

Agreement for Construction Services

(Cooperative Contract #TIPS 211001)

This Agreement ("Agreement") between Williamson County, Texas, a political subdivision of the State of Texas ("Owner") and G2 Construction Services, Inc. ("Contractor") is entered into in accordance with the following terms and conditions:

ARTICLE 1 SCOPE OF WORK: The Owner desires to retain Contractor for the construction of <u>Justice Center LED Lighting Upgrades</u> (hereinafter called the "Project"). The Contractor shall have the overall responsibility for and shall provide complete construction services and furnish all materials, equipment, tools and labor as necessary or reasonably inferable to complete the Project, or any phase of the Project, in accordance with the Owner's requirements and the terms of this Agreement (hereinafter collectively referred to as the "Work").

ARTICLE 2 CONTRACT PRICE: Owner agrees to pay to the Contractor, for the satisfactory performance of the Work, the sum of **One Hundred Eighty Thousand Dollars (\$180,000.)** in accordance with the terms and conditions of this Agreement.

ARTICLE 3 PLANS AND SPECIFICATIONS: The Work shall be performed pursuant to and in accordance with the plans and specifications attached hereto as **Exhibit "A"**, as well as any revisions made thereto.

ARTICLE 4 CONTRACT TIME:

4.1 Contractor shall commence the Work upon instruction to do so from the Owner and shall achieve Substantial Completion within <u>ninety (90) calendar days</u> from the date the Work is commenced; provided, however, Owner may extend said time period in the event bad weather affects the progress of the Work. Unless otherwise specified in writing, Contractor shall achieve Final Completion within <u>thirty (30) calendar days of Substantial Completion</u>. Owner shall determine when the Project has been fully and finally completed to its satisfaction. The time set forth for completion of the work is an essential element of the Agreement.

4.2 Liquidated Damages.

Contractor acknowledges and recognizes that Owner is entitled to full and beneficial occupancy and use of the completed Work following expiration of the Contract Time and that Owner has entered into, or will enter into, binding agreements upon Contractor's achieving Substantial Completion of the Work within the Contract Time. Contractor further acknowledges and agrees

that if Contractor fails to complete substantially or cause the Substantial Completion of any Phase of the Work within the Contract Time, Owner will sustain extensive damages and serious loss as a result of such failure. In the cases of missed scheduled events, which incur exact losses of revenue and exact expenses for fees and other cancellation costs, Contractor shall be responsible for the exact amount of damages sustained by Owner. In other cases, the exact amount of such damages will be extremely difficult to ascertain. Therefore, Owner and Contractor agree as set forth below:

- 4.2.1 Subject to the other terms and conditions herein, if Substantial Completion is not achieved by the date specified above or by such date to which the Contract Time may be extended, the Contract Price shall be reduced by Five Hundred Dollars (\$500.) per calendar day as liquidated damages and not as a penalty, until the date of Substantial Completion. Force majeure shall apply relative to both rain/snow delays (acts of nature) and/or supply delays over which Contractor has no control, and such force majeure delays shall not be subject to such reduction of the Contract Price.
- **4.2.2** Owner may deduct liquidated damages described herein from any unpaid amounts then or thereafter due Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due Contractor shall be payable by Contractor to Owner at the demand of Owner, together with the interest from the date of the demand at a rate equal to the prime interest rate as published by the Wall Street Journal on the **first (1st) business day** after such amounts are demanded.
- 4.2.3 Notwithstanding anything to the contrary in this Agreement, if Owner is unable to recover any portion of liquidated damages in accordance with the terms and conditions herein because it is found to be unenforceable or invalid as a penalty or otherwise, then, Owner shall be entitled to recover from Contractor all of Owner's actual damages in connection with the failure by Contractor to achieve Substantial Completion of the Work within the Contract Time, including, without limitation, direct, indirect, or consequential damages.

ARTICLE 5 PAYMENT:

5.1 Schedule Of Values

Contractor shall submit to the Owner, before the first Application for Payment, a schedule of values allocating the entire Contract Price to the various portions of the Work and prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. This schedule, unless objected to by the Owner, shall be used as a basis for reviewing the Contractor's Applications for Payment.

5.2 Applications For Payment

5.2.1 Contractor shall submit to the Owner an itemized Application for Payment prepared in accordance with the schedule of values for completed portions of the Work. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner may require, such as copies of requisitions from

subcontractors and material suppliers and shall reflect retainage if provided for in the Agreement.

- **5.2.1.1** Such applications may include requests for payment on account of changes in the Work that have been properly authorized by written Change Orders.
- **5.2.1.2** Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a subcontractor or material supplier unless such Work has been performed by others whom the Contractor intends to pay.
- **5.2.1.3** If requested by Owner or required elsewhere in the Agreement, each Application for Payment shall be accompanied by the following, all in a form and substance satisfactory to the Owner:
 - a. With each Application for Payment: a current Sworn Statement from the Contractor setting forth all subcontractors and all material suppliers with whom the Contractor has subcontracted, the amount of each such subcontract, the amount requested for any subcontractor or material supplier in the Application for Payment, and the amount to be paid to the Contractor from such progress payment;
 - b. With each Application for Payment: a duly executed Conditional Waiver and Release on Progress Payment from the Contractor and subcontractors establishing receipt of payment or satisfaction of the payment requested by the Contractor in the current Application for Payment;
 - c. Commencing with the second Application for Payment submitted by the Contractor, a duly executed Unconditional Waiver and Release on Progress Payment from Contractor and all subcontractors, material suppliers and, where appropriate, lower tier subcontractors that have billed more than <u>five thousand dollars (\$5,000)</u> on a single application of payment, establishing receipt of payment or satisfaction of payment of all amounts requested on behalf of such entities and disbursed prior to submittal by the Contractor of the current Application for Payment;
 - d. With the Final Application for Payment: Contractor shall submit a Conditional Waiver and Release on Final Payment as required by Texas Property Code, §53.284. Upon receipt of final payment, Contractor shall submit an Unconditional Waiver and Release on Final Payment as required by Texas Property Code, §53.284; and
 - e. Such other information, documentation, and materials as the Owner, or the title insurer (if any) may require in order to ensure that Owner's property is free of lien claims. Such other documents may include, without limitation, original copies of lien or bond claim releases suitable for filing with the County Clerk in Williamson County, Texas.
- **5.2.2** Unless otherwise provided in the Agreement, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing.

Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

- 5.2.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, bond claims, claims, security interests or encumbrances in favor of the Contractor, subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.
 - 5.2.3.1 The Contractor further expressly undertakes to defend Owner, at the Contractor's sole expense, against any actions, lawsuits, or proceedings brought against Owner as a result of liens filed against the Work, the site of any of the Work, the Project site and any improvements thereon, or any portion of the property of any of Owner (referred to collectively as "liens" in this paragraph), provided the Owner has paid Contractor pursuant to the requirements of the Agreement. The Contractor hereby agrees to indemnify and hold Owner harmless against any such liens or claims of lien and agrees to pay any judgment or lien resulting from any such actions, lawsuits, or proceedings.
 - **5.2.3.2** The Owner shall release any payments withheld due to a lien or bond claims if the Contractor obtains security acceptable to the Owner, however, the Contractor shall not be relieved of any responsibilities or obligations under this paragraph, including, without limitation, the duty to defend and indemnify Owner.
 - **5.2.3.3** Retainage. The Owner shall withhold from each progress payment, as retainage, five percent (5%) of the total earned amount. Retainage so withheld shall be managed in conformance with Texas Government Code, Chapter 2252, Subchapter B. Any request for reduction or release of retainage shall be accompanied by written consent of the Contractor's Surety. No such request shall be made until the Contractor has earned at least sixty-five percent (65%) of the total Contract Price.
 - **5.2.3.4** For purposes of Texas Government Code, §2251.021 (a)(2), the date the performance of service is completed is the date when the Owner's representative approves the Application for Payment.

5.3 Certificates For Payment

- 5.3.1 The Owner will, within seven (7) business days after receipt of the Contractor's Application for Payment, issue a Certificate for Payment, with a copy to the Contractor, for such amount as the Owner determines is properly due, or notify the Contractor in writing of the Owner's reasons for withholding certification in whole or in part as provided.
- 5.3.2 The issuance of a Certificate for Payment will constitute a representation by the Owner, based

on the Owner's evaluation of the Work and the data comprising the Application for Payment, that, to the best of the Owner's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Agreement. The foregoing representations are subject to an evaluation of the Work for conformance with the Agreement upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Agreement prior to completion and to specific qualifications expressed by the Owner. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Owner has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Price.

5.4 Decisions To Withhold Certification

- 5.4.1 The Owner may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Owner's opinion the representations to the Owner required herein cannot be made. If the Owner is unable to certify payment in the amount of the Application, the Owner will notify the Contractor. If the Contractor or Contractor and Owner, as the case may be, cannot agree on a revised amount, the Owner will promptly issue a Certificate for Payment for the amount that can be certified. The Owner may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Owner's opinion to protect the Owner from loss for which the Contractor is responsible because of:
 - **5.4.1.1** defective Work not remedied;
 - **5.4.1.2** third party claims filed or reasonable evidence indicating probable filing of such claims;
 - **5.4.1.3** failure of the Contractor to make payments properly to subcontractors or for labor, materials or equipment;
 - **5.4.1.4** reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;
 - **5.4.1.5** damage to the Owner or a separate contractor;
 - **5.4.1.6** failure to maintain the scheduled progress, or reasonable evidence that the Work will not be completed within the Contract Time;
 - **5.4.1.7** failure to comply with the requirements of Texas Government Code, Chapter 2258 (Prevailing Wage Law);
 - **5.4.1.8** failure to include sufficient documentation to support the amount of payment requested for the Project;
 - 5.4.1.9 failure to obtain, maintain, or renew insurance coverage, payment/performance

bonds or warranty bond required by the Agreement; or **5.4.1.10** repeated failure to carry out the Work in accordance with the Agreement.

5.4.2 When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

5.5 Progress Payments

- **5.5.1** The Owner shall make payment in the manner and within the time provided in the Agreement and in accordance with Texas Government Code, Chapter 2251.
- 5.5.2 The Contractor shall pay each subcontractor and material and equipment suppliers no later than ten (10) calendar days after receipt of payment from the Owner the amount to which the subcontractor or material and equipment suppliers is entitled. Payments to subcontractors may reflect the percentages actually retained from payments to the Contractor on account of the subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each subcontractor, require each subcontractor to make payments to Sub-subcontractors in a similar manner.
- 5.5.3 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven (7) calendar days, the Owner shall have the right to contact subcontractors to ascertain whether they have been properly paid. The Owner shall not have an obligation to pay or to see to the payment of money to a subcontractor, except as may otherwise be required by law.
- **5.5.4** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Agreement.

5.6 Failure Of Payment

- 5.6.1 If the Owner is required to issue Certificates for Payment and, through no fault of the Contractor, the Owner fails to timely issue Certificates for Payment in the time permitted in the Agreement, or if the Owner does not pay the Contractor by the date established in the Agreement, then the Contractor may, upon twenty-one (21) business days written notice to the Owner, stop the Work until payment of the amount owing has been received.
- 5.6.2 If the Owner is entitled to reimbursement or payment from the Contractor under or pursuant to the Agreement, such payment shall be made promptly upon demand by the Owner. Notwithstanding anything contained in the Agreement to the contrary, if the Contractor fails to promptly make any payment due the Owner, or if the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective work, the Owner shall have an absolute right to offset such amount against the Contract Price and may, in the Owner's sole discretion, elect either to (1) deduct an amount equal to that which the Owner is entitled from

any payment then or thereafter due the Contractor from the Owner, or (2) issue a written notice to the Contractor reducing the Contract Price by an amount equal to that which the Owner is entitled.

