Best Practices for Video Lighting
Is your lighting adequate for videoconferencing?

**Step 1 - Face Light**
Looking at image on screen, hold light meter (or phone with light meter app*) towards the screen.

This reads facial vertical footcandles (lux).

* Google Play and iTunes App Store have several free light meter apps.

**Step 2 - Top Light**
Take a measurement with the light meter on the top of head, facing up.

This reading should be less than twice the footcandles on face.

**Step 3 - Wall Light**
Take a measurement with the light meter on the rear wall facing the camera.

This reading should be half of vertical footcandle value on face. Repeat measurement for all on-camera walls.

Visit www.brightlines.com for video lighting assistance. Optimum light ratios may need adjustment based on specific room conditions.
If a picture is worth a thousand words...

Video is Worth 1.8 million words per minute

A picture = 1000 words

30,000 words/sec

Video shoots at 30 frames/sec

60 seconds per video
The Visible Difference

Proper lighting is critically important for good video results.

Standard overhead troffer lighting

Two cross-key front lights
Cross-key front lighting layout and section view
Further improve image with back light and wall wash that create 3-Dimensional appearance

Lit with cross-key 45-degree front light, back light and wall wash
Cross-key front light with wall washers and backlight light plot and section view
Lighting Standards for Video-conferencing

- less than 5 foot-candles on front screen projection
- less than 15 foot-candles on rear projection
- less than 20 foot-candles on video displays
- 20-30 fc of vertical illuminance on faces
- 10-15 fc of average illuminance on walls
Furniture & Finishes

- Black out shades or diffusion blinds for videoconferencing.
- Avoid reflective blinds, wall and table surfaces.
- Round, elliptical or trapezoidal tables good, U-shaped ideal.
- Dark table finishes and warmer wood grains are preferable.
- Avoid glass tables and walls or etch glass to reduce glare.
- 20-60% reflectance on tables and chairs.
- On-camera walls should be blue-gray or gray; avoid white.
- 40-60% reflectance on walls.
- Keep videoconferencing rooms away from loud air handlers.
- Avoid small, intricate graphic patterns.
- Logos, state seals should have dull, non-reflective surfaces.
Avoid Rooms with Glass or Utilize Control Blinds

Note the reflections about the room that will distract from quality of video and content visibility.
Examples of Rooms where the lighting is well-controlled
PoE-controlled Flex-T lighting retrofit

City of Maricopa
T-Series lighting retrofit

Federal Energy Regulatory Commission
T-Series lighting retrofit

White House Situation Room

BEFORE

AFTER
Lighting Levels Layouts for Small Huddle Spaces

1-3 person Huddle Spaces

Dual Credenza Mount
- Top View
- Side View
- Elevation View

Dual Wall Mount
- Top View
- Side View
- Elevation View

Single Wall Mount
- Top View
- Side View
- Elevation View
cMe2 Huddle Room Light

Credenza Stand

Telescoping mount w/ pan/tilt
Lighting Levels w/ vertical foot-candles at seated face height & matching rendering
Ceiling-recessed directional video light

FLEX-T

PoE-controlled Flex-Ts at Carousel Industries
VideoPlus and LMT lighting retrofits

Niagara Regional Council Chamber

World Wide Technologies
Lighting affects image quality. Brightness, which impacts signal to noise ratio (SNR). Without enough light, the captured image will be too dark. Brightening the image electronically, will introduce noise into the signal. Poor lighting conditions result in low quality imaging.
Increasing Adoption Rate with Good Lighting

- Enhance image quality and enhance the quality of your video collaborations.
- Image quality affects the success of video conferencing. Lighting, cameras, compression software, network bandwidth, and audio quality all impact the experience. Standard lighting is generally not adequate for video. Spaces not originally built for video are being retrofitted for that purpose and addressing lighting is critical to successful system adoption. Participants confidence increases when they feel they are in their “best light”.
For Design Services Assistance

Provide to Brightline:

- Room Dimensions
- Ceiling Type & Height
- Desk/Table Shape & Size
- Lectern/Dais Locations
- Number of Participants
- Camera Location(s)
- Drawings & Photos
Design Service Options

- PDFs of fixture layouts
- AGI light level calculations in FC or LUX
- Lighting and Control Bill of Materials
- Renderings
- CAD files
- Payback Analysis/Return on Investment calculations (ROI)
Clarity for Collaboration

Anywhere, anytime... team up with Brightline!

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