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# SSL Light Engine and Power Supply Catalog 2014-2015



OSRAM is proud to offer an innovative selection of advanced lighting technologies and energy-saving products, systems and services. Our products are marketed under our family of brands: OSRAM, SYLVANIA, Traxon & e:cue and ENCELIUM®.

Because our focus is on lighting, we provide the solutions that meet the needs of all our customers. Our products are designed to save energy, improve the quality of light and meet sustainability goals. The right lighting solution can make people more comfortable, more productive and feel safer. Whatever the need – from retail to entertainment lighting, depend on us for the ideal lighting solution to meet your requirements and to help make your company more efficient and productive.

# Our Brands

Our family of brands:



OSRAM branded products are known worldwide for their high quality and advanced technology. Featuring energy-saving solutions for any application, the OSRAM brand is one of the most respected in lighting.



SYLVANIA branded products have signified lighting innovation for almost a century. Innovation, quality and dependability are why the SYLVANIA brand name is the name you can trust. The complete line of SYLVANIA products deliver unparalleled levels of performance to any modern lighting application.



The Traxon & e:cue portfolio of sustainable and reliable turnkey lighting solutions is designed to meet every demand. Traxon & e:cue LED lighting and control systems offer sophisticated RGB and white options for the architectural, hospitality, healthcare, retail and entertainment industries. These innovative solutions apply the benefits of LEDs as a highly-efficient, long-lasting and environmentally-safe light source by combining state-of-the-art technology with award-winning designs.



## ENCELIUM

The ENCELIUM® brand and Energy Management System from OSRAM offers some of the most brilliant tactics in the industry to combat the problem of escalating energy costs. The solution was the Energy Management System (EMS), the most advanced lighting control solution on the market. EMS is an intelligent, integrated lighting control and energy management solution that uses the collaborative power of addressable networking technology in conjunction with advanced control hardware and software. Proven solutions have been utilized in hundreds of new and retrofitted buildings around the globe.

We are also proud to have two technologically-advanced businesses in our OSRAM family.

## OSRAM

Opto Semiconductors

OSRAM Opto Semiconductors, a subsidiary of OSRAM GmbH, is one of the key players in the global opto-electronic semiconductor market and one of the guiding lights in technological development and high-quality manufacturing. For four decades, the high-tech company has been investing in research and developing new products on the technological cutting edge – enabling OSRAM Opto Semiconductors, to set international standards in the fields of illumination, visualization and sensor technology.

## SYLVANIA

LIGHTING SERVICES 

SYLVANIA Lighting Services (SLS), a subsidiary of OSRAM SYLVANIA, is the industry leader in turnkey energy-management solutions.

We help design a solution that includes energy saving products as well as the latest in lighting controls to reduce energy consumption and ultimately save you money. We provide audit and survey capabilities, lighting design and project management, utility rebate management, recycling, turnkey solutions for EV charging and more, all with one point of contact.

As our business partner, you will benefit from the strength of our company, the versatility of our brands and our commitment to cutting-edge lighting technologies. We provide customized solutions to help you achieve your objectives, thus strengthening your bottom line and improving the light around you.





# Table of Contents

|   |    |
|---|----|
| Directional LED Light Engines and Modules.....          | 1  |
| Linear and Array LED Modules.....                       | 5  |
| Signage LED Modules.....                                | 11 |
| Flexible LED Modules .....                              | 17 |
| OPTOTRONIC® Power Supplies and Control Interfaces ..... | 21 |
| Standard Safety Information.....                        | 31 |
| Glossary .....  | 32 |

## Important Notice

The data and suggested applications contained in this catalog, as well as any additional information our representatives may be able to furnish, are for general information only and are not intended and should not be taken as representations or warranties as to the suitability of a lamp for any particular application or use in any particular equipment, nor are our representatives authorized to make any such representations or give any such warranties. Applications and conditions of use are many and varied and beyond our control. We do not have the same degree of knowledge that the purchaser has with respect to the design of his equipment and the conditions of its use. Therefore, it is up to the purchaser to make his own determination as to the suitability of a lamp for his intended application or use and to assume responsibility for that determination.

The specifications and information shown in this catalog are believed to be accurate. Although OSRAM SYLVANIA believes this information to be correct, no warranty is made or implied as to the accuracy of this information and OSRAM SYLVANIA does not accept or assume responsibility of liability for errors, changes, omissions, or for harm resulting therefrom.

In accordance with our established policy to consistently improve our products, the specifications contained herein are subject to change without notice.

The OSRAM SYLVANIA Test and Measurement Laboratory is a participant in the Energy Efficient Lighting (EEL) Program of the National Voluntary Laboratory Accreditation Program (NVLAP-NIST) and is accredited for testing of lighting products according to the guidelines for the EEL Program. OSRAM SYLVANIA lamp and ballast measurements are conducted under laboratory conditions utilizing American National Standards Institute (ANSI), Canadian Standards Association (CSA), Commission Internationale de l'Eclairage (CIE), and Illuminating Engineering Society of North America (IESNA) standards and practices. The OSRAM SYLVANIA Electronic Component and Systems Development

Group participate in the Underwriters Laboratories Inc. Client Test Data Program. Ballast designs are tested for conformance to Underwriters Laboratory (UL) safety standards using practices audited, assessed and approved by UL. Actual lamp and ballast performance may vary depending on application and environment (i.e. ambient temperature, input voltage, ballast type, etc.)

OSRAM SYLVANIA designs and manufactures lamps and ballasts to meet American National Standard Institutes (ANSI) and/or IEC (International Electrotechnical Commission) standards of construction and performance through Total Quality Manufacturing (TQM) practices where applicable. In addition, ballasts are designed and manufactured to meet Underwriters Laboratory (UL) and Canadian Standards Association (CSA) safety standards as necessary. Ratings may change as a result of changes made to remain compliant with modified or updated standards. OSRAM SYLVANIA will release new or updated technical bulletins when appropriate. All product data presented in this catalog supersedes all data published before 10/01/14.

Many OSRAM SYLVANIA products listed in this catalog qualify under the North American Free Trade Agreement (NAFTA) as manufactured in Canada, the United States of America or Mexico.

# The Future of Lighting is Being Created Today at OSRAM SYLVANIA

## Leading you into the future of light

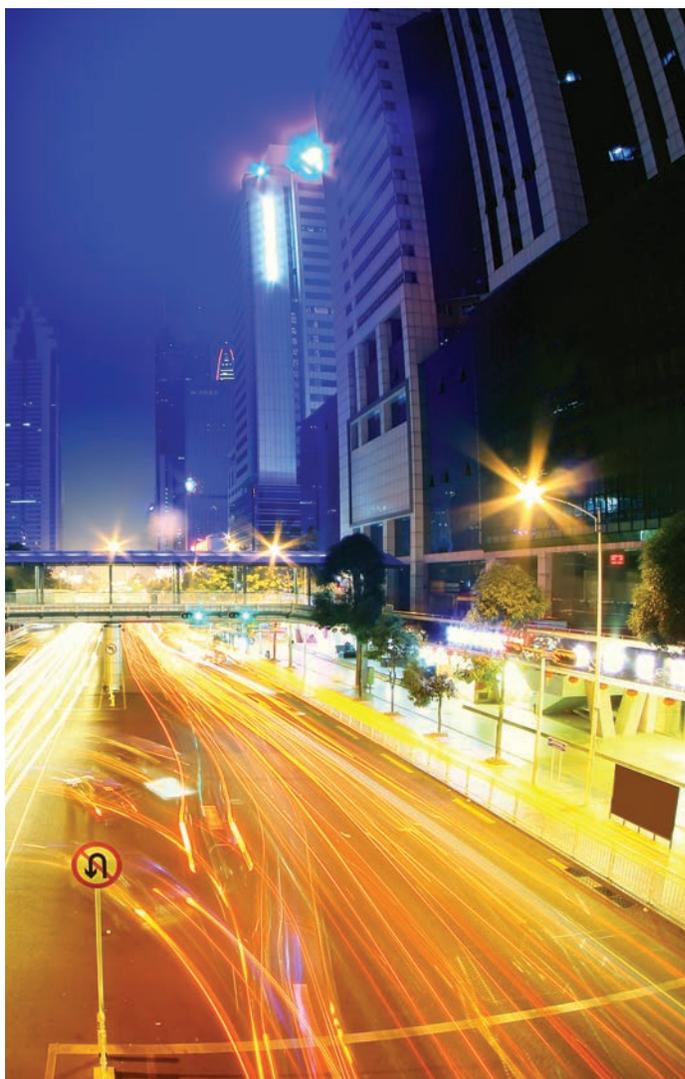
For over a century, OSRAM SYLVANIA has been a leader in introducing products that deliver energy savings, reduce impact on the environment and increase our customers' bottom line. We have consistently refined and improved our traditional lighting technologies, while embracing the challenge to explore and develop innovative products to meet future demands.

## The integrated lighting expert

As an integrated lighting expert, we are number two among the global companies in the lighting market. We offer vertically integrated products and solutions along the entire lighting value chain from light sources – including lamps, components, and optical semiconductors – through ballasts, light management systems, and value-added services.

## Follow a leader in lighting innovation

Our innovative products are driven by unparalleled expertise in all facets of lighting science and technology, and by the highest levels of customer support and service. Let us show you how lighting behaves, how it motivates and how it influences our lives and our performance. Most importantly, let us show you how our experience in specification and application will ensure you get the best performance and ROI from our products. Look to OSRAM SYLVANIA to provide tomorrow's lighting solutions for today's lighting projects.



# A Century of Illumination

OSRAM SYLVANIA's leadership in the industry results from our proud legacy, which extends back to the dawn of the twentieth century, and points the way for continued success in years to come.

We're proud of our long standing reputation of providing solutions in homes, businesses and institutions, automobiles and a broad range of specialty applications. Over the years we've changed to reflect the markets we serve and the customers we reach. But one thing has remained constant – a belief that our ideas can make a difference in every person's life and that our products reflect a commitment to making our world more comfortable, more productive and more imaginative.

- |             |  |             |  |
|-------------|--|-------------|--|
| <b>1964</b> | METALARC®                                    | <b>2005</b> | DULUX L SUPERSAVER ECOLOGIC  |
| <b>1972</b> | LUMALUX®                                     | <b>2008</b> | QUICKTRONIC PowerSHED™   |
| <b>1973</b> | UNALUX®                                      | <b>2009</b> | METALARC POWERBALL EL ECOLOGIC                                       |
| <b>1974</b> | SUPERSAVER® T12                              | <b>2009</b> | OCTRON XP XL ECOLOGIC  |
| <b>1981</b> | OCTRON®                                      | <b>2009</b> | QUICKTRONIC High Efficiency Systems                                  |
| <b>1982</b> | DULUX®                                       | <b>2010</b> | DULUX SUPERSAVER ECOLOGIC  |
| <b>1983</b> | SUPERSAVER PLUS™                             | <b>2010</b> | METALARC POWERBALL Ceramic 15W TF<br>& QUICKTRONIC SUPER Mini System |
| <b>1984</b> | LUMALUX ECOLOGIC®                            | <b>2011</b> | PENTRON HO XL ECOLOGIC   |
| <b>1985</b> | OCTRON CURVALUME®                            | <b>2011</b> | QUICKTRONIC High Efficiency<br>POWERSENSE Systems                    |
| <b>1987</b> | QUICKTRONIC® Systems                         | <b>2011</b> | QUICKTRONIC Metal Halide Dimming Systems                             |
| <b>1992</b> | METALARC PRO-TECH®                           | <b>2012</b> | Ultra IQ™ LED Lamps with integrated wireless dimming                 |
| <b>1995</b> | LUMALUX PLUS®                                | <b>2012</b> | Ultra SE™ LED Lamps with Sunset Effect                               |
| <b>1995</b> | METALARC Pulse Start                         | <b>2013</b> | OPTOTRONIC® Programmable Constant Current LED<br>Power Supplies      |
| <b>1996</b> | METALARC SUPERSAVER                          | <b>2013</b> | OCTRON® 800XP® XL Ecologic® 3 T8 Fluorescent Lamp                    |
| <b>1996</b> | DULUX D ECOLOGIC                             | <b>2014</b> | ORIOS™ LED Lamps   |
| <b>1997</b> | ICETRON®                                     | <b>2014</b> | SubstiTUBE® IS T8 LED Lamp   |
| <b>1997</b> | PENTRON®                                     | <b>2014</b> | ULTRA HE T8 LED Retrofit Kit   |
| <b>1997</b> | PENTRON HO                                   |             |  |
| <b>1999</b> | METALARC POWERBALL® Ceramic                  |             |  |
| <b>2001</b> | SUPER METALARC, OCTRON XP®, XPS®<br>ECOLOGIC |             |  |
| <b>2002</b> | OCTRON SUPERSAVER ECOLOGIC                   |             |  |
| <b>2005</b> | PENTRON PREMIER™ ECOLOGIC                    |             |  |
| <b>2005</b> | QUICKTRONIC POWERSENSE® Dimming Ballast      |             |  |

# OSRAM SYLVANIA Distinctions and Awards

At OSRAM SYLVANIA, our singular focus is on lighting excellence. You can see it in our products. Our innovative lighting products are driven by unparalleled expertise in all facets of lighting science and technology and, equally important, by the highest levels of customer support and service. We are proud the industry has recognized our efforts.



