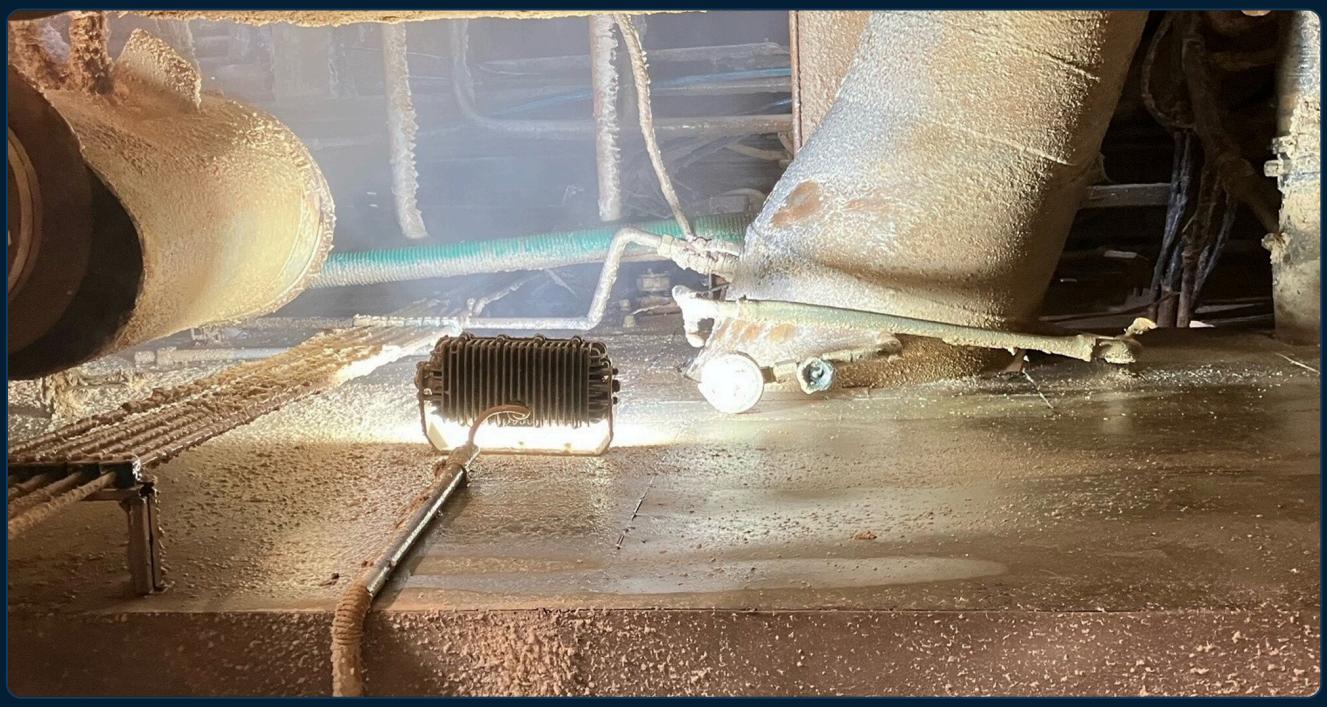
JEL PRODUCTS
SUSTAINABLE | LIGHTING | SOLUTIONS

COLLECTED TECHNICAL DATASHEETS

High Temperature

Six luminaires for a continuous ambient of +120 °C, from 2,600 to 65,000 lumens. In every one of them the driver sits outside the hot zone, because that is the component that fails in heat.

LUMINAIRES	AMBIENT	OUTPUT RANGE	BEST EFFICACY
6	+120 °C	2,600 to 65,000 lm	213 lm/W



Orca HT · Barracuda HT · Snapper HT · Goby HT · Linear HT · Manta HT

Contents

Six high temperature luminaires. The page numbers run through the whole document.

HOW TO READ THIS DOCUMENT

Every luminaire in this document has the same five sections: what it is and where it is used, the light output and the optics, the full specification, the mechanics and the driver, and the ordering information. The page numbers below run through the whole document.

The selection table on the next page is the fastest route. It puts the luminaires side by side on the figures that actually decide a specification: output, mass, impact class, supply and what the housing is made of. The individual datasheets follow in the same order.

The HT principle

Every high temperature luminaire in the range is built on the same idea, and it is worth stating once rather than six times: the LED is not the problem, the driver is.

WHAT ACTUALLY FAILS IN HEAT

An LED loses output slowly as its junction temperature rises. An electrolytic capacitor in a driver dries out, and that is not a slow degradation, it is a failure. In a hot process area a conventional luminaire is therefore not a lighting problem but a maintenance contract, and the maintenance falls in exactly the place that cannot be reached during production.

WHAT THE HT RANGE DOES ABOUT IT

The driver is taken out of the hot zone entirely and mounted where the ambient is at most +50 °C, in a DRB driver box or on a tray. Between the driver and the luminaire runs heat resistant SiHF-OB silicone cable. On the Barracuda HT and the Orca HT that run can be up to 150 metres, which is normally enough to put the driver in a control room or on a cool wall.

SELF-PROTECTION

The luminaire watches its own internal temperature. As it rises the luminaire dims back automatically, and on overheating it switches itself off. That feedback runs over two 0.5 mm² cores in the supply cable, which is why the cable specification has four cores and not two.

THE TEMPERATURE LADDER

LED service life depends on the ambient. The same ladder applies to every high temperature luminaire in the range, including the DC versions, and it belongs in the specification table rather than in a footnote.

TM-21 L90B05 at 50 °C	> 360,000 h
at 85 °C	103,000 h
at 105 °C	71,700 h
at 120 °C	51,400 h

TWO LIMITS WORTH KNOWING BEFORE YOU SPECIFY

AC to +120 °C	Warranty five years at that ambient
DC to +110 °C	Warranty five years at that ambient
HT optics	Orca, Barracuda and Linear only. The other housings are too small and are 120° very wide
Bi-colour and amber	Not available on the high temperature versions
Front cover	Chemically hardened glass, or diffuse borosilicate for food industry applications
Above +130 °C	Engineered per position, on request

THE ONE THING TO GET RIGHT AT DESIGN STAGE

Where the driver box goes. It needs an ambient of at most +50 °C, it needs to be reachable without a shutdown, and the cable run between it and the luminaire has to be routed before the structure is closed. Every high temperature installation that goes wrong goes wrong on that decision, not on the luminaire.

Selection table

The six high temperature luminaires side by side. AC versions unless stated.

Luminaire	Flux lm	W	lm/W	Ta °C	Driver	Optics	Cable	Typical
Orca HT	65,000	320	203	+120	Remote 800 W	20 · 40 · 60° or none	150 m	Casting floors, mills
Barracuda HT	20,600	120	172	+120	Remote BLD320	20 · 40 · 60° or none	150 m	Furnace fronts
Snapper HT	7,000	35	200	+120	Remote BLD075	None, 120° wide	25 m	Ovens, drying, chemical
Goby HT	2,600	13	200	+120	Remote BLD075	None, 120° wide	15 m	Small hot positions
Linear HT	25,600	120	213	+120	External BLD120	20 · 40 · 60 · 120°	On request	Tunnels, paper
Manta HT	14,400	75	192	+120	Remote BLD120	None, 120° wide	5 m	Hot ceilings, hoods

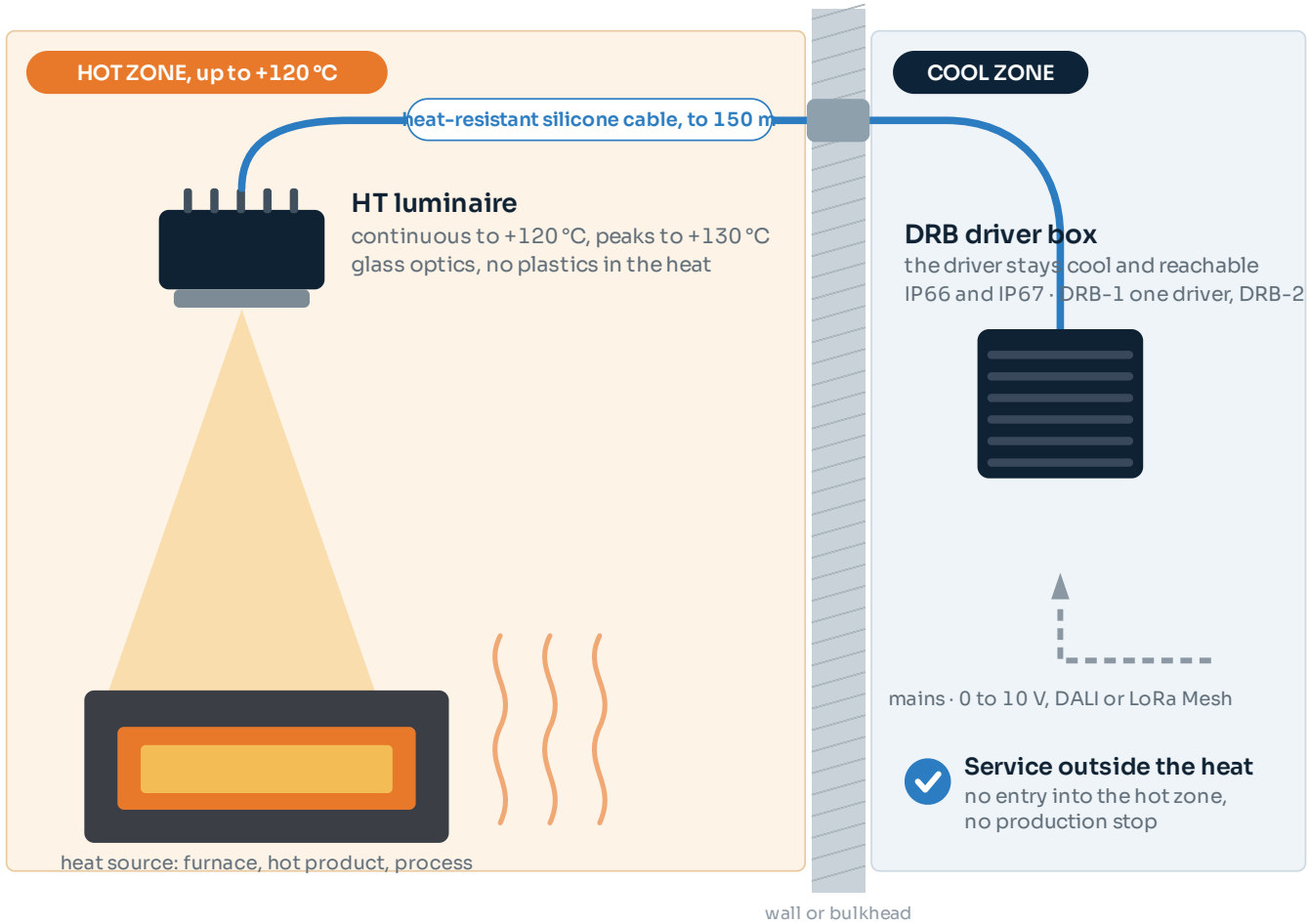
Efficacy is stated at the rated output. Ambient is the continuous rating; on the DC versions it is +110 °C and the warranty follows. Cable is the standard silicone run between luminaire and driver box; longer runs are a custom build. The driver box itself must sit in an ambient of at most +50 °C in every case.

