

# LIGHTING FIXTURES AND CONTROLS TECHNICAL SHEET

## ENERGY EFFICIENT COMMUNITIES



### Building Tune-up Program

The Delmarva Power Energy Savings for Business Program offers incentives to install energy efficient [lighting](#) and [lighting controls](#).

To take advantage of these incentives, you must meet the following eligibility requirements:

1. Be a county, state, city, or town government agency
2. Be a Delmarva Power customer in the Maryland territory
3. Have an existing facility, as new construction is not eligible for this program.
4. Not be a temporary account or a vacant facility. These may be eligible for [new construction/major renovation incentives](#).

Multifamily properties are eligible for lighting fixture and control incentives through the Prescriptive Program.

#### All projects require pre-approval.

You can also contact an approved Service Provider to discuss energy efficient equipment options. If you do not have a contractor or vendor in mind, please visit our website for a list of [approved Service Providers](#).

All projects MUST receive pre-approval before purchasing equipment or beginning work. No amount of existing equipment being replaced may be removed or altered, and no amount of proposed equipment applied for may be purchased and/or installed prior to the issuance of a program pre-approval letter. Please review the program process and eligibility requirements on the [program website](#) as well as the [Terms and Conditions](#). Please [contact](#) the program office with any questions.

The Lighting Fixtures and Controls Application is intended to be used for approximately one-for-one fixture replacements or efficiency upgrade retrofits in the Prescriptive Program.

How to Apply:

1. **The Lighting Fixtures and Controls Workbook, which can be downloaded from the program website, must be completed and submitted to the program via the online [Application Center](#). Pre-approval is required before proceeding. The following supporting information must also be included with the application:**
  - Completed and customer-signed [Terms and Conditions](#) (T&Cs)
  - Manufacturer specification sheets for lamps, ballasts, drivers, and lighting controls
  - Current Design Lights Consortium (DLC), ENERGY STAR® or CEE website product qualification screenshots for products, in PDF format (screenshots not applicable to lighting controls)
2. **The Program reviews submitted documentation, revises and/or requests additional documentation as necessary. A site inspection may be required as part of the pre-approval process.**
3. **The Program emails the project pre-approval to the customer and Service Provider.**
4. **If the scope of work has changed, then the as-built workbook must be submitted. If your project increases the incentive amount by more than \$2,500 or 10% of the reserved amount – whichever is greater – a separate application must be submitted for the variance prior to installation and will need to go through the application pre-approval process.**
5. **Once the installation of all proposed equipment is complete and the Delmarva Power customer is satisfied with the equipment and installation, the Delmarva Power customer must sign the program pre-approval letter. The customer-signed pre-approval letter must be uploaded to the online Application Center along with the final detailed invoice(s). The invoice should indicate total project cost, incentive amount, and balance of cost to be paid by customer. The invoice should match the Lighting Fixtures and Controls Workbook.**
6. **The Program may require a post-installation inspection to verify compliance with program rules, accuracy of project documentation, and equipment operation.**
7. **The Program distributes the incentive check to the payee following final approval processing.**

## LIGHTING TECHNICAL REQUIREMENTS

### GENERAL LED REQUIREMENTS

- Installations that are not for permanent use are not eligible for incentives (e.g. equipment that plugs into a receptacle).
- All ENERGY STAR luminaires must be hard-wired. Screw/plug-in lamps and recessed trim kits that screw in are ineligible for these measure codes. Incentives for lamps and recessed trim kits are available through Delmarva Power's Business Instant Discounts program.
- Equipment for each measure code must be selected within the specified "Category," "General Application," and "Primary Use" designations, as classified by the Design Lights Consortium (does not include ENERGY STAR measures).
- Wattage, Efficacy, and Lumens values for the proposed equipment are based on "Reported Data" and must be entered exactly as indicated on the Design Lights Consortium (DLC) Qualified Products List (QPL) and ENERGY STAR Qualified Products List.
- If LED linear lamps (TLEDs) are being installed and fewer lamps than what is currently installed are proposed for installation (i.e. installing a single lamp in a 2-lamp fixture), the luminaires must be permanently de-lamped and the TLEDs re-centered in luminaires through the use of UL/CSA-listed retrofit kits specifically made for this purpose.
- Private labeled equipment must be listed on the electronic lighting worksheet in the designated manufacturer and model columns as "Original (as listed on DLC)/Private Labeled" make and model numbers. Spec sheet submissions must include both the spec sheet for the original equipment and the spec sheet for the private labeled equipment with a signed letter attached by the original equipment manufacturer that validates the equipment is the same.

