



DioLuce
Smart LED Light

The background is a blurred industrial or warehouse environment with high ceilings, metal beams, and various equipment. In the center, a modern, rectangular LED light fixture is suspended. Below it, a long, narrow fluorescent light fixture is shown, which is illuminated, casting a bright, warm glow. The LED fixture is white with a metallic trim and has several small, dark circular components visible on its underside. The fluorescent fixture has a series of parallel ridges along its length.

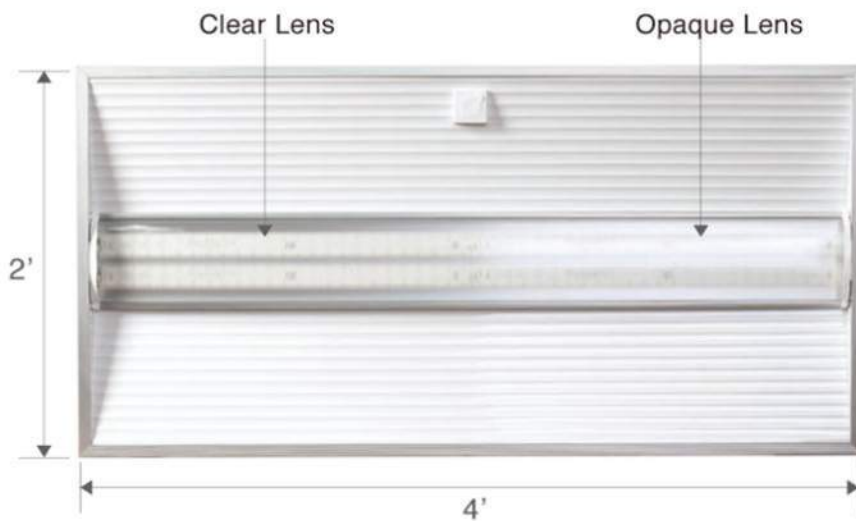
True Genesis in LED Light

LED retrofit lighting kit designed for high-hours usage in commercial/industrial environments.



Proven Smart LED Technology

2' x 4'



2' x 2'



Dioluce Smart LED Light has achieved unprecedented technical advances;

- 45 years life expectancy (TM-21, 398,000 Mhrs)
- High efficacy : 115 Lm/W (DLC approved)
- Versatile, Variable output
- Motion Control / Ambient Light Control
- Ambient Light Control
- Total Dimming Control
- Remote on/off Control
- Thin, light weight (5 lbs)
- Easy to install (<5 min)

US patents

- US 2014/0175988 A1
- US 2015/0130356 A1
- US D739,055 S
- 14/104.564



The nature of LEDs makes them inherently controllable, offer better dimmability and are environmentally friendly. Dioluce is an intelligent lighting solution for commercial / industrial building applications. Dioluce Smart Light kits will maximize your energy efficiency by more than 50% by offering adjustable light levels with build-in sensors. Dioluce lights are **fully customized to meet your needs with a high lumen output, low energy consumption and easy installation.**



General Specification

| | |
|-----------------------|--|
| Efficacy | 115 Lm/W |
| CCT | 4K, 5K |
| CRI | > 85 |
| Power Factor (PF) | > 0.99 |
| ATHD(%) | < 6 |
| Dimming Control | Wireless |
| Motion Control | Yes |
| Ambient Light Control | Yes |
| Life expectancy | 45 years (TM-21, 398,000HR) |
| Warranty | 10 years or 60,000 hrs whichever comes earlier |



Why Dioluce Smart LED?