The HT system

Engineered as a system for heat, not as a luminaire that tolerates it.

Standard industrial LED luminaires are specified to roughly +50 °C ambient. Above that the driver electronics fail first: in virtually every failure of LED lighting in a hot environment, the driver is the weak link. Every installation in the HT line therefore consists of two parts. The heat resistant luminaire sits in the hot zone and the driver sits outside it, supplied bare as standard or built into a DRB driver box, joined by heat resistant silicone cable. Nothing that fails at temperature is left in the heat.

+120 °C	+130 °C	5 to 150 m	130,000 h	IP67
continuous, with full warranty	short peaks permitted	heat-resistant silicone cable	driver life at Tc 50 °C	remote driver and DRB box



The HT system: the luminaire in the heat, the driver outside it.

BUILT-IN SELF-PROTECTION

The luminaire protects itself with internal temperature feedback. As the internal temperature rises it dims back automatically, and on overheating it switches itself off. That feedback runs through the four core supply of every luminaire: two cores for power and two of 0.5 mm² for temperature control. It is the reason the cable specification has four cores rather than two.

Above +130 °C, or unsure about the thermal load? Our engineers calculate the thermal load per mounting position and design the complete system, including the driver location, cable route and DRB selection. Photometric values are measured at a +50 °C reference ambient. HT luminaires are not ATEX certified.

HIGH TEMPERATURE LED FLOODLIGHT

Orca HT

Shown: Orca HT, Titanium Light Grey, chemically hardened glass front.

CE | IP69K | IK09 | Class II | Ta −45 … +120 °C | C5 ISO 9223 | 90–305 / 180–528 VAC | silicone cable to 150 m | remote driver | borosilicate option | Vibration 6 G | 5-year warranty to +120 °C

65,000 lumens at an ambient temperature of +120 °C, continuously. The driver sits outside the hot zone and the luminaire is connected to it with heat resistant silicone cable, so the only part in the heat is the part that can take it.

LUMINOUS FLUX	POWER	AMBIENT
65,000 lm	320 W	+120 °C
INGRESS	**IMPACT**	**CABLE RUN**
IP69K	IK09	150 m

Values apply to the version without optics at 6500 K, at the stated ambient temperature, including driver consumption. Bi-colour is not available on the high temperature versions.

WHY IT IS SPECIFIED

The driver leaves the hot zone. Electrolytic capacitors are what fail in heat. Placing the driver outside the zone and connecting it with silicone cable removes the failure mode instead of derating around it.

Up to 150 m between luminaire and driver. The driver box can sit in the control room or on a cool wall, which is also where a technician can reach it without a shutdown.

Two output options. Without optics for close range over a wide field, or with 20, 40 and 60 degree HT optics where the light has to be thrown at a target.

WHERE IT IS USED

- Steel plant bays and casting floors
- Rolling mills and reheat furnace fronts
- Foundries and melt shops
- Coke plant and sinter lines
- Glass works and annealing lehrs
- Cement kilns and clinker coolers
- Aluminium smelters and potrooms
- Drying ovens and paint lines
- Paper machines and drying sections
- Asphalt and bitumen plant
- Waste incineration and boiler halls
- Heat treatment and forging shops

VERSIONS

	ORHT01, no optics	ORHT02, with optics
Luminous flux at 320 W	65,000 lm	52,000 lm
Luminous flux at 240 W	51,000 lm	39,000 lm
Beam	120° very wide	20°, 40° or 60° HT optic
Front	Chemically hardened glass, or borosilicate	Chemically hardened glass, or borosilicate
Ambient	−45 to +120 °C	−45 to +120 °C
Weight incl. bracket	22.7 kg	22.7 kg

A 316L stainless steel high temperature version is available on request. The HT versions do not carry the bi-colour option.

Light output and optics

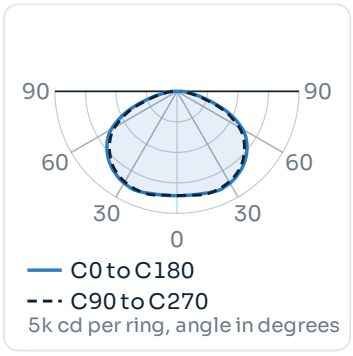
Values apply to the version without optics at Ta 25 °C, including driver consumption. The luminous flux is maintained across the full ambient range; what changes with temperature is the LED service life, stated as a ladder in the colour table.

BEAM CHARACTERISTICS

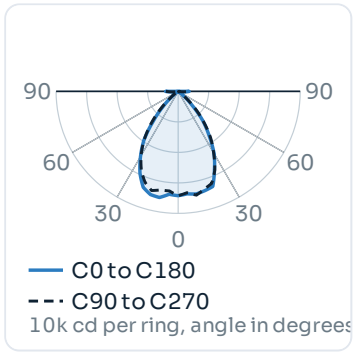
Version	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
ORHT01	No optics, very wide	136°	168°	Close range over a wide field: furnace fronts, casting bays, oven zones
ORHT02, 20°	HT optic, narrow	20°	–	Long throw onto a specific target through a hot atmosphere
ORHT02, 40°	HT optic, medium	40°	–	Bay and aisle lighting from a hot roof structure
ORHT02, 60°	HT optic, wide	60°	–	General cover at moderate mounting height in the hot zone

The beam angle is the full angle between the two directions where the intensity has fallen to 50 % of the peak. HT optics are available on the Orca, the Barracuda and the Linear only; on the other high temperature luminaires the housing is too small to carry one and those versions are 120° very wide.

LIGHT DISTRIBUTION



ORHT01, no optics



ORHT02, 60° HT optic

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K and 2700 K
Bi-colour	Not available on the high temperature versions

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a site borders a residential area or a protected zone, and it is the starting point for any assessment against NEN-EN 12464-2 and the NSVV guidance on obtrusive light. Where the site condition demands a cut off optic rather than a controlled floodlight, see the DarkLicht range.

COLOUR AND CONSISTENCY

Colour temperatures	6500 K, 4000 K, 2700 K
Bi-colour	Not available on the high temperature versions
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05, see the temperature ladder below
Ladder	> 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C

Full specification

All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

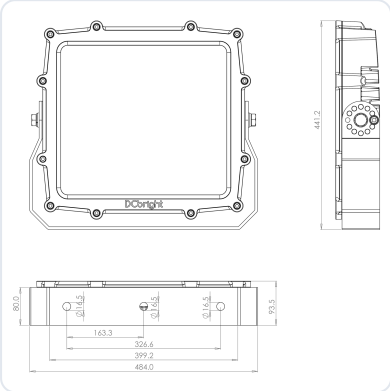
	Orca HT
PERFORMANCE	
Luminous flux, no optics	65,000 lm at 320 W · 51,000 lm at 240 W
Luminous flux, with optics	52,000 lm at 320 W · 39,000 lm at 240 W
Power consumption	320 W or 240 W
Beam	120° very wide, or 20°, 40° or 60° HT optic
ELECTRICAL AND DRIVER	
Supply voltage range	90–305 VAC or 180–528 VAC, 50/60 Hz
Current draw	1.5 A at 220 V and 0.8 A at 380 V at 320 W · 1.1 A at 220 V and 0.6 A at 380 V at 240 W
Power factor at full load	> 0.9 at 60 to 100 % load
THD at full load	< 15 % at 60 to 100 % load
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)
Dimming	0–10 V, PWM, DALI-2, or over NFC
Driver	Remote 800 W driver, mounted outside the hot zone, bare or in the DRB-2
Driver ambient	The driver box must sit in an ambient of at most +50 °C
Driver life	≥ 100,000 h at Tc 75 °C. Replaced without opening the luminaire
CONSTRUCTION	
Housing	Cast aluminium, less than 0.08 % copper
Surface finish	Conversion layer plus 2-layer titanium-based e-coating
Colour	Titanium Light Grey
Bracket	High tensile 316L stainless steel, adjustable through ±240° in 30° steps
Front	Chemically hardened glass IK09, or borosilicate glass
Protection class	Class II
Ingress protection	IP66, IP67, IP68 and IP69K, resistant to steam and high pressure cleaning
Impact resistance	IK09, set by the front cover (IEC 62262)
Corrosion class	C5 industrial and marine (ISO 9223)
Vibration and shock	6 G at resonant frequency (IEC 60068-2-6), shock tested to IEC 60068-2-27
DURABILITY AND DIMENSIONS	
Ambient temperature	−45 to +120 °C continuous
LED service life	TM-21 L90B05: > 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C
Cable and termination	SiHF-OB heat resistant silicone, 4 cores (2 × 2.5 mm² + 2 × 0.5 mm²), 15.0 m as standard, up to 150 m
Dimensions	Luminaire with bracket 515 × 440 × 95 mm · housing without bracket 484.0 × 441.2 × 93.5 mm
Weight	22.7 kg incl. bracket, driver box separate
Warranty	5 years on the complete luminaire up to +120 °C

The driver box is mounted outside the hot zone and is connected with heat resistant silicone cable. The LED life ladder applies to every high temperature luminaire in the range and is stated in the colour table rather than as a footnote.

Mechanics, mounting and driver

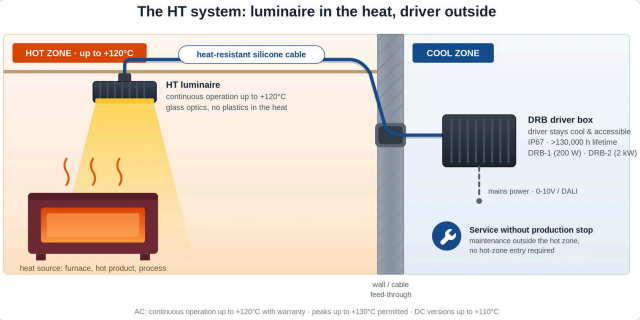
All drawings are to scale and dimensioned in millimetres. The driver box is a separate item and is mounted outside the hot zone.

STANDARD BRACKET



Housing	484.0 × 441.2 × 93.5 mm
Incl. bracket	515 × 440 × 95 mm
Mounting foot	399.2 mm wide, 80.0 mm deep
Fixing holes	3 × Ø 16.5 mm
Hole centres	326.6 mm, 163.3 mm pitch
Adjustment	±240° in 30° steps

LUMINAIRE AND DRIVER BOX



In the hot zone	The luminaire only
Outside the hot zone	The driver, in the DRB-2 or on a tray
Between them	Heat resistant silicone cable, 15.0 m standard, up to 150 m
Driver ambient	+50 °C maximum
Longer runs	Beyond 150 m is a custom build

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
DRB-2 driver box	Housing for the remote driver, outside the hot zone
Borosilicate front	Option where the glass sees direct radiant heat
Safety cable	Optional, supplied with the luminaire
Silicone cable	15.0 m as standard, up to 150 m. Beyond that is a custom build
316L high temperature version	On request

REMOTE DRIVER

Type	800 W remote driver, 90–305 or 180–528 VAC
Position	Outside the hot zone, ambient +50 °C maximum
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
Size and weight	237 × 125 × 49 mm, 2,600 g
Enclosure	Bare, or in the DRB-2

Heat is what kills a driver, not the LED. Electrolytic capacitors dry out. Moving the driver out of the hot zone is the single change that turns a high temperature installation from a yearly job into a ten year one.

