



**PHILIPS**

PrimeSet  
RDL500 / 510



Technical leaflet

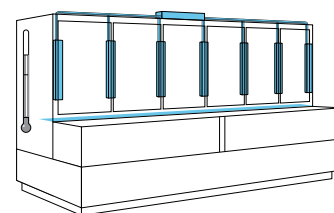
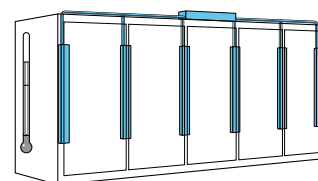
Freezer cabinets

# Lighting food. Brightening faces.

Philips LED lighting for refrigeration cases has a proven track record as a sustainable and energy-efficient way to create an enjoyable shopping experience for customers – while at the same time supporting retailers' brand values.

Thanks to their new, slim design, the PrimeSet RDL500 / 510 modules can be aesthetically integrated in the door frames of vertical door freezers.

The modules' unique integrated optical system directs the light in such a way that the products on display are presented uniformly, while reducing glare and dark spots.



[www.philips.com/ledrefrigeration](http://www.philips.com/ledrefrigeration)





# Design highlights

- Improved visibility and presentation of the frozen food on display; uniform light distribution throughout the entire cabinet.
- Two light levels.
- Reduced complexity as each module can be center or side lit.
- Aesthetic integration of the modules into door frames, enabling better visibility of the products on display and increased storage space.
- Virtually maintenance-free throughout the lifetime of the cabinets, since the LEDs have a long lifetime of 50,000 hours with excellent lumen maintenance.
- Ideal for integration in millions of vertical refrigeration cabinets.



“Ideal for **vertical integration** in millions of vertical refrigeration cabinets.”



## Environment

Significantly improved sustainability due to lower energy consumption, reduced waste and elimination of hazardous substances such as mercury and lead.



## Product features

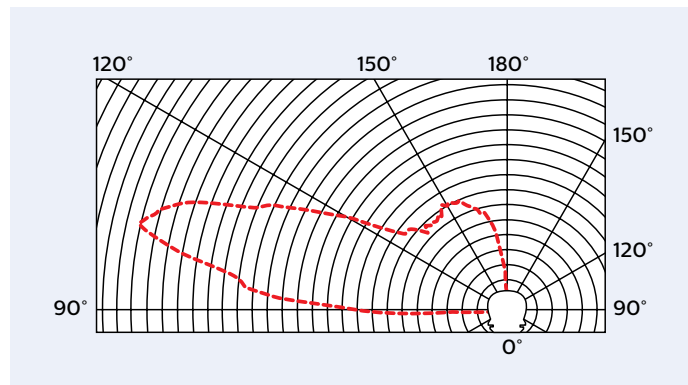
- Ultra slim design with integrated optics.
- Waterproof (IP rating: 65).
- Two typical lighting levels of 1600 lux and 850 lux for excellent illumination of products on the display.
- Each module can be center or side lit by applying a center or side cable.
- Together with the center mounting profile the light distribution will be in two directions. With the side mounting profile the light distribution will be in one direction.
- DLC listed as vertical and horizontal refrigeration display case luminaire.
- 5-year Philips warranty for the modules in combination with the Philips LED power driver.