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## LIGHTING TECHNICAL REQUIREMENTS (CONTINUED)

### GENERAL LED REQUIREMENTS (CONTINUED)

- To qualify for a new fixture incentive, the existing luminaire must be removed and the new luminaire must be independently mounted in a manner that aligns with DLC Primary Use Designation for the luminaire type. Any application that does not align with DLC Primary Use Designation does not qualify for a new fixture incentive.
- A retrofit of existing equipment is any application that makes use of the existing housing luminaire as aligned by DLC Primary Use Designation. Retrofit equipment must be listed under DLC Primary Use Designation to qualify for a corresponding measure code.
- The program is intended for one-for-one replacement. If a lighting project exceeds the one-for-one cap, written authorization by the program is required prior to application submission.

### SPECIFIC LED REQUIREMENTS

- Equipment must be listed on the [ENERGY STAR® Qualified Products](#) list to apply for ENERGY STAR measure codes (RL 171-173). All other lighting equipment must be listed on the [DLC's Qualified Product List](#).
- Type A and Type B LED linear replacement lamps (TLEDs) and LED mogul screw-based replacement for an HID lamp are not eligible for incentives. Only Type C equipment, as defined by the DLC, is eligible for incentives, as outlined in measure codes RL 181 and RL 182.
- Incentive for measure codes RL111 and RL 167 applies to contiguous linear feet of fixture installed, not for nominal linear feet. The measure code should only count the linear feet of a luminaire as measured from end to end, whether as a long contiguous unit or modular units connected to form a chain. Non-contiguous configurations of modular units can claim a per-foot incentive for the length of the assembly at its longest point from end to end of any given module.
- To qualify for high/low bay fixture incentives (RL 141 - RL 145), luminaires must be installed greater than or equal to 15 ft. above finished floor (AFF).

### GENERAL CONTROL REQUIREMENTS

- To be eligible for lighting incentives, lighting controls are required to be installed as follows:
  - Occupancy/Vacancy** controls are required to be installed in the following areas:

<input checked="" type="checkbox"/> Classrooms/lecture/training rooms	<input checked="" type="checkbox"/> Janitorial closets	<input checked="" type="checkbox"/> Restrooms
<input checked="" type="checkbox"/> Conference/meeting/multipurpose rooms	<input checked="" type="checkbox"/> Locker rooms	<input checked="" type="checkbox"/> Storage rooms
<input checked="" type="checkbox"/> Copy/print rooms	<input checked="" type="checkbox"/> Lounges	<input checked="" type="checkbox"/> Warehouses
<input checked="" type="checkbox"/> Employee lunch and break rooms	<input checked="" type="checkbox"/> Private offices	<input checked="" type="checkbox"/> Other spaces 300 sq. ft. or less that are enclosed by floor-to-ceiling height partitions
  - Lighting controls are **not required** in the following areas: 1) areas designated as security or emergency areas that are required to be continuously lit 2) interior exit stairways, interior exit ramps, and exit passageways 3) electrical rooms and 4) emergency egress lighting that is normally off.
  - Space types which fall under the requirements of needing both a daylight and occupancy/vacancy control (for example, an enclosed office containing windows with luminaires totaling more than 150W within the daylight zone) require a Dual daylight and occupancy/vacancy DOS control (LC 101-112) or a combination of separate daylight and occupancy/vacancy controls. For combinations of separate control types, only one control incentive will be paid.
  - Spaces with existing control types are not eligible for control incentives. Please indicate when entering your equipment if there are existing controls within a space.
  - Exterior luminaires require a functioning time clock or photocell to qualify for lighting incentives, but are not eligible for daylight control incentives. They are eligible for advanced network control and/or occupancy/vacancy control incentives.

