

Lumilight™

SECTION 06 40 00 - ARCHITECTURAL WOODWORK

Specifier's Note: This guide allows the specifier to see how the Lumicor Lumilight product may be integrated into a standard specification for architectural woodwork. Unique paragraphs and articles for woodwork specific information must be added to this guide; optionally the paragraphs for Lumilight may be modified, copied, and pasted as appropriate into specifier's section 06 41 00.

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Custom casework.
2. Counter tops.
3. Cabinet hardware.
4. Decorative Wall Applications.
5. Ceiling Features.
6. Custom fabricated integral LED lighting panels and systems.

B. Related Requirements:

1. Section 26 05 26: Grounding and Bonding for Electrical Systems.
2. Section 26 05 33: Raceways and Boxes for Electrical Systems.

1.2 REFERENCE STANDARDS

- A. Underwriters Laboratories: Provide UL listing for LED lighting panels.
- B. Illuminating Engineering Society: IES LM79 and LM80.
- C. International Organization for Standardization: ISO 9001 and 14001.

1.3 SUBMITTALS

A. Comply with Section 01 33 00 - Submittal Procedures.

B. Product Data:

1. Submit data on fabricated LED lighting panels.

C. Shop Drawings:

1. Indicate locations and dimensions of integral LED panels, including quantity and positions of power adaptors and other accessories.

D. Samples:

1. Submit sample of LED light panel, ___ x ___ in size, for verification of thickness, color, and visual properties.

1.4 SUSTAINABLE DESIGN SUBMITTALS

1.5 QUALITY ASSURANCE

A. Comply with ISO 9001 and 14001 for light panel manufacturer facilities.

Specifier's Note: Following paragraph requires advance review of design with Lumicor, but is intended to ensure a complete package of approved components and to simplify detailing. Coordinate product requirements in Part 2 to avoid duplication with Lumicor Certification #.

B. Lumicor/Fabricator Approved Design:

1. Comply with Lumicor Project Certification # _____ indicating that Lumicor has reviewed design and product requirements with the woodwork designer/fabricator, and has assigned a project number for the work. This number certifies that Lumilight is viable for the application and that all components have been approved.

1.6 QUALIFICATIONS

1.7 MOCKUP

A. Section 01 40 00 - Quality Requirements: Mockup requirements.

B. Construct (partial) (full size) mockup of _____. Include the following:

1. Integral LED lighting panels of sufficient quantity to demonstrate full effect of backlighting of translucent materials or illumination of woodwork unit.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver all LED light panels with manufacturer's protective film.

B. Store LED light panels flat; avoid flexing or bending of panels during handling.

C. Store LED light panels in dry area and on clean flat surface. Keep panels covered to protect from moisture and dust.

D. Maintain LED light panels at 68-77 deg F (20-25 deg C); humidity max. 50%.

1.9 WARRANTY

A. Integral LED lighting panels: Submit manufacturer's standard three-year warranty covering defects in material and workmanship.

1.10 AMBIENT CONDITIONS

PART 2 PRODUCTS

2.1 SUSTAINABILITY CHARACTERISTICS

2.2 CUSTOM CASEWORK

Specifier's Note: Consider limiting woodwork fabricators to those known to be experienced in integrating electrical or specialty products from other Divisions into architectural casework.

A. Fabricators:

2.3 MATERIALS

2.4 WOOD TREATMENT

2.5 FABRICATION

- A. Shop fabricate LED light panels to greatest degree possible.
- B. Fabricate integral LED lighting panels to be secured by channels or stops as indicated in shop drawings. Allow for future re placement of panels, if required.
- C. Ensure that LED light panels are not chipped or warped by machining operations. Use cutting and drilling equipment suitable for use with acrylic sheet.
- D. Do not use adhesive to secure lighting panels or attach other materials to lighting panels.
- E. Position power adaptors in concealed locations coordinated with electrical services and cord lengths as applicable. Fasten using anchor tabs provided on adaptors and locate to allow for future removal and replacement.

2.6 FINISHES

2.7 ACCESSORIES

A. LED lighting panels: Custom fabricated PMMA acrylic sheet with embedded LED lighting strip, integral heat sink, and etched in multiple directions to provide uniform, source-free lighting across panel face.

1. Product:

- a. Lumilight LED Panel: Lumicor, Inc., Renton, WA USA / 888-LUMICOR / www.lumicor.com
- b. No substitutions.
- c. Provide product with Lumicor Project Certification as specified in Part 1.

Specifier's Note: Selection of types and quantities of the below and other optional electrical components requires predesign services from Lumicor in conjunction with designer and woodwork fabricator.

2. Panel thickness:

- a. 8 mm (0.3 inch); thickness tolerance +/- 1.5 mm (0.0625 inch).

3. Panel dimensions:

- a. As shown on shop drawings; dimension tolerance +/- 1.5 mm (0.0625 inch).

Drawing Note: Below thickness is standard unless approved by Lumicor for specific application.

4. Panel/LED Color Temperature:

- a. Warm White: 3000K.
- b. Natural White: 4100K.
- c. Pure/Cool White: 5300K.
- d. RGB/Color Changing.

5. Ribbon LED strip with integral heat sink embedded in panel edges:

- a. Comply with IES LM79 and LM80.
- b. As designed by Lumicor to provide even panel surface brightness.

Drawing Note: Locations of power adaptors and dimming controls should be shown in woodwork details.

C. LED lighting panel electrical components:

1. UL product listing.
2. Dry location rated.
3. Plug-in power adaptors:
4. Hard wire power adaptors:
5. Dimming controls:

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify locations of utilities associated with work of this Section. Do not install woodwork until electrical devices are properly positioned for connection to LED light panels and power adaptors.

3.2 PREPARATION

3.3 INSTALLATION

A. Final connection of hard-wired components is specified in Division 26.

3.4 TOLERANCES

3.5 ADJUSTING

3.6 CLEANING

A. Remove strippable film from LED light panels. Clean exposed surfaces in accordance with supplier's and manufacturer's instructions.

B. Protect exposed LED light panel surfaces from damage by subsequent construction operations.

END OF SECTION