

PL COIN 111 COB DC G3

Product Specification



Product Description

COIN 111 COB DC G3 family deliver the brilliant color effect, high flux density, and various beam angle options to enhance visual experience.

- CE mark
- L70B50 50khrs
- 5 years warranty

Benefits

- Compact form factor compatible with conventional AR111 lamps
- Precise optical control and free from multi-shadow issue

Features

- Color consistency < 2SDCM
- TM30 compliant
- High efficiency
- Beam angle in 24°, 40°, 60°
- Type of protection: IP20

Applications

- Retail, shop, restaurant, hospitality
- High-end residential
- Suitable for indoor applications

Table 1. Product Performance

Product name	Nominal CCT (K)	Min CRI	Flux Output (lm)		Typical Efficacy (lm/W)	Test Current (mA)	Nominal Power (W)
			Min	Typ			
PL-CN111-COB-4300-927-24D-G3	2700	90	3416	3795	105	1050	36.2
PL-CN111-COB-4300-930-24D-G3	3000	90	3528	3920	108	1050	36.2
PL-CN111-COB-4300-935-24D-G3	3500	90	3717	4130	114	1050	36.2
PL-CN111-COB-4300-940-24D-G3	4000	90	3726	4140	114	1050	36.2
PL-CN111-COB-4300-965-24D-G3	6500	90	3735	4150	114	1050	36.2
PL-CN111-COB-4300-930UW-24D-G3	3000	90	3497	3885	107	1050	36.2
PL-CN111-COB-4300-935UW-24D-G3	3500	90	3609	4010	111	1050	36.2
PL-CN111-COB-4300-927-40D-G3	2700	90	3407	3785	104.5	1050	36.2
PL-CN111-COB-4300-930-40D-G3	3000	90	3515	3905	108	1050	36.2
PL-CN111-COB-4300-935-40D-G3	3500	90	3780	4200	116	1050	36.2
PL-CN111-COB-4300-940-40D-G3	4000	90	3762	4180	115.5	1050	36.2

PL-CN111-COB-4300-965-40D-G3	6500	90	3717	4130	114	1050	36.2
PL-CN111-COB-4300-930UW-40D-G3	3000	90	3546	3940	109	1050	36.2
PL-CN111-COB-4300-935UW-40D-G3	3500	90	3663	4070	112.5	1050	36.2
PL-CN111-COB-4300-927-60D-G3	2700	90	3452	3835	106	1050	36.2
PL-CN111-COB-4300-930-60D-G3	3000	90	3434	3815	105	1050	36.2
PL-CN111-COB-4300-935-60D-G3	3500	90	3735	4150	114.5	1050	36.2
PL-CN111-COB-4300-940-60D-G3	4000	90	3758	4175	115	1050	36.2
PL-CN111-COB-4300-965-60D-G3	6500	90	3690	4100	113	1050	36.2
PL-CN111-COB-4300-930UW-60D-G3	3000	90	3465	3850	106	1050	36.2
PL-CN111-COB-4300-935UW-60D-G3	3500	90	3735	4150	114.5	1050	36.2

1. All parameters are derived at steady status when $t_c=80^{\circ}\text{C}$ (@ $t_a=25^{\circ}\text{C}$)
2. Tolerance of measurements for the luminous flux is $\pm 7\%$

Table 2. Optical Characteristics

Product Name	Beam Angle (FWHM)	Color Coordinate		Color Consistency	R9	IES TM30-15	
		CIE _x	CIE _y			R _f	R _g
PL-CN111-COB-4300-927-24D-G3	24 ± 3°	0.4623	0.4162	2SDCM	50	90	95
PL-CN111-COB-4300-930-24D-G3	24 ± 3°	0.4357	0.4057	2SDCM	50	91	96
PL-CN111-COB-4300-935-24D-G3	24 ± 3°	0.4108	0.3962	2SDCM	50	90	96
PL-CN111-COB-4300-940-24D-G3	24 ± 3°	0.3837	0.3774	2SDCM	50	90	98
PL-CN111-COB-4300-965-24D-G3	24 ± 3°	0.317	0.3348	2SDCM	50	90	97
PL-CN111-COB-4300-930UW-24D-G3	24 ± 3°	0.4247	0.3873	2SDCM	50	89	101
PL-CN111-COB-4300-935UW-24D-G3	24 ± 3°	0.4048	0.3807	2SDCM	50	90	100
PL-CN111-COB-4300-927-40D-G3	24 ± 3°	0.4623	0.4162	2SDCM	50	90	95
PL-CN111-COB-4300-930-40D-G3	40 ± 3°	0.4357	0.4057	2SDCM	50	91	96
PL-CN111-COB-4300-935-40D-G3	40 ± 3°	0.4108	0.3962	2SDCM	50	90	96
PL-CN111-COB-4300-940-40D-G3	40 ± 3°	0.3837	0.3774	2SDCM	50	90	98
PL-CN111-COB-4300-965-40D-G3	40 ± 3°	0.317	0.3348	2SDCM	50	90	97
PL-CN111-COB-4300-930UW-40D-G3	40 ± 3°	0.4247	0.3873	2SDCM	50	89	101
PL-CN111-COB-4300-935UW-40D-G3	40 ± 3°	0.4048	0.3807	2SDCM	50	90	100
PL-CN111-COB-4300-927-60D-G3	55 ± 3°	0.4623	0.4162	2SDCM	50	90	95
PL-CN111-COB-4300-930-60D-G3	55 ± 3°	0.4357	0.4057	2SDCM	50	91	96
PL-CN111-COB-4300-935-60D-G3	55 ± 3°	0.4108	0.3962	2SDCM	50	90	96
PL-CN111-COB-4300-940-60D-G3	55 ± 3°	0.3837	0.3774	2SDCM	50	90	98
PL-CN111-COB-4300-965-60D-G3	40 ± 3°	0.317	0.3348	2SDCM	50	90	97
PL-CN111-COB-4300-930UW-60D-G3	55 ± 3°	0.4247	0.3873	2SDCM	50	89	101
PL-CN111-COB-4300-935UW-60D-G3	55 ± 3°	0.4048	0.3807	2SDCM	50	90	100

