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Application Summary

Competition Details

Competition Title:	Reducing Industrial Sector Emissions in Pennsylvania (RISE PA) Small Award Track Grant Program
Submission Deadline:	08/15/2025 11:59 PM

Application Information

Application Title:	XYZ Manufacturing_Lighting_b
Application ID:	27625
Submission Date:	06/4/2025 2:04 PM

Personal Details

Project Eligibility:	Yes
Project Categories:	b
RISE PA SAT Project Title:	XYZ Manufacturing_Lighting_b
First Name:	John - Test
Last Name:	Smith - Test
Legal Name of Manufacturing Facility:	XYZ Manufacturing, LLC - Test
Doing Business As (dba) of Manufacturing Facility, if applicable:	N/A
Mailing Address:	### Manufacturing Road
City:	University Park
State:	Pennsylvania (PA)
Zip Code:	16802
County:	Centre
NAICS Code Manufacturing Facility:	326111
NAICS Code Description for Manufacturing Facility - Short Description :	Bags, plastics film, single wall or multiwall, manufacturing

Describe the Facility's Manufacturing Process(es)

XYZ Manufacturing is national company that specializes in the production of polyethylene packaging for the medical industry. The 70,000 square foot University Park facility specializes in the manufacture of plastic bags, producing approximately one million per day.

Unique Entity ID (UEI) Number of the Manufacturing Facility:	#########

Penn State Vendor Number of Manufacturing Facility:	#########
EIN of the Manufacturing Facility:	#########
RISE PA SAT Award Track Tier:	Tier 1: A Total Project Cost of $50,000-$149,999
Total Project Cost ($):	145,390
Base Grant Request ($):	72,695
Community Benefits Bonus:	No
Fair Labor Bonus:	No
Total Grant Request ($):	72,695
Manufacturing Facility - Project Contact Name:	John Smith
Manufacturing Facility - Project Contact Title:	Operations Manager
Manufacturing Facility - Project Contact E-mail:	jsmith@XYZmanufacturing.com
Manufacturing Facility - Project Contact Phone Number:	570-765-####
Manufacturing Facility - Project Contact Phone Number - Extension (as applicable):	x###
Manufacturing Facility - Senior Leadership Contact Name:	Jane Doeh
Manufacturing Facility - Senior Leadership Contact Title:	CFO
Manufacturing Facility - Senior Leadership Contact Email:	jdoeh@XYZmanufacturing.com
Manufacturing Facility - Senior Leadership Contact Phone Number:	570-765-####
Manufacturing Facility - Project Contact Phone Number - Extension (as applicable):	x###
Which entity do you represent?:	Manufacturing Facility
Number of Full-Time Employees at the Manufacturing Facility:	53
Applicant History:	No
RISE PA Funding History:	No
Commonwealth Obligations:	N/A
PA DEP Compliance:	N/A
Designated Area :	
Technical Assessment Report:	PennTAP
Technical Assessment Report Year:	2025-04-27

Technical Assessment Letter:	NA
Technical Assessment Cost ($):	0

Boundary of the Manufacturing Facility

The boundary of the manufacturing facility is the 70,000 square foot building located at ### Manufacturing Road in University Park, PA. All utilities service that building, except one electric meter that is for an exterior light pole. The exterior light pole meter is not included in the assessment. There are no mobile sources included in this boundary.

Utility Bill Data:	Electricity, Fuel Oil
Most Current Utility Bill Date:	01/2025
Oldest Utility Bill Date:	02/2024
Electricity [Generator and Supplier]/Number of Electricity Meters:	1
Electricity [Generator and Supplier]/Total Annual Electricity Cost ($):	$74,360.09
Electricity [Generator and Supplier]/Total Annual Electricity Consumption (kWh):	449,305
Natural Gas [Generator and Supplier]/Number of Natural Gas Meters:	
Fuel Oil/Number of Fuel Oil Accounts:	1
Fuel Oil/Total Annual Fuel Oil Cost ($):	27,594.20
Fuel Oil/Total Annual Fuel Oil Consumption (MMBtu):	928.47
Renewable Energy Offsets/Existing Solar: Total Annual Energy Offset (kWh):	N/A
Renewable Energy Offsets/Existing Solar: Total Annual Cost Offset ($):	N/A
Renewable Energy Offsets/Existing Biodigestor: Total Annual Energy Offset (MMBtu) :	N/A
Renewable Energy Offsets/Existing Biodigestor: Total Annual Cost Offset ($):	N/A
Renewable Energy Offsets/Other 1: Energy Offset Technology:	N/A
Renewable Energy Offsets/Other 2: Energy Offset Technology:	N/A

Greenhouse Gas (GHG) Baseline/Stationary Combustion (Scope 1 MTCO2e):	69.2
Greenhouse Gas (GHG) Baseline/Mobile Sources (Scope 1 MTCO2e):	0
Greenhouse Gas (GHG) Baseline/Refrigerants and AC (Scope 1 MTCO2e) :	0.8
Greenhouse Gas (GHG) Baseline/Fire Suppression (Scope 1 MTCO2e):	0.0
Greenhouse Gas (GHG) Baseline/ Purchased Gases (Scope 1 MTCO2e):	0
Greenhouse Gas (GHG) Baseline/Electricity (Scope 2 MTCO2e):	134.6
Greenhouse Gas (GHG) Baseline/Purchased Steam (Scope 2 MTCO2e):	0
Greenhouse Gas (GHG) Baseline/Scope 1 Location-Based GHG Emissions (Gross MTCO2e):	70.0
Greenhouse Gas (GHG) Baseline/Scope 2 Location-Based GHG Emissions (Gross MTCO2e):	134.6
Greenhouse Gas (GHG) Baseline/Total Scope 1 + Scope 2 Location-Based GHG Emissions (Gross MTCO2e):	204.6

Decarbonization and Energy Efficiency History

We installed a new roof in 2019. This project reduced our heating costs by approximately $5,000, reducing our fuel use by 20%.

Future Decarbonization and Energy Efficiency Goals

We are trying to reduce our electricity consumption and cost. We have not upgraded lighting in more than 20 years and want to make sure we do so with LEDs, as first step. We have additional goals to upgrade heating and process equipment in future years, but that is not part of this project scope.

We have company-wide sustainability goals. We are to reduce our on-site emissions by 30% by 2030. This LED lighting project supports this initiative. With this project, we would be able to reduce our site emissions by 12.5% and will reduce our electricity consumption by 19%.

Existing Process and/or Equipment Details

The manufacturing area operates one shifts, Monday through Friday, from 7:00 AM through 4:30 PM. There are ten holidays when the facility is closed. Lighting has a significant impact on our building's operational costs as we are currently using a mix of T12 fluorescent and metal halide bulbs, which are inefficient technology. We have 372 fixtures we want to remove from the facility. We intend to install 220 new LED fixtures and relamp 55 fixtures with LEDs.

Existing Production Details

XYZ Manufacturing produces approximately one million medical grade polyethylene bags each day. These are primarily biohazard specimen bags. The lighting project is not proposed to increase production. Our savings will be reinvested into future energy-saving production equipment upgrades.

Proposed Project Details

A total of three hundred seventy-two (372) existing lighting fixtures will be removed and replaced with two hundred and twenty (220) new LED fixtures, including 28 new emergency exit signs. Fifty-five (55) existing lighting fixtures will be re-lamped to install LED replacement bulbs. **All the proposed fixtures and bulbs are ENERGY STAR or DLC certified.**

Simple Payback Period and Life Expectancy of the Proposed Project

The simple payback period of the LED lighting upgrade project is 10 years and estimated life expectancy is 15 years.

Proposed Project Plan and Milestones

Assuming the grant is awarded in Q4 (CY 2025), XYZ Manufacturing will begin the project in January 2026. In accordance with the attached quote from ABC Electrical Contracting, the contractor will remove all existing lighting fixtures and evaluate them for disposal/recycling or retrofit. The contractor will install 164 new high bay LED fixtures and re-lamp 55 existing fixtures deemed most suitable for retrofit and reinstall them with LED replacement bulbs. The project will also entail replacing all 28 EXIT signs and 11 exterior security light fixtures. The project will be coordinated with production schedules and should be completed within four months.

MMV Narrative Plan

Measurement and Verification (M&V) Plan

1. Post-Installation Monitoring: Within one-month post installation, XYZ Manufacturing will conduct a thorough inspection to ensure all new and retrofitted fixtures are functioning correctly.

2. Verification: Using monthly electric bills, XYZ Manufacturing will compare post-installation energy consumption data with the monthly baseline data to verify energy savings. Increased or decreased production schedules, which may affect consumption, will be noted. XYZ Manufacturing will also collect feedback from employees on the lighting quality and any operational issues.

3. Reporting: XYZ Manufacturing will provide the documented comparisons, including all new electric bills, to PennTAP to verify project savings, and any issues encountered.

4. Ongoing Monitoring: We will continue to monitor energy consumption and make improvements as needed to maintain optimal performance.

Total Electricity Energy Savings (kWh):	85,866
Total Electricity Cost Savings ($):	14,597
Natural Gas Energy Savings (MMBtu):	0
Natural Gas Cost Savings ($):	0
Propane Energy Savings (MMBtu):	0
Propane Cost Savings ($):	0

Wood Energy Savings (MMBtu) :	0
Wood Cost Savings ($):	0
Coal Energy Savings (MMBtu) :	0
Coal Cost Savings ($):	0
Diesel Energy Savings (MMBtu) :	0
Diesel Cost Savings ($):	0
Fuel Oil Energy Savings (MMBtu) :	0
Fuel Oil Cost Savings ($):	0
Water Savings (gallons):	0
Water Cost Savings ($):	0
Wastewater Savings (gallons):	0
Wastewater Cost Savings ($):	0
Other 1 Energy Savings (MMBtu) :	0
Other 1 Cost Savings ($):	0
Other 2 Energy Savings (MMBtu) :	0
Other 2 Cost Savings ($):	0
Total Scope 1 + Scope 2 Location-Based GHG Emissions (Gross Savings MTCO2e):	25.7
Project GHG Percent Savings (%):	12.5
Air Pollution (lbs) (NOx + SOx):	36.8
Cumulative GHG Emissions Reductions: 2025-2030 (MTCO2e):	128.5
Cumulative GHG Emissions Reductions: 2025-2050 (MTCO2e):	642.5
How did you hear about RISE PA?:	PennTAP Newsletter

Cost Share Funds

N/A

Downpayment ($):	N/A

PennState

Pennsylvania Technical Assistance Program
The Pennsylvania State University
200 Innovation Boulevard, Suite 115
University Park, PA 16802

814-865-0427
penntap@psu.edu
penntap.psu.edu

DETAILED BUDGET Table
RISE PA

RISE PA

Application Information

Project Title:*	XYZ Manufacturing - Budget

Technical Point of Contact

Legal Name:*	John Smith
Email:*	jsmith@xyzmanufacturing.com
Phone:*	570-765-#### x###

Business Point of Contact

Legal Name:*	Jane Doeh
Email:*	jdoeh@xyzmanufacturing.com
Phone:*	570-765-#### x###

Other Senior Level Project Management	Other Senior Level Project Management
Legal Name	Legal Name:
Email:	Email:
Phone:	Phone:
Position:	Position:

Detailed Budget Information

Budget Summary (Must be consistent with the Detailed Budget Worksheet below)

Category	Grant Request (from DEP)	+	Match (from Applicant)	=	Project Cost (Total)
Personnel	$ 45,328.60	+	$ 45,328.60	=	$ 90,657.20
Contractual	$ 19,145.40	+	$ 19,145.40	=	$ 38,290.80
Equipment	$ 6,375.00	+	$ 6,375.00	=	$ 12,750.00
Supplies	$ 1,846.00	+	$ 1,846.00	=	$ 3,692.00
Total for each column:	$ 72,695.00	+	$ 72,695.00	=	$ 145,390.00

Please complete the below detailed budget worksheet. Totals for each category should be entered on the application budget summary above. **Items 1-5 are for grant requested funds only. All matching funds should be listed in the Match table (Number 5 below).**

1. Personnel

Individual	Position	Hourly Rate	Hours	Benefits	Total Cost
Personnel Costs*					$ 90,657.20
*includes Prevailing Wage on Construction					$ 0.00
*includes Apprenticeship Opportunities					$ 0.00
					$ 0.00
					$ 0.00
					$ 0.00
Total Salaries & Benefits					$ 90,657.20

2. Contractual (List Specific Items)

Item	Cost
ABC Electrical Contracting - Lighting Package	$ 38,290.80
Total Contractual Expenses	$ 38,290.80

3. Equipment (Over $5,000/item)

Item	Quantity	Cost per Item	Total Cost
Equipment	1	$ 12,750.00	$ 12,750.00
			$ 0.00
			$ 0.00
			$ 0.00
			$ 0.00
			$ 0.00
			$ 0.00
Total Equipment			$ 12,750.00

4. Supplies (Under $5,000/item)

Item	Quantity	Cost per Item	Total Cost
Materials	1	$ 3,693.00	$ 3,693.00
			$ 0.00
			$ 0.00
			$ 0.00
			$ 0.00
			$ 0.00
			$ 0.00
Total Supplies			$ 3,693.00

PennState

Pennsylvania Technical Assistance Program
The Pennsylvania State University
200 Innovation Boulevard, Suite 115
University Park, PA 16802

814-865-0427
penntap@psu.edu
penntap.psu.edu

6. Match

Please use the following table to calculate matching contributions of cash, goods, and services to be entered on the application form. All items listed must be accompanied by a letter of commitment. **All match must be listed in this section only.**

Contributor	Budget Category	Description (cash, loan, or in-kind)	Status (Pending or Secured)	Value in Dollars
XYZ Manufacturing	Debt	Cash	Secured	$ 50,000.00
XYZ Manufacturing	Debt	Loan	Secured	$ 95,390.00
	Debt	In-Kind	Secured	
	Debt	In-Kind	Secured	
Total Match				$ 145,390.00

Proposal

[redacted]

[redacted]

To [redacted]

We will provide labor and materials per the following:
1- Removal of existing lights and stack them location provided by site manager
2- Install 164 New High Bay Lights
3- Re-Lamp 55 8 ft Fixtures existing to remain
4- Replace existing EXIT signs and add 5 EXIT signs at paper exit locations. ALL EXIT signs to have remote heads
5- Replace 8 explosion-proof lights in [redacted]
6- Replace exterior lights with LED wall packs
7- Labor Monday through Friday from 7:00 am to 3:30 pm

Please NOTE the following:
1- Disposal of fixtures and light bulbs add $2,860.00 to proposal
2- We will have a meeting to determine the working area's during operational hours
3- Rebate amount TBD
4- Moving of equipment to install lighting is to be done by owner
5- Check (payable to [redacted]s the preferred form of payment. Credit cards will incur surcharges.

Cost Breakdown:

Labor	$90,657.20
Lighting Package	$38,290.80
Materials	$3,692.00
Equipment	$12,750.00

(NOTE: Cost breakdown does not include ADDER option)
ADDER Option: Labor qty (4) 10-hour weekdays 7am-530pm, not including Saturday or Sunday $8276.00

Thank you for the opportunity to quote your project. We look forward to assisting you with your facility's growth!

We propose hereby to furnish material and labor-complete in accordance with above specifications, for the sum of:
One hundred forty-five thousand, three hundred ninety dollars ..... $ 145,390.00

Payment terms as follows:
Start: One-half down; Half-way point: Half of balance and Balance in-full due upon completion

All material is guaranteed to be as specified. All work to be completed in a workmanlik manner according to standard practices. Any alterations or deviations from the above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature [redacted]

Note: This proposal may be withdrawn by us if not accepted within 30 (thirty) days.

