

Liwa

DAMP-PROOF | TEC 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:

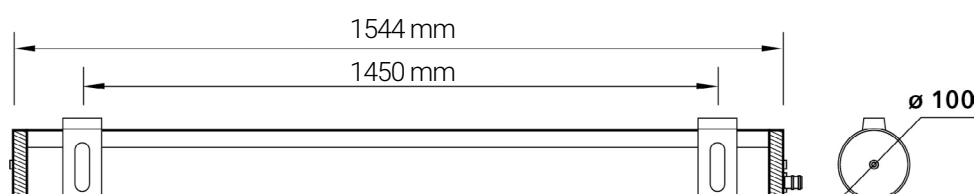
- Liwa TEC – the standard for any project in the retail sectors
- Liwa ECO-DALI– with DALI controls for dimming

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



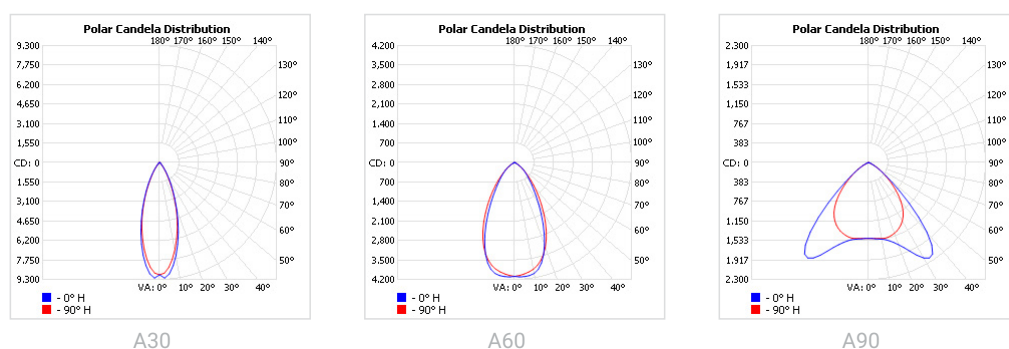
SPECIFICATIONS

Power consumption	33W, 42W, 51W, 60W
Dimensions	Ø100 x 1544± 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]	-20 ... +45 °C / -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	○ white
Lumen maintenance	L90/B10@50.000h at 25°C
IP factor	IP68
Control optional	For product information please see Liwa ECO-DALI datasheet
Warranty [years]	5
Storage temperature range [°C]	-20...+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 TEC | -/+ 10% for TEC & KIT EM | -/+ 10% for ECO-DALI | -/+ 15% for ECO-DALI & KIT EM

BATTERY WARRANTY

TEC EM & ECO EM: 12 months warranty

TEC & ECO: -

MAXIMUM NO. OF LUMINAIRES ON A CIRCUIT

Power	Driver type	Control type	Circuit Breaker Type						
			Amperage	B			C		
				20	16	10	20	16	10
< 50W		TEC		37	30	18	62	51	31
≥ 50W		TEC		37	30	18	62	51	31
< 80W		ECO		27	21	13	45	35	21

