



LUXEON CoB Core Range Gen 5

Uniform, high efficacy and easy to design array



LUXEON CoB represents a new breakthrough for arrays. Due to its small Light Emitting Surface (LES) and industry-leading thermal resistance, LUXEON CoB is easy to work with, enabling simplified and less expensive luminaire designs. LUXEON CoBs are hot-tested at 85°C—real world operating conditions—which means additional testing can be minimized. LUXEON CoB LEDs are available in 3-step MacAdam ellipse, ensuring uniform optical performance in a wide range of applications.

FEATURES AND BENEFITS

- Highest flux densities with industry's smallest LES
- 3-step MacAdam ellipse color definition: *Freedom from Binning* for color consistency from luminaire to luminaire
- Up to 4x lower thermal resistance than competition, enabling smaller heatsinks and higher lumens
- Supported by a comprehensive optical, mechanical and electrical ecosystem

PRIMARY APPLICATIONS

- Spotlights
- Track Lights
- Downlights
- High Bay
- Low Bay
- Floodlights
- [More...](#)

LUXEON CoB Core Range product performance at specified test current, T_j=85°C.

LES ^[1] (mm)	NOMINAL CCT	MINIMUM CRI ^[2, 3, 4]	LUMINOUS FLUX ^[2] (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TEST CURRENT (mA)	ENERGY EFFICIENCY CLASS ^[5]	PART NUMBER ^[6]
			MINIMUM	TYPICAL				
6	2700K	80	924	1027	151	200	D	L2C5-27801202H060x
6	3000K	80	958	1064	157	200	D	L2C5-30801202H060x
6	3500K	80	991	1101	162	200	D	L2C5-35801202H060x
6	4000K	80	1014	1127	166	200	D	L2C5-40801202H060x
6	5000K	80	1019	1132	167	200	D	L2C5-50801202H060x
6	2700K	90	902	1003	148	200	D	L2C5-27901202H060x
6	3000K	90	914	1016	150	200	D	L2C5-30901202H060x
6	3500K	90	938	1042	154	200	D	L2C5-35901202H060x
6	4000K	90	959	1065	157	200	D	L2C5-40901202H060x
6	5000K	90	983	1092	161	200	D	L2C5-50901202H060x
9	2700K	80	952	1058	156	200	D	L2C5-27801202H090x
9	3000K	80	983	1092	161	200	D	L2C5-30801202H090x
9	3500K	80	1022	1135	167	200	D	L2C5-35801202H090x
9	4000K	80	1049	1166	172	200	D	L2C5-40801202H090x
9	5000K	80	1050	1167	172	200	D	L2C5-50801202H090x
9	2700K	90	929	1033	152	200	D	L2C5-27901202H090x
9	3000K	90	942	1046	154	200	D	L2C5-30901202H090x
9	3500K	90	966	1073	158	200	D	L2C5-35901202H090x
9	4000K	90	988	1097	162	200	D	L2C5-40901202H090x
9	5000K	90	1012	1124	166	200	D	L2C5-50901202H090x
9	2700K	80	1391	1546	152	300	D	L2C5-27801203H090x
9	3000K	80	1446	1607	158	300	D	L2C5-30801203H090x
9	3500K	80	1505	1672	164	300	D	L2C5-35801203H090x
9	4000K	80	1533	1703	167	300	D	L2C5-40801203H090x
9	5000K	80	1538	1709	168	300	D	L2C5-50801203H090x
9	2700K	90	1345	1494	147	300	D	L2C5-27901203H090x
9	3000K	90	1362	1514	149	300	D	L2C5-30901203H090x
9	3500K	90	1397	1553	153	300	D	L2C5-35901203H090x
9	4000K	90	1429	1587	156	300	D	L2C5-40901203H090x
9	5000K	90	1464	1627	160	300	D	L2C5-50901203H090x
9	2700K	80	1858	2064	152	400	D	L2C5-27801204H090x
9	3000K	80	1936	2151	159	400	D	L2C5-30801204H090x
9	3500K	80	2004	2227	164	400	D	L2C5-35801204H090x
9	4000K	80	2049	2277	168	400	D	L2C5-40801204H090x
9	5000K	80	2058	2287	169	400	D	L2C5-50801204H090x
9	2700K	90	1787	1985	146	400	D	L2C5-27901204H090x
9	3000K	90	1811	2012	148	400	D	L2C5-30901204H090x
9	3500K	90	1857	2063	152	400	D	L2C5-35901204H090x
9	4000K	90	1899	2109	156	400	D	L2C5-40901204H090x
9	5000K	90	1945	2162	159	400	D	L2C5-50901204H090x

