

UPDATED EDITION

NCQLP Lighting Certification | 2020

candidate handbook



NCQLP

National Council on Qualifications
for the Lighting Professions

Dear Candidate for Lighting Certification:

The NCQLP prepares the LC Candidate Handbook to assist you as a prospective candidate in deciding if you are ready to take the Lighting Certification Examination and to help you to prepare for it. It has been specifically developed by NCQLP and its testing agency, PSI Services, to direct you to the information you will need to study for and to take the LC Examination. If you review this manual carefully, we believe the material it contains and the advice it offers will be extremely valuable to you.

The Lighting Certification Program was established by the lighting industry in 1991. Both lighting organizations as well as several governmental agencies whose mission encompasses lighting have been involved since the beginning. Lighting Certification sets a baseline standard that covers the entire scope of the vast lighting field. Utilizing the NCQLP's testing mechanism, qualified individuals can earn their Lighting Certification designation. PSI, as NCQLP's professional testing agency, provides the expertise of an independent testing company to construct a valid and reliable examination that encompasses our entire field. The LC Examination is continuously reviewed by the NCQLP Examination Committee to ensure that the questions asked are current, comprehensive, fair and reflective of lighting applications as they are being practiced across our industry today.

The scope of the material covered within the Examination is quite comprehensive. Therefore, we encourage each candidate to thoroughly prepare to take this Examination. No matter what our level of experience, all of us have areas within lighting that are less familiar to us than others. The Lighting Certification Examination is broadly based. However, anyone who has the required background can be successful. Students as interns do equally well as practitioners. But, it is important to remember to pay particular attention to those areas in your study in which your involvement in lighting education or practice has been less extensive so you are thoroughly familiar with all aspects of lighting.

Of course, there are a number of ways to enhance your preparation. Some find it useful to become a part of a Study Group. (NCQLP does not become involved in any test study activities beyond the LC candidate handbook.) For others, it is more effective to study on their own. Or, you might do both to support your efforts to organize the reference texts in a meaningful way and identify topic areas within the Content Outline for which you feel you need to study in greater depth.

On behalf of all the NCQLP volunteers involved in this Program, we are pleased that you are interested in becoming Lighting Certified. We hope the information in this Handbook will contribute to your success in achieving this objective. It is very encouraging to see the growing commitment to excellence that lighting professionals are exhibiting and we look forward to your joining those within our field who have chosen to become Lighting Certified.

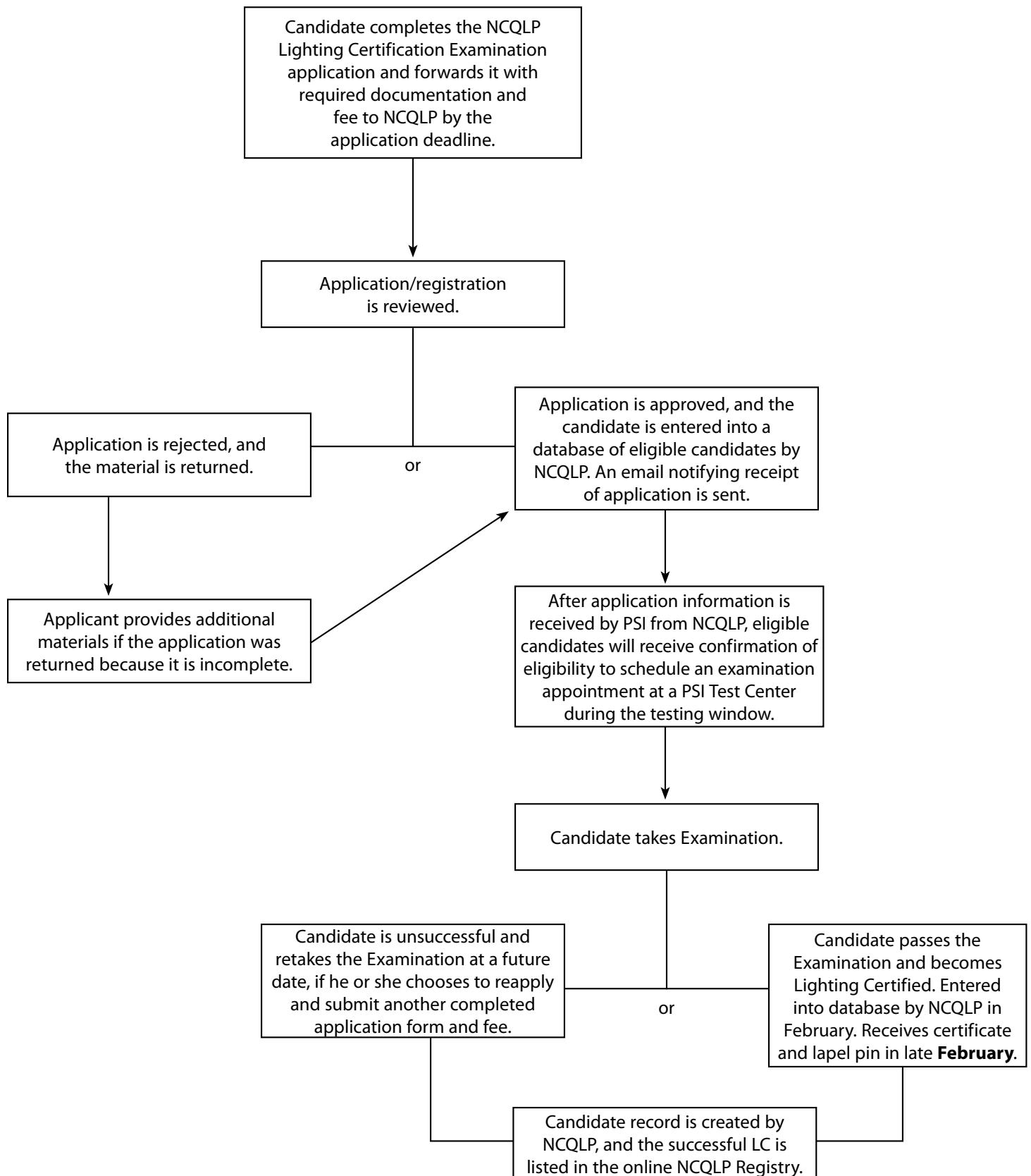


NCQLP Examination Committee

NCQLP | Candidate Handbook

i. NCQLP Lighting Certification Examination Process

The following flow chart helps explain the entire Lighting Certification application and examination process.



NCQLP | Table of Contents

Contents

i.	NCQLP Lighting Certification Examination Process	i
1.	About NCQLP	1
2.	Testing Agency	1
3.	Statement of Nondiscrimination Policy	1
4.	NCQLP Certification	1
5.	NCQLP Lighting Certification Examination	1
6.	Examination Date and Application Deadlines	2
7.	Eligibility Requirements	2
8.	Examination Fees	2
9.	Test Center Information	3
10.	Scheduling an Examination Appointment	3
11.	Examination Rescheduling	3
12.	Requests for Special Accommodations (Manual Application Only)	3
13.	Refunds	3
14.	On the Day of the Examination	3
15.	Admission to the Test Center	3
16.	Inclement Weather	3
17.	Test Center Security and Restrictions	4
18.	Taking the Examination	4
19.	Scores Canceled by NCQLP and/or PSI	5
20.	Questions About the Examination	5
21.	Report of Results	5
22.	Confidentiality	6
23.	Disclaimer	6
24.	Duplicate Score Reports	6
25.	Requests for Handscoring	6
26.	Re-Examination	6
27.	Certification Renewal	6
28.	Lighting Certification Syllabus	6
	Content Outline	6
	Case Study Information	8
	Suggested Reference List	8
	Study Advice	9
	Sample Questions	9
	Case Study Sample Problem	11

Forms

	2020 Lighting Certification Examination Application – Part A	12
	NCQLP Application Consent Form	16
	2020 NCQLP Examination Application – Part B	17
	Recommendation Form	18
	Request for Special Accommodations Provider Form	20

NCQLP | Candidate Handbook

Lighting is the single most important element in the visual environment. Effective lighting improves productivity and strengthens security. Lighting consumes up to 40 percent of the energy used in our buildings. A well-designed lighting system reduces energy, maintenance, and potential liability costs. Both public and private interests are served by more effective lighting and reduced operating costs. Rapid improvements in lighting systems and equipment offer potential solutions, yet they have also made lighting practice more complex.

As the lighting industry has grown, a number of efforts have been undertaken to differentiate knowledgeable and qualified lighting practitioners. As a result, a need was recognized for an independent, industry-wide credentialing effort. Such a program addresses multiple issues that include: safety, health, productivity, energy conservation and effectiveness, environmental concerns, governmental policy, lighting technology, and competent, knowledgeable lighting practice.

