

Roadway (VRL03)



Bluetooth



75W & 101W



160W & 201W



301W

DESCRIPTION

The VRL03 series provides multifunctional lighting solutions with top-notch performance, which are specially designed for various area and roadway applications. The first-class performance, along with the excellent and comfortable optical lighting, can maximize energy savings and reduce maintenance and operating costs. Meanwhile, the VRL03 series comes with features such as field-selectable light output, compatibility with light controls, infrared sensors and surge protection, etc., simplifying the selection of luminaires for reliable LED roadway lighting upgrades.

SPECIFICATIONS

Construction

- Heavy-duty cast aluminum housing and removable door 3G vibration rated to ensure strength of construction and longevity in application.
- Casting thermally conducts LED heat to optimize performance and long life.
- LED lens housing is completely sealed against moisture and environmental contaminants.
- Mast arm mount is suit for arms 1-5/8" to 2-3/8" O.D. diameter.
- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life.

Optics

- Available in IES Type II, III, IV distribution.
- Expandable lumen package from 5,200 to 46,200 lumens.
- Optics is precisely designed to shape the distribution, maximizing efficiency and application spacing.

LED Module

- The light engines are available in standard 3000K, 4000K and 5000K configurations.
- CRI > 70.

Lifespan

- Estimated 100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Electrical

- Universal 120-277V AC or 277-480V AC input voltage.
- Each model supports 4 levels wattage field-selectable.
- 0-10V dimming driver with 10%-100% dimming range.
- PF > 0.9, THD < 20%.
- Operating temperature range:
-40°C to 40°C (-40°F - + 104°F).

Controls

- Optional NEMA 3-pin photocell or 7-pin photocell.
- Optional PIR sensor.
- Optional Bluetooth sensor or Bluetooth controller.

Certifications

- ULcUL wet location listed.

Warranty

- Five-year limited warranty.

Note

- Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 C (±5C). Specifications subject to change without notice.

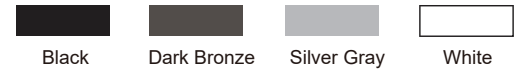


Twist-Lock Photocell Receptacles

Standard 3-pin with optional 7-in NEMA twist-lock photocell receptacles: secure, reliable connections that simplify installation and ensure compatibility.

Finish

It's available in black or optional dark bronze, silvery gray or white.

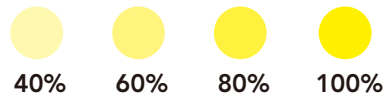


Plug-and-Play Sensor

3-Second Quick Installation, Plus Energy-Saving Performance

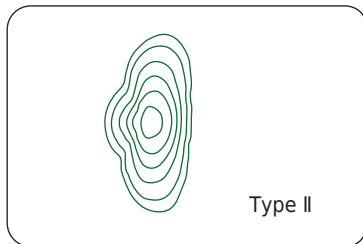
Wattage Selectable

Each model supports 4 positions wattage regulation: 100%, 80%, 60%, 40%

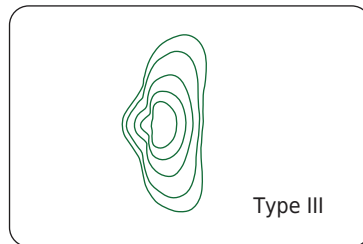


PHOTOMETRICS

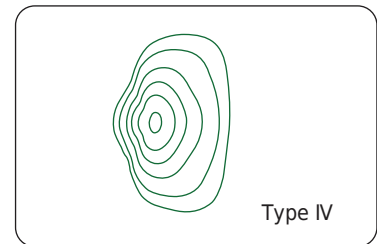
Mester offers a complete set of optical systems to meet every site lighting requirement. These systems provide remarkable flexibility in precisely matching light distribution patterns to specific site requirements.



Type 2 optics creates an asymmetric distribution working well in walkway and roadway applications where more light is required "street side" than "house side".



Type 3 optics produces an asymmetrical pattern that directs the majority of the light forward and equally on both sides of the luminaire. In a back-to-back configuration, it creates a rectangular pattern which can extend pole spacings.

