

DAKTRONICS

Digital Signs Informative Presentation



Technology Overview

- LED displays: Light Emitting Diodes
 - Rainbow of color
 - Combination of various pixel colors
 - Brightness is controlled by amount of power sent to LED's
- Electronics message signs can adjust brightness by appropriately dimming or brightening depending on ambient light conditions

Brightness

- 3 Main Types of Dimming
 - Photocell
 - Timed
 - Manual
- Require automatic dimming using a photocell is key
- Specific Brightness Limitations
 - USE: 0.3 foot candles above ambient light
 - Lewin Lighting Report
 - DO NOT USE: Nits
 - NEMA Study

Other Common Concerns

- Flashing
 - Should never be allowed on an EMC
- Animation in inappropriate areas
 - Animation is good for some areas not for others
 - How to prevent animation in unwanted areas:
 - Hold-times with instantaneous transitions
- Aesthetics
 - Visually clearer, crisp picture for years
 - Reduces clutter
- Safety
 - Studied for years
 - No hazard to traffic safety

Animation, Video and Motion

- Animation
 - Creates a scene or story (Example: Waiving Flag)
 - Created using a computer
- Video
 - Also creates a scene or story, but appears live (Example: Video of a concert)
 - Shot using a video camera
- Motion (frame effects)
 - Using movement to transition from one frame to the next (examples: scrolling, fading, dissolving)
 - Does not create a scene or story; simply used to eliminate abruptness of an instantaneous transition

On-premise Code Language

- Residential Zones
 - Static images with minimum three second hold-times
- Well-Traveled Areas
 - Static images with one second hold-times, frame effects, No Animation, Flashing or Video
- Commercial Corridors
 - Animation and Frame Effects, No Flashing or Video
- Automatic dimming technology in all areas
- 0.3 fc above ambient light
 - Lewin Lighting Report

Off-premise Code Language

- Static Images
 - Billboards should never contain movement or frame effects
- Eight Second Hold-times
- Automatic Dimming
 - Photocell technology automatically adjusts brightness to ambient light conditions
- 0.3 fc Above Ambient Light
 - Lewin Lighting Report

Community Benefits

- Tax Base Benefits
- Increase Competitiveness
 - Small Businesses
 - Local Community
- Reduces Liability Concerns
- Public Service Announcements
- Less Clutter
- Visually Clearer/Legible Image and Weathers Better Than Traditional Signs.

Summary

- Technology Explained
- Brightness
- Concerns Alleviated
- Regulations
- Community Benefits



Thank you

- Any Questions
- Demo