1. About NCQLP

The National Council on Qualifications for the Lighting Professions (NCQLP) is an independent certifying body. NCQLP, a non-profit credentialing body composed of membership organizations, sponsors a baseline certification program for individuals in lighting and lighting related professions.

NCQLP is governed by a Board of Directors that represents its member organizations. Member organizations include the:

- Design Lights Consortium (DLC)
- Illuminating Engineering Society (IES)
- International Association of Lighting Designers (IALD)
- interNational Association of Lighting Management Companies (NALMCO)
- Lighting Research Center (LRC)
- National Association of Independent Lighting Distributors (NAILD)
- National Electrical Manufacturers Association (NEMA)
- New York State Energy Research & Development Authority (NYSERDA)
- U.S. Department of Energy – (USDOE)

2. Testing Agency

PSI Services is the professional testing agency under contract with NCQLP to assist in the development, site management, scoring and analysis of the Lighting Certification Examination. PSI services also include reporting of scores to candidates who take the Examination. PSI is a leader in the testing industry, offering certification, licensing, talent assessment and academic solutions worldwide.

3. Statement of Nondiscrimination Policy

NCQLP and PSI do not discriminate among applicants on the basis of age, gender, race, religion, national origin, disability, sexual orientation or marital status.

4. NCQLP Certification

NCQLP Certification is a voluntary, industry-led effort. It is a recognition of those professionals who have met specified minimum standards, as measured by a systematic evaluation of the likelihood of success in executing a set of skills. Those who successfully complete the LC Examination and maintain their certification are entitled to use the appellation LC, Lighting Certified, after their name.

5. NCQLP Lighting Certification Examination

NCQLP offers the Lighting Certification Examination for lighting professionals in design, installation, operations and maintenance of lighting equipment and systems. The Examination tests baseline knowledge of techniques and technologies required for efficient and effective lighting practice.

The Lighting Certification Examination is a **4 hour**, two section Examination. There are 180 multiple-choice questions. Eighty of these questions are a series of job-related case studies.

Multiple-Choice Questions

The multiple-choice section includes questions on the following three major content areas:

- Existing Conditions
- Design Phase
- Bidding and Construction Phase

The Multiple-Choice Section Summary below contains information about the cognitive complexity levels of examination questions. Complexity levels describe the cognitive nature of questions asked as defined below.

Complexity Levels

Recall is the ability to recall or recognize specific information.

Application is the ability to comprehend, relate or apply knowledge to new or changing situations.

Analysis is the ability to analyze information, to put information together to arrive at solutions, and/or to evaluate the usefulness of the solutions.

Multiple-Choice Section Summary

Content Area	Number of Questions by Type			Total
	Recall	Application	Analysis	
1. Existing Conditions	8	15	2	25
2. Design Phase	9	27	9	45
3. Bidding and Construction Phase	6	18	6	30
Total	23	60	17	100

Case Study Information

The case studies are classified in 5 basic construction applications with the following subcategories listed as below. Note: Questions from the 17 Application chapters within the IES Lighting Handbook, 10th Edition, may be distributed across any case study.

1. Commercial (5 case studies)
 - Office
 - Retail
 - Hospitality and Entertainment
 - Sports and Recreation
2. Institutional (6 case studies)
 - Education
 - Health Care
 - Transport
 - Museum
 - Worship
 - Libraries
 - Government (Municipal and Correctional Facilities)
3. Residential (2 case studies)
 - Single Family
 - Multi Family
 - Assisted Living
4. Industrial (2 case studies)
 - Manufacturing
 - Warehouse
5. Exteriors (site and roadway) (1 case study)

Note: Questions will be included on Art; Common Applications; Daylighting; Emergency, Safety, and Security; and Miscellaneous within the above applications.

Note: Your total score will be based on the entire 180 items – 100 from the general multiple-choice section and 80 from the case study section.

NCQLP, with the advice and assistance of PSI, prepares the Examination. The questions are obtained from those with content expertise in lighting and are reviewed for relevancy, consistency, accuracy and appropriateness by NCQLP volunteers.

6. Examination Date and Application Deadlines

REVISED 2020 Examination Schedule

Examination Date	Early Application Postmark Deadline	Final Application* Postmark Deadline
November 7, 2020	August 18, 2020	September 21, 2020

Computer Testing at PSI Test Centers December 1 through December 15, 2020

A Lighting Certification Examination Application is included in this handbook. You may also submit an application online through www.ncqlp.org. All forms must be completed **together** with the required recommendations and the appropriate fee to NCQLP by September 21, 2020. (See application for checklist.)

*September 21, 2020, is the final application mailed or online through www.ncqlp.org submission deadline. THERE ARE NO EXCEPTIONS TO THIS DEADLINE!

7. Eligibility Requirements

To be eligible for the NCQLP Lighting Certification Examination, candidates must meet **one** of the following requirements:

1. Have a bachelor's degree from an accredited college or university and a minimum of three years of lighting-related work experience.
- OR
2. Have a minimum of six years of lighting-related work experience.

Intern LC candidates: Visit the NCQLP website, www.ncqlp.org for information about the Intern LC Program. Qualified students or graduates within one year following graduation with a bachelor's degree only may take the Examination as an Intern.

Letters of Recommendation: All candidates, including Intern LC candidates, are required to submit two Recommendations with their application. These can be from peers, colleagues or supervisors who are non-family members. The Recommendation Form is included in this handbook and may be duplicated. These Recommendation Forms are to substantiate your level of experience. Online Recommendations are directly linked back to your application. They **DO NOT** come directly to NCQLP.

How to Apply: Submit or transmit through the online process under www.ncqlp.org the: completed application (Parts A and B); application Consent Form, two completed Recommendations and appropriate fee to NCQLP by August 18 (early application postmark deadline) or September 21 (final application postmark deadline). **If you have less than six years of lighting-related experience, you MUST include an official, college transcript with your application or, if submitting online, a PDF copy. The transcript CANNOT be sent separately.**

Please wait at least 30 business days following the application deadline before calling NCQLP about your application. An email confirmation of receipt will be sent to all eligible candidates within 30 business days of receipt of the application. **Incomplete applications will be returned without processing.** All application materials must be submitted by September 21, 2020.

8. Examination Fees

Examination	Early Application Postmark Deadline Fee (by August 18)	Final Application Postmark Deadline Fee (by September 21)
Lighting Certification	\$575	\$675

Application fees may be paid by credit card (**American Express, MasterCard, and VISA only**), check or money order payable to NCQLP in U.S. dollars only. **DO NOT SEND CASH.**

9. Test Center Information

Examinations are delivered at PSI Test Centers geographically located throughout the United States. A current listing of PSI Test Centers, including addresses and driving directions, may be viewed at <http://schedule.psiexams.com>. The examinations are administered by appointment only, Monday through Saturday.

10. Scheduling an Examination Appointment

After your application information is received by PSI from NCQLP, you will receive confirmation of eligibility to schedule an examination appointment. You may schedule the examination by one of the following methods. Be prepared to confirm a date and location for testing. Individuals are scheduled on a first-come, first-served basis.

Online Scheduling: You may schedule an examination appointment online at any time at <http://schedule.psiexams.com>. To use this service on our website, follow these easy steps:

- Go to <http://schedule.psiexams.com> and select "Begin Scheduling."
- Follow the simple, step-by-step instructions to choose your examination program and register for the examination.

Telephone Scheduling: Call PSI at 888-519-9901 to schedule an examination appointment. This toll free number is answered from 7:00 a.m. to 9:00 p.m. (Central Time) Monday through Thursday, 7:00 a.m. to 7:00 p.m. on Friday and 8:30 a.m. to 5:00 p.m. on Saturday.

After the appointment is made, you will be given a time to report to the Test Center, and if an email address is provided, you will be sent an email confirmation notice. Unscheduled candidates (walk-ins) will not be admitted to the Test Center.

11. Examination Rescheduling

You may reschedule your examination to a date within the same testing window once at no charge online at <http://schedule.psiexams.com> or by calling PSI at 888-519-9901 at least two business days prior to your scheduled examination appointment.

12. Requests for Special Accommodations (Manual Application Only)

NCQLP and PSI comply with the Americans with Disabilities Act (ADA) and want to ensure that individuals with disabilities are not deprived of the opportunity to take the Examination solely by reason of a disability, as required and defined by the relevant provisions of the law. Special Examination arrangements may be made for these individuals, provided that an appropriate request for accommodation is submitted with the application materials to NCQLP by the application deadline and the request is approved. A form to request accommodation is in this handbook. This form must be signed by an appropriate medical/healthcare professional and submitted with the Examination application and must include all required documentation materials to substantiate the specific needs of each individual. This request cannot be sent online via the NCQLP website.

