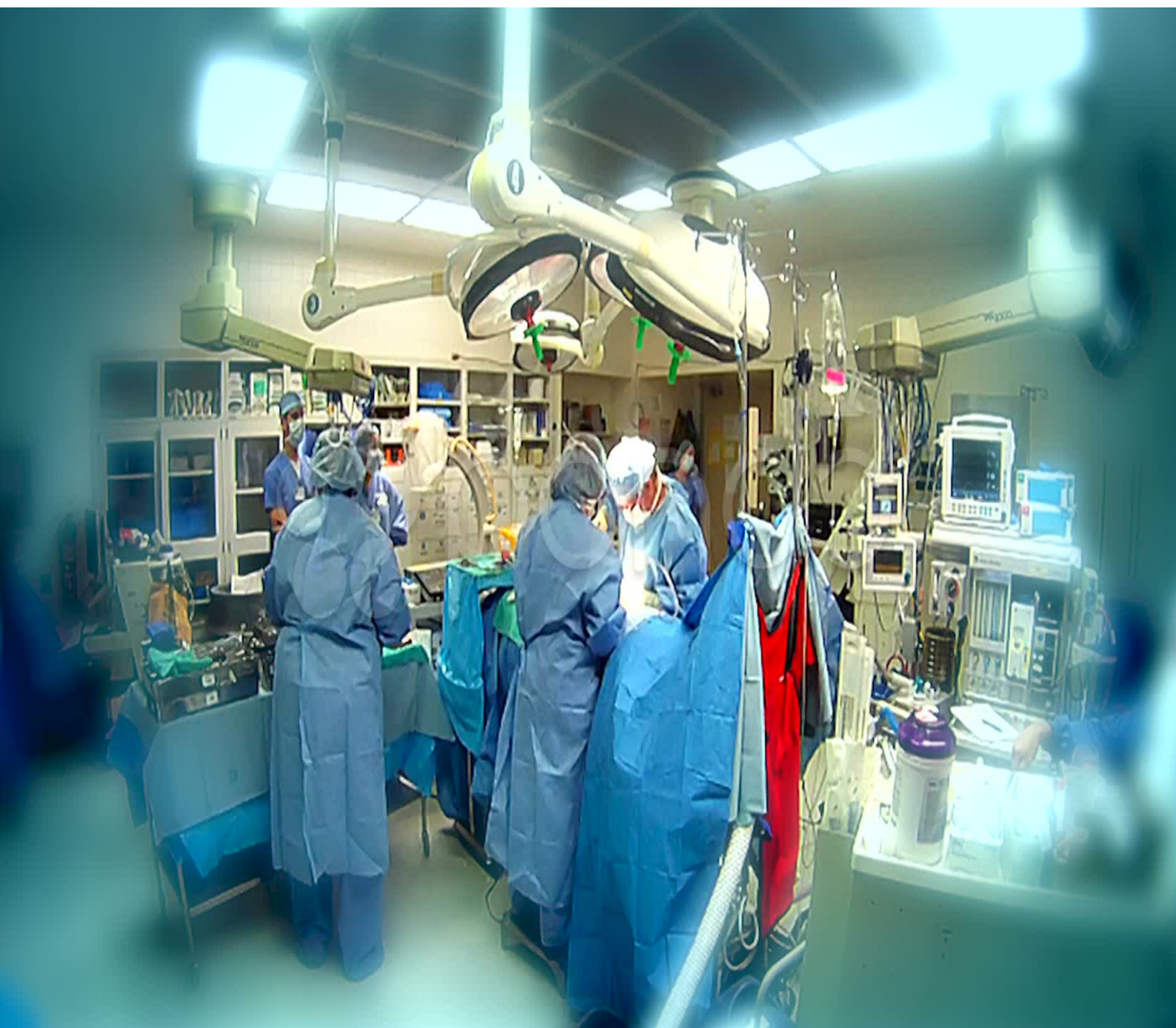
001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice





LED PANELS INDIRECT LDLI



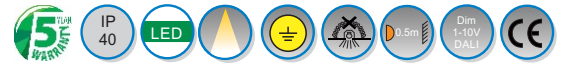
LDLID4

Indirect LED Panel



Product Feature

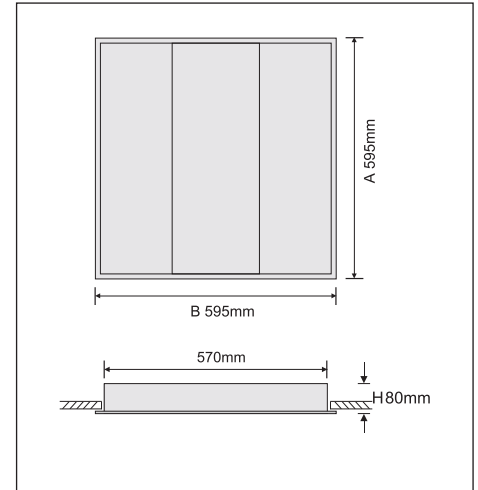
- Housing 0.6mm sheet steel batwing reflector, painted with epoxy polyester powder coat white color.
- LED module installed behind the diffuser 110Lm/W and 3 SCDM
- Acrylic diffuser for indirect soft light distribution plate with 95% reflective film to ensure proper rays distribution.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120° .
- Heat resistant wiring.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver.
- Dimensions of fixture H=80mm Dim.=595x595mm cutout 595x595mm
- Ingress Protection IP40.



Multi application LED Panel Light designed with high quality LED chips to give the best illumination. Indirect light emission.

Application:

Offices, Hospitals, Meeting rooms, Clinics.



Product Options

LDLID46038	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	4180Lm
CRI≤	80
IP rating	IP40



How to order

LDLID46038 -38 -000

Product code-Power-Driver

Driver

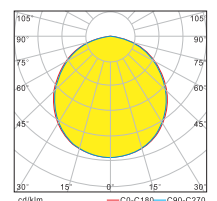
000 Electronic

001 Dimming 1-10V

002 DALI

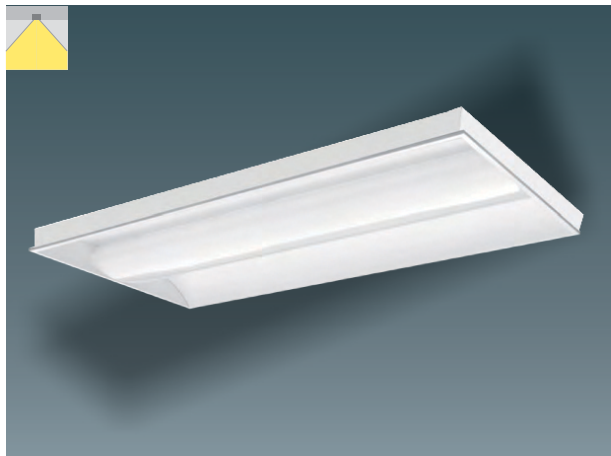
Dimensions not to scale

Dimensions and or technical data might change without prior notice



LDLP5

Indirect LED Panel



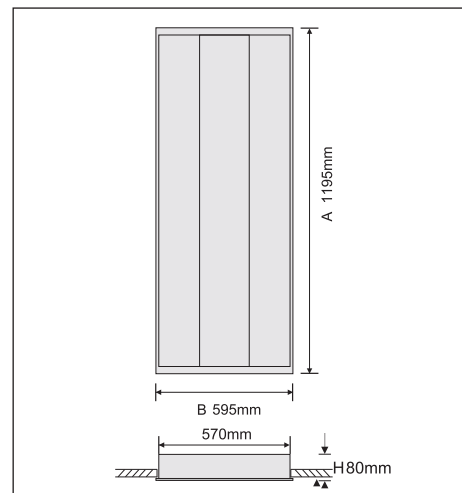
Multi application LED Panel Light designed with high quality LED chips to give the best illumination. Indirect light emission.

Application:

Offices, Hospitals, Meeting rooms, Clinics.

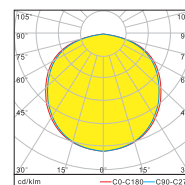
Product Feature

- Housing 0.6mm sheet steel batwing reflector, painted with epoxy polyester powder coat white color.
- LED module installed behind the diffuser 110Lm/W and 3 SCDM
- Acrylic diffuser for indirect soft light distribution plate with 95% reflective film to ensure proper rays distribution.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120° .
- Heat resistant wiring.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver.
- Dimensions of fixture H=80mm Dim.=1195x595mm cutout 1195x595mm
- Ingress Protection IP40.
- Working temperature -20° to +55°, and RH>90.



Product Options

LDLID51255	
Wattage	55W
CCT	3000K,4000K,5000K
Lumen	6050Lm
CRI≤	80
IP rating	IP20



How to order

LDLID51255 -55 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LDLSG

Suspended Direct/Indirect LED Panel



Multi application LED Panel Light designed with high quality LED chips to give the best illumination. Direct/Indirect light emission.

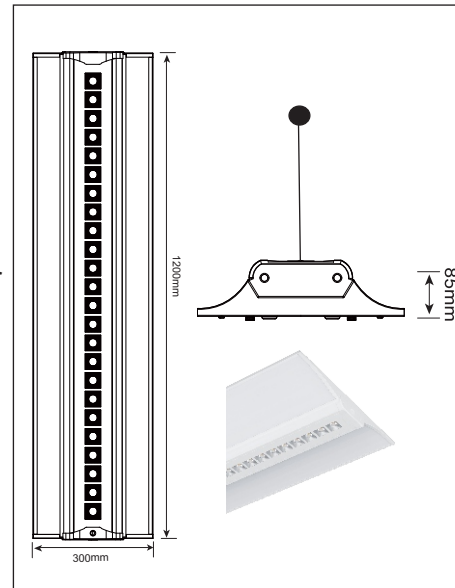
Application:

Offices, Hospitals, Meeting rooms, Clinics.



Product Feature

- Housing aluminum batwing aluminum reflector, painted with epoxy polyester powder coat white color. Giving 25% upward illumination and 75% downward illumination.
- LED module installed behind the diffuser 130lm/W and 3 SCDM
- The optic is a mini louver available in Black anti glare or Semi-Specular, or specular darklight. The lense is situated above the louver. The indirect optic is built in the upper part top diffuser to ensure uniformly upward distribution and downward reflection.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120° .and cut-off angle 30°, with lower UGR<8
- Fixture lumen at 130lumen per watt initial lumen with eye comfort, and photo-biologically and blue light safe.
- Heat resistant wiring.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver high RH and Tc>80°.
- Dimensions of fixture H=85mm Dim.=1200x300mm.
- Ingress Protection IP54/40.
- Working temperature -20° to +55°, and RH>90.

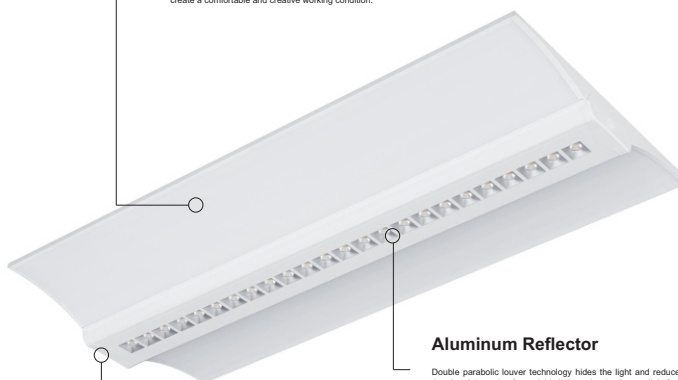


Product Options

LDLSG1236	
Wattage	36W
CCT	3000K,4000K,5000K
Lumen	4180Lm
CRI≤	80
IP rating	IP54/40

CONSTRUCTION:

With direct and indirect light distribution, BATWING an ideal light performance for office application, which further create a comfortable and creative working condition.

