

2025 BUSINESS OFFERINGS

LIGHTING



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HOW TO APPLY

NEED HELP? CALL 800.762.7077

FOCUS ON ENERGY® makes saving energy and money easy for Wisconsin businesses. Use the information below to help guide your way to savings. For electronic copies of the forms, visit focusonenergy.com/catalogs.

step 1

BEFORE YOU APPLY:

Verify customer and product eligibility:

- Confirm your gas and/or electric utilities participate in Focus on Energy at focusonenergy.com/utilities.
- Read product requirements, both general and technology-specific, in your equipment's corresponding incentive catalog.
- Review the Participation Requirements page.
- Review the Terms and Conditions at focusonenergy.com/terms.
- View the qualified product lists at focusonenergy.com/qpls.
- Applications exceeding \$10,000 can request pre-approval. Requests received on or before December 12, 2025, will be pre-approved at 2025 incentive rates. Applications not pre-approved may not receive incentive payment if program funds have been exhausted. Pre-approval is considered complete once an incentive agreement is signed by the customer and returned to Focus on Energy.

Qualifying products must be installed by December 31, 2025.

step 2

WHAT YOU'LL NEED:

- Incentive Application and Equipment Incentive Catalog(s).
- Gas and electric utility account numbers.
- Tax ID number.
- Invoice **MUST include:**
 - Trade Ally name, address, and phone number.
 - **An itemized list of products along with manufacturer name, model number, and quantity.**
 - Itemized purchase price of product/installation.
 - Job site address.
- Manufacturer specifications (when required)
 - **MUST include:**
 - Full model number.
 - Energy performance information.
- Additional documentation (when required).

step 3

COMPLETE THIS APPLICATION:

- All fields on the application are required. Incomplete applications cannot be processed.
- Complete SECTION 7 with all product information. Use the Business Incentive Product Information Sheet found at focusonenergy.com/catalogs if you need additional lines.
- Include project completion date (date the most recent product was installed). If project is new construction, use the occupancy date. Project is considered complete when products are installed and operational.
- Complete the catalog-specific Supplemental Data Sheet for applicable measures. An asterisk (*) next to the code indicates when this is needed. Read the measure requirements in your catalog for directions.
- **The utility account holder** must sign and date SECTION 8.
- Ensure supporting documents are attached, including itemized invoice(s).
- Make a copy of the application and supporting documents for your records.

step 4

SUBMIT YOUR APPLICATION:

Mail or email your application and all supporting documentation. **Applications must be submitted within 60 calendar days of project completion**, no later than January

SAMPLE INVOICE

NEED HELP? Call 800.762.7077

Focus on Energy requires a copy of your itemized invoice to process incentives. Use this example to help guide you through our invoice requirements. Only registered Trade Allies can receive incentive payments on behalf of their customers. If submitting a purchase order, submit an invoice as well. **Purchase orders alone are not sufficient documentation.**

INVOICE DATE
AND NUMBER

Date: 1/1/2025
Invoice # 00001

TRADE ALLY
NAME AND ADDRESS

ABC Installation
123 Main St
Anytown, WI 53523
(555) 555-1212

To

CUSTOMER NAME
AND ADDRESS

John's Mini Mart
123 Save Energy Way
Anytown, WI 53590

Ship To

John's Mini Mart
123 Save Energy Way
Anytown, WI 53590

INCLUDE JOB SITE INFORMATION (NAME & ADDRESS) IF DIFFERENT FROM ABOVE

QUANTITY SHIPPED	MANUFACTURER OR BRAND	MODEL #	DESCRIPTION	EXTENDED PRICE
18	ABC Brand	XYZ-24XX50	2x4 LED Troffer	\$ 2,700.00

SPECIFY THE
QUANTITY
FOR EACH

IDENTIFY MANUFACTURER
AND MODEL NUMBERS

INCLUDE A
DETAILED
DESCRIPTION

INCLUDE ITEM COST

If you are a Focus on Energy registered Trade Ally receiving the incentive, you must show the credit to the customer on your invoice

Focus on Energy Incentive \$ (450.00)

Subtotal \$ 2,250.00

Sales Tax \$ 123.75

TOTAL AMOUNT DUE \$ 2,373.75

Thank you for your business!

PARTICIPATION REQUIREMENTS

NEED HELP? Call 800.762.7077

Use the eligibility requirements below to see if your business qualifies for program incentives. You can also visit focusenergy.com to find savings opportunities specific to your business.

CUSTOMER ELIGIBILITY

Incentives included in this catalog are available to all nonresidential customers (agriculture, commercial, government, industrial, and schools) located in a participating utility territory. To see if your utility participates, go to focusenergy.com/utilities.

Typical facility types include:

- ▶ School facilities (e.g., public and private K-12, technical colleges, colleges, universities).
- ▶ Commercial and Industrial facilities (e.g., banks, hotels, offices, convenience stores/gas stations, manufacturing, breweries, restaurants).
- ▶ Healthcare facilities (e.g., nursing homes/skilled nursing, Community-Based Residential Facilities (CBRF), hospitals).
- ▶ Multifamily properties should refer to focusenergy.com/multifamily for available incentives and offerings for common areas and individual units.

NEW CONSTRUCTION & MAJOR RENOVATIONS

Qualifying projects are new, stand-alone commercial and industrial facilities, additions to existing facilities, and major renovations due to a change in the use of space (e.g., a warehouse to office).

Available new construction incentives include prescriptive incentives found in this catalog and Whole Building Design incentives found at focusenergy.com/newconstruction.

INFORMATION AND REQUIREMENTS

Before you start your project, make sure you are familiar with participation requirements, program information, and Terms and Conditions.

General Terms and Conditions

Review the Focus on Energy Terms and Conditions at focusenergy.com/terms or call 800.762.7077 to request a copy.

Incentive Limits

Incentives are limited to \$300,000 per project and \$400,000 per customer per calendar year for all Focus on Energy incentives (prescriptive and custom). Depending on the business tax classification of the payee, the entity receiving the incentive payment may receive IRS form 1099 for incentives totaling over \$600 in a calendar year.

Reminder: Incentives are capped at 100% of equipment cost unless otherwise noted. Equipment cost is the amount paid by the customer for qualifying equipment, excluding any Focus on Energy incentive credit, shipping, and sales tax. Like-for-like equipment replacement due to recall, warranty replacement, etc. is not eligible for an incentive.

Trade Ally Information

A Trade Ally represents the company who provided/installed the equipment for a project or performed the service for which a Customer is seeking an incentive. Trade Allies who have signed an agreement with Focus on Energy are allowed to enjoy certain program benefits, one of which is to receive direct payment of incentives at the Customer's request. Incentives can only be paid

CUSTOM INCENTIVES

Does your project not fit in one of our prescriptive offers?

Custom project incentives are calculated on a case-by-case basis for non-standard technologies and are based on estimated first-year energy savings. Whether you operate a large industrial facility, a chain store or franchise, an office, school or municipal building, a farm, or anything in between, we can show you how to be more energy efficient — and how to save on the cost of making improvements.

Before purchasing equipment or proceeding with upgrades, you must contact an Energy Advisor from Focus on Energy. Your Energy Advisor will help you determine if your project qualifies for a Focus on Energy custom incentive and will help you obtain necessary pre-approval. Refer to the [green](#) 'Custom Project Idea' boxes throughout the catalog for ideas.

To get started with your custom project, download and complete the Custom Incentive Guide at focusenergy.com/business/equipment-replacement.

Reach out to an [Energy Advisor](#) from Focus on Energy to help identify what is best for your project.

New Construction & Major Renovation measures will be denoted with an 'N-' prefix on the Measure Code. If a measure does not have an 'N-' prefix, New Construction & Major Renovation incentives are not offered for that measure.

directly to a registered Trade Ally who has a W-9 on file with Focus on Energy. For more information on becoming a registered Trade Ally, visit focusenergy.com/tradeally.