2013 *Today's Facility Manager*  
Readers' Choice Award  
OCTRON® XP® XL ECOLOGIC®3



Lighting for Tomorrow  
MONAVI™ Double Arm  
ULTRA SE™ RT6 DDownlight



2014 IES Progress Report



Founding and governing member since 2008



2014 LIGHTFAIR Innovation Award  
OSRAM DEBUT™ Judges Citation Award  
OPTOTRONIC® Programmable Constant Current 2DIM  
Outdoor LED Power Supplies - Category Winner



2014 *Design Journal* ADEX Awards

MOSAIC™ Flexible Color Changing LED - Platinum  
ULTRA iQ™ LED Lamps - Platinum  
ULTRA SE™ LED Lamp Family - Platinum  
ULTRA 25™ LED Lamps - Platinum  
OPTOTRONIC® Programmable Dimmable Power Supplies -  
Platinum  
RLS22 2x2 LED Troffer - Gold  
PrevaLED® Cube LED Light Engine - Gold



Architectural SSL PIA Award  
OPTOTRONIC® Programmable Dimmable LED Power Supplies  
PrevaLED® Cube LED Light Engine  
ULTRA SE™ LED Lamp Family  
LINEARlight™ Flex UL2108 Protect System  
OSRAM OPTO Semi-conductors DURIS® S9  
OSRAM Luminaire Catalog

# SYLVANIA and OSRAM Products and the IESNA Progress Report

A proud legacy of achievement



Each year, the Progress Committee of the Illuminating Engineering Society of North America (IESNA) solicits the lighting industry for product submissions. If accepted, these submissions are featured in the committee's Progress Report that is published in the IESNA's publication, *LD+A*. The mandate of the Progress Committee is "to keep in touch with developments in the art and science of lighting throughout the world and prepare a yearly review of achievements for the Illuminating Engineering Society of North America". Submissions are organized into one of seven categories: light source, accessory, luminaire, research, application, publication and design tool. They are evaluated for their design, engineering characteristics, installation features and overall uniqueness. The 30-member committee of industry experts votes on up to 200 product submissions annually.

Over the years, many SYLVANIA and OSRAM branded products have been accepted for the Progress Report. An itemized list of our products is included in the table that follows along with their significant features. For detailed descriptions and specifications, please visit [www.osram-america.com](http://www.osram-america.com).

# IESNA Progress Report

## 2014 Progress Report

### OSRAM SYLVANIA LIGHTING SUBMISSIONS ACCEPTED BY THE IESNA PROGRESS Committee

### SIGNIFICANCE TO THE LIGHTING INDUSTRY\*

|   |   |
|---|---|
| <b>ULTRA PRO HD Lamp Family</b>                         | Lamp family that offers industry's highest CRI with R9 above 75   |
| <b>RT6HO and RT8HO LED Retrofit Products</b>            | LED Retrofit package, wet rated and universal voltage   |
| <b>DULUX® T/E/IN XL ECOLOGIC® CFL Lamps</b>             | 67% increase in life; improved lumen output of up to 6%   |
| <b>OPTOTRONIC® Programmable Linear CC Power Supply</b>  | Line extension to OPTOTRONIC Programmable power supply with linear form factor  |
| <b>OPTOTRONIC® Programmable Outdoor CC Power Supply</b> | Line extension for OPTOTRONIC programmable outdoor power supply   |
| <b>ENCELIUM® Wireless Wall Station</b>                  | Five buttons with available customization for scene setting and zone control  |
| <b>ENCELIUM® Wireless PIR Sensor</b>                    | Uses PIR technology which is unique to wireless photosensors  |
| <b>PrevaLED® Flex Linear Module</b>                     | Highest efficacy (up to 175 LPW) for linear strip   |
| <b>PrevaLED® Cube AC LED Light Engine</b>               | Highest lumen package module in industry with double lifetime, lowest profile for AC direct   |
| <b>PrevaLED® Flat AC LED Module</b>                     | Highest efficacy flat AC LED module   |
| <b>SOLERIQ® P9 LED Module</b>                           | Highest output chip-on-board LED module available   |
| <b>Cove Light AC HO RGBW</b>                            | Smallest available RGBW cove light; designed for small areas  |
| <b>DEBUT LED Virtual Reality Space</b>                  | First immersive lighting application to tailor light and sound to transport consumers into the environment where their garments will actually be used |
| <b>MOSAIC® Outdoor LED FLEX Light STRIP</b>             | Line extension; First exterior rated RGB color changing light strip   |

\*based on the 2014 IESNA Progress Committee Review

# Warranties

**More systems covered. More service options. More peace of mind.**

ENCELIUM Standard Limited Warranty

Fluorescent Lamp Only Warranty

HID Magnetic System Warranty

HID Standard Lamp Warranty

Indoor Commercial Luminaire Warranty

LED Module and OPTOTRONIC® Power Supply or Control Warranty

LED Outdoor Fixture Warranty

LED Post Top Retrofit Warranty

LED Recessed Downlight Kit Limited Warranty

LED Signage System Warranty

LED System Warranty

LED T8 Replacement Lamp Warranty

LED Lamp Warranty

LEDstixx® Lighting System Warranty

Magnetic Ballast Warranty

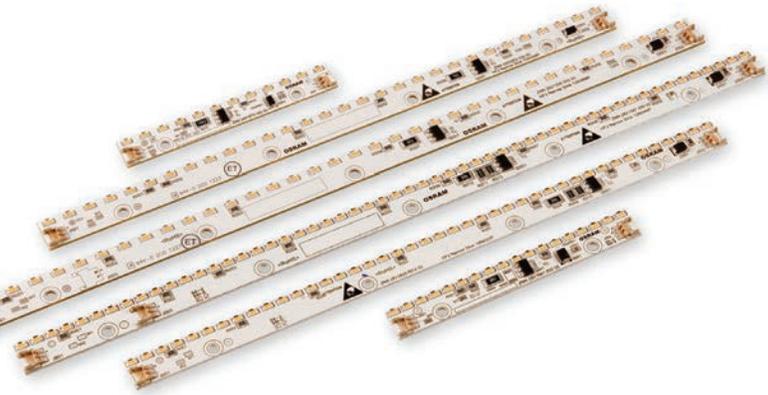
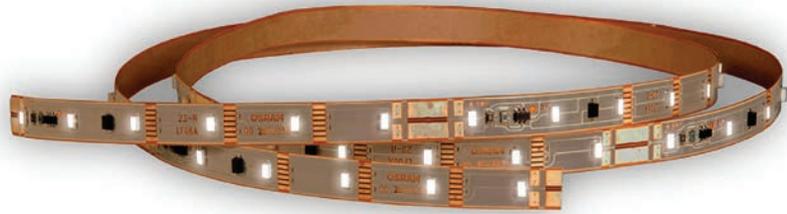
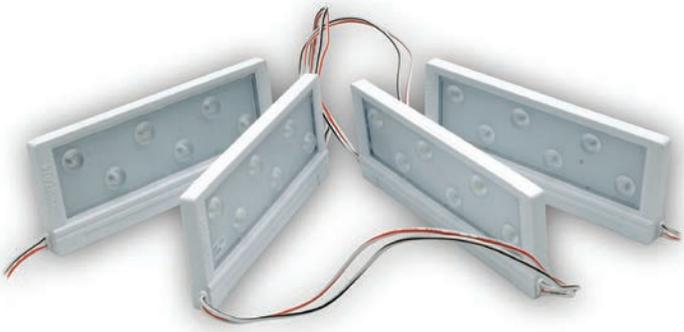
OPTOTRONIC Programmable LED Power Supplies Warranty

QUICK 60+® Lamp or Ballast Warranty

ULTRA RT4 and RT6 Warranty

QUICK 7XL+™

**For additional information and full warranty listing visit [www.osram-america.com/Warranty](http://www.osram-america.com/Warranty)**



## LED Light Engines and Modules

OSRAM SYLVANIA offers Solid State Lighting (SSL) modules and light engines that produce high-quality light focused on a broad spectrum of indoor and outdoor lighting applications. Featuring modular designs that are easy for OEMs to integrate into their lighting fixtures, our directional, linear, chain and color-mixing modules are optimally paired with OPTOTRONIC® power supplies to achieve high-quality, well-controlled lighting solutions. New board designs provide equivalent performance to comparable fluorescent luminaires and controllability with up to 145 LPW. Innovative, highly-efficient directional modules and light engines open up additional design opportunities for recessed and track lighting solutions.

With more than a century of experience in general lighting, more than 30 years of experience in LED lighting and an industry-leading product warranty, our OEM partners can be confident in SSL products from OSRAM SYLVANIA.



# LED Power Supplies

For over a decade, the OSRAM family of OPTOTRONIC® LED Power Supplies has become the industry standard for robust performance, reliability—and peace of mind.

OPTOTRONIC product line features a complete portfolio of constant voltage, constant current and multiple output power supplies in a variety of standard and custom electrical configurations and form factors to suit every application space and system requirements. New constant current multi-channel, dimmable, programmable power supplies with a wide current range are programmable by the OEM reducing the number of power supplies needed. There is an OPTOTRONIC power supply option to fit your specific application need. All OSRAM LED system components are covered by the industry’s finest five year LED Module, OPTOTRONIC Power Supply or Control Warranty.

Notes:



|                         |   |
|-------------------------|---|
| PrevaLED® Cube .....    | 2 |
| PrevaLED® Cube AC.....  | 2 |
| PrevaLED® Core .....    | 3 |
| PrevaLED® COIN 50 ..... | 3 |
| COINlight Pro.....      | 4 |

# Directional LED Light Engines and Modules

## Table of Contents

## DIRECTIONAL LED LIGHT ENGINES AND MODULES

### PrevaLED® Cube – Constant Current LED Light Engines



| Nominal Wattage (W) | Operating Current (mA) | Dimensions L (in) x W (in) x H (in) | Product Number | Ordering Abbreviation     | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | CBCP | Beam Angle (°) |
|---------------------|------------------------|-------------------------------------|----------------|---------------------------|---------|--------------------------------------|---------|-----|----------------|-----|------|----------------|
| 11                  | 350                    | 3.2 x 3.3 x 0.8                     | 73145          | PL-CUBE-1100-827-0.35A-G2 | 20      | 50000                                | 2700    | >80 | 1100           | 95  | 401  | 110            |
|                     |                        |                                     | 73146          | PL-CUBE-1100-830-0.35A-G2 | 20      | 50000                                | 3000    | >80 | 1100           | 103 | 428  | 110            |
|                     |                        |                                     | 73147          | PL-CUBE-1100-835-0.35A-G2 | 20      | 50000                                | 3500    | >80 | 1100           | 108 | 450  | 110            |
|                     |                        |                                     | 73148          | PL-CUBE-1100-840-0.35A-G2 | 20      | 50000                                | 4000    | >80 | 1100           | 111 | 462  | 110            |
| 19                  | 500                    | 3.2 x 3.3 x 0.8                     | 73149          | PL-CUBE-2000-827-0.5A-G2  | 20      | 50000                                | 2700    | >80 | 2000           | 90  | 658  | 110            |
|                     |                        |                                     | 73150          | PL-CUBE-2000-830-0.5A-G2  | 20      | 50000                                | 3000    | >80 | 2000           | 99  | 703  | 110            |
|                     |                        |                                     | 73151          | PL-CUBE-2000-835-0.5A-G2  | 20      | 50000                                | 3500    | >80 | 2000           | 105 | 739  | 110            |
|                     |                        |                                     | 73152          | PL-CUBE-2000-840-0.5A-G2  | 20      | 50000                                | 4000    | >80 | 2000           | 109 | 759  | 110            |
|                     |                        |                                     | 73470*         | PL-CUBE-2000-850-0.5A-G2  | 20      | 50000                                | 5000    | >80 | 2000           | 123 | –    | 110            |
| 30                  | 700                    | 3.2 x 3.3 x 0.8                     | 73153          | PL-CUBE-3000-827-0.7A-G2  | 20      | 50000                                | 2700    | >80 | 3000           | 89  | 985  | 110            |
|                     |                        |                                     | 73154          | PL-CUBE-3000-830-0.7A-G2  | 20      | 50000                                | 3000    | >80 | 3000           | 97  | 1052 | 110            |
|                     |                        |                                     | 73155          | PL-CUBE-3000-835-0.7A-G2  | 20      | 50000                                | 3500    | >80 | 3000           | 103 | 1105 | 110            |
|                     |                        |                                     | 73156          | PL-CUBE-3000-840-0.7A-G2  | 20      | 50000                                | 4000    | >80 | 3000           | 107 | 1136 | 110            |
|                     |                        |                                     | 73471*         | PL-CUBE-3000-850-0.7A     | 20      | 50000                                | 5000    | >80 | 3000           | 121 | –    | 110            |

\*These items do not have a cover

### Accessories for PrevaLED® Cube

| Product Number | Ordering Abbreviation | Description                      |
|----------------|-----------------------|----------------------------------|
| 74799          | PL-CUBE HS ADTR       | PrevaLED® Cube Heat Sink Adaptor |

### PrevaLED® Cube AC – Constant Current LED Light Engines



| Nominal Wattage (W) | Voltage (V) | Dimensions L (in) x W (in) x H (in) | Product Number | Ordering Abbreviation       | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | CBCP | Beam Angle (°) |
|---------------------|-------------|-------------------------------------|----------------|-----------------------------|---------|--------------------------------------|---------|-----|----------------|-----|------|----------------|
| 12                  | 277         | 3.3 x 3.2 x 0.8                     | 73279          | PL-CUBE AC-G2 1100-827 277V | 20      | 50000                                | 2700    | >80 | 1100           | 91  | 407  | 100            |
|                     |             |                                     | 73280          | PL-CUBE AC-G2 1100-830 277V | 20      | 50000                                | 3000    | >80 | 1100           | 91  | 407  | 100            |
|                     |             |                                     | 73218          | PL-CUBE AC-G2 1100-835 277V | 20      | 50000                                | 3500    | >80 | 1100           | 91  | 407  | 100            |
| 11                  | 277         | 3.3 x 3.2 x 0.8                     | 73282          | PL-CUBE AC-G2 1100-840 277V | 20      | 50000                                | 4000    | >80 | 1100           | 99  | 407  | 100            |
| 23                  | 277         | 3.3 x 3.2 x 0.8                     | 73283          | PL-CUBE AC-G2 2000-827 277V | 20      | 50000                                | 2700    | >80 | 2000           | 89  | 740  | 100            |
| 21                  | 277         | 3.3 x 3.2 x 0.8                     | 73284          | PL-CUBE AC-G2 2000-830 277V | 20      | 50000                                | 3000    | >80 | 2000           | 95  | 740  | 100            |
| 20                  | 277         | 3.3 x 3.2 x 0.8                     | 73285          | PL-CUBE AC-G2 2000-835 277V | 20      | 50000                                | 3500    | >80 | 2000           | 100 | 740  | 100            |
|                     |             |                                     | 73286          | PL-CUBE AC-G2 2000-840 277V | 20      | 50000                                | 4000    | >80 | 2000           | 102 | 740  | 100            |
| 40                  | 277         | 3.3 x 3.2 x 0.8                     | 73287          | PL-CUBE AC-G2 3000-827 277V | 20      | 50000                                | 2700    | >80 | 3000           | 75  | 1110 | 100            |
| 38                  | 277         | 3.3 x 3.2 x 0.8                     | 73288          | PL-CUBE AC-G2 3000-830 277V | 20      | 50000                                | 3000    | >80 | 3000           | 80  | 1110 | 100            |
| 36                  | 277         | 3.3 x 3.2 x 0.8                     | 73289          | PL-CUBE AC-G2 3000-835 277V | 20      | 50000                                | 3500    | >80 | 3000           | 83  | 1110 | 100            |
| 35                  | 277         | 3.3 x 3.2 x 0.8                     | 73290          | PL-CUBE AC-G2 3000-840 277V | 20      | 50000                                | 4000    | >80 | 3000           | 86  | 1110 | 100            |

For the current listing of available products and more complete product information, please visit us at [www.osram-americas.com](http://www.osram-americas.com).