01. Maximum Energy saving up to 80%

- Premium glade, efficacy 115 Lm/W
 - Motion Control (50%)
 - Ambient Light Control (50%)
 - Full dimming (90%)
 - Low stand-by power (1watt)
- Constant current control design

02. Longer life & Maintenance free

- LED life expectancy 45 years (TM-21)

03. Easy Installation

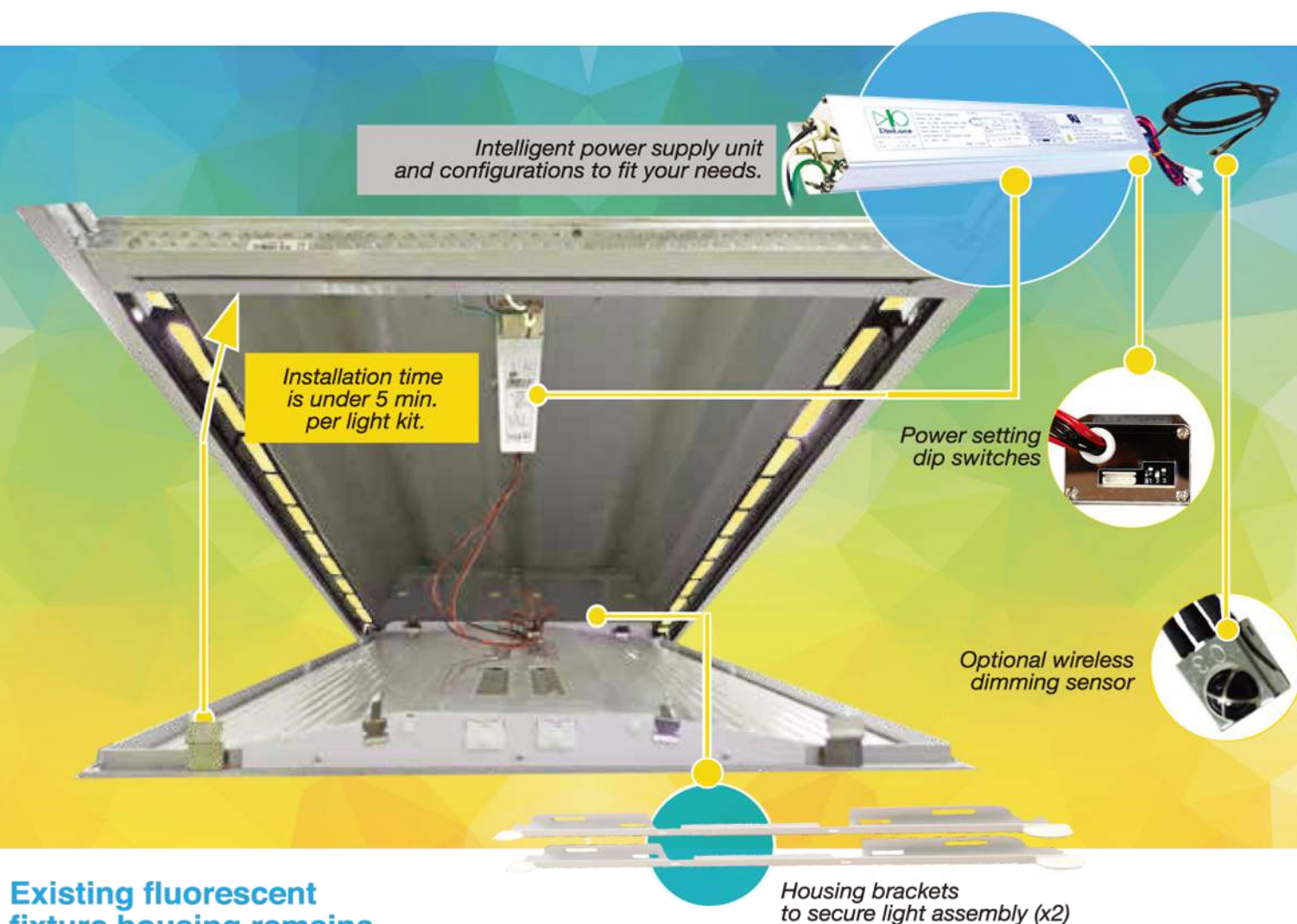
- Unit weight: 5 lbs
Low unit height: 1.5 inches
- Installation time: less than 5 min.
 - No interruption of business

