



Empire R

RECESSED DOWNLIGHTS & SPOTLIGHTS | ECO-DALI

Empire R is a round recessed luminaire with three different diameters. Easy to install thanks to a clever mechanism. Provides the perfect combination of efficiency, light comfort, and design, without compromising on lighting performance. COB technology makes this line suitable for accent lighting and for special temperature colors. The housing comes in three color options- signal white, jet black and white aluminum – to fit all the particular environments.

Empire R recessed luminaires come in several series, with various add-on and controls:

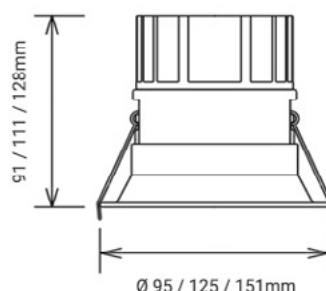
- Empire R TEC – the standard for any project in the retail, health or hospitality sectors
- Empire R TEC-EM – with emergency lighting kit of 1h and 3 h
- Empire R ECO-DALI – with DALI controls for illumination adjustments
- Empire R ECO-EM - with both dimming and emergency kit

APPLICATION

Grocery & Supermarkets | Retail | Office | Healthcare | Hospitality | DIY

FEATURES & BENEFITS

- CRI ≥ 80 as standard, up to 98 for specific special color temperatures
- 15 color temperatures, specialized options included
- Luminaire efficiency: 110 lm/W @4000K
- Optics – three angles 25°, 45°, 50°
- Dimmable
- With emergency kits of 1h and 3 h (for EM series only)



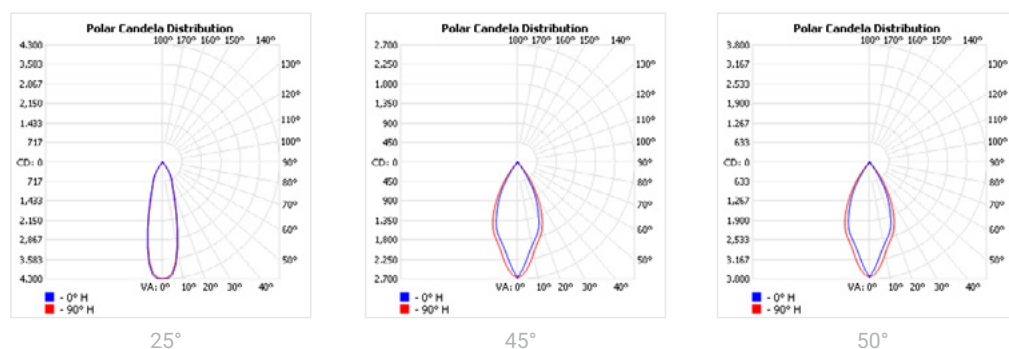
SPECIFICATIONS

Power consumption	12W, 14W, 17W, 20W, 21W, 23W, 27W
Dimensions	D95xH91xØ115mm / D125xH111xØ115mm / D151xH128xØ140mm
Weight	0.5 / 0.6 / 1.0 Kg
Housing materials	Aluminium, glass
IK code	IK02
THD (at 230V, 50Hz, Full load)	<20%
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 [°]	25°, 45°, 50°
Lifespan [h]	50,000
Housing color	○ RAL 9003 - Signal White, ● RAL 9005 - Jet Black, ● RAL 9006 - White Aluminium
Lumen maintenance	L90/B10@50,000h at 25°C
IP factor	IP20
Control optional	DALI-ECO
Warranty [years]	5
Storage temperature range [°C]	-20 ... +55 °C / -4F ... +131F
Emergency option	For more information please see EMPIRE R ECO EM datasheet

#	Standard	Food	Fashion	AGI	Enhanced	ART	AMB	SUNSET
CRI	CRI80	CRI80	CRI95	CRI93	CRI90 / CRI95	CRI98	CRI80	CRI90
CCT [K]	2700 / 3000 / 3500 / 4000	BVF / FBS / FZM / FSM / FSH	FAS	AGI 3000 / 3500 / 4000	2700 / 3000 / 3500 / 4000	3000	2200	1800...2700
MacAdam	3	3 / 4 / 4 / 3 / 3	3	3	2	2	3	3

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

LIGHT DISTRIBUTION



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	Control type	Circuit Breaker Type						
		Amperage	B			C		
			20	16	10	20	16	10
12-21W	TEC		62	50	31	104	85	52
23-35W	TEC		30	24	14	51	40	24
42W	TEC		20	16	8	38	32	16
50W	TEC		18	15	7	35	29	15
12-14W	ECO		44	35	21	73	58	35
16-21W	ECO		40	32	18	66	53	30
23-42W	ECO		28	22	13	46	36	21
50W	ECO		21	16	10	35	26	16

RISK GROUP

Standard (CRI80)	RG1
FOOD (BVF, FBS, FSM)	RG1
FOOD <20W (FZM, FSH)	RG2 (dthr=1.8m)
FOOD >20W (FZM, FSH)	RG2 (dthr=2.2m)
FAS	RG1
AMB2200	RG1
ART	RG1
AGI	RG1
CRI90	RG1
CRI95	RG1
SUNSET	RG1
ENT	RG1

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.