13. Refunds

REFUNDS WILL NOT BE GIVEN TO INDIVIDUALS REQUESTING TO WITHDRAW FROM THE EXAMINATION AFTER THE APPLICATION IS SUBMITTED. Medical requests signed by the candidate's physician, or conditions beyond the control of the individual, received in writing at least 15 days prior to the Examination date, will qualify the candidate's application to be rolled over to the following year. A rollover is permitted one time only. A \$150 administrative fee is charged, if approved. However, these individuals must submit another set of completed application materials to apply to sit for the Examination the next year. **OTHERWISE, ANY CANDIDATE WHO FAILS TO APPEAR FOR THE EXAMINATION ON THE SCHEDULED DATE WILL FORFEIT THE FULL AMOUNT OF THE EXAMINATION FEE.** Examination fees are not transferable to another testing date unless a rollover has been granted. They can never be transferred to another individual.

14. On the Day of the Examination

Your examination will be given by computer at a PSI Test Center. You do not need any computer experience or typing skills to take your examination. On the day of your examination appointment, report to the Test Center at least 15 minutes before your scheduled testing time for check in and testing instructions. Look for signs indicating PSI Test Center Check-in. **A CANDIDATE WHO ARRIVES MORE THAN 15 MINUTES AFTER THE SCHEDULED TESTING TIME WILL NOT BE ADMITTED.** You will have 4 hours to complete the Examination. Additional time is not allowed. No breaks are scheduled during the Examination.

15. Admission to the Test Center

To gain admission to the test center, two forms of identification are required.

- One form must be a current, permanent identification card issued by a governmental agency that includes both your signature and photograph. Only a driver's license, state or federally issued ID, military ID or passport will be accepted. No form of temporary identification will be accepted.
- The second form of identification must include your name and signature to allow verification of the signature on the first form.
- If your name is different from what appears on either form of identification, you must bring proof of your name change such as a marriage license, divorce decree or court order.

All candidates will also be required to sign a roster for verification of identity. **PROPER IDENTIFICATION IS REQUIRED TO GAIN ADMISSION TO THE TEST CENTER.**

16. Inclement Weather

In the event of inclement weather, natural disasters or unforeseen emergencies on the day of a scheduled Examination, NCQLP and PSI will determine whether circumstances warrant

the cancellation of the Examination at a specific site, and subsequent rescheduling of an Examination at a particular test center(s). The Examination will usually **not** be rescheduled if the supervisor is able to open the test center. Candidates may visit the website www.psonline.com/openings prior to the Examination to determine if PSI has been advised that any test centers are closed. Every attempt will be made to administer all Examinations as scheduled. However, should an Examination be canceled at a test center(s), all scheduled candidates will receive notification following the Examination regarding rescheduling procedures.

17. Test Center Security and Restrictions

PSI administration and security standards are designed to ensure all candidates are provided the same opportunity to demonstrate their abilities. The Test Center is continuously monitored by audio and video surveillance equipment for security purposes.

The following security procedures apply during the examination:

1. Examinations are proprietary. No cameras, notes, tape recorders, pagers or cellular/smart phones are allowed in the testing room. Possession of a cellular/smart phone or other electronic devices is strictly prohibited and will result in dismissal from the examination.
2. A basic hand-held, battery-operated or a solar-operated calculator without paper tape printing or alphabetic memory capabilities and scientific calculators without memory **are permitted**. Candidates are not allowed to share calculators.

Guidelines for Calculators: **What is Allowed?**

- An allowable calculator will be hand-held, solar or battery operated, and silent (i.e., the calculator has NO printing capability).
- Calculators with simple memory or scientific function are allowed.
- Financial and Real Estate calculators generally ARE allowed, but they must be hand held, solar or battery powered and silent.

The HP 12C, HP17BII, the TI-BAll plus, TI-BAll plus Professional calculators do not have full alpha keypads and **ARE ALLOWED**.

Guidelines for Calculators: **What is NOT Allowed?**

- Calculators that are NOT acceptable include large calculators that have printing capabilities or need to be plugged in.
- Calculators with screens that can display more than one line of numbers or those with alphabetic keypads (keys from A-Z that allow text input) are not allowed due to the threat of candidates storing examination information.
- Any mobile device with a calculator function (cell phone, tablet, etc.) is not allowed.

The I-Touch and I-Pad, TI-83 Plus, HP 19BII, 39G, 49G, 48Gx calculators are true programmable devices with alpha keypads and are NOT allowed.

Graphing calculators and phones of any kind, even with calculator functionality, are **STRICTLY PROHIBITED**.

3. No guests, visitors or family members are allowed in the testing room or reception areas.

4. No personal items, valuables, or weapons should be brought to the Test Center. Only wallets and keys are permitted. Coats must be left outside the testing room. You will be provided a soft locker to store your wallet and/or keys with you in the testing room. **If any personal items are observed or heard (e.g., cellular/smart phone, alarm) in the testing room after the examination is started, the administration will be forfeited.**
5. You will be provided with one piece of scratch paper at a time and a pencil to use during the examination, unless noted on the sign-in roster for a particular candidate. You must return the scratch paper to the supervisor at the completion of testing, or you will not receive your score report.
6. No books, reference materials, food or drink may be taken into the Examination room.
7. No Examination materials, documents or memoranda of any kind may be taken from the Examination room.
8. You must have the supervisor's permission to leave the room during the Examination. You will not be allowed additional time to make up for time lost during breaks.
9. No questions concerning the content of the Examination may be asked during the testing period. The candidate should listen carefully to the instructions given by the proctor/supervisor and should carefully read the directions before beginning the Examination.
10. The supervisor may dismiss a candidate from the Examination for any of the following reasons:
 - if the candidate's admission to the Examination is unauthorized;
 - if a candidate creates a disturbance, is abusive or otherwise uncooperative;
 - if a candidate gives or receives help, is suspected of doing so or shows any other evidence of cheating;
 - if a candidate attempts to remove Examination materials or notes from the testing room;
 - if a candidate attempts to take the Examination for someone else;
 - if the candidate displays and/or uses a cellular/smart phone or other prohibited electronic device during the Examination;
 - if the candidate attempts to use unauthorized aids; and/or
 - if the candidate fails to follow Examination regulations or the instructions given by the test center supervisor.

18. Taking the Examination

After your identification has been confirmed, you will be directed to a testing carrel. You will be instructed on-screen to enter your identification number. Your photograph, taken before beginning the examination, will remain on-screen throughout your examination session. This photograph will also print on your score report.

Prior to attempting the examination, you will be given the opportunity to practice taking an examination on the computer. The time you use for this practice examination is NOT counted as part of your examination time or score. When you are comfortable

with the computer testing process, you may quit the practice session and begin the timed examination.

Before beginning the examination, instructions for taking the examination are provided on-screen. The computer monitors the time you spend on the examination. The examination will terminate if you exceed the time allowed. You may click on the Time box in the lower menu bar on the screen to monitor your time. A digital clock indicates the time remaining for you to complete the examination. The Time feature may be turned off during the examination.

Only one examination question is presented at a time. The question number appears in the lower right portion of the screen. Choices of answers to the examination question are identified as A, B, C, or D. You must indicate your choice by either typing in the letter in the response box in the lower left portion of the computer screen or clicking on the option using the mouse. To change your answer, enter a different option by typing in the letter in the response box or by clicking on the option using the mouse. You may change your answer as many times as you wish during the examination time limit. When the examination is completed, the number of examination questions answered is reported. If not all questions have been answered and there is time remaining, return to the examination and answer those questions. **There is no penalty for guessing.**

19. Scores Canceled by NCQLP and/or PSI

NCQLP and PSI are concerned with reporting only valid scores. On rare occasions, circumstances may make Examination scores invalid. NCQLP and/or PSI reserve the right to cancel or withhold any Examination scores if, in their sole discretion, there is cause to question the validity of the scores. Scores declared invalid and canceled by NCQLP and/or PSI may be grouped into two categories:

1. Doubts may be raised about the validity of candidates' scores because of suspected misconduct; in such circumstances, candidates are to cooperate in the investigation of their scores. If scores are canceled because of suspected candidate misconduct, NCQLP will investigate such matters to determine if the candidate will be eligible for retesting.
2. Some scores may be rendered invalid because of circumstances beyond the candidates' control. NCQLP and/or PSI will investigate such situations. When such occurrences result in canceling candidates' scores, NCQLP is notified that there are no reportable scores for reasons beyond the candidates' control. In this event, NCQLP and PSI will determine the appropriate action to take for these candidates.

