

## **Maritime Products** and Solutions

HIL)

**Premium Visibility Solutions** for work area illumination, SAR, Navigation and Security

Rev August 2018

## **Premium Visibility Solutions**

for work area illumination, SAR, Navigation and Security

Luminell Group, formed as a result of Luminell AS acquisition of Color Light AB in 2016, has the purpose to solve visibility challenges and create value for all its stakeholders. The group today consists of two companies:

#### Luminell AS, established 2010 in Ålesund, Norway

developing, selling and supplying critical light solutions for demanding customers – simply because Light Matters. Typical
products are high quality light solutions based on LED technology – floodlights, bowlights and basic searchlights.
 www.luminell.com

#### Luminell Sweden AB, established 1998 in Halmstad, Sweden

– developing, selling and supplying premium searchlights for demanding professional customers – Improving Light at Sea. Typical products are premium motorized searchlights for SAR, Navigation and Security using HID and LED light technology as well as Integrated Thermal (IR) camera vision solutions. www.luminell.com

The groups total product range is described in this product catalogue as presented in the table of contents and aims to give you an overall idea of the offer to the market. Both companies work continuously with product development and more products will come on a regular basis – so never hesitate to ask us about new solutions and requests.



## **Table of Contents**





Proven endurance

# Powerful LED floodlights for extreme environments

- Flicker Free
- Made to handle shocks and vibrations over time
- Seawater resistant and "easy clean" design
- No maintenance
- Designed and produced in Scandinavia
- Dimmable
- Compact, robust and sealed

- Excellent EMC characteristics
- Encapsulated internal electronics
- No ballast required
- Submersible version < 40m
- Available for hazardous areas
- Corrosion class C5m















luminell

100-277 VAC			
	FLOODLIGHT	FLOODLIGHT	FLOODLIGHT
Input Specifications			
Input voltage range	100 - 277 VAC	100 - 277 VAC	100 - 277 VAC
Frequency range	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Rated power	80W	160W	230W
Alternative rated power	40W 1	N/A	N/A
Current at 230VAC	0,35 A (80W)	0,75 A	1,1 A
Leakage current	<0,75 mA /227 VAC	<0,75 mA /227 VAC	<0,75 mA /227 VAC
Inrush current (230VAC cold start)	~65A (445 µs)	~65A (445 N/A)	~70A (1010 µs)
Light Control / DIM	Optional: 0-100KΩ or 0-10V (0-100%)	N/A	0-100KΩ or 0-10V (0-100%)
Light Specifications			
Initial luminous flux @ Ta 25°C	10.776	21.552	30.014
Color rendering index (CRI)	min. 70	min. 70	min. 70
Color temperature	5.000 K (+ - 500 K) <sup>2</sup>	5.000 K (+ - 500 K) <sup>2</sup>	5.000 K (+ - 500 K) <sup>2</sup>
Beam angles	10° spot	beam - 110° wide beam (se	ee last page)
General Specifications			
Startup time	1 sec.	1 sec.	1 sec.
Operating ambient temperature (Ta)	- 40°C to + 55°C	- 40°C to + 55°C	- 40°C to + 55°C
Storage temperature	- 40°C to + 80°C	- 40°C to + 80°C	- 40°C to + 80°C
Weight (apx.)	6.5 kg	10.5 kg	16 kg
Cable gland	1xM20 (6-13mm)	1xM20 (6-13mm)	1xM20 (6-13mm)
Blind caps	1xM20	1xM20	2xM20, 2xM25
IP class	IP 66/67	IP 66/67	IP 66/67
Lifetime prediction (L70) @ Ta 45°C	110.000 hrs	110.000 hrs	110.000 hrs
Corrosion class	C5m ISO 9223/12	2944 (for offshore and mar	itime environments)
	For more information	see document "Lifetime Prediction R	RLX™" at our webpage.
Materials			
Body / casing / chassis		, anodized, and powder coa	ated aluminium
Glass	Tempered glass (Polycarbo	·	
Bracket, bolts, nuts, etc.	Stainless steel AISI 316L	(1.4404), A4	
Other Compliances			
Description	Standard		
LED modules for general lightning	IEC 62031		
Photobiological safety	IEC 62471: 2009 (Low ri	sk - RG1)	
EMC radiated emmissions	DNVGL EMC Class A and	B - IEC/EN 60945	
Radiated and conducted	MIL-STD461F/G (Only on	RLX D with protection guar	rd)
EMC immunity	EN 61000-4-2,3,4,5,6,8	,11 (Surge 4 kV)	
ETL / cETL certified	EANSI/UL1598, ANSI/UL	1598A, ANSI/UL 8750 and	d CSA C22.2 No.250.0

<sup>1</sup> On request

<sup>2</sup> Also available in 3.000 K (Warm White)

24 VDC			
	<u>RLX</u> ™ <b>B</b> Floodlight	FLOODLIGHT	FLOODLIGHT
Input Specifications			
Input voltage range	9 - 36 VDC	19 - 30 VDC	19 - 30 VDC
Rated power	40W	80W / 120W	160W / 240W
Current at 24V	1,6A	3,33A / 5A	6,67A / 10A
Light Control / DIM	On request	0-100KΩ or 0-10V (0-100%)	0-100KΩ or 0-10V (0-100%)
Light Specifications			
Initial luminous flux @ Ta 25°C	5.000	10.600 / 14.000	21.200 / 28.000
Color rendering index (CRI)	min. 70	min. 70	min. 70
	5.000 K (+ - 500 K)	5.000 K (+ - 500 K)	5.000 K (+ - 500 K)
Beam angles	$40^\circ$ and $60^\circ$ beam	10° spot beam - 110° w	vide beam (see last page)
General Specifications			
Startup time	1 sec.	1 sec.	1 sec.
Operating ambient temperature (Ta)	- 40°C to + 55°C	- 40°C to + 55°C	- 40°C to + 55°C
Storage temperature	- 40°C to + 80°C	- 40°C to + 80°C	- 40°C to + 80°C
Weight (apx.)	1,5 kg	6.5 kg	10.5 kg
Cable gland	3m 2x1,5mm <sup>2</sup> cable	1xM20 (6-13mm)	1xM20 (6-13mm)
Blind caps	N/A	1xM20	1xM20
IP class	IP 66/67/68	IP 66/67	IP 66/67
Lifetime prediction (L70) @ Ta 45°C	110.000 hrs	110.000 hrs	110.000 hrs
Corrosion class	C5m ISO 9223/12 For more information	2944 (for offshore and mari see document "Lifetime Prediction F	time environments) <b>DELTA</b> RLX" at our webpage.
Materials			
Body / casing / chassis	Seawater resistant; casted	, anodized, and powder coa	ted aluminium
Glass	Tempered glass (Polycorbo	onate on request)	
Bracket, bolts, nuts, etc.	Stainless steel AISI 316L	(1.4404), A4	
Other Compliances			
Description	Standard		
LED modules for general lightning	IEC 62031		
Photobiological safety	IEC 62471: 2009 (Moder	ate risk - RG2) Do not stare	at light source
EMC radiated emmissions	DNVGL EMC Class A and	B - IEC/EN 60945	
Radiated and conducted	MIL-STD461F/G		
EMC immunity	EN 61000-2,3,4,6,8 (Sur	rge 2 kV)	
ETL / cETL certified	ANSI/UL1598, ANSI/UL1	598A, ANSI/UL 8750 and	CSA C22.2 No.250.0

RLX<sup>™</sup> Floodlight

RLX <sup></sup> Floodlight	FLOODLIGHT	FLOODLIGHT	FLOODLIGHT	FLOODLIGHT
Dimensions and Mour	iting			
Front view	Fig.1	Fig.2	Fig.3	Fig.3
Side view	Fig.4	Fig.5	Fig.6	Fig.7
Bracket	Fig.8	Fig.9	Fig.10	Fig.10
	[uiger of ] [uiger of ] [11,53in 		[13,16n] [13,16n]	3 
able as standard pos	string the mounting ding	[4,43in] [13mm] [79mm] nal Guard		[Ugg 2] [Ugg 2] [1,38in] 35mm Optional Guard
		9 <sup>3</sup> / <sup>3</sup> /15 0 0 0 0 0		

#### **Options and Accessories**

- Anti-Ice kit
- Light color available in: red, green, blue, amber, cool white (12.000 K), warm white (3.000 K) and combinations of these
- Specialized products on request
- Casing available in other color as option/upon request
- Available with fixed cable



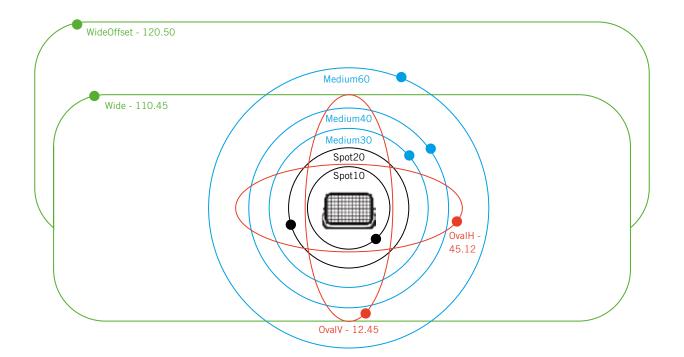
Protection grid





Damper (Pendulum mounting)

RLX <sup>™</sup> Series, standard beam alternatives			
Beam group	Beam code	Light projection – diameter, 10m distance	Color code
Spot beams	Spot10	2m	
Spot beams	Spot20	Зm	•
	Medium30	5,4m	
Medium beams	Medium40	7m	•
	Medium60	10m	
Wide beams	Wide	28m	
	WideOffset	34m	•
Oval beams	OvalH	8,2 x 2m	
	OvalV	2 x 8,2m	-



Specifications are subject to change at any point without prior notice.

