



# 2019 Commercial & Industrial Program

## Pre-Approval Agreement

### Pre-Approval Agreement – Step #1

Please complete and submit this page, along with the appropriate worksheet(s) and quotes with model numbers from your contractor, **before you begin your project**. If you plan to install the equipment yourself (as opposed to hiring a contractor to do so), please submit a quote/proposal for the cost of the equipment from a supplier or distributor. If your project meets the pre-approval criteria, you will receive a letter indicating the funds have been reserved. You can then proceed with completing your project, as described in Step #2.

Name of Business <b>LLPS, Inc.</b>		Phone		Email	
Mailing Address <b>5859 W. Saginaw Hwy. #343</b>		City <b>Lansing</b>		State <b>MI</b>	ZIP Code <b>48917</b>
Installation Address <b>6323 W. Saginaw Hwy., Ste. E</b>		City <b>Lansing</b>		State <b>MI</b>	ZIP Code <b>48917</b>
Annual Hours of Operation <b>2860</b>	BWL Electric Account # <b>363151-000-09</b>		Taxpayer ID # (FEIN or Payee) <b>34-68792</b>		
Building Use (Please Check One): <input checked="" type="checkbox"/> Office <input type="checkbox"/> Retail <input type="checkbox"/> Warehouse <input type="checkbox"/> Restaurant <input type="checkbox"/> Grocery Store/Supermarket <input type="checkbox"/> New Construction <input type="checkbox"/> Manufacturing <input type="checkbox"/> Lodging <input type="checkbox"/> School (K-12) <input type="checkbox"/> School (College) <input type="checkbox"/> Healthcare Facility <input type="checkbox"/> Other/Miscellaneous					
How did you learn about the program? <input type="checkbox"/> My Utility <input type="checkbox"/> Utility Website <input type="checkbox"/> Mail/Bill Insert <input type="checkbox"/> Event <input checked="" type="checkbox"/> Contractor <input type="checkbox"/> Newspaper <input type="checkbox"/> Online					
Name of Supplier/Distributor <b>RAB Company</b>		Contact Name <b>All Phase Electric</b>			
Name of Installing Contractor <b>Emil's Electric</b>		Contact Name <b>Rich Denke</b>			
Address <b>PO Box 25083</b>		City <b>Lansing</b>		State <b>MI</b>	ZIP Code <b>48909</b>
Contractor Phone <b>(517) 336-7800</b>		Contractor Email <b>emilselectric@comcast.net</b>			
<b>Certifications and Signature</b> I hereby certify that: 1. The information contained in this application is accurate and complete. 2. All rules of this incentive application have been followed. 3. I have read and understand the Terms and Conditions included with this document. I agree to verification of equipment installation which may include a site inspection by a program or utility representative. I understand that I am not allowed to receive more than one incentive from this program on any piece of equipment. I hereby agree to indemnify, hold harmless and release the utility from any actions or claims in regard to the installation, operation and disposal of equipment (and related materials) covered herein, including liability from any incidental or consequential damages.					
Customer Signature 				Date Submitted <b>11/8/2019</b>	
Print Customer Name <b>Michael Bishop</b>				Estimated Completion Date <b>11/8/2019</b>	

You can submit  
your documents  
one of four ways...

**ONLINE**  
hometownenergysavers.com

**EMAIL**  
hometown@franklinenergy.com

**FAX**  
517-203-0658

**MAIL**  
Hometown Energy Savers®  
1400 Abbot Road, Suite 400  
East Lansing, MI 48823



## 2019 Commercial & Industrial Program

### Payment Approval Agreement

#### Payment Approval Agreement – Step #3

Please complete and submit this page, along with your itemized invoice(s), within 30 days of project completion.

Name of Business <b>LLPS, Inc.</b>				
Total Project Cost <b>\$5449.04</b>		Total Incentives Requested		Pre-Approval Incentive Amount
Mailing Address <b>5859 W. Saginaw Hwy. #343</b>		City <b>Lansing</b>	State <b>MI</b>	ZIP Code <b>48917</b>
Installation Address <b>6323 W. Saginaw Hwy., Ste. E</b>		City <b>Lansing</b>	State <b>MI</b>	ZIP Code <b>48917</b>
Print Name <b>Michael Bishop</b>		Date <b>11/8/2019</b>		Installation Completion Date <b>11/8/2019</b>

#### Certifications and Signature

I certify that I am an eligible Lansing Board of Water & Light (BW&L) electric utility customer and that the efficiency measures in this application were installed in this facility in 2019. I certify that I have read and complied with the Terms and Conditions of this application. By submitting this application, I understand that this facility may be inspected by employees or contractors/subcontractors of the BWL to verify installation of any and all measures applied for in this application and that the project follows all program guidelines.

Customer Signature (Must Be Same Person Who Signed Pre-Approval Agreement)

**OPTIONAL: Complete section below ONLY if incentive is to be paid to a third-party other than the customer.**

Make Payable To	Contact Name		Contact Phone	
Mailing Address	City	State	ZIP Code	
Taxpayer ID # (FEIN or Payee)	Tax Status (Please Check One): <input type="checkbox"/> Corporation <input type="checkbox"/> Tax Exempt <input type="checkbox"/> Individual <input type="checkbox"/> Other:			
Print Name		Date		

#### Certifications and Signature

I am authorizing the payment of the incentive to the third party named above, and I understand that I will not be receiving the incentive payment. I also understand that my release to a third party does not exempt me from the program requirements outlined in the Terms and Conditions.

Customer Signature (Must Be Same Person Who Signed Pre-Approval Agreement)

I certify that I have read and complied with the Terms and Conditions of this application.

Third Party Rebate Recipient Signature

You can submit  
your documents  
one of four ways...

**ONLINE**  
hometownenergysavers.com







**EMAIL**  
hometown@franklinenergy.com

**FAX**  
517-203-0658

**MAIL**  
Hometown Energy Savers®  
1400 Abbot Road, Suite 400  
East Lansing, MI 48823

### Prescriptive Lighting Worksheet (one-for-one unit replacement)

All lighting projects are required to comply with the IESNA recommended lighting levels or local code.

