

# Lighting

Visual Color Assessment



Unparalleled Precision  
and effective daylight  
simulation that ensure  
color accuracy





# color confidence



## Make decisions with color confidence

Precise daylight simulation ensures that you spot color discrepancies before your customers. Without precision, color rendering differs, impairing your judgement. GretagMacbeth offers two patented daylight simulation technologies—SpectraLight® filtered tungsten halogen technology for critical color decisions and seven-phosphor fluorescent technology for relative color assessment. Both offer unparalleled precision, enabling your entire supply chain to deploy

lighting products and complementary calibration services for maximum reliability and effectiveness.

## SpectraLight... the world's most accurate simulation of natural daylight.

Evenly balanced SpectraLight technology delivers the most accurate rendering of color. If a light source doesn't match the CIE spectral power distribution curve for daylight, color rendering is skewed, which could lead to erroneous approvals or rejects.

## Precise economical fluorescent daylight technology

Judge and ProofLite brand lighting contain unique, patented seven-phosphor technology. And Examolite contains unique "blended daylight" technology for sorting and grading applications in food, agriculture and precious gems.

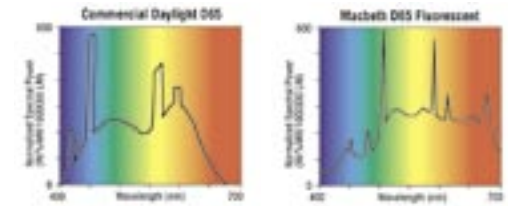
## Not your ordinary fluorescent technology

Seven-phosphor lamps are more evenly balanced across the visible spectrum, compared to standard commercial fluorescent lamps, so colors are rendered more

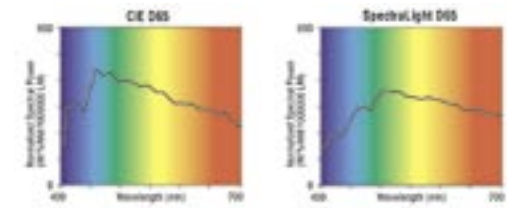
accurately. Ordinary three-phosphor fluorescent lamps have higher blue/green energy, which intensifies blue and green colors, while suppressing reds resulting in erroneous approvals or rejects.

## Easy to own and use

Complete with NIST traceable certification, SpectraLight and fluorescent daylight products provide years of trouble-free operation. Easy-access panel simplifies lamp replacement, plus all lamps are readily available.



Precision Makes A Difference



## SpectraLight Lighting Filtered Tungsten Halogen

### SPECTRALIGHT III

*the ultimate in precision and convenience.*

#### Features:

- Six (6) programmable light sources for hands-free viewing.
- Spacious interior.
- User-adjustable color temperature.
- SmartLogic extends lamp life.
- Elapsed time meter indicates lamp replacement.
- Meets or exceeds all major international standards including ASTM D1729, ISO 3664, SAE J361, DIN, ANSI and BSI.
- Available in overhead luminaire.

#### Specifications:

*Booth*

Dimensions:  
27.5" H x 37.1" W x 24.4" D  
Weight: 154 lbs.

*Luminaire*

Dimensions:  
9.5" H x 37.1" W x 25.7" D  
Weight: 92 lbs.

### SPECTRALIGHT JR.

*SpectraLight prcision at half the size.*

#### Features:

- Compact desktop viewing.
- SmartLogic extends lamp life.
- Elapsed time meter indicates lamp replacement.

#### Specifications:

Outer Dimensions:  
17.7" H x 16" W x 14" D  
Viewing Area:  
11.5" H x 13.5" W x 12" D  
Weight: 20 lbs.

### SOL•SOURCE

*daylight precision at affordable desktop prices.*

#### Features:

- Flexible arm puts daylight anywhere you need it.
- Convenient clamp mounts to most surfaces.
- Optional weighted base.

#### Specifications:

Height:  
17.7" H x 16" W x 14" D  
Weight: 20 lbs.

## Specialty Lighting 7 Phosphor Fluorescent

### EXAMOLITE

*convenient overhead luminaires for grading and sorting products by color.*

#### Features:

- Prismatic diffusing glass and anodized aluminum reflector for brightness and even illumination.
- Suspend or insert into standard ceiling grid.
- Optional UV-stabilized acrylic diffuser for food safety requirements and reduced glare in diamond grading.

#### Specifications:

Dimensions:  
8" H x 23.75" W x 48" L  
Weight: 90 lbs.  
Shipping Weight: 135 lbs.