1. Tolerance of measurements for R9 is ± 3 , TM-30 R_f and R_g is ± 3 , Chromaticity Coordinate is ± 0.005

Table 3. Electrical Characteristics, Tc = 80°C

Product name	Forward Voltage(V)			Typical Power (W)
	Min	Typ	Max	
PL-CN111-COB-4300-xxx-xxD-G3	31	34.5	36	36.2

Table 4. Lifetime and maintenance

Product name	Rated Current	Lumen Maintenance	L70		L80		L90	
	(mA)	(x hrs)	B10	B50	B10	B50	B10	B50
PL-CN111-COB-4300-9XX-XXD-G3	1050	tc 95°C	>50000	>50000	44000	47000	21000	23000
		tc 85°C	>50000	>50000	45000	48000	22000	23000
	700	tc 95°C	>50000	>50000	44000	47000	21000	23000
		tc 85°C	>50000	>50000	45000	49000	22000	23000

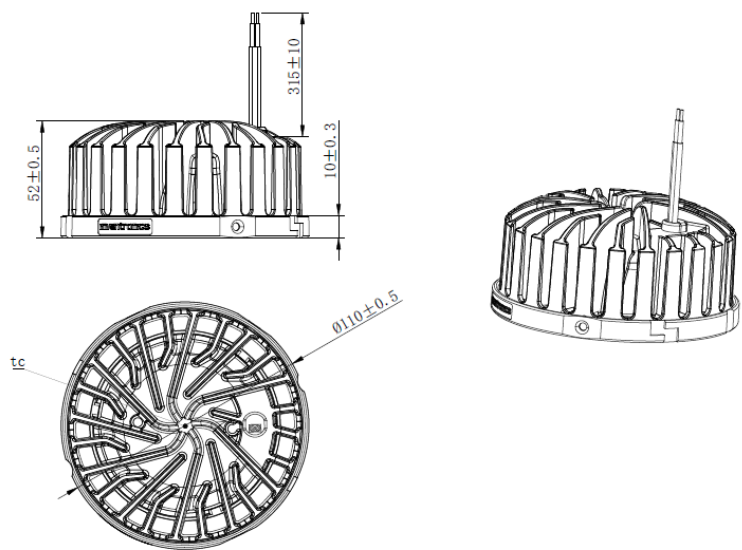
Table 5. HE mode Performance table

Module	Current(mA)	Flux (%)	Efficacy (%)	Typ Vf (V)	Power (W)
HO Mode	1050	100.0%	100.0%	34.5	36.2
	1000	96.0%	101.3%	34.3	34.3
HE Mode	950	91.9%	102.6%	34.2	32.5
	900	87.8%	103.9%	34.0	30.6
	850	83.6%	105.2%	33.9	28.8
	800	79.3%	106.5%	33.7	27.0
	750	74.9%	107.9%	33.5	25.1
	700	70.4%	109.3%	33.4	23.3

Table 6. Lifetime vs tc (ta for reference)

PL-CN111-COB-4300-9xx-xxD-G3	Orientation	Nominal (Performance)		5-year Warranty (L70B50 50k hrs)	
		ta	tc	ta	tc
1050mA (HO mode)	Downward	25	80	45	95
	Horizontal	25	90	30	95

