SINGLE BATTEN

APPLICATION
For general indoor use such as:
- Workshops, canteens, schools
- Assembly shops
- Entrance halls, Store rooms
- Industrial interiors
- warehouses

TWIN BATTEN

KEY FEATURE
- Four different lengths from 610mm to 1525 mm
- High frequency electronic ballast as standard
- Maintained emergency versions available
- Dimmable versions allow 1-10V dimming down to 5% lamp power.
- Comprehensive range of commercial and industrial attachments
- Surface or suspended
- Internal wiring with 105 °C heat resistant cable.

RANGE

<table>
<thead>
<tr>
<th>CATALOGUE NO.</th>
<th>CIRCUIT WATTS</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>GF 120</td>
<td>1 X 18W</td>
<td>610mm</td>
</tr>
<tr>
<td>GF 130</td>
<td>1 X 30W</td>
<td>915mm</td>
</tr>
<tr>
<td>GF 140</td>
<td>1 X 36W</td>
<td>1220mm</td>
</tr>
<tr>
<td>GF 165</td>
<td>1 X 58W</td>
<td>1525mm</td>
</tr>
<tr>
<td>GF 220</td>
<td>2 X 18W</td>
<td>610mm</td>
</tr>
<tr>
<td>GF 230</td>
<td>2 X 30W</td>
<td>915mm</td>
</tr>
<tr>
<td>GF 240</td>
<td>2 X 36W</td>
<td>1220mm</td>
</tr>
<tr>
<td>GF 265</td>
<td>2 X 58W</td>
<td>1525mm</td>
</tr>
</tbody>
</table>

CIRCUIT SUFFIX: ADD AFTER CATALOGUE NO. TO INDICATE CIRCUIT TYPE
- NIL-SWITCH START
- Z-ELECTRONIC BALLAST
- DZ-DIMMABLE ELECTRONIC BALLAST

PHOTOMETRIC DATA
SINGLE BATTEN

DIMENSION

I TWIN BATTEN
GENERAL FLUORESCENT LIGHTING

SINGLE BATTEN WITH THROUGH REFLECTOR

APPLICATION
For general indoor use such as:
- Workshops, canteens, schools
- Assembly shops
- Entrance halls, Store rooms
- Industrial interiors
- Warehouses

STANDARD
Designed and manufactured to comply with EN 60598/ IP 20

TWIN BATTEN WITH THROUGH REFLECTOR

KEY FEATURE
- Four different lengths from 610mm to 1525 mm
- High frequency electronic ballast as standard
- Maintained emergency versions available
- Dimmable versions allow 1-10V dimming down to 5% lamp power.
- Comprehensive range of commercial and industrial attachments
- Surface or suspended
- Internal wiring with 105 ºC heat resistant cable.

RANGE

<table>
<thead>
<tr>
<th>CATALOGUE NO.</th>
<th>CIRCUIT WATTS</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>GF 120 + MR12</td>
<td>1 X 18W</td>
<td>610mm</td>
</tr>
<tr>
<td>GF 130 + MR13</td>
<td>1 X 30W</td>
<td>915mm</td>
</tr>
<tr>
<td>GF 140 + MR14</td>
<td>1 X 36W</td>
<td>1220mm</td>
</tr>
<tr>
<td>GF 165 + MR15</td>
<td>1 X 58W</td>
<td>1525mm</td>
</tr>
<tr>
<td>GF 220 + MR22</td>
<td>2 X 18W</td>
<td>610mm</td>
</tr>
<tr>
<td>GF 230 + MR23</td>
<td>2 X 30W</td>
<td>915mm</td>
</tr>
<tr>
<td>GF 240 + MR24</td>
<td>2 X 36W</td>
<td>1220mm</td>
</tr>
<tr>
<td>GF 265 + MR25</td>
<td>2 X 58W</td>
<td>1525mm</td>
</tr>
</tbody>
</table>

CIRCUIT SUFFIX: ADD AFTER CATALOGUE NO. TO INDICATE CIRCUIT TYPE
- NIL-SWITCH START
- Z-ELECTRONIC BALLAST
- DZ-DIAMMABLE ELECTRONIC BALLAST

PHOTOMETRIC DATA

SINGLE BATTEN WITH THROUGH REFLECTOR

TWIN BATTEN WITH THROUGH REFLECTOR

DIMENSION
MODULE WITH DOUBLE PARABOLIC SEMI SPECULAR LOUVRE

APPLICATION
This module is suitable for visual display units (VDTs) in general offices, classrooms, libraries and work places for excellent glare control and severe visual tasks.

