

– for prepared aperture ceilings



Optics

- LED Lumen packages that range from 3400 -12000 lumens (45W – 142W)
Or
 - 4 x 14 or 24W T5
 - 2 or 4 x 28W T5
 - 2, 3 or 4 x 54W T5
- All optics are TP(a) rated:
 - Louvre above 4mm toughened glass or clear fireguard material (Not available with LED product)
 - Prismatic acrylic above 4mm toughened glass
 - Single sheet 3mm prismatic fireguard material
 - LED product also includes a diffusing sheet mounted behind the prismatic material
- LED product has colour rendering index of Ra ≥80 as standard
- Ra ≥90 is available as an option for enhanced examination in Healthcare environments

Note – a glass front face resists all cleaning chemicals and is best for a sterile environment. Other TP(a) materials are selected for best chemical resistance. If advice is needed contact the Whitecroft Technical Desk

Body

- Front or back access (LED product is front access only)
- Suitable for cut and prepared aperture ceilings and sandwich panels with capped aperture reinforcements up to a depth of 91mm front and 108mm back access with standard brackets or 155mm front and 172mm back access with special deep ceiling bracket
- Through access version also available to facilitate maintenance of services located in the ceiling void* (See page 332 for details)
- Welded steel body finished white
- Dual IP rated – to a BSI tested and certified construction as protecting the room to IP65 from void contamination with the front frame and IP54 with the frame removed
- Extruded aluminium fixed outer frame (gasketed to ceiling) and removable inner frame integrate in line but at an angle to eliminate a vertical gap. Additional mastic sealant between outer frame and ceiling does not impede lamp access. Concealed front frame fixings and white full gloss frames
- Solid aluminium side arm jacking brackets adjusted from within the sealed body (from the room above for back access versions)
- The diffuser clamping system is highly secure and will accept glass. The inner frame design facilitates diffuser replacement

* Through access option not available in LED product



Order Codes

Prismatic acrylic above 4mm toughened glass, 600 x 600mm:	Fixed Output	3 hr Emergency
3400 lumens 45W	DLNAGH14K	DLNAGH14KEM
5700 lumens 73W	DLNAGH24K	DLNAGH24KEM

Prismatic acrylic above 4mm toughened glass, 1200 x 300mm:	Fixed Output	3 hr Emergency
3400 lumens 45W	DLNAGH34K	DLNAGH34KEM
5700 lumens 73W	DLNAGH44K	DLNAGH44KEM

Prismatic acrylic above 4mm toughened glass, 1200 x 600mm	Fixed Output	3 hr Emergency
6800 lumens 90W	DLNAGH54K	DLNAGH54KEM
8600 lumens 107W	DLNAGH64K	DLNAGH64KEM
11500 lumens 142W	DLNAGH74K	DLNAGH74KEM

Prismatic TP(a) single sheet, 600 x 600mm:	Fixed Output	3 hr Emergency
3500 lumens 45W	DLNKH14K	DLNKH14KEM
6000 lumens 73W	DLNKH24K	DLNKH24KEM

Prismatic TP(a) single sheet, 1200 x 300mm:	Fixed Output	3 hr Emergency
3500 lumens 45W	DLNKH34K	DLNKH34KEM
6000 lumens 73W	DLNKH44K	DLNKH44KEM

Prismatic TP(a) single sheet, 1200 x 600mm:	Fixed Output	3 hr Emergency
7100 lumens 90W	DLNKH54K	DLNKH54KEM
9000 lumens 107W	DLNKH64K	DLNKH64KEM
12,000 lumens 142W	DLNKH74K	DLNKH74KEM

Options

DALI DIMMING	Replace H with Y	i.e. DLNAGY14K
COMEPS	Add suffix /EP	i.e. DLNAGH14K/EP
EASYTEST	Add suffix /ET	i.e. DLNAGH14K/ET
Ra90*	Add 9 after D	i.e. D9LNAGH14K

For ceilings up to 155mm thick (front access) and 172mm thick (back access)

Deep Ceiling Brackets

For 600 x 600mm products (pack of 4)	150CBKT600
For 1200mm length products (pack of 4)	150CBKT1200

Note: For ceilings up to 155mm thick. Brackets to be fitted on site.