# PrimeSet RDL500 / 510 module

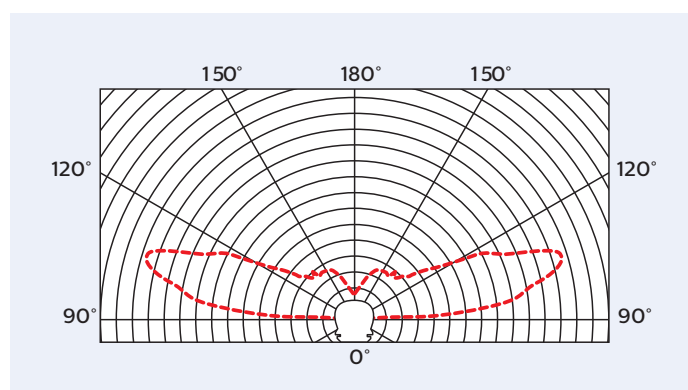
## Specifications

- The rated average life of the module, in combination with a Philips LED power driver, is L70B50 at 50,000 hours (70% lumen maintenance). This rated average life is based on three switching cycles per day.
- Operating temperature (performances) min -30 °C / max +30 °C.
- Storage temperature min -30 °C / max +60 °C.
- Housing color: black.
- Safety Extra Low Voltage (SELV).
- Compliance and approval; ENEC, UL, CE, Product safety class III, RoHS, WEEE, EU directive 2002/95/EC, NSF, CSA, REACH. Relevant clauses of IEC/EN 60335-1 Annex BB of IEC/EN 60335-2-89 Annex CC of IEC/EN 60335-2-24
- The color consistency of the modules is 5 SDCM.
- Instant start-up with full illumination.
- The rated peak intensity is 430 cd for RDL500/510 Vision and 215 cd for RDL500/510.
- The Rated beam angle is 30°.
- The Power Factor with Philips LED Power driver is > 0.9.

## Light distribution

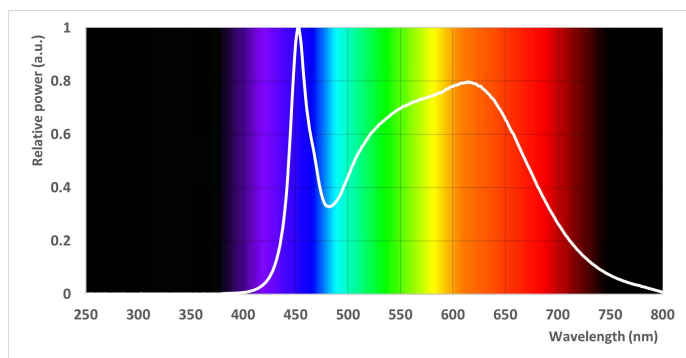


asymmetrical 30° (side)

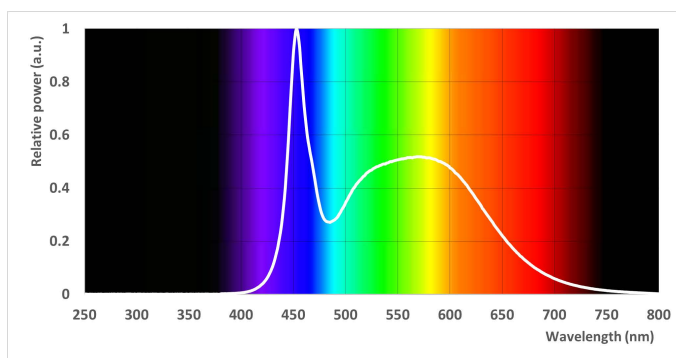


symmetrical 30° both directions (center)