### PrevaLED® Core – Constant Current LED Light Engines



| Nominal Wattage (W)        | Operating Current (mA) | Dimensions D (in) x H (in) | Product Number | Ordering Abbreviation    | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | Beam Angle (°) |
|----------------------------|------------------------|----------------------------|----------------|--------------------------|---------|--------------------------------------|---------|-----|----------------|-----|----------------|
| <i>Greater than 80 CRI</i> |                        |                            |                |                          |         |                                      |         |     |                |     |                |
| 12                         | 300                    | 1.97 x 0.34                | 72755          | PL-CORE-1100-827 0.3A-Z3 | 20      | 50000                                | 2700    | >80 | 1100           | 91  | 120            |
|                            |                        |                            | 72756          | PL-CORE-1100-830 0.3A-Z3 | 20      | 50000                                | 3000    | >80 | 1160           | 96  | 120            |
|                            |                        |                            | 72757          | PL-CORE-1100-835 0.3A-Z3 | 20      | 50000                                | 3500    | >80 | 1220           | 101 | 120            |
|                            |                        |                            | 72758          | PL-CORE-1100-840 0.2A-Z3 | 20      | 50000                                | 4000    | >80 | 1240           | 103 | 120            |
| 19                         | 400                    | 1.97 x 0.34                | 72759          | PL-CORE-2000-827 0.4A-Z3 | 20      | 50000                                | 2700    | >80 | 2000           | 107 | 120            |
|                            |                        |                            | 72760          | PL-CORE-2000-830 0.4A-Z3 | 20      | 50000                                | 3000    | >80 | 2110           | 113 | 120            |
|                            |                        |                            | 72761          | PL-CORE-2000-835 0.4A-Z3 | 20      | 50000                                | 3500    | >80 | 2210           | 119 | 120            |
|                            |                        |                            | 72763          | PL-CORE-2000-840 0.4A-Z3 | 20      | 50000                                | 4000    | >80 | 2220           | 119 | 120            |
| 27                         | 600                    | 1.97 x 0.34                | 72764          | PL-CORE-3000-827 0.6A-Z3 | 20      | 50000                                | 2700    | >80 | 3000           | 109 | 120            |
|                            |                        |                            | 72765          | PL-CORE-3000-830 0.6A-Z3 | 20      | 50000                                | 3000    | >80 | 3160           | 115 | 120            |
|                            |                        |                            | 72767          | PL-CORE-3000-835 0.6A-Z3 | 20      | 50000                                | 3500    | >80 | 3300           | 120 | 120            |
|                            |                        |                            | 72768          | PL-CORE-3000-840 0.6A-Z3 | 20      | 50000                                | 4000    | >80 | 3300           | 120 | 120            |
| 45                         | 1100                   | 1.97 x 0.34                | 72769          | PL-CORE-5000-830 1.1A-Z3 | 20      | 50000                                | 3000    | >80 | 5000           | 111 | 120            |
|                            |                        |                            | 72770          | PL-CORE-5000-835 1.1A-Z3 | 20      | 50000                                | 3500    | >80 | 5250           | 117 | 120            |
|                            |                        |                            | 72772          | PL-CORE-5000-840 1.0A-Z3 | 20      | 50000                                | 4000    | >80 | 5450           | 121 | 120            |
| <i>Greater than 90 CRI</i> |                        |                            |                |                          |         |                                      |         |     |                |     |                |
| 21                         | 500                    | 1.97 x 0.34                | 72762          | PL-CORE-2000-930 0.5A-Z3 | 20      | 50000                                | 3000    | >90 | 2000           | 89  | 120            |
| 33                         | 700                    | 1.97 x 0.34                | 72766          | PL-CORE-3000-930 0.7A-Z3 | 20      | 50000                                | 3000    | >90 | 3000           | 90  | 120            |
| 52                         | 1100                   | 1.97 x 0.34                | 72771          | PL-CORE-5000-930 1.1A-Z3 | 20      | 50000                                | 3000    | >90 | 5000           | 97  | 120            |

### PrevaLED® COIN 50 – Constant Current LED Light Engines



| Nominal Wattage (W) | Operating Current (mA) | Diameter (in) | Product Number | Ordering Abbreviation   | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | CBCP | Beam Angle (°) |
|---------------------|------------------------|---------------|----------------|-------------------------|---------|--------------------------------------|---------|-----|----------------|-----|------|----------------|
| 11                  | 350                    | 2             | 72934          | PL-CN50-700-930-24D-G1  | 20      | 50000                                | 3000    | 92  | 720            | 66  | 2950 | 24             |
|                     |                        |               | 72936          | PL-CN50-700-930-40D-G1  | 20      | 50000                                | 3000    | 92  | 720            | 66  | 1370 | 40             |
|                     |                        |               | 72935          | PL-CN50-700-940-24D-G1  | 20      | 50000                                | 4000    | 92  | 760            | 70  | 3115 | 24             |
|                     |                        |               | 72937          | PL-CN50-700-940-40D-G1  | 20      | 50000                                | 4000    | 92  | 760            | 70  | 1445 | 40             |
|                     |                        |               | 72938          | PL-CN50-900-830-24D-G1  | 20      | 50000                                | 3000    | 83  | 880            | 81  | 3610 | 24             |
|                     |                        |               | 72940          | PL-CN50-900-830-40D-G1  | 20      | 50000                                | 3000    | 83  | 880            | 81  | 1670 | 40             |
|                     |                        |               | 72939          | PL-CN50-900-840-24D-G1  | 20      | 50000                                | 4000    | 83  | 930            | 87  | 3810 | 24             |
|                     |                        |               | 72941          | PL-CN50-900-840-40D-G1  | 20      | 50000                                | 4000    | 83  | 930            | 87  | 1765 | 40             |
| 14                  | 350                    | 2             | 72942          | PL-CN50-1100-830-24D-G1 | 20      | 50000                                | 3000    | 83  | 1040           | 80  | 4265 | 24             |
|                     |                        |               | 72944          | PL-CN50-1100-830-40D-G1 | 20      | 50000                                | 3000    | 83  | 1040           | 80  | 1975 | 40             |
|                     |                        |               | 72943          | PL-CN50-1100-840-24D-G1 | 20      | 50000                                | 4000    | 83  | 1100           | 85  | 4510 | 24             |
|                     |                        |               | 72945          | PL-CN50-1100-840-40D-G1 | 20      | 50000                                | 4000    | 83  | 1100           | 85  | 2090 | 40             |

## DIRECTIONAL LED LIGHT ENGINES AND MODULES (CONT.)

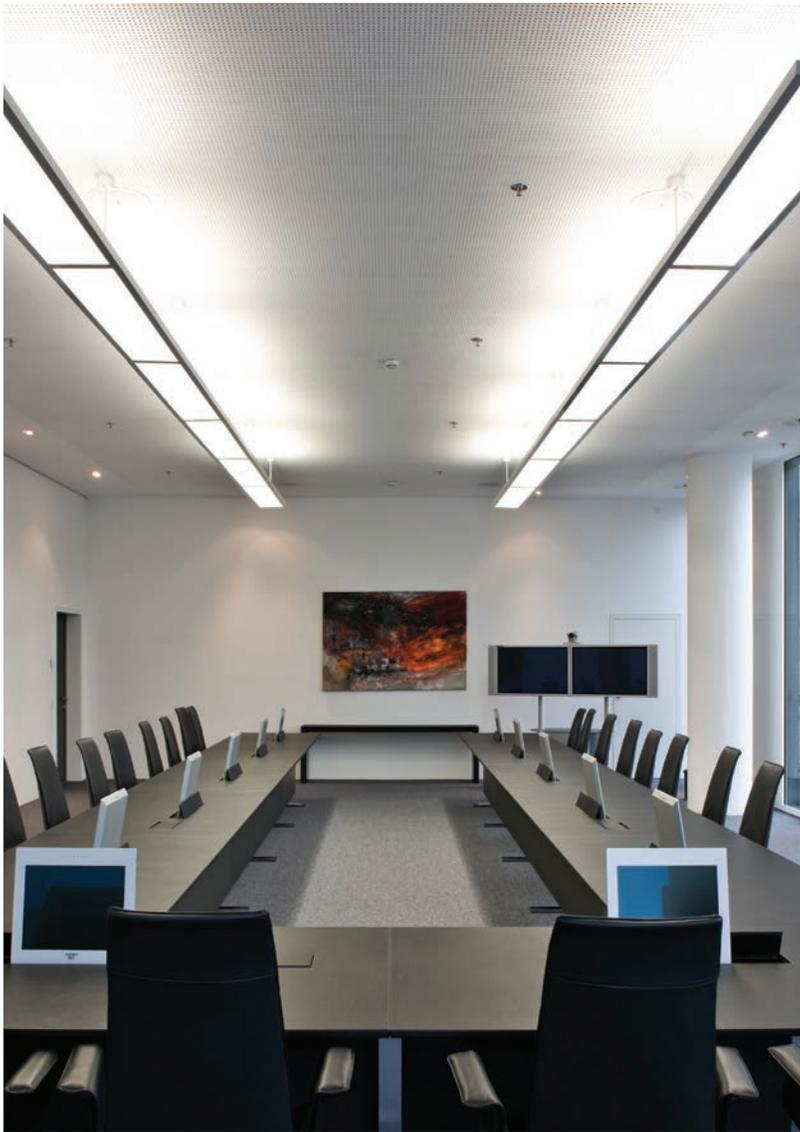
### COINlight® Pro – Constant Voltage LED Light Engines



| Nominal Wattage (W) | Operating Current (mA) | Diameter (in) | Product Number | Ordering Abbreviation  | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | CBCP | Beam Angle (°) |
|---------------------|------------------------|---------------|----------------|------------------------|---------|--------------------------------------|---------|-----|----------------|-----|------|----------------|
| 4                   | 200                    | 2             | 71759          | L3DM/24V/827/FL36/CLP  | 1 or 20 | 50000                                | 2700    | 85  | 240            | 67  | 540  | 36             |
|                     |                        |               | 71760          | L3DM/24V/857/FL36/CLP  | 1 or 20 | 50000                                | 5700    | 85  | 290            | 80  | 650  | 36             |
| 8                   | 390                    | 2             | 71761          | L8DM/24V/827/FL36/CLP  | 1 or 20 | 50000                                | 2700    | 85  | 450            | 60  | 1000 | 36             |
|                     |                        |               | 71762          | L8DM/24V/857/FL36/CLP  | 1 or 20 | 50000                                | 5700    | 85  | 530            | 71  | 1200 | 36             |
| 10                  | 510                    | 2             | 71763          | L10DM/24V/827/FL36/CLP | 1 or 20 | 50000                                | 2700    | 85  | 590            | 60  | 1330 | 36             |
|                     |                        |               | 71764          | L10DM/24V/857/FL36/CLP | 1 or 20 | 50000                                | 5700    | 85  | 710            | 72  | 1600 | 36             |

### Accessories for DRAGONpuck® and COINlight® Pro

| Product Number | Ordering Abbreviation | Description |
|----------------|-----------------------|-------------|
| 71773          | LAC/HS/DP51/45x45     | Heat Sink   |



|                               |   |
|-------------------------------|---|
| PrevaLED® Bar.....            | 6 |
| PrevaLED® Line.....           | 7 |
| PrevaLED® Area.....           | 8 |
| HF²Narrow Stick Seamless..... | 9 |

