

PrevaLED® COIN 111 DC COB G1

Product Specification



Product Description

COIN COB family deliver the best quality of light, high flux density, and wide range of beam angle options to enhance the flexibility in lighting design.

- CE mark
- L80B50 50khrs
- 5 years warranty

Benefits

- Compact form factor compatible with conventional AR111 CDM lamps
- High color rendering performance, complying with IES TM30
- Free from multi-shadow issue with single light source
- Flexible combination of flux output and beam angle

Features

- Color consistency <3SDCM
- CRI 80 and 90 (TM30 compliant)
- Flux range 1700 – 4800lm
- Beam angle 15°, 24°, 40°, 60°

Applications

- Retail, shop, restaurant, hospitality
- Gallery and museum

Table 1. Product Performance

Product name	Nominal CCT (K)	Min CRI (Ra)	Flux Output (lm)		Typical Efficacy (lm/W)	Test Current (mA)
			Min	Typ		
PL-CN111-COB-1800-927-15D-G1	2700	90	1448	1730	97	500
PL-CN111-COB-1800-927-24D-G1	2700	90	1393	1770	99	500
PL-CN111-COB-1800-927-40D-G1	2700	90	1388	1700	95	500
PL-CN111-COB-1800-930-15D-G1	3000	90	1540	1840	103	500
PL-CN111-COB-1800-930-24D-G1	3000	90	1480	1880	105	500
PL-CN111-COB-1800-930-40D-G1	3000	90	1470	1800	100	500
PL-CN111-COB-1800-940-15D-G1	4000	90	1630	1940	108	500
PL-CN111-COB-1800-940-24D-G1	4000	90	1560	1990	111	500
PL-CN111-COB-1800-940-40D-G1	4000	90	1560	1910	106	500
PL-CN111-COB-2800-830-15D-G1	3000	80	2370	2700	104	700
PL-CN111-COB-2800-830-24D-G1	3000	80	2280	2760	107	700
PL-CN111-COB-2800-830-40D-G1	3000	80	2260	2650	102	700
PL-CN111-COB-2800-840-15D-G1	4000	80	2480	2830	109	700
PL-CN111-COB-2800-840-24D-G1	4000	80	2380	2900	112	700
PL-CN111-COB-2800-840-40D-G1	4000	80	2370	2780	107	700
PL-CN111-COB-4300-830-24D-G1	3000	80	3980	4550	121	1050
PL-CN111-COB-4300-830-40D-G1	3000	80	3800	4340	115	1050
PL-CN111-COB-4300-830-60D-G1	3000	80	3720	4240	112	1050

PL-CN111-COB-4300-840-24D-G1	4000	80	4170	4780	127	1050
PL-CN111-COB-4300-840-40D-G1	4000	80	3980	4560	121	1050
PL-CN111-COB-4300-840-60D-G1	4000	80	3890	4450	118	1050

- Nominal performance is measured at steady status when: PL-CN111-COB-1800-xxx-xxD-G1 @ Tp=55°C, PL-CN111-COB-2800-xxx-xxD-G1 @ Tp=65°C, @ PL-CN111-COB-4300-xxx-xxD-G1 @ Tp=75°C.
- Tolerance of measurements for the luminous flux is and efficacy $\pm 5\%$