DRB-2 DRIVER BOX

Use	Housing for the remote driver, outside the hot zone
DRB-2	Systems up to 2,000 W. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Ingress protection	IP66 and IP67
Ambient	+50 °C maximum

Ordering, standards and documents

ORDER CODE

Example **ORHT01-65K**

Orca HT, no optics, 6500 K

ORHT01	High temperature, without optics, 120° very wide
ORHT02	High temperature, with 20°, 40° or 60° HT optic
65K · 40K · 27K	6500 K · 4000 K · 2700 K
.20 · .40 · .60	HT optic suffix on ORHT02
240W	Suffix for the 240 W build

Bi-colour and amber are not available on the high temperature versions. Cable length beyond 15.0 m, the diffuse borosilicate front and the 316L housing are confirmed at order.

COMBINATIONS

HT optics with 2700 K	Possible
Borosilicate front	Any version
316L housing	On request
Bi-colour	Not available
Cable to 150 m	Standard option
DC supply	Not available on the Orca HT

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Luminaire safety	IEC/EN 60598-1, -2-5	In-house test
EMC emission and immunity	EN 55015, EN 61547 · IEC 60533 marine, bridge and open deck	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68, IP69K	In-house test
Impact and vibration	IEC 62262 IK09, set by the front cover · IEC 60068-2-6 at 6 G	In-house test
Shock and corrosion	IEC 60068-2-27 · ISO 9223 class C5, industrial and marine	In-house test
Photometry	IES LM-79, IES files per optic	In-house test
Substances	RoHS, REACH	Self-declaration

BEFORE YOU ORDER

A sample luminaire to hang before you commit to a project quantity.

Five years warranty on the complete luminaire.

A DIALux calculation from our engineers, on your site drawing.

PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/orca

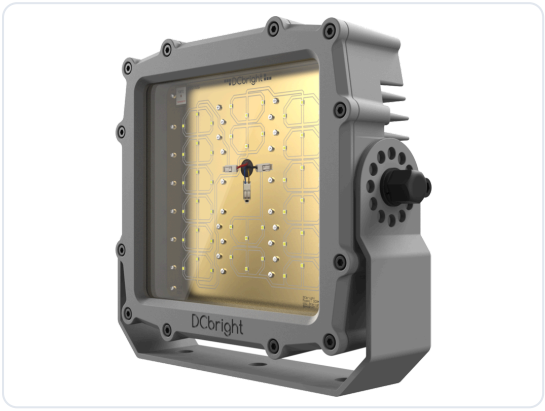
WHERE IT EARNS ITS PLACE

Above +50 °C a normal floodlight is not a lighting problem, it is a maintenance contract. The Orca HT is specified where the hot zone cannot be reached during production and where the alternative is replacing drivers every year on a platform above a casting floor.

Notes. Values are for the standard configuration. The warranty follows the operating temperature: five years to +120 °C on AC and to +110 °C on DC. The LED life ladder in the colour table is the same for every high temperature luminaire in the range. North American models on request. The JEL range is not ATEX or Ex certified.

HIGH TEMPERATURE LED FLOODLIGHT

Barracuda HT



Shown: Barracuda HT, aluminium housing, chemically hardened glass front, high tensile 316L bracket.

CE | IP69K | IK09 | Class II | Ta −45 … +120 °C | peaks +130 °C | 90–305 VAC | aluminium or 316L | C5 ISO 9223 | IR-reflective print | silicone cable to 150 m | 5-year warranty to +120 °C

The floodlight for oven zones and heavy industry, and the proven choice at Tata Steel and Rockwool: 20,600 lumens at 120 W, rated for +120 °C continuous ambient. The luminaire sits in the heat, the driver sits outside it, because in almost every failure of LED lighting in a hot environment the driver is what gives up first.

LUMINOUS FLUX	POWER	EFFICACY
20,600 lm	120 W	172 lm/W
AMBIENT	**INGRESS**	**BEAM ANGLE**
+120 °C	IP69K	133°

Values apply to BAHT01 at 4000 K, Ta 25 °C, including driver consumption. 6500 K delivers the same luminous flux as 4000 K. Lumen maintenance at elevated ambient is on page 3.

WHY IT IS SPECIFIED

The driver sits outside the heat. Standard industrial luminaires stop at roughly +50 °C because the driver does. Splitting the system moves the weak part out of the hot zone entirely.

+120 °C continuous, +130 °C in peaks. Full warranty at continuous +120 °C, with short excursions to +130 °C permitted.

IR-reflective print as standard. Radiant heat from the process is reflected instead of absorbed, which is what keeps the LED junction temperature down next to a casting platform.

WHERE IT IS USED

- Steel industry: rolling mills
- Casting platforms and ladle bays
- Mineral wool production
- Building materials and kilns
- Oven zones in heavy process industry
- Paper machines and drying sections
- Glass and ceramics production
- Foundries and heat treatment
- Asphalt and cement plants
- Aluminium smelters and anode plants

MODELS

	Housing	Optic
BAHT01	Cast aluminium, e-coated	No lens, 133°
BAHT02	Cast aluminium, e-coated	HT glass optic
BAHT03	316L stainless steel	No lens, 133°
BAHT04	316L stainless steel	HT glass optic

All models 120 W at 90–305 VAC, with a colour temperature suffix -65K, -40K or -27K. Every model uses a remote BLD320 driver outside the hot zone. HT glass optics of 20°, 40° or 60° are available on request.

Light output and optics

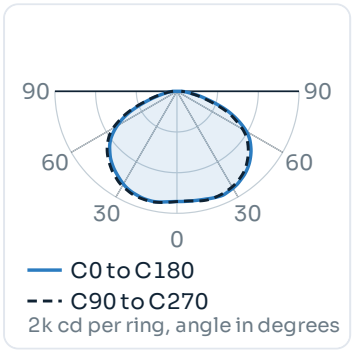
Values apply at Ta 25 °C and include driver consumption. Photometry is measured in house to IES LM-79 and the files are downloadable per model from the product page.

BEAM CHARACTERISTICS

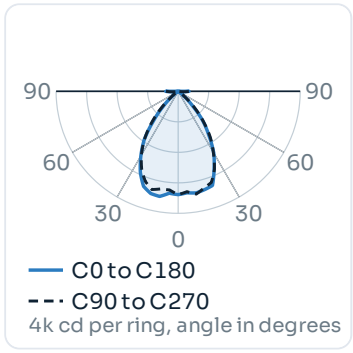
Model	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
BAHT01 / 03	No lens, very wide	133°	165°	Close range over a wide field, up to around 15 m: oven fronts, casting platforms, walkways and machine bays
BAHT02 / 04	HT glass optic	72°	98°	Longer throw in the same heat: crane bays, high roof lines and drying sections. Optics of 20° and 40° on request

The beam angle is the full angle between the two directions where the intensity has fallen to 50 % of the peak. The field angle uses 10 %. Both are read from the IES files. The HT glass optic is measured on a coarse 5° grid, so its figures are indicative until a finer measurement is available.

LIGHT DISTRIBUTION



BAHT01 / 03, no lens



BAHT02 / 04, HT glass optic

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K, 2700 K
Glare control	The HT glass optic shows a rising intensity toward the horizontal, so aim it with care near walkways and control cabins

Nothing is emitted above the horizontal at 0° tilt. Inside a plant that matters less than outdoors, but for roof lines, yard extensions and installations near a plant boundary it is the figure a permitting authority asks for.

COLOUR AND CONSISTENCY

Colour temperatures	6500 K, 4000 K, 2700 K
Flux at 6500 K	Identical to 4000 K
Colour rendering	Ra > 70
Colour consistency	MacAdam step 3 or better
IR-reflective print	Standard on every model
LED service life	TM-21 L90B05, see the temperature table on page 3
IES files	Download per model, product page

Full specification

All values apply to the standard configuration at 25 °C ambient unless stated otherwise, including driver consumption. Lumen maintenance at elevated ambient governs, not the headline figure.

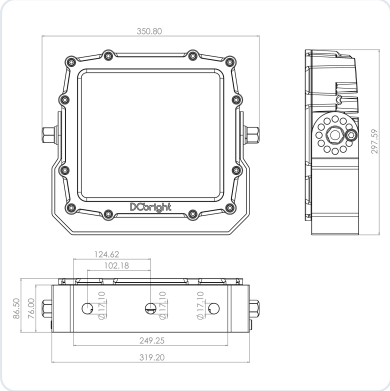
	Barracuda HT
PERFORMANCE	
Luminous flux	20,600 lm
Power consumption	120 W
Efficacy	172 lm/W
Colour rendering	Ra > 70, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
TEMPERATURE AND LIFETIME	
Ambient temperature	−45 to +120 °C continuous
Temperature peaks	Up to +130 °C permitted
LED service life, TM-21 L90B05	360,000 h at +50 °C · 103,000 h at +85 °C · 71,700 h at +105 °C · 51,400 h at +120 °C
Driver location	Remote, outside the hot zone. IR-reflective print standard, so radiant heat is reflected
ELECTRICAL AND DRIVER	
Supply voltage range	90–305 VAC, 50/60 Hz. 380 VAC for up to 2 h
Current draw	1.1 A at 110 V · 0.6 A at 220 V
Power factor at full load	> 0.95 at 60 to 100 % load
THD at full load	< 15 % at 60 to 100 % load
Inrush current	31.2 A peak, T50 1.3 ms at 220 V
Luminaires per MCB	B16: 2 · C16: 4 · C25: 7 · D16: 8
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)
Leakage current	0.7 mA max at 240 VAC (IEC 60598-1)
Dimming and control	0 to 10 V standard. PWM, DALI-2, LoRa Mesh or NFC optional
Driver	Remote BLD320, 225 × 68 × 38.5 mm, 1,120 g. Bare, or in the DRB-1 or DRB-2
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 280,000 h, Tc −40 to +90 °C. Replaced without opening the luminaire
CONSTRUCTION	
Housing	Cast aluminium, less than 0.08 % copper, or 316L stainless steel
Surface finish	Conversion layer plus 2-layer titanium-based e-coating, or electrolytically polished 316L
Colour	Titanium Light Grey, or bare stainless steel
Bracket	High tensile 316L stainless steel, fully rotatable through 360° in 30° steps
Front	Chemically hardened glass IK09, or borosilicate glass
Protection class	Class II
Ingress protection	IP66, IP67, IP68 to 5 m and IP69K, resistant to steam and high pressure cleaning
Impact resistance	IK09. The front cover is the limiting factor (IEC 62262)
Corrosion class	C5 industrial and marine (ISO 9223)
Vibration and shock	6 G at resonant frequency (IEC 60068-2-6), shock tested to IEC 60068-2-27
DIMENSIONS AND CONNECTION	
Cable and termination	SiHF-OB heat resistant silicone, 4 cores (2 × 2.5 mm² + 2 × 0.5 mm²), 15.0 m as standard, up to 150 m on request, pre-fitted with free wire ends
Dimensions	Luminaire 320 × 290 × 90 mm, excluding bracket
Weight	10.1 kg cast aluminium · 16.0 kg 316L stainless steel, incl. bracket
Wind load area, frontal	0.104 m² with standard bracket · 0.026 m² side view. Cd 1.2 gives Cd·A 0.125 m²
Warranty	5 years on the complete luminaire up to +120 °C. Stainless housings 20 years on the housing

MCB counts are manufacturer figures for ABB S200 at 220 V, a guide for the engineering phase and not a substitute for the installation calculation.