# Linear and Array LED Modules

## Table of Contents

## LINEAR/ARRAY LED MODULES

### PrevaLED® Bar – Constant Current LED Modules



| Max Power (W) | Current (mA) | Dimensions L (in) x W (in) | No. LED Rows | Product Number | Ordering Abbreviation         | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | Beam Angle (°) |
|---------------|--------------|----------------------------|--------------|----------------|-------------------------------|---------|--------------------------------------|---------|-----|----------------|-----|----------------|
| 5             | 103          | 5.2" x 1.9"                | 3            | 72714          | PLVG1-Bar-590-830-132x48-DC   | 40      | 60000                                | 3000    | >80 | 550            | 121 | 120            |
|               |              |                            |              | 72715          | PLVG1-Bar-590-835-132x48-DC   | 40      | 60000                                | 3500    | >80 | 580            | 128 | 120            |
|               |              |                            |              | 72716          | PLVG1-Bar-590-840-132x48-DC   | 40      | 60000                                | 4000    | >80 | 600            | 131 | 120            |
|               |              |                            |              | 72717          | PLVG1-Bar-590-850-132x48-DC   | 40      | 60000                                | 5000    | >80 | 620            | 137 | 120            |
| 6             | 170          | 7" x 1.5"                  | 3            | 73582          | PLPG2-Bar-800-827-178x38-DC   | 40      | 60000                                | 2700    | >80 | 700            | 117 | 120            |
|               |              |                            |              | 73583          | PLPG2-Bar-800-830-178x38-DC   | 40      | 60000                                | 3000    | >80 | 750            | 125 | 120            |
|               |              |                            |              | 73584          | PLPG2-Bar-800-835-178x38-DC   | 40      | 60000                                | 3500    | >80 | 780            | 131 | 120            |
|               |              |                            |              | 73585          | PLPG2-Bar-800-840-178x38-DC   | 40      | 60000                                | 4000    | >80 | 800            | 135 | 120            |
|               |              |                            |              | 73586          | PLPG2-Bar-800-850-178x38-DC   | 40      | 60000                                | 5000    | >80 | 840            | 141 | 120            |
| 6             | 181          | 7.9" x 1.9"                | 3            | 72718          | PLVG1-Bar-845-830-200x48-DC   | 40      | 60000                                | 3000    | >80 | 790            | 124 | 120            |
|               |              |                            |              | 72719          | PLVG1-Bar-845-835-200x48-DC   | 40      | 60000                                | 3500    | >80 | 830            | 130 | 120            |
|               |              |                            |              | 72720          | PLVG1-Bar-845-840-200x48-DC   | 40      | 60000                                | 4000    | >80 | 850            | 134 | 120            |
|               |              |                            |              | 72721          | PLVG1-Bar-845-850-200x48-DC   | 40      | 60000                                | 5000    | >80 | 890            | 140 | 120            |
| 8             | 255          | 9" x 1.5"                  | 3            | 73578          | PLPG2-Bar-1000-830-229x38-DC  | 40      | 60000                                | 3000    | >80 | 930            | 125 | 120            |
|               |              |                            |              | 73579          | PLPG2-Bar-1000-835-229x38-DC  | 40      | 60000                                | 3500    | >80 | 980            | 131 | 120            |
|               |              |                            |              | 73580          | PLPG2-Bar-1000-840-229x38-DC  | 40      | 60000                                | 4000    | >80 | 1000           | 135 | 120            |
|               |              |                            |              | 73581          | PLPG2-Bar-1000-850-229x38-DC  | 40      | 60000                                | 5000    | >80 | 1050           | 141 | 120            |
| 9             | 255          | 11" x 1.5"                 | 3            | 73574          | PLPG2-Bar-1100-830-280x38-DC  | 40      | 60000                                | 3000    | >80 | 1120           | 125 | 120            |
|               |              |                            |              | 73575          | PLPG2-Bar-1100-835-280x38-DC  | 40      | 60000                                | 3500    | >80 | 1170           | 131 | 120            |
|               |              |                            |              | 73576          | PLPG2-Bar-1100-840-280x38-DC  | 40      | 60000                                | 4000    | >80 | 1200           | 135 | 120            |
|               |              |                            |              | 73577          | PLPG2-Bar-1100-850-280x38-DC  | 40      | 60000                                | 5000    | >80 | 1260           | 141 | 120            |
| 8             | 255          | 11" x 1.9"                 | 3            | 72706          | PLVG1-Bar-1100-830-280x48-DC  | 40      | 60000                                | 3000    | >80 | 1060           | 126 | 120            |
|               |              |                            |              | 72707          | PLVG1-Bar-1100-835-280x48-DC  | 40      | 60000                                | 3500    | >80 | 1120           | 132 | 120            |
|               |              |                            |              | 72708          | PLVG1-Bar-1100-840-280x48-DC  | 40      | 60000                                | 4000    | >80 | 1150           | 135 | 120            |
|               |              |                            |              | 72709          | PLVG1-Bar-1100-850-280x48-DC  | 40      | 60000                                | 5000    | >80 | 1190           | 141 | 120            |
| 9             | 255          | 11.4" x 1.5"               | 3            | 72087          | PLPG2-Bar-1100-927-289x38-DC  | 40      | 60000                                | 2700    | >90 | 920            | 110 | 120            |
|               |              |                            |              | 73570          | PLPG2-Bar-1100-830-289x38-DC  | 40      | 60000                                | 3000    | >80 | 1120           | 125 | 120            |
|               |              |                            |              | 73571          | PLPG2-Bar-1100-835-289x38-DC  | 40      | 60000                                | 3500    | >80 | 1170           | 131 | 120            |
|               |              |                            |              | 73572          | PLPG2-Bar-1100-840-289x38-DC  | 40      | 60000                                | 4000    | >80 | 1200           | 135 | 120            |
|               |              |                            |              | 73573          | PLPG2-Bar-1100-850-289x38-DC  | 40      | 60000                                | 5000    | >80 | 1260           | 141 | 120            |
| 17            | 380          | 22" x 1.9"                 | 3            | 73656          | PLVG1-Bar-2200-830-560x48-DC2 | 40      | 60000                                | 3000    | >80 | 2130           | 123 | 120            |
|               |              |                            |              | 73657          | PLVG1-Bar-2200-835-560x48-DC2 | 40      | 60000                                | 3500    | >80 | 2240           | 129 | 120            |
|               |              |                            |              | 73658          | PLVG1-Bar-2200-840-560x48-DC2 | 40      | 60000                                | 4000    | >80 | 2300           | 132 | 120            |
|               |              |                            |              | 73659          | PLVG1-Bar-2200-850-560x48-DC2 | 40      | 60000                                | 5000    | >80 | 2390           | 138 | 120            |

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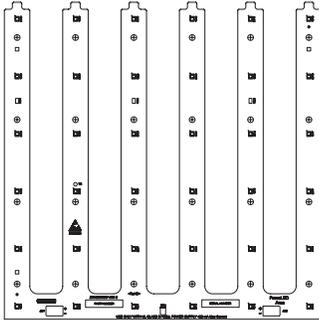
## PrevaLED® Line – Constant Current LED Modules



| Max Power (W) | Current (mA) | Dimensions L (in) x W (in) | No. LED Rows | Product Number | Ordering Abbreviation        | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | Beam Angle (°) |
|---------------|--------------|----------------------------|--------------|----------------|------------------------------|---------|--------------------------------------|---------|-----|----------------|-----|----------------|
| 9             | 255          | 11" x 0.75"                | 1            | 72099          | PLPG2-Lin-1100-927-280x19-DC | 40      | 60000                                | 2700    | >90 | 920            | 110 | 120            |
|               |              |                            |              | 73604          | PLPG2-Lin-1100-830-280x19-DC | 40      | 60000                                | 3000    | >80 | 1120           | 125 | 120            |
|               |              |                            |              | 73605          | PLPG2-Lin-1100-835-280x19-DC | 40      | 60000                                | 3500    | >80 | 1170           | 131 | 120            |
|               |              |                            |              | 73606          | PLPG2-Lin-1100-840-280x19-DC | 40      | 60000                                | 4000    | >80 | 1200           | 135 | 120            |
|               |              |                            |              | 73607          | PLPG2-Lin-1100-850-280x19-DC | 40      | 60000                                | 5000    | >80 | 1260           | 141 | 120            |
| 9             | 255          | 11" x 1.5"                 | 1            | 73600          | PLPG2-Lin-1100-830-280x38-DC | 40      | 60000                                | 3000    | >80 | 1120           | 125 | 120            |
|               |              |                            |              | 73601          | PLPG2-Lin-1100-835-280x38-DC | 40      | 60000                                | 3500    | >80 | 1170           | 131 | 120            |
|               |              |                            |              | 73602          | PLPG2-Lin-1100-840-280x38-DC | 40      | 60000                                | 4000    | >80 | 1200           | 135 | 120            |
|               |              |                            |              | 73603          | PLPG2-Lin-1100-850-280x38-DC | 40      | 60000                                | 5000    | >80 | 1260           | 141 | 120            |
| 8             | 190          | 11.4" x 0.7"               | 1            | 72654          | PLVG1-Lin-1100-830-289x18    | 40      | 60000                                | 3000    | >80 | 1030           | 123 | 120            |
|               |              |                            |              | 72655          | PLVG1-Lin-1100-835-289x18    | 40      | 60000                                | 3500    | >80 | 1080           | 129 | 120            |
|               |              |                            |              | 72656          | PLVG1-Lin-1100-840-289x18    | 40      | 60000                                | 4000    | >80 | 1110           | 132 | 120            |
| 8             | 190          | 22" x 0.7"                 | 1            | 73612          | PLVG1-Lin-1100-830-560x18-4C | 40      | 60000                                | 3000    | >80 | 1030           | 123 | 120            |
|               |              |                            |              | 73613          | PLVG1-Lin-1100-835-560x18-4C | 40      | 60000                                | 3500    | >80 | 1080           | 129 | 120            |
|               |              |                            |              | 72662          | PLVG1-Lin-1100-840-560x18-4C | 40      | 60000                                | 4000    | >80 | 1110           | 132 | 120            |
|               |              |                            |              | 73012          | PLVG1-Lin-1100-850-560x18-4C | 40      | 60000                                | 5000    | >80 | 1150           | 137 | 120            |
| 17            | 380          | 22" x 0.7"                 | 1            | 73608          | PLVG1-Lin-2200-830-560x18-4C | 40      | 60000                                | 3000    | >80 | 2060           | 123 | 120            |
|               |              |                            |              | 73609          | PLVG1-Lin-2200-835-560x18-4C | 40      | 60000                                | 3500    | >80 | 2160           | 129 | 120            |
|               |              |                            |              | 73610          | PLVG1-Lin-2200-840-560x18-4C | 40      | 60000                                | 4000    | >80 | 2210           | 132 | 120            |
|               |              |                            |              | 73611          | PLVG1-Lin-2200-850-560x18-4C | 40      | 60000                                | 5000    | >80 | 2300           | 137 | 120            |
| 17            | 380          | 22" x 0.9"                 | 1            | 72438          | PLVG1-Lin-2200-830-560x24    | 40      | 60000                                | 3000    | >80 | 2060           | 123 | 120            |
|               |              |                            |              | 72455          | PLVG1-Lin-2200-835-560x24    | 40      | 60000                                | 3500    | >80 | 2160           | 129 | 120            |
|               |              |                            |              | 72464          | PLVG1-Lin-2200-840-560x24    | 40      | 60000                                | 4000    | >80 | 2210           | 132 | 120            |
|               |              |                            |              | 72472          | PLVG1-Lin-2200-850-560x24    | 40      | 60000                                | 5000    | >80 | 2300           | 137 | 120            |
| 32            | 710          | 22" x 1.6"                 | 1            | 73653          | PLVG1-Lin-4000-835-560x40    | 40      | 60000                                | 3500    | >80 | 3920           | 123 | 120            |
|               |              |                            |              | 73654          | PLVG1-Lin-4000-840-560x40    | 40      | 60000                                | 4000    | >80 | 4020           | 126 | 120            |
|               |              |                            |              | 73655          | PLVG1-Lin-4000-850-560x40    | 40      | 60000                                | 5000    | >80 | 4200           | 131 | 120            |

## LINEAR /ARRAY LED MODULES (CONT.)

### PrevaLED® Area – Constant Current LED Modules



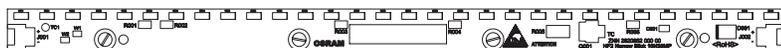
| Max Power (W) | Current (mA) | Dimensions L (in) x W (in) | Product Number | Ordering Abbreviation        | Pkg Qty | Rated Life L <sub>70</sub> (hrs) | Avg CCT (K) | CRI | Initial Lumens | LPW | Beam Angle (°) |
|---------------|--------------|----------------------------|----------------|------------------------------|---------|----------------------------------|-------------|-----|----------------|-----|----------------|
| 8             | 230          | 8.7" x 8.7"                | 72722          | PLVG1-Ar-1100-830-221x221-DC | 40      | 60000                            | 3000        | >80 | 1060           | 131 | 120            |
|               |              |                            | 72723          | PLVG1-Ar-1100-835-221x221-DC | 40      | 60000                            | 3500        | >80 | 1110           | 138 | 120            |
|               |              |                            | 72724          | PLVG1-Ar-1100-840-221x221-DC | 40      | 60000                            | 4000        | >80 | 1140           | 141 | 120            |
| 17            | 565          | 8.7" x 8.7"                | 72725          | PLVG1-Ar-2200-830-221x221-DC | 40      | 60000                            | 3000        | >80 | 2060           | 121 | 120            |
|               |              |                            | 72726          | PLVG1-Ar-2200-835-221x221-DC | 40      | 60000                            | 3500        | >80 | 2160           | 127 | 120            |
|               |              |                            | 72727          | PLVG1-Ar-2200-840-221x221-DC | 40      | 60000                            | 4000        | >80 | 2220           | 131 | 120            |
| 8             | 230          | 10.6" x 10.6"              | 72728          | PLVG1-Ar-1100-830-270x270-DC | 40      | 60000                            | 3000        | >80 | 1060           | 132 | 120            |
|               |              |                            | 72729          | PLVG1-Ar-1100-840-270x270-DC | 40      | 60000                            | 4000        | >80 | 1140           | 142 | 120            |
| 33            | 940          | 20.8" x 20.8"              | 72736          | PLVG1-Ar-4500-830-530x530-DC | 40      | 60000                            | 3000        | >80 | 4200           | 126 | 120            |
|               |              |                            | 72737          | PLVG1-Ar-4500-840-530x530-DC | 40      | 60000                            | 4000        | >80 | 4520           | 135 | 120            |
|               |              |                            | 72738          | PLVG1-Ar-4500-850-530x530-DC | 40      | 60000                            | 5000        | >80 | 4720           | 141 | 120            |

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## HF<sup>2</sup>Narrow Stick Seamless – Constant Voltage LED Modules



