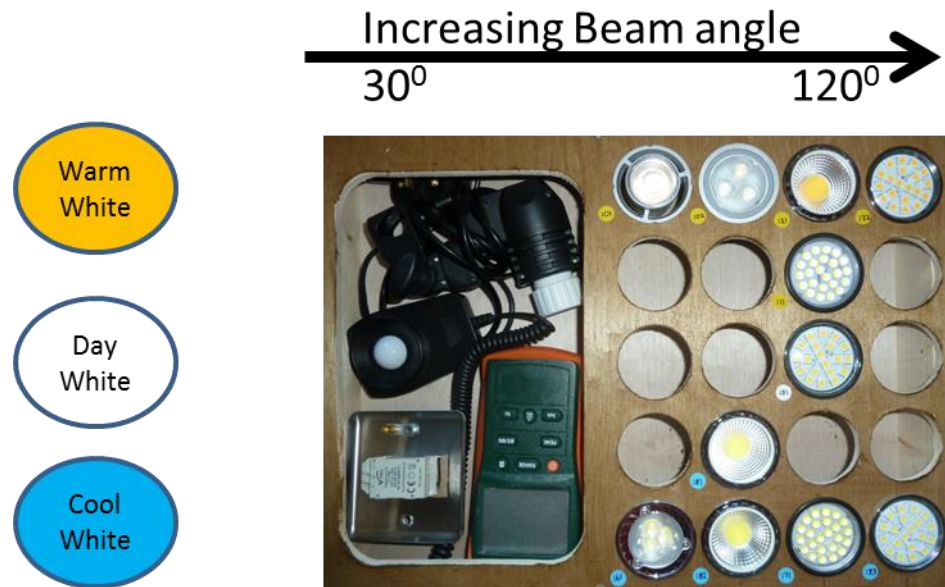


# 4

## MR16 'Database'

- These sheets contain a summary of the capabilities of each LED which has been assigned a unique number. The label on the bulb, its label to the bottom left of the hole (holder) in the kit, and the number to the top left of its entry in this 'database' should all correspond
- The kit with the yellowest bulbs at the top (yellow labels) through to the 'bluest' colour bulbs at the bottom. And, organised with the narrowest beam angles on the left through to the widest on the right:



- When selecting bulbs you should home in of the area of the tray which best represents your choice of beam angle and bulb colour
- There is less choice of MR16 LED bulbs than the mains powered GU10s largely because it is more difficult to make them compatible with transformers, dimmers and DAB radios (interference), our advice would be to try to switch to using GU10's via some minor rewiring. Please email Transition Bath ([ledlighting@transitionbath.org](mailto:ledlighting@transitionbath.org)) to let us know if you would like us to look again at finding more MR16's for the kit?

- Each entry in the following 'database' summarises the key characteristics of a bulb:

Colour: ranges from warm white to cool white

Wattage: this shouldn't matter too much as the shift from a 50W halogen to a 5W LED is more important than whether the LED is 4W or 6W!

Guarantee: you should aim to purchase bulbs with 3 or ideally 5 year guarantees. Most LEDs come with a quoted life of 25,000+ hours but this doesn't represent the reliability of the bulb well, the guarantee is a better indicator. Halogens have a 2,000 hour life.

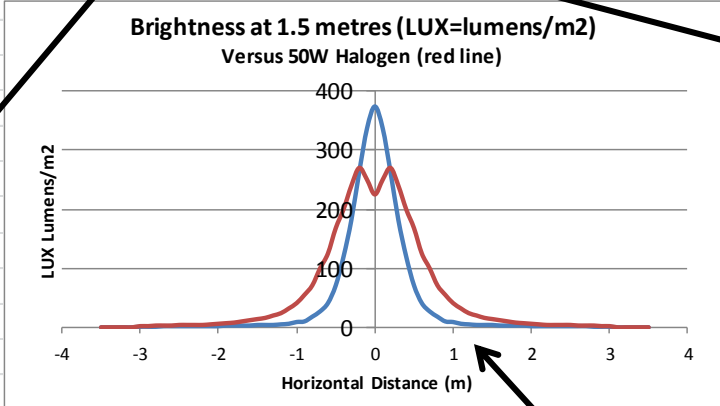
Depth: this is the depth of the bulb from face to socket. Halogens are about 55mm and most sockets will accommodate deeper LED bulbs – but you need to check by trying the bulbs in your light fittings