KEY FEATURE
- Excellent glare control, absence of reflections on the screen and precise ‘batwing’ light distribution.
- Optical system with uniform luminance.
- Absence of annoying reflections.
- Gradual attenuation of luminosity from work surfaces to the upper less lighted surfaces.
- Better luminance balance between the optical systems

STANDARD
- Category 2 (CIBSE LG3:1989)
- IP20 Complies with EN60598

SPECIFICATION
This semi-specular anti-reflection optical system is made up of longitudinal and transverse elements with two different parabolic bends, in pre-anodized aluminium (fineness:99.85%) with semi-specular furbished surface and 4 µm anti-iridescent oxidation film; and allows the following lighting performance:
- Luminous efficiency over 60% thanks to a correct internal dimensioning of the housing and a correct lamp position (focusing).
- Medium direct luminance inferior to 200 cd/m² when transverse angles are greater than 55º and longitudinal angles are greater than 60º.
- Cut-off angle of the lamp: transverse 35º, longitudinal 30º.
- Internal wiring with 105 °C heat resistant cable.

RANGE

<table>
<thead>
<tr>
<th>CATALOGUE NO.</th>
<th>CIRCUIT</th>
<th>GRID SPACING (mm)</th>
<th>DIMENSIONS (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD220 + LP2S12</td>
<td>2 x 18W</td>
<td>300 x 600</td>
<td>A x B x C 295 x 595 x 100</td>
</tr>
<tr>
<td>MOD320 + LP2S22</td>
<td>3 x 18W</td>
<td>600 x 600</td>
<td>D 625</td>
</tr>
<tr>
<td>MOD420 + LP2S22</td>
<td>4 x 18W</td>
<td>600 x 600</td>
<td>DATA 2</td>
</tr>
<tr>
<td>MOD140 + LP2S14</td>
<td>1 x 36W</td>
<td>300 x 1200</td>
<td>C.F. 1.00</td>
</tr>
<tr>
<td>MOD240 + LP2S14</td>
<td>2 x 36W</td>
<td>300 x 1200</td>
<td></td>
</tr>
<tr>
<td>MOD340 + LP2S24</td>
<td>3 x 36W</td>
<td>300 x 1200</td>
<td></td>
</tr>
<tr>
<td>MOD165 + LP2S15</td>
<td>1 x 36W</td>
<td>300 x 1500</td>
<td></td>
</tr>
<tr>
<td>MOD265 + LP2S15</td>
<td>2 x 36W</td>
<td>300 x 1500</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: THE ABOVE MODULES ARE FOR RECESS MOUNTED.
1. For surface mounted module, the body code is MODS.
2. For module with Air Handling Unit, the body code is MODA.
3. For attachment with trim, add/T after the attachment code.
   - Nil-switch start /B-with emergency battery kit.
   - Z-electronic ballast
   - DZ-dimmable electronic ballast
5. For other lamp wattage used multiply Light Output Ratio By the Conversion Factor. (C.F.)
6. If other body sizes are required, please contact our Sales Office.

Ordering Code Example: The Code MODS236Z + LP2S stands for 2 x 36W surface mounted module with electronic ballast plus the louvre.

PHOTOMETRIC DATA

DIMENSION
MODULAR FLUORESCENT LIGHTING

MODULE WITH AIR HANDLING OUTLETS AND COMPACT LOUVRE

APPLICATION

This module is suitable for visual display units (VDT's) in general offices, classrooms, libraries and work places for excellent glare control and severe

STANDARD

Category 2 (CIBSE LG3:1989)IP20
Complies with EN60598

SPECIFICATION

This semi-specular anti-reflection optical system is made up of longitudinal and transverse elements with two different parabolic bends, in pre-anodized aluminium with semi - specular furbished surface and, and allows the following lighting performances:
Luminous efficiency over 60% thanks to a correct internal dimensioning of the housing and a correct lamp position (focusing).
Medium direct luminance inferior to 200 cd/m sq. when transverse angles are greater than 55° and longitudinal angles are greater than 60°.
Cut-off angle of the lamp: transverse 35°, longitudinal 30°.
Internal wiring with 105℃ heat resistant cable.

KEY FEATURE

- New range of modular fitting suitable for suspender ceiling of 300mm grid (width).
- Body flanges/trims completed with air outlet slots for integrated air boot.
- Body top provided with linear slots for air return.
- The module saves places and provides a good outlook for the ceiling system.
- The optical system gives excellent lighting performance in terms of uniformity and glare control.

