

**Monday, 27 October 2014**

Mr David Ripper  
Senior Metrology Engineer  
Australian Energy Market Operator  
530 Collins St  
Melbourne, Victoria, 3000



Lamp Technology International Pty Ltd  
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[www.lamptech.com.au](http://www.lamptech.com.au)

**RE: Submission to include Giga-Tera LED Luminaires on the  
National Electricity Load Tables for Unmetered Connection Points**

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Dear David,

At the request of the Government of South Australia, Department of Planning, Transport and Infrastructure, we request two LED roadway luminaires be added to the AEMO load table:

- 1. META MT130: System Wattage = 132.6W**
- 2. META MT150: System Wattage = 151.5W**

Included with this application are the following documents:

- Letter of support from Department of Planning, Transport and Infrastructure (SA)
- SGS Blackburn – NATA Accredited Lamp Circuit Power Test Report
- Product data sheets from the manufacturer

*Notes:*

- Luminaire sample conditioned for at least 24 hours and Tested at 240V supply voltage at Ambient of  $20\pm 5$  °C. Product mounted in position as would be expected in normal use. Sample was operated until power measurement was considered to be stable.
- SGS have used the test method of AS/NZS 62301:2005 to determine lamp circuit power. The standard is intended for household electrical appliances however the method used will be the same when measuring a luminaire for standby or active power.
- Voltech PM1000+ power analyser was used for the load measurements. Calibration due in April 2015. Uncertainty: AC Voltage 0.3%, AC Current 0.5%, AC Wattage 0.5%
- Circuit power test completed without Photocell switch
- The luminaires will not have dimming functionality
- External marking will be in the form of a sticker placed inside the pole to comply with the requirements of AS/NZS1158.6

We trust this submission meets your approval but please contact me at any time to request further information as required.

Best Regards,

A handwritten signature in black ink, appearing to read 'Andy Moore'.

Andy Moore  
General Manager



Andy Moore  
Lamp Technology International Pty Ltd  
Unit 18  
41 – 49 Norcal Road  
NUNAWADING VIC 3131

**ELECTRICAL ASSET  
SECTION**

GPO BOX 1533  
ADELAIDE SA 5001

Telephone: 08 8226 8249  
Facsimile: 08 8226 8330

ABN 92 366 288 135

Dear Andy,

Re: Giga Tera Road Lighting Fittings

Thank you for supplying a sample of your road lighting LED fitting. The META MT 150 seems to have some very good elements to it, so the Department Of Planning, Transport & Infrastructure would like to trial the MT150 on one of our new projects.

For this to occur we will need both the MT150 and the MT130 to be approved and appear on the AEMO load table. Once this has occurred we will be able to arrange a new tariff with the local supply authority, SA Power Networks.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'R. J. Burt'.

Rick Burt  
Unit Manager  
Road Lighting and Marine  
Electrical Assets

16 October 2014

# Product Specification

## META 130W

LED Roadway Lighting



### Applications

Expressway  
Highway  
Street

### Certification

CE  
UL  
FCC  
DLC  
PSE

## Description

High Efficacy  
Excellent Light Distribution and Uniformity  
Wireless / Built-in 20KV Surge Protection Device.

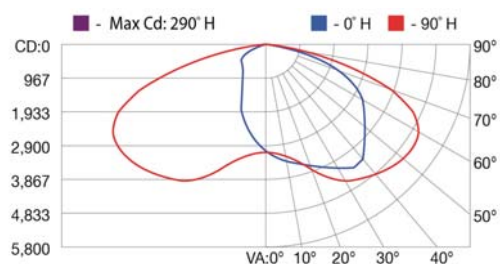
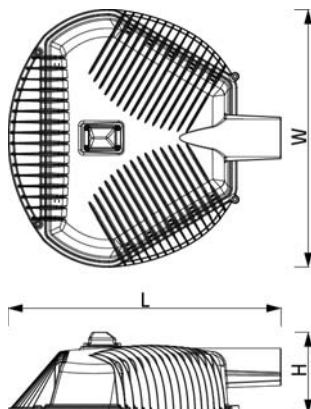
## Specifications

