



## Empire R IP44

### RECESSED DOWNLIGHTS | DALI SERIES

Empire R IP44 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 IP44 recessed luminaires come in several series, with various add-on and controls:

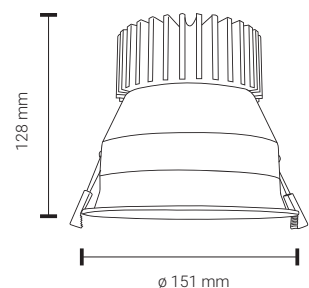
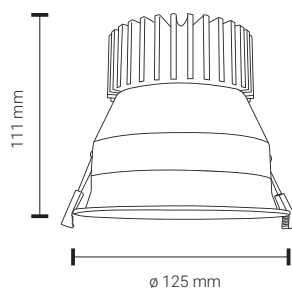
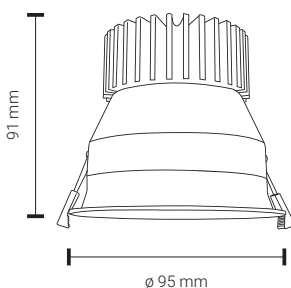
- Empire R IP 44 Non-DALI – the standard for any project in the retail, health or hospitality sectors
- Empire R IP44 Non-DALI EM – with emergency lighting kit of 1h and 3 h
- **Empire R IP44 DALI – with DALI controls for illumination adjustments**
- Empire R IP44 DALI EM - with both dimming and emergency kit

### APPLICATION

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

### FEATURES & BENEFITS

- CRI  $\geq 80$  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°
- IP factor: IP20, IP44 for front face only
- Dimmable



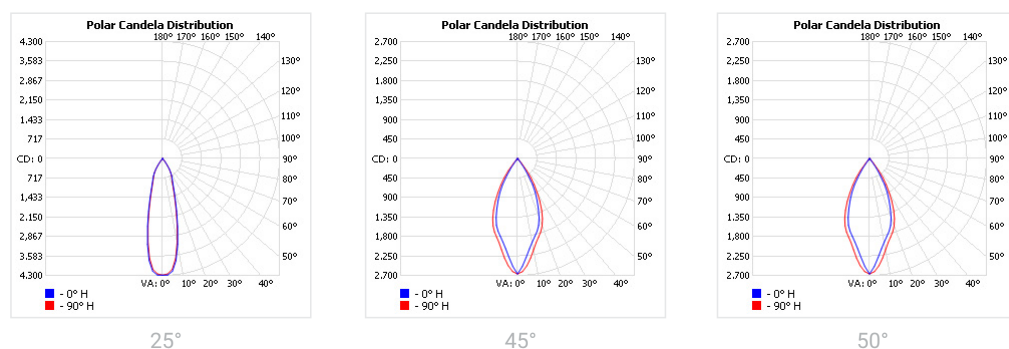
SPECIFICATIONS

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 (front face)	IP20 (IP44)		
Control optional	DALI		
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**

