

Innovation is our heritage **FST. 1896** 

# Integrated Mariner Premium









# **Product information**

This fixture has an attractive, neutral aesthetics that makes it suitable for applications in both commercial, residential and industrial environments. It is an energy-efficient, low maintenance alternative to traditional fluorescent waterproof fixtures. The integrated mariner offers customers the best mix of value and performance. It has compact size with high lumen output and completely integrable lighting solution for applications with high requirements for luminous intensity and resistance.

## **Features**

- High performance with outstanding efficiency with 5 lumen packages up to 140 lm/W
- 50 000 hours lifetime (L80/B50)
- 2 colour temperatures: 4000 and 6500K with SDCM <6</li>
- Wide beam angle of 125 degree
- Linear luminaire with high protection rating (IP65) and high impact resistance (IK08) make integrated LED mariner the ideal solution in challenging ambient conditions
- Suitable for operation in ambient temperature of -20°C to +40°C for standard and -20°C to +25°C for emergency versions
- Integrated through-wiring 2x1.5mm2
- · Quick connector solution on both ends of the fixture to allow single fixture or continuous fixture installations
- Static built-in driver. Dali version is optional with Tridonic driver for 3800lm and 6200lm pack in 4000K CCT
- PF >0,9
- THD < 20%
- Nominal Voltage: 220-240V
- Operating frequency: 50-60Hz
- High (850°C) Glow wire temperature
- Certificates: CE, CB, TÜV
- Insulation Class II
- Breather valve to maintain good waterproofness in case of over pressurization
- The range is available with integrated emergency version (except 70W). The emergency driver, leads, high intensity LED indicator and 3 hours special battery stick is designed by Mackwell for easy and quick replacement, see in the installation guide.
- ELEDD MIDI 200 driver is warranted for three years, and 1 year warranty is provided on battery stick.
- · Products with Microwave motion sensor are also available in the range. The sensor is integrated into the fixtures, set up for 5 min holding time and 5 meter detection area.

Please note that microwave sensors have specific sensitivity, therefore we recommend to consult the right choice with our sales representative or customer care team.

### **Benefits**

- Energy savings of up to 70% (compared to luminaires that use fluorescent lamps)
- Uniform light
- Convenient, continuous connection for both sizes of 1200mm and 1500mm, simple and easy installation options
- High resistance against ambient air with humidity and high particle loads
- Simple refurbishment solution thanks to use of existing installation points with freely positionable mounting clips
- Fast and simple installation due to guick connector design

# **Application areas**



Industrial



Car park



# **Structures and materials**

- Body: impact-resistant, polycarbonate cover
- UV stabilized, flame retardant polycarbonate with improved light transmission and good colorstability under heat exposure
- Colour: grev
- Sealing material between the shell and cover in PU (polyurethane), which offers the lamp excellent waterproof ability
- Waterproof plastic wiring connector with rubber gasket on one side of the fitting
- · Convenient assembly bracket for ceiling mount, also opportunities for wall mounting with metal parts
- Small size profile and lightweight design
- All accessories for fixing are included in the package:

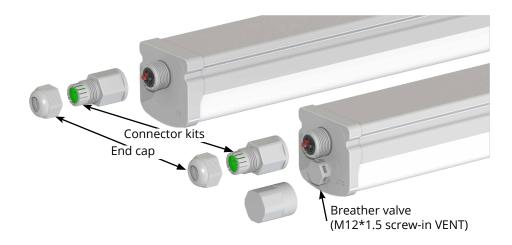


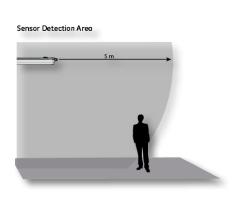
- Wall mounting metal is 304 stainless steel
- Kits are packed to ensure end users can fix the fixture
- Fix to the ceiling: 2pcs wall mount clips plus 2 pcs of screws



# **Electrical connection**

- Connection with 2x1,5mm wire.
- Through-wiring is possible.
- Quick connection on both for easy and fast installation.