5.7 Substantial Completion

- 5.7.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Agreement so that the Owner can occupy or utilize the Work for its intended use; provided, however, that as a condition precedent to Substantial Completion, the Owner has received all certificates of occupancy and any other permits, approvals, licenses, and other documents from any governmental authority having jurisdiction thereof necessary for the beneficial occupancy of the Project.
- 5.7.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Owner a comprehensive list of items to be completed or corrected prior to final payment (punch list). Failure to include an item on the punch list does not alter the responsibility of the Contractor to complete all Work in accordance with the Agreement.
- 5.7.3 Upon receipt of the Contractor's punch list, the Owner will examine the Work to determine whether the Work or designated portion thereof is substantially complete. If the Owner's examination discloses any item, whether or not included on the Contractor's punch list, that is not sufficiently complete in accordance with the Agreement, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Owner. In such case, the Contractor shall then submit a request for another examination by the Owner to determine Substantial Completion.
- 5.7.4 When the Work or designated portion thereof is substantially complete, the Owner will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Unless otherwise provided, Contractor shall complete all items on the punch list within thirty (30) calendar days of Substantial Completion. Warranties required by the Agreement shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- 5.7.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate of Substantial Completion. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage.

5.8 Partial Occupancy or Use

5.8.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor,

provided such occupancy or use is consented to by the insurer, the surety, and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Agreement. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Owner as provided herein. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld.

- 5.8.2 Immediately prior to partial occupancy or use, the Owner and Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.
- **5.8.3** Partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Agreement.

5.9 Final Completion and Final Payment

- 5.9.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will make such inspection and, when the Owner finds the Work acceptable under the Agreement and the Agreement fully performed, the Owner will issue a final Certificate for Payment for the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. All warranties and guarantees required under or pursuant to the Agreement shall be assembled and delivered by the Contractor to the Owner as part of the final Application for Payment. The final Certificate for Payment will not be issued by the Owner until all warranties and guarantees have been received and accepted by the Owner.
- 5.9.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Owner (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work have been paid or otherwise satisfied, within the period of time required by Texas Government Code, Chapter 2251, (2) a certificate evidencing that insurance required by the Agreement to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least thirty (30) business days prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Agreement, (4) consent of surety to final payment, (5) a warranty bond in a form acceptable to Owner, and (6) other data establishing payment or satisfaction of obligations, such as receipts, unconditional full and final releases and waivers of liens, claims, security interests or encumbrances arising out of the Agreement, to the extent and in such form as may be designated by the Owner.
- 5.9.3 Acceptance of final payment by the Contractor, a subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and

identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 6 CONTRACTOR'S GENERAL RESPONSIBILITIES AND COVENANTS:

- 6.1 Contractor shall render, diligently and competently in accordance with the highest standards used in the profession, all Contractor services which shall be necessary or advisable for the expeditious, economical and satisfactory completion of the Project. Contractor agrees to use its best efforts, skill, judgment, and abilities to perform its obligations and to further the interests of Owner in accordance with Owner's requirements and procedures.
- 6.2 Contractor's duties as set forth herein shall at no time be in any way diminished by reason of any approval by the Owner nor shall the Contractor be released from any liability by reason of such approval by the Owner, it being understood that the Owner at all times is ultimately relying upon the Contractor's skill and knowledge in performing the services required hereunder.
- 6.3 Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The safety program shall comply with all applicable requirements of the current federal Occupational Safety and Health Act and all other applicable federal, state and local laws and regulations.
- 6.4 Contractor shall be responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work. The Contractor shall keep the Owner informed of the progress and quality of the Work.
- 6.5 Insurance. Contractor shall carry insurance in the types and amounts indicated below for the duration of the Agreement, which shall include items owned by Owner in the care, custody and control of Contractor prior to and during construction. Contractor must also complete and file the declaration pages from the insurance policies with Owner whenever a previously identified policy period expires during the term of the Agreement, as proof of continuing coverage. Contractor shall update all expired policies prior to submission of any payment requests hereunder. Failure to update policies shall be reason for payment to be withheld until evidence for renewal is provided to the Owner. If the Contractor fails to obtain, maintain or renew any insurance required by this Agreement, the Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner. All policies of insurance provided by the Contractor must comply with the requirements set forth herein, the Agreement and the laws of the State of Texas.
- **6.5.1** The Contractor shall provide and maintain, until the Work covered in the Agreement is completed and accepted by the Owner, the minimum insurance coverages in the minimum amounts as described below.

Type of Coverage

Limits of Liability

.1 Worker's Compensation

Statutory

.2 Employer's Liability

Bodily Injury by Accident \$500,000 Ea. Accident Bodily Injury by Disease \$500,000 Ea. Employee Bodily Injury by Disease \$500,000 Policy Limit

.3 Commercial general liability including completed operations and contractual liability insurance for bodily injury, death, or property damages in the following amounts:

COVERAGE

PER OCCURRENCE

Commercial General Liability

(including premises, completed operations and contractual)

Aggregate policy limits:

\$2,000,000

\$1,000,000

.4 Comprehensive automobile and auto liability insurance (covering owned, hired, leased and non-owned vehicles):

COVERAGE PER PERSON PER OCCURRENCE

Bodily injury
(including death) \$1,000,000 \$1,000,000

Property damage \$1,000,000 \$1,000,000

Aggregate policy limits

No aggregate limit

.5 Builder's Risk Insurance (all-risks)

An all-risk policy, in the amount equal at all times to 100% of the Contract Price. The policy shall include coverage for loss or damage caused by certified acts of terrorism as defined in the Terrorism Risk Insurance Act. The policy shall be issued in the name of the Contractor and shall name its Subcontractors as additional insureds. The Owner shall be named as a loss payee on the policy. The builders risk policy shall have endorsements as follow:

a. This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.

- b. For renovation projects and or portions of work contained within an existing structure, the Owner waives subrogation for damage by fire to existing building structure(s), if the Builder's Risk Policy has been endorsed to include coverage for existing building structure(s) in the amount described in the Special Conditions. However, Contractor shall not be required to obtain such an endorsement unless specifically required by the Special Conditions, if any. The aforementioned waiver of subrogation shall not be effective unless such endorsement is obtained.
- .6. Flood insurance when specified in Supplementary General Conditions or Special Conditions.
- .7 Umbrella coverage in the amount of not less than \$5,000,000.

6.5.2 Workers' Compensation Insurance Coverage:

1. Definitions:

- (a) Certificate of coverage ("certificate") A copy of a certificate of insurance, a certificate of authority to self-insure issued by the Texas Workers' Compensation Commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the Project.
- (b) Duration of the Project includes the time from the beginning of the work on the Project until the Contractor's/person's work on the Project has been completed and accepted by the Owner.
- (c) Coverage Workers' compensation insurance meeting the statutory requirements of the Texas Labor Code, §401.011(44).
- (d) Persons providing services on the Project ("subcontractor") includes all persons or entities performing all or part of the services the Contractor has undertaken to perform on the Project, regardless of whether that person contracted directly with the Contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
- 2. The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, §401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.

- 3. The Contractor must provide a certificate of coverage prior to execution of the Agreement/Contract, and in no event later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.
- 4. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the Owner showing that coverage has been extended.
- 5. The Contractor shall obtain from each person providing services on a project, and provide to the Owner:
 - (a.) a certificate of coverage, prior to that person beginning work on the Project, so the Owner will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
 - (b.) no later than seven days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.
- 6. The Contractor shall retain all required certificates of coverage for the duration of the Project and for one year thereafter.
- 7. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within 10 days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
- 8. The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- 9. The Contractor shall contractually require each person with who it contracts to provide services on a project, to:
 - (a) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;
 - (b) provide to the Contractor, prior to that person beginning work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
 - (c) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - (d) obtain from each other person with whom it contracts, and provide to the Contractor:

- i. a certificate of coverage, prior to the other person beginning work on the Project; and
- ii. a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project:
- (e) retain all required certificate of coverage on file for the duration of the Project and for one year thereafter;
- (f) notify the Owner in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and
- (g) contractually require each person with whom it contracts, to perform as required by paragraphs (a)-(g), with the certificates of coverage to be provided to the person for whom they are providing services.
- 10. By signing the Agreement/Contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- 11. The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the Owner to declare the Agreement/Contract void if the Contractor does not remedy the breach within ten days after receipt of notice of breach from the Owner.
- **6.5.3** If insurance policies are not written for the amounts specified herein, Contractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of primary coverage.
- 6.5.4 Insurance coverage required hereunder shall be written on an occurrence basis by companies authorized and admitted to do business in the State of Texas and rated A- or better by A.M. Best Company, or otherwise acceptable to Owner.
- 6.5.5 The Owner ("Williamson County, Texas"), its officials, employees and volunteers shall be named as an additional insured on all required policies. These insurance policies shall contain the appropriate additional insured endorsement signed by a person authorized by that insurer to bind coverage on its behalf.
- **6.5.6** The furnishing of the above listed insurance coverage, as may be modified by the Agreement, must be tendered prior to execution of the Agreement/Contract, and in no event

- later than ten (10) days from Notice of Award. Failure to provide the insurance in a timely fashion may result in loss of Contractor's bid bond.
- 6.5.7 Owner reserves the right to review the insurance requirements set forth herein during the Agreement and to make reasonable adjustments to the insurance coverage and their limits when deemed necessary and prudent by the Owner based upon changes in statutory law, court decisions, or the claims history of the industry as well as the Contractor.
- 6.5.8 Owner shall be entitled, upon request, and without expense, to receive complete copies of the policies with all endorsements and may make any reasonable requests for deletion, or revision or modification of particular policy terms, conditions, limitations, or exclusions, except where policy provisions are established by law or regulation binding upon the Parties or the underwriter of any of such polices. Damages caused by the Contractor and not covered by insurance shall be paid by the Contractor.
- 6.5.9 Contractor shall be responsible for payment of premiums for all of the insurance coverages required hereunder. Contractor further agrees that for each claim, suit or action made against insurance provided hereunder, with respect to all matters for which the Contractor is responsible hereunder, Contractor shall be solely responsible for all deductibles and self-insured retentions. Any deductibles or self-insured retentions over \$75,000 in the Contractor's insurance must be declared and approved in writing by Owner in advance.
- 6.5.10 Contractor shall contractually require each person or entity with whom it contracts to provide services in relation to the Work, to comply with every insurance requirement that Contractor must comply with hereunder. More specifically, each person or entity with whom Contractor contracts to provide services on the in relation to the Work must comply with each insurance requirement hereunder just as if such person or entity was the Contractor. Thus, every reference to Contractor under each insurance requirement hereunder shall mean and include each person or entity with whom Contractor contracts to provide services in relation to the Work. If any such person or entity with whom Contractor contracts to provide services in relation to the Work fails to obtain, maintain or renew any insurance required by this Agreement, Owner may, among other remedies available hereunder or at law, obtain insurance coverage directly and recover the cost of that insurance from the Contractor or declare this Agreement void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the Owner.

ARTICLE 7 INDEMNITY:

7.1 INDEMNIFICATION - EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, Contractor shall indemnify, defend (with counsel of Owner's choosing), and hold harmless Owner, and Owner's employees, agents, representatives, partners, officers, and directors (collectively, the "Indemnitees") and shall assume entire responsibility and liability (other than as a result of Indemnitees' gross negligence) for any claim or action based on or arising out of the personal injury, or death, of any employee of Contractor, or of any subcontractor, or of any other entity for whose acts they may be liable, which occurred or was alleged to have occurred on the project site

OR IN CONNECTION WITH THE PERFORMANCE OF THE WORK. CONTRACTOR HEREBY INDEMNIFIES THE INDEMNITEES EVEN TO THE EXTENT THAT SUCH PERSONAL INJURY WAS CAUSED OR ALLEGED TO HAVE BEEN CAUSED BY THE SOLE, COMPARATIVE OR CONCURRENT NEGLIGENCE OR THE STRICT LIABILITY OF ANY INDEMNIFIED PARTY. THIS INDEMNIFICATION SHALL NOT BE LIMITED TO DAMAGES, COMPENSATION, OR BENEFITS PAYABLE UNDER INSURANCE POLICIES, WORKERS COMPENSATION ACTS, DISABILITY BENEFITS ACTS, OR OTHER EMPLOYEES BENEFIT ACTS.