Ceiling Depth Selection Guide

	Standard Bracket	Optional Deep Bracket
Front Access	33-91mm	33-155mm

*Ra90 LEDs have a wattage increase of approx.11%. Please contact Whitecroft Technical Desk for accurate figures.



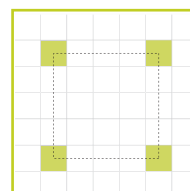
Solid Aluminium Jacking Bracket

LED Performance

Colour Temp	Ra (CRI)	Life Expectancy	Colour Consistency
4000K	≥ 80	L ₈₀ (50,000hrs)	MacAdam 3 SDCM
4000K	≥ 90	L ₈₀ (50,000hrs)	MacAdam 3 SDCM

Performance Guide

Lamps	Illuminance	Spacing
LED 45W (3500 lumens, 45W Prismatic TP(a) single sheet 600 x 600mm)	559 lux	2.4m x 2.4m



Maintenance:	0.8
Reflectance:	70/50/20
Ceiling Height:	2.7m
Working Plane:	0.8m

Equivalent Lamp Types

3400/3500 Lumen Output	
T5 lamp	4 x 14W

6800/7100 Lumen Output	
T5 lamp	4 x 28W

8600/9000 Lumen Output	
T5 lamp	3 x 54W

DTFN elite LED – for prepared aperture ceilings

Weight

Acrylic / Toughened glass

Lumen Outputs	Dimensions	Weight
3400 / 5700	600 x 600mm	16 KG
3400	1200 x 300mm	18 KG
5700	1200 x 300mm	18 KG
6800	1200 x 600mm	28 KG
8600 / 11500	1200 x 600mm	28 KG

Prismatic TP(a)

Lumen Outputs	Dimensions	Weight
3500 / 6000	600 x 600mm	12 KG
3500	1200 x 300mm	13 KG
6000	1200 x 300mm	13 KG
7100	1200 x 600mm	19 KG
9000 / 12000	1200 x 600mm	19 KG

Note: Emergency luminaires are 1 KG heavier than the standard shown above

Ceiling Integration

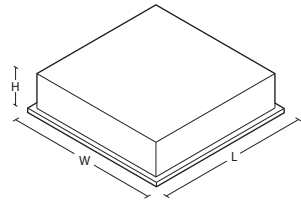
Refer to common ceiling compatibility matrix – See page 404

Plasterboard

Prepared aperture

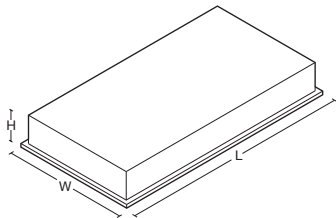
Dimensions

600 x 600mm



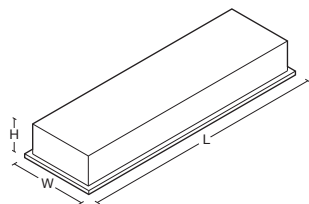
Version	W	L	H	Prepared Aperture
Front Access	603	725	124	555 x 677 ⁻⁰ / ₊₅

1200 x 600mm



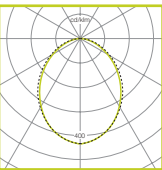
Version	W	L	H	Prepared Aperture
Front Access	603	1325	124	555 x 1277 ⁻⁰ / ₊₅

1200 x 300mm

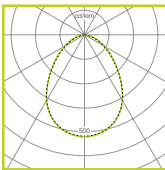


Version	W	L	H	Prepared Aperture
Front Access	370	1325	124	322 x 1277 ⁻⁰ / ₊₅

Photometric Performance



- 45W LED
- Prismatic TP(a)
- Single sheet
- LOR = 100%
- SHR MAX = 1.46
- 3536 lumens