Measure	Specs	Quantity	\$ / Unit	Total
Screw-In Lamps				
 CFL (less than 30W)	Replace an incandescent lamp with ENERGY STAR® CFL		\$2.50 / Lamp	\$ 0.00
 CFL (between 30W and 115W)				\$ 0.00
 Specialty CFL (Dimmable, 3-Way, Flood)				\$ 0.00
 LED Lamp (replacing 1–49W incandescent)	Replace an incandescent lamp with ENERGY STAR LED		\$4 / Lamp	\$ 0.00
 LED Lamp (replacing 50–100W incandescent)			\$4 / Lamp	\$ 0.00
 LED Lamp replacement screw base CFL			\$2 / Lamp	\$ 0.00
 LED MR16 Lamp (less than 10W)			\$5 / Lamp	\$ 0.00
 LED PAR/BR Lamp			\$8 / Lamp	\$ 0.00
Interior Fixtures				
 LED Downlight Fixture	Replace incandescent lamped fixture with ENERGY STAR LED fixture.		\$20 / Fixture	\$ 0.00
LED Exit Signs	Replacement or retrofit of an incandescent or fluoresecent exit sign with LED.		\$13 / Fixture	\$ 0.00

### Standard Wattage Tables

Standard Wattage Table		Existing 4 Foot Linear Fluorescent Fixtures						Existing U Lamp Fixtures		
Fixture	Wattage		T8 F32	T12 F40 34W Mag	T12 F48 40W Mag	T5 F28	T5 F54 HO		T8 FU32	T12 FU40
HID 50W	61	1 Lamp	30	43	51	33	59	1 Lamp	29	43
HID 70W	89	2 Lamp	59	72	82	63	117	2 Lamp	55	72
HID 100W	120	3 Lamp	88	115	133	96	179	3 Lamp	81	115
HID 150W	174	4 Lamp	115	144	164	126	234	Existing 2 Foot Fluorescent Fixture		
HID 175W	194	6 Lamp	162	216	266	192	351		T8 F17	T12 F20
HID 200W	230	8 Lamp	230	288	328	252	468	1 Lamp	18	25
HID 250W	290	10 Lamp	295	360	410	315	585	2 Lamp	33	50
HID 400W	455	12 Lamp	345	460	492	384	702	3 Lamp	47	71
HID 750W	850	Existing 8 Foot Linear Fluorescent Fixtures								
HID 1000W	1080		T12 Mag (60W lamp)	T12 Mag STD (75W lamp)	T12 Mag (95W lamp)	T12 HO Mag STD (110W lamp)				
		1 Lamp	75	-	112	-				
		2 Lamp	128	173	227	257				
		4 Lamp						59	100	



**Pre-Approval Not Required**  
note indicated areas

Lighting Worksheet Incentive Subtotal, page 4: \$	<b>0.00</b>
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Lighting Worksheet continues on page 5.



# 2019 Commercial & Industrial Program

## Lighting Worksheet, Continued

### Lighting Worksheet, continued

All lighting projects are required to comply with the IESNA recommended lighting levels or local code.

Interior Linear Fluorescent Lighting				
Incentives are eligible for replacement of interior linear fluorescent fixtures/retrofits. <b>Incentives are \$0.05/kWh and \$0.07/kWh for LED.</b> All new fixtures and retrofits must be ENERGY STAR® or DesignLights Consortium®.				
Existing Fixture: <b>8' T12 Fluorescent bulbs (2/fixture)</b>	Watts/Fixture:	<b>128.0</b>	Quantity:	<b>29</b>
Proposed Fixture: <b>8' LED bulbs (2/fixture)</b>	Watts/Fixture:	<b>86.0</b>	Quantity:	<b>29</b>
<input checked="" type="checkbox"/> Check here if proposed fixture(s) are LED.	Annual Operating Hours: <b>2,860</b>			
<b>Total:</b>	<b>Watts Saved:</b>	<b>1,218.00</b>	<b>kWh Saved:</b>	<b>3,483.48</b>
			<b>Incentive:</b>	<b>243.84</b>
Existing Fixture: <b>8' T12 HO Fluorescent bulbs (2/fixture)</b>	Watts/Fixture:	<b>257.0</b>	Quantity:	<b>1</b>
Proposed Fixture: <b>8' LED bulbs (2/fixture)</b>	Watts/Fixture:	<b>86.0</b>	Quantity:	<b>1</b>
<input checked="" type="checkbox"/> Check here if proposed fixture(s) are LED.	Annual Operating Hours: <b>2,860</b>			
<b>Total:</b>	<b>Watts Saved:</b>	<b>171.00</b>	<b>kWh Saved:</b>	<b>489.06</b>
			<b>Incentive:</b>	<b>34.23</b>

Interior Linear Fluorescent Lighting				
Incentives are eligible for replacement of interior linear fluorescent fixtures/retrofits. <b>Incentives are \$0.05/kWh and \$0.07/kWh for LED.</b> All new fixtures and retrofits must be ENERGY STAR or DesignLights Consortium.				
Existing Fixture: <b>4' T12 Fluorescent bulbs (4/fixture)</b>	Watts/Fixture:	<b>115.0</b>	Quantity:	<b>31</b>
Proposed Fixture: <b>4' LED bulbs (4/fixture)</b>	Watts/Fixture:	<b>56.0</b>	Quantity:	<b>31</b>
<input checked="" type="checkbox"/> Check here if proposed fixture(s) are LED.	Annual Operating Hours: <b>2,860</b>			
<b>Total:</b>	<b>Watts Saved:</b>	<b>1,829.00</b>	<b>kWh Saved:</b>	<b>5,230.94</b>
			<b>Incentive:</b>	<b>366.17</b>
Existing Fixture:	Watts/Fixture:		Quantity:	
Proposed Fixture:	Watts/Fixture:		Quantity:	
<input type="checkbox"/> Check here if proposed fixture(s) are LED.	Annual Operating Hours:			
<b>Total:</b>	<b>Watts Saved:</b>	<b>0.00</b>	<b>kWh Saved:</b>	<b>0.00</b>
			<b>Incentive:</b>	<b>0.00</b>

Interior Linear Fluorescent Lighting				
Incentives are eligible for replacement of interior linear fluorescent fixtures/retrofits. <b>Incentives are \$0.05/kWh and \$0.07/kWh for LED.</b> All new fixtures and retrofits must be ENERGY STAR or DesignLights Consortium.				
Existing Fixture:	Watts/Fixture:		Quantity:	
Proposed Fixture:	Watts/Fixture:		Quantity:	
<input type="checkbox"/> Check here if proposed fixture(s) are LED.	Annual Operating Hours:			
<b>Total:</b>	<b>Watts Saved:</b>	<b>0.00</b>	<b>kWh Saved:</b>	<b>0.00</b>
			<b>Incentive:</b>	<b>0.00</b>
Existing Fixture:	Watts/Fixture:		Quantity:	
Proposed Fixture:	Watts/Fixture:		Quantity:	
<input type="checkbox"/> Check here if proposed fixture(s) are LED.	Annual Operating Hours:			
<b>Total:</b>	<b>Watts Saved:</b>	<b>0.00</b>	<b>kWh Saved:</b>	<b>0.00</b>
			<b>Incentive:</b>	<b>0.00</b>

Lighting Worksheet Incentive Subtotal, page 5: \$ 644.24

Lighting Worksheet continues on page 6.



### Lighting Worksheet, continued

All lighting projects are required to comply with the IESNA recommended lighting levels or local code.

