



Empire R

RECESSED DOWNLIGHTS | NON-DALI SERIES

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:

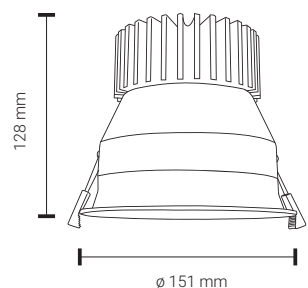
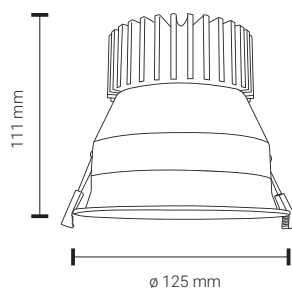
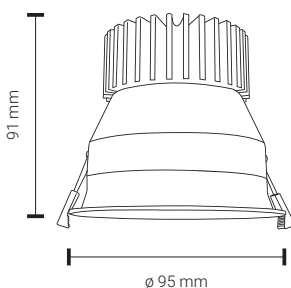
- Empire R Non-DALI – the standard for any project in the retail, health or hospitality sectors
- Empire R Non-DALI EM – with emergency lighting kit of 1h and 3 h
- Empire R DALI – with DALI controls for illumination adjustments
- Empire R DALI EM - with both dimming and emergency kit

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: 110lm/W @4000K
- Optics – three angles 25°, 45°, 50°
- Dimmable (only for DALI and DALI EM Series)



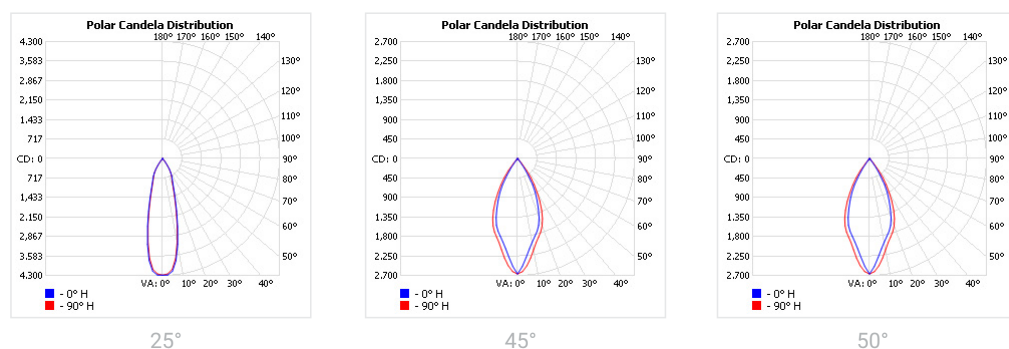
SPECIFICATIONS

Power consumption	12W, 14W, 17W, 20W	12W, 14W, 17W, 20W, 23W, 27W	12W, 14W, 17W, 20W, 23W, 27W
Dimensions	D95xH91xØ85mm±1mm	D125xH111xØ115mm±1mm	D151xH128xØ140mm±1mm
Weight	0.5 Kg	0.6 Kg	1 Kg
Housing materials	Aluminium, glass		
IK code	IK02		
THD (at 230V, 50Hz, Full load)	<20%		
Protection class	Safety class 1		
Operating temperature [°C]	-20°C ... +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	-		
Warranty [years]	5		
Storage temperature range [°C]	-20°C ... +55°C / -4F ... +131F		
Emergency option	-		

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

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

LIGHT DISTRIBUTION



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
8-20W	Non-DALI	62	50	31	104	85	52
23-35W	Non-DALI	24	20	10	47	40	20
42W	Non-DALI	20	16	8	38	32	16
8-20W	DALI	62	50	31	104	85	52
23-27W	DALI	25	21	13	50	42	26
34-42W	DALI	17	14	9	34	28	18

