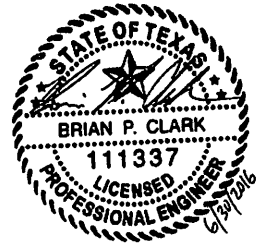


## Lighting Retrofit Scope of Work – Multiple Campuses

Contractor will perform a turn-key, lighting retrofit of 9,184 fixtures as detailed on the subsequent Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet – Multiple Campus Set.

An electronic table of the fixture detail spreadsheet has been provided that will allow the Contractor to sort the project by fixture type as an aid to identify counts of fixtures and fixture types.



Facilities included within the HCC System in this project are:

Felix Morales Building, SE College	6815 Rustic Street A, Houston, Texas 77087
Parking Garage, SE College	6960 Rustic Street, Houston, Texas 77087
Angela Morales Building, SE College	6816 Rustic Street B, Houston, Texas 77087
Felix Fraga Building, SE College	301 N Drennan Street, Houston, Texas 77003
Technology Building / Workforce Building, SE College	6815 Rustic Street E, Houston, Texas 77087
System Parking Garage Building	3220 Main, Houston, Texas 77002
West Loop Center, Southwest College	5601 West Loop South, Houston, Texas 77081
Stafford Learning HUB, Southwest College	10041 Cash Road B, Houston, Texas 77477
Alief, Northwest College	13803 Bissonnet Street, Houston, Texas 77072

The scope of work includes all material, equipment, and labor necessary for the renovation of the light fixtures identified on the following fixture detail sheets. The scope also includes all removal, disposal and recycling of removed lamps, ballasts and lighting materials removed as a result of the project. Contractor will provide Owner copies of appropriate documentation demonstrating proper disposal of removed materials where appropriate.

### Procedure:

Install lamps, ballasts and/or fixtures of the types indicated where shown, in accordance with NEMA standards and requirements of the National Electric Code pertaining to installation of interior lighting fixtures. If not currently present, Contractor to supply and install ballast/driver push-in disconnect, Ideal Model 102 or Engineer approved equal, to satisfy NEC requirements.

Contractor is to retrofit the lighting system according to the attached Project Spreadsheet. Areas not appearing on the spreadsheet were intentionally omitted from the project. In the event that the Owner requests for fixtures to be added to the project that are not in the original scope of work, this addition must be in writing from the Owner and copied to the Engineer before work is performed. Additional work performed without written authorization may not be considered for payment. Reimbursement for additional fixtures shall be governed by Owner accepted and signed proposal, Requests for Change Order (RCO), or by according to the detailed unit cost spreadsheetsheet included with the Contractor's bid for the project.

If an area that appears on the spreadsheet has a type or quantity of lamps, ballasts, or fixtures that is different from the type or quantity of lamps, ballasts or fixtures in the area to be retrofit, the Contractor should retrofit the appropriate type or number of lamps, ballasts, or fixtures and document the difference. Only appropriately documented differences will be considered for payment. This documentation will include the room or area where the discrepancy occurred, the original quantities noted on the spreadsheet, and the actual quantities retrofit. These "count differences" will be accomplished without delay of the project and will be reimbursed according to the detailed unit cost spreadsheetsheet included with the Contractor's bid for the project.

In the event that the existing fixtures are found to be in too poor of a condition to be retrofit, the Contractor is to inform the Owner's Representative, the Project Manager, or the Engineer of the condition of the fixture and advise that the fixtures should be completely replaced. Work to replace the fixtures should only begin after receiving written authorization from the Owner. The Contractor will be reimbursed the full cost of the installed fixture, less the cost of the intended retrofit that was already included in the base bid price, as per the detailed unit cost pricing spreadsheet included with the proposal. The Contractor should proceed with the retrofit of other fixtures in other areas that are not in question while the written authorization is obtained.

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Contractor to verify switching requirements prior to ordering drivers. All fixtures with inboard/outboard switching will require 2 each drivers per fixture.

Prior to final inspection, the Contractor shall check all lighting fixtures for damage occurring during construction and replace the damaged fixture, lenses, or other item where necessary at no additional cost to the Owner. All lighting fixtures shall be cleaned and completely lamped at the time of final acceptance. The Contractor shall provide new lamp holders or tombstones for fixtures where broken, or as required to maintain adequate electrical contact with lamps. Upon completion of the project, the Contractor shall clean all fixtures, inside and out, including plastics and glassware, replace broken and damaged parts, install lamps and test all fixtures for electrical as well as mechanical operation.

The Contractor will be responsible for removal of lamps and ballasts from the site in accordance with all Local, State and Federal regulations.

**Attachment 1**  
**Performance Specification**

**EXHIBIT I HAZARDOUS MATERIALS & MATERIAL SAFETY DATA SHEETS (MSDS)**

**Contractor's Responsibility for the OSHA Hazard Communication Standard**

As required by a new OSHA Standard (effective May 23, 1988), HCC requires Contractor supply HCC Project Manager with materials that Contractor has onsite or plans to bring on-site to complete the work according to the Subcontract Agreement. HCC will, in turn, supply Contractor's jobsite supervisor with MSDS on materials used by HCC employees to which Contractor's employees may be exposed. Contact HCC Project Manager to obtain appropriate MSDS from HCC and other Contractors.

OSHA holds Contractor responsible for the safety and health of Contractor's employees. It is Contractor's responsibility for having a Hazard Communication Program that meets the requirements outlined by OSHA.

In addition, Contractor is responsible for reviewing excess chemicals and/or Hazardous Materials which Contractor has brought or might bring to jobsite. Surplus Hazardous Materials and their containers (even if empty) will not be placed in HCC's or HCC's trash dumpsters or trash trucks for disposal by HCC or HCC at a public trash dump.

If the chemical(s) Contractor plans to use is made up of Toluene, Xylene, Benzene, Ethyl Benzene, Trichloroethane, Ethyl Ketone (Butanone or MEK), limit the quantity on the jobsite; when possible substitute with an alcohol or orange peel based solvent and store and handle the materials in such a manner as to prevent spills, overfills, and splashes giving rise to ground contamination.

## EXHIBIT II SAFETY, DRUGS, ALCOHOL, AND WEAPONS POLICY

### POLICY

To further the Contractor's goal of providing a safe work environment for Contractor and Contractor employees working on HCC jobsites, the possession, use, or distribution of Prohibited Substances is not permitted. Prohibited Substances include, but are not limited to, alcoholic beverages, inhalants, narcotics, illegal drugs, simulated "look alike" drugs, drug paraphernalia, and prescription drugs which may adversely affect working ability. Employees are not permitted to work when alcohol or other Prohibited Substances are present in their system. No firearms, unauthorized explosives or weapons of any kind are allowed on company premises. Entry into company premises is conditioned on the company's right to search a person, personal effects, and vehicles of any entrant for Prohibited Substances, Firearms, Explosives, and Weapons. These searches may involve the use of electronic detection devices, scent-trained dogs, or any other search method deemed appropriate by HCC. Any employee who fails to abide by the above rules and/or refuses to submit to search or drug test will not be allowed to work on any HCC project.

### SPECIFIC CONTRACTOR RESPONSIBILITIES

Prior to starting work this contractor / employer will:

1. Communicate the contents of this Policy to all employees before they are assigned to an HCC project, ensuring employees that Contractor fully supports this Policy.
2. Upon request from HCC, the Contractor will provide evidence of criminal background checks and drug testing for each employee assigned to the project site.
3. Contractor shall agree, if required by HCC, to drug test individual employees and/or groups of employees based on suspicion of use and/or as part of an ongoing random drug testing program.
4. If portions of the work are subcontracted to other companies, Contractor shall be required to ensure that those Contractors conform to the requirements of this Policy.
5. Designate a company representative to coordinate and administer all safety and health issues and communicate with the HCC Project Manager.
6. Submit to HCC a written safety and training program that meets all applicable local, state, and federal safety requirements, as well as with any safety rules and OSHA regulations set forth and pertaining to its contracted work.
7. Provide employee injury records such as Experience Modification Rate (EMR or MOD) for workers' compensation for the past three years and the contractor's past safety record in performing jobs of a similar nature.
8. Provide any OSHA log, which includes the injury and illness rates (number of lost-time accident cases, number of recordable cases, number of restricted workday cases, number of fatalities) for the past three years.
9. Provide incidence rates for recordable lost-time accidents for the past three years.

**During the construction period the contractor will:**

1. Ensure that its employees comply with all applicable local, state, and federal safety requirements, as well as with any safety rules and OSHA regulations set forth and pertaining to its contracted work.
2. Enforce all safety rules set forth in order to provide a safe work environment and control the hazards of the contracted process during performance of the contractor's work.
3. Require that all of its subcontractors and subcontractor employees abide by the rules set forth to govern safety for its trade and or the same rules to which the contractor is bound to as defined in this section.
4. Hold a minimum of (1) mandatory weekly safety meeting with all employees and or subcontractors under its control which are performing work on the jobsite.
5. Provide to the HCC Project Manager documented written proof of employees and subcontract employees that attended the mandatory weekly safety meetings and copies of the safety policy and or safety procedure training presented that week.

**INDEMNIFICATION**

Nothing herein is intended to restrict Contractor's responsibility and liability for all such actions. Contractor will indemnify, defend and hold harmless HCC, its agents and employees, from and against all claims, liabilities and causes of action, including attorneys' fees and defense costs, arising out of or resulting from Contractor's compliance or noncompliance with this Safety, Drugs, Alcohol, and Weapons Policy.

### EXHIBIT III PROJECT INSTALLATION RULES OF CONDUCT

The Rules of Conduct are established by HCC to ensure that a minimum standard for contractors and individual professionalism is maintained on this project. They are intended to eliminate issues arising due to misunderstandings and or poor judgment.

Any contractor or Contractor personnel found deviating from these established standards will face disciplinary action as deemed appropriate by the HCC Project Manager.

It is the responsibility of each contractor to submit this document to each of its employees and Contractors assigned to this project to read, understand and sign prior to working at this project site.