The Federal Employer Identification Number (FEIN) and Tax Classification of the Trade Ally is required when the incentive is paid directly to the Trade Ally. In this scenario, the credit must be clearly labeled as the Focus on Energy incentive and deducted from the amount due on the Customer's invoice.

If your project was completed by more than one Trade Ally (example, equipment was purchased from one Trade Ally but installed by another Trade Ally) and the incentive is being paid to you the Customer, enter the information of the Trade Ally who installed your equipment in Section 4: Trade Ally Information. If the equipment was self-installed, enter the information of the Trade Ally from whom you purchased the equipment.

Assignment of Incentives to Other Payee

The Customer for the project site listed on the application may assign their right to participate and receive incentives to Other Payee. The Customer must sign Section 8 and identify the Other Payee in Section 5.

INCENTIVE APPLICATION

FOR PROJECTS COMPLETED BY 12/31/2025



Complete all sections. Incomplete applications cannot be processed and will delay payment of incentives.

Applications must be submitted within 60 days of completed project installation, no later than January 31, 2026. For additional copies of this form, visit focusonenergy.com/catalogs.

section 1

ACCOUNT AND CUSTOMER INFORMATION

Tax Identification Number (Check one) ☐ FEIN or ☐ SSN

If you use a Social Security Number (SSN) as your Tax Identification Number, **do not provide it below**. You will be contacted by the Program via email to provide a copy of your W-9 using a secure online portal, if it is not already on file. **You must list an email address in Section 3.**

FEIN

TAX CLASSIFICATION OF CUSTOMER

(Check one. Required for all businesses, including non-profits.)

- ☐ Sole Proprietorship ☐ S Corporation ☐ Partnership
☐ C Corporation ☐ LLC - S Corp ☐ LLC - Partnership
☐ LLC - C Corp ☐ Single-Member LLC
☐ Other _____

OWNER NAME (REQUIRED IF SSN IS USED AS TAX IDENTIFICATION NUMBER)

COMPANY NAME

LEGAL ADDRESS (AS SHOWN ON COMPANY W-9)

CITY STATE ZIP

WHO DID YOU WORK WITH FROM FOCUS ON ENERGY? (CONTACT NAME)

section 2

JOB SITE INFORMATION

(Refer to your utility bills for account numbers below.)

JOB SITE BUSINESS NAME

ELECTRIC UTILITY AT JOB SITE ELECTRIC ACCOUNT #

GAS UTILITY AT JOB SITE GAS ACCOUNT #

- ☐ JOB SITE ADDRESS IS SAME AS LEGAL ADDRESS
☐ JOB SITE ADDRESS IS DIFFERENT (COMPLETE BELOW)

JOB SITE ADDRESS

CITY STATE ZIP

section 3

CUSTOMER CONTACT INFORMATION

JOB SITE CUSTOMER CONTACT NAME

PRIMARY PHONE # EMAIL ADDRESS

Preferred method of contact: ☐ Call ☐ Email ☐ Text

If Focus on Energy has a question about this application, we should contact: ☐ Customer ☐ Trade Ally ☐ Other _____

section 4

TRADE ALLY INFORMATION

TRADE ALLY CONTACT NAME

PRIMARY PHONE # EMAIL ADDRESS

TRADE ALLY COMPANY NAME

ADDRESS

CITY STATE ZIP

section 5

BUSINESS PAYMENT INFORMATION

Payee is responsible for any associated tax consequences.

Make incentive check payable to:

- ☐ Customer ☐ Trade Ally ☐ Other Payee ☐ Rebate Administrator

If Other Payee is selected, the relationship to the utility account holder must be identified below:

- ☐ Tenant ☐ Building Owner ☐ Other (specify) _____

For All Payees this Section MUST be Filled Out

Mail check to: ☐ Customer Legal Address ☐ Job Site Address
☐ Trade Ally Address ☐ Alternate Address

COMPANY NAME

ADDRESS

CITY STATE ZIP

ATTENTION TO (OPTIONAL)

For Trade Ally, Rebate Administrator, and Other Payees

Trade Allies must be registered with the Program to receive payment. All other payees must have a current W-9 on file to receive payment.

Tax Identification Number (Check one) ☐ FEIN or ☐ SSN

If you use a Social Security Number (SSN) as your Tax Identification Number, do not provide it below. You will be contacted by the Program via email to provide a copy of your W-9 using a secure online portal, if it is not already on file. You must list an email address below.

FEIN

Tax Classification of Payee

(Check one. Required for all businesses, including nonprofits.)

- ☐ Sole Proprietorship ☐ S Corporation ☐ Partnership
☐ C Corporation ☐ LLC - S Corp ☐ LLC - Partnership
☐ LLC - C Corp ☐ Single-Member LLC
☐ Other _____

Payee Contact Information

NAME

EMAIL ADDRESS

section 6
BUSINESS PROPERTY TYPE

Select one only. If applying for both existing and new construction equipment incentives please complete two separate applications.
Equipment Upgrades & Retrofits New Construction & Major Renovations
Select one (1) property type that best describes your business:

☐ Agriculture Producer
☐ Dairy - Traditional
☐ Dairy - Robotic
☐ Other:
☐ Education
☐ Financial Institution
☐ Government
☐ Grocery/Convenience Store
☐ Health Services
☐ Hotels & Lodging
☐ Information, Technical & Scientific Services
☐ Manufacturing (product):
☐ Multifamily
☐ Office
☐ Religious & Spiritual Organization
☐ With K+ Daily Education
☐ No K+ Daily Education
☐ Restaurant
☐ Retail
☐ Vehicles Sales/Service
☐ Water/Wastewater
☐ Other:

section 7
INCENTIVE PRODUCT INFORMATION

- Refer to:
- Applicable incentive catalog at focusonenergy.com/catalogs for incentive codes, incentive per unit, and product eligibility requirements.
 - Your invoice for Manufacturer and Model Number.
 - Business Incentive Product Information Sheet at focusonenergy.com/catalogs if additional lines are needed.

PROJECT COMPLETION DATE: / /

Table with 7 columns: INCENTIVE CODE, MANUFACTURER NAME, MODEL #, UNIT MEASURE, # OF UNITS (A), INCENTIVE PER UNIT (B), REQUESTED INCENTIVE (A X B). Includes a subtotal row and an INCENTIVE TOTAL row.

section 8
CUSTOMER SIGNATURE

I, the undersigned Customer, agree the stated energy efficiency measure(s) was (were) installed and are functional at the job site address listed above as part of the Focus on Energy Program. I have read and agreed to the provisions set forth herein and to the Terms and Conditions posted at focusonenergy.com/terms. I understand Focus on Energy may revise these Terms and Conditions at any time, and I will not be notified in the event changes are made. To the best of my knowledge, the statements made on this application are complete, true, and correct, and I have submitted the appropriate supporting documentation to receive an incentive.

If the Customer is identified as the Payee in Section 5, the following certifications are required for this form to substitute for the Internal Revenue Service (IRS) form W-9. Under penalty of perjury, I certify that:

- The number shown on this form is the correct taxpayer identification number.
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the IRS that I am subject to backup withholding as a result of failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding.
- I am a U.S. person.

The IRS does not require my consent to any provision of this document other than the certifications required to avoid backup withholding.

CUSTOMER SIGNATURE NAME (PRINT) DATE

Submit applications and supporting documentation to:
MAIL: Focus on Energy
725 W. Park Avenue
Chippewa Falls, WI 54729
EMAIL: business@focusonenergy.com

*Incentive may be adjusted based on project caps. See measure requirements and Terms and Conditions for more information.



LIGHTING POLICIES

NEED HELP? Call 800.762.7077

The following lighting policies apply to all lighting projects.