RISK GROUP

Standard (CRI80)	RG1
FOOD (BVF, FBS, FSM)	RG1
FOOD ≤35W (FZM, FSH)	RG1
FOOD >35W (FZM, FSH)	RG2
FAS	RG1
AMB2200	RG1
ART	RG1
AGI	RG1
CRI90	RG1
CRI95	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						
105000 EmpireR D33001/2700/14W/80/A25	D95xH91xØ85mm±1mm	2700	1200	14W	86	25°
105001 EmpireR D33001/3000/14W/80/A25	D95xH91xØ85mm±1mm	3000	1215	14W	87	25°
105002 EmpireR D33001/3500/14W/80/A25	D95xH91xØ85mm±1mm	3500	1245	14W	89	25°
105003 EmpireR D33001/4000/14W/80/A25	D95xH91xØ85mm±1mm	4000	1270	14W	91	25°
105005 EmpireR D33001/2700/14W/80/A45	D95xH91xØ85mm±1mm	2700	1200	14W	86	45°
105006 EmpireR D33001/3000/14W/80/A45	D95xH91xØ85mm±1mm	3000	1215	14W	87	45°
105007 EmpireR D33001/3500/14W/80/A45	D95xH91xØ85mm±1mm	3500	1245	14W	89	45°
105008 EmpireR D33001/4000/14W/80/A45	D95xH91xØ85mm±1mm	4000	1270	14W	91	45°
105010 EmpireR D33001/2700/20W/80/A25	D95xH91xØ85mm±1mm	2700	1650	20W	83	25°
105011 EmpireR D33001/3000/20W/80/A25	D95xH91xØ85mm±1mm	3000	1665	20W	84	25°
105012 EmpireR D33001/3500/20W/80/A25	D95xH91xØ85mm±1mm	3500	1710	20W	86	25°
105013 EmpireR D33001/4000/20W/80/A25	D95xH91xØ85mm±1mm	4000	1745	20W	88	25°
105015 EmpireR D33001/2700/20W/80/A45	D95xH91xØ85mm±1mm	2700	1650	20W	83	45°
105016 EmpireR D33001/3000/20W/80/A45	D95xH91xØ85mm±1mm	3000	1665	20W	84	45°
105017 EmpireR D33001/3500/20W/80/A45	D95xH91xØ85mm±1mm	3500	1710	20W	86	45°
105018 EmpireR D33001/4000/20W/80/A45	D95xH91xØ85mm±1mm	4000	1745	20W	88	45°
105020 EmpireR D33002/2700/14W/80/A45	D125xH111xØ115mm±1mm	2700	1440	14W	103	45°
105021 EmpireR D33002/3000/14W/80/A45	D125xH111xØ115mm±1mm	3000	1455	14W	104	45°
105022 EmpireR D33002/3500/14W/80/A45	D125xH111xØ115mm±1mm	3500	1495	14W	107	45°
105023 EmpireR D33002/4000/14W/80/A45	D125xH111xØ115mm±1mm	4000	1525	14W	109	45°
105025 EmpireR D33002/2700/20W/80/A45	D125xH111xØ115mm±1mm	2700	2010	20W	101	45°
105026 EmpireR D33002/3000/20W/80/A45	D125xH111xØ115mm±1mm	3000	2025	20W	102	45°
105027 EmpireR D33002/3500/20W/80/A45	D125xH111xØ115mm±1mm	3500	2080	20W	104	45°
105028 EmpireR D33002/4000/20W/80/A45	D125xH111xØ115mm±1mm	4000	2120	20W	106	45°
105030 EmpireR D33002/2700/27W/80/A45	D125xH111xØ115mm±1mm	2700	2805	27W	104	45°
105031 EmpireR D33002/3000/27W/80/A45	D125xH111xØ115mm±1mm	3000	2830	27W	105	45°
105032 EmpireR D33002/3500/27W/80/A45	D125xH111xØ115mm±1mm	3500	2905	27W	108	45°
105033 EmpireR D33002/4000/27W/80/A45	D125xH111xØ115mm±1mm	4000	2965	27W	110	45°
105035 EmpireR D33003/2700/14W/80/A50	D151xH128xØ140mm±1mm	2700	1440	14W	103	50°
105036 EmpireR D33003/3000/14W/80/A50	D151xH128xØ140mm±1mm	3000	1455	14W	104	50°
105037 EmpireR D33003/3500/14W/80/A50	D151xH128xØ140mm±1mm	3500	1495	14W	107	50°
105038 EmpireR D33003/4000/14W/80/A50	D151xH128xØ140mm±1mm	4000	1525	14W	109	50°
