

# PSI Services LLC <a href="https://test-takers.psiexams.com/coelec">https://test-takers.psiexams.com/coelec</a>

# **COLORADO STATE ELECTRICAL BOARD**



# **CANDIDATE INFORMATION BULLETIN**

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# **EXAMINATIONS BY PSI SERVICES LLC**

This Candidate Information Bulletin provides you with information about the examination and application process for becoming licensed as a Residential Wireman, Journeyman Wireman and/or Master Electrician in the State of Colorado, or to meet the requirements of Colorado law for apprentices withsix or more years of apprentice registration.

The licensing examinations for Residential Wireman, Journeyman, and Master Electrician, and 6-Year apprentices, reference the 2023 edition of the NEC Code Book and test entry-level competence in the several areas in which licensees are legally allowed to practice. The licensing examinations require candidates to demonstrate their qualifications in relation to a variety of job task areas and settings. Since the electrical licensing examinations are not tailored to the specialty in which a particular candidate may practice or intend to practice, once licensed at a particular level (e.g., journeyman electrician), a person may freely choose to practice in any or all of the specialties permitted by the Colorado state electrical law.

The Board has contracted with PSI Services LLC (PSI) to conduct its examination program. PSI provides examinations through a network of computer examination centers in Colorado. PSI works closely with the State to be certain that examinations meet local as well as national requirements in basic principles and examination development standards.

# GUIDELINES FOR LICENSE APPLICATION/QUALIFICATION

Upon passing the examination, file a license application with the Division of Professions and Occupations at www.colorado.gov/dora/licensing.

#### **Division of Professions and Occupations**

1560 Broadway, Suite 1350 Denver, CO 80202 Phone: (303) 894-7800 Fax: (303) 894-7693

www.colorado.gov/pacific/dora/Electrical

Passing of an examination is not a guarantee of licensure. You must still demonstrate that you meet minimum qualifications for licensure according to standards set by Colorado law.

# **EXAMINATION SCHEDULING PROCEDURES**

#### **FEES**

Examination Fee \$78
Retest Fee \$73

NOTE: EXAMINATION FEES ARE NOT REFUNDABLE OR TRANSFERABLE. THE EXAMINATION FEE IS VALID FOR ONE YEAR FROM THE DATE OF PAYMENT.

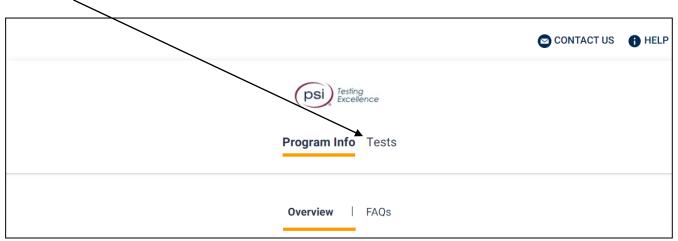
# **Implementation of SB 21-077**

On May 27, 2021, Governor Jared Polis signed SB21-077 Remove Lawful Presence Verification Credentialing. The bill specifies that the verification of lawful presence is not required of an applicant for a license, certificate, or registration to practice a regulated profession, and removes such requirements from the Department of Education and the Department of Regulatory Agencies. The bill also authorizes applicants for licensure to utilize their Individual Taxpayer Identification Number (ITIN), or other forms of identification as authorized by each board or program by rule, in addition to a Social Security Number (SSN). The bill also clarifies that this exclusion is state law with regards to eligibility for state and local public benefits.

ONLINE (https://test-takers.psiexams.com/coelec)

For the fastest and most convenient examination scheduling process, register for your examinations online by accessing PSI's registration Website: Click Here or on the email confirmation you received from PSI.