PROJECT AND MEASURE DEFINITION

Incentives are for 1-for-1 upgrades and retrofits of existing equipment, unless specified as eligible for new construction.

PRIVATE LABELING GUIDANCE

Focus on Energy requires lighting products to have the brand, model/catalog number(s), specification sheet(s), and invoicing match their respective DesignLights Consortium® (DLC) product listing. For privately labeled products, this means the manufacturer, brand, and model under which the product is being sold must have its own DLC listing separate from any other DLC listing(s) for the original equipment manufacturer (OEM). Should a separate listing for the privately labeled equipment not exist on DLC, the product is subject to disqualification. Focus on Energy is a DLC member utility and therefore adheres to DLC's private label policy.

Why? With LED technology advancements and product choices, it has become increasingly common for LED equipment to be rebranded and sold under another manufacturer, model, and/or brand. This presents challenges for Utility Programs to verify equipment performance and eligibility as the relationship between the OEM and private labeling entity is not always known.

The Program relies solely on DLC to validate equipment performance. DLC listed performance data (tested and reported) is exclusive to the product listed, including the specific manufacturer, and model of the product listed on DLC. The challenges in managing the large number of rebranded products available and the OEM they correspond with has resulted in the Program needing to rely solely on DLC to verify equipment performance. Any product being rebranded will be required to be DLC listed under the rebranded manufacturer and model to prove equipment performance and to be considered for any incentives.

It is strongly advised Trade Allies and customers independently verify equipment is DLC listed under the manufacturer and model for which it is being bought/sold under. Focus on Energy will not be liable for products which are misrepresented as being DLC listed and/or qualifying for an incentive from Focus on Energy. Please contact your Energy Advisor or Focus on Energy if you need assistance in verifying equipment eligibility.

PRODUCT EQUIVALENCY

Product categories presented in this catalog do not imply equivalency. All installations are expected to meet current IESNA recommendations for delivered light level and uniformity. Compliance is the responsibility of the installer.

FIELD ADJUSTABLE LIGHTING OUTPUT GUIDANCE

Field adjustable products allow for the wattage, light level output, or color temperature of the fixture to be modified by means of a switch or fixture setting. Field adjustable products are most common in downlights and troffers.

DLC and ENERGY STAR® lists the highest wattage in their technical specifications for field adjustable products. For measures requiring adherence to a specific wattage limit, Focus on Energy will base equipment eligibility on the wattage stated on the DLC listing, ENERGY STAR listing, or specification sheet.

Field adjustable fixtures where the wattage has been adjusted to be within a qualifying wattage limit for a Focus on Energy incentive, may be accepted should a separate written statement from the customer or Trade Ally be provided with the incentive application. The written statement must clearly identify the quantity of fixtures being applied for where the settings have been adjusted accordingly. This statement must specify which setting is used (by referencing room types or fixture code on the drawings) and should include a photo of the fixture or control system demonstrating these settings have been applied. Failing to provide this documentation will result in Focus on Energy referencing the DLC listing, ENERGY STAR listing, or specification sheet wattage for the purpose of determining equipment eligibility.

MUNICIPAL ROADWAY LIGHTING

Customers applying for municipal roadway lighting must submit a copy of utility bill verifying customer is on a utility rate for customer owned streetlights. Utility owned streetlights are not eligible for incentives.

UL TYPE B PRODUCTS

By signing the application, customers agree that necessary steps have been taken to ensure product, luminaire, and maintenance safety when directly wiring UL Type B products to line voltage.

ADDITIONAL NEW CONSTRUCTION GUIDANCE

Fixture-based incentives are available for new construction and major renovation of facilities when installing a total of 400 or fewer interior fixtures. New construction and major renovation projects installing more than 400 interior fixtures must apply using the Interior Lighting Power Density incentive on page 18. All exterior new construction lighting should utilize fixture-based incentives found in the appropriate measure section.

2025 LIGHTING INCENTIVE CATALOG SUPPLEMENTAL DATA SHEET (SDS)

THIS FORM MUST BE ATTACHED TO COMPLETED INCENTIVE APPLICATION AND SUBMITTED TOGETHER.
FOR PROJECTS INSTALLED BY 12/31/2025. **NEED HELP? CALL 800.762.7077**

HOW TO FILL OUT THIS FORM

Refer to the **Lighting Incentive Catalog** for measure requirements and information.

- For electronic version of SDS, visit focusonenergy.com/catalogs.
- New Equipment wattage should reference the DLC Solid State Lighting (SSL) Qualified Product List (QPL) listed (V5.0 or higher) performance data (Reported or Tested), ENERGY STAR certificate rated wattage, or specification sheet wattage for the installed model.
- For watts reduced measures (Table A), see system wattage table on page 9 for 'wattage of existing equipment' inputs.

Attach and submit this form with a completed **Incentive Application**.

CUSTOMER INFORMATION

JOB SITE BUSINESS NAME

JOB SITE ADDRESS

TRADE ALLY NAME

REMINDER

Exact model numbers and manufacturer of equipment installed must be identified on invoicing and any qualified product list when required.
For Focus on Energy's Private Label policy, see page 8 of the Lighting Incentive Catalog.

A WORKSHEET FOR WATTS REDUCED MEASURES

PAGES 12, 19

INCENTIVE CODE: L4813, R5235, R5236, L10287, L10288, L10289, L10290.

LOCATION	INCENTIVE CODE	TYPE OF EXISTING EQUIPMENT	(A) WATTS/FIXTURE, EXISTING EQUIPMENT	(B) QUANTITY OF EXISTING EQUIPMENT	TYPE OF NEW EQUIPMENT	(C) WATTS/FIXTURE, NEW EQUIPMENT	(D) QUANTITY OF NEW EQUIPMENT*	(E) WATTS REDUCED PER FIXTURE (A - C)	(F) INCENTIVE RATE (\$/WATT REDUCED)	TOTAL INCENTIVE** (D X E X F)
(Example) Office	L4813	1 - 42w CFL	46W	5	10W LED Track Head	10W	5	36	\$0.15/W Reduced	\$27.00

B WORKSHEET FOR WATTS CONTROLLED MEASURES

PAGES 16-17

INCENTIVE CODE: L3406, L5061, L5062, L4812, L5063, L5064, L10223, L10224.

LOCATION	INCENTIVE CODE	FIXTURE DESCRIPTION	(A) WATTAGE PER FIXTURE	(B) QUANTITY OF FIXTURES	(C) TOTAL WATTS CONTROLLED (A X B)	(D) INCENTIVE RATE (\$/WATT CONTROLLED)	TOTAL INCENTIVE** (C X D)
(Example) School	L3406	45W LED 2x4 Troffer	45	75	3,375W	\$0.10	\$337.50

**Focus on Energy may adjust total incentive based on projects caps or variances in wattages provided for existing or proposed conditions. See measure requirements and Terms and Conditions for more information.

