

IOLS

Beautiful.
Sustainable.
Achievable.

INTEGRATED OFFICE LIGHTING SYSTEM



BREAKTHROUGH LIGHTING FOR TODAY'S CHANGING OFFICES

EASY AS 1, 2, 3!

1. Light the Task First
2. Light Vertical Surfaces
3. Ambient Lighting @ 0.4 w/ft²

Gives
You

- 56% Energy Savings
- Overwhelming User Preference
- Lower Installed and Life-Cycle Costs



The illumination in the office is balanced and comfortable. Users have control over the lighting in their individual work area, and the facility has a solution that provides for long-term flexibility.

- 1 LED Personal Lighting System (PLS) in each work station.
- 2 Special purpose 1-lamp T8 wall-wash luminaires light the walls.
- 3 High-performance indirect/direct 1-lamp T8 luminaires 12' to 16' on center.

IT ALL STARTS WITH LED TASK LIGHTING



Beautiful

PLS combines a minimalist aesthetic and great lighting: unsurpassed versatility in a sleek and elegant package.

Sustainable

Best practice guidelines from LEED, IESNA, and ASHRAE seek to improve the office environment, making it a safe, healthy, and energy-efficient place to work. Get Finelite involved early. Earn maximum LEED points with PLS and use fewer materials, while saving on initial and operating costs.

Achievable

Nationally recognized PIER validates these findings and demonstrates their feasibility in working offices. Visit www.finelite.com for more details.

PLS

12 points or 46% toward LEED certification

EA Credit 1: Optimize Energy Performance:

10 points
56% savings compared to ASHRAE 90.1-2004*

EQ Credit 6: Controllability of Systems: Lighting: **1 point**

**ID Credit 1:
Innovation in Design: 1 point**

*Based on whole building performance method and the dramatic savings PLS delivers

LEED
26-69
points

www.usgbc.org

PLS

meets
AMERICAN
NATIONAL
STANDARD
DESIGN
Guidelines

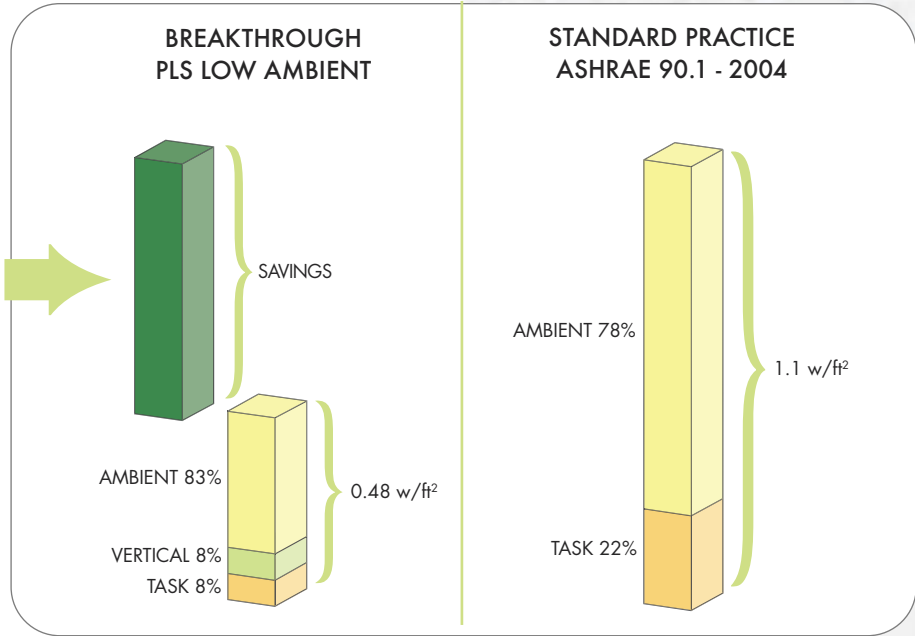
The office lighting design should include:
Lighting at the task at 30 - 50 footcandles

Vertical surface illumination:
Balanced luminances not to exceed a 3:1 ratio between tasks and a 10:1 ratio within the visual field

For more information on how to implement best practices for office lighting, visit:

www.iesna.org
www.ashrae.org
www.finelite.com

56%
ENERGY SAVINGS



OVERWHELMING
USER PREFERENCE



“The light is soft, efficient, and inviting. I don’t squint or stare. My eyes don’t get tired, and I don’t feel that I am in a hospital environment with washed-out brightness.”

— Dept. of Mental Health Employee

LOWER
INSTALLED COST

	STANDARD PRACTICE ASHRAE 90.1 2004	BREAKTHROUGH PLS LOW AMBIENT	COST IMPACT
TASK \$/ft²	\$0.80	\$0.95	\$0.15 EXTRA COST
VERTICAL \$/ft²	Typically Not Used	\$0.31	\$0.31 EXTRA COST
AMBIENT \$/ft²	\$2.90	\$2.33	(\$0.57) SAVINGS
TOTAL \$/ft²	\$3.71	\$3.59	(\$0.12)* SAVINGS

* \$0.30/ft² annual cost savings based on 2808 annual operating hours and \$0.17/kwh blended electricity rate.

PERSONAL LIGHTING SYSTEM (PLS)

GRACEFUL. POWERFUL. SUSTAINABLE.

PLS puts the right amount of evenly distributed, visually comfortable illumination exactly where the user wants it. And footcandle for footcandle, this breakthrough system consumes well under half the energy of the most efficient fluorescent task lights. PLS combines state-of-the-art LED technology, advanced (patent-pending) optics, and innovative industrial design to create the best performing, most energy-efficient task lighting available.