Acceptance of Proposal — The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature _____

Date of Acceptance: _____

Signature _____

Addendum to [redacted] Lighting Package

Order Qty	Description	Unit Price	Ext Price
18	LTA QLX500RN AC Plastic LED EX	32.61	586.98
5	LTA ELF652D/LED Micro Remote Double Head High Output	33.80	169.00
5	LTA ELF652/LEDWP Micro Remote Double Head HO Weatherproof	48.79	243.95
5	LTA UQLXN500R-2LEDR Micro Combo Red High Output RC	55.55	277.75
8	DIAL LPD3C4M2P - 4Ft LED C1D2 with LPXW4 Bracket	762.81	6102.48
1	SYL Wrap2A/022UNVD8SC7/24U/WH (62176) LT FX	94.71	94.71
2	SYL WRAP2A/S044UNVD8SC7/48U/WH (62178) 4 Ft LED WRAPAROUND Fixture Lumen/Color Select 22/28/34/44 Watts 35/40/50K 120/277V	147.35	294.70
110	SYL LED34T8/L96/FG/850/BF (40357) 8Ft LEDLESCENT Ballast-free LED T8	34.79	3826.90
164	MAX BLHE3-130UF-50 LED High Bay Linear	142.02	23291.28
2	GREIGN GI-LDL-D600-G4-DLAD 60Watt 6600 Lumen Dock Light NONSTOCK ITEM – May NOT be Returnable	348.73	697.46
11	MAX WCOP80U-CSBPC 80W WLPK NONSTOCK ITEM – May NOT be Returnable	191.51	2106.61
6	MAX MLFP24G427WCSCR FLATMAX LED Flat Panel 2x4 GEN 4 Watt Select	99.83	598.98
	Lighting Package		38290.80

Cost Breakdown:

Labor	$90,657.20
Lighting Package	$38,290.80
Materials	$3,692.00
Equipment	$12,750.00

(NOTE: Cost breakdown does not include ADDER option)

ADDER Option: Labor qty (4) 10-hour weekdays 7am-530pm, not including Saturday or Sunday $8276.00

[redacted]

Manufacturing Road
University Park, PA 16802

June XX, 2025

PA RISE Program Manager
PennTAP at Penn State
200 Innovation Blvd., Suite 115
University Park, PA 16802

RE: Cost Share Funding Letter of Commitment

To Whom It May Concern:

XYZ Manufacturing commits to providing a $72,695.00 cost share match to our lighting upgrade project, which represents 50% of total project costs. We acknowledge that RISE PA SAT does not consider the items listed in the ineligible cost section of this document as cost share funds nor as eligible costs for the use of this funding. Our cost share contains $50,000.00 cash and the remaining $22,695.00 is available through a pre-approved line of credit.

We understand that RISE PA SAT is a reimbursement grant and XYZ Manufacturing is responsible for funding the entire project prior to receiving any awarded funds. XYZ Manufacturing has secured $95,390.00 in total through the pre-approved line of credit. We intend to use the RISE PA funds to reduce the loan upon reimbursement.

Sincerely,

Jane A. Doeh

Jane Doeh, CFO
XYZ Manufacturing

Lenders Bank
Bank Road
University Park, PA 16802

June XX, 2025

PA RISE Program Manager
PennTAP at Penn State
200 Innovation Blvd., Suite 115
University Park, PA 16802

RE: Cost Share Funding Letter of Commitment

To Whom It May Concern:

Lenders Bank has pre-approved XYZ Manufacturing for a Line of Credit totaling $95,390.00 for the lighting upgrade project for their facility.

Sincerely,

Bank Lender

Lenders Bank
Bank Road
University Park, PA 16802

2024 Financial Statement

Manufacturing Road
University Park, PA 16802

XYZ MANUFACTURING

Technical Assessment Report

April XX, 2025

Prepared For:

XYZ Manufacturing, LLC
Manufacturing Road
University Park, PA 16802

Prepared by:
Qualified Assessor Company

Authored / Verified by:
Qualified Assessor, C.E.M.

This report is an example Technical Assessment report for RISE PA Small-scale Award Track (SAT) grant program. The following example is provided to support applicants in preparing their RISE PA SAT project applications. This format is a suggestion, meant to help applicants and assure that all the required components of the Technical Assessment Report are addressed. Qualified Assessors may have a preferred format for their reports. As long as a submitted Technical Assessment Report is equivalent to the information required by the RISE PA SAT Grant Guidance document - Appendix E, it will be accepted by RISE PA SAT. In this example, the report attachments only *represent* what is required but have not been included. All projects will be scored in a competitive format for RISE PA SAT funding.

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List of Common Abbreviations & Acronyms

A.....amps
AFUE .....Annual Fuel Utilization Efficiency
BMP .....best management practice
Btu .....British thermal unit
CCF.....centum cubic feet
CDD.....cooling degree day(s)
CEM.....Certified Energy Manager
CFL .....compact fluorescent
cfm.....cubic feet per minute
CO .....carbon monoxide
CO_2.....carbon dioxide
CO_2e.....carbon dioxide equivalent
CCF.....centum cubic feet
dba.....doing business as
DOE.....Department of Energy
DTH .....dekatherm
E2.....Energy Efficiency
E3.....Economy, Energy, and Environment
EER.....energy efficiency ratio
EPA.....Environmental Protection Agency
°F.....degrees Fahrenheit
fc.....footcandle
ft .....feet
ft^3.....cubic feet
gal .....gallon, gallons
gpd.....gallons per day
gpm.....gallons per minute
gpy .....gallons per year
GHG .....greenhouse gas
HDD.....heating degree day(s)
hp.....horsepower
hr .....hour, hours
HSPF.....heating seasonal performance factor
HVAC.....heating, ventilation, and air-conditioning
HVLS.....high volume, low speed
ID.....identification
in .....inch, inches
INC .....incandescent
kW.....kilowatt
kWh.....kilowatt-hours
lb .....pound, pounds
LED.....light-emitting diode
MCF.....million cubic feet
MH .....metal halide
MMBtu.....million British thermal unit
mph.....miles per hour
mo.....month, months
$MTCO_2e$.....metric tons of carbon dioxide equivalent
NO_X .....nitrogen oxide emissions
O2 .....oxygen
P2.....Pollution Prevention
PA DEP .....Pennsylvania Department of Environmental Protection
PDCA .....Plan Do Check Act
psi .....pounds per square inch
PVC.....polyvinyl chloride
RISE PA.....Reducing Industrial Sector Emissions in Pennsylvania
sec.....second, seconds
SEER .....seasonal energy efficiency ratio
SO_2 .....sulfur dioxide
SO_X .....sulfur oxide emissions
sq ft.....square feet
USDA.....United States Department of Agriculture
V.....volts
VSM .....value stream map
W .....watts
Wh .....watt-hours
yr, YY.....year, years

1 Applicant Background

XYZ Manufacturing, LLC, (hereafter referred to as XYZ Manufacturing) is located at ### Manufacturing Road in University Park, Pennsylvania. On January 24, 2025, Qualified Assessor Company (QAC) visited the manufacturing facility to conduct a technical assessment, which focused on the energy consumption of their existing lighting.

XYZ Manufacturing produces medical grade polyethylene bags at its 70,000-square-foot facility located in University Park (Centre County), Pennsylvania. The facility includes approximately 56,000 square feet of manufacturing area and 14,000 square feet of office area. Both areas operate Monday through Friday, from 7:00 AM through 4:30 PM. There are ten holidays when the facility is closed. It has 53 full-time employees.

Table 1: Applicant and Facility Information

Facility Name		XYZ Manufacturing, LLC	
Facility Address		### Manufacturing Road, University Park, PA 16802	
County		Centre	
Project Boundary		### Manufacturing Road, University Park, PA 16802	
Annual Production Quantity	(bags/day)	1,000,000	
NAICS Code	(#)	326111	
Full-time Employees	(#)	53	
LIDAC		NA – Not Applying for the Community Benefits Bonus	
Hours of Operation and Facility Size by Department			
Department		Offices	Manufacturing
Operating Hours	(days/week)	5	5
	(hours/day)	9.5	9.5
Size by Department	(sq ft)	14,000	56,000
Total Size	(sq ft)	70,000	

A summary of the conservation opportunities included in the report is provided in Section 7.

The conservation opportunities identified in this report are the result of calculations that are based on client-provided data, discussions with the client, and/or observations and measurements made during the site assessment. The energy savings provided in this report are based on QAC's best professional judgement. They are approximate and not guaranteed. The savings calculated is possible when implementing each conservation opportunity independently. In some instances, implementing one recommendation may affect another.

2 Project Description

XYZ Manufacturing is proposing an energy efficiency project. The existing lighting is comprised of a mix of T12 fluorescent and metal halide bulbs (see Figure 1 through Figure 3). All bulb types are outdated and inefficient. XYZ Manufacturing is proposing to replace all of existing lighting fixtures and bulbs with light-emitting diode (LED) fixtures and bulbs to decrease their electricity consumption and costs. QAC was asked to determine the expected energy savings once the lighting upgrades have been completed.

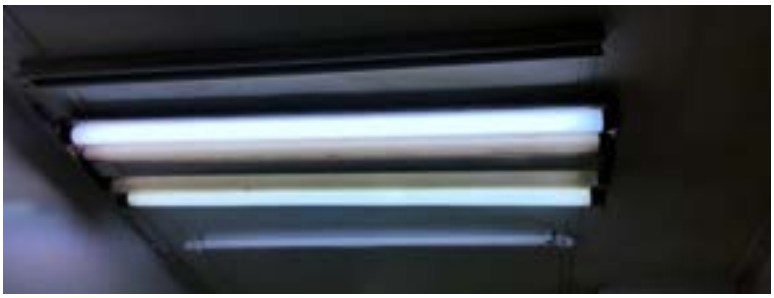


Figure 1: T12 Bulbs within the Facility

Figure 2: T12 Fixtures within the Facility

Figure 3: Metal Halide Fixture within the Facility

Per the 2024 vendor quote received from ABC Electrical Contracting, the project is expected to cost

$145,390. XYZ Manufacturing anticipates applying to RISE PA SAT for a 50% match grant of $72,695. XYZ Manufacturing is not applying for either of the RISE PA SAT bonuses. If the project is awarded, the project will start January 2026 and is anticipated to be complete by March 2026.

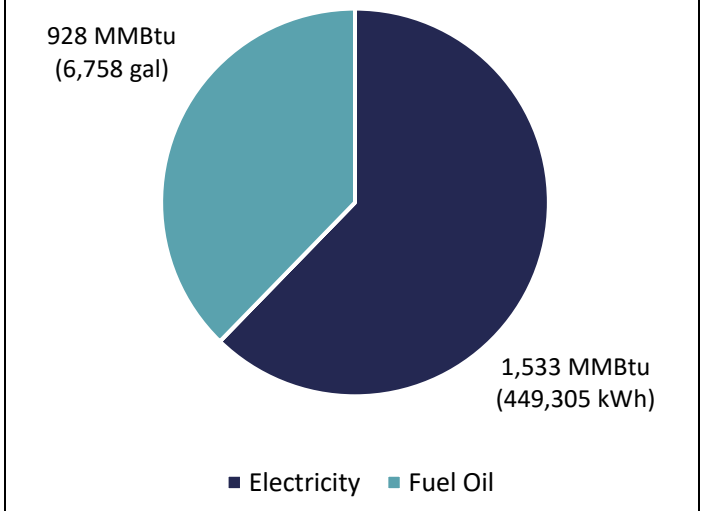
3 Qualifications of Qualified Assessor

Qualified Assessor is a Certified Energy Manager (C.E.M.) and has been completing equivalent energy audits since 2012. Qualified Assessor's resume is provided in Attachment 1.

4 Utility Bill Analysis

XYZ Manufacturing provided QAC with 12 months of utility bills, from February 2024 through January 2025.[1] QAC used the bills provided to determine XYZ Manufacturing's baseline energy consumption and cost (see Figure 4). During this period, 2,461 MMBtu of energy, equivalent to 1,533 MMBtu of electricity and 928 MMBtu of fuel oil, was consumed. In total, XYZ Manufacturing spent $101,954 on utilities. Approximately 73% of the cost incurred was the result of electricity consumption. An in-depth analysis of the monthly electricity and fuel oil consumption is provided in the following sections.

Total Annual Energy Consumption	Total Annual Energy Cost
2,461 MMBtu	$101,954



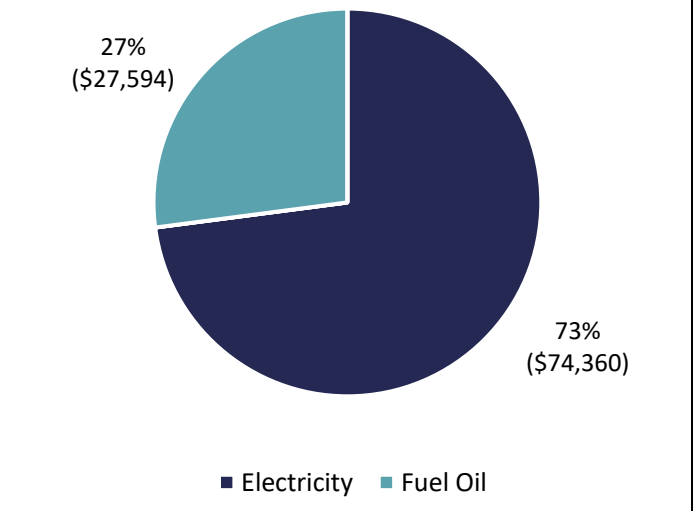


Figure 4: Annual Energy Consumption and Energy Cost by Utility

4.1 Electricity

Before April 2024, the facility was purchasing its electricity supply from PPL. Starting in May 2024 Constellation Energy became the electricity supplier. Electricity has been continuously distributed to the site by PPL. During this time period, XYZ Manufacturing consumed 449,305 kilowatt-hours (kWh) of electricity

[1] See Appendix A for a monthly breakdown of the utility bills, and Attachment 3 for the utility bill files.

at an average rate of $0.17/kWh and $6.05 per kilowatt (kW) for demand. The total annual electricity cost was $74,360.09.

QAC graphed the total monthly electricity consumption for this period to identify any trends in use that may exist (see Figure 5). Overall, consumption steadily increased during the period evaluated. This was expected since the facility increased their production over the course of the year.

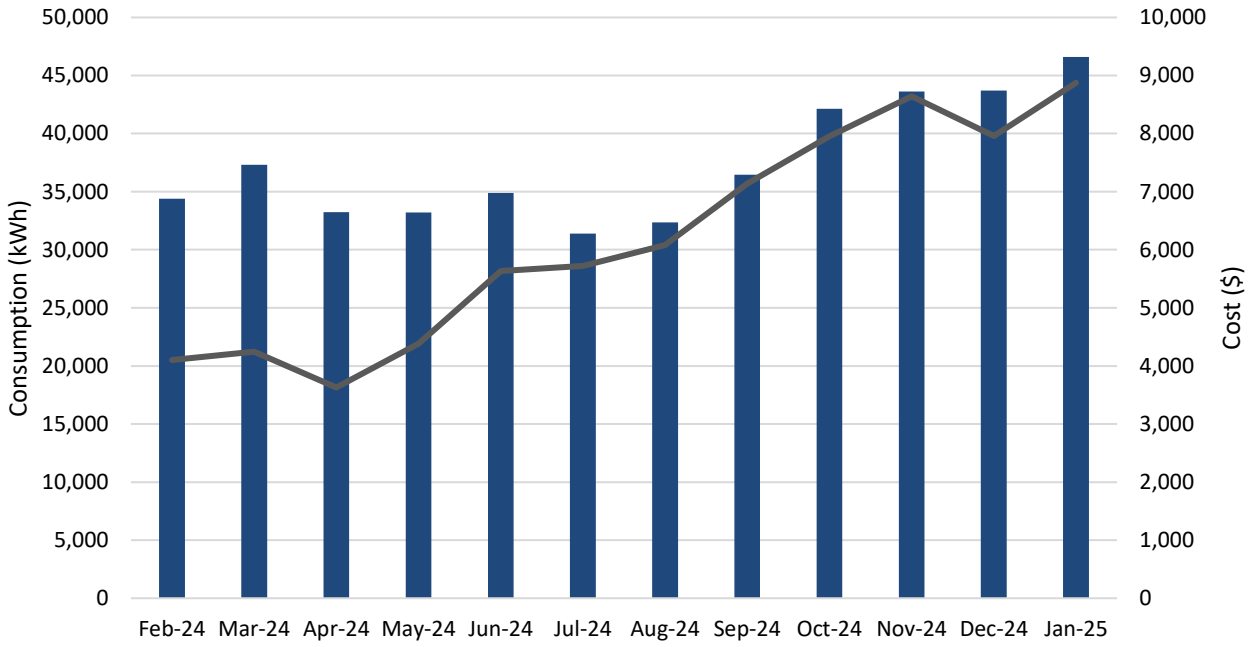


Figure 5: Monthly Electricity Consumption and Cost

4.2 Fuel Oil

Fuel Oil is supplied and distributed to the site by DCE Supply, Inc. During this time, the facility consumed 6,758 gallons, equivalent to 928 MMBtu, at a rate of $29.72/MMBtu. During this time, the total fuel oil cost was $27,594.20. QAC also graphed the monthly fuel consumption for this period to identify any trends that may exist (see Figure 6). Overall, consumption increased during the winter months, which is expected as the fuel oil is only used for comfort heating only.