Table 2. Optical Characteristics

Product name	Beam Angle	Central Intensity	Color Coordinate		Color Consistency	R9	IES TM30-15	
	(FWHM)	(kcd)	CIE _x	CIE _y			R _f	R _g
PL-CN111-COB-1800-927-15D-G1	15°	17.0	0.4624	0.4114	3SDCM	60	90	100
PL-CN111-COB-1800-927-24D-G1	24°	9.8	0.4624	0.4114	3SDCM	60	90	100
PL-CN111-COB-1800-927-40D-G1	40°	3.9	0.4624	0.4114	3SDCM	60	90	100
PL-CN111-COB-1800-930-15D-G1	15°	17.2	0.4360	0.4022	3SDCM	60	90	100
PL-CN111-COB-1800-930-24D-G1	24°	9.8	0.4360	0.4022	3SDCM	60	90	100
PL-CN111-COB-1800-930-40D-G1	40°	4.1	0.4360	0.4022	3SDCM	60	90	100
PL-CN111-COB-1800-940-15D-G1	15°	18.1	0.3837	0.3796	3SDCM	57	89	99
PL-CN111-COB-1800-940-24D-G1	24°	10.4	0.3837	0.3796	3SDCM	57	89	99
PL-CN111-COB-1800-940-40D-G1	40°	4.4	0.3837	0.3796	3SDCM	57	89	99
PL-CN111-COB-2800-830-15D-G1	15°	25.3	0.4317	0.3987	3SDCM	9	83	96
PL-CN111-COB-2800-830-24D-G1	24°	14.5	0.4317	0.3987	3SDCM	9	83	96
PL-CN111-COB-2800-830-40D-G1	40°	6.0	0.4317	0.3987	3SDCM	9	83	96
PL-CN111-COB-2800-840-15D-G1	15°	26.5	0.3823	0.3796	3SDCM	13	83	95
PL-CN111-COB-2800-840-24D-G1	24°	15.2	0.3823	0.3796	3SDCM	13	83	95
PL-CN111-COB-2800-840-40D-G1	40°	6.4	0.3823	0.3796	3SDCM	13	83	95
PL-CN111-COB-4300-830-24D-G1	24°	16.8	0.4365	0.4026	3SDCM	9	83	96
PL-CN111-COB-4300-830-40D-G1	40°	8.4	0.4365	0.4026	3SDCM	9	83	96
PL-CN111-COB-4300-830-60D-G1	60°	3.8	0.4365	0.4026	3SDCM	9	83	96
PL-CN111-COB-4300-840-24D-G1	24°	17.8	0.3852	0.3815	3SDCM	11	84	95
PL-CN111-COB-4300-840-40D-G1	40°	8.8	0.3852	0.3815	3SDCM	11	84	95
PL-CN111-COB-4300-840-60D-G1	60°	4.0	0.3852	0.3815	3SDCM	11	84	95

- Nominal performance is measured at steady status when: PL-CN111-COB-1800-xxx-xxD-G1 @ Tp=55°C, PL-CN111-COB-2800-xxx-xxD-G1 @ Tp=65°C, @ PL-CN111-COB-4300-xxx-xxD-G1 @ Tp=75°C.
- 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

Product name	Forward Voltage(V)			Typical Power (W)
	Min	Typ	Max	
PL-CN111-COB-1800-xxx-xxD-G1	32.1	35.9	40	18.0
PL-CN111-COB-2800-xxx-xxD-G1	33.2	37	41	25.9
PL-CN111-COB-4300-xxx-xxD-G1	32.3	35.8	39.5	37.6

- Nominal performance is measured at steady status when: PL-CN111-COB-1800-xxx-xxD-G1 @ Tp=55°C, PL-CN111-COB-2800-xxx-xxD-G1 @ Tp=65°C, @ PL-CN111-COB-4300-xxx-xxD-G1 @ Tp=75°C