- 45W LED
- Prismatic acrylic above 4mm toughened glass
- LOR = 100%
- SHR MAX = 1.40
- 3390 lumens

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.70 0.97 1.04

Utilisation Factors UF(F)

Room Reflectance	Room Index
C W F	1.00 3.00 5.00
0.70 0.50 0.20	0.77 1.00 1.06

To Specify

Recessed non-modular LED clean room luminaire for prepared aperture ceilings to a BSI tested and certified construction as IP65 frame on IP54 frame off with twin in line extruded aluminium frames with angled integration and concealed front frame fixings. Suspension via solid aluminium jacking brackets adjusted from inside the luminaire – as Whitecroft Lighting DTFN ELITE LED.

DTFN elite – for prepared aperture ceilings

Order Codes

Louvre above 4mm
toughened glass

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNWGH414	DTFNWGH414EMIN
T5 4 x 24W	DTFNWGH424	DTFNWGH424EMIN
T5 2 x 28W	DTFNWGH228	DTFNWGH228EMIN
T5 4 x 28W	DTFNWGH428	DTFNWGH428EMIN
T5 2 x 54W	DTFNWGH254	DTFNWGH254EMIN
T5 4 x 54W	DTFNWGH454	DTFNWGH454EMIN

Louvre above 3mm
clear TP(a) rated sheet

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNWFH414	DTFNWFH414EMIN
T5 4 x 24W	DTFNWFH424	DTFNWFH424EMIN
T5 2 x 28W	DTFNWFH228	DTFNWFH228EMIN
T5 4 x 28W	DTFNWFH428	DTFNWFH428EMIN
T5 2 x 54W	DTFNWFH254	DTFNWFH254EMIN
T5 4 x 54W	DTFNWFH454	DTFNWFH454EMIN

Prismatic acrylic above 4mm
toughened glass

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNAGH414	DTFNAGH414EMIN
T5 4 x 24W	DTFNAGH424	DTFNAGH424EMIN
T5 2 x 28W	DTFNAGH228	DTFNAGH228EMIN
T5 4 x 28W	DTFNAGH428	DTFNAGH428EMIN
T5 2 x 54W	DTFNAGH254	DTFNAGH254EMIN
T5 3 x 54W	DTFNAGH354	DTFNAGH354EMIN
T5 4 x 54W	DTFNAGH454	DTFNAGH454EMIN

Prismatic TP(a) single sheet

	HF Gear	3 hr Emergency
T5 4 x 14W	DTFNKH414	DTFNKH414EMIN
T5 4 x 24W	DTFNKH424	DTFNKH424EMIN
T5 2 x 28W	DTFNKH228	DTFNKH228EMIN
T5 4 x 28W	DTFNKH428	DTFNKH428EMIN
T5 2 x 54W	DTFNKH254	DTFNKH254EMIN
T5 3 x 54W	DTFNKH354	DTFNKH354EMIN
T5 4 x 54W	DTFNKH454	DTFNKH454EMIN

Options

DALI DIMMING	Replace H with Y	i.e. DTFNWDY414
SWITCH DIMMING	Replace H with X	i.e. DTFNWDX414
COMEPS	Add suffix /EP	i.e. DTFNWDH414/EP
EASYTEST	Add suffix /ET	i.e. DTFNWDH414/ET
COMET	Add suffix /CT	i.e. DTFNWDH414/CT
BACK ACCESS	Add suffix BA	i.e. DTFNWDH414BA
	For emergency	i.e. DTFNWDH414BAEMIN

For ceilings up to 155mm thick (front access) and 172mm thick (back access)
DEEP CEILING BRACKET

14/24W lamps	150CBKT600
28/54W lamps	150CBKT1200

Ceiling Depth Selection Guide

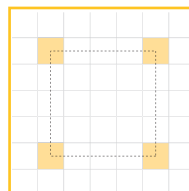
	Standard Bracket	Optional Deep Bracket
Front Access	33-91mm	33-155mm
Back Access	52-108mm	52-172mm