DEFAULT SYSTEM WATTAGE TABLES

FOR COMMON CFL DOWNLIGHTS

Existing Lamp Configuration	Total System Wattage
(1) 13W CFL	16
(1) 18W CFL	23
(1) 26W CFL	31
(1) 32W CFL	35
(1) 42W CFL	46
(1) 36/39W 2G11 CFL	51
(1) 40W 2G11 CFL	48
(1) 55W 2G11 CFL	58
(2) 13W CFL	32
(2) 18 W CFL	46
(2) 26W CFL	62
(2) 32W CFL	70

FOR COMMON HID SYSTEMS

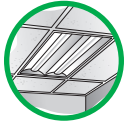
Existing Lamp Configuration	Total System Wattage
50W HID	65
70W HID	94
100W HID	126
125W HID	146
150W HID	179
175W HID	210
200W HID	232
250W HID	293
320W HID	356
400W HID	455
750W HID	812
1,000W HID	1,079

FOR COMMON LINEAR FLUORESCENT SYSTEMS

Existing Lamp Configuration	Total System Wattage
4-Foot Fixtures	
1L F32 T8 Normal BF	33
1L F34 T12	39
1L F40 T12	39
1L F54 T5HO	62
2L F32 T8 Normal BF	61
2L FU32T8/6	55
2L F34 T12	66
2L F40 T12	79
2L FU40T12	72
2L F54 T5HO	117
3L F32 T8 Normal BF	91
3L F34 T12	103
3L F40 T12	124
4L F54 T5HO	234
4L F32 T8 Normal BF	120
4L F32 T8 High BF	151
4L F34 T12	136
4L F40 T12	153
6L F54 T5HO	355
6L F32 T8 High BF	224
8L F54 T5HO	468
8L F32 T8 High BF	291
10L F54 T5HO	585
10L F32 T8 High BF	368
12L F32 T8 High BF	442
8-Foot Fixtures	
1L F96T8	61
2L F96T8	107
1L F96T12	69
1L F96T12/HO	115
2L F96T12	109
2L F96T12/HO	190

LED FIXTURES

LED HIGH PERFORMANCE TROFFERS

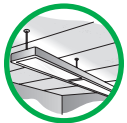


Requirements:

- For 1-for-1 replacement of T12 or standard T8 fluorescent fixtures as noted in measure descriptions.
- 1x4, 2x4, and 2x2 LED products must be DLC SSL QPL listed (TRT V5.0 or higher) in the “Troffer” general application.

Application	Measure Description	Code	Incentive	Unit
Interior	1x4 or 2x4 LED, ≤43W replacing 1- or 2-lamp T8 or T12 troffer	L5459	\$10	Fixture
	2x4 LED, ≤55W replacing 3- or 4-lamp T8 or T12 troffer	L3111	\$25	Fixture
	2x2 LED, ≤39W, replacing 2 or more T8 or T12 lamps	L3400	\$15	Fixture
	2x2 LED, ≤85W, replacing 2 or more 2G11 base lamps	L3401	\$25	Fixture
	1x4 or 2x4 LED, ≤43W replacing 1- or 2-lamp T8 or T12 troffer with LLLC	L10214	\$15	Fixture
	2x4 LED, ≤55W replacing 3- or 4-lamp T8 or T12 troffer with LLLC	L10213	\$30	Fixture
	2x2 LED, ≤39W, replacing 2 or more T8 or T12 lamps with LLLC	L10211	\$20	Fixture
	2x2 LED, ≤85W, replacing 2 or more 2G11 base lamps with LLLC	L10212	\$30	Fixture
Interior	1x4 or 2x4 LED, ≤43W instead of 1- or 2-lamp T8 or T12 troffer	N-L5459	\$5	Fixture
	2x4 LED, ≤55W instead of 3- or 4-lamp T8 or T12 troffer	N-L3111	\$15	Fixture
	2x2 LED, ≤39W, instead of fixture with 2 or more T8 or T12 lamps	N-L3400	\$6	Fixture
	2x2 LED, ≤85W, instead of fixture with 2 or more 2G11 base lamps	N-L3401	\$15	Fixture

LED LINEAR AMBIENT FIXTURES



Requirements:

- For 1-for-1 replacement of T12 or standard T8 fluorescent fixtures as noted in measure descriptions.
- Must be DLC SSL QPL listed (TRT V5.0 or higher) in the “Linear Ambient” general application.
- Fixtures which are DLC SSL QPL listed (TRT V5.0 or higher) in the Low-Bay General Application Category or the “Stairwell and Passageway Luminaires” primary use category are also eligible, provided they have a linear profile.
- Stairwell and Passageway fixtures may also apply for bi-level occupancy controls.

Application	Measure Description	Code	Incentive	Unit
Interior	1' to 3' LED Linear Ambient Fixture, Interior	L10281	\$6	Fixture
	4' LED Linear Ambient Fixture, Interior	L10282	\$12	Fixture
	8' LED Linear Ambient Fixture, Interior	L10283	\$24	Fixture
Exterior	1' to 3' LED Linear Ambient Fixture, Exterior	L10284	\$6	Fixture
	4' LED Linear Ambient Fixture, Exterior	L10285	\$12	Fixture
	8' LED Linear Ambient Fixture, Exterior	L10286	\$24	Fixture
Interior	1' to 3' LED Linear Ambient Fixture, Interior	N-L10281	\$4	Fixture
	4' LED Linear Ambient Fixture, Interior	N-L10282	\$8	Fixture
	8' LED Linear Ambient Fixture, Interior	N-L10283	\$16	Fixture
Exterior	1' to 3' LED Linear Ambient Fixture, Exterior	N-L10284	\$4	Fixture
	4' LED Linear Ambient Fixture, Exterior	N-L10285	\$8	Fixture
	8' LED Linear Ambient Fixture, Exterior	N-L10286	\$16	Fixture

LED FIXTURES

LED DOWNLIGHTS



Requirements:

- Fixtures must be listed on ENERGY STAR as a “Downlight Recessed,” “Downlight Solid State Retrofit,” “Downlight Surface Mount,” “Ceiling Mount,” or “LED Surface Mount Ceiling Retrofit” fixture type and be intended for commercial use.

Application	Measure Description	Code	Incentive	Unit
Interior	LED Downlight Fixtures replacing Incandescent, CFL, or HID fixture	L10028	\$10	Fixture
Exterior	LED Downlight Fixtures replacing Incandescent, CFL, or HID fixture	L10029	\$15	Fixture
Interior	LED Downlight Fixture instead of incandescent, CFL, or HID fixture	N-L10028	\$5	Fixture
Exterior	LED Downlight Fixtures instead of Incandescent, CFL, or HID fixture	N-L10029	\$7	Fixture

LED TRACK/ACCENT FIXTURES



Requirements:

- Fixtures must be DLC SSL QPL listed (TRT V5.0 or higher) in the “Track or Mono-point Luminaires” or “Wall-wash Luminaires” primary use categories. Fixtures must be intended for commercial use.
- Must be permanently wired fixtures and include housing, lens, heat sink, driver, and light source.

Application	Measure Description	Code	Incentive	Unit
Interior	LED track/mono/accent fixtures replacing incandescent, CFL, or HID fixture	L4813*	\$0.20	Watt Reduced
Interior	LED track/mono/accent fixtures replacing incandescent, CFL, or HID fixture	N-L4813*	\$0.15	Watt Reduced

*Complete Table A on the Supplemental Data Sheet.

LED SIGN LIGHTING



Requirements:

- Applications include, but are not limited to, channel lettering, backlit displays, and menu boards.
- Signs illuminated by screw-in or pin-based lamps, track lights, or flood lights should refer to the corresponding incentive.

Application	Measure Description	Code	Incentive	Unit
Interior	LED Signage	L3903	\$0.30	Watt Installed
Exterior	LED Signage	L3904	\$0.30	Watt Installed

HOW TO APPLY: SIGN LIGHTING

Enter the total installed wattage of all illuminated components of the sign in column A of Section 7.

LED FIXTURES

LED HIGH AND LOW BAY FIXTURES



Requirements:

- Must be DLC SSL QPL listed (TRT V5.0 or higher) in the “High-Bay” or “Low-Bay” general applications.
- Fixtures for low-bay applications may use products that are DLC SSL QPL listed (TRT V5.0 or higher) under the “Linear Ambient” General Application category, “Fuel Pump Canopy Luminaires”, or “Parking Garage Luminaires” Primary Use Designation, if they provide sufficient lighting levels and meet the wattage limitations in the table below.

