

Ergon® COB

Ver. HO

Flip-chip COB, The Ultimate Reliability

Ergon COB Series, a new generation of high-power COB, brings industry-leading performance and reliability to various general lighting applications. Built on the **World's first Silver-free Flip-chip** technology. Ergon COB is able to deliver 15% more efficiency with improved thermal dissipation and longer durability. Ergon COB is free from wire bonding that can be easily broken upon electrical shock so as to provide excellent mechanical and electrical performance. All Ergon COB Series provide various options for size, power, color and 2nd optic solutions such as reflector and lens. It's time to incorporate Ergon COB into your lighting designs.

Features

- World's 1st Silver-free Flip-chip, Higher Reflectivity
- No wire bonding, Better Robustness
- Up to 10,000 lumens per array at 140 lm/w
- Lower Thermal Resistance, 40% higher LED Lifetime
- Better Current spreading, Lowest Droop

Applications

- Down Light
- Spot Light
- Bulb
- Flood Light
- High Bay Light
- Street Light

Electro-Optical Characteristics

Ra70

(T_j=85°C)

	Model No	Power [W]	SIZE [mm]	Rth [°C/W]	CRI [Ra]	Input Voltage [V]	CCT [K]	Lumen Output [lm]	Efficacy [lm/W]	Forward Current[mA] Typ. Max
1304HO	ERC1304S740HO ERC1304S750HO	3.4	13.35x13.35x1.7 (LES 6.0)	3.6	70+	33.8	4000 5000	536 536	158 158	100/300
1507HO	ERC1507S740HO ERC1507S750HO	6.8	15.85x15.85x1.7 (LES 8.9)	2.0	70+	34.2	4000 5000	1092 1092	151 151	200/380
1512HO	ERC1512S740HO ERC1512S750HO	11.5	15.85x15.85x1.7 (LES 8.9)	2.0	70+	33.8	4000 5000	1922 1922	167 167	330/600
1812HO	ERC1812S740HO ERC1812S750HO	11.5	17.85x17.85x1.7 (LES 12.0)	2.0	70+	33.8	4000 5000	3140 3140	152 152	330/600
1820HO	ERC1820S740HO ERC1820S750HO	20.8	17.85x17.85x1.7 (LES 12.0)	1.7	70+	34.6	4000 5000	3140 3140	152 152	600/1100

- Note:
- 1. () LES Size (Light Emitting Surface)
 - 2. Typical Luminous Flux value / T_j=85 °C
 - 3. Accuracy : CRI (±2), lm (±7%), Dimension (±0.2mm)
 - 4. Specifications can be changed without advance notice.
 - 5. Installation shall follow cautions and guidance that Lumens provides.

Electro-Optical Characteristics

Ra70
(T_j=85°C)

	Model No	Power [W]	SIZE [mm]	Rth [°C/W]	CRI [Ra]	Input Voltage [V]	CCT [K]	Lumen Output [lm]	Efficacy [lm/W]	Forward Current[mA] Typ. Max
2520HO	ERC2520S740HO ERC2520S750HO	20.7	23.85x23.85x1.7 (LES 19.0)	1.0	70+	34.5	4000 5000	3140 3140	151 151	600/1100
2530HO	ERC2530S740HO ERC2540S750HO	28.4	23.85x23.85x1.7 (LES 19.0)	0.9	70+	33.5	4000 5000	4442 4442	148 148	850/1600
2540HO	ERC2540S740HO ERC2540S750HO	40.0	23.85x23.85x1.7 (LES 19.0)	1.0	70+	33.6	4000 5000	5870 5870	147 147	1150/2100
3050HO	ERC3050S740HO ERC3050S750HO	48.7	27.35x27.35x1.7 (LES 23.0)	0.6	70+	34.2	4000 5000	7760 7760	159 159	1400/2500
3070HO	ERC3070S740HO ERC3070S750HO	70.1	27.35x27.35x1.7 (LES 23.0)	1.0	70+	34.4	4000 5000	10500 10500	150 150	2000/3800

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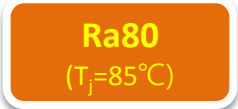
Electro-Optical Characteristics

Ra80
(Tj=85°C)