Mechanics, mounting and driver

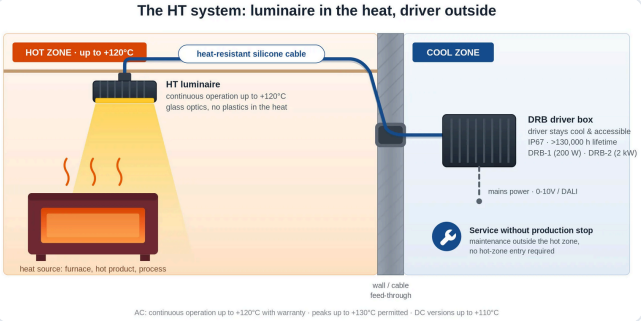
All drawings are to scale and dimensioned in millimetres. DXF and STEP models are available on request.

STANDARD BRACKET



Luminaire	320 × 290 × 90 mm
Incl. bracket	351 × 298 mm
Mounting foot	319.20 × 86.50 mm
Fixing holes	3 × Ø 17.10 mm
Hole centres	249.25 mm between outer holes
Adjustment	360° in 30° steps
Weight	10.1 kg aluminium · 16.0 kg stainless steel

THE HT SYSTEM



In the hot zone	The luminaire, rated to +120 °C continuous
Outside the hot zone	The remote driver, bare or in a DRB box
Between them	Heat resistant silicone cable, 15.0 m standard, up to 25 m
Cable limit	Up to 150 m on request. Beyond that is custom
Why	Above roughly +50 °C ambient the driver electronics fail first, so the driver is moved out

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
Retrofit bracket	On request, codes issued per structure
Boom and tenon mount	On request
Safety cable	Optional, supplied with the luminaire
Cable	15.0 m as standard, up to 150 m on request, same SiHF-OB type
HT glass optic	BAHT02 and BAHT04
Stainless steel housing	BAHT03 and BAHT04
HT optics	20°, 40° or 60° glass optics on request

REMOTE DRIVER

Type	BLD320, 90–305 VAC
Location	Outside the hot zone
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 280,000 h at 75 °C case
Size and weight	225 × 68 × 38.5 mm, 1,120 g
Enclosure	Bare as standard, or in the DRB-1 or DRB-2

Every AC installation is two parts. The heat resistant luminaire in the hot zone and the driver outside it, joined by silicone cable. That split is the whole reason the system holds at +120 °C where a conventional luminaire stops at +50 °C.

DRB DRIVER BOX

DRB-1	One driver, up to the 320 W type which is the largest that fits. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
DRB-2	Systems up to 2,000 W. 441 × 290 × 145 mm, 10.4 kg, IP66 and IP67
Use	Mounted outside the hot zone and outside the wash-down zone
Bare driver	Also possible where a cabinet is already present

Ordering, standards and documents

ORDER CODE

Example **BAHT01-65K**

Barracuda HT, aluminium, no lens, 6500 K

BAHT01	Aluminium housing, no lens, 133°
BAHT02	Aluminium housing, HT glass optic
BAHT03	316L stainless steel housing, no lens, 133°
BAHT04	316L stainless steel housing, HT glass optic
65K · 40K · 27K	6500 K · 4000 K · 2700 K
HT optic	20°, 40° or 60° glass optic on request, article BAHT02 or BAHT04

Cable length, bracket type and driver enclosure are confirmed at order and are not part of the code. State the continuous and peak ambient temperature at the mounting position with the enquiry, because that is what sets the expected lumen maintenance.

COMBINATIONS

HT optic with stainless housing	BAHT04
HT optics 20°, 40°, 60°	On request
24 V DC version	Not available on the HT
Borosilicate front	Available on every model
Cable up to 150 m	On request, beyond that custom
Bi-colour or amber	Not standard

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Luminaire safety	IEC/EN 60598-1, -2-5	In-house test
EMC emission and immunity	EN 55015, EN 61547	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68 to 5 m, IP69K	In-house test
Impact	IEC 62262, IK09, set by the front cover	In-house test
Vibration and shock	IEC 60068-2-6 at 6 G, IEC 60068-2-27	In-house test
Corrosion	ISO 9223 class C5, industrial and marine	In-house test
Lumen maintenance	IES LM-80 and TM-21, L90B05 per ambient	In-house test
Photometry	IES LM-79, IES files per model	In-house test
Substances	RoHS, REACH	Self-declaration

BEFORE YOU ORDER

A sample luminaire to hang in the hot zone before you commit to a project quantity.

State the continuous and peak ambient at the mounting position.

A DIALux calculation from our engineers, on your plant drawing.

PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/barracuda-ht

WHERE IT EARNS ITS PLACE

Standard industrial LED luminaires are specified to roughly +50 °C, and above that the driver fails first. The Barracuda HT keeps the luminaire in the heat and the driver outside it, so the failure mode is removed rather than derated. Below +50 °C ambient, the standard Barracuda is the better and cheaper choice.

Notes. Values are for the standard configuration. Lumen maintenance depends strongly on ambient temperature, so the table on page 3 governs, not a single headline figure. Packaging dimensions depend on the order quantity and are stated at quotation. North American models on request.

HIGH TEMPERATURE LED FLOODLIGHT

Snapper HT

Shown: Snapper HT, chemically hardened glass front, remote driver box.

CE · IP69K · IK08 · Class II · Ta −45 … +120 °C · C5 and CX ISO 9223 · 90–305 VAC · 24 VDC · silicone cable to 25 m · borosilicate option · 316L and HT-CHEM · remote driver

7,000 lumens at 35 watts and an ambient temperature of +120 °C, which is 200 lumens per watt. High temperature luminaires normally cost efficacy, because the usual approach is to derate a standard product until it survives. This one is designed for the condition.

LUMINOUS FLUX	POWER	EFFICACY
7,000 lm	35 W	200 lm/W
AMBIENT	**INGRESS**	**CABLE RUN**
+120 °C	IP69K	25 m

Values apply at 6500 K and the stated ambient temperature, including driver consumption. Bi-colour and amber are not available on the high temperature versions.

WHY IT IS SPECIFIED

The driver leaves the hot zone. Electrolytic capacitors are what fail in heat. The driver sits outside the zone and is connected with heat resistant silicone cable, up to 25 m on the aluminium AC version.

200 lm per watt at +120 °C. This is the most efficient luminaire in the high temperature range and it is the figure that decides whether a hot process gets proper light or a compromise.

Five versions, including 316L and HT-CHEM. Aluminium AC and DC, 316L AC and DC, and a chemically resistant 316L build for process environments where stainless steel alone is not enough.

WHERE IT IS USED

- Drying ovens and curing tunnels
- Paint lines and powder coating booths
- Bakery and food process ovens
- Heat treatment and forging shops
- Foundry and melt shop service positions
- Glass works and annealing lehrs
- Paper machine drying sections
- Climate and test chambers
- Sterilisation and autoclave rooms
- Chemical reactors and process skids
- Asphalt and bitumen plant

VERSIONS

	Alu	316L	CHEM
Code	SNHT01·02	SNHT03·04	SNHT05
Supply	AC and DC	AC and DC	AC
Flux	7,000 lm	7,000 lm	7,000 lm
Ambient	+120 °C	+120 °C	+120 °C
Weight	3.1 kg	7.0 kg	7.0 kg

HT optics are not possible on the Snapper: the housing is too small. All versions are 120° very wide. For high temperature with optics see the **Barracuda HT**.

Light output and optics

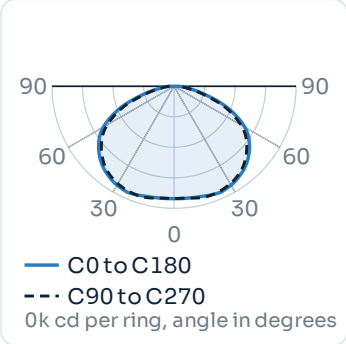
Values apply at Ta 25 °C, including driver consumption. The luminous flux is maintained across the full ambient range; what changes with temperature is the LED service life, stated as a ladder in the colour table.

BEAM CHARACTERISTICS

Version	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
All HT versions	No optics, very wide	136°	168°	Close range over a wide field: oven interiors, drying tunnels, process bays
HT optics	Not available on the Snapper	–	–	See the Barracuda HT or the Orca HT

HT optics of 20°, 40° and 60° exist for the Orca, the Barracuda and the Linear only. On the Snapper, the Goby and the Manta the housing is too small to carry one, so those high temperature versions are supplied as 120° very wide. That is not a limitation in most hot applications, where the luminaire sits close to the work and a wide field is what is wanted.

LIGHT DISTRIBUTION



120° very wide, all HT versions

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K and 2700 K
Bi-colour	Not available on the high temperature versions

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a site borders a residential area or a protected zone, and it is the starting point for any assessment against NEN-EN 12464-2 and the NSVV guidance on obtrusive light. Where the site condition demands a cut off optic rather than a controlled floodlight, see the DarkLicht range.

