

HEMA

LIGHTING SYSTEMS

HEMA



MASCHINEN- UND
APPARATESCHUTZ GMBH



INTEGRATED LED LIGHTING SYSTEMS

LED LAMPS FOR THE WORKPLACE



LED LAMPS FOR MACHINE INTERIORS

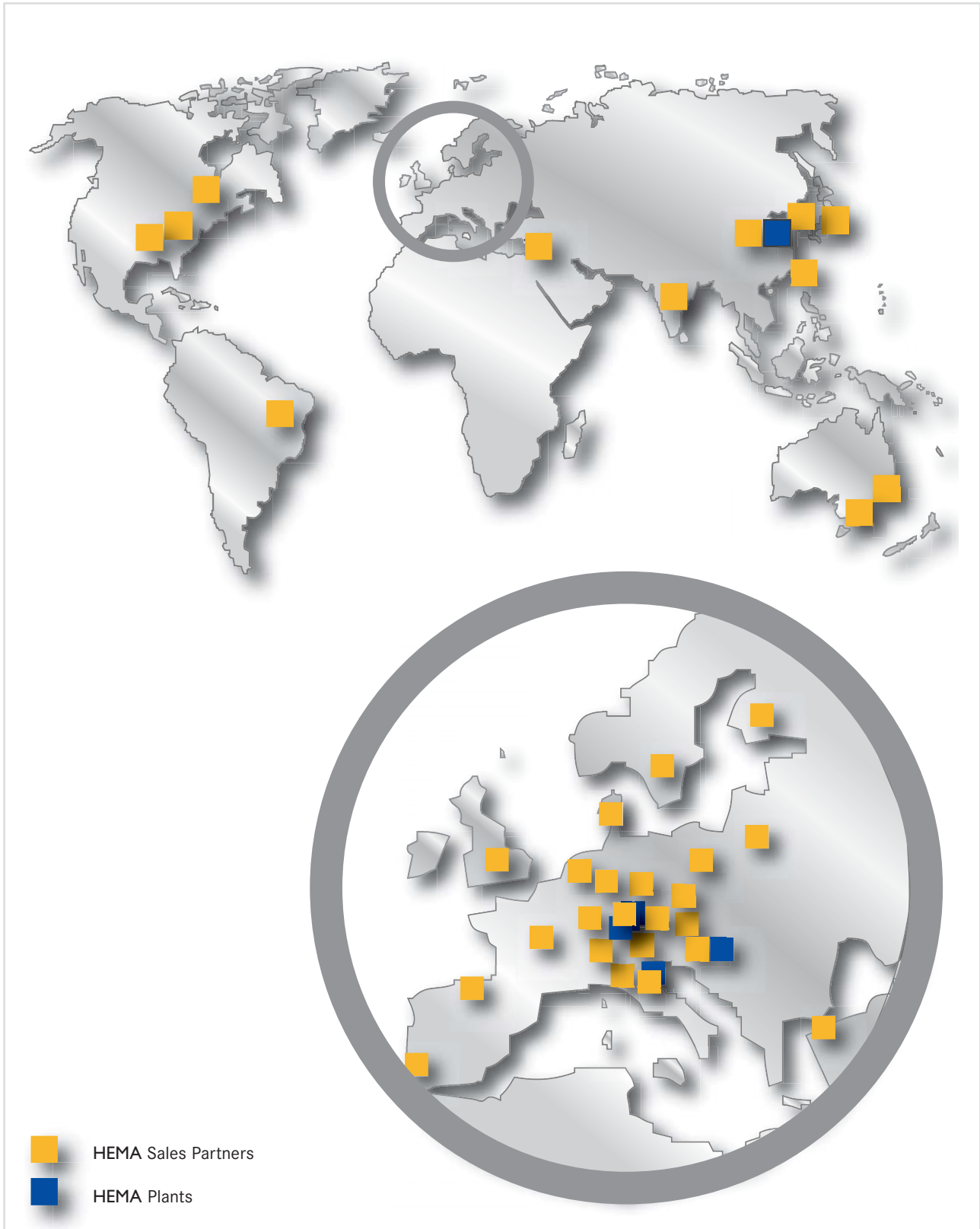
PROTECTION

CLAMPING
&
BRAKING

VISION

SERVICE

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CONTENT

WORKPLACE LIGHTING SYSTEMS	
Workplace Lighting HE-BF, HE-BC, HE-BL	Page 4
Illumination distribution charts HE-BF, HE-BC, HE-BL	Page 6
Workplace Lighting HE-JOB-BRLED	Page 8
Illumination distribution chart HE-JOB-BRLED	Page 8
SPOT FITTING LIGHTING SYSTEMS	
Spot Fitting Lighting HE-P1, HE-P3, HE-P6	Page 9
Illumination distribution charts HE-P1, HE-P3, HE-P6	Page 10
MACHINE LIGHTING SYSTEMS	
HE-EXLIGHT Machine Lighting	Page 12
Illumination distribution charts HE-EXLIGHT	Page 13
HE-TRACK Machine Lighting	Page 14
Illumination distribution charts HE-TRACK	Page 15
HE-TLED Machine Lighting	Page 16
Illumination distribution charts HE-TLED	Page 17
HE-TCITY Machine Lighting	Page 20
Illumination distribution charts HE-TCITY	Page 21
INTEGRATED LIGHTING SYSTEMS	
Machine Protection Windows with integrated lighting	Page 22

LIGHTING SYSTEMS	3
WORKPLACE LIGHTING	4
SPOT FITTING LIGHTING	9
MACHINE LIGHTING	12
INTEGRATED LIGHTING	22

FURTHER INFORMATION

HEMA CATALOGUE PROTECTION



- Further information on
- Bellows
 - Backwallsystems
 - Spiral springs
 - Telescopic steel covers
 - Roller covers
 - Machine protection windows
 - Visiport spin windows

HEMA CATALOGUE CLAMPING AND BRAKING



- Further information on manual, pneumatic and electrical clamping and braking systems.
- RotoClamp
 - DiskClamp
 - LinClamp
 - SClamp
 - PClamp

WORKPLACE LIGHTING

3

LIGHTING SYSTEMS

4

WORKPLACE LIGHTING

9

SPOT FITTING LIGHTING

12

MACHINE LIGHTING

22

INTEGRATED LIGHTING

The optimal lighting at the workplace or inside the machine not only raises safety, but also enhances well being and counteracts work fatigue.

The decisive factor here is the choice of light source. Lamps fitted with modern LED technology emit an optimal and unvarying level of neutral colour light that does not flicker or contain UV or IR components.



HE-BC - short lamp arm with ball joint

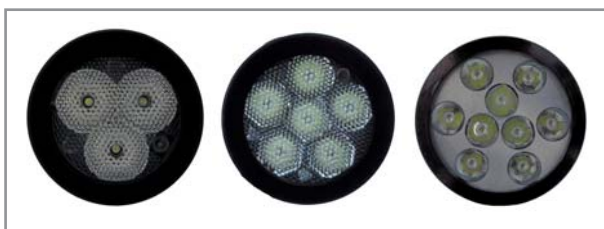
The temperature near the lamp is constantly low, which is important for maintenance work. Unlike halogen or neon lamps, this does not have a filament and so makes work possible even under difficult conditions.

The average life of the LEDs is 50,000 hours, equivalent to six years of continuous duty. Compared with the conventional filament bulb, this reduces operating costs by 50%, without replacements or maintenance work. A 700 mA LED consumes 3 W.

There are three housing variants available for installation at the workplace, all with the ON/OFF switch directly on the lamp head:

- HE-BC - short lamp arm with ball joint
- HE-BF - long lamp arm, flexible
- HE-BL - long lamp arm, rigid

All lamp types have an anodised aluminium head and are secured with screws through their base.



Lamp head with 3, 6, and 9 LEDs



HE-BF - long lamp arm, flexible

The ON/OFF switch is placed directly on the lamp head. The lamp base can be screwed in position at the workplace or inside the machine. Alternative fasteners are a clip foot and magnetic base for more flexible solutions.

For the perfect illumination and brightness control, every one of these lamp types can be fitted with three, six, or nine LEDs and with an 8°, 25°, or 40° lens.



HE-BL - long lamp arm, rigid

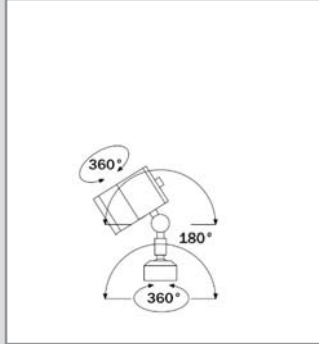
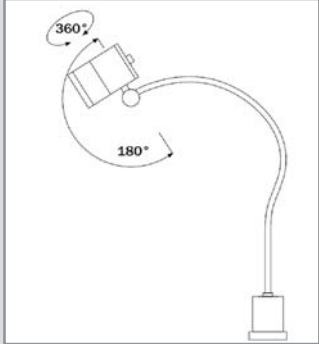
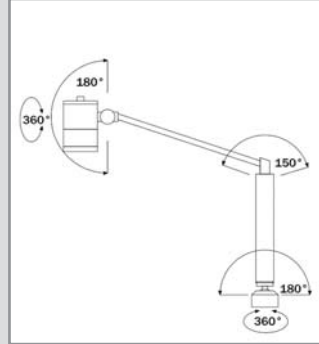
CE



IP65



WORKPLACE LIGHTING

Type	HE-BC	HE-BF	HE-BL
LED Type	Cree-XR-E	Cree-XR-E	Cree-XR-E
No. of LEDs	3 / 6 / 9	3 / 6 / 9	3 / 6 / 9
LED life	50,000 h (350 mA)	50,000 h (350 mA)	50,000 h (350 mA)
Brightness/lens	diffuse / 8°, 25°, 40°	diffuse / 8°, 25°, 40°	diffuse / 8°, 25°, 40°
Light temperature	5300° K	5300° K	5300° K
Reflector Ø mm	64x86 (3/6 LED), 90x101 (9 LED)	64x86 (3/6 LED), 90x101 (9 LED)	64x86 (3/6 LED), 90x101 (9 LED)
Basic dimensions	60x60 mm, H 36 mm	80 x 63 mm, H 102 mm	60x60 mm, H 36 mm
Lamp arm	-	Ø15 mm x L 700 mm, flexible	top Ø12 x L420 mm bottom 35x35x240mm
Fasteners	4 screws	4 screws	4 screws
Switches	single pole, ON/OFF	single pole, ON/OFF	single pole, ON/OFF
IP rating	IP 65	IP 65	IP 65
Colour	black, other colours on request	black, other colours on request	black, other colours on request
Adjustable anglel			

Electrical properties

Lampentyp	HE-BC/HE-BF/HE-BL - 3 LED	HE-BC/HE-BF/HE-BL - 6 LED	HE-BC, HE-BF, HE-BL- 9 LED
Operating voltage	12-24 VDC/230 VAC	12-24 VDC/230 VAC	230 VAC
Current 350 mA	3 W	6 W	9 W
Current 500 mA	6 W	12 W	-
Current 700 mA	9 W	-	-
IEC marking	III	III	III

HEMA also supplies an adapter matching the ordered illuminant type. Solely the operating voltage must be specified on the order (see table above). Delivered with cable lengths from 1.5 to 6 m. 230 Vac cables fitted with two-pin plug, 12-24 Vdc cable ends of bare wires.