INDEMNIFICATION - OTHER THAN EMPLOYEE PERSONAL INJURY CLAIMS. TO THE FULLEST EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND (WITH COUNSEL OF OWNER'S CHOOSING), AND HOLD HARMLESS OWNER, AND OWNER'S EMPLOYEES, AGENTS, REPRESENTATIVES, PARTNERS, OFFICERS, AND DIRECTORS (COLLECTIVELY, THE "INDEMNITEES") FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR ALLEGED TO BE RESULTING FROM THE PERFORMANCE OF THIS AGREEMENT OR THE WORK DESCRIBED HEREIN, TO THE EXTENT CAUSED BY THE NEGLIGENCE, ACTS, ERRORS, OR OMISSIONS OF CONTRACTOR OR ITS SUBCONTRACTORS, ANYONE EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY A PARTY INDEMNIFIED HEREUNDER.

7.2 Except for the obligation of Owner to pay Contractor the Contract Price pursuant to the terms of this Agreement, and to perform certain other obligations pursuant to the terms and conditions explicitly set forth herein, Owner shall have no liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement. Notwithstanding any obligation or liability of Owner to Contractor, no present or future partner or affiliate of Owner or any agent, officer, director, or employee of Owner, or of the various departments comprising Owner, or anyone claiming under Owner has or shall have any personal liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of this Agreement.

ARTICLE 8 WARRANTY:

- 8.1 Contractor hereby warrants that the materials and equipment provided for the Work will be of good quality and new unless otherwise required or permitted by the Owner; that the construction will be free from faults and defects; and that the construction will conform with the requirements of the plans, specifications, drawings and the terms of this Agreement.
- **8.2** Contractor shall provide warranty services for the Work for a **full twelve (12) months** following Final Completion and final payment. Just before the warranty period expires, Contractor shall attend an on-site meeting with the Owner to ensure that all warranty issues have been identified and properly remedied.

ARTICLE 9 PREVAILING WAGE RATE:

9.1 Duty to Pay Prevailing Wage Rates. The Contractor shall pay not less than the wage scale of the various classes of labor as shown on the "Prevailing Wage Schedule", as defined below. The specified wage rates are minimum rates only, and are not representations that qualified labor adequate to perform the Work is available locally at the prevailing wage rates. The Owner is not bound to pay—and will not consider—any claims for additional compensation made by any

Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Agreement. The "Prevailing Wage Schedule" is not a representation that quantities of qualified labor adequate to perform the Work may be found locally at the specified wage rates.

- 9.1.2 For classifications not shown, workers shall not be paid less than the wage indicated for Laborers. The Contractor shall notify each worker commencing work on the Project of the worker's job classification and the established minimum wage rate required to be paid, as well as the actual amount being paid. The notice must be delivered to and signed in acknowledgement of receipt by the employee and must list both the monetary wages and fringe benefits to be paid or furnished for each classification in which the worker is assigned duties. When requested by Owner, competent evidence of compliance with the Texas Prevailing Wage Law shall be furnished by Contractor.
- **9.1.3** A copy of each worker wage rate notification shall be submitted to the Owner with the Application for Payment for the period during which the worker began on-site activities.
- 9.2 Prevailing Wage Schedule. Pursuant to Texas Government Code Section 2258.022(2), the general prevailing rate of per diem wages for each craft or type of worker needed to execute the Contract and the prevailing rate for legal holiday and overtime work shall be the most recent prevailing wage rate for Williamson County, Texas for building construction as determined by the United States Department of Labor in accordance with the Davis-Bacon Act (40 U.S.C. Section 276a et seq.), and its subsequent amendments, which are published and can be obtained online at https://sam.gov/search/?index=dbra (the "Prevailing Wage Schedule"). Should the Contractor at any time become aware that a particular skill or trade not reflected on the Prevailing Wage Schedule will be or is being employed in the Work, whether by the Contractor or by a subcontractor, the Contractor shall promptly inform the Owner and shall specify a wage rate for that skill or trade, which shall bind the Contractor.
- **9.3 Penalty for Violation.** The Contractor and any Subcontractor shall pay to the Owner a penalty of sixty dollars (\$60.00) for each worker employed for each calendar day, or portion thereof, that the worker is paid less than the wage rates stipulated in the Prevailing Wage Schedule or any supplement or update thereto pursuant to previsions above. The Contractor and each Subcontractor shall keep, or cause to be kept, an accurate record showing the names and occupations of all workers employed in connection with the Work, and showing the actual per diem wages paid to each worker, which records shall be open at all reasonable hours for the inspection by the Owner.
- 9.4 Complaints of Violations of Prevailing Wage Rates. Within thirty-one (31) days of receipt of information concerning a violation of Texas Government Code, Chapter 2258, the Owner shall make an initial determination as to whether good cause exists to believe a violation occurred. The Owner's decision on the initial determination shall be reduced to writing and sent to the Contractor or Subcontractor against whom the violation was alleged, and to the affected worker. When a good cause finding is made, the Owner shall retain the full amounts claimed by the claimant or claimants as the difference between wages paid and wages due under the Prevailing

Wage Schedule and any supplements thereto, together with the applicable penalties, such amounts being subtracted from successive progress payments pending a final decision on the violation.

- 9.5 Arbitration Required if Violation not Resolved. After the Owner makes its initial determination, the affected Contractor or Subcontractor and worker have fourteen (14) days in which to resolve the issue of whether a violation occurred, including the amount that should be retained by Owner or paid to the affected worker. If the Contractor or Subcontractor and affected worker reach an agreement concerning the worker's claim, the Contractor shall promptly notify the Owner in a written document signed by the worker. If the Contractor or Subcontractor and affected worker do not agree before the fifteenth (15th) day after the Owner's determination, the Contractor or Subcontractor and affected worker must participate in binding arbitration in accordance with the Texas General Arbitration Act, Chapter 171, Tex. Civ. Prac. & Rem. Code. The parties to the arbitration have ten (10) days after the expiration of the fifteen (15) days referred to above, to agree on an arbitrator; if by the eleventh (11th) day there is no agreement to an arbitrator, a district court shall appoint an arbitrator on the petition of any of the parties to the arbitration.
- 9.6 Arbitration Award. If an arbitrator determines that a violation has occurred, the arbitrator shall assess and award against the Contractor or Subcontractor the amount of penalty as provided herein and the amount owed the worker. The Owner may use any amounts retained hereunder to pay the worker the amount as designated in the arbitration award. If the Owner has not retained enough from the Contractor or Subcontractor to pay the worker in accordance with the arbitration award, the worker has a right of action against the Contractor and Subcontractor as appropriate, and the surety of either to receive the amount owed, attorneys' fees and court costs. The Contractor shall promptly furnish a copy of the arbitration award to the Owner.
- 9.7 Prevailing Wage Retainage. Money retained pursuant to this section shall be used to pay the claimant or claimants the difference between the amount the worker received in wages for labor on the Project at the rate paid by the Contractor or Subcontractor and the amount the worker would have received at the general prevailing wage rate as provided by the agreement of the claimant and the Contractor or Subcontractor affected, or in the arbitrator's award. The full statutory penalty of sixty dollars (\$60.00) per day of violation per worker shall be retained by the Owner to offset its administrative costs, pursuant to Texas Government Code, §2258.023. Any retained funds in excess of these amounts shall be paid to the Contractor on the earlier of the next progress payment or final payment. Provided, however, that the Owner shall have no duty to release any funds to either the claimant or the Contractor until it has received the notices of agreement or the arbitration award as provided in this section.
- **9.8** No Extension of Time. If the Owner determines that good cause exists to believe a violation has occurred, the Contractor shall not be entitled to an extension of time for any delay arising directly or indirectly from of the procedures set forth in this section.

ARTICLE 10 BONDS:

- 10.1 Performance Bond. Upon execution of this Agreement, Contractor shall provide a Performance Bond in the amount of 100% of the Contract Price. The surety for a Performance Bond shall meet the requirements of Texas law and the requirements set forth in the Agreement.
- 10.2 Payment Bond. Upon execution of this Agreement, Contractor shall provide a Payment Bond in the amount of 100% of the Contract Price, as security for the true and faithful payment in full of all subcontractors and persons performing labor, services, materials, machinery, and fixtures in connection with the Work. The surety for a Payment Bond shall meet the requirements of Texas law and the requirements set forth in the Agreement.
- 10.3 Warranty Bond. Upon Final Completion, Contractor shall provide a Warranty Bond in the amount of 20% of the Contract Price, as security for the true and faithful performance of all warranties set forth in the Agreement.

ARTICLE 11 TERMINATION OR SUSPENSION OF THE AGREEMENT

11.1 Termination by Contractor

If one of the reasons described below exists, the Contractor may, upon thirty (30) business days written notice to the Owner, terminate the Agreement and recover from the Owner payment for Work executed, including reasonable overhead, profit, and costs incurred by reason of such termination:

- **11.1.1** Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- **11.1.2** An act of government, such as a declaration of national emergency that requires all Work to be stopped;
- 11.1.3 Because the Owner has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in the Agreement, or because the Owner has not made payment on an undisputed Certificate for Payment within the time stated in the Agreement; or
- 11.1.4 If the Work is stopped for a period of ninety (90) consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Agreement.

11.2 Termination by the Owner for Cause

- **11.2.1** The Owner may terminate the Agreement if the Contractor:
 - 11.2.1.1 Fails to commence the Work in accordance with the provisions of the Agreement;
 - 11.2.1.2 Fails to prosecute the Work to completion thereof in a diligent, efficient, timely, workmanlike, skillful and careful manner and in strict accordance with the provisions of the Agreement;

- **11.2.1.3** Fails to use an adequate amount or quality of personnel or equipment to complete the Work without undue delay;
- 11.2.1.4 Fails to perform any of its obligations under the Agreement;
- 11.2.1.5 Fails to make prompt payments when due to its Subcontractors and Suppliers, or as required by Texas Government Code, Chapter 2251;
- 11.2.1.6 Files any petition or other pleading seeking any relief under any provisions of the Federal Bankruptcy Act, as amended, or any other federal or state statute or law providing for reorganization of debts or other relief from creditors, permits a receiver or other person to be appointed on account of its insolvency or financial condition, or becomes insolvent;
- 11.2.1.7 Creates any situation or state of facts which would authorize or permit an involuntary petition in bankruptcy to be filed against Contractor; or
- 11.2.1.8 Has not met or in Owner's opinion will not meet the dates of Substantial Completion set forth in the Agreement.
- 11.2.2 When any of the reasons under Paragraph 11.2.1 exist, the Owner, in its sole and absolute discretion, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, thirty (30) calendar days written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety, exclude the Contractor from the Project site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor; accept assignment of subcontracts of Contractors subcontractors; and finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.
- 11.2.3 When the Owner terminates the Agreement for one of the reasons stated in Paragraph 11.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished. In the event that it is determined that sufficient cause did not exist for termination under this Section 11.2, then the termination shall be considered a termination for convenience, under Section 11.4, below.
- 11.2.4 If the unpaid balance of the Contract Price exceeds costs of finishing the Work, including compensation for expenses made necessary thereby, and other damages and costs incurred by the Owner in finishing the Work and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner.

11.3 Suspension by the Owner for Convenience

- **11.3.1** The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.
- 11.3.2 The Contract Price and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in **Paragraph 11.3.1**. Adjustment of the Contract Price shall include profit. No adjustment shall be made to the extent:

- 11.3.2.1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
- **11.3.2.2** that an equitable adjustment is made or denied under another provision of the Agreement.