<b>Model Name</b>	MT130	
<b>Power Consumption</b>	130W	
<b>Correlated Color Temperature</b>	5000K (4000K available)	
<b>Luminous Flux *</b>	16,900 lm	
<b>Luminous Efficacy *</b>	130 lm/W	
<b>LED Driving Current *</b>	72.2 mA	
<b>Color Rendering Index</b>	80 Ra	
<b>Light Distribution</b>	Type III-S	
<b>BUG Rating</b>	B3 – U2 – G3 (Backlight – Uplight – Glare)	
<b>LED Chip Manufacturer</b>	SAMSUNG	
<b>Input Voltage</b>	100 - 277 Vac	
<b>Input Current</b>	Max 1.55A (@100Vac)	
<b>Power Factor</b>	≥0.9 at Max load	
<b>Frequency</b>	50 ~ 60 Hz	
<b>Surge Protection</b>	Line-Line 20KV, Line-FG 20KV	
<b>Driver Type</b>	Constant Current (CC)	
<b>Driver Manufacturer</b>	KMW INC. / Made in Korea	
<b>Size ( L x W x H )</b>	19.9 x 18.9 x 6.0 (inch)	505 x 480 x 152.8 (mm)
<b>Weight (Driver included)</b>	17.6 lb	8.0 Kg
<b>Material</b>	<b>Body</b>	Cast Aluminum
	<b>Optic</b>	Silver Coating Reflector
	<b>Cover</b>	Tempered Glass 4.0T (Clear)
<b>Finish</b>	Powder Coating	
<b>Protection</b>	<b>IP Rating</b>	IP66
	<b>IK Rating</b>	IK08
<b>Mounting Option</b>	Horizontal Tenon Mount	
<b>Mount Hole</b>	Ø2.38 inch Pipe Applied	Ø60.5 mm Pipe Applied
<b>Operating Temperature</b>	-22°F ~ 140°F	-30°C ~ 60°C
<b>Life Time</b>	50,000 Hours (@77°F / 25°C)	
<b>Warranty</b>	5 Years (12 hours usage per day)	
<b>Option</b>		
<b>Control System</b>	Wireless (ZigBee) / Sensor (Daylight)	
<b>Junction Box</b>	Horizontal Tenon Mount	

\*Tolerance : ± 5%

## Photometry

See photometric .ies files for details.



[ 5000K / Type III-S ]

# Product Specification

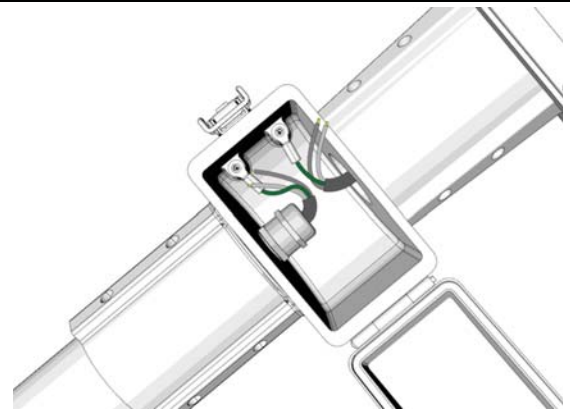
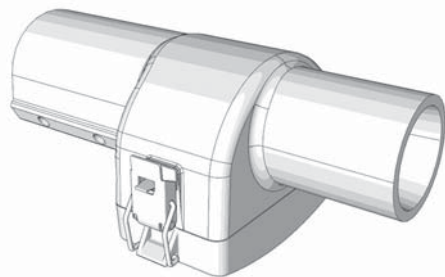
## META 130W

LED Roadway Lighting

### Control Specification (Optional)

ZigBee (Mesh Networking)		Wireless Control
Standard	2.4 GHz – IEEE 802.15.4 (Compatible)	
Network	Mesh	
RF Tx Power	Max. +8 dBm (Typ. 6 dBm)	
Data Rate	250 kbps	
Security	128 bit AES Encryption Algorithms	
Dimmer	PWM, 0 – 10 Vdc	
Antenna	Omni Type, 2 dBi	
Input Voltage	15 Vdc	
Max. Power Consumption	0.3 W (@15Vdc)	
Daylight Sensor		Smart Sensor Module
Operating Voltage Range	5 – 50 Vdc (TYP. 15 Vdc)	
Max. Power Consumption	0.6 W (@15Vdc)	
Detectable Illumination Range	9.2 – 92 fc (Default : 64 fc) / 100 – 1,000 lx (Default : 500 lx)	
LED Light Bi-level Setting	0 % to 30 % (Adjustable) / 10% (Default)	
Output Signal	PWM	

### Junction Box (Optional)



### Ordering Information

META : LED Roadway Lighting (Order Code Usage : MT130-A3S50NJG1)

MT	000	-	O	OO	OO	O	O	OO
	Power Consumption		Input Voltage	Distribution Type	CCT(K)	Dimming Control	Junction Box	Fixture Color
	100=100W 130=130W 150=150W 180=180W		A=100~277V B=100~240V	3S=Type III-S	40=4000 50=5000	A=Daylight Sensor N=None Z=ZigBee	N=None J=Junction Box	G1=Gray Powder

# Product Specification

## META 150W

LED Roadway Lighting



### Applications

Expressway  
Highway  
Street

### Certification

CE  
UL  
FCC  
DLC  
PSE

### Description

High Efficacy  
Excellent Light Distribution and Uniformity  
Wireless / Built-in 20KV Surge Protection Device.