COLOUR AND CONSISTENCY

Colour temperatures	6500 K, 4000 K, 2700 K
Bi-colour	Not available on the high temperature versions
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05, see the temperature ladder below
Ladder	> 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C

Full specification

All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

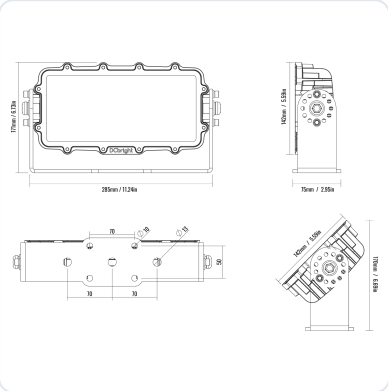
	HT aluminium	HT 316L	HT-CHEM
PERFORMANCE			
Luminous flux	7,000 lm	7,000 lm	7,000 lm
Power consumption	35 W	35 W	35 W
Efficacy	200 lm/W	200 lm/W	200 lm/W
Beam	120° very wide		
ELECTRICAL AND DRIVER			
Supply voltage range	90–305 VAC or 20–35 VDC	90–305 VAC or 20–35 VDC	90–305 VAC
Current draw	0.3 A at 110 V · 0.2 A at 220 V · DC 1.5 A at 24 V	0.3 A at 110 V · 0.2 A at 220 V · DC 1.5 A at 24 V	0.3 A at 110 V · 0.2 A at 220 V
Power factor at full load	> 0.9 at 65 to 100 % load		
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)		
Dimming	0–10 V, PWM, DALI-2, or over NFC. DC on request		
Driver	Remote BLD075, 131 × 68 × 33.5 mm, 650 g. Fits the DRB-1	Remote BLD075, fits the DRB-1	Remote BLD075, fits the DRB-1
Driver ambient	The driver box must sit in an ambient of at most +50 °C		
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 320,000 h		
CONSTRUCTION			
Housing	Cast aluminium, less than 0.08 % copper	Solid 316L stainless steel	316L with an additional chemically resistant seal
Surface finish	Conversion layer plus 2-layer titanium-based e-coating	Electrolytically polished	Electrolytically polished
Bracket	High tensile 316L stainless steel, adjustable through ±240° in 30° steps		
Front	Impact resistant glass or borosilicate, IK08		
Protection class	Class II		
Ingress protection	IP66, IP67 and IP68	IP66, IP67, IP68 and IP69K	IP66, IP67, IP68 and IP69K
Impact resistance	IK08 (IEC 62262)		
Corrosion class	C5 industrial and marine	C5 and CX, CRC III to EN 1993-1-4	C5 and CX, with added chemical resistance
Vibration and shock	6 G at resonant frequency (IEC 60068-2-6), shock tested to IEC 60068-2-27		
DURABILITY AND DIMENSIONS			
Ambient temperature	−45 to +120 °C AC, −45 to +110 °C DC		
LED service life	TM-21 L90B05: > 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C		
Cable and termination	SiHF-OB silicone, 4 cores (2 × 1.0 mm² + 2 × 0.5 mm²), 25.0 m	SiHF-OB silicone, 15.0 m	SiHF-OB silicone, 15.0 m
Dimensions	312 × 181 × 118 mm	320 × 180 × 100 mm	320 × 180 × 100 mm
Weight	3.1 kg incl. bracket	7.0 kg incl. bracket	7.0 kg incl. bracket
Warranty	5 years to +120 °C on AC, to +110 °C on DC. The 316L versions carry 20 years on the housing		

The driver box is mounted outside the hot zone and is connected with heat resistant silicone cable. The LED life ladder applies to every high temperature luminaire in the range and is stated in the colour table rather than as a footnote.

Mechanics, mounting and driver

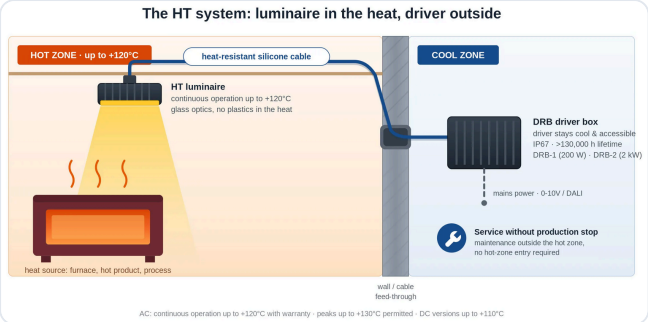
All drawings are to scale and dimensioned in millimetres. The driver box is a separate item and is mounted outside the hot zone.

STANDARD BRACKET



Aluminium versions	312 × 181 × 118 mm, 3.1 kg
316L and HT-CHEM	320 × 180 × 100 mm, 7.0 kg
Material	High tensile 316L stainless steel
Adjustment	±240° in 30° steps
Front	Impact resistant glass, or diffuse borosilicate for food industry applications

LUMINAIRE AND DRIVER BOX



In the hot zone	The luminaire only
Outside the hot zone	The BLD075 driver, in the DRB-1 or on a tray
Between them	Silicone cable, 25.0 m on aluminium AC, 15.0 m on the others
Driver ambient	+50 °C maximum
Longer runs	Beyond the standard length is a custom build

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
DRB-1 driver box	Housing for the remote driver, outside the hot zone
Borosilicate front	Option where the glass sees direct radiant heat
Safety cable	Optional, supplied with the luminaire
HT-CHEM	316L with an additional chemically resistant seal
Higher output at temperature	See the Barracuda HT at 20,600 lm or the Orca HT at 65,000 lm

REMOTE DRIVER

Type	BLD075, 90–305 VAC or 127–420 VDC
Position	Outside the hot zone, ambient +50 °C maximum
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 320,000 h at 75 °C case
Size and weight	131 × 68 × 33.5 mm, 650 g

Heat is what kills a driver, not the LED. Electrolytic capacitors dry out. Moving the driver out of the hot zone is the single change that turns a high temperature installation from a yearly job into a ten year one.

DRB-1 DRIVER BOX

Use	Housing for the remote driver, outside the hot zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
Ingress protection	IP66 and IP67
Ambient	+50 °C maximum

Ordering, standards and documents

ORDER CODE

Example **SNHT01-65K**

Snapper HT, aluminium, AC, 6500 K

SNHT01 · SNHT02	Aluminium, AC and DC
SNHT03 · SNHT04	316L stainless steel, AC and DC
SNHT05	HT-CHEM, 316L with a chemically resistant seal
65K · 40K · 27K	6500 K · 4000 K · 2700 K
BORO	Borosilicate front instead of impact resistant glass

All high temperature versions are 120° very wide; there is no optic suffix. Cable length beyond the standard run and the diffuse borosilicate front are confirmed at order.

COMBINATIONS

Borosilicate front	Any version
316L with DC	Possible
HT-CHEM with DC	On request
Bi-colour or amber	Not available
HT optics	Not possible, see the Barracuda HT
Cable beyond the standard run	Custom build

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Luminaire safety	IEC/EN 60598-1, -2-5	In-house test
EMC emission and immunity	EN 55015, EN 61547 · IEC 60533 marine, bridge and open deck	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68, IP69K on 316L	In-house test
Impact and vibration	IEC 62262 IK08 · IEC 60068-2-6 at 6 G	In-house test
Shock and corrosion	IEC 60068-2-27 · ISO 9223 class C5, industrial and marine	In-house test
Photometry	IES LM-79, IES files per optic	In-house test
Substances	RoHS, REACH	Self-declaration

BEFORE YOU ORDER

A sample luminaire to hang before you commit to a project quantity.

Five years warranty on the complete luminaire.

A DIALux calculation from our engineers, on your site drawing.

PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/snapper

WHERE IT EARNS ITS PLACE

Above +50 °C a normal luminaire is not a lighting problem, it is a maintenance contract. The Snapper HT is specified where the hot zone cannot be reached during production, where the light has to be close to the work, and where 200 lumens per watt means the installed load stays small enough that nobody argues about it.

Notes. Values are for the standard configuration. The warranty follows the operating temperature: five years to +120 °C on AC and to +110 °C on DC. The LED life ladder in the colour table is the same for every high temperature luminaire in the range. North American models on request. The JEL range is not ATEX or Ex certified.

HIGH TEMPERATURE LED WORK LAMP

Goby HT

Shown: Goby HT, chemically hardened glass front, remote driver box.

CE | IP69K | IK09 | Class II | Ta −45 … +120 °C | C5 ISO 9223 | 90–305 VAC | 24 VDC | silicone cable 15 m | borosilicate option | remote driver on AC | 5-year warranty to +120 °C

2,600 lumens at 13 watts and an ambient temperature of +120 °C, which is 200 lumens per watt. The smallest high temperature luminaire in the range, for the positions inside an oven, a kiln or a drying tunnel where the light has to sit close to the work.

LUMINOUS FLUX	POWER	EFFICACY
2,600 lm	13 W	200 lm/W
AMBIENT	**INGRESS**	**IMPACT**
+120 °C	IP69K	IK09

Values apply at 6500 K and the stated ambient temperature, including driver consumption. Bi-colour and amber are not available on the high temperature versions.

WHY IT IS SPECIFIED

The driver leaves the hot zone. Electrolytic capacitors are what fail in heat. On the AC version the driver sits outside the zone and is connected with 15 m of heat resistant silicone cable.

200 lm per watt at +120 °C. A high temperature luminaire normally costs efficacy because the usual approach is to derate a standard product. This one is designed for the condition.

Same housing as the standard Goby. Same size, same weight, same bracket and the same mounting positions, so a plant can standardise on one work lamp across hot and normal areas.

WHERE IT IS USED

- Drying ovens and curing tunnels
- Bakery and food process ovens
- Paint lines and powder coating booths
- Kilns and annealing lehrs
- Heat treatment and forging shops
- Foundry service positions
- Climate and test chambers
- Sterilisation and autoclave rooms
- Paper machine drying sections
- Asphalt and bitumen plant
- Boiler houses and incineration halls
- Confined hot spaces and inspection hatches

VERSIONS

	Goby HT AC	Goby HT DC
Code	GOHT01	GOHT02
Flux	2,600 lm	2,600 lm
Power	13 W	13 W
Supply	90–305 VAC	9–32 VDC
Ambient	−45 to +120 °C	−45 to +110 °C
Driver	Remote BLD075	On board

Goby HT DC is identical to Goby HT AC apart from the supply and the ambient limit. HT optics are not possible on the Goby: the housing is too small, so both versions are 120° very wide.

Light output and optics

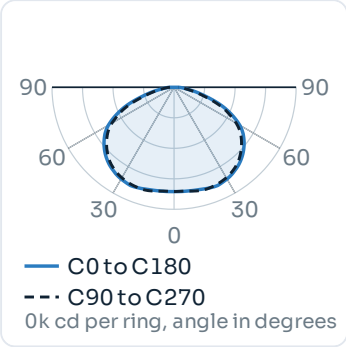
Values apply at Ta 25 °C, including driver consumption. The luminous flux is maintained across the full ambient range; what changes with temperature is the LED service life, stated as a ladder in the colour table.

BEAM CHARACTERISTICS

Version	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
Both versions	No optics, very wide	136°	168°	Close range over a wide field: oven interiors, drying tunnels, hatches
HT optics	Not available on the Goby	–	–	See the Barracuda HT, the Orca HT or the Linear HT

HT optics of 20°, 40° and 60° exist for the Orca, the Barracuda and the Linear only. On the Goby, the Snapper and the Manta the housing is too small to carry one, so those versions are supplied as 120° very wide. Inside an oven or a tunnel that is normally what is wanted anyway.

LIGHT DISTRIBUTION



120° very wide, both versions

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K and 2700 K
Bi-colour	Not available on the high temperature versions

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a site borders a residential area or a protected zone, and it is the starting point for any assessment against NEN-EN 12464-2 and the NSVV guidance on obtrusive light. Where the site condition demands a cut off optic rather than a controlled floodlight, see the DarkLicht range.

