



foil

suspended integrated services lighting system with acoustic panels

Optics

- Lamp options:
 - 21/28/35/39/49/54W T5
- Twin cell louvre in semi-specular zero iridescent MIRO 5 material
- Where a high level of visual comfort is required the DUO optic with living louvre is available
- Light distribution: 80% down and 20% up

Body

- Alternative body widths and thickness of acoustic absorbing material to deliver differing levels of acoustic performance
 - Widths 600mm or 800mm
 - Absorption thickness 30mm or 48mm
- Perforated steel body with edge detail to give an ultra thin appearance
- 3 segregated cable wiring channels. Central one for lamp control, outer ones for data or power
- Twin adjustable stainless steel suspension kits 1.5m maximum drop
- Infill panels available in 400mm and 800mm lengths
- Can be specifically customised to integrate other services as required. e.g. sprinkler head, smoke detectors, sound equipment, lighting controls etc. Subject to project size



foil

acoustic luminaire with louvre

> weblink > **FOIL**

ORDER CODES

Foil 800 30mm Acoustics	HF Gear	3 hr Emergency
T5 2 x 21W	FLL830H221S	FLL830H221SEMIN
T5 2 x 28W	FLL830H228S	FLL830H228SEMIN
T5 2 x 35W	FLL830H235S	FLL830H235SEMIN
T5 2 x 39W	FLL830H239S	FLL830H239SEMIN
T5 2 x 49W	FLL830H249S	FLL830H249SEMIN
T5 2 x 54W	FLL830H254S	FLL830H254SEMIN

Foil Duo 800 30mm Acoustics	HF Gear	3 hr Emergency
T5 2 x 21W	FDL830H221S	FDL830H221SEMIN
T5 2 x 28W	FDL830H228S	FDL830H228SEMIN
T5 2 x 35W	FDL830H235S	FDL830H235SEMIN
T5 2 x 39W	FDL830H239S	FDL830H239SEMIN
T5 2 x 49W	FDL830H249S	FDL830H249SEMIN
T5 2 x 54W	FDL830H254S	FDL830H254SEMIN
T5 1 x 49W	FDL830H149S	FDL830H149SEMIN
T5 1 x 54W	FDL830H154S	FDL830H154SEMIN

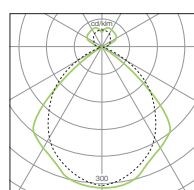
Accessories

400mm long infill, 800mm wide		FLL830INF400S
800mm long infill, 800mm wide		FLL830INF800S
End cap 30mm acoustic absorber, 800mm wide		FLL830ECS
End cap 48mm acoustic absorber, 800mm wide		FLL848ECS
Wire Suspension Kit for one luminaire supplied separately	Full suspension assembly	FLLSUSKIT
Bracket set for one luminaire	Drop rods to be supplied by others	FLLBRAKIT

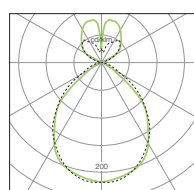
Options

600MM WIDE OPTION	Replace the 8 with 6 in order code for rafts, infills and end caps	i.e. FLL 6 30H221S
48MM ACOUSTIC ABSORPTION MATERIAL	Replace the 30 with 48 in order code	i.e. FLL 48 30H221S
WHITE FINISH	Replace S with W in order code	i.e. FLL830H221 W
DALI DIMMING	Replace H with Y in order code	i.e. FLL830 Y 221S
DSI DIMMING	Replace H with D in order code	i.e. FLL830 D 221S
SWITCH DIMMING	Replace H with X in order code	i.e. FLL830 X 221S
COMMAND 4	Replace H with Q4Y in order code	i.e. FLL830 Q4Y 221S
EASYTEST	Add suffix /ET to order code	i.e. FLL830H221S/ ET
COMET	Add suffix /CT to order code	i.e. FLL830H221S/ CT

PHOTOMETRIC PERFORMANCE



2 x 54W T5
Foil
• LOR = 77.5%
• SHR MAX = 1.65



2 x 54W T5
Foil Duo
• LOR = 64.2%
• SHR MAX = 1.48

Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00
0.70	0.50	0.20	0.57	0.74

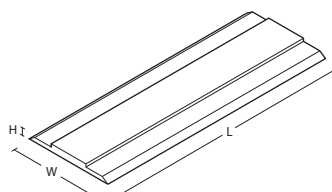
Utilisation Factors UF(F)