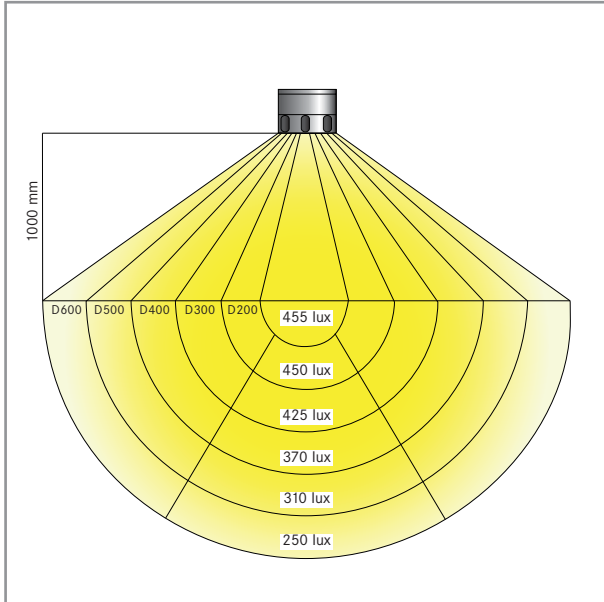
Illumination on surface (40° lens), distance 1000 mm

Lamp type	HE-BC/HE-BF/HE-BL - 3 LED		HE-BC/HE-BF/HE-BL - 6 LED		HE-BC, HE-BF, HE-BL- 9 LED	
	350mA/350 lu	500mA/500 lu	350mA/350 lu	500mA/500 lu	350mA/350 lu	500mA/500 lu
100	455 lx	610 lx	1070 lx	1440 lx	1060	1660 lx
200	450 lx	600 lx	1000 lx	1315 lx	990	1550 lx
300	425 lx	570 lx	880 lx	1160 lx	890	1380 lx
400	370 lx	490 lx	760 lx	990 lx	755	1180 lx
500	310 lx	415 lx	610 lx	800 lx	615	950 lx
600	250 lx	335 lx	450 lx	600 lx	480	740 lx

ILLUMINATION DISTRIBUTION CHARTS

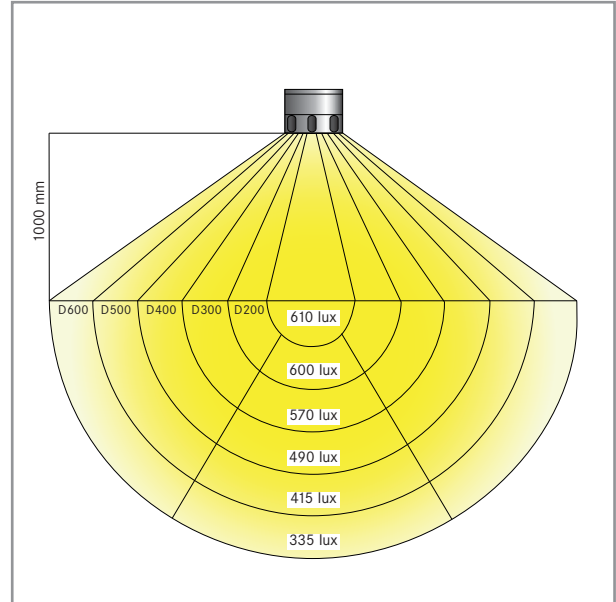
3	LIGHTING SYSTEMS
6	WORKPLACE LIGHTING
9	SPOT FITTING LIGHTING
12	MACHINE LIGHTING
22	INTEGRATED LIGHTING

HE-BC3, HE-BF3, HE-BL3



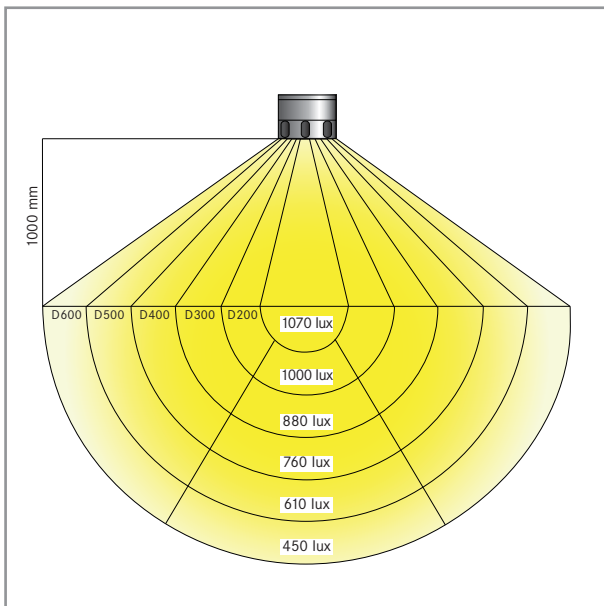
Technical details	Pages 4 - 5
Lens	40°
Current	350 mA
Lighting systems	HE-BC3, HE-BF3, HE-BL3

HE-BC3, HE-BF3, HE-BL3



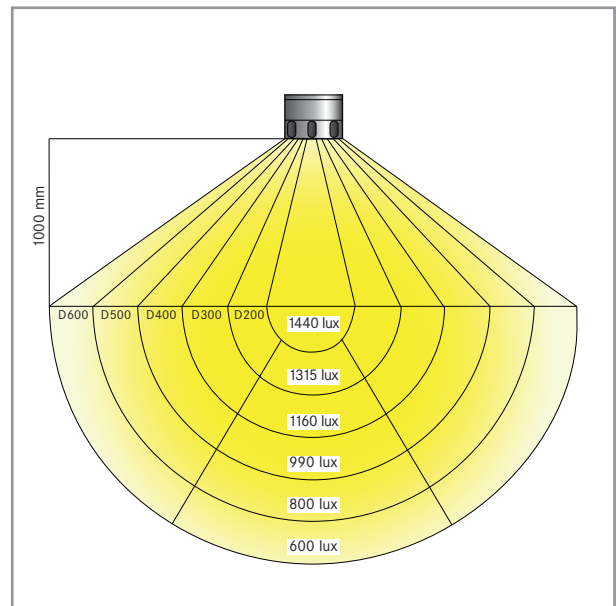
Technical details	Pages 4 - 5
Lens	40°
Current	500 mA
Lighting systems	HE-BC3, HE-BF3, HE-BL3

HE-BC6, HE-BF6, HE-BL6



Technical details	Pages 4 - 5
Lens	40°
Current	350 mA
Lighting systems	HE-BC6, HE-BF6, HE-BL6

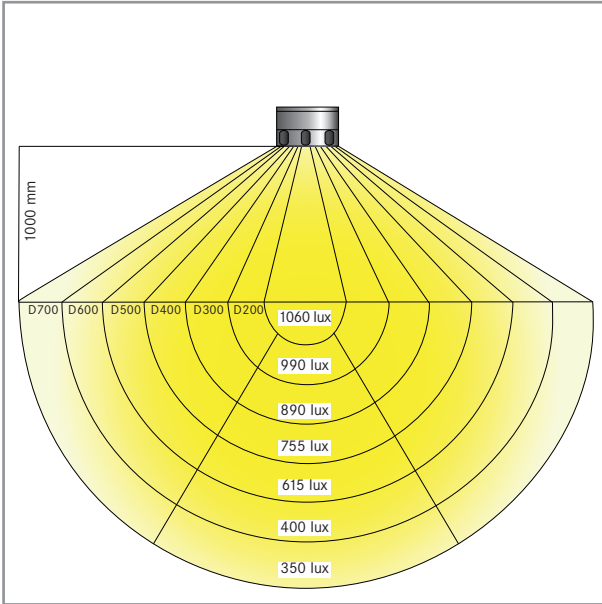
HE-BC6, HE-BF6, HE-BL6



Technical details	Pages 4 - 5
Lens	40°
Current	500 mA
Lighting systems	HE-BC6, HE-BF6, HE-BL6

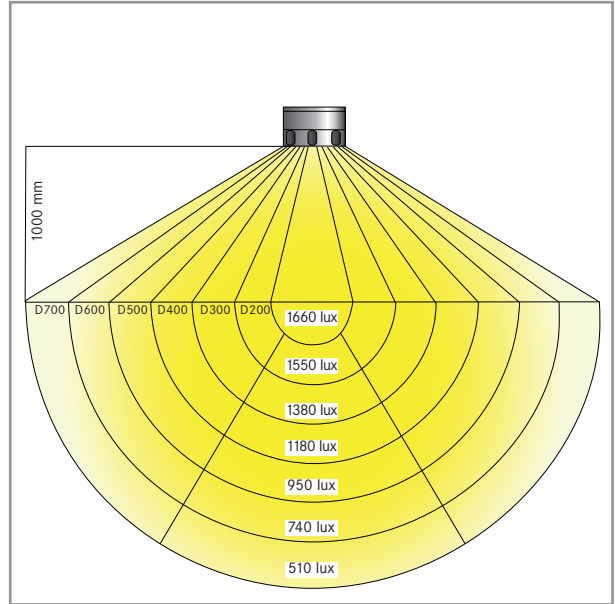
ILLUMINATION DISTRIBUTION CHARTS

HE-BC9, HE-BF9, HE-BL9



Technical details	Pages 4 - 5
Lens	40°
Current	350 mA
Lighting systems	HE-BC9, HE-BF9, HE-BL9

HE-BC9, HE-BF9, HE-BL9



Technical details	Pages 4 - 5
Lens	40°
Current	500 mA
Lighting systems	HE-BC9, HE-BF9, HE-BL9

LIGHTING SYSTEMS	3
WORKPLACE LIGHTING	7
SPOT FITTING LIGHTING	9
MACHINE LIGHTING	12
INTEGRATED LIGHTING	22

WORKPLACE LIGHTING HE-JOB-BRLED

3

LIGHTING SYSTEMS

8

WORKPLACE LIGHTING

9

SPOT FITTING LIGHTING

12

MACHINE LIGHTING

22

INTEGRATED LIGHTING

The HE-JOB-BRLED is an adjustable workplace lamp featuring the latest LED technology. Thanks to the highly flexible jointed arm, lighting at the workplace can be set with ease to the optimal effect.