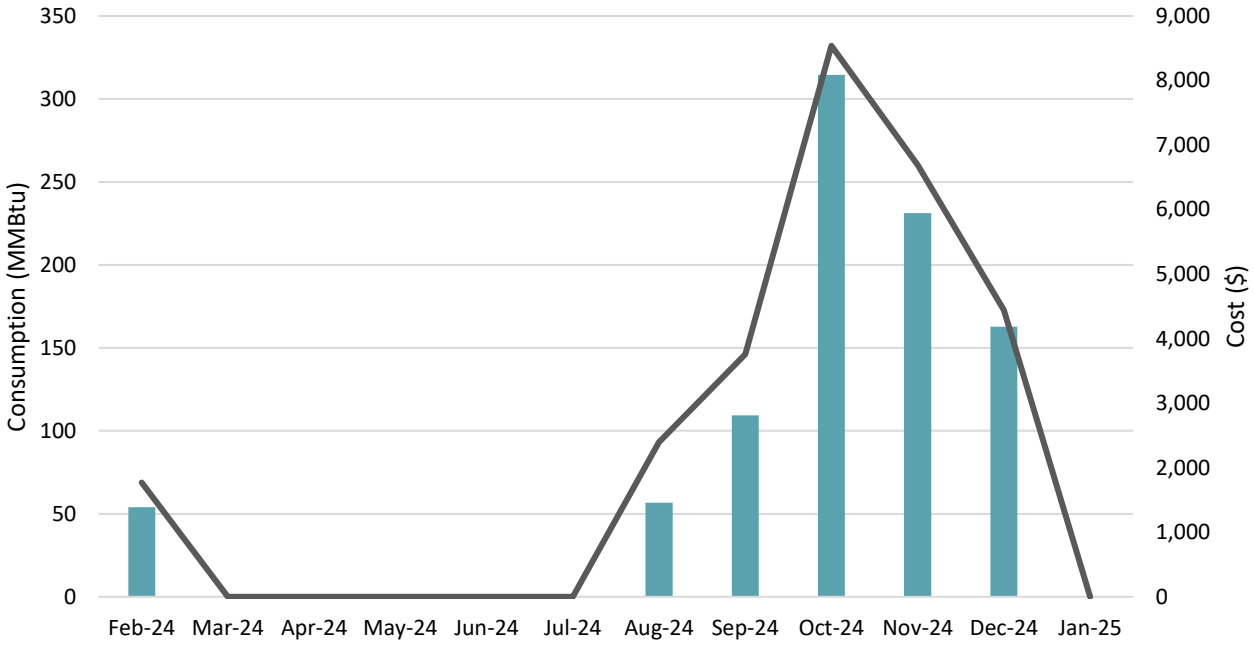


Figure 6: Monthly Fuel Oil Consumption and Cost

4.3 Baseline Emissions

The electricity and fossil fuels consumed at a facility often result in increased air emissions. SO_x and NO_x emissions are pollutants that negatively impact the environment and public health. GHG emissions negatively impact the environment by trapping heat in the atmosphere. They include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases, and are measured in CO_2e.[2] GHG emissions are subdivided into Scope 1 and Scope 2 emissions. Scope 1 are GHG emissions that are emitted by a company and include stationery and mobile sources. At XYZ Manufacturing this includes their heating oil, as discussed above, a 3-ton (R-410a) heat pump unit used to cool the offices, and ten (10) 10-lbs and five (5) 15-lbs CO_2 portable fire extinguishers. Scope 2 emissions represent the indirect emissions that result from purchasing electricity to power and heat a facility.

QAC determined XYZ Manufacturing's baseline GHG, and air pollution (NO_x and SO_x). The baseline emissions were based on the utility bills provided by the company and discussed in Section 4, and/or data collected during the assessment. The GHG emissions were determined using the EPA's Simplified GHG Emissions Calculator.[3] The Scope 2 emissions for electricity were determined using the "Location-Based" method provided in the calculator. QAC determined NO_x and SO_x emissions using the values in the EPA's Emissions & Generation Resource Integrated Database (eGRID), (see Table 2).[4]

[2] https://www.epa.gov/ghgemissions/overview-greenhouse-gases#:~:text=GHG%20emissions%20are%20often%20measured,CO2%2C%20per%20unit%20mass
[3] See "Use the Calculator" at the EPA's Simplified GHG Emissions Calculator website to download a copy.
[4] https://www.epa.gov/egrid

Table 2: Baseline Facility Emissions

Source	GHG Emissions		Air Pollutants		
	Scope 1	Scope 2	Estimated NO_x	Estimated SO_x	Total $SO_x + NO_x$
	($MTCO_2e$)	($MTCO_2e$)	(lb)	(lb)	(lb)
Electricity	-	134.6	89.9	102.4	192.3
Fuel Oil	69.2	-	162.2	287.9	450.1
AC / Refrigeration	0.8	-			
Fire Suppression	0.0[1]	-	-	-	-
Mobile Sources	-	-	-	-	-
Purchased Gases	-	-	-	-	-
Total	**70.0**	**134.6**	**252.1**	**390.3**	**642.4**

[1]*Less than .01 metric ton.*

5 Energy Assessment

Lighting projects offer some of the biggest opportunities for effective energy reduction. QAC evaluated the energy consumption and associated costs of the existing and proposed lighting to determine the expected energy and GHG emissions savings once the project upgrades are complete.

5.1 Existing Lighting

QAC calculated the energy consumption of the existing lighting using the wattage of the bulbs, as determined during the site inventory, and the hours of operation. A summary of the analysis is provided in Table 3. The existing lighting consumes 151,824 kWh per year of electricity at an annual cost of $25,810 (see Appendix B for detailed inventory).

Table 3: Electricity Consumption and Cost of the Existing Lighting

Description	Annual Electricity Usage		Annual Consumption Cost
	(kWh/yr)	(MMBtu/yr)	($/yr)
Existing Lighting	151,824	518	25,810

5.2 Proposed Lighting

XYZ Manufacturing is planning to replace their existing lighting with LED bulbs to reduce their electricity consumption and costs. LED lights are currently the highest standard in energy-efficient lighting. An LED upgrade reduces the operational costs associated with a facility's lighting. LED bulbs also generate less landfill waste as they last much longer than traditional bulbs and need to be changed less often. LED projects also improve the quality of light and help to lower the carbon footprint of a facility. Another advantage of LED lighting is that the light quality does not deteriorate in the same manner as other bulbs. LED bulbs continue to provide at least 90% of the rated light output for most of the lamp life. The light output of most other lighting types, by comparison, begins to decrease shortly after installation.

Representatives from ABC Electrical Contracting supplied a quote for the replacement lighting in January 2024. The scope calls for a total of three hundred seventy-two (372) fixtures to be removed and either turned over to the owner or recycled per Environmental Protection Agency (EPA) guidelines. This project includes installation of two hundred and twenty (220) replacement fixtures and re-lamping fifty-five (55)

existing fixtures with LED replacement bulbs. Table 4 details the final LED fixtures and bulbs proposed for the project (sourced from the itemized vendor quote, see Attachment 2).

All new lighting is Energy Star rated and/or DLC rated (refer to the specification sheets in Attachment 4).

Table 4: Proposed Lighting Details Provided on Vendor Quote

Cutsheet	Catalog Description	Wattage* (W)	Quote Quantity (#)
A	SYL WRAP2A/022UNVD8SC7/24U/WH (62176) LT FX	36	1
B	DIAL LPD3C4M2P 4 FT LED C1D2 WITH LPXW4 BRACKET	66	8
C	MAX BLHE3-130UF-50 LED HIGH BAY LINEAR	130	164
D	SYL LED34T8/L96/FG/850/BF (40357) 8FT LEDLESCENT BALLAST FREE LED T8 (Re-lamp 55 existing fixtures, two 34W bulbs/fixture)	68	110
E	MAX WCOP80U-CSBPC 80W WLPK	80	11
F	SYL WRAP2A/S044UNVD8SC7/48U/WH (62178) 4FT LED WRAPAROUND FIXTURE LUMEN/COLOR SELECT 22/28/34/44 WATTS 35/40/50K 120/277V	45	2
G	MAX MLFP24G427WCSCR FLATMAX LED FLAT PANEL 2X4 GEN 4 WATT	45	6
H	LTA QLX500RN AC PLASTIC LED EX	3	13
I-A	LTA ELF652D/LED MICRO REMOTE DOUBLE HEAD HIGH OUTPUT	8	5
I-B	LTA ELF652/LEDWP MICRO REMOTE DOUBLE HEAD HIGH OUTPUT WEATHERPROOF	8	5
I-C	LTA UQLXN500R-2LEDR MICRO COMBO RED HIGH OUTPUT RC	8	5

**Wattage found on specification sheets. See Appendix A.*

QAC determined the expected energy consumption and cost of the proposed LED lighting using the same method as described in Section 5.1. A summary of the analysis is provided in Table 5. Once installed, the LED upgrade is expected to consume approximately 65,958 kWh per year of electricity at an annual cost of $11,213.

Table 5: Electricity Consumption and Cost of the Proposed Lighting

Description	Annual Electricity Usage		Annual Consumption Cost
	(kWh/yr)	(MMBtu/yr)	($/yr)
Proposed LED Lighting	65,958	225	11,213

5.3 Expected Savings

The proposed lighting project is expected to reduce XYZ Manufacturing's total electricity consumption by 85,866 kWh per year, equivalent to $14,597, see Table 6. The payback period is based on the total cost savings achieved from the reduced electricity consumption.

Table 6: LED Lighting Project Energy Savings

Conservation Opportunity	Electrical Savings (kWh/yr)	Cost Savings ($/yr)	Project Budget Cost ($)	Simple Payback (yr)	Estimated Life[1] (yr)
Lighting Upgrade	85,866	14,597	145,390	10.0	15

[1]*The estimated life of the proposed lighting was determined using Section 3.1.1 of the 2026 Pennsylvania Technical Reference Manual Volume 3.*

6 GHG Emissions Assessment

The emissions provided in Table 7 are for the lighting project only. The emissions were calculated in the same manner as the facility's baseline data.

Table 7: LED Lighting Project Emissions Savings

Conservation Opportunity	GHG Emissions[1]		Air Pollutants[2]		
	Scope 1	Scope 2	NO_x	SO_x	Total SO_x + NO_x
	($MTCO_2e$/yr)	($MTCO_2e$/yr)	(lb/yr)	(lb/yr)	(lb/yr)
Lighting Upgrade	0	25.7	17.2	19.6	36.8

[1] https://www.epa.gov/climateleadership/simplified-ghg-emissions-calculator
[2] https://www.epa.gov/egrid

7 Project Benefits Impact and Summary

QAC conducted the technical assessment at the XYZ Manufacturing facility on January 24, 2025. During the assessment, the existing lighting system was evaluated, and savings were estimated based on proposed LED upgrades. These improvements are expected to reduce total electricity consumption by approximately 85,866 kWh and $14,597 annually (see Table 8).

Table 8: Summary of Recommendations – Energy Consumption and Cost Savings

Conservation Opportunity	Electricity Savings	Cost Savings	Project Cost	Simple Payback	Estimated Life[1]
	(kWh/yr)	($/yr)	($)	(yr)	(yr)
Lighting Upgrade	85,866	14,597	145,390	10.0	15

[1] *The estimated life of the proposed lighting was determined using Section 3.1.1 of the 2026 Pennsylvania Technical Reference Manual Volume 3*

XYZ Manufacturing is also expected to decrease their GHG and air pollutants once the recommended measures have been implemented (see Table 9).

Table 9: Estimated Annual Emissions Reductions

Conservation Opportunity	GHG Emissions[1]		Air Pollutants[2]		
	Scope 1	Scope 2	NO_x	SO_x	Total So_x + No_x
	($MTCO_2e$/yr)	($MTCO_2e$/yr)	(lb/yr)	(lb/yr)	(lb/yr)
Lighting Upgrade	0	25.7	17.2	19.6	36.8

[1] https://www.epa.gov/climateleadership/simplified-ghg-emissions-calculator
[2] https://www.epa.gov/egrid

The project is expected to cost $145,390. XYZ Manufacturing anticipates applying to RISE PA SAT for a 50% match grant of $72,695 (see Table 10)

Table 10: RISE PA SAT Grant Request

Conservation Opportunity	Project Cost	SAT Base Grant	Community Benefits Bonus	Fair Labor Bonus
	($)	($)	($)	($)
Lighting Upgrade	145,390	72,695	0	0
Total	**145,390**	**72,695**	-	-

8 MMV Narrative Plan (Optional)

The following plan is suggested by QAC to XYZ Manufacturing. This plan is not the responsibility of QAC. The Measuring, Monitoring, and Verification (MMV) plan is the responsibility of the applying manufacturing facility.

- **Post-Installation Monitoring:** Within one-month post installation, XYZ Manufacturing will conduct a thorough inspection to ensure all new and retrofitted fixtures are functioning correctly.
- **Verification:** Using monthly electric bills, XYZ Manufacturing will compare post-installation energy consumption data with the monthly baseline data to verify energy savings. Increased or decreased production schedules, which may affect consumption, will be noted. XYZ Manufacturing will also collect feedback from employees on the lighting quality and any operational issues.
- **Reporting:** XYZ Manufacturing will provide the documented comparisons, including all new electric bills, to RISE PA SAT to verify project savings, and any issues encountered. If operating hours alter or other instances alter the lighting use at the facility, XYZ Manufacturing will note this. XYZ Manufacturing intends to use the EPA Simplified GHG Emissions Calculator to provide the facility's footprint and the emission reduction results of lighting project.
- **Ongoing Monitoring:** XYZ Manufacturing will continue to monitor energy consumption and make improvements as needed to maintain optimal performance.

Appendices

Appendix A Monthly Utility Consumption

Table 11 and Table 12 provide an itemized summary of the monthly utilities. The utility bills are part of Attachment 1.

Table 11: Summary of Electricity Bills

Billing Period	Demand	Demand Charges	Energy Consumption		Supply Charges	Distribution Charges	Total Charges
(Month-YY)	(kW)	($)	(kWh)	(MMBtu)	($)	($)	($)
Feb-24	154	970	34,396	117	2,762	1,338	4,101
Mar-24	146	920	37,321	127	2,965	1,280	4,245
Apr-24	148	932	33,229	113	2,502	1,127	3,629
May-24	166	1,046	33,204	113	3,297	1,085	4,383
Jun-24	146	920	34,888	119	4,641	992	5,633
Jul-24	146	920	31,382	107	4,748	972	5,720
Aug-24	156	983	32,349	110	5,037	1,043	6,080
Sep-24	174	1,096	36,466	124	5,978	1,161	7,139
Oct-24	176	1,109	42,136	144	6,756	1,198	7,954
Nov-24	180	658	43,628	149	7,187	1,456	8,642
Dec-24	174	1,096	43,699	149	6,541	1,419	7,960
Jan-25	172	1,084	46,607	159	7,457	1,418	8,875
Total	**1,938**	**11,734**	**449,305**	**1,533**	**59,870**	**14,490**	**74,360**

Table 12: Summary of Fuel Oil Bills

Billing Period	Volume of Fuel Oil	Volume of Fuel Oil	Fuel Oil Usage Charges	Total Charges
(Month-YY)	(gal)	(MMBtu)	($)	($)
Feb-24	393	54	0	1,770
Mar-24	0	0	0	0
Apr-24	0	0	0	0
May-24	0	0	0	0
Jun-24	0	0	0	0
Jul-24	0	0	0	0
Aug-24	413	57	0	2,393
Sep-24	796	109	0	3,760
Oct-24	2,289	314	0	8,538
Nov-24	1,683	231	0	6,691
Dec-24	1,185	163	0	4,443
Jan-25	0	0	0	0
Total	**6,758**	**928**	**0**	**27,594**

Appendix B Existing Lighting Inventory

Table 13 is QAC's inventory of the existing lighting at XYZ Manufacturing.

Table 13: Existing Lighting Inventory

Description	Number of Fixtures	Number of Bulbs	Total Bulbs	Output per Fixture		Hours	Daily Consumption	Operating Days per Year	Annual Consumption
	(#)	(#)	(#)	(W)	(kW)	(hr)	(kWh/day)	(days/yr)	(kWh/yr)
4 Ft. T12 Fluorescent 2 Lamp	2	2	4	59	0.12	8.50	1.00	250	251
4 Ft. T12 Fluorescent 3 Lamp	8	3	24	89	0.71	8.50	6.05	250	1,513
8 Ft. T12 Fluorescent 2 Lamp	245	2	490	109	26.71	8.50	226.99	250	56,748
8 Ft. T12 Fluorescent 2 Lamp	55	2	110	109	6.00	8.50	50.96	250	12,739
Metal Halide 400 W Lamp (interior)	68	1	68	458	31.14	8.50	264.72	250	66,181
Metal Halide 250 W Lamp (exterior)	11	1	11	295	3.25	6.00	19.47	365	7,107
4 Ft. T12 Fluorescent 4 Lamp	4	4	16	112	0.45	8.50	3.81	250	952
4 Ft. T12 Fluorescent 4 Lamp	6	4	24	112	0.67	8.50	5.71	250	1,428
Emergency	13	1	13	20	0.26	24.00	6.24	365	2,278
Exterior	10	2	20	40	0.40	6.00	2.40	365	876
Emergency	5	2	10	40	0.20	24.00	4.80	365	1,752
Total	**427**[1]	-	-	-	**68.37**	-	-		**151,824**

1. 372 fixtures will be replaced, and 55 fixtures will be re-lamped.

Attachments

Attachment 1 Qualified Assessor's Resume

The resume for the Qualified Assessor who completed and/or verified this report, is included herein.