# **Specification summary**

Product Code	Product Code (DS)	Description	Wattage (W)	Lumen (lm)	Efficiency (lm/W)	ССТ (K)	CRI	Length (mm)	Repl. for LFL	Weight (kg)
Static										
93101662	93103655	D Mariner PR G1 TU 4' 20W 840 SST 20 2700 135 4000 >80 120				1200	1 × 26W	0.90		
93107528	93103656	LED Mariner PR G1 TU 4' 20W 865 SST	20	2700	135	6500	>80	1200	- 1 x 36W -	0.90
93101663	93103657	ED Mariner PR G1 TU 4' 30W 840 SST 30 4100 137 4000 >80 1200						1200	- 2 x 36W -	0.90
93107529	93103658	LED Mariner PR G1 TU 4' 30W 865 SST	30	4100	137	6500	>80	1200	0.90	
93107530	93103659	LED Mariner PR G1 TU 5' 30W 840 SST	30	4200	140	4000	>80	1500	1.12	
93107531	93103660	LED Mariner PR G1 TU 5' 30W 865 SST	30	4200	140	6500	>80	1 x 58W —		1.12
93101668	93103661	LED Mariner PR G1 TU 5' 49W 840 SST	49	6600	135	4000	>80	1500		1.15
93107532	93103662	LED Mariner PR G1 TU 5' 49W 865 SST	49	6600	135	6500	>80	1500 2 x 58W —		1.15
93101687	93103730	LED Mariner PR G1 TU 5' 70W 840 SST	70	9600	137	4000	>80	1500 1500 2 x 70W —		1.15
93107568	93103731	LED Mariner PR G1 TU 5' 70W 865 SST	70	9600	137	6500	>80			1.15
Dali										
93101691	93103736	LED Mariner PR G1 TU 4' 30W 840 DST	30	3800	127	4000	>80	1200	2 x 36W	0.90
93101696	93103737	LED Mariner PR G1 TU 5' 49W 840 DST	49	6200	127	4000	>80	1500	2 x 58W	1.15
Integrated Motion Sensor - Static										
93101688	93103732	LED Mariner PR G1 TU 4' 21W 840 SMS	21	2700	129	4000	>80	1200		0.90
93107570	93103738	LED Mariner PR G1 TU 4' 21W 865 SMS	21	2700	129	6500	>80	1200	1 x 36W -	
93101689	93103733	LED Mariner PR G1 TU 4' 31W 840 SMS	31	4100	132	4000	>80	1200 1200 2 x 36W —		0.90
93107571	93103739	LED Mariner PR G1 TU 4' 31W 865 SMS	31	4100	132	6500	>80			0.90
93107569	93103734	LED Mariner PR G1 TU 5' 31W 840 SMS	31	4200	135	4000	>80	1500 1500 1 x 58W —		1.12
93107572	93103740	LED Mariner PR G1 TU 5' 31W 865 SMS	31	4200	135	6500	>80			1.12
93101690	93103735	LED Mariner PR G1 TU 5' 49W 840 SMS	49	6600	135	4000	>80	1500		1.15
93107573	93103741	LED Mariner PR G1 TU 5' 49W 865 SMS	49	6600	135	6500	>80	1500	- 2 x 58W -	1.15
93101697	93103743	LED Mariner PR G1 TU 5' 70W 840 SMS	70	9600	137	4000	>80	1500	2 7014	1.15
93107574	93103742	LED Mariner PR G1 TU 5' 70W 865 SMS	70	9600	137	6500	>80	1500	- 2 x 70W -	1.15
Integrate	d Emerg	ency - Static								
TBD	TBD	LED Mariner PR G1 TU 4' 23W 840 SEM	23	2700	117	4000	>80	1200	4 2014	1.35
TBD	TBD	LED Mariner PR G1 TU 4' 23W 865 SEM	23	2700	117	6500	>80	1200	- 1 x 36W -	1.35
93108072	TBD	LED Mariner PR G1 TU 4' 34W 840 SEM	34	4100	121	4000	>80	1200	0.0014	1.35
93108073	TBD	LED Mariner PR G1 TU 4' 34W 865 SEM	34	4100	121	6500	>80	1200	- 2 x 36W -	1.35
TBD	TBD	LED Mariner PR G1 TU 5' 33W 840 SEM	33	4200	127	4000	>80	1500	4 5014	1.57
TBD	TBD	LED Mariner PR G1 TU 5' 33W 865 SEM	33	4200	127	6500	>80	1500	- 1 x 58W -	1.57
93108074	TBD	LED Mariner PR G1 TU 5' 52W 840 SEM	52	6600	127	4000	>80	1500	0 =5:::	1.60
93108075	TBD	LED Mariner PR G1 TU 5' 52W 865 SEM	52	6600	127	6500	>80	1500 2 x 58W -		1.60
Adjustable Accessories*										
93094134	-	Metal clips for Integrated Mariner								
93093387	-	Mariner Suspension Kit								
* accessories to be ordered separately										

