

Fixtures

Ergolight

by Ledalite



Ergolight is a revolutionary new computerized lighting solution that addresses the lighting needs of office workers and the energy management requirements of building owners and managers. The Ergolight system offers high quality ergonomic lighting, on-board electronic controls and energy management software in a single integrated package. This one-of-a-kind workspace-specific lighting solution offers unmatched personal control for the end user and unprecedented energy savings for the facility manager or building owner. Ergolight is designed for fast drop-in installation in retrofit or new construction applications.



Uniform Ambient Uplighting

Suspended Ergolight luminaires provide a comfortable, uniform level of indirect ambient illumination throughout the space. In open office areas, dimming controls do not affect Ergolight's uplighting component. In private offices, uplighting can also be dimmed for additional energy savings.

User Adjustable Downlighting.

Ergolight's workspace-specific downlighting can be adjusted by each user using a Windows-based program to select their preferred light level for each task or time of day. Gradual dimming and carefully controlled cutoff angles ensure no disruption to occupants of neighboring workstations. Downlighting can also be dimmed system-wide for load-shedding purposes.



Over 80% savings in lighting energy costs.

Compared to conventional T12 lighting systems, Ergolight can deliver over 80% in lighting energy cost savings. Upgrading existing T8 systems with Ergolight can result in a savings of 65%. These savings are realized from a combination of fewer fixtures, T8 lamp and ballast technology and integrated lighting controls



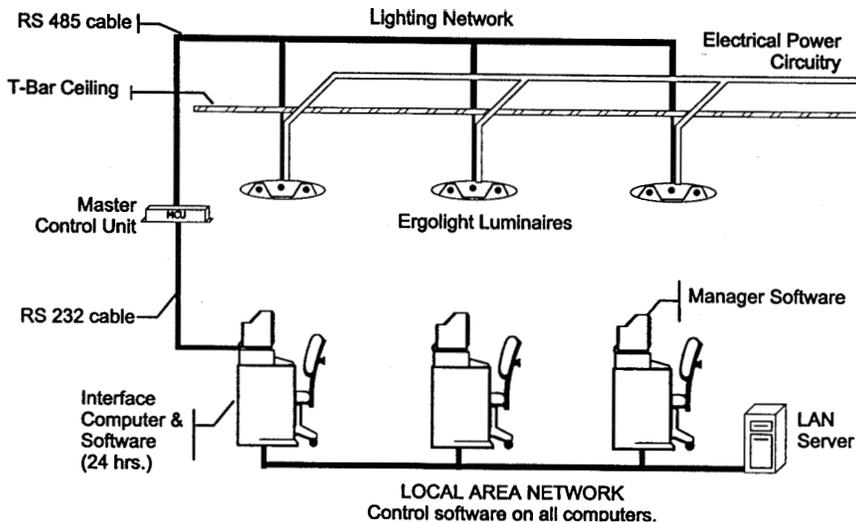
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Network lighting control.

Ergolight fixtures are controlled through a standard TCP/IP network but require no additional software to be installed on the network server.



Lower HVAC costs.

Ergolight's reduced power requirements also lead to a reduction in the amount of heat generated by the lighting system. This lowers both the initial investment and the annual operating costs required for HVAC equipment. In new construction situations every 40-50 Ergolight fixtures reduce the need for one ton of HVAC capacity. Typical costs for air conditioning equipment is \$2,000 per ton.

Peak load shedding, accurate forecasting.

- Area or system-wide scheduling
- Up to 30% lighting system load shedding capability for peak load management
- Area or system-wide energy monitoring and reporting
- Accurate energy savings verification and forecasting

Lowest life-cycle cost.