Application	Measure Description	Code	Incentive	Unit
Interior	≤155W LED, replacing 250W HID	L3091	\$55	Fixture
	≤250W LED, replacing 320-399W HID	L3092	\$60	Fixture
	≤250W LED, replacing 400W HID	L3093	\$90	Fixture
	≤365W LED, replacing 400W HID	L3094	\$55	Fixture
	≤500W LED, replacing 1000W HID	L3095	\$150	Fixture
	≤800W LED, replacing 1000W HID	L3096	\$90	Fixture
	≤85 Watts, Replacing 4 Lamp 4' or 2 Lamp 8' T8 or T12	L5460	\$15	Fixture
	≤125 Watts, Replacing 4 Lamp 4' or 2 Lamp 8' T12HO	L5461	\$35	Fixture
	≤180W LED, replacing 6L T8 or 4L T5HO	L3393	\$45	Fixture
	≤250W LED, replacing 8L T8 or 6L T5HO	L4347	\$60	Fixture
	≤300W LED, replacing 10L T8 or 8L T5HO	L4795	\$90	Fixture
	≤350W LED, replacing 12L T8 or 10L T5HO	L4796	\$130	Fixture
	≤155W LED, replacing 250W HID with LLLC	L10215	\$65	Fixture
	≤250W LED, replacing 400W HID with LLLC	L10216	\$110	Fixture
	≤180W LED, replacing 6L T8 or 4L T5HO with LLLC	L10217	\$55	Fixture
	≤250W LED, replacing 8L T8 or 6L T5HO with LLLC	L10218	\$75	Fixture
Interior	≤85 Watts, Instead of 4 Lamp 4' or 2 Lamp 8' T8 or T12	N-L5460	\$10	Fixture
	≤180W LED, instead of 6L T8 or 4L T5HO	N-L3393	\$25	Fixture
	≤250W LED, instead of 8L T8 or 6L T5HO	N-L4347	\$40	Fixture
	≤300W LED, instead of 10L T8 or 8L T5HO	N-L4795	\$50	Fixture
	≤350W LED, instead of 12L T8 or 10L T5HO	N-L4796	\$70	Fixture

PRO TIP

Drive deeper energy savings with your high-bay fixtures by adding occupancy or network-based controls. See page 16 for available controls incentives.

LED FIXTURES

LED AREA FIXTURES AND RETROFIT KITS



Requirements:

- Must be DLC SSL QPL listed (TRT V5.0 or higher) in an “Outdoor Luminaries” or “Outdoor Retrofit Kit” category, with the measure output below corresponding to the General Application category.
- Stadium lighting is not eligible for prescriptive incentives. Contact your Energy Advisor to determine eligibility for a custom incentive.
- Fixtures equipped with light shields to prevent light from leaving the property can be considered eligible, even if not DLC listed, if the equivalent fixture without the shield is DLC listed.
- For Stairwell and Passageway fixtures, apply using the appropriate Linear Ambient Fixture and Bi-Level Controls incentives.
- Customers applying for municipal roadway lighting must submit a copy of the utility bill verifying customer is on a utility rate for customer-owned street lights. Utility-owned street lights are not eligible for incentives.



Application	Measure Description	Code	Incentive	Unit
Exterior	DLC Category: Outdoor – Low Output	L4280	\$25	Fixture
	DLC Category: Outdoor – Mid Output	L4281	\$45	Fixture
	DLC Category: Outdoor – High Output	L4282	\$90	Fixture
	DLC Category: Outdoor – Very High Output	L4283	\$230	Fixture
Exterior	DLC Category: Outdoor – Low Output	N-L4280	\$15	Fixture
	DLC Category: Outdoor – Mid Output	N-L4281	\$30	Fixture
	DLC Category: Outdoor – High Output	N-L4282	\$70	Fixture
	DLC Category: Outdoor – Very High Output	N-L4283	\$150	Fixture
	DLC Category: Outdoor – Low Output with LLLC	N-L5065	\$25	Fixture
	DLC Category: Outdoor – Mid Output with LLLC	N-L5066	\$50	Fixture
	DLC Category: Outdoor – High Output with LLLC	N-L5067	\$120	Fixture
	DLC Category: Outdoor – Very High Output with LLLC	N-L5068	\$250	Fixture

LED LAMPS

General Requirements: Incentive is limited to 50% of the retail product cost. Product cost is the amount paid by the customer for qualifying equipment, excluding any Focus on Energy incentive credit, shipping, and sales tax.

LED MOGUL SCREW-BASE (E39) LAMP



Requirements:

- Must be DLC SSL QPL listed (TRT V5.0 or higher) in the “Mogul (E39) Screw-Base Replacements for HID Lamps” category.
- Interior medium screw-base (E26) lamps may be eligible if E39 option is DLC listed. Contact Focus on Energy for assistance.

Application	Measure Description	Code	Incentive	Unit
Interior	Mogul Screw-Base (E39) replacing existing E39 base lamp	L10042	\$30	Lamp
Exterior	Mogul Screw-Base (E39) replacing existing E39 base lamp	L10043	\$30	Lamp

Incentive is limited to 50% of the retail product cost.

LED FOUR PIN-BASE LAMP



Requirements:

- Must be DLC SSL QPL listed (TRT V5.0 or higher) in the “Four Pin-Base Replacement Lamps for CFLs” category.

Application	Measure Description	Code	Incentive	Unit
Interior	Four Pin-Base Lamp replacing CFL	L10039	\$5	Lamp
Exterior	Four Pin-Base Lamp replacing CFL	L10040	\$5	Lamp

Incentive is limited to 50% of the retail product cost.

LED LINEAR REPLACEMENT LAMPS



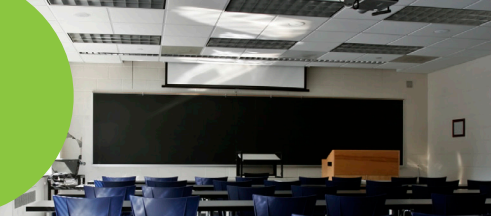
Requirements:

- Must be DLC SSL QPL listed (TRT V5.0 or higher) in the “Linear Replacement Lamps” category.
- Measures are not intended for refrigerated display case applications.
- Measures can be used for 8' retrofit products. Apply for the corresponding lamp length and quantity installed.

Application	Measure Description	Code	Incentive	Unit
Interior	4' or U-Bend TLED ≤24W, replacing 4' or U-Bend T5, T8, or T12 Lamp	L5451	\$2.50	Lamp
	4' TLED, replacing 4' T5HO Lamp	L5452	\$5.00	Lamp
	2' or 3' TLED, replacing 2' or 3' T8 or T12 Lamp	L5453	\$2.00	Lamp
	8' TLED, replacing 8' T8 or T12 Lamp	L5454	\$5.00	Lamp
Exterior	4' or U-Bend TLED ≤24W, replacing 4' or U-Bend T5, T8, or T12 Lamp	L5456	\$2.50	Lamp
	8' TLED, replacing 8' T8 or T12 Lamp	L5458	\$5.00	Lamp

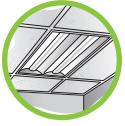
Incentive is limited to 50% of the retail product cost.

LIGHTING CONTROLS



General Requirements: Controls may be installed on existing lighting equipment or in conjunction with new equipment listed throughout the catalog. Sensors may control more than one fixture. Control costs should be itemized separately on invoice. For controls that are integral to new fixtures, provide supporting documentation to show the cost of the fixtures without controls included.

ADVANCED LIGHTING CONTROLS



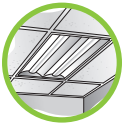
Requirements:

- Measure is for the installation of Networked Lighting Controls (NLC) or Luminaire Level Lighting Controls not otherwise specified in the catalog.
- NLC systems must be DLC NLC QPL (NLC5 or higher) and have the following Networked Lighting Controls capabilities set up and operational for individual fixtures:
 - Occupancy Sensing.
 - Zoning.
 - Individual Addressability.
- Measure cannot be combined with other controls measures.
- New Construction projects should refer to the LPD measure.