1. Select **TESTS** to create an account.

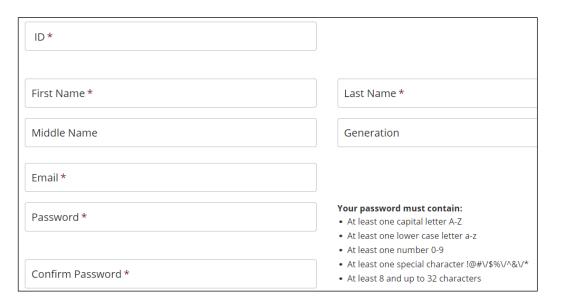


2. Select the examination and you are ready to create an account. Select LOGIN/REGISTER.

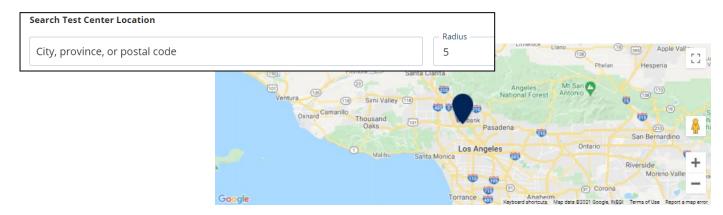
To continue the booking process and schedule your test, you must login or create an account.	LOGIN/REGISTER
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3. You will be prompted to **CREATE AN ACCOUNT** with PSI.

The first and last name must match exactly with your current, valid, government-issued ID.



4. Enter the "City or Postal Code" and select FIND.

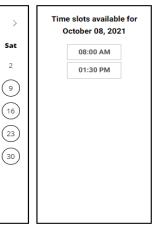


5. Select a date and time to book an appointment.

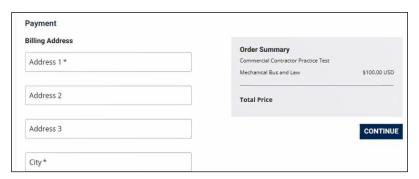
Choose a Date and Time



Available Selected



6. You are now ready to pay.



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7. Once payment has been made you will receive a message confirming the test center, booked date, and booked time.



#### **TELEPHONE REGISTRATION**

For telephone registration, you will need a valid credit card (Visa, MasterCard, American Express or Discover).

PSI registrars are available at (855) 898-0710, Monday through Friday between 6:30 am and 9:00 pm, and Saturday-Sunday between 8:00 am and 4:30 pm, Central Time, to receive your payment and schedule your appointment for the examination.

#### SCHEDULING AN APPOINTMENT TO TAKE THE EXAMINATION

Once you have made payment for your examination services, you are ready to schedule your examination. It is important to remember that you are responsible for contacting PSI to schedule your examination. PSI will make every effort to schedule the examination site and time that is most convenient for you. To schedule with a PSI registrar, call (855) 898-0710 Monday through Friday, between 5:30 a.m. and 8:00 p.m., and Saturday, between 7:00 a.m. and 3:30 p.m., Mountain Time. If space is available in the examination site of your choice, you may schedule an examination one (1) day prior to the examination date of your choice, up to 5:00 p.m., Mountain Time. Please be prepared to offer alternate examination appointment choices.

#### **CANCELING AN EXAMINATION APPOINTMENT**

You may cancel and reschedule an examination appointment without forfeiting your fee if your cancellation notice is received 2 days before the scheduled examination date. For example, for a Monday appointment, the cancellation notice would need to be received on the previous Saturday. You may either go on-line to cancel and reschedule or you may call PSI at (855) 898-0710.

Note: A voice mail message is not an acceptable form of cancellation. Please use the PSI Website or call PSI and speak to a Customer Service Representative.

# **SCHEDULING A RE-EXAMINATION**

It is not possible to make a new examination appointment on the same day you have taken an examination; this is due to processing and reporting scores. A candidate who tests unsuccessfully on a Wednesday can call the next day, Thursday, and retest as soon as Friday, depending upon space availability. In order to retest, you can call PSI to reschedule an exam or go online and reschedule using your account information already in the system.

# MISSED APPOINTMENT OR LATE CANCELLATION

Your registration will be invalid, you will not be able to take the examination as scheduled, and you will forfeit your examination fee, if you:

- Do not cancel your appointment 2 days before the schedule examination date;
- Do not appear for your examination appointment;
- Arrive after examination start time;

 Do not present proper identification when you arrive for the examination.