#### Standard Rules of Conduct

- The contractor supervisor is required to check in with the schools primary contact person each day prior to starting work to determine if any issues related to the contractors work exist.
- If any accidental damage occurs to any customer property it must immediately be reported to the customer and the HCC Project Manager.
- When working after normal business hours it is the responsibility of the contractor to insure that all exterior doors are secured as required when work is complete.
- All interior doors will be left as found unless obvious security issues exist. In these cases the contractor supervisor should contact a customer representative or HCC Project Manager for direction.
- There will be no smoking on the customer's property.
- There will be no firearms allowed on the property or project site. This includes the parking lots.
- There will be no alcohol or illegal drugs permitted on the property.
- There will be no radios or loud music permitted on the property or in work areas.
- There will be no improper language and or gestures used by contractor personnel on the property.
- There will be no improper conduct, communication or fraternizing with the customer personnel or the students.
- There will be no use of any customer equipment without prior approval of HCC and the client. (Ladders, tools, housekeeping equipment etc)
- All customer items moved or relocated to facilitate an installation will be put back in the exact condition and location in which it was found.
- There will be no standing on customer desks, chairs, cabinets or tables to facilitate work.
- Flooring, furniture and office equipment will be covered as to protect it from any construction activity.
- Observe all safety rules as detailed in your contract documents.
- Daily clean up of areas where work was performed is required.
- Leave all personal items on desks and in work areas alone. (Computers, food items, phones, pens, pencils etc)
- Dress attire will be professional. No sleeveless shirts, no shorts.
- Use of customer telephones is prohibited without permission. (Local calls only)
- HCC Contractor ID and uniforms bearing the company name will be worn at all times.

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Contractor / Employee Signature / Date

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Article I. GENERAL

**GENERAL**

Furnish all labor, materials, supervision and tools for a complete lighting retrofit at Houston Community College (The "HCC") per this scope of work and the terms and conditions of this contract

**WORKING HOURS**

All work will be performed with no interference of daily activities within the project sites. All work will be coordinated, with property representatives and HCC's project management team to ensure an efficient and professional installation. A master key may be issued to the lead supervisor for the lighting installation team and will be the sole responsibility of the Contractor. All areas will be properly secured prior to completing work in that area each day. Any areas not accessible with the master key will be coordinated with the HCC's security personnel. Certain areas within the project site may require access with a security keypad. These areas will be considered special access areas and access will be coordinated the day prior to performing the work. All work will be performed either during night time or weekend working hours.

**JOBSITE CONDITIONS**

Contractor is responsible for the installation of all retrofits covered by this scope of work and will have reviewed jobsite conditions prior to submitting proposal. Any apparatus, appliance, accessory, material, appurtenance or labor that may be necessary to complete the work in accordance with the intent or purpose of these documents shall be required and provided as part of the work and included in the cost of the work provided by the contractor. Omission of specific mentioned work does not relieve the contractor of providing a satisfactory lighting retrofit. It is the Contractor's responsibility to review all areas of the project and become familiar with all systems, intent, and equipment prior to starting work so that Contractor's work will include provisions for all requirements.

**PERSONNEL**

Upon request, a weekly report will be provided to the HCC Project Manager showing the names of all personnel working on the project. Prior to starting work the HCC Project Manager will be given a list of names and contacts for the execution of this project with contact numbers. Personnel will be required to dress in a professional manner wearing normal dress attire that clearly identifies all workers to be employees of the Contractor or their respective Subcontractor.

Article II. SCHEDULE

Upon request, the contractor will furnish to the HCC Project Manager a schedule, by area, of all work to be performed, with time duration for that work, within two weeks of contract start date. Upon request, the contractor will furnish a weekly job progress report to the HCC Project Manager to update this schedule.

Article III. WEEKLY PROGRESS REPORTS

Upon request, the contractor will furnish to the HCC Project Manager a summary of work in place by retrofit type by area, at the close of each week's work. Report will also estimate or calculate percent complete for project.

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Article IV. GENERAL MATERIAL SPECIFICATIONS

All lighting materials must be LED and meet the ARRA (American Recovery and Reinvestment Act) "Buy American" financing program requirements. Product specification sheets from each manufacturer must be submitted for verification of Buy American status.

- A. All Hi-Bay LED fixture housings to be manufactured by TechBrite, series B4-14, or Engineer approved equal.
- B. All exterior and canopy LED lighting to be manufactured by Neutex, RAB Lighting, Energy Focus or Techbrite.
- C. Screw-in LED replacement lamps to be manufactured by AAMSCO, Sylvania, Neutex or GlobalTechLED.
- D. LED exit sign retrofits must match lens color. Lens must be replaced if existing lens does not allow sufficient light transmission to ensure a clearly illuminated sign.
- E. Gymnasium fixtures will be protected from damage due to impact.
- F. All linear Tubular LED lamps must meet the following criteria:
  1. Type: Light-Emitting Diode (LED) Retrofit Luminaire Conversion Kit.  
  
Direct Wire: Lamps that are connected directly line voltage, receive power on a single end, shall be tested according to the UL 1598C standard.
  2. Regulatory standards: must meet all three standards:  
  
Safety compliance: UL 1598C and UL 1993,  
  
Emissions compliance: FCC Title 47 part 15 class B to not interfere with radio communications or other electronic hardware, and  
  
Performance: Design Lights Consortium (DLC)
  3. Driver Type: The LED driver /power supply must be integral to the lamp construction; Remote/external LED Drivers /Power supplies are not acceptable.
  4. Tube Style: 2' and 4' nominal lengths, G13 medium bi-pin connectors per ANSI C78.81 Standards.
  5. Initial Luminous Flux (Lumen output):  
2' length: 1050 +/- 10% variance (clear); 950 +/- 10% variance (frosted).  
4' length: 1690 +/- 10% variance (clear); 1600 +/- 10% variance (frosted).
  6. Minimum Efficacy: Internal driver with 130 Lumens per watt. 13 and 18 watt options. Efficacy must be shown on DLC listing.
  7. Minimum Power Factor: 0.90 at 277VAC input as per the DLC requirements.
  8. Maximum Total Harmonic Distortion: 20% +/- 2% as per the DLC requirements.

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9. Correlated Color Temperature (CCT):
  - 3500K: Nominal value of 3500K  $\pm$  300K
  - 4000K: Nominal value of 4000K  $\pm$  300K
  - 5000K: Nominal value of 5000K  $\pm$  300K
  - Meets ANSI Standard.
10. Lens Type: Frosted or Clear with striated design
11. Operating Voltage: 100 - 277VAC, 50/60 Hz (auto-ranging)
12. Color Rendition Index (CRI): 80 minimum
13. Minimum Beam Angle: 120 +/-10 degrees (maximizes efficiency of fixture)
14. Minimum Lumen Maintenance L70: >50,000 hours, as indicated by TM-21 calculations based on a LM-80 data provide by the LED manufacturer.
15. Minimum Warranty: 10 Years. Manufacturer must provide a minimum warranty document covering the lamps.
16. Mean Time Between Failure (MTBF): Manufacturer must provide Mean Time Between Failure (MTBF) report, for each model lamp purchased, prior to shipment. MTBF document must indicate 100K hours MTBF of lamp at 40°C ambient and Ground Benign (GB) condition.
17. Housing construction: The lamp shall have a full-length rigid aluminum structure to provide durability (anti-warp) and thermal management.
18. Critical Component Standard: To ensure product performance over its anticipated life. Only electrolytic energy storage capacitor with a minimum rated operation of greater than 190,000 hours at 60 degrees (C) are acceptable.
19. Light Flicker: Maximum allowable flicker of less than 1% for Direct Wire lamps.
20. Operational Temperature: -20C to 50C (-4F to 120F).
21. SAFETY. Lamp shall exhibit intrinsic safety to operator/installer, lamp, and accessories/equipment. This includes:
  - Regulatory: UL/cUL listed lamp, FCC
  - Prevention of electric shock: The lamp must pass the shock hazard test performed by a third party laboratory.
    - Zero current measured in electric shock test specified by UL 1598C (Direct Wire operation)
    - Less than 5 milliamps (mA) allowed in electric shock test specified by UL 1993 (Direct Fit operation)
  - Non-destruction and safe insertion of lamp (even when lamp is in non-operational state) when installed in non-compatible wiring or power source.
22. DELIVERY
  - IES photometry reading of lamp in fixture, for both prismatic and lensed troffers and including multi-lamp configurations, shall be available upon request.

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First lot shall be accompanied (upon request) with the following certification material:

- LM-79 "Lighting Facts" data
- In-situ thermal data (thermocouple based)
- Photometric indoor test results (plot of IES data, lamp in fixture)
- DLC report or Electrical test report, including
  - Integrating sphere test report (Lumens, CCT, CRI)
  - Power, power factor, and THD at nominal operating voltages
  - The above data when power from target ballast

Article V. MATERIAL HANDLING

**MATERIAL HANDLING**

Contractor will be responsible for all equipment handling.

**STORAGE OF EQUIPMENT**

Contractor will be responsible for the proper storage of all equipment being furnished for this project and will keep secure all equipment until time of such equipment installation. All equipment stored at project site will be closely coordinated with HCC's representative so as not to interfere with the daily activities of the project sites. Contractor is responsible for furnishing mini-mobile storage containers as required.

Article VI. DISPOSAL

**DISPOSAL OF EQUIPMENT**

All equipment, except hazardous waste, removed in performing specified retrofits will be disposed of by the contractor. Contractor will furnish required containers for all removed equipment to include furnishing required dumpsters. Dumpsters will be located on project as directed by HCC representatives.

**CLEAN-UP**

Contractor will be responsible for all clean-up of work areas. No equipment will be allowed to remain unsecured prior to commencement of tenant activities. All ladders, tools etc. will be kept in an orderly fashion throughout the work day. Special care shall be taken when moving any equipment so as not to damage floors, walls, and or ceilings. Contractor will be held responsible should such damages occur. Contractor shall notify HCC, prior to entering a work area that shows such damage, so that responsible party can be clearly determined prior to starting work. Broken lenses, broken ceiling tiles should be pointed out to HCC prior to starting work. Contractor will furnish all required dumpsters for the proper handling and disposal of waste materials.

**LAMPS AND PCB BALLASTS DISPOSAL**

The Contractor will properly and legally dispose of all removed lamps and ballast per State and Federal laws governing disposal of such materials. Upon completion of the project scope of work the Contractor shall provide proof (all manifests, bills of lading and related documentation) of proper disposal.

Article VII. LEVELS AND CONSUMPTION

**LIGHT LEVELS**

All before and after retrofit foot candle readings of each room or area will be measured and recorded and furnished to the HCC Project Manager prior to final completion.

**POWER CONSUMPTION**

All before and after power consumption (watts) readings of 1% of each fixture type serving every room or area will be measured and recorded and furnished to the HCC Project Manager prior to final completion.

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Article VIII. ABANDONED DEVICES

Where de-lamping is specified, excess sockets and wiring will be removed from fixture.

