

Project Name

Qty

Type

Catalog / Part Number



CCT - Color Temp (K)

2,700K

3,000K

3,500K

4,000K

5,000K

7 Year Warranty

7

Certifications

UL US LISTED

Description

The versatile VCOB-6590 conversion kit transforms existing Sternberg 6590 Victorian Gaslight HID luminaires into energy-efficient luminaires at significantly reduced maintenance costs. The wide variety of options makes this the industry's choice when converting from conventional lamp sources to energy-efficient lighting; made by Sternberg Lighting for Sternberg Lighting.

Physical

Series

VCOB-6590: Victorian Gaslight, LED Conversion Kit

Generation

GEN1: Shipped through 2013 - Fitter with door  
GEN2: Shipped 2014 and later - Fitter without door

Light Source

LED

4L: 4 LEDs

CCT - Color Temp (K)

27: 2,700K  
35: 3,500K  
50: 5,000K

30: 3,000K  
40: 4,000K

Distribution Type

TS: Type Symmetric  
TA: Type Asymmetric

Electrical and control

Driver

MDL02: 120V-277V, 250mA  
MDL03: 120V-277V, 350mA  
MDL05: 120V-277V, 500mA

MDH02: 347V-480V, 250mA  
MDH03: 347V-480V, 350mA  
MDH05: 347V-480V, 500mA

Features

Optional Fixed Dimming Resistor Board

FDRB: Fixed Dimming Resistor Board

| Specifications |                                                                                                                                                                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conversion Kit | Includes an aluminum carrier plate with an LED driver and surge protector on a bracket. Four vertical aluminum heat sinks each support a single COB LED for thermal management. |

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Generation                          | There are differences in the fitter from a <b>GEN1</b> build to a <b>GEN2</b> build.<br><b>GEN1</b> - Includes a door on the fitter, shipped through 2013<br><b>GEN2</b> - No door in fitter, shipped 2014 and later                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| UL Listing                          | UL listed per UL1598 and CSA 22.2 No. 250.0 for the United States and Canada. Suitable for Wet Locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Electronic Driver                   | The LED driver is UL recognized and will be securely mounted inside the fixture, for optimized performance and longevity. It will be supplied with a quick-disconnect electrical connector on the power supply, providing easy power connections for fixture installation and maintenance. It will have DC voltage output and be a constant current design. It runs at 50/60HZ and will have overload, overheat, and short circuit protection. It will be supplied with a supplemental line-ground, line-neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines. It will be a high efficiency driver with a THD less than 20% and a high-power factor greater than .9. It will be dimming capable using a 0-10V signal, consult factory for more information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Warranty                            | 7-year limited warranty. See Website for Terms and Conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| LEDs                                | <p>The luminaire shall use high output, high brightness LED's, consisting of a two piece assembly complete with Chip on Board (COB) LED component and COB holder frame. The LEDs shall be 100% recyclable; not contain lead, mercury or any other hazardous substances and shall be RoHS compliant. Lumen maintenance shall be determined in accordance with IESNA TM-21, based on LED manufacturer LM-80 test data of no less than 6,000 hours and in-situ testing of the luminaire by an NVLAP accredited Energy Efficient Lighting Products lab. The high-performance white LEDs will have a predicted lumen depreciation of approximately 100,000 hours with greater than 70% of initial output at 25°C. The High Brightness, High Output LED's shall be 4000K (2700K, 3000K, 3500K or 5000K option) correlated color temperature (CCT) with a 70 (minimum) color rendering index (CRI). Consult factory for custom color CCT. The luminaire shall have a minimum _____ (see table) delivered initial lumen rating when operated at steady state with an average ambient temperature of 25°C (77°F).</p> <p><b>CCT Lumen Derate Values from 4,000K</b></p> <p>2,700K (80+ CRI)=<b>.89</b></p> <p>3,000K (70+ CRI)=<b>.97</b></p> <p>3,500K (80+ CRI)=<b>.93</b></p> <p>5,000K (70+ CRI)=<b>1.01</b></p> |
| Optics                              | The luminaire shall be provided with individual, refractor type optics applied to each LED. The luminaire shall provide Type ____ (Symmetric or Asymmetric) light distribution. Testing shall be done in accordance with IESNA LM-79.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Fixed Dimming Resistor Board (FDRB) | Optional numbered 10-step selector switch allows for fine adjustment of the light levels in the field, repeatable from location to location. Offers dimming from 25% to 100% of the original output. Enclosure is composite material, sealed to protect components for the life of the product.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