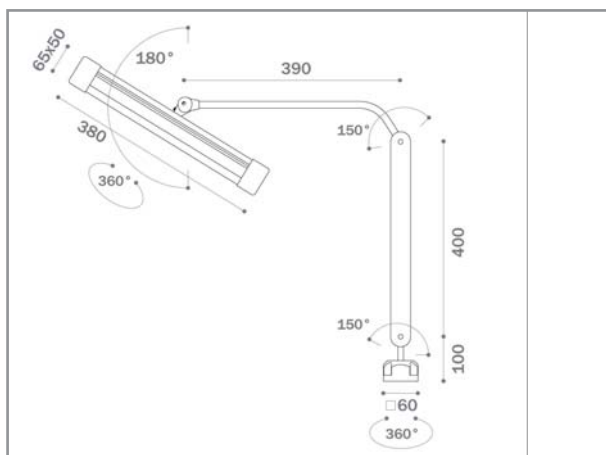
The lamp head of aluminium complies with protection class IP 65, and the entire unit IP 40. The ON/OFF switch is fitted directly on the lamp head for ease of use.

The advantages of the HE-JOB-BRLED workplace lamps:

- Jointed arm for great flexibility
- ON/OFF switch fitted directly on the lamp head
- Integrated ballast
- Optional dimmer

CE

IP40



HE-JOB-BRLED Dimensions

	HE-JOB-BRLED
Operating voltage	230 VAC
IEC marking	II
Cabel length	1.5 m
LED Type	Cree MC
LED life	50 000 h
No of LEDs	24
Light temperatur	5000 K
Fasteners	4 drilled holes or optional mounting devices) (optional component parts)
Colour	Aluminium
Protection class	IP40 lamp IP65 lamp head



HE-JOB-BRLED Workplace lighting for benches



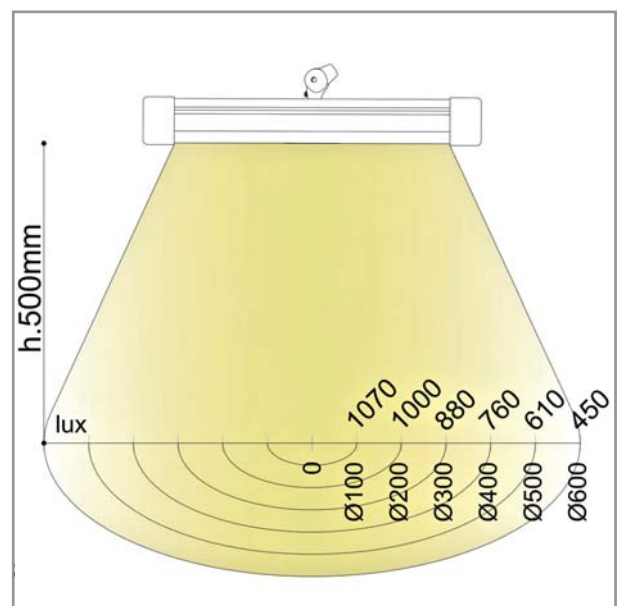
Optional mounting



ON/OFF switch on lamp head

ILLUMINATION DISTRIBUTION CHART

HE-JOB-BRLED



SPOT LIGHTING

These recessed spot lamps are a compact LED lighting system for space saving solutions. The lamp head is of anodised aluminium in the standard colour black, with other colours available on request.

The spot lamps must be fitted in a recess matching their diameters and secured with a screw.

The advantages of the HE-P LED spot lamps:

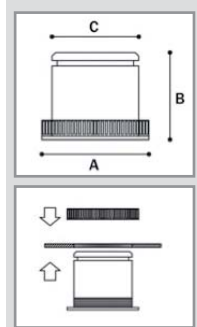
- Fitted in the machine housing for space saving solutions
- No projecting edges where swarf, etc., can collect
- Lighting angles 8°, 25°, 40°
- Resistant to most coolants and lubricants
- Variable number of LEDs: 1, 3, or 6 LEDs per head



Type HE-P6 with 6 LEDs



Type	HE-P1	HE-P3	HE-P6
LED Type	Cree-XR-E	Cree-XR-E	Cree-XR-E
No of LEDs	1	3	6
LED life	50,000 h (350 mA)	50,000 h (350 mA)	50,000 h (350 mA)
Brightness/Lens	diffuse / 8°, 25°, 40°	diffuse / 8°, 25°, 40°	diffuse / 8°, 25°, 40°
Light temperature	5300 K	5300 K	5300 K
Dimensions	A = 40mm B = 31.5mm C = 30mm	A = 70mm B = 53mm C = 61mm	A = 70mm B = 53mm C = 61mm
Fasteners	groove nut	groove nut	groove nut
IP rating	IP 67	IP 67	IP 67
Colour	black, other colours on request	black, other colours on request	black, other colours on request



Electrical properties

Lamp type	HE-P1	HE-P3	HE-P6
Operating voltage	12-24 VDC/230 VAC	12-24 VDC/230 VAC	12-24 VDC/230 VAC
Current 350 mA	1 W	3 W	6 W
Current 500 mA	2 W	6 W	12 W
Current 700 mA	3 W	9 W	-
IEC marking	III	III	III

HEMA also supplies an adapter matching the ordered illuminant type. Solely the operating voltage must be specified on the order (see table above). Delivered with cable lengths from 1.5 to 6 m. 230 Vac cables fitted with two-pin plug, 12-24 Vdc cable ends of bare wires.

All dimensions in mm if not marked otherwise. Errors and omissions excepted.

LIGHTING SYSTEMS 3

WORKPLACE LIGHTING 4

SPOT FITTING LIGHTING 9

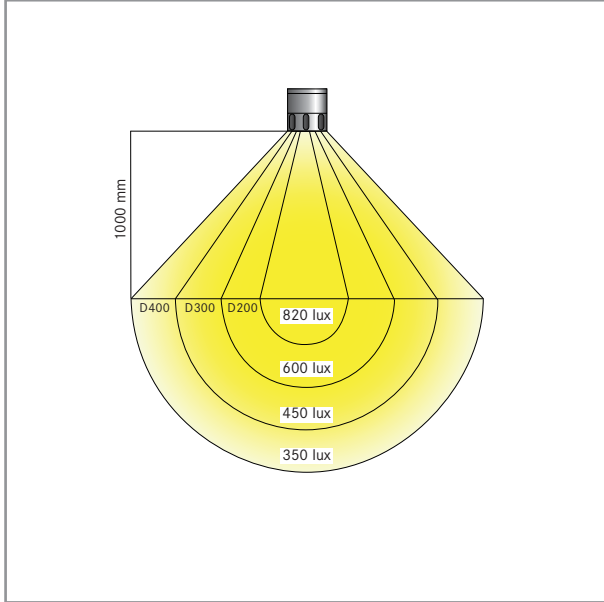
MACHINE LIGHTING 12

INTEGRATED LIGHTING 22

ILLUMINATION DISTRIBUTION CHARTS

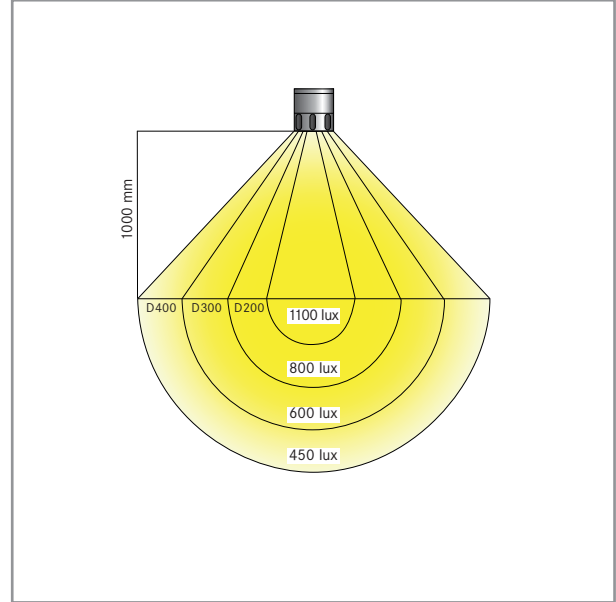
3	LIGHTING SYSTEMS
4	WORKPLACE LIGHTING
10	SPOT FITTING LIGHTING
12	MACHINE LIGHTING
22	INTEGRATED LIGHTING

HE-P1



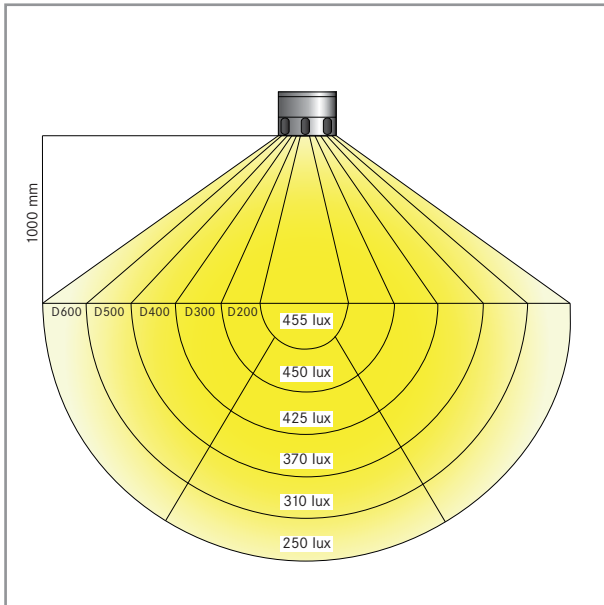
Technical details	Pages 8 - 9
Lens	40°
Current	350 mA
Lighting systems	HE-P1

HE-P1



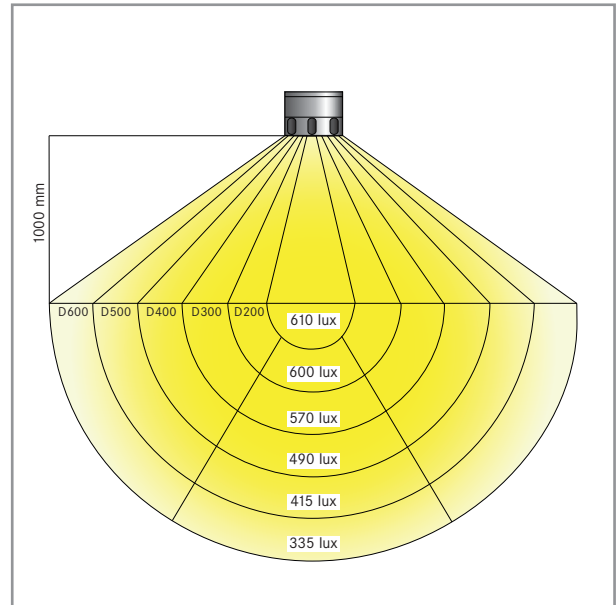
Technical details	Pages 8 - 9
Lens	40°
Current	500 mA
Lighting systems	HE-P1