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 80						
129000 Liwa 150/3000/33W/80/A30	Ø100 x 1544± 1mm	3000	4715	33W	143	30°
129001 Liwa 150/4000/33W/80/A30	Ø100 x 1544± 1mm	4000	4915	33W	149	30°
129002 Liwa 150/5000/33W/80/A30	Ø100 x 1544± 1mm	5000	5045	33W	153	30°
129003 Liwa 150/6500/33W/80/A30	Ø100 x 1544± 1mm	6500	4915	33W	149	30°
129004 Liwa 150/3000/33W/80/A60	Ø100 x 1544± 1mm	3000	4680	33W	142	60°
129005 Liwa 150/4000/33W/80/A60	Ø100 x 1544± 1mm	4000	4875	33W	148	60°
129006 Liwa 150/5000/33W/80/A60	Ø100 x 1544± 1mm	5000	5010	33W	152	60°
129007 Liwa 150/6500/33W/80/A60	Ø100 x 1544± 1mm	6500	4875	33W	148	60°
129008 Liwa 150/3000/33W/80/A90	Ø100 x 1544± 1mm	3000	4700	33W	143	90°
129009 Liwa 150/4000/33W/80/A90	Ø100 x 1544± 1mm	4000	4900	33W	149	90°
129010 Liwa 150/5000/33W/80/A90	Ø100 x 1544± 1mm	5000	5030	33W	153	90°
129011 Liwa 150/6500/33W/80/A90	Ø100 x 1544± 1mm	6500	4900	33W	149	90°
129012 Liwa 150/3000/42W/80/A30	Ø100 x 1544± 1mm	3000	6285	42W	150	30°
129013 Liwa 150/4000/42W/80/A30	Ø100 x 1544± 1mm	4000	6555	42W	157	30°
129014 Liwa 150/5000/42W/80/A30	Ø100 x 1544± 1mm	5000	6730	42W	161	30°
129015 Liwa 150/6500/42W/80/A30	Ø100 x 1544± 1mm	6500	6555	42W	157	30°
129016 Liwa 150/3000/42W/80/A60	Ø100 x 1544± 1mm	3000	6240	42W	149	60°
129017 Liwa 150/4000/42W/80/A60	Ø100 x 1544± 1mm	4000	6505	42W	155	60°
129018 Liwa 150/5000/42W/80/A60	Ø100 x 1544± 1mm	5000	6680	42W	160	60°
129019 Liwa 150/6500/42W/80/A60	Ø100 x 1544± 1mm	6500	6505	42W	155	60°
129020 Liwa 150/3000/42W/80/A90	Ø100 x 1544± 1mm	3000	6270	42W	150	90°
129021 Liwa 150/4000/42W/80/A90	Ø100 x 1544± 1mm	4000	6535	42W	156	90°
129022 Liwa 150/5000/42W/80/A90	Ø100 x 1544± 1mm	5000	6710	42W	160	90°
129023 Liwa 150/6500/42W/80/A90	Ø100 x 1544± 1mm	6500	6535	42W	156	90°
129024 Liwa 150/3000/51W/80/A30	Ø100 x 1544± 1mm	3000	7400	51W	146	30°
129025 Liwa 150/4000/51W/80/A30	Ø100 x 1544± 1mm	4000	7710	51W	152	30°
129026 Liwa 150/5000/51W/80/A30	Ø100 x 1544± 1mm	5000	7920	51W	156	30°
129027 Liwa 150/6500/51W/80/A30	Ø100 x 1544± 1mm	6500	7710	51W	152	30°
129028 Liwa 150/3000/51W/80/A60	Ø100 x 1544± 1mm	3000	7345	51W	145	60°
129029 Liwa 150/4000/51W/80/A60	Ø100 x 1544± 1mm	4000	7655	51W	151	60°
129030 Liwa 150/5000/51W/80/A60	Ø100 x 1544± 1mm	5000	7860	51W	155	60°
129031 Liwa 150/6500/51W/80/A60	Ø100 x 1544± 1mm	6500	7655	51W	151	60°
129032 Liwa 150/3000/51W/80/A90	Ø100 x 1544± 1mm	3000	7380	51W	145	90°
129033 Liwa 150/4000/51W/80/A90	Ø100 x 1544± 1mm	4000	7690	51W	151	90°
129034 Liwa 150/5000/51W/80/A90	Ø100 x 1544± 1mm	5000	7895	51W	155	90°
129035 Liwa 150/6500/51W/80/A90	Ø100 x 1544± 1mm	6500	7690	51W	151	90°
129036 Liwa 150/3000/60W/80/A30	Ø100 x 1544± 1mm	3000	8220	60W	137	30°
129037 Liwa 150/4000/60W/80/A30	Ø100 x 1544± 1mm	4000	8570	60W	143	30°
129038 Liwa 150/5000/60W/80/A30	Ø100 x 1544± 1mm	5000	8800	60W	147	30°
129039 Liwa 150/6500/60W/80/A30	Ø100 x 1544± 1mm	6500	8570	60W	143	30°
129040 Liwa 150/3000/60W/80/A60	Ø100 x 1544± 1mm	3000	8160	60W	136	60°
129041 Liwa 150/4000/60W/80/A60	Ø100 x 1544± 1mm	4000	8510	60W	142	60°
129042 Liwa 150/5000/60W/80/A60	Ø100 x 1544± 1mm	5000	8735	60W	146	60°
129043 Liwa 150/6500/60W/80/A60	Ø100 x 1544± 1mm	6500	8510	60W	142	60°
129044 Liwa 150/3000/60W/80/A90	Ø100 x 1544± 1mm	3000	8200	60W	137	90°
129045 Liwa 150/4000/60W/80/A90	Ø100 x 1544± 1mm	4000	8545	60W	143	90°
129046 Liwa 150/5000/60W/80/A90	Ø100 x 1544± 1mm	5000	8775	60W	147	90°
129047 Liwa 150/6500/60W/80/A90	Ø100 x 1544± 1mm	6500	8545	60W	143	90°
129288 Liwa 150/3000/33W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	4715	33W	143	30°
129289 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 (°)
CRI 80						
129290 Liwa 150/5000/33W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	5045	33W	153	30°
129291 Liwa 150/6500/33W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	4915	33W	149	30°
129292 Liwa 150/3000/33W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	4680	33W	142	60°
