

SERVING THE MARINE INDUSTRY SINCE 1947



*Byrne
Rice
and Turner*
INC.



PRODUCT LINE

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“There is not the slightest indication that nuclear energy will ever be obtainable. It would mean that the atom would have to be shattered at will.”

—Albert Einstein

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10-inch / 254mm LED SEARCHLIGHT

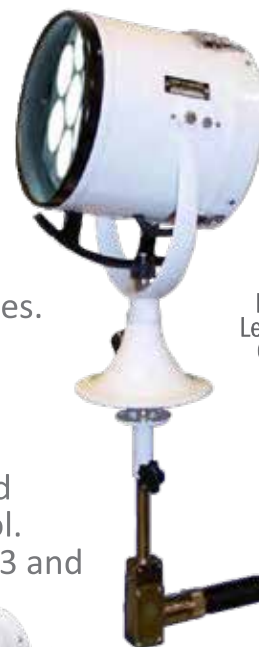
Beam Intensity	
3.5° Beam Option	2,800,000 Candela 1 Lux at 1673 Meters (approx.)
8.5° Beam Option	741,000 Candela 1 Lux at 860 Meters (approx.)
Color Temperature	5700 Kelvin
Controls	Joystick Electric Control, Remote Lever-Gear Control, or Local Handle Control
Environmental	IP56
Finish	Salt-resistant and Scratch-resistant Powder Coat (White, Black, Grey, and Custom) or Chrome Finish
LED Emitter Life	Over 20,000 Hours
Light Energy	4900 Lumens
Material	Brass and Stainless Steel
Power Consumption	85 Watts
Voltages	12VDC, 24VDC, 115VAC, or 230VAC

OPTIONS

Anti-icing Heater	Thermostatically-controlled heaters in the Base. (motorized base-only)
Azimuth Indicator	LCD Panel displays beam aiming position in degrees. (motorized base-only)
High Powered Strobe	Disorients and denies night vision of intruder and transforms searchlight into a Nonlethal Weapon
SmartVIEW™	Control System provides Digital BUS Network, and TCP/IP Interface allows Remote Computer Control. Supported Protocols: ONVIF, Pelco-D, NMEA 0183 and Carlisle & Finch's own Protocol



Joystick Electric Control



Remote Lever-Gear Control



Local Handle Control



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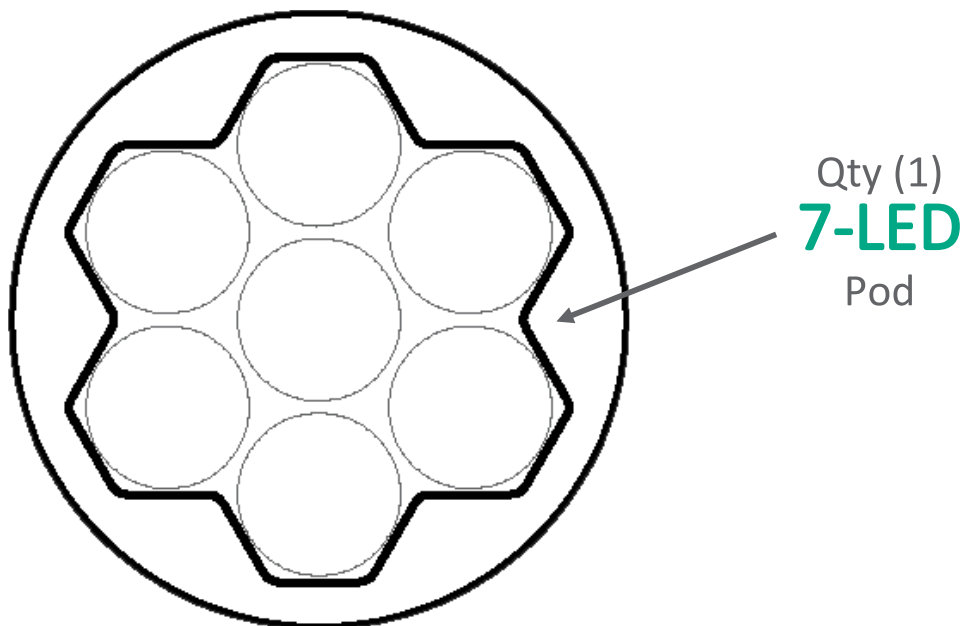
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10-inch / 254mm LED SEARCHLIGHT

Redundancy and Extremely Long-life provides much higher reliability than Halogen Searchlights!



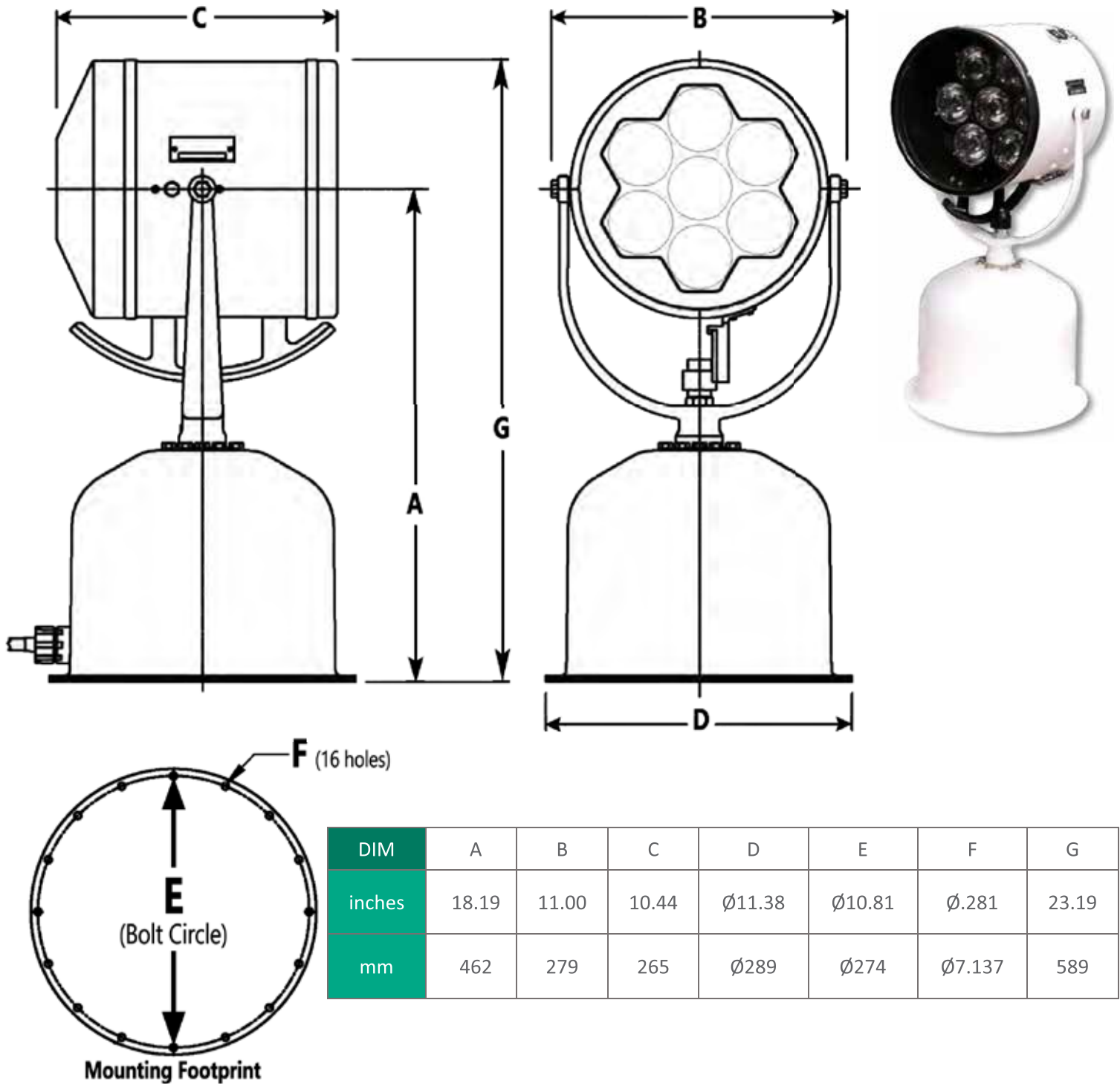
Front View

- **Multiple LED Redundancy:** There are 7 Individual LEDs (i.e., light sources.) If one fails, there are 6 more producing a bright beam.
- **Long Emitter-Life:** When the lamp fails on traditional Halogen searchlights, the entire searchlight fails. Lamp-life is approx. 250 hours for the most popular industry standard lamps. Since the LEDs will last 20,000+ hours, there are approximately 80 Halogen searchlight failures for every LED searchlight due to lamp-life alone (i.e., $20,000 \div 250 = 80$ failures.)

"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."

—Western Union internal memo, 1876

ELECTRIC JOYSTICK CONTROL DIMENSIONS



“Reagan doesn’t have that presidential look.”

—United Artists executive after rejecting Reagan as lead in the 1964 film
The Best Man



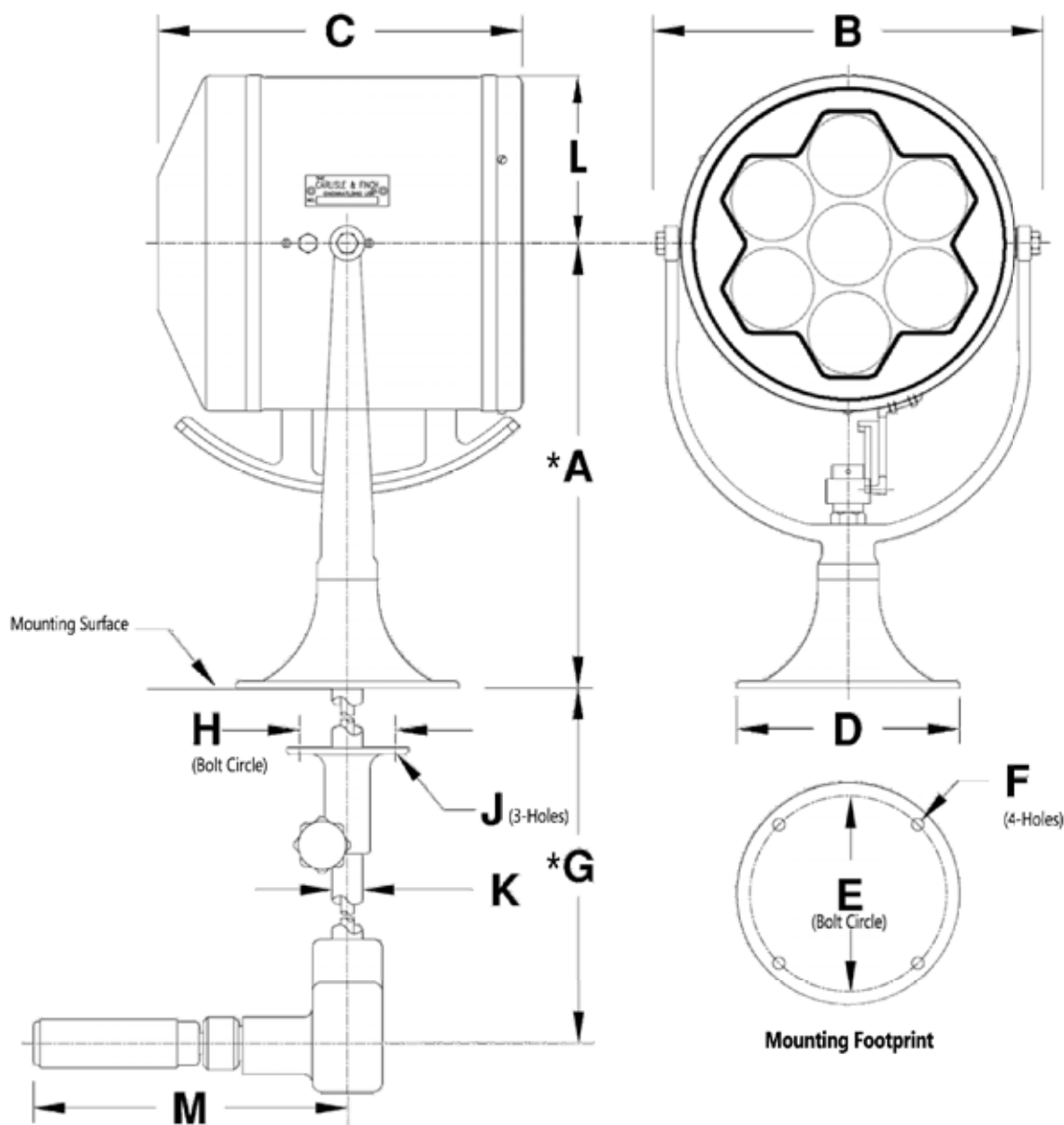
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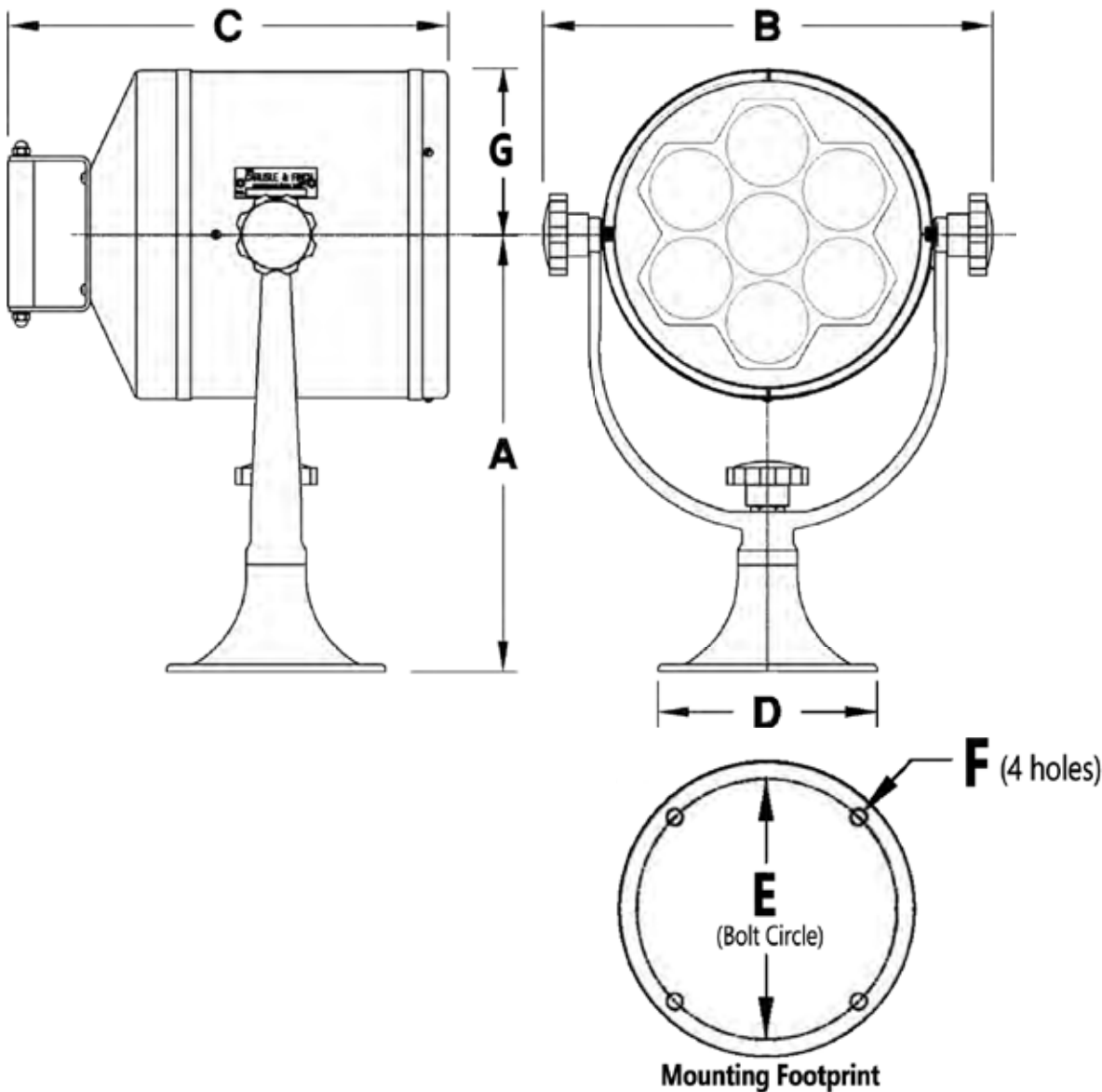


REMOTE LEVER-GEAR CONTROL DIMENSIONS



DIM	*A	B	C	D	E	F	* G	H	J	K	L	M
inches	12.75	11.00	10.00	Ø6.38	Ø5.62	Ø.34	11.38	Ø2.75	Ø.28	Ø.88	4.81	9.00
mm	324	279	254	Ø162	Ø143	Ø9.00	289	Ø70	Ø7.00	Ø22	122	229
Note:	Dimension "A" is the standard Searchlight Height, and Dimension "G" is the standard Control Length. These two dimensions can be custom. Consult Factory for exact customer requirements.											