## **EXAM ACCOMMODATIONS**

All PSI examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and exam accommodations will be made in meeting a candidate's needs. A candidate with a disability or a candidate who would otherwise have difficulty taking the examination should request for alternative arrangements by Clicking Here.

Candidates granted accommodation in accordance with the ADA, MUST schedule their examination by telephone and speak directly with a PSI registrar.

You will need to fill this out if requesting to test out of state.

#### **ENGLISH AS A SECOND LANGUAGE**

All PSI examination centers are equipped to provide access in accordance with the Americans with Disabilities Act (ADA) of 1990, and exam accommodations will be made in meeting a candidate's needs. A candidate with a disability or a candidate who would otherwise have difficulty taking the examination should request for alternative arrangements by Clicking Here.

Candidates granted accommodation in accordance with the ADA, MUST schedule their examination by telephone and speak directly with a PSI registrar.

# **EXAMINATION SITE CLOSING FOR AN EMERGENCY**

In the event that severe weather or another emergency forces the closure of an examination site on a scheduled examination date, your examination will be rescheduled. PSI personnel will attempt to contact you in this situation. However, you may check the status of your examination schedule by calling (855) 898-0710 select option #5. Every effort will be made to reschedule your examination at a convenient time as soon as possible. You may also check our website at https://test-takers.psiexams.com/coelec.

# **EXAMINATION SITE LOCATIONS**

The PSI Occupational Licensing examinations are administered at the examination centers listed below:

Broomfield - McAir Aviation 11945 Airport Way Jeffco Airport Broomfield, CO 80021

Colorado Springs 5050 Edison Avenue, #122 Colorado Springs, CO 80915

**Denver (Centennial)** 12150 E. Briarwood Ave, Suite 270 Centennial, CO 80112 Denver (Wheat Ridge) 4891 Independence St #220 Wheat Ridge, CO 80033

Durango

799 East 3rd Street, Suite 3 Durango, CO 81301

Englewood - Test Pro Center 7395 S Peoria Street, Suite 105 TacAir Hangar 8, Centennial Airport Englewood, CO 80112

Fort Collins

3000 S. College Ave, Suite 206 Fort Collins, CO 80525

**Grand Junction**743 Horizon Court, #203
Grand Junction, CO 81506

Lakewood - Red Rocks Community College 13300 West Sixth Avenue

Assessment Center Lakewood, CO 80228

Pueblo

803 West 4th Street, #803S Pueblo, CO 81003

Additionally, PSI has examination centers in many other regions across the United States. You may take this examination at any of these locations by Clicking Here. You must request thru Test Accommodations Request.

# REPORTING TO THE EXAMINATION SITE

On the day of the examination, you should arrive at least 30 minutes before your appointment. This extra time is for signin, identification, and familiarizing you with the examination process.

If you arrive late, you may not be admitted to the examination site and you will forfeit your examination registration fee.

# REQUIRED IDENTIFICATION AT EXAMINATION SITE

You must provide 1 form of identification. The identification must match the name you scheduled with.

NOTE: ID must contain candidate's signature, photo, be valid and unexpired.

- State issued driver's license
- State issued identification card
- US Government Issued Passport
- US Government Issued Military Identification Card (not allowed for remote testing)
- US Government Issued Alien Registration Card
- Canadian Government Issued ID

Failure to bring the proper documentation invalidates your registration. You will not be able to take the examination as scheduled, and you will forfeit your examination fee.