## Zone 1 & 2 LED floodlights for extreme environments



- ATEX and IECEx approved. Zone 1, 2, 21 and 22
- Powerful light performance
- Compact and low weight
- Designed to be appreciated by the installer and the end user
- Wide operating temperatures

- Temperature classes T6/T5/T4/T3
- Extreme lifetime
- Light efficiency up to 80% savings from conventional

luminell®

Light Matters

- No flame path, no maintenance
- MIL-STD-461, remarkable EMC/EMI characteristics
- Crafted for demanding marine and offshore conditions





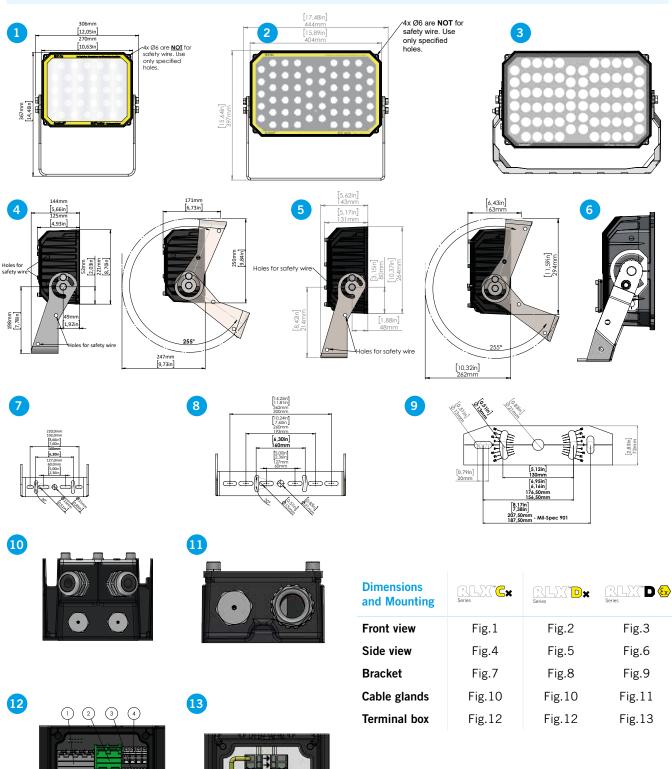
		RLX Cx		
Electrical Specifications	40 W	80 W	120 W	160 W
Input voltage range	100 - 277 VAC, 100 - 300 VDC			
Frequency range	50 - 60 Hz			
Power factor @ 230 VAC		$\cos \phi$ ·	< 0.9	
Current @ 230 VAC	0,17 A	0,35 A	0,52 A	0,7 A
Leakage current		0,5 mA RMS @ 2	230 VAC 50 Hz	
Recommended fuse	MC	B16 type C for up to 10 floo	odlights connected in pa	rallel
Dim control interface		(10-100%) 0 - 100 kΩ, 4	- 20 mA or 0 - 10 VDC	
Battery backup		Prepared for Luminell ba	attery backup accessory	
Terminal dimensions		mm <sup>2</sup> , Grounds: 0,2 - 16 m terminals with looping (sket		
Light Specifications				
Initial luminous flux	6.589	11.290	15.342	19.021
Lumen per watt	165	141	128	119
100% light output		Ta < 55°C		Ta < 45°C
Color rendering index (CRI)		> 7	0	
Color temperature	5.000 K ( 3.000 K on request) Spot 15°, Medium 40°, Medium 60°, Medium 60° x 40°, Wide 80° x 60°, Oval 45° x 15°,			
Ex and Environmental		n page 6 for more informati		
Ambient temperature (Ta)		- 55°C to	+ 55°C	
Storage temperature	- 55 °C to + 80 °C			
Markings	Zone 1, 2, 21, 22			
ATEX classification		CE 2585 Ex		
IEC classification gas	Ex eb mb op is IIC T6 Gb	Ex eb mb op is IIC T4, T5** Gb	Ex eb mb op is IIC T4 Gb	Ex eb mb op is IIC T3, T4* Gb
IEC classification dust	Ex tb op is IIIC T85 Db	Ex tb op is IIIC T135, T100** Db	Ex tb op is IIIC T135 Db	Ex tb op is IIIC T200, T135* Db
Classification with alterna- tive ambient temperature		*T4, T135 @ **T5, T100 @		
General Spesifications				
Startup time		1 sec	cond	
Weight		9,7 kg (a	approx.)	
	2xM25 10-18mm Through Gland 2xM20 Blind Cap Other glands and blind caps on request.			
Cable glands		2xM20 BI	lind Cap	
		2xM20 BI	lind Cap nd caps on request.	
IP class	L70 @ Ta 45°C 180k hours	2xM20 BI Other glands and blir	lind Cap nd caps on request.	L70 @ Ta 45°C 80k hours
Cable glands IP class L70 (70% light output)		2xM20 BI Other glands and blir IP 66 L70 @ Ta 45°C	lind Cap nd caps on request. 5/67 L70 @ Ta 45°C 100k hours	80k hours

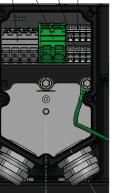


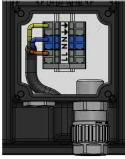
		RLX Dx		RLX D Ex
<b>Electrical Specifications</b>	80 W	160 W	240 W	160 W
Input voltage range	10	0 - 277 VAC, 100 - 300 V	DC	100 - 277 VAC
Frequency range		50 - 6	60 Hz	
Power factor @ 230VAC		$\cos \phi < 0.98$		cos
Current @ 230VAC	0,35 A	0,7 A	1,04 A	0,75 A
Leakage current	0,5	5 mA RMS @ 230 VAC 50	Hz	<0,75 mA @ 227 VAC
Recommended fuse	MCE	316 type C for up to 10 flc	odlights connected in par	rallel
Dim control interface	(0-100%)	0 - 100 kΩ, 4 - 20 mA or	0 - 10 VDC	N/A
Battery backup	Prepared for	or Luminell battery backup	accessory	N/A
Terminal dimensions		ounds: 0,2 - 16 mm2, Dim with looping (sketch availat		Mains and grounds: 0,08 - 2,5 mm <sup>2</sup>
Light Specifications				
Initial luminous flux	13.178	22.580	30.684	21.552
Lumen per watt	165	141	128	134
100% light output		Ta <		
Color rendering index (CRI)		>	70	
Color temperature	5.00	5.000 K ( <mark>)</mark> 3.000 K on request)		
Beam angles (degrees)	Spot 15°, Medium 40°, Medium 60°, Medium 60° x 40°, Wide 80° x 60°, Oval 45° x 15°,See illustration on page 6 for more information. Photometric files available on request.			10° spot beam - 110° wide beam
Ex and Environmental				
Ambient temperature (Ta)	- 55°C to + 55°C			- 25°C to + 55°C
Storage temperature	- 55°C to + 80°C			- 25°C to + 80°C
Markings	Zone 1, 2, 21, 22			Zone 2
ATEX classification		CE 2585 Ex II 2G II 2D		CE 0044 Ex II 3G Ex nA IIC T5 Gc
IEC classification gas	Ex eb mb op is IIC T6 Gb	Ex eb mb op is IIC T5 Gb	Ex eb mb op is IIC T4 Gb	N/A
IEC classification dust	Ex tb op is IIIC T85 Db	Ex tb op is IIIC T100 Db	Ex tb op is IIIC T135 Db	N/A
Classification with alterna- tive ambient temperature	N/A	N/A	N/A	N/A
General Spesifications				
Startup time		1 sec	cond	
Weight		15,2 kg		10,5 kg
Cable glands	2xM25 10-18mm Through Gland 2xM20 Blind Cap Other glands and blind caps on request.			1xM20 9-16mm Through Gland 1xM20 Blind Cap
IP class		IP 6	6/67	
L70 (70% light output)	L70 @ Ta 45°C 180k hours	L70 @ Ta 45°C 120k hours	L70 @ Ta 45°C 100k hours	L70 @ Ta 45°C 110k hours
		Will increase with lower a	mbient temperatures (Ta)	
Corrosion class	C5 m ISO 9223/12944 (for offshore and maritime environments)			ments)



#### **Dimensions and Installation**







Mounting positions: RLX Cx

With two M12 bolts the pattern fits 90-220 mm holes with full +/-15° adjustments at 160 mm.

#### RLX Dx

With two M12 bolts the pattern fits 60-362mm holes with full +/-15° adjustment at 160 mm.

Angled to reduce cable bend

luminell.com



#### **Materials**

Body / casing / chassis	Seawater resistant; casted, anodized and powder coated aluminium
Glass	Tempered glass
Bracket, bolts, nuts etc.	Stainless steel AISI 316L (1.4404), A4

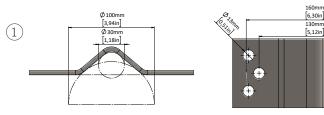
#### Approvals and Declarations

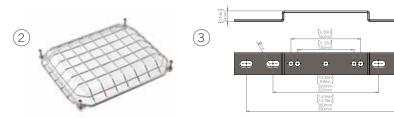
Low Voltage Directive (LVD) 014/35/EU	EN 62031:2008/A1:2013/A2:2015 – LED Modules for general lighting
Photobiological safety	EN 62471:2008 – Photobiological safety of lamps and lamp systems
EMC and immunity	EN 55015:2013 – Radiated and conducted emissions
	EN 60945:2002 – Marine Equipment. EMC Immunity, Radiated and Conducted Emissions (not on RLX D Ex)
	MIL-STD461F CE102 RE102 - Navy Top Deck (not on RLX D Ex)
	MIL-STD461F CE102 RE102 - Navy Mobile & Army (not on RLX D Ex)
Explosion proof standards	IEC/EN 60079-0:2012 – Equipment General Requirements
RLX Cx and RLX Dx	IEC/EN 60079-7:2015 – Equipment protection by increased safety "e"
	IEC/EN 60079-18:2015 – Equipment protection by type of protection "m"
	IEC/EN 60079-28:2015 – Protection of equipment and transmission systems using optical radiation "op is"
	IEC/EN 60079-31:2014 – Equipment dust ignition protection by enclosure "t"
Explosion proof standards	EN 60079-0:2012 – Equipment General Requirements
RLX D Ex	EN 60079-15:2010 – Equipment protection by type of protection "n"



#### **Options and Accessories**

- (1) Pole mount bracket Ø30-Ø100
- (2) Protection Guard Set
- (3) Retrofit bracket 130, 160 to 225-260, 350-380
- (4) Fixed and moulded terminal cable. Only on RLX D Ex.