LOCAL HANDLE CONTROL DIMENSIONS



DIM	A	B	C	D	E	F	G
inches	12.75	13.12	12.00	Ø6.38	Ø5.62	Ø.34	4.81
mm	324	334	305	Ø162	Ø143	Ø9	122

“Rail travel at high speed is not possible because passengers, unable to breathe, would die of asphyxia.”

—Dr. Dionysius Lardner, 1830



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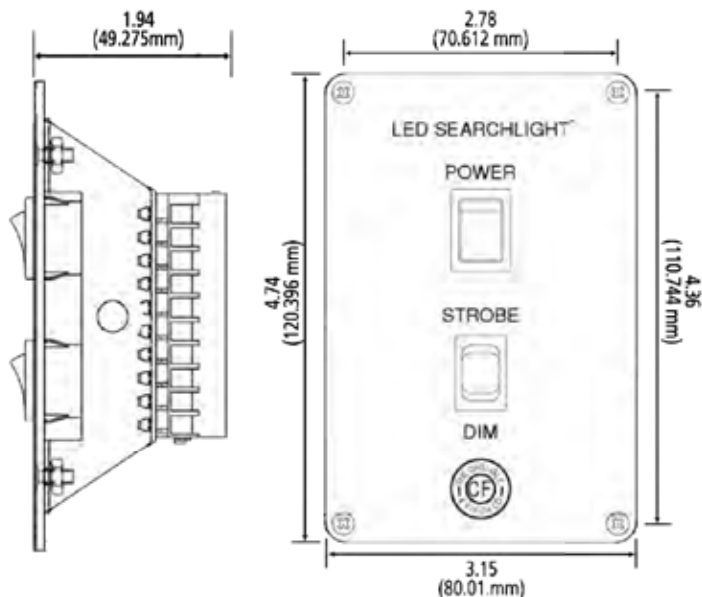
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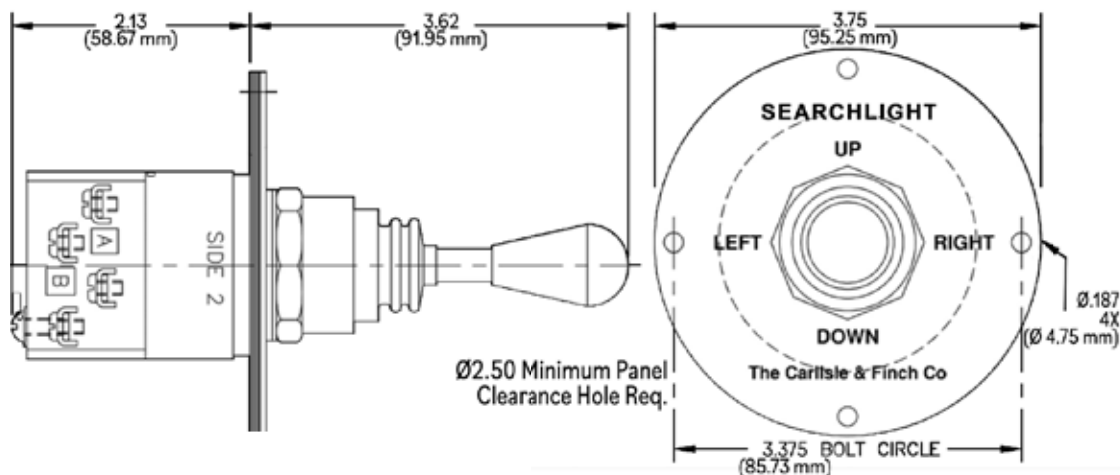


CONTROLLER DIMENSIONS

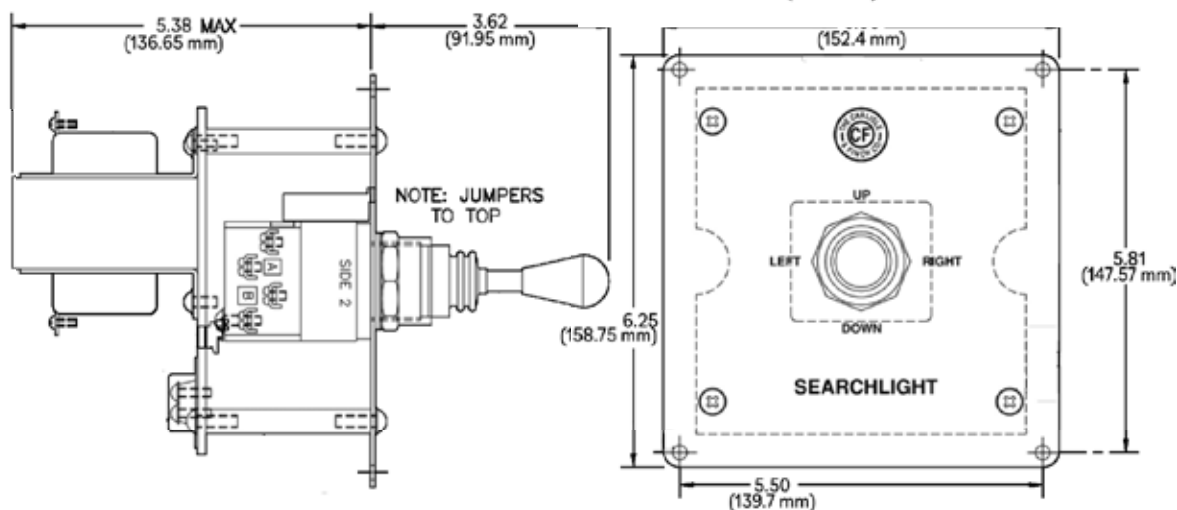
C2-12 Controller
includes Beam ON/OFF, Dim and Strobe Switches



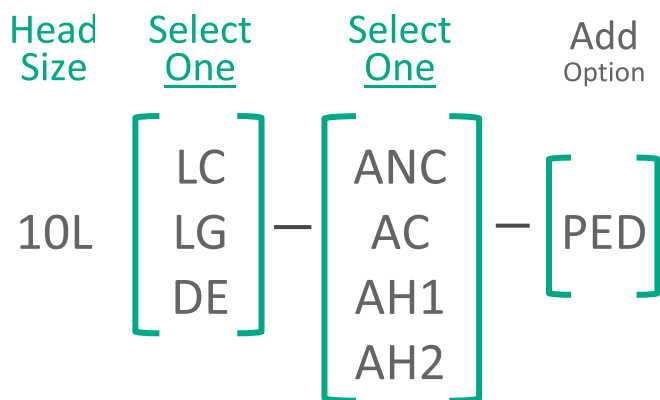
C8160 Joystick Controller
provides UP, DOWN, RIGHT and LEFT Aiming and Dynamic Breaking (115 VAC-only)



C8160-230 Joystick Controller
provides UP, DOWN, RIGHT and LEFT Aiming and Dynamic Breaking (230VAC-only)



HOW TO SPECIFY SEARCHLIGHT MODEL NUMBER



PED Tall Pedestal Base
Option
■ Manual Control Only
■ Consult Factory

LC Local Handle Control
LG Remote Lever Gear
DE Joystick Electric Control

ANC 115/230 VAC (no Strobe/DIM)
AC 115/230 VAC (with Strobe/DIM)
AH1 115 VAC (with Anti-Icing Heaters)
AH2 230 VAC (with Anti-Icing Heaters)

Note: To specify Searchlight Model Number, go to top of page and insert letters from left to right as applicable.

Example #1

Model Number: 10L-LG-ANC-PED

10-inch (254mm) diameter, Remote Lever-Gear Control, 115 VAC and Tall Pedestal option

Example #2

Model Number: 10L-DE-AH2

10-inch (254mm) diameter, Joystick Electric Control, 230 VAC and Anti-Icing Heaters

“We don’t like their sound, and guitar music is on the way out.”
—Decca Recording Company on declining to sign the Beatles, 1962



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12-inch / 305mm LED SEARCHLIGHT

Beam Intensity	
3.5° Beam Option	4 Million Candela 1 Lux at 2000 Meters (approx.)
8.5° Beam Option	1,050,000 Candela 1 Lux at 1024 Meters (approx.)
Color Temperature	6200 Kelvin
Controls	Joystick Electric Control, Remote Lever-Gear Control and Local Handle Control
Environmental	IP56
LED Emitter Life	20,000+ Hours
Light Energy	7000 Lumens
Material/Finish	Brass and Stainless Steel with Salt-resistant, Scratch-resistant white powder coat finish
Modular Redundancy	Each pod has its own electronics, so if one fails, a bright beam is still projected (Pg.2)
Power Consumption	120 Watts
Voltages	12VDC, 24VDC, 110VAC – 277VAC

OPTIONS

Anti-icing Heater	Thermostatically-controlled heater prevents ice build-up in cold climates (motorized base-only)
Azimuth Indicator	LCD Panel displays horizontal aiming position in degrees (motorized base-only)
Finishes	Custom Colors and Sparkling Chrome available
High Powered Strobe	Disorients and denies night vision of intruder and transforms searchlight into a Nonlethal Weapon
Infrared Night Vision	Integral Infrared (IR) LEDs covertly light up objects, which appear like daylight on a camera monitor. Covert IR energy is 850NM (Pg.4)
SmartVIEW™	Control System provides Digital BUS Network, and TCP/IP Interface allows Remote Computer Control. Protocols supported: ONVIF, Pelco-D, NMEA 0183 and Carlisle & Finch's own Protocol
Wall of Light LEDs	Extremely wide beam at short range, illuminates areas where the narrower beam cannot service (Pg.3)



Joystick Electric Control



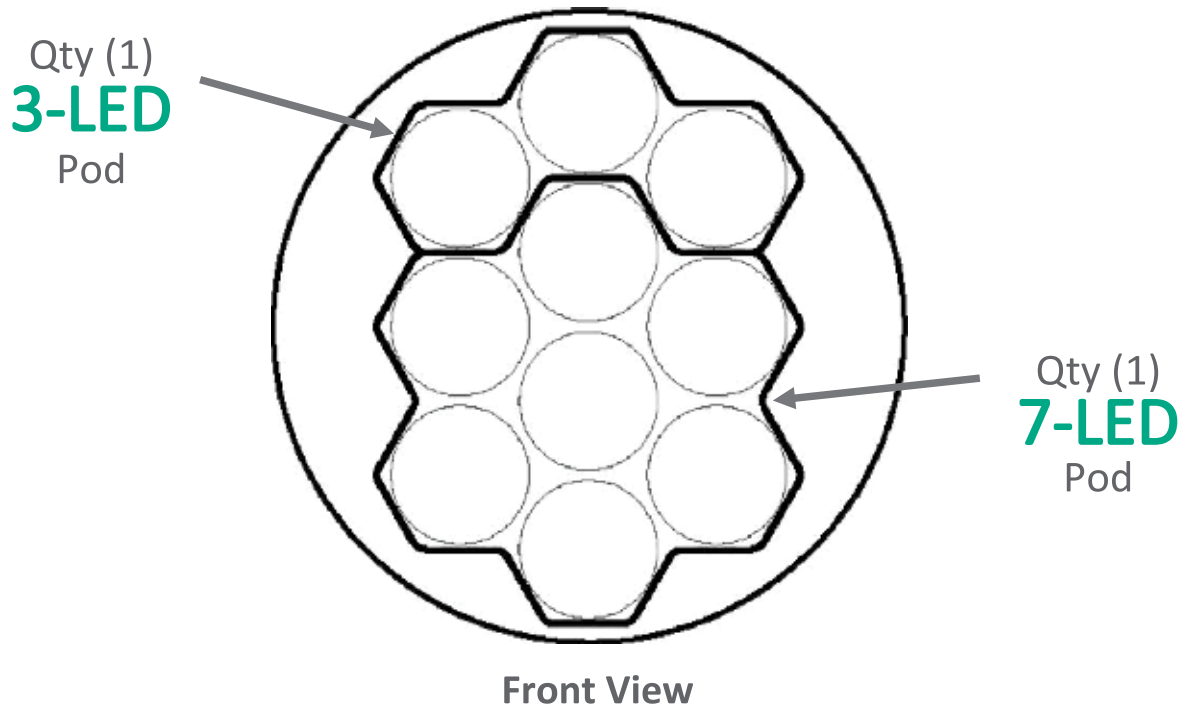
Remote Lever-Gear Control



Local Handle Control

12-inch / 305mm LED SEARCHLIGHT

Redundancy and Extreme Long-life provides much higher reliability than Halogen Searchlights!



- **Multiple LED Redundancy:** There are 10 Individual LEDs (i.e., light sources.) If one fails, there are 9 more producing a bright beam.
- **Multiple Pod Redundancy:** Each searchlight has two pods. Unique to C&F, each pod has its own separate electronics. If a board happens to fail, the “second pod” produces a bright beam in back-up mode.
- **Long Emitter-Life:** When the lamp fails on traditional Halogen searchlights, the entire searchlight fails. Lamp-life is approx. 250 hours for the most popular industry standard lamps. Since the LEDs will last 20,000+ hours, there are approximately 80 Halogen searchlight failures for every LED searchlight due to lamp-life alone (i.e., $20,000 \div 250 = 80$ failures.)

“I think there is a world market for maybe five computers.”