Room Reflectance	Room Index			
C	W	F	1.00	3.00
0.70	0.50	0.20	0.42	0.57



Foil duo

DIMENSIONS



Version	L	W	H	KG	KG
21/39W	2200	830	58	17.3	18.3
28/54W	2200	830	58	18.3	19.3
35/49W	2200	830	58	19.3	20.3

PERFORMANCE GUIDE

Lamps	Illuminance	Spacing
2 x 54W T5	530 lux	3.0m x 3.0m

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

TO SPECIFY

Foil

Suspended T5 lighting, acoustic and integrated services 600 or 800mm raft with concealed 30 or 48mm thick acoustic absorbers behind perforated side panels in a shallow chamfered steel body. 3 segregated 28mm x 28mm wiring channels, Miro 5 zero iridescent louvres – as Whitecroft Lighting FOIL.

Foil Duo

Suspended T5 lighting, acoustic and integrated services 600 or 800mm raft with concealed 30 or 48mm thick acoustic absorbers behind perforated side panels in a shallow chamfered steel body. 3 segregated 28mm x 28mm wiring channels, living louvre centrally mounted in micro polymer optic – as Whitecroft Lighting FOIL DUO.

LAMP PERFORMANCE

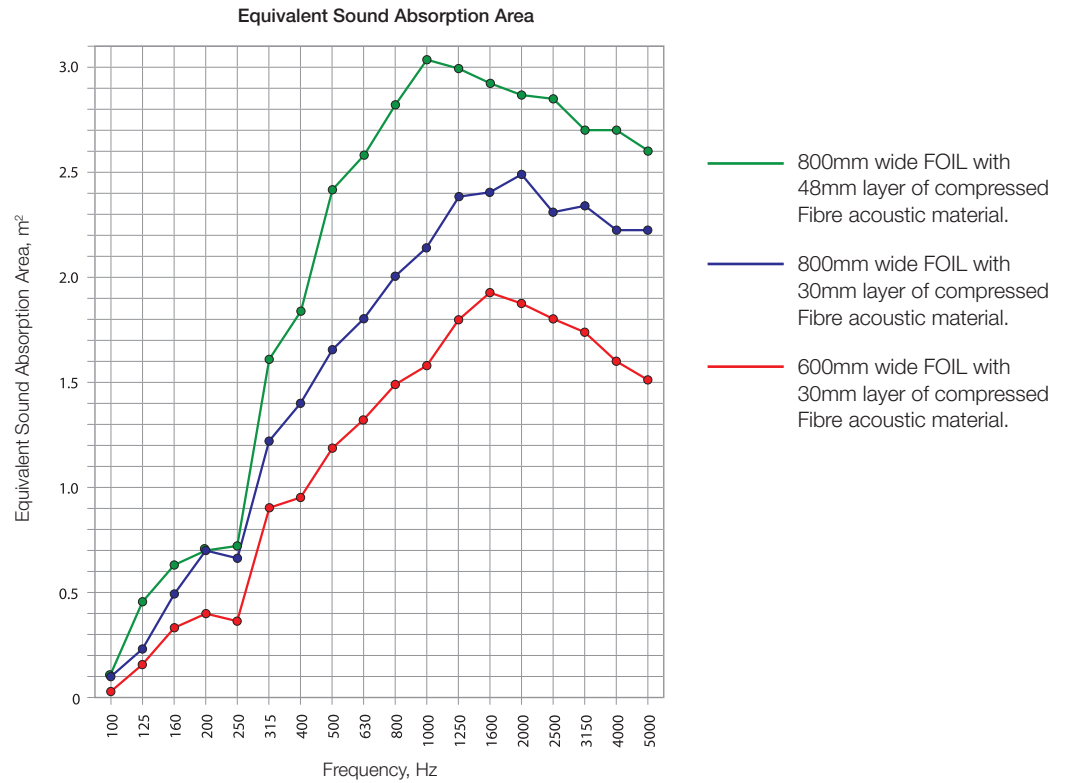
Wattage	IL@25°C	Lamp Life
1 x 21W T5	1900	24,000hrs
1 x 28W T5	2600	24,000hrs
1 x 35W T5	3300	24,000hrs
1 x 39W T5	3100	24,000hrs
1 x 49W T5	4300	24,000hrs
1 x 54W T5	4450	24,000hrs

ACOUSTIC PERFORMANCE

The FOIL has been independently tested by SRL to accurately determine its acoustic performance.