04. Reduced Cooling Load

- Extremely low junction temperature and minimal heat emission



Easy installation using existing fluorescent housings



Existing fluorescent fixture housing remains intact. No re-chain or re-wiring needed.
Total installation time: Less than 5min

Installation

- **Save on labor costs & time**
- **The lightweight units (5lbs) & minimal steps to complete.**

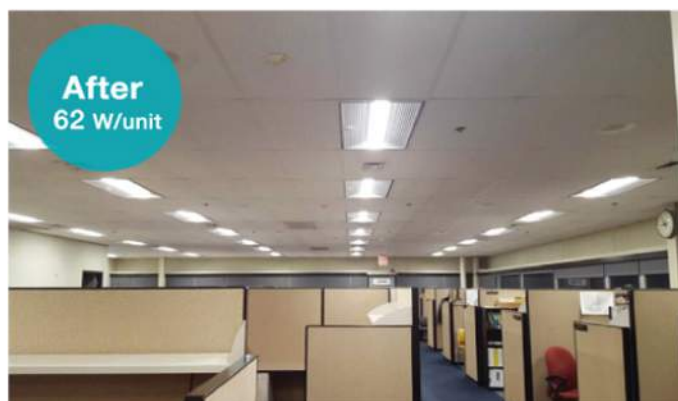
Dioluce LED retrofit lighting kits are easy to install. Using the existing fluorescent housing, the worker simply modifies the unit. No re-wiring or re-chaining needed. Simply install the two brackets, hang the unit and clip into place. The unit is secure. No need to re-wire. Simply install the Dioluce power supply unit. Dioluce LED retrofit lighting kits contain no hazardous materials.



Simple, Flexible, Variable light out

> Motion sensors to reduce lighting load when space is unoccupied.
> Remote Dimming capabilities. Continuous dimming as low as 10%. (Does not affect power factor.)
> Ambient Light sensors and motion sensors control.
> Variable output control

- **Dioluce LED Smart Lights** maximizes energy efficiency. With constant current control, over competitors' voltage control, prevents power factor inefficiencies at lower light output as well as unbalanced input current. Dioluce can turn light on or off remotely and dim 40 watts to 5 watts.
- **The Ambient Light Sensor** will reduce light output during peak ambient lighting conditions.
- **Variable Light Output** is done by dip switches or wireless remote control.
(39W, 32W, 26W, 13W / 30W, 24W, 18W, 10W)
- **The Remote** allows changes from the default settings for occupancy, target light level, preset lighting levels, and more. Factory wired to the luminaire, the sensor switches on or off based on occupancy and dims the light when enough daylight is available. With a single product to mount and a single electrical connection to make, customers save money on the total installed cost when occupancy and daylight harvesting controls are needed. Regardless dimming conditions, Power Factor remains 0.90 >.



Stanley tools H/Q (CT, USA)





General Specification

* Information may vary as per technical revision.

| Specification | Model DL-R24 | Model DL-R22 |
|-----------------------|--|--|
| Image |  |  |
| Lumens | 4063 | 3363 |
| CCT | 4K, 5K | 4K, 5K |
| CRI | > 85 | > 85 |
| PF | > 0.99 | > 0.99 |
| Efficiency | 115 Lm/w | 111 Lm/w |
| Power Supply | 120/220 VAC, 277 VAC | 120/220 VAC, 277 VAC |
| ATHD(%) | < 6 (120V) | < 6 (120V) |
| LED Life | > 45 years | > 45 years |
| Lens | Clear, Opaque | Clear, Opaque |
| Available Outputs | 39W, 32W, 26W, 13W | 30W, 24W, 18W, 10W |
| Output control | Dip switches, Wireless | Dip switches, Wireless |
| Ambient Light Control | Yes (50%) | Yes (50%) |
| Motion | Yes (50%) | Yes (50%) |
| Dimming Control | Yes (90%) | Yes (90%) |
| Size(W"XL"XH") | 24 X 48 X 1.5 | 24 X 24 X 1.5 |
| Weight | 5lbs | 3lbs |
| Warranty | 10 years or 60,000 hrs whichever comes earlier | 10 years or 60,000 hrs whichever comes earlier |