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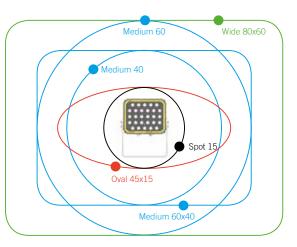
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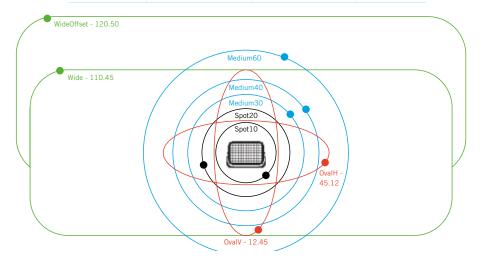
#### RLX Cx and RLX Dx Standard Beam Alternatives

Beam group	Beam code	Light projection – diameter @ 10m distance	Color code
Spot beams	Spot 15	2,6 m	•
Medium	Medium 40	7 m	
beams	Medium 60	10 m	•
	Medium 60 x 40	10 x 7 m	
Wide beams	Wide 80 x 60	14 x 10,5 m	
Oval beams	Oval 45 x 15	8 x 2,6 m	•



#### **RLX D Ex Standard Beam Alternatives**

Beam group	Beam code	Light projection – diameter @ 10m distance	Color code
Spot beams	Spot 10 Spot 20	2 m 3 m	•
Medium	Medium 30	5,4 m	
beams	Medium 40	7 m	
	Medium 60	10 m	
Wide beams	Wide Wide Offset	28 m 34 m	٠
Oval beams	Oval H Oval V	8,2 x 2 m 2 x 8,2	•





- the new standard





"This is the best bowlight I've ever seen. I see waves and objects in the water on very long distance – it is simply amazing!"

Capt. Eldar Giske, M/S Ekspressen – Norled AS

The new BLX<sup>™</sup> Bowlight is designed to improve the ability to see during navigation and maneuvering at night. By combining the proven technology of the RLX Series with practical testing of the optical features, the end result is a powerful bowlight that will increase safety and endure in very harsh environments.

#### **Key Features**

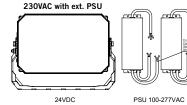
- Detects bouy reflex on 1 NM
- Dimmable
- BLX<sup>™</sup> design compact, sealed and highly resistant to shock and vibrations
- Proven endurance
- Available in 24VDC and 100-277VAC
- Maintenance free
- Instant light
- Easy clean design

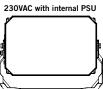


BLX™ Bowlight

Input Specifications	BLX™ C	BLX™ D	BLX™ E
Input voltage range	22 – 30 VDC	22 – 30 VDC	100 - 277 VAC (internal PSU)
Alternative voltage range	100 – 277 VAC (external PSU)	100 – 277 VAC (external PSU)	N/A
Frequency range 230VAC	50 – 60 Hz	50 – 60 Hz	50 – 60 Hz
Rated power	250W @ 24VDC	500W @ 24VDC	360W @ 230VAC
Current @ 24VDC	10,5 A	2x 10,5 A	N/A
Current @ 230VAC	1,1 A (external PSU)	2,2 A (2x 1,1A for each external PSU)	1,55 A (internal PSU)
DIM	0-100% using 0-100 kΩ or 0-10VDC.	0-100% using 0-100 kΩ or 0-10VDC. Spot/Oval can be controlled separately.	0-100% using 0-100 kΩ or 0-10VDC. Spot OR Oval must be selected remotely from control gear.
Light Specifications			
Initial luminous flux @ Ta 25°C	23.800	48.800 (23.800 + 25.000)	35.000
Beam angles	Spot 8 Oval H Combination of Spot 8 and Oval H	Spot 8 Oval H Spot 8 / Oval H	Spot 8 / Oval H
Candela	278.000 Cd	740.000 Cd (645.000 + 95.000)	532.000 Cd
Range (1 lx)	527 m	860 m	730 m
Tested range	Detects bouy reflex on 0,5 NM (926 m)	Detects bouy reflex on 1 NM (1.852 m)	Detects bouy reflex on 0,7 NN (1.297 m)
Color rendering index (CRI)	70 (min.)	70 (min.)	70 (min.)
Color temperature	5.000 - 8.000 K	5.000 - 8.000 K	5.000 - 8.000 K
Alternative color temperature	2.700 K - 3.000 K	2.700 K - 3.000 K	2.700 K - 3.000 K
General Specifications			
Startup time	1 sec.	1 sec.	1 sec.
Operating ambient temperature (Ta)	- 40°C to + 55°C	- 40°C to + 55°C	- 40°C to + 55°C
Storage temperature	- 40°C to + 80°C	- 40°C to + 80°C	- 40°C to + 80°C
Weight (apx.)	5,6 kg	9,5 kg	16 kg
Weight external PSU (apx.)	1 x 2 kg	2 x 2 kg	N/A
Cable gland	1xM20 (6-13mm)	2xM20 (6-13mm)	2xM20 (6-13mm)
IP class	IP66/67	IP66/67	IP66/67
Lifetime housing and materials	Made to endure more than 10 ye (for offshore and maritime enviro	ears. Corrosion class C5m ISO 92 onments) verified by	23/12944
Lifetime LED	L70 @ >25°C ~57.900h	L70 @ >25°C ~57.900h	L70 @ >25°C ~57.900h
and electronics	At high ambient temperatures and the light output to ensure lifetime	nd no wind the BLX™ Temperatur e.	e Protection Control will limit
Cable lenghts	Recommended cable length bet section). Specified lenghts is ap	ween 24VDC PSU and bowlight is plicable with use of 2,5mm2 cross the installer's responsibility to ass	s section supply cable. This is



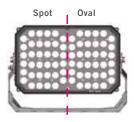




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#### **Materials**

Body / casing / chassis Seawater resistant; casted, anodized and powder coated aluminium Glass Tempered glass Bracket, bolts, nuts, etc. Stainless steel AISI 316L (1.4404), A4



#### **Safety Standards**

#### Description

LED modules for general lightning Photo biological safety of lamps and lamp systems EMC radiated and conducted EMC marine radiated and conducted (using screened cable) ETL / cETL certified

#### Standard

EN 62031:2008/A1:2013/A2:2015 EN 62471:2008 EN 55015:2013 and MIL-STD461F/G Navy Top Deck EN/IES 60945:2002 ANSI/UL1598, ANSI/UL1598A, ANSI/UL 8750 and CSA C22.2 No.250.0

#### **Dimensions and Mounting**

Front view	Fig. 1
Side view	Fig. 2
Bracket	Fig. 3
Control panel	Fig. 4







#### **Options and Accessories** Protection grid

- Anti-Ice kit
- Control panel

#### **Control Panel**

- Multiple bowlights can be controlled from the same panel
- Individual dimming of each section
- Master ON/OFF .
- Dimmable panel light (require 24VDC/VAC) •
- Select individual dimming range on spot and oval (0-100% or 10-100%)
- Rele-port

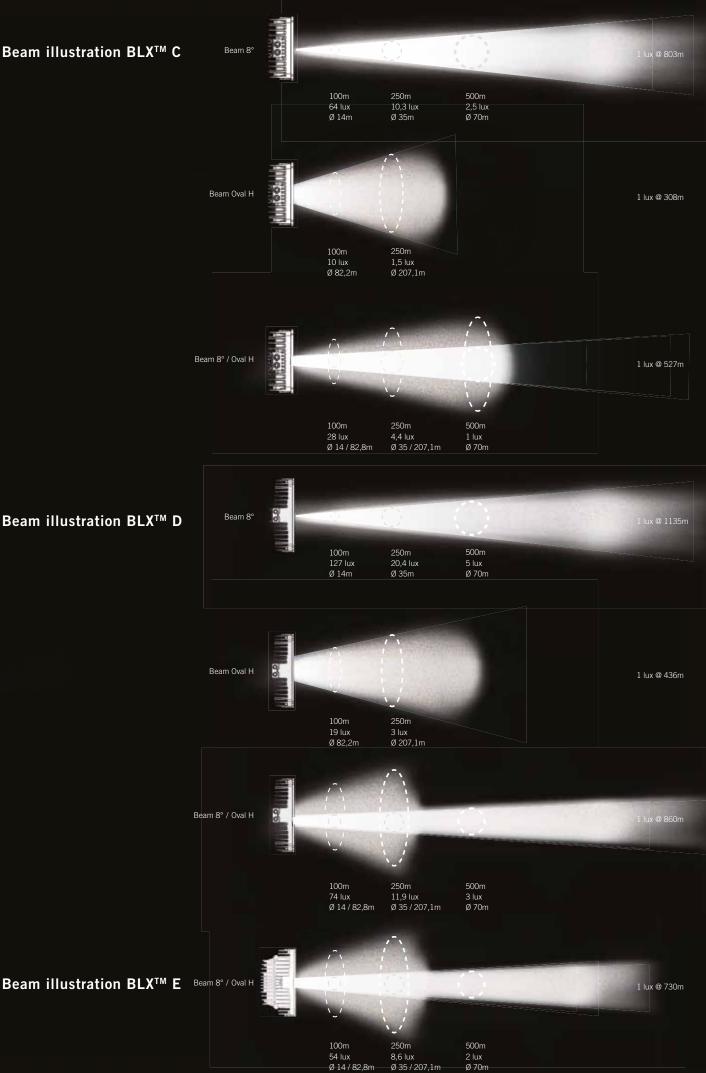








#### Beam illustration BLX<sup>™</sup> C





Specifications are subject to change at any point without prior notice.





The SLX<sup>™</sup> Searchlight module are created to push limits and maximize the potential in LED technology and optical performance.

Luminell SLX<sup>™</sup> 220W LED Searchlight. Distance: 257 meters.