Curve by Finelite™ Elegant. Versatile.

The Curve by Finelite™ is an Energy Star qualified LED desk lamp that delivers 49 lumens per watt, full range dimming, and a field-replaceable LED module. This bold design combines pure architectural form with high-performance LED lighting. Meticulously crafted from aluminum with a cast-iron base, this state-of-the-art desk lamp is complete with finger-touch adjustment features that allow the user unsurpassed versatility.



Reach by Finelite™ Breakthrough Performance.

The Reach by Finelite™ is an Energy Star qualified LED desk lamp that delivers up to 49 lumens per watt, full range dimming, a field-replaceable LED module, and choice of two head designs and arm lengths.



Edge by Finelite™ Clean. Functional.

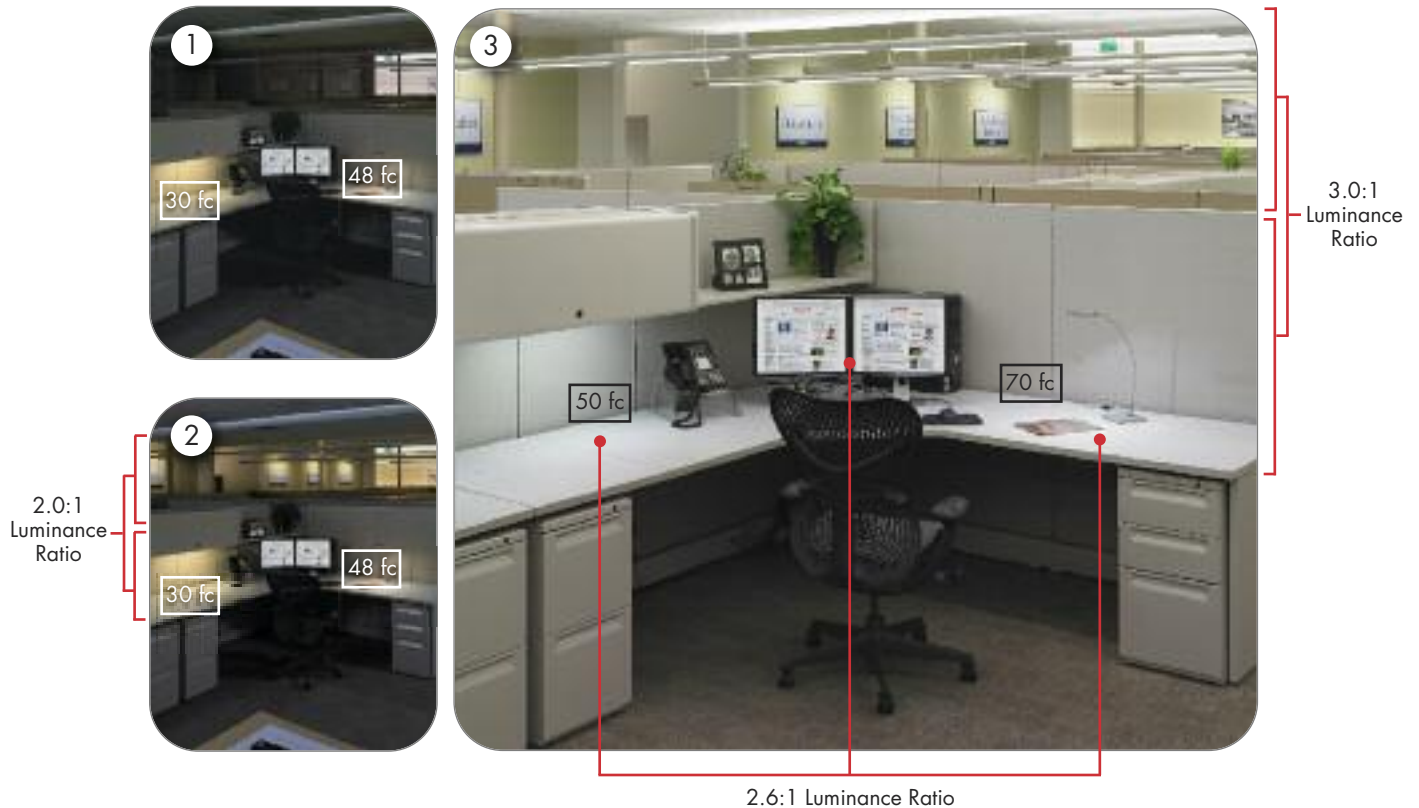
Edge by Finelite™ LED undercabinet luminaire mounts to binder bins and overhead cabinets. At only 0.8 inches tall and 2.5 inches wide, PLS Undercabinet fixtures fit seamlessly under binder bins, overhead cabinets, and shelving, illuminating vertical textures while bathing task surfaces in evenly distributed light.

Available in 10", 21" & 45", they can be used individually or joined with plug-and-play simplicity.



ADDING THE LAYERS

EASY AS 1, 2, 3!



1 Light the task first

Just the PLS task lighting can virtually light the entire work area with only 12 watts.

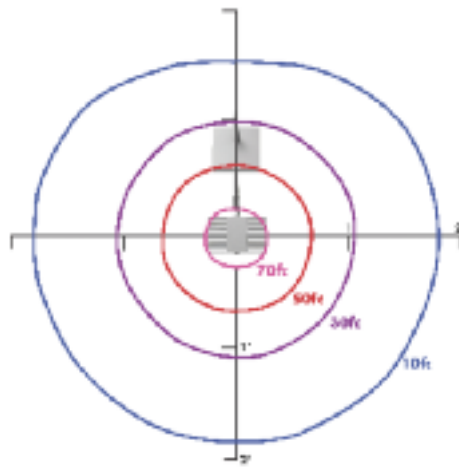
2 Light the vertical surfaces

Adding a small amount of vertical illumination on the back wall begins to bring balance to the overall brightness in the space.