COLOUR AND CONSISTENCY

Colour temperatures	6500 K, 4000 K, 2700 K
Bi-colour	Not available on the high temperature versions
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05, see the temperature ladder below
Ladder	> 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C

Full specification

All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

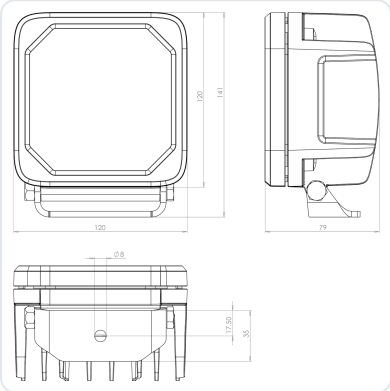
	Goby HT AC	Goby HT DC
PERFORMANCE		
Luminous flux	2,600 lm	2,600 lm
Power consumption	13 W	13 W
Efficacy	200 lm/W	200 lm/W
Beam	120° very wide	
ELECTRICAL AND DRIVER		
Supply voltage range	90–305 VAC, 50/60 Hz	9–32 VDC, 12 and 24 V nominal
Current draw	0.1 A at 120 V · 0.05 A at 220 to 277 V	0.55 A at 24 V · 1.1 A at 12 V
Power factor at full load	> 0.9 at 65 to 100 % load	-
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)	Protected
Dimming	0–10 V, PWM, DALI-2	On request
Driver	Remote BLD075, 131 × 68 × 33.5 mm, 650 g. Fits the DRB-1	DC drivers on board
Driver ambient	The driver box must sit in an ambient of at most +50 °C	-
CONSTRUCTION		
Housing	Cast aluminium, less than 0.08 % copper	
Surface finish	Conversion layer plus 2-layer titanium-based e-coating	
Bracket	High tensile 316L stainless steel, unlimited rotation from -60° to +30°	
Front	Chemically hardened glass IK09, or borosilicate glass	
Protection class	Class II	
Ingress protection	IP66, IP67, IP68 and IP69K, resistant to steam and high pressure cleaning	
Impact resistance	IK09, set by the front cover (IEC 62262)	
Corrosion class	C5 industrial and marine (ISO 9223)	
Vibration and shock	6 G at resonant frequency (IEC 60068-2-6), shock tested to IEC 60068-2-27	
DURABILITY AND DIMENSIONS		
Ambient temperature	−45 to +120 °C	−45 to +110 °C
LED service life	TM-21 L90B05: > 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C	
Cable and termination	SiHF-OB silicone, 4 cores (2 × 1.0 mm² + 2 × 0.5 mm²), 15.0 m	SiHF-OB silicone, 2 cores (2 × 1.0 mm²), 15.0 m
Dimensions	120 × 141 × 79 mm including bracket	
Weight	1.8 kg incl. bracket, driver box separate	1.8 kg incl. bracket
Warranty	5 years to +120 °C	5 years to +110 °C

The driver box is mounted outside the hot zone and is connected with heat resistant silicone cable. The LED life ladder applies to every high temperature luminaire in the range and is stated in the colour table rather than as a footnote.

Mechanics, mounting and driver

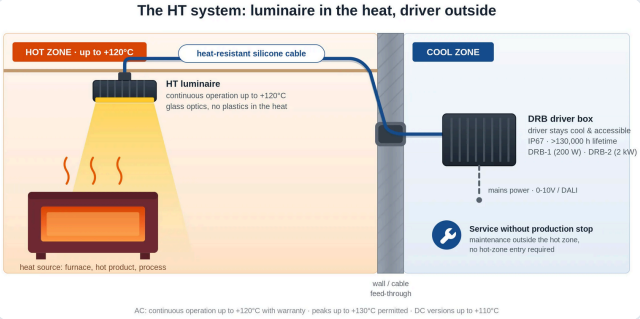
All drawings are to scale and dimensioned in millimetres. On the AC version the driver box is a separate item and is mounted outside the hot zone.

BRACKET AND ROTATION



Incl. bracket	120 × 141 × 79 mm
Weight	1.8 kg with bracket
Material	High tensile 316L stainless steel
Rotation	Unlimited from -60° to +30°
Front	Chemically hardened glass, or diffuse borosilicate for food industry applications
Same housing as	The standard Goby

LUMINAIRE AND DRIVER BOX



In the hot zone	The luminaire only
Outside the hot zone	The BLD075 driver on the AC version
Between them	Heat resistant silicone cable, 15.0 m
Driver ambient	+50 °C maximum
DC version	Drivers on board, nothing external

MOUNTING AND ACCESSORIES

Standard bracket	High tensile 316L, supplied as standard
DRB-1 driver box	Housing for the remote driver on the AC version
Borosilicate front	Option where the glass sees direct radiant heat
Silicone cable	15.0 m as standard. Longer runs on request
Higher output at temperature	Snapper HT at 7,000 lm, Barracuda HT at 20,600 lm
Linear alternative	Linear HT, for a continuous run inside a tunnel

REMOTE DRIVER, AC VERSION

Type	BLD075, 90–305 VAC or 127–420 VDC
Position	Outside the hot zone, ambient +50 °C maximum
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 320,000 h at 75 °C case
DC version	Drivers on board

Heat is what kills a driver, not the LED. Electrolytic capacitors dry out. Moving the driver out of the hot zone is the single change that turns a high temperature installation from a yearly job into a ten year one.

DRB-1 DRIVER BOX

Use	Housing for the remote driver, outside the hot zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
Ingress protection	IP66 and IP67
Ambient	+50 °C maximum

Ordering, standards and documents

ORDER CODE

Example **GOHT01-65K**

Goby HT, AC, 6500 K

GOHT01	High temperature, AC, remote BLD075
GOHT02	High temperature, DC, drivers on board
65K · 40K · 27K	6500 K · 4000 K · 2700 K
BORO	Borosilicate front instead of chemically hardened glass
Beam	120° very wide, no optic suffix

Bi-colour and amber are not available on the high temperature versions. Cable length beyond 15.0 m and the diffuse borosilicate front are confirmed at order.

COMBINATIONS

Borosilicate front	Both versions
DC to +110 °C	Standard
AC to +120 °C	Standard
Bi-colour or amber	Not available
HT optics	Not possible on this housing
316L housing	Not available, see the Snapper HT

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Luminaire safety	IEC/EN 60598-1, -2-5	In-house test
EMC emission and immunity	EN 55015, EN 61547 · IEC 60533 marine, bridge and open deck	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68, IP69K	In-house test
Impact and vibration	IEC 62262 IK09, set by the front cover · IEC 60068-2-6 at 6 G	In-house test
Shock and corrosion	IEC 60068-2-27 · ISO 9223 class C5, industrial and marine	In-house test
Photometry	IES LM-79, IES files per optic	In-house test
Substances	RoHS, REACH	Self-declaration

BEFORE YOU ORDER

A sample luminaire to hang before you commit to a project quantity.

Five years warranty on the complete luminaire.

A DIALux calculation from our engineers, on your site drawing.

PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/goby

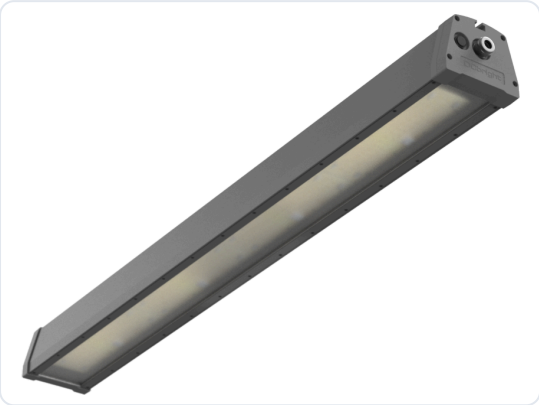
WHERE IT EARNS ITS PLACE

Inside an oven, a kiln or a drying tunnel there is no room for a floodlight and no access during production. The Goby HT is the smallest luminaire in the range that can sit there permanently, at 200 lumens per watt, with the only heat sensitive component mounted somewhere a technician can actually reach it.

Notes. Values are for the standard configuration. The warranty follows the operating temperature: five years to +120 °C on AC and to +110 °C on DC. The LED life ladder in the colour table is the same for every high temperature luminaire in the range. North American models on request. The JEL range is not ATEX or Ex certified.

HIGH TEMPERATURE LINEAR LED LUMINAIRE

Linear HT



Shown: Linear LIN120 HT, 1,200 mm, diffuse borosilicate front, remote driver box.

CE · IP69K · IK09 · Class II · Ta −45 … +120 °C · C5 ISO 9223 · 90–305 VAC · 24 VDC · HT optics 20 · 40 · 60° · silicone cable · external driver · diffuse borosilicate front

The Linear at an ambient temperature of +120 °C, in four lengths and with HT optics of 20, 40 and 60 degrees. One of only three luminaires in the range that can carry an optic at high temperature, for drying tunnels, climate chambers and paper machines where the run has to be lit along its length.

LUMINOUS FLUX	POWER	EFFICACY
25,600 lm	120 W	213 lm/W
AMBIENT	**INGRESS**	**HT OPTICS**
+120 °C	IP69K	20–120°

Values apply to the HT-AC version at 6500 K, at the stated ambient temperature, including driver consumption. Bi-colour and amber are not available on the high temperature versions.

WHY IT IS SPECIFIED

One of three types that can carry an HT optic. HT optics of 20, 40 and 60 degrees exist for the Orca, the Barracuda and the Linear only. On the other high temperature luminaires the housing is too small.

The driver leaves the hot zone. Electrolytic capacitors are what fail in heat. The HT versions use an external driver connected with heat resistant silicone cable.

The full AC output at +120 °C. The HT-AC versions deliver the same 6,400 to 25,600 lumens as the standard AC versions. What changes with temperature is the LED service life, not the output.

WHERE IT IS USED

- Drying tunnels and curing ovens
- Paper machine drying sections
- Climate and test chambers
- Paint lines and powder coating booths
- Bakery and food process ovens
- Heat treatment and annealing lines
- Textile and coating lines
- Asphalt and bitumen plant
- Boiler houses and flue gas ducts
- Sterilisation and autoclave rooms
- Foundry and melt shop walkways
- Kiln service galleries

VERSIONS

	LIN30 HT	LIN60 HT	LIN90 HT	LIN120 HT
Length	300 mm	600 mm	900 mm	1,200 mm
Flux HT-AC	6,400 lm	12,800 lm	19,200 lm	25,600 lm
Flux HT-DC	3,900 lm	7,800 lm	11,700 lm	15,600 lm
Power AC	30 W	60 W	90 W	120 W
Power DC	22 W	44 W	66 W	88 W

HT-AC runs to +120 °C and HT-DC to +110 °C, and the warranty follows the operating temperature. Optics of 20°, 40°, 60° and 120° are available; the standard build is 120° very wide.

Light output and optics

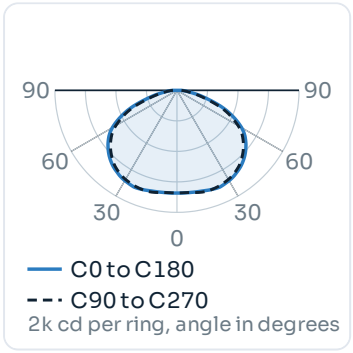
Values apply to the LIN120 HT-AC at Ta 25 °C, including driver consumption. The luminous flux is maintained across the full ambient range; what changes with temperature is the LED service life, stated as a ladder in the colour table.