Application	Measure Description	Code	Incentive	Unit
Interior	Advanced Lighting Controls, Interior	L10223*	\$0.20	Watt Controlled
Exterior	Advanced Lighting Controls, Exterior	L10224*	\$0.20	Watt Controlled

*Complete Table B on the Supplemental Data Sheet.

DAYLIGHTING CONTROLS



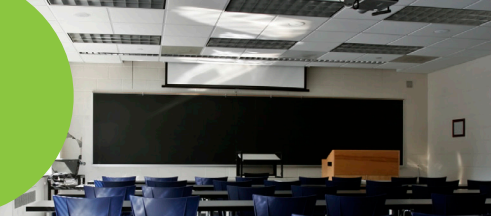
Requirements:

- Must be step dimmed with at least one level in addition to full power and off or continuous dimming controls.
- Inventory of fixtures controlled (including quantity, fixture type, and number of lamps per fixture) by space type or lighting diagram must be submitted with the application.
- Controls using both occupancy and daylighting strategies should apply for Advanced Lighting Controls incentives.

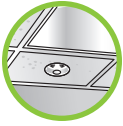
Application	Measure Description	Code	Incentive	Unit
Interior	Daylighting Controls	L3406*	\$0.15	Watt Controlled

*Complete Table B on the Supplemental Data Sheet.

LIGHTING CONTROLS



OCCUPANCY CONTROLS



Requirements:

- Must be ultrasonic, passive infrared, microwave, or dual technology occupancy/vacancy sensors and rated for controlling fixtures according to the application (high-bay, low-bay, or general interior).
- Socket-based occupancy sensors do not qualify.
- Timers do not qualify for prescriptive incentives, but may be eligible for custom incentives.

Application	Measure Description	Code	Incentive	Unit
High-Bay/ Low-Bay	On/Off Occupancy Control	L5061*	\$0.15	Watt Controlled
High-Bay/ Low-Bay	Bi-Level Occupancy Control	L5062*	\$0.15	Watt Controlled
Interior	Occupancy/Vacancy Sensor	L4812*	\$0.15	Watt Controlled

*Complete Table B on the Supplemental Data Sheet.

PARKING GARAGE CONTROLS



Requirements:

- Controls must be occupancy or occupancy schedule based and may include dimming, stepped dimming, or high/low ballast controls.
- If passive infrared and/or ultrasonic occupancy sensors are used, system must have a fail-safe feature (fails in "on" position).
- Fixtures must operate in a low-standby light level during periods of low occupancy, and cannot exceed 50% of full wattage during unoccupied periods.

Application	Measure Description	Code	Incentive	Unit
Dusk to Dawn	Bi-Level Controls, Parking Garage Lighting	L5063*	\$0.15	Watt Controlled
24 Hour	Bi-Level Controls, Parking Garage Lighting	L5064*	\$0.15	Watt Controlled

*Complete Table B on the Supplemental Data Sheet.

OTHER LIGHTING SOLUTIONS

NEW CONSTRUCTION LIGHTING POWER DENSITY



Requirements:

- Incentives are available for new construction and major renovations where Lighting Power Density (LPD) thresholds would apply. Projects participating in this offering are NOT eligible for individual interior lighting measures.
- Required documentation (COMCheck™, floorplan, and/or lighting layout) must be signed by a lighting professional with one or more of the following credentials:
 - Lighting Certification (LC) designation from National Council on Qualifications for the Lighting Professions (NCQLP).
 - Certified Lighting Efficiency Professional (CLEP) from the Association of Energy Engineers (AEE).
 - Certified Lighting Management Consultant (CLMC).
 - State of Wisconsin Professional Engineer (PE) License.
 - Member of International Association of Lighting Designers (IALD).
 - Lighting Specialist II certification from National Association of Innovative Lighting Distributors (NAILD).
 - Commercial and Industrial Lighting Certificate from the Illuminating Engineering Society of America (IES).
 - Registered designer of electrical engineering systems in the state of Wisconsin.
 - Member of the Institute of Electrical and Electronics Engineers (IEEE).
 - Other credential(s) approved by Focus on Energy.
- **Complete the Interior Lighting workbook. Download a copy at focusonenergy.com/catalogs.**
- Incentives are based on LPD requirements of current Wisconsin Energy Code, which allows the use of International Energy Conservation Code (IECC) 2015 or ASHRAE/IES 90.1-2013 with Wisconsin Amendments found in SPS Chapter 363.
- All installations are expected to meet current IESNA recommendations for delivered light level and uniformity. Compliance is the responsibility of the installer designer.
- Installed lamps purchased at participating instant discount retailers disqualify the LPD measure.
- Controls systems must be DLC NLC QPL listed (NLC5 or higher) and have the following Networked Lighting Controls capabilities set up and operational for individual fixtures:
 - Occupancy sensing.
 - Zoning.
 - Individual Addressability.
- Industrial, Schools, and Government customers installing NLC in high-bay spaces or spaces requiring daylighting controls are not eligible for NLC incentives. NLC is eligible when installed in other spaces or for any commercial facility.
- Upon project completion, the following must be included in addition to standard application requirements:
 - Documentation to verify square footage as-built (COMcheck or professional floorplan with dimensions).
 - Documentation to verify total connected wattage as-built (COMcheck or professional lighting layout indicating where fixtures are installed PLUS fixture cut sheets for all installed fixtures).

Application	Measure Description	Code	Incentive	Unit
Interior	Lighting Power Density (LPD) better than code requirements	N-L4948	\$0.04	kWh Reduced
	Networked Lighting Controls (NLC) better than code requirements	N-L5233	\$0.04	kWh Reduced

REMINDER

As-built documentation must be provided to verify square footage and total connected wattage.

OTHER LIGHTING SOLUTIONS



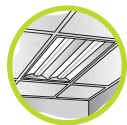
Requirements:

- For refrigerated warehouse spaces less than 35°F. Walk-in coolers and freezers are not eligible.
- Only heat load reduction due to lighting upgrade from HID or fluorescent fixtures to LED fixtures are eligible. Lighting upgrade limited to fixtures that are eligible for the high and low bay measures on page 12 and linear ambient measures on page 11.
- Refrigeration savings measure must be submitted at the same time the incentive application for the lighting upgrade is submitted.
- Cooler space is defined as having evaporator temperatures from 10°F to 35°F. Freezer space is defined as having evaporator temperatures from -25°F to -15°F.

Application	Measure Description	Code	Incentive	Unit
Interior	Refrigeration Savings for Lighting Upgrades in Freezers	R5235*	\$0.15	Lighting Watts Reduced
	Refrigeration Savings for Lighting Upgrades in Coolers	R5236*	\$0.15	Lighting Watts Reduced
Interior	Refrigeration Savings for Lighting Upgrades in Freezers	N-R5235*	\$0.10	Lighting Watts Reduced
	Refrigeration Savings for Lighting Upgrades in Coolers	N-R5236*	\$0.10	Lighting Watts Reduced

*Complete Table A on the Supplemental Data Sheet.

GENERAL WATTAGE REDUCTION AND FIXTURE ELIMINATION



Requirements:

- The General Wattage Reduction measure can be used for LED to LED upgrades, products installed outside of their intended end-use and/or products not ENERGY STAR or DLC listed.
- The Fixture Elimination measure can be used in conjunction with lighting redesigns and upgrades where remaining fixtures are being upgraded. The measure is not eligible for fixture removal only. Use available prescriptive measures for quantity of upgraded fixtures.
- Installed fixtures must operate a minimum of 1,500 hours per year. Fixtures operating fewer than 1,500 hours per year may be eligible for a custom incentive.
- Pre-approval is required for projects requesting over \$10,000 of incentives from these measures.