# **SECURITY PROCEDURES**

The following security procedures will apply during the examination:

- You will have access to an online calculator.
- Candidates may take only approved items into the examination room.
- All personal belongings of candidates, with the exception
  of close-fitting jackets or sweatshirts, should be placed
  in the secure storage provided at each site prior to
  entering the examination room. Personal belongings
  include, but are not limited to, the following items:
  - Electronic devices of any type, including cellular / mobile phones, recording devices, electronic watches, cameras, pagers, laptop computers, tablet computers (e.g., iPads), music players (e.g., iPods), smart watches, radios, or electronic games.
  - Bulky or loose clothing or coats that could be used to conceal recording devices or notes, including coats, shawls, hooded clothing, heavy jackets, or overcoats.
  - Hats or headgear not worn for religious reasons or as religious apparel, including hats, baseball caps, or visors.
  - Other personal items, including purses, notebooks, reference or reading material, briefcases, backpacks, wallets, pens, pencils, other writing devices, food, drinks, and good luck items.
- Person(s) accompanying an examination candidate may not wait in the examination center, inside the building or on the building's property. This applies to guests of any nature, including drivers, children, friends, family, colleagues or instructors.
- No smoking, eating, or drinking is allowed in the examination center.
- During the check in process, all candidates will be asked if they possess any prohibited items. Candidates may also be asked to empty their pockets and turn them out for the proctor to ensure they are empty. The proctor may also ask candidates to lift up the ends of their sleeves and the bottoms of their pant legs to ensure that notes or recording devices are not being hidden there.
- Proctors will also carefully inspect eyeglass frames, tie tacks, or any other apparel that could be used to harbor a recording device. Proctors will ask to inspect any such items in candidates' pockets.
- If prohibited items are found during check-in, candidates shall put them in the provided secure storage or return these items to their vehicle. PSI will not be responsible for the security of any personal belongings or prohibited items
- Any candidate possessing prohibited items in the examination room shall immediately have his or her test results invalidated, and PSI shall notify the examination sponsor of the occurrence.
- Any candidate seen giving or receiving assistance on an examination, found with unauthorized materials, or who violates any security regulations will be asked to surrender all examination materials and to leave the examination center. All such instances will be reported to the examination sponsor.
- Copying or communicating examination content is violation of a candidate's contract with PSI, and federal and state law. Either may result in the disqualification of examination results and may lead to legal action.

 Once candidates have been seated and the examination begins, they may leave the examination room only to use the restroom, and only after obtaining permission from the proctor. Candidate will not receive extra time to complete the examination.

#### TAKING THE EXAMINATION BY COMPUTER

The examination will be administered via computer. You will be using a mouse and computer keyboard.

#### **TUTORIAL**

Before you start your examination, an introductory tutorial is provided on the computer screen. The time you spend on this tutorial, up to 15 minutes, DOES NOT count as part of your examination time. Sample questions are included following the tutorial so that you may practice answering questions and reviewing your answers.

# **TEST QUESTION SCREEN**

One question appears on the screen at a time. During the examination, minutes remaining will be displayed at the top of the screen and updated as you record your answers.

IMPORTANT: After you have entered your responses, you will later be able to return to any question(s) and change your response, provided the examination time has not run out.

#### **EXAMINATION REVIEW**

PSI, in cooperation with the Colorado Division of Professions and Occupations, will be constantly evaluating the examinations being administered to ensure that the examinations accurately measure competency in the required knowledge areas. While taking the examination, examinees will have the opportunity to provide comments on any questions, by clicking the Comments button on the Exam Question Screen. These comments will be analyzed by PSI examination development staff. PSI does not respond to individuals regarding these comments, all substantive comments are reviewed. This is the only review of examination materials available to candidates.

# **RESULT REPORTING**

Your score will be given to you immediately following completion of the examination.

You may request a duplicate score report after your examination by emailing scorereport@psionline.com.

# **EXAMINATION CONTENT OUTLINE**

#### **NON-SCORED QUESTIONS**

Your examination contains non-scored questions. The use of such questions is an essential step in developing accurate future examinations. These questions will NOT be scored and time to answer them has been added to the time allowed.

#### **REFERENCE LIST**

All examination questions are consistent with the 2023 National Electrical Code book. The 2023 National Electrical Code book and Formula Page will be provided to you at the test center. You may not write, highlight, underline, and/or index on the references. You may not use any other materials.

Also, review of electrical theory and common formulas is advised. Any of the several commonly used textbooks adopted by apprenticeship and community college training programs will be sufficient for this purpose. It is your responsibility to know and to be able to use basic electrical theory formulas since such knowledge may be required to work problems in the job task area of the examination entitled "H (Calculations)".