«This is a perfect light for us! Regarding light beam, power and range there is nothing to complain about! The light always works and it get alot of beating in rough Northern-Sea at our small vessel traveling at 30 knots.»

Asbjørn Thomassen, RS-138 (Search and rescue Vessel)



#### **Key Features**

- Instant light
- No maintenance
- Upgrade your searchlight w./ different bracket kits available
- One or two different beam types per SLX™ module
- Very even light distribution
- Dimmable perfect in snow, fog or similar conditions
- Compact, sealed and resistant to vibrations and shocks
- Available in 24VDC and 100-277VAC
- Proven endurance

The SLX<sup>™</sup> Series LED searchlight modules, is made to replace conventional searchlight modules to increase light performance of your searchlight and get rid of costly and annoying maintenance. It is crafted to give superior value for the user with a powerful, compact and durable design that makes the investment to pay back to the fullest.

One SLX<sup>™</sup> searchlight unit will enable you detect an object on a distance up to 2 600 meters depending on chosen beam type for your need.

It is made to be mounted fixed or on any suitable existing movable platform. Adapter bracket kit for several movable searchlight platforms can be delivered with the SLX<sup>TM</sup> searchlight module.

Maybe it's time to upgrade your searchlight so it really can start making a difference for you?

Light Matters!

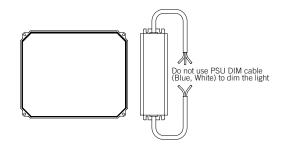


#### **Input Specifications**

Input voltage range Alternative voltage range Frequency range Current @ 24 VDC Current @ 230 VAC DIM

#### **SLX™** Module

22 – 30 VDC 100 – 277 VAC (external PSU) 50 – 60 Hz < 6,25 A < 0,7 A 0-100 kΩ or 0-10VDC



#### **General Specifications**

Startup time
Operating ambient temperature (Ta)
Storage temperature
Weight (apx.)
Weight external PSU (apx.)
Cable gland
Blind caps
IP class
Lifetime prediction (L70) @ Ta 25° C
Corrosion class
Cable lenghts

1 sec.
- 40°C to + 55°C
- 40°C to + 80°C
5 kg
1 x 1 kg
2xM20 (6-13mm)
None
IP66/67
75.000 hrs
C5m ISO 9223/12



4° beam or 6+° beam

C5m ISO 9223/12944 (for offshore and maritime environments)

Recommended cable length between 24VDC PSU and SLX<sup>™</sup> C is 20m (150W per section). Specified lenghts is applicable with use of 2,5mm2 cross section supply cable. This is a general recommendation. It is the installer's responsibility to assess this on each installation.

Product	SLX™ C 24V 4	SLX™ C 24V 6
Model no.	L0210-1	L0210-2
Light beam angle	4°	6+°
Total intensity Cd	875 000 Cd	875 000 Cd
Range (1 lux/0,25 lux)	935m / 1870m	935m / 1870m
Color rendering (CRI)	70 (min.)	70 (min.)
Color temperature (CCT)	5000-8000 Kelvin	5000-8000 Kelvin
Power	105 W	150 W
Optional AC PSU Acc.	1x S0093	1x S093
Comments:	<ul> <li>1x power input</li> <li>1x PSU is needed for AC installations</li> <li>If the SLX<sup>™</sup> is powered using an external VAC power supply the used power will increase by approx. 10%.</li> </ul>	

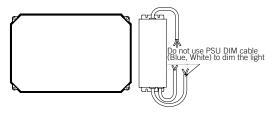


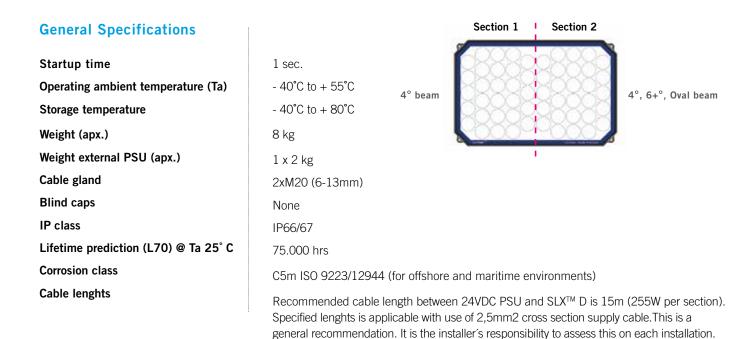
#### **Input Specifications**

Input voltage range Alternative voltage range Frequency range Current @ 24 VDC Current @ 230 VAC DIM

#### **SLX™** Module

22 – 30 VDC 100 – 277 VAC (external PSU) 50 – 60 Hz < 10,7 A < 1,1 A 0-100 kΩ or 0-10VDC





Product	SLX <sup>TM</sup> D 24V 4/4	SLX™ D 24V 4/6	SLX™ D 24V 4/Oval
Model no.	L0084-1	L0084-2	L0084-3
Light beam angle (Section 1/2)	4°/4°	4°/6+°	4°/Oval H
Total intensity Cd	1,75 mCd	1,75 mCd	0,950 mCd
Range (1 lux/0,25 lux)	1322m / 2645m	1322m / 2645m	975m / 1950m
Color rendering (CRI)	70 (min.)	70 (min.)	70 (min.)
Color temperature (CCT)	5000-8000 Kelvin	5000-8000 Kelvin	5000-8000 Kelvin
Power	210 W	255 W	255 W
Optional AC PSU Acc.	1x S0117	1x S0117	1x S0117
Comments:	<ul> <li>2x sections linked together</li> <li>1x power input</li> <li>1x PSU is needed for AC installations</li> </ul>	<ul> <li>- 2x sections, each controlled separately.</li> <li>- 1x power input</li> <li>- 1x PSUs is need for AC installations</li> <li>- Control panel is highly recommended!</li> </ul>	
	- If the SLX <sup>™</sup> is powered using an external VAC power supply the used power will increase by approx. 10%.		

#### **Materials**

Body / casing / chassis	Seawater resistant; casted, anodized and powder coated aluminium	
Glass	Tempered glass	
Bracket, bolts, nuts, etc.	Stainless steel AISI 316L (1.4404), A4	

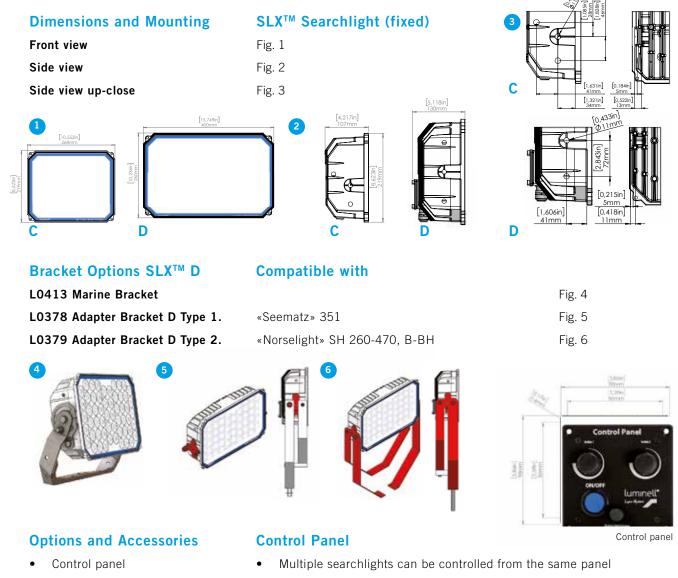
#### Standards for SLX<sup>™</sup> Searchlight

#### Description

LED modules for general lightning Photo biological safety of lamps and lamp systems EMC radiated and conducted EMC marine radiated and conducted (using screened cable) ETL / cETL certified

#### Standard

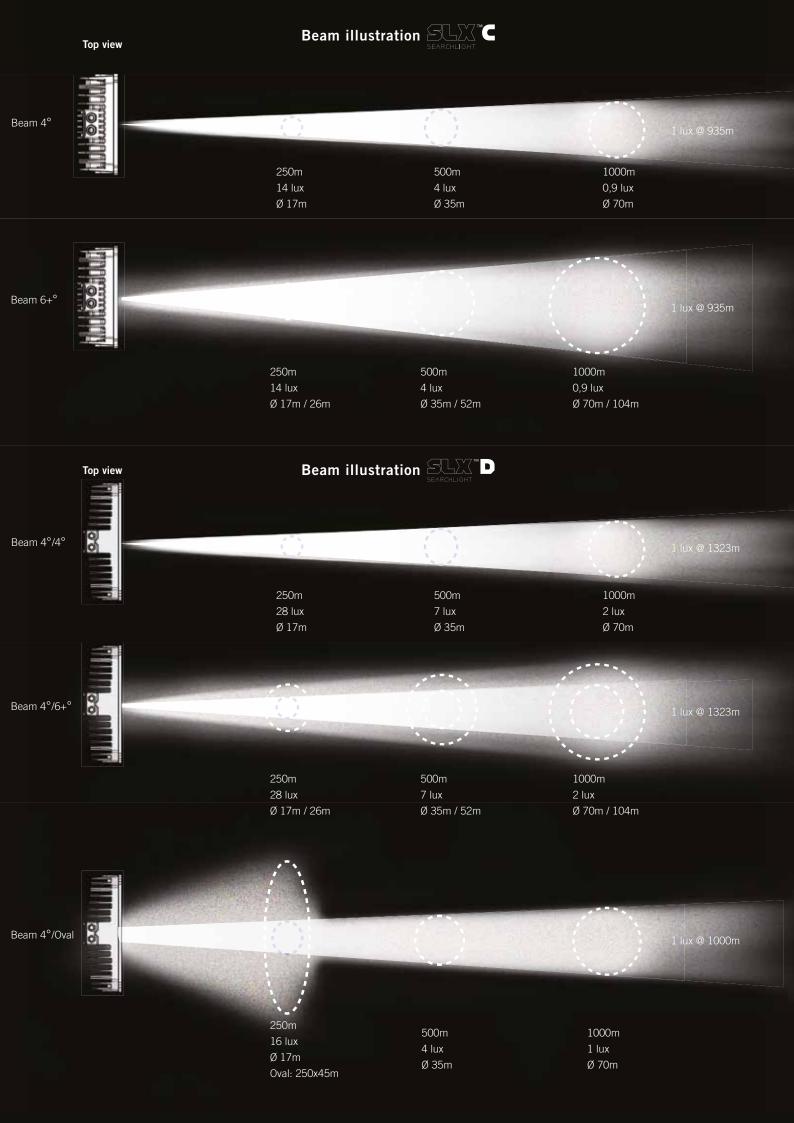
EN 62031:2008/A1:2013/A2:2015 EN 62471:2008 EN 55015:2013 and MIL-STD461F/G Navy Top Deck EN/IEC 60945:2002 ANSI/UL1598, ANSI/UL1598A, ANSI/UL 8750 and CSA C22.2 No.250.0



- Protection grid
- Anti-ice kit

- Individual dimming of beams
- Master ON/OFF
- Dimmable panel light (require 24VDC/VAC)
- Select individual dimming range on beams (0-100% or 10-100%)
- Rele-port







#### Luminell SLX<sup>™</sup> 220W LED searchlight

Traditional 500W halogen searchlight

COMPARISON



Our searchlight system can be set up with different levels of complexity - from a Basic solution to a more advanced control integration. The one thing combining them all is that you as a customer should get the solution you need for Improving Light at Sea. Important to know is also that our systems are expandable - easy to upgrade to add solutions and functionality later on.