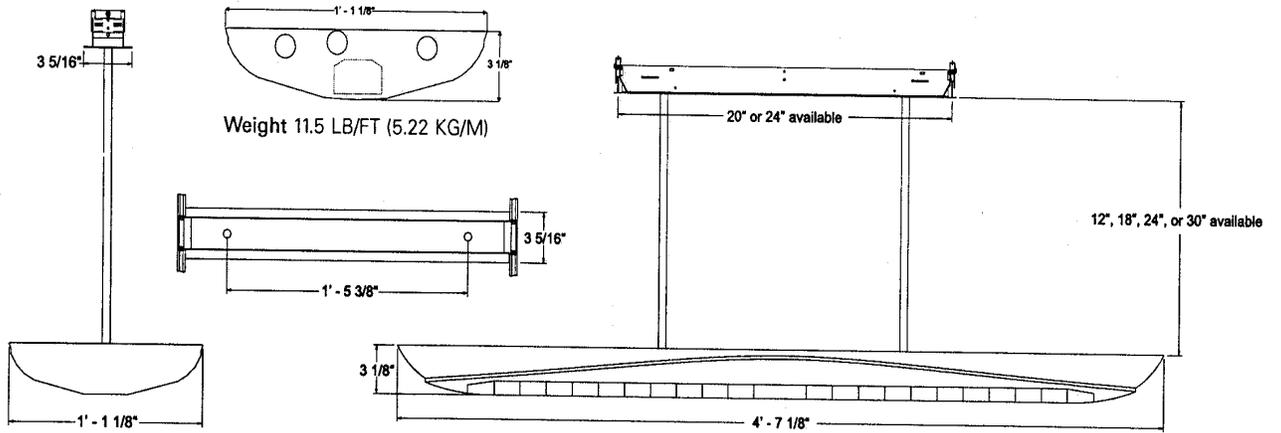
Ergolight cuts energy bills dramatically by...

- utilizing up to 60% fewer fixtures
- automatically dimming and turning lights off in unoccupied spaces
- automatically dimming lights in daylight spaces
- allowing users to dim lights to preferred levels
- reducing HVAC loads

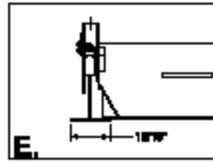
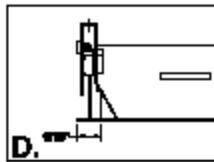
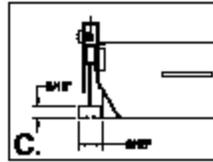
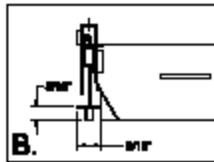
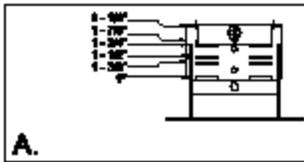
Ergolight's maximum reduction in operating costs typically yields the lowest life-cycle cost of any competing lighting system, including simple T8 lamp/ballast retrofits.

Fixtures

Ergolight Dimensions



Ceiling Compatibility

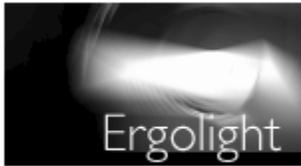


Ergolight is designed to fit most standard Tbar ceiling types. For information on compatibility with specific ceilings, contact your sales representative.

Mounting Height Recommendations

Ceiling Height	Recommended Pendant Length
8' - 9'	12"
9' - 10'	18"
10' - 11'	24"
11' - 12'	30"

Fixtures



Suspended

3T8

Direct/Indirect

100, 101, 102, 103



Ergolight Features

- Personal dimming control from user computers
- Occupancy sensor dimming and switching control
- Daylight dimming control
- Peak load management dimming control
- Scheduling control
- Control commissioning via LAN
- Monthly energy use reports
- Fast installation
- Typical payback of 3 - 5 years

Ergolight Specifications

Fixture:

Housing: Suspended four-foot nominal length, die-formed bipolymer, Lurah" S797 SE UV resistant housing. **Finish:** white color. **Controls:** Integral task and ambient fixture comes with separate dimming control over task and ambient light. Fixture comes with integral microprocessor and combination occupancy and luminance sensors. **Lighting distribution:** 60 - 80% upright and 20 - 40% downlight at full light output. Optical efficiency exceeding 80%.

Layout:

Recommended positioning of fixtures is one per workspace or one per 150 sq.ft. maximum.

Lamps:

(3) F32T8; series RE835 or RE841 recommended. (supplied and installed by others)

Ballasts:

(1) 2-lamp, rapid-start continuously adjustable output electronicT8 ballast; 120 or 277 volts; input signal to be 0-10 volts DC; maximum ballast factor to be 0.96; minimum ballast factor to be 0.6; UL listed class P; sound rated A; total harmonic distortion less than 10% at full light output; power factor >0.99 at full light output; lamp current crest factor < 1.5 at full light output; flicker 10% or less; designed to withstand line transients per IEEE 587 category A; shall meet FCC rules and regulations part 18C.