## **SCORING THE EXAMINATION**

The RW, JW, and ME licensing examinations are scored using a "compensatory scoring model." The compensatory scoring model evaluates all responses the candidate provides across all scored (non-pre-test) items, allowing the candidate to compensate for weaknesses in some Job Task Areas when strengths in other Job Task Areas are demonstrated.

All scored items that are answered correctly receive 1 point each and all scored items that are answered incorrectly or arenot answered receive 0 points each. The candidate's final performance is then compared to the pass standard derived for each form of the licensing examination and assessment. Pre- test items are not scored and are not counted in the determination of the candidate's or licensee's final performance.

For the original licensure examination, the candidate earns a "Pass" if his or her final performance meets or exceeds the minimum pass standard deemed essential for safe practice upon entry as a newly-licensed practitioner. The candidate "Fails" if his or her final performance does not satisfy the minimal competence required for entry-level safe practice.

## **EXAMINATION CONTENT OUTLINES**

# Residential Wireman 90 Scored Items - 240 Minutes 70% (63 Items) Correct to Pass Up to 7 Non-Scored Items - 30 Minutes Examination Content Area # of Items General Electrical Knowledge 17 Services, Feeders, and Branch Circuits 18 Grounding and Bonding 13 Overcurrent Protection 5

**Conductors and Cables** 

**Electrical Calculations** 

Raceways and Boxes

Special Equipment

**Electrical Devices** 

9

9

5

8

# Journeyman Wireman

90 Scored Items - 240 Minutes 70% (63 Items) Correct to Pass

Up to 10 Non-Scored Items - 30 Minutes

Examination Content Area	# of Items
General Electrical Knowledge	11
Services, Feeders, and Branch Circuits	9
Grounding and Bonding	14
Overcurrent Protection	6
Conductors and Cables	8
Raceways and Boxes	5
Special Occupancies	5
Special Equipment	6
Electrical Devices	5
Motors	6
Transformers	4
Photovoltaics	2
Electrical Calculations	9

## **Master Electrician**

90 Scored Items - 240 Minutes 70% (63 Items) Correct to Pass Up to 10 Non-Scored Items - 30 Minutes

Examination Content Area	# of Items
General Electrical Knowledge	6
Services, Feeders, and Branch Circuits	11
Grounding and Bonding	14
Overcurrent Protection	5
Conductors and Cables	4
Raceways and Boxes	5
Special Conditions	2
Special Occupancies	9
Special Equipment	9
Electrical Devices	4
Motors	8
Transformers	4
Electrical Calculations	9

CO Journeyman Wireman (6 plus Year Apprentice Exam)

90 Scored Items - 240 Minutes 70% (63 Items) Correct to Pass

Up to 10 Non-Scored Items - 30 Minutes

Examination Content Area	# of Items
General Electrical Knowledge	11
Services, Feeders, and Branch Circuits	9
Grounding and Bonding	14
Overcurrent Protection	6

Conductors and Cables	8
Raceways and Boxes	5
Special Occupancies	5
Special Equipment	6
Electrical Devices	5
Motors	6
Transformers	4
Photovoltaics	2
Electrical Calculations	9

## **SAMPLE QUESTIONS**

- 1 When installing wiring in or through an elevator hoistway, which one of the following circuits is not permitted?
- a. Circuit to hoistway pit sump pump
- b. Circuit to hoistway lighting
- c. Circuit to hoistway heating
- d. Circuit to building fire alarm panel
  - What is the minimum rating of the service disconnecting means for a single-family dwelling unit with a 12 kva load at 120/240 volts? a. 50 amperes
- b. 60 amperes
- c. 100 amperes
- d. 125 amperes
  - 3 The maximum allowable ampacity of 18 AWG fixture wire is:
- a. 12 Amperes
- b. 10 Amperes
- c. 8 Amperes
- d. 6 Amperes

Answers: 1/D, 2/C, 3/D