	Model No	Power [W]	SIZE [mm]	Rth [°C/W]	CRI [Ra]	Input Voltage [V]	CCT [K]	Lumen Output [lm]	Efficacy [lm/W]	Forward Current[mA] Typ. Max
1304HO	ERC1304S827HO	3.4	13.35x13.35x1.7 (LES 6.0)	3.6	80+	33.8	2700	431	127	100/300
	ERC1304S830HO						3000	462	136	
	ERC1304S835HO						3500	462	136	
	ERC1304S840HO						4000	499	147	
	ERC1304S850HO						5000	499	147	
1507HO	ERC1507S827HO	6.8	15.85x15.85x1.7 (LES 8.9)	2.0	80+	34.2	2700	945	139	200/380
	ERC1507S830HO						3000	945	139	
	ERC1507S835HO						3500	1019	150	
	ERC1507S840HO						4000	1019	150	
	ERC1507S850HO						5000	1092	161	
1512HO	ERC1205T827HO	11.5	15.85x15.85x1.7 (LES 8.9)	2.0	80+	33.8	2700	1511	131	330/600
	ERC1205T830HO						3000	1511	131	
	ERC1205T835HO						3500	1625	141	
	ERC1205T840HO						4000	1625	141	
	ERC1205T850HO						5000	1625	141	
1812HO	ERC1812S827HO	11.5	17.85x17.85x1.7 (LES 12.0)	2.0	80+	33.8	2700	1670	145	330/600
	ERC1812S830HO						3000	1670	145	
	ERC1812S835HO						3500	1796	156	
	ERC1812S840HO						4000	1796	156	
	ERC1812S850HO						5000	1796	156	
1820HO	ERC1820S827HO	20.8	17.85x17.85x1.7 (LES 12.0)	1.7	80+	34.6	2700	2730	131	600/1100
	ERC1820S830HO						3000	2730	131	
	ERC1820S835HO						3500	2919	140	
	ERC1820S840HO						4000	2919	140	
	ERC1820S850HO						5000	3140	151	

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Electro-Optical Characteristics



	Model No	Power [W]	SIZE [mm]	Rth [°C/W]	CRI [Ra]	Input Voltage [V]	CCT [K]	Lumen Output [lm]	Efficacy [lm/W]	Forward Current[mA] Typ. Max
2520HO	ERC2530S827HO	20.7	23.85x23.85x1.7 (LES 19.0)	1.0	80+	34.5	2700	2808	136	600/1100
	ERC2530S830HO						3000	2808	136	
	ERC2530S835HO						3500	3002	145	
	ERC2530S840HO						4000	3002	145	
	ERC2530S850HO						5000	3229	156	
2530HO	ERC2530S827HO	30.0	23.85x23.85x1.7 (LES 19.0)	0.9	80+	33.5	2700	3784	126	850/1600
	ERC2530S830HO						3000	4048	135	
	ERC2530S835HO						3500	4048	135	
	ERC2530S840HO						4000	4351	145	
	ERC2530S850HO						5000	4351	145	
2540HO	ERC2540S827HO	40.0	23.85x23.85x1.7 (LES 19.0)	1.0	80+	33.6	2700	5346	134	1150/2100
	ERC2540S830HO						3000	5346	134	
	ERC2540S835HO						3500	5748	144	
	ERC2540S840HO						4000	5748	144	
	ERC2540S850HO						5000	6149	154	
3050HO	ERC3050S827HO	48.7	27.35x27.35x1.7 (LES 23.0)	0.6	80+	34.2	2700	6752	139	1400/2500
	ERC3050S830HO						3000	6752	139	
	ERC3050S835HO						3500	7256	149	
	ERC3050S840HO						4000	7256	149	
	ERC3050S850HO						5000	7256	149	
3070HO	ERC3070S827HO	70.1	27.35x27.35x1.7 (LES 23.0)	1.0	80+	34.4	2700	8925	127	2000/3800
	ERC3070S830HO						3000	9450	135	
	ERC3070S835HO						3500	9975	142	
	ERC3070S840HO						4000	9975	142	
	ERC3070S850HO						5000	10500	150	

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Electro-Optical Characteristics

Ra90
(Tj=85°C)

	Model No	Power [W]	SIZE [mm]	Rth [°C/W]	CRI [Ra]	Input Voltage [V]	CCT [K]	Lumen Output [lm]	Efficacy [lm/W]	Forward Current[mA] Typ. Max
1304HO	ERC1304S927HO ERC1304S930HO	3.4	13.35x13.35x1.7 (LES 6.0)	3.6	90+	33.8	2700 3000	373 399	110 117	100/300
1507HO	ERC1507S927HO ERC1507S930HO	6.8	15.85x15.85x1.7 (LES 8.9)	2.0	90+	34.2	2700 3000	767 819	113 120	200/380
1512HO	ERC1512S927HO ERC1512S930HO	11.5	15.85x15.85x1.7 (LES 8.9)	2.0	90+	33.8	2700 3000	1226 1311	107 114	330/600
1812HO	ERC1812S927HO ERC1812S930HO	11.5	17.85x17.85x1.7 (LES 12.0)	2.0	90+	33.8	2700 3000	1355 1449	118 126	330/600
1820HO	ERC1820S927HO ERC1820S930HO	20.8	17.85x17.85x1.7 (LES 12.0)	1.7	90+	34.6	2700 3000	2205 2373	107 115	600/1100

