

**PHILIPS**

**LUMILEDS**

sense **and** simplicity

# LUXEON Chip on Board Media Package

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# LUXEON CoB

LUXEON CoB delivers the best uniformity for high efficacy cost-effective solutions



## Philips Lumileds CoB breaks new frontiers



## Features

- Efficacy: **120lm/W** hot, at 36V typical
- Very small LES (Light Emitting Surface)
- Better uniformity than competition
- 3 step and 5 step solutions available
- 85 degrees testing
- Existing Ecosystem due to similar board design/solder pad lay-out

/830	1203	1204	1205	1208
Lumens (typ.)	1150	1725	2300	3450
If	300mA	450mA	600mA	900mA
LES (mm)	9	13	13	15

	2700	3000	3500	4000	5000	5700
70				Oct	Oct	Oct
80	May	May	Oct	May	May	
90	Oct	May		Oct		

## Benefits

- Breakthrough in LED efficacy
- Enables smaller and cheaper reflectors
- More uniform and crisp light beams
- Robust MCPCB solution makes it easier to handle in design and production

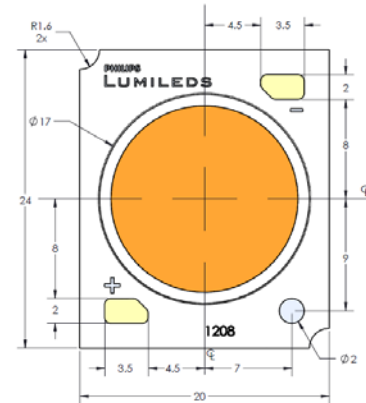
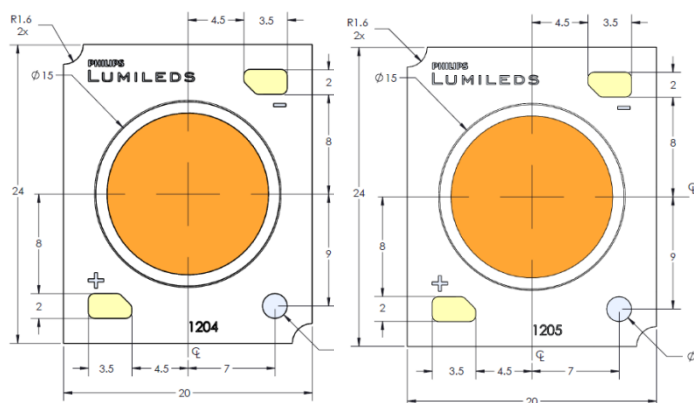
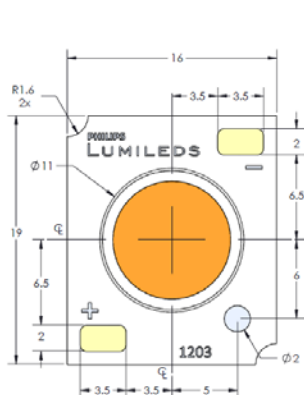
# Why a LUXEON CoB



- CoB market is growing faster than the General Illumination market.
  - “CoB market growing with ~50% YoY, reaching 20% of the total Illumination market value by 2015” ([www.marketsandmarkets.com](http://www.marketsandmarkets.com)).
- CoB solutions are an easy replacement for traditional light sources as:
  - It is 1 light source and 1 lumen package, so it links to the Halogen, CFL and CDM lumen packages
  - It is an easy to implement Level 2 solution with complementary EcoSystem (holders, reflectors) at hand
- CoB solution has an advantage over single emitter solutions regarding:
  - CoB’s simplify system design (L2 vs L1) accelerating their time to market
  - Easy implementation and low costs in manufacturing processes
  - No shadows / lines
  - Smaller luminaires possible, easier to work with reflectors
  - Aesthetically pleasing luminaires due to single source
  - Good Color over Angle

# Philips Lumileds CoB

## Design variations



	A	B		C
Outline	16x19mm	20x24mm		20x24mm
LES	9 mm	13mm		15mm
Configuration	1203	1204	1205	1208
Typ Lumen	1150	1725	2300	3450
Nominal If	300mA	450mA	600mA	900mA
Efficacy typ	105lm/W	105lm/W	105lm/W	105lm/W

# LUXEON CoB compared to competition

## CoB Market specifically - conclusion

- |   |                                    |
|---|------------------------------------|
| • Highest flux density in CoB solutions           | Up to 1.5x better                  |
| • Highest Efficacy, given a the smallest LES      | Market leadership up to 120lm/W    |
| • Best source uniformity                          | Zhaga Uniformity > 95%             |
| • Best Thermal Resistance                         | Up to 2x better                    |
| • Robust MCPCB solution                           | Better handling in production      |
| • Tested and guaranteed at application conditions | 85 Tj tested                       |
| • Better maximum Vf solution                      | 39V Max                            |
| • Philips Lumileds solution                       | More cross-licences vs competition |

# EcoSystem

Full EcoSystem available at launch

- Available clamps and reflectors (examples below)



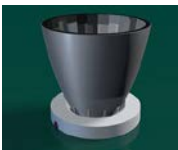
Z50-Series



Lena/Lenina,  
Angela/Angelina



Newton



1204 – 1205 - 1208

**molex**® J&L Series



Barbara,  
Bridget,  
Lena



1203

\*\*Click on the logo's for the hyperlink to the products\*\*