129293 Liwa 150/4000/33W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	4875	33W	148	60°
129294 Liwa 150/5000/33W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	5010	33W	152	60°
129295 Liwa 150/6500/33W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	4875	33W	148	60°
129296 Liwa 150/3000/33W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	4700	33W	143	90°
129297 Liwa 150/4000/33W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	4900	33W	149	90°
129298 Liwa 150/5000/33W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	5030	33W	153	90°
129299 Liwa 150/6500/33W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	4900	33W	149	90°
129300 Liwa 150/3000/42W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	6285	42W	150	30°
129301 Liwa 150/4000/42W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	6555	42W	157	30°
129302 Liwa 150/5000/42W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	6730	42W	161	30°
129303 Liwa 150/6500/42W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	6555	42W	157	30°
129304 Liwa 150/3000/42W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	6240	42W	149	60°
129305 Liwa 150/4000/42W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	6505	42W	155	60°
129306 Liwa 150/5000/42W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	6680	42W	160	60°
129307 Liwa 150/6500/42W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	6505	42W	155	60°
129308 Liwa 150/3000/42W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	6270	42W	150	90°
129309 Liwa 150/4000/42W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	6535	42W	156	90°
129310 Liwa 150/5000/42W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	6710	42W	160	90°
129311 Liwa 150/6500/42W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	6535	42W	156	90°
129312 Liwa 150/3000/51W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	7400	51W	146	30°
129313 Liwa 150/4000/51W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	7710	51W	152	30°
129314 Liwa 150/5000/51W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	7920	51W	156	30°
129315 Liwa 150/6500/51W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	7710	51W	152	30°
129316 Liwa 150/3000/51W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	7345	51W	145	60°
129317 Liwa 150/4000/51W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	7655	51W	151	60°
129318 Liwa 150/5000/51W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	7860	51W	155	60°
129319 Liwa 150/6500/51W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	7655	51W	151	60°
129320 Liwa 150/3000/51W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	7380	51W	145	90°
129321 Liwa 150/4000/51W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	7690	51W	151	90°
129322 Liwa 150/5000/51W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	7895	51W	155	90°
129323 Liwa 150/6500/51W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	7690	51W	151	90°
129324 Liwa 150/3000/60W/80/A30/DSPC	Ø100 x 1544± 1mm	3000	8220	60W	137	30°
129325 Liwa 150/4000/60W/80/A30/DSPC	Ø100 x 1544± 1mm	4000	8570	60W	143	30°
129326 Liwa 150/5000/60W/80/A30/DSPC	Ø100 x 1544± 1mm	5000	8800	60W	147	30°
129327 Liwa 150/6500/60W/80/A30/DSPC	Ø100 x 1544± 1mm	6500	8570	60W	143	30°
129328 Liwa 150/3000/60W/80/A60/DSPC	Ø100 x 1544± 1mm	3000	8160	60W	136	60°
129329 Liwa 150/4000/60W/80/A60/DSPC	Ø100 x 1544± 1mm	4000	8510	60W	142	60°
129330 Liwa 150/5000/60W/80/A60/DSPC	Ø100 x 1544± 1mm	5000	8735	60W	146	60°
129331 Liwa 150/6500/60W/80/A60/DSPC	Ø100 x 1544± 1mm	6500	8510	60W	142	60°
129332 Liwa 150/3000/60W/80/A90/DSPC	Ø100 x 1544± 1mm	3000	8200	60W	137	90°
129333 Liwa 150/4000/60W/80/A90/DSPC	Ø100 x 1544± 1mm	4000	8545	60W	143	90°
129334 Liwa 150/5000/60W/80/A90/DSPC	Ø100 x 1544± 1mm	5000	8775	60W	147	90°
129335 Liwa 150/6500/60W/80/A90/DSPC	Ø100 x 1544± 1mm	6500	8545	60W	143	90°

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