Lumen Chart(s)

| Model #      | TA<br>DELIVERED<br>LUMENS | BUG    | EFFICACY<br>(LPW) | TS<br>DELIVERED<br>LUMENS | BUG    | EFFICACY<br>(LPW) | WATTAGE |
|--------------|---------------------------|--------|-------------------|---------------------------|--------|-------------------|---------|
| 4L40T_-MDL05 | 8070                      | B2U3G3 | 103.5             | 8225                      | B3U3G3 | 105.4             | 78      |
| 4L30T_-MDL05 | 7865                      | B2U3G3 | 100.8             | 8015                      | B3U3G3 | 102.8             | 78      |
| 4L27T_-MDL05 | 7145                      | B2U3G3 | 91.6              | 7280                      | B3U3G3 | 93.3              | 78      |
| 4L40T_-MDL03 | 5970                      | B2U3G3 | 112.6             | 5980                      | B3U3G2 | 112.8             | 53      |
| 4L30T_-MDL03 | 5820                      | B2U3G3 | 109.8             | 5830                      | B3U3G2 | 110.0             | 53      |
| 4L27T_-MDL03 | 5285                      | B2U3G3 | 99.7              | 5295                      | B3U3G2 | 99.9              | 53      |
| 4L40T_-MDL02 | 4485                      | B1U3G2 | 115.0             | 4480                      | B2U3G2 | 114.9             | 39      |
| 4L30T_-MDL02 | 4370                      | B1U3G2 | 112.1             | 4365                      | B2U3G2 | 111.9             | 39      |
| 4L27T_-MDL02 | 3970                      | B1U3G2 | 101.8             | 3965                      | B2U3G2 | 101.7             | 39      |

Generation



**GEN1**  
Fitter with door, shipped through 2013



**GEN2**  
Fitter without door, shipped 2014 and sooner

Options



Fixed Dimming Resistor Board (**FDRB**)

How to Order

| Series                                                     | Generation                                                                                                                               | LED                 | CCT - Color Temp (K)                                                                                                            | Distribution Type                                               | Driver                                                                                                                                                                                                                                         | Optional Fixed Dimming Resistor Board       |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <b>VCOB-6590</b><br>Victorian Gaslight, LED Conversion Kit | <b>GEN1</b><br>Shipped through 2013 - Fitter with door <sup>(1)</sup><br><br><b>GEN2</b><br>Shipped 2014 and later - Fitter without door | <b>4L</b><br>4 LEDs | <b>27</b><br>2,700K<br><br><b>30</b><br>3,000K<br><br><b>35</b><br>3,500K<br><br><b>40</b><br>4,000K<br><br><b>50</b><br>5,000K | <b>TS</b><br>Type Symmetric<br><br><b>TA</b><br>Type Asymmetric | <b>MDL02</b><br>120V-277V , 250mA<br><br><b>MDH02</b><br>347V-480V , 250mA<br><br><b>MDL03</b><br>120V-277V , 350mA<br><br><b>MDH03</b><br>347V-480V , 350mA<br><br><b>MDL05</b><br>120V-277V , 500mA<br><br><b>MDH05</b><br>347V-480V , 500mA | <b>FDRB</b><br>Fixed Dimming Resistor Board |

Notes:

1. For use with MDLxx driver only.