### JUDGE II

*foldable, portable light booth for graphic arts and industrial applications*

#### Specifications:

Dimensions:  
22.25" H x 27" W x 22.25" D  
Weight: 35 lbs.  
Shipping Weight: 40 lbs.

*optional transportable carrying case*

### JUDGE II-S

*stationary steel booth for graphic arts and industrial applications*

#### Features:

- Meets or exceeds major international standards for visual color evaluation including: ASTM D1729, ISO3664, DIN, ANSI, and BSI.
- Elapsed time meter indicates lamp replacement.

#### Specifications:

Dimensions:  
21.85" H x 26.5" W x 20.5" D  
Weight: 50 lbs.  
Shipping Weight: 60 lbs.

## Prooflite Luminaire A room with a view

### PROOFLITE PLD

*overhead luminaires*

#### Features:

- 5000 hours of consistent D5000 illumination.
- Available with four (4) or eight (8) lamps.
- Suspend or insert into standard ceiling grid.
- Eight lamp fixtures include two daylight sources (four lamps each source).

#### Specifications:

Dimensions:  
8" H x 23.75" W x 48" L  
Weight: 90 lbs.  
Shipping Weight: 135 lbs.

### "HARMONY ROOMS"

simulate the consumer experience and evaluate the final product for color harmony between the many parts coming from different vendors. Also known in the automotive industry as the "fit and finish" area, these are dedicated evaluation rooms that include SpectraLight or Examolite luminaires mounted throughout the ceilings and or walls. They're also used to evaluate harmony of a product line's color palette from consumer products to office equipment. We customize each room to your unique color viewing needs.



SpectraLight III



SpectraLight Jr.



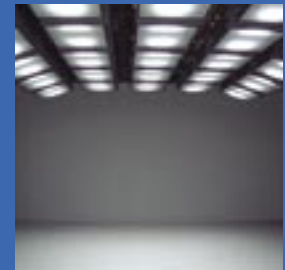
Sol•Source



Examolite/Prooflite







Judge II, II-S



Harmony Room

## Lighting Systems At A Glance

Lighting Systems	 DAYLIGHT	HORIZON	 FLUORESCENT	 INCANDESCENT	 UV
Filtered Tungsten Halogen	Choose One		Choose One		
	SPL III D50/D65/D75	•	Cool White/ TL84 / U30	•	UV Light Alone/ UV With Daylight
	SPL Jr. D50/D65/D75	•	Cool White/ TL84 / U30	•	UV Light Alone
Sol•Source D50/D65/D75					
7 Phosphor Fluorescent	Judge II, Judge II-S D50/D65/D75			•	UV Light Alone
	Examolite SD840B D50/D65/D75		Cool White	•	
	Examolite TC440B D75				
	Prooflite D50/D65/D75				

### Why daylight?

Daylight is evenly balanced across the visible spectrum – it has equal amounts of red, orange, yellow, green, blue, indigo and violet light energy. That means it more accurately renders color. Without this balance, colors aren't rendered precisely causing the light source to accentuate certain colors while suppressing others. Even slight deficiencies or excesses in light energy could skew your color perception causing you to approve or reject samples erroneously.

Chart Key                      D50 = D5000K    CWF = Cool White Fluorescent (4150K)  
 D65 = D6500K                TL84 = TL84 (4100K) Narrow Band Fluorescent  
 D75 = D7500K                U30 = U30 (3000K) Ultralume 30 Broad Band Fluorescent

### Why multiple light sources?

Multiple light sources reveal the metamerism phenomenon – when samples match under one set of lighting conditions and not under another. Viewing samples under daylight and at least one other light source will help you detect this condition before your customers do.

## Quick Guide to Light Sources:

### Daylight

**D5000K**–Noon sky daylight for graphic arts applications.  
**D6500K**–Average north sky daylight for industrial color management including automotive, consumer electronics, appliances, textile and apparel, home furnishings and others. Specified by industry.

**D7500K**–North sky daylight for graphic arts pressroom applications commonly used years ago to compensate for harder to control yellow ink; sorting and grading textile white goods; and produce evaluations.

### Horizon

Commonly used in textile and automotive applications.

### Cool White Fluorescent/TL84/U30

Simulates office, in-store or showroom floor lighting.

### Incandescent

Simulates home and store accent lighting.

### UV5X

Higher intensity (five times that of the sun) for detecting optical brighteners and fluorescent whitening agents in paper, textiles and plastics.

### UV

The amount of UV found in natural daylight for simulating the effects of optical brighteners and fluorescent whitening agents on color.

**Note:** These lamps are safe and **do not** contain harmful UV wavelengths.

Learn how you can make decisions with color confidence. Call today! 1-877-450-6912

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