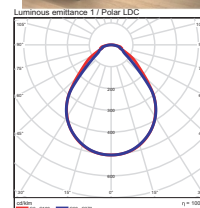


Aluminum Reflector

Double parabolic louver technology hides the light and reduces the glare. It is made of recyclable light-purity aluminum, alight from iron. It integrates with a louver, lens, and LED engine in one unit, with good maintenance and re-optics.

END CAP

Removable polycarbonate end cap with screws fasten design to ensure installation safety.



How to order

LDLSG1236 -36 -000

Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

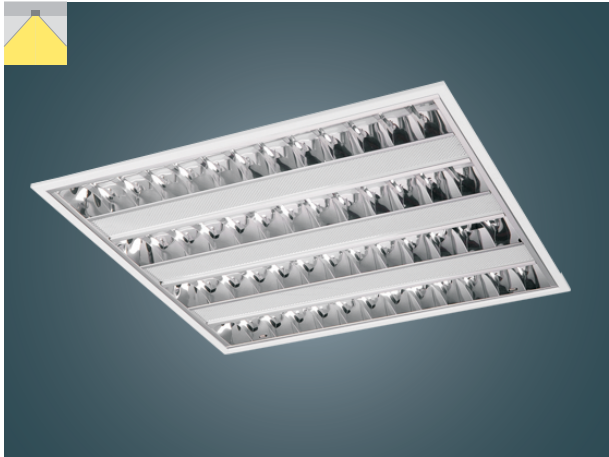
Dimensions not to scale
Dimensions and or technical data might change without prior notice

LED LOUVRE LDLV



LDLV1

Recessed Mounted LED Louvre



Product Feature

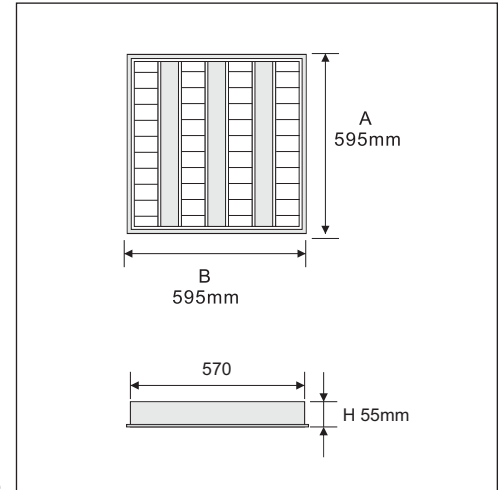
- Housing high quality sheet steel with aluminum frame, painted with epoxy polyester powder coat white color.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 110Lm/W with UGR<19.
- PC diffuser with 95% reflective film to ensure proper rays distribution.
- Alanod aluminum low glare reflector.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 85° .
- Heat resistant wiring 220V/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver
- Dimensions of fixture 38W: H=55mm Dia=595x595mm cutout 595x595mm
- Ingress Protection IP20/40.



Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited.

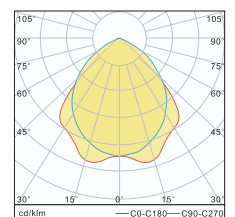
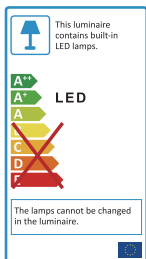
Application:

Offices, Hospitals, Meeting Rooms.



Product Options

LPLV16038	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	5320/4180Lm
CRI≤	80
IP rating	IP20/40



How to order

LPLV16038 -38 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

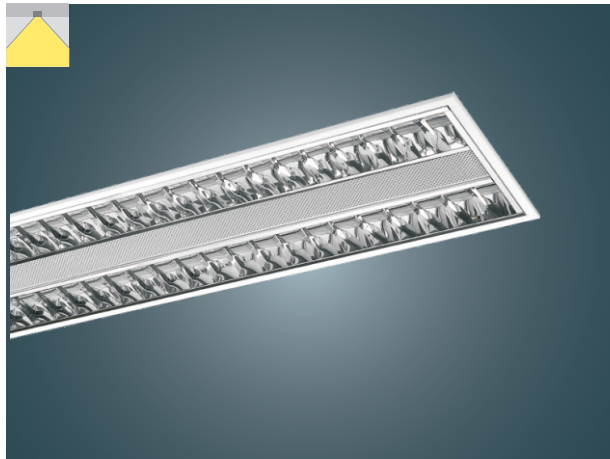
002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LDLV2

Recessed Mounted LED Louvre

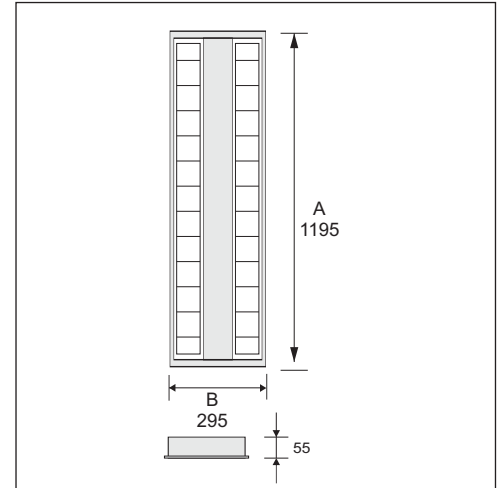


Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. The low height makes it suitable for installation in areas where the distance between the ceiling and the fixture is limited.

Application:
Offices, Hospitals, Meeting Rooms.

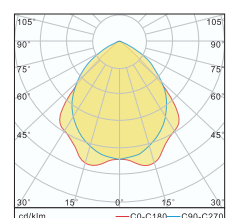
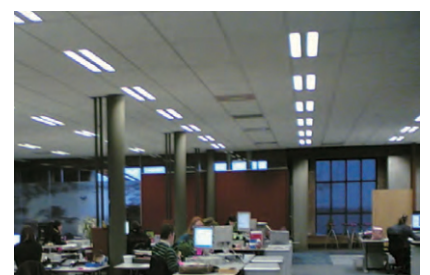
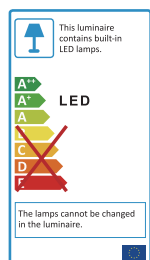
Product Feature

- Housing high quality sheet steel with aluminum frame, painted with epoxy polyester powder coat white color.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 110Lm/W with UGR<19.
- PC diffuser with 95% reflective film to ensure proper rays distribution.
- Alanod aluminum low glare reflector.
- LED life L80 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 85° .
- Heat resistant wiring 220V/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Spring clips suitable for drop gypsum ceiling.
- Built in Electronic driver
- Dimensions of fixture 38W: H=55mm Dia=295x1195mm cutout 295x1195mm
- Ingress Protection IP20/40.



Product Options

LPLV21238	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	5320/4180Lm
CRI≤	80
IP rating	IP20/40



How to order

LPLV21238 -38 -000

Product code-Power-Driver

Driver

... Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LDLV3

Recessed Mounted LED Louvre



Product Feature

- Housing made of sheet steel, painted with epoxy polyester powder coat white color anti rust treatment,
- LED module installed on top of the fixture
- White glare free Louvre. Louvre and hinged easily on the body with springs .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture cold lumen at 150 Lumen per watt initial lumen.
- Symmetric light distribution optic 65°.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Built in Electronic driver.
- Dimensions of fixture H=80mm Dia=595x595mm cutout 595x595mm
- Ingress Protection IP20.

Product Options

LPLV36038	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	3600Lm,3700Lm,3800Lm
CRI≤	80
IP rating	IP20

How to order

LPLV36038 -38 -000

Product code-Power-Driver

Driver

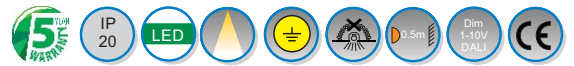
000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

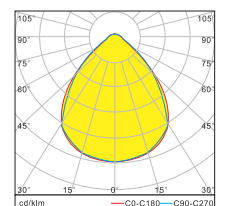
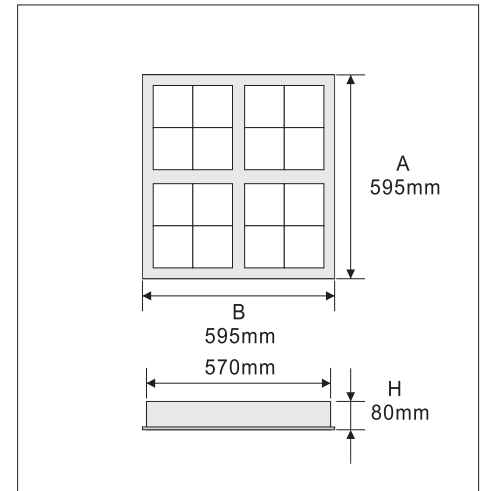
Dimensions and or technical data might change without prior notice



Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination and glare reduction louvers

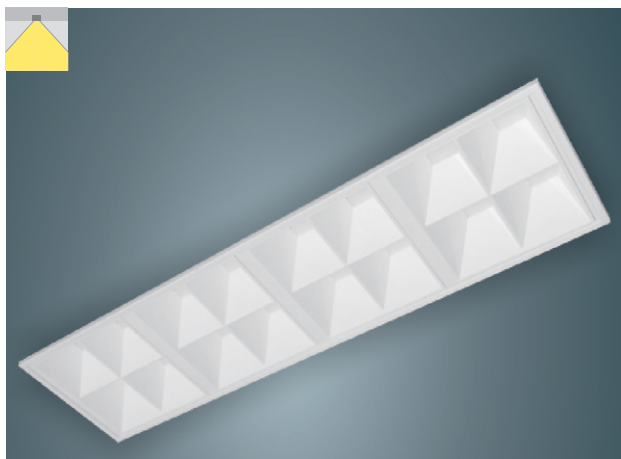
Application:

Low Glare General areas



LDLV4

Recessed Mounted LED Louvre

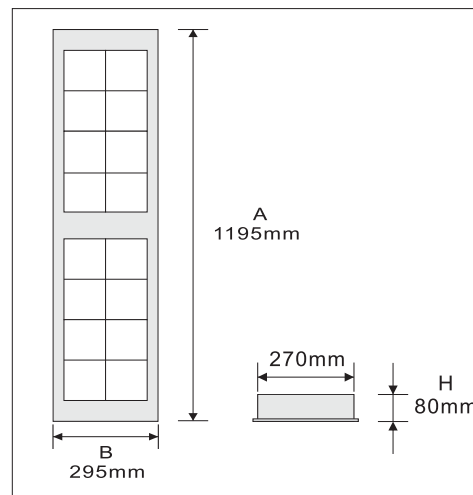


Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination and glare reduction louvers

Application:
Low Glare General areas

Product Feature

- Housing made of sheet steel, painted with epoxy polyester powder coat white color anti rust treatment,
- LED module installed on top of the fixture
- White glare free Louvre. Louvre and hinged easily on the body with springs .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture cold lumen at 150 Lumen per watt initial lumen.
- Symmetric light distribution optic 65°.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Built in Electronic driver.
- Dimensions of fixture H=80mm Dia=1195x1195mm cutout 1195x1195mm
- Ingress Protection IP20.