—Thomas Watson, chairman of IBM, 1943



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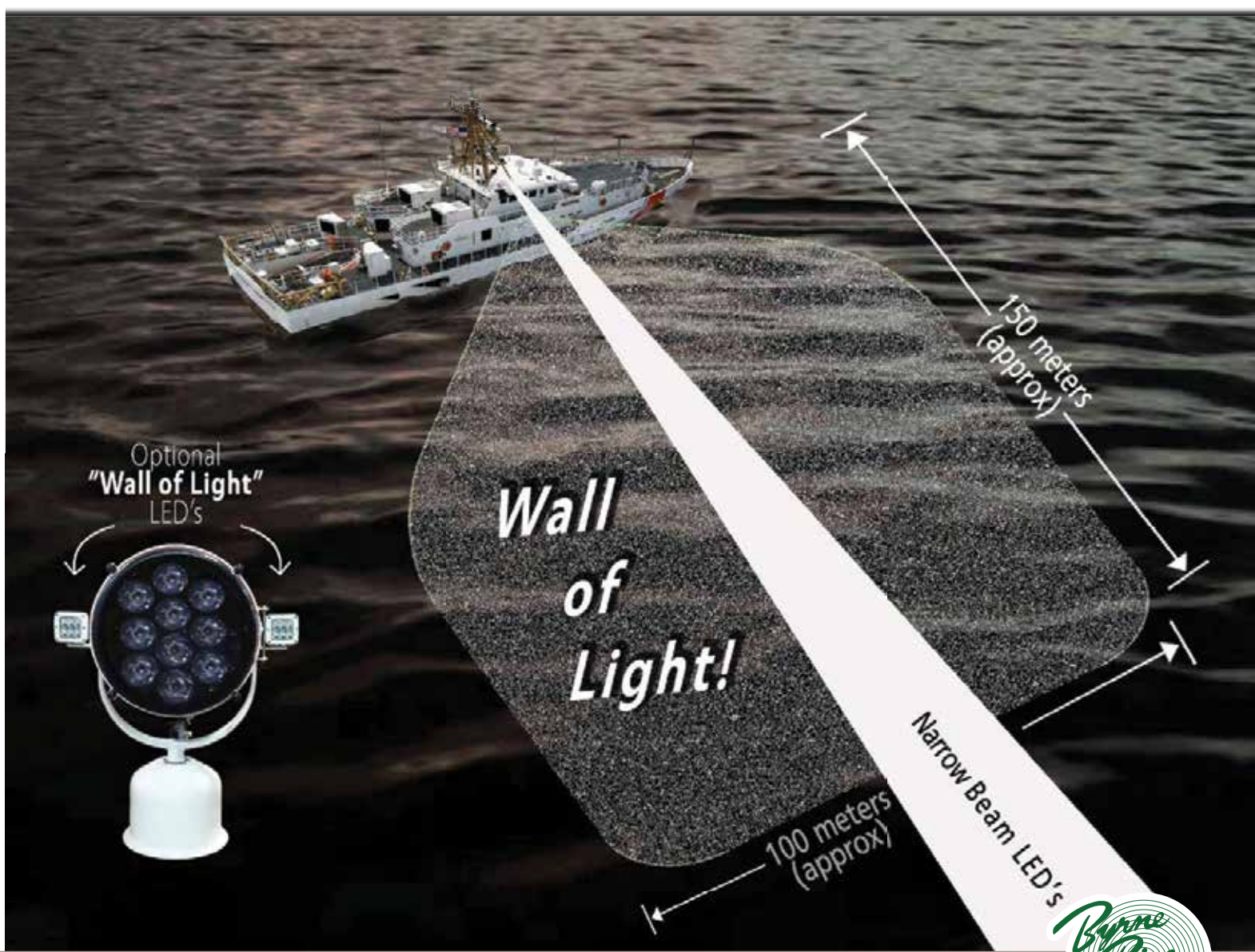
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12-inch / 305mm LED SEARCHLIGHT

“Auxiliary LEDs illuminate wide areas at close range where the narrower beam cannot service”

Imagine a passenger suddenly falls overboard on a marine vessel. Using the auxiliary LEDs for **“Search and Rescue”**, an operator can instantly direct a powerful **“Wall of Light”**, wider than a football field, anywhere around the vessel to save the person! This wide beam is also extremely effective for **“Vessel Interdiction”**, **“Docking”**, **“Seeing Workers at Night”**, **“Seeing near the base of a Guard Tower”**, etc. This option provides short range wide-beam illumination and long-range search capabilities, combined within one versatile product.



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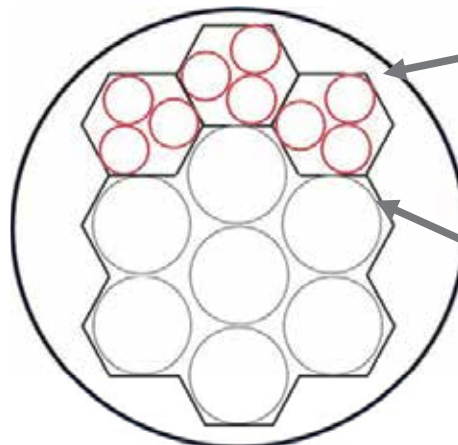


12-inch / 305mm LED SEARCHLIGHT

Infrared (IR) LEDs provide built-in Night Vision

NIGHT VISION CAPABILITY!

An invisible beam, undetectable to the human eye, covertly lights up objects in total darkness, and they appear like daylight on a camera monitor. And greatly enhances Night Vision Goggles!



Qty (9)
IR LEDs
"Invisible Beam"

Qty (7)
LEDs
"Visible Beam"

FRONT VIEW



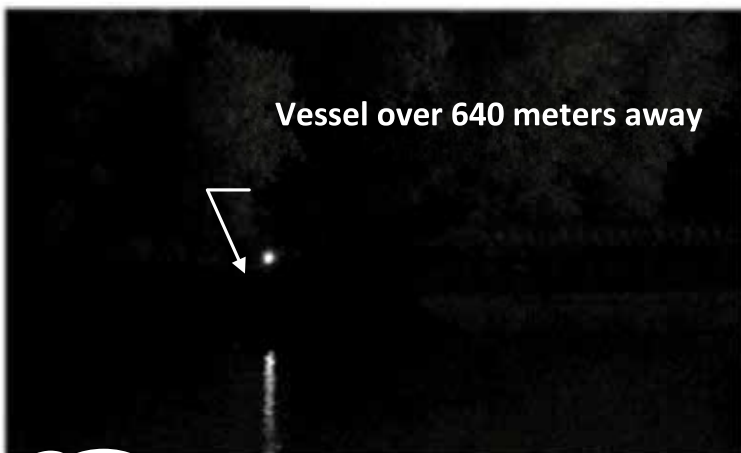
Lowlight
Camera

**Invisible (IR)
Beam**

**Visible Beam
w/ STROBE**

The **Visible Beam** is aligned on the same target, therefore the IR Beam is used as a "**Covert Targeting Device**", to instantly and accurately illuminate the object!

Night Scenes on Riverbank



Vessel over 640 meters away

in Total Darkness



with **(IR) Beam ON!**



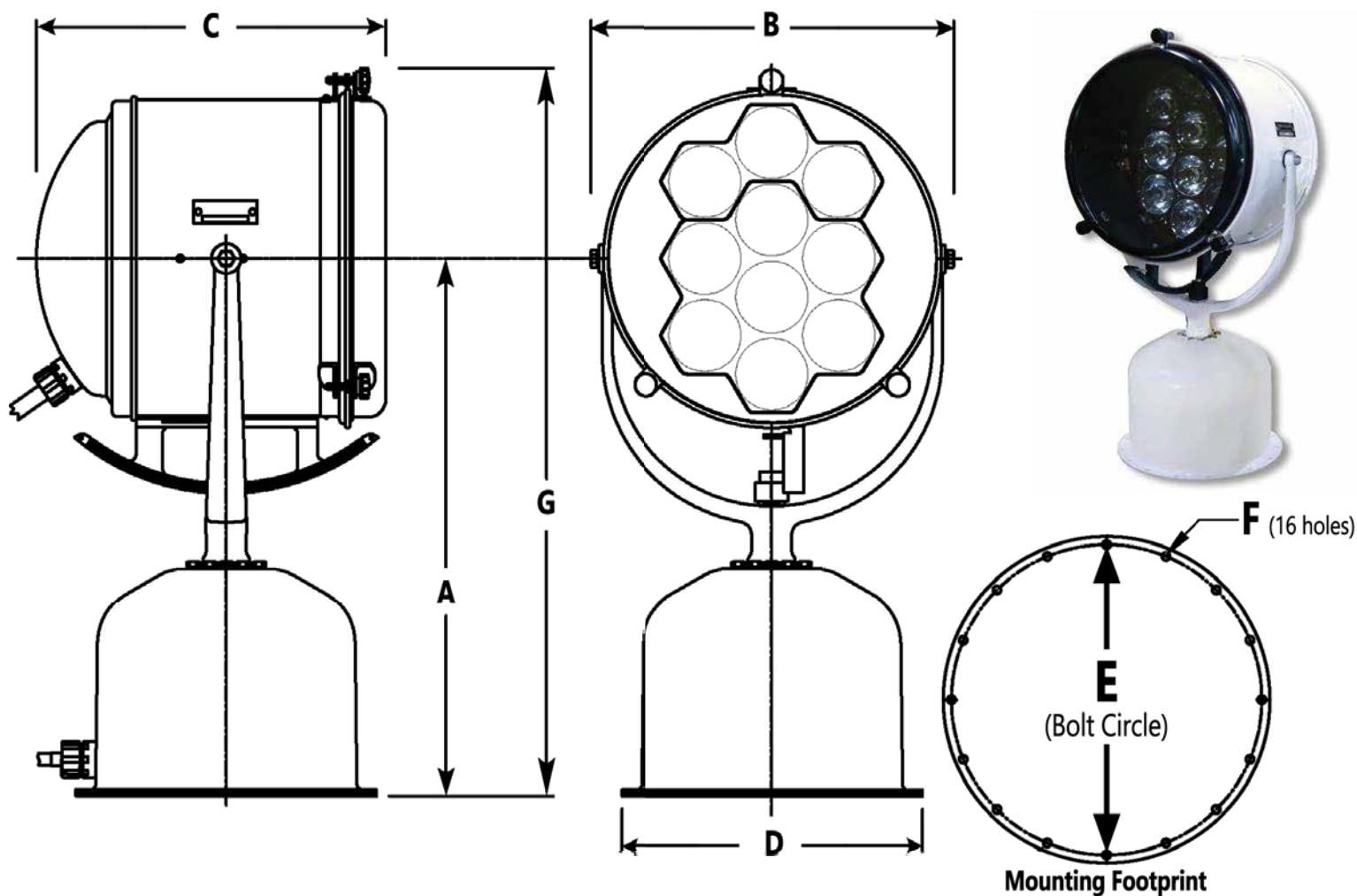
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ELECTRIC JOYSTICK CONTROL DIMENSIONS



DIM	A	B	C	D	E	F	G
inches	20.25	13.75	13.25	Ø11.38	Ø10.81	Ø.281	27.56
mm	514	349	336	Ø289	Ø274	Ø7.137	700

"X-rays will prove to be a hoax."

—Lord Kelvin, President of the Royal Society, 1883

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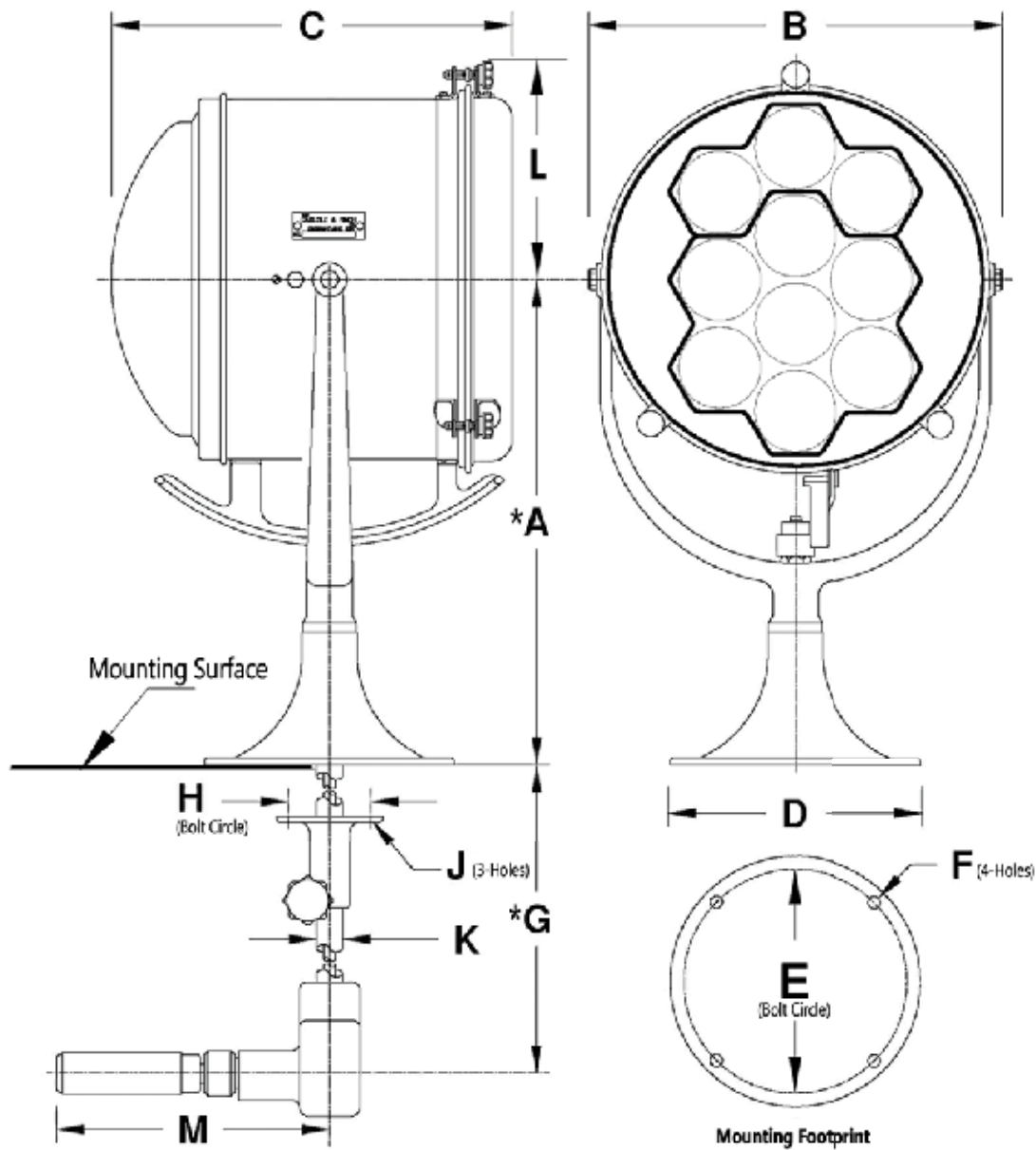


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REMOTE LEVER-GEAR CONTROL DIMENSIONS



DIM	*A	B	C	D	E	F	*G	H	J	K	L	M
inches	15.94	13.5	13.25	Ø8.25	Ø7.38	Ø.41	10.88	Ø2.75	Ø.28	Ø.88	7.28	9.00
mm	405	343	337	Ø210	Ø187	Ø10	276	Ø70	Ø7	Ø22	184	229
Note:	Dimension "A" is the standard Searchlight Height, and Dimension "G" is the standard Control Length. These two dimensions can be custom. Consult Factory for exact customer requirements.											