Application	Measure Description	Code	Incentive	Unit
Interior	Fixture Elimination, Interior	L10289*	\$0.15	Watt Reduced
	General Wattage Reduction, Interior	L10287*	\$0.15	Watt Reduced
Exterior	Fixture Elimination, Exterior	L10290*	\$0.15	Watt Reduced
	General Wattage Reduction, Exterior	L10288*	\$0.15	Watt Reduced

*Complete Table A on the Supplemental Data Sheet.

GLOSSARY

Acronyms, abbreviations, and technical terms used throughout this catalog are defined below.

ACRONYMS AND ABBREVIATIONS

1x4	One foot by four feet in dimension (nominal)	kW	Kilowatts
2x2	Two feet by two feet in dimension (nominal)	kWh	Kilowatt-hours
2x4	Two feet by four feet in dimension (nominal)	LED	Light emitting diode
A-Lamp	Standard incandescent lamp shape	LLLC	Luminaire-Level Lighting Controls
ANSI	American National Standards Institute	lm	Lumen(s)
BF	Ballast factor	lm/W	Lumens per Watt
BR Lamp	Bulged reflector lamp	NEC	National Electric Code
CCT	Correlated color temperature	MH	Metal halide
CEE	Consortium for Energy Efficiency	MV	Mercury vapor
CFL	Compact fluorescent lamp	PAR Lamp	Parabolic aluminized reflector lamp
CMH	Ceramic metal halide	PSMH	Pulse-start metal halide
CRI	Color Rendering Index	QPL	Qualified products list
DLC	DesignLights Consortium®	R Lamp	Reflector lamp
DOE	U.S. Department of Energy	RWT8	Reduced wattage 1" diameter fluorescent lamp
ES	ENERGY STAR®	SDS	Supplemental data sheet
G Lamp	Globe-shaped light bulb, generally for exposed use	SSL	Solid-state lighting
HID	High-intensity discharge. Includes: HPS, MH, CMH, PSMH, and mercury vapor	T5	5/8" diameter tubular lamp
HO	High output	T8	1" diameter tubular lamp
HPS	High-pressure sodium	T12	1½" diameter tubular lamp
HPT8	High performance 1" diameter fluorescent lamp	VHO	Very high output
IESNA	Illuminating Engineering Society of North America	W	Watt(s) demand for electricity and natural gas

GLOSSARY TERMS

A Lamp

Standard incandescent lamp shape, typically with an omnidirectional distribution of light.

Average Rated Life

An average rating, in hours, indicating end of useful life. For most lamps, this indicates when 50% of a large group of lamps will have failed, when operated at nominal lamp voltage and current. For LED, this would be the point at which the light system has depreciated to an unacceptable level and needs to be replaced, often when it has dropped to 70% of initial light output.

Ballast

An electrical control device that initiates the light arc in fluorescent and HID lights with high starting voltage and regulates the operation of the lamp.

Ballast Factor (BF)

The ratio of the light output of a fluorescent lamp or lamps operated on a ballast to the light output of the lamp(s) operated on a standard (reference) ballast. BF depends

on both the ballast and the lamp type; a single ballast can have several ballast factors depending on lamp type. Rated Lamp Lumens x BF = Net Lumen output for the system. Also referred to as relative light output. Typically grouped into Low (≤ 0.85), Normal (> 0.85 to ≤ 1.0) and High (≥ 1.01) light output categories.

Bi-Level Control

Device that controls light source intensity at two discrete levels in addition to off.

Bollards

Lights mounted on short, heavy piers or posts. They are used mostly for larger residences and campus settings.

Bulged Reflector Lamp (BR Lamp)

Flood style lamp with wide, diffuse beam. Often used in downlights for general lighting.

Canopy Lighting

Recessed or surface-mounted lighting on the underside of a covered drive through, covered walkway, or covered gasoline pumping station.

Color Rendering Index (CRI)

A rating index commonly used to represent how well a light source renders the colors of objects that it illuminates. The maximum value of 100 indicates that the colors of objects can be expected to be seen as they would appear under an incandescent or natural daylight. Sources with CRI values less than 50 are generally regarded as rendering colors poorly.

Consortium for Energy Efficiency (CEE)

CEE is the U.S. and Canadian consortium of gas and electric efficiency program administrators. CEE works together to accelerate the development and availability of energy-efficient products and services for lasting public benefit.

Continuous Dimming

Control of a light source's intensity to practically any value within a given operating range.

GLOSSARY TERMS CONTINUED

Correlated Color Temperature (CCT)

A measure of the color appearance of a light source relative to a black body at a particular temperature expressed in degrees Kelvin (K). Incandescent lights have a low color temperature (approximately 2700K) and have a red-yellowish tone; daylight has a high color temperature (approximately 5000K) and appears bluish (fluorescent Cool White is rated at 4100K).

Cove Lighting

Light built into a cove, a shelf, or ledge at the upper part of a wall, to illuminate the ceiling and upper wall area.

Daylight Sensor

A device which senses the amount of daylight in a room and adjusts the electric lighting accordingly.

Decorative Lamps

General service lamps available in a variety of wattages and shapes. Decorative bulbs include flame, teardrop, globe, and candelabra shapes. Typically available in incandescent, CFL, and LED.

DesignLights Consortium® (DLC)

The DLC is an initiative of Efficiency Forward, Inc. As an independent non-profit organization, the DLC provides decision makers with data and resources on quality lighting, controls, and integrated building systems to reduce energy, carbon, and light pollution. Visit designlights.org

Diffuser

Light control device that spreads light by scattering it.

Dimmer

Control that varies the output of the light source by reducing the voltage or current to the lamp.

Directional Lamps

Lamp type which typically integrates a reflector to distribute light forward away from the lamp. Typically used to direct light toward an object or display. Includes flood and spot lamps with a variety of beam patterns (includes PAR, R, BR, MR, and AR types).

Downlights

Light fixtures that direct all of the light in a downward direction. Most often are completely recessed into the ceiling, circular or square shaped, and less than 12" in diameter.

Efficacy

The amount of light produced per watt of electricity (lumens/watt). It is the rate at which a light source is able to convert electrical power (watts) into light (lumens), expressed in terms of lumens per watt (LPW). For example, a 10 watt lamp producing 800 lumens has an efficacy of 80 lumens per watt.

ENERGY STAR®

A U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency.

Flood

Floodlights create a widespread distribution of light for illuminating a wall, sign, or large object or building. A floodlight should be well shielded with an accessory louver or shield to avoid stray light and glare.

Fluorescent Lamps

Lamps which operate by creating an electric arc inside a gas-filled tube. The color of the light is determined by the type of phosphor coating used in the lamp.

Fluorescent Troffers

Recessed fluorescent fixtures for 2-foot and 4-foot lamps, generally in modular sizes (2'x4', 1'x4', 2'x2'); commonly used in commercial spaces.

Flushmount

A type of light fixture that mounts directly to a junction box, typically in the ceiling.

Footcandle

The unit of measure for the density of light as it reaches a surface. One footcandle is equal to one lumen per square foot.

G Lamp

Globe-shaped light bulb, generally for exposed use.

General Lighting

Also known as ambient lighting, general lighting provides an area with overall, non-specific illumination.

Glare

Lighting that causes discomfort and impairs good visibility.

Halogen Lamp

An incandescent lamp that uses a halogen fill gas. Halogen lamps have higher-rated efficacies and longer lives than standard incandescent A-lamps.

High-Bay

Interior Lighting where the roof trusses or ceiling height is greater than approximately 25 feet above the floor. Common in big box retail, warehouse, and industrial settings.

High-Intensity Discharge (HID)

An electric lamp that produces light directly from an arc discharge under high pressure. Metal halide, high-pressure sodium, and mercury vapor are types of HID lamps.

High-Pressure Sodium (HPS)

Lamp type that uses sodium under high pressure as the primary light-producing element. HPS lamps produce a yellow light with a CCT of approximately 2000 Kelvin. HPS lamps are among the most efficacious light sources, with efficacies as high as 150

lumens per watt, although those with higher CRI values have efficacies as low as 25 lumens per watt.