11.4 Termination by the Owner for Convenience

- 11.4.1 The Owner may, at any time, terminate the Agreement for the Owner's convenience and without cause.
- 11.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall
 - **11.4.2.1** Cease operations as directed by the Owner in the notice;
 - **11.4.2.2** Take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
 - **11.4.2.3** Except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
- 11.4.3 Upon Owner's termination for convenience, costs of the Work executed, including reasonable overhead and profit, incurred to and including the date of termination, will be due and payable to Contractor in accordance with the Agreement.

ARTICLE 12

ARTICLE 13 MISCELLANEOUS PROVISIONS:

13.1 Interest and Late Payments. Owner's payment for goods and services shall be governed by Chapter 2251 of the Texas Government Code. Interest charges for any overdue payments shall be paid by Owner in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of Owner's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday.

In the event that an error appears in an invoice/application for payment submitted by Contractor, Owner shall notify Contractor of the error not later than the twenty first (21st) day after the date Owner receives the invoice/application for payment. If the error is resolved in favor of Contractor, Contractor shall be entitled to receive interest on the unpaid balance of the invoice/application for payment submitted by Contractor beginning on the date that the payment for the

- invoice/application for payment became overdue. If the error is resolved in favor of the Owner, Contractor shall submit a corrected invoice/application for payment that must be paid in accordance within the time set forth above. The unpaid balance accrues interest as provided by Chapter 2251 of the Texas Government Code if the corrected invoice/application for payment is not paid by the appropriate date.
- 13.2 Audits. Contractor agrees that Owner or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Contractor which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Contractor agrees that Owner shall have access during normal working hours to all necessary Contractor facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Owner shall give Contractor reasonable advance notice of intended audits.
- 13.3 Assignment. This Agreement is a personal service contract for the services of Contractor, and Contractor's interest in this Agreement, duties hereunder and/or fees due hereunder may not be assigned or delegated to a third party.
- 13.4 Governing Law and Venue. This Agreement and all of the rights and obligations of the parties and all of the terms and conditions shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas without reference to its conflicts of law provisions. Williamson County, Texas where the Project is located shall be the sole place of venue for any legal action arising from or related to this Agreement or the Project in which the Owner is a party.
- 13.5 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties and their respective permitted assigns and successors.
- 13.6 Notices. All notices, consents, approvals, demands, requests or other communications relied on by the parties shall be in writing. Written notice shall be deemed to have been given when delivered in person to the designated representative of the Contractor or Owner for whom it is intended; or sent by U. S. Mail to the last known business address of the designated representative.
- 13.7 Severability. Should any term or provision of this Agreement be held invalid or unenforceable in any respect, the remaining terms and provisions shall not be affected and this Agreement shall be construed as if the invalid or unenforceable term or provision had never been included.
- 13.8 Relationship of the Parties. Contractor shall be an independent contractor under this agreement and shall assume all of the rights, obligations, liabilities, applicable to it as such independent contractor hereunder and any provisions in this agreement which may appear to give Owner the right to direct Contractor as to details of doing the Work herein covered or to exercise a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results of the Work only. Owner shall not retain or have the right to control

the Contractor's means, methods or details pertaining to the Contractor's performance of the Work described herein, nor shall Owner have the power to direct the order in which Contractor's Work is performed under this agreement. Owner and Contractor hereby agree and declare that Contractor is an Independent Contractor and as such meets the qualifications of an Independent Contractor under Texas Worker's Compensation Act, Texas Labor Code, Section 406.141, that the Contractor is not an employee of Owner for purposes of this Agreement, and that the Contractor and its employees, agents and sub-subcontractors shall not be entitled to worker's compensation coverage or any other type of insurance coverage held by Owner.

- 13.9 Force Majeure. If the party obligated to perform is prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of said party, the other party shall grant such party relief from the performance of this Agreement. The burden of proof for the need of such relief shall rest upon the party obligated to perform. To obtain release based on force majeure, the party obligated to perform shall file a written request with the other party.
- 13.10 No Waiver of Sovereign Immunity. Nothing herein shall be construed as a waiver of sovereign immunity by Owner.
- 13.11 Current Revenues. Under Texas law, a contract with a governmental entity that contains a claim against future revenues is void; therefore, each party paying for the performance of governmental functions or services must make those payments from current revenues available to the paying party.
- 13.12 Compliance with Laws. Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, Contractor shall furnish the Owner with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.
- 13.13 Entire Agreement & Incorporated Documents; Conflicting Terms. This Agreement constitutes the entire agreement between the parties and may not be modified or amended other than by a written instrument executed by both parties.

The following documents shall comprise the Contract Documents:

- 1. This Agreement between Owner and Contractor;
- 2. Exhibit "A" Plans and Specifications;
- 3. Addenda issued prior to the Effective Date of this Agreement;
- 4. Cooperative Contract #TIPS211001; and
- **5.** All Change Orders and any other Modifications issued after the Effective Date of this Agreement.

In the event of a dispute or conflict relating to the terms and conditions of the Contract Documents, applicable documents will be referred to for the purpose of clarification, conflict resolution or for additional detail in the following order of precedence:

- 1. This Agreement between Owner and Contractor;
- 2. Exhibit "A" Plans and Specifications;
- 3. Addenda issued prior to the Effective Date of this Agreement;
- 4. Cooperative Contract #TIPS 211001; and
- 5. All Change Orders and any other Modifications issued after the Effective Date of this Agreement.

BY SIGNING BELOW, the Parties have executed and bound themselves to this Agreement to be effective as of the date of the last party's execution hereof.

OWNER:	CONTRACTOR:
WILLIAMSON COUNTY, TEXAS, a political subdivision of the state of Texas	G2 Construction Services, Inc.
By: Bill Gravell (Jan 15, 2025 10:06 CST) Printed Name: Bill Gravell	By: Printed Name: Timmy C. Gutssow
Title: County Judge	Title: VICE PRESIDENT
Date:	Date:

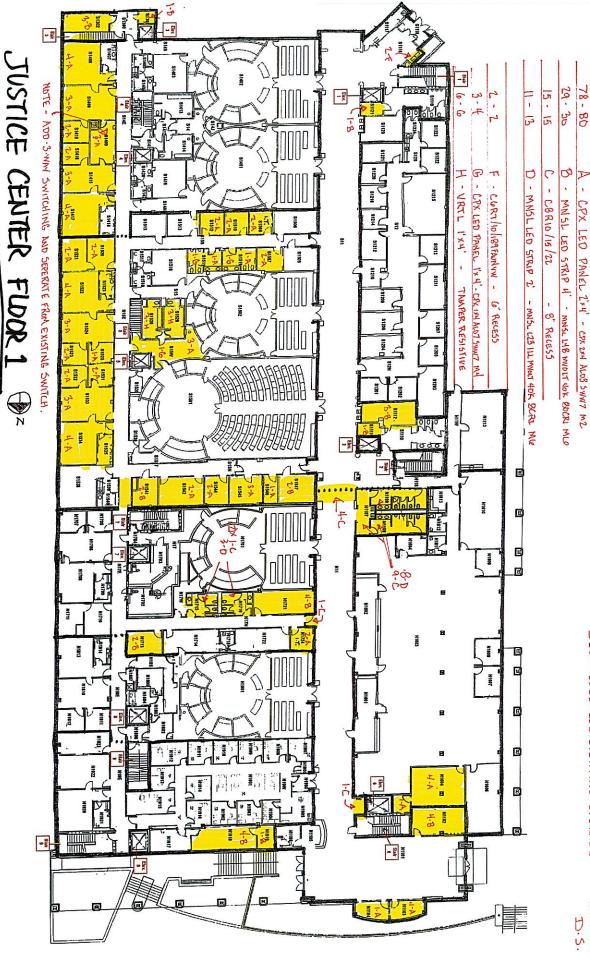
Exhibit "A"

Plans and Specifications

Location of Work: Justice Center Complex, 405 Martin Luther King Jr. St., Georgetown, TX 78626

Scope of Work:

- Remove and replace all old fixtures with new LED's provided by County in areas highlighted in yellow, on the 1st and 2nd floors and attic per Exhibit A plans, and County standards
- Add switching per plan
- Undo daisy chained lights
- Add junction boxes and MC cable so that all lights have one whip
- Modify switching in offices with more than one light per Owner's request
- Two (2) 40-yard dumpsters for disposal of old fixtures
- Contractor will cover desks and computers in work areas and leave areas clean of any debris



CJC - 2025 LED LIGHTING UPGRADE

ORDER

17/6/2024

7. 24

225- 230

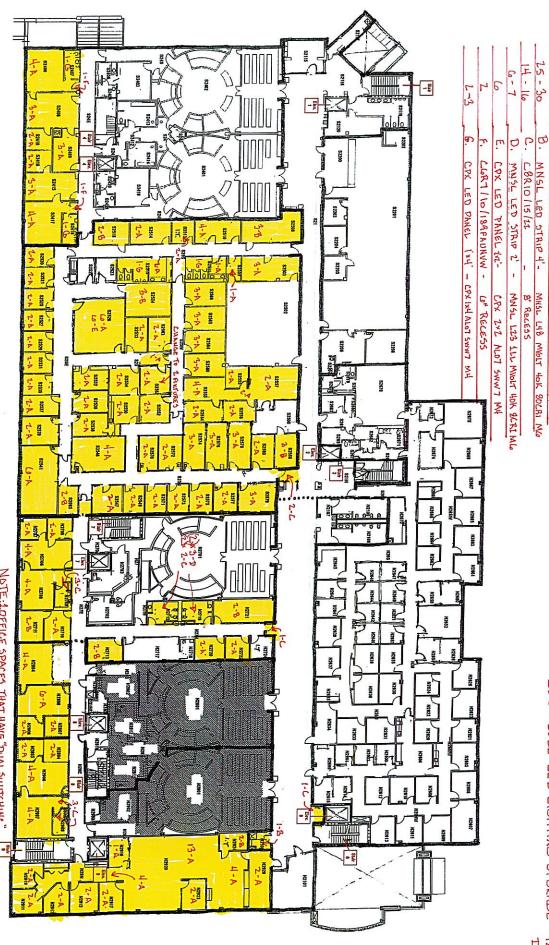
A. - LPX LED PANEL SIG-

CBR10/15/11

MNSL LED STRIP 4'-

MHSL LYB MYOLT YOK BOCKI MYO

CPX ZXH ALOB SWW7 MZ



JUSTICE CENTER FLOOR 2 (1)2

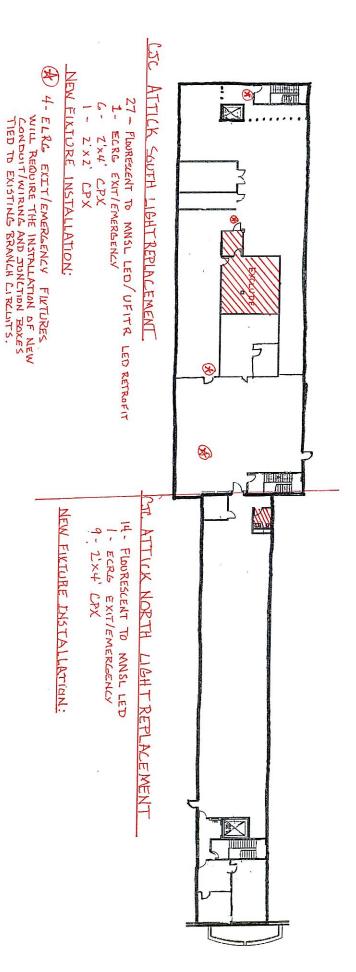
NOTE: 1.07FILE SPACES THAT HAVE "DUAL SWITCHING"

SHALL USE DINE SWITCH FOR DINE LIGHT AND
DINE SWITCH FOR THE OTHER CWHEN TWO LIGHTS

1. IF MORE THAN TWO LIGHTS - DIE SWITCH FOR DINE LIGHT
AND ONE SWITCH FOR DTHERLS) - BETWITH WILLIAMSON GOUNT FOR CLARITY.

PURPOSE: UPGRADE LIGHTING TO LED

SHOPE: REPLACE EXISTING FLOURESCENT FIXTURES LONE FOR ONE) AND ADD ENERGENCY EXIT LIGHTS AS NEEDED.