# **Regulatory and standards**

Regulatory mark: CE

**Regulations:** 2014/35/EU, 2014/30/EU, 2011/65/EU, (framework 2009/125/EC) EU/1194/2012 amended by EU 2015/1428, (framework 2010/30/EC) 874/2012 and 518/2014\*, 2012/19/EU\*

Harmonized standards: EN 60598, EN 62493, EN 61547, EN55015, EN 61000,

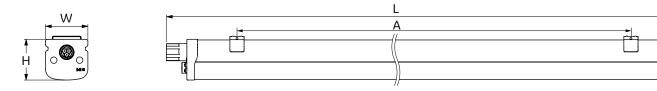
look for CE Declaration of Conformity and Technical File for details

Photobiological risk assesment group 0. The product is considered safe, does not pose any photobiological hazard \*not on DOC

# Integrated mariner microwave sensor usage and notice:

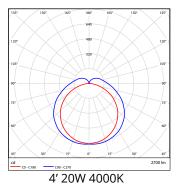
- 1. Preset Sensor values could not be change by the customer or the installer.
- 2. The distance between any two sensors should be at least 3m to avoid interference.
- 3. When luminaire is installed in a metal lighting fixture or in a location with large reflecting surfaces, for example in case of a warehouse with metal roof, the microwave will be reflected and as a result, the light will be permanently on, even without motion in the area.
- 4. Make sure the sensor of the luminaire is not blocked by high density material, such as metal, glass, concrete walls etc. be cause they might reduce or block the microwave or can cause false trigger.
- 5. Make sure there are no fans or other vibrating objects in the installation area, because these movements might trigger the sensor.
- 6. Please note, that the sensor detects the motion behind the walls, as the sensor is extremely sensitive.
- 7. Blowing wind could activate the sensor as well.

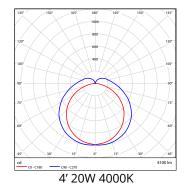
# **Dimensions (mm)**

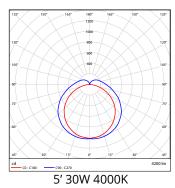


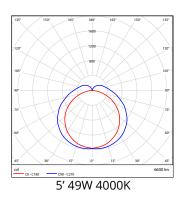
Туре	L (mm)	W (mm)	H (mm)
LED Mariner PR G1 TU 4' xxx	1170	66	63
LED Mariner PR G1 TU 5' xxx	1470	66	63

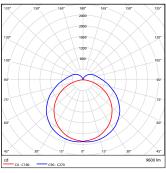
# **Photometric data**











5' 70W 4000K

Photometry is based on LM79

# **Order logic**

Internal Code	Range	Generation	Brand	Length	Wattage	CRI	CRI + CCT	Controller	Special	Shipment
LED Mariner	PR - PREMIUM	<b>G1 -</b> Genera- tion 1	<b>TU -</b> TUNGSRAM	<b>4' -</b> 4ft <b>5' -</b> 5ft	20W 23W 30W 33W 34W 49W 52W 70W	<b>8 -</b> 80 CRI	<b>40</b> - 4000K <b>65</b> - 6500K	<b>S -</b> Static <b>D -</b> Dali	ST - Standard version EM - EMergency MS - Motion Sensor	<b>DS -</b> Direct Shipment

Example: LED Mariner PR G1 TU 4' 20W 840 SST

4ft ,20W 4000K Mariner, Static, 220-240V built-in driver, standard version with 850C glow wire temp