## LIGHTING MEASURES AND INCENTIVES

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS REDUCED	REPORTED EFFICACY (LM/W)	INCENTIVE	TECHNICAL REQUIREMENTS
LED TROFFER LUMINAIRES	RL 101	New LED linear recessed or surface troffer for 2x2 and 1x4 luminaires	15	110	\$75/fixture	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces</li> <li>• 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces</li> </ul> </li> <li>• Fixture housing must be a minimum of 1.5 inches in height</li> <li>• Troffers less than 1.5 inches must apply for RL 103</li> <li>• Product spec sheets must show dimensions</li> </ul>
	RL 102	New LED linear recessed or surface troffer for 2x4 luminaires	20	110	\$110/fixture	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces</li> </ul> </li> <li>• Fixture housing must be a minimum of 1.5 inches in height</li> <li>• Troffers less than 1.5 inches must apply for RL 104</li> <li>• Product spec sheets must show dimensions</li> </ul>
LED FLAT PANEL LUMINAIRES	RL 103	New LED flat panel for 2x2 and 1x4 luminaires	15	110	\$30/panel	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces</li> <li>• 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces</li> </ul> </li> <li>• Product spec sheets must show dimensions</li> </ul>
	RL 104	New LED flat panel for 2x4 luminaires	20	110	\$60/panel	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces</li> </ul> </li> <li>• Product spec sheets must show dimensions</li> </ul>
LED LINEAR AMBIENT/STAIRWELL LUMINAIRES	RL 111A	New LED linear ambient luminaire with direct and indirect components or VaporTight, min. IP65	5 (per foot)	110	\$18/foot	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Linear Ambient</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Direct Linear Ambient Luminaires</li> <li>• Linear Ambient Luminaires w/ Indirect component</li> </ul> </li> </ul>
	RL 111B	New LED linear ambient luminaire – strip or wrap fixture	5 (per foot)	110	\$14/foot	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Linear Ambient</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Direct Linear Ambient Luminaires</li> <li>• Linear Ambient Luminaires w/ Indirect component</li> </ul> </li> </ul>
	RL 112	New LED stairwell luminaire	10	100	\$100/fixture	<ul style="list-style-type: none"> <li>• Fixture must be installed in stairwell.</li> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – Low, Mid, High, or Very High Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Stairwell and Passageway Luminaires</li> </ul> </li> </ul>
LED INTERIOR DIRECTIONAL LUMINAIRES	RL 121	New LED wall wash luminaire	10 (per foot)	75	\$15/foot	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Interior Directional</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Wall-wash Luminaires</li> </ul> </li> </ul>
	RL 122	New LED track/mono-point luminaire	25	75	\$40/head	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Interior Directional</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Track or Mono-point Luminaires</li> </ul> </li> </ul>
LED DISPLAY CASE LUMINAIRES	RL 131	New LED display case luminaire	20	70	\$40/fixture	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Display Case</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Display Case Luminaires</li> </ul> </li> </ul>
	RL 132	New LED display case luminaire in reach-in coolers/freezers	15	85	\$50/fixture	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – Display Case</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Horizontal Refrigeration Case Luminaires</li> <li>• Vertical Refrigerated Case Luminaires</li> </ul> </li> </ul>

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## LIGHTING MEASURES AND INCENTIVES (CONTINUED)