<b>Standard (CRI80)</b>	RG1
<b>FOOD (BVF, FBS, FSM)</b>	RG1
<b>FOOD ≤35W (FZM, FSH)</b>	RG1
<b>FOOD &gt;35W (FZM, FSH)</b>	RG2
<b>FAS</b>	RG1
<b>AMB2200</b>	RG1
<b>ART</b>	RG1
<b>AGI</b>	RG1
<b>CRI90</b>	RG1
<b>CRI95</b>	RG1
<b>ENT</b>	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 (°)
<b>CRI 80</b>						
294000 EmpireR IP44 D33001/2700/14W/80/A25	D95xH91xØ85mm±1mm	2700	1200	14W	86	25°
294001 EmpireR IP44 D33001/3000/14W/80/A25	D95xH91xØ85mm±1mm	3000	1215	14W	87	25°
294002 EmpireR IP44 D33001/3500/14W/80/A25	D95xH91xØ85mm±1mm	3500	1245	14W	89	25°
294003 EmpireR IP44 D33001/4000/14W/80/A25	D95xH91xØ85mm±1mm	4000	1270	14W	91	25°
294005 EmpireR IP44 D33001/2700/14W/80/A45	D95xH91xØ85mm±1mm	2700	1200	14W	86	45°
294006 EmpireR IP44 D33001/3000/14W/80/A45	D95xH91xØ85mm±1mm	3000	1215	14W	87	45°
294007 EmpireR IP44 D33001/3500/14W/80/A45	D95xH91xØ85mm±1mm	3500	1245	14W	89	45°
294008 EmpireR IP44 D33001/4000/14W/80/A45	D95xH91xØ85mm±1mm	4000	1270	14W	91	45°
294010 EmpireR IP44 D33001/2700/20W/80/A25	D95xH91xØ85mm±1mm	2700	1650	20W	83	25°
294011 EmpireR IP44 D33001/3000/20W/80/A25	D95xH91xØ85mm±1mm	3000	1665	20W	84	25°
294012 EmpireR IP44 D33001/3500/20W/80/A25	D95xH91xØ85mm±1mm	3500	1710	20W	86	25°
294013 EmpireR IP44 D33001/4000/20W/80/A25	D95xH91xØ85mm±1mm	4000	1745	20W	88	25°
294015 EmpireR IP44 D33001/2700/20W/80/A45	D95xH91xØ85mm±1mm	2700	1650	20W	83	45°
294016 EmpireR IP44 D33001/3000/20W/80/A45	D95xH91xØ85mm±1mm	3000	1665	20W	84	45°
294017 EmpireR IP44 D33001/3500/20W/80/A45	D95xH91xØ85mm±1mm	3500	1710	20W	86	45°
294018 EmpireR IP44 D33001/4000/20W/80/A45	D95xH91xØ85mm±1mm	4000	1745	20W	88	45°
294020 EmpireR IP44 D33002/2700/14W/80/A45	D125xH111xØ115mm±1mm	2700	1440	14W	103	45°
294021 EmpireR IP44 D33002/3000/14W/80/A45	D125xH111xØ115mm±1mm	3000	1455	14W	104	45°
294022 EmpireR IP44 D33002/3500/14W/80/A45	D125xH111xØ115mm±1mm	3500	1495	14W	107	45°
294023 EmpireR IP44 D33002/4000/14W/80/A45	D125xH111xØ115mm±1mm	4000	1525	14W	109	45°
294025 EmpireR IP44 D33002/2700/20W/80/A45	D125xH111xØ115mm±1mm	2700	2010	20W	101	45°
294026 EmpireR IP44 D33002/3000/20W/80/A45	D125xH111xØ115mm±1mm	3000	2025	20W	102	45°
294027 EmpireR IP44 D33002/3500/20W/80/A45	D125xH111xØ115mm±1mm	3500	2080	20W	104	45°
294028 EmpireR IP44 D33002/4000/20W/80/A45	D125xH111xØ115mm±1mm	4000	2120	20W	106	45°
294030 EmpireR IP44 D33002/2700/27W/80/A45	D125xH111xØ115mm±1mm	2700	2805	27W	104	45°
