

10 Steps to Improving your Lighting

quality ingredients. by Randy Smith



above.

Northwest Industries added daylight to their industrial facilities as a way of improving the quality of the work environment. Daylight can be one of the best tools for improving the quality of light in a space, but must be used carefully.

a case study is available with more information on the Northwest Industries project.

Lighting quality in a specific space is always the result of the blending of the architecture, light source(s), relation to the visual task, and the preferences and needs of the users. This makes it very hard to develop a single formula that will always create magnificent lighting in every space. The debate over creating a 'recipe' for quality lighting will go on for a long time. Here are some simple lighting measures that will almost always improve your lighting quality.

switch from cool and warm-white lamps to rare earth (RE)

- RE lamps give better color quality and often produce more light
- virtually all T8 lamps are RE

switch from magnetic ballasts to electronic

- electronic ballasts help eliminate flicker and hum (big on the list of user complaints)

put more light on ceilings and walls

- ceiling brightness makes spaces seem taller
- brighter walls make spaces seem bigger
- uniform brightness can reduce user eyestrain from 'glare' problems

add paint to your lighting tools

- lighter color values improve the efficiency of your lighting equipment and make spaces brighter

include daylight in your lighting plan

- daylight is usually the first choice for users — it has the best color, gives a connection to seasonal rhythms, and usually comes with a view

light architectural details and artwork

- give users a sense of depth, shadow and contrast for visual variety
- the eye needs variety to stay interested and awake

determine who will use the space

- age of users changes the amount of light needed for seeing and the amount of glare that can be tolerated

determine what the users will be seeing

- visual tasks are the basis for when, where and how the light should be distributed

calculate the lighting performance of your designs

- create good estimates of the lighting distribution in the space don't just fill in the holes in the ceiling grid
- manual lighting calculations are not hard to learn
- lighting software is easily available

know when to hire a lighting professional — and do so

- good lighting designers offer a range of solutions to lighting problems — knowledge of equipment, creative applications and comprehensive project management

Following these tips won't necessarily win you an international award in lighting design. But they might help reduce some of your (and your users) lighting headaches.