RG2

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 "Moderate Risk (RG2)". 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.

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 80						
205000 EmpireR D33001/2700/14W/80/A25	D95xH91xØ85mm±1mm	2700	1200	14W	86	25°
205001 EmpireR D33001/3000/14W/80/A25	D95xH91xØ85mm±1mm	3000	1215	14W	87	25°
205002 EmpireR D33001/3500/14W/80/A25	D95xH91xØ85mm±1mm	3500	1245	14W	89	25°
205003 EmpireR D33001/4000/14W/80/A25	D95xH91xØ85mm±1mm	4000	1270	14W	91	25°
205005 EmpireR D33001/2700/14W/80/A45	D95xH91xØ85mm±1mm	2700	1200	14W	86	45°
205006 EmpireR D33001/3000/14W/80/A45	D95xH91xØ85mm±1mm	3000	1215	14W	87	45°
205007 EmpireR D33001/3500/14W/80/A45	D95xH91xØ85mm±1mm	3500	1245	14W	89	45°
205008 EmpireR D33001/4000/14W/80/A45	D95xH91xØ85mm±1mm	4000	1270	14W	91	45°
205010 EmpireR D33001/2700/20W/80/A25	D95xH91xØ85mm±1mm	2700	1650	20W	83	25°
205011 EmpireR D33001/3000/20W/80/A25	D95xH91xØ85mm±1mm	3000	1665	20W	84	25°
205012 EmpireR D33001/3500/20W/80/A25	D95xH91xØ85mm±1mm	3500	1710	20W	86	25°
205013 EmpireR D33001/4000/20W/80/A25	D95xH91xØ85mm±1mm	4000	1745	20W	88	25°
205015 EmpireR D33001/2700/20W/80/A45	D95xH91xØ85mm±1mm	2700	1650	20W	83	45°
205016 EmpireR D33001/3000/20W/80/A45	D95xH91xØ85mm±1mm	3000	1665	20W	84	45°
205017 EmpireR D33001/3500/20W/80/A45	D95xH91xØ85mm±1mm	3500	1710	20W	86	45°
205018 EmpireR D33001/4000/20W/80/A45	D95xH91xØ85mm±1mm	4000	1745	20W	88	45°
205020 EmpireR D33002/2700/14W/80/A45	D125xH111xØ115mm±1mm	2700	1440	14W	103	45°
205021 EmpireR D33002/3000/14W/80/A45	D125xH111xØ115mm±1mm	3000	1455	14W	104	45°
205022 EmpireR D33002/3500/14W/80/A45	D125xH111xØ115mm±1mm	3500	1495	14W	107	45°
205023 EmpireR D33002/4000/14W/80/A45	D125xH111xØ115mm±1mm	4000	1525	14W	109	45°
205025 EmpireR D33002/2700/20W/80/A45	D125xH111xØ115mm±1mm	2700	2010	20W	101	45°
205026 EmpireR D33002/3000/20W/80/A45	D125xH111xØ115mm±1mm	3000	2025	20W	102	45°
205027 EmpireR D33002/3500/20W/80/A45	D125xH111xØ115mm±1mm	3500	2080	20W	104	45°
205028 EmpireR D33002/4000/20W/80/A45	D125xH111xØ115mm±1mm	4000	2120	20W	106	45°
205030 EmpireR D33002/2700/27W/80/A45	D125xH111xØ115mm±1mm	2700	2805	27W	104	45°