294031 EmpireR IP44 D33002/3000/27W/80/A45	D125xH111xØ115mm±1mm	3000	2830	27W	105	45°
294032 EmpireR IP44 D33002/3500/27W/80/A45	D125xH111xØ115mm±1mm	3500	2905	27W	108	45°
294033 EmpireR IP44 D33002/4000/27W/80/A45	D125xH111xØ115mm±1mm	4000	2965	27W	110	45°
294035 EmpireR IP44 D33003/2700/14W/80/A50	D151xH128xØ140mm±1mm	2700	1440	14W	103	50°
294036 EmpireR IP44 D33003/3000/14W/80/A50	D151xH128xØ140mm±1mm	3000	1455	14W	104	50°
294037 EmpireR IP44 D33003/3500/14W/80/A50	D151xH128xØ140mm±1mm	3500	1495	14W	107	50°
294038 EmpireR IP44 D33003/4000/14W/80/A50	D151xH128xØ140mm±1mm	4000	1525	14W	109	50°
294040 EmpireR IP44 D33003/2700/20W/80/A50	D151xH128xØ140mm±1mm	2700	2010	20W	101	50°
294041 EmpireR IP44 D33003/3000/20W/80/A50	D151xH128xØ140mm±1mm	3000	2025	20W	102	50°
294042 EmpireR IP44 D33003/3500/20W/80/A50	D151xH128xØ140mm±1mm	3500	2080	20W	104	50°
294043 EmpireR IP44 D33003/4000/20W/80/A50	D151xH128xØ140mm±1mm	4000	2120	20W	106	50°
294045 EmpireR IP44 D33003/2700/27W/80/A50	D151xH128xØ140mm±1mm	2700	2805	27W	104	50°
294046 EmpireR IP44 D33003/3000/27W/80/A50	D151xH128xØ140mm±1mm	3000	2830	27W	105	50°
294047 EmpireR IP44 D33003/3500/27W/80/A50	D151xH128xØ140mm±1mm	3500	2905	27W	108	50°
294048 EmpireR IP44 D33003/4000/27W/80/A50	D151xH128xØ140mm±1mm	4000	2965	27W	110	50°
294270 EmpireR IP44 D33001/AMB2200/14W/80/A25	D95xH91xØ85mm±1mm	AMB2200	915	14W	66	25°
294271 EmpireR IP44 D33001/AMB2200/20W/80/A25	D95xH91xØ85mm±1mm	AMB2200	1270	20W	64	25°
294272 EmpireR IP44 D33001/AMB2200/14W/80/A45	D95xH91xØ85mm±1mm	AMB2200	915	14W	66	45°
294273 EmpireR IP44 D33001/AMB2200/20W/80/A45	D95xH91xØ85mm±1mm	AMB2200	1270	20W	64	45°
294274 EmpireR IP44 D33002/AMB2200/14W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1020	14W	73	45°
294275 EmpireR IP44 D33002/AMB2200/20W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1410	20W	71	45°
294276 EmpireR IP44 D33002/AMB2200/27W/80/A45	D125xH111xØ115mm±1mm	AMB2200	1870	27W	70	45°
294277 EmpireR IP44 D33003/AMB2200/14W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1020	14W	73	50°
294278 EmpireR IP44 D33003/AMB2200/20W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1410	20W	71	50°
294279 EmpireR IP44 D33003/AMB2200/27W/80/A50	D151xH128xØ140mm±1mm	AMB2200	1870	27W	70	50°
294284 EmpireR IP44 D33002/BVF/14W/80/A45	D125xH111xØ115mm±1mm	BVF	1225	14W	88	45°
294285 EmpireR IP44 D33002/FBS/14W/80/A45	D125xH111xØ115mm±1mm	FBS	830	14W	60	45°