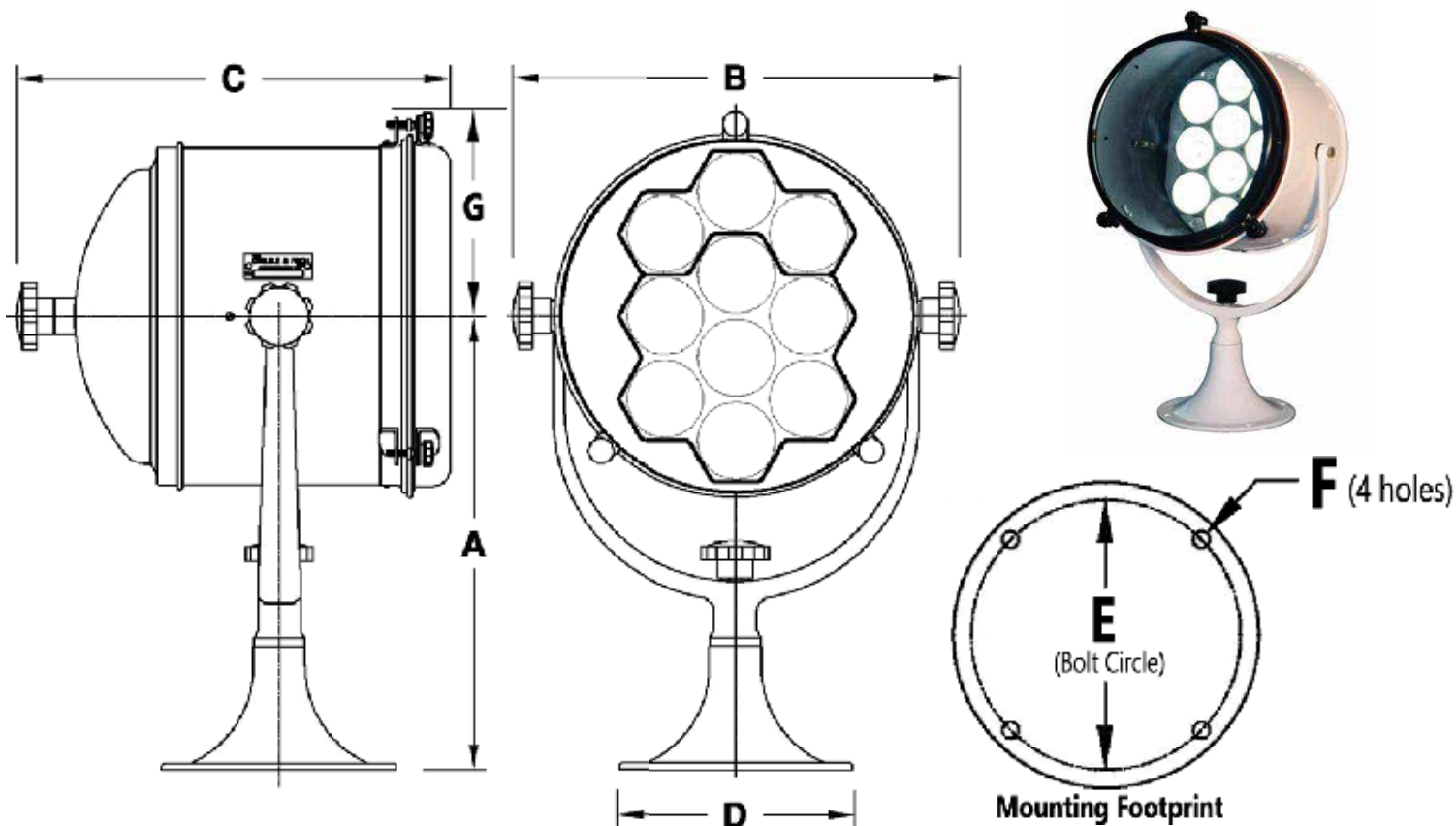
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LOCAL HANDLE CONTROL DIMENSIONS



DIM	A	B	C	D	E	F	G
inches	15.94	15.62	15.50	Ø8.25	Ø7.38	Ø.41	7.28
mm	405	397	394	Ø210	Ø188	Ø11	184

“Everyone acquainted with the subject will recognize it as a conspicuous failure.”

—Henry Morton, president of the Stevens Institute of Technology, on Edison’s light bulb, 1880

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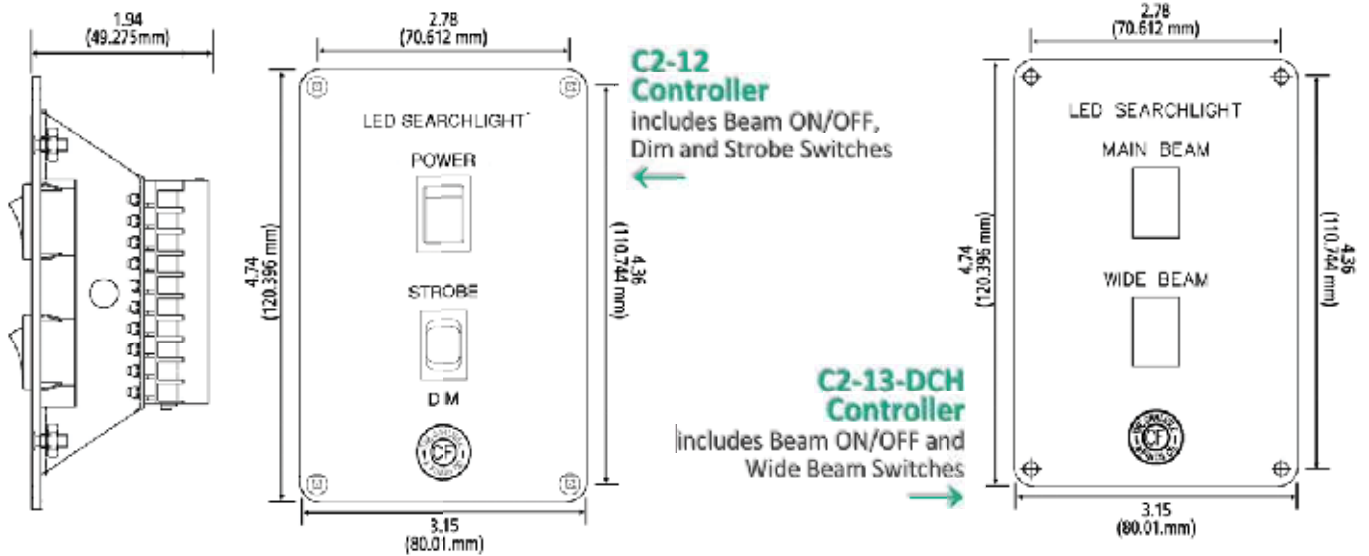


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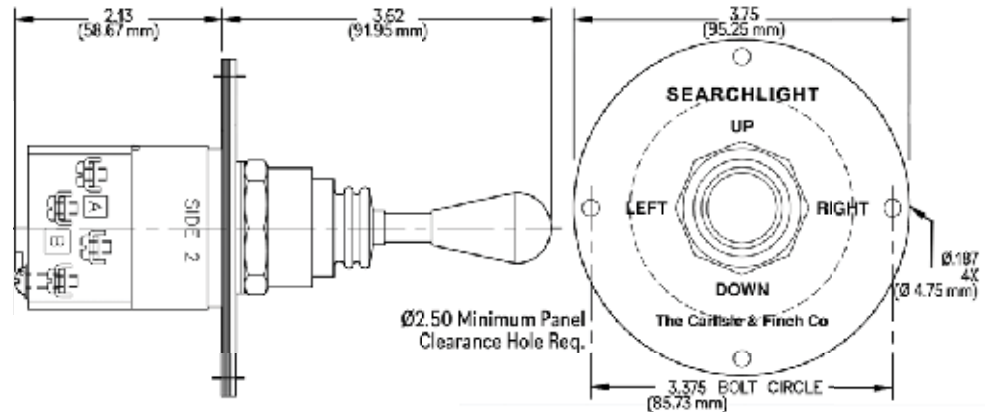
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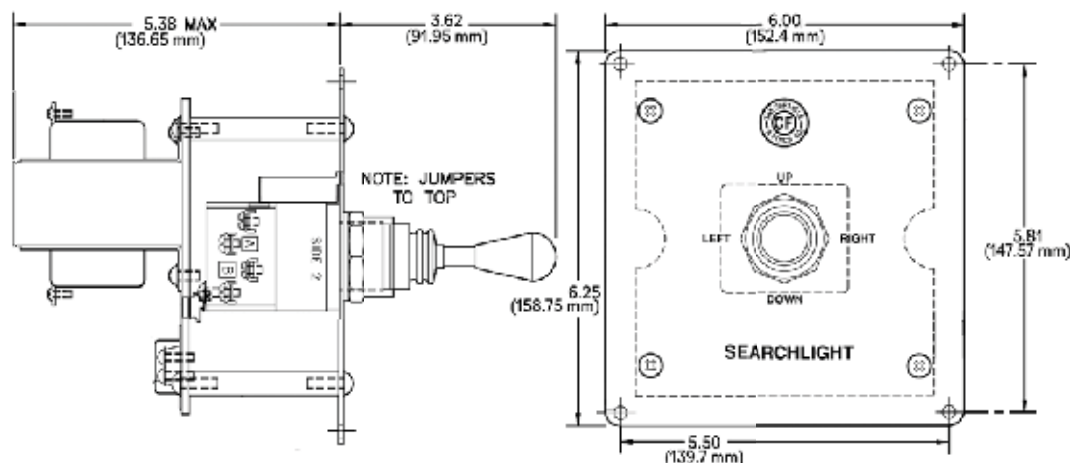
CONTROLLER DIMENSIONS



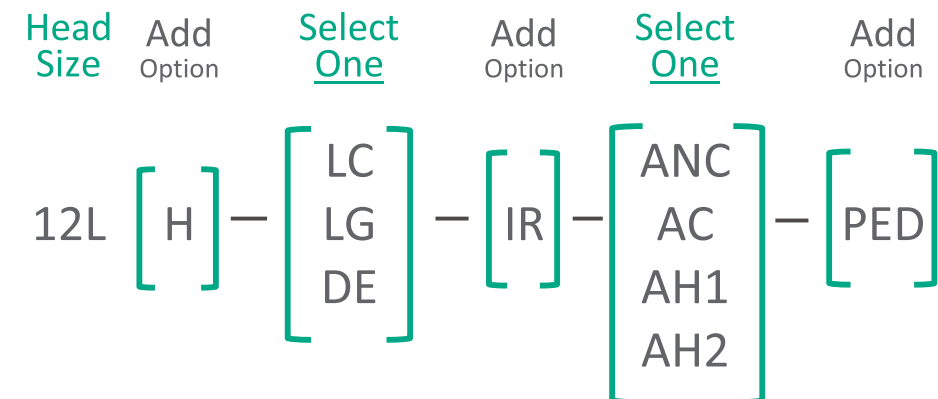
C8160 Joystick Controller
provides UP, DOWN, RIGHT and LEFT Aiming and Dynamic Breaking (115 VAC-only)



C8160-230 Joystick Controller
provides UP, DOWN, RIGHT and LEFT Aiming and Dynamic Breaking (230VAC-only)



HOW TO SPECIFY SEARCHLIGHT MODEL NUMBER



H	"Wall of Light" LEDs <i>Option</i>	IR	Night Vision Infrared LEDs <i>Option</i>	PED	Tall Pedestal Base <i>Option</i> ■ Manual Control Only ■ Consult Factory
LC	Local Handle Control	ANC	115/230 VAC (no Strobe/DIM)		
LG	Remote Lever Gear	AC	115/230 VAC (with Strobe/DIM)		
DE	Joystick Electric Control	AH1	115 VAC (with Anti-Icing Heaters)		
		AH2	230 VAC (with Anti-Icing Heaters)		

Note: To specify Searchlight Model Number, go to top of page and insert letters from left to right as applicable.

Example #1

Model Number: 12L-LG-ANC-PED

12-inch (305mm) diameter, Remote Lever-Gear Control, 115 VAC and Tall Pedestal option

Example #2

Model Number: 12L-DE-AH2

12-inch (305mm) diameter, Joystick Electric Control, 230 VAC and Anti-Icing Heaters

"It'll be gone by June."

—Variety Magazine on Rock n' Roll, 1955

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19-inch / 483mm LED SEARCHLIGHT

Beam Intensity	
3.5° Beam Option	12 Million Candela 1 Lux at 3464 Meters (approx.)
8.5° Beam Option	3,150,000 Candela 1 Lux at 1774 Meters (approx.)
Color Temperature	6200 Kelvin
Controls	Joystick Electric Control, Remote Lever-Gear, or Local Handle
Environmental	IP56
LED Emitter Life	20,000+ Hours
Light Energy	21,000 Lumens
Materials/Finish	Marine Grade Aluminum and Stainless Steel with Salt-Resistant, Scratch-Resistant Powder Coat
Modular Redundancy	Each pod has its own electronics, so if one fails, a bright beam still is projected (Pg.2)
Power Consumption	400 Watts
Voltages	110VAC – 277VAC

OPTIONS

Anti-icing Heater	Thermostatically-controlled heaters prevent ice build-up in cold climates
Azimuth Indicator	LCD panel displays horizontal beam aiming position in degrees
High Powered Strobe	Disorients and denies night vision of intruder and transforms searchlight into a Nonlethal Weapon
Infrared Night Vision	Integral Infrared (IR) LEDs covertly light up objects, which appear like daylight on camera monitor at night. Covert IR energy is 850NM. (Pg.4)
SmartVIEW™	Control System provides Digital BUS Network, and TCP/IP Interface allows Remote Computer Control. Protocols supported: ONVIF, Pelco-D, NMEA 0183 and Carlisle & Finch's own Protocol
Wall of Light LEDs	Wide beam at short range, illuminates areas where the narrower long-distance beam cannot service (Pg.3)



Joystick Electric Control



Remote
Lever-Gear
Control



Local Handle
Control



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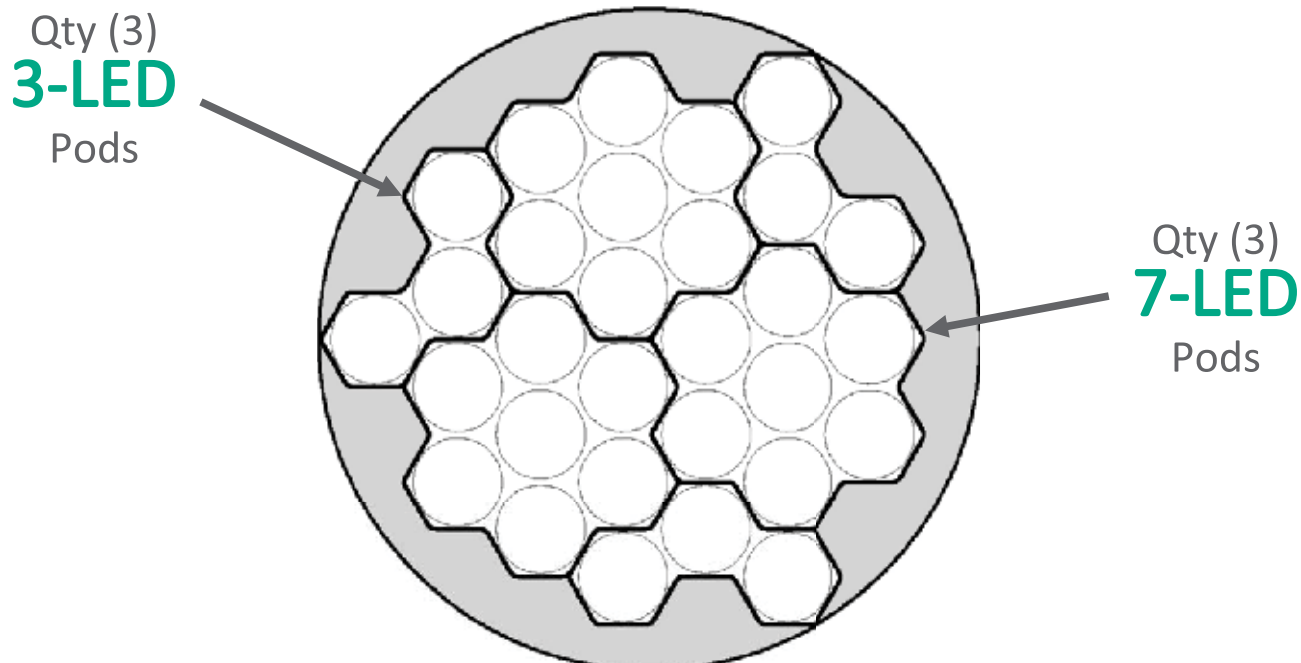
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19-inch / 483mm LED SEARCHLIGHT

Redundancy and Extreme Long-life provides much higher reliability than Halogen!