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS REDUCED	REPORTED EFFICACY (LM/W)	INCENTIVE	TECHNICAL REQUIREMENTS
<b>LED HIGH/LOW BAY LUMINAIRES</b>	RL 141	New LED high/low-bay luminaire – DLC reported lumens between 5,000 lm – 9,999 lm	50	110	\$175/fixture	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – High-Bay</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• High-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• Low-Bay Luminaires for Commercial and Industrial Building</li> <li>• High-Bay Aisle Luminaires</li> </ul> </li> </ul>
	RL 142	New LED high/low-bay luminaire – DLC reported lumens between 10,000 lm – 19,999 lm	75	110	\$275/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be achieved, please apply for RL 141.</li> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – High-Bay</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• High-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• Low-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• High-Bay Aisle Luminaires</li> </ul> </li> </ul>
	RL 143	New LED high/low-bay luminaire – DLC reported lumens between 20,000 lm – 29,999 lm	100	110	\$350/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be achieved, please apply for RL 142.</li> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – High-Bay</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• High-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• Low-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• High-Bay Aisle Luminaires</li> </ul> </li> </ul>
	RL 144	New LED high/low-bay luminaire – DLC reported lumens between 30,000 lm – 39,999 lm	150	110	\$400/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be achieved, please apply for RL 143.</li> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – High-Bay</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• High-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• Low-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• High-Bay Aisle Luminaires</li> </ul> </li> </ul>
	RL 145	New LED high/low-bay luminaire – DLC reported lumens between 40,000 lm or more	400	110	\$500/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be achieved, please apply for RL 144.</li> <li>• <b>DLC Category</b> – Indoor</li> <li>• <b>DLC General Application</b> – High-Bay</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• High-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• Low-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• High-Bay Aisle Luminaires</li> </ul> </li> </ul>
<b>LED EXTERIOR LUMINAIRES</b>	RL 151	New LED exterior luminaire – DLC reported lumens between 4,999 or less	40	90	\$125/fixture	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – Low Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Outdoor Pole/Arm-mounted Decorative Luminaires</li> <li>• Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires</li> <li>• Bollards</li> <li>• Parking Garage Luminaires</li> <li>• Fuel Pump Canopy Luminaires</li> <li>• Architectural Flood and Spot Luminaires</li> <li>• Landscape/Accent Flood and Spot Luminaires</li> </ul> </li> </ul>
	RL 152	New LED exterior luminaire – DLC reported lumens between 5,000 lm – 9,999 lm	125	95	\$175/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 151.</li> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – Mid Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Outdoor Pole/Arm-mounted Decorative Luminaires</li> <li>• Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires</li> <li>• Bollards</li> <li>• Parking Garage Luminaires</li> <li>• Fuel Pump Canopy Luminaires</li> <li>• Architectural Flood and Spot Luminaires</li> <li>• Landscape/Accent Flood and Spot Luminaires</li> </ul> </li> </ul>