Attachment 2 Vendor Quote

The 2024 vendor quote received from ABC Electrical Contracting are included herein.

Attachment 3 Utility Bills

Copies of the utility bills are included herein.

Attachment 4 Specification Sheets

The specification sheets for the lighting fixtures are included herein. The specifications sheets have been annotated to help direct a reviewer to the relevant information.

Attachment 5 EPA Simplified GHG Emissions Calculators (Excel Files)

The Simplified GHG Emissions Calculators Excel files for the Facility Baseline and Project Savings are not attached to this report but will be provided to XYZ Manufacturing along with this report for their RISE PA SAT application.

SYLVANIA Luminaires

UltraLED™ CCT and Lumen Selectable Wrap

Item #	62176
Type	item 3
Project	
Notes	
Date	

Application

Offered in two high efficacy wattage packages and one lumen selectable package, these CCT selectable fixtures provide increased energy savings as well as greater design flexibility when compared to traditional sources. The UltraLED wrap luminaire is ideal in retail, manufacturing, warehouse, office, and educational environments.

Benefits and Features

- Diffuse acrylic lens delivers smooth, even illumination
- CCT selectable (3500K, 4000K or 5000K color temperature)
- Lumen selectable (22, 28, 34 or 44 watt) or dedicated 22W and 68W versions available for rebate and high wattage opportunities
- Innovative lens design eliminates LED pixilation and light-leaks on all sides of the fixture while still enabling simple, toolless removal of the lens during installation
- Internally mounted motion/daylight sensor and battery back up options increase the versatility of this product line
- DLC Premium listing maximizes rebate opportunities
- Up to 130 LPW
- CRI >80
- Energy savings up to 43%
- Optional 8W battery back-up on 4' products provides 1000 lumens for 90 minutes

Electrical

- 120-277VAC
- 12V auxiliary output
- Power factor >90%
- THD <20%
- 0-10V dimmable down to 10%
- UL damp rated

Rated Life

- 100,000 hours (L_{70})

Warranty

- 5-year
- NLB Trusted Warranty Program

Ambient Operating Range

- -4°F to +104°F (-20°C to +40°C)

Wattage Comparison

Size	Traditional Source	Traditional System Wattage	LED System Wattage	Energy Savings
2'	1x32W Fluorescent	28	22	21%
4'	1x32W Fluorescent	28	22	21%
4'	2x28W Fluorescent	49	28	43%
4'	2x28W Fluorescent	49	34	31%
4'	2x32W Fluorescent	56	44	21%
4'	2x54W Fluorescent	87	68	22%

Certifications and Listings

- cULus
- RoHS
- FCC
- DLC Premium

Installation

- Luminaire can be surface mounted or suspended via included V-hook
- Optional joiner bracket facilitates end-to-end mounting

Ordering Guide

WRAP	2A	/ X	XXX	UNV	D	8	SC7	/ XX	U	/ WH	/ XX
Product Name WRAP = Wrap Luminaire	Generation 2A = Generation 2A	Lumen Selectability S = Lumen selectable blank = Fixed wattage	Wattage 022 = 22 Watts 044 = 44 Watts 068 = 68 Watts	Voltage UNV = 120-277V	Dimming D = 0-10V dimming	CRI 8 = >80	Color Temp SC7 = Selectable CCT of 3500K, 4000K or 5000K	Length 24 = 24" 48 = 48"	Mounting U = Universal mounting	Color/Finish WH = White	Options blank= No option D = Motion/daylight sensor E = Emergency battery back-up DE = Motion/daylight sensor + emergency battery back-up

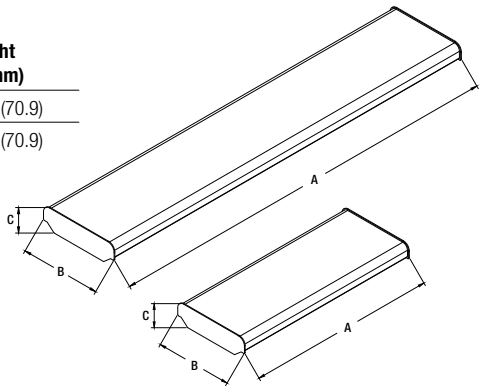
Ordering Information

Item Number	Ordering Abbreviation	Power (W)	Input Voltage (V)	Dimming	CRI	Color Temp	Size	Total Fixture Lumens	LPW	DLC	Options	MTO*
62176	WRAP2A/022UNVD8SC7/24U/WH	22	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	2ft	2860	130	Prm	–	–
62177	WRAP2A/022UNVD8SC7/48U/WH	22	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860	130	Prm	–	–
62178	WRAP2A/S044UNVD8SC7/48U/WH	22, 28, 34, 44	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860/3640/ 4420/5720	130	Prm	–	–
62179	WRAP2A/068UNVD8SC7/48U/WH	68	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	8840	130	Prm	–	–
65603	WRAP2A/022UNVD8SC7/24U/WH/D	22	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	2ft	2860	130	Prm	Motion/Daylight Sensor	MTO
65604	WRAP2A/022UNVD8SC7/48U/WH/D	22	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860	130	Prm	Motion/Daylight Sensor	MTO
65605	WRAP2A/S044UNVD8SC7/48U/WH/D	22, 28, 34, 44	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860/3640/ 4420/5720	130	Prm	Motion/Daylight Sensor	MTO
65606	WRAP2A/068UNVD8SC7/48U/WH/D	68	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	8840	130	Prm	Motion/Daylight Sensor	MTO
65607	WRAP2A/022UNVD8SC7/48U/WH/E	22	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860	130	Prm	Emergency Battery Back-up**	MTO
65608	WRAP2A/S044UNVD8SC7/48U/WH/E	22, 28, 34, 44	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860/3640/ 4420/5720	130	Prm	Emergency Battery Back-up**	MTO
65609	WRAP2A/068UNVD8SC7/48U/WH/E	68	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	8840	130	Prm	Emergency Battery Back-up**	MTO
65610	WRAP2A/022UNVD8SC7/48U/WH/DE	22	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860	130	Prm	Motion/Daylight Sensor + Emergency Battery Back-up**	MTO
65611	WRAP2A/S044UNVD8SC7/48U/WH/DE	22, 28, 34, 44	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	2860/3640/ 4420/5720	130	Prm	Motion/Daylight Sensor + Emergency Battery Back-up**	MTO
65612	WRAP2A/068UNVD8SC7/48U/WH/DE	68	120-277	0-10V	>80	3500K, 4000K or 5000K Selectable	4ft	8840	130	Prm	Motion/Daylight Sensor + Emergency Battery Back-up**	MTO

*Made To Order
**Emergency Battery back-up provides 1000 lumens for a period of 90 minutes

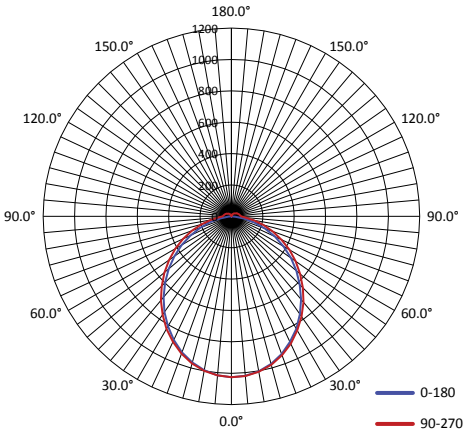
Physical Information

Lamp Description	(A) Length in (mm)	(B) Width in (mm)	(C) Height in (mm)
2' Versions	23.9 (607)	9.37 (238)	2.79 (70.9)
4' Versions	47.9 (1216.7)	9.37 (238)	2.79 (70.9)

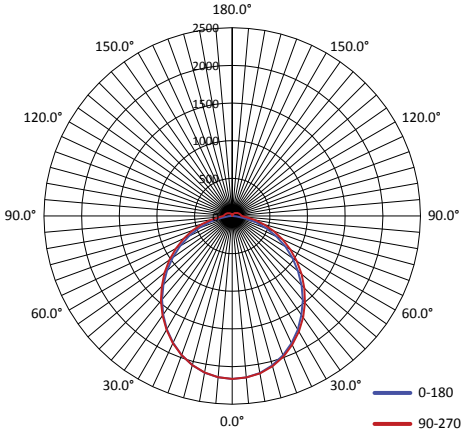


Photometric Information

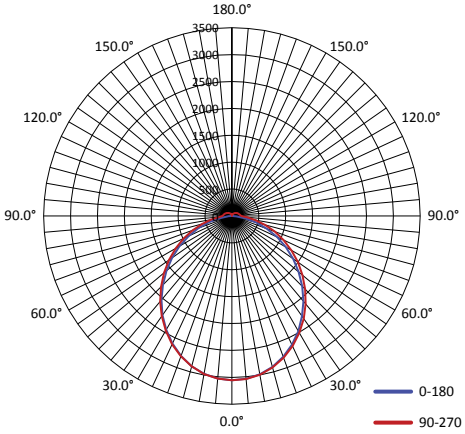
22W



44W



68W



Selector Switches

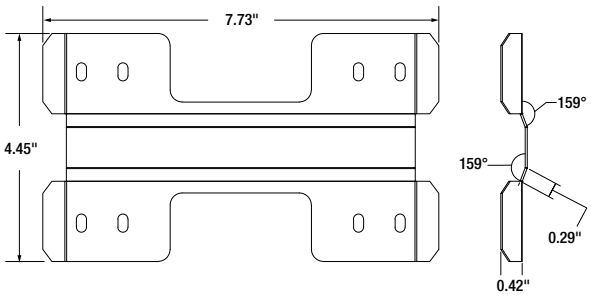
- CCT Switch can be set to 3500K, 4000K or 5000K
  - Default setting is 4000K
- Wattage Selector can be set to 22, 28, 34 or 44 watts
  - Default setting is 44 watts

Wattage Selection: Default 44W			
44W	**34W**	**28W**	**22W**

Accessories

Item Number	Ordering Abbreviation	Item Description
62241	WRAP2A/JOINBRKT	End-to-End Joiner Bracket
60105	HIBAY2A/REMOTE	Standard Remote Control for Sensor
65305	STRIP2A/REMOTE	Remote Control with Digital Readout for Sensor
60573	LNHIBA2A/CHAINMT	Chain Mount (5 foot, 1 pair)
60574	LNHIBA2A/ACCABLEMT	Cable Mount (5 foot, 1 pair)

62241 Joiner Bracket



65305 Sensor Remote

DLC Product ID

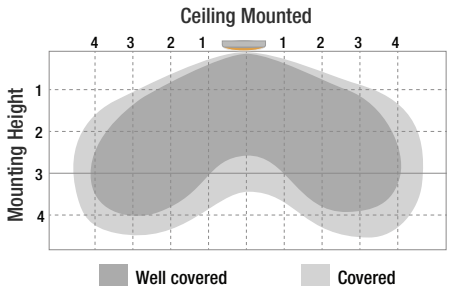
Item Number	Ordering Abbreviation	Linear Ambient	Low Bay	Stairwell and Passageway
62176	WRAP2A/022UNVD8SC7/24U/WH	PLNZQA34E42B		
65603	WRAP2A/022UNVD8SC7/24U/WH/D	PLNZQA34E42B		PLSQPNYBALJ8
62177	WRAP2A/022UNVD8SC7/48U/WH	PLHHNC71KY5B		
65604	WRAP2A/022UNVD8SC7/48U/WH/D	PLHHNC71KY5B		PL6Z5YYNTNGH
65607	WRAP2A/022UNVD8SC7/48U/WH/E	PLHHNC71KY5B		
65610	WRAP2A/022UNVD8SC7/48U/WH/DE	PLHHNC71KY5B		PL6Z5YYNTNGH
62178	WRAP2A/S044UNVD8SC7/48U/WH	PLOBVWFNUWDS	PLFGMABHQ51T	
65605	WRAP2A/S044UNVD8SC7/48U/WH/D	PLOBVWFNUWDS	PLFGMABHQ51T	PLMWQ61EYIIN
65608	WRAP2A/S044UNVD8SC7/48U/WH/E	PLOBVWFNUWDS	PLFGMABHQ51T	
65611	WRAP2A/S044UNVD8SC7/48U/WH/DE	PLOBVWFNUWDS	PLFGMABHQ51T	PLMWQ61EYIIN
62179	WRAP2A/068UNVD8SC7/48U/WH	PL518WI9GZGT	PLA5D9IEW1VQ	
65606	WRAP2A/068UNVD8SC7/48U/WH/D	PL518WI9GZGT	PLA5D9IEW1VQ	PLIBJ4OB8JLA
65609	WRAP2A/068UNVD8SC7/48U/WH/E	PL518WI9GZGT	PLA5D9IEW1VQ	
65612	WRAP2A/068UNVD8SC7/48U/WH/DE	PL518WI9GZGT	PLA5D9IEW1VQ	PLIBJ4OB8JLA

Sensor Options Information

Default Sensor DIP Switch Settings

Detection Area: 100%
Hold Time: 5 minutes
Daylight Threshold: 50 Lux
Stand-by Period: 60 minutes
Stand-by Dimming: 30%

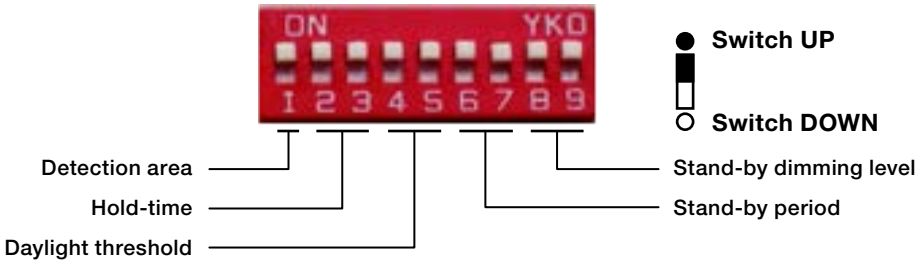
Detection Range



Typical installation height 2.5-4m; units are shown in meters.

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.

DIP Switch Settings



●	100%
○	50%

Detection area
In this area, movement will be detected and able to trigger the sensor. 100% detection area is also known as the strong sensitvity.

●	●	10s
●	○	1min
○	●	5min
○	○	10min

Hold-time
The period of light keeping 100% brightness after moving objects leave the detection area.

●	●	Disable
●	○	50lux
○	●	30lux
○	○	10lux

Daylight threshold
Definition of the ambient brightness; only when the ambient brightness is lower than the preset specific lux amount, the sensor will work; when it's preset as "disable", the sensor works everytime it detects motion regardless the ambient brightness.

●	●	1min
●	○	30min
○	●	60min
○	○	+∞

Stand-by period
The period of light keeping low output before it's completely switched off. When it's preset as "∞", the light always keep at low output if no movement in the detection area and doesn't turn off.

●	●	10%
●	○	20%
○	●	30%
○	○	50%

Stand-by dimming level
The definition of low output in the standby period.

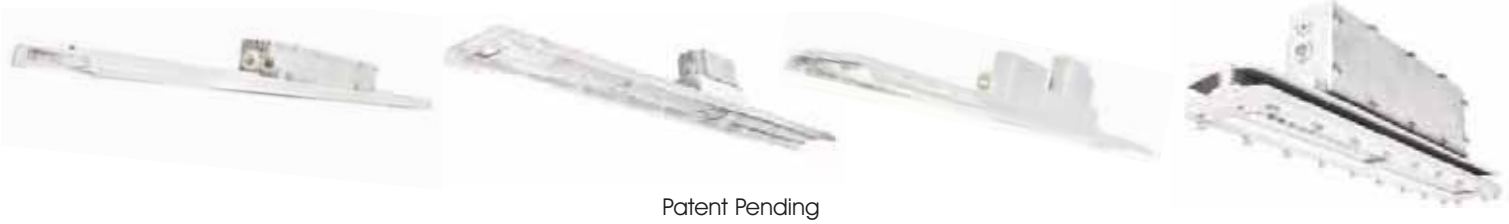
LEDVANCE LLC
200 Ballardvale Street
Wilmington, MA 01887 USA
Phone 1-800-LIGHTBULB (1-800-544-4828)
www.ledvanceUS.com

/sylvania /sylvania

Name:
Email:
Phone:

SYLVANIA

Dialight



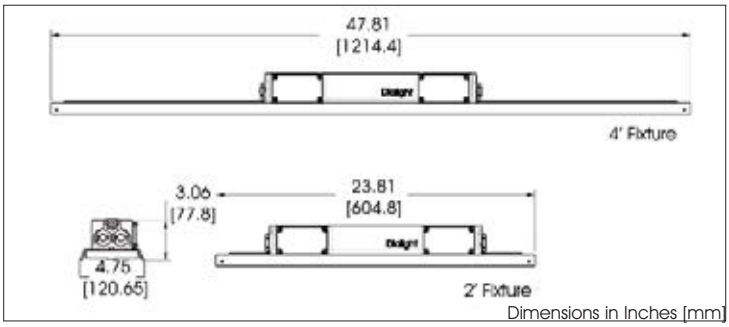
Patent Pending

SafeSite® LED Linear Fixture - UL 844

for Indoor and Outdoor Hazardous Locations

SafeSite® LED Linear Fixture

Low Profile - Class I, Div. 2 / Class II



Dimensions in Inches [mm]

Certifications & Ratings

- Class I Div. 2 Groups A, B, C, D
- Class II Div. 1 Groups E, F, G
- Class II Div. 2 Groups F, G
- Class III Div. 1
- Class III Div. 2
- UL 1598/A
- UL 844
- UL 8750
- CSA C22.2 No.137
- CSA C22.2 No.250
- IP 66/67
- NEMA 4X

Features & Benefits

- 5 year full performance warranty
- L70 rated for >100,000 hours @ 25°C
- Low profile housing for limited space applications
- Dual NPT entries for in / out wiring
- Thru wiring capability
- Instant on/off operation
- Resistant to water, salt, dust & vibration
- Resistant up to 20 PSI of hose directed water
- Universal input (100-277V AC), 50/60Hz
- Mercury free
- Temperature compensation technology for longer life
- Factory sealed
- Integrated wiring box

Application

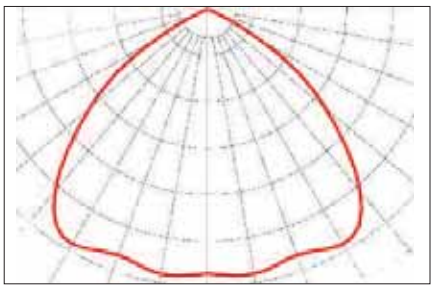
Dialight's SafeSite® LED linear fixture replaces HID and fluorescent lighting fixtures in industrial applications and hazardous location applications.