Interior Lighting — All High Bay Lighting, 15 feet and above for ceiling height			
Incentives are eligible for replacing High Bay Fixtures with interior High Bay Linear Fluorescent (T5/T8), Induction or LED. Existing wattages used must come off of the Standard Wattage Table on page 4. <b>Incentive is \$0.30 per Watt Reduced.</b> <b>All new fixtures and retrofits must be DesignLights Consortium®.</b>			
Existing Fixture:	Watts/Fixture:	Quantity:	
Proposed Fixture:	Watts/Fixture:	Quantity:	
<b>Total:</b>	<b>Watts Saved:</b>	<b>0</b>	<b>Incentive: \$0.00</b>
Existing Fixture:	Watts/Fixture:	Quantity:	
Proposed Fixture:	Watts/Fixture:	Quantity:	
<b>Total:</b>	<b>Watts Saved:</b>	<b>0</b>	<b>Incentive: \$0.00</b>
Exterior Lighting			
Incentives are eligible for the replacement or retrofit of an exterior fixture with an induction, LED, or T8/T5 linear fluorescent fixtures which have a reduced input wattage of at least 40%. Incentives are per fixture and are based on the nominal lamp wattage of the original fixture. Incentive is for fixtures that operate less than 24 hours per day. Existing wattages must come off of the Standard Wattage Table on page 4. <b>Incentive is \$0.25 per Watt Reduced.</b> <b>All new fixtures and retrofits must be DesignLights Consortium®.</b>			
Existing Fixture:	Watts/Fixture:	Quantity:	
Proposed Fixture:	Watts/Fixture:	Quantity:	
<b>Total:</b>	<b>Watts Saved:</b>	<b>0</b>	<b>Incentive: \$0.00</b>
Existing Fixture:	Watts/Fixture:	Quantity:	
Proposed Fixture:	Watts/Fixture:	Quantity:	
<b>Total:</b>	<b>Watts Saved:</b>	<b>0</b>	<b>Incentive: \$0.00</b>
Exterior 24 Hour Lighting — Replacement			
Incentives are eligible for the replacement or retrofit of a fixture with an induction, LED, or T8/T5 linear fluorescent fixtures which have a reduced input wattage of at least 40%. Incentives are per fixture and are based on the nominal lamp wattage of the original fixture. Incentives are available for exterior garage fixtures that operate 24 hours per day. Existing wattages must come off of the Standard Wattage Table on page 4. <b>Incentive is \$0.60 per Watt Reduced.</b> <b>All new fixtures and retrofits must be DesignLights Consortium®.</b>			
Existing Fixture:	Watts/Fixture:	Quantity:	
Proposed Fixture:	Watts/Fixture:	Quantity:	
<b>Total:</b>	<b>Watts Saved:</b>	<b>0</b>	<b>Incentive: \$0.00</b>
Existing Fixture:	Watts/Fixture:	Quantity:	
Proposed Fixture:	Watts/Fixture:	Quantity:	
<b>Total:</b>	<b>Watts Saved:</b>	<b>0</b>	<b>Incentive: \$0.00</b>

Lighting Worksheet Incentive Subtotal, page 6:	\$	0.00
Lighting Worksheet Incentive TOTAL:	\$	644.24

### Controls Worksheet

Measure	Specifications	Quantity	\$ / Unit	Total
HVAC Controls				
Building Temperature Controls	Must control central AC and replace a non-programmable building management system. The new system must offer time of day controls and a minimum temperature setback of 8 degrees (heating/cooling).		\$45 / 1,000 sq ft	\$ 0.00
Optimized Snow Melt Controls	Snow melt system must shut down completely when no precipitation is present. Controller must monitor forecasts and raise the slab temperature to 32 deg F eight hours before expected precipitation. A Slab moisture sensor must be used to signal controller to raise slab temperature to 40 degrees F when precipitation is present.		\$9 / 1,000 sq ft	\$ 0.00
Occupancy Sensor Control for HVAC	Installation of new controls to an existing EMS system which automatically switched the HVAC system to occupied and unoccupied mode based on occupancy sensors. Provide wiring schematic at the time of submitting pre-approval.		\$30 / 1,000 sq ft	\$ 0.00
Constant Volume AHU to VAV	Converting constant volume air handling system to a variable air volume. Must have reheat and supply at least four zones.		\$450 / 1,000 sq ft	\$ 0.00
Air Side Economizer	Available for air handling units supplying air conditioning which have inoperable economizer controls.		\$10 / 1,000 sq ft	\$ 0.00
Critical Zone Reset Control	Available for existing VAV air handling systems which add critical zone reset (static pressure reset) controls. At a minimum, airflow at each VAV box must be monitored and adjust control sequences must be in accordance to ASHRAE 90.1.		\$20 / 1,000 sq ft	\$ 0.00
Hotel GREM Controls – A/C with Electric Heat	For sensors which automatically control HVAC equipment. Incentive is for new controls only and is offered per room installed.		\$65 / Unit	\$ 0.00
Hotel GREM Controls – A/C with Gas Heat			\$10 / Unit	\$ 0.00
Lighting Controls				
Interior Occupancy Sensors which control ≤ 500W	Sensors which automatically turn lights on when occupancy is detected and automatically turn lights off when no movement is detected after a set length of time. Cannot be used in conjunction with instant start ballast.		\$20 / Sensor	\$ 0.00
Interior Occupancy Sensors which control > 500W			\$50 / Sensor	\$ 0.00
Exterior Occupancy Sensors with Daylight Sensor	Sensors which automatically turn lights on when occupancy is detected and automatically turn lights off when no movement is detected after a set length of time.		\$20 / Sensor	\$ 0.00
Interior Daylight Harvesting Sensor	The controls can be on/off, stepped or dimming and must vary the light output based on the level of sunlight received. The floor plan and control schedule must be submitted. Cannot be used with occupancy sensor.		\$0.09 / sq ft	\$ 0.00
Network Lighting Controls	For systems that utilize building automation to control the lights based on a set schedule. Incentive for occupancy sensors or daylight sensor controls cannot be received on the same fixtures. Control schedule and floor plans must be submitted.		\$0.06 / sq ft	\$ 0.00

<b>Controls Worksheet Incentive TOTAL: \$</b>	<b>0.00</b>
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### Compressed Air Worksheet