Front View

- **Multiple LED Redundancy** There are 30 Individual LEDs (i.e., light sources.) If one fails, there are 29 more producing a bright beam.
- **Multiple Pod Redundancy** Unique to C&F, each pod has its own separate electronics. If an electronic board happens to fail, there are five (5) additional pods producing a bright beam in back-up mode.
- **Long Emitter-Life** When the lamp fails on traditional Halogen searchlights, the entire searchlight fails. Lamp-life is approx. 250 hours for the most popular industry standard lamps. Since the LEDs will last 20,000+ hours, there are approximately 80 Halogen searchlight failures for every LED searchlight due to lamp-life failure alone (i.e., $20,000 \div 250 = 80$ failures.)

“A rocket will never be able to leave the Earth’s atmosphere.”

—New York Times, 1936

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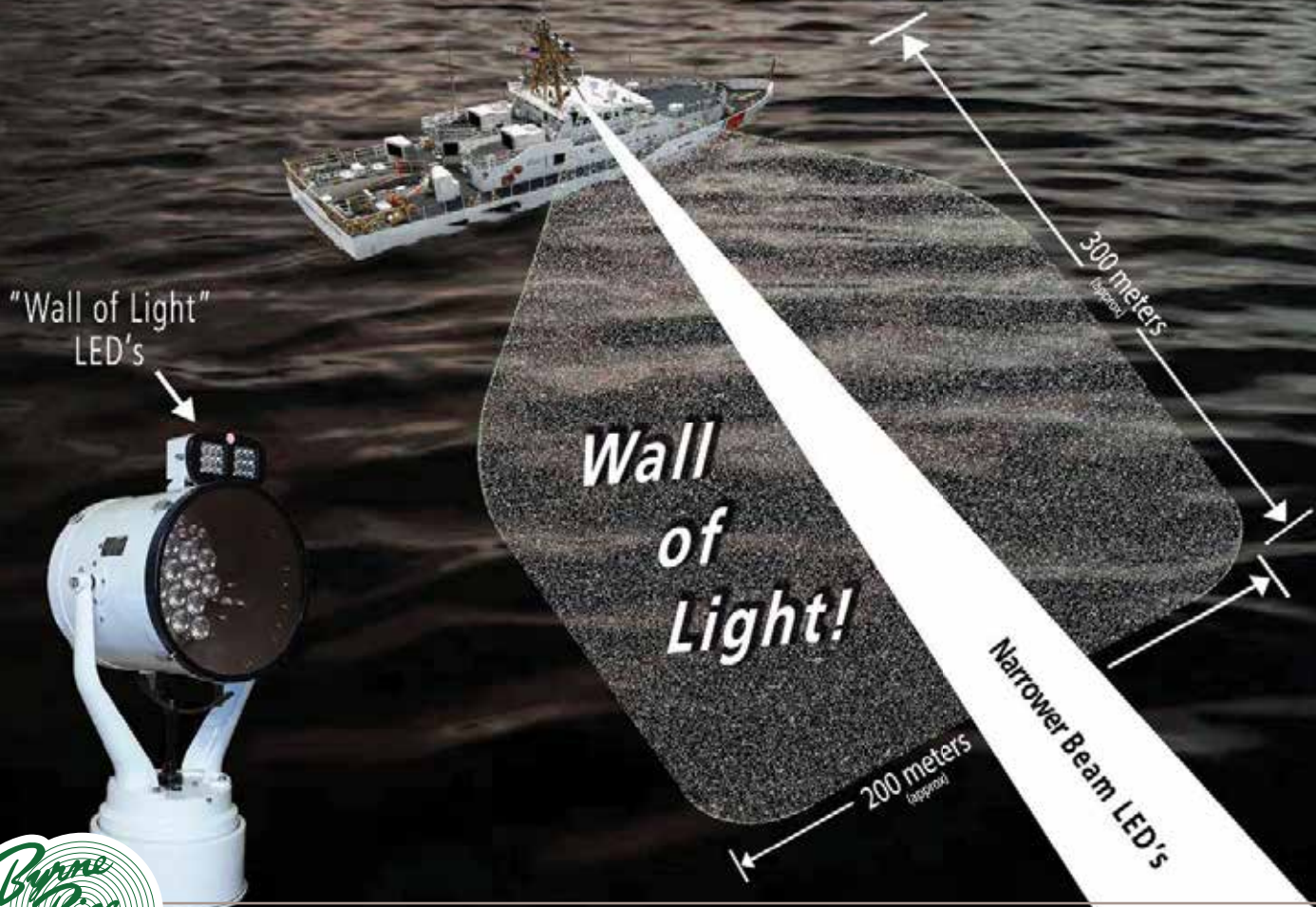
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19-inch / 483mm LED SEARCHLIGHT

“Auxiliary LEDs illuminate wide areas at close range where the narrower beam cannot service”

Imagine a passenger suddenly falls overboard on a marine vessel. Using the auxiliary LEDs for **“Search and Rescue”**, an operator can instantly direct a powerful “Wall of Light”, wider than a football field, anywhere around the vessel to save the person! This wide beam is also extremely effective for **“Vessel Interdiction”**, **“Docking”**, **“Seeing Workers at Night”**, **“Seeing near the base of a Guard Tower”**, etc. This option provides short range wide beam illumination and long-range search capabilities, combined within one versatile product.



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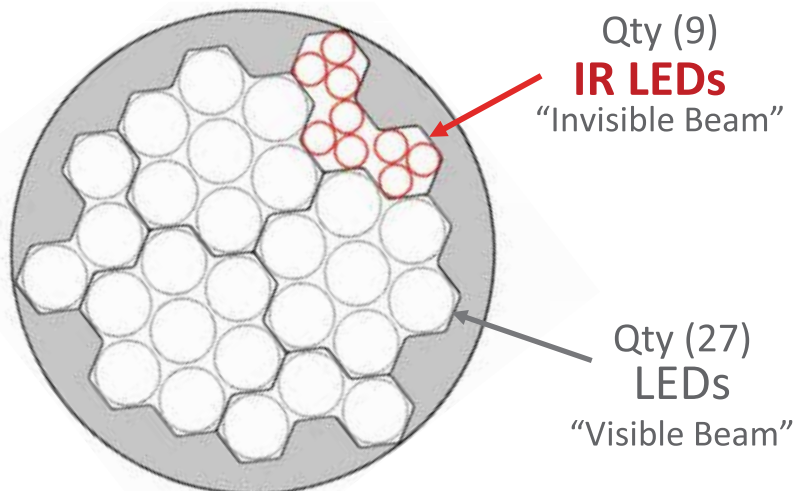


19-inch / 483mm LED SEARCHLIGHT

Infrared (IR) LEDs provide built-in Night Vision

NIGHT VISION CAPABILITY

An invisible beam, undetectable to the human eye, covertly lights up objects in total darkness, and they appear like daylight on a camera monitor. Also greatly enhances Night Vision Goggles!



FRONT VIEW



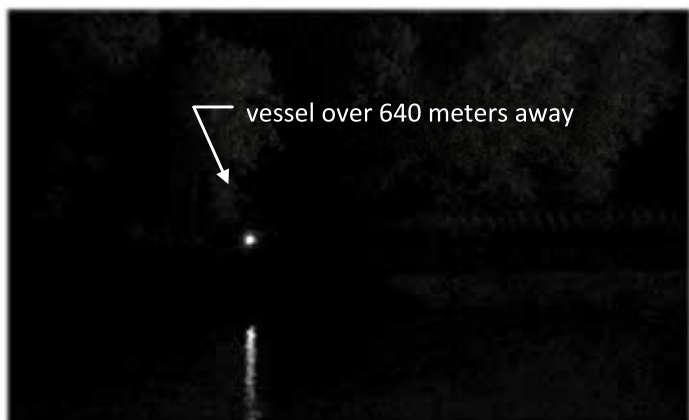
Lowlight Camera

Invisible IR Beam

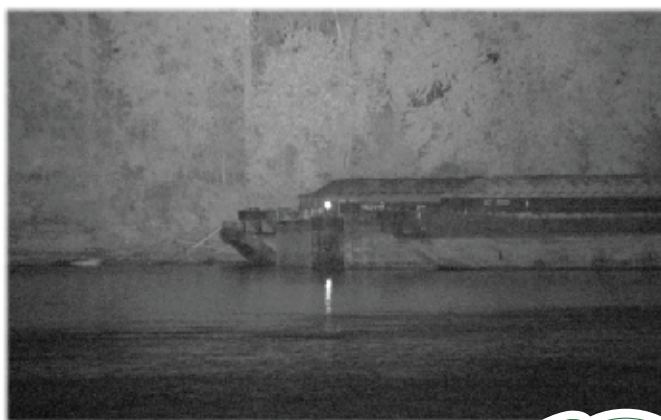
Visible Beam w/ STROBE

The **Visible Beam** is aligned on the same target, therefore the IR Beam is used as a **“Covert Targeting Device”**, to instantly illuminate the object or person!

Night Scenes of Riverbank



in Total Darkness



with (IR) Beam ON!



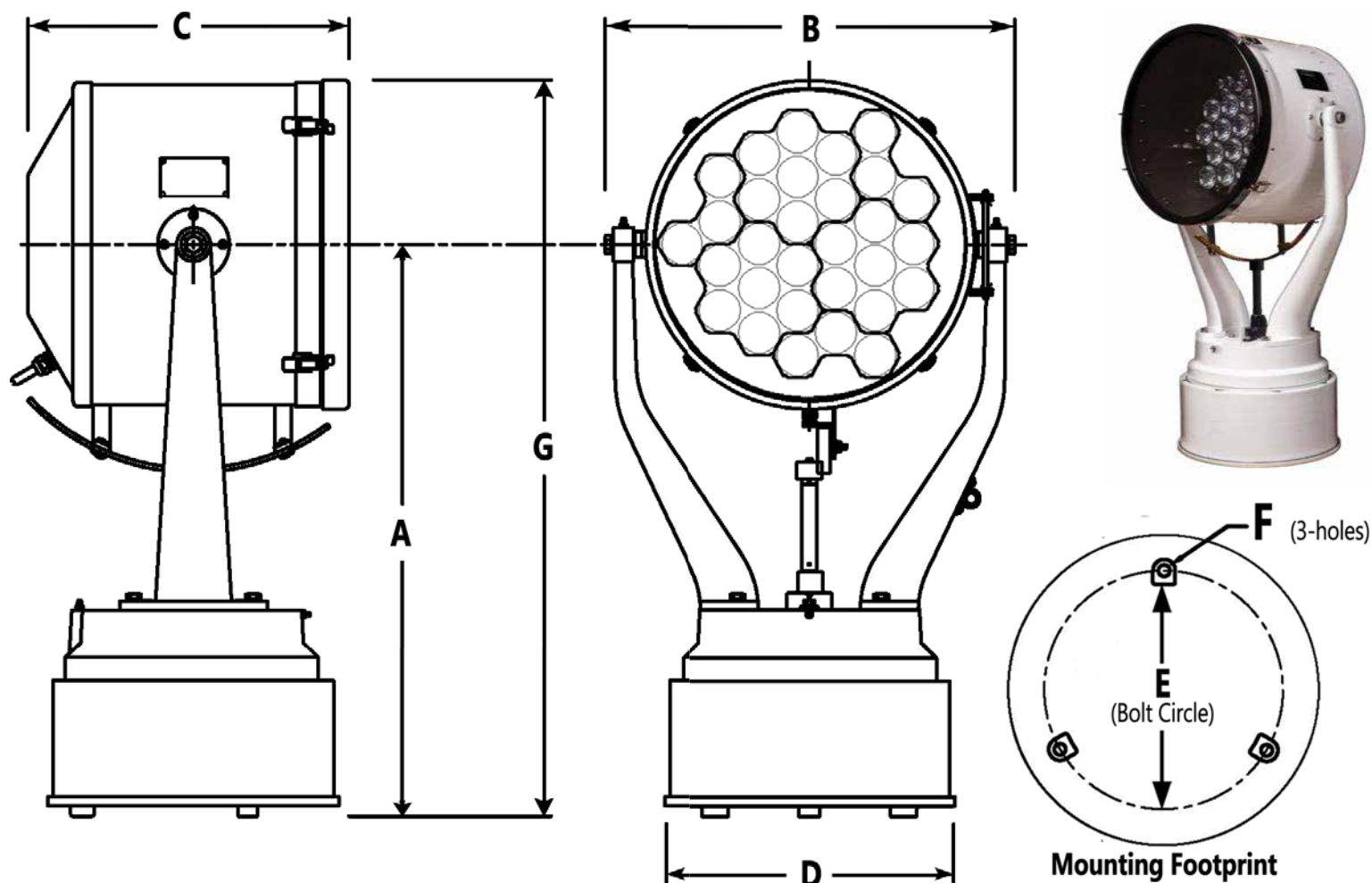
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ELECTRIC JOYSTICK CONTROL DIMENSIONS



DIM	A	B	C	D	E	F	G
inches	33.88	25	19	Ø17.25	Ø13.25	Ø.562	43.62
mm	860	635	482	Ø438	Ø336	Ø14.275	1107

“The horse is here to stay but the automobile is only a novelty—a fad.”

—The president of the Michigan Savings Bank advising Henry Ford’s lawyer not to invest in the Ford Motor Co., 1903