205031 EmpireR D33002/3000/27W/80/A45	D125xH111xØ115mm±1mm	3000	2830	27W	105	45°
205032 EmpireR D33002/3500/27W/80/A45	D125xH111xØ115mm±1mm	3500	2905	27W	108	45°
205033 EmpireR D33002/4000/27W/80/A45	D125xH111xØ115mm±1mm	4000	2965	27W	110	45°
205035 EmpireR D33003/2700/14W/80/A50	D151xH128xØ140mm±1mm	2700	1440	14W	103	50°
205036 EmpireR D33003/3000/14W/80/A50	D151xH128xØ140mm±1mm	3000	1455	14W	104	50°
205037 EmpireR D33003/3500/14W/80/A50	D151xH128xØ140mm±1mm	3500	1495	14W	107	50°
205038 EmpireR D33003/4000/14W/80/A50	D151xH128xØ140mm±1mm	4000	1525	14W	109	50°
205040 EmpireR D33003/2700/20W/80/A50	D151xH128xØ140mm±1mm	2700	2010	20W	101	50°
205041 EmpireR D33003/3000/20W/80/A50	D151xH128xØ140mm±1mm	3000	2025	20W	102	50°
205042 EmpireR D33003/3500/20W/80/A50	D151xH128xØ140mm±1mm	3500	2080	20W	104	50°
205043 EmpireR D33003/4000/20W/80/A50	D151xH128xØ140mm±1mm	4000	2120	20W	106	50°
205045 EmpireR D33003/2700/27W/80/A50	D151xH128xØ140mm±1mm	2700	2805	27W	104	50°
205046 EmpireR D33003/3000/27W/80/A50	D151xH128xØ140mm±1mm	3000	2830	27W	105	50°
205047 EmpireR D33003/3500/27W/80/A50	D151xH128xØ140mm±1mm	3500	2905	27W	108	50°
205048 EmpireR D33003/4000/27W/80/A50	D151xH128xØ140mm±1mm	4000	2965	27W	110	50°
205056 EmpireR D33002/BVF/27W/80/A45	D125xH111xØ115mm±1mm	BVF	2220	27W	83	45°
205057 EmpireR D33002/FBS/27W/80/A45	D125xH111xØ115mm±1mm	FBS	1515	27W	57	45°
205058 EmpireR D33002/FZM/27W/80/A45	D125xH111xØ115mm±1mm	FZM	1455	27W	54	45°
205059 EmpireR D33002/FSM/27W/80/A45	D125xH111xØ115mm±1mm	FSM	1480	27W	55	45°
205060 EmpireR D33002/FSH/27W/80/A45	D125xH111xØ115mm±1mm	FSH	2170	27W	81	45°
205061 EmpireR D33003/BVF/27W/80/A50	D151xH128xØ140mm±1mm	BVF	2220	27W	83	50°
205062 EmpireR D33003/FBS/27W/80/A50	D151xH128xØ140mm±1mm	FBS	1515	27W	57	50°
205063 EmpireR D33003/FZM/27W/80/A50	D151xH128xØ140mm±1mm	FZM	1455	27W	54	50°
205064 EmpireR D33003/FSM/27W/80/A50	D151xH128xØ140mm±1mm	FSM	1480	27W	55	50°
205065 EmpireR D33003/FSH/27W/80/A50	D151xH128xØ140mm±1mm	FSH	2170	27W	81	50°
205490 EmpireR D33001/AMB2200/14W/80/A25	D95xH91xØ85mm±1mm	AMB2200	915	14W	66	25°
205491 EmpireR D33001/AMB2200/20W/80/A25	D95xH91xØ85mm±1mm	AMB2200	1270	20W	64	25°