### Specifications

Model Name	MT150	
Power Consumption	150W	
Correlated Color Temperature	5000K (4000K available)	
Luminous Flux *	19,500 lm	
Luminous Efficacy *	130 lm/W	
LED Driving Current *	68.2 mA	
Color Rendering Index	80 Ra	
Light Distribution	Type III-S	
BUG Rating	B3 – U2 – G3 (Backlight – Uplight – Glare)	
LED Chip Manufacturer	SAMSUNG	
Input Voltage	100 - 277 Vac	
Input Current	Max 1.9A (@100Vac)	
Power Factor	≥0.9 at Max load	
Frequency	50 ~ 60 Hz	
Surge Protection	Line-Line 20KV, Line-FG 20KV	
Driver Type	Constant Current (CC)	
Driver Manufacturer	KMW INC. / Made in Korea	
Size ( L x W x H )	19.9 x 18.9 x 6.0 (inch)	505 x 480 x 152.8 (mm)
Weight (Driver included)	17.6 lb	8.0 Kg
Material	Body	Cast Aluminum
	Optic	Silver Coating Reflector
	Cover	Tempered Glass 4.0T (Clear)
Finish	Powder Coating	
Protection	IP Rating	IP66
	IK Rating	IK08
Mounting Option	Horizontal Tenon Mount	
Mount Hole	Ø2.38 inch Pipe Applied	Ø60.5 mm Pipe Applied
Operating Temperature	-22°F ~ 140°F	-30°C ~ 60°C
Life Time	50,000 Hours (@77°F / 25°C)	
Warranty	5 Years (12 hours usage per day)	

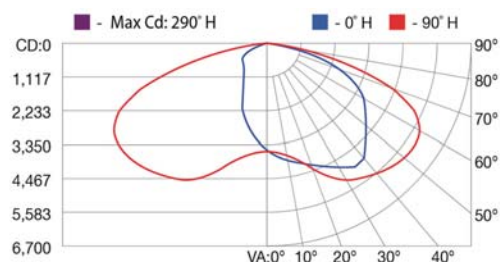
### Option

Control System	Wireless (ZigBee) / Sensor (Daylight)
Junction Box	Horizontal Tenon Mount

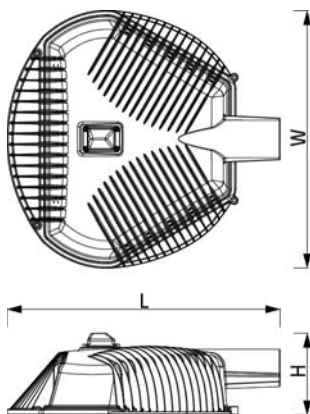
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### Photometry

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[ 5000K / Type III-S ]



# Product Specification

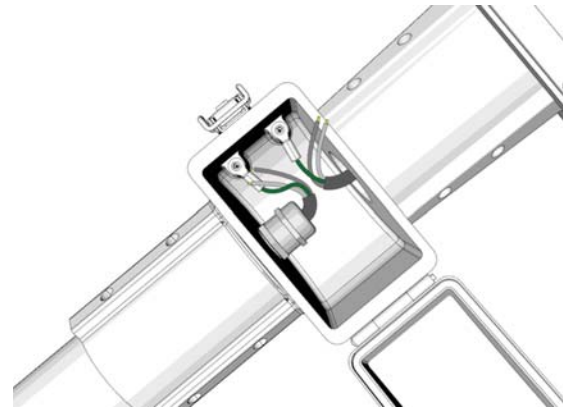
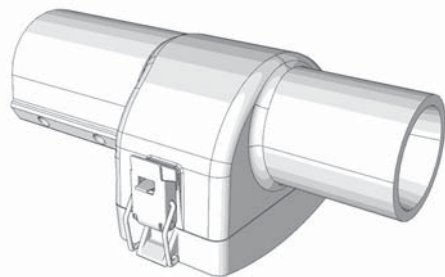
## META 150W

LED Roadway Lighting

### Control Specification (Optional)

ZigBee (Mesh Networking)		Wireless Control
Standard	2.4 GHz – IEEE 802.15.4 (Compatible)	
Network	Mesh	
RF Tx Power	Max. +8 dBm (Typ. 6 dBm)	
Data Rate	250 kbps	
Security	128 bit AES Encryption Algorithms	
Dimmer	PWM, 0 – 10 Vdc	
Antenna	Omni Type, 2 dBi	
Input Voltage	15 Vdc	
Max. Power Consumption	0.3 W (@15Vdc)	
Daylight Sensor		Smart Sensor Module
Operating Voltage Range	5 – 50 Vdc (TYP. 15 Vdc)	
Max. Power Consumption	0.6 W (@15Vdc)	
Detectable Illumination Range	9.2 – 92 fc (Default : 64 fc) / 100 – 1,000 lx (Default : 500 lx)	
LED Light Bi-level Setting	0 % to 30 % (Adjustable) / 10% (Default)	
Output Signal	PWM	

### Junction Box (Optional)



### Ordering Information

META : LED Roadway Lighting (Order Code Usage : MT150-A3S50NJG1)

MT	000	-	0	00	00	0	0	00
	Power Consumption		Input Voltage	Distribution Type	CCT(K)	Dimming Control	Junction Box	Fixture Color
	100=100W 130=130W 150=150W 180=180W		A=100~277V B=100~240V	3S=Type III-S	40=4000 50=5000	A=Daylight Sensor N=None Z=ZigBee	N=None J=Junction Box	G1=Gray Powder