Improved Energy Performance

The **GL520** was designed in New Zealand and manufactured specifically to comply with the relevant sections of the AS/NZS1158.6 standard.

The GL520 incorporates the Betacom Photon LED Module, **now available with improved higher flux values**. Into a quality casting based on the successful GL500. This new casting, redesigned specifically for LED technology provides excellent thermal performance.

The low profile visor has been developed to create exceptional spacing with an UWLR of 0%.

Designed for functional lighting, with multiple light output levels the GL520 will provide flexibility for designers as they look to deliver optimal spacing whilst maximising energy savings.

Backed by a **10 year warranty** the GL520 will continue to provide the best total cost of ownership over the life of the luminaire.

Typical Applications

- Road lighting to Category P.
- Flag Light in line with NZTA TM-2015 Guideline
- Car parks and security lighting.
- Cycle and pathways.
- Industrial areas.

Key Features

- Designed for Australian and New Zealand conditions.
- Auckland Transport (ATCOP), Christchurch City Council & NZTA M30 Approved.
- CMS Ready, available with 5 or 7 Pin Nema base.
- Basic & Premium drivers available.
- UWLR = 0%.
- IP66 (entire luminaire).
- Powder coat finish, Dulux Silver. (Other colours on request)
- Light weight and easy to install.
- Locally designed precision optics.
- Cree XT-E LED's.
- Colour temperature: 4000°K.
- Colour rendering Index: ≥ 70.
- LED module temperature protection.
- Surge Protection: 10kV/10kA.

Installation

Light weight 3.2kg, easy to install, accepts spigot sizes from 25mm to 44mm O.D.

Materials

- Head Casting: High pressure die cast from corrosion resistant aluminium.
- Visor: Low profile high Impact acrylic - UV Resistant
- Fasteners: All fasteners, clips, hinges and bolts are made from stainless steel or aluminium.
- Mounting Clamp: Stainless steel.

Quality System

Betacom operates an externally audited and registered quality system that complies with AS/NZS ISO 9001.

Photometric Data

All photometric data is produced in our independently audited and accredited Photometric Laboratory. Betacom's laboratory is accredited by IANZ (International Accreditation New Zealand).

Lighting Design Service

Betacom provides a comprehensive lighting design service. This service is available free of charge to our customers. Designs are provided in accordance with AS/NZS 1158.1.1 and AS/NZS 1158.3.1.

Warranty

The GL520 is covered by a **10 year warranty**. An additional 10 year extended warranty is available for the premium driver version.
Contact Betacom for full warranty details.

Options

- Photocells, both NEMA and SS12A.
- Pole top adaptor bracket.
- Autonomous flexible dimming profiles.
- Internal tilt adjustment (± 5° ,10°and 15°).
- Traditional GL500 dished visor.
- Solar version

Premium Driver Features

Constant Light Output

The GL520 can be programmed at the factory to enable the luminaire to deliver constant lumens throughout the life of the luminaire.

This feature has 2 key benefits for the asset owner.

Firstly the right amount of light is delivered throughout the life of the luminaire minimising over lighting early in the life cycle of the luminaire.

Secondly energy savings of between 3 & 5% can be achieved over the lifetime of the luminaire.

Please note: this feature is optional and must be requested at the time of order.
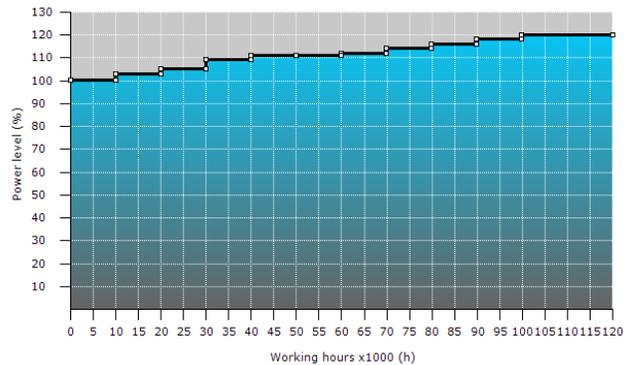
Autonomous Flexible Dimming Profiles

The GL520 can be programmed with a dimming profile to match the application and achieve further energy savings for the asset owner. Up to five levels and associated times can be set.

For example in periods of reduced activity, the light output of the luminaire can be reduced. As a result, substantial energy savings are available to the asset owner.