## Spectral power distribution

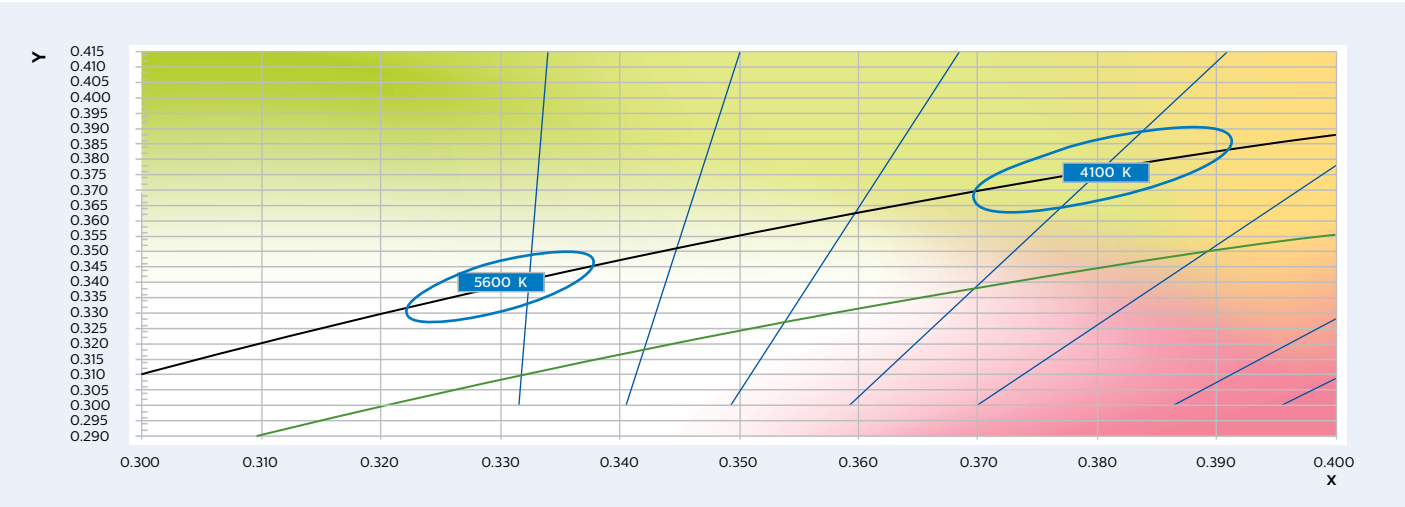


4100K

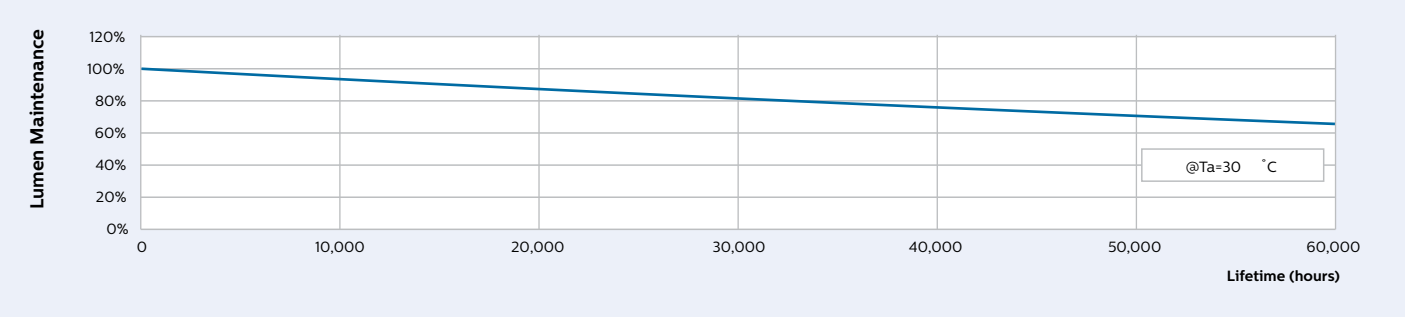


5600K

Chromaticity coordinates



Lumen Maintenance



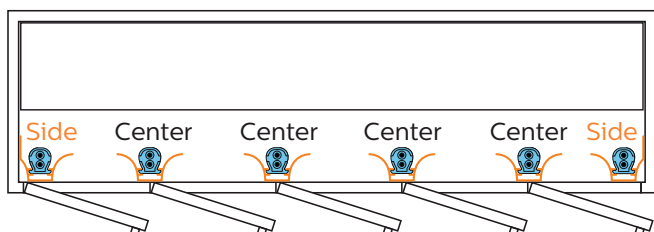
Technical Specifications

| Product type                               | Light color   | Rated power | Rated luminous flux (lumen) | Color Rendering Index |    | Correlated Color Temperature |
|--------------------------------------------|---------------|-------------|-----------------------------|-----------------------|----|------------------------------|
|                                            |               | W           | lm                          | CRI                   | R9 | K (CIE x, CIE y)             |
| PrimeSet RDL500 / 510 Vision - 1600 lux    |               |             |                             |                       |    |                              |
| PrimeSet RDL510 Vision 750mm (30") 841 G1  | Neutral White | 9.3         | 1100                        | 84                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL510 Vision 750mm (30") 856 G1  | Cool White    | 10.2        | 1150                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL510 Vision 850mm (34") 841 G1  | Neutral White | 10.8        | 1260                        | 84                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL510 Vision 850mm (34") 856 G1  | Cool White    | 12          | 1350                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL510 Vision 950mm (37") 841 G1  | Neutral White | 11.8        | 1400                        | 84                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL510 Vision 950mm (37") 856 G1  | Cool White    | 12.9        | 1440                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL500 Vision 1200mm (47") 841 G1 | Neutral White | 17.8        | 1855                        | 85                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL500 Vision 1200mm (47") 856 G1 | Cool White    | 17          | 1940                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL500 Vision 1500mm (59") 841 G1 | Neutral White | 19.4        | 2200                        | 84                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL500 Vision 1500mm (59") 856 G1 | Cool White    | 22          | 2400                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL500 Vision 1700mm (67") 841 G1 | Neutral White | 21.9        | 2500                        | 84                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL500 Vision 1700mm (67") 856 G1 | Cool White    | 24.7        | 2700                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL500 / 510 - 850 lux            |               |             |                             |                       |    |                              |