Product Options

LPLV49538		LPLV49548	
Wattage	38W	Wattage	48W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3600Lm,3700Lm,3800Lm	Lumen	4350Lm,4450Lm,4600Lm
CRI _≥	80	CRI _≥	80
IP rating	IP20	IP rating	IP20

How to order

LPLV49538 -38 -000

Product code-Power-Driver

Driver

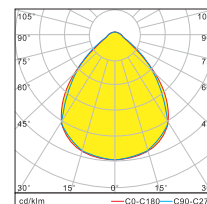
000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice



LDLV5IP

Recessed Mounted LED Louvre



Product Feature

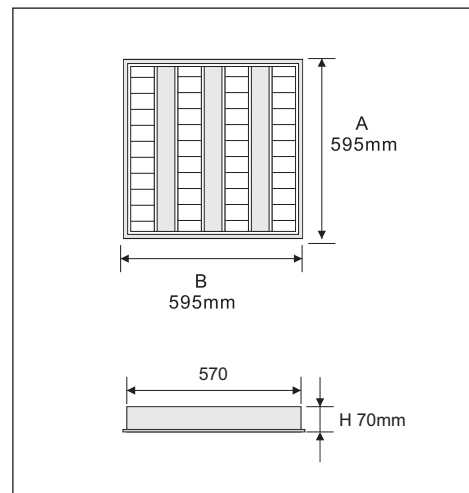
- Housing made of sheet steel, painted with epoxy polyester powder coat white color anti rust treatment,
- LED module installed on top of the fixture
- High anodized aluminum 99.9% Louvre double parabolic glare controlled louvers and hinged easily on the body with springs with PC diffuser and silicon gasket to ensure ingress protection .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture lumen at 150lumen per watt initial lumen.
- Symmetric light distribution optic 115°.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Built in Electronic driver.
- Dimensions of fixture H=70mm Dia=595x595mm cutout 595x595mm
- Ingress Protection IP54 (IP65 on request).



Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. With high ingress protection the fixture is suitable for high ingress requirements.

Application:

Laboratories, Clean rooms, Hospitals, Grocery stores



Product Options

LPLV5IP38		LPLV5IP48	
Wattage	38W	Wattage	48W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3200Lm,3250Lm,3300Lm	Lumen	4250Lm,4320Lm,4510Lm
CRI≤	80	CRI≤	80
IP rating	IP54	IP rating	IP54

How to order

LPLV5IP38 -38 -000

Product code-Power-Driver

Driver

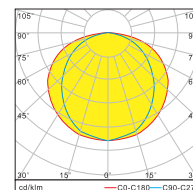
000 Electronic

001 Dimming 1-10V

002 DALI

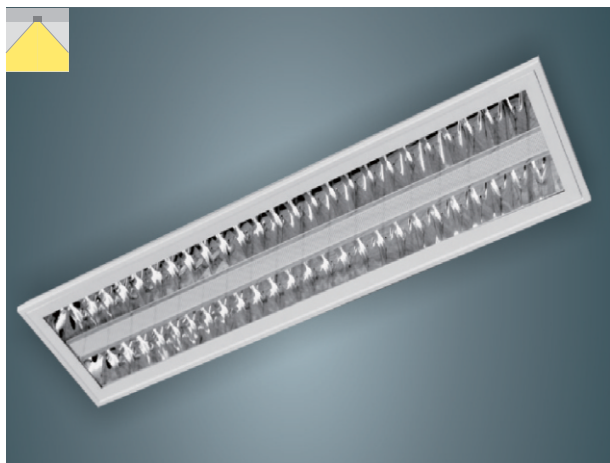
Dimensions not to scale

Dimensions and or technical data might change without prior notice



LDLV5IP

Recessed Mounted LED Louvre



Product Feature

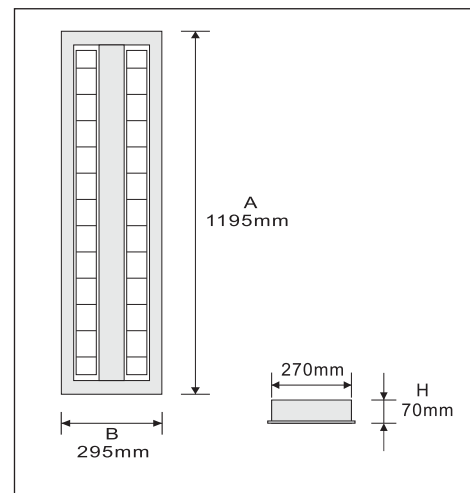
- Housing made of sheet steel, painted with epoxy polyester powder coat white color anti rust treatment,
- LED module installed on top of the fixture
- High anodized aluminum 99.9% Louvre double parabolic glare controlled louvers and hinged easily on the body with springs with PC diffuser and silicon gasket to ensure ingress protection .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture lumen at 150lumen per watt initial lumen.
- Symmetric light distribution optic 90°.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Built in Electronic driver.
- Dimensions of fixture H=70mm Dia=1195x295mm cutout 1195x295mm
- Ingress Protection IP54 (IP65 on request).



Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. With high ingress protection the fixture is suitable for high ingress requirements.

Application:

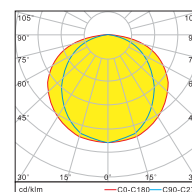
Laboratories, Clean rooms, Hospitals, Grocery stores



Product Options

LPLV7IP38	
Wattage	38W
CCT	3000K,4000K,5000K
Lumen	3200Lm,3250Lm,3300Lm
CRI≤	80
IP rating	IP54

LPLV7IP48	
Wattage	48W
CCT	3000K,4000K,5000K
Lumen	4250Lm,4320Lm,4510Lm
CRI≤	80
IP rating	IP54



How to order

LPLV7IP38 -38 -000

Product code-Power-Driver

Driver

000 Electronic

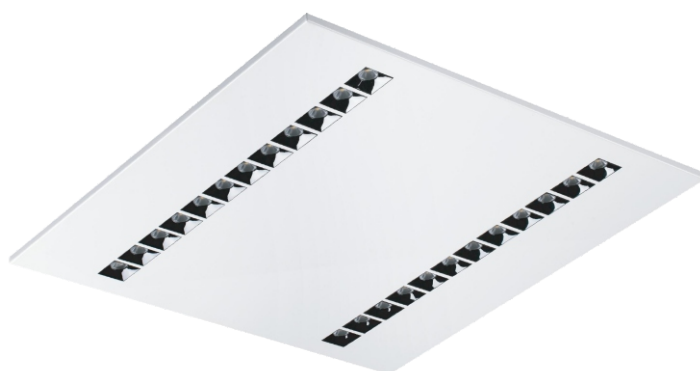
001 Dimming 1-10V

002 DALI

Dimensions not to scale

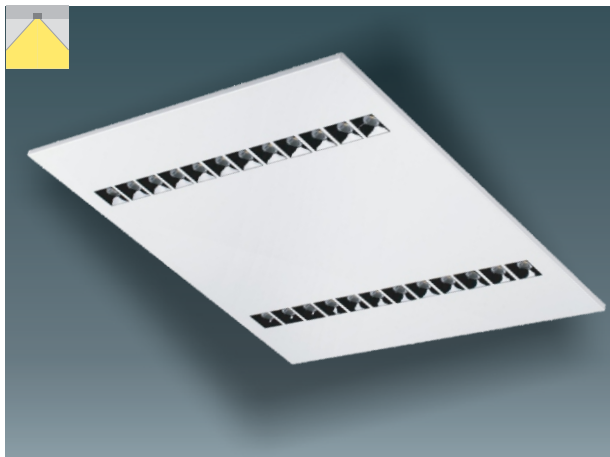
Dimensions and or technical data might change without prior notice

LED PANELS NEW AGE LDNA



LDNA1

Recessed Mounted LED Louvre



Product Feature

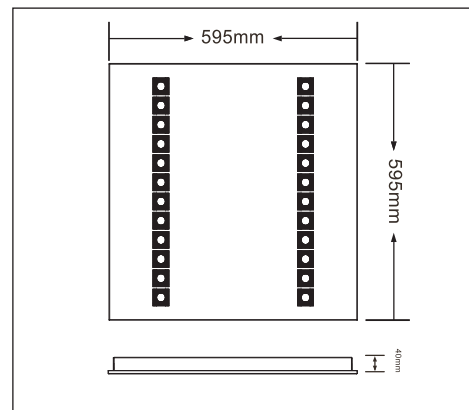
- Housing made of aluminum, painted with epoxy polyester powder coat white color anti rust treatment, UV protected and fire proof.
- LED module installed inside reflector void with proper heat dissipation.
- Reflector Metalized aluminum 99.9% double or white painted for glare control and cutoff at 30-35° with LED system inside each reflector void, with optional black painted reflector for low glare and soft light, gasket to ensure ingress protection .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture lumen at 120lumen per watt initial lumen with eye comfort, and photo-biologically and blue light safe.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Remote Electronic driver with high RH and Tc up to 80°
- Dimensions of fixture H=40mm Dia=595x595mm cutout 595x595mm
- Dimensions of fixture H=40mm Dia=1195x595mm cutout 1195x595mm
- Ingress Protection IP54
- Working temperature -20° to +55°, and RH>90.



Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. With high ingress protection the fixture is suitable for high ingress requirements.

Application:

Laboratories, Clean rooms, Hospitals, Grocery stores



Product Options

LDNA15930		LDNA15935		LDNA11240 (1200X595)	
Wattage	30W	Wattage	35W	Wattage	40W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3600Lm	Lumen	4200Lm	Lumen	5450Lm
CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP54	IP rating	IP54	IP rating	IP54

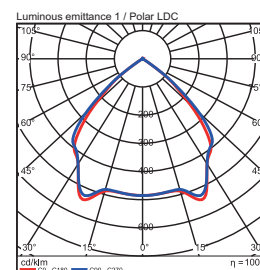
How to order
LPNA13059 -30 -000

↓ ↓ ↓

Product code-Power-Driver

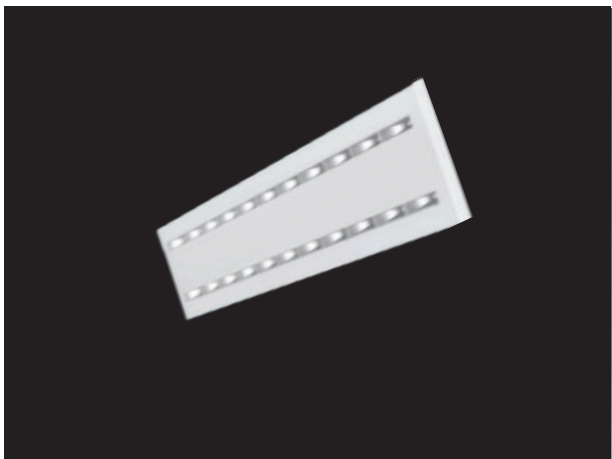
Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice



LDNA2

Recessed Mounted LED Louvre



Product Feature

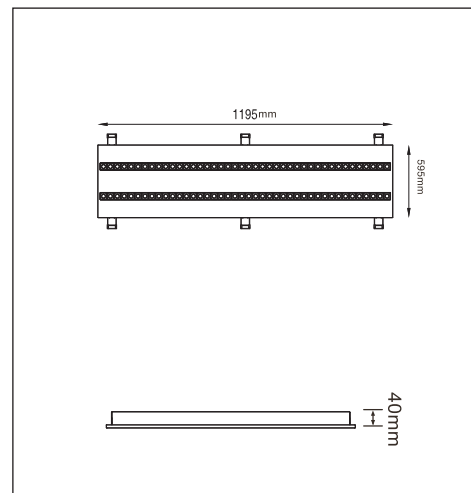
- Housing made of aluminum, painted with epoxy polyester powder coat white color anti rust treatment, UV protected and fire proof.
- LED module installed inside reflector void with proper heat dissipation.
- Reflector Metalized aluminum 99.9% double or white painted for glare control and cutoff at 30-35° with LED system inside each reflector void, with optional black painted reflector for low glare and soft light, gasket to ensure ingress protection .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture lumen at 120lumen per watt initial lumen with eye comfort, and photo-biologically and blue light safe.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Remote Electronic driver with high RH and Tc up to 80°
- Dimensions of fixture H=40mm Dia=1195x595mm cutout 1195x595mm
- Ingress Protection IP54
- Working temperature -20° to +55°, and RH>90.



