

ASX Announcement

03 August 2026

Independent Customer Testing Demonstrates VHD Cooling Advantage

Highlights

- Independent comparator testing of a VHD heat sink and an aluminium heat sink under a passive-air cooling environment has been completed. Testing was conducted by a supplier of LED industrial lighting, a potential customer for GCM.
- The results exceeded GCM's expectations for a relatively low heat-flux, passively cooled application and provide a basis for evaluation of VHD heat sinks in the potential customer's extended product range encompassing higher heat flux environments.
- The VHD-equipped modules recorded a more consistent temperature profile, demonstrating VHD heat sink's enhanced thermal conductance.
- With the light housing fully closed, the VHD-equipped module recorded an LED surface temperature 3.1°C lower for the 25W streetlight module.
- For the 40W streetlight module, the VHD-equipped module recorded an LED surface temperature 3.3°C lower than the aluminium comparator.
- These test results highlight the superior thermal performance of VHD.
- The testing is preliminary and does not constitute a purchase order or a binding commercial agreement.
- Product testing with other potential customers continues, with 12 additional VHD products currently with potential customers for testing and another 10 VHD products at various stages of design and manufacture.

GCM Corporation Limited (ASX: "GCM" or the "Company") reports the results of independent preliminary comparative testing undertaken by a supplier of industrial LED lighting products and a potential customer of GCM. The potential customer independently compared LED modules fitted with a GCM VHD heat sink against parallel modules fitted with an aluminium heat sink.

Under comparable test conditions, the VHD-equipped module recorded lower measured LED surface temperatures from both the 25W and 40W LED light modules. The testing was undertaken in a passively cooled streetlight housing, without forced air or liquid cooling.

Commenting on the potential customer test results, CEO and Managing Director Clinton Booth said:

"For the first time, we have received the results of a VHD heat sink included in a potential customer's end product."

“The results are especially pleasing as not only do they demonstrate a lower device temperature, but they also show a more consistent temperature profile of the VHD-equipped LED module compared to the aluminium module. This more consistent temperature profile demonstrates VHD heat sink’s enhanced thermal conductance, transferring heat away from the heat source more effectively, in this case the LED unit.

“Following these results, testing will now be extended to higher heat flux products, and we look forward to continuing our work with this potential customer on their higher powered and higher heat flux products.

“While our material testing results demonstrated that VHD could outperform conventional materials such as aluminium, these results have exceeded our expectations. GCM’s technical expectation is that VHD’s thermal conductivity and heat-spreading characteristics may provide greater performance differentiation in higher heat flux applications and when integrated with forced air or liquid cooling systems. These potential customer results indicate that a VHD heat sink can provide improved thermal performance in relatively low heat-flux, passively cooled applications.

“GCM is evaluating VHD heat sinks for other applications, such as power electronics, AI server and data centre hardware, and industrial electronics, and these test results point to the broader potential for VHD across these markets.”

Customer Testing Programme

The testing program conditions described by the potential customer include using switched-mode power supply capacities of 25W and 40W, with the security-light top cover fully closed (as per normal operating conditions) and with thermal grease applied between the printed circuit board and the heat sink. The ambient temperature was approximately 25°C during air-conditioned working hours and 28-29°C overnight when air conditioning was off.

Comparative Results

The following table presents the potential customer-recorded temperatures from the tests. Testing was conducted in parallel, and each comparison is between the aluminium (Al) and VHD configurations under the same stated test condition.

Nominal setting	Test condition	Al LED temp.	VHD LED temp.	VHD LED benefit	Al sink temp.	VHD sink temp.
25 W	Fully closed; thermal grease; ambient 28-29°C	47.8°C	44.7°C	3.1°C lower	44.3°C	43.5°C
40 W	Fully closed; thermal grease; ambient about 25°C	62.2°C	58.9°C	3.3°C lower	54.4°C	56.9°C

Note: The same heat sink design and thermal grease was used for both products. Testing occurred in parallel and with the units side by side. Comparator material is 6000 series aluminium alloy.

At the nominal 25W setting, the measured temperature difference between the LED module and heat sink was 3.5°C for aluminium and 1.2°C for VHD. At the nominal 40W setting, the corresponding difference was 7.8°C for aluminium and 2.0°C for VHD. At the 40W setting, the VHD heat sink recorded a higher measured surface temperature than the aluminium heat sink while maintaining a lower LED temperature. GCM considers this result to be consistent with more effective transfer of heat from the LED into the heat sink, as evidenced by the smaller temperature differential between the LED and the heat sink.

Interpretation of Results

The results show the VHD-equipped LED modules operated at a lower measured surface temperature under both power-supply settings and with a more consistent temperature profile between the heat sink temperature and the LED module temperature. These results are particularly encouraging as the more consistent temperature profile of the VHD-equipped modules demonstrates enhanced thermal conductance of the VHD heat sinks.

Relevance to LED Lighting

Subject to product-specific design and qualification, lower LED operating temperatures can provide additional thermal margin, support higher light output within the same temperature limits, enable smaller or lighter cooling components, and potentially extend the LED's usable lifespan.

Commercialisation and Qualification Progress

The results from testing performed by this potential customer provide a basis for the parties to continue further evaluation activities, including VHD product optimisation, additional product opportunities and commercial discussions.

In parallel, GCM continues customer qualification activities. Under the joint development agreement¹ with Shenzhen Wanwei Heat Conduction Technology Co., Ltd. (ALVC), two products have been selected for evaluation. The product designs have been completed and prototyping has begun.

GCM has customer evaluation activities across various sectors and geographies, including Australia, South-East Asia, China, Korea, Japan, Europe and the UK, and North America. GCM currently has potential customer programmes where a further 12 VHD products are with potential customers for testing and another 10 products are at various stages of design or manufacture. These programmes include replacement of existing thermal-management components, design-in of VHD components into integrated cooling solutions and the addition of VHD to existing cooling products to improve thermal conductance.

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Authorisation

This announcement has been authorised for release to the ASX by the Board of Directors of GCM Corporation Limited.

Forward-Looking Statements

This announcement contains general information about GCM's activities current as at the date of the announcement. The information is provided in summary form and does not purport to be complete. This release contains estimates and information concerning our industry and our business, including estimated market size and projected growth rates of the markets for our products. Unless otherwise expressly stated, we obtained this industry, business, market, and other information from reports, research surveys, studies,

¹ See ASX announcement dated 30 June 2026

and similar data prepared by third parties, industry, and general publications, government data, and similar sources. This announcement also includes certain information and data that is derived from internal research.

While we believe that our internal research is reliable, such research has not been verified by any third party. Estimates and information concerning our industry and our business involve a number of assumptions and limitations. Although we are responsible for all the disclosure contained in this announcement and we believe the third-party market position, market opportunity and market size data included in this announcement are reliable, we have not independently verified the accuracy or completeness of this third-party data.

Information that is based on projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, which could cause results to differ materially from those expressed in these publications and reports.