| PrimeSet RDL500 1200mm (47") 841 G1        | Neutral White | 7.9         | 900                         | 83                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL500 1200mm (47") 856 G1        | Cool White    | 9           | 1000                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL500 1500mm (59") 841 G1        | Neutral White | 9.9         | 1200                        | 83                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL500 1500mm (59") 856 G1        | Cool White    | 11.7        | 1300                        | 85                    | 0  | 5600 (0.330, 0.344)          |
| PrimeSet RDL500 1700mm (67") 841 G1        | Neutral White | 11          | 1300                        | 84                    | 0  | 4100 (0.379, 0.373)          |
| PrimeSet RDL500 1700mm (67") 856 G1        | Cool White    | 12.9        | 1400                        | 85                    | 0  | 5600 (0.330, 0.344)          |

Note: - The rated power is based on DC input  
- @ -20 °C

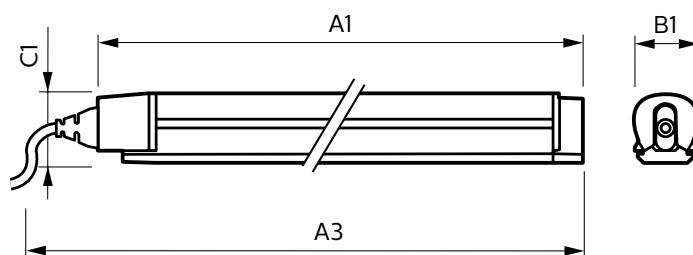
## PrimeSet RDL500 / 510 module

Example of RDL modules with center and side mounting profiles placed in a five door freezer (top view).



## Dimensions (mm) PrimeSet RDL500 / 510 module

| Type                         | A1   | A3   | B1   | C1 | mass (g) |
|------------------------------|------|------|------|----|----------|
| PrimeSet RDL510 750mm (30")  | 748  | 770  | 20.5 | 23 | 170      |
| PrimeSet RDL510 850mm (34")  | 848  | 870  | 20.5 | 23 | 200      |
| PrimeSet RDL510 950mm (37")  | 948  | 970  | 20.5 | 23 | 220      |
| PrimeSet RDL500 1200mm (47") | 1198 | 1220 | 20.5 | 23 | 280      |
| PrimeSet RDL500 1500mm (59") | 1498 | 1520 | 20.5 | 23 | 250      |
| PrimeSet RDL500 1700mm (67") | 1698 | 1720 | 20.5 | 23 | 400      |



# LED power driver

## Power supply: Philips LED power driver

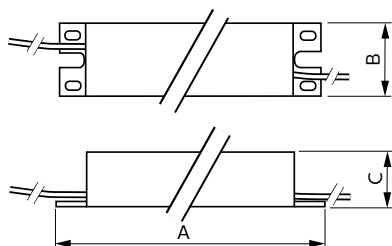
Philips PrimeSet LED display modules are only suitable for connection to a circuit from a class 2 power source with a limited energy supply. We have developed a LED power driver which is ideal for powering the PrimeSet modules.