SKU SPECIFICATIONS

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
<b>CRI 80</b>						
294286 EmpireR IP44 D33002/FZM/14W/80/A45	D125xH111xØ115mm±1mm	FZM	800	14W	58	45°
294287 EmpireR IP44 D33002/FSM/14W/80/A45	D125xH111xØ115mm±1mm	FSM	830	14W	60	45°
294288 EmpireR IP44 D33002/FSH/14W/80/A45	D125xH111xØ115mm±1mm	FSH	1180	14W	85	45°
294289 EmpireR IP44 D33002/BVF/20W/80/A45	D125xH111xØ115mm±1mm	BVF	1675	20W	84	45°
294290 EmpireR IP44 D33002/FBS/20W/80/A45	D125xH111xØ115mm±1mm	FBS	1155	20W	58	45°
294291 EmpireR IP44 D33002/FZM/20W/80/A45	D125xH111xØ115mm±1mm	FZM	1105	20W	56	45°
294292 EmpireR IP44 D33002/FSM/20W/80/A45	D125xH111xØ115mm±1mm	FSM	1130	20W	57	45°
294293 EmpireR IP44 D33002/FSH/20W/80/A45	D125xH111xØ115mm±1mm	FSH	1640	20W	82	45°
294294 EmpireR IP44 D33002/BVF/27W/80/A45	D125xH111xØ115mm±1mm	BVF	2220	27W	83	45°
294295 EmpireR IP44 D33002/FBS/27W/80/A45	D125xH111xØ115mm±1mm	FBS	1515	27W	57	45°
294296 EmpireR IP44 D33002/FZM/27W/80/A45	D125xH111xØ115mm±1mm	FZM	1455	27W	54	45°
294297 EmpireR IP44 D33002/FSM/27W/80/A45	D125xH111xØ115mm±1mm	FSM	1480	27W	55	45°
294298 EmpireR IP44 D33002/FSH/27W/80/A45	D125xH111xØ115mm±1mm	FSH	2170	27W	81	45°
294299 EmpireR IP44 D33003/BVF/14W/80/A50	D151xH128xØ140mm±1mm	BVF	1225	14W	88	50°
294300 EmpireR IP44 D33003/FBS/14W/80/A50	D151xH128xØ140mm±1mm	FBS	830	14W	60	50°
294301 EmpireR IP44 D33003/FZM/14W/80/A50	D151xH128xØ140mm±1mm	FZM	800	14W	58	50°
294302 EmpireR IP44 D33003/FSM/14W/80/A50	D151xH128xØ140mm±1mm	FSM	830	14W	60	50°
294303 EmpireR IP44 D33003/FSH/14W/80/A50	D151xH128xØ140mm±1mm	FSH	1180	14W	85	50°
294304 EmpireR IP44 D33003/BVF/20W/80/A50	D151xH128xØ140mm±1mm	BVF	1675	20W	84	50°
294305 EmpireR IP44 D33003/FBS/20W/80/A50	D151xH128xØ140mm±1mm	FBS	1155	20W	58	50°
294306 EmpireR IP44 D33003/FZM/20W/80/A50	D151xH128xØ140mm±1mm	FZM	1105	20W	56	50°
294307 EmpireR IP44 D33003/FSM/20W/80/A50	D151xH128xØ140mm±1mm	FSM	1130	20W	57	50°
294308 EmpireR IP44 D33003/FSH/20W/80/A50	D151xH128xØ140mm±1mm	FSH	1640	20W	82	50°
294309 EmpireR IP44 D33003/BVF/27W/80/A50	D151xH128xØ140mm±1mm	BVF	2220	27W	83	50°
294310 EmpireR IP44 D33003/FBS/27W/80/A50	D151xH128xØ140mm±1mm	FBS	1515	27W	57	50°
294311 EmpireR IP44 D33003/FZM/27W/80/A50	D151xH128xØ140mm±1mm	FZM	1455	27W	54	50°
294312 EmpireR IP44 D33003/FSM/27W/80/A50	D151xH128xØ140mm±1mm	FSM	1480	27W	55	50°
294313 EmpireR IP44 D33003/FSH/27W/80/A50	D151xH128xØ140mm±1mm	FSH	2170	27W	81	50°
<b>CRI 93</b>						
294180 EmpireR IP44 D33001/AGI3000/12W/93/A25	D95xH91xØ85mm±1mm	AGI3000	735	12W	62	25°
294181 EmpireR IP44 D33001/AGI3500/12W/93/A25	D95xH91xØ85mm±1mm	AGI3500	780	12W	65	25°
294182 EmpireR IP44 D33001/AGI4000/12W/93/A25	D95xH91xØ85mm±1mm	AGI4000	830	12W	70	25°
294183 EmpireR IP44 D33001/AGI3000/12W/93/A45	D95xH91xØ85mm±1mm	AGI3000	735	12W	62	45°
294184 EmpireR IP44 D33001/AGI3500/12W/93/A45	D95xH91xØ85mm±1mm	AGI3500	780	12W	65	45°
294185 EmpireR IP44 D33001/AGI4000/12W/93/A45	D95xH91xØ85mm±1mm	AGI4000	830	12W	70	45°
294186 EmpireR IP44 D33001/AGI3000/17W/93/A25	D95xH91xØ85mm±1mm	AGI3000	985	17W	58	25°
294187 EmpireR IP44 D33001/AGI3500/17W/93/A25	D95xH91xØ85mm±1mm	AGI3500	1050	17W	62	25°
294188 EmpireR IP44 D33001/AGI4000/17W/93/A25	D95xH91xØ85mm±1mm	AGI4000	1115	17W	66	25°
294189 EmpireR IP44 D33001/AGI3000/17W/93/A45	D95xH91xØ85mm±1mm	AGI3000	985	17W	58	45°
294190 EmpireR IP44 D33001/AGI3500/17W/93/A45	D95xH91xØ85mm±1mm	AGI3500	1050	17W	62	45°
294191 EmpireR IP44 D33001/AGI4000/17W/93/A45	D95xH91xØ85mm±1mm	AGI4000	1115	17W	66	45°
294192 EmpireR IP44 D33002/AGI3000/12W/93/A45	D125xH111xØ115mm±1mm	AGI3000	735	12W	62	45°
294193 EmpireR IP44 D33002/AGI3500/12W/93/A45	D125xH111xØ115mm±1mm	AGI3500	780	12W	65	45°
294194 EmpireR IP44 D33002/AGI4000/12W/93/A45	D125xH111xØ115mm±1mm	AGI4000	830	12W	70	45°
294195 EmpireR IP44 D33002/AGI3000/17W/93/A45	D125xH111xØ115mm±1mm	AGI3000	985	17W	58	45°
294196 EmpireR IP44 D33002/AGI3500/17W/93/A45	D125xH111xØ115mm±1mm	AGI3500	1050	17W	62	45°
294197 EmpireR IP44 D33002/AGI4000/17W/93/A45	D125xH111xØ115mm±1mm	AGI4000	1115	17W	66	45°
294198 EmpireR IP44 D33002/AGI3000/23W/93/A45	D125xH111xØ115mm±1mm	AGI3000	1330	23W	58	45°
294199 EmpireR IP44 D33002/AGI3500/23W/93/A45	D125xH111xØ115mm±1mm	AGI3500	1440	23W	63	45°
294200 EmpireR IP44 D33002/AGI4000/23W/93/A45	D125xH111xØ115mm±1mm	AGI4000	1550	23W	68	45°
294201 EmpireR IP44 D33003/AGI3000/12W/93/A50	D151xH128xØ140mm±1mm	AGI3000	735	12W	62	50°