4 Inch



10 Inch



12 Inch

| Max Power (W)             | Voltage (V) | Dimensions L (in) x W (in) | Current (mA) | Product Number | Ordering Abbreviation    | Pkg Qty | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Initial Lumens | LPW | Beam Angle (°) |
|---------------------------|-------------|----------------------------|--------------|----------------|--------------------------|---------|--------------------------------------|---------|-----|----------------|-----|----------------|
| <b>Half Power Modules</b> |             |                            |              |                |                          |         |                                      |         |     |                |     |                |
| 2                         | 24          | 4 x 0.53                   | 68           | 71779          | L2LRE/24V/827/SMLS/4IN   | 20      | 50000                                | 2700    | 85  | 120            | 60  | 120            |
|                           |             |                            |              | 71783          | L2LRE/24V/830/SMLS/4IN   | 20      | 50000                                | 3000    | 85  | 120            | 60  | 120            |
|                           |             |                            |              | 71787          | L2LRE/24V/835/SMLS/4IN   | 20      | 50000                                | 3500    | 85  | 130            | 65  | 120            |
|                           |             |                            |              | 71791          | L2LRE/24V/840/SMLS/4IN   | 20      | 50000                                | 4000    | 85  | 140            | 68  | 120            |
| 4                         | 24          | 10 x 0.53                  | 166          | 71777          | L4LRE/24V/827/SMLS/10IN  | 10      | 50000                                | 2700    | 85  | 300            | 75  | 120            |
|                           |             |                            |              | 71781          | L4LRE/24V/830/SMLS/10IN  | 10      | 50000                                | 3000    | 85  | 320            | 80  | 120            |
|                           |             |                            |              | 71785          | L4LRE/24V/835/SMLS/10IN  | 10      | 50000                                | 3500    | 85  | 320            | 80  | 120            |
|                           |             |                            |              | 71789          | L4LRE/24V/840/SMLS/10IN  | 10      | 50000                                | 4000    | 85  | 340            | 85  | 120            |
| 5                         | 24          | 12 x 0.53                  | 201          | 71793          | L5LRE/24V/827/SMLS/12IN  | 10      | 50000                                | 2700    | 85  | 370            | 74  | 120            |
|                           |             |                            |              | 71795          | L5LRE/24V/830/SMLS/12IN  | 10      | 50000                                | 3000    | 85  | 380            | 76  | 120            |
|                           |             |                            |              | 71797          | L5LRE/24V/835/SMLS/12IN  | 10      | 50000                                | 3500    | 85  | 390            | 77  | 120            |
|                           |             |                            |              | 71799          | L5LRE/24V/840/SMLS/12IN  | 10      | 50000                                | 4000    | 85  | 410            | 82  | 120            |
| <b>Full Power Modules</b> |             |                            |              |                |                          |         |                                      |         |     |                |     |                |
| 3                         | 24          | 4 x 0.53                   | 137          | 71780          | L3LRE/24V/827/SMLS/4IN   | 10      | 50000                                | 2700    | 85  | 240            | 80  | 120            |
|                           |             |                            |              | 71784          | L3LRE/24V/830/SMLS/4IN   | 10      | 50000                                | 3000    | 85  | 350            | 117 | 120            |
|                           |             |                            |              | 71788          | L3LRE/24V/835/SMLS/4IN   | 10      | 50000                                | 3500    | 85  | 260            | 85  | 120            |
|                           |             |                            |              | 71792          | L3LRE/24V/840/SMLS/4IN   | 10      | 50000                                | 4000    | 85  | 270            | 88  | 120            |
| 8                         | 24          | 10 x 0.53                  | 347          | 71778          | L8LRE/24V/827/SMLS/10IN  | 10      | 50000                                | 2700    | 85  | 610            | 76  | 120            |
|                           |             |                            |              | 71782          | L8LRE/24V/830/SMLS/10IN  | 10      | 50000                                | 3000    | 85  | 630            | 79  | 120            |
|                           |             |                            |              | 71786          | L8LRE/24V/835/SMLS/10IN  | 10      | 50000                                | 3500    | 85  | 640            | 79  | 120            |
|                           |             |                            |              | 71790          | L8LRE/24V/840/SMLS/10IN  | 10      | 50000                                | 4000    | 85  | 660            | 83  | 120            |
| 10                        | 24          | 12 x 0.53                  | 416          | 71794          | L10LRE/24V/827/SMLS/12IN | 10      | 50000                                | 2700    | 85  | 730            | 73  | 120            |
|                           |             |                            |              | 71796          | L10LRE/24V/830/SMLS/12IN | 10      | 50000                                | 3000    | 85  | 760            | 76  | 120            |
|                           |             |                            |              | 71798          | L10LRE/24V/835/SMLS/12IN | 10      | 50000                                | 3500    | 85  | 760            | 76  | 120            |
|                           |             |                            |              | 71800          | L10LRE/24V/840/SMLS/12IN | 10      | 50000                                | 4000    | 85  | 790            | 79  | 120            |

### Accessories for HF<sup>2</sup>NarrowStick Seamless

| Product Number | Ordering Abbreviation | Description                       | Length (in) | Pkg Qty |
|----------------|-----------------------|-----------------------------------|-------------|---------|
| 71838          | LAC-C/SMLS/BB/2P/1IN  | Seamless Board-to-Board connector | 1           | 10      |
| 71839          | LAC-C/SMLS/BWB/2P/2IN | Seamless Board-to-Board cable     | 2           | 10      |
| 71840          | LAC-C/SMLS/BWB/2P/4IN | Seamless Board-to-Board cable     | 4           | 10      |
| 71841          | LAC-C/SMLS/BWB/2P/8IN | Seamless Board-to-Board cable     | 8           | 10      |
| 71842          | LAC-C/SMLS/WB/2P/24IN | Seamless Wire-to-Board cable      | 24          | 10      |

**NOTES:**

A large, empty rectangular box with a thin black border, intended for handwritten notes.



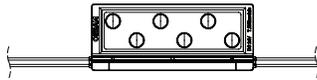
- BoxLED® Plus DS ..... 12
- BoxLED® Plus ..... 12
- BackLED L Plus ..... 12
- BackLED M Plus ..... 13
- BackLED L B ..... 13
- BackLED M B ..... 13
- BackLED XS B ..... 13
- HF²Chain HE ..... 14
- HF²Chain X1 ..... 14
- Thin Panel ..... 15

# Signage LED Modules

## Table of Contents

## LED SIGNAGE MODULES

### BoxLED® Plus DS – LED Module with Flat Ray Optics



| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 100                 | 24V          | 21                           | 16                      | 73502          | BX-DS-PL-865          | 6500    | >80 | 555               | 6.24             | 423          | 4.8         | 89  | 150            |

### Accessories for BoxLED® Plus DS

| Product Number | Ordering Abbreviation | Description             | Pkg Qty              |
|----------------|-----------------------|-------------------------|----------------------|
| 71921          | BX-DS-MP              | Aluminum Mounting Track | 24                   |
| 71922          | BX-DS-MB              | Mounting Bracket        | 30 (15 of each side) |

### BoxLED® Plus – LED Modules with Flat Ray Optics



| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 100                 | 24V          | 42.8                         | 32                      | 73519          | BX-PL-830             | 3000    | >80 | 250               | 3.12             | 191          | 2.4         | 80  | 150            |
|                     |              |                              |                         | 73534          | BX-PL-840             | 4000    | >80 | 270               | 3.12             | 206          | 2.4         | 86  | 150            |
|                     |              |                              |                         | 73535          | BX-PL-865             | 6500    | >80 | 274               | 3.12             | 209          | 2.4         | 88  | 150            |

### Accessories for BoxLED® Plus

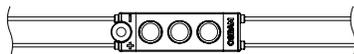
| Product Number | Ordering Abbreviation | Description    | Length (ft) | Pkg Qty |
|----------------|-----------------------|----------------|-------------|---------|
| 70923          | BX-MP VS24            | Mounting Track | 7.8         | 24      |

### BackLED L Plus – LED Modules with Flat Ray Optics



| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 50                  | 12V          | 21                           | 32                      | 73664          | BA-L-PL 830           | 3000    | >80 | 125               | 1.56             | 190          | 2.4         | 80  | 150            |
|                     |              |                              |                         | 73665          | BA-L-PL 840           | 4000    | >80 | 135               | 1.56             | 206          | 2.4         | 86  | 150            |
|                     |              |                              |                         | 73666          | BA-L-PL 865           | 6500    | >80 | 137               | 1.56             | 209          | 2.4         | 88  | 150            |

### BackLED M Plus – LED Modules with Flat Ray Optics



| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K)     | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|-------------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 28.8                | 12V          | 20                           | 40                      | 71282          | BA03MA-W4F-830        | 3000        | >80 | 50                | 0.72             | 100          | 1.44        | 69  | 150            |
|                     |              |                              |                         | 71283          | BA03MA-W4F-840        | 4000        | >80 | 57                | 0.72             | 115          | 1.44        | 79  | 150            |
|                     |              |                              |                         | 71284          | BA03MA-W4F-865        | 6500        | >80 | 68                | 0.72             | 135          | 1.44        | 94  | 150            |
|                     |              |                              |                         | 71285          | BA03MA-R2             | Red - 625nm | >80 | 14                | 0.72             | 27.5         | 1.44        | 19  | 150            |

### BackLED L B – LED Modules



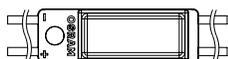
| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 45                  | 12V          | 23.7                         | 36                      | 73667          | BA-L-BC-840           | 4000    | >80 | 110               | 1.25             | 167          | 1.9         | 88  | 120            |
|                     |              |                              |                         | 73668          | BA-L-BC-865           | 6500    | >80 | 112               | 1.25             | 170          | 1.9         | 89  | 120            |

### BackLED M B – LED Modules



| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 30                  | 12V          | 20                           | 40                      | 73669          | BA-M-BC-840           | 4000    | >80 | 70                | 0.75             | 140          | 1.5         | 93  | 120            |
|                     |              |                              |                         | 73670          | BA-M-BC-865           | 6500    | >80 | 71                | 0.75             | 142          | 1.5         | 95  | 120            |

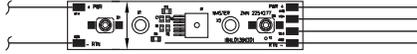
### BackLED XS B – LED Modules



| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 13                  | 12V          | 13.3                         | 50                      | 73569          | BA-XS-BC 865          | 6500    | >80 | 20                | 0.26             | 76           | 0.98        | 78  | 110            |

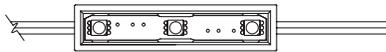
## LED SIGNAGE MODULES (CONT.)

### HF<sup>2</sup>Chain HE – LED Modules

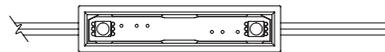


| Nominal Wattage (W) | Power Supply | Overall Length per Reel | No. of Modules per Reel | Product Number | Ordering Abbreviation                 | CCT (K) | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|-------------------------|-------------------------|----------------|---------------------------------------|---------|-----|-------------------|------------------|--------------|-------------|-----|----------------|
| 26                  | 24V          | 12 ft                   | 18                      | 70400          | HF <sup>2</sup> Chain/36/W4-865/HE    | 6500    | >80 | 122               | 1.44             | 183          | 2.17        | 85  | 170            |
| 1.4                 | 24V          | 3.78 in                 | 1                       | 70368          | HF <sup>2</sup> Chain/SB/02/W4-865/HE | 6500    | >80 | 122               | 1.44             | 183          | 2.17        | 85  | 170            |

### HF<sup>2</sup>Chain X1 – LED Modules



White



Colored

| Nominal Wattage (W) | Power Supply | Overall Length per Reel (ft) | No. of Modules per Reel | Product Number | Ordering Abbreviation | CCT (K) Color | CRI | Lumens per Module | Watts per Module | Lumens/ Foot | Watts/ Foot | LPW  | Beam Angle (°) |
|---------------------|--------------|------------------------------|-------------------------|----------------|-----------------------|---------------|-----|-------------------|------------------|--------------|-------------|------|----------------|
| 36                  | 12V          | 25                           | 50                      | 71071          | L144/12V/865          | 6500K         | >80 | 68                | 0.72             | 135          | 1.44        | 93.0 | 120            |
| 24                  | 12V          | 25                           | 50                      | 71072          | L096/12V/RED          | Red - 625nm   |     | 11                | 0.48             | 21           | 0.96        | 25.0 | 120            |
|                     |              |                              |                         | 71073          | L096/12V/GRE          | Green - 525nm |     | 29                | 0.48             | 58           | 0.96        | 43.0 | 120            |
|                     |              |                              |                         | 71074          | L096/12V/BLU          | Blue - 460nm  |     | 6                 | 0.48             | 12           | 0.96        | 9.0  | 120            |

## ILLUMINATED THIN PANEL SIGNAGE

### Thin Panel



| Nominal Wattage (W) | Film Size W (in) x L (in) | Voltage | Product Number | Ordering Abbreviation | Color Option | Typical Luminance (cd/m <sup>2</sup> ) |
|---------------------|---------------------------|---------|----------------|-----------------------|--------------|--|
| 20                  | 21 x 21                   | 120     | 71156          | LTP/021/021/C/A1      | Cool White   | 350                                    |
| 30                  | 24 x 36                   |         | 71154          | LTP/024/036/C/A1      |              |  |
| 60                  | 36 x 48                   |         | 71155          | LTP/036/048/C/A1      |              |  |
| 58                  | 40 x 40                   |         | 71278          | LTP/040/040/C/A1      |              |  |
| 60                  | 42 x 42                   |         | 71157          | LTP/042/042/C/A1      |              |  |

### Accessories for Thin Panel

| Product Number | Ordering Abbreviation | Description   | Length (ft) |
|----------------|-----------------------|---|-------------|
| 71291          | LTP/15FT/EXT          | Wire to extend length between Thin Panel and Power Supply | 15          |

**NOTES:**



- LINEARlight FLEX® POWER FLEX..... 18
- LINEARlight FLEX® Advanced ..... 18
- LINEARlight FLEX® Short Pitch ..... 18
- LINEARlight FLEX® Colormix..... 19
- LINEARlight FLEX® Advanced Protect..... 19
- LINEARlight FLEX® POWER FLEX Protect..... 19
- LINEARlight FLEX® Colormix Protect ..... 19
- LINEARlight FLEX® Accessories..... 20