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 80						
205492 EmpireR D33001/AMB2200/14W/80/A45	D95xH91xØ85mm±1mm	AMB2200	915	14W	66	45°
205493 EmpireR D33001/AMB2200/20W/80/A45	D95xH91xØ85mm±1mm	AMB2200	1270	20W	64	45°
205494 EmpireR D33002/AMB2200/14W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1020	14W	73	45°
205495 EmpireR D33002/AMB2200/20W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1410	20W	71	45°
205496 EmpireR D33002/AMB2200/27W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1870	27W	70	45°
205497 EmpireR D33003/AMB2200/14W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1020	14W	73	50°
205498 EmpireR D33003/AMB2200/20W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1410	20W	71	50°
205499 EmpireR D33003/AMB2200/27W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1870	27W	70	50°
CRI 90						
205500 EmpireR D33001/SUNSET/21W/90/A25	D95xH91xØ85mm±1mm	SUNSET	1350	21W	65	25°
205501 EmpireR D33001/SUNSET/21W/90/A45	D95xH91xØ85mm±1mm	SUNSET	1350	21W	65	45°
205502 EmpireR D33002/SUNSET/21W/90/A45	D125xH111xØ115mm±1mm	SUNSET	1350	21W	65	45°
205503 EmpireR D33003/SUNSET/21W/90/A50	D151xH128xØ140mm±1mm	SUNSET	1350	21W	65	50°
CRI 93						
205400 EmpireR D33001/AGI3000/12W/93/A25	D95xH91xØ85mm±1mm	AGI3500	735	12W	62	25°
205401 EmpireR D33001/AGI3500/12W/93/A25	D95xH91xØ85mm±1mm	AGI3500	780	12W	65	25°
205402 EmpireR D33001/AGI4000/12W/93/A25	D95xH91xØ85mm±1mm	AGI4000	830	12W	70	25°
205403 EmpireR D33001/AGI3000/12W/93/A45	D95xH91xØ85mm±1mm	AGI3000	735	12W	62	45°
205404 EmpireR D33001/AGI3500/12W/93/A45	D95xH91xØ85mm±1mm	AGI3500	780	12W	65	45°
205405 EmpireR D33001/AGI4000/12W/93/A45	D95xH91xØ85mm±1mm	AGI4000	830	12W	70	45°
205406 EmpireR D33001/AGI3000/17W/93/A25	D95xH91xØ85mm±1mm	AGI3000	985	17W	58	25°
205407 EmpireR D33001/AGI3500/17W/93/A25	D95xH91xØ85mm±1mm	AGI3500	1050	17W	62	25°
205408 EmpireR D33001/AGI4000/17W/93/A25	D95xH91xØ85mm±1mm	AGI4000	1115	17W	66	25°
205409 EmpireR D33001/AGI3000/17W/93/A45	D95xH91xØ85mm±1mm	AGI3000	985	17W	58	45°
205410 EmpireR D33001/AGI3500/17W/93/A45	D95xH91xØ85mm±1mm	AGI3500	1050	17W	62	45°
205411 EmpireR D33001/AGI4000/17W/93/A45	D95xH91xØ85mm±1mm	AGI4000	1115	17W	66	45°
205412 EmpireR D33002/AGI3000/12W/93/A45	D125xH111xØ115mm±1mm	AGI3000	735	12W	62	45°
205413 EmpireR D33002/AGI3500/12W/93/A45	D125xH111xØ115mm±1mm	AGI3500	780	12W	65	45°
205414 EmpireR D33002/AGI4000/12W/93/A45	D125xH111xØ115mm±1mm	AGI4000	830	12W	70	45°
205415 EmpireR D33002/AGI3000/17W/93/A45	D125xH111xØ115mm±1mm	AGI3000	985	17W	58	45°
205416 EmpireR D33002/AGI3500/17W/93/A45	D125xH111xØ115mm±1mm	AGI3500	1050	17W	62	45°
205417 EmpireR D33002/AGI4000/17W/93/A45	D125xH111xØ115mm±1mm	AGI4000	1115	17W	66	45°
205418 EmpireR D33002/AGI3000/23W/93/A45	D125xH111xØ115mm±1mm	AGI3000	1330	23W	58	45°
205419 EmpireR D33002/AGI3500/23W/93/A45	D125xH111xØ115mm±1mm	AGI3500	1440	23W	63	45°
205420 EmpireR D33002/AGI4000/23W/93/A45	D125xH111xØ115mm±1mm	AGI4000	1550	23W	68	45°
205421 EmpireR D33003/AGI3000/12W/93/A50	D151xH128xØ140mm±1mm	AGI3000	735	12W	62	50°
205422 EmpireR D33003/AGI3500/12W/93/A50	D151xH128xØ140mm±1mm	AGI3500	780	12W	65	50°
205423 EmpireR D33003/AGI4000/12W/93/A50	D151xH128xØ140mm±1mm	AGI4000	830	12W	70	50°
205424 EmpireR D33003/AGI3000/17W/93/A50	D151xH128xØ140mm±1mm	AGI3000	985	17W	58	50°
205425 EmpireR D33003/AGI3500/17W/93/A50	D151xH128xØ140mm±1mm	AGI3500	1050	17W	62	50°
205426 EmpireR D33003/AGI4000/17W/93/A50	D151xH128xØ140mm±1mm	AGI4000	1115	17W	66	50°
205427 EmpireR D33003/AGI3000/23W/93/A50	D151xH128xØ140mm±1mm	AGI3000	1330	23W	58	50°
205428 EmpireR D33003/AGI3500/23W/93/A50	D151xH128xØ140mm±1mm	AGI3500	1440	23W	63	50°
205429 EmpireR D33003/AGI4000/23W/93/A50	D151xH128xØ140mm±1mm	AGI4000	1550	23W	68	50°
CRI 95						
205054 EmpireR D33002/FAS/27W/95/A45	D125xH111xØ115mm±1mm	FAS	2335	27W	87	45°
205055 EmpireR D33003/FAS/27W/95/A50	D151xH128xØ140mm±1mm	FAS	2335	27W	87	50°

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
CRI 98						
205067 EmpireR D33002/ART3000/27W/98/A45	D125xH111xØ115mm±1mm	ART3000	2155	27W	80	45°
205325 EmpireR D33003/ART3000/27W/98/A50	D151xH128xØ140mm±1mm	ART3000	2155	27W	80	50°