Measure	Specs	Quantity	\$ / Unit	Total
<b>Compressed Air Equipment</b>				
VSD Air Compressor (< 301 HP)	Replacement of constant speed compressor with rotary screw compressor controlled by a VSD.		\$150 / HP	\$ 0.00
Refrigerated Cycling Thermal Mass Air Dryer	Available for replacing a non-cycling refrigerated air dryer with a cycling refrigerated dryer of equal capacity.		\$2 / SCFM	\$ 0.00
Variable Speed Air Dryer			\$2 / SCFM	\$ 0.00
Dew-Point Sensor Control for Desiccant Dryer	Available for replacing a desiccant dryer without a dew point sensor with a desiccant dryer with a dew point sensor.		\$5 / SCFM	\$ 0.00
 Engineered Nozzles	A new compressed air nozzle installed on an open pipe or tube.		\$150 / Nozzle	\$ 0.00
Flow Controller	The actual air compressor discharge pressure set point must be reduced by 5 psig, must be a minimum of 50 horsepower.		\$10.00 / HP	\$ 0.00
Variable Displacement Air Compressor	New variable displacement screw compressor replacing a screw compressor with modulating or load/no load control.		\$35 / HP	\$ 0.00
Desiccant to Refrigerated Air Dryer	New externally heated or blower purge air dryer replacing a desiccant dryer. Not allowed on inlet modulating compressors.		\$4 / SCFM	\$ 0.00
Heat of Compression Air Dryer	Waste heat from oil-free air compressor used to regenerate desiccant dryer.		\$4 / SCFM	\$ 0.00
Compressed Air Storage Tank	Existing system must have less than 1 gal/cfm of storage. New storage tank must offer $\geq 3$ gal/cfm of storage.		\$50 / CFM	\$ 0.00
Air Compressor Outside Air Intake	Ducted outside air must provide compressed air supply.		\$8.50 / HP	\$ 0.00
Low Pressure Drop Air Filters for Compressed Air	New low pressure drop filter (PSID $\leq 1$ initial differential) replacing a standard coalescing filter.		\$5 / HP	\$ 0.00
No-loss Drains – Compressed Air	Replacing manual or timer drains.		\$150 / Drain	\$ 0.00
Measure	Specs	Quantity	\$ / Unit	Total
<b>Compressed Air Energy Audit and Leak Reduction</b>				
Incentives are available for the repair of a minimum of 50% of leaks by CFM documented in a leak audit of a compressed air system which was performed by a qualified, independent contractor. Customer or contractor can repair the leaks. Pre-approval is required prior to repairing leaks.				
<b>To qualify for pre-approval:</b>		<b>To receive incentive payment:</b>		
Submit evidence of the compressed air audit leaks utilizing a spreadsheet detailing: <ul style="list-style-type: none"> <li><input type="checkbox"/> Date of inspection.</li> <li><input type="checkbox"/> The leak locations.</li> <li><input type="checkbox"/> Estimated size of leak by volume (SCFM).</li> <li><input type="checkbox"/> Secure a tag at each leak location stating data above.</li> <li><input type="checkbox"/> A pre-inspection is required by a BWL advisor.</li> <li><input type="checkbox"/> Upon pre-approval, a reservation letter stating the incentive amount will be sent to the customer and trade ally. The leaks can then be fixed.</li> </ul>		Submit payment form, invoice and evidence of the compressed air leaks utilizing a spreadsheet and notes on tags detailing: <ul style="list-style-type: none"> <li><input type="checkbox"/> Date of repair.</li> <li><input type="checkbox"/> The leak locations.</li> <li><input type="checkbox"/> Name of person who completed the repair.</li> <li><input type="checkbox"/> Leave updated tags in place for up to 30 days or until post inspection is performed.</li> </ul>		
Compressed Air Leak Audit <b>AND</b> Repair of 50% of Documented Leaks by Volume	See above.		\$15 / HP	\$ 0.00



**Pre-Approval Not Required**  
note indicated areas

**Compressed Air Worksheet Incentive TOTAL: \$ 0.00**

## Mechanical Worksheet

### Variable Frequency Drives (VFD) - HVAC

Drives must be added to existing pumping or air handling applications related to HVAC or for process pumping applications. VFDs must be automatically controlled by a variable signal and have load diversity that will result in savings through motor speed variation.

**To qualify for HVAC equipment:**

- Motor size must be  $\leq 100$  HP
- Annual hours must be  $> 1800$  hours

**To qualify for Process equipment:**

- Motor Size must be  $\leq 50$  HP
- Annual hours must be  $> 2,000$  hours.

**Redundant units, soft start, back-up units and replacements of existing VFDs do not qualify.**

VFD Application	HP	Incentive Per HP	Quantity	Incentive Total (HP x Incentive x Qty)
HVAC Fan		\$60 / HP		\$ 0.00
HVAC Fan		\$60 / HP		\$ 0.00
HVAC Pump		\$75 / HP		\$ 0.00
HVAC Pump		\$75 / HP		\$ 0.00
Process Fan		\$75 / HP		\$ 0.00
Process Fan		\$75 / HP		\$ 0.00
Process Pump		\$75 / HP		\$ 0.00
Process Pump		\$75 / HP		\$ 0.00
ECM Pump		\$100 / HP		\$ 0.00
ECM Pump		\$100 / HP		\$ 0.00

### Computer Room Air Conditioning (CRAC)

CRAC Unit Measure		SIZE (MBH)	Incentive	Quantity	Incentive Total
High Efficiency CRAC Unit	$< 65$ MBH; min SCOP = 2.2		\$14 / MBH		\$ 0.00
	$65 \leq$ MBH $\leq 240$ ; min SCOP = 2.1				\$ 0.00
	$> 240$ MBH; min SCOP = 1.9				\$ 0.00
CRAC Unit Economizer	$< 65$ MBH		\$35 / MBH		\$ 0.00
	$65 \leq$ MBH $\leq 240$				\$ 0.00
	$> 240$ MBH				\$ 0.00
CRAC Unit Measure		SIZE (HP)	Incentive	Quantity	Incentive Total
VFD on Existing CRAC Unit Process Fans			\$150 / HP		\$ 0.00

Mechanical Worksheet Incentive Subtotal, page 9:	\$	0.00
Mechanical Worksheet Incentive TOTAL:	\$	0.00

Mechanical Worksheet continues on page 10.



# 2019 Commercial & Industrial Program

## Mechanical Worksheet

### Mechanical Worksheet, continued

Measure	Specs	Tons	Quantity	\$ / Unit	Total
<b>Central Packaged/Split System Replacement</b>					
Air Conditioning/ Heat Pump	< 5.4 Tons	14 SEER		\$125 / (Ton x Qty)	<b>\$ 0.00</b>
	< 20 Tons	12.5 EER		\$125 / (Ton x Qty)	<b>\$ 0.00</b>
	< 63.3 Tons	10.3 EER		\$25 / (Ton x Qty)	<b>\$ 0.00</b>
	> 63.3 Tons	9.7 EER		\$25 / (Ton x Qty)	<b>\$ 0.00</b>

Measure	Specs	Tons	Quantity	\$ / Unit	Total
<b>HVAC Chiller Replacement (Incentives are not available for back-up or redundant chillers.)</b>					
Air-Cooled	All Sizes	≤ 1.2 kW/Ton Full Load		\$40 / Ton	<b>\$ 0.00</b>
Water-Cooled	< 150 Tons	≤ 0.79 kW/ton & 0.49 kW/Ton Part Load		\$40 / Ton	<b>\$ 0.00</b>
	< 300 Tons	≤ 0.63 kW/ton & 0.44 kW/Ton Part Load		\$40 / Ton	<b>\$ 0.00</b>
	> 300 Tons	≤ 0.58 kW/ton & 0.44 kW/Ton Part Load		\$40 / Ton	<b>\$ 0.00</b>

Measure	Specs	Quantity	\$ / Unit	Total
<b>HVAC Chiller Maintenance</b>				
Air-Cooled & Water-Cooled Chiller Tune-Up	Chiller must be > 20 Tons. Eligible every 2 years.		\$350 / Unit	<b>\$ 0.00</b>
Cogged Belt Drive	Cogged belt replacing standard V-shaped belt.		\$5 / HP	<b>\$ 0.00</b>
Synchronous Belt Drive	Synchronous belt replacing standard V-shaped belt.		\$9 / HP	<b>\$ 0.00</b>