RANGE

<table>
<thead>
<tr>
<th>CATALOGUE NO.</th>
<th>CIRCUIT</th>
<th>GRID SPACING (mm) W x L</th>
<th>DIMENSIONS (mm) A x B x C</th>
<th>D</th>
<th>DATA</th>
<th>C.F</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD120C + LP2S/C</td>
<td>1 X 18W</td>
<td>300 x 600</td>
<td>295 x 595 x 100</td>
<td>625</td>
<td>1</td>
<td>1.06</td>
</tr>
<tr>
<td>MOD120C + LP2M/C</td>
<td>1 X 18W</td>
<td>300 x 600</td>
<td>295 x 595 x 100</td>
<td>625</td>
<td>1</td>
<td>1.06</td>
</tr>
<tr>
<td>MOD140C + LP2S/C</td>
<td>1 X 36W</td>
<td>300 x 1200</td>
<td>295 X 1195 x 100</td>
<td>1225</td>
<td>1</td>
<td>0.98</td>
</tr>
<tr>
<td>MOD140C + LP2M/C</td>
<td>1 X 36W</td>
<td>300 x 1200</td>
<td>295 X 1195 x 100</td>
<td>1225</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>MOD165C + LP2S/C</td>
<td>1 X 58W</td>
<td>300 x 1500</td>
<td>295 x 1495 x 100</td>
<td>1525</td>
<td>1</td>
<td>0.96</td>
</tr>
<tr>
<td>MOD165C + LP2M/C</td>
<td>1 X 58W</td>
<td>300 x 1500</td>
<td>295 x 1495 x 100</td>
<td>1525</td>
<td>1</td>
<td>0.96</td>
</tr>
<tr>
<td>MOD220C + LP2S/C</td>
<td>2 X 18W</td>
<td>300 x 600</td>
<td>295 x 595 x 100</td>
<td>625</td>
<td>2</td>
<td>1.06</td>
</tr>
<tr>
<td>MOD220C + LP2M/C</td>
<td>2 X 18W</td>
<td>300 x 600</td>
<td>295 x 595 x 100</td>
<td>625</td>
<td>3</td>
<td>1.06</td>
</tr>
<tr>
<td>MOD240C + LP2S/C</td>
<td>2 X 36W</td>
<td>300 x 1200</td>
<td>295 X 1195 x 100</td>
<td>1225</td>
<td>2</td>
<td>1.00</td>
</tr>
<tr>
<td>MOD240C + LP2M/C</td>
<td>2 X 36W</td>
<td>300 x 1200</td>
<td>295 X 1195 x 100</td>
<td>1225</td>
<td>3</td>
<td>1.00</td>
</tr>
<tr>
<td>MOD265C + LP2S/C</td>
<td>2 X 58W</td>
<td>300 x 1500</td>
<td>295 x 1495 x 100</td>
<td>1525</td>
<td>2</td>
<td>0.96</td>
</tr>
<tr>
<td>MOD265C + LP2M/C</td>
<td>2 X 58W</td>
<td>300 x 1500</td>
<td>295 x 1495 x 100</td>
<td>1525</td>
<td>3</td>
<td>0.96</td>
</tr>
</tbody>
</table>

NOTE: THE ABOVE MODULES ARE FOR RECESS MOUNTED.
2. For other lamp wattage used multiply Light Output Ratio By the Conversion Factor. (C.F.) LP2S and LP2M stand for semi -specular louvres respectively.
Other optical louvres such as single parabolic, white painted louvres are also available on request.
Ordering Code Example: The Code MOD240C/Z + LP2M/C stands for 2 x 36W recessed mounted compact module with electronic ballast plus a double parabolic specular optics.

PHOTOMETRIC DATA

DIMENSION
MODULAR FLUORESCENT LIGHTING

MODULE WITH PRISMATIC DIFFUSER

APPLICATION
This module is suitable for use in offices, shops, schools, hospitals and similar commercial and public service interiors using suspended ceiling system

SPECIFICATION
BODY:
- The luminaire body is made of mild steel and finished in white epoxy powder.
- The housing has an installed depth of 100mm.
- Fire - retardant, polycarbonate lamp holders.
- 4 hangers on troffer body for suspension with ropes / oval chains.
- The body is completed with 4 easy - release spring clips for fixing the louvre.
- Internal wiring with 105℃ heat resistant cable.

RANGE

CATALOGUE NO.  BODY  OPTIC  CIRCUIT WATTAGES  GRID SPACING (mm)  DIMENSIONS (mm)
MOD220 +  MPD12  2 x 18W  300 x 600  295 x 595 x 100  625  1  0.96
MOD320 +  MPD22  3 x 18W  600 x 600  595 x 595 x 100  625  2  1.00
MOD420 +  MPD22  4 x 18W  600 x 600  595 x 595 x 100  625  3  1.00
MOD140 +  MPD14  1 x 36W  300 x 1200  295 X 1195 x 100  1225  1  0.99
MOD240 +  MPD14  2 x 36W  300 x 1200  295 X 1195 x 100  1225  1  1.00
MOD340 +  MPD24  3 x 36W  600 x 1200  595 X 1195 x 100  1225  2  1.04
MOD440 +  MPD24  4 x 36W  600 x 1200  595 X 1195 x 100  1225  2  1.04
MOD165 +  MPD15  1 x 58W  300 x 1500  295 x 1495 x 100  1525  1  0.95
MOD265 +  MPD15  2 x 58W  300 x 1500  295 x 1495 x 100  1525  1  0.96

NOTE: THE ABOVE MODULES ARE FOR RECESS MOUNTED.
1. For surface mounted module, the body code is MODS.
2. For module with Air Handling Unit, the body code is MODA.
3. For attachment with trim, add/T after the attachment code.
6. For other lamp wattage used multiply Light Output Ratio By the Conversion Factor. (C.F.)
7. If other body sizes are required, please contact our Sales Office.

Ordering Code Example: The Code MODS240Z + MPD14/T stands for 2 x 36W surface mounted module with electronic ballast plus a trimmed prismatic diffuser.

Photometric data and dimensional information are provided on the page.

PHOTOMETRIC DATA  DIMENSION