In addition to the reasons listed above, NCQLP may cancel or invalidate Examination results if, upon investigation, violation of the policies outlined in this publication are found to have occurred.

20. Questions About the Examination

Candidates may comment on any Examination question at the time of the Examination if a question is believed to be misleading or deficient in accuracy or content by clicking

on the Comment button to the left of the Time button. This opens a dialogue box where comments may be entered. Each comment will be individually reviewed before Examination scoring. Individual responses to comments on questions will not be provided. **No comments on questions will be considered after Examination results are released to candidates.** Following the Examination, candidates may not have access to the Examinations or to specific questions.

Any complaints about the conduct of the Examination or the test center have to be submitted in writing to the Operations Department, PSI, 18000 W. 105th St., Olathe, KS 66061-7543 within **10 days** following the Examination, with a copy to NCQLP.

21. Report of Results

Candidates will be notified by the end of January following the Examination date whether they have passed or failed the Examination. **No results will be provided by telephone.** Examination scores are reported as raw scores and a total scaled score is given. A raw score is the number of correctly answered questions. The scaled score is statistically derived from the raw score. Your total raw score determines whether you pass or fail, and is converted to a scaled score ranging between 0 and 99. A scaled score of 70 is required to pass.

The reason for reporting scaled scores is that different forms or versions of the Examination may vary in difficulty. As new forms of the Examination are introduced, many questions in each content area are replaced. These changes may cause one form of the Examination to be slightly easier or harder than another form. To adjust for these differences in difficulty, a procedure called "equating" is used. The goal of equating is to ensure fairness to all candidates.

In the equating process, the minimum raw score which is the number of correctly answered questions required to equal the scaled passing score, is statistically adjusted, or equated. For instance, if the Examination is determined to be more difficult than the base form of the Examination, then the minimum raw passing score required will be slightly lower than the original raw passing score. If the Examination is easier than the base form of the Examination, then the minimum raw score will be higher. Equating helps to assure that the scaled passing score represents the same level of difficulty no matter which form of the Examination a candidate takes.

In addition to the candidate's total raw and scaled scores, raw scores are reported for all the major content categories of the Multiple-Choice Examination. The number of questions answered correctly in each content category is compared to the total number of questions that is possible in that category on the Examination such as 15/20. However, passing the Examination is based only on the candidate's total scaled score.

Successful candidates receive from NCQLP a letter, certificate and pin sent in late February. Successful candidates will also be given access to their online profile in late February.

22. Confidentiality

Individual Examination scores are released ONLY to the individual candidate. Results will not be given via telephone, fax or email. NEITHER NCQLP OR PSI CAN DISCUSS ANYTHING RELATED TO AN INDIVIDUAL WITH ANYONE OTHER THAN THAT INDIVIDUAL. Successful candidate names may be listed in NCQLP member organizations' publications.

23. Disclaimer

The report of Examination results by PSI is for the sole use of the individual candidate. Any use of Examination results by other entities is inappropriate and NCQLP can assume no responsibility or liability for such use.

24. Duplicate Score Reports

Requests for duplicate score reports must be made in writing to PSI within one year of the Examination date. Your request must include your name, mailing address, Examination date, test site and signature. The fee for a duplicate score report is \$25; include a check or money order made payable to PSI Services Inc. for this amount with your request and mail to: PSI, 18000 W. 105th St., Olathe, KS 66061-7543.

25. Requests for Handscoring

Candidates who do not pass the Examination may request a manual verification of the computer scoring. Requests for manual rescoring must be submitted to PSI, 18000 W. 105th St., Olathe, KS 66061-7543 in writing within one year of the Examination with a copy to NCQLP. The fee to hand score the Examination is \$25. The request should include: your name, mailing address, Examination date, test site, signature and a copy of your score report. Upon receipt of the request and appropriate fee, the candidate's answer sheet will be inspected and handscored. This process takes approximately 30 days. Candidates near a passing score should be aware that to ensure correct reporting of results, the testing agency selects a random sampling of Examinations of candidates who score within one unit of passing. These Examinations are automatically hand-scored before results are mailed as a quality control measure. Thus, it is extremely doubtful that any Examination results will change from "fail" to "pass" through handscoring.

26. Re-Examination

There is no limit to the number of times unsuccessful candidates may take the Examination, provided that all eligibility requirements in effect at the time of application for Re-Examination have been met. To apply for Re-Examination, candidates must request, complete and resubmit all required application forms and pay the appropriate Examination fees.

27. Certification Renewal

LCs are required to renew their certification every three years. Retaking and passing the LC Examination satisfies this requirement for one three-year cycle. For complete information on Certification Renewal refer to the *Certification Renewal Guidelines* at www.ncqlp.org.

28. Lighting Certification Syllabus

Content Outline

To begin your preparation in an informed and organized manner, you need to know what to expect from the actual Examination in terms of content. Information regarding the content of the Examination is presented in this handbook. The content outline provides a general overview of the Examination and, with closer inspection, can give you specific study direction because the percentages indicate the relative importance of each category on the Examination.

The content of the Examination is based on a job analysis and is described in the detailed content outline that follows.

Lighting Certification Examination Content Outline

This Examination tests both knowledge of basic concepts and ability to solve design problems.

I. EXISTING CONDITIONS (25 Items)

A. Assess Lighting Systems

1. Luminaire types
2. Luminaire placement
3. Luminaire mounting
4. Light source (e.g., types, CCT, CRI, spectral distribution)
5. Ballast/Driver (e.g., types, voltage, current, ballast factor)
6. Illuminance levels
7. Daylighting conditions and characteristics
8. Lighting controls (e.g., occupancy sensors, timer switches, photocells, dimmers, energy management systems)
9. Emergency lighting and exit signs
10. Light quality (e.g., under/overlighting, glare, light pollution, light trespass)
11. Equipment (e.g., failure, flicker, cycling)
12. Electrical conditions (voltages)

B. Review Building Conditions

1. Ceiling types
2. Plenum depth (e.g., HVAC diffusers, ducts)
3. Building or space characteristics
 - age
 - height, width, length, orientation, latitude
 - surface reflectances
 - available daylighting
 - luminance ratios
 - aesthetic conditions
 - owned vs. leased
4. Standards and Code compliance

C. Verify Factors Affecting Energy Usage

1. Hours of operation
2. Utility rates and cost (e.g., demand charges, load shedding, time of use)
3. Control schedules and technologies (e.g., bi-level, sensors)

D. Evaluate Human Factors

- tasks being performed
- age

- speed
- physiological issues
- accuracy
- user opinions

E. Establish Baseline or Existing Annual Costs

- energy
- maintenance

II. DESIGN PHASE (45 Items)

A. Programming

1. Establish design constraints
 - a. regulatory (Codes (e.g., NFPA 101, NFPA 70, building codes, energy codes), Standards (e.g., ASHRAE 90.1, OSHA, ADA Accessibility, IES Recommended Practices), Regulations (e.g., product safety certification, EPACK/EISA))
 - b. project constraints (e.g., budget, maintenance, flexibility, schedule)
 - c. physical constraints (e.g., architectural, mechanical, structural, electrical, acoustical, fire ratings)
2. Establish criteria
 - a. daylight
 - b. sustainability (e.g., LEED, RoHS, MLO, sustainability codes)
 - c. human health and performance (e.g., WELL standard, CDC Health Impact Assessment, IEEE1789)
3. Define proposed conditions
 - a. colors
 - b. finishes (e.g., material, specular, reflectance)
4. Human Factors (Psychological/Physiological)
 - a. determine users' needs (e.g., visual performance, visual comfort)
 - b. assess users' expectations
5. Establish Programming Report
 - a. electrical requirements
 - b. lighting power density
 - c. brightness hierarchies
 - horizontal and vertical illuminances of key surfaces
 - surface colors/reflectances
 - luminance/exitance ratios
 - d. budget
 - e. schedule

B. Schematic Design

1. Develop preliminary design concept
 - a. evaluate ideas of owner, architect, interior designer
 - b. determine design objectives
 - c. determine lighting system
 - lighting qualities/design issues (e.g., color, surface color enhancement, texture)
 - luminous composition
 - illuminances/light levels
2. Prepare preliminary cost projection
3. Refine design concept (e.g., design iterations)
4. Specify critical product criteria
 - dimensions
 - matching of components
 - lighting performance
 - custom fixtures