105040 EmpireR D33003/2700/20W/80/A50	D151xH128xØ140mm±1mm	2700	2010	20W	101	50°
105041 EmpireR D33003/3000/20W/80/A50	D151xH128xØ140mm±1mm	3000	2025	20W	102	50°
105042 EmpireR D33003/3500/20W/80/A50	D151xH128xØ140mm±1mm	3500	2080	20W	104	50°
105043 EmpireR D33003/4000/20W/80/A50	D151xH128xØ140mm±1mm	4000	2120	20W	106	50°
105045 EmpireR D33003/2700/27W/80/A50	D151xH128xØ140mm±1mm	2700	2805	27W	104	50°
105046 EmpireR D33003/3000/27W/80/A50	D151xH128xØ140mm±1mm	3000	2830	27W	105	50°
105047 EmpireR D33003/3500/27W/80/A50	D151xH128xØ140mm±1mm	3500	2905	27W	108	50°
105048 EmpireR D33003/4000/27W/80/A50	D151xH128xØ140mm±1mm	4000	2965	27W	110	50°
105060 EmpireR D33002/BVF/27W/80/A45	D125xH111xØ115mm±1mm	BVF	2220	27W	83	45°
105061 EmpireR D33002/FBS/27W/80/A45	D125xH111xØ115mm±1mm	FBS	1515	27W	57	45°
105062 EmpireR D33002/FZM/27W/80/A45	D125xH111xØ115mm±1mm	FZM	1455	27W	54	45°
105063 EmpireR D33002/FSM/27W/80/A45	D125xH111xØ115mm±1mm	FSM	1480	27W	55	45°
105127 EmpireR D33002/FSH/27W/80/A45	D125xH111xØ115mm±1mm	FSH	2170	27W	81	45°
105064 EmpireR D33003/BVF/27W/80/A50	D151xH128xØ140mm±1mm	BVF	2220	27W	83	50°
105065 EmpireR D33003/FBS/27W/80/A50	D151xH128xØ140mm±1mm	FBS	1515	27W	57	50°
105066 EmpireR D33003/FZM/27W/80/A50	D151xH128xØ140mm±1mm	FZM	1455	27W	54	50°
105067 EmpireR D33003/FSM/27W/80/A50	D151xH128xØ140mm±1mm	FSM	1480	27W	55	50°
105128 EmpireR D33003/FSH/27W/80/A50	D151xH128xØ140mm±1mm	FSH	2170	27W	81	50°
105490 EmpireR D33001/AMB2200/14W/80/A25	D95xH91xØ85mm±1mm	AMB2200	915	14W	66	25°
105491 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						
105492 EmpireR D33001/AMB2200/14W/80/A45	D95xH91xØ85mm±1mm	AMB2200	915	14W	66	45°
105493 EmpireR D33001/AMB2200/20W/80/A45	D95xH91xØ85mm±1mm	AMB2200	1270	20W	64	45°
105494 EmpireR D33002/AMB2200/14W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1020	14W	73	45°
105495 EmpireR D33002/AMB2200/20W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1410	20W	71	45°
105496 EmpireR D33002/AMB2200/27W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1870	27W	70	45°
105497 EmpireR D33003/AMB2200/14W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1020	14W	73	50°
105498 EmpireR D33003/AMB2200/20W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1410	20W	71	50°
105499 EmpireR D33003/AMB2200/27W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1870	27W	70	50°
CRI 93						
105400 EmpireR D33001/AGI3000/12W/93/A25	D95xH91xØ85mm±1mm	AGI3000	735	12W	62	25°
105401 EmpireR D33001/AGI3500/12W/93/A25	D95xH91xØ85mm±1mm	AGI3500	780	12W	65	25°
105402 EmpireR D33001/AGI4000/12W/93/A25	D95xH91xØ85mm±1mm	AGI4000	830	12W	70	25°
105403 EmpireR D33001/AGI3000/12W/93/A45	D95xH91xØ85mm±1mm	AGI3000	735	12W	62	45°
105404 EmpireR D33001/AGI3500/12W/93/A45	D95xH91xØ85mm±1mm	AGI3500	780	12W	65	45°