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**LIGHTING MEASURES AND INCENTIVES (CONTINUED)**

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS REDUCED	REPORTED EFFICACY (LM/W)	INCENTIVE	TECHNICAL REQUIREMENTS
LED EXTERIOR LUMINAIRES (CONTINUED)	RL 153	New LED exterior luminaire – DLC reported lumens between 10,000 lm – 19,999 lm	250	100	\$250/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced and/or efficacy cannot be obtained, please apply for RL 152.</li> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – High Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Outdoor Pole/Arm-mounted Decorative Luminaires</li> <li>• Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires</li> </ul> </li> <li>• Bollards</li> <li>• Parking Garage Luminaires</li> <li>• Fuel Pump Canopy Luminaires</li> <li>• Architectural Flood and Spot Luminaires</li> <li>• Landscape/Accent Flood and Spot Luminaires</li> </ul>
	RL 154	New LED exterior luminaire – DLC reported lumens between 20,000 lm – 29,999 lm	400	100	\$350/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be obtained, please apply for RL 153.</li> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – High Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Outdoor Pole/Arm-mounted Decorative Luminaires</li> <li>• Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires</li> </ul> </li> <li>• Bollards</li> <li>• Parking Garage Luminaires</li> <li>• Fuel Pump Canopy Luminaires</li> <li>• Architectural Flood and Spot Luminaires</li> <li>• Landscape/Accent Flood and Spot Luminaires</li> </ul>
	RL 155	New LED exterior luminaire – DLC reported lumens between 30,000 lm – 39,999 lm	550	100	\$400/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be obtained, please apply for RL 154.</li> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – Very High Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Outdoor Pole/Arm-mounted Decorative Luminaires</li> <li>• Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires</li> </ul> </li> <li>• Bollards</li> <li>• Parking Garage Luminaires</li> <li>• Architectural Flood and Spot Luminaires</li> <li>• Landscape/Accent Flood and Spot Luminaires</li> </ul>
	RL 156	New LED exterior luminaire – DLC reported lumens between 40,000 lm or more	700	100	\$500/fixture	<ul style="list-style-type: none"> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be obtained, please apply for RL 155.</li> <li>• <b>DLC Category</b> – Outdoor</li> <li>• <b>DLC General Application</b> – Outdoor – Very High Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Outdoor Pole/Arm-mounted Decorative Luminaires</li> <li>• Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Outdoor Non-Cutoff and Semi-Cutoff Wall-Mounted Area Luminaires</li> </ul> </li> <li>• Bollards</li> <li>• Parking Garage Luminaires</li> <li>• Architectural Flood and Spot Luminaires</li> <li>• Landscape/Accent Flood and Spot Luminaires</li> </ul>
LED RETROFIT KITS	RL 161	LED linear retrofit kit for 2x2 and 1x4 fixtures	15	110	\$15/kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Linear Retrofit Kits for 2x2 Luminaires</li> <li>• Linear Retrofit Kits for 1x4 Luminaires</li> </ul> </li> </ul>
	RL 162	LED linear retrofit kit for 2x4 fixtures	20	110	\$30/kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Linear Retrofit Kits for 2x4 Luminaires</li> </ul> </li> </ul>

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## LIGHTING MEASURES AND INCENTIVES (CONTINUED)