# Flexible LED Modules

## Table of Contents

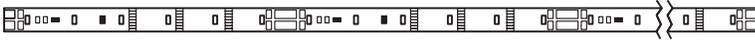
## FLEXIBLE LED MODULES

### LINEARlight FLEX® POWER FLEX – Constant Voltage LED Modules – Indoor, UL 2108 Listed System\*



| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|-----------------------|--------------------------------------|---------|-----|--------------|--------------|-------------|-----|----------------|
| 68                  | 24V          | 9.8                              | 71329          | L68LFE/24V/827/PF/G3  | 50000                                | 2700K   | >80 | 4790         | 489          | 6.9         | 71  | 120            |
|                     |              |                                  | 71328          | L68LFE/24V/830/PF/G3  | 50000                                | 3000K   | >80 | 5170         | 525          | 6.9         | 76  | 120            |
|                     |              |                                  | 71327          | L68LFE/24V/840/PF/G3  | 50000                                | 4000K   | >80 | 5545         | 566          | 6.9         | 82  | 120            |
|                     |              |                                  | 71326          | L68LFE/24V/850/PF/G3  | 50000                                | 5000K   | >80 | 5545         | 566          | 6.9         | 82  | 120            |
|                     |              |                                  | 71325          | L68LFE/24V/860/PF/G3  | 50000                                | 6500K   | >80 | 5545         | 566          | 6.9         | 82  | 120            |

### LINEARlight FLEX® Advanced – Constant Voltage LED Modules – Indoor, UL 2108 Listed System\*



| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation  | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|------------------------|--------------------------------------|---------|-----|--------------|--------------|-------------|-----|----------------|
| 48                  | 24V          | 32.8                             | 71310          | L48LFE/24V/827/ADVG3/A | 50000                                | 2700K   | >80 | 3900         | 119          | 1.5         | 81  | 120            |
|                     |              |                                  | 71309          | L48LFE/24V/830/ADVG3/A | 50000                                | 3000K   | >80 | 3900         | 119          | 1.5         | 81  | 120            |
|                     |              |                                  | 71308          | L48LFE/24V/840/ADVG3/A | 50000                                | 4000K   | >80 | 4230         | 129          | 1.5         | 88  | 120            |
|                     |              |                                  | 71307          | L48LFE/24V/850/ADVG3/A | 50000                                | 5000K   | >80 | 4230         | 129          | 1.5         | 88  | 120            |
|                     |              |                                  | 71306          | L48LFE/24V/865/ADVG3/A | 50000                                | 6500K   | >80 | 4230         | 129          | 1.5         | 88  | 120            |

### LINEARlight FLEX® Short Pitch – Constant Voltage LED Modules – Indoor, UL2108 Listed System\*



| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|-----------------------|--------------------------------------|---------|-----|--------------|--------------|-------------|-----|----------------|
| 58                  | 24V          | 19.7                             | 71390          | L58LFE/24V/827/SP     | 50000                                | 2700K   | >80 | 4680         | 238          | 2.9         | 81  | 120            |
|                     |              |                                  | 71389          | L58LFE/24V/830/SP     | 50000                                | 3000K   | >80 | 4680         | 238          | 2.9         | 81  | 120            |
|                     |              |                                  | 71388          | L58LFE/24V/840/SP     | 50000                                | 4000K   | >80 | 5075         | 258          | 2.9         | 88  | 120            |
|                     |              |                                  | 71387          | L58LFE/24V/850/SP     | 50000                                | 5000K   | >80 | 5075         | 258          | 2.9         | 88  | 120            |
|                     |              |                                  | 71386          | L58LFE/24V/865/SP     | 50000                                | 6500K   | >80 | 5075         | 258          | 2.9         | 88  | 120            |

\*Modules are part of a UL2108 Listed System. For more information refer to the application guide (LED311).

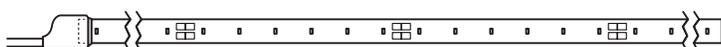
Please see page 20 for the LINEARlight FLEX® Accessories

**LINEARlight FLEX® Colormix – Constant Voltage LED Module – Indoor, UL 2108 Listed System\***



| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation | Avg Rated Life L <sub>70</sub> (hrs) | Color   | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|-----------------------|--------------------------------------|---|--------------|--------------|-------------|-----|----------------|
| 72                  | 24V          | 13.1                             | 72618          | LF05CA2-RGB3          | 50000                                | RBG<br>(Red - 625nm,<br>Green - 525nm,<br>Blue - 465nm) | 1880         | 144          | 5.5         | 26  | 120            |

**LINEARlight FLEX® Advanced Protect – Constant Voltage LED Modules – Outdoor IP67 Rated – UL2108 Listed System\***



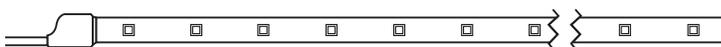
| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|-----------------------|--------------------------------------|---------|-----|--------------|--------------|-------------|-----|----------------|
| 50                  | 24V          | 32.8                             | 72615          | LF06A-W4F-830-P       | 50000                                | 3000    | >80 | 3500         | 107          | 1.5         | 70  | 120            |
|                     |              |                                  | 72616          | LF06A-W4F-840-P       | 50000                                | 4000    | >80 | 3900         | 119          | 1.5         | 78  | 120            |
|                     |              |                                  | 72617          | LF06A-W4F-870-P       | 50000                                | 7000    | >80 | 3900         | 119          | 1.5         | 78  | 120            |

**LINEARlight FLEX® POWER FLEX Protect – Constant Voltage LED Modules - Outdoor IP67 Rated – UL2108 Listed System\***



| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation | Avg Rated Life L <sub>70</sub> (hrs) | CCT (K) | CRI | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|-----------------------|--------------------------------------|---------|-----|--------------|--------------|-------------|-----|----------------|
| 96                  | 24V          | 16.7                             | 72596          | LF06P2-W4F-830-P      | 50000                                | 3000    | >80 | 6375         | 382          | 5.7         | 66  | 120            |
|                     |              |                                  | 72597          | LF06P2-W4F-840-P      | 50000                                | 4000    | >80 | 7140         | 428          | 5.7         | 74  | 120            |
| 88                  | 24V          | 16.7                             | 72598          | LF06P2-W4F-876-P      | 50000                                | 7600    | >80 | 7140         | 428          | 5.2         | 81  | 120            |

**LINEARlight FLEX® Colormix Protect – Constant Voltage LED Module – Outdoor IP67 Rated – UL2108 Listed System\***



| Nominal Wattage (W) | Power Supply | Max Overall Length per Reel (ft) | Product Number | Ordering Abbreviation    | Avg Rated Life L <sub>70</sub> (hrs) | Color   | Lumens/ Reel | Lumens/ Foot | Watts/ Foot | LPW | Beam Angle (°) |
|---------------------|--------------|----------------------------------|----------------|--------------------------|--------------------------------------|---|--------------|--------------|-------------|-----|----------------|
| 72                  | 24V          | 13.1                             | 71398          | L72LFE/24V/RGB3/LF05/CAP | 50000                                | RBG<br>(Red - 625nm,<br>Green - 525nm,<br>Blue - 467nm) | 1740         | 133          | 5.5         | 24  | 120            |

\*Modules are part of a UL2108 Listed System. For more information refer to the application guide (LED311).  
Please see page 20 for the LINEARlight FLEX® Accessories

## LINEARLIGHT FLEX® ACCESSORIES

### Accessories for LINEARlight FLEX® POWER FLEX

| Item Number                         | Ordering Abbreviation | European Part           | Description   | Length (in.) | Case Qty. | Min. Order Qty. |
|-------------------------------------|-----------------------|-------------------------|---|--------------|-----------|-----------------|
| <b>Track</b>                        |                       |                         |   |              |           |                 |
| 72356                               | LAC-T/STS/7FT         | LF-LTS-2100             | 6.9' aluminium track  | 83           | 40        | 1               |
| 72357                               | LAC-M/STS/CLIP        | LF-LTS-MB               | Optional mounting bracket for track                               | 1.1          | 280       | 35              |
| 72360                               | LAC-T/STS-COV/C/7FT   | LF-LTS-COVER-CLEAR      | 6.9' clear cover for track  | 83           | 40        | 1               |
| 72358                               | LAC-T/STS-COV/D/7FT   | LF-LTS-COVER-DIFFUSE    | 6.9' diffused cover for track                                     | 83           | 40        | 1               |
| 72359                               | LAC-S/STS/ENDCAP      | LF-LTS-ENDCAP           | End cap used only with 72358                                      | 0.8          | 160       | 20              |
| 72361                               | LAC-T/STS-COV/SP/7FT  | LF-LTS-COVER-SHORTPITCH | 6.9' diffused cover specifically designed for short pitch product | 83           | 40        | 1               |
| <b>White Indoor Accessories</b>     |                       |                         |   |              |           |                 |
| 71428                               | LAC-C/TP/TERMCAP      | LF-2TERM FLEX           | Termination Cap   | -            | 200       | 10              |
| 72671                               | LF-CONN Flex SC       | LF-CONN Flex SC         | Board to board connector piece                                    | 0.35         | 250       | 10              |
| 72947                               | LF-WIRE-30 FLEX SC    | LF-WIRE-30 FLEX SC      | 30mm connector wire   | 1.1          | 10,000    | 100             |
| 72948                               | LF-WIRE-150 FLEX SC   | LF-WIRE-150 FLEX SC     | 150mm connector wire  | 5.9          | 5000      | 50              |
| 72946                               | LF-2PIN Flex SC       | LF-2PIN Flex SC         | Input connector   | 20           | 250       | 10              |
| <b>Colormix Indoor Accessories</b>  |                       |                         |   |              |           |                 |
| 72670                               | LF-4PIN Flex SC       | LF-4PIN Flex SC         | Input connector   | 20           | 250       | 10              |
| 72671                               | LF-CONN Flex SC       | LF-CONN Flex SC         | Board to board connector piece                                    | 0.35         | 250       | 10              |
| 72947                               | LF-WIRE-30 FLEX SC    | LF-WIRE-30 FLEX SC      | 30mm connector wire   | 1.1          | 10,000    | 100             |
| 72948                               | LF-WIRE-150 FLEX SC   | LF-WIRE-150 FLEX SC     | 150mm connector wire  | 5.9          | 5000      | 50              |
| <b>Colormix Protect Accessories</b> |                       |                         |   |              |           |                 |
| 72362                               | LAC-C/IP67/ENDCAP     | LF-ENDCAP PROTECT       | Used to seal Protect product end when cut                         | -            | 100       | 10              |
| 72363                               | LF-CLIP-FIXTURE       | LAC-M/IP67/CLIP         | Optional flexible mounting bracket                                | -            | 500       | 50              |
| 72365*                              | LAC-C/IP67/IC/4P/20IN | LF-4PIN PROTECT IP67    | Input connector   | 20           | 50        | 5               |
| 72366                               | LAC-C/IP67/BB/4P/7IN  | LF-4CONN PROTECT IP67   | Board to board connector  | 7            | 50        | 5               |
| <b>White Protect Accessories</b>    |                       |                         |   |              |           |                 |
| 72667                               | LF/ENDCAP/IP67/LP     | LF-ENDCAP               | Used to seal Protect product end when cut                         | -            | 100       | 10              |
| 72363                               | LF-CLIP-FIXTURE       | LAC-M/IP67/CLIP         | Optional flexible mounting bracket                                | -            | 500       | 50              |
| 72669*                              | LF/2PIN/IP67/LP       | LF-2PIN                 | Input connector   | 20           | 50        | 5               |
| 72668                               | LF/2CONN/IP67/LP      | LF-2CONN                | Board to board connector  | 7            | 50        | 5               |

\*Every Protect product comes with one pre-wired input connector

For the current listing of available products and more complete product information, please visit us at [www.osram-americas.com](http://www.osram-americas.com).



## Constant Current

|                                  |    |
|----------------------------------|----|
| Compact Programmable .....       | 22 |
| Constant Current Phase Cut ..... | 23 |
| Linear Programmable .....        | 24 |
| Linear Step-Dimmable .....       | 25 |
| Outdoor Programmable .....       | 26 |
| Linear OT100W .....              | 27 |

## Constant Voltage

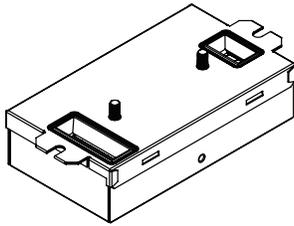
|                              |    |
|------------------------------|----|
| Constant Voltage .....       | 28 |
| LED Control Interfaces ..... | 29 |

# OPTOTRONIC® Power Supplies and Control Interfaces

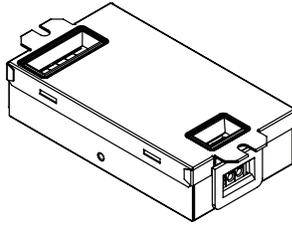
## Table of Contents

# OPTOTRONIC® COMPACT, CONSTANT CURRENT POWER SUPPLIES

## Compact Programmable, Constant Current 0-10V Dimmable Power Supplies



J-Style Housing



F-Style Housing

| Max Output Power (W)   | Output Current (mA) | Output Voltage (Vdc) | Product Number | Ordering Abbreviation      | Input Voltage | Power Factor | THD  | Dimming Range | Location Rating | LED Thermal Feedback |
|--|---------------------|----------------------|----------------|----------------------------|---------------|--------------|------|---------------|-----------------|----------------------|
| Dimensions: 5.0" x 2.4" x 1.2"    Housing: J-style & F-style |                     |                      |                |                            |               |              |      |               |                 |                      |
| 40   | 400-1400            | 10 - 55              | 79441          | OT40W/PRG1400C/UNV/DIM-1/J | 120-277       | >0.9         | <20% | 100 - 1%      | Damp            | Yes                  |
|  |                     |                      | 79442          | OT40W/PRG1400C/UNV/DIM-1   | 120-277       | >0.9         | <20% | 100 - 1%      | Damp            | Yes                  |
| 40   | 400-1400            | 10 - 55              | 79449          | OT40W/PRG1400C/UNV/DIM/J   | 120-277       | >0.9         | <20% | 100 - 10%     | Damp            | Yes                  |
|  |                     |                      | 79448          | OT40W/PRG1400C/UNV/DIM     | 120-277       | >0.9         | <20% | 100 - 10%     | Damp            | Yes                  |
| 25   | 150-1250            | 10 - 55              | 79405          | OT25W/PRG1250C/UNV/DIM-1   | 120-277       | >0.9         | <20% | 100 - 1%      | Damp            | Yes                  |
|  |                     |                      | 79406          | OT25W/PRG1250C/UNV/DIM-1/J | 120-277       | >0.9         | <20% | 100 - 1%      | Damp            | Yes                  |
| 25   | 350-1250            | 10 - 55              | 79403          | OT25W/PRG1250C/UNV/DIM     | 120-277       | >0.9         | <20% | 100 - 10%     | Damp            | Yes                  |
|  |                     |                      | 79404          | OT25W/PRG1250C/UNV/DIM/J   | 120-277       | >0.9         | <20% | 100 - 10%     | Damp            | Yes                  |