5. Prepare design report and presentation
6. Identify/evaluate/select lighting technologies
 - a. electrical light sources
 - b. daylighting technologies
 - c. control techniques
 - d. cost and energy evaluation
 - e. reliability
 - f. ease and cost of installations, operation, maintenance
 - g. integration (e.g., systems, materials, finishes)
 - h. photometrics
7. Perform preliminary calculations and estimates
 - a. lighting calculations
 - b. energy and code compliance analysis
 - c. budget (e.g., base budget and value engineering)

C. Design Development

1. Compare and confirm design concepts with detailed technical analyses
 - a. review manufacturer's data
 - b. evaluate performance (e.g., photometrics, color, uniformity, binning)
 - c. perform lighting calculations
 - d. compatibility (e.g., dimming, controls, electrical)
 - e. finalize lighting techniques (e.g., direct, indirect) and select equipment (e.g., lamp, ballast, luminaire, controls)
2. Develop plans and specifications
 - a. layout/drawings
 - b. specifications and details
 - c. daylighting
3. Develop controls concept
 - a. create control narrative (e.g., sensor settings, schedules, equipment)
 - b. select technologies and equipment (e.g., review samples, manufacturer's data)
 - c. define control zones
4. Verify product availability
5. Review with project team
6. Prepare presentation for owner/client

D. Construction Documents

1. Finalize lighting drawings and specifications
2. Finalize control drawings and specifications
3. Finalize commissioning/programming documents
4. Perform QA/QC review

E. Determine Proposed Energy Use and Costs

- installation (e.g., equipment, labor, disposal, recycling)
- energy
- incentives/rebates
- operations & maintenance

F. Identify and Evaluate System Costs and Savings

- Simple Payback
- Life Cycle Cost Benefit Analysis
- Return on Investment
- Net Present Value
- Internal Rate of Return

III. BIDDING AND CONSTRUCTION PHASE (30 Items)

- A. Respond to Bid Requests for Information (RFIs)
- B. Issue Bid Addenda
- C. Review and Respond to Contractor Proposals (e.g., substitutions, scope of work, schedule, value engineering)
- D. Prepare / review Submittals
- E. Prepare / respond to RFIs
- F. Perform Field Observation Reports
- G. Prepare Supplemental Instructions / Change Orders
- H. Prepare / review Record Drawings and Specifications
- I. Develop Punch List
- J. Evaluate Lighting Performance vs. Design Criteria
- K. Focus and Adjust Luminaires
- L. Commission Control Functions and Program
- M. Develop Documentation
 1. Luminaire, lamp, and control schedules
 2. Control settings
- N. Train Client
- O. Troubleshoot (e.g., premature component failure, control systems operating improperly, flicker, low lumen output, color shift, lamp cycling)

Case Study Information

The case studies are classified into 5 basic construction applications with the following subcategories listed as below. Note: Questions from the 17 Application chapters within the IES The Lighting Handbook, 10th Edition, may be distributed across any case study.

1. **Commercial (5 case studies)**
 - Office
 - Retail
 - Hospitality and Entertainment
 - Sports and Recreation
2. **Institutional (6 case studies)**
 - Education
 - Health Care
 - Transport
 - Museum
 - Worship
 - Libraries
 - Government (Municipal and Correctional Facilities)
3. **Residential (2 case studies)**
 - Single Family
 - Multi Family
 - Assisted Living
4. **Industrial (2 case studies)**
 - Manufacturing
 - Warehouse
5. **Exteriors (site and roadway) (1 case study)**

Note: Questions within the above applications will include Art; Common Applications; Daylighting; Emergency, Safety, and Security; and Miscellaneous.

Suggested Reference List

The suggested reading lists are intended to assist Lighting Certification Examination candidates in preparing for the Examination. The primary reference list includes basic texts in lighting and related disciplines; chapters and specific information within the texts are directly related to the content outline. The reference list is divided into two sections: Primary References and Secondary References. The Primary References provide broad, reasonably complete coverage of the topic areas in the content outline. The Secondary References offer additional detail and are more specific.

It is not the intention of NCQLP and its volunteers that a candidate purchase all the books listed on the reference list. Most of the information on the Examination is based on the general knowledge required for competent practice at the three to six years of experience level. Candidates may have other references that cover the same content areas within the Examination. If the references are current and reflect common practice, they will provide general background for the Examination.

Candidates are expected to be familiar with regulations that directly impact lighting and are broadly applied across the U.S. in Regional/Local codes. Standards and regulations will not be included on the Examination.

Successful candidates will have an understanding and working knowledge of the guidelines, standards and regulations that apply to lighting such as the Americans with Disabilities Act (ADA), OSHA Safety and Health Standards, and UL. A thorough understanding of the topics covered by the references correlate with success on the LC Examination.

Many books are available and can be obtained in bookstores or by contacting individual publishers. IESNA specifically carries the references in its publications catalogue and candidates may purchase them there.

Primary Reference List 2020 – See all lighting-related sections of the following sources.

- IES Lighting Handbook, Tenth Edition. 2011.
- ASHRAE/IESNA Standard 90. 1-2016, American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE), Atlanta, GA. 2016.
- ANSI/IES RP-1-12 American National Standard Practice for Office Lighting. 2012.
- ANSI/IES RP-8-18 Roadway Lighting. 2018.
- IES LEM 3-13 IES Guidelines for Upgrading Lighting Systems in Commercial and Institutional Spaces. 2013.
- NFPA 101: Life Safety Code, 2018 Edition. National Fire Protection Association (NFPA) Quincy, MA.
- IET: Code of Practice for the Application of LED Lighting Systems. 2014.

NCQLP Candidate Handbook

Secondary Reference List 2020 – See all lighting-related sections of the following sources.

- IES RP-5-13 Recommended Practice for Daylight Buildings.
- Fundamentals of Solid-State Lighting: LEDs, OLEDs, and Their Applications in Illumination and Displays. Khanna, Vinod Kumar. CRC Press, Boca Raton, FL. 2014.
- ANSI/IES RP-28-16 Lighting and the Visual Environment for Senior Living. 2016.
- Lighting Control Handbook. DiLouie, Craig. The Fairmont Press Inc., Lilburn, GA. 2007.
- LEED Reference Guide for Building Design and Construction, Version 4. USGBC. 2013.
- Architectural Lighting Design, Third Edition, Steffy, Gary R., John Wiley & Sons, NY. 2008.
- NFPA 70 National Electrical Code, 2017 Edition. National Fire Protection Association (NFPA) Quincy, MA.

Study Advice

The advice offered here may be helpful as you prepare for the Examination. Try to be objective about yourself and your individual learning needs when you are deciding how to proceed with your study.

Determine how you study best. Some students seem to learn faster by hearing the information, while others need to see it written or illustrated, and still others prefer to discuss material with colleagues. A combination of these alternatives can often produce the best results. If you had success in lecture courses, you may need to hear information for best retention. If you find that you prefer to read material, then you might consider writing important facts on 3x5 cards. You can refresh your memory by periodically reviewing these cards. This technique is especially useful if you write the material thoughtfully and concisely, which allows you to digest the material through both reading and writing. You may wish to organize a study group or find a study partner. **(NCQLP IS NOT INVOLVED IN FORMING STUDY GROUPS.)** Once you decide on the most effective and comfortable method for you, focus on that preference and use the other techniques to complement it.

Plan your study schedule well in advance. Use learning techniques such as reading or audiovisual aids. Be sure you find a quiet place to study where you will not be interrupted. We suggest you concentrate your study efforts on a few carefully chosen references from the resource list provided.

Sample Questions

1. When evaluating daylighting systems in terms of glare, the MOST important illumination conditions to be evaluated are those occurring
 - A. when cooling loads due to solar gains are greatest.
 - B. when direct sunlight would penetrate the fenestration.
 - C. at 2-hour intervals from sunrise to solar noon.
 - D. at the solstices and the equinoxes.
2. The term luminaire refers to a
 - A. lighting unit exclusively for roadway illumination.
 - B. lighting unit exclusively for interior illumination.
 - C. complete lighting unit without light source and electrical components.
 - D. complete lighting unit including light source and electrical components.
3. Which of the following is the BEST definition of illuminance?
 - A. luminous flux density incident on an object per unit area
 - B. flux density emitted from an object without regard for direction
 - C. flux density emitted from an object in a given direction
 - D. time rate of flow of light energy
4. Which of the following is a CIE/IES luminaire distribution classification category?
 - A. semi-direct
 - B. concentrating
 - C. forward throw
 - D. wall wash
5. A hospital is experiencing EMI problems with its radiology equipment. The lighting system in this area has been identified as a 2 x 4 lensed troffer. The interference can be attributed to the luminaire's
 - A. size.
 - B. proximity.
 - C. electrical characteristics.
 - D. spectral power distribution.