HE-P3



Technical details	Pages 8 - 9
Lens	40°
Current	350 mA
Lighting systems	HE-P3

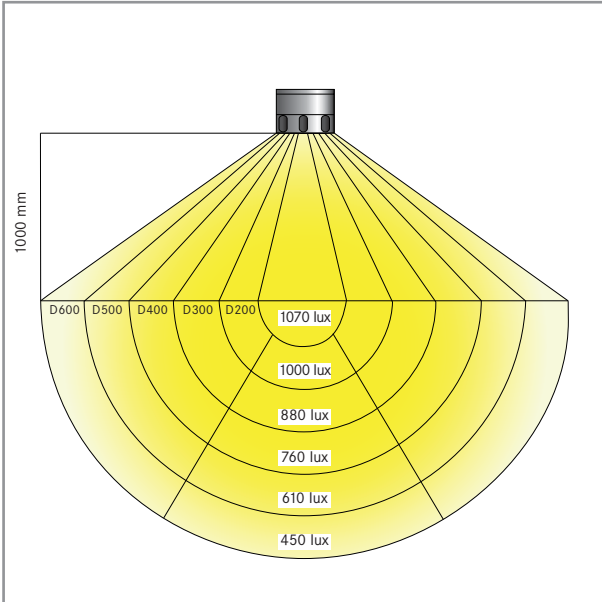
HE-P3



Technical details	Pages 8 - 9
Lens	40°
Current	500 mA
Lighting systems	HE-P3

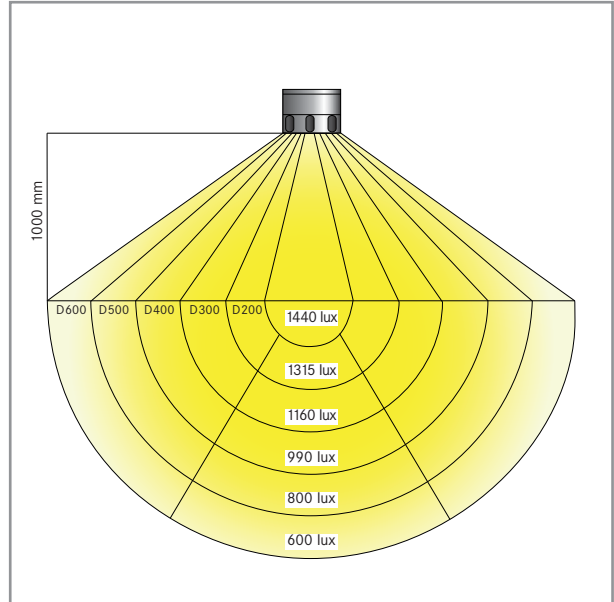
ILLUMINATION DISTRIBUTION CHARTS

HE-P6



Technical details	Pages 8 - 9
Lens	40°
Current	350 mA
Lighting systems	HE-P6

HE-P6



Technical details	Pages 8 - 9
Lens	40°
Current	500 mA
Lighting systems	HE-P6

LIGHTING SYSTEMS 3

WORKPLACE LIGHTING 4

SPOT FITTING LIGHTING 11

MACHINE LIGHTING 12

INTEGRATED LIGHTING 22

HE-EXLIGHT-LED MACHINE LIGHTING

3

LIGHTING SYSTEMS

4

WORKPLACE LIGHTING

9

SPOT FITTING LIGHTING

12

MACHINE LIGHTING

22

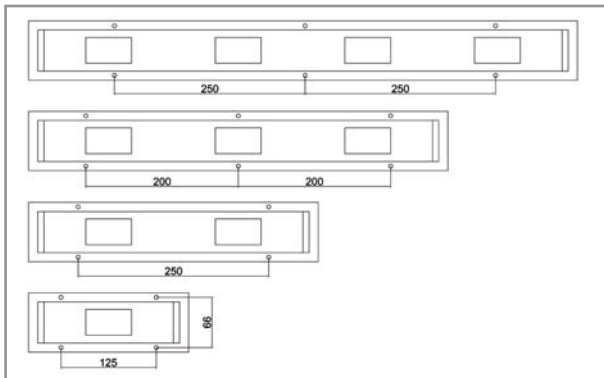
INTEGRATED LIGHTING



HE-EXLIGHT-E, external version with 6 LED



HE-EXLIGHT-I, integrated version with 12 LED



The compact measurements and the flat, robust housing of the HE-EXLIGHT-LED machine lamps make them the ideal solution in small and mid sized machines.

The HE-EXLIGHT-LED machine lamp is available in two versions for the best possible configuration in the machine, also as a retrofit. The housings of both versions are of robust, anodised aluminium with a safety pane 4 mm thick.

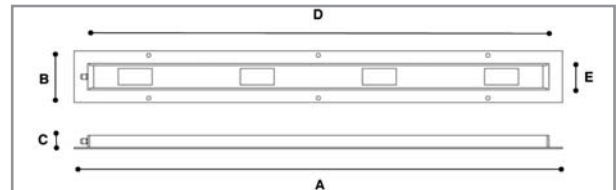
The lamps are impact resistant, impervious to vibrations, and can also operate in environments with coolants and lubricants. The HE-EXLIGHT-LED machine lamps are extremely low maintenance. This LED technology exhibits a long service life of 50,000 operating hours, so the lamp is virtually replacement free, eliminating the cost for new parts and repairs.

The lamps are fitted with a direct 24 V connector that does not require any additional components.



Light cone Ø (mm)	lux
100	1280
1000	880
2000	320

Example for light cone HE-EXLIGHT-E 24, height 1000 mm



Version	A	B	C	D	E
HE-EXLIGHT, 6 LED	210	78	25	186	54
HE-EXLIGHT, 12 LED	380	78	25	356	54
HE-EXLIGHT, 18 LED	550	78	25	526	54
HE-EXLIGHT, 24 LED	720	78	25	696	54

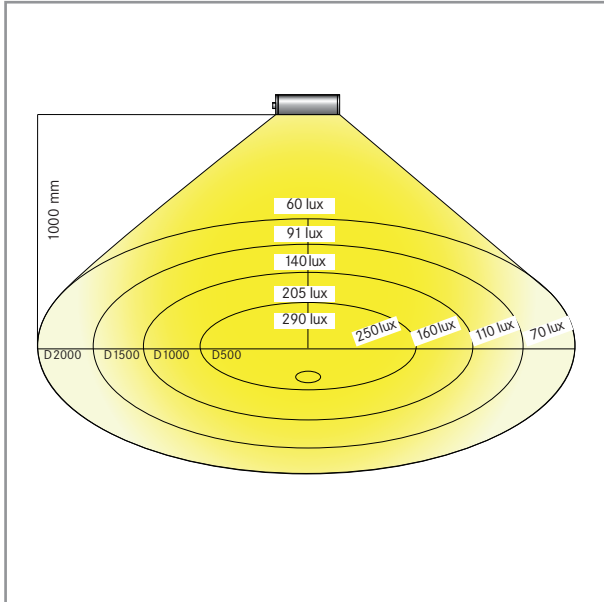
Dimensions for integrated and external versions

Version	Power supply	No of LEDs	Operating voltage	Light temperature	Lens	Mounting
HE-EXLIGHT-E 6	24 VDC	1	6 W	5000K	120°	external version
HE-EXLIGHT-E 12	24 VDC	2	12 W	5000K	120°	external version
HE-EXLIGHT-E 18	24 VDC	3	18 W	5000K	120°	external version
HE-EXLIGHT-E 24	24 VDC	4	24 W	5000K	120°	external version
HE-EXLIGHT-I 6	24 VDC	1	6 W	5000K	120°	integrated version
HE-EXLIGHT-I 12	24 VDC	2	12 W	5000K	120°	integrated version
HE-EXLIGHT-I 18	24 VDC	3	18 W	5000K	120°	integrated version
HE-EXLIGHT-I 24	24 VDC	4	24 W	5000K	120°	integrated version

Delivered with cable lengths from 1.5 to 6 m. 230 Vac and 12-24 Vdc cable ends of bare wires. Accessory equipment for connection to mains voltage sources.

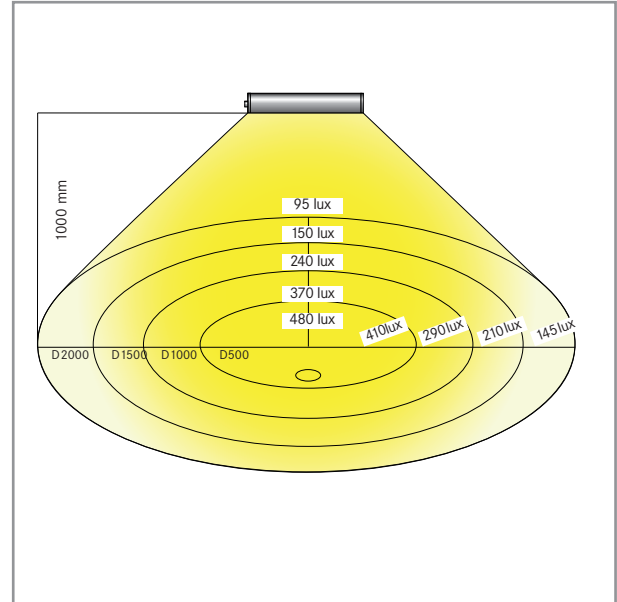
ILLUMINATION DISTRIBUTION CHARTS

HE-EXLIGHT-LED 24.6



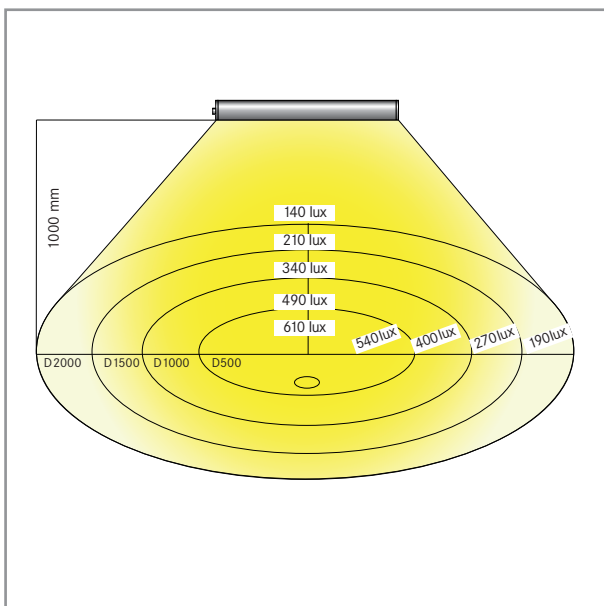
Technical details	Page 12
Lens	120°
Current	700 mA
Lighting systems	HE-EXLIGHT-LED24.6