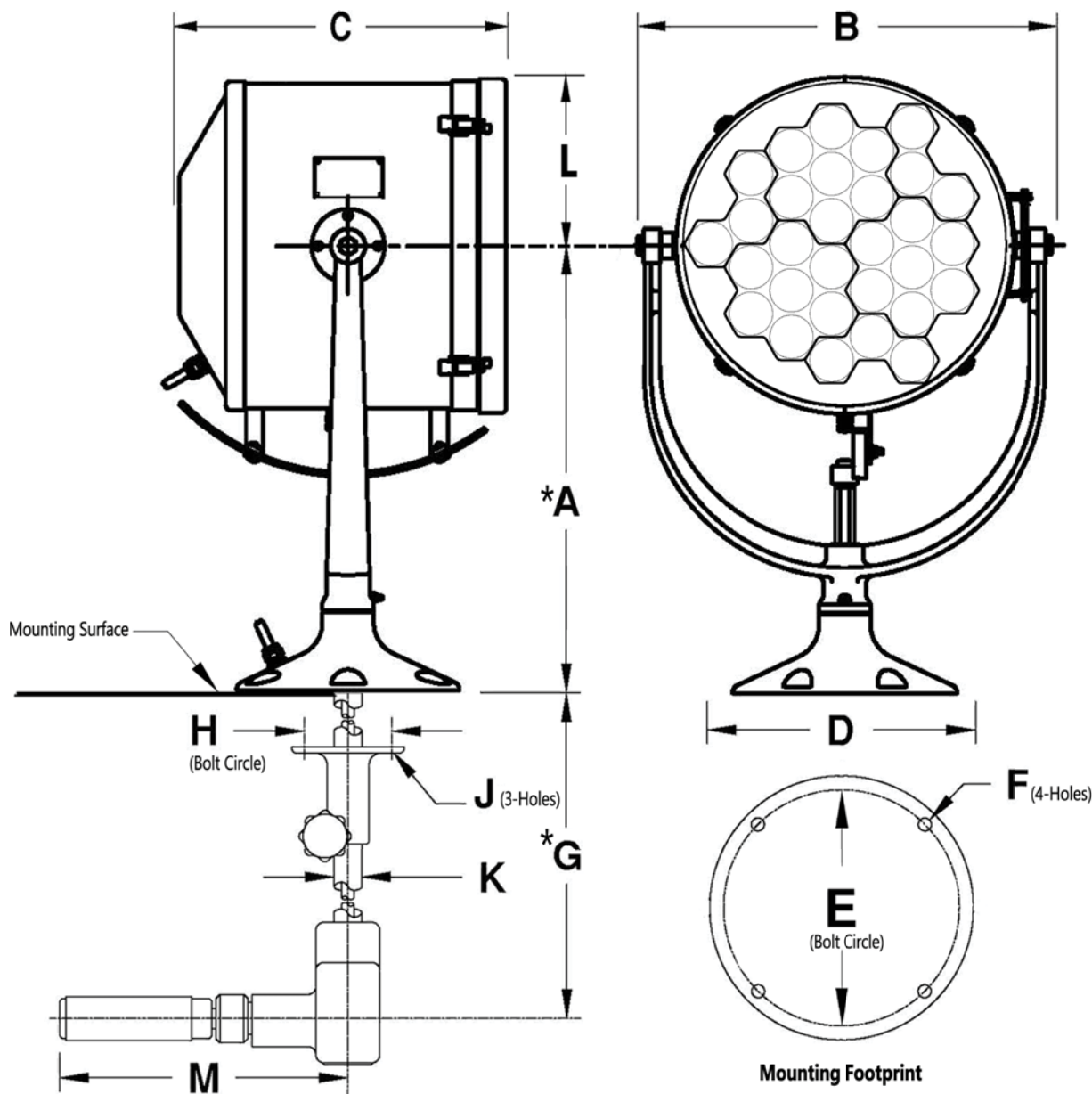
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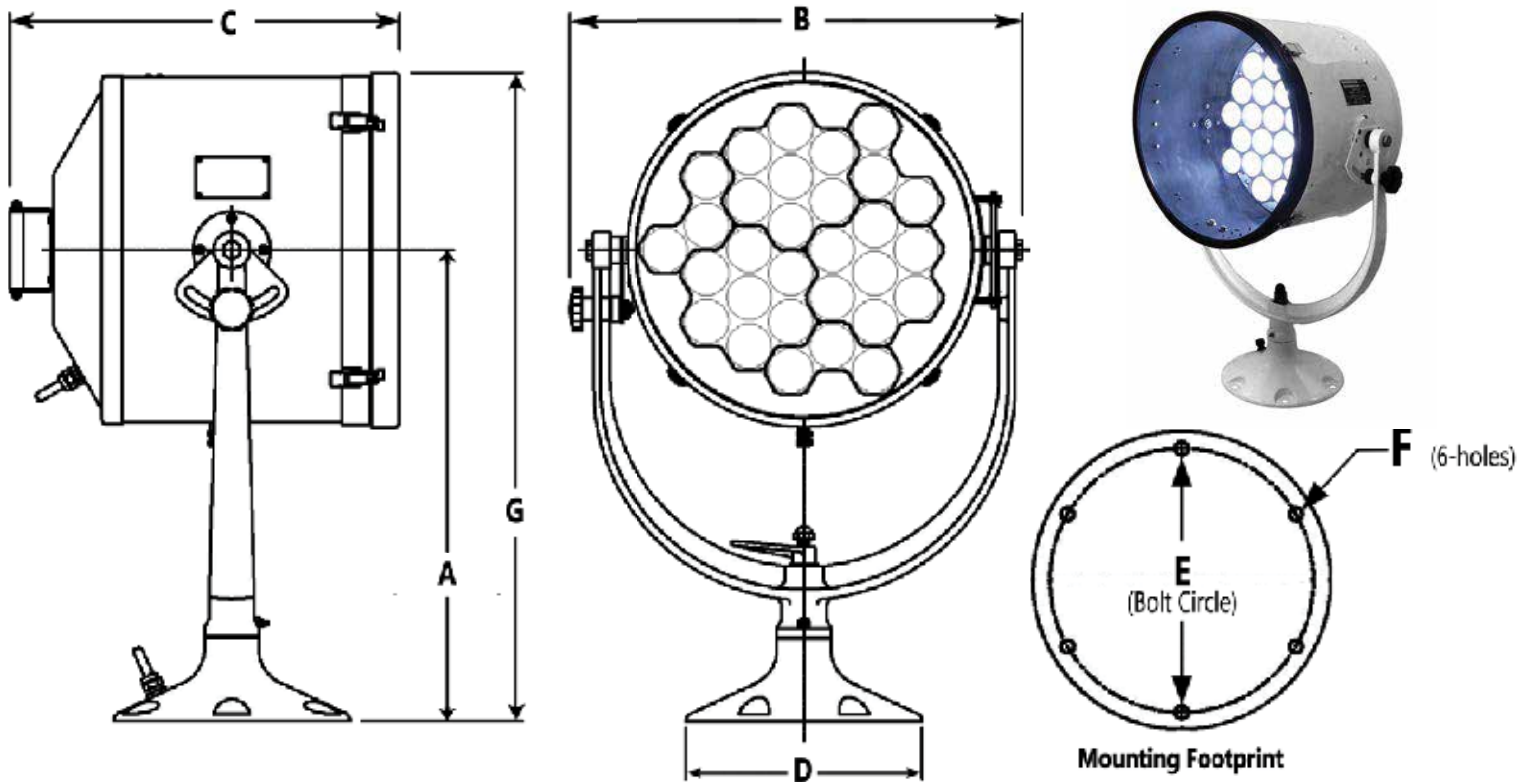


REMOTE LEVER-GEAR CONTROL DIMENSIONS



DIM	*A	B	C	D	E	F	*G	H	J	K	L	M
inches	25.94	25	21.41	Ø13	Ø11.5	Ø.562	21.88	Ø3.38	.344	1.00	9.75	9.00
mm	658	635	54	Ø330	Ø292	Ø14	555	Ø85.85	8.74	25.40	247	229
Note:	Dimension "A" is the standard Searchlight Height, and Dimension "G" is the standard Control Length. These two dimensions can be custom. Consult Factory for exact customer requirements.											

LOCAL HANDLE CONTROL DIMENSIONS



DIM	A	B	C	D	E	F	G
inches	25.94	25	21.41	Ø13	Ø11.5	Ø.562	35.69
mm	658	635	543	Ø330	Ø292	Ø14	906

“Television won’t last because people will soon get tired of staring at a plywood box every night.”

—Darryl Zanuck, movie producer, 20th Century Fox, 1946



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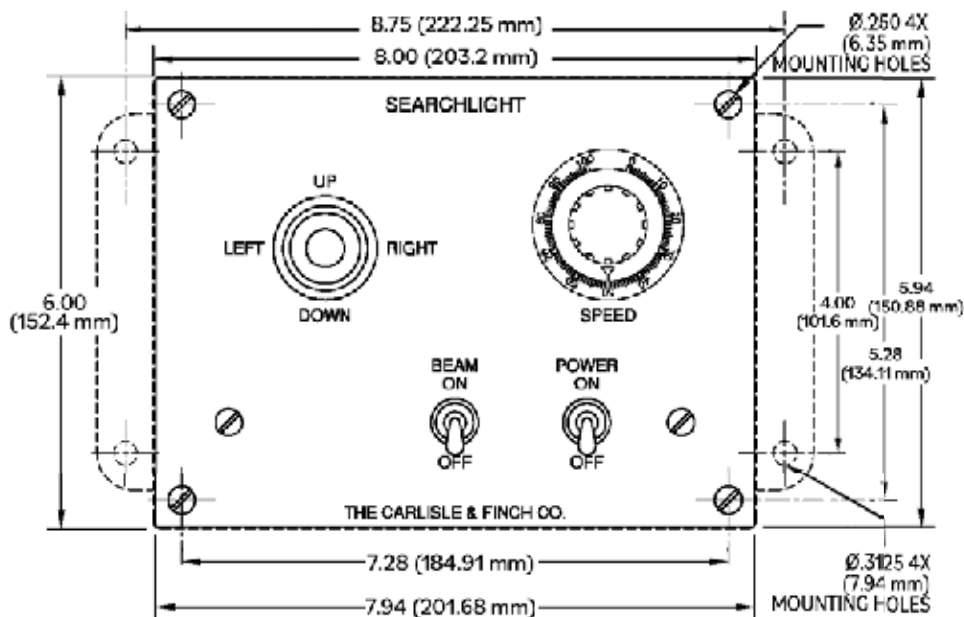
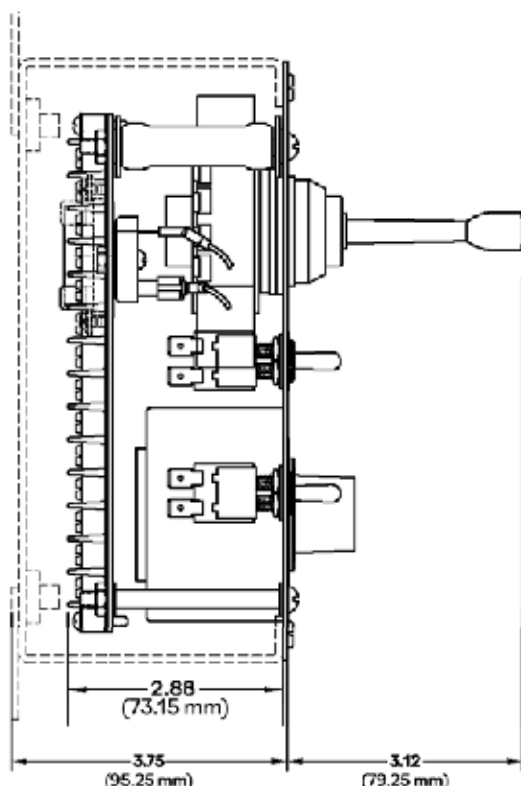
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CONTROLLER DIMENSIONS

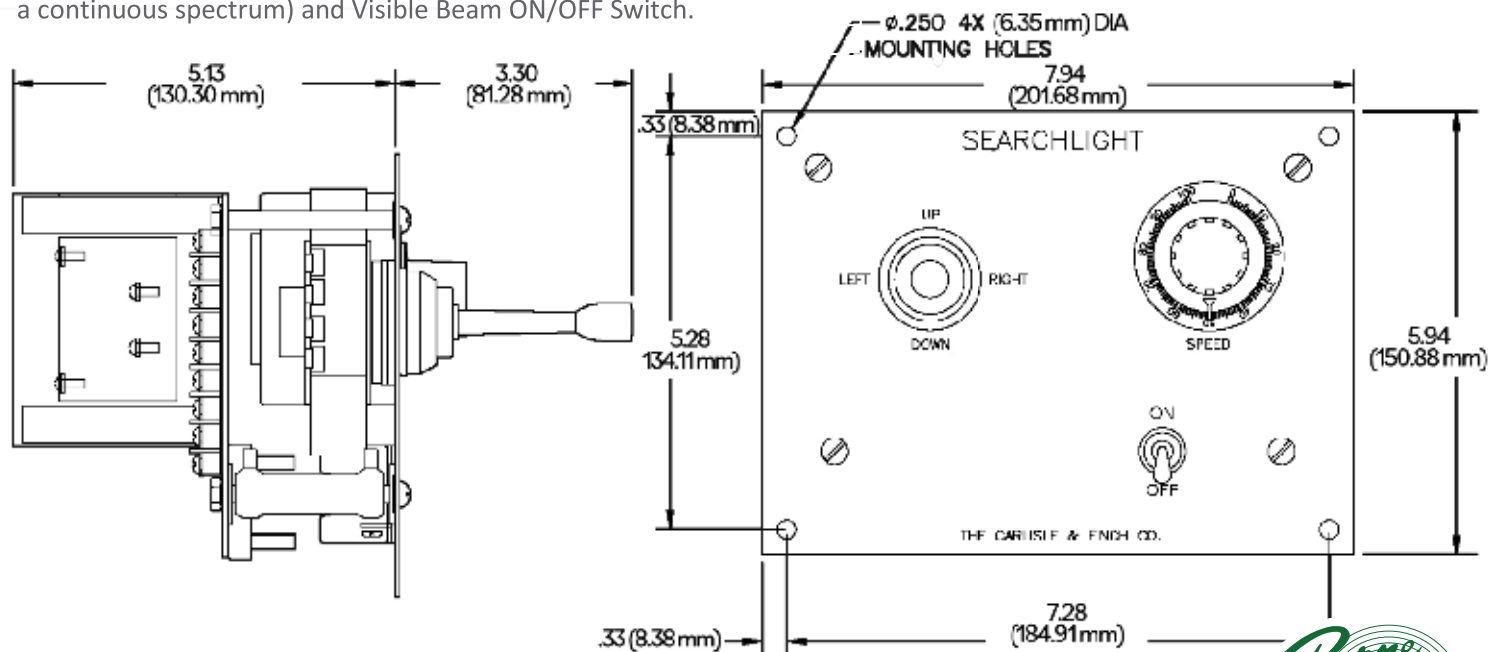
Model C5777-S-2 Joystick Controller (115 VAC-only)

Includes 8-Way Switch (UP, DOWN, RIGHT, LEFT, and FOUR DIAGONAL POSITIONS), Beam-Speed Dial (Changes Speed throughout a continuous spectrum) and Visible Beam ON/OFF Switch.



Model C5777-S-230 Joystick Controller (230 VAC-only)

Includes 8-Way Switch (UP, DOWN, RIGHT, LEFT, and FOUR DIAGONAL POSITIONS), Beam-Speed Dial (Changes Speed throughout a continuous spectrum) and Visible Beam ON/OFF Switch.



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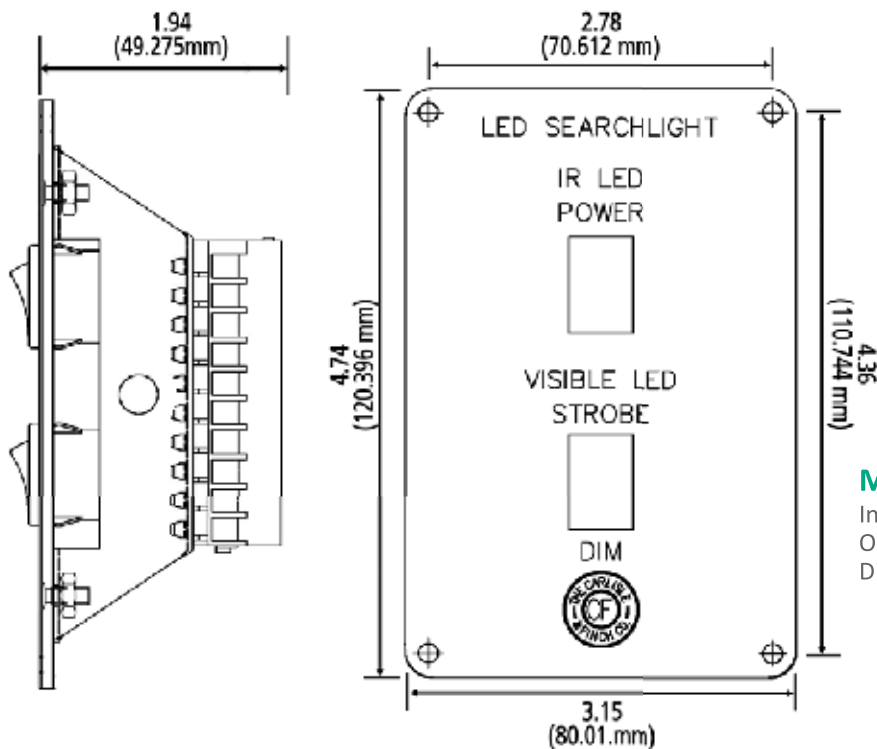