#### **The Basic Solution**

Contains a searchlight, electronic control box and an operator panel. Very straight forward set up. Place the searchlight in a good location to reach as much area as possible around your vessel, place the electronic control box in a proper environment and finally place the operator epanel where it suits the purpose best - for Search and Rescue, for navigation support, for surveillance or as worklight.

Good optional software upgrade is our Package 2 (Sweep, fixed positions, surveillance) increasing automatic operations simplifying your work. search and rescue, for navigation support, for surveillance or as worklight.



#### **Customized control solutions**

We have developed less advanced one button control functions driven by specific customer demands.

Helideck control button – press the button, the searchlight lights up and goes to a pre-set position.

Press the button again – the searchlight lights off and goes back to a park position.

Time efficient and simplify the operation.

Another example is the solution RHOTHETA Radio Detection Finder control integration.

Press the button, the searchlight lights up and follows the NMEA-output of the RHOTHETA Radio Detection Finder, most likely picking up the radio signal from the MOB beacon and defines the bearing from the vessel to a man or a vessel in distress.

Focus on the SAR operation and the searchlight will automatically follow and illuminate the target.

### **CL/CLITE Series system overview**

#### The Network solution

Contains multiple searchlights in combination with one or many operator panels. Connect all units with an Ethernet Switch and get access to any system in the network from any control panel. A good software upgrade is our Package 3 - synchronised control of multiple searchlights. One or more searchlights will follow a master searchlight increasing light power and makes the operation more efficient for you operating only one operator panel. Just ask us if you need our support in making a block schematic solution diagram for the total system you need.



#### **Customized control solutions**

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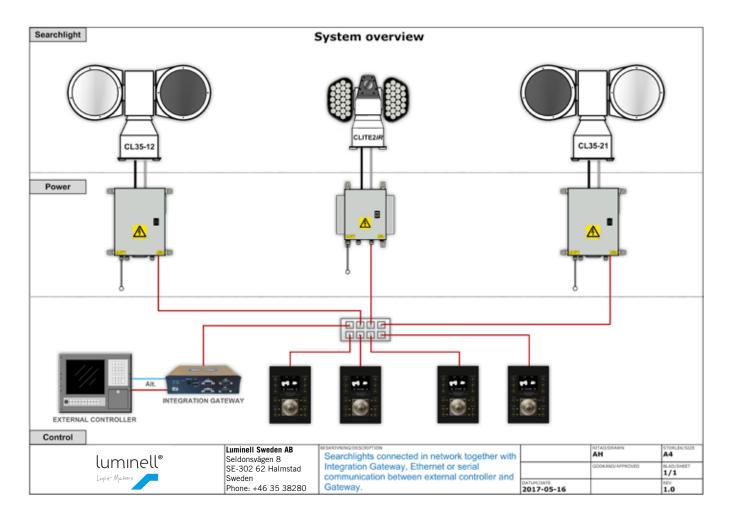
Focus on the SAR operation and the searchlight will automatically follow and illuminate the target.

#### **Control Integration Solutions**

Our systems were originally developed to be ready for basic and advanced control integration. The electronics and the control software are well prepared for one-man bridge solutions as well as defined single button control functionality.

Examples of more advanced integrations is when a full integration of functionality and control into the vessel's bridge and security systems is made. Using input from Radar, GPS, AIS and other targets to define the manoeuvring of the searchlight. Here it is more up to your need and the creativity of the system integrator to use the full potential of our systems. Many bridge system integrators have already integrated our products, ask us for references.

To simplify integration to a multiple number of searchlights or to add the CL internal LAN network to the vessel's LAN system we have developed an Integration Gateway. Primarily it is a gateway and a single access point to a network of multiple searchlights – simplifying external control integration, from a single controller or from a LAN network. Secondly it is also a programmable computer making it possible for Luminell to offer development of customised control functions as an optional feature. Bring us your ideas and your daily operational challenges, hopefully we can offer the solution you need.



#### Thermal camera solutions integrated in our searchlights – CLIR/CLITE2/R

The thermal night vision camera unit from FLIR® is placed in a robust, modern designed housing mounted on top of the searchlight middle part; this means that the camera always follows the searchlights horizontal movement from the joystick. The thermal camera is mounted in a special tilt unit which makes it easy to adjust the camera vertically from the operator panel.

The front is with a germanium window with an integrated temperature-controlled and self-regulating heating element. The element will prevent condensation and ice build-up on the front window that would otherwise disrupt the cameras line of sight. The infrared thermal camera provides a clear picture based on temperature differences, even in total darkness. This is possible since the camera is sensitive to thermal infrared radiation.

All objects with a temperature over the absolute zero point -273 C (O degree K) generates infrared radiation. The hotter the temperature, the more infrared radiation. The IR sensor also senses differences of the material's emissivity, reflection and transmission. Emissivity – the material's capability to emit infrared radiation. Reflection – the material's capability to reflect infrared radiation. Transmission – the material's capability of transmitting infrared radiation. Materials with a temperature over -273 C will be detected by the thermal sensor and different materials with same temperature will appear different on the monitor due to the different properties in the materials. A weak point with an uncooled thermal sensor is that rain, fog or snow reduces the optical sight and it also effects the range of IR detection. Depending on distance, size of the object and level of temperature (IR radiation) there is no simple answer how much the detection range is affected – (but it is affected).

We work primarily with two alternative sensor resolutions; our standard version is a 336 core with a 25 mm focal lens. Optional is to upgrade to a 640 core with 25 mm lens improving the resolution with an extended detection range and field of view.

A combined solution with thermal sensor and visible light will support your improved visibility depending on the actual conditions during your operations.

Camera core type	FLIR (uncooled longwave thermal imager)		
Lens	25mm*1		
Field of view	13x10 degrees (25x20 degrees for 640 core)		
Video output	Analog Channel Composite Video (Male RCA connector)		
	PAL (Standard), NTSC.		
	To change the video standard, see section 3.SET CAM VIDEO STANDARD		
Camera type	FLIR Tau 2, 336 (standard)	FLIR Tau 2, 640 (optional)	
Detector resolution	336x256, 17µm	640 × 512, 17μm	
Video resolution	640 × 480 (NTSC);	640 × 512 (PAL)*2	
Refresh rate	25 Hz (PAL), 30 Hz (NTSC)		
Detection man/vessel	800m / 2000m		
Recognition man/vessel	200m / 550m		
Identification man/vessel	100m / 300m		

#### Thermal unit

\*1 Other lens types available upon request

\*2 Tau 336 & 324 analog video is upsampled & interpolated to 640 × 480 for NTSC, and to 640 × 512 for PAL



**CL25** 

#### Powerful and compact HID searchlight



'My own experience has been very good with the searchlight. It works great in the dark. But even in rain and fog, the results are excellent. The blacklight works great, too. We use the searchlight every night. It's dark here from 22:30 until 04:00 in the morning. We have to cope with a great many icebergs, 'bergy bits' and 'growlers.' The searchlight is definitely a necessary part of the equipment that we need here in order to operate under these conditions.' Captain of the S/Y 'Rembrandt van Rijn.



APPLICATIONS:	Search and Rescue, Navigation support, Ice navigation support, Worklight, Security surveillance, Oil spill illumination (UV)
TYPE:	HID light source with adjustable beam width
INPUT POWER:	100-240 VAC, 50/60 Hz optional
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility, long range illumination

PART DESCRIPTION	PART NO	NOTE
Searchlight model CL25-11 400W/400W	CLS-25011	Also available in hanging version
Searchlight model CL25-12 400W/UV	CLS-25012	Also available in hanging version
There is a variety of other combinations on the CL25 platform, as	sk us for more information	

OUTPUT / PERFORMANCE		
Range with 1 lux at target	3 200 m	
Light beam angle	Adjustable 4-20°	
Color Rendering (CRI)	90 Ra minimum	
Color Temperature (CCT)	6000 K	
Lumen (Im)	66 000 lm	
Candela (Cd)	10,7 MCd	

KEY TECHNICAL INFORMATION			
Stainless steel in critical structural parts			

Powder coat white RAL 9016

IP66

Operating temp -40/+70

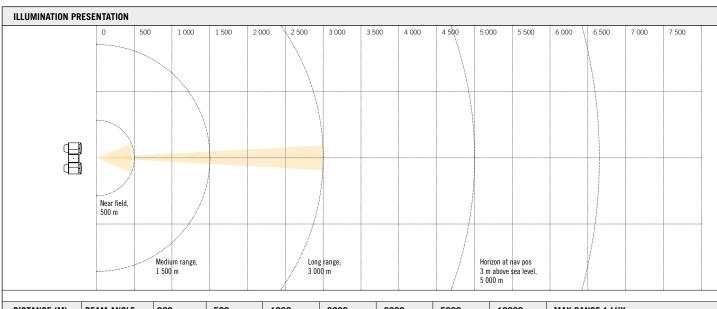
Bulb lifetime up to 1 000 hours

Mains power 100-240 VAC, 50/60 Hz, 1070W, 4,7 A @ 230 VAC (max load)