HE-EXLIGHT-LED 24.12



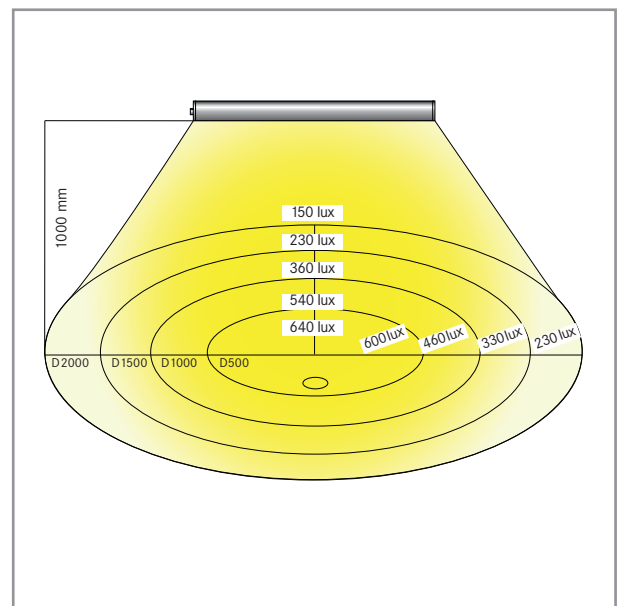
Technical details	Page 12
Lens	120°
Current	1400 mA
Lighting systems	HE-EXLIGHT-LED24.12

HE-EXLIGHT-LED 24.18



Technical details	Page 12
Lens	120°
Current	2100 mA
Lighting systems	HE-EXLIGHT-LED24.18

HE-EXLIGHT-LED 24.24



Technical details	Page 12
Lens	120°
Current	2800 mA
Lighting systems	HE-EXLIGHT-LED24.24

LIGHTING SYSTEMS	3
WORKPLACE LIGHTING	4
SPOT LIGHTING	9
MACHINE LIGHTING	13
INTEGRATED LIGHTING	22

HE-TRACK-LED MACHINE LIGHTING

3

LIGHTING SYSTEMS

4

WORKPLACE LIGHTING

9

SPOT FITTING LIGHTING

14

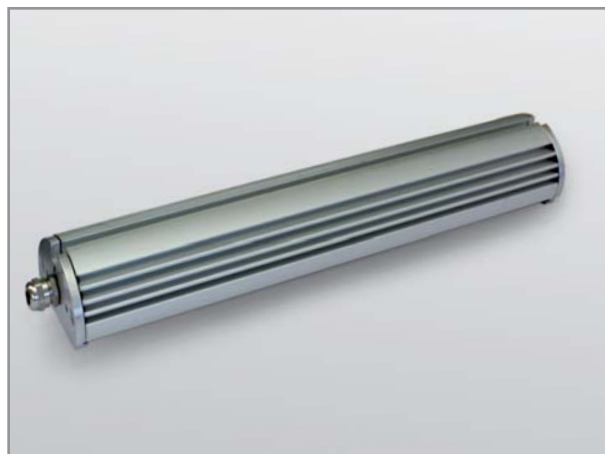
MACHINE LIGHTING

22

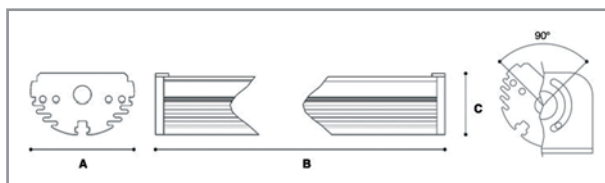
INTEGRATED LIGHTING



HE-TRACK-LED, diffuse lighting for glare-free working



HE-TRACK-LED, top view



The HE-TRACK-LED machine lamps are designed for small and mid sized machine tools.

The housing is of robust, silver anodised aluminium. The 5 mm thick, hardened safety pane presents a matt surface for diffuse, dazzle free lighting.

The lamps can be fitted with optional mounting plates for both horizontal and vertical installations. The lamps are impact resistant, impervious to vibrations, and can also operate in environments with coolants and lubricants.

In addition, the HE-TRACK-LED machine lamps are extremely low maintenance. This LED technology exhibits a long service life of 50,000 operating hours, so the lamp is virtually replacement free, eliminating the cost for new parts and repairs.

- Flexible machine lamp
- Adjustable lighting angle
- Direct 24 V connector without additional components
- Resistant to many coolants and lubricants

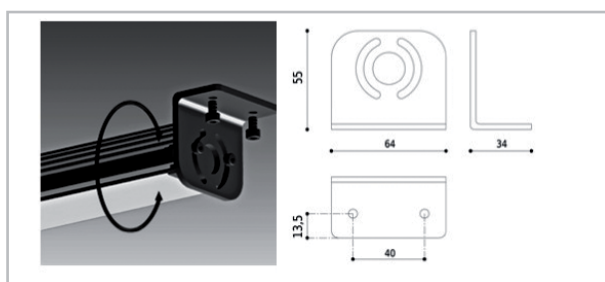


Version	A	B	C
HE-TRACKLED, 24 LED	63	340	37
HE-TRACKLED, 48 LED	63	640	37
HE-TRACKLED, 72 LED	63	940	37
HE-TRACKLED, 96 LED	63	1240	37

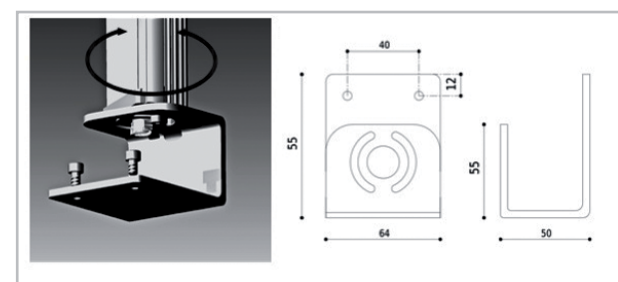
Dimensions in mm

Version	Power supply	LED no	Operating voltage	Light temperature	Lens	Mounting
HE-TRACKLED 24	24 VDC	24	13 W	5000K	120°	external
HE-TRACKLED 48	24 VDC	48	26 W	5000K	120°	external
HE-TRACKLED 72	24 VDC	72	39 W	5000K	120°	external
HE-TRACKLED 96	24 VDC	96	52 W	5000K	120°	external

Delivered with cable lengths from 1.5 to 6 m. 230 Vac and 12-24 Vdc cable ends of bare wires. Accessory equipment for connection to mains voltage sources.



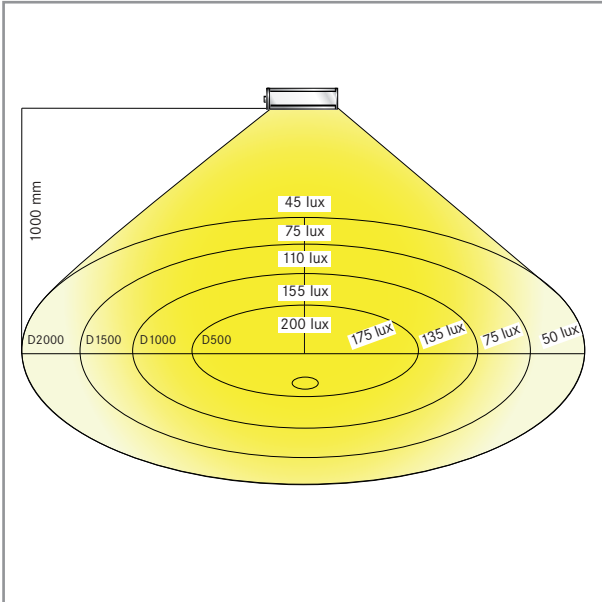
Fastener FX01



Fastener FX02

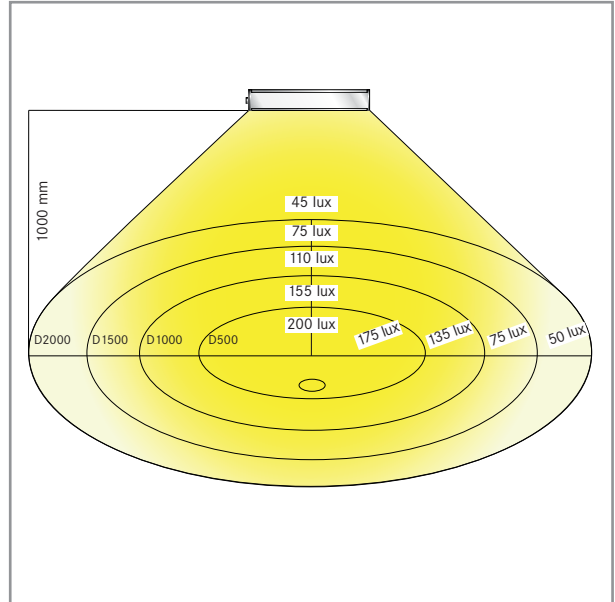
ILLUMINATION DISTRIBUTION CHARTS

HE-TRACK-LED24



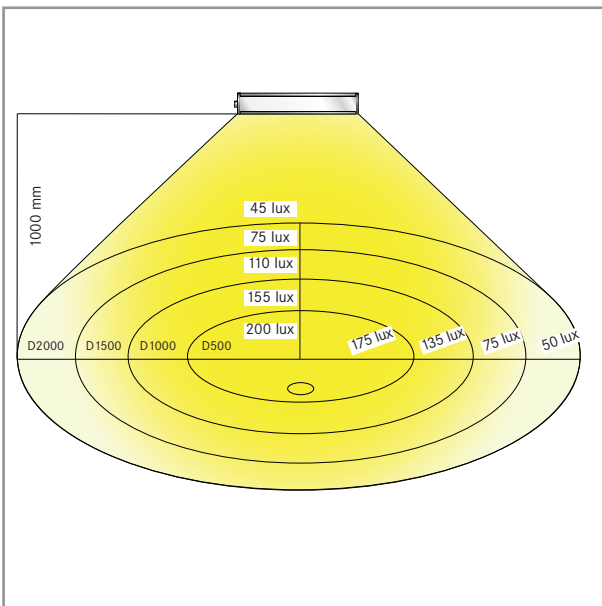
Technical details	Page 14
Lens	120°
Current	540 mA
Lighting systems	HE-TRACK-LED24