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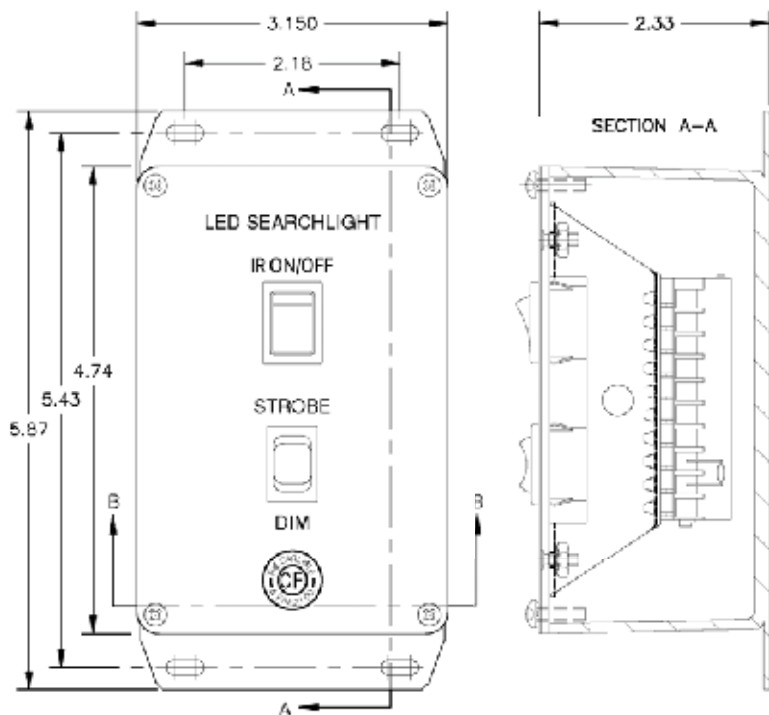


CONTROLLER DIMENSIONS



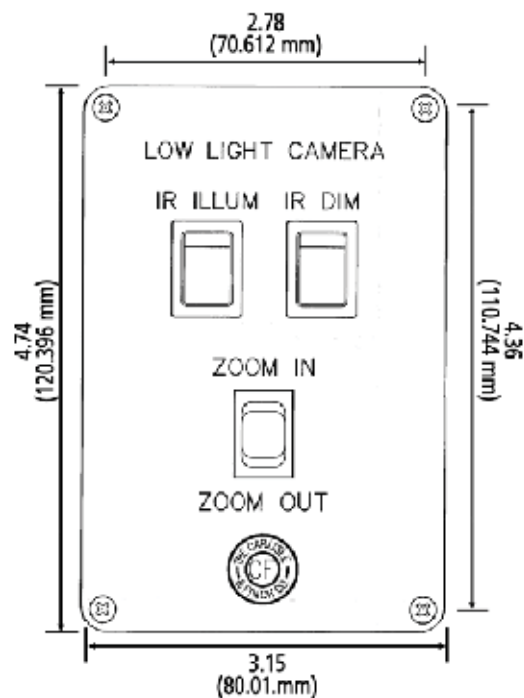
Model C2-12IR Controller

Includes Infrared (IR) Beam ON/OFF Switch, Strobe Switch and Dimming Switch.



C2-12 Controller

includes Beam ON/OFF, Strobe, and DIM switches



C3-10 Controller

includes IR Beam ON/OFF/DIM and Zoom IN/OUT switches



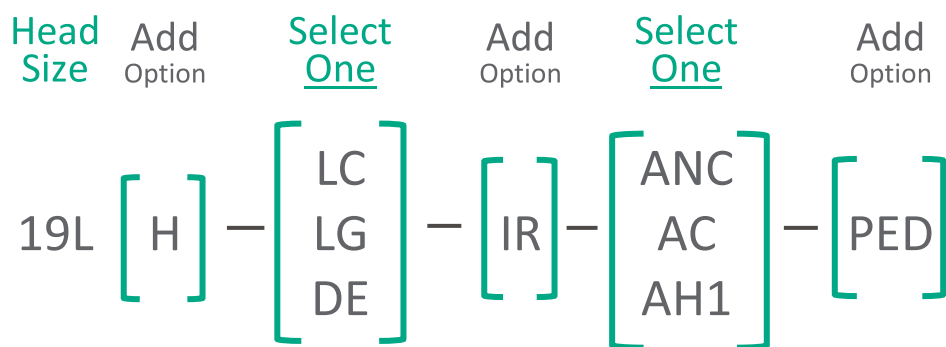
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HOW TO SPECIFY SEARCHLIGHT MODEL NUMBER



H	"Wall of Light" LEDs <i>Option</i>	IR	Night Vision Infrared LEDs <i>Option</i>	PED	Tall Pedestal Base <i>Option (Manual-Control Only)</i> Consult Factory
LC	Local Handle Control	ANC	115/230 VAC (no Strobe/DIM)		
LG	Remote Lever Gear	AC	115/230 VAC (with Strobe/DIM)		
DE	Joystick Electric Control	AH1	115 VAC (with Anti-Icing Heaters)		

Note: To specify Searchlight Model Number, go to top of page and insert letters from left to right as applicable.

Example #1

Model Number: 19L-LG-ANC-PED

19-inch (483mm) diameter, Remote Lever-Gear Control, 115 VAC and Tall Pedestal option

Example #2

Model Number: 19LH-DE-IR-AH1

19-inch (483mm) diameter, Wall of Light LEDs option, Joystick Electric Control, Infrared LEDs option, 115 VAC and Anti-Icing Heaters

"No one will pay good money to get from Berlin to Potsdam in one hour when he can ride his horse there in one day for free."

—King William I of Prussia, on trains, 1864

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LED WINDFARM SEARCHLIGHT

Windfarm

features include
extended
vertical range
to point
“straight up”
to illuminate Turbine, and
LED pods on each side
provide a 100 meter wide
beam at short range, to
illuminate critical work
areas on Turbine platform.



WINDSERVE ODYSSEY
Multipurpose Offshore Support Vessel

Beam Intensity	4 Million Candlepower (candela)
Distance Serviced	1 Lux at 2000 Meters (approx.)
Wide Beam Pattern	100 Meters Wide x 150 Meters Long (see p.3)
Power Consumption	
▪ Main Beam	120 Watts
▪ Wide Beam	100 Watts
Color Temperature	6200 Kelvin
Voltages	24VDC (Wide Beam), 115 or 230 VAC (Main Beam)
Controls	Joystick Electric Control
Environmental	IP56
LED Emitter Life	20,000+ Hours
Light Energy	7000 Lumens
Materials/Finish	Brass and stainless steel with salt-resistant, scratch-resistant powder coat
Modular Redundancy	Each pod has its own electronic board (Pg.2)
Anti-icing Heater	<i>Optional</i> feature to prevent ice build-up in cold climates

Straight ↑ Up

“If excessive smoking actually plays a role in the production of lung cancer, it seems to be a minor one.”

—W.C. Heuper, National Cancer Institute, 1954



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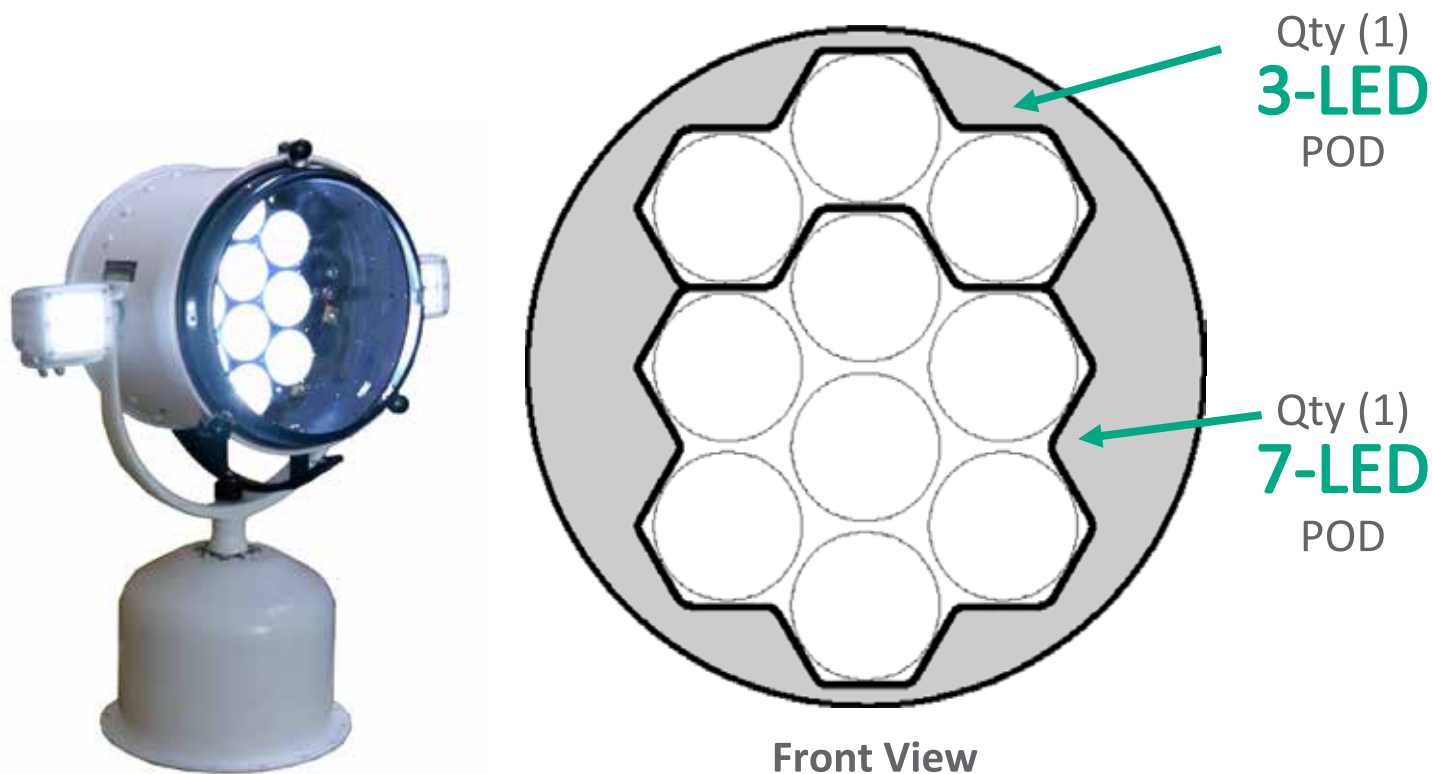
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LED WINDFARM SEARCHLIGHT

Redundancy and Extreme Long-life provides much higher reliability than Halogen Searchlights!

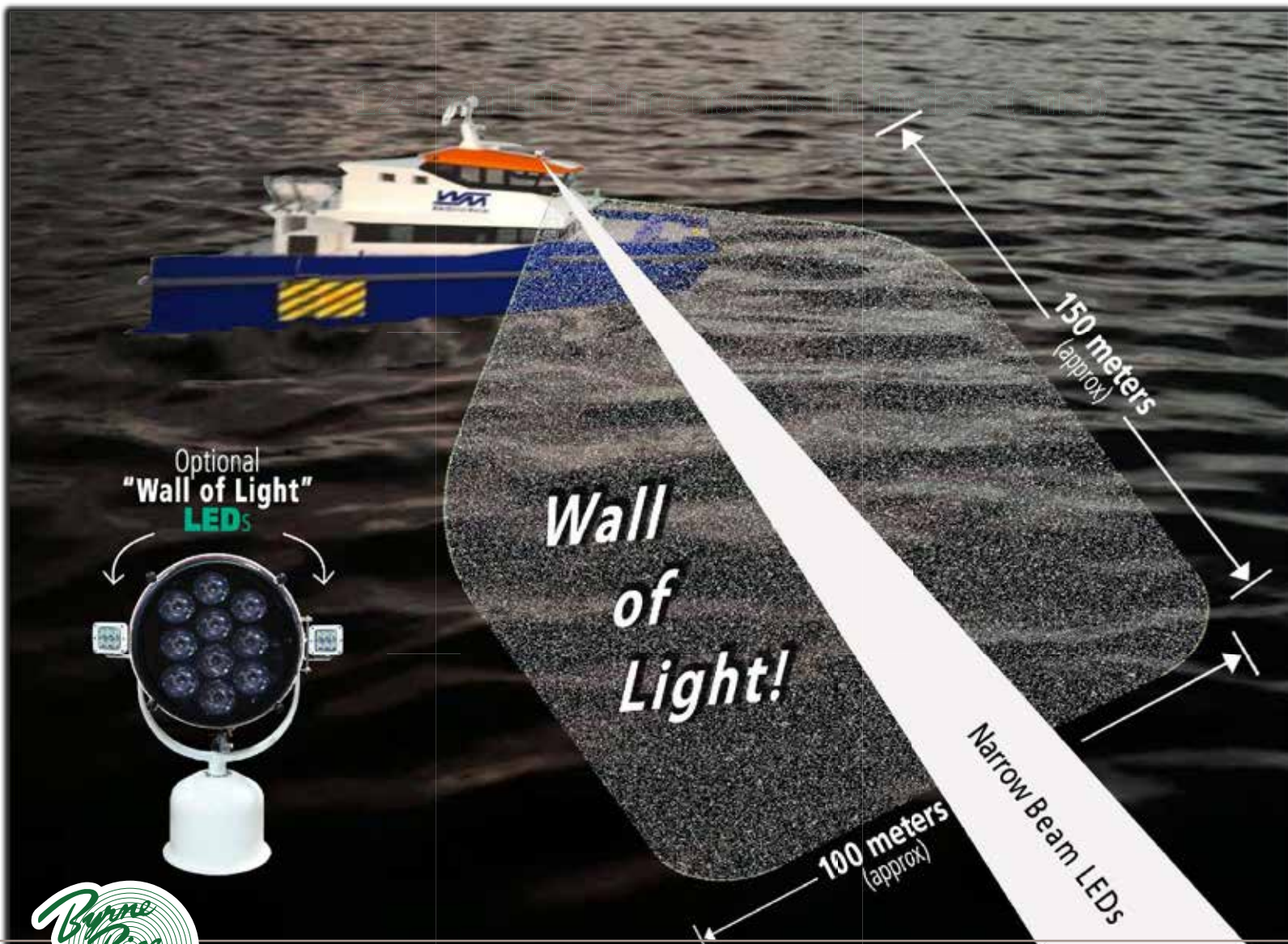


- **Multiple LED Redundancy:** There are 10 Individual LEDs (i.e., light sources.) If one fails, there are 9 more producing a bright beam.
- **Multiple POD Redundancy:** Each searchlight has two PODs. Unique to C&F, each POD has its own separate electronics. If a board fails, the “Second POD” produces a bright beam in back-up mode.
- **Long Emitter-Life:** When the lamp fails on traditional Halogen searchlights, the entire searchlight fails. Lamp-life is approx. 250 hours for the most popular industry standard lamps. Since the LEDs will last 20,000+ hours, there are approximately 80 Halogen searchlight failures for every LED searchlight due to lamp-life alone (i.e., $20,000 \div 250 = 80$ failures.)

LED WINDFARM SEARCHLIGHT

"Auxiliary LEDs illuminate wide areas at close range where the narrower beam cannot service"

Imagine a passenger suddenly falls overboard. Using the auxiliary LEDs for **"Search and Rescue"**, an operator can instantly direct a powerful "Wall of Light", wider than a football field, anywhere around the vessel to save the person! This wide beam is also extremely effective for **"Illuminating the Wind Turbine"**, **"Seeing Workers at Night"**, **"Docking"** etc. This option provides short range wide-beam illumination and long-range search capabilities, combined within one versatile product.