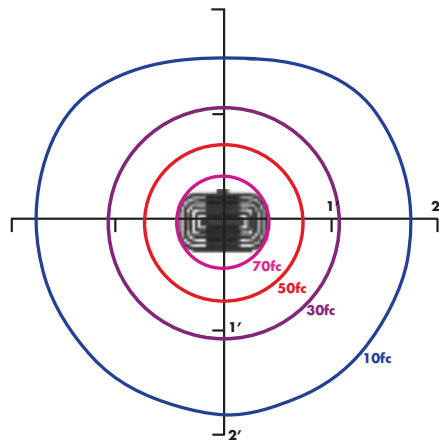
3 Fill in with ambient lighting at 0.4 w/ft²

A low ambient approach creates a pleasant and inviting ambience. Illumination levels in the work areas meet task lighting requirements, while allowing for engaged personal interaction. Luminance ratios meet IESNA recommendations of no more than 3:1 in the immediate task area, and no more than 10:1 between the immediate task area and the surrounding visual field of view.

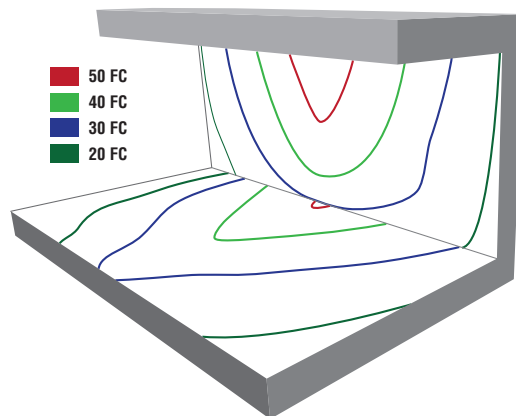
Curve Photometry



Reach Photometry



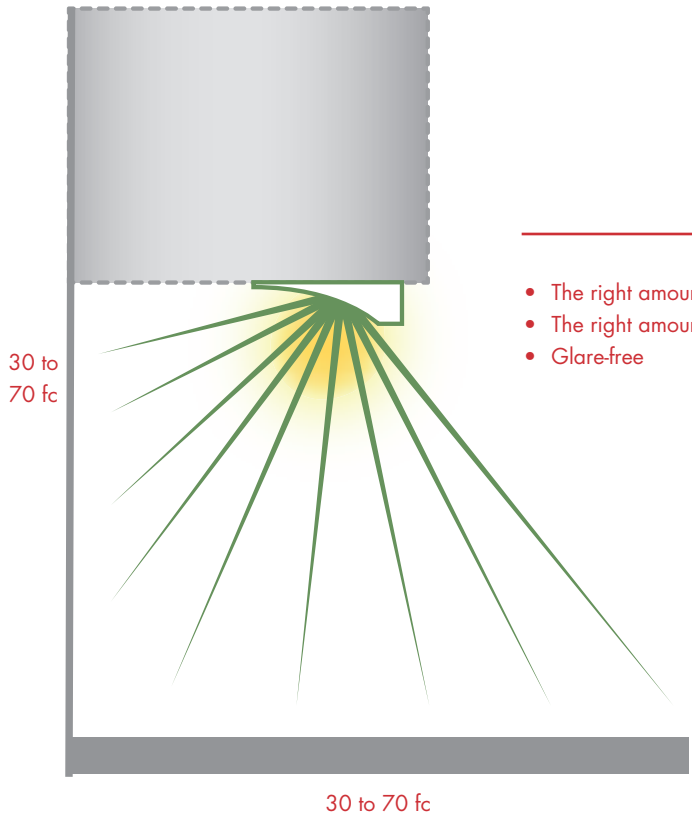
Edge Photometry



PLS Curve, Reach & Edge will meet illumination-level requirements for most offices. For additional technical performance specifications, refer to the Finelite Personal Lighting System Specification Guide, available at www.finelite.com.

Edge by Finelite™

PROVIDE THE RIGHT AMOUNT OF LIGHT

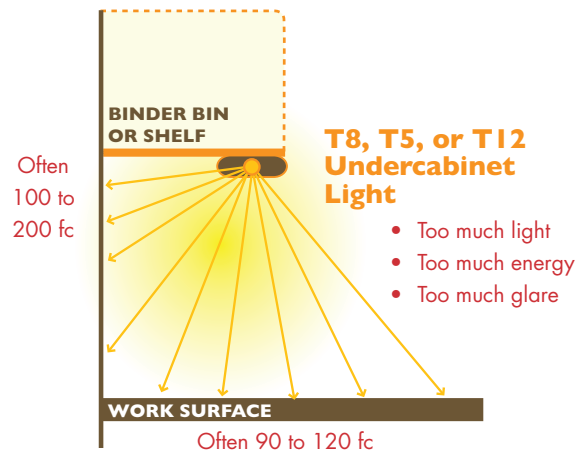
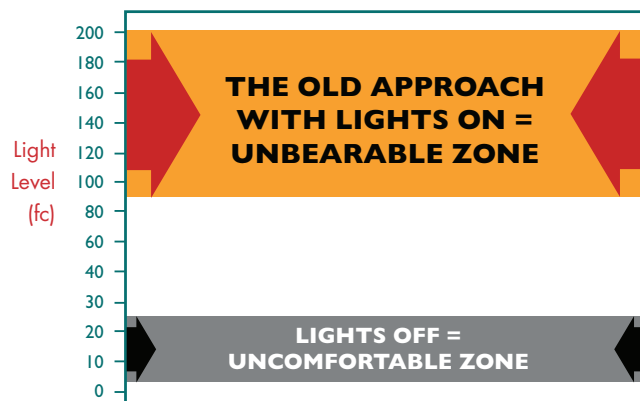