- Note:
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 - 2. Typical Luminous Flux value / Tj=85 °C
 - 3. Accuracy : CRI (±2), lm (±7%), Dimension (±0.2mm)
 - 4. Specifications can be changed without advance notice.
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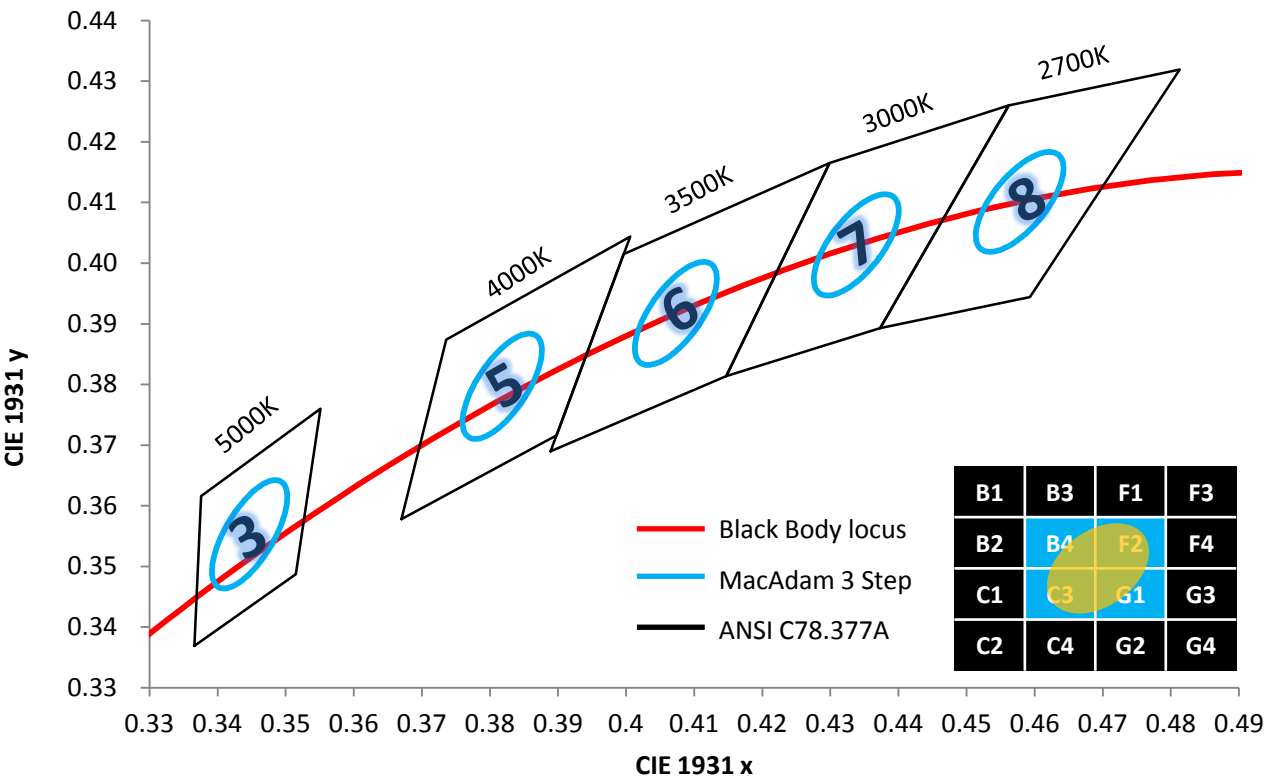
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2520HO	ERC2520S927HO ERC2520S930HO	20.7	23.85x23.85x1.7 (LES 19.0)	1.0	90+	34.5	2700 3000	2205 2373	107 115	600/1100
2530HO	ERC2530S927HO ERC2540S930HO	30.0	23.85x23.85x1.7 (LES 19.0)	0.9	90+	33.5	2700 3000	3140 3360	105 112	850/1600
2540HO	ERC2540S927HO ERC2540S930HO	40.0	23.85x23.85x1.7 (LES 19.0)	1.0	90+	33.6	2700 3000	4153 4442	104 111	1150/2100
3050HO	ERC3050S927HO ERC3050S930HO	48.7	27.35x27.35x1.7 (LES 23.0)	0.6	90+	34.2	2700 3000	5486 5870	113 121	1400/2500
3070HO	ERC3070S927HO ERC3070S930HO	70.1	27.35x27.35x1.7 (LES 23.0)	1.0	90+	34.4	2700 3000	7760 7760	111 111	2000/3800

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Chromaticity Binning



Mechanical Dimension