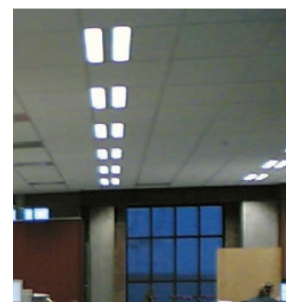
Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. Fixture is suitable for high ingress area requirements.

Application:

Laboratories, Clean rooms, Hospitals, Grocery stores



LDNA21240 (1200X595)	
Wattage	40W
CCT	3000K,4000K,5000K
Lumen	5450Lm
CRI≤	80
IP rating	IP54



How to order

LPNA13059 -30 -000

Product code-Power-Driver

Driver

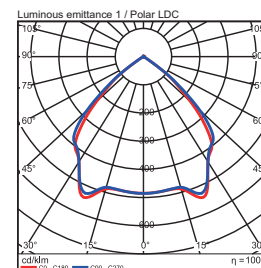
000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice



LDNA3

Recessed Mounted LED Panel



Recessed Mounted LED Louvre Light designed with high quality LED chips to give the best illumination. With high ingress protection the fixture is suitable for high ingress requirements.

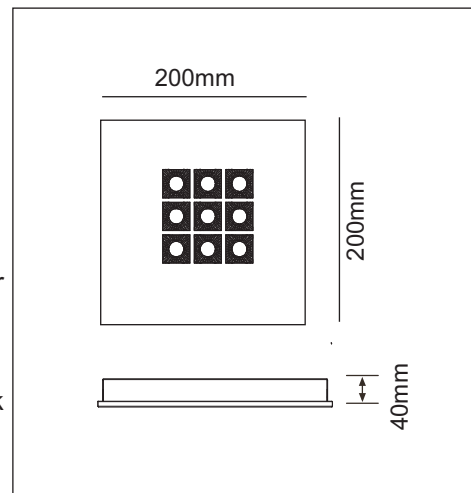
Application:

Laboratories, Clean rooms, Hospitals, Grocery stores



Product Feature

- Housing made of aluminum, painted with epoxy polyester powder coat white color anti rust treatment, UV protected and fire proof.
- LED module installed inside reflector void with proper heat dissipation.
- Reflector Metalized aluminum 99.9 %parabolic or white painted for glare control and cutoff at 30-35° with LED system inside each reflector void, with optional black painted reflector for low glare and soft light, gasket to ensure ingress protection .
- LED life around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Fixture lumen at 130lumen per watt initial lumen with eye comfort, and photo-biologically and blue light safe.
- Heat resistant wiring.
- Suitable for T ceiling. Other types available on request
- Remote Electronic driver with high RH and Tc up to 80°
- Dimensions of fixture H=40mm Dia=200x200mm cutout 200x200mm
- Ingress Protection IP54
- Working temperature -20° to +55°, and RH>90.



LDNA32020	
Wattage	15W
CCT	3000K,4000K,5000K
Lumen	1950Lm
CRI≤	80
IP rating	IP54



How to order

LPNA13059 -30 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LED DECORATIVE TECHINAL WALL/CEILING DETC



Lighting-Spain **by Luxilum**

LDRS1

Multi installation



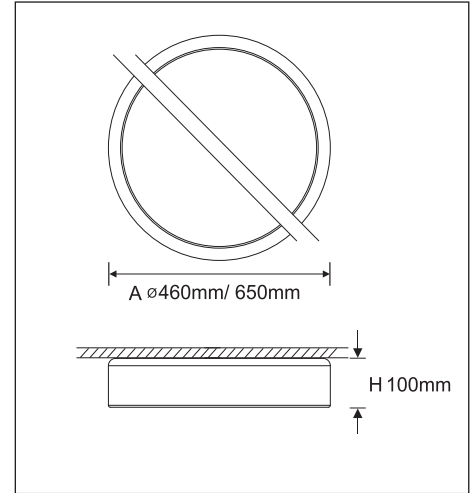
Surface, recessed and suspended mounted light fixture

Application:

Public Areas, Bedrooms, Homes, Hotels.

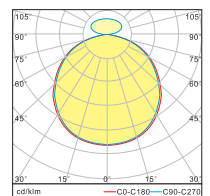
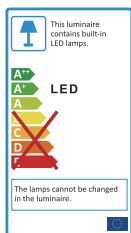
Product Feature

- Housing made of powder coated sheet steel.
- Diffuser: UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector from galvanized white sheet steel
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 110 Lm/W and 3 SCDM with efficacy 110 Lm/W and UGR 22.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution.110°.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 40W Ø=460mm H=100mm.
70W Ø=650mm H=100mm
- Option for suspension
- Ingress Protection IP40 optional IP44



Product Options

LDRS145040		LDRS165070	
Wattage	40W	Wattage	70W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	5600/4800Lm	Lumen	9800/8400Lm
CRI≤	80	CRI≤	80
IP rating	IP40	IP rating	IP40



How to order
LDRS146040 -40 -000

↓ ↓ ↓

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice



LDRS1

Surface, recessed and suspended mounted light fixture

Accessories



■ Product size: \varnothing 507mm
 \varnothing 697mm

recessed frame



■ Product size: \varnothing 460mm
 \varnothing 650mm

II



(Suspend Accessories)





LDRS2

Surface Mounted Fixture



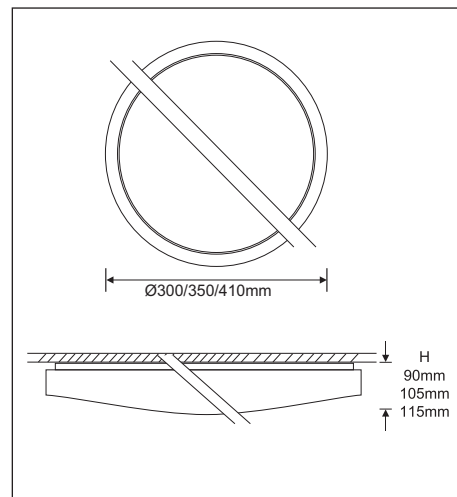
Surface mounted or suspended mounted light fixture

Application:

Public Areas, Bedrooms, Homes, Hotels.

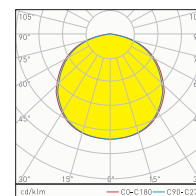
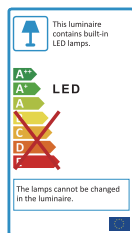
Product Feature

- Housing made of powder coated sheet steel.
- Diffuser: UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector from galvanized white sheet steel
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 115Lm/W and UGR 22.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution.120°.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 12W Ø=300mm H=90mm.
22W Ø=350mm H=105mm.
30W Ø=410mm H=115mm.
- Ingress Protection IP40 optional IP44



Product Options

LDRS23012		LDRS23522		LDRS24030	
Wattage	12W	Wattage	22W	Wattage	30W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	1680/1380Lm	Lumen	3080/2530Lm	Lumen	4200/3450Lm
CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP40	IP rating	IP40	IP rating	IP40



How to order

LDRS23012 -12 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

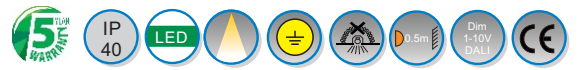
002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LDRS3

Surface Mounted Fixture



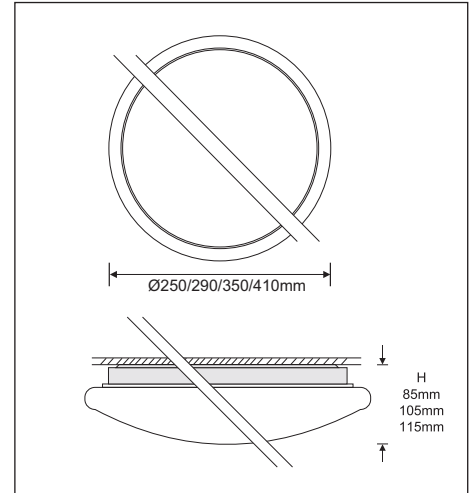
Surface and suspended mounted or suspended mounted light fixture

Application:

Public Areas, Bedrooms, Homes, Hotels.

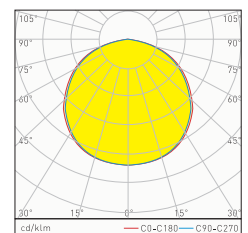
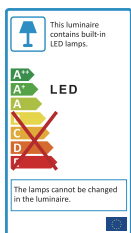
Product Feature

- Housing made of powder coated sheet steel.
- Diffuser: 3mm opal UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector from galvanized white sheet steel
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 115Lm/W and UGR 22.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution.130°.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 8W Ø=250mm H=85mm.
12W Ø=290mm H=85mm.
22W Ø=350mm H=105mm.
30W Ø=410mm H=115mm.
- Ingress Protection IP40/IP54



Product Options

LDRS32508		LDRS32912		LDRS33522		LDRS34130	
Wattage	8W	Wattage	12W	Wattage	22W	Wattage	30W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	1120/920Lm	Lumen	1680/1380Lm	Lumen	3080/2530Lm	Lumen	4200/3450Lm
CRI≤	80	CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP40/54	IP rating	IP40/54	IP rating	IP40/54	IP rating	IP40/54



How to order

LDRS32912 -12 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

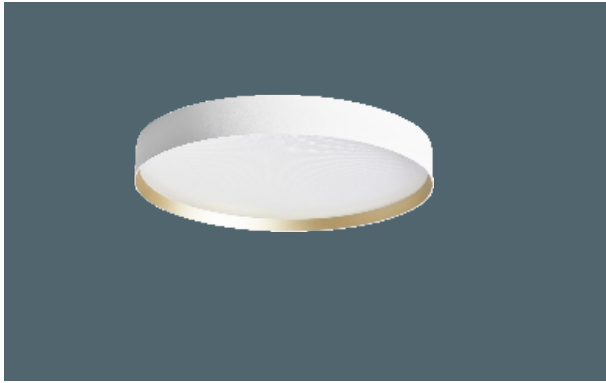
Dimensions not to scale

Dimensions and or technical data might change without prior notice



LDRS5

Surface Mounted Fixture



Surface and suspended mounted or suspended mounted light fixture

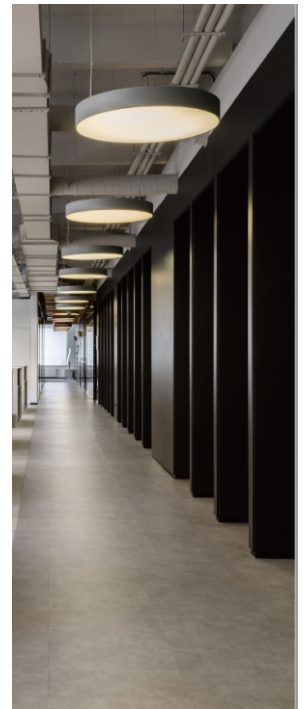
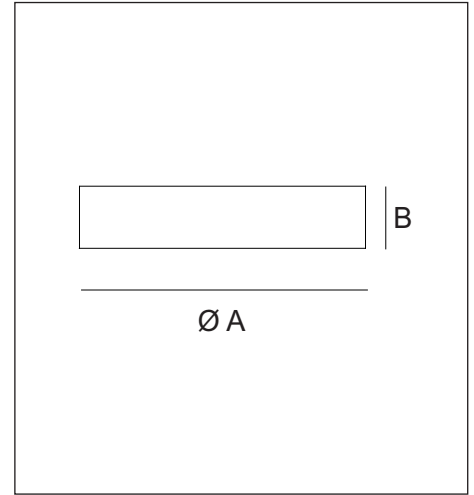
Application:

Public Areas, Bedrooms, Homes, Hotels.