The SafeSite LED Linear fixture's rugged solid state design makes it highly resistant to shock and vibration. Its fully gasketed IP 66 rated enclosure makes it suitable for dust & wet locations, its 1598A rating guarantees added protection from salt water spray. The SafeSite LED Linear's superior design allows for wiring and mounting versatility and ease of installation for many lighting applications.

Mechanical Information	
Fixture Weight:	4' - 10 lbs (4.53 kg) 2' - 7 lbs (3.18 kg)
Shipping Weight:	4' - 11 lbs (4.99 kg) 2' - 8 lbs (3.63 kg)
Mounting:	(4) 3/4" NPT openings Optional swivel bracket - LPXW4 Optional low profile bracket - LPXW4LP
Electrical Specifications	
Operating Voltage:	100 - 277V AC 50/60Hz
Power Consumption:	See ordering information
Operating Temp:	-40°F to +149°F (-40°C to +65°C)
Harmonics:	IEC 61000-3-2
Noise Requirements/ EMC:	FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz
Surge Protection	EN 61000-4-5 4 kV line to line 4 kV line to ground
THD:	< 20%
Power Factor:	> 0.9
Construction	
Body:	Powder coated aluminum
Lens:	Polycarbonate
Photometric Information	
CRI:	75
CCT:	5,000K (cool white)
IES Files:	Available upon request

All values typical unless otherwise stated
All lumen values are typical (tolerance +/- 10%)
*Consult factory for 80 min CRI

Light Distribution



Temperature Ratings	
Ambient Temperature Range T4A Temperature Code	Ambient Temperature Range T5 Temperature Code
-40°F to +149°F (-40°C to +65°C)	-40°F to +113°F (-40°C to +45°C)

Mounting Options

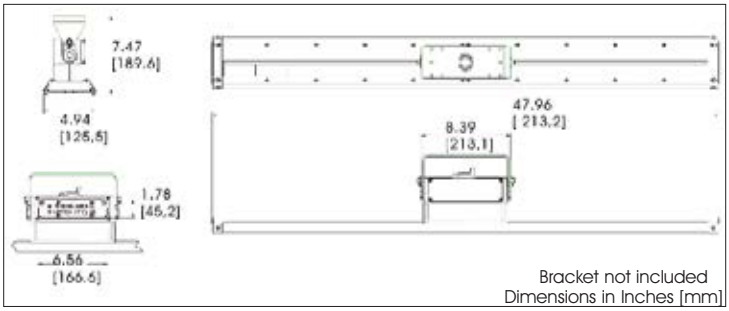
LPXW4LP

Side Mount - LPXW4

Top Mount - LPXW4

SafeSite® LED Linear Fixture

Top Conduit Mount- Class I, Div. 2 / Class II



Bracket not included
Dimensions in Inches [mm]

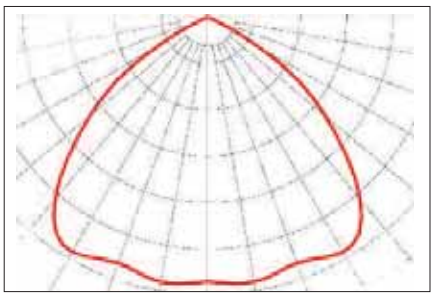
Certifications & Ratings

- Class I Div. 2 Groups A, B, C, D
- Class II Div. 1 Groups E, F, G
- Class II Div. 2 Groups F, G
- Class III Div. 1
- Class III Div. 2
- UL 1598/A
- UL 844
- UL 8750
- CSA C22.2 No.137
- CSA C22.2 No.250
- IP 66
- NEMA 4X

Features & Benefits

- 5 year full performance warranty
- L70 rated for >100,000 hours @ 25°C
- Instant on/off operation
- Resistant to water, salt, dust & vibration
- Vibration tested to UL 844 for 35 hours @ 2,000 CPM
- Resistant up to 20 PSI of hose directed water
- Universal input (100-277V AC), 50/60Hz
- Mercury free
- Temperature compensation technology for longer life
- Factory sealed
- Integrated wiring box

Light Distribution



Application

The first of its kind, Dialight's SafeSite® LED linear fixture replaces HID and fluorescent lighting fixtures in industrial applications and hazardous location applications.

The SafeSite LED Linear fixture's rugged solid state design makes it highly resistant to shock and vibration. Its fully gasketed IP 66 rated enclosure makes it suitable for dust & wet locations, its 1598A rating guarantees added protection from salt water spray. The SafeSite LED Linear's superior design allows for mounting versatility and ease of installation for many lighting applications.

Mechanical Information	
Fixture Weight:	4' - 11 lbs (4.99 kg) 2' - 10 lbs (4.53 kg)
Shipping Weight:	4' -13 lbs (5.90 kg) 2' - 12 lbs (5.44 kg)
Mounting:	(3) 3/4" NPT openings Optional swivel bracket - LTXW4 Optional low profile bracket - LTXW4LP
Electrical Specifications	
Operating Voltage:	100 - 277V AC 50/60Hz
Power Consumption:	See ordering information
Operating Temp:	-40°F to +149°F (-40°C to +65°C)
Harmonics:	IEC 61000-3-2
Noise Requirements/ EMC:	FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz
Surge Protection	EN 61000-4-5 4 kV line to line 4 kV line to ground
THD:	< 20%
Power Factor:	> 0.9
Construction	
Body:	Powder coated aluminum
Lens:	Polycarbonate
Photometric Information	
CRI:	75
CCT:	5,000K (cool white)
IES Files:	Available upon request

All values typical unless otherwise stated
All lumen values are typical (tolerance +/- 10%)
*Consult factory for 80 min CRI

Temperature Ratings	
Ambient Temperature Range T4A Temperature Code	Ambient Temperature Range T5 Temperature Code
-40°F to +149°F (-40°C to +65°C)	-40°F to +113°F (-40°C to +45°C)

Mounting Options

Conduit Top Mount

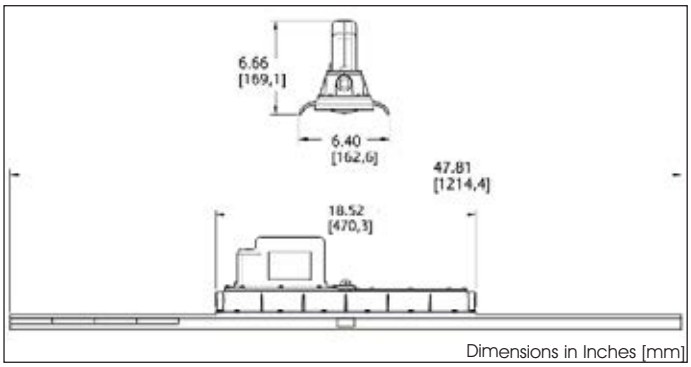
Conduit Side Mount

LTXW4

LTXW4LP

SafeSite® LED Linear Fixture

Battery Backup - Class I, Div. 2 / Class II



Dimensions in Inches [mm]

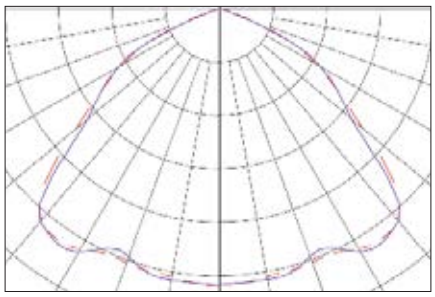
Certifications

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 1, Groups E, F, G
- Class II, Division 2, Groups F, G
- Class III, Division 1
- Class III, Division 2
- UL1598/A
- UL 844
- UL 924
- CSA C22.2 #250.0
- CSA C22.2 No.137
- IP 66
- NEMA 4X

Features & Benefits

- 5 year full performance warranty (excluding batteries)
- L70 rated for >100,000 hours @ 25°C
- 450 lumens in battery backup mode consistent throughout life of battery
- Low power consumption
- Battery status indication light
- Instant on/off operation
- Superior color rendition index compared to HPS, LPS, MV
- Mercury free
- Resistant to shock and vibration
- Temperature compensation technology for longer life

Light Distribution



Application:
Dialight's SafeSite® LED linear fixture replaces HID and fluorescent lighting fixtures in industrial and hazardous applications. The SafeSite® LED Linear fixture's rugged solid state design makes it highly resistant to shock and vibration. Its fully gasketed IP 66 rated enclosure makes it suitable for dusty & wet locations. The SafeSite LED Linear's superior design allows for mounting versatility and ease of installation for many lighting applications.

This fixture is offered in sustained and maintained configurations. Sustained has a single AC input and battery backup mode is entered upon any loss of power. Fixture cannot be turned off without entering battery backup mode. Maintained has two AC inputs. The fixture can be turned on and off via AC-1 and Fixture only enters battery backup mode when AC-2 is lost or low.

Mechanical Information	
Fixture Weight:	18.0 lbs (8.16 kg)
Shipping Weight:	21.0 lbs (9.53 kg)
Mounting:	(1) Threaded 3/4" NPT Side (2) Threaded 3/4" NPT Ends
Electrical specifications:	
Operating Voltage:	100-277V AC 50/60 Hz
Power Consumption:	85W
Operating Temp:	-20°F to +149°F (-20°C to +65°C)
Battery:	3.6V 10Ah NiMH
Expected Battery Life:	4 years
Battery Duration:	>3 hours
Harmonics:	IEC 61000-3-2
Noise Requirements/ EMC:	FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz
Surge Protection	EN 61000-4-5 1 kV line to line 2 kV line to ground
THD:	< 20%
Power Factor:	> 0.9
Construction	
Body:	Powder Coated Aluminum
Lens:	Polycarbonate
Photometric Information	
CRI:	75
CCT:	5,650K (cool white)
IES Files:	Available upon request

All values typical unless otherwise state
All lumen values are typical (tolerance +/- 10%)

Temperature Ratings	
Ambient Temperature Range T4A Temperature Code	Ambient Temperature Range T5 Temperature Code
-20°F to +149°F (-20°C to +65°C)	-20°F to +113°F (-20°C to +45°C)

Mounting Options

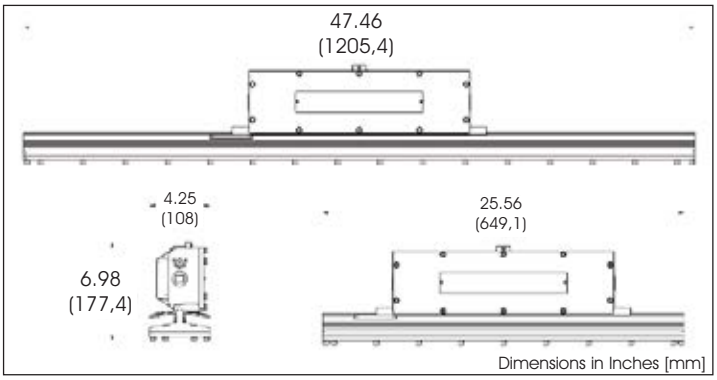
In-line Conduit Mount

Overhead Conduit Mount

LSXW4

SafeSite® LED Linear Fixture

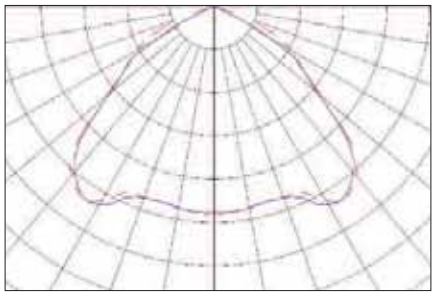
Class I, Div. 1



Certifications

- Class I, Div 1 Groups C, D
- UL 844
- UL1598
- CSA 22.2 No.137
- UL 8750
- ABS Design Assessed: # 12-HS942957-PDA
- IP 66
- NEMA 4X

Light Distribution



Application

The first of its kind, the Dialight SafeSite® LED linear luminaire was designed specifically to replace HID and fluorescent lighting fixtures in industrial and hazardous location applications. The SafeSite LED Linear fixture's rugged solid state design makes it highly resistant to shock and vibration , while it's superior design allows for increased mounting versatility and ease of installation.

Mechanical Information	
Fixture Weight:	4' - 26.0 lbs (11.79 kg) 2' - 17.5 lbs (7.94 kg)'
Shipping Weight:	4' - 28.0 lbs (12.70 kg) 2' - 19.5 lbs (8.85 kg)
Mounting:	(1) Threaded 3/4" NPT Side (2) Threaded 3/4" NPT Ends
Electrical specifications:	
Operating Voltage:	100 - 277V AC 50/60Hz or 347 - 480V AC 50/60Hz
Power Consumption:	See ordering information
Operating Temp:	-40°F to +149°F (-40°C to +65°C)
Harmonics:	IEC 61000-3-2
Noise Requirements/ EMC:	FCC Title 47, Subpart B, Section 15, class A device. RF Immunity; 10V/m, 80MHz-1GHz
Surge Protection	EN 61000-4-5 4 kV line to line 4 kV line to ground
THD:	< 20%
Power Factor:	> 0.9
Construction	
Body:	Powder Coated Aluminum
Lens:	Glass
Photometric Information	
CRI:	75
CCT:	5,000K Cool White (100-277V AC) 5,650K Cool White (347-480V AC)
IES Files:	Available upon request

All values typical unless otherwise state
All lumen values are typical (tolerance +/- 10%)

Temperature Ratings	
LSC3C4M3GEX (4ft) Ambient Temperature Range T4a Temperature Code	LSC3C4D3GEX (2ft) Ambient Temperature Range T5 Temperature Code
-40°F to +149°F (-40°C to +65°C)	-40°F to +149°F (-40°C to +65°C)

Mounting Options

Conduit Top Mount

Conduit Side Mount

LSXW5

SafeSite® LED Linear Fixture

Class I Div. 2 Ordering Information

Part Number	Length	Type[3]	Voltage	Lens[3]	Initial Fixture Lumens[3,4]	Watt	Lumens Per Watt
Class I, Div 2							
LPD3C4D2P	2′	Low Profile	100 - 277V AC	Clear	3,500	33	106
LPD3C4M2P	4′	Low Profile	100 - 277V AC	Clear	7,000	66	106
LPD3C4B2D	2′	Low Profile	100 - 277V AC	Diffused	3,300	33	100
LPD3C4H2D	4′	Low Profile	100 - 277V AC	Diffused	6,600	66	100
LTD3C4D2P	2′	Top Conduit	100 - 277V AC	Clear	3,500	33	106
LTD3C4M2P	4′	Top Conduit	100 - 277V AC	Clear	7,000	66	106
LTD3C4B2D	2′	Top Conduit	100 - 277V AC	Diffused	3,300	33	100
LTD3C4H2D	4′	Top Conduit	100 - 277V AC	Diffused	6,600	66	100
Battery Backup							
LSD3C4MEP	4′	Sustained	100 - 277V AC	Clear	7,000	85	85
LSD3C4MNP	4′	Maintained	100 - 277V AC	Clear	7,000	85	85

Notes:
[1]Part numbers listed in the above table are cool white. For neutral white models replace the 5th character with **N**. Ex. LSD3**C**4MEP becomes LSD3**N**4MEP
[2]450 Lumens in Battery Backup mode
[3]Expect a 10% reduction in Lumens for 80 CRI minimum fixtures
[4]All lumen values are typical (tolerance +/- 10%)
[5]See application note on page 3 regarding "sustained" and "maintained" battery modes
For Dialight's complete list of DLC qualified products, please click this link: www.dialight.com/DLC