Mechanical Dimensions

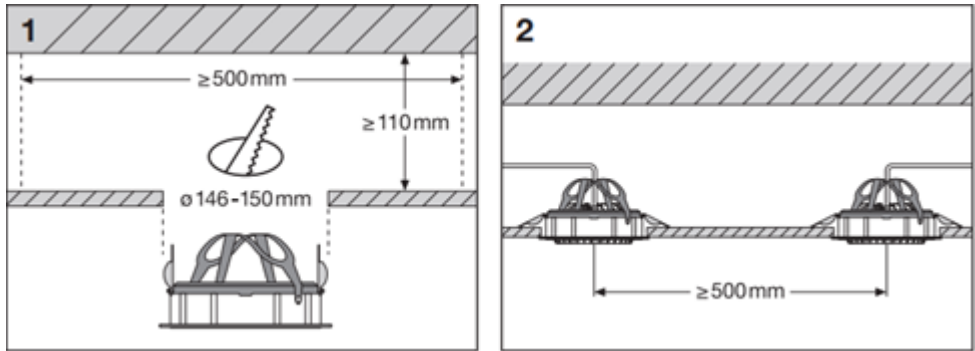


CN111	Dimension	Tolerance	Unit
Diameter	110	±0.5	mm
Height	52	±0.5	mm
Optics	PC Lens		
Weight	430	±5	gram
Wire length	315	±10	mm

Standard Compliance

Eye security	IEC 62778
Fla24/40/60ability	IEC 60598-1
Safety Requirements	EN 62031 IEC 60598-1
EMC / radio disturbance characteristics	EN 55015
EMC / i24/40/60unity	EN 61547
EMC limits for harmonic current emissions	IEC 61000-3-2
EMC limitation of voltage changes, voltage fluctuations and flicker	IEC 61000-3-3
CE Mark	Yes

Suggestions for installation



Safety information

- ◆ Suitable for indoor applications
- ◆ Connecting multiple modules in parallel on one LED driver is not permitted
- ◆ Connecting multiple modules in series on one LED driver is not recommended
- ◆ Do not use in sealed fixture
- ◆ Avoid covering the lens with dust or any object
- ◆ The LED module itself and all its components may not be mechanical stressed.
- ◆ Assembly must not damage or destroy conducting paths on the circuit board.
- ◆ To avoid mechanical damage to the connecting cables, the module should be attached securely to the fixture. Heavy vibration should be avoided.
- ◆ Installation of LED modules (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installation.
- ◆ Please ensure that the power supply is of adequate power to operate the total load.
- ◆ LED module should be 1S1P (1 in series 1 in parallel) when connected to power supply
- ◆ Max. working voltage is 60V and only operation on SELV LED control gears is permitted.
- ◆ CN111-COB module needs to connect with constant current DC driver which must has stable constant current (+/-5% tolerance suggested) output.
- ◆ Electrical contact is achieved with the contact cables.
- ◆ The design of the housing should be according to the IP standards in the application.
- ◆ Pay attention to standard ESD precautions when installing the module.
- ◆ If surge protection structure not within power supplier, a lightening protector should be needed additionally.
- ◆ Tc value is the maximum temperature for safety, higher tc application is not recommended.
- ◆ Blue Light Hazard Classification: RG1 unlimited.

Ordering Guide

Short text	EAN10	EAN40	Pcs per Box
PL-CN111-COB-4300-927-24D-G3	6937186151711	6937186151728	12
PL-CN111-COB-4300-930-24D-G3	6937186151735	6937186151742	12
PL-CN111-COB-4300-935-24D-G3	6937186151759	6937186151766	12
PL-CN111-COB-4300-940-24D-G3	6937186151773	6937186151780	12
PL-CN111-COB-4300-965-24D-G3	6937186151797	6937186151803	12
PL-CN111-COB-4300-930UW-24D-G3	6937186151810	6937186151827	12
PL-CN111-COB-4300-935UW-24D-G3	6937186151834	6937186151841	12
PL-CN111-COB-4300-927-40D-G3	6937186151858	6937186151865	12
PL-CN111-COB-4300-930-40D-G3	6937186151872	6937186151889	12
PL-CN111-COB-4300-935-40D-G3	6937186151896	6937186151902	12
PL-CN111-COB-4300-940-40D-G3	6937186151919	6937186151926	12
PL-CN111-COB-4300-965-40D-G3	6937186151933	6937186151940	12
PL-CN111-COB-4300-930UW-40D-G3	6937186151957	6937186151964	12
PL-CN111-COB-4300-935UW-40D-G3	6937186151971	6937186151988	12
PL-CN111-COB-4300-927-60D-G3	6937186151995	6937186152008	12
PL-CN111-COB-4300-930-60D-G3	6937186152015	6937186152022	12
PL-CN111-COB-4300-935-60D-G3	6937186152039	6937186152046	12
PL-CN111-COB-4300-940-60D-G3	6937186152053	6937186152060	12
PL-CN111-COB-4300-965-60D-G3	6937186152077	6937186152084	12
PL-CN111-COB-4300-930UW-60D-G3	6937186152091	6937186152107	12
PL-CN111-COB-4300-935UW-60D-G3	6937186152114	6937186152121	12