Product Feature

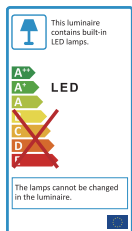
- Housing made of powder coated sheet steel.
- Diffuser: 3mm opal UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector from galvanized white sheet steel
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 95Lm/W and UGR 22.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution.130°.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in flicker free electronic driver.
- Dimensions of fixture 25W Ø=350mm H=66mm.
35W Ø=450mm H=66mm.
55W Ø=600mm H=66mm.

- Ingress Protection IP40/IP54



Product Options

LDRS53525		LDRS54535		LDRS6055	
Wattage	25W	Wattage	35W	Wattage	55W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	2250Lm	Lumen	3150Lm	Lumen	4950Lm
CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP40/54	IP rating	IP40/54	IP rating	IP40/54



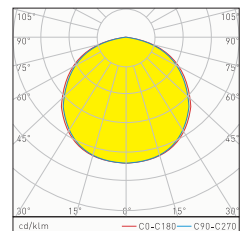
Accessories kit for ceiling and suspension mounted exchangeable.

Suspension kit model

Susp-kit-A for 350mm/450mm/600mm



Recess kit model



How to order

LDRS53525 -25 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LDRS4

Surface and Suspended Mounted Fixture



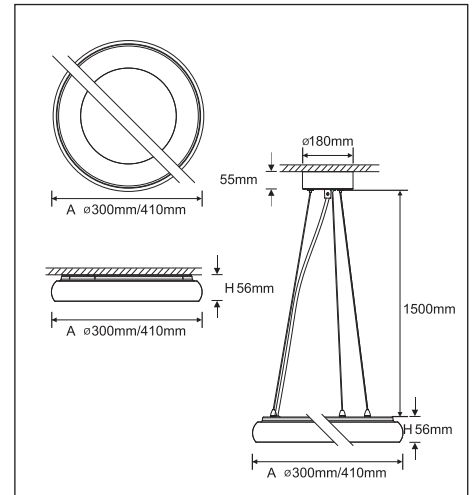
Surface mounted or suspended mounted light fixture.
Soft semi direct light

Application:

Public Areas, Bedrooms, Homes, Hotels.

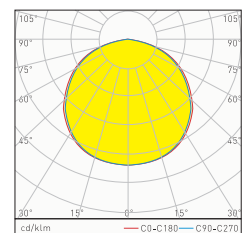
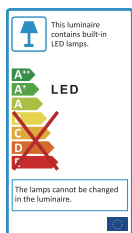
Product Feature

- Housing made of powder coated sheet steel easy installation.
- Diffuser: UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector from galvanized white sheet steel
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 110Lm/W.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours with proper aluminum heat dissipating structure.
- Symmetric light distribution 100° with cut out at 35° and UGHR<19.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 25W-30w Ø=300mm H=56mm.
35W-45W Ø=410mm H=56mm.
- Ingress Protection IP54/40.



Product Options

LDRS43025		LDRS44135	
Wattage	25-35W	Wattage	35-45W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3500/2750Lm	Lumen	4900/3850Lm
CRI≤	80	CRI≤	80
IP rating	IP54/40	IP rating	IP54/40



How to order

LDRS43025 -25 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice



LDRGX1

Surface and Suspended Mounted Fixture



Surface and suspended mounted or suspended mounted light fixture

Application:

Public Areas, Bedrooms, Homes, Hotels.

Product Feature

- Housing made of powder coated sheet steel.
- Diffuser: Glass with metal cover and optional color paint. epoxy polyester rust proof and fire retardant paint. The body designed as heat sink to protect the LED and prolong the life of the LED.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 100Lm/W and 3 SCDM with efficacy 90Lm/W.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours with blue light safety.
- Symmetric light distribution 65° and cut off 25-30°.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 15W Ø=150mm H=40mm.
25W Ø=200mm H=40mm.
30W Ø=265mm H=40mm.
- Ingress Protection IP44/54

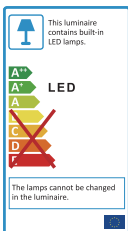
For pendent just add "P"

LDRGX1P

Other colors on request

Product Options

LDGX11515		LDGX2025		LDGX12630	
Wattage	15W	Wattage	25W	Wattage	30W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	1300Lm	Lumen	2250Lm	Lumen	2700Lm
CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP44/54	IP rating	IP44/54	IP rating	IP44/54



How to order

LDGX11515 -25 -000

Product code-Power-Driver

Driver

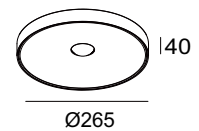
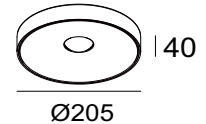
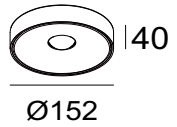
000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice



Different cover finish for option





LDCY1

Surface Cylinder Mounted Fixture



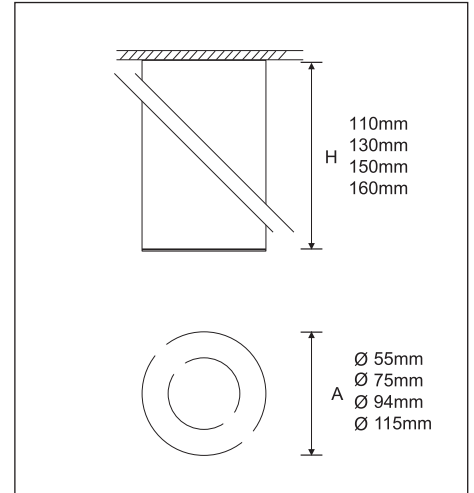
Surface cylindrical light fixture.

Application:

Public Areas, all ceiling installations.

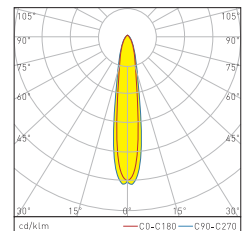
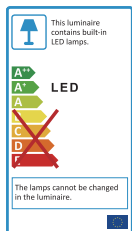
Product Feature

- Housing made of extruded aluminum powder coated with cold forging aluminum heat sink.
- Diffuser: UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector high efficiency shiny or black anti glare.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 100Lm/W.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution 15°, 30°, 45°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 3W Ø=55mm H=110mm.
7W Ø=75mm H=130mm.
10W Ø=94mm H=150mm.
15W Ø=115mm H=160mm
- Ingress Protection IP44



Product Options

LDCY15503		LDCY17507		LDCYL19410		LDCY11115	
Wattage	3W	Wattage	7W	Wattage	10W	Wattage	15W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	420/300Lm	Lumen	980/700Lm	Lumen	1400/1000Lm	Lumen	2100/1500Lm
CRI≤	80	CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP44	IP rating	IP44	IP rating	IP44	IP rating	IP44



How to order

LDCY15503 -03 -000
 ↓ ↓ ↓
 Product code-Power-Driver
 Driver
 000 Electronic
 001 Dimming 1-10V
 002 DALI

Dimensions not to scale
 Dimensions and or technical data might change without prior notice



silver black

LDCY2

Surface Cylinder Mounted Fixture



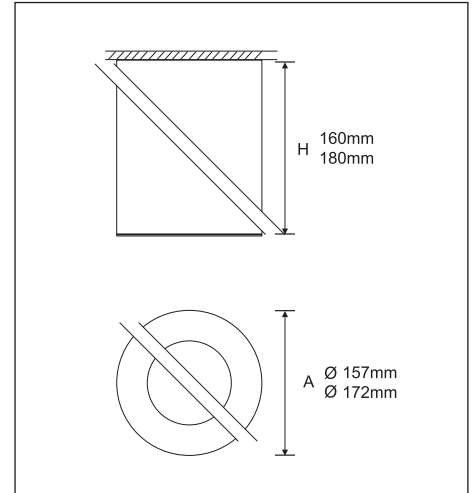
Surface cylindrical light fixture.

Application:

Public Areas, all ceiling installations.

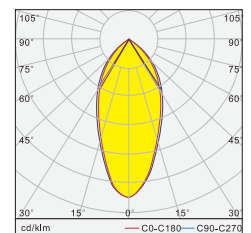
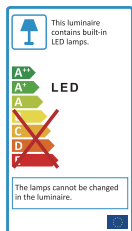
Product Feature

- Housing made of extruded aluminum powder coated with cold forging aluminum heat sink.
- Diffuser: UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector high efficiency shiny.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 110Lm/W.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution. 15°, 30°, 45°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 20W Ø=157mm H=160mm.
30W Ø=172mm H=180mm.
- Ingress Protection IP44/54



Product Options

LDCY21520		LDCY21730	
Wattage	20W	Wattage	30W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	2800/2200Lm	Lumen	4200/3300Lm
CRI≤	80	CRI≤	80
IP rating	IP44	IP rating	IP44



How to order

LDCY21520 -25 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

LDCY3

Surface Cylinder Mounted Fixture



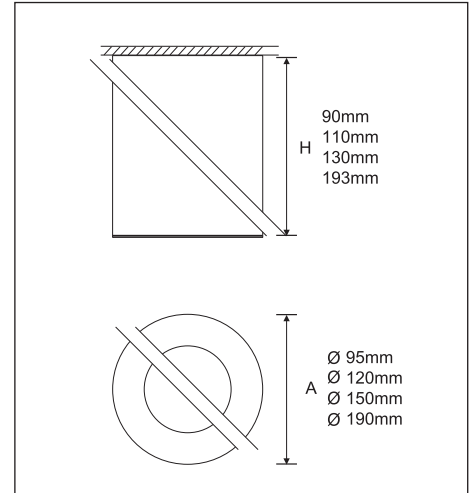
Surface cylindrical light fixture.

Application:

Public Areas, all ceiling installations.

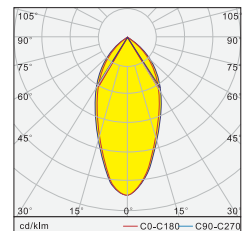
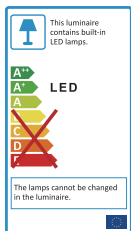
Product Feature

- Housing made of extruded aluminum powder coated with cold forging aluminum heat sink.
- Diffuser: concentric UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features.
- Reflector high efficiency shiny or black anti glare.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 100Lm/W.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after 50,000 hours.
- Symmetric light distribution 50°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 10W Ø=95mm H=90mm.
15W Ø=120mm H=120mm.
30W Ø=150mm H=150mm.
40W Ø=190mm H=190mm
- Ingress Protection IP44



Product Options

LDCY39510		LDCY31215		LDCYL31530		LDCY31940	
Wattage	10W	Wattage	15W	Wattage	30W	Wattage	40W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	1400/1000Lm	Lumen	1680/1200Lm	Lumen	4200/3300Lm	Lumen	5600/4000Lm
CRI≤	80	CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP44	IP rating	IP44	IP rating	IP44	IP rating	IP44



How to order

LDCY39510 -10 -000

Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice



LDCY4

Surface Cylinder Mounted Fixture



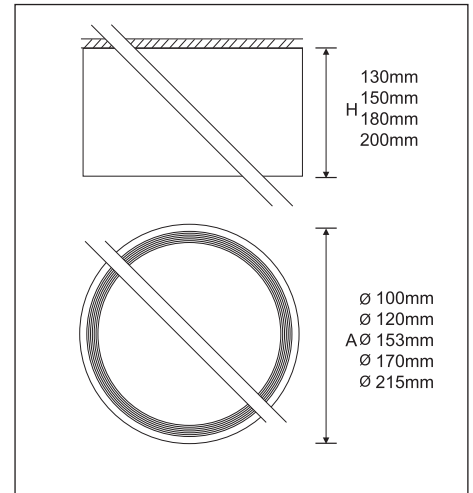
Surface cylindrical light fixture wide distribution.