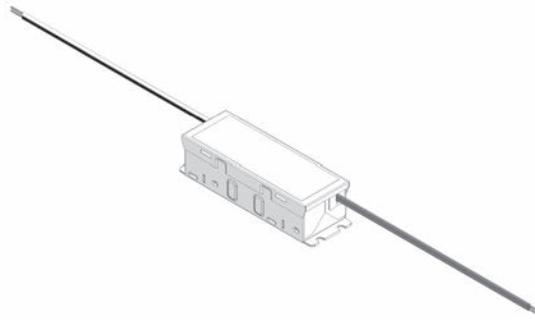
### Accessories

| Product Number | Ordering Abbreviation | Description          | Required |
|----------------|-----------------------|----------------------|----------|
| 51645          | OT Programmer         | USB Programming Tool | Yes      |
| 51646          | OT Programming Nest   | Programming Fixture  | Optional |

## Constant Current, Leading and Trailing Edge Phase Cut Dimmable Power Supplies



J-Style Housing



F-Style Housing

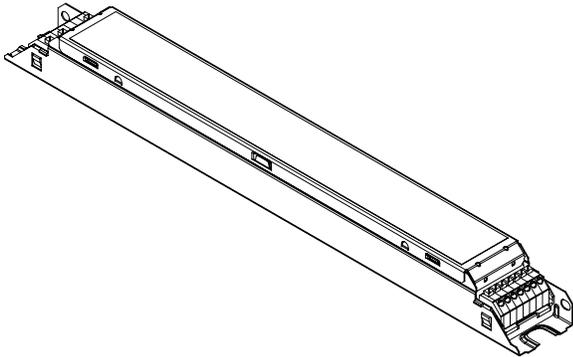
| Max Output Power (W) | Output Current (mA) | Output Voltage (Vdc) | Product Number | Ordering Abbreviation | Input Voltage | Power Factor | THD | Dimming Range | Location Rating |
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|

Dimensions: 3.6" x 1.3" x 0.98" Housing: J-style & F-style

|    |     |         |       |                     |         |      |      |           |      |
|----|-----|---------|-------|---------------------|---------|------|------|-----------|------|
| 20 | 700 | 16 - 29 | 79420 | OT20W/700C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79425 | OT20W/700C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 20 | 500 | 28 - 40 | 79421 | OT20W/500C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79426 | OT20W/500C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 20 | 400 | 28 - 50 | 79422 | OT20W/400C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79427 | OT20W/400C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 20 | 350 | 28 - 55 | 79423 | OT20W/350C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79428 | OT20W/350C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 18 | 600 | 20 - 30 | 79429 | OT18W/600C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79424 | OT18W/600C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 15 | 500 | 18 - 30 | 79418 | OT15W/500C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79419 | OT15W/500C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 13 | 250 | 28 - 55 | 79412 | OT13W/250C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79413 | OT13W/250C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
| 12 | 400 | 18 - 30 | 79374 | OT12W/400C/UNV/PC/J | 120-277 | >0.9 | <20% | 100 - 10% | Damp |
|    |     |         | 79375 | OT12W/400C/UNV/PC   | 120-277 | >0.9 | <20% | 100 - 10% | Damp |

## OPTOTRONIC® COMPACT, CONSTANT CURRENT POWER SUPPLIES (CONT.)

### Linear Programmable, Constant Current 0-10V Dimmable Power Supplies



| Max Output Power (W) | Output Current (mA) | Output Voltage (Vdc) | Product Number | Ordering Abbreviation | Input Voltage | Power Factor | THD | Dimming Range | Location Rating | AUX | LED Thermal Feedback |
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|-----|----------------------|
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|-----|----------------------|

Dimensions: 11" x 1.2" x 1.0"

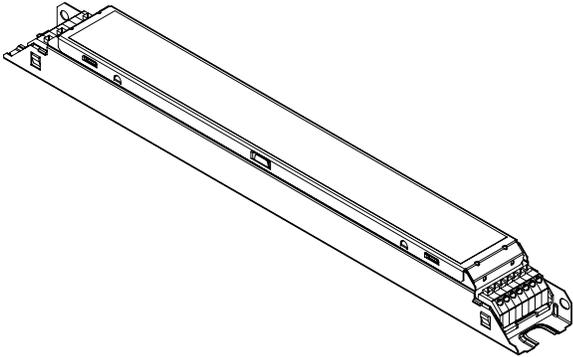
|    |             |       |       |                                |         |      |      |           |      |     |     |
|----|-------------|-------|-------|--------------------------------|---------|------|------|-----------|------|-----|-----|
| 30 | 150 - 1050  | 10-55 | 79466 | OT30W/PRG1050C/UNV/DIM-1/L AUX | 120-277 | >0.9 | <20% | 100 - 1%  | Damp | Yes | Yes |
| 30 | 350 - 1050  | 10-55 | 79397 | OT30W/PRG1050C/UNV/DIM/L AUX   | 120-277 | >0.9 | <20% | 100 - 10% | Damp | Yes | Yes |
| 30 |             |       | 79630 | OT30W/PRG1050C/UNV/DIM/L       | 120-277 | >0.9 | <20% | 100 - 10% | Damp | No  | Yes |
| 48 | 700 - 2000  | 10-55 | 79468 | OT48W/PRG2000C/UNV/DIM-1/L AUX | 120-277 | >0.9 | <20% | 100 - 1%  | Damp | Yes | Yes |
|    |             |       | 79399 | OT48W/PRG2000C/UNV/DIM/L AUX   | 120-277 | >0.9 | <20% | 100 - 10% | Damp | Yes | Yes |
|    |             |       | 79632 | OT48W/PRG2000C/UNV/DIM/L       | 120-277 | >0.9 | <20% | 100 - 10% | Damp | No  | Yes |
| 50 | 400 - 1400  | 10-55 | 79467 | OT50W/PRG1400C/UNV/DIM-1/L AUX | 120-277 | >0.9 | <20% | 100 - 1%  | Damp | Yes | Yes |
|    |             |       | 79398 | OT50W/PRG1400C/UNV/DIM/L AUX   | 120-277 | >0.9 | <20% | 100 - 10% | Damp | Yes | Yes |
|    |             |       | 79631 | OT50W/PRG1400C/UNV/DIM/L       | 120-277 | >0.9 | <20% | 100 - 10% | Damp | No  | Yes |
| 85 | 1250 - 2000 | 20-55 | 79470 | OTi 85/120-277/2A0 DIMLT2 L    | 120-277 | >0.9 | <20% | 100 - 10% | Damp | No  | Yes |
| 85 | 2000 - 2600 | 20-55 | 79471 | OTi 85/120-277/2A6 DIMLT2 L    | 120-277 | >0.9 | <20% | 100 - 10% | Damp | No  | Yes |

### Accessories

| Product Number | Ordering Abbreviation   | Description                | Required |
|----------------|-------------------------|----------------------------|----------|
| 51645          | OT Programmer           | USB Programming Tool       | Yes      |
| 51647          | OTLinearhandheldPRGTool | Programming Hand-held Tool | Optional |
| 51648          | OTLinearAutoPRGTool     | Programming Tool           | Optional |

For the current listing of available products and more complete product information, please visit us at [www.osram-americas.com](http://www.osram-americas.com).

## Linear Constant Current, Line Voltage Step-Dimmable Power Supplies



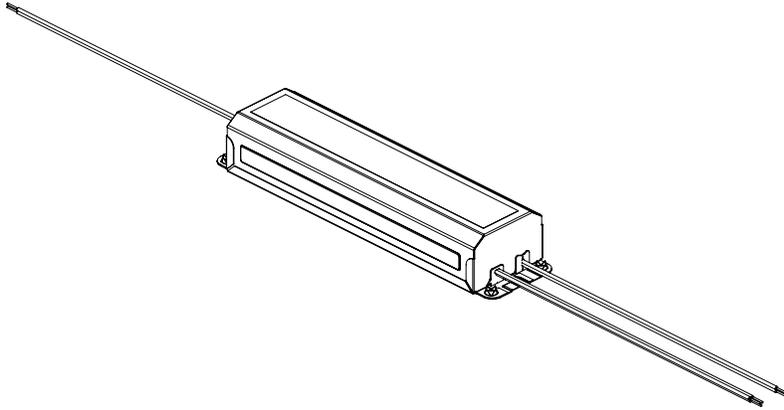
| Max Output Power (W) | Output Current (mA) | Output Voltage (Vdc) | Product Number | Ordering Abbreviation | Input Voltage | Power Factor | THD | Dimming Range | Location Rating |
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|

Dimensions: 11" x 1.2" x 1.0"

|    |                              |       |       |                        |         |      |      |         |      |
|----|------------------------------|-------|-------|------------------------|---------|------|------|---------|------|
| 30 | 250, 350, 500, 700, 1050     | 25-55 | 79376 | OT30W/CS1050C/UNV/SD/L | 120-277 | >0.9 | <20% | 100/50% | Damp |
| 50 | 700, 800, 1050, 1250, 1400   | 25-55 | 79377 | OT50W/CS1400C/UNV/SD/L | 120-277 | >0.9 | <20% | 100/50% | Damp |
| 50 | 1400, 1600, 1800, 2000, 2100 | 12-36 | 79378 | OT50W/CS2100C/UNV/SD/L | 120-277 | >0.9 | <20% | 100/50% | Damp |

## OPTOTRONIC® COMPACT, CONSTANT CURRENT POWER SUPPLIES (CONT.)

### Outdoor Programmable, Constant Current 2DIM\*\* Dimmable Power Supplies



| Max Output Power (W) | Output Current (mA) | Output Voltage (Vdc) | Product Number | Ordering Abbreviation | Input Voltage | Power Factor | THD | Dimming Range | Location Rating | Type HL Type TL* | LED Thermal Feedback |
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|------------------|----------------------|
|----------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|-----|---------------|-----------------|------------------|----------------------|

Dimensions: OT50W: 6.6" x 1.7" x 1.2" OT100W: 6.6" x 2.4" x 1.5 OT150W: 9.5" x 2.4" x 1.5"

|     |          |        |       |                                 |         |      |      |         |            |     |     |
|-----|----------|--------|-------|---------------------------------|---------|------|------|---------|------------|-----|-----|
| 50  | 350-800  | 30-120 | 79370 | OT50W/UNV/800C/2DIMLT2/P6       | 120-277 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 50  | 600-1250 | 15-55  | 79371 | OT50W/UNV/1250C/2DIMLT2/P6      | 120-277 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 100 | 350-800  | 50-185 | 79368 | OT100W/UNV/800C/2DIMLT2/P6      | 120-277 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 100 | 600-1250 | 30-100 | 79369 | OT100W/UNV/1250C/2DIMLT2/P6     | 120-277 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 180 | 350-800  | 82-280 | 79366 | OT180W/UNV/800C/2DIMLT2/P6      | 120-277 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 180 | 600-1250 | 70-210 | 79367 | OT180W/UNV/1250C/2DIMLT2/P6     | 120-277 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 180 | 350-800  | 82-280 | 79208 | OT180W/347-480/800C/2DIMLT2/P6  | 347-480 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |
| 180 | 600-1250 | 70-210 | 79209 | OT180W/347-480/1250C/2DIMLT2/P6 | 347-480 | >0.9 | <20% | 100-10% | Damp & Wet | Yes | Yes |

### Accessories

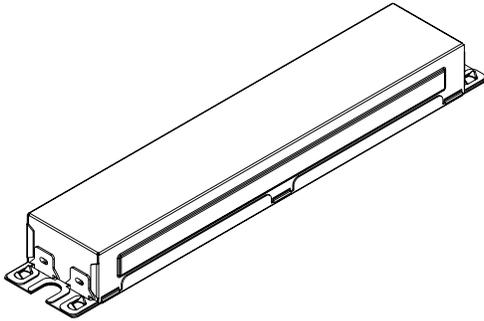
| Product Number | Ordering Abbreviation | Description                          | Required Accessory |
|----------------|-----------------------|--------------------------------------|--------------------|
| 51645          | OT Programmer         | USB Programming Tool                 | Yes                |
| 79360          | OTOutdoorPRGTool      | Programming Tool for Outdoor Drivers | Optional           |

\*Type HL - Hazardous Locations Type TL – Thermally Limited

\*\*Dimming – AstroDIM & 0-10V

For the current listing of available products and more complete product information, please visit us at [www.osram-america.com](http://www.osram-america.com).