6. When evaluating an existing fluorescent lighting system for potential LED upgrade, mean lumens to rated lumens is
 - A. initial ballast factor.
 - B. initial lumen output.
 - C. lamp lumen depreciation.
 - D. luminaire dirt depreciation.
7. A ray of incident light being reflected in one distinct direction is representative of which of the following types of reflection?
 - A. spread
 - B. diffuse
 - C. specular
 - D. semi-specular
8. IES Standard IES-LM-80 provides LED fixture manufacturers a method to
 - A. measure lumen maintenance.
 - B. identify gamut area.
 - C. quantify fidelity.
 - D. define efficacy.
9. A lighting practitioner is designing a new car dealership to meet LEED requirements. The owner wishes to leave all of the parking lot luminaires on after business hours. Which of the following lighting control systems is MOST appropriate?
 - A. on/off switched
 - B. dimming
 - C. vacancy sensor
 - D. photocell
10. An energy-saving measure reducing lighting demand by 24.5 kW costs \$11,000 to install. Given 4,000 annual operating hours and \$0.085 per kWh, what is the simple payback?
 - A. 0.8 years
 - B. 1.3 years
 - C. 3.8 years
 - D. 4.3 years
11. In life-cycle cost benefit analysis, the measure of results is expressed in
 - A. deferred expenses.
 - B. kWh saved.
 - C. net present value.
 - D. risk factors.
12. Before a lighting system can be commissioned, the punch list
 - A. must be completed by the contractor.
 - B. must be certified by the inspector.
 - C. must be approved by the owner.
 - D. cannot be modified by the practitioner.
13. An electrical contractor should notify the lighting practitioner of the anticipated date of substantial completion so that
 - A. the practitioner can walk through with the electrical inspector.
 - B. drivers can be calibrated by the electrical engineer.
 - C. alternative luminaires can be ordered to meet the new schedule.
 - D. a schedule can be set for aiming and adjusting the fixtures.
14. To ensure a lighting design's projected energy savings are realized after installation, which of the following must be completed?
 - A. Calibrate occupancy sensors.
 - B. Focus the adjustable accent lights.
 - C. Inspect the branch circuit wiring.
 - D. Finalize the punch list.
15. Which of the following color sample sets is used to calculate the CRI/Ra of a light source?
 - A. R1-R8
 - B. R1-R9
 - C. R1-R14
 - D. R1-R99

Answer Key

- | | |
|------|-------|
| 1. B | 9. B |
| 2. D | 10. B |
| 3. A | 11. C |
| 4. A | 12. A |
| 5. C | 13. D |
| 6. C | 14. A |
| 7. C | 15. A |
| 8. A | |

Case Study Sample Problem

Case Study: A lighting practitioner has been asked to redesign the lighting in the common areas of a retirement facility built in 1968. The facility is privately owned and located in a rural area of the United States. Reflectance values are 70/40/20. The existing overall appearance of the facility is dark and gloomy. Additionally, the owner wishes to decrease energy costs.

16. During the first site visit, which of the following information should the practitioner collect?
- A. resident preferences
 - B. current maintenance procedures
 - C. occupant age and gender distribution
 - D. impact of daylighting in existing spaces
17. After collecting initial project information, which of the following should the practitioner do NEXT?
- A. Establish preliminary design constraints.
 - B. Create a budget for the entire design.
 - C. Prepare plans and specifications for lighting the areas.
 - D. Replace all existing lamps with same wattage and type.
18. Prior to redesigning the 2 x 4 recessed troffer lighting system in the dining room, the practitioner should recommend
- A. replacing the ceiling with a tan acoustical tile.
 - B. painting the walls with a cream semi-gloss paint.
 - C. replacing the flooring with a charcoal-colored carpet.
 - D. painting the north-facing walls with a navy blue high-gloss paint.
19. The 15' x 20' lobby has a 10" plenum depth and a ceiling height of 9' AFF. Artwork is displayed on the walls. Which of the following combinations is the MOST appropriate lighting system?
- | <u>Ambient</u> | <u>Accent</u> |
|-------------------------------------|---------------------|
| A. 2' x 2' volumetric troffers | wall washers |
| B. two-tier chandelier | track lighting |
| C. surface-mounted decorative bowls | linear wall grazers |
| D. recessed downlights | recessed adjustable |
20. To BEST integrate daylighting into the design solution, which of the following should the practitioner do at this time?
- A. Install a pre-set control system that will control daylighting levels through the control of existing adjustable blinds.
 - B. Recommend all south-facing windows be redesigned to increase light penetration.
 - C. Install a photosensor-activated control system for both ambient lighting and motorized shades.
 - D. Recommend 2700K CCT luminaires be installed to match daylighting.

Answer Key

- 16. D
- 17. A
- 18. B
- 19. D
- 20. C

2020 LIGHTING CERTIFICATION EXAMINATION APPLICATION

Part A

INSTRUCTIONS FOR COMPLETING THE LIGHTING CERTIFICATION EXAMINATION APPLICATION

The following instructions are offered to help you complete your application correctly when applying for the NCQLP Lighting Certification Examination. Read the information provided in the Candidate Handbook before completing the application. **Incomplete or illegible applications and applications submitted without proper payment will be returned unprocessed.**

You must complete your application manually if you are requesting Section 20 – Special ADA Accommodation.

If completing the online application through www.ncqlp.org, please follow the format and prompts provided.

PART A

SIGNATURE. You must read, sign and date this section for your application for it to be processed.

Sections 1, 2 – NAME AND FORMER NAME. Print your first name, middle initial, last name and former name (if applicable) in the boxes provided. Print only one letter in each box. Do not use hyphens or any punctuation marks in these spaces. If your name has a generational suffix, please indicate Jr., Sr., II, III, etc.

Section 3 – DATE OF BIRTH. Write the two digit month of your birth. Next, print the two digits for the day and year of your birth in the boxes supplied. Please use two digits for the month, day (e.g., 03) and year (e.g., 60 for 1960).

Section 4 – GENDER. Blacken the circle which corresponds to your gender.

Sections 5, 6 – DAYTIME TELEPHONE AND FAX NUMBERS. Please provide the area code and number of the telephone and fax numbers where you can be reached on weekdays between 9:00 a.m. and 5:00 p.m. Central Time (daytime telephone).

Section 7 – EXAMINATION DATE. Indicate the month and day you are applying to take the Examination.

Section 8 – TEST CENTER CODE. Using the test center list on page 2 of this handbook, you **MUST** enter the test center code for the site where you wish to take the Examination.

Section 9 – RESIDENCE STREET ADDRESS. Print only one number or character per box. Leave a blank box between the numbers and the street name where you would normally leave a space. If your address is too long, please abbreviate the street name. Enter your apartment number, P.O. Box number or any address addendum in the spaces provided to the right of the street address. Please abbreviate where possible. **Important: The mailing address you provide on your application will be used to mail your admission letter and examination results unless you indicate a change of address no later than 30 days before the Examination. If you move after this time, leave a forwarding address with your post office so the pertinent information can be forwarded to your new address.**

Section 10 – CITY/STATE. Print the name of the city in the boxes provided. Use the standard two-character abbreviation, such as, TX for Texas, to indicate the state.

Section 11 – ZIP CODE/POSTAL CODE. Enter your nine-digit zip code in the boxes. Applicants with alpha and numeric postal codes must enter their postal codes in the boxes provided.

Sections 12, 13 – FOREIGN PROVINCE AND COUNTRY. Enter the Province in which you reside and blacken the circle which corresponds to the Country in which you reside. If you reside in a country other than the United States, please provide the additional information requested.

Section 14 – EMAIL ADDRESS. Enter your email address in the boxes provided.

Sections 15, 16, 17. Complete each section by entirely blackening the appropriate circles for each question. Where additional information is required, please type or print CLEARLY.

Section 18 – TRANSCRIPTS. *Complete this section ONLY if you are applying as an individual with a bachelor's degree **with less than six years of professional lighting-related work experience.*** The transcript **MUST** be included with the application.

Section 19 – SPECIAL TEST CENTER REQUEST. Blacken this section if you are requesting a test center other than the established centers listed on page 2. Special instructions for requesting a special center are provided in the REQUEST FOR SPECIAL TEST CENTERS section on page 3 of the Candidate Handbook.

Section 20 – SPECIAL ADA ACCOMMODATION REQUEST. Complete this section if you have a disability and require special testing accommodations. The Request for Accommodations form on page 23 must be completed and submitted with your application.

PART B

Complete the information as requested on Part B of the application.