HE-TRACK-LED48



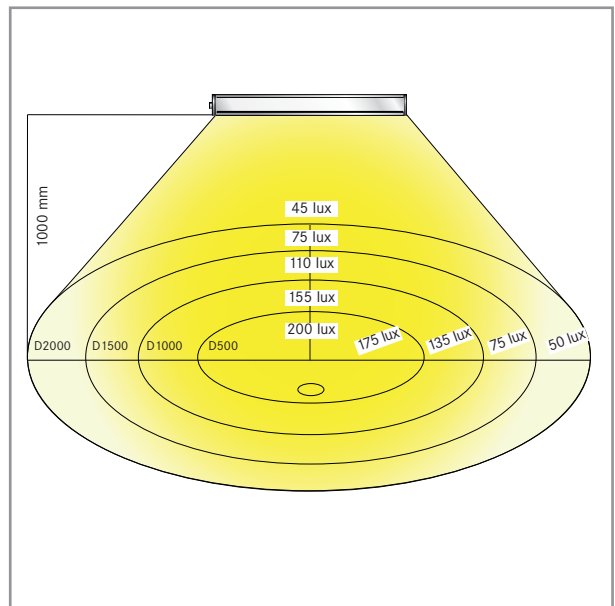
Technical details	Page 14
Lens	120°
Current	1080 mA
Lighting systems	HE-TRACK-LED48

HE-TRACK-LED72



Technical details	Page 14
Lens	120°
Current	1620 mA
Lighting systems	HE-TRACK-LED72

HE-TRACK-LED96



Technical details	Page 14
Lens	120°
Current	2160 mA
Lighting systems	HE-TRACK-LED96

LIGHTING SYSTEMS	3
WORKPLACE LIGHTING	4
SPOT FITTING LIGHTING	9
MACHINE LIGHTING	15
INTEGRATED LIGHTING	22

HE-TLED MACHINE LIGHTING

For constant illumination inside the machine, the HE-TLED lighting system was developed on a modular basis. As a result, the light provided by this system in the interior can be adapted specifically to actual needs. Units with three, six, nine, or twelve LEDs are available.



Modular machine interior lighting HE-TLED

The housing of the HETLED is of aluminium and polycarbonate and is ideal for dusty or wet environmental conditions e.g. inside machines. Also a scratchproof glass variant is available as an option for use in machining production areas. All HETLED versions fulfil the protective requirements for IP 68. The encapsulated design is an effective barrier against foreign particles and moisture for a constant high quality lighting at all times.

An LED has a max life of 50,000 hours, reducing maintenance work to a considerable degree. This long life and high lighting quality also help to reduce maintenance and energy consumption.



Machine interior lighting HE-TLED with three LED

Advantages of using HETLED lamps

- Compact measurements with maximum illumination
- Robust design for demanding applications
- Adjustable lighting angle, high flexibility
- Innovative fastening modes for max. installation convenience
- Resistant to most coolants and lubricants
- High IP rating, energy efficient
- LED technology for up to 50,000 hours of operation



Fastening with clips



Screw union with mount, see page 18

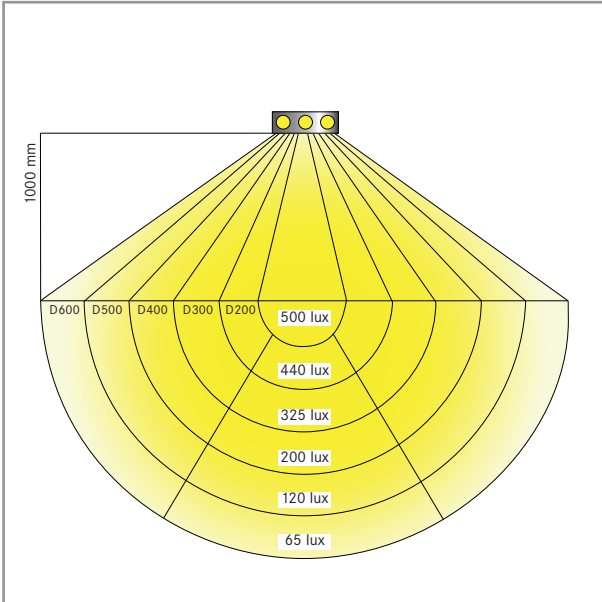


	HE-TLED 3	HE-TLED 6	HE-TLED 9	HE-TLED 12
Operating voltage 350 mA	3 W	6 W	9 W	12 W
Operating voltage 500 mA	6 W	12 W	18 W	24 W
Operating voltage 700 mA	9 W	-	-	-
Current	11.4 V DC	22.8 V DC	34.2 V DC	45.6 V DC
IEC marking	III	III	III	III
cable length	1.5 m	1.5 m	1.5 m	1.5 m
LED type	Cree XR-E	Cree XR-E	Cree XR-E	Cree XR-E
LED life	50 000 h	50 000 h	50 000 h	50 000 h
LED no	3	6	9	12
Light temperature	5300 °K	5300 °K	5300 °K	5300 °K
Lens	8° - 25° - 40°	8° - 25° - 40°	8° - 25° - 40°	8° - 25° - 40°
Dimensions (mm)	Ø 36x167	Ø 36x302	Ø 36x437	Ø 36x572
Fasteners	2 metal clips	2 metal clips	2 metal clips	2 metal clips
Colour	alloy	alloy	alloy	alloy
IP rating	IP68	IP68	IP68	IP68

HEMA also supplies an adapter matching the ordered illuminant type. Solely the operating voltage must be specified on the order (see table above). Delivered with cable lengths from 1.5 to 6 m. 230 Vac cables fitted with two-pin plug, 12-24 Vdc cable ends of bare wires.

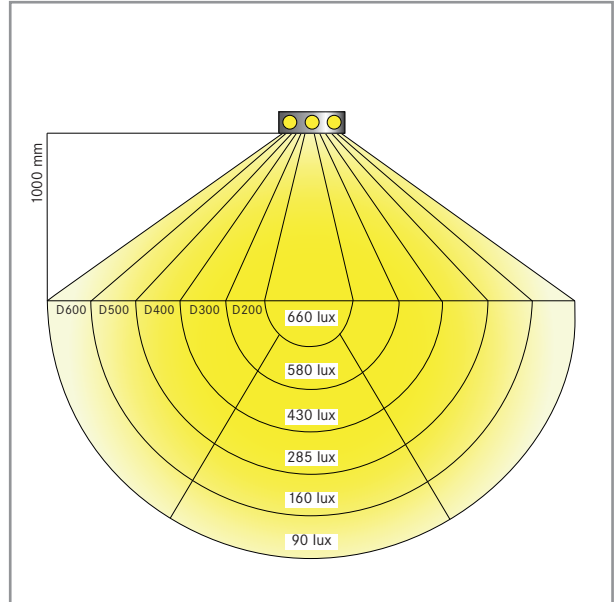
ILLUMINATION DISTRIBUTION CHARTS

HE-TLED3



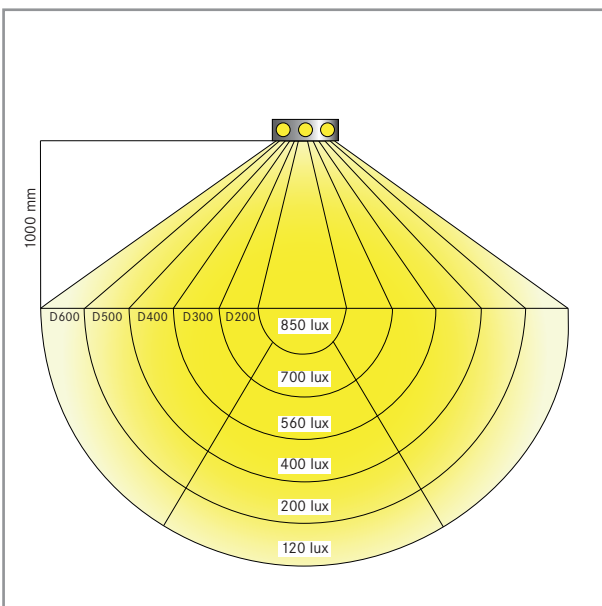
Technical details	Page 16
Lens	40°
Current	350 mA
Lighting systems	HE-TLED3

HE-TLED3



Technical details	Page 16
Lens	40°
Current	500 mA
Lighting systems	HE-TLED3

HE-TLED3



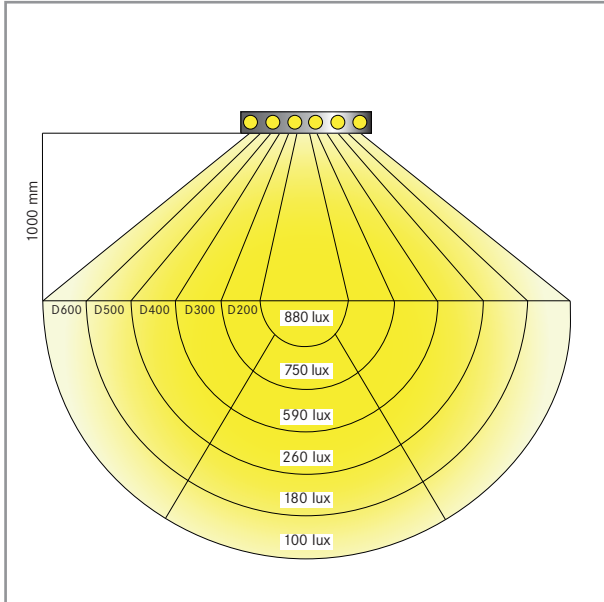
Technical details	Page 16
Lens	40°
Current	700 mA
Lighting systems	HE-TLED3

LIGHTING SYSTEMS	3
WORKPLACE LIGHTING	4
SPOT FITTING LIGHTING	9
MACHINE LIGHTING	17
INTEGRATED LIGHTING	22

ILLUMINATION DISTRIBUTION CHARTS

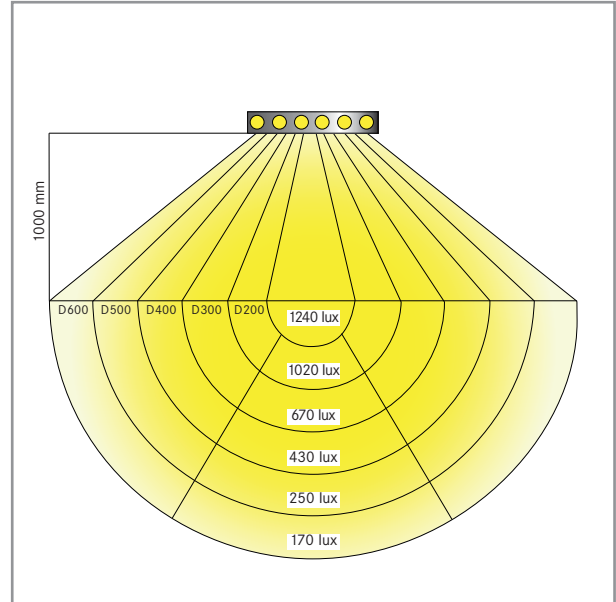
3	LIGHTING SYSTEMS
4	WORKPLACE LIGHTING
9	SPOT FITTING LIGHTING
18	MACHINE LIGHTING
22	INTEGRATED LIGHTING