JUSTICE CENTER ATTIC OF



Standard - LT101

Williamson County Lighting Standard

Originated by: Approved by: Revision No. 1

Date Originated: 9/25/2023

Date Approved: Revision Date:

1.0 Purpose

Standardize scope of work for installation of new and replacement light fixtures.

2.0 Scope

All retro-fit and new of light fixtures installation and replacements in occupied or unoccupied Williamson County buildings.

3.0 Standard Installation Requirements:

- 3.1 One whip per fixture.
- 3.2 Only saddle type connectors shall be used for MC cable connectors.
- 3.3 MC Cable wiring insulation color shall match the corelating branch circuit color respectfully feeding the power to the light fixture.
- 3.4 Fixture whips will be supported by hangers above the acoustic ceiling within two feet of the fixture and within six feet afterwards.
- 3.5 Push pin wire connectors shall only be used within the light fixture junction box wiring harness and supplied by light fixture manufacturer.
- 3.6 All junction boxes knock outs shall be sealed and covered and junction box covers will be labeled with panelboard name, branch circuit, and voltage.
- 3.7 If more than three penetrations are made in one junction box, a minimum 4 and 11 square junction shall be used.
- 3.8 If more than six penetrations are made in one junction box, a minimum 12" X 12" by 4" junction box shall be used.
- 3.9 Two ceiling grid hanger wires shall be installed per light, for support. Exception: One ceiling light grid wire per exit light/emergency light.
- 3.10 Emergency lighting shall be stand alone light fixtures (per listed standard).
- No dimming capability will be added other than what is manually operated by moving dip switches on the fixtures themselves.
- Exterior fixtures, attached to the building, shall be sealed on the top and sides of the fixture from water intrusion between the building and the fixture.
- Exterior fixtures shall not be fed by MC cable. ½" flexible metal conduit, ½" EMT minimum.
- Installations shall meet or exceed the most recently adopted NEC and IBC code books corelating to the city the installation is in.



Project 21-39015-3
WILLIAMSON COUNTY MAGISTRATE
COURT
Submitted By

SPECTRUM LIGHTING INC AUSTIN

Catalog Number: 2VRTL F L48 15000LM ICW AP125FL 120 EZ1 35K 80CRI WH

Note: VERIFY VOLTAGE AND LAMP COLOR

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FEATURES & SPECIFICATIONS

INTENDED USE — Vandal-resistant, damp location LED troffer for general illumination of potentially physically abusive public spaces and environments such as such as locker rooms, recreational facilities, schools, supervised behavioral centers and other vandal prone areas

Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. <u>Click here for a list of substances that may not be sultable for interaction with LEDs and other electronic components.</u>

CONSTRUCTION — The 20-gauge cold rolled steel housing, 18-gauge cold rolled steel door frame, tamper-resistant fasteners and polycarbonate lens stand-up to abuse. Swing-arms are 18 gauge, unpainted galvanized steel. Polycarbonate lens is UV stabilized and is available in two different thicknesses to meet demanding requirements. Number of visible door fasteners may vary. Tamper-resistant fasteners are TXIS security-type Torx® fasteners requiring a special tool or bit for access. Tool and bit are not included with fixture.

Finish: All CRS (cold rolled steel) parts are finished with electrostatically deposited, thermally set, polyester powder paint after fabrication.

. OPTICS — Long-life LEDs, coupled with high-efficiency drivers, provide extended service life. Lumen maintenance of L80/60,000 hours, L70>100,000 hours.

ELECTRICAL — Thermally protected, resetting, Class P, HPF, non-PCB, UI. listed, CSA certified driver is standard. LED driver delivers dimming from a 0-10V control signal, Dims to 1% standard.

Luminaire Surge Protection Level: Designed to withstand up to 6kY/3kA per ANSI CB2.77-5-2015

LISTINGS — CSA certified to meet U.S. and Canadian standards (UL1598 and UL8750) or HOM certified. IC rated, see footnote 5 for non-compliant configurations. Damp location listed standard.

Ambient temperature range is -4% (-20%) to 77% (25%). For use in ambient temperatures ranging from -4% (-20%) to 104% (-20%) with the exception of 10000LM(1X4), 12000LM(2X2) and 20000LM(2X4). These lumen packages are for use in ambient temperatures ranging from -4% (-20%) to 77% (-25%).

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/ierms-and-conditions

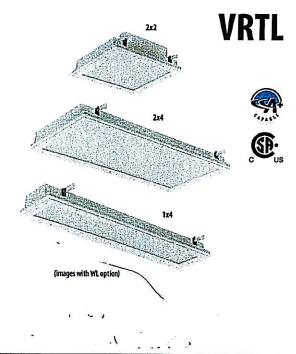
Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Catalog Number	
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Туре	
	The second secon

LED Recessed Vandal Resistant Troffer



* Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight* or XPoint*
 Wireless control networks marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details





Catalog Number	
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- Water-1997	

Contractor Select™
CPX

TM

LED Panel

CPX[™] from Lithonia lighting is the perfect choice for a quality LED panel at an affordable price. The smooth, even lens projects a crisp and clean aesthetic. CPX is the perfect choice for budget-conscious school, commercial office, or small retail footprint projects.

FEATURES:

- Industry standaró wattages
- Long-life LEDs maintain greater than 70% of their lumen output at 50,000 hours
- 0-10V dimming driver, dims to 10%

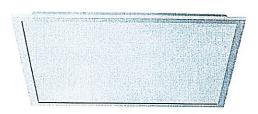
WEIGHT:

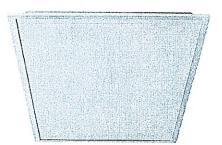
2x2

Unit: 6.39lbs Unit Carton: 7.72lbs Master Carton: 30.42lbs

2x4

Unit: 11.02lbs Unit Carton: 13.89lbs Master Carton: 27.78lbs























Catalog Number	UPC	Description	Lumens Lumens	Input Watts	(CT	CRI	Voltage	Pallet qty.
CPX 2X2 3200LM 35K M4	191848338537	2x2 LED Panel	3555	31.5	3500K	80	120-277V	40
CPX 2X2 3200LM 40K M4	191848338650	2x2LED Panel	3659	31.5	4000K	80	120-277V	40
CPX 2X2 3200LM 50K M4	193048313642	2x2 LED Panel	3737	31.5	5000K	80	120-277V	40
CPX 2X4 4000LM 35K M2	191848338490	2x4 LED Panel	4543	38.9	3500K	80	120-277V	20
CPX 2x4 4000LM 40K M2	191848338506	2x4 LED Panel	4692	38.9	4000K	80	120-277V	20
CPX 2X4 4000LM 50K M2	193048313680	2x4 LED Panel	4766	38.9	5000K	80	120-277V	20
CPX 1X4 ALO7 SWW7 M4	194994568063	1X4 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	40
CPX 2X2 ALO7 SWW7 M4	193048542806	2X2 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	40
CPX 2X4 ALO8 SWW7 M2	193048542844	2X4 Switchable Panel	See Switchable Table	See Switchable Table	3500K/4000K/5000K	>80	120-277V	20

NOTES

ILBLP CP10 HE SD A remote mounted only. See ILBLP CP10 HE SD B spec sheet and
 ELA-PSMK-PSMKSD-PSDMT-PSRME remote mounting endosure spec sheet here.





Accessories: Order as separate catalog number.

ILBLP CP10 HE SD A IOTA 10 Watt Constant Power, High Efficiency LED Emergency Driver for CA Title 201

DGA14 Drywall grid adapter for 1X4 recessed fixture.
DGA22 Drywall grid adapter for 2x2 recessed fixture.
DGA24 Drywall grid adapter for 2x4 recessed fixture.

1X4SMKSH Multi-Use Surface Mount Kit 1X4, Shallow Depth 2X2SMKSH Multi-Use Surface Mount Kit 2x2, Shallow Depth 2X4SMKSH Multi-Use Surface Mount Kit 2x4, Shallow Depth

2X4SMKSH Multi-Use Surface Mount Kit 2x4, Shallow Depti
1X4SMKSHP PAF Multi-Use Surface Mount Kit 1X4 Post-Paint
2X2SMKSHP PAF Multi-Use Surface Mount Kit 2X2 Post-Paint
Aulti-Use Surface Mount Kit 2X4 Post-Paint
Multi-Use Surface Mount Kit 2X4 Post-Paint

PAC 2DNF 36 Panel Air Craft Kit, 2 cables with Y splitter, No Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.

PAC 2DF 36 Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.

PAC 2DF 36 Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 36 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.¹
PAC 4DNF 36 Panel Air Craft Kit, 4 cables, No Power Feed, 36 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.

PAC 4DF 36 Panel Air Craft Kit, 4 cables, with Power Feed, 36 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures. PAC 2DNF 72 Panel Air Craft Kit, 2 cables with Y splitter, No Power Feed 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.

PAC 2DF 72 Fanel Air Craft Kit, 2 cables with 1 splitter, who Power Feed 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.

PAC 2DF 72 Panel Air Craft Kit, 2 cables with Y splitter, with Power Feed, 72 inches. Recommended for 1X4 or 2X2 Panel Fixtures only.

PAC 4DNF 72 Panel Air Craft Kit, 4 cables, No Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.

PAC 4DF 72 Panel Air Craft Kit, 4 cables, with Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.

PAC 4DF 72 Panel Air Craft Kit, 4 cables, with Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.

PAC 4DF 72 Panel Air Craft Kit, 4 cables, No Power Feed, 72 inches. Recommended for 2X4, 1X4 or 2X2 Panel Fixtures.

RK8BDP 2P U Disconnect Plug (8DP), 2 Pole, Package of 1
RK8BDP 3P U Disconnect Plug (8DP), 3 Pole, Package of 1
RK8BDP 2P J10 Disconnect Plug (8DP), 2 Pole, Package of 10
RK8BDP 2P J40 Disconnect Plug (8DP), 2 Pole, Package of 40

Switchable Table							
Size(ft)	Nomendature	Lumen Package	ιсτ	Lumen	Wattage	Efficacy	
			3500K	2430	19.7	123.4	
		Low Lumen	4000K	2594	19.7	131.7	
			5000K	2483	19.5	127.3	
	CDV 4V4.11.07		3500K	3289	28.4	115.8	
1x4	CPX 1X4 ALO7 SWW7 M4	Med Lumen	4000K	3583	27.2	131.7	
	31111/mm		5000K	3369	28.2	119.5	
			3500K	3914	35.7	109.6	
		High Lumen	4000K	4280	33.7	127	
			5000K	4009	35.5	112.9	
	CPX 2X2 ALO7 SWW7 M4	Low Lumen	3500K	2399	19.1	125.6	
			4000K	2570	18.5	138.9	
			5000K	2456	19.1	128.6	
		Med Lumen	3500K	3356	28.7	116.9	
2x2			4000K	3649	27.5	132.7	
			5000K	3427	28.5	120.2	
		High Lumen	3500K	4131	37.5	110.2	
			4000K	4564	35.8	127.5	
			5000K	4212	37.3	112.9	
				3500K	3813	28.94	131.8
1		Low Lumen	4000K	4033	28.1	143.5	
			5000K	3938	28.86	136.5	
		1	3500K	4677	36.8	127.1	
2x4	CPX 2X4 ALD8 SWW7 M2	Med Lumen	4000K	5009	35.55	140.9	
	31411/MZ		5000K	4834	36.65	131.9	
	Γ		3500K	6048	50.56	119.6	
		High Lumen	4000K	6563	48.53	135.2	
			5000K	6241	50.24	124.2	

NOTES

1. For MVOLT only, not available with 347V.





Specifications

INTENDED USE:

CPX is a low-glare panel featuring an external driver. This cost-effective, reliable panel is visually comfortable and can be recessed mounted. Suitable for many applications such as schools, offices, retail, convenience stores and other commercial spaces. Certain airborne contaminants can diminish integrity of acrylic. Click here for Acrylic Environmental Compatibility table for suitable uses, Adjustable Lumen (ALO7, ALO8) and Switchable White (SWW7) configurations available. U.S. Patent No. 10,681,784.