When completed, follow the online application process located at www.ncqlp.org or mail the application (Parts A and B) with the appropriate fee and all required documentation to:

NCQLP, P.O. Box 142729, Austin, TX 78714-2729

If utilizing private carriers, please use the physical address of 1016 La Posada Drive, #155, Austin, TX 78752.

2020 Lighting Certification Examination Application

**Read the Candidate Handbook in its entirety before completing this application.
ALL SECTIONS OF THIS APPLICATION FORM MUST BE COMPLETED, IF REQUIRED. This form
will be returned, if it is incomplete, illegible, or received after the application deadline.**

TO APPLY online, go to www.ncqlp.org.

TO APPLY using this form:

1. Complete **all** portions of this application.
2. Checklist:

ALL ITEMS MUST BE ENCLOSED OR YOUR APPLICATION
WILL BE RETURNED WITHOUT PROCESSING

- Part A
- Part B
- Consent Form
- Recommendation 1
- Recommendation 2
- Appropriate Fee
- Transcript (if less than 6 years of experience)
- Letter of Eligibility from Accredited Institution (if Intern LC)

Every applicant, including Intern LCs, must submit all required materials in their application packet.

3. Mail the application to:

**NCQLP
P.O. Box 142729
Austin, TX 78714-2729**

If utilizing private carriers, please use the physical address of 1016 La Posada Drive, #155, Austin, TX 78752.

An email will be sent within 30 business days confirming receipt of your application.

NCQLP WILL RETURN INCOMPLETE APPLICATIONS.

1	NAME: FIRST	MI	

NAME: LAST	GENERATION	2 FORMER NAME

3 DATE OF BIRTH		
MONTH	DAY	YEAR
		1 9

4 GENDER
<input type="radio"/> MALE
<input type="radio"/> FEMALE

5 DAYTIME TELEPHONE NUMBER	
AREA CODE	
	-

6 FAX NUMBER	
AREA CODE	
	-

7 EXAMINATION DATE		
MONTH	DAY	YEAR
		2 0 2 0

8 TEST CENTER CODE

9 RESIDENCE STREET ADDRESS (Abbreviate if necessary.)	APT, PO, ETC. (Abbreviate if necessary.)

10 CITY	STATE

11 ZIP CODE/POSTAL CODE

12 PROVINCE

13 COUNTRY
<input type="radio"/> UNITED STATES
<input type="radio"/> CANADA
<input type="radio"/> OTHER: _____

14 EMAIL ADDRESS

15 ELIGIBILITY STATUS

Please choose one.

- I have a bachelor's degree from an accredited college or university and a minimum of three years experience. (Complete section 18.)
- I have a minimum of six years of experience.
- I am applying as an Intern to take the examination.
- I am currently Certified and wish to retake the examination to fulfill my current certification requirement.
- I am a reapplicant for the LC Examination. The last time I attempted this examination was:

Write the month and year you last took the examination.

MONTH			YEAR		

16 EDUCATION

Indicate the highest degree you have obtained.

- High School Diploma or equivalent
- Trade Certification: _____
- Associate's Degree
- Bachelor's Degree
- Master's Degree – Field: _____
- Doctoral Degree – Field: _____
- Other: _____

17 FEES

Indicate the appropriate fee(s). Examination fees may be paid by check or money order (payable to NCQLP) or by credit card (**VISA, American Express and MasterCard only**) in U.S. dollars only.

Early Application Postmark Deadline Fee (August 18) \$ 575

Final Application Postmark Deadline Fee (September 21) \$ 675

Intern Application Fee. \$ 100

Additional Fee

Special Test Center Fee within USA \$1,250

TOTAL ENCLOSED \$ _____

If payment is made by credit card, please provide the following information. (**VISA, American Express and MasterCard only**)

Credit Card No. _____

Corporate Card: Yes No By signing this form you are agreeing to abide by the policies regarding payment.

Expiration Date _____

Signature _____

Cardholder Name (print) _____

18 TRANSCRIPTS

Individuals applying with a bachelor's or higher degree should complete this section. The transcripts must be included with the application materials for all candidates with less than six years of professional lighting-related work experience.

School Name: _____

School Address: _____

Dates Attended: From _____ Through _____

Degree(s) Earned: _____

19 SPECIAL TEST CENTER REQUEST

- YES (Please include appropriate documentation and fee.)

20 SPECIAL ADA ACCOMMODATION REQUEST

- YES (Complete the form included in the handbook.)

SIGNATURE

Please read, sign and date the statement below.

Applications without this section completed will be returned unprocessed.

I hereby apply to sit for the NCQLP Lighting Certification Examination. I certify that I have read all portions of the Candidate Handbook and application and that all information that has been or will be submitted to NCQLP from me or on my behalf is true and accurate to the best of my knowledge. I understand that if the information I have submitted is determined by NCQLP to be incomplete or inaccurate, my application may be rejected or my examination results may be delayed or invalidated. I hold NCQLP and its officers, directors, volunteers and employees harmless for any action taken pursuant to the rules and standards of the NCQLP Lighting Certification Examination process as outlined in the Candidate Handbook and application with regard to my Certification. I hereby waive any claim or cause of action against the NCQLP including any claims or causes based on negligence arising out of any actions or failures to act by the NCQLP in granting, denying, or revoking any Certifications except claims based on gross negligence or lack of good faith by the NCQLP. By signing this statement, I acknowledge that I have read and understand this information, and agree to abide by these NCQLP policies including keeping confidential specific details of examination items nor will I share this information with outside parties. I certify that all items on the checklist are enclosed. If they are not, I understand that all materials will be returned without processing.

Candidate Name (Please print)

Signature Date

FOR OFFICE USE ONLY



NCQLP Application Consent Form

I _____ hereby make application to NCQLP for eligibility for NCQLP Lighting Certification, in accordance with its rules and regulations. I certify that all information contained in my application for NCQLP Lighting Certification is true and accurate to the best of my knowledge. I understand that if any statement made on this application or hereafter supplied to NCQLP is false, incomplete or inaccurate or if I violate any of the rules or regulations of NCQLP, I may be denied eligibility for Certification, or my Certification may be revoked or otherwise limited. I understand that if I receive NCQLP certification, it will be my responsibility to remain in compliance with all NCQLP requirements for Certification as they presently exist and as they may be revised, to keep my Lighting Certification current.

In addition, I hereby authorize NCQLP, its officers, directors, committee members, employees, and agents (the "above-designated parties"), to review my application for eligibility for NCQLP Lighting Certification, and, if I receive NCQLP Lighting Certification, to initiate review of my continued eligibility for NCQLP Lighting Certification. I agree to cooperate promptly and fully in any such review, including submitting such documents and information deemed necessary to confirm the information in this application. I hereby authorize NCQLP, now and in the future, to request and procure any information necessary for such review from any individual or institution, each of which shall be absolutely immune from civil liability arising from any act, communication, report, recommendation or disclosure of any such information even where the information involved would otherwise be deemed privileged so long as any such conduct is performed or made in good faith and without malice or gross negligence. I authorize the above-designated parties to communicate any and all information relating to any NCQLP application and review thereof including but not limited to pendency or outcome of disciplinary proceedings to state and federal authorities, employers and others.

I understand that NCQLP may use any score in psychometric analyses to confirm observations and reports of suspected irregularities in the conduct of an Examination or review, and respond to any inquiry about my status in its Examination or review system in accordance with its then-current policy.

I certify that I am the candidate whose signature appears below. Because of the confidential nature of the NCQLP Lighting Certification Examination, I will not take any Examination materials from the test site, reproduce the Examination materials, or transmit the Examination questions or answers IN ANY FORM, written or verbal, to any other person. I understand that I may only seek admission to sit for the NCQLP Lighting Certification Examination for the purpose of seeking NCQLP Lighting Certification or Certification renewal, and for no other purpose. I understand that NCQLP reserves the right to refuse admission to any NCQLP Lighting Certification Examination to me if I do not have the proper identification, or if administration has begun. If I do anything which is not authorized or which is prohibited by NCQLP in connection with any NCQLP Examination, I understand that my examination performance may be voided, and such activity may be the subject of legal action. If I am refused admission for any of these reasons, fail to appear at the test site, or if my examination performance is voided, I will receive no refund of the application or examination fees and there will be no credit for future examinations.

I understand that review of the adequacy of examination materials will be limited to computing any scoring correction. I waive all further claims of examination review and agree to indemnify and hold harmless the above-designated parties for any action taken pursuant to the rules and standards of NCQLP with regard to this application, my Lighting Certification and/or Certification renewal.