105405 EmpireR D33001/AGI4000/12W/93/A45	D95xH91xØ85mm±1mm	AGI4000	830	12W	70	45°
105406 EmpireR D33001/AGI3000/17W/93/A25	D95xH91xØ85mm±1mm	AGI3000	985	17W	58	25°
105407 EmpireR D33001/AGI3500/17W/93/A25	D95xH91xØ85mm±1mm	AGI3500	1050	17W	62	25°
105408 EmpireR D33001/AGI4000/17W/93/A25	D95xH91xØ85mm±1mm	AGI4000	1115	17W	66	25°
105409 EmpireR D33001/AGI3000/17W/93/A45	D95xH91xØ85mm±1mm	AGI3000	985	17W	58	45°
105410 EmpireR D33001/AGI3500/17W/93/A45	D95xH91xØ85mm±1mm	AGI3500	1050	17W	62	45°
105411 EmpireR D33001/AGI4000/17W/93/A45	D95xH91xØ85mm±1mm	AGI4000	1115	17W	66	45°
105412 EmpireR D33002/AGI3000/12W/93/A45	D125xH111xØ115mm±1mm	AGI3000	735	12W	62	45°
105413 EmpireR D33002/AGI3500/12W/93/A45	D125xH111xØ115mm±1mm	AGI3500	780	12W	65	45°
105414 EmpireR D33002/AGI4000/12W/93/A45	D125xH111xØ115mm±1mm	AGI4000	830	12W	70	45°
105415 EmpireR D33002/AGI3000/17W/93/A45	D125xH111xØ115mm±1mm	AGI3000	985	17W	58	45°
105416 EmpireR D33002/AGI3500/17W/93/A45	D125xH111xØ115mm±1mm	AGI3500	1050	17W	62	45°
105417 EmpireR D33002/AGI4000/17W/93/A45	D125xH111xØ115mm±1mm	AGI4000	1115	17W	66	45°
105418 EmpireR D33002/AGI3000/23W/93/A45	D125xH111xØ115mm±1mm	AGI3000	1330	23W	58	45°
105419 EmpireR D33002/AGI3500/23W/93/A45	D125xH111xØ115mm±1mm	AGI3500	1440	23W	63	45°
105420 EmpireR D33002/AGI4000/23W/93/A45	D125xH111xØ115mm±1mm	AGI4000	1550	23W	68	45°
105421 EmpireR D33003/AGI3000/12W/93/A50	D151xH128xØ140mm±1mm	AGI3000	735	12W	62	50°
105422 EmpireR D33003/AGI3500/12W/93/A50	D151xH128xØ140mm±1mm	AGI3500	780	12W	65	50°
105423 EmpireR D33003/AGI4000/12W/93/A50	D151xH128xØ140mm±1mm	AGI4000	830	12W	70	50°
105424 EmpireR D33003/AGI3000/17W/93/A50	D151xH128xØ140mm±1mm	AGI3000	985	17W	58	50°
105425 EmpireR D33003/AGI3500/17W/93/A50	D151xH128xØ140mm±1mm	AGI3500	1050	17W	62	50°
105426 EmpireR D33003/AGI4000/17W/93/A50	D151xH128xØ140mm±1mm	AGI4000	1115	17W	66	50°
105427 EmpireR D33003/AGI3000/23W/93/A50	D151xH128xØ140mm±1mm	AGI3000	1330	23W	58	50°
105428 EmpireR D33003/AGI3500/23W/93/A50	D151xH128xØ140mm±1mm	AGI3500	1440	23W	63	50°
105429 EmpireR D33003/AGI4000/23W/93/A50	D151xH128xØ140mm±1mm	AGI4000	1550	23W	68	50°
CRI 95						
105056 EmpireR D33002/FAS/27W/95/A45	D125xH111xØ115mm±1mm	FAS	2335	27W	87	45°
105059 EmpireR D33003/FAS/27W/95/A50	D151xH128xØ140mm±1mm	FAS	2335	27W	87	50°
CRI 98						
105130 EmpireR D33002/ART3000/27W/98/A45	D125xH111xØ115mm±1mm	ART3000	2155	27W	80	45°
105132 EmpireR D33003/ART3000/27W/98/A50	D151xH128xØ140mm±1mm	ART3000	2155	27W	80	50°

Technical specifications can be modified without prior notice. All information is property of Greentek Lighting. The presentation picture is for information purposes only. Latest document update: November 18, 2019 11:42 AM. www.greentek.eu