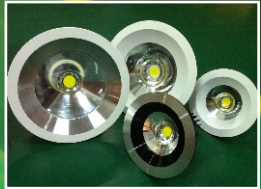


GreenLumen is delighted to offer you a wide range of high-quality products which combine cutting edge design with practical functions to address the demand for eco-friendly, energy efficient and yet reasonably priced LED lighting solutions.



We specialize in high-powered recess and spot lights from 10w to 80w in various designs used in hotels, clubs, convention halls, residential and commercial building. Our patented heatsink designs enable us to make recess and spot lights that are small but dissipate heat effectively.



CFL contains mercury and is environmentally unfriendly. Its health risk far out-weighs its energy-saving advantage. CFLs are easily replaced by similar LED light tubes. Our LED T8s are not only brighter and more durable, they also last much longer.



LED Tracklights are also quickly replacing incandescent ones. Its visible heatsink is not only aesthetically designed but is also designed to dissipate heat effectively.



Incandescence bulbs are now retrofitted with similar LED bulbs with significant cost savings. In GreenLumen, we have a range of well designed MR16, A60 and Par light bulbs to compliment our range of light products.



Finally, we also design decorative lights for that truly special occasion or events – for some, those memorable moments could last a lifetime. Check out our patented LED candles and the range of RGB mood lights.

Please refer to our website for product specifications.

GreenLumen recognizes the need to look beyond the current use of inefficient incandescent lights or environmentally unfriendly CFLs to solid-state, mercury-free LEDs that keep our environment safe, significantly reduce energy consumption, and offer greater flexibility as application lights.

By continually tapping on the latest LED light technology and working closely with creative designers, architects and LED manufacturers, we are able to offer our customers creative and practical advice to achieve optimal state-of-the-art LED solutions and light products.

In GreenLumen we place a great deal of emphasis on our heatsink design to ensure our well-built LED lights dissipate heat effectively.

Using an advance forging technique on wrought aluminum, coupled with our special heatsink designs, we create a real technological advantage over our competitors in the area of effective thermal management.

#### What GreenLumen can do for you

- LED light designing
- Thermal management services
- LED light manufacturing
- Heatsink manufacturing

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GREENLUMEN



[www.greenlumen.com](http://www.greenlumen.com)



## GreenLumen Heatsink

We have an excellent range of specially designed heatsinks that are used in various types of LED lights with wattages from 7w to 80w.

These heatsinks are made of wrought aluminum alloy with good heat dissipation properties. Using special forging techniques, we minimize the microstructure (zero porosity) of these alloys to improve their heat dissipation capability.

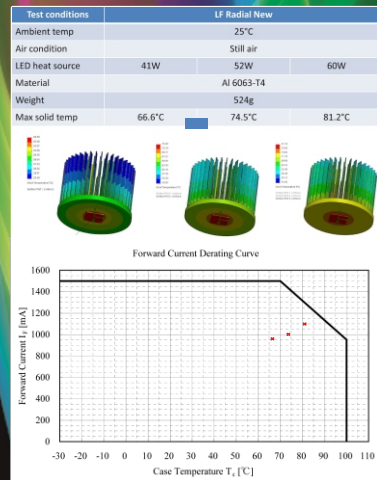
Our forging technique enables us to design unique "one-piece" heatsink that has no gap between the heatsink base and its fins. In addition, these heatsinks have high aspect ratio with very thin fins features that further improve their heat dissipation speed.

***In general, our heatsink is 50% lighter, achieves 30% cooler LED, resulting in 20% increase in LED brightness compared with similar size extruded heatsink or cast alloy heatsink.***



Heatsink Series	Wattage
D46/50	7w-12w
D56	13w-16w
D76	18w-25w
D106	30w-45w
D126	60w-80w

Various types of forged wrought aluminum alloy for recess light, spot light and track light with wattages ranging from 7w to 80w.

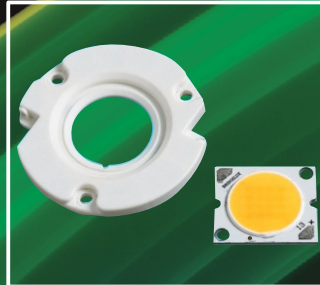


Thermal management analysis to optimize the effectiveness of our heatsinks.

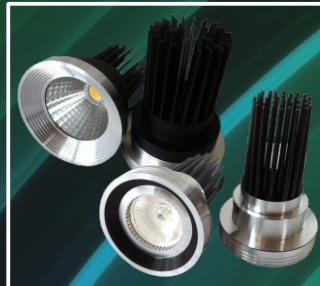
In this example, our 40w, 50w and 60w LED lights using Sharp DME have  $T_c$  well within manufacturer's recommendations.



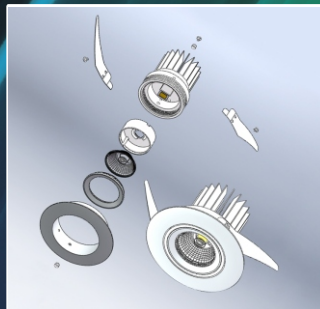
We design and manufacture high quality optical lens and reflectors to maximize the lumen output of each LED light we make.



We also design and manufacture the appropriate LED holders. No detail is too small for us.



Our patented high aspect ratio fin design heatsinks make our LED lights outperform many in the market.



Using the latest design tools and computer program, we simulate the prototype LED light design to analyze their performance and ensure customer acceptance before manufacturing begins, minimizing re-work and time lost.

In GreenLumen, we make our lights to last; to ensure that our customers fully enjoy the benefits of their investment in our lights for many years to come.



These 15w to 22w recess lights used in both residential and commercial establishments have slightly wider and taller fin heatsinks. Each of this forged heatsink has 30 fins and weighs 200g.

This light is carefully crafted to look great as well as functional. Using different lens, our customer can creatively customize this recess light to make a unique and one-of-a-kind impression (eg: corporate ID).



Our 30w to 40w recess lights are generally used in commercial buildings with high ceiling. For safety and aesthetic reasons, these recess lights are designed to have relatively small heatsinks that weigh no more than 250 g each.

They too are forged using aluminum alloy with good heat dissipation properties. But despite their small size, these heatsinks can effectively dissipate heat much more efficiently than most heatsinks available in the market.



It is increasingly common to replace high wattage incandescent light bulbs (>100w) with LED lights to reduce energy and maintenance costs.

Using our highly effective, 78-fin forged heatsinks, we make our 40w to 60w LED recess / spot lights small, light yet brighter than most incandescent lights they replace.

Besides high lumen requirement, such high-powered LED lights must be durable, safe and visually striking, as they are likely to form part of the interior features where the lights are used. It is this kind of challenge we, in GreenLumen, are delighted and confident to take on.