By signing, I hereby certify that I have read and understand this information, and that I am in compliance and will remain in compliance with all rules and regulations of NCQLP, as now constituted and as they may be amended.

Signature

Date



2020 NCQLP Examination Application – Part B

The following information is confidential. Data will be used to develop a profile of those within the NCQLP's Certification Program. It will be aggregated for statistical purposes. The information will not be used or considered in connection with any decision regarding Certification.

Please provide the following information as it will allow NCQLP to better serve you, the lighting industry and the public. Detach this page from the handbook and submit it with your completed application.

1. Please list your email address for communication purposes: _____

2. Which ONE phrase BEST describes your primary job responsibility?

- | | |
|--|--|
| <input type="radio"/> A. Architect | <input type="radio"/> K. Landscape Architect |
| <input type="radio"/> B. Contractor | <input type="radio"/> L. Lighting Designer/Consultant |
| <input type="radio"/> C. Distributor | <input type="radio"/> M. Manufacturer |
| <input type="radio"/> D. Educator | <input type="radio"/> N. Manufacturers' Representative |
| <input type="radio"/> E. Electrical Engineer | <input type="radio"/> O. Marketing |
| <input type="radio"/> F. Energy Services | <input type="radio"/> P. Product/Industrial Designer |
| <input type="radio"/> G. Estimator | <input type="radio"/> Q. Retrofitter |
| <input type="radio"/> H. Facilities Manager | <input type="radio"/> R. Sales Representative |
| <input type="radio"/> I. Government Employee | <input type="radio"/> S. Utility Company Employee |
| <input type="radio"/> J. Interior Designer | <input type="radio"/> T. Visual Merchandiser |

3. Check the lighting-related organizations of which you are a member:

- | | | |
|--------------------------------|-------------------------------|---------------------------------|
| <input type="radio"/> A. AEE | <input type="radio"/> E. IALD | <input type="radio"/> I. IIDA |
| <input type="radio"/> B. AIA | <input type="radio"/> F. IEEE | <input type="radio"/> J. NALMCO |
| <input type="radio"/> C. ASID | <input type="radio"/> G. IES | <input type="radio"/> K. NAILD |
| <input type="radio"/> D. CIBSE | <input type="radio"/> H. IFMA | |

4. How many years have you been a lighting practitioner?

- 3-5 6-10 11-20 20+

5. Indicate your highest level of education:

- High School Associate's Degree Bachelor's Degree Advanced Degree

6. Indicate any professional credentials or licenses you have earned. Do not include college degrees.

Please check all that apply:

- | | |
|--|---|
| <input type="radio"/> Certificate of Technical Knowledge (TKE) | <input type="radio"/> LEED |
| <input type="radio"/> Certified Facility Manager (CFM) | <input type="radio"/> Licensed/Registered Architect |
| <input type="radio"/> CLEP | <input type="radio"/> Licensed/Registered Interior Designer |
| <input type="radio"/> EPA Greenlights, Surveyor Ally | <input type="radio"/> Lighting Certified (LC) |
| <input type="radio"/> IALD Professional Member | <input type="radio"/> Professional Engineer (PE) |

7. Please Print Name: _____

8. Employer Name: _____

9. Comments: _____



National Council on Qualifications for the Lighting Professions

2020 Lighting Certification Examination

Recommendation Form

TWO completed recommendation forms are required for ALL individuals applying for the NCQLP Lighting Certification Examination. The completed forms must be submitted to NCQLP with your application.

Provide this form to your supervisor and/or professional colleagues and ask them to complete it. If you are an Intern LC candidate, please provide it to your employer or professor for completion. Additional copies of this form may be made.

Please type or print clearly.

Applicant's Name _____

To properly identify the applicant's **lighting-related experience**, please identify the percentages of work time, to your knowledge, that they spend in each of the following areas. Percentages must total 100 percent.

- 1. SURVEY/AUDIT – EXISTING..... _____
 - 2. LIGHTING DESIGN..... _____
 - 3. FINANCIAL ANALYSIS..... _____
 - 4. INSTALLATION AND COMMISSIONING _____
 - 5. OPERATIONS AND MAINTENANCE _____
 - 6. REGULATORY COMPLIANCE _____
 - 7. OTHER (NONLIGHTING-RELATED)..... _____
- TOTAL 100%

To the best of your knowledge, how many years/months has the applicant been working in **lighting-related** activities? _____

What is your professional relationship to the applicant? _____

Additional Input (Provide additional comments on reverse side of form): _____

Supervisor/Colleague Name _____

Position _____

Company _____

Address _____

Business Telephone Number _____ Business FAX Number _____

Email Address _____

Signature _____ Date _____

Return TWO completed recommendation forms to NCQLP with your application.

(over)

Request for Special Accommodations Provider Form

Please submit this form and related materials to:

**National Council on Qualifications for the Lighting Professions (NCQLP)
P.O. Box 142729, Austin, TX 78714-2729**

If utilizing private carriers, please use the physical address of 1016 La Posada Drive, #155, Austin, TX 78752.

I, _____ (printed name of candidate), hereby authorize and request the provider identified below to release the information requested by NCQLP relating to my disability and the accommodation appropriate to my disability to sit for the NCQLP Examination.

Signature _____ Date _____

The candidate/patient identified above is requesting accommodation to sit for the National Council on Qualifications for the Lighting Professions ("NCQLP") Examination. NCQLP accommodation policy requires candidates requesting accommodation to submit current documentation of the disability from an individual qualified to assess the disability. The candidate is requesting that you provide such documentation; you should submit your evaluation on your professional letterhead.

Your evaluation should include your assessment of the candidate's disability as well as an accommodation plan. The documentation should explain the type and degree of the candidate's disability and how the proposed accommodation affects the disability.

The documentation should include the following information: (i) the month, day and year the candidate/patient first consulted you; (ii) the month, day and year the candidate/patient was last seen by you; (iii) the diagnosis of the candidate/patient's disability; (iv) the name of the examinations used; and (v) the duration of the condition.

You are also required to include recommended accommodations for testing in the documentation. Finally, please sign the statement below and include it in the transmittal of your evaluation.

HEALTHCARE PROFESSIONAL DECLARATION

Signature _____

Name (please print) _____ Date _____

Address _____

Telephone _____ State License #: _____

If you are not licensed, please note credentials that qualify you to diagnose the disability: _____



NCQLP™

Mission

The mission of NCQLP is to serve and protect the well being of the public through effective and efficient lighting practice.

Strategic Goals and Objectives

1. To implement and administer a justifiable and defensible certification for lighting practitioners.
 - Perform regular Job Analysis Studies as a basis for the LC credential.
 - Develop and administer an annual LC examination.
 - Provide oversight to maintain a valid, reliable and legally defensible LC credential.
2. To maintain continuity of NCQLP certification by establishing a credible, financially stable organization.
 - Establish administrative policies and guidelines.
 - Comply with applicable laws and regulations.
 - Develop sources of income and an ongoing fundraising effort.
 - Promote a positive public image.
3. To increase the demand for certified practitioners with end users.
 - Encourage end users to use LC certified practitioners.
 - Explore strategies to support the efforts of lighting practitioners.
 - Encourage jurisdictions to require LC certified practitioners.
4. To encourage lighting practitioners to seek certification.
 - Publicize the mission of NCQLP.
 - Assist lighting practitioners in the identification of educational opportunities to prepare for the examination.
 - Market to practitioners, organizations and governmental agencies.

National Council on Qualifications for the Lighting Professions

P.O. Box 142729
 Austin, TX 78714-2729
 Phone: 512-973-0042
 Fax: 512-973-0043
 Email: info@ncqlp.org
 Web: www.ncqlp.org

If utilizing private carriers, please use the physical address of
 1016 La Posada Drive, #155, Austin, TX 78752.

NCQLP Member Organizations

Design Lights Consortium (DLC)

Web: www.designlights.org

Illuminating Engineering Society (IES)

Web: www.ies.org

International Association of Lighting Designers Inc.
(IALD)

Web: www.iald.org

interNational Association of Lighting Management
Companies (NALMCO)

Web: www.nalmco.org

Lighting Research Center (LRC)

Web: www.lrc.rpi.edu

National Association of Independent Lighting
Distributors (NAILD)

Web: www.naild.org

National Electrical Manufacturers Association (NEMA)

Web: www.nema.org

New York State Energy Research & Development
Authority (NYSERDA)

Web: www.nyserda.org

U.S. Department of Energy (USDOE)

Web: www.energy.gov



NCQLP

National Council on Qualifications
for the Lighting Professions

Phone 512-973-0042 • Fax 512-973-0043 • info@ncqlp.org

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