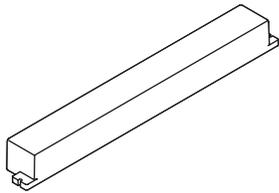
## Linear OT10W Dimmable & Non-Dimmable Power Supplies



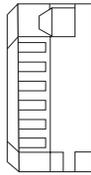
| Max Output Power (W)           | Output Current (mA) | Output Voltage (Vdc) | Product Number | Ordering Abbreviation | Input Voltage | Power Factor | THD  | Dimming Range | Location Rating |
|--------------------------------|---------------------|----------------------|----------------|-----------------------|---------------|--------------|------|---------------|-----------------|
| Dimensions: 9.4" x 1.6" x 1.1" |                     |                      |                |                       |               |              |      |               |                 |
| 100                            | 4100                | 12-24                | 51629          | OT100W/4100C/UNV/DIM  | 120-277       | >0.9         | <20% | 100 - 10%     | Damp            |
| 100                            | 2000-4100           | 12-24                | 51628          | OT100W/4100C/UNV      | 120-277       | >0.9         | <20% | non-dim       | Damp            |

# OPTOTRONIC® CONSTANT VOLTAGE POWER SUPPLIES

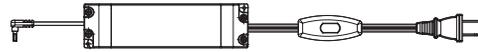
## Constant Voltage 24V<sub>DC</sub> Power Supplies



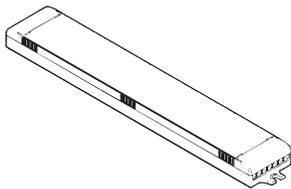
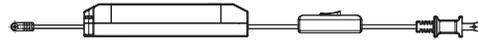
OT17W



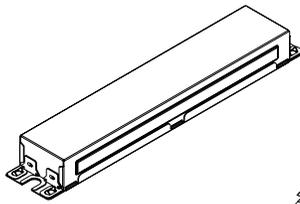
OT20W



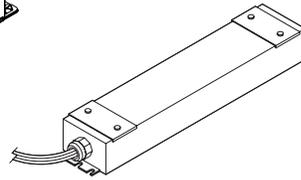
OT30W



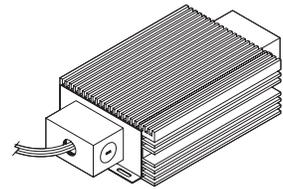
24V - OT50W



10.5V & 12V - OT50W & OT60W  
OT75W & OT96W



OT96W JBX



OT240W JBX

| Max Output Power (W) | Output Voltage (Vdc) | Dimensions L(in) x W (in) x H (in) | Product Number | Ordering Abbreviation | Input Voltage | Power Factor | THD | Location Rating |
|----------------------|----------------------|------------------------------------|----------------|-----------------------|---------------|--------------|-----|-----------------|
|----------------------|----------------------|------------------------------------|----------------|-----------------------|---------------|--------------|-----|-----------------|

### Non-dimmable

#### 10V LED Power Supplies

|    |      |                    |       |               |         |      |      |      |
|----|------|--------------------|-------|---------------|---------|------|------|------|
| 50 | 10.5 | 9.48 x 1.68 x 1.17 | 51509 | OT50W/10V/UNV | 120-277 | >0.9 | <20% | Damp |
|----|------|--------------------|-------|---------------|---------|------|------|------|

#### 12V LED Power Supplies

|    |    |                    |       |               |         |      |      |      |
|----|----|--------------------|-------|---------------|---------|------|------|------|
| 20 | 12 | 9.48 x 1.68 x 1.17 | 51604 | OT20W/12V/UNV | 120-277 | >0.9 | <20% | Damp |
| 60 | 12 |                    | 51632 | OT60W/12V/UNV | 120-277 | >0.9 | <20% | Damp |

#### 24V LED Power Supplies

|     |    |                     |       |                           |           |      |      |      |
|-----|----|---------------------|-------|---------------------------|-----------|------|------|------|
| 17  | 24 | 7.9 x 0.9 x 0.9     | 51622 | OT17W/24V/UNV             | 120-277   | >0.9 | <20% | Damp |
| 30  | 24 | 5.63 x 1.44 x 1.18  | 51521 | OT30/120/24CORD           | 120       | >0.5 | <20% | Dry  |
| 50  | 24 | 9.5 x 1.5 x 0.65    | 51598 | OT50W/24V/120V/LP         | 120       | >0.9 | <20% | Dry  |
| 75  | 24 | 9.48 x 1.68 x 1.17  | 51514 | OT75W/24V/UNV             | 120 - 277 | >0.9 | <20% | Damp |
| 96  | 24 | 9.48 x 1.68 x 1.17  | 51522 | OT96W/24V/UNV             | 120 - 277 | >0.9 | <20% | Damp |
| 96  | 24 | 12.32 x 2.54 x 2.95 | 51626 | OT96W/24V/UNV/JBX         | 120 - 277 | >0.9 | <20% | Wet  |
| 240 | 24 | 11.95 x 5.98 x 2.95 | 51627 | OT240W/3x24V/120-240V/JBX | 120 - 240 | >0.9 | <20% | Wet  |

### Dimmable 0 - 10V, 100 - 10%

#### 12V LED Power Supplies

|    |    |                    |       |                   |           |      |      |      |
|----|----|--------------------|-------|-------------------|-----------|------|------|------|
| 60 | 12 | 9.48 x 1.68 x 1.17 | 51633 | OT60W/12V/UNV/DIM | 120 - 277 | >0.9 | <20% | Damp |
|----|----|--------------------|-------|-------------------|-----------|------|------|------|

#### 24V LED Power Supplies

|    |    |                    |       |                   |           |      |      |      |
|----|----|--------------------|-------|-------------------|-----------|------|------|------|
| 96 | 24 | 9.48 x 1.68 x 1.17 | 51520 | OT96W/24V/UNV/DIM | 120 - 277 | >0.9 | <20% | Damp |
|----|----|--------------------|-------|-------------------|-----------|------|------|------|

For the current listing of available products and more complete product information, please visit us at [www.osram-americas.com](http://www.osram-americas.com).

## OPTOTRONIC® LED CONTROL INTERFACES

| Product Number | Ordering Abbreviation | Operating Voltage (V <sub>DC</sub> ) | Control Type | Max. Power per Channel (W) | Max. Output Power (W) | Max. Output Current per Channel (A) | Output Frequency (Hz) |
|----------------|-----------------------|--------------------------------------|--------------|----------------------------|-----------------------|-------------------------------------|-----------------------|
| 51516          | OT DIM                | 10.5<br>24.0                         | 1-10         | 0-50<br>0-100              | 50<br>100             | 2.5                                 | 135                   |
| 49889          | OT DIM L              | 10.5<br>24.1                         | 1-10         | 0-50<br>0-100              | 50<br>100             | 2.5                                 | 135                   |
| 51600          | OTDMXRGB              | 24.4                                 | 10.5<br>DMX  | 0-50                       | 0-21<br>100           | 50<br>2.0                           | 350                   |
| 51349          | OTIDALI DIM           | 10.5<br>24.5                         | DALI         | 0-50<br>0-100              | 50<br>100             | 2.5                                 | 350                   |

**NOTES:**

# Standard Safety Information

**WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION.**

**TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE ATTEMPTING INSTALLATION OF THE POWER SUPPLIES AND/OR MODULES.**

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriters Laboratories (UL) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction.

1. The LED module itself and all its components shall not be subjected to mechanical stress and assembly must not damage or destroy conducting paths on the circuit board.
2. Observe correct electrical polarity, incorrect polarity may destroy the module. (Depending on the product, incorrect polarity may lead to emission of red or no light.)
3. Ensure the power supply is of adequate power to operate the total load.
4. Electrostatic Discharge (ESD) precautions shall be incorporated when handling or installing the module. (For more information, reference document # LED093 ESD Protection for LED Systems.)
5. Module must be installed on a flat, metal surface to ensure adequate heat sinking. Refer to that module's Product Information Bulletin or Installation Guide for specific heat sinking instructions.
6. Installation of LED modules shall be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
7. Modules may be hot to the touch. Use caution when handling.
8. Damage by corrosion and improper heat sinking will not be honored as a materials defect claim. It is the user's responsibility to ensure adequate heat sink and protection against corrosive agents such as moisture, condensation and other harmful elements.
9. Avoid looking directly into the light beam as the high brightness may damage eyes.
10. For applications involving exposure to humidity and dust, the module must be protected by a fixture, or housing with a suitable protection class. The module can be protected against condensation by treatment with an appropriate circuit board grade conformal coating. The conformal coating should have the following features:
  - a. Optical transparency
  - b. UV – resistance
  - c. Thermal expansion matching the thermal expansion of the module  $15\text{-}30 \times 10^{-6}\text{cm/cm/K}$
  - d. Low permeability of steam for all climate conditions
  - e. Resistance against corrosive environment

# Product Catalog Glossary of Terms

**Ampere** A unit expressing the rate of flow of electric current. Also see Current.

**Binning** A systematic process of dividing LEDs into smaller subgroups with a similar brightness and color distribution.

**Black Body (Planckian Radiator)** An ideal thermal radiator whose SPD curve is defined by its temperature in Kelvin and whose color coordinates lie exactly on the Planckian curve.

**Candela (cd)** The unit of measure indicating luminous intensity (candlepower) of a light source in a specific direction; any given light source will have many different intensities, depending upon the direction considered.

**Chromaticity** The aspect of color that includes consideration of its dominant wavelength and purity.

**CIE** *Commission Internationale De L'Eclairage* (International Commission on Illumination) – abbreviated as CIE from its French title, is an organization devoted to international cooperation and exchange of information among its member countries on all matters relating to the science and art of lighting.

**Color Rendering Index (CRI)** The Color Rendering Index measures the effect a light source has on the perceived color of objects and surfaces. High CRI light makes virtually all colors look natural and vibrant. Low CRI causes some colors to appear washed out or even to take on a completely different hue.

**Color Temperature** Color temperature, which is measured in degrees Kelvin (K), indicates whether a light source has a warm, midrange or cool color appearance. “Warm” light sources have a low color temperature (2000-3000K) and feature more light in the red/orange/yellow range. Light with a higher color temperature (>5000K) features more blue light and is referred to as “cool.”

**Colormixing** The process of mixing light output from red, green and blue LEDs to generate virtually any color. A combination of all three primary colors (red, green and blue) appears white to the human eye. Combinations of two primary colors produce “secondary” colors – magenta, cyan and yellow. Also see RGB.

**Constant Current LED Modules** LED modules that require power supplies that generate a constant DC output current.

**Constant Voltage LED Modules** LED modules that require power supplies that generate a constant DC voltage output.

**Correlated Color Temperature (CCT)** A specification of the color appearance of a lamp, relating its color to that of a reference source, black body radiator, heated to a particular temperature, measured in degrees Kelvin (K); CCT generally measures the “warmth” or “coolness” of light source appearance.

**Current** A measure of the rate of flow of electricity, expressed in Amperes (A).

**Efficacy** The rate at which a light source is able to convert power (watts) into light (lumens), expressed in lumens per watt (lm/W or LPW). Also see Lumens Per Watt (LPW) Performance.

**Energy** A measure of work done by an electrical system over a given period of time, often expressed in kilowatt-hours (kWh).

**Footcandle (fc)** A unit of illuminance equal to 1 lumen per square foot. 1 fc=10.764 lux.

**Frequency** The number of times per second that an alternating current system reverses from positive to negative and back to positive, expressed in cycles per second or hertz (Hz).

**Grounding** Grounding Systems are used to ensure Electrostatic Discharge (ESD) items, personnel and any other conductors are at the same electrical potential. All personnel shall be bonded or electrically connected to the ground or contrived ground when handling ESD-sensitive items.

**Hertz (Hz)** A unit of frequency equal to one cycle per second. Also see Frequency.

**Illuminance** Light arriving at a surface, expressed in lumens per unit area; 1 lumen per square foot equals 1 footcandle, while 1 lumen per square meter equals 1 lux.

**Integral LED Lamps:** A complete LED light source that includes optics, the outer shell or housing, a power supply and the means for installation into an existing luminaire/fixture. Typically screw or pin-based, these light sources are sold as retrofits or direct replacements for traditional sources.

**LED (Light Emitting Diode)** A semiconductor device that allows current to flow in one direction and convert electrical energy to visible light.

**LED Arrays** A combination of LEDs on a circuit board. LED arrays may require additional optics, housings and/or heat sinks. A separate power supply is required. LED arrays are typically integrated into a luminaire/fixture.

**LED Module** A combination of LEDs on a circuit board with an integrated optic and/or heat sink. A separate power supply is required. LED modules are typically integrated into a luminaire fixture.

**LED Power Supply** An electronic device that converts line voltage to a constant current or constant voltage output compatible with the LED module or array it is powering. Power supplies are typically integrated into an LED luminaire/fixture.

**Lens** A glass or plastic element used in LEDs and luminaires to change the direction and control the distribution of light rays.

**Light Management Systems** Control and enhance lighting by incorporating daylight harvesting, demand response and dynamic user interfaces.

Lighting Controls and Systems includes products that will help with energy control, scenes and ambience. LMS products are capable of controlling LED Systems as well as Fluorescent, Halogen and Induction sources.

**Lumen Depreciation** The decrease in lumen output of a light source over time. Also see Service Life.

**Lumens (lm)** A unit of luminous flux; overall light output; quantity of light, expressed in lumens. For example, a dinner candle provides about 12 lumens and a 60-watt soft white incandescent lamp provides about 840 lumens.

**Lumens Per Watt (LPW) Performance** Lumens per watt. The number of lumens produced by a light source for each watt of electrical power supplied. Also see Efficacy.

**Luminaire** A complete lighting unit or system comprised of the light source, power supply, wiring, diffuser and housing.

**Luminance (L)** Light reflected in a particular direction; the photometric quantity most closely associated with brightness perception, measured in units of luminous intensity (candelas) per unit area (Square feet or square meters).

**Pulse Width Modulation (PWM)** In pulse width modulation, the length of the pulse that is used to deliver power to the LEDs is varied while the current through the LEDs is maintained at the same level as during full brightness. The variation of the pulse width allows the LEDs’ intensity to be varied from 100% down to 0%.

**RGB** Red, green and blue colors can be added to generate virtually any color. Light output from red, green and blue LEDs can be mixed to generate specific colors or color sequences. RGB control schemes typically employ pulse width modulation to dim one or more of the primary colors. Also see Colormixing.

**Service Life** OSRAM SYLVANIA defines the service life of its LED modules as the period of time after which the luminous flux output drops to 70% of its initial value.

**Tc** A clearly defined and easily accessible temperature test point on SYLVANIA LED modules.

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**United States**

**OSRAM SYLVANIA**

Headquarters  
100 Endicott Street  
Danvers, MA 01923 USA  
1-800-LIGHTBULB  
www.osram-americas.com

**Canada**

**OSRAM SYLVANIA LTD./LTÉE**

Headquarters  
2001 Drew Road  
Mississauga, ON L5S 1S4  
1-800-LIGHTBULB  
www.osram-americas.com

**Mexico**

**OSRAM MEXICO**

Headquarters  
Tultitlan/Edo DeMexico  
011-52-55-58-99-18-50  
www.osram.com.mx

**For Orders and General Information in the United States:**

National Customer Service and Sales Center  
18725 N. Union Street  
Westfield, IN 46074

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