An override feature is also available. For example should increased activity be detected the luminaire will revert to 100% light output.

Please note: this feature is optional and must be requested at the time of order.

## LED Module Temperature Protection

The GL520 with the premium driver fitted includes LED module temperature protection. This feature ensures long term reliability of the luminaire should it be subjected to extreme temperatures that are outside of the specified ambient temperature for the luminaire.

During operation the driver monitors the temperature of the LED module and in cases of extreme ambient conditions, the driver will automatically dim the luminaire until conditions revert to normal.

In the case pictured on the right, the luminaire has been programmed to start dimming if the module temperature reaches 80°C. The luminaire will then dim down progressively to a level of 10% should the temperature continue to increase and reach 90°C. Once the temperature starts to reduce the luminaire will return to the normal output level.

Central Management System (CMS) Ready

The GL520 with premium driver fitted comes with both DALI and 0-10V dimming interfaces. As a result the GL520 is compatible with most commercially available Telemanagement and/or Central Management Systems (CMS). The GL520 can also be fitted with either the 5 or 7 pin Nema base. Please contact Betacom to find our more about this feature.

Betacom Photon LED Module

The Photon LED Module was designed and developed by Betacom in New Zealand to meet both Australian and New Zealand requirements.

The Photon LED Module utilises the Cree XT-E LED. This together with lenses that have been developed to meet the requirements of Category P (Pedestrian, Area and Minor Roads) lighting applications, provides exceptional performance in terms of spacing and low energy consumption.

The Photon LED module is equipped with module temperature protection and when used with the premium driver, ensures long term reliability if the luminaire is subjected to adverse conditions.

Each module is fitted with an LED shunt for every 4 LEDs. Should a single LED fail, the luminaire will continue to operate, the shunt will reset on the next power cycle should the LED fault clear.
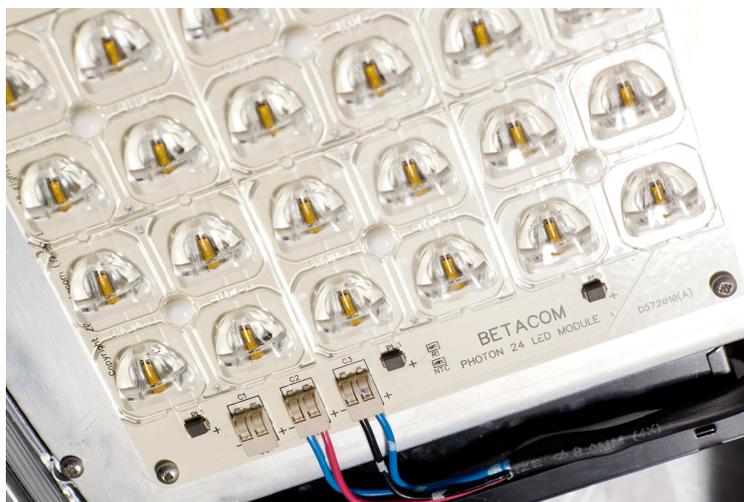
Specifications

Electrical

Input Voltage	120 - 277 VAC, 50/60Hz
Total Harmonic Distortion (THD)	< 20%
Power Factor	> 0.9
Surge Protection[1]	10kV/10kA
Driver Design Life (Premium)	100,000 hours
Driver Design Life (Basic)	> 50,000 hours

LED Type	Cree XT-E
Colour Temperature (CCT)	4000°K
Colour Rendering Index (CRI)	≥ 70

Typical Performance[2] (Refer Technical Bulletin)

Driver Current (mA)	145mA - 350mA
Total System Power (W)	13 - 33
Luminaire Total Flux (lm)	1465 - 3258
Luminaire Efficacy (lm/W)	109 - 114
Lifetime Residual Flux (L90)[3] @ Ta = 25°C[4]	> 100,000 hours

1: Surge protection levels are based on the luminaire being installed on a MEN (multiple earth neutral) network. Options are available for non MEN installations or for areas that are prone to a high level of lightning activity. Please contact Betacom for more information.
2. The above data are typical values only, for the complete set of data please refer to the Technical Bulletin available from the resource section of Betacoms website.
3. L90 means that after the number of hours indicated, the luminaire maintains 90% of its initial luminous flux.
4. TM-21-11 reports for the luminaire are available on request. LM80-08 data is also available for the Cree XT-E LED used in the luminaire. This data is used for calculation of the lumen depreciation projections for the luminaire and is based on actual temperature measurements within the luminaire.