CONSTRUCTION:

The extruded aluminum frame with satin white lens provides excellent shielding and uniform luminance. The low-profile design of CPX provides increased installation flexibility especially in restricted plenum spaces. The backplate includes integral T-bar clips for installation into T-grid ceilings.

ELECTRICAL:

Long-life LEDs, coupled with a high-efficiency driver, provide superior illumination for extended service life. Greater than 70% LED lumen maintenance at 50,000 hours (L70>50,000). 0-10V dimming driver, dims to 10% and contains non-isolated dimming leads.

LISTINGS:

CSA certified to meet US and Canadian standards. Damp location listed. IC rated. IPSX Rated. DesignLights Consortium³ (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. Rated for NSF/ANSI Standard 2 - Light Fixture for Splash Zone and Non Food Zone. NOM Certified.

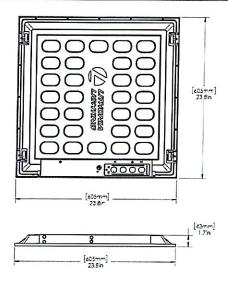
WARRANTY:

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

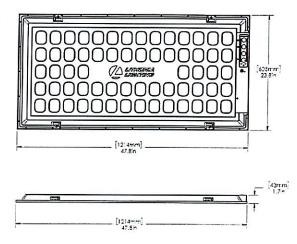
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

2'x2'



2'x4'



All dimensions are inches (millimeters) unless otherwise indicated.





Catalog Number	
Notes	
Туре	

Contractor Select™

ECRG

Lithonia Lighting Basics™ Emergency Light/Exit Combo

The Lithonia Lighting* ECRG, is a combination of exit and emergency lighting. The ECRG is ideal for safely illuminating the path of egress above-the-door in small spaces at lower mounting heights while providing 90 minutes of emergency power. Available in red and green letters.

FEATURES:

- Internal toggle switch for red or green exit
- Test switch and status indicator
- UL indoor damp location 50°F to 104°F (10°C to 40°C) listed standard
- ECRG RD: multi-voltage 120-277V, 50/60Hz
- ECRG SQ: dual-voltage 120/277, 60Hz









† Exit Signs Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number UPC	Description	Supply	Input Wattage		Input Amps		Pallet	Carton	
	DCM(pto)	Voltage	120	277	120	277	Qty	Qty	
ECRG RD M6	00194994900412	00194994900412 Red/Green LED Exit/Unit Combo, Round Lamp Heads	120-277V	V 2W	2W	.03	.02	360	6
ECRG HORD M6	00194994900429	Red/Green LED Exit/Unit Combo with remote capacity, Round Lamp Heads		2.8W	2.8W	.05	.03	360	6
ECRG SQ M6	00194994900467	Red/Green LED Exit/Unit Combo, Square Lamp Heads	120/277V	3.5W	3.5W	.03	.02	360	6
ECRG HOSQ M6	00194994900504	Red/Green LED Exit/Unit Combo with remote capacity, Square Lamp Heads	120/277	4W	4W	.03	.02	360	6

Battery Capacity and Loading (HO only)

Battery	Total Capacity	Maximum# Remote Lamp Heads*		
		2 - ERE W SGL RD M24		
	2W	1 - ERE W T RD M24		
	(ECRG RD)	2 - ERE GY SGL WP RD M12		
3.6V		1 - ERE GY T WP RD M12		
	3W	3 - ERE GY SGL WP SQ M12		
	(ECRG SQ)	1 - ERE GY T WP SQ M12		

^{*} Remotes are in addition to the lamp heads on the product.

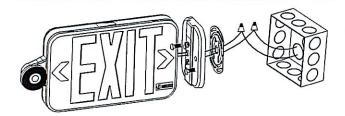
Accessories: Order	as separate catalog number.
ERE W SGL RD	Single, LED indoor remote head, round, ivory white, .75W, 3.6V input. See spec sheet <u>ERE</u> .1
ERE W T RD	Twin, LED Indoor remote head, round, ivory white, 1.SW, 3.6V input. See spec sheet <u>ERE</u> .¹
ERE GY SGL WP RD	Single, LED weather-proof head, round, gray, 0.75W, 3.6V input. See spec sheet <u>ERE</u> .¹
ERE GY T WP RD	Twin, LED weather-proof head, round, gray, 1.5W, 3.6V input. See spec sheet <u>ERE</u> .¹
ERE GY SGL WP SQ	Single, LED weather-proof remote head, square, gray, 1W, 3.6V-12V voltage sensing. See spec sheet <u>ERE</u> . ¹
ERE GYT WP SQ	Twin, weather-proof, remote head, square, gray, 2W, 3.6V-12V voltage sensing. See spec sheet <u>ERE</u> .¹
ELA WG3	Wireguard (back mount), 30 5/8"W x 13 3/4"H x 6"D. See spec sheet ELA-WG.

1 Only available with HO option.





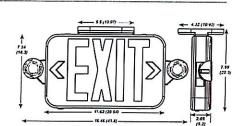
ECRG side/end mount example



Dimensions

ECRG RD Length:

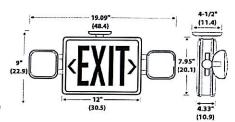
Length: 16.46 (41.8) Depth: 2.05 (5.2) Height: 7.24 (18.3) Weight: RD -1.9 (0.86kgs) HO RD - 1.95 (0.88kgs)



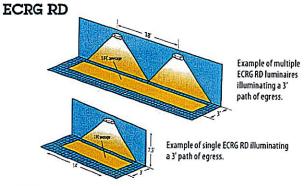
ECRG SQ

Length: 19.09 (48.4) Depth: 4.33 (10.9) Height: 7.95 (20.1)

Weight: SQ - 3.09 lbs. (1.40kgs) HO SQ - 3.25 lbs (1.47kgs)



All dimensions are inches (centimeters) unless otherwise indicated.



Example of multiple ECRG SQ luminaires illuminating a 3' path of egress. Example of single ECRG SQ illuminating a 3' path of egress.

Spacing guidelines

	Maximum Spacing Guidelines ¹									
	Mounting	Illumination	Single Luminaire		Multiple L	N. B. C.				
Series	Height	Level	3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	Application Notes			
ECRG RD	7.5'	1FC Avg	14"	10"	18'	14"	"100' Corridor 8' wide, and			
ECRG SQ	7.5'	1FC Avg	10'	6'	14'	11'	9" high with 80/50/20 reflectances"			

Notes:

1. Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.





Specifications

INTENDED USE:

Provides a minimum of 90 minutes illumination for the rated wattage upon loss of AC power to meet code required emergency lighting. Ideal for applications requiring low profile, emergency unit for lower mounting heights. The ECRG has an internal switch that ships standard as a red emergency light/exit combo and can be switched in the field to green. It is also packaged standard with an extra faceplate along with red and green inserts.

CONSTRUCTION:

The housing is a standard white thermoplastic with a compact and low-profile design with all-inclusive lamp, reflector and lens assembly. It is 5VA flame rated and impact-resistant.

OPTICS

The typical life of the LED is 10 years. ECRG is 0.75W white LED per lamp head ECRG SQ is 1W LED per lamp head.

CRI: RD 80CRI SQ 75CRI

CCT: RD 6200K SQ 6200K

Lumen: RD 85 lumens SQ 113 lumens

ELECTRICAL:

ECRG RD: multi-voltage 120-277V, 50/60Hz.

ECRG SO: dual-voltage 120/277, 60Hz.

Bi-color LED status indicator for battery condition. (Green-normal, Red-check battery). ECRG HO RD has 2W of remote capacity and ECRG HO SQ has 3W of remote capacity. BATTERY: 3.6V maintenance-free, rechargeable, Nickel metal hydride.

INSTALLATION:

ECRG RD: Top, end and back mount.

ECRG SQ: Top, end and back mount.

Mounting pattern on canopy (top and side mount) and back plate (back mount) fits most standard size junction boxes.

LISTINGS:

UL Listed. Meets all applicable requirements for UL 924, NFPA 101 (current Life Safety Code), NFPA 70 (NEC), FCC Title 47, Part 15, Subpart B and OSHA.

Indoor damp location 50°F to 104°F (10°C to 40°C) listed.

WARRANTY

2-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: warranty/lerms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.





Specifications

INTENDED USE:

LED lighted exit signs for marking the means of egress in accordance with Life Safety Code NFPA 101. The EXRG has an internal switch that ships standard as a red exit and can be switched in the field to green. It is also packaged standard with an extra faceplate along with red and green inserts.

CONSTRUCTION:

Injection-molded, flame-retardant, high-impact, thermoplastic housing with snap-fit design components for easy installation. Universal J-box pattern. Universal chevrons are easily removed for directional indication.

 $\label{prop:conversion} Fully \ assembled \ single \ face \ with \ extra \ face plate for \ easy \ field-conversion \ to \ double \ face.$

Letters 6* high with 3/4" stroke, with 100 ft viewing distance rating, based on UL924 standards.

OPTICS:

The typical life of the LED lamp is 10 years.

FI FCTRICAL -

Dual-voltage input 120V or 277V AC. Non-emergency (AC only without battery) or Emergency exit with battery. The emergency model includes the test switch, status indicator and rechargeable battery.

Battery: (EL models) maintenance-free Nickel metal hydride battery provides 90 minutes of emergency power.

INSTALLATION:

Top, back or end mounting capability (canopy included).

LISTINGS:

UL Listed. Meets UL 924, NFPA 101 (current Life Safety Code), NFPA 70-NEC, FCC Title 47, Part 15, Subpart B and OSHA illumination standards. Indoor damp location 50° to 104°F (10°C to 40°C) listed standard.

WARRANTY:

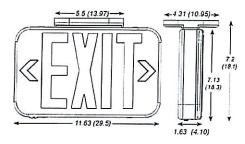
2-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Dimensions

Length: 11.63 (29.5) Depth: 1.63 (4.1) Height: 7.2 (18.3) Weight: EL: 1.6 LB AC: 1.59 LB



All dimensions are inches (centimeters) unless otherwise indicated.





Specifications

INTENDED USE:

Provides a minimum of 90 minutes illumination for the rated wattage upon loss of AC power to meet and exceed code required emergency lighting. Ideal for applications requiring attractive LED unit equipment with quick installation and unparalleled performance for lower mounting heights.

CONSTRUCTION:

The housing is a standard white thermoplastic with a compact and low-profile contemporary design. It is 5VA flame rated, impact-resistant, scratch-resistant and corrosion proof. The UV-stable resin resists discoloration from natural and man-made light sources. The back-plate contains a universal j-box mounting pattern to facilitate ease of installation on a wide variety of j-boxes and the front housing allows tool-less access for ease of maintenance.

OPTICS:

The typical life of the LED is 10 years. Two 1.2W LED Lamps.

ELECTRICAL:

Orderable in multiple voltages. Emergency unit provided with test switch, status indicator and rechargeable battery. Sealed, maintenance-free nickel-cadmium or Lithium Iron Phosphate battery provides at least 90 minutes of emergency power.

INSTALLATION:

Wall and ceiling mount. Tool-less removal of front cover from back-plate for ease of installation and maintenance.

LISTINGS:

UL damp location listed standard and wet location listed when used with the WPVS accessory, all at 50-104°F (10-40°C). Meets or exceeds all applicable requirements for UL 924, NFPA 101 (current Life Safety Code), NFPA 70 (NEC), NOM (Norma Oficial Mexicana), California Energy Commission Title 20 section 1605.3 (W)(4), FCC Title 47, Part 15, Subpart B and OSHA. List and labeled to comply with Canadian Standards C22.2 No. 141-10.