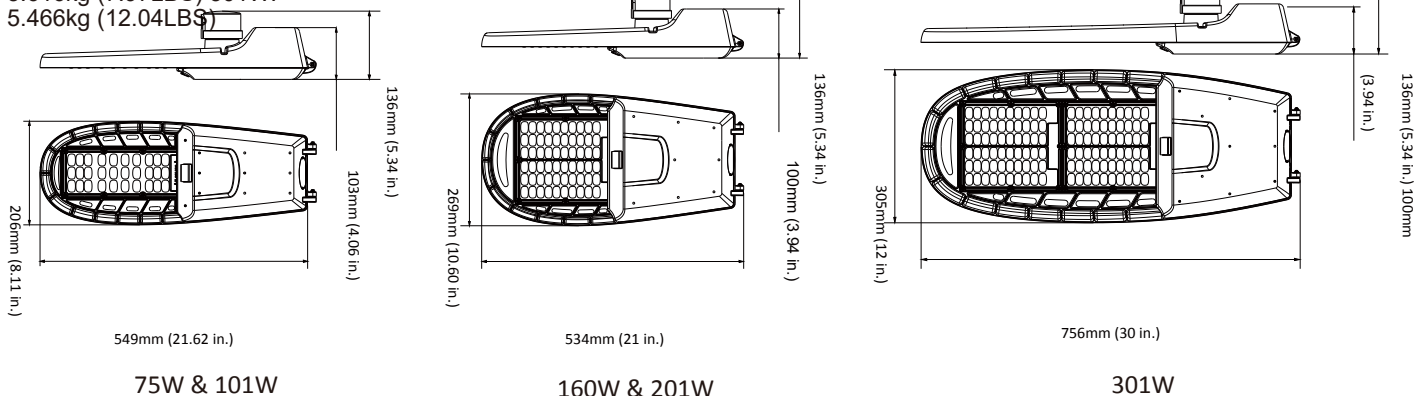


Type 4 is suitable for applications where light is primarily required forward with minimal backlight. Typical installations include perimeter poles.

DIMENSIONS

Unit: mm/inch

Net Weight:
75W & 101W: 3.41kg
(7.52LBS) 160W & 201W:
3.616kg (7.97LBS) 301W:
5.466kg (12.04LBS)



PERFORMANCE DATA

VRL03 75W										
SETTING	SYSTEM WATTS	Distribution	CRI	3000K		4000K		5000K		EPA
				LUMENS	LPW	LUMENS	LPW	LUMENS	LPW	
100%	75W	Type II Type III Type IV	70	11100lm	148lm/W	11400lm	152lm/W	11400lm	152lm/W	0.4261
80%	60W		70	9200lm	153lm/W	9500lm	158lm/W	9500lm	158lm/W	0.4261
60%	45W		70	7300lm	162lm/W	7500lm	167lm/W	7500lm	167lm/W	0.4261
40%	30W		70	5200lm	173lm/W	5300lm	177lm/W	5300lm	177lm/W	0.4261

VRL03 101W										
SETTING	SYSTEM WATTS	Distribution	CRI	3000K		4000K		5000K		EPA
				LUMENS	LPW	LUMENS	LPW	LUMENS	LPW	
100%	101W	Type II Type III Type IV	70	15000lm	149lm/W	15500lm	154lm/W	15500lm	154lm/W	0.4261
80%	81W		70	12500lm	154lm/W	12800lm	158lm/W	12800lm	158lm/W	0.4261
60%	61W		70	9900lm	162lm/W	10200lm	167lm/W	10200lm	167lm/W	0.4261
40%	41W		70	7100lm	173lm/W	7400lm	180lm/W	7400lm	180lm/W	0.4261

VRL03 160W										
SETTING	SYSTEM WATTS	Distribution	CRI	3000K		4000K		5000K		EPA
				LUMENS	LPW	LUMENS	LPW	LUMENS	LPW	
100%	160W	Type II Type III Type IV	70	23600lm	148lm/W	24500lm	153lm/W	24500lm	153lm/W	0.5485
80%	128W		70	19600lm	153lm/W	20200lm	158lm/W	20200lm	158lm/W	0.5485
60%	96W		70	15700lm	164lm/W	16100lm	168lm/W	16100lm	168lm/W	0.5485
40%	64W		70	11100lm	173lm/W	11500lm	180lm/W	11500lm	180lm/W	0.5485