Measure	Specs	Quantity	\$ / Unit	Total
<b>Miscellaneous Equipment</b>				
High-Frequency Battery Charger (Fork Lifts Only)	Minimum power conversion efficiency of 92%. Must replace either an existing Ferroresonant or a silicon controlled rectifier (SCR) charger.	Qty: # of Shifts:	\$100 / Unit / Shift	<b>\$ 0.00</b>

<b>Mechanical Worksheet Incentive Subtotal, page 10:</b>	<b>\$</b>	<b>0.00</b>
<b>Mechanical Worksheet Incentive TOTAL:</b>	<b>\$</b>	<b>0.00</b>



# 2019 Commercial & Industrial Program

## Commercial Kitchen / Retail Worksheet

### Commercial Kitchen / Retail Worksheet

Measure	Specs	Quantity	Product Information	\$ / Unit	Total
<b>Commercial Kitchen Systems</b>					
ENERGY STAR® Steam Cooker	ENERGY STAR		# of pans:	\$600 / Unit	\$ 0.00
ENERGY STAR Refrigerator <i>Check one:</i> <input type="checkbox"/> Solid Door <input type="checkbox"/> Glass Door	ENERGY STAR		ft³	\$100 / Unit	\$ 0.00
ENERGY STAR Freezer <i>Check one:</i> <input type="checkbox"/> Solid Door <input type="checkbox"/> Glass Door	ENERGY STAR		ft³	\$100 / Unit	\$ 0.00
ENERGY STAR Ice Machine	ENERGY STAR		lbs/day	\$400 / Unit	\$ 0.00
ENERGY STAR Fryer	ENERGY STAR			\$80 / Unit	\$ 0.00
ENERGY STAR Hot Holding Cabinets	ENERGY STAR		ft³	\$200 / Unit	\$ 0.00
ENERGY STAR Commercial Dishwasher	ENERGY STAR			\$600 / Unit	\$ 0.00

Measure	Specs	Quantity		\$ / Unit	Total
Commercial Refrigeration Systems					
LED Grocery Case Lighting	Replace T12 or T8 with LED lighting.			\$40 / Door	\$ 0.00
Recycling of Refrigerators	Refrigerator must be used in a commercial setting. Must be > 15 and < 40 cubic feet			\$50 / Unit	\$ 0.00
Occupancy Sensor for LED Case Lighting	Sensors which automatically turn on LED cooler lighting when motion is detected.			\$10 / Door	\$ 0.00
Walk-In or Case Cooler/Freezer ECM	Replacement of PSC or shaded pole motors with an ECM motor.			\$100 / Motor	\$ 0.00
No Heat Reach-In Case Doors	Replace existing case door with special glass door that requires no anti-sweat heat.			\$150 / Door	\$ 0.00
Cooler Strip Curtains	Installation of new curtains isolating a cold storage area.			\$5 / ft²	\$ 0.00
Freezer Strip Curtains	Installation of new curtains isolating a freezer storage area.			\$25 / ft²	\$ 0.00
Cooler/Freezer Door Gaskets	Installation of new gaskets to reduce air infiltration on a cooler or freezer door.			\$2.50 / Linear Foot	\$ 0.00
Cooler Night Covers	Vertical covers designed for refrigerated display cases. Incentive is based on linear length of cooler and the time per day covers are used.	Ft	Hr	\$1 / Foot / Hour	\$ 0.00
Anti-Sweat Heater Controls	Controls which monitor relative humidity and turn off anti-sweat heaters when appropriate.			\$80 / Door	\$ 0.00
High Speed Door (Cooler-Dock)	High speed door replacing strip curtains between a cooler space and dock space.			\$15 / Door	\$ 0.00
High Speed Door (Cooler-Freezer)	High speed door replacing strip curtains between a cooler space and freezer space.			\$70 / Door	\$ 0.00
High Speed Door (Freezer-Dock)	High speed door replacing strip curtains between a freezer space and dock space.			\$145 / Door	\$ 0.00

<b>Commercial Kitchen / Retail Worksheet Incentive TOTAL:</b>	<b>\$</b>	<b>0.00</b>
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# 2019 Commercial & Industrial Program

## Lighting - Custom Worksheet

These incentives are available to customers for energy-saving measures that are not covered by the prescriptive portion of the program. Major renovation and major reduction in fixtures to existing lighting system are included. Removal of fixtures without replacement or lamp replacement are not included. Custom incentives are based on the first-year energy (kWh) savings.

When applying for pre-approval of a custom project, you <b>must</b> submit the following items:	Lighting Custom Incentive Rate
1. Completed and signed Pre-Approval Agreement (page 2)	<b>\$0.08 / kWh</b>
2. Completed Custom Worksheet (below)	Non-LED Incentive Rate
3. Itemized quote/proposal for all related materials and any external labor	<b>\$0.05 / kWh</b>
4. Manufacturer's specification sheets for all equipment	

Custom Lighting					
Incentives are eligible for replacement of interior fixtures/retrofits. <b>Incentives are \$0.08/kWh for LED. \$0.05 for Non-LED</b> *Payback Period must be greater than or equal to one (1) and less than or equal to eight (8) years to receive the incentive. All new fixtures and retrofits must be Energy Star or DesignLights Consortium® listed.					
Existing Fixture:		Watts/Fixture:		Quantity:	
Proposed Fixture:		Watts/Fixture:		Quantity:	
<input type="checkbox"/> Check here if proposed fixture(s) are LED.	Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period: <b>0.0</b>	
<b>Total:</b>		<b>Watts Saved:</b>	<b>0.00</b>	<b>Incentive: \$ 0.00</b>	
Existing Fixture:		Watts/Fixture:		Quantity:	
Proposed Fixture:		Watts/Fixture:		Quantity:	
<input type="checkbox"/> Check here if proposed fixture(s) are LED.	Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period: <b>0.0</b>	
<b>Total:</b>		<b>Watts Saved:</b>	<b>0.00</b>	<b>Incentive: \$ 0.00</b>	
Existing Fixture:		Watts/Fixture:		Quantity:	
Proposed Fixture:		Watts/Fixture:		Quantity:	
<input type="checkbox"/> Check here if proposed fixture(s) are LED.	Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period: <b>0.0</b>	
<b>Total:</b>		<b>Watts Saved:</b>	<b>0.00</b>	<b>Incentive: \$ 0.00</b>	

\* Payback Period must be greater than or equal to one (1) and less than or equal to eight (8) years to receive the incentive, or total will not calculate.

$$\text{Payback period} = \frac{\text{Incremental Measure Cost}}{(\text{Annual kWh Saved} \times \text{Electricity Rate})}$$

<b>Total Custom Measure Cost:</b>	\$	<b>0.00</b>
<b>Custom Worksheet Incentive TOTAL:</b> (Cannot exceed 50% of the total custom project cost)	\$	<b>0.00</b>

Note: Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility unless there are both electric and gas savings.



