

# mirage MD20

**Downlighters:** Compact fluorescent downlighters





#### APPLICATION

##### IP20 Version

- Offices
- Circulation areas
- Stair wells
- Canteens
- Reception areas
- Board rooms
- Retail

##### IP44 Version

- Toilets
- Shower areas
- Kitchens
- Factories
- Workshops

#### SPECIFICATION

- Lamp options:
  - Single or twin 13W TC-D
  - Single or twin 18W TC-D
- Lamps horizontally mounted
- Body: Precision die cast aluminium
- Gear: Integral to body, high frequency or high frequency dimming
- Switchstart in IP44 versions only; clear and opal diffusers
- Reflectors:
  - Diamond Facet
  - Silver (plain)
- Bezel: White paint finish RAL 9010
- Ceiling retention by spring mechanism
- Minimum ceiling void depth 112mm
- For ceiling thickness
  - 1mm to 25mm
- Ventilated gear housing
- Easy access fused terminal block
- Supplied with lamp
  - 3000K TC-D

#### Options

- Emergency versions
-  Easytest – integral self test version available see page 181
- High frequency analogue dimming
- IP44 opal or clear diffuser versions with curved profile uses remote gear box
- Suspended glass ring and louvre attachments, see page 11

*The above options may not apply to all wattages please check in Order Codes table*



MD20 with IP44 opal diffuser

# mirage MD20

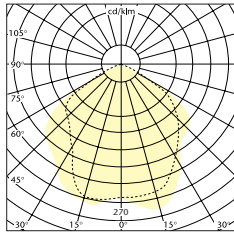
**Downlighters:** Compact fluorescent downlighters

## PHOTOMETRY

### Mirage MD20 SILVER FACETTED REFLECTOR 2 x 18W TC-D Lamps



- LOR = 57.3%
- SHR MAX = 1.59

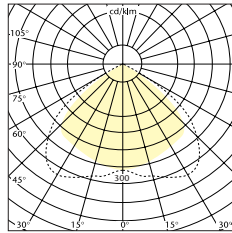


| UTILISATION FACTORS UF(F) |      |      | SHR NOM=1.50 |      |      |      |      |      |      |      |      |  |
|---------------------------|------|------|--------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance          |      |      | Room Index   |      |      |      |      |      |      |      |      |  |
| C                         | W    | F    | 0.75         | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70                      | 0.50 | 0.20 | 0.39         | 0.45 | 0.49 | 0.51 | 0.55 | 0.57 | 0.59 | 0.60 | 0.62 |  |
| 0.50                      | 0.30 | 0.20 | 0.35         | 0.40 | 0.44 | 0.47 | 0.51 | 0.53 | 0.55 | 0.57 | 0.58 |  |
| 0.00                      | 0.00 | 0.00 | 0.32         | 0.36 | 0.40 | 0.43 | 0.46 | 0.48 | 0.50 | 0.52 | 0.53 |  |

### Mirage MD20 PLAIN CAT2 REFLECTOR 2 x 18W TC-D Lamps



- LOR = 68.5%
- SHR MAX = 1.81

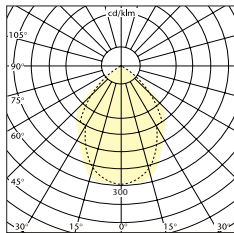


| UTILISATION FACTORS UF(F) |      |      | SHR NOM=1.75 |      |      |      |      |      |      |      |      |  |
|---------------------------|------|------|--------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance          |      |      | Room Index   |      |      |      |      |      |      |      |      |  |
| C                         | W    | F    | 0.75         | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70                      | 0.50 | 0.20 | N/A          | 0.58 | 0.62 | 0.65 | 0.68 | 0.70 | 0.72 | 0.74 | 0.76 |  |
| 0.50                      | 0.30 | 0.20 | N/A          | 0.54 | 0.58 | 0.60 | 0.64 | 0.66 | 0.68 | 0.70 | 0.72 |  |
| 0.00                      | 0.00 | 0.00 | N/A          | 0.50 | 0.53 | 0.57 | 0.59 | 0.61 | 0.62 | 0.64 | 0.67 |  |

### Mirage MD20 TECHNICAL LOUVRE 2 x 18W TC-D Lamps



- LOR = 42.0%
- SHR MAX = 1.37

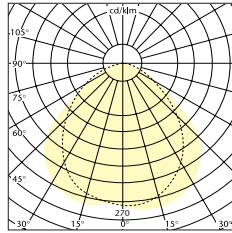


| UTILISATION FACTORS UF(F) |      |      | SHR NOM=1.25 |      |      |      |      |      |      |      |      |  |
|---------------------------|------|------|--------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance          |      |      | Room Index   |      |      |      |      |      |      |      |      |  |
| C                         | W    | F    | 0.75         | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70                      | 0.50 | 0.20 | 0.33         | 0.36 | 0.39 | 0.40 | 0.42 | 0.43 | 0.44 | 0.45 | 0.46 |  |
| 0.50                      | 0.30 | 0.20 | 0.30         | 0.34 | 0.36 | 0.38 | 0.40 | 0.41 | 0.42 | 0.43 | 0.44 |  |
| 0.00                      | 0.00 | 0.00 | 0.28         | 0.31 | 0.33 | 0.35 | 0.36 | 0.38 | 0.38 | 0.39 | 0.40 |  |