- The right amount of light
- The right amount of energy
- Glare-free

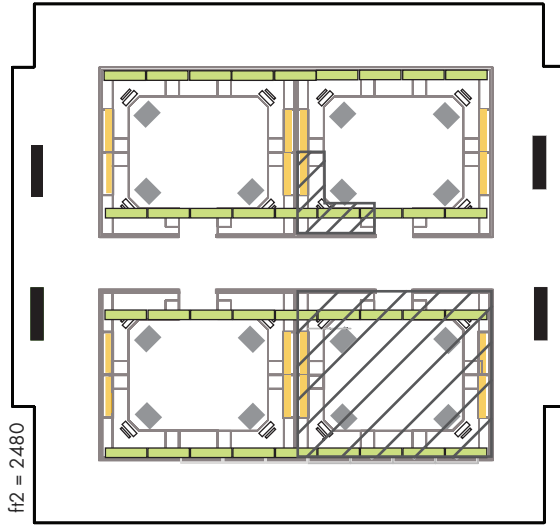
PLS Edge LED Undercabinet luminaire provides the correct amount of illumination to light horizontal work surfaces and tasks, creating vertical brightness and eliminating shadows.

WHY THE OLD APPROACH DOESN'T WORK.

Standard T8, T5, or T12 undercabinet luminaires place three to four times more light on the surface than is recommended, leading to a situation that is too bright and unbearable with the task light on, or too dim and uncomfortable with the task light off.



BREAKTHROUGH WITH PLS UNDERCABINETS



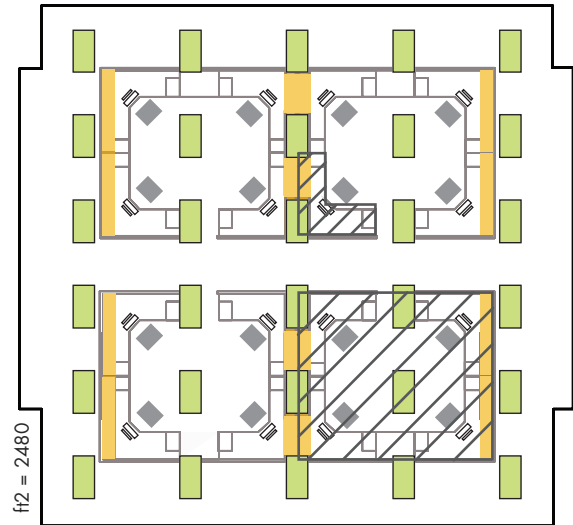
Breakthrough - PLS Low Ambient

Average Maintained Illuminance:

= Workstation Area 30 fc avg.

= Desk Area 20-55 fc

STANDARD PRACTICE



ASHRAE 90.1 - 2004 Standard Practice

Average Maintained Illuminance:

= Workstation Area 49 fc avg.

= Desk Area 30-150 fc

	DESIGN	COST / LPD
TASK 	(1) PLS 6w LED Undercabinet per workstation	\$0.95/ft ² 0.04 w/ft ²
VERTICAL 	(4) 4' 1-lamp T8 Wall Wash 3100 lumen 32w T8 lamp 0.71 BF	\$0.31/ft ² 0.04 w/ft ²
AMBIENT 	(4) 36' 1-lamp T8 ID Pendant (12' on center) 3100 lumen 32w T8 lamp 0.88 BF	\$2.33/ft ² 0.40 w/ft ²
Total \$/ft²		\$3.59/ft²
Total w/ft²		0.48 w/ft²

	DESIGN	COST / LPD
TASK 	(1) 4' 32w T8 Undercabinet per workstation	\$0.80/ft ² 0.24 w/ft ²
VERTICAL	Typically not used	
AMBIENT 	(30) 3-lamp T8 Parabolic Troffers (8' x 10' on center) 3100 lumen 0.78 BF - 32w T8 lamp	\$2.90/ft ² 0.86 w/ft ²
Total \$/ft²		\$3.79/ft²
Total w/ft²		1.10 w/ft²

56% INSTALLED ENERGY SAVINGS

For every 100,000 square feet of office space, \$30,000 in energy costs and 240,000 lbs. of CO2 emissions will be saved every year.

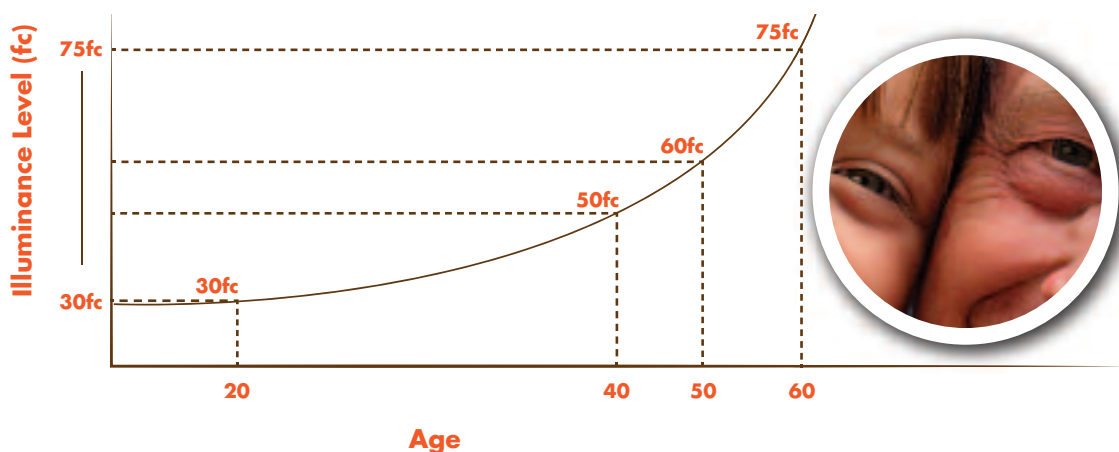
Enjoy significant savings on both energy costs and lower CO2 emissions — year after year.