To allow for variance in the installation, we recommend you do not load the power driver beyond 90% (20 W, 80 W and 100 W driver) of its rated maximum power. Please refer to the wiring diagram in the installation guide for more details.

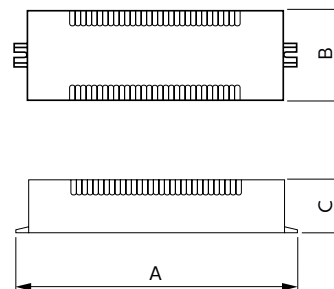
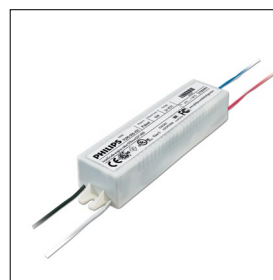


## Dimensions LED power driver

| Type                                           | A   | B    | C    |
|------------------------------------------------|-----|------|------|
| LED Power driver 20W 24V                       | 241 | 43   | 30   |
| LED Power driver 80W 24V                       | 241 | 43   | 30   |
| LED Power driver 100W 24V 100/240V             | 150 | 36   | 27   |
| Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M  | 240 | 43.1 | 28.5 |
| Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M | 240 | 43.1 | 28.5 |
| LED driver outdoor 100W 100-240V 24V           | 150 | 36   | 27   |



Xitanium Constant Voltage Outdoor driver 80 W and 100 W



Xitanium Constant Voltage Outdoor driver 20 W

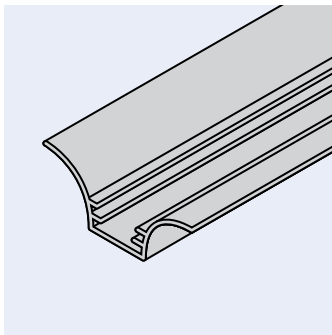
# Accessories

## Mounting profiles with options for glare shielding

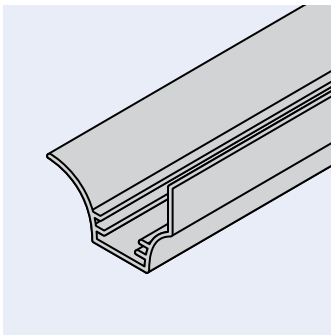
Our mounting profiles make it easy to install the modules. Thanks to the ‘click-in’ feature, the installation time is shortened considerably. The glare-free mounting profiles reduce glare to a minimum.

To ensure easy installation we supply mounting profiles that can be used to fix the modules in the mullions. They are available in two versions:

- Glare-free mounting profile for center module
- Glare-free mounting profile for side module



Glare-free mounting profile center

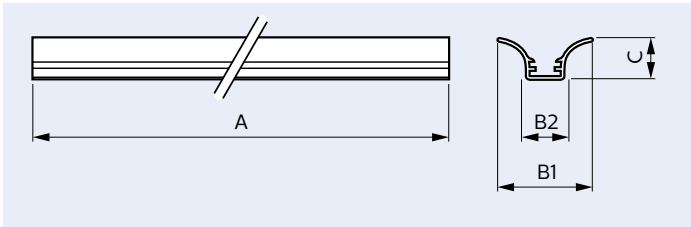


Glare-free mounting profile side

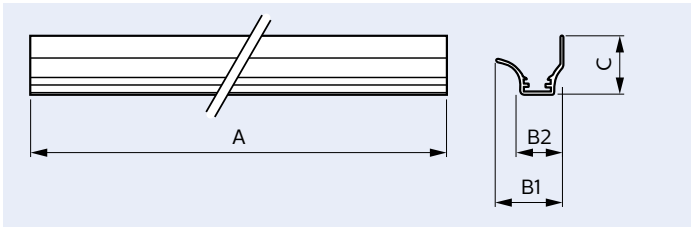
## Dimensions mounting profile

| Type                         | A    | B1 Center | B1 Side | B2 | C Center | C Side |
|------------------------------|------|-----------|---------|----|----------|--------|
| PrimeSet RDL510 750mm (30")  | 715  | 56        | 46      | 23 | 23       | 40     |
| PrimeSet RDL510 850mm (34")  | 815  | 56        | 46      | 23 | 23       | 40     |
| PrimeSet RDL510 950mm (37")  | 915  | 56        | 46      | 23 | 23       | 40     |
| PrimeSet RDL500 1200mm (47") | 1167 | 56        | 46      | 23 | 23       | 40     |
| PrimeSet RDL500 1500mm (59") | 1468 | 56        | 46      | 23 | 23       | 40     |
| PrimeSet RDL500 1700mm (67") | 1668 | 56        | 46      | 23 | 23       | 40     |