A typical 60m² classroom installation would use 9 FOIL luminaires.

If these luminaires are used in a carpeted classroom, we are able to use the data shown on this page to demonstrate that the 800mm FOIL with the 30mm absorbers would allow the room to achieve the acoustic requirement needed to reach a reverberation time of <0.8 seconds as stated in BB93.



800mm wide FOIL with 48mm layer of compressed Fibre acoustic material.

Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	4.59	3.99	0.4
63*	4.66	3.37	1.0
80*	3.94	3.59	0.3
100	6.17	5.83	0.1
125	6.75	5.40	0.4
160	6.46	4.83	0.6
200	6.94	4.94	0.7
250	7.03	4.98	0.7
315	6.87	3.61	1.6
400	5.92	3.13	1.8
500	5.26	2.58	2.4
630	5.12	2.46	2.6
800	5.33	2.39	2.8
1000	5.62	2.34	3.0
1250	5.56	2.34	3.0
1600	5.13	2.27	2.9
2000	4.55	2.15	2.9
2500	3.98	1.99	2.9
3150	3.33	1.81	2.7
4000	2.69	1.56	2.7
5000	2.17	1.34	2.6
6300*	1.59	1.07	2.4
8000*	1.21	0.86	2.3
10000*	0.91	0.66	2.6

800mm wide FOIL with 30mm layer of compressed Fibre acoustic material.

Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	4.59	4.16	0.3
63*	4.66	2.94	1.5
80*	3.94	3.40	0.5
100	6.17	5.86	0.1
125	6.75	5.98	0.2
160	6.46	5.11	0.5
200	6.94	4.95	0.7
250	7.03	5.09	0.7
315	6.87	4.08	1.2
400	5.92	3.53	1.4
500	5.26	3.08	1.7
630	5.12	2.92	1.8
800	5.33	2.84	2.0
1000	5.62	2.82	2.1
1250	5.56	2.64	2.4
1600	5.13	2.50	2.4
2000	4.55	2.28	2.5
2500	3.98	2.15	2.3
3150	3.33	1.88	2.3
4000	2.69	1.62	2.2
5000	2.17	1.35	2.2
6300*	1.59	1.07	2.0
8000*	1.21	0.82	2.3
10000*	0.91	0.64	2.4

600mm wide FOIL with 30mm layer of compressed Fibre acoustic material.

Freq Hz	T1 sec	T2 sec	Equivalent Sound Absorption Area, m ²
50*	4.59	4.61	-0.0
63*	4.66	3.69	0.7
80*	3.94	3.61	0.3
100	6.17	6.05	0.0
125	6.75	6.18	0.2
160	6.46	5.48	0.3
200	6.94	5.66	0.4
250	7.03	5.82	0.4
315	6.87	4.57	0.9
400	5.92	4.07	1.0
500	5.26	3.50	1.2
630	5.12	3.31	1.3
800	5.33	2.23	1.5
1000	5.62	3.24	1.6
1250	5.56	3.02	1.8
1600	5.13	2.77	1.9
2000	4.55	2.57	1.9
2500	3.98	2.35	1.8
3150	3.33	2.06	1.7
4000	2.69	1.75	1.6
5000	2.17	1.45	1.5
6300*	1.59	1.11	1.4
8000*	1.21	0.85	1.6
10000*	0.91	0.64	2.3

Room conditions:

Temperature: 16.2°C
 Humidity: 55%RH
 Pressure: 1008 mbar

* Denotes frequencies outside the range covered by BS EN ISO 354:2003

T1, empty room reverberation time

T2, room reverberation time with sample

800mm suspension height

