



Comparative Normalized Costs

Prepared by LightLouver LLC (March 2013)

The LightLouver Daylighting System is the most cost effective method for side daylighting. It has better performance and lower cost than any other side daylighting strategy. The table below compares the LightLouver Daylighting System with other strategies being promoted for side daylighting, namely interior and exterior lightshelves and automated interior shades and blinds.

The average depth of daylight penetration, defined as maintaining an annual average of 30 fc on the work surface during daylight hours, is 30 feet for the LightLouver system, 15 feet for the lightshelves, and 10 feet for the automated shades and blinds. The cost per lineal foot of window is \$74 for the LightLouver Daylighting System, \$120 for the lightshelves, and \$175 for the automated blind and shade systems. The more telling indicator of value is the cost per daylit square foot of building floor area. The LightLouver Daylighting System costs \$2.47 per square foot, compared to \$8.00 per square foot for lightshelves and \$17.50 per square foot for automated shades and blinds. The LightLouver Daylighting System is the clear choice from a cost standpoint.

The LightLouver Daylighting System is also the clear choice from a performance standpoint. In a typical building with a lighting power density of 2.2 W/sf and located where the average cost of electricity is \$0.14 per kWh, the LightLouver Daylighting System will save \$9.60 each year per lineal foot of window. This compares to \$4.80 for the lightshelves and \$3.00 for the automated shades and blinds. The simple payback for the LightLouver Daylighting System is 7.7 years, compared to 25 years for lightshelves and 58 years for automated shades and blinds.

The low cost and superior performance of the LightLouver Daylighting System make it the clear choice for new construction and retrofit applications.

	LightLouver Daylighting System	Conventional Interior Light Shelf	Conventional Exterior Light Shelf	Automated interior shades	Automated interior blinds
Average depth of daylight penetration (feet)	30	15	15	10	10
Construction cost per lineal foot of window	\$74.00	\$120.00	\$120.00	\$175.00	\$175.00
Cost per daylight sq foot	\$2.47	\$8.00	\$8.00	\$17.50	\$17.50
Product cost per sq foot of daylight aperture	\$37.00	\$60.00	\$60.00	\$87.50	\$87.50
Value of energy saved per lineal foot of window (2.2 W/sf)	\$9.60	\$4.80	\$4.80	\$3.00	\$3.00
Value ratio (value of energy saved/technology cost)	3.89	0.60	0.60	0.17	0.17
Value relative to LightLouver Daylighting System	1.00	0.15	0.15	0.04	0.04
Simple payback (years)	7.71	25.00	25.00	58.33	58.33
Value of energy saved per lineal foot of window (1.0 W/sf)	\$4.35	\$2.20	\$2.20	\$1.35	\$1.35
Value ratio (value of energy saved/technology cost)	1.76	0.28	0.28	0.08	0.08
Value relative to LightLouver Daylighting System	1.00	0.16	0.16	0.04	0.04
Simple payback	17.01	54.55	54.55	129.63	129.63