Application:

Public Areas, all ceiling installations.

Product Feature

- Housing made of extruded aluminum powder coated with cold forging aluminum heat sink.
- Diffuser: UV stabilized anti yellowing clear V2 self extinguishing poly-carbonate with high mechanical features silk printed glass.
- Reflector high efficiency shiny.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 110Lm/W.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution 90°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Accessories for suspension and recess.
- Built in Electronic driver.
- Dimensions of fixture 5W Ø=100mm H=130mm.
15W Ø=120mm H=150mm.
18W Ø=153mm H=180mm.
20W Ø=153mm H=180mm.
30W Ø=215mm H=200mm.
- Ingress Protection IP44/54



Product Options

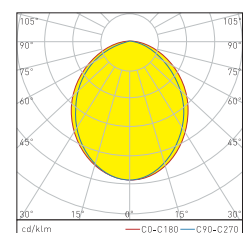
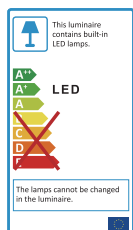
LDCY41005	
Wattage	20W
CCT	3000K,4000K,5000K
Lumen	700/550Lm
CRI≤	80
IP rating	IP44/54

LDCY41215	
Wattage	15W
CCT	3000K,4000K,5000K
Lumen	2100/1650Lm
CRI≤	80
IP rating	IP44/54

LDCY41518	
Wattage	18W
CCT	3000K,4000K,5000K
Lumen	2520/1980Lm
CRI≤	80
IP rating	IP44/54

LDCY41720	
Wattage	20W
CCT	3000K,4000K,5000K
Lumen	2800/2200Lm
CRI≤	80
IP rating	IP44/54

LDCY21730	
Wattage	30W
CCT	3000K,4000K,5000K
Lumen	4200/3300Lm
CRI≤	80
IP rating	IP44/54



How to order

LDCY31005 -05 -000

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale

Dimensions and or technical data might change without prior notice

**LED WATER
PROOF LIGHT
INDOOR/OUTDOOR
CEILING/WALL
LDWP**



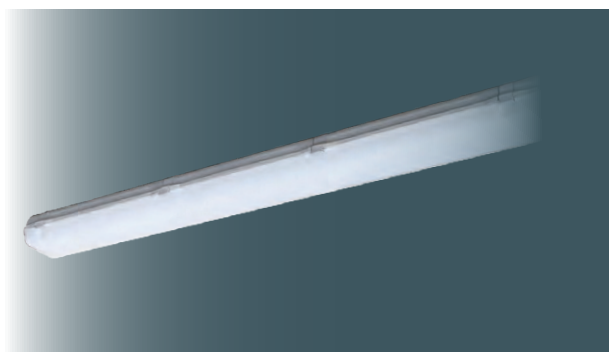
Lighting-Spain **by Luxilum**

TITAN1

Surface Mounted Waterproof



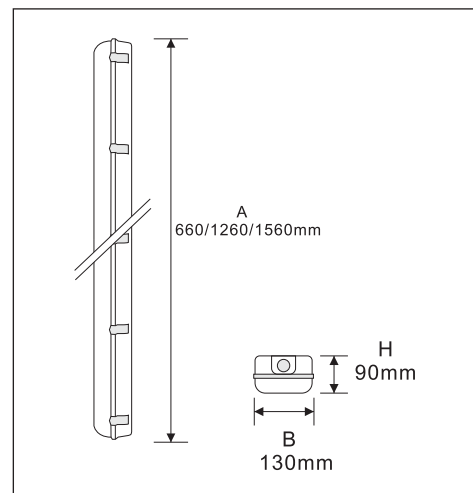
Surface ceiling/wall mounted water proof LED Fixture



Application:
Public Areas, Utility Rooms, Parking Garages, Tunnels.

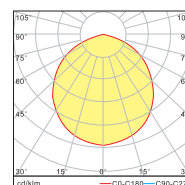
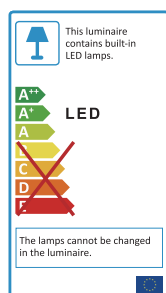
Product Feature

- Housing injected molded poly-carbonate V2 self extinguishing and UV stabilized anti yellowing grey body color with stainless steel clips
- Surface or suspended installation complete with anti aging .
- Reflector white painted galvanized sheet steel.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 120Lm/W.
- Diffuser made of poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics smooth outer surface for easy cleaning with stainless steel latches.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture H=90mm A=660/1260/1560mm B=130mm.
- Ingress Protection IP66.
- Operating temperature -20° to +50°.



Product Options

LDWP66023		LDWP12038		LDWP15052	
Wattage	23W	Wattage	38W	Wattage	52W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3220/2750Lm	Lumen	5320/4560Lm	Lumen	7280/6240Lm
CRI≤	80	CRI≤	80	CRI≤	80
IP rating	IP66	IP rating	IP66	IP rating	IP66



How to order
LDWP66023 -23 -000

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Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice

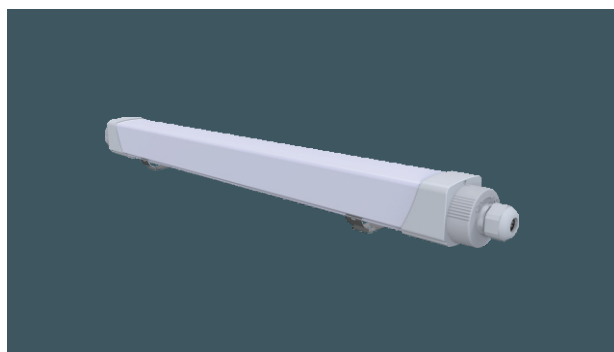


TITAN2

Surface Mounted Waterproof



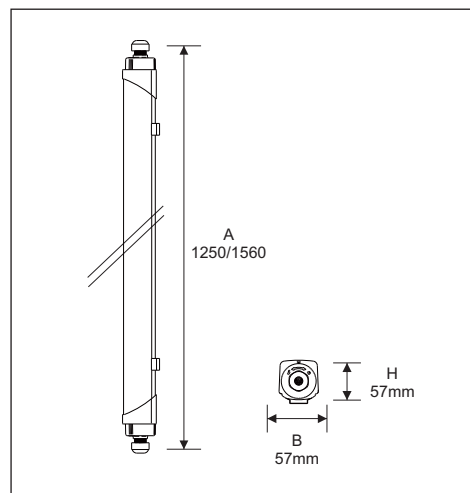
Surface ceiling/wall mounted water proof LED Fixture



Application:
Public Areas, Utility Rooms, Parking Garages, Tunnels.

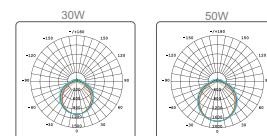
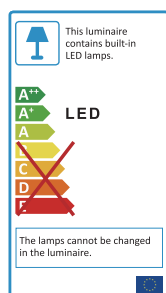
Product Feature

- Housing injected molded poly-carbonate V2 self extinguishing and UV stabilized anti yellowing grey body color surface or suspended installation complete with anti aging gasket and linkable option.
- Reflector white painted galvanized sheet steel.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 120Lm/W.
- Diffuser made of poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics smooth outer surface for easy cleaning with stainless steel latches.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture H=57mm A=1260/1560mm B=57mm.
- Ingress Protection IP66.
- Operating temperature -20° to +50°.



Product Options

LDWT212040		LDWT212050	
Wattage	40W	Wattage	50W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	5200Lm	Lumen	6500Lm
CRI≤	80	CRI≤	80
IP rating	IP66	IP rating	IP66



How to order
LDWT212040 40 -000

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Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice

TITAN2

Surface Mounted Waterproof



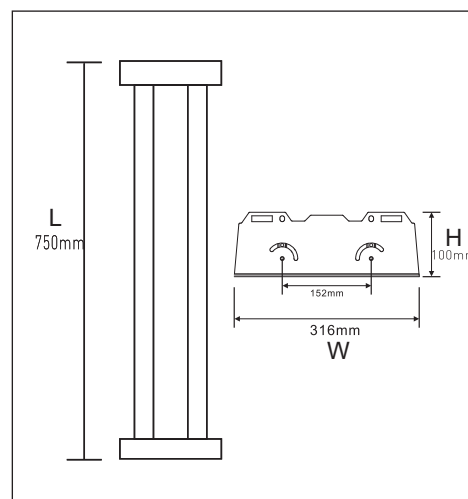
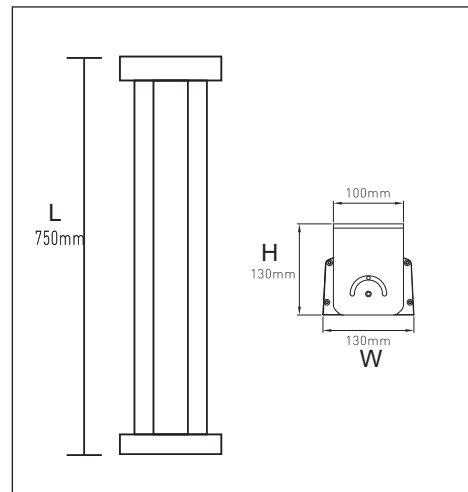
Surface ceiling adjustable water proof LED Fixture



Application:
Public Areas, Utility Rooms, Parking Garages, Factories.

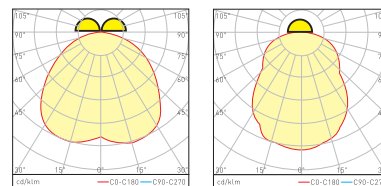
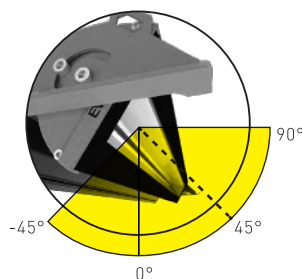
Product Feature

- Housing extruded aluminum adjustable -45° to $+90^{\circ}$.
- Reflector anodized high reflectance aluminum
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W and 3 SCDM with efficacy 120Lm/W.
- Diffuser made of toughened glass
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 75° , $120^{\circ} \times 90^{\circ}$.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture Single H=130mm L=750mm W=130mm.
Double H=100mm L=750mm W=316mm.
- Ingress Protection IP66
- Operating temperature -20° to $+50^{\circ}$.



Product Options

LDWPA7575 Single		LDWPA75150 Double	
Wattage	75W	Wattage	150W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	10500/9000Lm	Lumen	21000/18000Lm
CRI \leq	80	CRI \leq	80
IP rating	IP66	IP rating	IP66



How to order
LDWPA7575 -75 -000

↓ ↓ ↓

Product code-Power-Driver

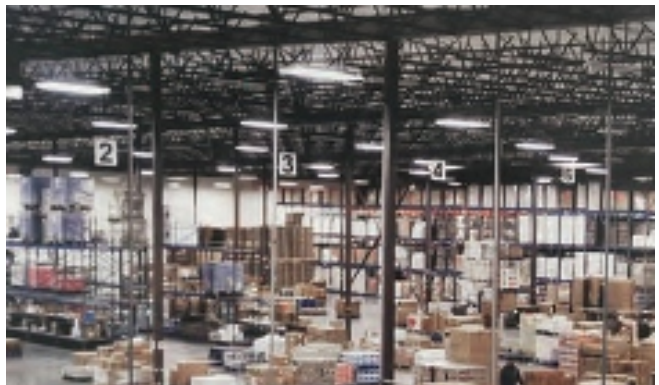
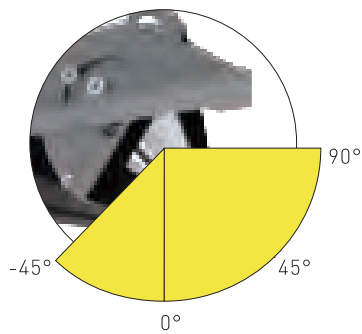
Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice



TITAN3

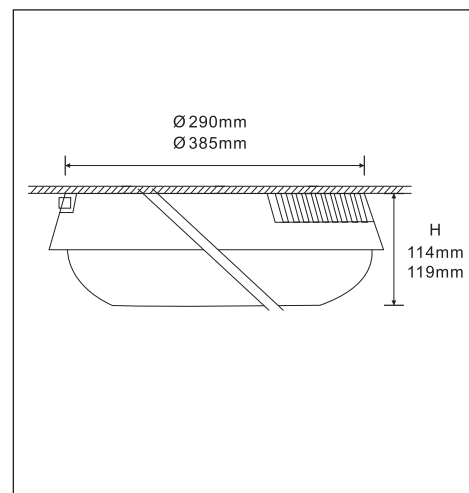
Surface Mounted Waterproof



Surface ceiling/wall mounted water proof LED Fixture



Application:
Public Areas, Utility Rooms, Parking Garages, All external installations.