Class II Ordering Information

Part Number[1]	Length	Type	CIID1	CIID2	CIIID1	CIIID2	Voltage	Lens	Initial Fixture Lumens	Watt	Lumens Per Watt
Class II											
LPF3C4D2P	2'	Low Profile	E / F / G	F / G	•	•	100 - 277V AC	Clear	3,500	33	106
LPF3C4M2P	4'	Low Profile	E / F / G	F / G	•	•	100 - 277V AC	Clear	7,000	66	106
LPF3C4B2D	2'	Low Profile	E / F / G	F / G	•	•	100 - 277V AC	Diffused	3,300	33	100
LPF3C4H2D	4'	Low Profile	E / F / G	F / G	•	•	100 - 277V AC	Diffused	6,600	66	100
LTF3C4D2P	2'	Top Conduit	E / F / G	F / G	•	•	100 - 277V AC	Clear	3,500	33	106
LTF3C4M2P	4'	Top Conduit	E / F / G	F / G	•	•	100 - 277V AC	Clear	7,000	66	106
LTF3C4B2D	2'	Top Conduit	E / F / G	F / G	•	•	100 - 277V AC	Diffused	3,300	33	100
LTF3C4H2D	4'	Top Conduit	E / F / G	F / G	•	•	100 - 277V AC	Diffused	6,600	66	100
Battery Backup											
LSF3C4MEP	4′	Sustained	E / F / G	F / G	•	•	100 - 277V AC	Clear	7,000	85	85
LSF3C4MNP	4′	Maintained	E / F / G	F / G	•	•	100 - 277V AC	Clear	7,000	85	85

Notes:
[1]Part numbers listed in the above table are cool white. For neutral white models replace the 5th character with **N**. Ex. LTF3**C**4D2P becomes LTF3**N**4D2P
For Dialight's complete list of DLC qualified products, please click this link: www.dialight.com/DLC

Class I Div. 1 Ordering Information

Part Number[1]	Length	Voltage	Lens	Initial Fixture Lumens	Watt	Lumens Per Watt
Class I, Div 1						
LSC3C4M3GEX	4′	100 - 277V AC	Clear	7,000	66	106
LSC3C5M3GEX	4′	347 - 480V AC	Clear	7,250	78	93
LSC3C4D3GEX	2′	100 - 277V AC	Clear	3,500	33	106
LSC3C5D3GEX	2′	347 - 480V AC	Clear	3,600	39	92

Notes:
[1]Part numbers listed in the above table are cool white. For neutral white models replace the 5th character with **N**. Ex. LSC3**C**4D3GEX becomes LSC3**N**4D3GEX
For Dialight's complete list of DLC qualified products, please click this link: www.dialight.com/DLC

SafeSite® LED Linear Fixture - Options and Accessories

Low Profile Models - Class I, Div. 2 / Class II

	Part Number	Material	Description	Kit Includes
Class I, Div. 2 / Class II - Low Profile Models				
				
	LPXW4	316 Stainless Steel	Mounting bracket Can be angled at 0°, 30°, 45°, 60° & 90°	Mounting bracket Mounting hardware
	LPXW4LP	316 Stainless Steel	Low profile mounting bracket Can be angled at 0° and 15°	Mounting bracket Mounting hardware
	LTXENDCAPKIT	304 Stainless Steel	Chain mount and secondary retention bracket	2 Brackets Mounting hardware
	LTXSAFEKIT	304 Stainless Steel	Safety Cable Kit for secondary retention	2 brackets 2 53" Safety cables Mounting hardware

Top Conduit Mount Models - Class I, Div. 2 / Class II

	Part Number	Material	Description	Kit Includes
Class I, Div. 2 / Class II - Standard Models				
				
	LTXW4	6061 Aluminum	Mounting bracket Can be angled at 0°, 30°, 45°, 60° & 90°	Mounting bracket Mounting hardware
	LTXW4LP	5052 Aluminum	Low profile mounting bracket Can be angled at 0° and 15°	Mounting bracket Mounting hardware
	LTXENDCAPKIT	304 Stainless Steel	Chain mount and secondary retention bracket	2 Brackets Mounting hardware
	LTXSAFEKIT	304 Stainless Steel	Safety Cable Kit for secondary retention	2 brackets 2 53" Safety cables Mounting hardware
	LTXLSXW4	6061 Aluminum	Retrofit bracket adapter (used to connect LTM model fixtures to an existing LSXW4 bracket)	2 Bracket adapters Mounting hardware

SafeSite® LED Linear Fixture - Options and Accessories

Battery Back up Models - Class I, Div. 2 / Class II

	Part Number	Material	Description	Kit Includes
Battery Back up Models				
				
	LSXW4	6061 Aluminum	Mounting bracket Can be angled at 0°, 30°, 45°, 60° & 90°	Mounting bracket Mounting hardware
	LSXENDCAPKIT	304 Stainless Steel	Chain mount brackets	2 Mounting brackets Mounting hardware
	HZXSAFEKIT	316 Stainless Steel	Safety Cable Kit	2 Eyelets 2 53" Safety cables Mounting hardware

Standard Models - Class I, Div 1

	Part Number	Material	Description	Kit Includes
Class I, Div 1 Models				
				
	LSXW5	6061 Aluminum	Mounting bracket Can be angled at 0°, 30°, 45°, 60° & 90°	Mounting bracket Mounting hardware
	HZXSAFEKIT	316 Stainless Steel	Safety Cable Kit	2 Eyelets 2 53" Safety cables Mounting hardware

PROJECT NAME:_____ CAT. #: _____

NOTES:_____ FIXTURE SCHEDULE:_____

BLHE Economic Linear Highbay Gen 3 *ECO SERIES*

Description:

The Eco High Bay Series is a cost-effective and quality solution for lighting gymnasiums, warehouses, distribution centers, manufacturing facilities, big box retailers, and other commercial and industrial applications. A dimmable and compact product made of galvanized steel housing and white electrostatic powder coat finish, it delivers a high lumen output to replace both 4 or 6 lamp T5HO fluorescent highbay or 400W HID highbay fixtures. Cable, pendant and surface mounting options enable the highbay to be customized to meet virtually any lighting requirement.

Features:

- 120-277V standard, 347-480V available
- Dimmable down to 10% (0-10V dimming)
- Frosted lens standard
- Surface or suspension mounted
- V-hook and 40" knotted chain included in standard model
- Suitable for damp locations
- Operating humidity 10% to 80% RH non-condensing
- Cord and Plug options available for standard models
- Lens material is PMMA (Polymethylmethacrylate)
- L70 lumen maintenance of 100,000 hours, L90 to meet DLC Premium
- On EM mode, the fixture output a minimum of 1200 lumens for 90 minutes, when fully charged
- MS models with PIR motion sensor available (must purchase remote separately for commissioning)

Ordering Information

FAMILY	WATTAGE (NOMINAL)	VOLTAGE	LENS	CCT	OPTIONS	MOTION SENSOR	CORDS & PLUGS
BLHE3= ECO Linear High Bay Gen 3	**065=** 65W **085=** 85W **130=** 130W **170=** 170W **210=** 210W **255=** 255W **300=** 300W **400=** 400W	**U=** 120-277V ***H=** 347-480V	**F=** Frosted	**40=** 4000K **50=** 5000K	**BLANK=** None ****EM=** Battery Backup	**BLANK=** None *****MS=** Motion Sensor	**BLANK=** None **-C=** Cord **-C1=** 10-FT 3 Wire Cord W 5-15P (120V,15A) **-C2=** 10-FT 3 Wire Cord W L7-15P (277v, 15A) **-C3=** 10-FT 3 Wire Cord W L24-20P (347V, 20A) **-C4=** 10-FT 3 Wire Cord W L8-20P (480V,20A)

*65W and 85W in 347-480V (H) are special order only
**EM only available with universal voltage
***Need to purchase remote to commission for 120-277V MS models. Access the Wattstopper Apple/Google store App to commission 347-480V MS models
Driver transient protection is 2.5KV. If additional 10KA surge protection is required, contact Maxlite.

Stocked Items

ORDER CODE	MODEL NUMBER	DLC#	DLC CATEGORY
105362	BLHE3-065UF-40	PSSLYSIN	Low-Bay Luminaires for Commercial and Industrial Buildings
105363	BLHE3-065UF-50	PJRCZ69R	
105366	BLHE3-085UF-40	PCXTYUAR	High-Bay Luminaires for Commercial and Industrial Buildings
105367	BLHE3-085UF-50	PZJ3KWCH	
105370	BLHE3-130UF-40	PT3H08RI	
105371	BLHE3-130UF-50	PHMQISCC	
105374	BLHE3-170UF-40	P7EAHSYX	
105375	BLHE3-170UF-50	P6VMYY3G	

ORDER CODE	MODEL NUMBER	DLC#	DLC CATEGORY
105378	BLHE3-210UF-40	P8NVQQC9	High-Bay Luminaires for Commercial and Industrial Buildings
105379	BLHE3-210UF-50	P7J64WMA	
105382	BLHE3-255UF-40	P4Y8NPLB	
105383	BLHE3-255UF-50	PLQBGEHR	
105386	BLHE3-300UF-40	PY0MLJTV	
105387	BLHE3-300UF-50	PFJVC1YA	
105390	BLHE3-400UF-40	PG1XKF7Y	
105391	BLHE3-400UF-50	PW9DPZ8N	

10-year standard warranty with labor allowance (further details available at www.maxlite.com/warranties)
Warranty Limitations: Product must be rated for application per the Product Data Sheet (PDS); operated ≤16 hrs; in ambient temperatures -4°F to 77°F. If ambient temperatures fall outside the -4°F to 77°F range, product is warrantied for 5 years according to the operating temperature range specified on the PDS. Up to $25/unit; registration required. Additional coverage may be available for purchase; contact MaxLite. Excludes EM/MS versions; component warranty applies.

MaxLite

CONTROLS COMPATIBLE

BLHE Economic Linear Highbay Gen 3

ECO SERIES

Accessories (SOLD SEPARATELY)

ORDER CODE	MODEL NUMBER	DESCRIPTION	IMAGE
105400	BLHE3-WGW1	BLHE GEN3 Wire Guard White for 65W, 85W, 130W Models	
105401/ 102662	BLHE3-WGW2 / BLHE2-WGW2	BLHE GEN3 Wire Guard White for 170W AND 210W Models	
105402	BLHE3-WGW3	BLHE GEN3 Wire Guard White for 255W AND 300W Models	
105403 / 103086	BLHE3-WGW4 / BLHE2-WGW4	BLHE GEN3 Wire Guard White for 400W Model	
105398	BLHE3-SMK1	BLHE GEN3 Surface Mount Kit for 65W, 85W, 130W, 255W AND 300W Models	
105399 / 102660	BLHE3-SMK2 / BLHE2-SMK2	BLHE GEN3 Surface Mount Kit for 170W, 210W AND 400W Models	
105397 / 102658	BLHE3-MPK / BLHE2-MPK	BLHE GEN3 Monopoint Stem Kit for all Wattages (.89" hole diameter)	
74138	MLCHKLSU15	15' CABLE KIT	
71119	MLCHKSQ	20' CABLE KIT	
104799	RMRC-100	Remote Control (for sensor models 120-277V)	
		c-Max Basic	
105567	CN-REMOTE	Control Node Remote Control	
105565	CN-RDMSW*	Control Node Round, White	
106903	CEA-RDW	c-Max External Adapter Round, White	
		c-Max Network	
106118	WNS-W	Wall Network Switch (Bluetooth) White	
105905	NN-RDMSW*	Network Node Round, White	
106391	NN-RDW	Network Node Round, White	
106318	NPP-300W	120-277V Network Power Pack 300W Max	

*To use CN-RDMSW, NN-RDMSW or NN-RDW, the CEA-RDW External adapter also needs to be purchased seperately

Control Features

CONTROL OPTION	TECHNOLOGY	DIMMING	DAYLIGHT HARVESTING	REMOTE CONTROL	SPEC SHEET LINK
MS option (Universal Power)	PIR motion sensing	Bi-Level	Photoelectric sensor Set point on/off	RMRC-100*	
MS option (High Voltage)	PIR motion sensing	Bi-Level	Photoelectric sensor Set point on/off	Wattstopper Apple/ Google store App	
CN-RDMSW	PIR motion sensing, Photoelectric	Bi-Level	Continuous Adjustment Mode (CAM)	CN-REMOTE	
NN-RDMSW	PIR motion sensing. Photoelectric & Bluetooth networking	Bi-Level	Continuous Adjustment Mode (CAM)	c-Max App (iPhone or Android)	
NN-RDW	Bluetooth networking	N/A	N/A	c-Max App (iPhone or Android)	

*Need to purchase appropriate remote to commission MS and CN-RDMSW control option

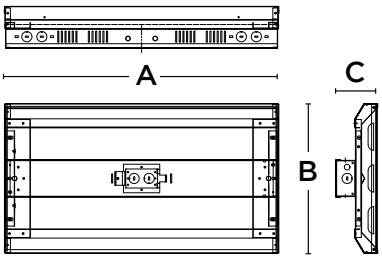
BLHE Economic Linear Highbay Gen 3

ECO SERIES

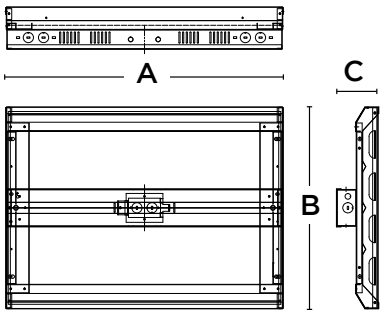
Specifications

	BLHE3-065xF-yy	BLHE3-085xF-yy	BLHE3-130xF-yy	BLHE3-170xF-yy	BLHE3-210xF-yy	BLHE3-255xF-yy	BLHE3-300xF-yy	BLHE3-400xF-yy
Power Consumption	65W	85W	130W	170W	210W	255W	300W	400W
Lumens Delivered	8,450-8,515 lm	11,475-11,560 lm	17,550-17,680 lm	22,950-23,120 lm	28,350-28,560 lm	34,425-34,680 lm	40,500-40,800 lm	54,000-54,400 lm
Efficacy	130/131 lm/w	135/136 lm/w	135/136 lm/w					141 - 142 lm/w
CRI	≥ 80							
Color Temperature (K)	4000K and 5000K							
L70 Lumen maintenance	≥ 100,000 Hrs							
Power Factor	>=0.9							
Surge Protection	2.5KV (If additional 10KA surge protection is required, contact Maxlite)							
Input Voltage	120-277V, 347-480V							
Operating Temperature	-4 to 122°F ('-20°C to 50°C)							
Listings	cULus Listed, FCC, ROHS Compliant							
Environment	UL Listed for Dry/Damp locations							
Warranty	10 Years warranty							
Qualifications	DLC Premium							

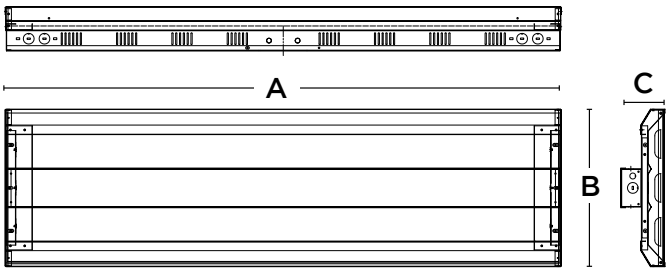
Dimensions



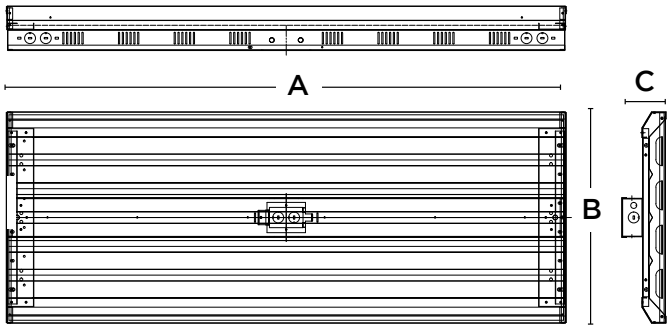
65W / 85W / 130W



170W / 210W



255W / 300W



400W

PRODUCT	A (L)	B (W)	C (H)
65W/85W/130W	24"	13"	3.37"
170W/210W	24"	17.4"	3.37"
255W/300W	46"	13"	3.37"
400W	46"	17.3"	3.37"

Product Number: 40357

Order Abbreviation: LED34T8/L96/FG/850/BF

General Description: 8ft LEDlescent? ballast-free, LED T8, Frosted Glass, 34W, 120-277 Volts, 82 CRI, 4400 Lumens, 5000K, 50000 hr life

Product Information

Life Time (L70)	50000
Dimming	No
Dimensions (in)	0.98 in
Abbrev. With Packaging Info.	LED34T8L96FG850BF 10/CS 1/SKU
Average Rated Life (hr)	50000
Base	Single Pin
Bulb	T8
Family Brand Name	LEDlescent?
Color Temperature/CCT (K)	5000
Color Rendering Index (CRI)	82
Lumens	4400
Approx. Lumens	4400
Nominal Voltage (V)	120.00
Nominal Wattage (W)	34.00
Language Strategy	ENGLISH/FRENCH
Ordering Abbreviation	LED34T8/L96/FG/850/BF
UPC Code	0046135403576
Lamp Finish	Frosted
Bulb Glass Type	SOFT GLASS
Claimed Equivalent Lamp Pwr	59.0

MaxLite

PROJECT NAME:_____ CAT. #: _____

NOTES:_____ FIXTURE SCHEDULE:_____

WallMax Compact Open Face

WCOP Series

Fixture with Wire Guard

Fixture with Visor

Product Description:

The WallMax Compact Open Face Wall Pack is a smaller version of our standard WallMax Open Face Wall Pack. Like it's larger sibling, it offers many field-selectable CCT and wattage options. For controls it includes a photocell standard with an on/off switch to empower the customer with the option to engage the dusk to dawn feature. Available in 5 wattages covering 28W - 120W. it provides a value solution for standard wall lighting applications.