Article IX. LUMINAIRE CLEANING

Contractor will dry clean all reflective surfaces of each fixture being retrofitted. All lenses will be cleaned on interior and exterior. After cleaning, all reflective and light transmitting surfaces will be free of dirt, dust and grime so that the light utilization of the fixture is in as "like new" condition as possible. DO NOT USE tenant desk, tables etc. for cleaning work surfaces. DO NOT USE tenant furniture for any reason in performing any retrofit.

Article X. EMERGENCY LIGHTING

Contractor is responsible to maintain function of existing emergency lighting (whether battery or generator supplied). Contractor must wire existing battery pack (whether functional or not) to new electronic ballasts. Contractor must report malfunctioning battery packs in writing to the HCC Project Manager. In situations where a generator supplies back-up power to some or all lamps within a fixture, Contractor must maintain this function within said fixture. It is the Contractor's responsibility to inspect and identify emergency lighting to ensure that these conditions are met.

Article XI. VERIFICATION OF OPERATION

Contractor will verify all fixtures retrofitted are still properly working at completion of work each day. All work will meet final approval of the HCC Project Manager prior to final acceptance.

Article XII. CODES

All work will meet local, area, state, and national codes for the proper installation of all retrofits.

Article XIII. PERMITS AND FEES

Contractor will be responsible for all required permits, fees and licenses for the complete installation of this lighting retrofit. It will be this Contractor's responsibility to verify compliance prior to commencing work.

Article XIV. SUBSTANTIAL COMPLETION

Contractor will furnish at substantial completion all documentation for project close-out, including the below list of documents. (Three sets)

- A. Before and after foot candle readings by area
- B. Before and after power consumption measurements (1% of each type of lighting fixture)
- C. Submittal data to include all manufacturer's data sheets and spec sheets for equipment furnished on this project.
- D. Manufacturer's warranties (see Warranty above)
- E. List of all sources used in the purchasing of equipment to include address and phone numbers.
- F. As-built retrofit list of work in place by facility.
- G. Contractor will correct all punch list items as required after walkthrough with Contractor representative and HCC representative.

Article XV. FINAL COMPLETION

After completion of all items listed in substantial completion, final invoices will be issued to include retainage and project will be accepted as complete.

Article XVI. WARRANTY

Contractor will warranty all work performed for a period of one year from date of final completion. All materials furnished on this project will be covered by manufacturer's standard warranty. Contractor will furnish 1% spare

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parts (lamps) at the completion of the project. Contractor will furnish expressed written warranties in the O&M manuals at the completion of the project.

Article XVII. RELEVANT INSTALLATIONS

In order to be considered an acceptable bid, the Contractor must provide a list of a minimum of ten (10) similar LED installations completed within the last two (2) years prior to the date of this specification. These projects must demonstrate LED installations for both interior and exterior applications.

2016 Lighting Retrofit Fixture Detail Spreadsheet  
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**Attachment 2**  
**Fixture Detail Spreadsheet**

## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
Felix Morales Bldg	Cove	Common Area and Restrooms	3990		40	4EC1L T8	Egg Crate	1	4' 32w T8, Fluorescent	Electronic	28	1.12	4468.8	40	4' LED Tube - 1	15
Felix Morales Bldg	Cove	Common Area and Restrooms	3990		8	3EC1L T8	Egg Crate	1	3' 25w T8, Fluorescent	Electronic	23	0.18	734.16	8	3' LED Tube - 1	12
Felix Morales Bldg	Class	Classroom	2997		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Study Area	Common Area and Restrooms	3990		6	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.25	1005.48	6	4' LED Tube - 2	30
Felix Morales Bldg	Class	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		16	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.36	4075.24	16	4' LED Tube - 2 HO	36
Felix Morales Bldg	MRR	Common Area and Restrooms	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2	30
Felix Morales Bldg	WRR	Common Area and Restrooms	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2	30
Felix Morales Bldg	Class	Classroom	2997		15	4ID2L T8 (28w)	Indirect	2	4' 28w T8, Fluorescent	Electronic	48	0.72	2157.48	15	4' LED Tube - 2	30
Felix Morales Bldg	Office	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Study Room	Common Area and Restrooms	3990		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2	30
Felix Morales Bldg	Security Office	General Work Area	3990		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
Felix Morales Bldg	Front Window	Common Area and Restrooms	3990		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	335.16	2	4' LED Tube - 2	30
Felix Morales Bldg	Back Area	Common Area and Restrooms	3990		8	24TP4L T8	Troffer Prismatic	4	4' 32w T8, Fluorescent	Electronic	112	0.9	3575.04	8	4' LED Tube - 2	30
Felix Morales Bldg	Work Room	General Work Area	3990		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	335.16	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		18	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.53	4584.65	18	4' LED Tube - 2 HO	36
Felix Morales Bldg	Art Lobby	Common Area and Restrooms	3990		3	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	1017.45	3	4' LED Tube - 2	30
Felix Morales Bldg	Art Bullpen	General Work Area	3990		27	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	2.3	9157.05	27	4' LED Tube - 2 HO	36
Felix Morales Bldg	Pvt Office	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Pvt Office	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Pvt Office	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Pvt Office	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Conf Room	Meeting and Boardrooms	2681		6	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	1367.44	6	4' LED Tube - 2 HO	36
Felix Morales Bldg	Pvt Office	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		11	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.94	2801.73	11	4' LED Tube - 2 HO	36
Felix Morales Bldg	Bullpen	General Work Area	3990		8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2713.2	8	4' LED Tube - 2 HO	36
Felix Morales Bldg	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Felix Morales Bldg	Circle Cove	Common Area and Restrooms	3990		8	4S2L T8 (28w)	Strip	2	4' 28w T8, Fluorescent	Electronic	48	0.38	1532.16	8	4' LED Tube - 2	30
Felix Morales Bldg	Circle Cove	Common Area and Restrooms	3990		4	3S2L T8	Strip	2	3' 25w T8, Fluorescent	Electronic	46	0.18	734.16	4	3' LED Tube - 2	24
Felix Morales Bldg	Track Heads	Common Area and Restrooms	3990		6	FL-65 R30	Screw In	1	Incandescent, 65w	N/A	65	0.39	1556.1	6	FLLED14 R30	14
Felix Morales Bldg	Science Lab	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Science Lab	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Science Lab	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Entry	Common Area and Restrooms	3990		1	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.04	167.58	1	4' LED Tube - 2	30
Felix Morales Bldg	Science Faculty	General Work Area	3990		18	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.53	6104.7	18	4' LED Tube - 2 HO	36
Felix Morales Bldg	MRR	Common Area and Restrooms	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2	30
Felix Morales Bldg	WRR	Common Area and Restrooms	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2	30
Felix Morales Bldg	Class	Classroom	2997		8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 2 HO	36
Felix Morales Bldg	Lab	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		4	FL-65 R30	Screw In	1	Incandescent, 65w	N/A	65	0.26	779.09	4	FLLED14 R30	14
Felix Morales Bldg	Lab	Classroom	2997		21	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.79	5348.75	21	4' LED Tube - 2 HO	36
Felix Morales Bldg	Stairs	Stairs and Elevators	8760		10	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.48	4204.8	10	4' LED Tube - 2	30
Felix Morales Bldg	Cove	Common Area and Restrooms	3990		56	4EC1L T8	Egg Crate	1	4' 32w T8, Fluorescent	Electronic	28	1.57	6256.32	56	4' LED Tube - 1	15
Felix Morales Bldg	Cove	Common Area and Restrooms	3990		6	3EC1L T8	Egg Crate	1	3' 25w T8, Fluorescent	Electronic	23	0.14	550.62	6	3' LED Tube - 1	12
Felix Morales Bldg	Hall	Common Area and Restrooms	3990		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	335.16	2	4' LED Tube - 2	30
Felix Morales Bldg	Lab	Classroom	2997		21	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.88	2642.91	21	4' LED Tube - 2 HO	36
Felix Morales Bldg	Lab	Classroom	2997		17	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.71	2139.5	17	4' LED Tube - 2 HO	36
Felix Morales Bldg	Lab	Classroom	2997		28	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	1.18	3523.88	28	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		8	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.34	1006.82	8	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36



## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
Felix Morales Bldg	Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	285.86	1	4' LED Tube - 2 HO	36
Felix Morales Bldg	Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	285.86	1	4' LED Tube - 2 HO	36
Felix Morales Bldg	Stair Cove	Stairs and Elevators	8760		18	4EC1L T8	Egg Crate	1	4' 32w T8, Fluorescent	Electronic	28	0.5	4415.04	18	4' LED Tube - 1	15
Felix Morales Bldg	Stair Cove	Stairs and Elevators	8760		4	3EC1L T8	Egg Crate	1	3' 25w T8, Fluorescent	Electronic	23	0.09	805.92	4	3' LED Tube - 1	12
Felix Morales Bldg	Stairs to 3	Stairs and Elevators	8760		5	MH-320	HID	1	Metal Halide, 320w	Magnetic	362	1.81	15855.6	5	GTLED135	135
Felix Morales Bldg	Stairs to 3	Stairs and Elevators	8760		2	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.1	840.96	2	4' LED Tube - 2	30
Felix Morales Bldg	Cove	Common Area and Restrooms	3990		80	4EC1L T8	Egg Crate	1	4' 32w T8, Fluorescent	Electronic	28	2.24	8937.6	80	4' LED Tube - 1	15
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Stairs	Stairs and Elevators	8760		10	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.48	4204.8	10	4' LED Tube - 2	30
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	WRR	Common Area and Restrooms	3990		10	4EC1L T8	Egg Crate	1	4' 32w T8, Fluorescent	Electronic	28	0.28	1117.2	10	4' LED Tube - 1	15
Felix Morales Bldg	WRR	Common Area and Restrooms	3990		2	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
Felix Morales Bldg	MRR	Common Area and Restrooms	3990		10	4EC1L T8	Egg Crate	1	4' 32w T8, Fluorescent	Electronic	28	0.28	1117.2	10	4' LED Tube - 1	15
Felix Morales Bldg	MRR	Common Area and Restrooms	3990		2	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
Felix Morales Bldg	Sky Light	Common Area and Restrooms	3990		4	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
Felix Morales Bldg	Class	Classroom	2997		6	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.25	755.12	6	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1132.68	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Class	Classroom	2997		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Felix Morales Bldg	Office	General Work Area	3990		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 2 HO	36
Felix Morales Bldg	Back Art Studio	General Work Area	3990		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	5087.25	15	4' LED Tube - 2 HO	36
Felix Morales Bldg	Poles	Exterior Lighting	4380		16	POLE MH-320	Pole	1	Metal Halide, 320w	Magnetic	362	5.79	25368.96	16	GTLED135	135
Felix Morales Bldg	Poles	Exterior Lighting	4380		6	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	1.73	7568.64	6	GTLED85	85
Felix Morales Bldg	Ground Flood	Exterior Lighting	4380		2	FLOOD MH-100	Flood	1	Metal Halide, 100w	Magnetic	124	0.25	1086.24	2	GTLED30	30
Felix Morales Bldg	WP	Exterior Lighting	4380		2	WP MH-175	Wall Pack	1	Metal Halide, 175w	Magnetic	208	0.42	1822.08	2	NFWPLED50	50
Felix Morales Bldg	Dec Poles	Exterior Lighting	4380		4	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	1.15	5045.76	4	GTLED85	85
Angela Morales Bldg	Lobby	Common Area and Restrooms	3990		15	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	5087.25	15	4' LED Tube - 3	45
Angela Morales Bldg	Security	General Work Area	3990		1	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 3	45
Angela Morales Bldg	Back Entry	Common Area and Restrooms	3990		4	MH-150	HID	1	Metal Halide, 150w	Magnetic	183	0.73	2920.68	4	GTLED30	30
Angela Morales Bldg	Lecture Hall	Auditorium / Lecture Hall	2997		30	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	2.55	7641.08	30	4' LED Tube - 2 HO	36
Angela Morales Bldg	Hall	Common Area and Restrooms	3990		8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2713.2	8	4' LED Tube - 2	30
Angela Morales Bldg	Bookstore	General Work Area	3990		36	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	3.06	12209.4	36	4' LED Tube - 3	45
Angela Morales Bldg	Cove	General Work Area	3990		17	4S2L T8 (28w)	Strip	2	4' 28w T8, Fluorescent	Electronic	48	0.82	3255.84	17	4' LED Tube - 2	30
Angela Morales Bldg	Cove	General Work Area	3990		3	3S2L T8	Strip	2	3' 25w T8, Fluorescent	Electronic	46	0.14	550.62	3	3' LED Tube - 2	24
Angela Morales Bldg	Receiving	General Work Area	3990		4	8IH2L T8	Industrial Hood	2	8' 40w T8, Fluorescent	Electronic	110	0.44	1755.6	4	4' LED Tube - 4 8' CK	60
Angela Morales Bldg	Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Angela Morales Bldg	Display case	Display Case	3990		3	3S2L T12	Strip	2	3' 25w T8, Fluorescent	Magnetic	75	0.23	897.75	3	3' LED Tube - 2	24
Angela Morales Bldg	Game Room	Lounge / Break Area	3990	1	26	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	2.21	5731.64	26	4' LED Tube - 2	30
Angela Morales Bldg	Office	Private Office	3363		1	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	285.86	1	4' LED Tube - 3	45
Angela Morales Bldg	MRR	Common Area and Restrooms	3990		6	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.29	1149.12	6	4' LED Tube - 2	30
Angela Morales Bldg	WRR	Common Area and Restrooms	3990		6	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.29	1149.12	6	4' LED Tube - 2	30
Angela Morales Bldg	Bullpen/Common	General Work Area	3990		6	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.25	1005.48	6	4' LED Tube - 2 HO	36
Angela Morales Bldg	Lounge	Lounge / Break Area	3990		6	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 2	30
Angela Morales Bldg	Copy Room	General Work Area	3990		3	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	1017.45	3	4' LED Tube - 2 HO	36
Angela Morales Bldg	Mail Room	General Work Area	3990		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	335.16	2	4' LED Tube - 2 HO	36
Angela Morales Bldg	Conf Room	Meeting and Boardrooms	2681		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	450.45	4	4' LED Tube - 2 HO	36
Angela Morales Bldg	Pvt Office	Private Office	3363		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	564.98	4	4' LED Tube - 2 HO	36
Angela Morales Bldg	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36

## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System			
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up/Down	Proposed Upgrade Type	Proposed WPF	
Angela Morales Bldg	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36	
Angela Morales Bldg	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36	
Angela Morales Bldg	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36	
Angela Morales Bldg	Pvt Office	Private Office	3363		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1143.42	4	4' LED Tube - 2 HO	36	
Angela Morales Bldg	Hall	Common Area and Restrooms	3990		21	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.88	3519.18	21	4' LED Tube - 2	30	
Angela Morales Bldg	Office	General Work Area	3990		6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 3	45	
Angela Morales Bldg	Office	General Work Area	3990		6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 3	45	
Angela Morales Bldg	Lab	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45	
Angela Morales Bldg	Class	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45	
Angela Morales Bldg	Comp Lab	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45	
Angela Morales Bldg	Comp Lab	Classroom	2997		15	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 3	45	
Angela Morales Bldg	Comp Lab	Classroom	2997		52	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	4.42	13244.53	52	4' LED Tube - 3	45	
Angela Morales Bldg	Lab	Classroom	2997		16	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.36	4075.24	16	4' LED Tube - 3	45	
Angela Morales Bldg	Office	General Work Area	3990		18	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.53	6104.7	18	4' LED Tube - 3	45	
Angela Morales Bldg	Lab	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45	
Angela Morales Bldg	Office	General Work Area	3990		6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 3	45	
Angela Morales Bldg	Class	Classroom	2997		6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	1528.22	6	4' LED Tube - 3	45	
Angela Morales Bldg	Class	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45	
Angela Morales Bldg	WRR	Common Area and Restrooms	3990		3	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.14	574.56	3	4' LED Tube - 2	30	
Angela Morales Bldg	MRR	Common Area and Restrooms	3990		3	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.14	574.56	3	4' LED Tube - 2	30	
Angela Morales Bldg	Stairs	Stairs and Elevators	8760		16	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.67	5886.72	16	4' LED Tube - 2	30	
Angela Morales Bldg	Stairs	Stairs and Elevators	8760		4	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.23	2032.32	4	4' LED Tube - 2	30	
Angela Morales Bldg	Hall	Common Area and Restrooms	3990		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 3	45	
Angela Morales Bldg	Display	Display Case	3990		8	4S1L T12	Strip	1	4' 34w T12, Fluorescent	Electronic	43	0.34	1372.56	8	4' LED Tube - 1	15	
Angela Morales Bldg	Display	Display Case	3990		4	4S1L T12	Strip	1	4' 34w T12, Fluorescent	Electronic	43	0.17	686.28	4	4' LED Tube - 1	15	
Angela Morales Bldg	Display	Display Case	3990		4	3S2L T12	Strip	2	3' 25w T8, Fluorescent	Magnetic	75	0.3	1197	4	3' LED Tube - 2	24	
Angela Morales Bldg	WRR	Common Area and Restrooms	3990		3	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.14	574.56	3	4' LED Tube - 2	30	
Angela Morales Bldg	MRR	Common Area and Restrooms	3990		3	14TP2L T8 (28w)	Troffer Prismatic	2	4' 28w T8, Fluorescent	Electronic	48	0.14	574.56	3	4' LED Tube - 2	30	
Angela Morales Bldg	Outside Dec Pole	Exterior Lighting	4380		13	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	3.74	16398.72	13	GTLED85	85	
Angela Morales Bldg	Poles	Exterior Lighting	4380		30	POLE MH-320	Pole	1	Metal Halide, 320w	Magnetic	362	10.86	47566.8	30	GTLED135	135	
Angela Morales Bldg	Pole Flood	Exterior Lighting	4380		2	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	0.58	2522.88	2	GTLED85	85	
Parking Garage by Felix Morales	Poles	Exterior Lighting	4380		9	POLE MH-320	Pole	1	Metal Halide, 320w	Magnetic	362	3.26	14270.04	9	GTLED135	135	
Parking Garage by Felix Morales	Poles	Exterior Lighting	4380		14	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	4.03	17660.16	14	GTLED85	85	
Parking Garage by Felix Morales	WP	Exterior Lighting	4380		3	WP MH-150 cutoff	Wallpack	1	Metal Halide, 150w	Magnetic	183	0.55	2404.62	3	NFWPLED50	50	
Parking Garage by Felix Morales	Stairs	Stairs and Elevators	8760		16	4W2L T12	Wrap	2	4' 34w T12, Fluorescent	Magnetic	82	1.31	11493.12	16	4' LED Tube - 2	30	
Parking Garage by Felix Morales	Garage	Parking Garage	8760		252	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	14.62	128071.2	252	4' LED Tube - 2	30	
Parking Garage by Felix Morales	Elev Lobby	Common Area and Restrooms	3990		2	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30	
Parking Garage by Felix Morales	Wall wash	Exterior Lighting	4380		17	MH-175	HID	1	Metal Halide, 175w	Magnetic	208	3.54	15487.68	17	HW CC20	20	
Parking Garage by Felix Morales	Chiller Plant	General Work Area	3990		3	WP HPS-175	Wall Pack	1	Metal Halide, 175w	Magnetic	188	0.56	2250.36	3	NFWPLED50	50	
Technology Bldg / Workforce Building	Class	Classroom	2997		1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997		1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997		1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997		1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997		1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997		1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Mail Room	General Work Area	3990		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2 HO	36	
Technology Bldg / Workforce Building	EKG Lab	General Work Area	3990		1	24	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	2.04	5290.74	24	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Lab	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36	
Technology Bldg / Workforce Building	Cosmetology	General Work Area	3990		7	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.41	1619.94	7	4' LED Tube - 2	30	
Technology Bldg / Workforce Building	Office	Private Office	3363		1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Right side	General Work Area	3990		1	58	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	3.36	8724.53	58	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Left side	General Work Area	3990		1	64	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	3.71	9627.07	64	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Copy Room	General Work Area	3990		1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Laundry	General Work Area	3990		1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Prep	General Work Area	3990		1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Dry storage	General Work Area	3990		1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Waxing	General Work Area	3990		1	14	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.19	3086.27	14	4' LED Tube - 2 HO	36

## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Qty	Proposed Upgrade Type	Proposed WPF
Technology Bldg / Workforce Building	Student Lounge	Lounge / Break Area	3990	1	8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1763.58	8	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	743.22	4	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Faculty bullpen	General Work Area	3990	1	33	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	2.81	7274.77	33	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Conf Room	Meeting and Boardrooms	2681	1	6	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	888.83	6	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Conf Room	Meeting and Boardrooms	2681	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	455.81	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Conference	Meeting and Boardrooms	2681	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	296.28	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Break Room	Lounge / Break Area	3990	1	4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	881.79	4	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Hall	Common Area and Restrooms	3990	1	5	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	14	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.19	2317.79	14	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Office Suite	General Work Area	3990	1	16	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.36	3527.16	16	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Lab	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	1986.68	12	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Comp Lab	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Comp Lab	Classroom	2997	1	15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	2483.35	15	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1490.01	9	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Student Lounge	Lounge / Break Area	3990	1	8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1763.58	8	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Class	Classroom	2997	1	8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1324.45	8	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	1986.68	12	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Comp Lab	Classroom	2997	1	12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	1986.68	12	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1324.45	8	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Lab	Classroom	2997	1	10	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.85	1655.57	10	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Chemicals	Classroom	2997	1	3	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	496.67	3	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Office Suite	General Work Area	3990	1	3	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	661.34	3	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Conf Room	Meeting and Boardrooms	2681	1	4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	592.56	4	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Pvt Office	Private Office	3363	1	3	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	557.42	3	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	10	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.85	1655.57	10	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Lab	Classroom	2997	1	12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	1986.68	12	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Class	Classroom	2997	1	37	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	3.15	6125.6	37	4' LED Tube - 2 HO	36
Technology Bldg / Workforce Building	Stairs	Stairs and Elevators	8760	1	10	4S2L T8 (28w)	Strip	2	4' 28w T8, Fluorescent	Electronic	48	0.48	4204.8	10	4' LED Tube - 2	30
Technology Bldg / Workforce Building	Stairs	Stairs and Elevators	8760	1	10	8VT2L T8	Vapor Tight	2	8' 40w T8, Fluorescent	Electronic	107	1.07	9373.2	10	NF8VTLLED4	4
Technology Bldg / Workforce Building	Dec Poles	Exterior Lighting	4380	1	8	MH-250	HID	1	Metal Halide, 250w	Magnetic	288	2.3	10091.52	8	GTLED75	75
Technology Bldg / Workforce Building	Front Lot Poles	Exterior Lighting	4380	1	19	POLE MH-320	Pole	1	Metal Halide, 320w	Magnetic	362	6.88	30125.64	19	GTLED135	135
Felix Fraga Bldg (Drennan)	Admin	General Work Area	3990	1	6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Conf Room	Meeting and Boardrooms	2681	1	3	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	683.72	3	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Bullpen	General Work Area	3990	1	54	4ID2L T8 (28w)	Indirect	2	4' 28w T8, Fluorescent	Electronic	48	2.59	6722.35	54	4' LED Tube - 2	30
Felix Fraga Bldg (Drennan)	Conf Room	Meeting and Boardrooms	2681	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	296.28	2	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Bullpen	General Work Area	3990	1	16	4ID2L T8 (28w)	Indirect	2	4' 28w T8, Fluorescent	Electronic	48	0.77	1991.81	16	4' LED Tube - 2	30
Felix Fraga Bldg (Drennan)	Bullpen	General Work Area	3990	1	4	4ID2L T8 (28w)	Indirect	2	4' 28w T8, Fluorescent	Electronic	48	0.19	497.95	4	4' LED Tube - 2	30
Felix Fraga Bldg (Drennan)	Kitchen	Break and Lounge Areas	3990	1	6	4ID2L T8 (28w)	Indirect	2	4' 28w T8, Fluorescent	Electronic	48	0.29	746.93	6	4' LED Tube - 2	30
Felix Fraga Bldg (Drennan)	Copy Area	General Work Area	3990	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 3	45
Felix Fraga Bldg (Drennan)	Cashier	General Work Area	3990	1	6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 3	45





## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
Alief	Hall Pool	Common Area and Restrooms	3990		1	8S2L T12	Strip	2	8' 60w T12, Fluorescent	Magnetic	123	0.12	490.77	1	4' LED Tube - 4 8' CK	60
Alief	Break Room	Lounge / Break Area	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2	30
Alief	MRR	Common Area and Restrooms	3990		3	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.13	502.74	3	4' LED Tube - 2	30
Alief	Water Fountain	Common Area and Restrooms	3990		1	IA1-60	Screw In	1	Incandescent, 60w	N/A	60	0.06	239.4	1	ALED12	12
Alief	WRR	Common Area and Restrooms	3990		3	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.13	502.74	3	4' LED Tube - 2	30
Alief	Class	Classroom	2997		8	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.34	1006.82	8	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		8	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.34	1006.82	8	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		8	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.34	1006.82	8	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		11	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.46	1384.38	11	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		8	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.34	1006.82	8	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		8	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.34	1006.82	8	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		12	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.5	1510.24	12	4' LED Tube - 2 HO	36
Alief	Class	Classroom	2997		8	IA1-60	Screw In	1	Incandescent, 60w	N/A	60	0.48	1438.32	8	ALED12	12
Alief	Work Room	General Work Area	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2 HO	36
Alief	WRR	Common Area and Restrooms	3990		3	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.13	502.74	3	4' LED Tube - 2	30
Alief	WRR	Common Area and Restrooms	3990		3	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.13	502.74	3	4' LED Tube - 2	30
Alief	Bookstore	General Work Area	3990		10	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.42	1675.8	10	4' LED Tube - 2 HO	36
Alief	Bookstore	General Work Area	3990		4	IA1-60	Screw In	1	Incandescent, 60w	N/A	60	0.24	957.6	4	ALED12	12
Alief	Back Hall Door	Common Area and Restrooms	3990		1	FL-65 R30	Screw In	1	Incandescent, 65w	N/A	65	0.07	259.35	1	FLLED14 R30	14
Alief	Faculty Suite	General Work Area	3990		9	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.38	1508.22	9	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	564.98	4	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Bulpen	General Work Area	3990		18	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.76	3016.44	18	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Conf Room	Meeting and Boardrooms	2681		6	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.25	675.68	6	4' LED Tube - 2	30
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Office Hall	Common Area and Restrooms	3990		4	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.17	670.32	4	4' LED Tube - 2	30
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		2	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.08	282.49	2	4' LED Tube - 2 HO	36
Alief	Pvt Office	Private Office	3363		1	24TP2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	42	0.04	141.25	1	4' LED Tube - 2 HO	36
Alief	Flag pole floods	Exterior Lighting	4380		2	MH-250	HID	1	Metal Halide, 250w	Magnetic	288	0.58	2522.88	2	GTLED75	75
Alief	Parking poles	Exterior Lighting	4380		10	POLE MH-1000	Pole	1	Metal Halide, 1000w	Magnetic	1078	10.78	47216.4	10	ELSLED400	400
Systems Garage Building	Roof Level	Exterior Lighting	4380		28	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	8.06	35320.32	28	GTLED85	85
Systems Garage Building	Stairs	Stairs and Elevators	8760		20	4S2L T8 (28w)	Strip	2	4' 28w T8, Fluorescent	Electronic	48	0.96	8409.6	20	4' LED Tube - 2	30
Systems Garage Building	Elev Landings	Common Area and Restrooms	3990		42	22TPMH-175	Troffer Prismatic	1	Metal Halide, 175w	Magnetic	208	8.74	34856.64	42	GTLED50	50
Systems Garage Building	Entrance	Common Area and Restrooms	3990		20	22TPMH-175	Troffer Prismatic	1	Metal Halide, 175w	Magnetic	208	4.16	16598.4	20	GTLED50	50
Systems Garage Building	Down Ramp	Exterior Lighting	4380		16	22TPMH-175	Troffer Prismatic	1	Metal Halide, 175w	Magnetic	208	3.33	14576.64	16	GTLED50	50
Systems Garage Building	Walkway to back	Exterior Lighting	4380		9	4VT1L T8 (28w)	Vapor Tight	1	4' 28w T8, Fluorescent	Electronic	25	0.23	985.5	9	4' LED Tube - 1	15
Systems Garage Building	Basement	General Work Area	3990		12	22TPMH-175	Troffer Prismatic	1	Metal Halide, 175w	Magnetic	208	2.5	9959.04	12	GTLED50	50
Systems Garage Building	Garage	Parking Garage	8760		491	4VT2L T8	Vapor Tight	2	4' 32w T8, Fluorescent	Electronic	58	28.48	249484.8	491	4' LED Tube - 2	30
Systems Garage Building	Student Center	Common Area and Restrooms	3990		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.79	4629.4	21	4' LED Tube - 2	30
Systems Garage Building	MRR	Common Area and Restrooms	3990		1	4W1L T8	Wrap	1	4' 32w T8, Fluorescent	Electronic	31	0.12	321.59	4	4' LED Tube - 1	15
Systems Garage Building	WRR	Common Area and Restrooms	3990		1	4W1L T8	Wrap	1	4' 32w T8, Fluorescent	Electronic	31	0.12	321.59	4	4' LED Tube - 1	15
Systems Garage Building	Vending	Common Area and Restrooms	3990		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	220.45	1	4' LED Tube - 2	30
Systems Garage Building	Copy Room	General Work Area	3990		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2 HO	36
Systems Garage Building	Call center	General Work Area	3990		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Pvt Office	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 2 HO	36
Systems Garage Building	Study Area	Common Area and Restrooms	3990		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2	30
Systems Garage Building	Copy Room	General Work Area	3990	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 2 HO	36
Systems Garage Building	Break Room	Lounge / Break Area	3990	1	2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	440.9	2	4' LED Tube - 2	30
Systems Garage Building	WRR	Common Area and Restrooms	3990	1	2	4W1L T8	Wrap	1	4' 32w T8, Fluorescent	Electronic	31	0.06	160.8	2	4' LED Tube - 1	15
Systems Garage Building	MRR	Common Area and Restrooms	3990	1	2	4W1L T8	Wrap	1	4' 32w T8, Fluorescent	Electronic	31	0.06	160.8	2	4' LED Tube - 1	15
Systems Garage Building	Pvt Office	Private Office	3363	1	1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	185.81	1	4' LED Tube - 2 HO	36
Systems Garage Building	Hall	Common Area and Restrooms	3990		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2	30
Systems Garage Building	Bulpen	General Work Area	3990	1	64	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	5.44	14108.64	64	4' LED Tube - 3	45
Systems Garage Building	Back Suite	General Work Area	3990	1	9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	1984.03	9	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	1	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	185.81	1	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	1	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	185.81	1	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	371.61	2	4' LED Tube - 3	45
Systems Garage Building	Pvt Office	Private Office	3363	1	3	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	557.42	3	4' LED Tube - 3	45
Systems Garage Building	Training Room	General Work Area	3990	1	4	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	881.79	4	4' LED Tube - 3	45
Systems Garage Building	Conf Room	Meeting and Boardrooms	2681	1	4	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	592.56	4	4' LED Tube - 3	45
Systems Garage Building	MRR	Common Area and Restrooms	3990		2	3S2L T8	Strip	2	3' 25w T8, Fluorescent	Electronic	46	0.09	367.08	2	3' LED Tube - 2	24
Systems Garage Building	WRR	Common Area and Restrooms	3990		2	3S2L T8	Strip	2	3' 25w T8, Fluorescent	Electronic	46	0.09	367.08	2	3' LED Tube - 2	24
West Loop Center	FRONT ENTRY	Common Area and Restrooms	3990		4	FL-90 PAR38	Screw In	1	Incandescent, 90w	N/A	90	0.36	1436.4	4	FLLED16 PAR38	16
West Loop Center	LOBBY POLES	Common Area and Restrooms	3990		18	MH-70	HID	1	Metal Halide, 70w	Magnetic	91	1.64	6535.62	18	HW CCDome20	20
West Loop Center	LOBBY COMMONS	Common Area and Restrooms	3990		70	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	3.36	13406.4	70	4' LED Tube - 2	30
West Loop Center	AUDITORIUM	Auditorium / Lecture Hall	2997		23	IA1-100	Screw In	1	Incandescent, 100w	N/A	100	2.3	6891.95	23	ALED17	17
West Loop Center	AUDITORIUM	Auditorium / Lecture Hall	2997		88	IA1-100	Screw In	1	Incandescent, 100w	N/A	100	8.8	26369.2	88	ALED17	17
West Loop Center	AUDITORIUM STORA	Auditorium / Lecture Hall	2997		18	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	1.04	3128.35	18	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	390.11	2	4' LED Tube - 2	30
West Loop Center	RR	Common Area and Restrooms	3990		1	IA1-100	Screw In	1	Incandescent, 100w	N/A	100	0.1	399	1	ALED17	17
West Loop Center	KITCHEN AREA	Lounge / Break Area	3990		6	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.35	1388.52	6	4' LED Tube - 2	30
West Loop Center	SIDE HALL	Common Area and Restrooms	3990		6	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.29	1149.12	6	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	COMP LAB	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	COMP LAB	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	POLICE	General Work Area	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	POLICE	General Work Area	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	390.11	2	4' LED Tube - 2	30
West Loop Center	SIDE HALL	Common Area and Restrooms	3990		6	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.29	1149.12	6	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	FACULTY OFFICE	General Work Area	3990		6	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.35	1388.52	6	4' LED Tube - 2	30
West Loop Center	FACULTY OFFICE	General Work Area	3990		6	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.35	1388.52	6	4' LED Tube - 2	30
West Loop Center	OFFICE SUITE	General Work Area	3990		6	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.35	1388.52	6	4' LED Tube - 2	30
West Loop Center	COPY ROOM	General Work Area	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	780.22	4	4' LED Tube - 2	30
West Loop Center	CLASS ROOM	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	PVT OFFICE	Private Office	3363		3	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.17	585.16	3	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		3	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.17	694.26	3	4' LED Tube - 2	30

Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Qty	Proposed Upgrade Type	Proposed WPF
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	PVT OFFICE	Private Office	3363		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	780.22	4	4' LED Tube - 2	30
West Loop Center	PVT OFFICE	Private Office	3363		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	780.22	4	4' LED Tube - 2	30
West Loop Center	WORK ROOM	General Work Area	3990		5	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.29	1157.1	5	4' LED Tube - 2	30
West Loop Center	LIBRARY	Library Area	3990		174	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	8.35	33324.48	174	4' LED Tube - 2	30
West Loop Center	RR ENTRY	Common Area and Restrooms	3990		2	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.1	383.04	2	4' LED Tube - 2	30
West Loop Center	MRR	Common Area and Restrooms	3990		3	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.17	694.26	3	4' LED Tube - 2	30
West Loop Center	WRR	Common Area and Restrooms	3990		3	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.17	694.26	3	4' LED Tube - 2	30
West Loop Center	TESTING CENTER	General Work Area	3990		20	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.96	3830.4	20	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		20	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	1.16	3475.94	20	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		1	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	TUTOR ROOM	Common Area and Restrooms	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	TUTOR ROOM	Common Area and Restrooms	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		16	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.93	2780.75	16	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		16	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.93	2780.75	16	4' LED Tube - 2	30
West Loop Center	WORK ROOM	General Work Area	3990		3	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.14	574.56	3	4' LED Tube - 2	30
West Loop Center	LOADING DOCK	General Work Area	3990		16	8S2L T8	Strip	2	8' 40w T8, Fluorescent	Electronic	110	1.76	7022.4	16	4' LED Tube - 4 8' CK	60
West Loop Center	?	General Work Area	3990		1	8S2L T12	Strip	2	8' 60w T12, Fluorescent	Magnetic	123	0.12	490.77	1	4' LED Tube - 4 8' CK	60
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	HALL	Common Area and Restrooms	3990		4	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	766.08	4	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	LAB	Classroom	2997		16	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.93	2780.75	16	4' LED Tube - 2	30
West Loop Center	PREP	Classroom	2997		13	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.75	2259.36	13	4' LED Tube - 2	30
West Loop Center	LAB	Classroom	2997		14	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.81	2433.16	14	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	HALL	Common Area and Restrooms	3990		4	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	766.08	4	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
West Loop Center	HALL AWNING	Common Area and Restrooms	3990		32	MR-16	Incandescent	10	Halogen, 50w	N/A	50	1.6	6384	32	MR16LED7	7
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	LAB	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	LAB	Classroom	2997		14	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.81	2433.16	14	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	HALL	Common Area and Restrooms	3990		4	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	766.08	4	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.7	2085.56	12	4' LED Tube - 2	30
West Loop Center	WEIGHT ROOM	Lounge / Break Area	3990		30	24TP4L T8	Troffer Prismatic	4	4' 32w T8, Fluorescent	Electronic	112	3.36	13406.4	30	4' LED Tube - 2 HO	36
West Loop Center	HALL	Common Area and Restrooms	3990		4	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	766.08	4	4' LED Tube - 2	30
West Loop Center	FINANCIAL OFFICE	General Work Area	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	FINANCIAL OFFICE	General Work Area	3990		12	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.58	2298.24	12	4' LED Tube - 2	30
West Loop Center	BULLPEN	General Work Area	3990		184	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	8.83	35239.68	184	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	390.11	2	4' LED Tube - 2	30
West Loop Center	RR HALL	Common Area and Restrooms	3990		8	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.38	1532.16	8	4' LED Tube - 2	30
West Loop Center	MRR	Common Area and Restrooms	3990		7	24TP4L T8	Troffer Prismatic	4	4' 32w T8, Fluorescent	Electronic	112	0.78	3128.16	7	4' LED Tube - 2	30



## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
West Loop Center	WRR	Common Area and Restrooms	3990		7	24TP4L T8	Troffer Prismatic	4	4' 32w T8, Fluorescent	Electronic	112	0.78	3128.16	7	4' LED Tube - 2	30
West Loop Center	INFO DESK	General Work Area	3990		4	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	766.08	4	4' LED Tube - 2	30
West Loop Center	PVT OFFICE	Private Office	3363		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	780.22	4	4' LED Tube - 2	30
West Loop Center	PVT OFFICE	Private Office	3363		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	390.11	2	4' LED Tube - 2	30
West Loop Center	RR	Common Area and Restrooms	3990		1	24TP4L T8	Troffer Prismatic	4	4' 32w T8, Fluorescent	Electronic	112	0.11	446.88	1	4' LED Tube - 2	30
West Loop Center	BREAK/HALL	Common Area and Restrooms	3990		20	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.96	3830.4	20	4' LED Tube - 2	30
West Loop Center	BREAK/HALL	Common Area and Restrooms	3990		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
West Loop Center	CONF ROOM	Meeting and Boardrooms	2681		8	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.46	1244.1	8	4' LED Tube - 2	30
West Loop Center	WINDOW DISPLAY	Display Case	3990		4	FL90 PAR38	Screw In	1	Incandescent, 90w	N/A	90	0.36	1436.4	4	FLLED16 PAR38	16
West Loop Center	HALL	Common Area and Restrooms	3990		10	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.48	1915.2	10	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	1564.17	9	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		8	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.46	1390.38	8	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		8	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.46	1390.38	8	4' LED Tube - 2	30
West Loop Center	TRACK HEADS	Common Area and Restrooms	3990		15	FL-65 R30	Screw In	1	Incandescent, 65w	N/A	65	0.98	3890.25	15	FLLED14 R30	14
West Loop Center	SALES FLOOR	Common Area and Restrooms	3990		22	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	1.28	5091.24	22	4' LED Tube - 2	30
West Loop Center	COVE	Common Area and Restrooms	3990		35	4S2L T8	Strip	2	4' 32w T8, Fluorescent	Electronic	58	2.03	8099.7	35	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		1	4S2L T8	Strip	2	4' 32w T8, Fluorescent	Electronic	58	0.06	195.05	1	4' LED Tube - 2	30
West Loop Center	RR	Common Area and Restrooms	3990		1	4S2L T8	Strip	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		2	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.12	390.11	2	4' LED Tube - 2	30
West Loop Center	COVE	Common Area and Restrooms	3990		6	3S2L T8	Strip	2	3' 25w T8, Fluorescent	Electronic	46	0.28	1101.24	6	3' LED Tube - 2	24
West Loop Center	COMMON COVE	Common Area and Restrooms	3990		40	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	1.24	4947.6	40	4' LED Tube - 1	15
West Loop Center	HALL	Common Area and Restrooms	3990		23	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	1.1	4404.96	23	4' LED Tube - 2	30
West Loop Center	LAB	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	EACHERS LOUNG	Lounge / Break Area	3990		7	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.6	2374.05	7	4' LED Tube - 3	45
West Loop Center	COPY ROOM	General Work Area	3990		3	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	1017.45	3	4' LED Tube - 3	45
West Loop Center	RR	Common Area and Restrooms	3990		1	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	RR	Common Area and Restrooms	3990		1	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	0.06	231.42	1	4' LED Tube - 2	30
West Loop Center	MRR	Common Area and Restrooms	3990		1	14PB1L T8 (28w)	Troffer Parabolic	1	4' 28w T8, Fluorescent	Electronic	25	0.03	99.75	1	4' LED Tube - 1	15
West Loop Center	WRR	Common Area and Restrooms	3990		2	14PB1L T8 (28w)	Troffer Parabolic	1	4' 28w T8, Fluorescent	Electronic	25	0.05	199.5	2	4' LED Tube - 1	15
West Loop Center	HALL	Common Area and Restrooms	3990		14	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.67	2681.28	14	4' LED Tube - 2	30
West Loop Center	SNACK BAR	Common Area and Restrooms	3990		5	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.24	957.6	5	4' LED Tube - 2	30
West Loop Center	COVE	Common Area and Restrooms	3990		8	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.25	989.52	8	4' LED Tube - 1	15
West Loop Center	CONF ROOM	Meeting and Boardrooms	2681		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	2734.88	12	4' LED Tube - 3	45
West Loop Center	CONF ROOM	Meeting and Boardrooms	2681		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	2734.88	12	4' LED Tube - 3	45
West Loop Center	GH SCHOOL OFFIC	General Work Area	3990		5	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 2 HO	36
West Loop Center	PVT OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	PVT OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	CONF ROOM	Meeting and Boardrooms	2681		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	911.63	4	4' LED Tube - 2 HO	36
West Loop Center	PVT OFFICE	Private Office	3363		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1143.42	4	4' LED Tube - 2 HO	36
West Loop Center	RRx2	Common Area and Restrooms	3990		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2	30
West Loop Center	BREAK AREA	Lounge / Break Area	3990		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
West Loop Center	OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	COMP LAB	Classroom	2997		6	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	1528.22	6	4' LED Tube - 2 HO	36
West Loop Center	CLINIC	General Work Area	3990		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2 HO	36
West Loop Center	OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	HALL	Common Area and Restrooms	3990		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2	30
West Loop Center	LUNCH AREA	Lounge / Cafeteria and Student Lou	3990		28	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	1.62	6479.76	28	4' LED Tube - 2	30
West Loop Center	ENTRY	Lounge / Cafeteria and Student Lou	3990		12	REC MH-100	Recessed	1	Metal Halide, 100w	Magnetic	124	1.49	5937.12	12	HW CC20	20
West Loop Center	COMMON AREA	Common Area and Restrooms	3990		1	REC MH-100	Recessed	1	Metal Halide, 100w	Magnetic	124	0.12	494.76	1	HW CC20	20
West Loop Center	SERVING LINE	Lounge / Cafeteria and Student Lou	3990		8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2713.2	8	4' LED Tube - 2 HO	36
West Loop Center	HALL	Common Area and Restrooms	3990		17	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.99	3934.14	17	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		8	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 2 HO	36
West Loop Center	GYM	General Work Area	3990		38	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	3.23	12887.7	38	4' LED Tube - 2 HO	36
West Loop Center	DRAMA	Classroom	2997		16	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.36	4075.24	16	4' LED Tube - 2 HO	36
West Loop Center	HALL	Common Area and Restrooms	3990		9	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.52	2082.78	9	4' LED Tube - 2	30

## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
West Loop Center	COMMON AREA	Common Area and Restrooms	3990		3	SCONCE MH-175	HID	1	Metal Halide, 175w	Magnetic	208	0.62	2489.76	3	HW CC20	20
West Loop Center	COMMON AREA	Common Area and Restrooms	3990		8	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.38	1532.16	8	4' LED Tube - 2	30
West Loop Center	HALL	Common Area and Restrooms	3990		22	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	1.28	5091.24	22	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		15	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	WORK ROOM	General Work Area	3990		9	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	3052.35	9	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	OFFICE	Private Office	3363		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	285.86	1	4' LED Tube - 2 HO	36
West Loop Center	PVT OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	PVT OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	FACULTY	General Work Area	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	FACULTY	General Work Area	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	FACULTY	General Work Area	3990		4	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.23	925.68	4	4' LED Tube - 2	30
West Loop Center	STUDY ROOM	Common Area and Restrooms	3990		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	BRR	Common Area and Restrooms	3990		5	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.29	1157.1	5	4' LED Tube - 2	30
West Loop Center	MRR	Common Area and Restrooms	3990		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
West Loop Center	WRR	Common Area and Restrooms	3990		1	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
West Loop Center	GRR	Common Area and Restrooms	3990		5	24TP2L T8	Troffer Prismatic	2	4' 32w T8, Fluorescent	Electronic	58	0.29	1157.1	5	4' LED Tube - 2	30
West Loop Center	OFFICE	Private Office	3363		3	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.26	857.57	3	4' LED Tube - 2 HO	36
West Loop Center	OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	PVT OFFICE	Private Office	3363		2	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	CLASS	Classroom	2997		12	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
West Loop Center	RR ENTRY	Common Area and Restrooms	3990		2	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.1	383.04	2	4' LED Tube - 2	30
West Loop Center	OFFICE	General Work Area	3990		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 3	45
West Loop Center	BREAK ROOM	Lounge / Break Area	3990		5	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 3	45
West Loop Center	CONF ROOM	Meeting and Boardrooms	2681		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1823.25	8	4' LED Tube - 3	45
West Loop Center	HALL	Common Area and Restrooms	3990		19	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.91	3638.88	19	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 3	45
West Loop Center	OFFICE	Private Office	3363		2	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 3	45
West Loop Center	MRR	Common Area and Restrooms	3990		1	14PB1L T8 (28w)	Troffer Parabolic	1	4' 28w T8, Fluorescent	Electronic	25	0.03	99.75	1	4' LED Tube - 1	15
West Loop Center	WRR	Common Area and Restrooms	3990		2	14PB1L T8 (28w)	Troffer Parabolic	1	4' 28w T8, Fluorescent	Electronic	25	0.05	199.5	2	4' LED Tube - 1	15
West Loop Center	LAB	Classroom	2997		15	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		15	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 3	45
West Loop Center	TRAINING	General Work Area	3990		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	COVE	Common Area and Restrooms	3990		32	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.99	3958.08	32	4' LED Tube - 1	15
West Loop Center	FIRE ROOM	General Work Area	3990		2	4S2L T8	Strip	2	4' 32w T8, Fluorescent	Electronic	58	0.12	462.84	2	4' LED Tube - 2	30
West Loop Center	MEETING ROOM	Meeting and Boardrooms	2681		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1823.25	8	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		15	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 3	45
West Loop Center	HALL	Common Area and Restrooms	3990		8	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.38	1532.16	8	4' LED Tube - 2	30



## Houston Community College LoanSTAR #1 Lighting Renovation Detail Sheet Multiple Campus Set

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Qty	Proposed Usage Type	Proposed WPF
West Loop Center	WRR	Common Area and Restrooms	3990		4	24TP3L T8	Troffer Prismatic	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2	30
West Loop Center	PVT OFFICE	Private Office	3363		8	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2286.84	8	4' LED Tube - 3	45
West Loop Center	OFFICE	General Work Area	3990		10	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.85	3391.5	10	4' LED Tube - 3	45
West Loop Center	OFFICE	General Work Area	3990		1	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.05	191.52	1	4' LED Tube - 2	30
West Loop Center	STAIRS	Stairs and Elevators	8760		2	14PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.1	840.96	2	4' LED Tube - 2	30
West Loop Center	HALL	Common Area and Restrooms	3990		2	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.1	383.04	2	4' LED Tube - 2	30
West Loop Center	COMMON COVE	Common Area and Restrooms	3990		116	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	3.6	14348.04	116	4' LED Tube - 1	15
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	LAB	Classroom	2997		24	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	2.04	6112.86	24	4' LED Tube - 3	45
West Loop Center	HALL	Common Area and Restrooms	3990		11	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.53	2106.72	11	4' LED Tube - 2	30
West Loop Center	HALL	Common Area and Restrooms	3990		6	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.29	1149.12	6	4' LED Tube - 2	30
West Loop Center	<BLANK>	Common Area and Restrooms	3990		1	14PB1L T8 (28w)	Troffer Parabolic	1	4' 28w T8, Fluorescent	Electronic	25	0.03	99.75	1	4' LED Tube - 1	15
West Loop Center	WRR	Common Area and Restrooms	3990		2	14PB1L T8 (28w)	Troffer Parabolic	1	4' 28w T8, Fluorescent	Electronic	25	0.05	199.5	2	4' LED Tube - 1	15
West Loop Center	HALL	Common Area and Restrooms	3990		15	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.72	2872.8	15	4' LED Tube - 2	30
West Loop Center	CLASS	Classroom	2997		6	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.51	1528.22	6	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	CLASS	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	OFFICE	Private Office	3363		4	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	645.7	4	4' LED Tube - 2	30
West Loop Center	COPY ROOM	General Work Area	3990		4	24PB2L T8 (28w)	Troffer Parabolic	2	4' 28w T8, Fluorescent	Electronic	48	0.19	766.08	4	4' LED Tube - 2	30
West Loop Center	ART	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	ART	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	ART	Classroom	2997		12	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 3	45
West Loop Center	ART	Classroom	2997		9	24PB3L T8	Troffer Parabolic	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 3	45
West Loop Center	EXTERIOR CANOPY	Exterior Lighting	4380		14	CANOPY MH-100	Canopy	1	Metal Halide, 100w	Magnetic	124	1.74	7603.68	14	NFCANOPYLED20	20
West Loop Center	POLES	Exterior Lighting	4380		74	POLE MH-1000	Pole	1	Metal Halide, 1000w	Magnetic	1078	79.77	349392.6	74	ELSLD400	400
West Loop Center	WALLPACKS	Exterior Lighting	4380		12	WP MH-400	HID	1	Metal Halide, 400w	Magnetic	453	5.44	23809.68	12	NFWPLD100	100
West Loop Center	POLE FLOODS	Exterior Lighting	4380		28	POLE MH-1000	Pole	1	Metal Halide, 1000w	Magnetic	1078	30.18	132188.4	28	ELSLD400	400
West Loop Center	WALLPACKS	Exterior Lighting	4380		6	WP MH-175	Wall Pack	1	Metal Halide, 175w	Magnetic	208	1.25	5466.24	6	NFWPLD25	25
West Loop Center	WALL FLOODS	Exterior Lighting	4380		5	FL MH-400	Flood	1	Metal Halide, 400w	Magnetic	453	2.27	9920.7	5	GTLED135	135
Stafford Learning HUB	COVE	Common Area and Restrooms	3990		60	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	1.86	7421.4	60	4' LED Tube - 1	15
Stafford Learning HUB	LOBBY	Common Area and Restrooms	3990		141	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	11.99	47820.15	141	4' LED Tube - 2	30
Stafford Learning HUB	SIDE ENTRY	Common Area and Restrooms	3990		11	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.94	3730.65	11	4' LED Tube - 2	30
Stafford Learning HUB	FORMATION OFFICE	General Work Area	3990		6	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	WAITING	General Work Area	3990		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	CASHIER	General Work Area	3990		16	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.36	5426.4	16	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	FINANCIAL AID	General Work Area	3990		14	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.19	4748.1	14	4' LED Tube - 2 HO	36
Stafford Learning HUB	HALL	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	PVT OFFICE x6	Private Office	3363		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3430.26	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	FILE ROOM	General Work Area	3990		5	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 2 HO	36
Stafford Learning HUB	CONF ROOM	Meeting and Boardrooms	2681		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	911.63	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMMON AREA	Common Area and Restrooms	3990		22	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.87	7461.3	22	4' LED Tube - 2	30