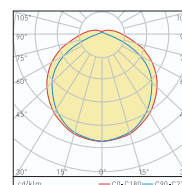
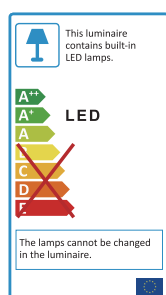


Product Feature

- Die-cast aluminum white powder coated with side entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 110Lm/W and 3 SCDM.
- Diffuser made of poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance and heat resistant characteristics.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 35W Ø=290mm H=114mm
50W Ø=385mm H=119mm.
- Ingress Protection IP65.
- Operating temperature -20° to +50°.

Product Options

LDWPB2935		LDWPB3850	
Wattage	35W	Wattage	50W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	4900/3850Lm	Lumen	7500/5500Lm
CRI≤	80	CRI≤	80
IP rating	IP65	IP rating	IP65



How to order
LDWPB2935 -35 -000

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Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice



TITAN5

Surface Mounted Waterproof



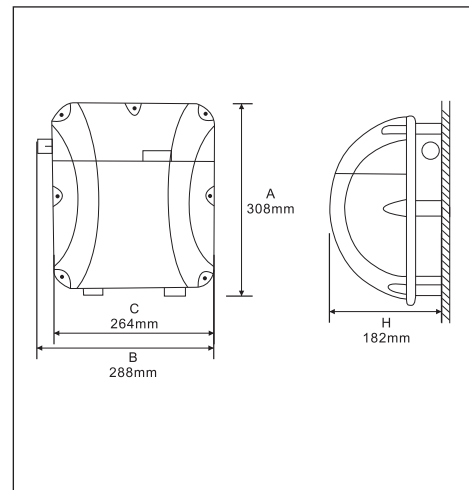
Surface wall mounted water proof LED Fixture



Application:
Public Areas, Utility Rooms, All external wall installations

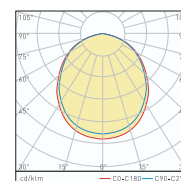
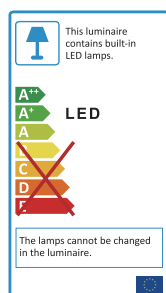
Product Feature

- Die-cast aluminum black powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 100Lm/W and 3 SCDM.
- Diffuser made of 3mm poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 120°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 35W L=308mm W=264mm D=182mm
- Ingress Protection IP65.
- Operating temperature -20° to +50°.



Product Options

LDWPC2835	
Wattage	35W
CCT	3000K,4000K,5000K
Lumen	4900/3500Lm
CRI≤	80
IP rating	IP65



How to order
LDWPC2835 -35 -000

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Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice

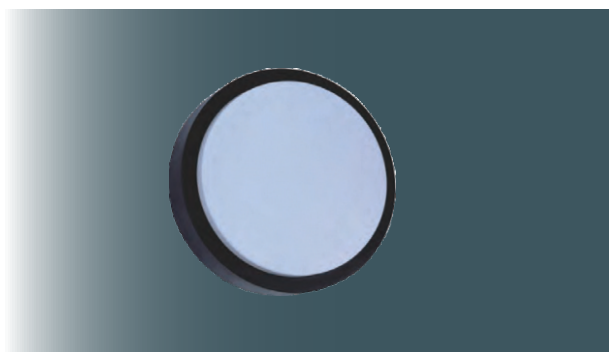


BARCELONA1R

Round Surface Mounted Waterproof



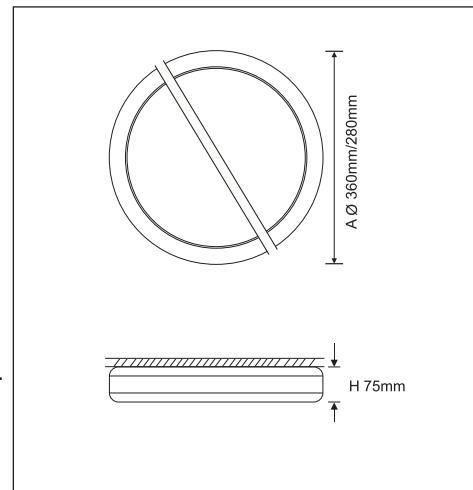
Surface wall/ceiling mounted water proof LED Fixture



Application:
Public Areas, Staircase, Balconies, All external wall/ceiling installations

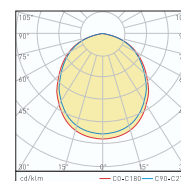
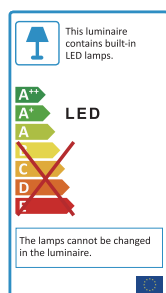
Product Feature

- Die-cast aluminum round black/grey powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 80Lm/W and 3 SCDM.UGR<22.
- Diffuser made of opal poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 115°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 22W Ø=280mm H=75mm
38W Ø=360mm H=75mm.
- Ingress Protection IP66.
- Operating temperature -20° to +50°.



Product Options

BA1R2822		BA1R3636	
Wattage	22W	Wattage	36W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3080/1760Lm	Lumen	5040/3040Lm
CRI≤	80	CRI≤	80
IP rating	IP66	IP rating	IP66



How to order
BA1R2822 -23 -000

↓ ↓ ↓

Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice

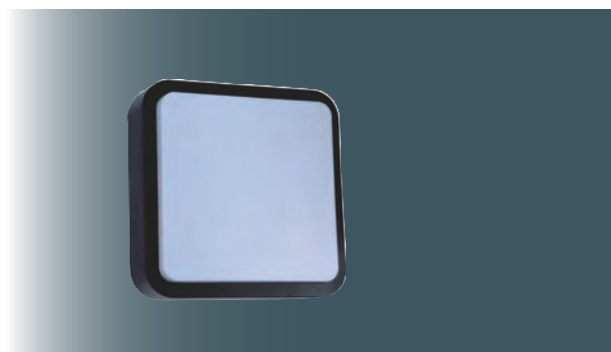


BARCELONA2S

Square Surface Mounted Waterproof



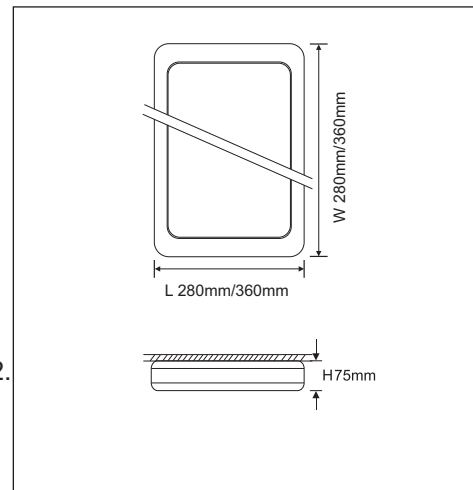
Surface wall/ceiling mounted water proof LED Fixture



Application:
Public Areas, Staircase, Balconies, All external wall/ceiling installations

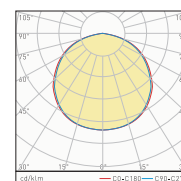
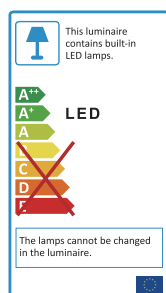
Product Feature

- Die-cast aluminum squar black/grey powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 80Lm/W and 3 SCDM. UGR<22.
- Diffuser made of opal poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 115°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 22W L=280mm W=280mm H=75mm
36W L=280mm W=280mm H=75mm
other wattage available on request
- Ingress Protection IP66.
- Operating temperature -20° to +50°.



Product Options

BA2S2822		BA2S3638	
Wattage	22W	Wattage	36W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	3080/1760Lm	Lumen	5040/3040Lm
CRI≤	80	CRI≤	80
IP rating	IP66	IP rating	IP66



How to order
BA1R2822 -23 -000

↓ ↓ ↓

Product code-Power-Driver

Driver
000 Electronic
001 Dimming 1-10V
002 DALI

Dimensions not to scale
Dimensions and or technical data might change without prior notice

BARCELONA3T

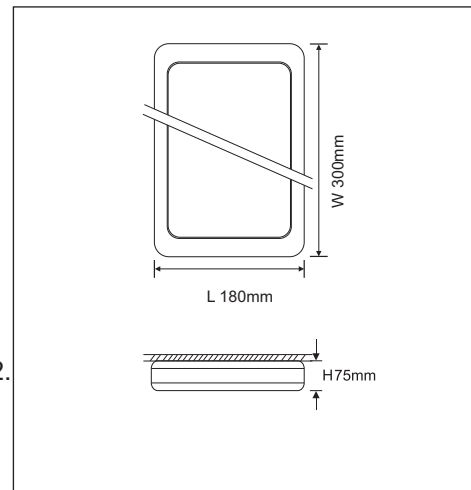
Rectangular Surface Mounted Waterproof



Surface wall/ceiling mounted water proof LED Fixture



Application:
Public Areas, Staircase, Balconies, All external wall/ceiling installations

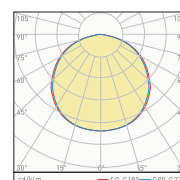
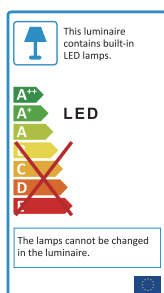


Product Feature

- Die-cast aluminum rectangular black/grey powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 80Lm/W and 3 SCDM. UGR<22.
- Diffuser made of opal poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution optic 115°.
- Heat resistant wiring 220/240V 50/60Hz.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 22W L=180mm W=300mm H=75mm other wattage available on request
- Ingress Protection IP66.
- Operating temperature -20° to +50°.

Product Options

BA3T1822	
Wattage	22W
CCT	3000K,4000K,5000K
Lumen	3080/1760Lm
CRI≤	80
IP rating	IP66



How to order
BA1R2822 -23 -000

↓ ↓ ↓

Product code-Power-Driver

Driver

000 Electronic

001 Dimming 1-10V

002 DALI

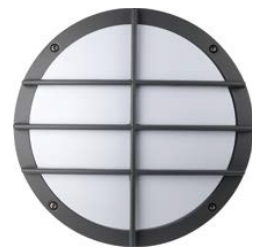
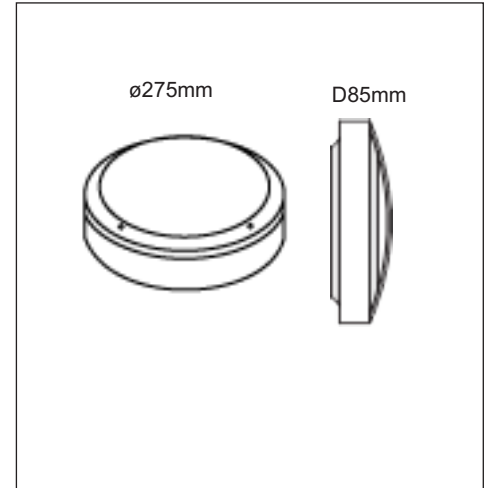
Dimensions not to scale
Dimensions and or technical data might change without prior notice



Application: Public Areas, Staircase, Balconies.