HE-TLED6



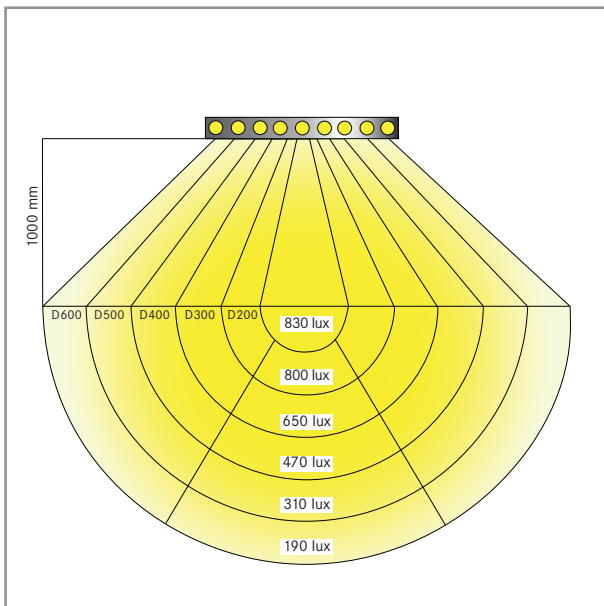
Technical details	Page 16
Lens	40°
Current	350 mA
Lighting systems	HE-TLED6

HE-TLED6



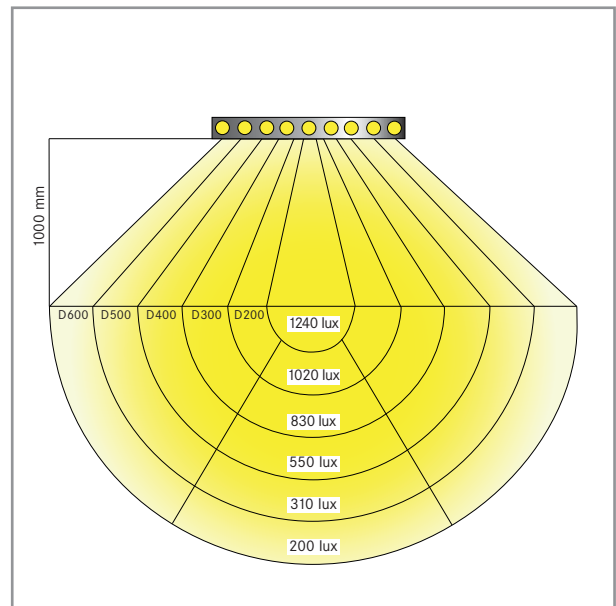
Technical details	Page 16
Lens	40°
Current	500 mA
Lighting systems	HE-TLED6

HE-TLED9



Technical details	Page 16
Lens	40°
Current	350 mA
Lighting systems	HE-TLED9

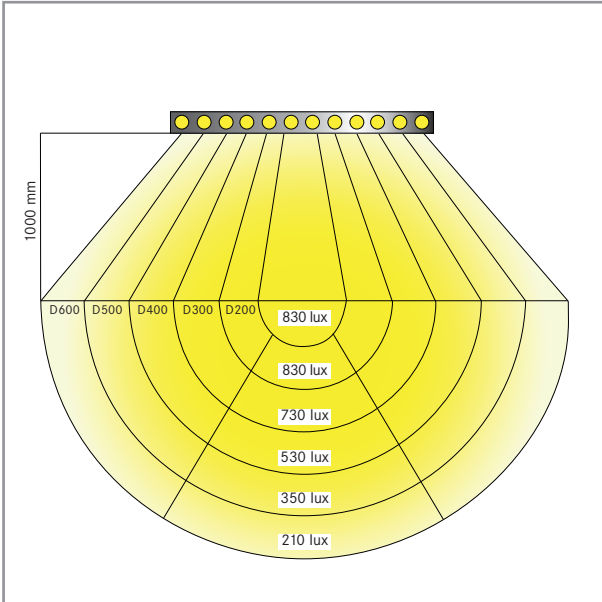
HE-TLED9



Technical details	Page 16
Lens	40°
Current	500 mA
Lighting systems	HE-TLED9

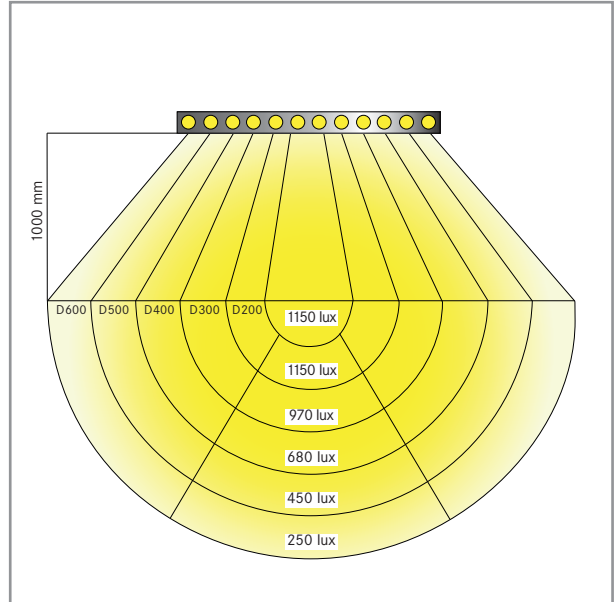
ILLUMINATION DISTRIBUTION CHARTS

HE-TLED12



Technical details	Page 16
Lens	40°
Current	350 mA
Lighting systems	HE-TLED12

HE-TLED12



Technical details	Page 16
Lens	40°
Current	500 mA
Lighting systems	HE-TLED12

LIGHTING SYSTEMS	3
WORKPLACE LIGHTING	4
SPOT FITTING LIGHTING	9
MACHINE LIGHTING	19
INTEGRATED LIGHTING	22

HE-TCITY MACHINE LIGHTING

3

LIGHTING SYSTEMS

4

WORKPLACE LIGHTING

9

SPOT FITTING LIGHTING

20

MACHINE LIGHTING

22

INTEGRATED LIGHTING

Like the HETLED Series, also HE-TCITY is perfect for the permanent illumination of machine interiors. HE-TCITY is available in four sizes: 6 W, 12 W, 18 W, and 24 W. The HE-TCITY housing is made of aluminium encased in borosilicate glass. All HE-TCITY versions fulfil the protective requirements for IP 68.



Machine inner lighting HE-TCITY with mounting

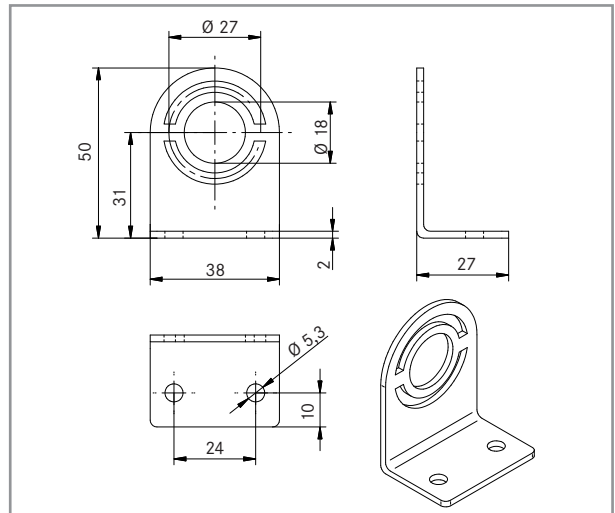
The encapsulated design is an effective barrier against foreign particles and moisture for a maintained high quality of lighting. The LEDs are designed for a long service life and high light quality, reducing maintenance work and energy costs to a considerable degree.

Advantages of using HE-TCITY lamps

- Compact measurements with maximum illumination
- Robust design for demanding applications
- 120° lighting angle
- Direct 24 V connector, integrated adapter
- Innovative fastening modes for maximised installation convenience
- Resistant to most coolants and lubricants
- High IP 68 rating
- LED technology for up to 50,000 hours of operation



Machine inner lighting HE-TCITY



Holder to screw for HE-TCITY and HE-TLED

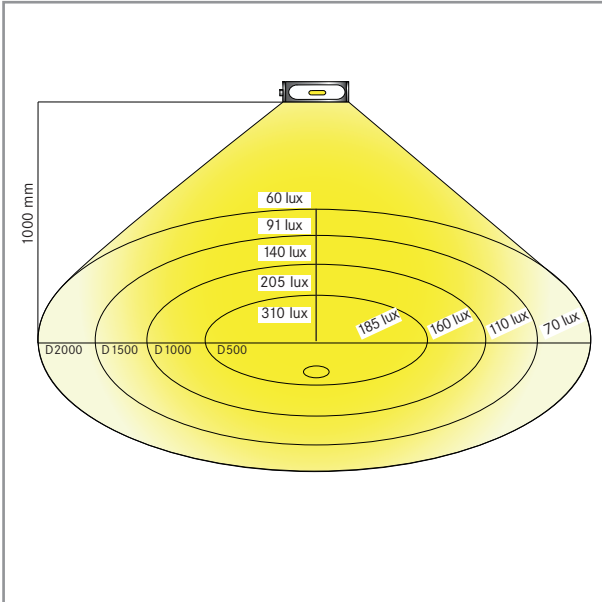


	HE-TCITY6	HE-TCITY12	HE-TCITY18	HE-TCITY24
Current 700 mA	6 W	12 W	-	-
Current 1,400 mA	-	-	18 W	24 W
Operating voltage	24 VDC	24 VDC	24 VDC	24 VDC
IEC marking	III	III	III	III
Cable length standard	1.5 m	1.5 m	1.5 m	1.5 m
LED Type	CITILED	CITILED	CITILED	CITILED
LED Lebensdauer	ca. 50,000 h	ca. 50,000 h	ca. 50,000 h	ca. 50,000 h
Number of LEDs	1	2	3	4
Light temperature	5000 K Ra65	5000 K Ra65	5000 K Ra65	5000 K Ra65
Lens	120°	120°	120°	120°
Dimensions (mm)	Ø 38x202	Ø 38x372	Ø 38x542	Ø 38x712
Fasteners	Holder / Clips	Holder / Clips	Holder / Clips	Holder / Clips
Colour	Aluminium/Glass	Aluminium/Glass	Aluminium/Glass	Aluminium/Glass
IP Class	IP68	IP68	IP68	IP68

Delivery with cable lengths from 1.5 to 6 m on option. 230 Vac cables fitted with two-pin plug, 12-24 Vdc cable ends of bare wires.