Curve & Reach by Finelite™

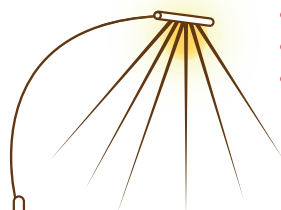
PROVIDE THE RIGHT AMOUNT OF LIGHT

As the eye ages, and illumination requirements increase, Curve & Reach provide the flexibility needed to address individual requirements without needing to increase the entire office light levels up to three times.

Light Required as the Eye Ages



PLS Curve LED Desk Lamp

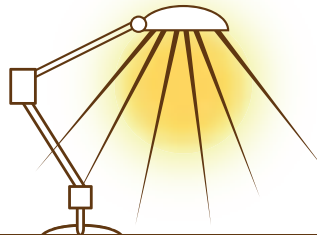


- The right amount of light
- The right amount of energy
- Glare-free

WORK SURFACE

60 fc

Incandescent, Halogen, or Compact Fluorescent



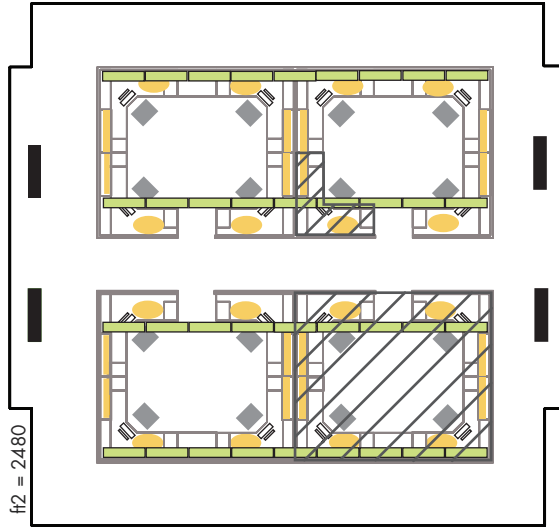
- Too much light
- Too much energy
- Too much glare

120 fc



A PLS Curve LED desk lamp provides the correct amount of illumination at the task, without creating glare.

Why the old approach doesn't work.

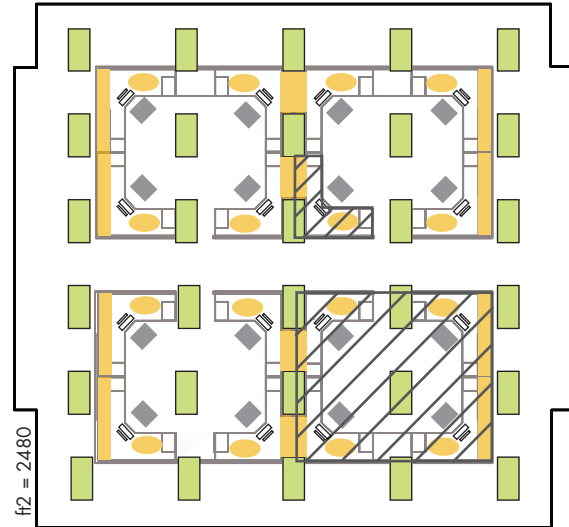
BREAKTHROUGH WITH PLS DESK LAMPS




Breakthrough - PLS Low Ambient
Average Maintained Illuminance:





 = Workstation Area 33 fc avg.
 = Desk Area 20-70 fc




STANDARD PRACTICE



ASHRAE 90.1 - 2004 Standard Practice
Average Maintained Illuminance:

 = Workstation Area 58 fc avg.
 = Desk Area 35-165 fc

	DESIGN	COST / LPD
TASK  	(1) PLS 6w LED Undercabinet and (1) PLS 6w Desk Lamp per workstation	\$1.79/ft ² 0.08 w/ft ²
VERTICAL 	(4) 4' 1-lamp T8 Wall Wash 3100 lumen 32w T8 lamp 0.71 BF	\$0.31/ft ² 0.04 w/ft ²
AMBIENT 	(4) 36' 1-lamp T8 ID Pendant (12' on center) 3100 lumen 32w T8 lamp 0.88 BF	\$2.33/ft ² 0.40 w/ft ²
Total \$/ft²		\$4.43/ft²
Total w/ft²		0.52 w/ft²