Features:

- CCT selectable between 3000K, 4000K or 5000K
- Photocell with on/off switch included standard
- 4 conduit holes (one on each side) for surface conduit applications

Construction:

- Rugged die cast housing with corrosion resistant polyester powder paint finish
- Impact resistant borosilicate glass

MaxLite Makes It!
Don't see what you need? Additional wattages and specifications available upon request - contact your MaxLite rep!

Ordering Structure

FAMILY	WATTAGE (NOMINAL)	VOLTAGE	CCT	COLOR	CONTROLS
WCOP= WallMax Compact Open Face	**28=** 28W **40=** 40W **80=** 80W	**U=** Universal 120-277V	**CS[2]=** 3/4/5K	**B=** Dark Bronze Contact MaxLite for additional finishes	**PC=** 120-277V Photocell included standard with on/off switch
	60[1]= 60W **120[1]=** 120W		**WCS[2]=** 3/4/5K, Wattage Selectable		

Ordering Notes:

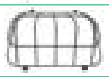
[1] Wattage Selectable: 60W - 28/40/60W / 120W - 80/100/120W
[2] Based on CCT Selected and color mixing, all LEDs may not be activated.

Stocked Items

MODEL NUMBER	ORDER CODE	DLC ID#
WCOP28U-CSBPC	105017	PLBPY6EBEKAD
WCOP40U-CSBPC	105936	PL795SAKY1H5
WCOP60U-WCSBPC	105937	PLZRECMWBY6E

MODEL NUMBER	ORDER CODE	DLC ID#
WCOP80U-CSBPC	108276	PLLQV09YZ29D
WCOP40U-CSBPC	105936	PL795SAKY1H5
WCOP120U-WCSBPC	108277	PLXNE7D2P6NM

Accessories

MODEL NUMBER	ORDER CODE	DESCRIPTION	IMAGE
WCOP-SVISOR-B	106164	WallMax Compact Open Face Visor Small Housing, Bronze	
WCOP-SWG	106165	WallMax Compact Open Face Wire Guard Small Housing	

MODEL NUMBER	ORDER CODE	DESCRIPTION	IMAGE
WCOP-LVISOR-B	108278	WallMax Compact Open Face Visor Large Housing, Bronze	
WCOP-LWG	108279	WallMax Compact Open Face Wire Guard Large Housing	

5 YEAR WARRANTY

5-year standard warranty
(further details available at www.maxlite.com/warranties) Product may be eligible for a warranty extension to 10 years, for an additional fee. Contact MaxLite for details.

MaxLite®

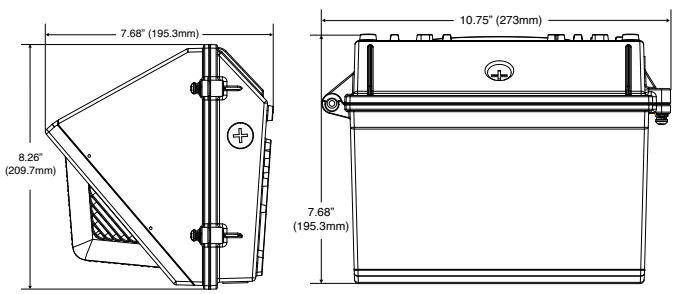
WallMax Compact Open Face

WCOP Series

Specifications	WCOP28	WCOP40	WCOP60	WCOP80	WCOP120
Nominal Wattage (W)	29	40	60	80	120
Output (lm)	min 3,500	min 4,800	min 7,800	min 12,000	min 17,500
Efficacy (lm/W)	min 120	min 120	min 131	min 148	min 142
CCT	3000K, 4000K or 5000K				
CRI	>80				
Dimming	0-10V				
Power Factor	>0.90				
Input Voltage	120-277V				
Housing	Die Cast Aluminum with polyester powder coat paint finish				
Lens	Borosilicate Glass				
Listings	cULus, FCC, DLC 5.1 Premium				
Environment	Wet locations and IP65				
Warranty	5-year standard warranty*				

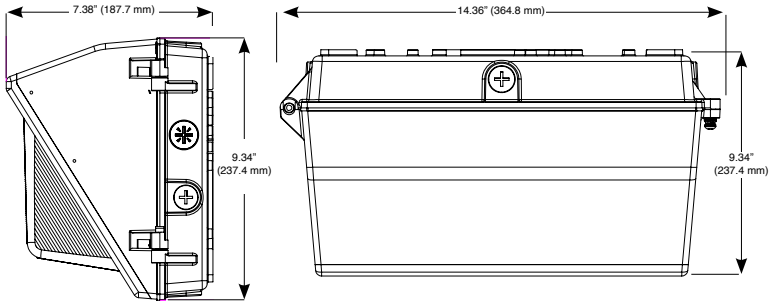
Dimensions

28-60W:



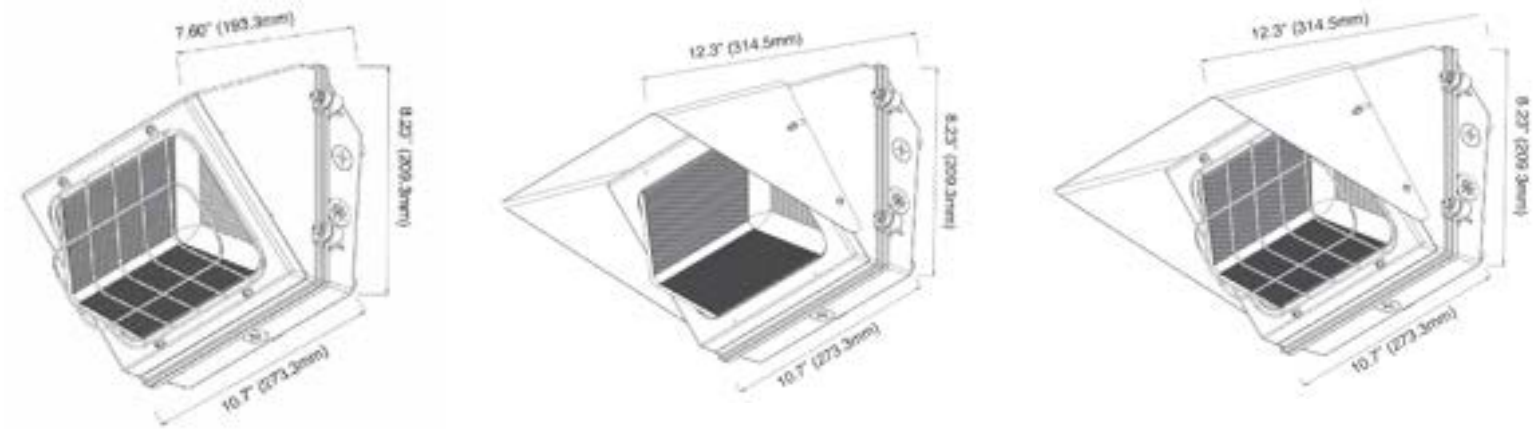
Side View Top View

80-120W:



Side View Top View

28-60W Small Housing:

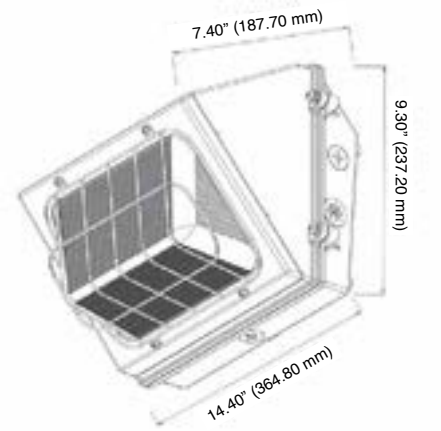


Wire Guard Visor Visor + Wire Guard

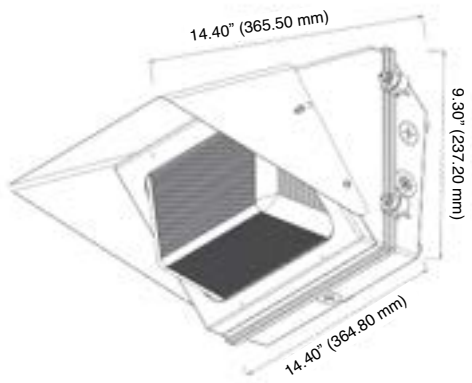
WallMax Compact Open Face

WCOP Series

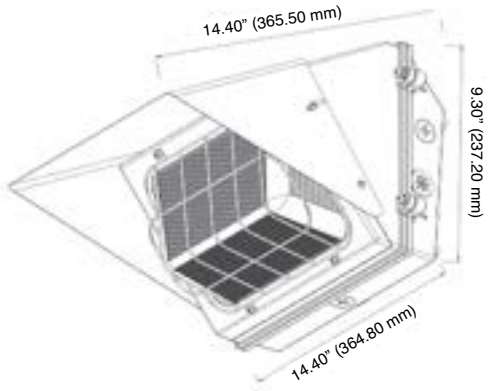
80-120W
Large Housing:



Wire Guard



Visor



Visor + Wire Guard

Product Number: 62178

Order Abbreviation: WRAP2A/S044UNVD8SC7/48U/WH

General Description: LED Wrap, Generation 2A, Selectable wattage 22, 28, 34 or 44 watts, 48" long, Selectable CCT - 3500, 4000, 5000K, White powder coated body, frosted Acrylic lens, Universal mounting

*** Full Case Required**

Product Information

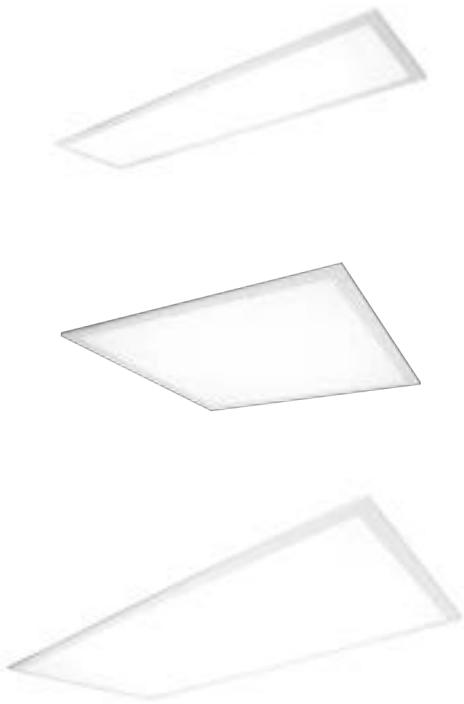
Power Factor	?0.90
Total Harmonic Distortion (THD)	< 20 %
Efficacy (LPW)	130 lm/W
Operating Voltage (V)	120
Power (W)	120
Abbrev. With Packaging Info.	WRAP2AS044UNVD8SC748UWH 1/CS 1/SKU
Color Temperature/CCT (K)	3500
Ordering Abbreviation	WRAP2A/S044UNVD8SC7/48U/WH
Average Rated Life 1 (hr)	100000
UPC Code	UPC046135621789
Color Rendering Index (CRI)	80
Service Life Rating	100000
Lumens (lm)	2860 ? 5720 lm
Wattage (W)	44.00 W
Accessories	V-hook with chain
Color Range	3500 K
Connectors	not relevant
Fixture Warranty	5 years
Housing	Steel
Luminaire Finish	White
Luminaire Type	Surface
Maximum Operating Temperature-Celsius	40
Mounting	Suspended/Surface
Dimensions	47.99x9.37x2.8
Certification Listing	RoHS,FCC,cULus
Height (in)	2.795 in
Height (mm)	71.00 mm
Width (in)	9.37 in
Width (mm)	238.00 mm
Product Weight (g)	4600.00

PROJECT NAME: _____ CAT. #: MLFP24PG427WCSCR

NOTES: _____ FIXTURE SCHEDULE: CUT SHEET 1

MLFP Flat Panel Gen 4 Control Ready

Wattage and Color Selectable



Product Description:

A seamless replacement for 1'x4', 2'x2' and 2'x4' fluorescent fixtures, MaxLite's next-generation LED Flat Panels are designed to lay in drop ceilings in offices, schools, and healthcare applications. The panels produce highly efficient, uniform illumination, and offer the versatility of field-selectable color temperatures and wattages to suit various application needs. The panels are fully dimmable, and may be combined with motion sensors for further energy savings. MaxLite panels deliver all the benefits of LED technology, including a long life with high lumen maintenance, reduced energy consumption and lower maintenance costs.

Features:

- Field Wattage and CCT Selectable
- Controls Ready – can be paired with the new cMax controls nodes
- Fixtures are set to lowest wattage and 4000K as default factory setting
- 0-10V Dimmable
- Voltage: 120-277V
- L70 Lumen Maintenance ≥100,000 at 40°C (104°F)
- On EM mode, the fixture output a minimum of 700 lumens for 90 minutes, when fully charged

Controls Ready:

MaxLite's new Controls Ready (CR) fixtures allows for quick and easy in-field installation (plug and play) of controls. Simply purchase any CR fixture and the required Controls Node and you're all set! See the accessory table for all controls options available for this fixture.

Order Structure

FAMILY	SIZE	PANEL TYPE	WATTAGE SELECTABLE	CCT SELECTABLE	CONTROL READY	BATTERY BACKUP
MLFP= Flat Panel	**14=** 1'x4'	**G4=** Backlit	**20W=** 20W, 25W, 30W	**CS=** CCT Selectable 3500K, 4000K, 5000K	**CR=** Control Ready	**[BLANK]=** None **EM=** Battery Backup
	22= 2'x2'		**18W=** 18W, 27W, 36W			
	24= 2'x4'		**27W=** 27W, 36W, 45W			
	SIZE		**WATTAGE**			
	22= 2'x2'		**18=** 18W			
	24= 2'x4'		**28=** 26W			

NOTES:
[1] On EM mode, the fixture CCT will be set to 5000K
[2] BAA is available as special order

Stocked Items

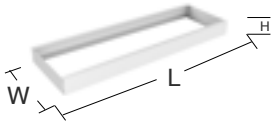
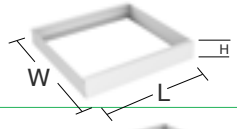
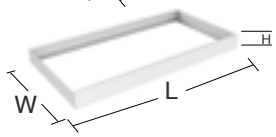
ORDER CODE	MODEL NUMBER	DLC PRODUCT ID #	DIMENSION (L" X W" X H")Y
105184	MLFP14G420WCSCR	PKL0UT6P	47.7" x 11.9" x 2.2"
105188	MLFP22G418WCSCR	PX9RHOZS	23.7" x 23.7" x 2.2"
105528	MLFP24G427WCSCR	PSR53N2J	47.7" x 23.7" x 2.3"

ORDER CODE	MODEL NUMBER	DLC PRODUCT ID #	DIMENSION (L" X W" X H")Y
105192	MLFP22G418CSCR	PMQN4X76	23.7" x 23.7" x 2.3"
105532	MLFP24G428CSCR	P5IRSW6Z	47.7" x 23.7" x 2.2"

10-year standard warranty with labor allowance (further details available at www.maxlite.com/warranties)
Warranty Limitations: Product must be rated for application per the Product Data Sheet (PDS); operated ≤16 hrs; in ambient temperatures -4°F to 77°F. If ambient temperatures fall outside the -4°F to 77°F range, product is warrantied for 5 years according to the operating temperature range specified on the PDS. Up to $25/unit; registration required. Additional coverage may be available for purchase; contact MaxLite. Excludes EM/MS versions; component warranty applies.

