

## Liwa

### DAMP-PROOF | NON-DALI SERIES

Liwa is a high-impact resistance luminaire suitable for very wet or for very cold environments such as freeze warehouses. Its adjustable beam angle (30/60/90 degrees) makes it suitable for very tall warehouses where the beam can be adjusted to shine the light precisely on the shelves. With an IP68 protection factor.

Liwa damp-proof luminaires come in several series, with various add-on and controls:

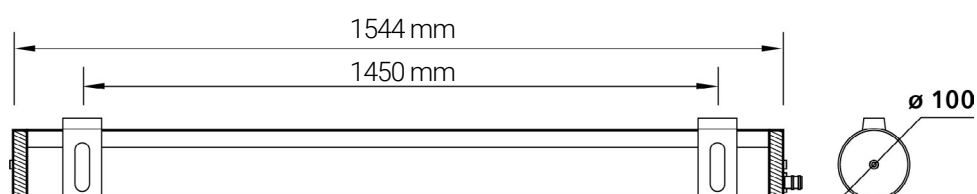
- Liwa Non-DALI – the standard for any project in the retail sectors
- Liwa Non-DALI EM – with emergency kit
- Liwa DALI – with DALI controls for dimming

### FEATURES & BENEFITS

- CRI 80 as standard
- 4 color temperatures: 3000K, 4000K, 5000K and 6500K
- Long rated life – L90/B10 at 50.000h
- High luminaire efficiency: 157 lm/W @4000K

### APPLICATION

Grocery & Supermarket | Industrial & Logistic | Parking



## SPECIFICATIONS

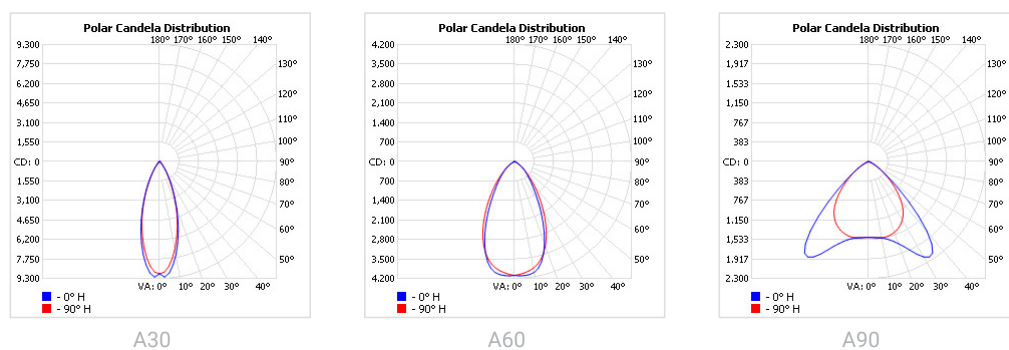
Power consumption	33W, 42W, 51W, 60W
Dimensions	Ø100 x 1544mm±1mm
Weight	4.0 - 4.1Kg
Housing materials	Polycarbonate & Stainless stell
IK code	IK10
THD (at 230V, 50Hz, Full load)	<8%
Protection class	Safety class 1
Operating temperature [°C]	-28°C ... +45°C / -18.4F ... +113F
Operating humidity [%]	10 ÷ 85
Power factor	≥0.95
AC Input [Vac]	220 - 240 VAC
Lens angle [°]	30°, 60°, 90°
Lifespan [h]	50.000
Housing color	● Grey
Lumen maintenance	L90/B10@50.000h at 25°C
IP factor	IP68
Control optional	-
Warranty [years]	5
Storage temperature range [°C]	-20°C ... +55°C / -4F ... +131F
Emergency option	-

Light application	Standard
CRI	CRI 80
CCT [K]	3000K/4000K/5000K/6500K
MacAdam	4

CRI - Color rendering, CCT - Color temperature, MacAdam - Color consistency

## LIGHT DISTRIBUTION



**RISK GROUP****RG1**

The evaluation of photobiological safety is carried out according to the standard IEC 62471:2008 ("Photobiological safety of lamps and lamp systems"). Following the definition of the risk grouping system of the mentioned IEC standard, the LEDs mounted on this family fall into the class "Low Risk (RG1 – No photobiological hazard under normal behavioral limitations)". Under real circumstances (regarding exposure time, pupils, observation distance), it is assumed that there is no endangerment to the eye from these devices. As a matter of principle, however, it should be mentioned that intense light sources have a high secondary exposure potential due to their blinding effect.