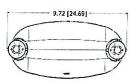
WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:

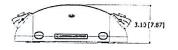
www.acuitybrands.com/support/customer-support/terms-and-conditions

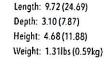
Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

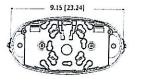
Dimensions











All dimensions are inches (centimeters) unless otherwise indicated.

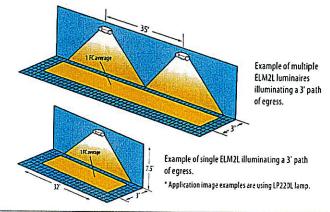
Spacing guidelines

Mounting Height	Illumination Level	THE COURT DISCONNECTED AND ADMINISTRATION OF THE PARTY OF	uminaire rage	Multiple Spa	Application	
		3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	Notes
7.5	1FC Avg ¹	32'	24'	35'	28'	100' Corridor, 8' wide, and
10'	1FC Avg '	20'	14'	27'	23'	12' high with 80/50/20 reflectances

Notes:

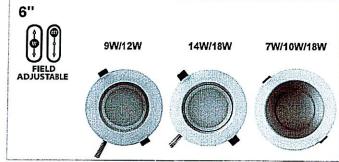
 Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.

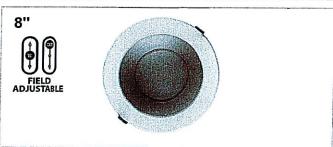
*Note: To see complete photometric report or download the .ies file for this product, visit Lithonia Lighting ELM2L home page.

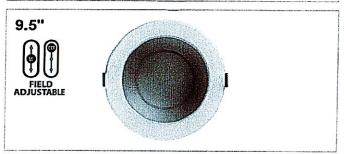


Performance Downlight Field-Adjustable











Features

- · High Performance LEDs for commercial applications
- Replacement for traditional Compact Fluorescent recessed downlights
- · Compatible with new construction or retrofit installations
- UL wet and Energy Star rated
- Meets air-tight requirements
- · Lumen and CCT Selectable
- · Matte white smooth trim finish
- Available in 3 CCTs: 3000K, 3500K, 4000K
- 0-10V dimmable
- · Spring loaded retention clips
- · 5-Year, No-Compromise Warranty

Project:	Туре:	
Prepared by:	Date:	

Technical Specifications

CCT and Lumen Selectable:

Choose lumen output and color temperature before installation with integrated switch

UL Listed & UL Classified

Suitable for wet locations

Energy Star V2.2:

This product is Energy Star® Version 2.2 Certified.

California Title 24:

Can be used to conform with the requirements of California Title 24 Part 6

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires seperate 0-10V DC dimming circuit. Dims as low as 10%

Input Voltage:

120V through 277V

Operating Frequency:

50/60Hz

Lifespan:

50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

Long-life, high-efficacy surface-mount LEDs

R9 Value:

High color performance with R9 greater than or equal to 50

Flicker:

Silent and flicker free operations of less than 30%

IC Rated:

Suitable for direct contact with insulation

Air Tight:

Housing certified Air Tight as per ASTM E283

Trim:

Smooth Trim

Housing:

Constructed from durable steel sheet metal

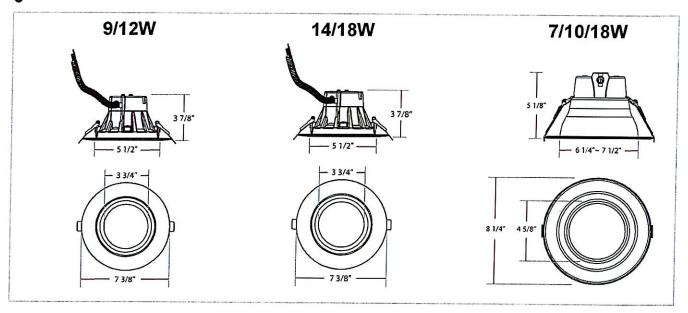
Maximum Ambient Temperature:

Suitable for use in 40°C (104°F)

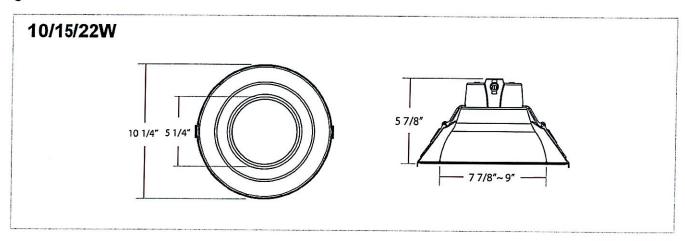
Finish:

Matte White

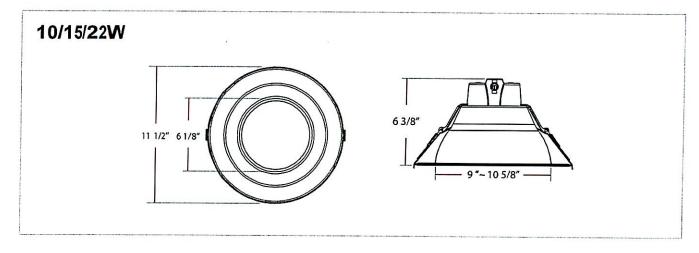
6"



8"



9.5"



Performance

RAB

2 Lumen Output	Size	Wattage	Lumens	Efficacy (lm/W)	Color Accuracy (CRI)
C6R9/129FAUNVW 3000K 3500K 4000K	6"	9/12	700 lm 900 lm	78	90
C6R14/189FAUNVW 3000K 3500K 4000K	6"	14/18	1200 lm 1500 lm	86	90
3 Lumen Output	Size	Wattage	Lumens	Efficacy (lm/W)	Color Accuracy (CRI)
C6R7/10/189FAUNVW 3000K 3500K 4000K	6"	7/10/18	700 lm 1000 lm 1500 lm	100	90
C8R10/15/229FAUNVW 3000K 3500K 4000K	8"	10/15/22	1000 lm 1500 lm 2000 lm	100	90
C9.5R20/25/329FAUNVW 3000K 3500K 4000K	9.5"	20/25/32	2000 lm 2500 lm 3000 lm	100	90

Images	SKU Number	Description	Construction	Dimensions	Case Qty
		Goof Rings - P	lastic		
0	DL6-8GOOF/R/P	6" Goof Ring for 6" Downlight - 2 Lumen Output Models	Robust Polycarbonate construction. Matte White Finish	2 class 1/2 mm	
	1	Goof Rings - N	letal	'Sorr	
	DL8-10GOOF/R/M	10" Goof Ring for 8" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish	10 Mer 25 Johnson 10 Mer 25 Johnson 10 Mer 25 Johnson 10 Johnson 1	
	DL10-12GOOF/R/M	12" Goof Ring for 9.5" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish	13 M7 18 mm	
	DL12-14GOOF/R/M	12" Goof Ring for 9.5" Downlight - 3 Lumen Output Model	High-quality steel construction White powder coat finish	The same of the sa	

	Mounting Pla	ites		
DLPLATE/SJ	New Construction Plate for Stud/ Joist mounting for use with 4", 6" smooth and baffle models	Sturdy galvanized steel construction		10
DLPLATE/T	New Construction or Remodel Plate for T-Grid ceilings for use with 4", 6" smooth and baffle models	Sturdy galvanized steel construction		10
	Emergency Dri	ver		
DRI-25-EMGR-DC	Emergency Driver	Sturdy galvanized steel construction	19/16'	4
BRACKET_TG_DRI	T-Grid bracket for Emergency Driver	Sturdy galvanized steel construction		12

Ordering Matrix

Product	Size	Shape	Wattage	CRI/Color Temp	Voltage	Finish
С		R		9FA	UNV	w
	6 6" 8 8" 9.5 9.5"	R Round	700lm-1500lm 7/10/18 700lm-900lm 9/12 1000lm-2000lm 10/15/22 1200lm-1500lm 14/18 2000lm-3000lm	9FA 90 CRI, Field Adjustable	120-277 V UNV	W White





Catalog
Number MNSL L48 2LL MVOLT 40K 80CRI M6

Notes

Type WILCO Standard LED Striplight

Contractor Select™

MNSL

LED Striplight

The basic, non-dimming, damp location MNSL strip lights mount individually or in continuous rows to the ceiling or wall, both horizontally or vertically.

FEATURES:

- Diffuse polycarbonate lens providing a single smooth line of light shaped to resemble a fluorescent tube
- Quick and simple to install with the snap-lock tool-less channel cover
- Ideal choice for commercial task lighting, restrooms, under/over cabinet, storage closets and displays









*Prolonged use at 55°C, may impact long-term performance

Catalog Number	UPC	Description	Lumens	Wattage	Voltage	Color Temperature	Color Rendering Index	Pallet Quantity
MNSL L23 1LL MVOLT 40K 80CRI M6‡	00193048379051	2' 1-Light MVOLT LED Strip Light	1,250	11	MVOLT (120-277)	4000K	80CRI	500
MNSL L242LL MVOLT 40K 80CRI M6‡	00190887018707	2' 2-Light MVOLT LED Strip Light	2,500	20	MVOLT (120-277)	4000K	80CRI	288
MNSL L461LL MVOLT 40K 80CRI M6	00191723219845	4' 1-Light MVOLT LED Strip Light	2,500	20	MVOLT (120-277V)	4000K	80 CRI	168
MNSLL482LL MVOLT 40K 80CRI M6 \$	(00190887018776)	4'2-Light MVOLT LED Strip Light	4,500	35	MVOLT) (120-277V)	(4000K)	80 CRI	168
MNSL L962LL MVOLT 40K 80CRI ‡	00190887018844	8' 2-Light MVOLT LED Strip Light	9,000	73	MVOLT (120-277V)	4000K	80 CRI	99

More configurations are available. Click here or visit www.acuitybrands.com and search for MNSL LED.

‡ These configurations are energy star rated.

Accessories: Order as separate catalog number.

HC36

Chain hanger and jack chain, 36" (pair)

ZACVH

Aircraft cable 10' (one pair)

SQ

Swivel-stem hanger (specify length in 2" increments)

MNLK JBOXCVR M12

Junction box cover with hardware, white





Specifications

INTENDED USE:

Inspired by classic fluorescent strip channels, this LED fixture offers a traditional appearance that incorporates the latest technology. Available in multiple lengths and lumen packages. Ideal for use in commercial, retail, office, warehouse and display applications. Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.

Certain airborne contaminants may adversely affect the functioning of LEDs and other electronic components, depending on various factors such as concentrations of the contaminants, ventilation, and temperature at the end-user location. Click here for a list of substances that may not be suitable for interaction with LEDs and other electronic components.

CONSTRUCTION:

Compact-design channel and cover are formed from code-gauge, cold-rolled steel. Easy to install rowaligner included with 2LL versions for continuous row mounting. High-gloss, baked whitre enamel finish (standard).

OPTICS:

LEDs provided 80+ color rendering index (CRI) at 4000K. Diffuse polycarbonate lens provides smooth, linear illumination which is designed to resemble the classic look of traditional fluorescent tubes.

ELECTRICAL:

Luminaire Surge Protection Level: Designed to withstand up to 2.5kV/0.75kA per ANSI C82.77-5-2015. For applications requiring higher level of protection, additional surge protection must be provided. Fixture features a non-dimming driver.

INSTALLATION

Fixture may be surface or suspension mounted with appropriate mounting options (see accessories). Aligner locks in place for easy continuous row mounting.

LISTINGS

CSA certified to US and Canadian safety standards and listed suitable for damp locations. Minimum starting temperature at -40°F (-40°C). Maximum ambient operating temperature of 95°F (35°C) for 4° and 8′ models. ENERGY STAR* certified product.

WARRANTY:

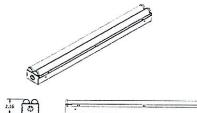
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

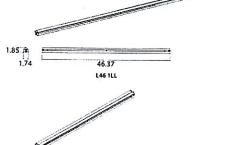
Dimensions

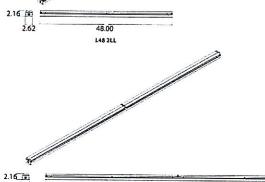
All dimensions are inches (centimeters) unless otherwise indicated.