Product Feature

- Die-cast aluminum round black/grey powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 100Lm/W .
- Diffuser made of opal poly-carbonate V2 self extinguishing and UV stabilized anti yellowing with high reflectance characteristics.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Symmetric light distribution.
- Heat resistant wiring 220/240V 50/60Hz.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 15W $\phi=275\text{mm}$ D=85mm other wattage available on request
- Ingress Protection IP65
- Operating temperature -20° to $+50^{\circ}$.



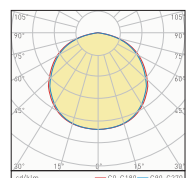
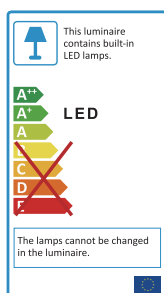
(BLB6050L)

Product Options

BLB6050	
Wattage	15W
CCT	3000K,4000K,5000K
Lumen	1500Lm
CRI≤	80
IP rating	IP65



(BLB6050C)



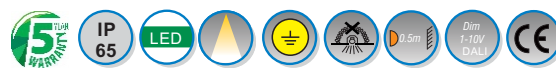
How to order

BLB6050 -15 -000
 ↓ ↓ ↓
 Product code-Power-Driver
 Driver
 000 Electronic
 001 Dimming 1-10V
 002 DALI

Dimensions not to scale
 Dimensions and or technical data might change without prior notice

VILLA

Surface Mounted Waterproof Wall Light



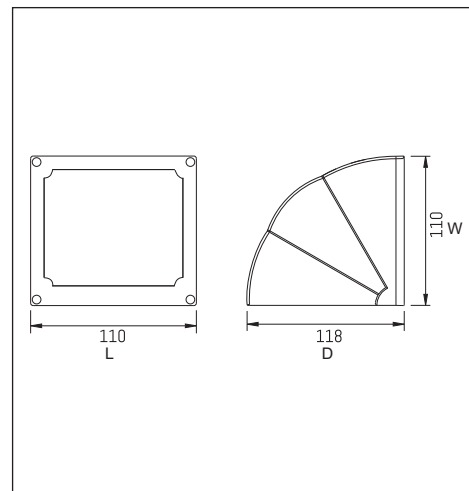
Surface wall mounted water proof LED Fixture



Application:
Public Areas, All external wall installations

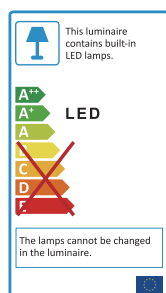
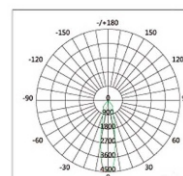
Product Feature

- Die-cast aluminum squar black/grey powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 80Lm/W and 3 SCDM.
- DDiffuser made with 3mm toughened tempered glass with silicon water proof gasket and 304 stainless steel screws.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Asymmetric light distribution optic 120°.
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 10W L=110mm W=118mm D=110mm other wattage available on request
- Ingress Protection IP65.
- Operating temperature -20° to +50°.



Product Options

VI111010	
Wattage	10W
CCT	3000K,4000K,5000K
Lumen	1400/800Lm
CRI≤	80
IP rating	IP65



How to order
Vi111010 -10 -000
↓ ↓ ↓
Product code-Power-Driver
Driver
000 Electronic

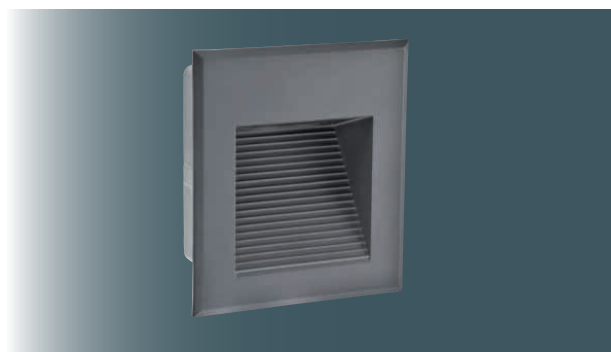


RAMPA1

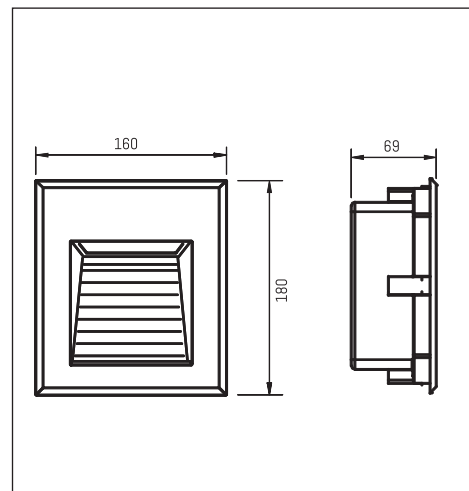
Recessed Mounted Waterproof Wall Light



Recessed wall mounted water proof LED Fixture



Application:
Ramps, Steps, Walk Ways Wall.



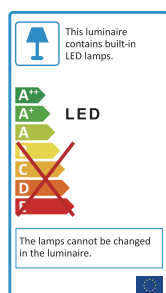
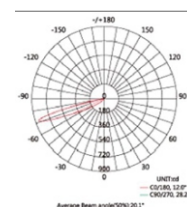
Product Feature

- Die-cast aluminum square black/grey powder coated with back entry cable.
- Reflector made with high efficiency aluminum.
- LED module complete with high reflectance film to maximize lumen output raw efficiency LED 140Lm/W with efficacy 80Lm/W and 3 SCDM.
- Diffuser made with 3mm toughened tempered glass with silicon water proof gasket and 304 stainless steel screws. The recess box is made of ABS material.
- LED life L80B20 (25°) around 50,000 hours, the lamp life will be about 70% after the 50,000 hours.
- Asymmetric light distribution optic..
- Heat resistant wiring 220/240V 50/60Hz, protection class II.
- No maintenance LED chambre.
- Built in Electronic driver.
- Dimensions of fixture 6W, 9W L=180mm W=160mm D=69mm other wattage available on request.
- Ingress Protection IP65.
- Operating temperature -20° to +50°.

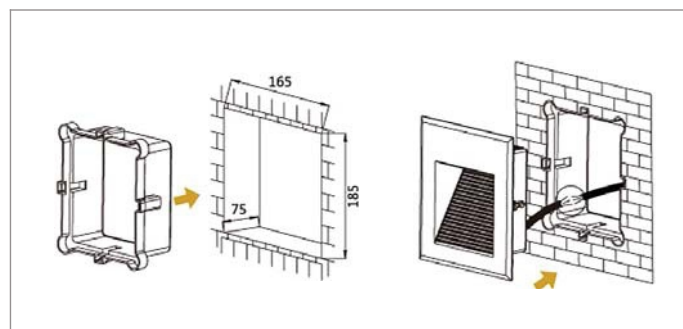
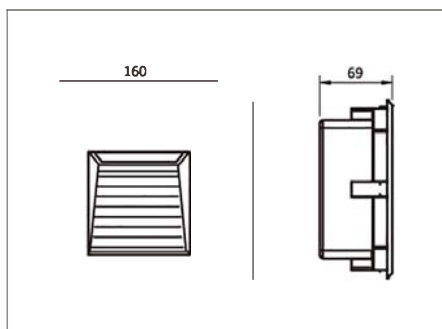


Product Options

RA116006		RA116009	
Wattage	3x2W	Wattage	3X3W
CCT	3000K,4000K,5000K	CCT	3000K,4000K,5000K
Lumen	840/480Lm	Lumen	1260/720Lm
CRI≤	80	CRI≤	80
IP rating	IP65	IP rating	IP65



How to order
RA116006 -6 -000
Product code-Power-Driver
Driver
000 Electronic





PARED1

Surface Mounted Waterproof Wall Light



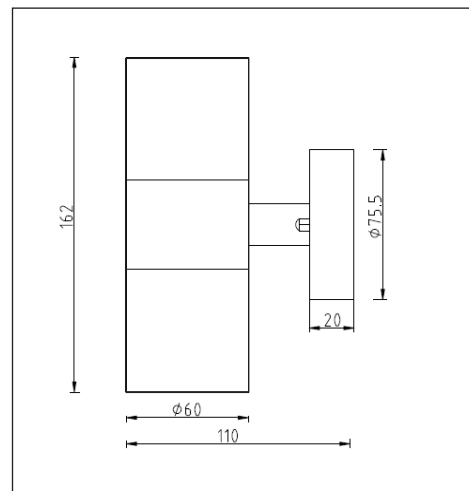
Surface wall mounted water proof LED Fixture



Application:
Balconies, Entrances, All external wall applications.

Product Feature

- Die-cast aluminum body or stainless steel with back entry cable and base plate.
- Diffuser made with 3mm toughened tempered glass with silicon water proof gasket and 304 stainless steel screws. The recess box is made of ABS material.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Dimensions of fixture Gu10 2x10W Dia=60mm L=163mm D=110mm
- Ingress Protection IP65.
- Operating temperature -20° to +50°.



Product Options

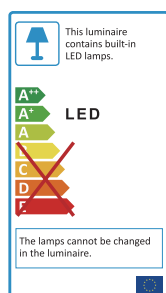
PA1163210	
Wattage	2x10W GU10
CCT	3000K,4000K,5000K
Lumen	
CRI≤	80
IP rating	IP65



Stainless steel body
201 or 316



Die-cast aluminum
body painted



How to order
RA116006 -6 -000
↓ ↓ ↓
Product code-Power-Driver
Driver

PARED1

Surface Mounted Waterproof Wall Light



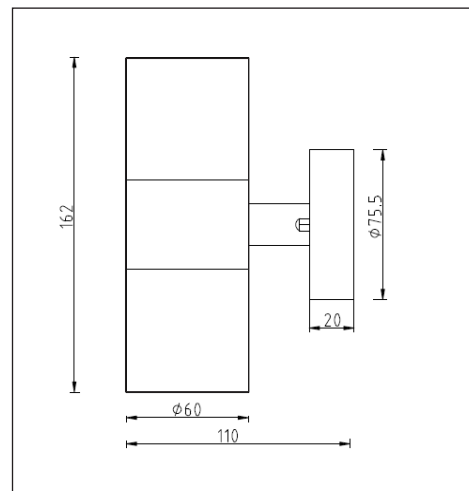
Surface wall mounted water proof LED Fixture



Application:
Balconies, Entrances, All external wall applications.

Product Feature

- Die-cast aluminum body or stainless steel with back entry cable and base plate.
- Diffuser made with 3mm toughened tempered glass with silicon water proof gasket and 304 stainless steel screws. The recess box is made of ABS material.
- Heat resistant wiring 220/240V 50/60Hz, protection class I.
- No maintenance LED chambre.
- Dimensions of fixture Gu10 2x10W Dia=60mm L=163mm D=110mm
- Ingress Protection IP65.
- Operating temperature -20° to +50°.



Product Options

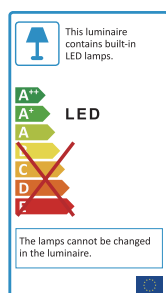
PA1163210	
Wattage	2x10W GU10
CCT	3000K,4000K,5000K
Lumen	
CRI≤	80
IP rating	IP65



Stainless steel body
201 or 316



Die-cast aluminum
body painted



How to order
RA116006 -6 -000
↓ ↓ ↓
Product code-Power-Driver
Driver