Note: Standard glare free mounting shields are grey in color. Black glare shields are also available for North America the in select lengths.



Glare-free mounting profile center



Glare-free mounting profile side

# Ordering information

## PrimeSet LED modules

| Type                                         | Minimum order quantity (per box) | Ordering code  |
|----------------------------------------------|----------------------------------|----------------|
| <b>Vision - 1600 lux</b>                     |                                  |                |
| PrimeSet RDL510 Vision 750mm (30") 841 G1    | 12                               | 9290 009 34506 |
| PrimeSet RDL510 Vision 750mm (30") 856 G1    | 12                               | 9290 009 34406 |
| PrimeSet RDL 510 Vision 850mm (34") 841 G1   | 12                               | 9290 015 02006 |
| PrimeSet RDL 510 Vision 850mm (34") 856 G1   | 12                               | 9290 015 02106 |
| PrimeSet RDL510 Vision 950mm (37") 841 G1    | 12                               | 9290 009 34306 |
| PrimeSet RDL510 Vision 950mm (37") 856 G1    | 12                               | 9290 009 34206 |
| ◆ PrimeSet RDL500 Vision 1200mm (47") 841 G1 | 12                               | 9290 015 01806 |
| PrimeSet RDL 500 Vision 1200mm (47") 856 G1  | 12                               | 9290 015 01906 |
| ◆ PrimeSet RDL500 Vision 1500mm (59") 841 G1 | 12                               | 9290 009 34106 |
| PrimeSet RDL500 Vision 1500mm (59") 856 G1   | 12                               | 9290 009 34006 |
| ◆ PrimeSet RDL500 Vision 1700mm (67") 841 G1 | 12                               | 9290 009 33906 |
| PrimeSet RDL500 Vision 1700mm (67") 856 G1   | 12                               | 9290 009 33806 |
| <b>Standard - 850 lux</b>                    |                                  |                |
| ◆ PrimeSet RDL500 1200mm (47") 841 G1        | 12                               | 9290 008 91106 |
| PrimeSet RDL500 1200mm (47") 856 G1          | 12                               | 9290 008 91006 |
| ◆ PrimeSet RDL500 1500mm (59") 841 G1        | 12                               | 9290 008 90706 |
| PrimeSet RDL500 1500mm (59") 856 G1          | 12                               | 9290 008 90606 |
| ◆ PrimeSet RDL500 1700mm (67") 841 G1        | 12                               | 9290 008 90306 |
| PrimeSet RDL500 1700mm (67") 856 G1          | 12                               | 9290 008 90206 |

## Xitanium Constant Voltage Outdoor LED Power Driver

| Type                                            | Minimum order quantity (per box) | Ordering code  |
|-------------------------------------------------|----------------------------------|----------------|
| LED power driver 20W 24VDC 100-240V             | 10                               | 9290 006 54006 |
| LED power driver 80W 24VDC 120-240V             | 10                               | 9290 016 69406 |
| LED power driver 100W 24VDC 120-240V            | 10                               | 9290 016 69506 |
| LED power driver 150W 24VDC 120-240V            | 10                               | 9290 021 01980 |
| LED power driver 240W 24VDC 120-240V            | 10                               | 9290 021 02080 |
| LED transformer 20W 24VDC 120-277V              | 10                               | 9290 021 05580 |
| LED transformer 40W 24VDC 120-277V              | 10                               | 9290 021 05680 |
| LED transformer 60W 24VDC 120-277V              | 10                               | 9290 021 05780 |
| LED transformer 60W 24VDC 220-240V              | 10                               | 9137 100 32267 |
| LED transformer 100W 24VDC 120-277V             | 10                               | 9290 021 05880 |
| LED transformer 120W 24VDC 220-240V             | 10                               | 9137 100 32567 |
| LED transformer 150W 24VDC 220-240V             | 10                               | 9290 021 05980 |
| Xitanium 77W 100-277V 3.2A XI077C320V024FNS1M * | 20                               | 9290 017 08113 |
| Xitanium 100W 100-277V 4.1A XI100C410V024FNS1M* | 20                               | 9290 007 71913 |
| LED driver outdoor 100W 100-240V 24V**          | 10                               | 9290 004 85303 |