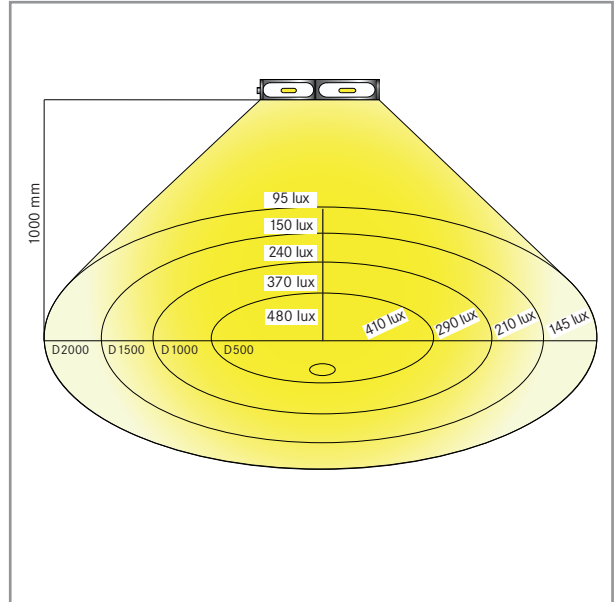
ILLUMINATION DISTRIBUTION CHARTS

HE-TCITY6



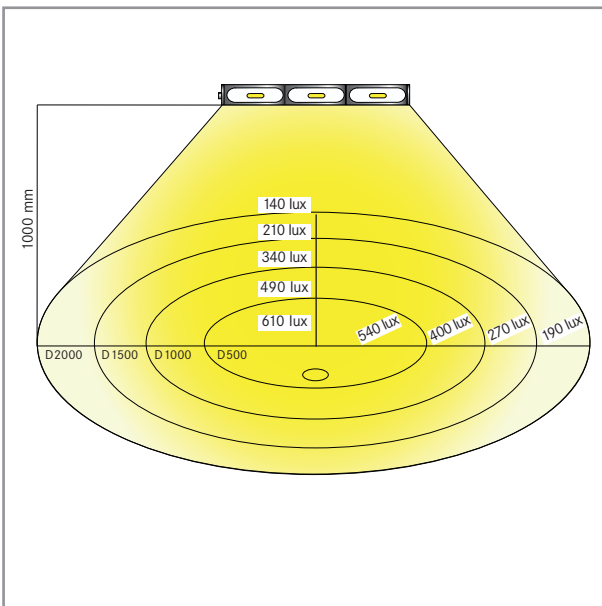
Technical details	Page 18
Lens	120°
Current	24V/700 mA
Lighting systems	HE-TCITY.6W

HE-TCITY12



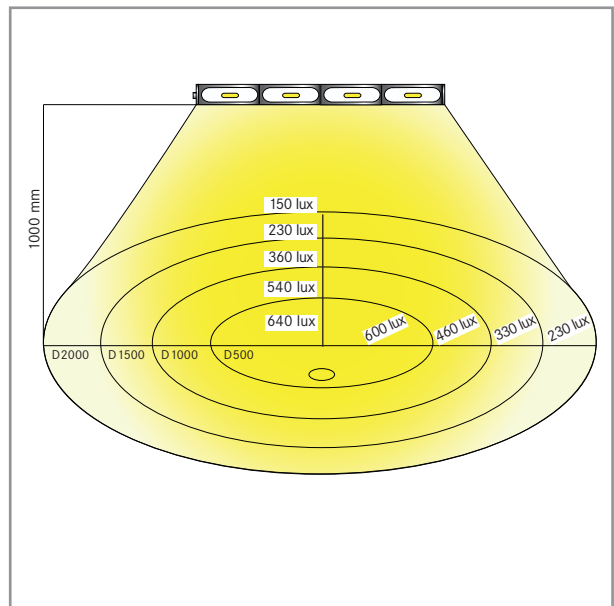
Technical details	Page 18
Lens	120°
Current	24V/700 mA
Lighting systems	HE-TCITY.12W

HE-TCITY18



Technical details	Page 18
Lens	120°
Current	24V/1400 mA
Lighting systems	HE-TCITY.18W

HE-TCITY24



Technical details	Page 18
Lens	120°
Current	24V/1400 mA
Lighting systems	HE-TCITY.24W

LIGHTING SYSTEMS 3

WORKPLACE LIGHTING 4

SPOT FITTING LIGHTING 9

MACHINE LIGHTING 21

INTEGRATED LIGHTING 22

MACHINE SAFETY WINDOW WITH INTEGRATED LIGHTING

3

LIGHTING SYSTEMS

4

WORKPLACE LIGHTING

9

SPOT FITTING LIGHTING

12

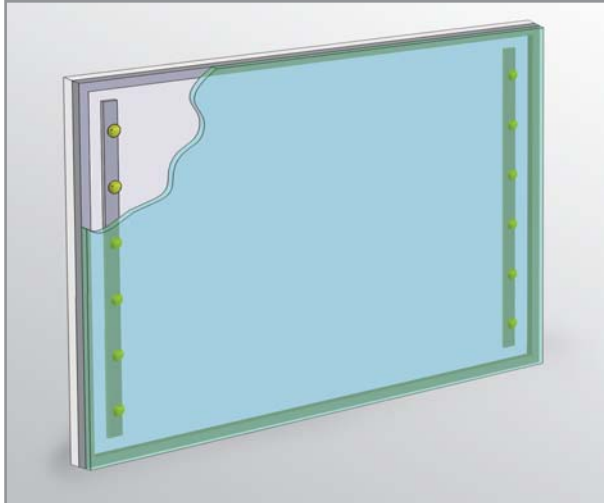
MACHINE LIGHTING

22

INTEGRATED LIGHTING

Machine safety windows permit safe viewing of machining operations inside the machine tool. Most often there is a need for additional lighting.

Depending on available space and position, conventional lights can become dulled by accumulation of swarf and contamination by coolant.



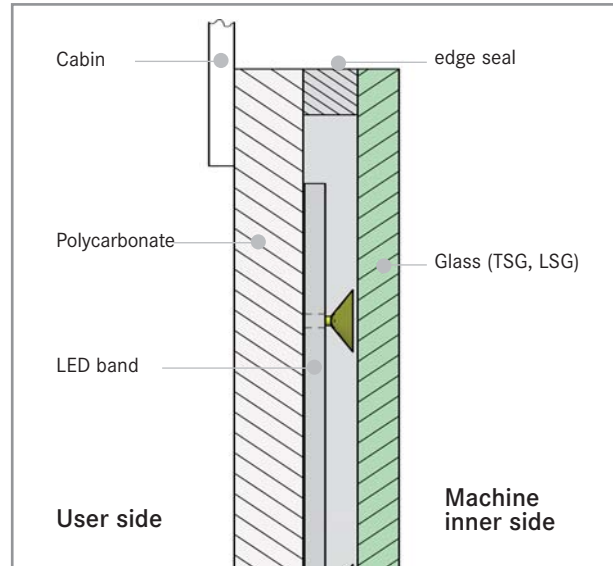
Machine safety window with LED lighting

The optimum solution combines a clear view into the machine with suitable lighting. This solution is available in the form of illuminated HEMA Windows - the integration of LED technology in a machine safety window. These illuminated safety windows combine the advantages of two established systems in one compact solution.

The variable position of the LED lighting rails - vertical or horizontal - enables a flexible fitting to requirements of



Machine safety window with LED lighting



Layout of the safety window with integrated lighting

the machine interior. Problems of swarf and coolant contamination of internally mounted lamps will be eliminated.

The well proven perimeter seal design ensures the LED's and internal surfaces are protected from ingress of contamination and moisture.

The advantages of HEMA windows with integrated lighting:

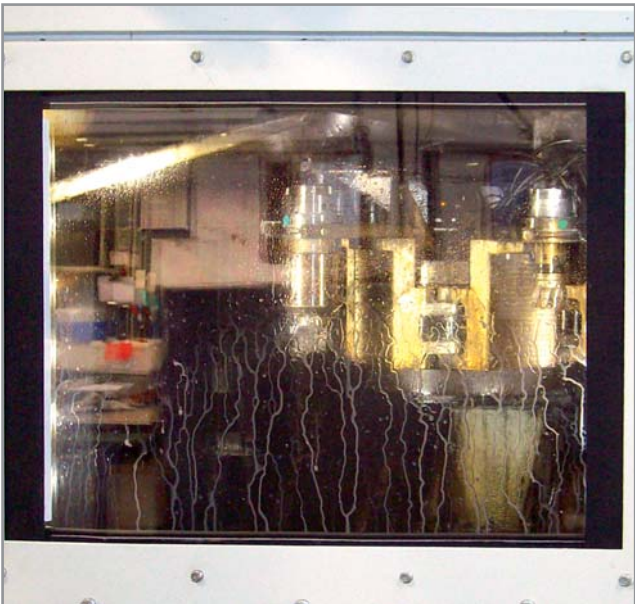
- Compact system solution
- Flexible illumination of the machine interior
- Tried and tested LED technology
- Elimination of lamp contamination
- Power supply from the mains or the machine
- Retrofit option on machines

Types

Power supply	24 VDC
Current	270 mA, 540 mA, 800 mA, 1100 mA
Operating voltage	6 W / 12 W / 18 W / 24 W
Lens	ca. 120°
Light temperature	5700 K
Connection	M12

Due to the complex plug-in system the LED modules can be reused when the machine window is damaged. Our service will be happy to advise you.

Further information on HEMA machine safety and Visiport rotating windows can be found in our catalogue »Protective Systems«.





Our range of products and services



Protection systems



Clamping and braking systems



LED Lighting systems



Service, logistics and maintenance

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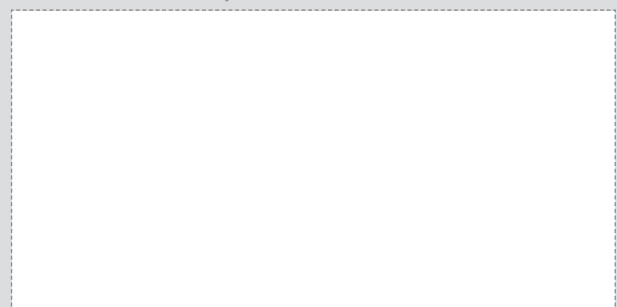
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