**SKU SPECIFICATIONS**

Product Code	Dimensions (mm)	CCT (K)	Lumens (lm)	Power (W)	Eff. (lm/watt)	Lens Angle (°)
<b>CRI 93</b>						
294202 EmpireR IP44 D33003/AGI3500/12W/93/A50	D151xH128xØ140mm±1mm	AGI3500	780	12W	65	50°
294203 EmpireR IP44 D33003/AGI4000/12W/93/A50	D151xH128xØ140mm±1mm	AGI4000	830	12W	70	50°
294204 EmpireR IP44 D33003/AGI3000/17W/93/A50	D151xH128xØ140mm±1mm	AGI3000	985	17W	58	50°
294205 EmpireR IP44 D33003/AGI3500/17W/93/A50	D151xH128xØ140mm±1mm	AGI3500	1050	17W	62	50°
294206 EmpireR IP44 D33003/AGI4000/17W/93/A50	D151xH128xØ140mm±1mm	AGI4000	1115	17W	66	50°
294207 EmpireR IP44 D33003/AGI3000/23W/93/A50	D151xH128xØ140mm±1mm	AGI3000	1330	23W	58	50°
294208 EmpireR IP44 D33003/AGI3500/23W/93/A50	D151xH128xØ140mm±1mm	AGI3500	1440	23W	63	50°
294209 EmpireR IP44 D33003/AGI4000/23W/93/A50	D151xH128xØ140mm±1mm	AGI4000	1550	23W	68	50°
<b>CRI 95</b>						
294150 EmpireR IP44 D33001/FAS/14W/95/A25	D95xH91xØ85mm±1mm	FAS	1045	14W	75	25°
294151 EmpireR IP44 D33001/FAS/14W/95/A45	D95xH91xØ85mm±1mm	FAS	1045	14W	75	45°
294152 EmpireR IP44 D33001/FAS/20W/95/A25	D95xH91xØ85mm±1mm	FAS	1430	20W	72	25°
294153 EmpireR IP44 D33001/FAS/20W/95/A45	D95xH91xØ85mm±1mm	FAS	1430	20W	72	45°
294154 EmpireR IP44 D33002/FAS/14W/95/A45	D125xH111xØ115mm±1mm	FAS	1165	14W	84	45°
294155 EmpireR IP44 D33002/FAS/20W/95/A45	D125xH111xØ115mm±1mm	FAS	1610	20W	81	45°
294156 EmpireR IP44 D33002/FAS/27W/95/A45	D125xH111xØ115mm±1mm	FAS	2335	27W	87	45°
294157 EmpireR IP44 D33003/FAS/14W/95/A50	D151xH128xØ140mm±1mm	FAS	1165	14W	84	50°
294158 EmpireR IP44 D33003/FAS/20W/95/A50	D151xH128xØ140mm±1mm	FAS	1610	20W	81	50°
294159 EmpireR IP44 D33003/FAS/27W/95/A50	D151xH128xØ140mm±1mm	FAS	2335	27W	87	50°
<b>CRI 98</b>						
294375 EmpireR IP44 D33002/ART3000/14W/98/A45	D125xH111xØ115mm±1mm	ART3000	1160	14W	83	45°
294377 EmpireR IP44 D33002/ART3000/20W/98/A45	D125xH111xØ115mm±1mm	ART3000	1600	20W	80	45°
294379 EmpireR IP44 D33002/ART3000/27W/98/A45	D125xH111xØ115mm±1mm	ART3000	2155	27W	80	45°
294381 EmpireR IP44 D33003/ART3000/14W/98/A50	D151xH128xØ140mm±1mm	ART3000	1160	14W	83	50°
294383 EmpireR IP44 D33003/ART3000/20W/98/A50	D151xH128xØ140mm±1mm	ART3000	1600	20W	80	50°
294385 EmpireR IP44 D33003/ART3000/27W/98/A50	D151xH128xØ140mm±1mm	ART3000	2155	27W	80	50°

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