

# NATIONAL ASSOCIATION of INDEPENDENT LIGHTING DISTRIBUTORS (NAILD)



## LIGHTING SPECIALIST I (LSI) COURSE DESCRIPTION

### Course Outline

The LSI course is made up of 10 learning modules, a survey essay, a final exam, and graduation with a certificate and pin. The entire course is provided online through NAILD University on BlueVolt (BlueVolt.com), an online learning management system that provides extended learning experiences for a variety of groups and associations. Since the course is taken online at a time that best suits the needs of the student and the student's employer, the timeframe for the entire course might range from as little as 3 weeks to as long as 6 months. If necessary, the course can run longer than 6 months but that would require an additional fee. Remember that since the primary objective of this course is for the student to become very competent when discussing lighting concepts with their customers, the student should proceed at a rate that is most comfortable for him or her to learn as much as possible. The goal is not to finish as quickly as possible; the goal is to learn as much as possible.

### Course Modules

Each of the 10 learning modules is made up of three components.

1. An Online PowerPoint Presentation  
The online PowerPoint presentation and the workbook exercises are closely integrated and generally are done together. (Estimated Timeframe for the Online Module: approximately 30-60 minutes)
2. Additional Resource: Workbook Exercise  
The workbook is provided as a PDF document that should be printed by the student at the time of the presentation. (Estimated Timeframe to complete Workbook Activities: approximately 1-3 hours)
3. Quiz  
The quiz generally consists of 10 short-answer questions. NAILD requires that the student achieve a minimum score of 80% on each quiz before proceeding to the next module. A score below 80% will allow the student to retake the quiz one more time. (Estimated Timeframe: 20-30 minutes)

### Survey Essay/Coach Approval

At the end of Module 10 the student is expected to answer a 3-question survey describing what the student has learned, what the student found challenging, and how the student will apply the knowledge gained to their daily work activities. Each of the 3 questions needs to be answered with a 3-5 sentence paragraph. (Estimated Timeframe: 15-30 minutes)

### Final Exam

After completing the Survey Essay the student is expected to sit for a comprehensive exam that covers all 10 modules. The exam is made up of both multiple-choice/short-answer questions and a series of lighting "scenarios", each of which describes a unique space that requires lighting within certain parameters. The short-answer portion of the exam might take approximately 1-2 hours to answer while the lighting scenarios might take 2-4 hours to complete since a variety of calculations, catalog look ups are required. If necessary, the student can be given up to 48 hours to complete the scenarios segment of the final exam. NAILD requires that each student achieve a minimum score of 80% on the final exam. However, the student's employer may require a score that is equal to or higher than 80%. Students are allowed to re-take the Final Exam until they achieve a score of 80% or higher

### Coach

For the student and the employer to receive the full benefit of this comprehensive learning program it is strongly recommended that the student be assigned a "coach" who thoroughly reviews each workbook exercise and each module quiz with the student. This ongoing interaction between student and coach becomes invaluable when the student takes the final exam and, more importantly, when the student passes the course and becomes a well trained employee who is expected to interact with the employer's customers in an intelligent and professional fashion.

## **Content of Learning Modules**

### **Module 1: Light & Lighting Overview**

Introduction: Why create the NAILD Lighting Specialist Certification Program when we have the Lighting Certified program (LC) from the National Council on Qualifications for the Lighting Professions (NCQLP)?

- Chapter 1: How to navigate this course
- Chapter 2: How to take this course
- Chapter 3: Why study light and lighting?
- Chapter 4: Where are you in the "Light Delivery System"?

### **Module 2: Introduction to Light Sources**

- Chapter 1: Treasure hunt
- Chapter 2: Lamp terminology
- Chapter 3: How light sources work

### **Module 3: What Is Light and Color?**

- Chapter 1: What is light?
- Chapter 2: Where does color come from?
- Chapter 3: Experiencing the color rendering index (CRI)

### **Module 4: The Eye and How We See**

- Chapter 1: How the eye works
- Chapter 2: What affects our ability to see?

### **Module 5: Light Sources that Have Filaments**

- Chapter 1: Bucket of lamps
- Chapter 2: Incandescent vs. halogen light sources
- Chapter 3: Standard halogen vs. halogen IR light sources
- Chapter 4: Life, light output, and energy
- Appendix: Lamp characteristics

### **Module 6: Linear Fluorescent Light Sources**

- Chapter 1: Bucket of lamps
- Chapter 2: How fluorescent light sources work
- Chapter 3: Compact fluorescent lamps (CFLs)

### **Module 7: High Intensity Discharge (HID) Light Sources**

- Chapter 1: Bucket of lamps
- Chapter 2: How HID lamps create light
- Chapter 3: Basic lamp characteristics

### **Module 8: Ballasts**

- Chapter 1: Bucket of ballasts
- Chapter 2: Fluorescent ballast systems
- Chapter 3: CFL pin-based systems
- Chapter 4: HID ballast systems

### **Module 9: Luminaires & Controls**

- Chapter 1: What does a luminaire do?
- Chapter 2: What is a luminaire?
- Chapter 3: What does a control do?
- Chapter 4: What is a control?
- Chapter 5: Basic calculations used in lighting

### **Module 10: Light Emitting Diodes (LEDs)**

- Chapter 1: A Brief History
- Chapter 2: How Does an LED Create Light?
- Chapter 3: What are the Parts of an LED Device?
- Chapter 4: What Affects LED Performance?
- Chapter 5: How do we Create White Light
- Chapter 6 "Delivered Lumens" – More than Just the LED
- Chapter 7: Standards – Lamps & Luminaires

**Cost**

\$249.00 for NAILD members; \$499.00 for non-members

To receive the special NAILD member discount, first request a special code from a NAILD staff member or access it in the Member Section at [www.naild.org](http://www.naild.org).

**Registration**

To register, go to either of these two sites:

<http://www.naild.org/default.aspx?pg=login&whereto=LS%20I%20Registration>

<http://go.bluevolt.com/CoBrandTemplate/CourseDetail.aspx?CourseInstanceID=26601>

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