# 2019 Commercial & Industrial Program

## Custom Worksheet

### Non-Lighting Custom Worksheet

These incentives are available to customers for energy-saving measures that are not covered by the prescriptive portion of the program. Custom incentives are based on the first-year energy (kWh) savings.

When applying for pre-approval of a custom project, you <b>must</b> submit the following items:	Custom Incentive Rate
<ol style="list-style-type: none"> <li>1. Completed and signed Pre-Approval Agreement (page 2)</li> <li>2. Completed Custom Worksheet (below)</li> <li>3. Itemized quote/proposal for all related materials and any external labor</li> <li>4. Manufacturer's specification sheets for all equipment</li> </ol>	<b>\$0.10 / kWh</b>

Custom Project – Item 1			
Before Retrofit:		Existing Wattage:	
After Retrofit:		Proposed Wattage:	
Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period*: <b>0.0</b>
<b>Total:</b>		Calculated Annual kWh Savings: <b>0.00</b>	Calculated Incentive: <b>\$ 0.00</b>
Custom Project – Item 2			
Before Retrofit:		Existing Wattage:	
After Retrofit:		Proposed Wattage:	
Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period*: <b>0.0</b>
<b>Total:</b>		Calculated Annual kWh Savings: <b>0.00</b>	Calculated Incentive: <b>\$ 0.00</b>
Custom Project – Item 3			
Before Retrofit:		Existing Wattage:	
After Retrofit:		Proposed Wattage:	
Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period*: <b>0.0</b>
<b>Total:</b>		Calculated Annual kWh Savings: <b>0.00</b>	Calculated Incentive: <b>\$ 0.00</b>

\* Payback Period must be greater than or equal to one (1) and less than or equal to eight (8) years to receive the incentive.

$$\text{Payback period} = \frac{\text{Incremental Measure Cost}}{(\text{Annual kWh Saved} \times \text{Electricity Rate})}$$

<b>Total Custom Measure Cost:</b>	\$	<b>0.00</b>
<b>Custom Worksheet Incentive TOTAL:</b> (Cannot exceed 50% of the total custom project cost)	\$	<b>0.00</b>

Note: Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility unless there are both electric and gas savings.





# 2019 Commercial & Industrial Program

## Terms and Conditions

### Terms and Conditions

1. **Eligibility:** These incentives are offered by the Lansing Board of Water & Light (BWL) to commercial and industrial electric customers installing energy efficient equipment only. For questions regarding eligibility, call 517-316-7859.
2. **Incentive Offer:** Energy efficient equipment subject to incentive from BWL must be installed and operational by November 30, 2019. Applicant has 90 days from the date of the acceptance letter to complete the proposed project. Applications that are not completed within 90 days are subject to cancellation. Additionally, invoice(s) related to the equipment upgrade must be submitted to Hometown Energy Savers within 30 calendar days of installation (completion) and no later than November 30, 2019. Please keep a copy for your records. Incentives are calculated based on prescriptive incentive rates and shall not exceed the total cost of equipment, labor, and other associated project costs.
3. **Project Documentation Requirements:** Customer will have to provide BWL with the documentation as listed in the instructions (page 1). If Customer does not provide the required project documents to the BWL at pre-approval and payment stages, the project may be disqualified from the program. The project may also be disqualified if pre-approval is not received, unless otherwise noted on the application.
4. **Energy Efficiency Improvement Qualifications:** Increased energy efficiency resulting from peak shaving, demand limiting, or operating schedule changes does not qualify. To qualify, lighting equipment must have a planned minimum usage of 1,800 hours per year. Non-lighting equipment must have a planned minimum usage of 1,500 hours per year. If Customer's equipment does not meet required usage hours per year, an incentive cannot be offered. If Customer has questions or concerns about above qualifications, Customer may contact Hometown Energy Savers to discuss.
5. **Incentive Limit:** Prescriptive project applications may receive or cumulate a maximum of \$50,000 per electric meter each calendar year. Incentives for measures can be up to the purchase price of a specific measure but shall not exceed the incentives set by the BWL for each measure on the application Worksheet(s). Custom project application may receive a maximum incentive of \$50,000 per electric meter each calendar year. Custom incentives are limited to 50% of the total project cost. A total annual customer cap of \$250,000 is applied to any one customer per calendar year, cumulating both custom and prescriptive applications if applicable as long as funds are available.
6. **Compliance:**
  - a. All projects must comply with applicable federal, state and local laws.
  - b. All equipment must be new or retrofitted with new components.
  - c. The purchase and installation of used equipment is not eligible for incentives. Existing equipment must be removed and/or permanently disconnected.
  - d. Equipment must meet specification requirements as defined in application Worksheets and Equipment Guidelines.
  - e. All projects must be retrofit / replacement installation in an existing building (not available for new construction).
7. **Payment:** Approved Final Applications will receive payment within 6-8 weeks of signed payment approval. Incomplete applications will either delay payments or result in denial of application approval. The BWL reserves the right to refuse payment and disqualify Customer from participating in the program if the customer or their contractor violates any program Terms and Conditions. The qualified equipment must be installed and operating for the rated life of the product(s) or for a period of three (3) years from receipt of rebate, whichever is more. If the qualified equipment is removed or replaced with less efficient equipment, or if Customer ceases to be a customer of the BWL during the three (3) years, Customer shall refund a prorated amount of rebate dollars based on the time installed within thirty (30) days of receipt of notice from the BWL.
8. **Inspection:** Hometown Energy Savers staff may conduct inspection(s) of the project site to survey existing conditions and/or newly installed equipment.
9. **Publicity:** The BWL reserves the right to publicize Customer's participation in this program, unless Customer specifically requests in writing otherwise.
10. **Program Discretion:** Incentives are available on a first-come, first-serve basis. Incentive amounts and offerings are subject to change and/or termination without notice and at the discretion of the BWL.
11. **Participating Contractor Program:** Participating Contractors must adhere to standards of acceptable behavior and performance. Violation of these standards could result in removal from the program. Should an alleged violation occur, the contractor will be contacted.
12. **Disclaimers:** The BWL:
  - a. does not endorse any particular manufacturer, product, labor or system design by offering this program;
  - b. is not responsible for any tax liability imposed on the customer as a result of the payment of incentives. The BWL is tax exempt. Federal ID #38-600577;
  - c. does not expressly or implicitly warrant the performance of installed equipment or contractor's quality of work (contact your contractor for detailed warranties);
  - d. is not responsible for the proper disposal/recycling of any waste generated as a result of this project;
  - e. is not liable for any damage caused by the installation of the equipment and/or for any damage caused by the malfunction of the installed equipment.
13. **Indemnification:** Customer shall, to the fullest extent permitted by law, indemnify and hold harmless the BWL and the City of Lansing, and their officers, agents and employees harmless from and against all losses and litigation expenses arising out of or resulting from the performance of work hereunder and caused, in whole or part, by any act or omission of Contractor. The BWL shall further be entitled to all cost (which include both internal and external) incurred in the process of enforcing this or any other provision under this Agreement. This provision is not intended and is not to be construed as a waiver of the defense of governmental immunity otherwise available nor is it construed as a waiver of the defense of governmental immunity otherwise available nor is it intended to grant third party beneficiary status to any person or entity.
14. **Governing Law:** This agreement is construed in accordance with Michigan law, without regard to conflict of laws, provisions, and venue is in Ingham County, Michigan.
15. **Intellectual Property:** No rights in copyright, patents, trademarks, trade secrets, or other intellectual property are granted to contractor and/or subcontractor except as expressly provided under these Terms. Contractor and/or subcontractor will not register or use any mark and/or internet domain name that contains any BWL intellectual property.

