

## Relationship between Chip Position and Directivity

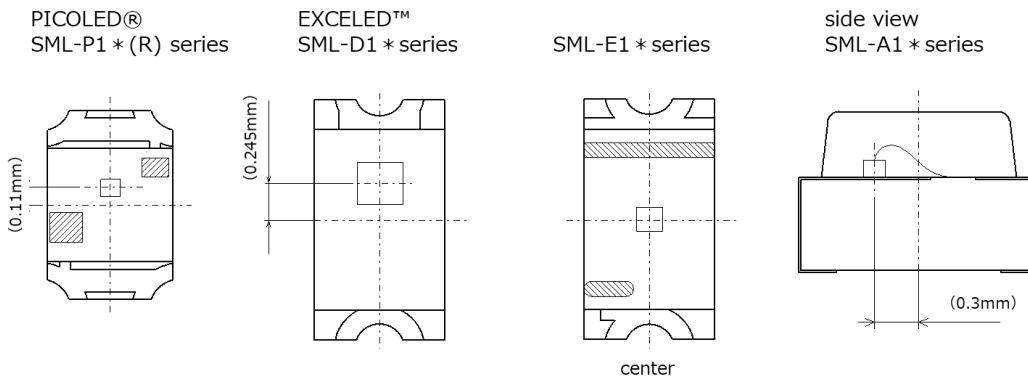
# About Relationship between Chip Position and Directivity

Not all products with chip LEDs have an LED chip at the center of the product. As a result, there are products whose light intensity changes depending on the orientation of the product during mounting. The following is an explanation of the relationship between the two.

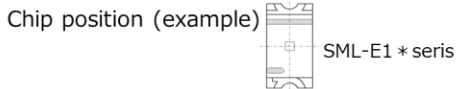
### About Chip Position

For chip LEDs, a die bonding area and a wire bonding area are required to mount the LED chips. Therefore, depending on the chip size and wire bonding method, some products may not have a chip in the center of the product.

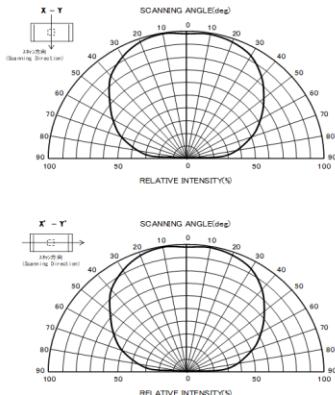
[Example.]



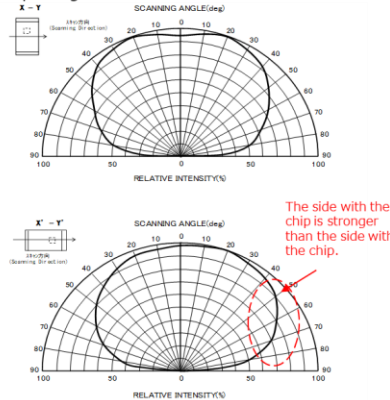
### Chip Position and Directivity



Chip position (example)  
[directional characteristics]



The position of the LED chip is out of alignment with the package center



Some LED products require a chip mounting (DB) and wiring (WB) area, so some products have the chip in the center of the package and others do not. If optical characteristics are important, please check the directional characteristics.

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