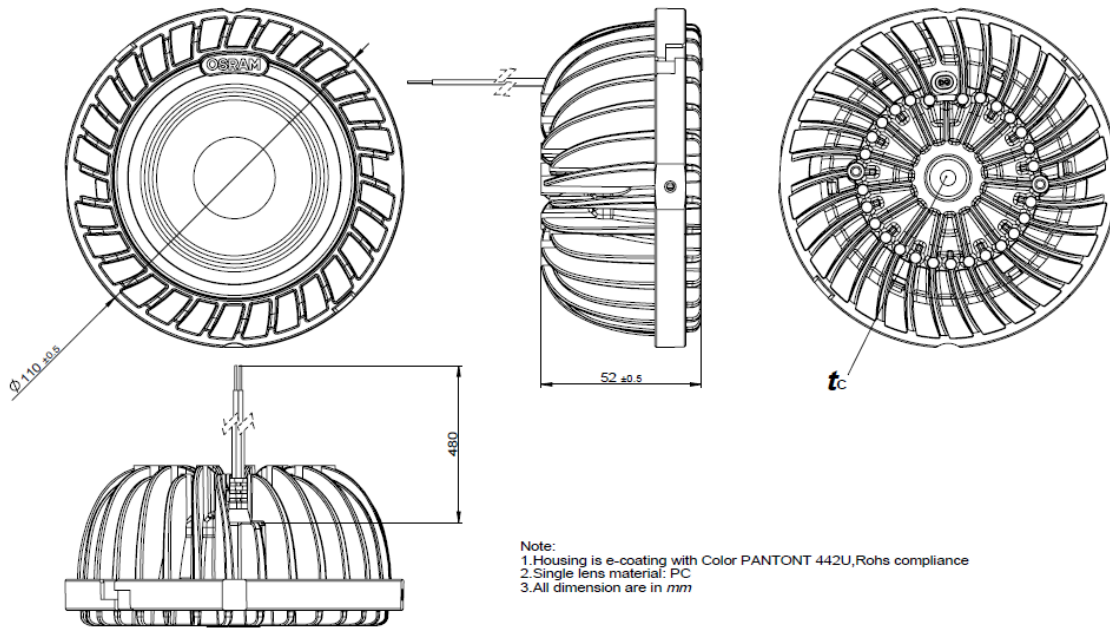
Table 4. Absolute Maximum Ratings

Max Ratings	DC Forward Current (mA)	Case Temperature (Tc)	ESD Classification (HBM)
PL-CN111-COB-1800-xxx	500	80°C	2kV
PL-CN111-COB-2800-xxx	700	90°C	2kV
PL-CN111-COB-4300-xxx	1050	100°C	2kV

Table 5. Lumen Maintenance

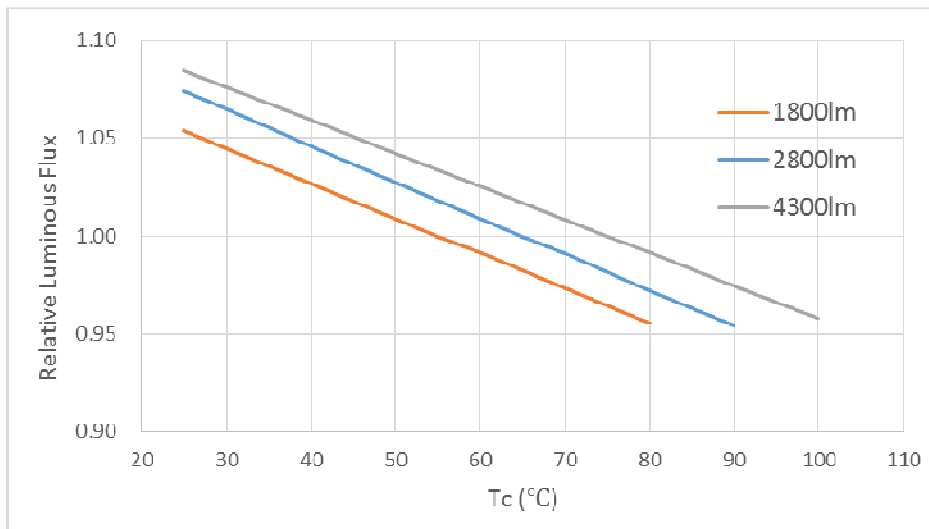
PL-CN111-COB-1800	Lumen Maintenance (x khrs)	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
Nominal 500mA	Tc 55°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 80°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
PL-CN111-COB-2800	Lumen Maintenance (x khrs)	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
Nominal 700mA	Tc 65°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 90°C	>50	>50	>50	>50	>50	>50	46	38	33
PL-CN111-COB-4300	Lumen Maintenance (x khrs)	L70			L80			L90		
		B50	B20	B10	B50	B20	B10	B50	B20	B10
Nominal 1050mA	Tc 75°C	>50	>50	>50	>50	>50	>50	>50	>50	>50
	Tc 90°C	>50	>50	>50	>50	>50	>50	46	38	33
	Tc 100°C	45	45	45	45	45	45	43	34	29