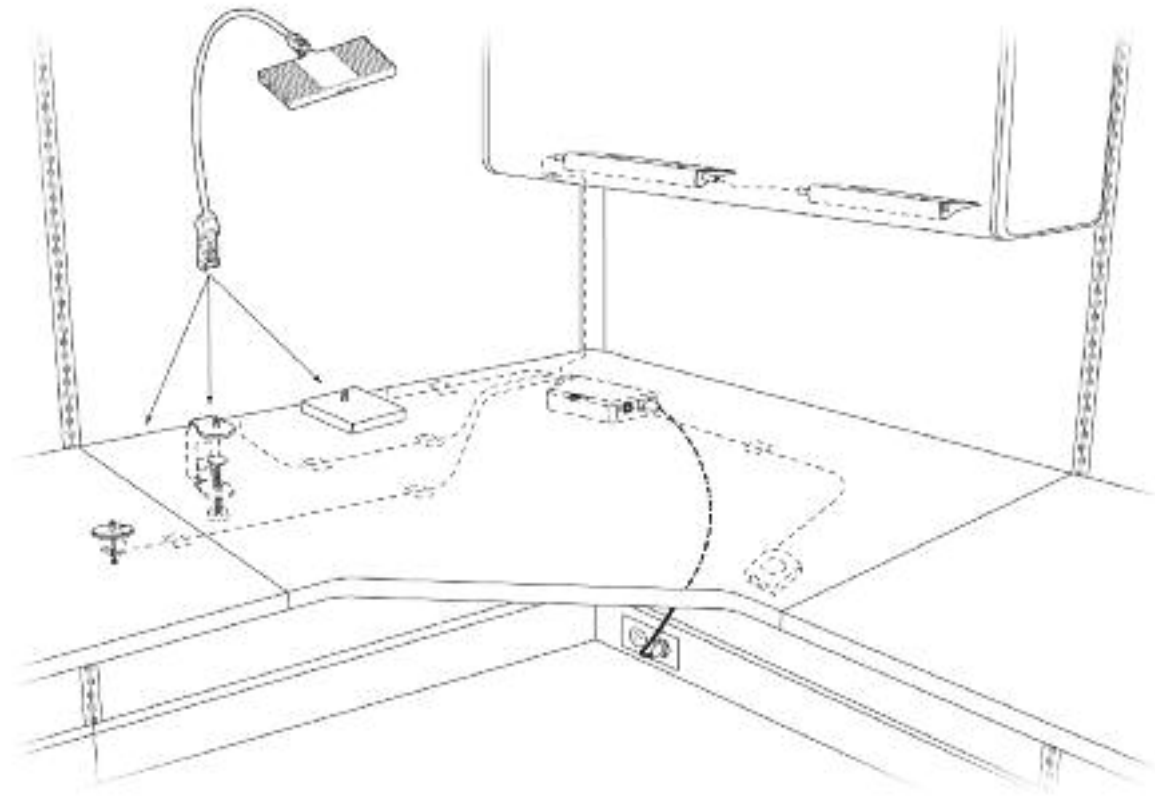
	DESIGN	COST / LPD
TASK  	(1) 3' 25w T8 Undercabinet and (1) 13w CFL Desk Lamp per workstation	\$1.75/ft ² 0.24 w/ft ²
VERTICAL	Typically not used	
AMBIENT 	(30) 3-lamp T8 Parabolic Troffers (8' x 10' on center) 3100 lumen 32w T8 lamp 0.78 BF	\$2.84/ft ² 0.86 w/ft ²
Total \$/ft²		\$4.59/ft²
Total w/ft²		1.10 w/ft²

53% INSTALLED ENERGY SAVINGS

For every 100,000 square feet of office space, \$28,000 in energy costs and 220,000 lbs. of CO2 emissions will be saved every year.

Enjoy significant savings on both energy costs and lower CO2 emissions – year after year.

HEART OF THE SYSTEM



Whether used as a single Desk Lamp, Undercabinet fixture, or tailored as a system, PLS is the sustainable, high-performance task lighting solution that specifiers, owners, and end users need.

Personalize the system to fit the work area by using multiple Desk Lamps, multiple Undercabinet units, or combinations of Desk Lamps and Undercabinet units in groupings of up to 60 watts.

The power supply can integrate an optional occupancy sensor generating an additional 35 percent energy savings.

—— or - - - - - = Low Voltage (24 VDC)

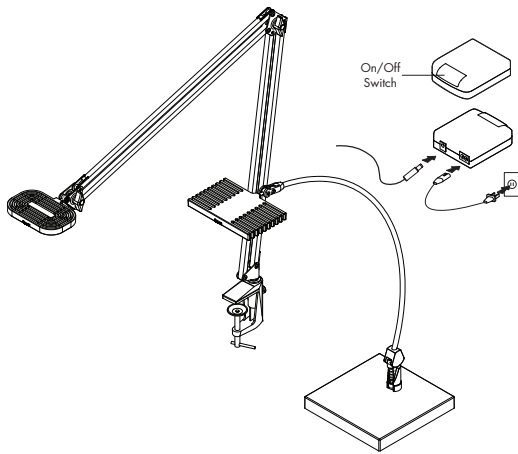
—— or — · — = Line Voltage (100-240 VAC: 50-60 Hz)

For built-in cabinets, PLS also has a hardwired power supply.

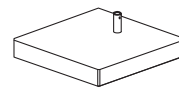
BASIC COMPONENTS

Curve & Reach

As a stand-alone unit, the Desk Lamp connects to a plug-in power supply, available with three mounting options.