High Voltage

Voltage that exceeds 50 volts.

Illuminance

The density of luminous flux on a surface, is measured in footcandles (one lumen per square foot) or lux (one lumen per square meter).

Incandescent Lamp

Produces light with a wire filament, which creates light as it is heated by electric current.

Induction Lamp

An electrodeless fluorescent lamp which is powered by an electromagnetic induction generator to excite gases within the lamp to light rather than using electrodes internal to the lamp which can wear out.

Initial Lumens

The lumens produced by a lamp after an initial burn in period (usually 100 hours).

Input Watts

The total wattage required by both the ballast or driver and the lamp or light source in a luminaire.

Instant Start

Ballast starting type. Applies high voltage across the lamp with no preheating of the cathode. The higher voltage is necessary because the electrodes are not heated prior to starting. It is more energy efficient than rapid or preheat starting, but results in greater wear on the electrodes during starting. The life of instant-start lamps that are switched on and off frequently may be reduced by as much as 25% relative to rapid-start operation. However, for longer burning cycles (such as 12 hours per start), there may be no difference in lamp life for different starting methods.

Kelvin

Color temperature is measured in degrees Kelvin, which indicate the hue of a specific type of light source. Higher temperatures indicate whiter, "cooler" colors, while lower temperatures indicate yellower, "warmer" colors (see CCT).

Kilowatt (kW)

1000 watts

Kilowatt Hour (kWh)

A unit of measurement for electrical energy usage. One kilowatt hour equals 1000 watts of energy used for one hour.

Job Site

The physical location and address where the measures were installed.

Lamp

The light source within a fixture. Some types are referred to as a bulb or tube.

GLOSSARY TERMS CONTINUED

Lamp Disposal

Refers to the proper recycling of lamps containing mercury or other hazardous materials.

Lamp Holder

Socket inside a housing, which holds the lamp in place and connects it to the electrical source.

Lens

A glass or plastic diffuser used in luminaires to seal a fixture or control the exiting light.

Light Emitting Diode (LED)

A semiconductor diode (electronic components that let electricity pass in only one direction) that emit visible light when electricity is applied and is used in lamps and digital displays. LED is available in a wide variety of colors and lighting fixture types and typically has a much longer-rated life than traditional lighting technologies.

Lighting Controls

Devices that adjust lighting systems to vary light level or turn on or off.

Light Distribution

Pattern of light produced by a fixture or created in a room or in an area.

Line Voltage

The voltage supplied by a power line, measured at the point of use.

Low-Bay

Interior lighting where the roof trusses or ceiling height is approximately 25 feet or less above the floor. Common in warehouses, athletic facilities, and industrial settings.

Low Voltage Lighting

Lighting system that operates on a system that supplies ≤50 volts to the lamps or light sources.

Lumens Per Watt (LPW)

The number of lumens produced by a light source for each watt of electrical power supplied to the light source. Also known as efficacy.

Lumen

Unit of total light output of a light source in all directions, expressed in lumens.

Lumen Depreciation

The decrease in lumen output of a light source over time. The decrease in lumen output that occurs as a lamp is operated, until failure. Also referred to as lamp lumen depreciation (LLD).

Lumen Maintenance

The ability of a lamp to retain its light output over time. Greater lumen maintenance means a lamp will remain brighter longer. The opposite of lumen maintenance is lumen depreciation, which represents the reduction of lumen output over time.

Luminaire

A complete lighting fixture consisting of lamp or lamps together with the socket and parts designed to distribute the light, to position and protect lights, and to connect the lights to their power supply.

Luminaire Efficiency

The ratio, expressed as a percentage, of the light output of a luminaire to the light output of the luminaire's lamp(s) (percentage of the light generated by the light source that actually makes it out of the luminaire). Luminaire efficiency accounts for the optical and thermal effects that occur within the luminaire under standard test conditions.

Luminaire-Level Lighting Controls

The capability to have a networked occupancy sensor, ambient light sensor, and high-end trim installed for each luminaire/kit/lamp, and directly integrated or embedded into the form factor during the manufacturing process.

Mean Lumens

The average lumen output of a lamp over its rated life. Mean lumen values for fluorescent and HID lamps are typically measured at 40% of their rated lives.

Mercury Vapor (MV) Lamp

A high-intensity discharge lamp type that uses mercury as the primary light-producing element. Mercury vapor lamps produce light with a CCT from 3000K to 7000K. Mercury vapor lamps are less efficacious than other HID lamp types, typically producing only 30 to 65 LPW.

Metal Halide (MH) Lamp

A high-intensity discharge lamp type that uses mercury and several halide additives as light-producing elements. MH lamps have better color properties than other HID lamp types because the different additives produce more visible wavelengths, resulting in a more complete spectrum. MH lamps are available with CCTs from 2300K to 5400K and with CRI values from 60 to 93. Efficacies of MH lamps typically range from 75 to 125 LPW.

Multi-Facet Reflector Lamp (MR Lamp)

Multi-facet reflector lamp, of which the most popular is MR16.

Occupancy Sensor

A device which activates a fixture upon sensing the presence of a person in a space.

Parabolic Aluminized Reflector Lamp (PAR Lamp)

Incandescent PAR lamps are constructed of hard glass with a separate back reflector. Also available in CMH and LED. LED PAR lamps typically have a similar overall shape and beam angle of light, but do not actually use the parabolic reflector.

Photocell

Light-sensitive device used to operate fixtures according to available daylight. They are used to integrate an electric lighting system with a daylighting system so lights operate only when daylighting is insufficient and turn outdoor or security lights on and off at dusk and dawn.

Programmed Start

A method of starting fluorescent lamps, associated with electronic ballasts, where low voltage is applied to the cathode to pre-heat prior to lamp ignition. Recommended for use with occupancy sensors.

Rated Lamp Life

See: Average Rated Life

Recessed Fixture

A fixture mounted in the ceiling. With downlights, only the aperture and trim are visible from below. With fluorescent troffers and luminous ceilings, only the light shield is visible.

R Lamp

Reflector lamp whose interior is coated with a reflecting material so as to direct the light forward.

Relamping

A project where the existing lighting fixtures are cleaned and new lamps installed.

Re-Strike

Refers to the restarting of a previously operating HID lamp shortly after turn off. Typically requires a minimum of 4-15 minutes to restart after turn off.

Retrofit

Upgrading a fixture by installing new lighting fixtures, parts, or equipment.

Semi-Specular

A reflective but somewhat diffuse surface.

Soffit

In architecture, the underside of an overhead component. Often used to describe an exterior element under the roofline.

Solid State

Electronics that use semi-conductor chips and circuitry.

Specular

A highly polished or mirrored surface.

Spot Lamp

Reflectorized lamp with a narrow light distribution.

Timer

Device that turns lights on and off at pre-programmed times.

GLOSSARY TERMS CONTINUED

Task Lighting

Lighting directed to a specific area or surface that provides illumination for visual tasks, such as reading, writing, wiring, or grinding.

Thermal Characteristics

The manner in which a luminaire manages heat, either dissipating heat or retaining it.

Track Lighting

Lighting system that utilizes multiple fixtures which operate off a track or strip mounted to the wall or ceiling. May be low voltage or line voltage.

Trim

The edge or visible part of a recessed downlight. The finishing section of the exterior of a recessed fixture.

Troffer

Recessed fluorescent fixture for use in a suspended ceiling; derived from the words “trough” and “coffer.”

TRT vX.X

Acronym for DLC’s Technical Requirements Table followed by version number.

U Lamp

Linear, double-ended fluorescent lamp, usually T8 or T12, bent into a “U” shape.

UL

Underwriters Laboratory. An independent organization whose responsibilities include rigorous testing of electrical products.

Watt

A unit of electrical power.

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