Dimensions & Mechanical Data

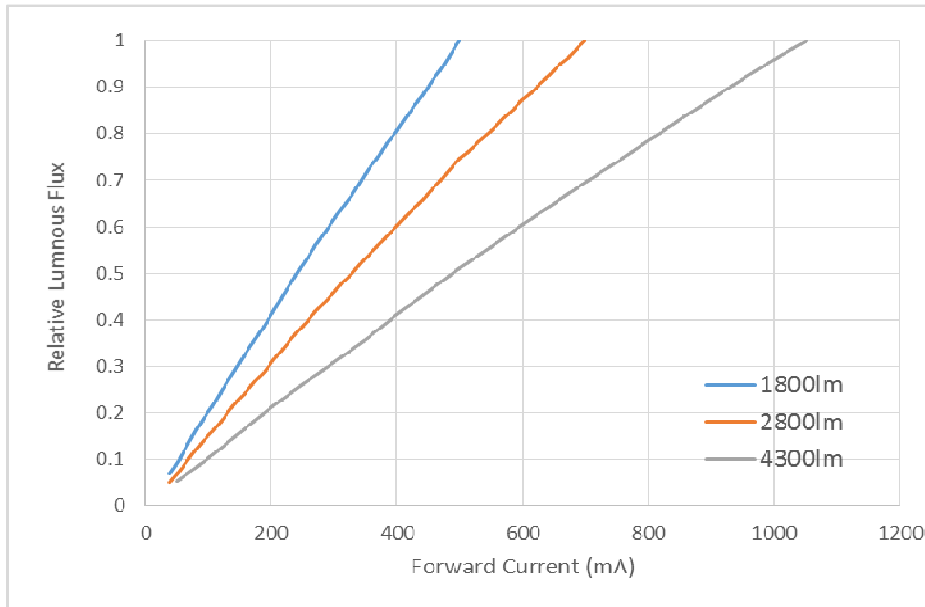


Dimension (mm)	Ø110 x Height 52
Mounting	AR111 similar
Optics	PC lens
Weight (gram)	355 ± 5

Luminous Flux Output vs. Case Temperature (@ Nominal Current)



Luminous Flux Output vs. Forward Current (@ Nominal Tc)