Curve Desk Lamp Mounting Options



Weighted Base



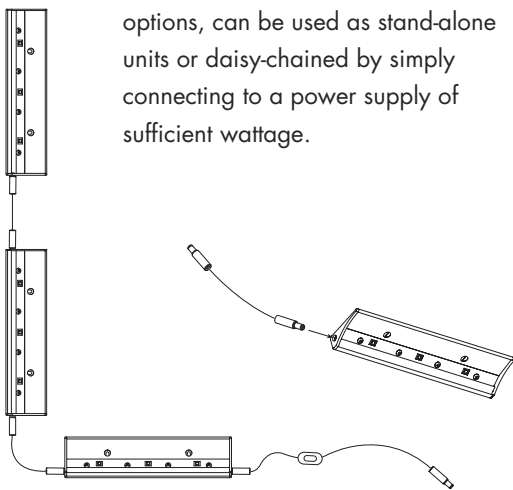
Mounting Plate



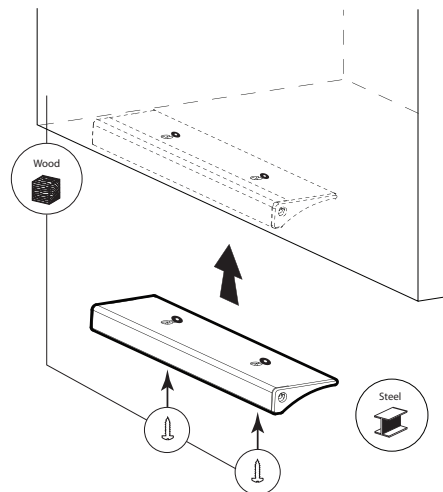
Clamp

Edge

Edge units, with standard mounting options, can be used as stand-alone units or daisy-chained by simply connecting to a power supply of sufficient wattage.



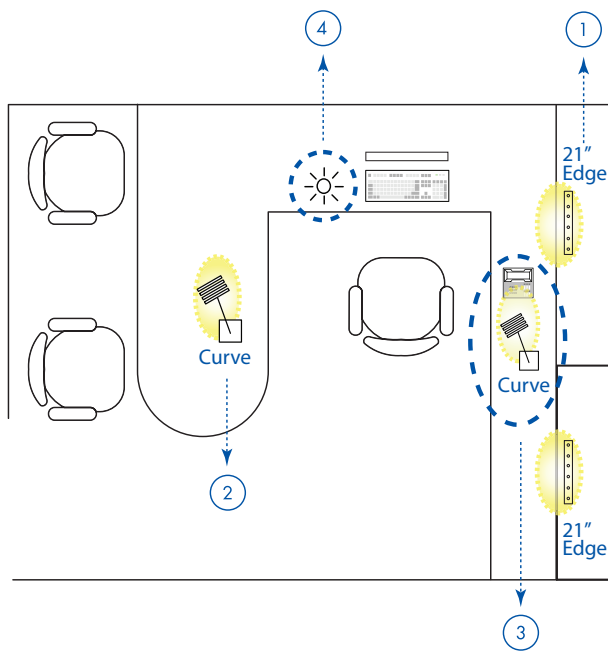
Edge Mounting Options



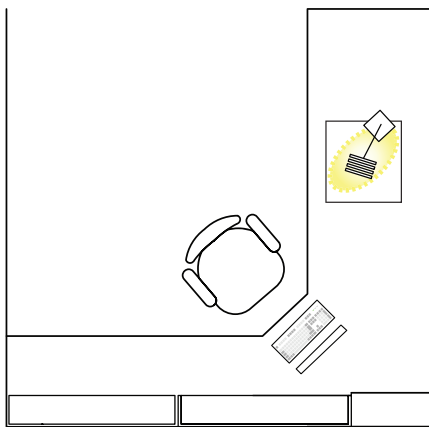
Each undercabinet fixture is supplied with magnetic or mechanical mounting options.

DESIGN TEMPLATES

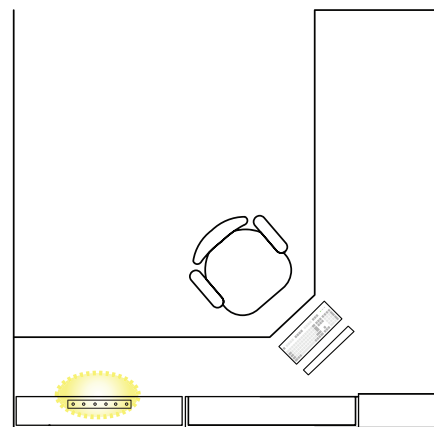
Designing the task lighting using PLS is easy. Follow these simple rules of thumb to customize a system for any workstation configuration, type of task, or individual user preference.



1. Use a 21" Edge LED Undercabinet at each 3' or 4' binder bin or shelf.
2. Place a Curve and Reach LED Desk Lamp at primary work surface for paper-based tasks.
3. Additional Curve and Reach LED Desk Lamp may be needed for especially demanding visual tasks or for older workers.
4. Optional Occupancy Sensor increases energy savings.



With low or light-colored partitions, a single Curve or Reach LED Desk Lamp provides individual control and additional light when needed.



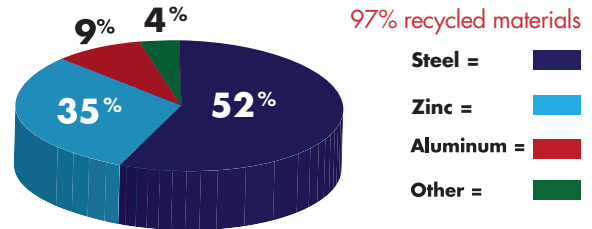
When workstations have binder bins or shelves, use an Edge LED Undercabinet. A second fixture is optional behind the computer screen.

ENVIRONMENTAL PRODUCT SUMMARY

Curve

Curve components are constructed from zinc, steel, electronics, aluminum and plastic. Curve is 97% recyclable at the end of useful life.