* Information may vary as per technical revision.

| Specification | Model DL-Bay | Model DL-OS |
|-----------------------|--|---|
| Image |  |  |
| Lumens | 8962 | 2000 |
| CCT | 4K, 5K | 4K, 5K |
| CRI | > 83 | > 85 |
| PF | > 0.99 | > 0.99 |
| Efficiency | 114.70 Lm/w | 115 Lm/w |
| Power Supply | 120/220 VAC, 277 VAC | 120/220 VAC, 277 VAC |
| ATHD(%) | < 6 (120V) | < 6 (120V) |
| LED Life | 45 years | 45 years |
| Lens | Clear, Opaque | Clear |
| Available Outputs | 80W, 60W, 40W | 20W, 10W |
| Output control | Dip switches, Wireless | Dip switches, Wireless |
| Wireless | Yes | Yes |
| Ambient Light Control | Yes (50%) | Yes (50%) |
| Motion | Yes (50%) | Yes (50%) |
| Dimming Control | Yes (90%) | Yes (90%) |
| Size(W"XL"XH") | 21 X 48 X 1.5 | 2 X 48(24) X 1 |
| Weight | 5lbs | 3lbs |
| Warranty | 10 years or 60,000 hrs whichever comes earlier | 10 years or 60,000 hrs whichever comes earlier |



Ordering Information

DL- XX -XXXX-XXX-XXX

A

B

C

D

A

R24 : 2X4 fixture
R22 : 2X2 fixture
Bay: Bay light
OS: Open Strip

B

4530: 2X4 fixture, 110/240 VAC Power Supply
5035: 2X4 fixture, 277 VAC
2035: 2X2 fixture, 110/240 VAC Power supply
3035: 2x2 fixture, 277 VAC Power supply
2535: Wireless control, 110/240 VAC Supply
3535: Wireless control, 277 VAC Supply

C

4KO: CCT, 4K
5KO: CCT, 5K

D

001: Clear Lens
002: Opaque Lens

Available factory configurations for Ambient Light Control

| Model | -XXX | Watts | Power Factor | Lumens Clear Lens (5K) | Lumens Opaque Lens (5K) |
|--------|-------|-------|--------------|------------------------|-------------------------|
| DL-R24 | 1-0-0 | 40 | 0.996 | 4600 | 4300 |
| DL-R24 | 0-1-0 | 32 | 0.996 | 3680 | 3380 |
| DL-R24 | 0-0-1 | 26 | 0.995 | 2990 | 2690 |
| DL-R22 | 1-0-0 | 30 | 0.996 | 3450 | 3150 |

Available Factory configurations for Motion Control

| Model | -XXX | Watts | Power Factor | Lumens Clear Lens (5K) | Lumens Opaque Lens (5K) |
|--------|------|-------|--------------|------------------------|-------------------------|
| DL-R24 | 110 | 40 | 0.996 | 4600 | 4300 |
| DL-R24 | 011 | 32 | 0.996 | 3680 | 3380 |
| DL-R24 | 101 | 26 | 0.995 | 2990 | 2690 |
| DL-R22 | 110 | 30 | 0.995 | 3450 | 3150 |
| DL-R22 | 011 | 26 | 0.996 | 2990 | 2690 |
| DL-R22 | 101 | 22 | 0.996 | 2530 | 2230 |

DIOLUCE SMART LED / COST SAVING - Return on Investment (ROI) *Unit: USD

Example:

> Hospital

> Replacing 2 x 4 Fluorescent lights with
Dioluce Smart LED light

> Q'ty to replace: 500 units. (400 in rooms + 100 in corridors)

> Operation hours: 24 hrs x 7 days per week

> Existing Fluorescent lights equipped with magnetic ballast.

| Item | Desc | Fluorescent | Dioluce | Remark |
|--|-----------------------|------------------------|-------------------|------------------------------|
| Fixture & Installation cost | | | | |
| 2 X 4 fixture replacement | Unit price (note 1) | | 200.00 | Dioluce smart LED light |
| | Quantity | | 500.00 | |
| | Fixture total | | 100,000.00 | |
| Sensors | Unit price | | 15.00 | |
| | Quantity | | 300.00 | Light: 200 + Motion:100 |
| | Sensor total | | 4,500.00 | |
| 2X4 fixture installation | Fixture Q'ty | | 500.00 | 5 min. installation time |
| | Labor per unit (\$) | | 30.00 | |
| | Installation total | | 15,000.00 | |
| Fixture + Install Total | | | 119,500.00 | |
| Power consumption | | | | |
| Unit wattage | KW/unit | 0.11 | 0.032 | Magnetic ballast installed |
| | Fixture Q'ty | 500 | 500.00 | |
| | Day | 7 | 7.00 | |
| 2 X 4 fixture replacement | Hours | 24 | 24.00 | |
| | Week | 52 | 52.00 | |
| | Energy cost, \$/KW | 0.22 | 0.22 | |
| Sub total | | 105,705.60 | 30,750.72 | |
| Day Light (Ambient light) | | | | |
| Additional Energy savings | Fixture Q'ty | | 200.00 | Rooms with windows |
| | Savings | | 0.008 | 50% light dimming x half day |
| | Day | | 7.00 | |
| 2 X 4 fixture | Hours | | 24.00 | |
| | Week | | 52.00 | |
| | Energy cost, \$/KW | | 0.22 | |
| Sub total | | | -3,075.07 | |
| Motion detector | | | | |
| Additional Energy savings | Fixture Q'ty | | 100.00 | Corridor lighting |
| | Savings | | 0.008 | 50% dimming x half day |
| | Day | | 7.00 | |
| 2 X 4 fixture | Hours | | 10.00 | |
| | Week | | 52.00 | |
| | Energy cost, \$/KW | | 0.22 | |
| Sub total | | | -640.64 | |
| Air conditioning | | | | |
| Additional Energy savings | Fixture Q'ty | | 500.00 | |
| | Savings | | 0.078 | (110W - 32W = 78W) |
| | Day | | 7.00 | |
| 2 X 4 fixture | Hours | | 10.00 | |
| | Week | | 26.00 | |
| | Energy cost, \$/KW | | 0.22 | |
| Sub total | | | -15,615.60 | |
| Maintenance | Light Bulb Qty | 1500 | | |
| | Term | 4 | | |
| | Ave. Repl. Ratio(ARR) | 0.25 | | |
| | Unit price (\$) | 2.5 | | |
| | Labor per unit (\$) | 10 | | |
| Sub total | | 18,750.00 | | |
| Flour lamp disposal | Unit/disposal | 1500 | | |
| | Term | 4 | | |
| | ARR | 0.25 | | |
| | Cost (\$) | 1 | | |
| | Sub total | 1,500.00 | | |
| Incentive program | | | | |
| Incentive program | Power Co. rebate | Fixture+ Install * 35% | -41,825.00 | \$114,500 x 0.35 |
| | Fed. Tax credit | \$0.60 / Sq.ft | -12,000.00 | 40 sq.ft / unit |
| | Sub total | | -53,825.00 | |
| Grand Total | Yearly cost | 125,955.60 | 77,114.41 | R.O.I: 7 months |

NOTE 1: Fixture price above is for retail.

Dioluce





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HEADQUATER

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