BEAM CHARACTERISTICS

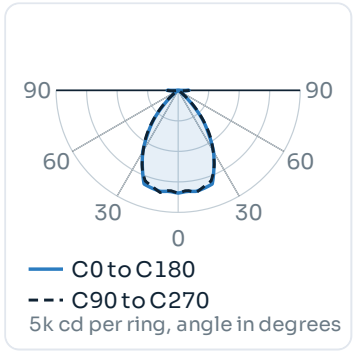
Optic	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
120°, no optic	Very wide, diffuse	136°	168°	The standard build. Tunnels, chambers, ducts at close range
20° HT optic	Narrow, symmetric	–	–	Long throw down a tunnel or a duct from one end
40° HT optic	Medium, symmetric	–	–	Bay and gallery lighting from a hot roof structure
60° HT optic	Wide, symmetric	71°	97°	The general purpose HT optic for a run along a machine

HT optics of 20°, 40° and 60° exist for the Orca, the Barracuda and the Linear only. On the Snapper, the Goby and the Manta the housing is too small to carry one and those versions are 120° very wide. Being able to choose an optic at +120 °C is what makes the Linear HT usable along a tunnel rather than only inside one.

LIGHT DISTRIBUTION



120°, no optic



60° HT optic

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K and 2700 K
Bi-colour	Not available on the high temperature versions

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a site borders a residential area or a protected zone, and it is the starting point for any assessment against NEN-EN 12464-2 and the NSVV guidance on obtrusive light. Where the site condition demands a cut off optic rather than a controlled floodlight, see the DarkLicht range.

COLOUR AND CONSISTENCY

Colour temperatures	6500 K, 4000 K, 2700 K
Bi-colour	Not available on the high temperature versions
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05, see the temperature ladder below
Ladder	> 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C

Full specification

All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

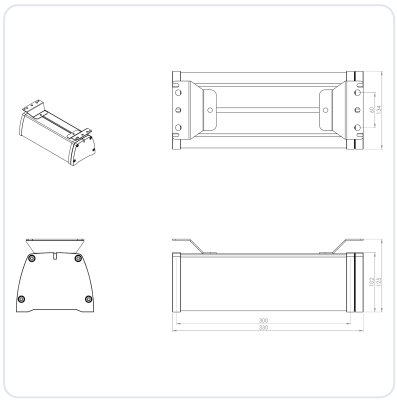
	LIN30 HT	LIN60 HT	LIN90 HT	LIN120 HT
PERFORMANCE				
Luminous flux HT-AC	6,400 lm	12,800 lm	19,200 lm	25,600 lm
Luminous flux HT-DC	3,900 lm	7,800 lm	11,700 lm	15,600 lm
Power consumption AC	30 W	60 W	90 W	120 W
Power consumption DC	22 W	44 W	66 W	88 W
Optics	120° very wide as standard, or 20°, 40° or 60° HT optic			
ELECTRICAL AND DRIVER				
Supply voltage range	90–305 VAC, or 9–32 VDC			
Current draw AC	0.13 to 0.11 A at 220 to 277 V	0.26 to 0.22 A	0.41 to 0.32 A	0.52 to 0.44 A
Current draw DC	0.92 A at 24 V	1.83 A at 24 V	2.8 A at 24 V	3.7 A at 24 V
Driver	AC: external BLD075	AC: external BLD075	AC: external BLD120	AC: external BLD120
Driver ambient	The driver box must sit in an ambient of at most +50 °C			
CONSTRUCTION				
Housing	Cast aluminium, less than 0.08 % copper. One piece, no end caps			
Surface finish	Conversion layer plus 2-layer titanium-based e-coating			
Bracket	Aluminium, less than 0.08 % copper, unlimited rotation from -90° to +90°			
Front	Diffuse chemically hardened glass, or diffuse borosilicate, IK09			
Protection class	Class II			
Ingress protection	IP66, IP67, IP68 and IP69K, resistant to steam and high pressure cleaning			
Impact resistance	IK09 (IEC 62262)			
Corrosion class	C5 industrial and marine (ISO 9223)			
DURABILITY AND DIMENSIONS				
Ambient temperature	−45 to +120 °C on AC, −45 to +110 °C on DC			
LED service life	TM-21 L90B05: > 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C			
Cable and termination	SiHF-OB silicone, 4 cores (2 × 1.0 mm² + 2 × 0.5 mm²) to 600 mm, 2 × 2.5 mm² above			
Dimensions	130 × 110 × 350 mm	130 × 110 × 650 mm	130 × 110 × 950 mm	130 × 110 × 1250 mm
Weight	2.8 kg	4.4 kg	6.0 kg	7.6 kg
Warranty	5 years to +120 °C on AC, to +110 °C on DC			

The driver box is mounted outside the hot zone and is connected with heat resistant silicone cable. The LED life ladder applies to every high temperature luminaire in the range and is stated in the colour table rather than as a footnote.

Mechanics, mounting and driver

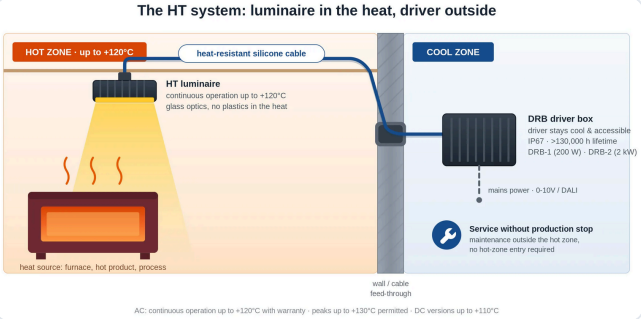
All drawings are to scale and dimensioned in millimetres. The driver box is a separate item and is mounted outside the hot zone.

HOUSING AND BRACKET



LIN30 HT	130 × 110 × 350 mm, 2.8 kg
LIN60 HT	130 × 110 × 650 mm, 4.4 kg
LIN90 HT	130 × 110 × 950 mm, 6.0 kg
LIN120 HT	130 × 110 × 1250 mm, 7.6 kg
Bracket	Aluminium, unlimited from -90° to +90°
Front	Diffuse diffuse borosilicate for food industry applications

LUMINAIRE AND DRIVER BOX



In the hot zone	The luminaire only
Outside the hot zone	The BLD075 or BLD120 driver
Between them	Heat resistant silicone cable
Driver ambient	+50 °C maximum
Optics	20°, 40° or 60° HT optic, or 120° very wide

MOUNTING AND ACCESSORIES

Bracket	Aluminium, supplied as standard, -90° to +90°
DRB-1 driver box	Housing for the external driver, outside the hot zone
HT optics	20°, 40° or 60°, ordered as a suffix
Borosilicate front	Diffuse, where the glass sees radiant heat
Silicone cable	SiHF-OB, length on request
Point source alternative	Goby HT, Snapper HT, Barracuda HT or Orca HT

EXTERNAL DRIVER

LIN30 and LIN60	BLD075, outside the hot zone
LIN90 and LIN120	BLD120, outside the hot zone
Position	Ambient +50 °C maximum
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
Enclosure	Bare, or in the DRB-1

Heat is what kills a driver, not the LED. On the standard Linear the driver sits inside the housing; on the HT version it moves out of the hot zone entirely. That is the whole difference between the two products.

DRB-1 DRIVER BOX

Use	Housing for the external driver, outside the hot zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
Ingress protection	IP66 and IP67
Ambient	+50 °C maximum

Ordering, standards and documents

ORDER CODE

Example **LVHT04-65K.60**

Linear LIN120 HT, AC, 1,200 mm, 6500 K, 60° HT optic

LVHT01 … LVHT04	HT-AC, 300, 600, 900 and 1,200 mm
HT-DC	DC versions, four lengths, to +110 °C
65K · 40K · 27K	6500 K · 4000 K · 2700 K
.20 · .40 · .60 · .120	HT optic suffix. 120° is the standard build
BORO	Diffuse borosilicate front instead of chemically hardened glass

Bi-colour and amber are not available on the high temperature versions. Cable length, driver placement and the diffuse borosilicate front are confirmed at order.

COMBINATIONS

HT optic with any length	Possible
Borosilicate front	Any version
DC to +110 °C	Standard
Bi-colour or amber	Not available
Internal driver	Not on the HT versions
Linking	On request

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Luminaire safety	IEC/EN 60598-1, -2-5	In-house test
EMC emission and immunity	EN 55015, EN 61547 · IEC 60533 marine, bridge and open deck	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68, IP69K	In-house test
Impact and vibration	IEC 62262 IK09 · IEC 60068-2-6 at 6 G	In-house test
Shock and corrosion	IEC 60068-2-27 · ISO 9223 class C5, industrial and marine	In-house test
Photometry	IES LM-79, IES files per optic	In-house test
Substances	RoHS, REACH	Self-declaration

BEFORE YOU ORDER

A sample luminaire to hang before you commit to a project quantity.

Five years warranty on the complete luminaire.

A DIALux calculation from our engineers, on your site drawing.

PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/linear-industriele-led-verlichting

WHERE IT EARNS ITS PLACE

A drying tunnel, a climate chamber or a paper machine is a long narrow hot space, and it is normally lit by whatever survives rather than by what fits. The Linear HT is the only luminaire in the range that is both linear and capable of carrying an optic at +120 °C, which is what lets the light run along the machine instead of pooling under it.

Notes. Values are for the standard configuration. The warranty follows the operating temperature: five years to +120 °C on AC and to +110 °C on DC. The LED life ladder in the colour table is the same for every high temperature luminaire in the range. North American models on request. The JEL range is not ATEX or Ex certified.

HIGH TEMPERATURE CANOPY LUMINAIRE

Manta HT

Shown: Manta HT Surface, 14,400 lm, diffuse borosilicate front.

CE | IP69K | IK08 | Class II | Ta −45 … +120 °C | C5 ISO 9223 | 90–305 VAC | silicone cable 5 m | borosilicate option | 192 lm/W | recess and surface | 5-year warranty to +120 °C

14,400 lumens at 75 watts and an ambient temperature of +120 °C, in the same 380 × 380 mm panel. The ceiling luminaire for hot covered spaces: oven roofs, drying chambers and process canopies.

LUMINOUS FLUX	POWER	EFFICACY
14,400 lm	75 W	192 lm/W
AMBIENT	**INGRESS**	**PANEL**
+120 °C	IP69K	380 × 380 mm

Values apply at 6500 K, at the stated ambient temperature, including driver consumption. Bi-colour and amber are not available on the high temperature versions.

WHY IT IS SPECIFIED

192 lm per watt at +120 °C. A high temperature luminaire normally costs efficacy because the usual approach is to derate a standard product. The Manta HT keeps most of the efficiency that makes the standard Manta what it is.

A flat panel in a hot ceiling. In an oven roof there is no depth available and no access from above. The recessed version is 20 mm deep and the panel is the whole luminaire.

Silicone cable to the driver. The driver sits outside the hot zone and is connected with 5 m of heat resistant silicone cable, so the only component in the heat is the one that can take it.