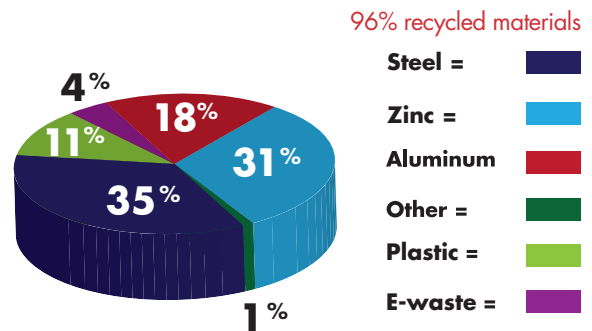
Curve is comprised of 97% recycled materials.



Reach

Reach components are constructed from aluminum, zinc, steel, electronics, and plastic. Reach is 96% recyclable at the end of useful life.

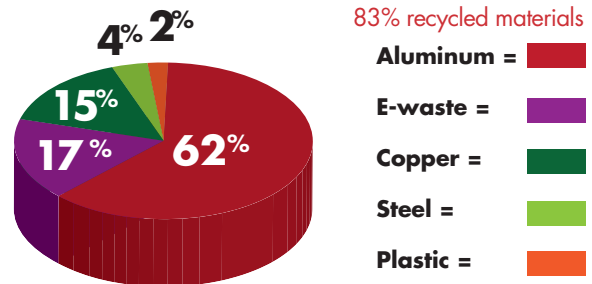
Reach is comprised of 96% recycled materials.



Edge

Components are constructed from aluminum, cooper, steel, electronics, and plastic. Edge is 83% recyclable at the end of useful life.

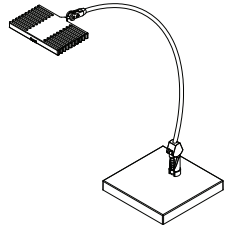
Edge is comprised of 83% recycled materials.



Product Performance

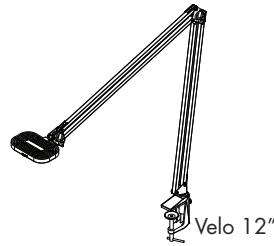
- Minimal assembly for cost-efficient installation.
- 15 to 30-year expected life with no light source replacement needed during that time.
- Easy disassembly for recyclability.
- Supported by a five-year warranty.
- Refer to www.finelite.com for more information.

PLS ORDERING GUIDE

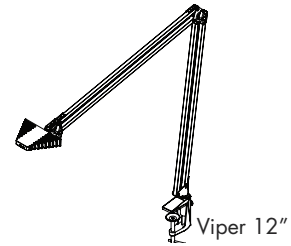


Desk Lamps

Curve



Reach



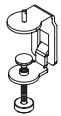
• Cat. No.

Lamp: DLC-S
 Base: Weighted WBC-S, Clamp CL-S,
 Mounting Plate MP-S
 Finish: Silver standard. 188 RAL colors
 available
 Power Supply: PS-8W

Lamp: DL-R
 Head Design: (VE-Velo, VI-Viper)
 Arm Length: (12", 18")
 Finish: Black standard - B
 Power Supply: PS-8W

Curve Desk Lamp Mounting Options

Clamp



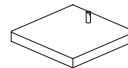
Zero-clearance clamp affixes to back of desk without removing desk from cube for 1" - 2.5" thick desk. Cat. No. CL-S

Mounting Plate



Flush mounting on table or work surface (1" - 1.5") thick. Cat. No. MP-S

Weighted Base

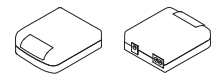


5" x 5" x 3/4" with integral pin and protective feet. Cat. No. WBC-S

Power Supplies

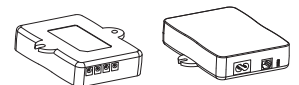
• Power Supply 8 Watts

Cat. No. PS-8W
 For use with any combination of PLS fixtures up to 9 watts. Multiple fixtures require a splitter cable. Cat. No. ETL



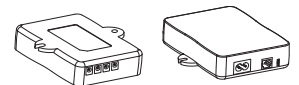
• Power Supply 21 Watts

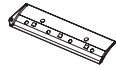
Cat. No. PS-21W
 For use with any combination of PLS fixtures up to 21 watts.



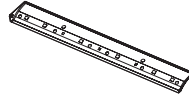
• Power Supply 60 Watts

Cat. No. PS-60W
 Allows for any combination of PLS fixtures up to 60 watts. Ideal for many undercabinet, casework, laboratory benchtop, or similar lighting applications where it is desirable to control the PLS fixtures from hardwired lighting circuits using standard building lighting controls.

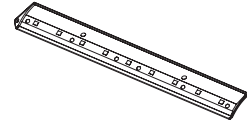




10"



21"



45"

Edge

• Cat. No.	UC-E-10	UC-E-21	UC-E-45
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Refer to www.finelite.com for technical performance specifications.

Cables

• Patch Cables	(UC only) Daisy chains two male 1.3mm jacks. Cat. No. CP-3 [3" Cable, Patch UC] Cat. No. CP-6 [6" Cable, Patch UC] Cat. No. CP-14 [14" Cable, Patch UC] Cat. No. CP-28 [28" Cable, Patch UC]	
• Power Cables	(UC only) Cat. No. CPS-12 [12' Cable, Power SW, UC] Cat. No. CPN-12 [12' Cable, Power N/SW, UC]	
• Splitter Cable	(DL or UC) Cat. No. CY-6 [6" Cable, Splitter]	
• Extension Cable	(DL or UC) Cat. No. CX-8 [8' Cable, Ext]	

Accessories

• Occupancy Sensor	Cat. No. DIF-110 Uses passive infrared (PIR) technology to detect occupancy. User-adjustable time delay of 30 seconds to 30 minutes. Fresnel lens with up to 120° and 300 square feet of coverage. ASIC technology reduces components and enhances reliability.
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