\* Only for NAM Region

\*\* Only for Japan

## Accessories: Cables

| Type                                     | Minimum order quantity (per box) | Ordering code  |
|------------------------------------------|----------------------------------|----------------|
| <b>Cable length - 2.5 meter</b>          |                                  |                |
| PrimeSet RDL - Centre Cable 2.5m (98") B | 24                               | 9290 009 57206 |
| PrimeSet RDL - Side Cable 2.5m (98") B   | 24                               | 9290 009 57306 |
| <b>Cable length - 1 meter</b>            |                                  |                |
| PrimeSet RDL - Centre Cable 1m (39") B   | 24                               | 9290 008 92706 |
| PrimeSet RDL - Side Cable 1m (39") B     | 24                               | 9290 008 92806 |

## Accessories: Mounting profiles for PrimeSet RDL500 / 510

| Type                                      | Minimum order quantity (per box) | Ordering code  |
|-------------------------------------------|----------------------------------|----------------|
| <b>750 mm length</b>                      |                                  |                |
| PrimeSet RDL-mount prof CTR 750mm         | 12                               | 9290 008 94006 |
| PrimeSet RDL-mount prof SD 750mm          | 12                               | 9290 008 94706 |
| <b>850 mm length</b>                      |                                  |                |
| PrimeSet RDL-mount prof CTR 850mm         | 12                               | 9290 015 07306 |
| PrimeSet RDL-mount prof SD 850mm          | 12                               | 9290 015 07406 |
| <b>950 mm length</b>                      |                                  |                |
| PrimeSet RDL-mount prof CTR 950mm         | 12                               | 9290 008 94106 |
| PrimeSet RDL-mount prof SD 950mm          | 12                               | 9290 008 94806 |
| <b>1200 mm length</b>                     |                                  |                |
| PrimeSet RDL-mount prof CTR 1200mm        | 12                               | 9290 008 94206 |
| PrimeSet RDL-mount prof SD 1200mm         | 12                               | 9290 008 94906 |
| PrimeSet RDL-mount prof CTR 1200mm-47" B* | 12                               | 9290 008 97706 |
| PrimeSet RDL-mount prof SD 1200mm-47" B*  | 12                               | 9290 008 97806 |
| <b>1500 mm length</b>                     |                                  |                |
| PrimeSet RDL-mount prof CTR 1500mm        | 12                               | 9290 008 94306 |
| PrimeSet RDL-mount prof SD 1500mm         | 12                               | 9290 008 95006 |
| PrimeSet RDL-mount prof CTR 1500mm-59" B* | 12                               | 9290 008 94506 |
| PrimeSet RDL-mount prof SD 1500mm-59" B*  | 12                               | 9290 008 95206 |
| <b>1700 mm length</b>                     |                                  |                |
| PrimeSet RDL-mount prof CTR 1700mm        | 12                               | 9290 008 94406 |
| PrimeSet RDL-mount prof SD 1700mm         | 12                               | 9290 008 95106 |
| PrimeSet RDL-mount prof CTR 1700mm-67" B* | 18                               | 9290 008 94606 |
| PrimeSet RDL-mount prof SD 1700mm-67" B*  | 12                               | 9290 008 95306 |

\* Black for North American Market

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◆ Some PrimeSet are Design Lights Consortium qualified. Please see the DLC QPL list for exact catalog numbers [www.designlights.org/QPL](http://www.designlights.org/QPL)

[www.philips.com/oem](http://www.philips.com/oem)