**TOLERANCES**

**Luminous flux tolerances:** -/+ 5%

**Consumption tolerance:** -/+ 5% for Non-DALI | -/+ 10% for Non-DALI & KIT EM | -/+ 10% for DALI | -/+ 15% for DALI & KIT EM

**BATTERY WARRANTY**

**Non-DALI EM & DALI EM:** 12 months warranty

**Non-DALI & DALI:** -

**MAXIMUM NO. OF LUMINAIRES ON A CIRCUIT**

Luminaire Power(W)	Control type	Circuit Breaker Type					
		B			C		
		20	16	10	20	16	10
< 50W	Non-DALI	37	30	18	62	51	31
≥ 50W	Non-DALI	37	30	18	62	51	31
< 80W	DALI	27	21	13	45	35	21

## SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
<b>CRI 80</b>						
129400 Liwa 150/3000/33W/80/A30	Ø100 x 1544± 1mm	3000	4715	33W	143	30°
129401 Liwa 150/4000/33W/80/A30	Ø100 x 1544± 1mm	4000	4915	33W	149	30°
129402 Liwa 150/5000/33W/80/A30	Ø100 x 1544± 1mm	5000	5045	33W	153	30°
129403 Liwa 150/6500/33W/80/A30	Ø100 x 1544± 1mm	6500	4915	33W	149	30°
129404 Liwa 150/3000/33W/80/A60	Ø100 x 1544± 1mm	3000	4680	33W	142	60°
129405 Liwa 150/4000/33W/80/A60	Ø100 x 1544± 1mm	4000	4875	33W	148	60°
129406 Liwa 150/5000/33W/80/A60	Ø100 x 1544± 1mm	5000	5010	33W	152	60°
129407 Liwa 150/6500/33W/80/A60	Ø100 x 1544± 1mm	6500	4875	33W	148	60°
129408 Liwa 150/3000/33W/80/A90	Ø100 x 1544± 1mm	3000	4700	33W	143	90°
129409 Liwa 150/4000/33W/80/A90	Ø100 x 1544± 1mm	4000	4900	33W	149	90°
129410 Liwa 150/5000/33W/80/A90	Ø100 x 1544± 1mm	5000	5030	33W	153	90°
129411 Liwa 150/6500/33W/80/A90	Ø100 x 1544± 1mm	6500	4900	33W	149	90°
129412 Liwa 150/3000/42W/80/A30	Ø100 x 1544± 1mm	3000	6285	42W	150	30°
129413 Liwa 150/4000/42W/80/A30	Ø100 x 1544± 1mm	4000	6555	42W	157	30°
129414 Liwa 150/5000/42W/80/A30	Ø100 x 1544± 1mm	5000	6730	42W	161	30°
129415 Liwa 150/6500/42W/80/A30	Ø100 x 1544± 1mm	6500	6555	42W	157	30°
129416 Liwa 150/3000/42W/80/A60	Ø100 x 1544± 1mm	3000	6240	42W	149	60°
129417 Liwa 150/4000/42W/80/A60	Ø100 x 1544± 1mm	4000	6505	42W	155	60°
129418 Liwa 150/5000/42W/80/A60	Ø100 x 1544± 1mm	5000	6680	42W	160	60°
129419 Liwa 150/6500/42W/80/A60	Ø100 x 1544± 1mm	6500	6505	42W	155	60°
129420 Liwa 150/3000/42W/80/A90	Ø100 x 1544± 1mm	3000	6270	42W	150	90°
129421 Liwa 150/4000/42W/80/A90	Ø100 x 1544± 1mm	4000	6535	42W	156	90°
129422 Liwa 150/5000/42W/80/A90	Ø100 x 1544± 1mm	5000	6710	42W	160	90°
129423 Liwa 150/6500/42W/80/A90	Ø100 x 1544± 1mm	6500	6535	42W	156	90°
129424 Liwa 150/3000/51W/80/A30	Ø100 x 1544± 1mm	3000	7400	51W	146	30°
129425 Liwa 150/4000/51W/80/A30	Ø100 x 1544± 1mm	4000	7710	51W	152	30°
129426 Liwa 150/5000/51W/80/A30	Ø100 x 1544± 1mm	5000	7920	51W	156	30°
129427 Liwa 150/6500/51W/80/A30	Ø100 x 1544± 1mm	6500	7710	51W	152	30°
129428 Liwa 150/3000/51W/80/A60	Ø100 x 1544± 1mm	3000	7345	51W	145	60°
129429 Liwa 150/4000/51W/80/A60	Ø100 x 1544± 1mm	4000	7655	51W	151	60°
129430 Liwa 150/5000/51W/80/A60	Ø100 x 1544± 1mm	5000	7860	51W	155	60°
129431 Liwa 150/6500/51W/80/A60	Ø100 x 1544± 1mm	6500	7655	51W	151	60°
129432 Liwa 150/3000/51W/80/A90	Ø100 x 1544± 1mm	3000	7380	51W	145	90°
129433 Liwa 150/4000/51W/80/A90	Ø100 x 1544± 1mm	4000	7690	51W	151	90°
129434 Liwa 150/5000/51W/80/A90	Ø100 x 1544± 1mm	5000	7895	51W	155	90°
129435 Liwa 150/6500/51W/80/A90	Ø100 x 1544± 1mm	6500	7690	51W	151	90°
129436 Liwa 150/3000/60W/80/A30	Ø100 x 1544± 1mm	3000	8220	60W	137	30°
129437 Liwa 150/4000/60W/80/A30	Ø100 x 1544± 1mm	4000	8570	60W	143	30°
129438 Liwa 150/5000/60W/80/A30	Ø100 x 1544± 1mm	5000	8800	60W	147	30°
129439 Liwa 150/6500/60W/80/A30	Ø100 x 1544± 1mm	6500	8570	60W	143	30°
129440 Liwa 150/3000/60W/80/A60	Ø100 x 1544± 1mm	3000	8160	60W	136	60°
129441 Liwa 150/4000/60W/80/A60	Ø100 x 1544± 1mm	4000	8510	60W	142	60°
129442 Liwa 150/5000/60W/80/A60	Ø100 x 1544± 1mm	5000	8735	60W	146	60°
129443 Liwa 150/6500/60W/80/A60	Ø100 x 1544± 1mm	6500	8510	60W	142	60°
129444 Liwa 150/3000/60W/80/A90	Ø100 x 1544± 1mm	3000	8200	60W	137	90°
129445 Liwa 150/4000/60W/80/A90	Ø100 x 1544± 1mm	4000	8545	60W	143	90°
129446 Liwa 150/5000/60W/80/A90	Ø100 x 1544± 1mm	5000	8775	60W	147	90°
129447 Liwa 150/6500/60W/80/A90	Ø100 x 1544± 1mm	6500	8545	60W	143	90°
129688 Liwa 150/3000/33W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	4715	33W	143	30°
129689 Liwa 150/4000/33W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	4915	33W	149	30°

## SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
<b>CRI 80</b>						
129690 Liwa 150/5000/33W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	5045	33W	153	30°
129691 Liwa 150/6500/33W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	4915	33W	149	30°
129692 Liwa 150/3000/33W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	4680	33W	142	60°
129693 Liwa 150/4000/33W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	4875	33W	148	60°
129694 Liwa 150/5000/33W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	5010	33W	152	60°
129695 Liwa 150/6500/33W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	4875	33W	148	60°
129696 Liwa 150/3000/33W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	4700	33W	143	90°
129697 Liwa 150/4000/33W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	4900	33W	149	90°
129698 Liwa 150/5000/33W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	5030	33W	153	90°
129699 Liwa 150/6500/33W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	4900	33W	149	90°
129700 Liwa 150/3000/42W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	6285	42W	150	30°
129701 Liwa 150/4000/42W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	6555	42W	157	30°
129702 Liwa 150/5000/42W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	6730	42W	161	30°
129703 Liwa 150/6500/42W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	6555	42W	157	30°
129704 Liwa 150/3000/42W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	6240	42W	149	60°
129705 Liwa 150/4000/42W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	6505	42W	155	60°
129706 Liwa 150/5000/42W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	6680	42W	160	60°
129707 Liwa 150/6500/42W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	6505	42W	155	60°
129708 Liwa 150/3000/42W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	6270	42W	150	90°
129709 Liwa 150/4000/42W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	6535	42W	156	90°
129710 Liwa 150/5000/42W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	6710	42W	160	90°
129711 Liwa 150/6500/42W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	6535	42W	156	90°
129712 Liwa 150/3000/51W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	7400	51W	146	30°
129713 Liwa 150/4000/51W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	7710	51W	152	30°
129714 Liwa 150/5000/51W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	7920	51W	156	30°
129715 Liwa 150/6500/51W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	7710	51W	152	30°
129716 Liwa 150/3000/51W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	7345	51W	145	60°
129717 Liwa 150/4000/51W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	7655	51W	151	60°
129718 Liwa 150/5000/51W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	7860	51W	155	60°
129719 Liwa 150/6500/51W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	7655	51W	151	60°
129720 Liwa 150/3000/51W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	7380	51W	145	90°
129721 Liwa 150/4000/51W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	7690	51W	151	90°
129722 Liwa 150/5000/51W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	7895	51W	155	90°
129723 Liwa 150/6500/51W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	7690	51W	151	90°
129724 Liwa 150/3000/60W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	8220	60W	137	30°
129725 Liwa 150/4000/60W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	8570	60W	143	30°
129726 Liwa 150/5000/60W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	8800	60W	147	30°
129727 Liwa 150/6500/60W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	8570	60W	143	30°
129728 Liwa 150/3000/60W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	8160	60W	136	60°
129729 Liwa 150/4000/60W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	8510	60W	142	60°
129730 Liwa 150/5000/60W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	8735	60W	146	60°
129731 Liwa 150/6500/60W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	8510	60W	142	60°
129732 Liwa 150/3000/60W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	8200	60W	137	90°
129733 Liwa 150/4000/60W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	8545	60W	143	90°
129734 Liwa 150/5000/60W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	8775	60W	147	90°
129735 Liwa 150/6500/60W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	8545	60W	143	90°

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