MLFP Flat Panel Gen 4 Control Ready *Wattage and Color Selectable*

Accessories (SOLD SEPARATELY)

ORDER CODE	MODEL NUMBER	DESCRIPTION	IMAGE
104817	ML14G4FK	Gen 4 1x4' Flat Panel Flange Kit	
104819	ML22G4FK	Gen 4 2x2' Flat Panel Flange Kit	
104820	ML24G4FK	Gen 4 2x4' Flat Panel Flange Kit	
104811	ML14G4SMK	Gen 4 1X4 Flat Panel Surface Mount Kit (47.87" L X 12.32" W X, 3.7" H)	
104813	ML22G4SMK	Gen 4 2X2 Flat Panel Surface Mount Kit (23.85" L X 24.97" W X 3.7" H)	
104814	ML24G4SMK	Gen 4 2X4 Flat Panel Surface Mount Kit (47.87" L X 24.97" W X 3.7" H)	
104816	MLG4CHK	Gen 4 Cable Hanging Kit For 1x4 & 2x2 Flat Panel (40" length)	
104848	ML24G4CHK	Gen 4 Cable Hanging Kit For 2x4 Flat Panel - 6 Cables (40" length)	
c-Max Basic			
105567	CN-REMOTE	Control Node Remote Control	
105564	CN-RTMST	Control Node Rectangular, Microwave Motion Sensor, Translucent	
105890	CN-RTPSW	Control Node Rectangular, PIR Motion Sensor/Daylight Harvesting, White	

*Maxlite recommends CN-RTPSW (PIR) sensor for most applications with this fixture.
If CN-RTMST(microwave) is required for an application, Maxlite recommends a pilot test to confirm there is no interference that causes unexpected responses from the microwave sensor.
²RMHD05R remote applies to the Microwave Motion Sensor option for fixed wattage 4000K models.

c-Max Network			
105892	NN-RTW	Network Node Rectangular, White	
105893	NN-RTDHW	Network Node Rectangular, Daylight Harvesting, White	
106059	NN-RTPSW	Network Node Rectangular, PIR Motion Sensor/Daylight Harvesting, White	
108392	WNS5-W	5 Button Wall Network Switch (Bluetooth) White	
106318	NPP-300W	120-277V Network Power Pack 300W Max	

MaxLite

MLFP Flat Panel Gen 4 Control Ready *Wattage and Color Selectable*

Sensor

SENSOR	TECHNOLOGY	DIMMING	DAYLIGHT HARVESTING	REMOTE CONTROL	QR CODE
CN-RTMST	Microwave, Photoelectric	Bi-Level	N/A	Yes	
CN-RTPSW	PIR, Photoelectric	Bi-Level	Continuous Adjustment Mode (CAM)	Yes	
NN-RTW	Bluetooth networking	N/A	N/A	c-Max App (iPhone or Android)	
NN-RTDHW	Photoelectric & Bluetooth networking	N/A	Continuous Adjustment Mode (CAM)	c-Max App (iPhone or Android)	
NN-RTPSW	PIR motion sensing. Photoelectric & Bluetooth networking	Bi-Level	Continuous Adjustment Mode (CAM)	c-Max App (iPhone or Android)	

Specifications

	MLFP14G4XXWCSCR		
Size	1'X4'		
Power Consumption	20W*	25W	30W
Lumens Delivered	2540, 2600*, 2590 lm	3020, 3130, 3080 lm	3600, 3790, 3700 lm
Efficacy	126, 133*, 126 lm/w	121, 130, 122 lm/w	118, 128, 119 lm/w
CRI	≥80		
Color Temperature (K)	3500K, 4000K*, 5000K	3500K, 4000K, 5000K	3500K, 4000K, 5000K
L70 Lumen maintenance	≥100,000 Hrs		
Power Factor	>0.9		
Input Voltage	120-277V		
Comp Dimmer	Designed to be compatible with most 0-10V dimmers		
Mounting	Surface mount, Flange mount and Aircraft cables		
Operating Temperature	-4°F to 122°F (-20°C to 50°C)		
Humidity	20% to 85% RH non-condensing		
Certification	ETL Listed, FCC		
Material Usage	RoHS Compliant; No Mercury		
Environment	Damp/ Dry Location		
DesignLight Consortium	DLC Standard		
Warranty	10 Years warranty		

*** Factory default wattage/CCT is 20W/4000K.**

NOTE:

1. Other wattages and CCTs are adjusted in the field by installer.

MaxLite

CMax CONTROLS COMPATIBLE

MLFP Flat Panel Gen 4 Control Ready

Wattage and Color Selectable

Specifications

	MLFP22G4XXWCSCR			MLFP22G418CSCR
Size	2'X2'			
Power Consumption	18W*	27W	36W	18W
Lumens Delivered	2000, 2040*, 2080 lm	2900, 3040, 3030 lm	3820, 4000, 4000 lm	2000 lm
Efficacy	113, 119*, 117 lm/w	110, 119, 113 lm/w	107, 118, 112 lm/w	110 lm/w
CRI	≥80			
Color Temperature (K)	3500K, 4000K*, 5000K	3500K, 4000K, 5000K	3500K, 4000K, 5000K	3500K, 4000K, 5000K
L70 Lumen maintenance	≥100,000 Hrs			
Power Factor	>0.9			
Input Voltage	120-277V			
Comp Dimmer	Designed to be compatible with most 0-10V dimmers			
Mounting	Surface mount, Flange mount and Aircraft cables (Information needs to be confirmed)			
Operating Temperature	-4°F to 122°F (-20°C to 50°C)			
Humidity	20% to 85% RH non-condensing			
Certification	ETL Listed, FCC			ETL Listed, FCC
Material Usage	RoHS Compliant; No Mercury			
Environment	Damp/ Dry Location			
DesignLight Consortium	DLC Standard			
Warranty	10 Years warranty			

*** Factory default wattage/CCT is 20W/4000K.**

NOTE:

1. Other wattages and CCTs are adjusted in the field by installer.

Specifications

	MLFP24G4XXWCSCR			MLFP24G428CSCR
Size	2'X4'			
Power Consumption	27W*	36W	45W	28W
Lumens Delivered	3140, 3260*, 3220 lm	4090, 4030, 4170 lm	4920, 5200, 5040 lm	3100 lm
Efficacy	118, 126*, 121 lm/w	114, 124, 115 lm/w	111, 121, 111 lm/w	110 lm/w
CRI	≥80			
Color Temperature (K)	3500K, 4000K*, 5000K	3500K, 4000K, 5000K	3500K, 4000K, 5000K	3500K, 4000K, 5000K
L70 Lumen maintenance	≥100,000 Hrs			
Power Factor	>0.9			
Input Voltage	120-277V			
Comp Dimmer	Designed to be compatible with most 0-10V dimmers			
Mounting	Surface mount, Flange mount and Aircraft cables (Information needs to be confirmed)			
Operating Temperature	-4°F to 122°F (-20°C to 50°C)			
Humidity	20% to 85% RH non-condensing			
Certification	ETL Listed, FCC			ETL Listed, FCC
Material Usage	RoHS Compliant; No Mercury			
Environment	Damp/ Dry Location			
DesignLight Consortium	DLC Standard			
Warranty	10 Years warranty			

*** Factory default wattage/CCT is 27W/4000K.**

NOTE:

1. Other wattages and CCTs are adjusted in the field by installer.

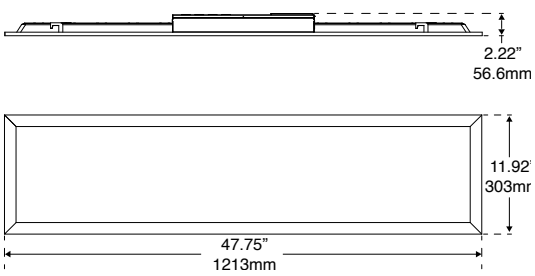
MLFP Flat Panel Gen 4 Control Ready

Wattage and Color Selectable

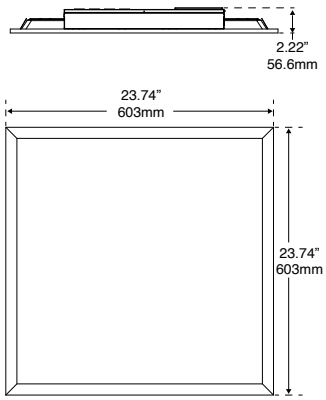
Dimensions

MLFPXXG4YYWCS MODELS (COLOR AND WATTAGE SELECT MODELS) & MLFPXXG4YYYCS (FIXED WATTAGE CCT SELECT MODELS)

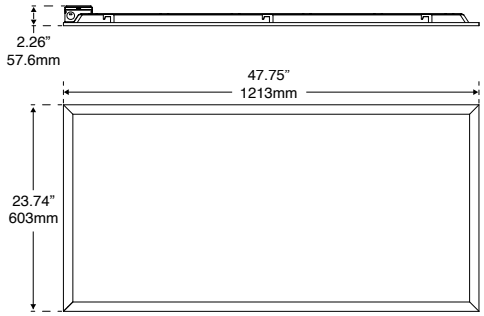
1X4'



2X2'



2X4'



Quick™ QLX & QLXN Series

Economical, thermoplastic LED exit signs

Construction
- UV stabilized thermoplastic body
- 6 inch EXIT lettering legend, available in red or green
- Field selectable chevrons
- Exit supplied with 2 faceplates and one backplate

Mounting
- Surface mount
- Canopy included for end or ceiling mount applications
- Universal J-Box mounting

Electronics
- Optional Improved Diagnostics
- 120/277 60Hz
- Sealed maintenance free Nickel-Cadmium battery for self-powered models
- Compatible with Lightalarms Mini Inverters (contact your sales representative for more information)

Power consumption chart

AC input
120/277VAC, 60Hz maximum 2.5W

Accessories (Order as a separate item)

Description	Product code
Wire guard (wall mount)	WG1-L
Wire guard (ceiling mount and end mount)	WG5-L

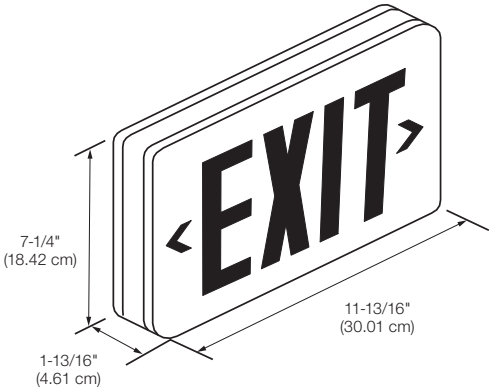
Finishes
Mist white

Approvals
- UL 924 listed
- Damp location 50°F to 104°F (10°C to 40°C)
- UL 94, 5VA flame rated

Warranty (subject to proper installation and maintenance)
Three-year full warranty

Detailed warranty terms located on **page 197 or online at: www.lightalarms.com**

Dimensions
(Dimensions are approximate and subject to change):



Ordering format

Series	Legend color	Options
QLX500= AC-Only **QLXN500**= Self-powered	**RN**= Red **GN**= Green	**Blank**= No option **-ID**= Improved Diagnostics (audible)[1] **-RID**= Remote capacity 3.6V-3.6W Improved Diagnostics (audible)[1, 2]

Example: QLXN500RN

[1] Available with red legend only
[2] Remote capacity for (1) LCARDSQLED, (1) ELF612D/LED or (2) ELF612/LED remote heads only

Cluster™ LED Round Head UQLXN500-2LED Series

Thermoplastic LED combination unit

Cluster™ LED Family

Quick™ QLX & QLXN Exit series PG. 40-41

Cluster™ LED LCA-2LEDR Unit & ELF652D Remote Head Series PG. 86-87

ELF652D/LED Remote head PG. 86

ELF652D/ LED-WP Remote head PG. 86

Construction

- UV stabilized thermoplastic body
- Fully adjustable and reversible Cluster™ LED glare-free heads
- 6 inch EXIT lettering legend, available in red or green
- Universal faces (2 faceplates, 1 backplate)
- Field selectable chevrons

Mounting

- Surface mount
- Canopy included for ceiling mount applications
- Universal J-Box mounting finishes

Type of battery

3.6V Nickel-Cadmium battery

Lamp Head Source

White LED 3.6V-4W, with life expectancy 50,000+ hours

Electronics

- Optional Improved Diagnostics
- 120/277 60Hz

Approvals

- UL 924 listed
- Damp location (50F to 104F)
- UL 94, 5VA flame rated

Warranty (subject to proper installation and maintenance)

Three-year full warranty

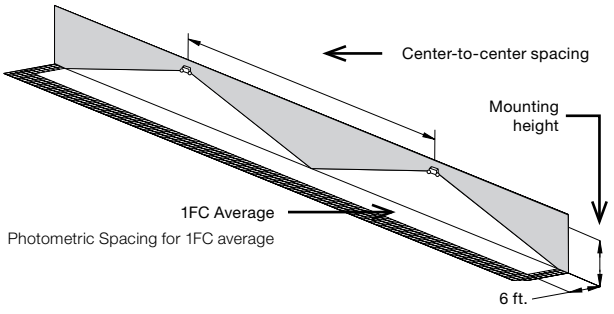
Detailed warranty terms located on **page 197 or online at: www.lightalarms.com**

Power consumption chart

	Current (A) / Power (W)	
Series	120VAC, 60Hz	277VAC, 60Hz
UQLXN500R-2LEDR	0.044/3.56	0.037/4.06
UQLXN500G-2LEDR	0.042/3.2	0.036/3.8

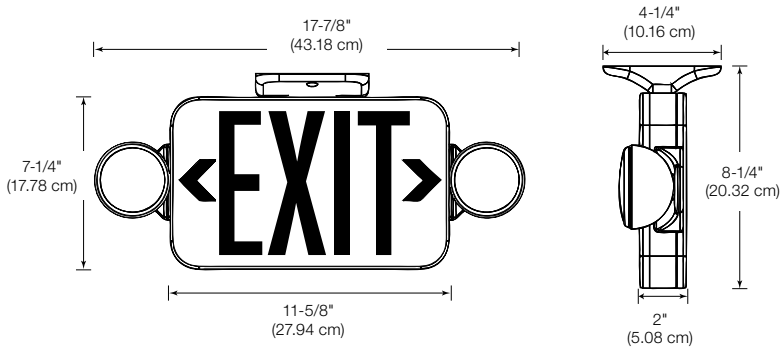
Photometric performance

Spacing center-to-center (feet)	
7 feet mounting height	15 feet mounting height
15'	4'



Dimensions (Dimensions are approximate and subject to change):

Combination unit



Ordering format – UQLXN500-2LED

Series	Legend color	Lamp	Capacity	Color
UQLXN500	**R**= Red **G**= Green	**-2LED**= Cluster™ LED head style	**Blank**= No Option **R=** Remote capacity[1] **RID**= Remote capacity and Improved Diagnostics[1]	**Blank**= Mist-white **B**= Black

Example: UQLXN500R-2LEDR

[1] Remote capacity can only be used to power the ELF652D/LED or ELF652D/LED-WP remote fixtures or to extend the battery units emergency run time beyond the standard 90 minutes.

ELF652D/LED Series

Indoor remote head

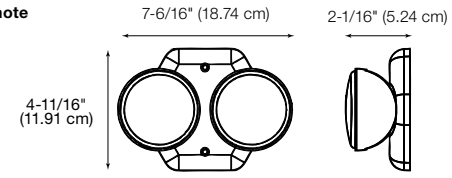
ELF652D/LED-WP Series

Outdoor remote head

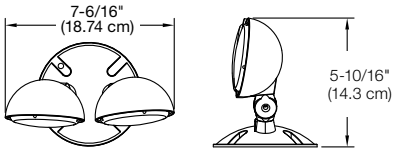
The Cluster™ LED ELF652D/LED Remote head can ONLY be powered from the UQLXN-2LED combo or LCA 2LED battery units of the same family. Used for internal or external applications, the indoor remote head draws 3.6V-3.6W and Weather-Proof head draws 3.6V-3.8W

Dimensions

Indoor remote

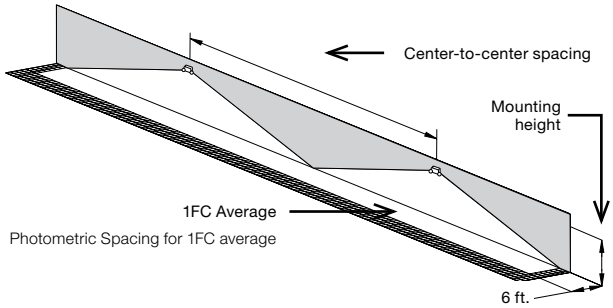


Outdoor remote



Photometric performance

Spacing center-to-center (feet)	
7 feet mounting height	15 feet mounting height
15'	4'



Ordering format

Series	Number of heads	Lamp	Option
ELF652	D= Double head	/LED= Cluster™ LED head style	**Blank**= Indoor use only **-WP**= Weather-proof

Example: ELF652D/LED

Electricity Bills

Manufacturing Road
University Park, PA 16802

Fuel Oil Bills

Manufacturing Road
University Park, PA 16802