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS REDUCED	REPORTED EFFICACY (LM/W)	INCENTIVE	TECHNICAL REQUIREMENTS
<b>LED RETROFIT KITS (CONTINUED)</b>	RL 163	LED integrated retrofit kit for 2x2 and 1x4 fixtures	15	110	\$60/kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Integrated Retrofit Kits for 2x2 Luminaires</li> <li>• Integrated Retrofit Kits for 1x4 Luminaires</li> </ul> </li> <li>• Must be a minimum of 1.5 inches in height</li> <li>• Integrated Kits less than 1.5 inches must use RL 165</li> </ul>
	RL 164	LED integrated retrofit kit for 2x4 fixtures	20	110	\$80/kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Integrated Retrofit Kits for 2x4 Luminaires</li> </ul> </li> <li>• Must be a minimum of 1.5 inches in height</li> <li>• Integrated Kits less than 1.5 inches must use RL 166</li> </ul>
	RL 165	LED integrated flat panel retrofit kit for 2x2 and 1x4 fixtures	15	110	\$20/panel kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Integrated Retrofit Kits for 2x2 and 1x4 Luminaires</li> </ul> </li> </ul>
	RL 166	LED integrated flat panel retrofit kit for 2x4 fixtures	20	110	\$40/panel kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Troffer</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Integrated Retrofit Kits for 2x4 Luminaires</li> </ul> </li> </ul>
	RL 167	LED retrofit kit for ambient luminaire	5 (per foot)	110	\$10/foot	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Linear Ambient</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Retrofit Kits for Direct Linear Ambient Luminaires</li> </ul> </li> </ul>
	RL 168	LED retrofit kit for high/low-bay luminaire	40	110	\$75/kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Indoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – High-Bay</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Retrofit Kits for High-Bay Luminaires for Commercial and Industrial Buildings</li> <li>• Retrofit Kits for Low-Bay Luminaires for Commercial and Industrial Buildings</li> </ul> </li> </ul>
	RL 169	LED retrofit kit for exterior luminaire	40	110	\$100/kit	<ul style="list-style-type: none"> <li>• <b>DLC Category</b> – Outdoor Retrofit Kit</li> <li>• <b>DLC General Application</b> – Outdoor – Low, Mid, High, or Very High Output</li> <li>• <b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>• Retrofit Kits for Outdoor Pole/Arm-mounted Areas and Roadway Luminaires</li> <li>• Retrofit Kits for Pole/Arm-mounted Decorative Luminaires</li> <li>• Retrofit Kits for Large Outdoor Pole/Arm-mounted Area and Roadway Luminaires</li> <li>• Retrofit Kits for Outdoor Full-Cutoff Wall-mounted Area Luminaires</li> <li>• Retrofit Kits for Parking Garage Luminaires</li> <li>• Retrofit Kits for Fuel Pump Canopy Luminaires</li> </ul> </li> </ul>
<b>LED ENERGY STAR FIXTURES</b>	RL 171	New LED ENERGY STAR fixture – 1,499 lm or less	10	70	\$30/fixture	<ul style="list-style-type: none"> <li>• ENERGY STAR fixtures must either be inseparable or be packaged with an ENERGY STAR qualifying lamp from the manufacturer.</li> <li>• Screw or plug-in based recessed trim kits are not eligible for this measure.</li> </ul>
	RL 172	New LED ENERGY STAR fixture – 1,500 lm – 2,999 lm	25	70	\$50/fixture	<ul style="list-style-type: none"> <li>• ENERGY STAR fixtures must either be inseparable or be packaged with an ENERGY STAR qualifying lamp from the manufacturer.</li> <li>• Screw or plug-in based recessed trim kits are not eligible for this measure.</li> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be obtained, please apply for RL 171.</li> </ul>
	RL 173	New LED ENERGY STAR fixture – 3,000 lm or greater	50	70	\$100/fixture	<ul style="list-style-type: none"> <li>• ENERGY STAR fixtures must either be inseparable or be packaged with an ENERGY STAR qualifying lamp from the manufacturer.</li> <li>• Screw or plug-in based recessed trim kits are not eligible for this measure.</li> <li>• If the indicated lumen output is needed and the min. watts reduced cannot be obtained, please apply for RL 172.</li> </ul>

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## LIGHTING MEASURES AND INCENTIVES (CONTINUED)

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS REDUCED	REPORTED EFFICACY (LM/W)	INCENTIVE	TECHNICAL REQUIREMENTS
	RL 182	Type C LED mogul screw-base replacement for an HID lamp and new external driver	60	110	\$40/lamp	<ul style="list-style-type: none"> <li><b>DLC Category</b> – Mogul Screw-Base Replacements for HID Lamps</li> <li><b>DLC General Application</b> –                             <ul style="list-style-type: none"> <li>Outdoor – Low, Mid, or High Output</li> <li>High-Bay</li> </ul> </li> <li><b>DLC Primary Use</b> –                             <ul style="list-style-type: none"> <li>Replacement Lamps for Outdoor Pole/Arm-mounted Area and Roadway Luminaires (Type C)</li> <li>Replacement Lamps for Outdoor Pole/Arm-mounted Decorative Luminaires (Type C)</li> <li>Replacement Lamps for Outdoor Full-Cutoff Wall-mounted Area Luminaires (Type C)</li> <li>Replacement Lamps for Parking Garage Luminaires (Type C)</li> <li>Replacement Lamps for Fuel Pump Canopy Luminaires (Type C)</li> <li>Replacement Lamps for High-Bay Luminaires (Type C)</li> <li>Replacement Lamps for Low-Bay Luminaires (Type C)</li> </ul> </li> </ul>