<b>1</b>		Description:		1 TCP Warm white GU10 4W 250lumen 30deg Normal £5	
Colour		Warm white			
Suppliers Specification		Transition Bath Measurement			
Lumens	250		252		
Beam Angle	30		15		
Wattage	4.0		4.2		
Cost (non-dim/dim)	£5/£0	Homebase			
Guarantee (yrs)	0				
Depth	50mm				
Dimmable	No				
Comment	Homebase LED - low lumen output, no guarentee				

Lumens defines how much light it outputs, 400 to 500 lumens is equivalent to a 50W halogen

Supplier and price: the price includes the prices of the dimmable and non-dimmable versions of the bulbs. £0 indicates there isn't that version available. In the online version of this database the link against the price takes you straight to the suppliers website

Dimmable: this just indicates whether the bulb in the kit is dimmable, not whether a version is available (see price above)



'Brightness graph' and 'Transition Bath Measurements': this is experimental and should not be taken as gospel, but has been provided for 2 reasons:

1. Manufacturer beam angles are necessarily a good indicator of the distribution of light, so we thought the brightness graph which we measured may help? The red line is a standard halogen bulb
2. Our experience we ebay sourced bulbs is that they very rarely met their specifications, so we started measuring them. The bulbs in this kit are from carefully selected suppliers whose figures for lumens and watts are reasonably accurate

## Table of characteristics:

Description	Socket Type	Colour	Colour Temperature (K)	Beam Angle	Wattage	Claimed Halogen Equivalent	Claimed lumens	CRI	Life (hours)	Guarantee	Depth (mm)	Distributor	Non-dim Cost	Dimmable Cost
101 Megaman Warm white MR16 6W 380lumen 24deg COB £11	MR16	Warm white	2800	24	6	38	380	80	25000	5	51	LEDStop	£11.20	£0.00
102 Toshiba Warm white MR16 7W 310lumen 35deg Normal £4	MR16	Warm white	3000	35	6.7	35	310	80	25000	0	50	Transition Bal	£3.50	£0.00
111 Lightwell Warm white MR16 5W 450lumen 60deg SMD £10	MR16	Warm white	3000	60	5	60	450	80	25000	5	55	LightRabbit	£9.56	£0.00
121 LUMiLife Warm white MR16 5W 320lumen 90deg COB £6	MR16	Warm white	3000	90	4.5	50	320	80	25000	5	55	LEDHut	£0.00	£6.39
122 LUMiLife Warm white MR16 4W 300lumen 120deg SMD £6	MR16	Warm white	3000	120	4	50	300	80	25000	5	45	LEDHut	£5.83	£0.00
151 LUMiLife Day white MR16 4W 320lumen 120deg SMD £6	MR16	Day white	4500	120	4	50	320	80	25000	5	0	LEDHut	£5.83	£0.00
161 Deltech Cool white MR16 5W 200lumen 38deg Normal £3	MR16	Cool white	6000	38	4.5	0	200	75	30000	0	51	Transition Bal	£2.50	£0.00
171 Lightwell Cool white MR16 5W 450lumen 60deg SMD £10	MR16	Cool white	6000	60	5	60	450	80	25000	5	55	LightRabbit	£9.56	£0.00
181 LUMiLife Cool white MR16 5W 360lumen 90deg COB £6	MR16	Cool white	6000	90	4.5	50	360	80	25000	5	55	LEDHut	£0.00	£6.39
182 Lightwell Cool white MR16 5W 420lumen 90deg COB £8	MR16	Cool white	6000	90	5	50	420	80	25000	5	55	LightRabbit	£8.32	£0.00
183 LUMiLife Cool white MR16 4W 320lumen 120deg SMD £6	MR16	Cool white	6000	120	4	50	320	80	25000	5	55	LEDHut	£5.83	£0.00