VRL03 201W										
SETTING	SYSTEM WATTS	Distribution	CRI	3000K		4000K		5000K		EPA
				LUMENS	LPW	LUMENS	LPW	LUMENS	LPW	
100%	201W	Type II Type III Type IV	70	29800lm	148lm/W	31000lm	154lm/W	31000lm	154lm/W	0.5485
80%	161W		70	24500lm	152lm/W	25600lm	159lm/W	25600lm	159lm/W	0.5485
60%	121W		70	19700lm	163lm/W	20500lm	169lm/W	20500lm	169lm/W	0.5485
40%	81W		70	14000lm	173lm/W	14700lm	182lm/W	14700lm	182lm/W	0.5485

VRL03 301W										
SETTING	SYSTEM WATTS	Distribution	CRI	3000K		4000K		5000K		EPA
				LUMENS	LPW	LUMENS	LPW	LUMENS	LPW	
100%	301W	Type II Type III Type IV	70	44500lm	148lm/W	46200lm	153lm/W	46200lm	153lm/W	0.7845
80%	241W		70	37000lm	154lm/W	37800lm	157lm/W	37800lm	157lm/W	0.7845
60%	181W		70	29700lm	164lm/W	30400lm	168lm/W	30400lm	168lm/W	0.7845
40%	121W		70	21000lm	174lm/W	21800lm	180lm/W	21800lm	180lm/W	0.7845

PREDICTED LUMEN DEPRECIATION DATA

Calculated per IESNA TM21-21.

Ambient Temperature	Calculated L70 hours	Calculated L90 hours	Lumen Maintenance % at 50,000 hrs	Lumen Maintenance % at 10,000 hrs
25°C	>102,000 hrs	>53,000 hrs	>90.59%	>81.89%

ELECTRICAL DATA

Number Of Drivers	Driver Output Current (mA)	Nominal Power (W)	Input Voltage (V)	Input Current (Amps)
1	1050	75	120	0.63
			208	0.36
			240	0.31
			277	0.27
			347	0.22
			480	0.16
1	750	101	120	0.84
			208	0.49
			240	0.42
			277	0.36
			347	0.29
			480	0.21
1	680	160	120	1.33
			208	0.77
			240	0.67
			277	0.58
			347	0.46
			480	0.33
1	760	201	120	1.68
			208	0.97
			240	0.84
			277	0.73
			347	0.58
			480	0.42
1	1190	301	120	2.51
			208	1.45
			240	1.25
			277	1.09
			347	0.87
			480	0.63

BUG

Size	Watts	Distribution	B	U	G
Small Size	75W	Type II	2	0	2
		Type III	2	0	2
		Type IV	2	0	2
	101W	Type II	2	0	2
		Type III	2	0	2
		Type IV	3	0	3
Medium Size	160W	Type II	3	0	3
		Type III	3	0	3
		Type IV	3	0	3
	201W	Type II	3	0	3
		Type III	3	0	3
		Type IV	3	0	4
Large Size	301W	Type II	4	0	4
		Type III	4	0	4
		Type IV	4	0	5

ACCESSORIES (Optional)



Plug-and-Play PIR Sensor

PIR sensor: MSANT12VPH01

Bluetooth PIR sensor: MSANT12VPHS01(Silvair System)/MSANT12VPHG01(GEBC System)

Description: 100% sensitivity, Hold on time: 5min, Daylight Threshold: disable, Standby Dimming Level: 30%, Dimming time: 30minutes.



NEMA Photocell

3 Pin NEMA Type: MS-PSUNVB1.

3 Pin NEMA Type(480V): MS-PSUNVB2 .

7 Pin NEMA Type: JL-241C.

7 Pin NEMA Type(480V): JL-241F.

ORDERING GUIDE

Example: VRL03 75W 27V XXK YYYYYY

Fixture Type	Wattage	Input Voltage	CCT	Finish	Photocell	Sensor	CCT and Wattage Selectable Switch	Photometry	Internal Code
VRL03 Roadway Series	75W (75W/60W/45W/30W Selectable) 101W (101W/81W/61W/41W Selectable) 160W (160W/128W/96W/64W Selectable) 201W (201W/161W/121W/81W Selectable) 301W (301W/241W/181W/121W Selectable)	27V 120-277V 48V 277-480V	30K 3000K 40K 4000K 50K 5000K	D Dark Bronze B Black W White SG Silver Gray	P With Photocell Blank Without Photocell	M With Sensor Blank Without Sensor	AD With Selectment Switch Blank Without Selectment Switch	T2 TYPE II T3 TYPE III T4 TYPE IV	Blank Alphanumeric