## CONTROLS MEASURES AND INCENTIVES

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS CONTROLLED	INCENTIVE CAPS		INCENTIVE	TECHNICAL REQUIREMENTS
				CEILING OR CORNER MOUNTED	WALL SWITCH		
<b>NETWORKED LIGHTING CONTROLS</b>	LC 101	Networked lighting control w/ local or cloud server required	20	N/A	N/A	\$55/fixture	<ul style="list-style-type: none"> <li>Equipment must be listed on DLC NLC Qualified Products List.</li> <li>The DLC NLC Qualified Products List indicates the system requires a Local or Cloud Server to operate.</li> </ul>
	LC 102	Networked lighting control w/ local or cloud server required – lower wattage fixtures	N/A	N/A	N/A	\$15/fixture	<ul style="list-style-type: none"> <li>Equipment must be listed on DLC NLC Qualified Products List.</li> <li>The DLC NLC Qualified Products List indicates the system requires a Local or Cloud Server to operate.</li> </ul>
	LC 103	Networked lighting control (no server required)	20	N/A	N/A	\$50/fixture	<ul style="list-style-type: none"> <li>Equipment must be listed on DLC NLC Qualified Products List.</li> <li>The DLC NLC Qualified Products List indicates the system does not require a Local or Cloud Server to operate.</li> </ul>
	LC 104	Networked lighting control (no server required) – lower wattage fixtures	N/A	N/A	N/A	\$10/fixture	<ul style="list-style-type: none"> <li>Equipment must be listed on DLC NLC Qualified Products List.</li> <li>The DLC NLC Qualified Products List indicates the system does not require a Local or Cloud Server to operate.</li> </ul>
<b>DUAL DAYLIGHT/OCCUPANCY CONTROLS</b>	LC 111	Dual daylight and occupancy sensor (DOS)	20	\$120/control	\$80/control	\$35/fixture	<ul style="list-style-type: none"> <li>Control must have the capability to control fixtures based on both occupancy and daylight.</li> <li>Customers must identify the quantity of fixtures located in a Daylight Zone on the Lighting Fixtures and Controls Worksheet (the same incentive will be paid for fixtures if they are not located in a Daylight Zone).</li> </ul>
	LC 112	Dual daylight and occupancy sensor (DOS) – lower wattage fixtures	N/A	\$120/control	\$80/control	\$8/fixture	<ul style="list-style-type: none"> <li>Control must automatically turn fixtures on and off based on occupancy.</li> <li>Control must continuously dim fixtures located in a Daylight Zone (see General Control Requirements).</li> </ul>

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**CONTROLS MEASURES AND INCENTIVES (CONTINUED)**

	MEASURE CODE	PROPOSED MEASURE	MIN. WATTS CONTROLLED	INCENTIVE CAPS		INCENTIVE	TECHNICAL REQUIREMENTS
				CEILING OR CORNER MOUNTED	WALL SWITCH		
DAYLIGHT CONTROLS	LC 121	Daylight continuous dimming control	20	\$120/control	\$80/control	\$30/fixture	<ul style="list-style-type: none"> <li>Control must continuously dim fixtures located in a Daylight Zone (see General Control Requirements) in response to ambient daylight.</li> </ul>
	LC 122	Daylight continuous dimming control – lower wattage fixtures	N/A	\$120/control	\$80/control	\$5/fixture	
OCCUPANCY/ VACANCY CONTROLS	LC 131	Vacancy control	20	\$75/control	\$50/control	\$25/fixture	<ul style="list-style-type: none"> <li>Control must be set to “Manual ON” so fixtures controlled require a person to manually turn them ON.</li> <li>The control must automatically turn off light fixtures after preset time has elapsed where no occupancy is detected.</li> </ul>
	LC 132	Vacancy control – lower wattage fixtures	N/A	\$75/control	\$50/control	\$5/fixture	
	LC 133	Occupancy control	20	\$60/control	\$40/control	\$20/fixture	<ul style="list-style-type: none"> <li>Control must automatically turn fixtures on and off based on occupancy.</li> </ul>
	LC 134	Occupancy control – lower wattage fixtures	N/A	\$60/control	\$40/control	\$4/fixture	

**Delmarva Power Energy Savings for Business Program**

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