(1) 1-lamp, rapid-start continuously adjustable output electronicT8 ballast. (as above)

Dimming Range:

5 - 110% dimming range.

Power Consumption:

101.5W total at full light output.

Suspension: Fixture suspended via dual 1/2 " diameter stems (12":18":24" or 30" drop length from ceiling to top of fixture) attached to aT-bar mounting pan / junction box assembly.

Occupancy Sensors:

UL listed; passive infrared; detector head with LED positive detection indicator; adjustable time delay of up to 30 minutes; infrared detector supplied with a selection of field installable masks to set the pattern of detection to match the space; control zones may be defined as individual workstations, individual rooms or lighting branch circuits. Software enables the manager to change occupancy sensor settings to control either downlighting lamps or all three lamps.

Daylight Dimming:

Luminance sensor positioned to respond to changes in representative work surface brightness due to changing daylight conditions; closed-loop integral controller provides 0-10 volts DC output maintaining a constant (+/- 10%) luminance set point due to contributions from both daylighting and electric lighting in the space; set point established or changed when light level is selected by user (see personal control below); luminance sensor field of view a cone of 2b-30 degrees from vertical. Daylight dimming controller to dim all three lamps.

Personal Control:

Dimming and on/off control of personal fixture via Windows" based software located on personal computer. PC to be located on local-area network. Software to be capable of controlling downlighting lamps only, uplighting lamp only or all three lamps.

Central Control:

Lighting system capable of system-wide control, including load shedding, scheduling, zone and remote-individual control, energy consumption measurement, and sensor control via software located on personal computer. Manager PC to be located on local-area network. Separate interface PC to operate 24 hours a day and to Have available comm port for connection to Ergolight Master Control Unit (M C U).

Energy Management System:

Lighting system capable of interfacing with energy Management system (not provided).

Low Voltage Network Cabling:

Plenum rated CAT5, 24GA cable comes with RJ45 connector at each end.

Supported Operating Platforms:

Operating System: Windows 95/98"or Windows NT" version 4.0 or later. Network Software: Novell, Windows Client", and BanyanVines .

Minimum System Requirements:

Ergolight Interface Computer: Pentium 133 MHz, 32Mb RAM, 10Mb free disk space for program. **Ergolight**

Manager Computer: Pentium" 133 MHz, 16 Mb RAM

minimum (32 Mb recommended), 10Mb free disk space.

Ergolight™ Control Computers: Pentium" 133 MHz, 16

Mb RAM minimum (32 Mb recommended), 1 Mb free disk

space.

Approvals:

Certified to UL, CSA, and FCC standards.

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Ledalite part #	Hardware	NSN
100	Ergolight Office model (fully controllable) 120V *	
101	Ergolight Office model (fully controllable) 277V *	
102	Ergolight Office model (fully controllable) 120V-seismic **	
103	Ergolight Office model (fully controllable) 277V seismic**	
c/w 15' network cable. Lamps not included		
104	Ergolight Conference Room model 120V *	
105	Ergolight Conference Room model 277V *	
108	Ergolight Conference Room model 120V - seismic**	
109	Ergolight Conference Room model 277V - seismic**	
* Lamps not included		
** Seismic fixtures include aircraft cable for additional support		
Pendant Options (2 required per fixture)		
200	12" Pendants	
201	18" Pendants	
202	24" Pendants	
203	30" Pendants	
Ceiling Pans (One required per fixture)		
300	Ergolight Ceiling Pan (24")	
Repeater Unit		
310	Ergolight Repeater*	
*Repeater required if more than 100 Ergolight fixtures connected to an MCU.		
Additional Network Cables		
350	30' Network Cable (RS485)	
351	40' Network Cable (RS485)	
352	60' Network Cable (RS485)	
353	100' Network Cable (RS485)	
354	200' Network Cable (RS485)	
Master Control Unit		
400	Ergolight MCU (Master Control Unit)*	
One MCU required per 200 Ergolight fixtures		
Facility Manager's Package		
410	FM Package (inc. software, manuals & MCU)	