Table continued on next page:

1. Light Emitting Surface (LES) is the inner diameter (phosphor area) inside the dam.
2. Lumileds maintains a tolerance of ±2 on CRI and ±6.5% on luminous flux measurements.
3. Typical CRI is approximately 2 points higher than the minimum CRI specified, but this is not guaranteed.
4. R9 value of 90CRI products is >50.
5. Energy efficiency class as specified in Commission Delegated Regulation (EU) 2019/2015. The available range of energy efficiency classes is A-G.
6. Part number ends with "x" designates SDCM, 2=2-SDCM, 0=3SDCM.

LUXEON CoB Core Range product performance at specified test current, T_j=85°C, Continued.

LES ^[1] (mm)	NOMINAL CCT	MINIMUM CRI ^[2, 3, 4]	LUMINOUS FLUX ^[2] (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TEST CURRENT (mA)	ENERGY EFFICIENCY CLASS ^[5]	PART NUMBER ^[6]
			MINIMUM	TYPICAL				
13	2700K	80	2758	3065	148	600	D	L2C5-27801205H130x
13	3000K	80	2866	3185	154	600	D	L2C5-30801205H130x
13	3500K	80	2924	3249	157	600	D	L2C5-35801205H130x
13	4000K	80	3060	3400	164	600	D	L2C5-40801205H130x
13	5000K	80	3017	3352	162	600	D	L2C5-50801205H130x
13	2700K	90	2621	2912	141	600	E	L2C5-27901205H130x
13	3000K	90	2730	3033	147	600	D	L2C5-30901205H130x
13	3500K	90	2839	3154	152	600	D	L2C5-35901205H130x
13	4000K	90	2936	3263	158	600	D	L2C5-40901205H130x
13	5000K	90	2937	3264	158	600	D	L2C5-50901205H130x
15	2700K	80	4199	4665	152	900	D	L2C5-27801208H150x
15	3000K	80	4374	4860	158	900	D	L2C5-30801208H150x
15	3500K	80	4505	5005	163	900	D	L2C5-35801208H150x
15	4000K	80	4590	5100	166	900	D	L2C5-40801208H150x
15	5000K	80	4568	5075	165	900	D	L2C5-50801208H150x
15	2700K	90	3935	4372	142	900	E	L2C5-27901208H150x
15	3000K	90	4191	4657	151	900	D	L2C5-30901208H150x
15	3500K	90	4270	4744	154	900	D	L2C5-35901208H150x
15	4000K	90	4405	4894	159	900	D	L2C5-40901208H150x
15	5000K	90	4419	4910	160	900	D	L2C5-50901208H150x
15	2700K	80	4118	4575	151	900	D	L2C5-27801210H150x
15	3000K	80	4289	4765	158	900	D	L2C5-30801210H150x
15	3500K	80	4437	4930	163	900	D	L2C5-35801210H150x
15	4000K	80	4536	5040	167	900	D	L2C5-40801210H150x
15	5000K	80	4487	4985	165	900	D	L2C5-50801210H150x
15	2700K	90	4032	4480	148	900	D	L2C5-27901210H150x
15	3000K	90	4167	4630	153	900	D	L2C5-30901210H150x
15	3500K	90	4281	4757	157	900	D	L2C5-35901210H150x
15	4000K	90	4449	4944	163	900	D	L2C5-40901210H150x
15	5000K	90	4515	5016	166	900	D	L2C5-50901210H150x
19	2700K	80	5648	6275	153	1200	D	L2C5-27801211H190x
19	3000K	80	5807	6452	157	1200	D	L2C5-30801211H190x
19	3500K	80	5922	6580	160	1200	D	L2C5-35801211H190x
19	4000K	80	6257	6953	169	1200	D	L2C5-40801211H190x
19	5000K	80	6185	6872	167	1200	D	L2C5-50801211H190x
19	2700K	90	5255	5839	142	1200	E	L2C5-27901211H190x
19	3000K	90	5601	6224	152	1200	D	L2C5-30901211H190x
19	3500K	90	5734	6371	155	1200	D	L2C5-35901211H190x
19	4000K	90	5865	6517	159	1200	D	L2C5-40901211H190x
19	5000K	90	5887	6541	159	1200	D	L2C5-50901211H190x
23	2700K	80	7664	8515	157	1600	D	L2C5-27801216H230x
23	3000K	80	7844	8715	161	1600	D	L2C5-30801216H230x
23	3500K	80	8001	8890	164	1600	D	L2C5-35801216H230x
23	4000K	80	8384	9315	172	1600	D	L2C5-40801216H230x
23	5000K	80	8303	9225	170	1600	D	L2C5-50801216H230x
23	2700K	90	7077	7864	145	1600	E	L2C5-27901216H230x
23	3000K	90	7358	8176	151	1600	D	L2C5-30901216H230x
23	3500K	90	7612	8458	156	1600	D	L2C5-35901216H230x
23	4000K	90	7720	8578	158	1600	D	L2C5-40901216H230x
23	5000K	90	7789	8654	160	1600	D	L2C5-50901216H230x