### Mirage MD20 CLEAR DIFFUSER 2 x 18W TC-D Lamps

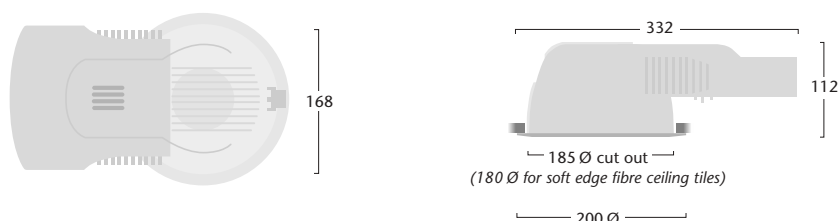


- LOR = 50.4%
- SHR MAX = 1.69



| UTILISATION FACTORS UF(F) |      |      | SHR NOM=1.50 |      |      |      |      |      |      |      |      |  |
|---------------------------|------|------|--------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance          |      |      | Room Index   |      |      |      |      |      |      |      |      |  |
| C                         | W    | F    | 0.75         | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70                      | 0.50 | 0.20 | 0.43         | 0.48 | 0.52 | 0.55 | 0.59 | 0.61 | 0.63 | 0.65 | 0.67 |  |
| 0.50                      | 0.30 | 0.20 | 0.38         | 0.43 | 0.47 | 0.50 | 0.54 | 0.55 | 0.59 | 0.61 | 0.63 |  |
| 0.00                      | 0.00 | 0.00 | 0.34         | 0.39 | 0.42 | 0.45 | 0.49 | 0.51 | 0.53 | 0.55 | 0.57 |  |

## DIMENSIONS



## LAMP PERFORMANCE MATRIX

| WATTAGE      | IL@25°C | LAMP LIFE |
|--------------|---------|-----------|
| 1 x 13W TC-D | 900     | 12,000    |
| 1 x 18W TC-D | 1200    | 12,000    |

## ORDER CODES – MIRAGE MD20

### COMPACT FLUORESCENT DOWNLIGHTERS

| LAMP SUPPLIED | HIGH FREQUENCY GEAR |                   | HIGH FREQUENCY ANALOGUE DIMMING |                   |
|---------------|---------------------|-------------------|---------------------------------|-------------------|
|               | PLAIN SILVER        | SILVER DIAMOND    | PLAIN SILVER                    | SILVER DIAMOND    |
| 1 x 13W TC-D  | <b>MD20-113PH</b>   | <b>MD20-113SH</b> | –                               | –                 |
| 2 x 13W TC-D  | <b>MD20-213PH</b>   | <b>MD20-213SH</b> | –                               | –                 |
| 1 x 18W TC-D  | <b>MD20-118PH</b>   | <b>MD20-118SH</b> | <b>MD20-118PR</b>               | <b>MD20-118SR</b> |
| 2 x 18W TC-D  | <b>MD20-218PH</b>   | <b>MD20-218SH</b> | <b>MD20-218PR</b>               | <b>MD20-218SR</b> |

EMERGENCY Add suffix to order code above

**E3** Emergency pack, i.e. MD20-218SHE3

Note: Standard emergency fitting batteries remote, dimming emergency battery and gear remote

EASYTEST OPTION Add suffix to luminaire order codes above

**/ET** Integral self autotest, i.e. MD20-218SH/ET

### SWITCHSTART GEAR (USING REMOTE GEAR BOX)

| WITH IP44 OPAL DIFFUSER | REFLECTOR | STANDARD              | EMERGENCY OPTION        |
|-------------------------|-----------|-----------------------|-------------------------|
| 1 x 18W TC-D            | White     | <b>MD20-118W/IP44</b> | <b>MD20-118WE3/IP44</b> |
| 2 x 18W TC-D            |           | <b>MD20-218W/IP44</b> | <b>MD20-218WE3/IP44</b> |

### WITH CLEAR DIFFUSER

|              |       |                        |                          |
|--------------|-------|------------------------|--------------------------|
| 1 x 18W TC-D | White | <b>MD20-118W/IP44C</b> | <b>MD20-118WE3/IP44C</b> |
| 2 x 18W TC-D |       | <b>MD20-218W/IP44C</b> | <b>MD20-218WE3/IP44C</b> |

Note: These are the only IP44 versions of Mirage MD20

Not available with high frequency gear due to temperature limitations. Higher outputs available in MD24 range

### ATTACHMENTS

See page 11



For technical louvre, glass ring and special attachments, see page 11



Plain reflector

QuickLink **MD20** Go

### To specify state:

Cast aluminium bodied compact fluorescent (horizontal mount) downlight with a recess depth <112mm in height. Integral control gear. Diamond facet/Silver/White reflector/IP20/IP44 opal/clear curved profile diffuser – as Whitecroft Lighting MIRAGE MD20