Room/Office/Area				Existing Lighting System									Proposed Lighting System			
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Up Qty	Proposed Upgrade Type	Proposed WPF
Stafford Learning HUB	FILE ROOM	General Work Area	3990		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	285.86	1	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	285.86	1	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	WAITING ROOM	Common Area and Restrooms	3990		6	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 2	30
Stafford Learning HUB	COMP LAB	Private Office	3363		4	4IH2L T8	Industrial Hood	2	4' 32w T8, Fluorescent	Electronic	58	0.23	780.22	4	4' LED Tube - 2	30
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		1	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		1	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	OFFICE	General Work Area	3990		7	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.6	2374.05	7	4' LED Tube - 2 HO	36
Stafford Learning HUB	FILE ROOM	General Work Area	3990		1	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2 HO	36
Stafford Learning HUB	COUNSELING	General Work Area	3990		8	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2713.2	8	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	FILE ROOM	General Work Area	3990		2	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	COVE	General Work Area	3990		22	4S2L T8	Strip	2	4' 32w T8, Fluorescent	Electronic	58	1.28	5091.24	22	4' LED Tube - 2	30
Stafford Learning HUB	COVE	General Work Area	3990		8	3S2L T8	Strip	2	3' 25w T8, Fluorescent	Electronic	46	0.37	1468.32	8	3' LED Tube - 2	24
Stafford Learning HUB	LOADING DOCK	General Work Area	3990		3	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.26	1017.45	3	4' LED Tube - 2 HO	36
Stafford Learning HUB	KITCHEN	Lounge / Break Area	3990		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	MEETING ROOM	Meeting and Boardrooms	2681		11	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.94	2506.97	11	4' LED Tube - 2 HO	36
Stafford Learning HUB	DOCK DOOR	General Work Area	3990		1	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.03	123.69	1	4' LED Tube - 1	15
Stafford Learning HUB	CONF ROOM	Meeting and Boardrooms	2681		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	911.63	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	CONF ROOM	Meeting and Boardrooms	2681		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	911.63	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	MULTIPURPOSE ROOM	General Work Area	3990		11	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.94	3730.65	11	4' LED Tube - 2 HO	36
Stafford Learning HUB	MEETING ROOM	Meeting and Boardrooms	2681		3	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.26	683.72	3	4' LED Tube - 2 HO	36
Stafford Learning HUB	OFFICE SUITE	General Work Area	3990		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1143.42	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	OFFICE	General Work Area	3990		8	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2713.2	8	4' LED Tube - 2 HO	36
Stafford Learning HUB	CONF ROOM	Meeting and Boardrooms	2681		3	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.26	683.72	3	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	CAREER PLANNING	General Work Area	3990		6	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 2 HO	36
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	LIBRARY LOBBY	Library Area	3990		9	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	3052.35	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	WORK ROOM	General Work Area	3990		17	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.45	5765.55	17	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		3	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.26	857.57	3	4' LED Tube - 3	45
Stafford Learning HUB	PRINT AREA	General Work Area	3990		5	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMP LAB	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMP LAB	Classroom	2997		9	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	COVE	Library Area	3990		9	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.28	1113.21	9	4' LED Tube - 1	15
Stafford Learning HUB	LIBRARY OPEN	Library Area	3990		81	4ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	6.89	27471.15	81	4' LED Tube - 3	45
Stafford Learning HUB	LIBRARY OPEN	Library Area	3990		15	HB MH-400	High Bay	1	Metal Halide, 400w	Magnetic	453	6.8	27112.05	15	GTLED135	135
Stafford Learning HUB	COVE	Library Area	3990		42	4S2L T8	Strip	2	4' 32w T8, Fluorescent	Electronic	58	2.44	9719.64	42	4' LED Tube - 2	30
Stafford Learning HUB	PVT OFFICE	Private Office	3363		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1143.42	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	STUDY ROOM x6	Library Area	3990		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		6	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.19	742.14	6	4' LED Tube - 1	15
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		6	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.19	742.14	6	4' LED Tube - 1	15
Stafford Learning HUB	TESTING AREA	General Work Area	3990		9	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	3052.35	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMPUTER ROOM	General Work Area	3990		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	4069.8	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	TEST ROOM	General Work Area	3990		23	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.96	7800.45	23	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	TEST ROOM	General Work Area	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2 HO	36

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Qty	Proposed Fixture Type	Proposed WPF
Stafford Learning HUB	TEST ROOM	General Work Area	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2 HO	36
Stafford Learning HUB	HALL	Common Area and Restrooms	3990		10	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.85	3391.5	10	4' LED Tube - 2	30
Stafford Learning HUB	OFFICE SUITE	General Work Area	3990		16	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.36	5426.4	16	4' LED Tube - 2 HO	36
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	FACULTY SUITE	General Work Area	3990		19	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.62	6443.85	19	4' LED Tube - 2 HO	36
Stafford Learning HUB	WORK ROOM	General Work Area	3990		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	MEETING ROOM	Meeting and Boardrooms	2681		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	455.81	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	DEANS SUITE	General Work Area	3990		5	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 2 HO	36
Stafford Learning HUB	CONF ROOM	Meeting and Boardrooms	2681		8	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.68	1823.25	8	4' LED Tube - 2 HO	36
Stafford Learning HUB	FILE ROOM	General Work Area	3990		6	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.51	2034.9	6	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1143.42	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		8	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		8	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2037.62	8	4' LED Tube - 2 HO	36
Stafford Learning HUB	HALL	Common Area and Restrooms	3990		26	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	2.21	8817.9	26	4' LED Tube - 2	30
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		6	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.19	742.14	6	4' LED Tube - 1	15
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		6	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.19	742.14	6	4' LED Tube - 1	15
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		9	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		9	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		9	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMP LAB	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMP LAB	Classroom	2997		15	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Stafford Learning HUB	OVER STAIRS	Stairs and Elevators	8760		6	REC MH-100	Recessed	1	Metal Halide, 100w	Magnetic	124	0.74	6517.44	6	HW CC20	20
Stafford Learning HUB	MEETING ROOM	Meeting and Boardrooms	2681		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	2734.88	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	FACULTY SUITE	General Work Area	3990		33	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	2.81	11191.95	33	4' LED Tube - 2 HO	36
Stafford Learning HUB	MEETING ROOM	Meeting and Boardrooms	2681		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	455.81	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	WORK ROOM	General Work Area	3990		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	MAIL ROOM	General Work Area	3990		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	678.3	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMP CENTER	General Work Area	3990		8	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.68	2713.2	8	4' LED Tube - 2 HO	36
Stafford Learning HUB	COMP LAB	General Work Area	3990		15	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.28	5087.25	15	4' LED Tube - 2 HO	36
Stafford Learning HUB	FRONT ROOM	General Work Area	3990		3	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.26	1017.45	3	4' LED Tube - 2 HO	36
Stafford Learning HUB	HALL	Common Area and Restrooms	3990		11	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.94	3730.65	11	4' LED Tube - 2	30
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		1	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.09	339.15	1	4' LED Tube - 2	30
Stafford Learning HUB	FACULTY SUITE	General Work Area	3990		27	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	2.3	9157.05	27	4' LED Tube - 2 HO	36
Stafford Learning HUB	BOOK ROOM	General Work Area	3990		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	WORK ROOM	General Work Area	3990		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	1356.6	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	MEETING ROOM	Meeting and Boardrooms	2681		4	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.34	911.63	4	4' LED Tube - 2 HO	36
Stafford Learning HUB	OFFICE SUITE	General Work Area	3990		5	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.43	1695.75	5	4' LED Tube - 2 HO	36
Stafford Learning HUB	CONF ROOM	Meeting and Boardrooms	2681		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	455.81	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	PVT OFFICE	Private Office	3363		2	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.17	571.71	2	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		11	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.94	2801.73	11	4' LED Tube - 2 HO	36
Stafford Learning HUB	MRR	Common Area and Restrooms	3990		6	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.19	742.14	6	4' LED Tube - 1	15
Stafford Learning HUB	WRR	Common Area and Restrooms	3990		6	4S1L T8	Strip	1	4' 32w T8, Fluorescent	Electronic	31	0.19	742.14	6	4' LED Tube - 1	15

Room/Office/Area				Existing Lighting System										Proposed Lighting System		
Building	Space	Usage Type	Usage Hours	Sensor	Qty	Fixture Code	Fixture Type	# of Lamps	Lamp Type	Ballast Type	Existing WPF	Existing kW	Existing kWh	Qty	Proposed Fixture Type	Proposed WPF
Stafford Learning HUB	HALL	Common Area and Restrooms	3990		27	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	2.3	9157.05	27	4' LED Tube - 2	30
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		9	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	0.77	2292.32	9	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		12	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.02	3056.43	12	4' LED Tube - 2 HO	36
Stafford Learning HUB	CLASS	Classroom	2997		15	24ID3L T8	Indirect	3	4' 32w T8, Fluorescent	Electronic	85	1.28	3820.54	15	4' LED Tube - 2 HO	36
Stafford Learning HUB	STAIRS	Stairs and Elevators	8760		26	4W2L T8	Wrap	2	4' 32w T8, Fluorescent	Electronic	58	1.51	13210.08	26	4' LED Tube - 2	30
Stafford Learning HUB	EAST PARKING	Exterior Lighting	4380		16	POLE HPS-400	Pole	1	High Pressure Sodium, 400w	Magnetic	465	7.44	32587.2	16	GTLED135	135
Stafford Learning HUB	WEST POLES	Exterior Lighting	4380		23	POLE MH-320	Pole	1	Metal Halide, 320w	Magnetic	362	8.33	36467.88	23	GTLED135	135
Stafford Learning HUB	DEC POLES	Exterior Lighting	4380		52	POLE MH-250	Pole	1	Metal Halide, 250w	Magnetic	288	14.98	65594.88	52	GTLED75	75
Stafford Learning HUB	GROUND FLOODS	Exterior Lighting	4380		6	FL MH-175	Flood	1	Metal Halide, 175w	Magnetic	208	1.25	5466.24	6	GTLED30	30
Stafford Learning HUB	WALLPACKS	Exterior Lighting	4380		8	WP MH-250	Wall Pack	1	Metal Halide, 250w	Magnetic	288	2.3	10091.52	8	NFWPLED25	25
Stafford Learning HUB	BACKLOT POLES	Exterior Lighting	4380		65	POLE MH-320	Pole	1	Metal Halide, 320w	Magnetic	362	23.53	103062.44	65	GTLED135	135

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