Table continued on next page:

1. Light Emitting Surface (LES) is the inner diameter (phosphor area) inside the dam.
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LUXEON CoB Core Range product performance at specified test current, T_j=85°C, Continued.

LES ^[1] (mm)	NOMINAL CCT	MINIMUM CRI ^[2, 3, 4]	LUMINOUS FLUX ^[2] (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TEST CURRENT (mA)	ENERGY EFFICIENCY CLASS ^[5]	PART NUMBER ^[6]
			MINIMUM	TYPICAL				
23	3000K	70	9720	10800	177	1200	C	L2C5-30701812H2300
23	4000K	70	10080	11200	183	1200	C	L2C5-40701812H2300
23	5000K	70	9990	11100	182	1200	C	L2C5-50701812H2300
23	2700K	80	8640	9600	157	1200	D	L2C5-27801812H2300
23	3000K	80	9180	10200	167	1200	D	L2C5-30801812H2300
23	3500K	80	9360	10400	170	1200	D	L2C5-35801812H2300
23	4000K	80	9540	10600	174	1200	C	L2C5-40801812H2300
23	5000K	80	9630	10700	175	1200	C	L2C5-50801812H2300
23	5700K	80	9360	10400	170	1200	D	L2C5-57801812H2300
23	6500K	80	9270	10300	169	1200	D	L2C5-65801812H2300
23	3000K	70	10800	12000	166	1440	D	L2C5-30701816H2300
23	4000K	70	11790	13100	181	1440	C	L2C5-40701816H2300
23	5000K	70	11700	13000	179	1440	C	L2C5-50701816H2300
23	2700K	80	10080	11200	155	1440	D	L2C5-27801816H2300
23	3000K	80	10544	11715	162	1440	D	L2C5-30801816H2300
23	3500K	80	10800	12000	166	1440	D	L2C5-35801816H2300
23	4000K	80	11124	12360	171	1440	D	L2C5-40801816H2300
23	5000K	80	11070	12300	170	1440	D	L2C5-50801816H2300
23	5700K	80	11070	12300	170	1440	D	L2C5-57801816H2300
23	6500K	80	10980	12200	168	1440	D	L2C5-65801816H2300

Notes:

1. Light Emitting Surface (LES) is the inner diameter (phosphor area) inside the dam.
2. Lumileds maintains a tolerance of ±2 on CRI and ±6.5% on luminous flux measurements.
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