CAN bus / signal cable 3x2x1 shielded, twisted pair (between searchlight and electrical cabinet)

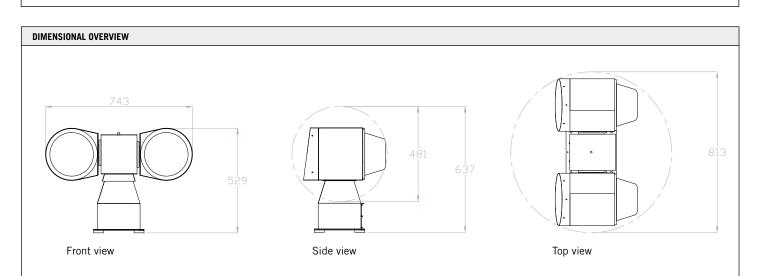
5G1,5 shielded power cable (between searchlight and electrical cabinet)

For electrical control box and operator panel data, see separate information



DISTANCE (M)	BEAM ANGLE	200	500	1000	2000	3000	5000	10000	MAX RANGE 1 LUX
SINGLE SPOT	4°	134 lux Ø 14 m	21 lux Ø 35 m	5,3 lux Ø 70 m	1,3 lux Ø 140 m				2 300 m
DUAL SPOT	4°	268 lux Ø 14 m	42 lux Ø 35 m	10 lux Ø 70 m	2,6 lux Ø 140 m	1,1 lux Ø 210 m			3 200 m
SINGLE WIDE	20°	7 lux Ø 70 m	1 lux Ø 176 m						

Graphics based on data measured in accredited test laboratory. Lux-values are peak values, diam mentioned is spot-zone with min 50% intensity at the perifieri.







#### Powerful HID searchlight







APPLICATIONS:	Search and Rescue, Navigation support, Ice navigation support, Worklight, Security surveillance, Oil spill illumination (UV)
TYPE:	HID light source with adjustable beam width
INPUT POWER:	100-240 VAC, 50/60 Hz optional
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility, long range illumination

PART DESCRIPTION	PART NO	NOTE
Searchlight model CL35-11 575W/575W	CLS-35011	Also available in hanging version
Searchlight model CL35-12 575W/UV	CLS-35012	Also available in hanging version
There is a variety of other combinations on the CL35 platform, as	sk us for more information	

OUTPUT / PERFORMANCE	
Range with 1 lux at target	5 300 m
Light beam angle	Adjustable 3-20°
Color Rendering (CRI)	90 Ra minimum
Color Temperature (CCT)	6000 K
Lumen (Im)	98 000 lm
Candela (Cd)	28,7 MCd

KEY TECHNICAL INFORMATION					
Stainless steel in critical structural parts					

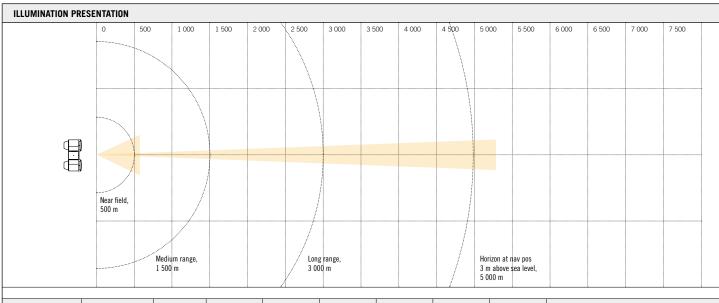
Powder coat white RAL 9016

IP66

Operating temp -40/+70

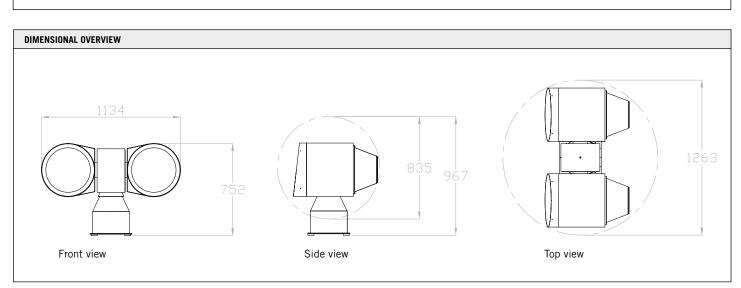
Bulb lifetime up to 1 000 hours

INPUT INFORMATION
Mains power 100-240 VAC, 50/60 Hz
CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)
5G2.5 shielded power cable (between searchlight and electrical cabinet)
For electrical control box and operator panel data, see separate information



DISTANCE (M)	BEAM ANGLE	200	500	1000	2000	3000	5000	10000	MAX RANGE 1 LUX
SINGLE SPOT	3°	360 lux Ø 10 m	57 lux Ø 26 m	14 lux Ø 52 m	3,5 lux Ø 105 m	1,6 lux Ø 157 m	0,6 lux Ø 260 m		3 750 m
DUAL SPOT	3°	720 lux Ø 10 m	114 lux Ø 26 m	28 lux Ø 52 m	7 lux Ø 105 m	3,2 lux Ø 157 m	1,2 lux Ø 260 m		5 300 m
SINGLE WIDE	20°	12 lux Ø 70 m	2 lux Ø 176 m						

Graphics based on data measured in accredited test laboratory. Lux-values are peak values, diam mentioned is spot-zone with min 50% intensity at the perifieri.





## **CL38**

#### Our most powerful HID searchlight







APPLICATIONS:	Search and Rescue, Navigation support, Ice navigation support, Worklight, Security surveillance, Oil spill illumination (UV)
TYPE:	HID light source with adjustable beam width
INPUT POWER:	100-240 VAC, 50/60 Hz optional
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility, long range illumination

PART DESCRIPTION	PART NO	NOTE
Searchlight model CL38-11 800W/800W	CLS-38011	Also available in hanging version
Searchlight model CL38-12 800W/UV	CLS-38012	Also available in hanging version
There is a variety of other combinations on the CL38 platform, a	sk us for more information	

OUTPUT / PERFORMANCE	
Range with 1 lux at target	6 100 m
Light beam angle	Adjustable 3-20°
Color Rendering (CRI)	90 Ra minimum
Color Temperature (CCT)	6000 K
Lumen (Im)	130 000 lm
Candela (Cd)	38,1 MCd

KEY TECHNICAL INFORMATION
Stainless steel in critical structural parts

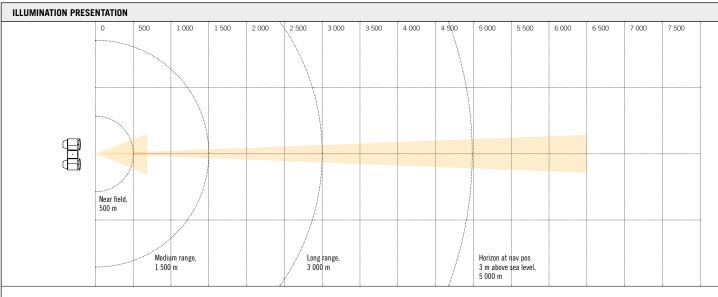
Powder coat white RAL 9016

IP66

Operating temp -40/+70

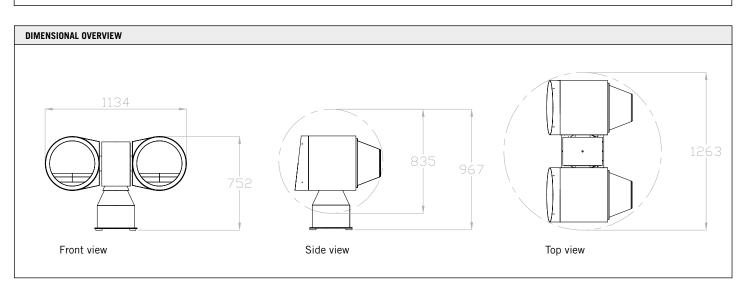
Bulb lifetime up to 1 000 hours

INPUT INFORMATION
Mains power 100-240 VAC, 50/60 Hz
CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)
5G2.5 shielded power cable (between searchlight and electrical cabinet)
For electrical control box and operator panel data, see separate information



DISTANCE (M)	BEAM ANGLE	200	500	1000	2000	3000	5000	10000	MAX RANGE 1 LUX
SINGLE SPOT	3°	476 lux Ø 10 m	76 lux Ø 26 m	19 lux Ø 52 m	5 lux Ø 105 m	2 lux Ø 157 m	0,75 lux Ø 262 m		4 350 m
DUAL SPOT	3°	952 lux Ø 10 m	152 lux Ø 26 m	3,8 lux Ø 52 m	10 lux Ø 105 m	4 lux Ø 157 m	1,5 lux Ø 262 m	0,4 lux Ø 524	6 100 m
SINGLE WIDE	20°	16 lux Ø 71 m	2,6 lux Ø 176 m	0,6 lux Ø 350 m					

*Graphics based on data measured in accredited test laboratory. Lux-values are peak values, diam mentioned is spot-zone with min 50% intensity at the perifieri.* 







Powerful and compact HID searchlight with integrated thermal camera







A Searchlight – but also much more. Improving Light at Sea

APPLICATIONS:	Search and Rescue, Navigation support, Ice navigation support, Worklight, Security surveillance, Oil spill illumination (UV)					
TYPE:	HID light source with adjustable beam width as well as integrated thermal imaging system.					
INPUT POWER:	100-240 VAC, 50/60 Hz					
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction					
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility.					