96.00 L96 2LL

2.62



FEATURES & SPECIFICATIONS

INTENDED USE — The UFITR™ LED retrofit kits are the most versatile and configurable retrofit kits on the market. UFITR delivers all the options of a new fixture with the labor and material savings of a retrofit kit. This kit can be used almost anywhere a fluorescent strip or low bay is in use today, including warehouses, factories, storage facilities, educational facilities and retail. Please see application guide below for more details on where to use this kit.

CONSTRUCTION — The kit is precision-formed using cold rolled steel. The lensing is manufactured from a diffuse acrylic polymer ensuring visual comfort and no LED pixilation.

Finish: High-gloss, baked white enamel finish. Five-stage iron phosphate pretreatment ensures superior paint adhesion and rust resistance.

Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.

ELECTRICAL — Utilizes high-output LEDs integrated on a two-layer circuit board, ensuring cool-running operation. Optional internal pluggable wiring harness for reduced labor cost in row mounting applications. Electronic LED driver is multi-volt input and 0-10V dimming standard (see Operational Data on page 2 for actual wattage consumption). This fixture is designed to withstand a maximum line surge of 2.5kV at 0.75kA combination wave for indoor locations, for applications requiring higher level of protection with the provided. additional surge protection must be provided.

L70 > 60,000 hours with SEF at 25°C.

L70 > 120,000 hours with HEF at 25°C.

LEDs provide nominal 80CRI at 3500K, 4000K, or 5000K.

Lumen output up to 2,500 lumens per foot.

INSTALLATION — Assembly installs quickly and securely using TEK screws to the host housing.

LISTINGS — UL certified to US and Canadian safety standards. For use in damp locations between $-4^{\circ}F$ ($20^{\circ}C$) and $86^{\circ}F$ ($30^{\circ}C$). Optional High Ambient (HA) ranging to $122^{\circ}F(50^{\circ}C)$ available on certain

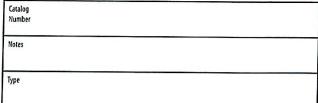
DesignLights Consortium^a (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

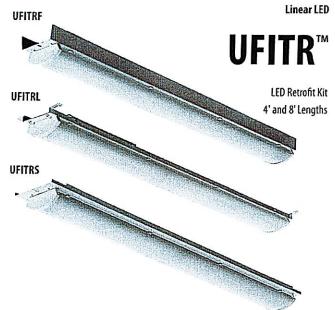
GOVERNMENT PROCUREMENT — BAA — Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations. BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:

www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.





















ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: UFITRS L48 10000LM SEF MVOLT GZ10 40K 80CRI WH

Series		Leng	th	Nominal I	Lumens	Perfo	rmance Package	Voltage		Driver		Color	Temperature
UFITRL UFITRS UFITRF	Lowbay Strip Surface	L46 L48	46" ¹ 48"	1750LM 4000LM 6000LM 8000LM 10000LM	1,750 Lumens 4,000 Lumens 6,000 Lumens 8,000 Lumens ³ 10,000 Lumens ³	SEF HEF	Standard efficiency High efficiency	MVOLT 120 277 347 480	120-277V 120V 277V 347V ^{3,4} 480V ^{3,4}	GZ10 EZ1	10% dimming 1% dimming, EldoLED	35K 40K 50K	3500K 4000K 5000K
		L92 L96	92" ^{1,2} 96" ⁷	3500LM 8000LM 12000LM 16000LM 20000LM	3,500 Lumens 8,000 Lumens 12,000 Lumens 16,000 Lumens ¹ 20,000 Lumens ³								

Color Rendering Index	Options				Paint	t Finish
80CRI 80 CRI	PLR1G	Plug-in wiring with ground ⁵	nLight* Wireless	<u>, '</u>	WH	White
	PLR1LVG BGTD SPD HA BAA	Plug-in wiring with low voltage dimming and ground ⁵ Generator transfer device ⁵ Surge protection device or additional protection up to 6kV High ambient Buy America(n) Act and/or Build America Buy America Qualified	NLTAIR2 RES7PDT NLTAIR2 RIO	nLight* Generation 2 enabled PIR integral occupancy sensor with automatic dimming photocell nLight AIR Generation 2 enabled dual technology integral occupancy sensor with automatic dimming photocell No sensor control		

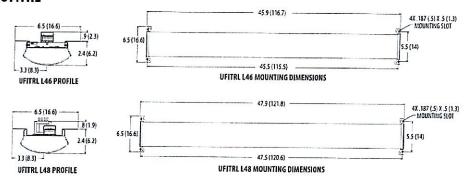
- 1 Available for UFITRL only.
- 8ft fixtures come as 2 combined 4ft fixtures.
- Not available with HA 4 Utilizes step down transformer.
- 5 Can only be used with 4" or wider channel.
- 6 Not available with NLTAIR2, PLR1LVG, MVOLT, 347V and 480V.
- 7 Not available with GZ10 or PLR1LVG. Maximum ambient temperature is 45°C when used with HA.

DIMENSIONS

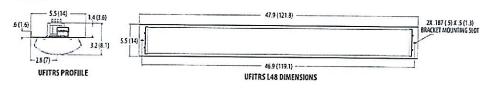
SERIES	LENGTH	ACTUAL LENGTH	WIDTH	APPROX WEIGHT	PALLET QTY	PALLET DIMS
UFITRL	L46/L48	45.9/47.9	6.5	4.2 lbs.	40	57x35x55
UTITAL	L92/L96	91.8/95.8	6.5	8.4 lbs.	20	51x33x55
UFITRS	L48	47.9	5.5	4.2 lbs.	44	51x33x54
כאווזט	L96	95.8	5.5	8.4 lbs.	20	51x33x50
UFITRF	L48	47.9	4.7	5 lbs.	50	51x33x50
UTITAL	L96	95.8	4.7	10 lbs.	30	51x33x54

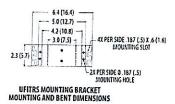
^{*}Weights will vary slightly with added options. All dimensions are shown in inches unless otherwise specified.

UFITRL

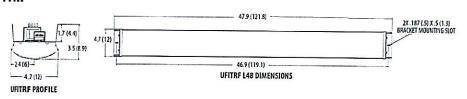


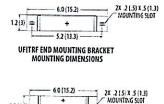
UFITRS





UFITRF





5 2 (13.3) UFITRF MIDDLE MOUNTING BRACKET (L96 ONLY)
MOUNTING DIMENSIONS

EMERGENCY BATTERY PACKS

BATTERY NOMENCLATURE	BATTERY UTILIZED	REMOTE ENCLOSURE	DESCRIPTION	EMERGENCY LUMENS
PS1055LCP	Power Sentry	ELA PSRME IC	Low profile constant power, 10W, Certified in CA title 20 MAEDBS	1500IM
IBL-CP10-HE-A	IOTA	None needed	Dual Flex, 10W	1200LM
IBL-CP10-HE-B	IOTA	lota TMK-80 or RME1	Intagral non-flex	1200LM

^{*}Surge protection device SPD is recommended if fixture is intended to utilize battery. Batteries are individually UL listed, for installation in any Class-2 luminare.

OPERATIONAL DATA

Series	Length	Lumen	Efficiency		Lumens at			
	Lengu	Package	Package	3500K	4000K	5000K	Wattage	LPW @ 40
		4000LM	SEF	3654	3862	3917	30.5	127
		4000EW	HEF	3780	3995	4052	28.6	140
		6000LM	SEF	5593	5911	5995	44.4	133
	L46	OUOLIVI	HEF	5733	6059	6145	42.9	141
	140	8000LM	SEF	7459	7884	7995	59.8	132
		BUUULIVI	HEF	7507	7934	8046	57.2	139
		10000LM	SEF	9052	9567	9703	74.3	129
		TOUULIN	HEF	9372	9825	9931	67.3	146
	100	4000LM	SEF.	3808	4025	4082	30.5	132
		4000LW	HEF .	3898	4119	4178	28.6	144
		6000LM	SEF	5828	6160	6247	44.4	139
	L48	DOUULW	HEF	5911	6248	6336	42.9	146
	L40	8000LM	SEF	7773	8215	8332	59.8	137
		OCCULIVI	HEF	7740	8180	8296	57.2	143
		10000LM	SEF	9433	9970	10111	74.3	134
UFITR		10000[4]	HEF	9663	10130	10240	67.3	151
Jiiii		8000LM	SEF	7309	7724	7834	61.0	127
- 4		BOOOLIVI	HEF	7560	7990	8103	57.2	140
10		12000LM	SEF	11186	11822	11990	88.8	133
	L92	12000EN	HEF	11466	12119	12290	85.8	141
	LJZ	16000LM	SEF	14918	15767	15990	119.5	132
		TOOOOLIN	HEF	15013	15867	16092	114.4	139
		20000LM	SEF	18104	19134	19405	148.5	129
		ZUUUULIVI	HEF	18744	19649	19862	134.5	146
		8000LM	SEF	7616	8049	8163	61.0	132
		8000LIVI	HEF	7795	8239	8355	57.2	144
		12000LM	SEF SEF	11657	12320	12494	88.8	139
	L96	12000LIVI	HEF	11823	12495	12672	85.8	146
	50	16000LM	SEF	15546	16431	16663	119.5	137
		TOUULIN	HEF	15480	16360	16592	114.4	143
		20000LM	SEF	18866	19939	20222	148.5	134
į		ZUUUULIVI	HEF	19326	20260	20479	134.5	151

^{*}All values are typical and are at 25°C. Actual performance may vary and is dependent on operating environment.

COMPARABLE LIGHT SOURCE

Traditional Light Source	Total Lumens	Delivered Lumens	Fluorescent Wattage	Fluorescent Delivered Lumens Per Watt	Reccomended UFIT Lumen Package	UFIT SEF Wattage	UFIT SEF Delivered Lumens Per Watt	UFIT HEF Wattage	UFIT HEF Delivered Lumens Per Watt
1 TS Lamp	2900	1740	28	62	4000	30.5	127	28.6	140
2T5 Lamps	5800	3480	56	62	4000	30.5	127	28.6	140
3 TS Lamps	8700	5220	84	62	6000	44.4	133	42.9	141
4T5 Lamps	11600	6960	112	62	8000	59.8	132	57.2	139
6T5 Lamps	17400	10440	168	62	10000	74.3	129	67.3	146
8 T5 Lamps	23200	13920	224	62	16000	119.5	132	114.4	139
1 T5HO Lamp	5000	3000	54	56	4000	30.5	127	28.6	140
2 TSHO Lamps	10000	6000	108	56	6000	44.4	133	42.9	141
3 T5HO Lamps	15000	9000	162	56	10000	74.3	129	67.3	146
4 T5HO Lamps	20000	12000	216	56	12000	88.8	133	85.8	141
6 T5H0 Lamps	30000	18000	324	56	20000	148.8	129	134.5	146
8 T5H0 Lamps	40000	24000	432	56	20000	148.8	139	134.5	146
1T8 Lamp	3000	1800	32	56	4000	30.5	127	28.6	140
2 T8 Lamps	6000	3600	64	56	4000	30.5	127	28.6	140
3 T8 Lamps	9000	5400	96	56	6000	44.4	133	42.9	141
4T8Lamps	12000	7200	128	56	8000	59.8	132	57.2	139
6 T8 Lamps	18000	10800	192	56	10000	74.3	129	67.3	146
8 T8 Lamps	24000	14400	256	56	16000	119.5	132	114.4	139

PROJECTED LUMEN MAINTENANCE

Operating Hours	12000	36000	50000	80000	120000
SEF Efficiency Package	94%	82%	75%	63%	50%
HEF Efficiency Package	97%	90%	86%	79%	70%

^{*}These values are typical. Operating conditions and environment may alter these values.