Solid Aluminium Jacking Bracket

Performance Guide

Lamps	Illuminance	Spacing
4 x 14W T5	465 lux	2.4m x 2.4m



Maintenance:
0.8
Reflectance:
70/50/20
Ceiling Height:
2.7m
Working Plane:
0.8m

Lamp Performance

Wattage	IL@25°C	Lamp Life
1 x 14W T5	1250	24,000hrs
1 x 24W T5	1750	24,000hrs
1 x 28W T5	2625	24,000hrs
1 x 54W T5	4450	24,000hrs

DTFN elite – for prepared aperture ceilings

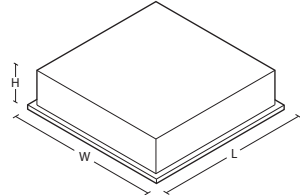
Weight

	Louvre/ toughened glass	Louvre/TP(a) rated sheet	Acrylic/ toughened glass	Prismatic TP(a)
T5 4 x 14W	16.0 KG	14.0 KG	16.0 KG	12.0 KG
T5 4 x 24W	16.0 KG	14.0 KG	16.0 KG	12.0 KG
T5 2 x 28W	18.0 KG	15.0 KG	18.0 KG	13.0 KG
T5 4 x 28W	27.0 KG	21.0 KG	28.0 KG	19.0 KG
T5 2 x 54W	18.0 KG	15.0 KG	18.0 KG	13.0 KG
T5 3 x 54W	–	–	28.0 KG	19.0 KG
T5 4 x 54W	27.0 KG	21.0 KG	28.0 KG	19.0 KG

Note: Emergency luminaires are 1 KG heavier than the standard shown above
Weights are for front access luminaires

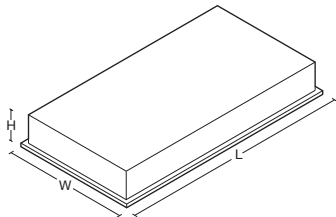
Dimensions

4 x 14/24W



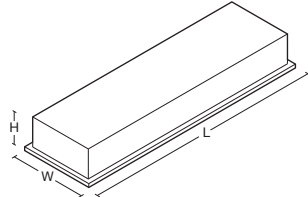
Version	W	L	H	Prepared Aperture
Front Access	603	725	124	555 x 677 ⁻⁰ / ₊₅
Back Access	603	725	145	555 x 677 ⁻⁰ / ₊₅

4 x 28/54W
3 x 54W



Version	W	L	H	Prepared Aperture
Front Access	603	1325	124	555 x 1277 ⁻⁰ / ₊₅
Back Access	603	1325	145	555 x 1277 ⁻⁰ / ₊₅

2 x 28/54W



Version	W	L	H	Prepared Aperture
Front Access	370	1325	124	322 x 1277 ⁻⁰ / ₊₅
Back Access	370	1325	145	322 x 1277 ⁻⁰ / ₊₅

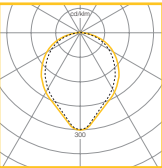
Ceiling Integration

Refer to common ceiling compatibility matrix – See page 404

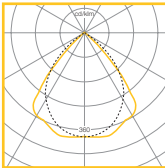
Plasterboard

Prepared aperture

Photometric Performance



4 x 14W T5
Prismatic
• LOR = 67.6%
• SHR MAX = 1.39



4 x 14W T5
Louvre/glass
• LOR = 57.8%
• SHR MAX = 1.55

Utilisation Factors UF(F)

Room Reflectance		Room Index		
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.46	0.65 0.70

Utilisation Factors UF(F)

Room Reflectance		Room Index		
C	W	F	1.00	3.00 5.00
0.70	0.50	0.20	0.47	0.60 0.63

To Specify

Recessed non-modular T5 clean room luminaire for prepared aperture ceilings to a BSI tested and certified construction as IP65 frame on IP54 frame off with twin in line extruded aluminium frames with angled integration and concealed front frame fixings. Suspension via solid aluminium jacking brackets adjusted from inside the luminaire (front access) or room above (back access) – as Whitcroft Lighting DTFN ELITE.