PART DESCRIPTION	PART NO	NOTE					
Searchlight model CLIR25-11 HID 400W/400W with IR cam, 336 res, 25 mm lens	CLS-25026	Also available in hanging version					
Camera core upgrade to 640 res, 25 mm lens	CLN0530						
	•						
There is a variety of other combinations on the CLIR25 platform, ask us for more information							

OUTPUT / PERFORMANCE		
Range with 1 lux at target	3 200 m	
Light beam angle	Adjustable beam 4-20°	
Color Rendering (CRI)	90 minimum	
Color Temperature (CCT)	6000 K	
Lumen (Im)	66 000 lm	
Candela (Cd)	10,7 MCd	

KEY TECHNICAL INFORMATION
Stainless steel in critical structural parts
Powder coat white RAL 9016
IP66
Operating temp -40/+70
Bulb lifetime up to 1 000 hours

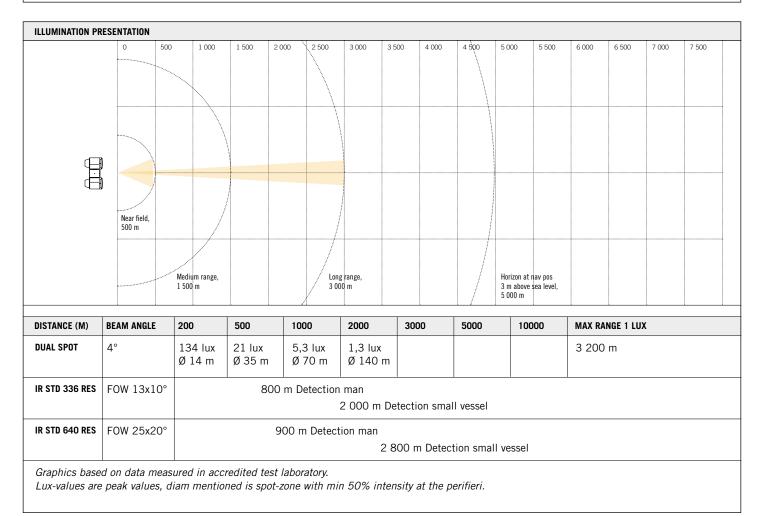
For IR cam details, see separate pages in this catalogue.

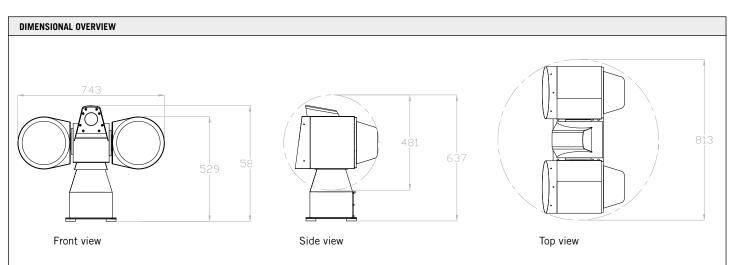
#### INPUT INFORMATION

Mains power 100-240 VAC, 50/60

CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)

 $5G1.5\ shielded\ power\ cable\ (between\ searchlight\ and\ electrical\ cabinet)$ 









Powerful HID searchlight with integrated thermal camera







APPLICATIONS:	Search and Rescue, Navigation support, Ice navigation support, Worklight, Security surveillance, Oil spill illumination (UV)
TYPE:	HID light source with adjustable beam width as well as integrated thermal imaging system.
INPUT POWER:	100-240 VAC, 50/60 Hz
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility.

PART DESCRIPTION	PART NO	NOTE
Searchlight model CLIR35-11 HID 575W/ 575W with IR cam, 336 res, 25 mm lens	CLS-35026	Also available in hanging version
Camera core upgrade to 640 res, 25 mm lens	CLN0530	
There is a variety of other combinations on the CLIR35 platform, ask us for more information		

OUTPUT / PERFORMANCE		
Range with 1 lux at target	5 300 m	
Light beam angle	Adjustable beam 3-20°	
Color Rendering (CRI)	90 minimum	
Color Temperature (CCT)	6000 K	
Lumen (Im)	98000 lm	
Candela (Cd)	28,7 MCd	

KEY TECHNICAL INFORMATION
Stainless steel in critical structural parts
Powder coat white RAL 9016
IP66
Operating temp -40/+70
Bulb lifetime up to 1 000 hours

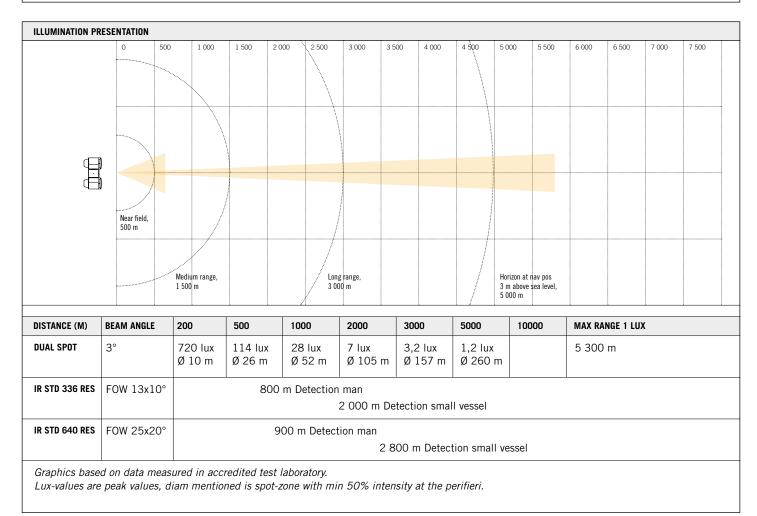
For IR cam details, see separate pages in this catalogue.

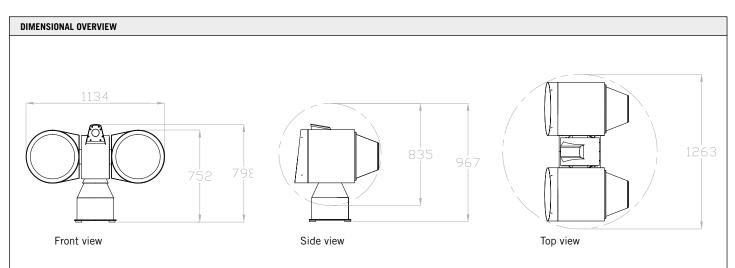
#### INPUT INFORMATION

Mains power 100-240 VAC, 50/60

CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)

5G1.5 shielded power cable (between searchlight and electrical cabinet)









Our most powerful HID searchlight with integrated thermal camera







A Searchlight – but also much more. Improving Light at Sea

APPLICATIONS:	Search and Rescue, Navigation support, Ice navigation support, Worklight, Security surveillance, Oil spill illumination (UV)	
TYPE:	HID light source with adjustable beam width as well as integrated thermal imaging system.	
INPUT POWER:	100-240 VAC, 50/60 Hz	
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction	
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility.	

PART DESCRIPTION	PART NO	NOTE	
Searchlight model CLIR38-11 HID 800W/ 800W with IR cam, 336 res, 25 mm lens	CLS-38026	Also available in hanging version	
Camera core upgrade to 640 res, 25 mm lens	CLN0530		
There is a variety of other combinations on the CLIR38 platform, ask us for more information			

OUTPUT / PERFORMANCE		
Range with 1 lux at target	6 100 m	
Light beam angle	Adjustable beam 3-20°	
Color Rendering (CRI)	90 minimum	
Color Temperature (CCT)	6000 K	
Lumen (Im)	130 000 lm	
Candela (Cd)	38,1 MCd	

KEY TECHNICAL INFORMATION
Stainless steel in critical structural parts
Powder coat white RAL 9016
IP66
Operating temp -40/+70
Bulb lifetime up to 1 000 hours

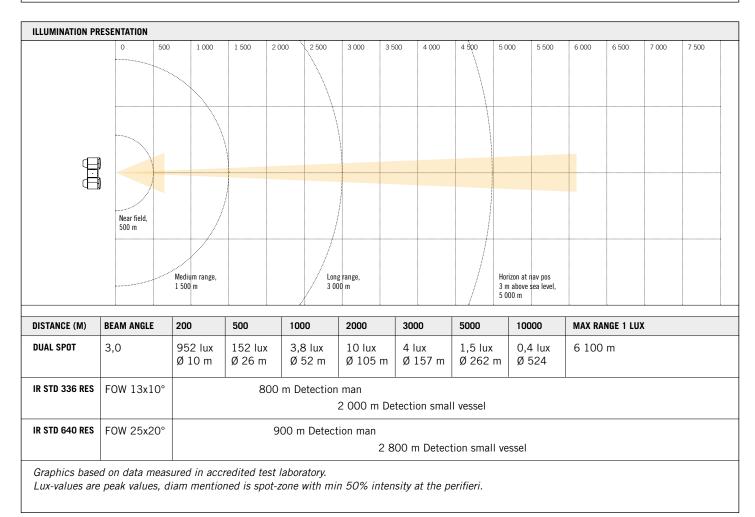
For IR cam details, see separate pages in this catalogue.

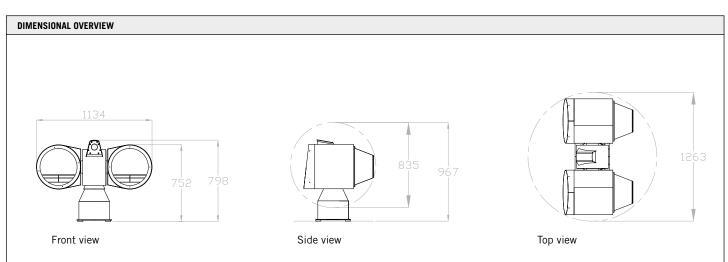
#### INPUT INFORMATION

Mains power 100-240 VAC, 50/60

CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)

5G2.5 shielded power cable (between searchlight and electrical cabinet)







# **CLITE1**

## Powerful and small LED searchlight





Strong enough for any professional use



Good looking enough to fit any type of yacht

APPLICATIONS:	Search and Rescue, Navigation support, Worklight, Security surveillance
TYPE:	LED light source with dimmable and adjustable beam width.
INPUT POWER:	18-32 VDC
PAN/TILT:	Motorised with endless horizontal rotation, min +/- 30 deg vertical movement.
KEY FEATURES:	Small size, low weight, light power vs size, wave compensation, beam adjustment.