WHERE IT IS USED

- Oven and kiln roofs
- Drying chambers and curing tunnels
- Bakery and food process ovens
- Paint lines and powder coating booths
- Heat treatment and annealing chambers
- Climate and test chambers
- Sterilisation and autoclave rooms
- Process canopies and extraction hoods
- Foundry and melt shop covered walkways
- Boiler house ceilings
- Covered areas above hot process equipment

VERSIONS

	Recess HT	Surface HT
Article base code	MNHT02	MNHT01
Luminous flux	14,400 lm	14,400 lm
Power	75 W	75 W
Efficacy	192 lm/W	192 lm/W
Depth	20 mm	95 mm
Weight	3.9 kg	4.9 kg
Ambient	−45 to +120 °C	−45 to +120 °C

HT optics are not possible on the Manta: the housing is too shallow to carry one, so both high temperature versions are 120° very wide. For high temperature with optics, see the **Linear HT**, the **Barracuda HT** or the **Orca HT**.

Light output and optics

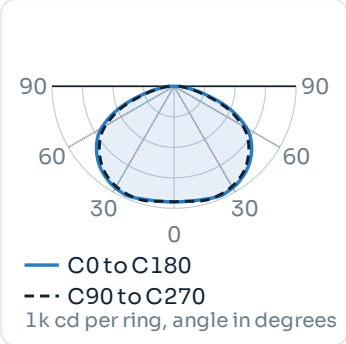
Values apply at Ta 25 °C, including driver consumption. The luminous flux is maintained across the full ambient range; what changes with temperature is the LED service life, stated as a ladder in the colour table.

BEAM CHARACTERISTICS

Version	Distribution	Beam angle 50 % of peak	Field angle 10 % of peak	Typical use
Both versions	No optics, very wide	136°	168°	A hot ceiling directly above the work: oven roofs, chambers, hoods
HT optics	Not available on the Manta	–	–	See the Linear HT, the Barracuda HT or the Orca HT

HT optics of 20°, 40° and 60° exist for the Orca, the Barracuda and the Linear only. On the Manta, the Snapper and the Goby the housing is too small or too shallow to carry one, so those versions are supplied as 120° very wide. In a chamber or under a hood that is what is wanted anyway, because the luminaire sits directly above the work.

LIGHT DISTRIBUTION



120° very wide, both versions

OBTRUSIVE LIGHT

ULOR at 0° tilt	**0 %**
Colour temperatures	6500 K, 4000 K and 2700 K
Bi-colour	Not available on the high temperature versions

Nothing is emitted above the horizontal at 0° tilt. That is the figure a permitting authority asks for when a site borders a residential area or a protected zone, and it is the starting point for any assessment against NEN-EN 12464-2 and the NSVV guidance on obtrusive light. Where the site condition demands a cut off optic rather than a controlled floodlight, see the DarkLicht range.

COLOUR AND CONSISTENCY

Colour temperatures	6500 K, 4000 K, 2700 K
Bi-colour	Not available on the high temperature versions
Colour rendering	Ra > 70 standard, optionally 80 or 90
Colour consistency	MacAdam step 3 or better
LED service life	TM-21 L90B05, see the temperature ladder below
Ladder	> 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C

Full specification

All values apply to the standard configuration at 25 °C ambient, including lens losses and driver consumption. A hyphen means the entry does not apply to that version.

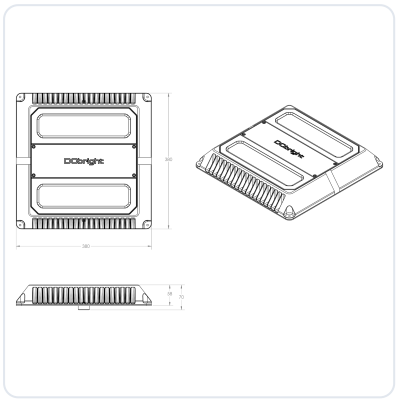
	Recess HT	Surface HT
PERFORMANCE		
Luminous flux	14,400 lm	14,400 lm
Power consumption	75 W	75 W
Efficacy	192 lm/W	192 lm/W
Beam	120° very wide	
ELECTRICAL AND DRIVER		
Supply voltage range	90–305 VAC, 50/60 Hz	
Current draw	0.63 A at 120 V · 0.34 to 0.27 A at 220 to 277 V	
Power factor at full load	> 0.9 at 70 to 100 % load	
Surge protection	6 kV line to line, 10 kV line to earth (IEC 61000-4-5)	
Dimming	0–10 V, PWM, DALI-2, or over NFC	
Driver	BLD120, mounted outside the hot zone	
Driver ambient	The driver box must sit in an ambient of at most +50 °C	
Driver life	≥ 100,000 h at Tc 75 °C, MTBF ≥ 320,000 h	
CONSTRUCTION		
Housing	Cast aluminium, less than 0.08 % copper	
Surface finish	Conversion layer plus 2-layer titanium-based e-coating	
Bracket	Fixed bracket, aluminium, less than 0.08 % copper	
Front	Diffuse chemically hardened glass, or diffuse borosilicate, IK08	
Protection class	Class II	
Ingress protection	IP66, IP67, IP68 and IP69K, resistant to steam and high pressure cleaning	
Impact resistance	IK08 (IEC 62262)	
Corrosion class	C5 industrial and marine (ISO 9223)	
DURABILITY AND DIMENSIONS		
Ambient temperature	−45 to +120 °C	
LED service life	TM-21 L90B05: > 360,000 h at 50 °C · 103,000 h at 85 °C · 71,700 h at 105 °C · 51,400 h at 120 °C	
Cable and termination	SiHF-OB silicone, 4 cores (2 × 2.5 mm² + 2 × 0.5 mm²), 5.0 m	
Dimensions	380 × 380 × 20 mm	380 × 380 × 95 mm
Weight	3.9 kg	4.9 kg
Colour temperatures	6500 K, 4000 K, 2700 K	
Warranty	5 years on the complete luminaire up to +120 °C	

The driver box is mounted outside the hot zone and is connected with heat resistant silicone cable. The LED life ladder applies to every high temperature luminaire in the range and is stated in the colour table rather than as a footnote.

Mechanics, mounting and driver

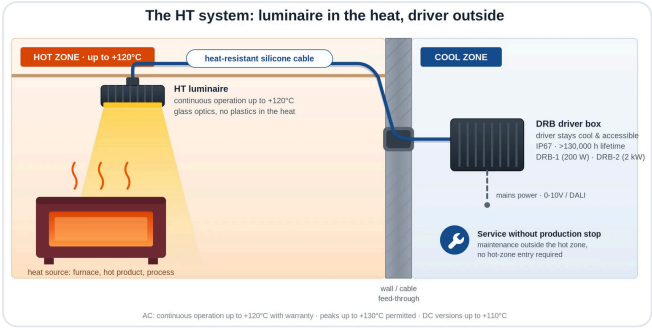
All drawings are to scale and dimensioned in millimetres. The driver is a separate item and is mounted outside the hot zone.

PANEL AND MOUNTING DEPTHS



Panel	380 × 380 mm, both versions
Recess HT	20 mm deep, 3.9 kg
Surface HT	95 mm deep, 4.9 kg
Bracket	Fixed, aluminium
Front	Diffuse diffuse borosilicate for food industry applications
Optics	Not possible on this housing

LUMINAIRE AND DRIVER



In the hot zone	The panel only
Outside the hot zone	The BLD120 driver
Between them	Heat resistant silicone cable, 5.0 m
Driver ambient	+50 °C maximum
Longer runs	On request

MOUNTING AND ACCESSORIES

Fixed bracket	Aluminium, supplied as standard
DRB-1 driver box	Housing for the driver, outside the hot zone
Borosilicate front	Diffuse, where the glass sees radiant heat
Silicone cable	5.0 m as standard, longer on request
Linear alternative	Linear HT, for a run along a tunnel rather than a panel above it
Point source alternative	Goby HT, Snapper HT, Barracuda HT or Orca HT

REMOTE DRIVER

Type	BLD120, 90–305 VAC or 127–420 VDC
Position	Outside the hot zone, ambient +50 °C maximum
Case temperature	Tc −40 to +90 °C
Lifetime	≥ 100,000 h at Tc 75 °C
MTBF	≥ 320,000 h at 75 °C case
Size and weight	161 × 68 × 33.5 mm, 800 g

Heat is what kills a driver, not the LED. On the standard Manta the driver sits inside the panel; on the HT version it moves out of the hot zone entirely. That is the whole difference between the two.

DRB-1 DRIVER BOX

Use	Housing for the driver, outside the hot zone
DRB-1	One driver up to 320 W. 276 × 194 × 86.5 mm, 4.2 kg, IP66 and IP67
Ingress protection	IP66 and IP67
Ambient	+50 °C maximum

Ordering, standards and documents

ORDER CODE

Example **MNHT01-65K**

Manta HT Surface, 6500 K

MNHT02 · MNHT01	Recess HT · Surface HT
65K · 40K · 27K	6500 K · 4000 K · 2700 K
BORO	Diffuse borosilicate front instead of chemically hardened glass
Beam	120° very wide, no optic suffix
Cable	5.0 m silicone as standard, longer on request

Bi-colour and amber are not available on the high temperature versions. Cable length beyond 5.0 m, driver placement and the diffuse borosilicate front are confirmed at order.

COMBINATIONS

Borosilicate front	Both versions
Recess in a hot ceiling	Standard
DALI-2 and NFC	Standard
Bi-colour or amber	Not available
HT optics	Not possible on this housing
Surface Extended in HT	Not available

STANDARDS AND VERIFICATION

Subject	Standard	Verification
Luminaire safety	IEC/EN 60598-1, -2-5	In-house test
EMC emission and immunity	EN 55015, EN 61547 · IEC 60533 marine, bridge and open deck	TÜV
Ingress	IEC 60529 and ISO 20653. IP66, IP67, IP68, IP69K	In-house test
Impact and vibration	IEC 62262 IK08 · IEC 60068-2-6 at 6 G	In-house test
Shock and corrosion	IEC 60068-2-27 · ISO 9223 class C5, industrial and marine	In-house test
Photometry	IES LM-79, IES files per optic	In-house test
Substances	RoHS, REACH	Self-declaration

BEFORE YOU ORDER

A sample luminaire to hang before you commit to a project quantity.

Five years warranty on the complete luminaire.

A DIALux calculation from our engineers, on your site drawing.

PRODUCT PAGE

IES files and revision history, DXF and STEP on request, and project references.
jelproducts.nl/en/products/manta-canopy-light

WHERE IT EARNS ITS PLACE

In an oven roof, a drying chamber or an extraction hood there is no depth for a luminaire and no access from above once the plant is running. The Manta HT is a 20 mm panel that sits in that ceiling permanently, at 192 lumens per watt, with the only heat sensitive component mounted where a technician can reach it.

Notes. Values are for the standard configuration. The warranty follows the operating temperature: five years to +120 °C on AC and to +110 °C on DC. The LED life ladder in the colour table is the same for every high temperature luminaire in the range. North American models on request. The JEL range is not ATEX or Ex certified.