# T8-43-96G-R17D-850-DE-BYP

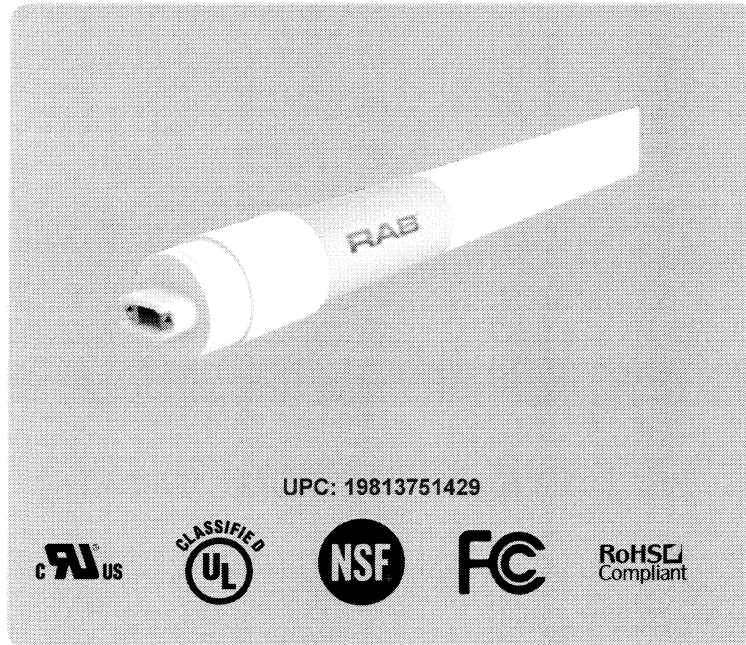
**RAB** Lamps

Project:

Type:

Prepared By:

Date:



## Features and Benefits

**FLUORESCENT REPLACEMENT** - Replace conventional fluorescent T8 and T12 linear tubes

**EASY TO INSTALL** - Simply cut the ballast out, and rewire sockets directly to line voltage

**SAVE ENERGY AND MONEY** - Provides same output as fluorescent but uses far less energy

**ENCLOSED FIXTURE RATED** - May be used in enclosed and open fixtures

**DIFFUSION COATING** - Will maintain the same light quality over time and won't yellow, shrink, or wrinkle

**BALLAST BYPASS** - Internal driver eliminates the need for external ballasts or drivers

**INSTANT ON** - No warmup time required, full brightness instantly

**LOW FLICKER** - Less than 5% flicker

**MERCURY FREE** - Environmentally friendly vs fluorescent technologies

**SHUNTED AND NON-SHUNTED** - Works on shunted and non-shunted sockets

## Technical Specifications

Product Type	Linear
Bulb Shape	T8
Nominal Length	8FT
Finish	Frosted
Wattage	43W
Wattage Equivalency	59W/54W Fluorescent
Typical Lumen Output	5500
Efficacy	128 lm/W
Color Temperature	5000K Daylight
CRI	82
Base Type	R17d
L70 Lifespan	50,000 hours
Operating Temperature	-20°C - 45°C
Dimmable	No
Beam Angle	240°
Warranty	5-Year, No-Compromise Warranty
Installation Type	Type B, Double Ended wiring
For Use in Emergency Fixtures	No
For Use Outdoors in Open Fixtures	No

## Electrical Characteristics

Input Voltage	120-277V
Power Factor	0.9
Operating Frequency	50 / 60 Hz
THDi	<20%

## Listings

UL Recognized	Yes
UL Classified	Yes
NSF Listing	Meets NSF/ANSI standards for use in Food Zone (non-contact), Splash, and Non-Food Zones
CEC Status	Lawful for sale in California

# T8-43-96G-R17D-850-DE-BYP

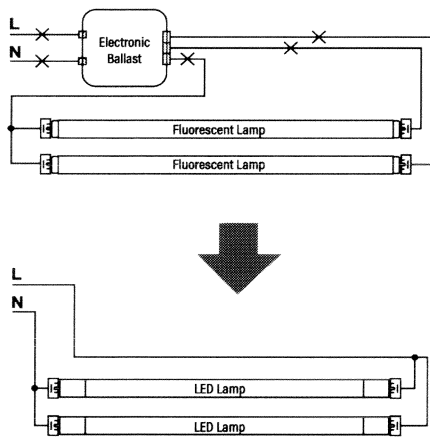
**RAB** Lamps

## Case and Pallet Dimensions

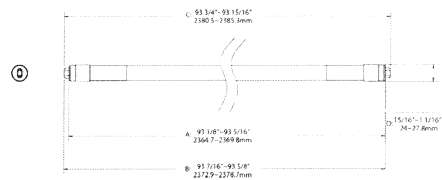
	QTY	LENGTH	WIDTH	HEIGHT
CASE	10	95.7	7.5	4.7
PALLET	1000	0	0	0



## Wiring Diagram

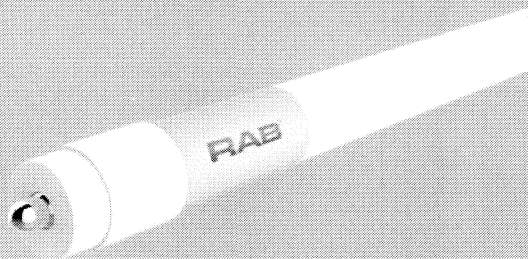


## Dimension



# T8-43-96G-FA8-850-DE-BYP

**RAB** | Lamps



Replace T8 or T12 fluorescent tubes. Double-ended line voltage wiring. Works with shunted and non-shunted sockets - no need to change sockets.