Dimensional Data
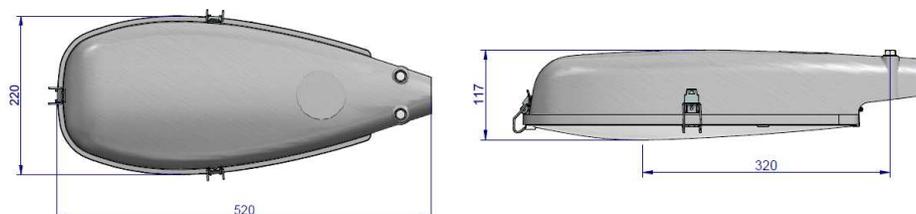
Weight: 3.2kg
Horizontal projected area: 0.07m^2
Coefficient of drag: 0.64

Photometric Data

Optic 7012

Optic 7022

Optic 7032
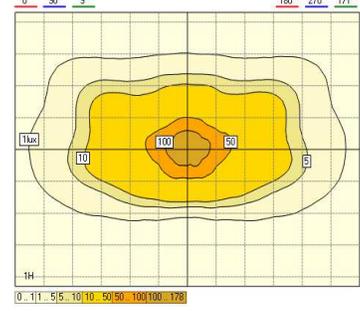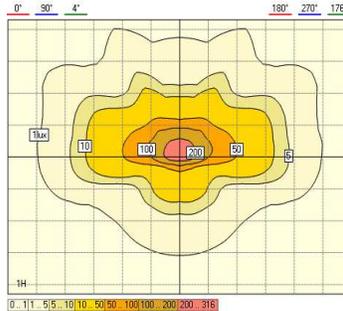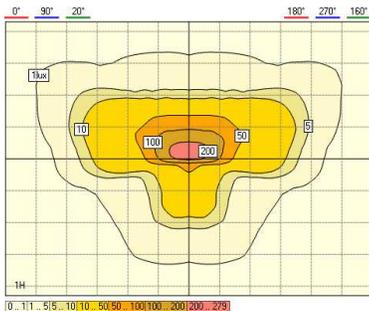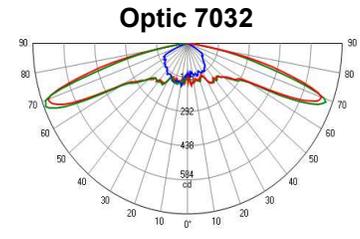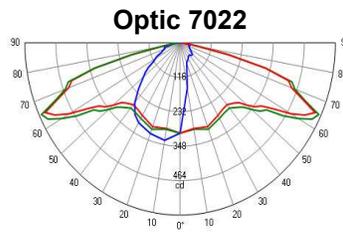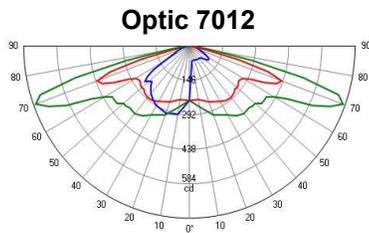
Detailed isolux diagrams and spacing tables are available on request. Photometric data is also available in IES and CIE formats.

Typical Ordering Information

Luminaire Model	Power	Optic	Visor	Driver	Options	Customer Profile
G L 5 2 0	- 1 7 W	- 7 0 1 2	- L	- P	- 0	- 0 0 0 0

1	7	W	17W luminaire power
2	7	W	27W luminaire power
2	9	W	29W luminaire power
3	1	w	31W luminaire power
3	3	W	33W luminaire power

7	0	1	2	Optic 7012
7	0	2	2	Optic 7022
7	0	3	2	Optic 7032

L	Low depth visor
D	Traditional GL500 visor

P	Premium Driver
B	Basic Driver

0	No option fitted
N	3 Pin NEMA base fitted
P	SS12A photocell fitted
R	Ripple Relay
U	5 Pin NEMA base and DALI interface
W	5 Pin NEMA base and 0-10V interface
X	7 Pin NEMA base and 0-10V interface

0	0	0	0	No profile loaded
A	0	0	1	Profile A001 loaded
.	.	.	.	
Z	9	9	9	Profile Z999 loaded

Please note that due to continuous advancements in LED technology and also ongoing product development these specifications are subject to change without notice.

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