PART DESCRIPTION	PART NO	NOTE
Searchlight model CLITE1 LED 200W	ТВА	Can be used standing or hanging.
Please ask for possible options		

OUTPUT / PERFORMANCE	
Range with 1 lux at target	1200-1500 m
Light beam angle	3-6 degrees
Color Rendering (CRI)	70 minimum
Color Temperature (CCT)	6 300 K
Lumen (Im)	15-20 000 lm
Candela (Cd)	1,5-2,0 MCd

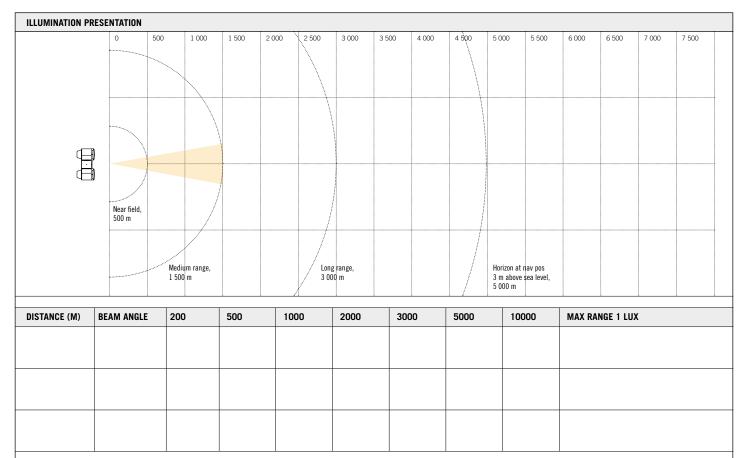
### KEY TECHNICAL INFORMATION

Powder coated die casted sea aluminium

Powder coat RAL 9016 as std IP67

Weight 11-12 kg

INPUT INFORMATION
Mains power 18-32 VDC (a separate PSU for AC/DC installations)
Ethernet between searchlight and controller
Ethernet by Daisy Chain for multiple operator panels at bridge.



to be updated after final tests.

### DIMENSIONAL OVERVIEW

Width 390 mm • Height 380 mm • Depth 350 mm



# **CLITE2**

## Powerful and compact LED searchlight







A Searchlight – but also much more. Improving Light at Sea

APPLICATIONS:	Search and Rescue, Navigation support, Worklight, Security surveillance
TYPE:	LED light source with dimmable fixed beam.
INPUT POWER:	24 VDC (100-240 VAC, 50/60 Hz optional)
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility.

PART DESCRIPTION	PART NO	NOTE
Searchlight model CLITE2 LED 250W/250W	CLS-21011	Also available in hanging version
There is a variety of other combinations on the CLILTE2 platform, ask us for more info	rmation	

OUTPUT / PERFORMANCE	
Range with 1 lux at target	1500 m
Light beam angle	Fixed 5,7°
Color Rendering (CRI)	70 minimum
Color Temperature (CCT)	6 300 K
Lumen (Im)	40 000 lm
Candela (Cd)	2,4 MCd

KEY TECHNICAL INFORMATION	
Stainless steel in critical structural parts	

Powder coat white RAL 9016

IP66

Operating temp -40/+70

LED lifetime up to 100 000 hours

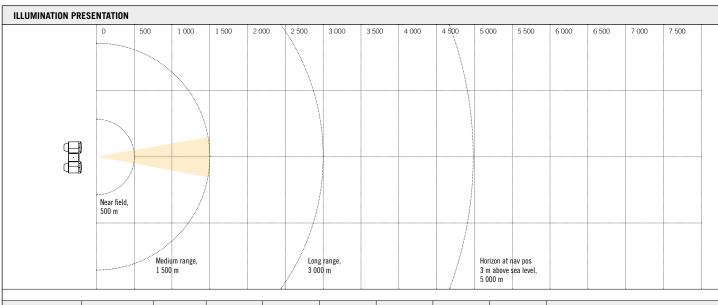
INPUT INFORMATIO	N
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Mains power 24 VDC or 100-240 VAC, 50/60 Hz depending ebox version.

CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)

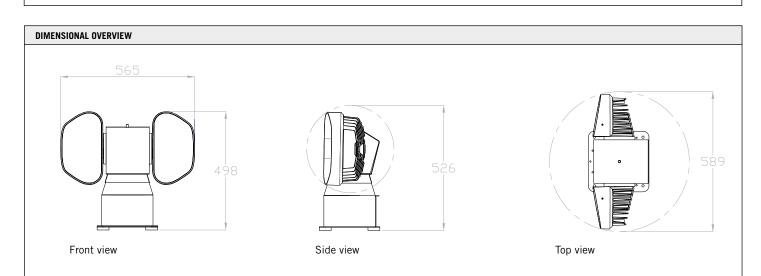
5G4 shielded power cable (between searchlight and electrical cabinet)

For electrical control box and operator panel data, see separate information



			I					
5,7°	30 lux Ø 20 m	5 lux Ø 50 m	1,2 lux Ø 100 m	0,3 lux Ø 200 m				1 100 m
,	60 lux Ø 20 m	10 lux Ø 50 m	2,4 lux Ø 100 m	0,6 lux Ø 200 m	0,25 lux Ø 300 m			1 500 m
	,7°	Ø 20 m	Ø 20 m Ø 50 m 9,7° 60 lux 10 lux	Ø 20 m Ø 50 m Ø 100 m 9,7° 60 lux 10 lux 2,4 lux	Ø 20 m         Ø 50 m         Ø 100 m         Ø 200 m           Ø,7°         60 lux         10 lux         2,4 lux         0,6 lux	Ø 20 m         Ø 50 m         Ø 100 m         Ø 200 m           Ø,7°         60 lux         10 lux         2,4 lux         0,6 lux         0,25 lux	Ø 20 m         Ø 50 m         Ø 100 m         Ø 200 m           Ø,7°         60 lux         10 lux         2,4 lux         0,6 lux         0,25 lux	Ø 20 m         Ø 50 m         Ø 100 m         Ø 200 m           Ø,7°         60 lux         10 lux         2,4 lux         0,6 lux         0,25 lux

Lux-values are peak values, diam mentioned is spot-zone with min 50% intensity at the perifieri.





# CLITE2/R

Powerful and compact LED searchlight with integrated thermal camera





## reddot award 2017 winner lighting design



A Searchlight – but also much more. Improving Light at Sea

APPLICATIONS:	Search and Rescue, Navigation support, Worklight, Security surveillance
TYPE:	LED light source with dimmable fixed beam as well as integrated thermal imaging system.
INPUT POWER:	24 VDC (100-240 VAC, 50/60 Hz optional)
PAN/TILT:	Motorised with endless rotation in horizontal and vertical direction
KEY FEATURES:	Low EMC, unlimited movement, daylight characteristics, maintenance free operation, combination UV/IR/ HMI/LED light possibility.

PART DESCRIPTION	PART NO	NOTE
Searchlight model CLITE2IR LED 250W/250W with IR cam, 336 res, 25 mm lens	CLS-21026	Also available in hanging version
Camera core upgrade to 640 res, 25 mm lens	CLN0530	
There is a variety of other combinations on the CLILTE2 platform ask us for more info	rmation	

OUTPUT / PERFORMANCE	
Range with 1 lux at target	1500 m
Light beam angle	Fixed 5,7°
Color Rendering (CRI)	70 minimum
Color Temperature (CCT)	6 300 K
Lumen (Im)	40 000 lm
Candela (Cd)	2,4 MCd

KEY TECHNICAL INFORMATION
Stainless steel in critical structural parts
Powder coat white RAL 9016

IP66

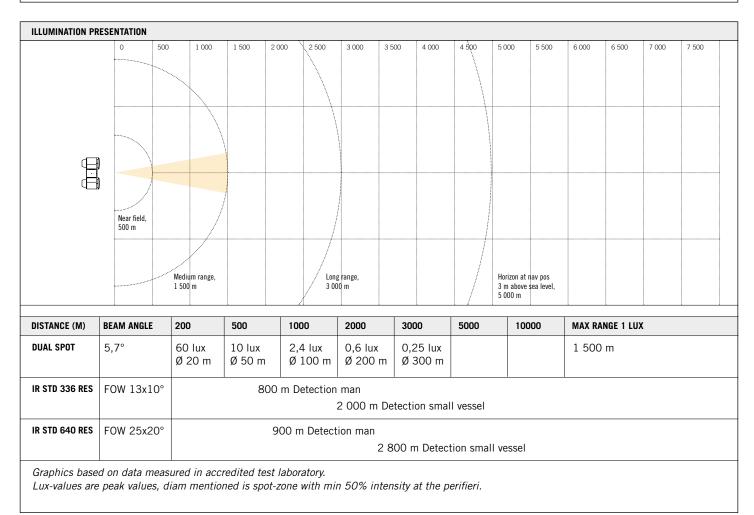
Operating temp -40/+70

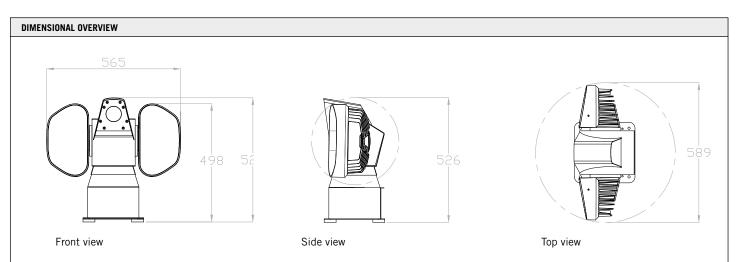
LED lifetime up to 100 000 hours

Mains power 24 VDC or 100-240 VAC, 50/60 Hz depending ebox version.

CAN bus / signal cable 4x2x1 shielded, twisted pair (between searchlight and electrical cabinet)

5G4 shielded power cable (between searchlight and electrical cabinet)





## **Premium Visibility Solutions**

for work area illumination, SAR, Navigation and Security

Specifications are subject to change at any point without prior notice. Please check out our website to find the newest version.



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