Color: White

Weight: 1.3 lbs

**Project:**

**Type:**

**Prepared By:**

**Date:**

## Driver Info

Watts 43.00W  
Color Temp 5000K (Daylight)  
Lumens 5,500  
Efficacy 127.9 LPW  
Color Accuracy 82 CRI  
L70 Accuracy 50,000

## LED Info

Input Voltage 120-277  
Power Factor 0.9  
Flicker N/A  
THDi N/A  
R9

## Technical Specifications

### Technical Specifications

**Product Type:**

Linear

**Bulb Shape:**

T8

**Nominal Length:**

8FT

**Finish:**

Frosted

**Wattage:**

43W

**Wattage Equivalency:**

59W/54W Fluorescent

**Typical Lumen Output:**

5500

**Efficacy:**

128 lm/W

**Color Temperature:**

5000K Daylight

**CRI:**

82

**Base Type:**

Fa8

**L70 Lifespan:**

50,000 hours

**Operating Temperature:**

-20°C - 45°C

**Dimmable:**

No

**Beam Angle:**

240°

**Warranty:**

5-Year, No-Compromise Warranty

**Installation Type:**

Type B, Double Ended wiring

**For Use in Emergency Fixtures:**

No

**For Use Outdoors in Open Fixtures:**

No

# T8-43-96G-FA8-850-DE-BYP

**RAB** | Lamps

## Technical Specifications (continued)

### Electrical Characteristics

#### Input Voltage:

120-277V

#### Power Factor:

0.9

#### Operating Frequency:

50 / 60 Hz

#### THDi:

<20%

### Listings

#### UL Recognized:

Yes

#### UL Classified:

Yes

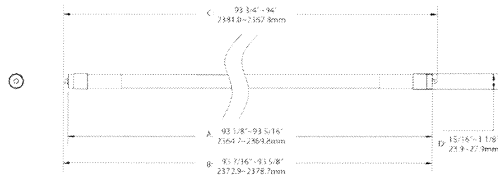
#### DLC Product Code:

PLDD4UETCWP4

#### CEC Status:

Lawful for sale in California

## Dimensions



## Features

**FLUORESCENT REPLACEMENT** - Replace conventional fluorescent T8 and T12 linear tubes

**EASY TO INSTALL** - Simply cut the ballast out, and rewire sockets directly to line voltage

**SAVE ENERGY AND MONEY** - Provides same output as fluorescent but uses far less energy

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**ENCLOSED FIXTURE RATED** - May be used in enclosed and open fixtures

**DIFFUSION COATING** - Will maintain the same light quality over time and won't yellow, shrink, or wrinkle

**BALLAST BYPASS** - Internal driver eliminates the need for external ballasts or drivers

**INSTANT ON** - No warmup time required, full brightness instantly

**LOW FLICKER** - Less than 5% flicker

**MERCURY FREE** - Environmentally friendly vs fluorescent technologies

**SHUNTED AND NON-SHUNTED** - Works on shunted and non-shunted sockets

# T8-14-48G-850-DE-BYP

**RAB** Lamps

Project:

Type:

Prepared By:

Date:



## Features and Benefits

**FLUORESCENT REPLACEMENT** - Replace conventional fluorescent T8 and T12 linear tubes

**EASY TO INSTALL** - Simply cut the ballast out, and rewire sockets directly to line voltage

**SAVE ENERGY AND MONEY** - Provides same output as fluorescent but uses far less energy

**ENCLOSED FIXTURE RATED** - May be used in enclosed and open fixtures

**DIFFUSION COATING** - Will maintain the same light quality over time and won't yellow, shrink, or wrinkle

**BALLAST BYPASS** - Internal driver eliminates the need for external ballasts or drivers

**INSTANT ON** - No warmup time required, full brightness instantly

**LOW FLICKER** - Less than 5% flicker

**MERCURY FREE** - Environmentally friendly vs fluorescent technologies

**SHUNTED AND NON-SHUNTED** - Works on shunted and non-shunted sockets

## Technical Specifications

Product Type	Linear
Bulb Shape	T8
Nominal Length	4FT
Finish	Frosted
Wattage	14W
Wattage Equivalency	32W Fluorescent
Typical Lumen Output	1800
Efficacy	129 lm/W
Color Temperature	5000K Daylight
CRI	82
Base Type	G13
L70 Lifespan	50,000 hours
Operating Temperature	-20°C - 45°C
Dimmable	No
Beam Angle	240°
Warranty	5-Year, No-Compromise Warranty
Installation Type	Type B, Double Ended wiring
For Use in Emergency Fixtures	No
For Use Outdoors in Open Fixtures	No

## Electrical Characteristics

Input Voltage	120-277V
Power Factor	0.9
Operating Frequency	50 / 60 Hz
Input Current @ 120V	102mA
THDi	<20%

## Listings

UL Recognized	Yes
UL Classified	Yes
NSF Listing	Meets NSF/ANSI standards for use in Food Zone (non-contact), Splash, and Non-Food Zones
DLC Listed	This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Model Number	T8-14-48G-850-DE-BYP
DLC Product Code	PJ5VSR8I
CEC Status	Lawful for sale in California

# T8-14-48G-850-DE-BYP

**RAB** Lamps

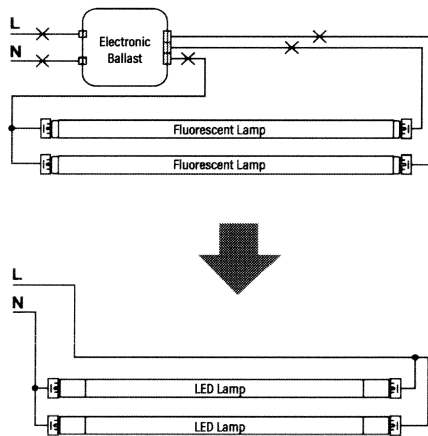
## Minimum Compartment Size

Length x Width x Height [mm]	Lamp Quantity
47.8 x 23.8 x 3.0	4

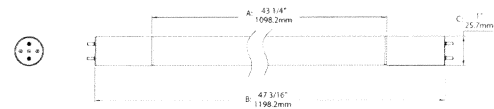
## Case and Pallet Dimensions

	QTY	LENGTH	WIDTH	HEIGHT
CASE	25	48.8	5.9	5.9
PALLET	1200	49.2	39.4	46.1

## Wiring Diagram



## Dimension





P.O. Box 25083, Lansing, MI 48909  
Office: 517-336-7800 Fax: 517-336-0801

**INVOICE**

Date	Invoice #
10/1/2019	8155

Labor Law Poster  
5859 W Saginaw Hwy, Ste. 343  
Lansing, MI 48917-2492

Purchase Order Num...	Terms	Payment Due	Job Name
	Due upon receipt	10/1/2019	6323 W. Saginaw Hwy
Description			Amount
Work done at 6323 W. Saginaw Hwy Lansing Installed the Following bulbs:  Qty (128) MFR: RAB Model: T8-14-48G-850-DE-BYP (4ft bulbs) Qty (58) MFR: RAB Model: T8-43-96G-FA8-850-DE-BYP (8FT bulbs) - Single Socket Qty (2) MFR: RAB Model: T8-43-96G-R17850-DE-BYP (8FT bulbs) - Double Socket  Labor Material			1,918.93 3,530.11
Thank you for your business			Total \$5,449.04
We Now accept Visa, Mastercard, Discover & American Express			Payments/Credits -\$5,449.04
Cardholder's Name: _____ Billing Address: _____ Zip Code: _____ Card Number: _____ Type: _____ Expiration Date: _____ Amount: _____ Signature: _____			Balance Due \$0.00  A finance charge of 1.5% per month (18% annually) will be applied to any balance on any invoice remaining unpaid after the due date.