Recommended OPTOTRONIC® drivers

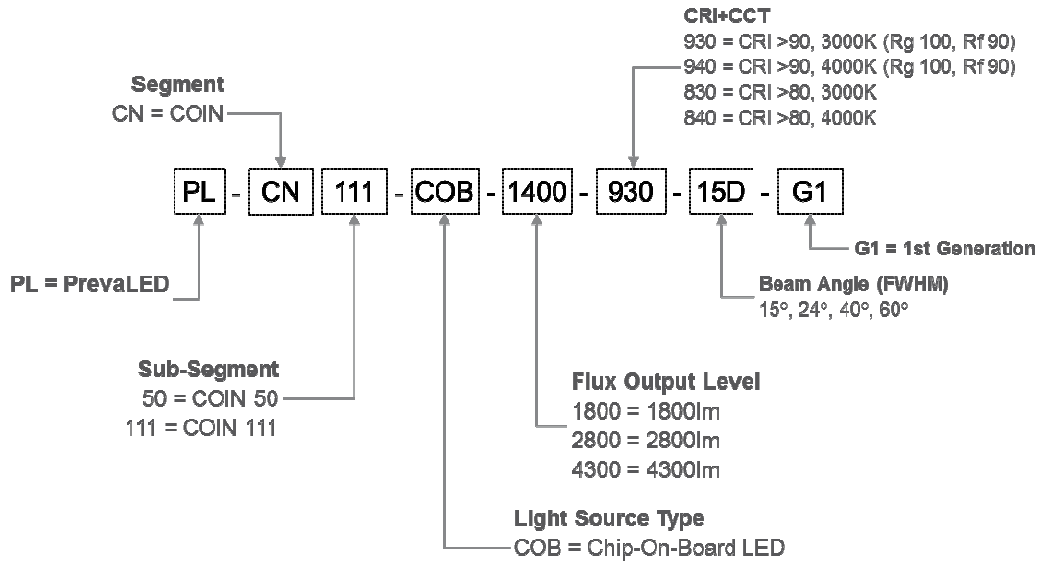
COIN Module \ OT Driver	OT Driver								
	OTI DALI 25 / 700 LT2	OTI DALI 35 / 1A0 LT2	OTI DALI 50 / 1A4 LT2	OT FIT 25 / 700 LT2 S	OT FIT 40 / 1A0 LT2 S	OT FIT 30 / 700 CS G2	OT FIT 40 / 1A0 CS G2	ELEMENT LD 20 / 500	ELEMENT LD 30 / 700
PL-CN111-COB-1800-XXX-XXD-G1	■			■		■		■	
PL-CN111-COB-2500-XXX-XXD-G1		■			■		■		■
PL-CN111-COB-4000-XXX-XXD-G1			■		■		■		

Only SELV driver is suitable for COIN module.

Standard Compliance

Eye security	IEC 62471
Flammability	IEC 60598-1
Protection class	EN 60529
Safety Requirements	EN 62031 IEC 60598-1
EMC / radio disturbance characteristics	EN 55015
EMC / immunity	EN 61547
CE Mark	Yes

Product Code Nomenclature



Ordering Guide

Product Code	EAN10	EAN40	Pcs per Box
PL-CN111-COB-1800-927-15D-G1	TBA	TBA	12
PL-CN111-COB-1800-927-24D-G1	TBA	TBA	12
PL-CN111-COB-1800-927-40D-G1	TBA	TBA	12
PL-CN111-COB-1800-930-15D-G1	4052899541399	4052899541405	12
PL-CN111-COB-1800-930-24D-G1	4052899541412	4052899541429	12
PL-CN111-COB-1800-930-40D-G1	4052899541436	4052899541443	12
PL-CN111-COB-1800-940-15D-G1	4052899541450	4052899541467	12
PL-CN111-COB-1800-940-24D-G1	4052899541474	4052899541481	12
PL-CN111-COB-1800-940-40D-G1	4052899541498	4052899541504	12
PL-CN111-COB-2800-830-15D-G1	4052899541511	4052899541528	12
PL-CN111-COB-2800-830-24D-G1	4052899541535	4052899541542	12
PL-CN111-COB-2800-830-40D-G1	4052899541559	4052899541566	12
PL-CN111-COB-2800-840-15D-G1	4052899541573	4052899541580	12
PL-CN111-COB-2800-840-24D-G1	4052899541597	4052899541603	12
PL-CN111-COB-2800-840-40D-G1	4052899541610	4052899541627	12
PL-CN111-COB-4300-830-24D-G1	4052899541634	4052899541641	12
PL-CN111-COB-4300-830-40D-G1	4052899541658	4052899541665	12
PL-CN111-COB-4300-830-60D-G1	4052899541672	4052899541689	12
PL-CN111-COB-4300-840-24D-G1	4052899541696	4052899541702	12
PL-CN111-COB-4300-840-40D-G1	4052899541719	4052899541726	12
PL-CN111-COB-4300-840-60D-G1	4052899541733	4052899541740	12