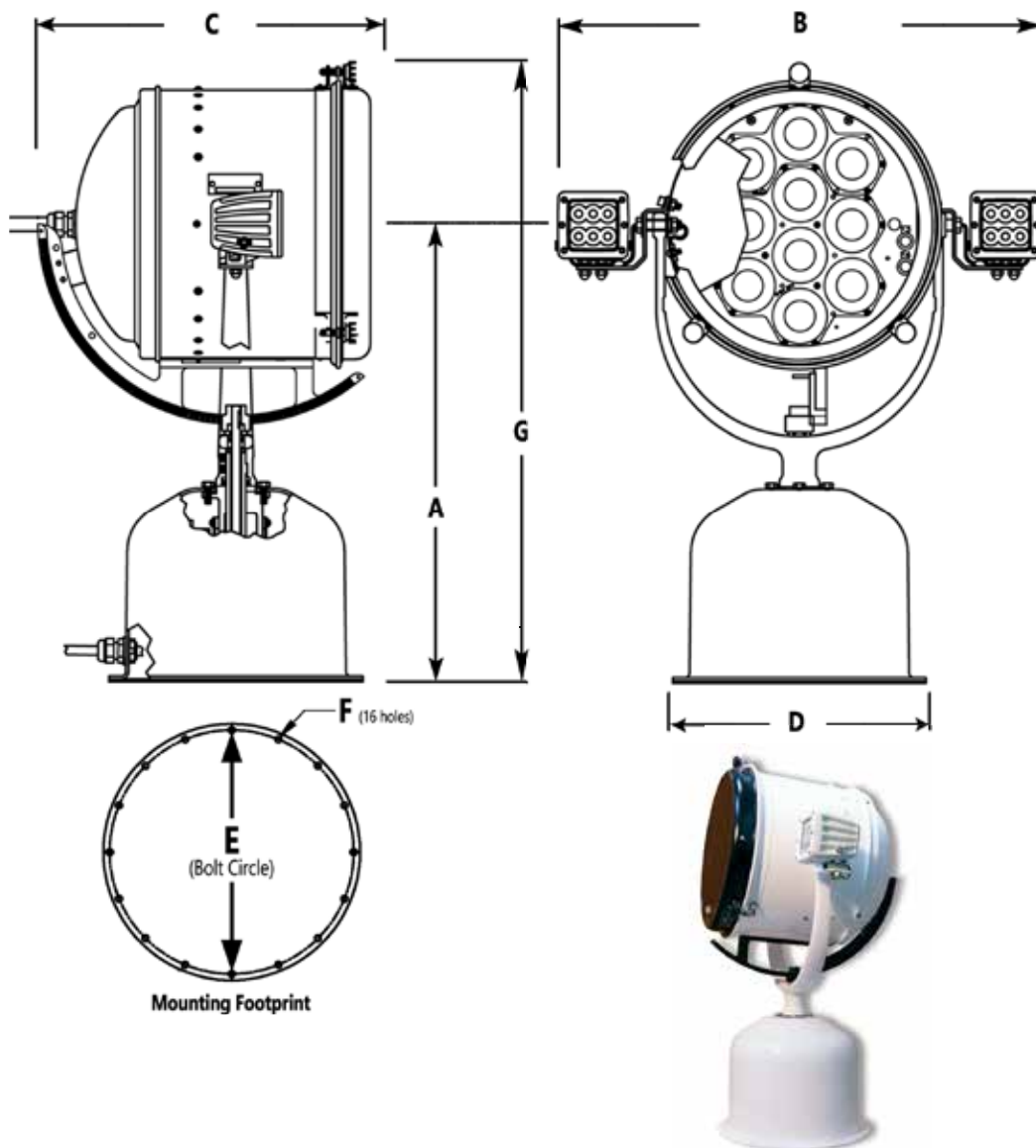
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DIMENSIONS (INCHES & MILLIMETERS)



DIM	A	B	C	D	E	F	G
inches	20.25	21.88	14.92	Ø11.38	Ø10.81	Ø.281	27.56
mm	514	556	379	Ø289	Ø274	Ø7.137	700

“The wireless music box has no imaginable commercial value. Who would pay for a message sent to no one in particular?”

—Associates of David Sarnoff responding to the latter’s call for investment in the radio, 1921

MODEL NUMBERS

Specify Model Numbers:

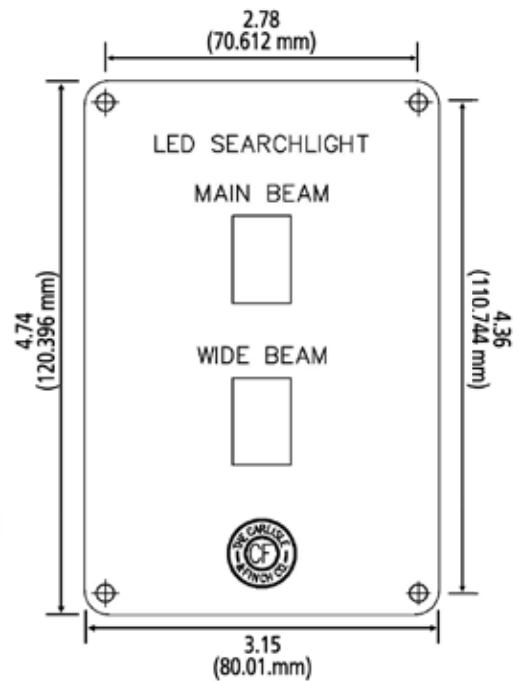
115VAC System

- Model 12LWN-DE-ANC Searchlight, C2-13-DCH Controller and C8160 Joystick

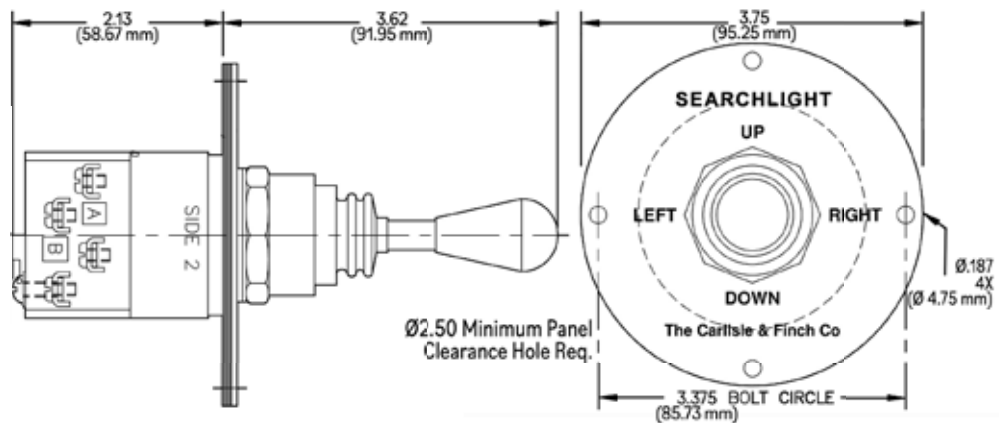
230VAC System

- Model 12LWN-DE-ANC Searchlight, C2-13-DCH Controller and C8160-230 Joystick

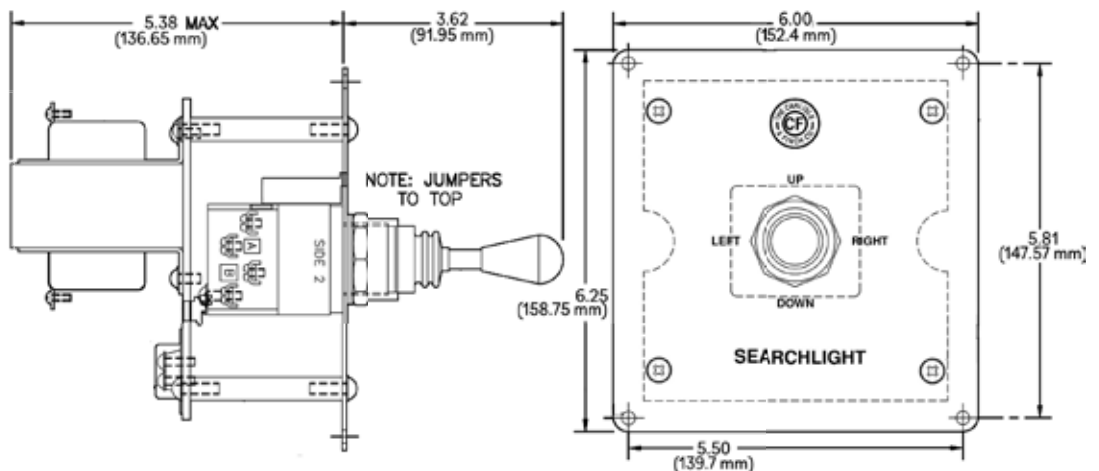
C2-13-DCH Controller
includes Main Beam and Wide Beam Switches



C8160 Joystick Controller
provides UP, DOWN, RIGHT and LEFT Aiming and Dynamic Breaking (115 VAC-only)



C8160-230 Joystick Controller
provides UP, DOWN, RIGHT and LEFT Aiming and Dynamic Breaking (230VAC-only)




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SLEEK-STYLE XENON SEARCHLIGHT

Beam Intensity	<u>15</u> Million Candela	
Distance Serviced	1 lux at 3873 meters (approx.)	
Beam Speed	18° per sec (Fast/Horiz.); 3° per sec (Slow/Horiz.)	
Color Temperature	6000 Kelvin	
Controls	Proportional Speed Joystick Control (Multiple joystick operation and weatherproof)	
Environmental Protection	IP67	
Electric Beam-Size Focus	1 to 20° (through continuous spectrum)	
Lamp	200 Watt , Xenon Short Arc	
Temperature Range	-30° C to +48° C (approx.)	
Vertical Span	+30° to -30° (60° approx. total)	
Horizontal Span	360° continuous rotation with no stop points	
Finish	Marine Grade Aluminum and Stainless Steel Salt-Resistant, Scratch-Resistant Powder Coat	
Reflector	Bullet-Resistant, Precision Electroformed, Nickel Material	
Voltage	115VAC/5 Amps <i>or</i> 230 VAC/2.5Amps; 50/60HZ	

NightFINDER™
w/ Embedded
Thermal Camera

OPTIONS

Anti-icing Heater	Thermostatically-controlled heater prevents ice build-up in cold climates
Azimuth Indicator	LCD Panel displays horizontal aiming position in degrees
Detachable IR Filter:	Provides covert surveillance when used with lowlight cameras and NVG's.
High Powered Strobe	Disorients and denies night vision of intruder and transforms searchlight into a Nonlethal Weapon
NightFINDER™	Embedded thermal camera enhances night vision capability, and the searchlight beam and camera track on the same target. (Pg.3 & 4)
SmartVIEW™	Control System provides Digital BUS Network, and TCP/IP Interface allows Remote Computer Control. Protocols supported: ONVIF, Pelco-D, NMEA 0183 and Carlisle & Finch's own Protocol

"And for the tourist who really wants to get away from it all, safaris in Vietnam."
—Newsweek, predicting popular holidays for the late 1960s.

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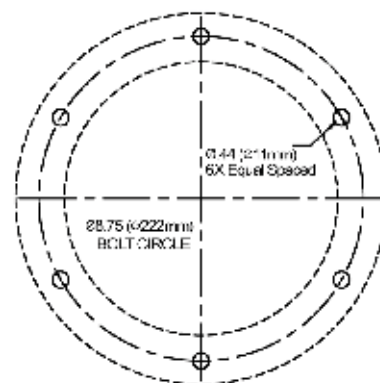
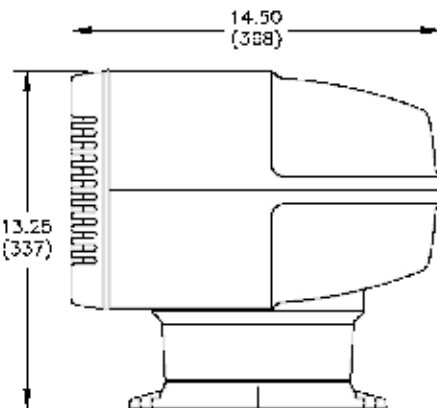
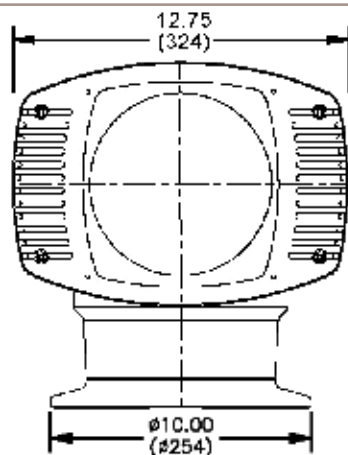


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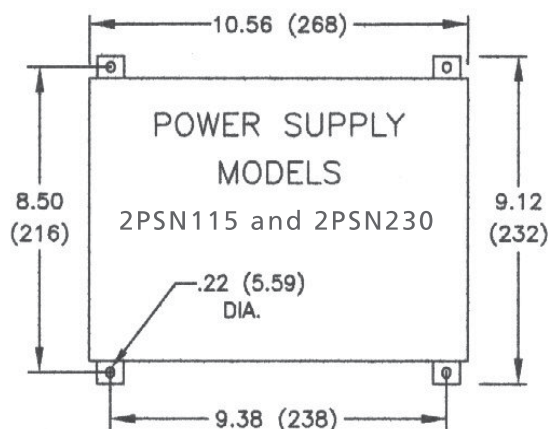
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200 WATT DIMENSIONS IN INCHES (mm)

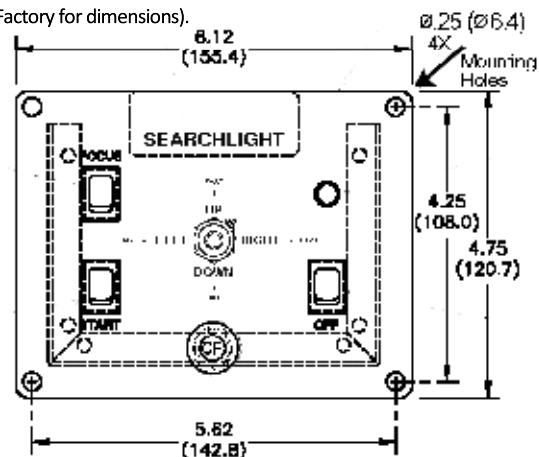


Power Supply: Compact Current-Regulated Electronic Supply includes Universal Power Input Feature, providing 115 Volt AC and 230 Volt AC inputs on the same printed circuit board.



Power Supply 2PSN115 or 2PSN230
Power Supply Weight = 7.5lb (3.4kg)

Joystick Control Stations: Control Functions: Beam ON/OFF, Beam-size Focus, Proportional-Speed Joystick, and Beam-ON Indicator Light. One Master Station (C4-2-1) is required with each system, and any number of Secondary Stations can be added. If you desire an outdoor Secondary Station, non-recess-mounted within console, but enclosed in a Weatherproof Box, specify C4E2M (consult Factory for dimensions).



C4-2-1 Master Station.....Depth = 6.5in (166mm)
C4-2M-1 and C4E2M-1-2 Secondary.....Depth = 3.5in (89mm)

Searchlight Standard Inverted-Mount	or	Power Supply 115VAC or 230VAC	Master (Indoor)	Secondary (Indoor)	Master (Outdoor)	Secondary (Outdoor)
XY2EDE-RF or XY2EDE-BURF		2PSN115 or 2PSN230	C4-2-1	C4-2M-1	C4E2-1-2	C4E2M-1-2

How to specify searchlight system... read across table and select one Searchlight, one Power Supply, one Master Joystick Controller and any number of optional Secondary Joystick Controllers.

Sample Specification

for "Inverted-Mount Searchlight, 230 VAC with (1) Indoor and (1) Outdoor Joystick Controllers, the model numbers are as follows:

- (1) **XY2EDE-BURF** Searchlight, (1) **2PSN230** Power Supply, (1) **C4-2-1** Master and (1) **C4E2M-1-2** Secondary Station

Note: Consult Factory for model numbers of optional Features (Strobe, NightFINDER™, Anti-icing Heaters, Azimuth Indicator, SmartVIEW, etc.)



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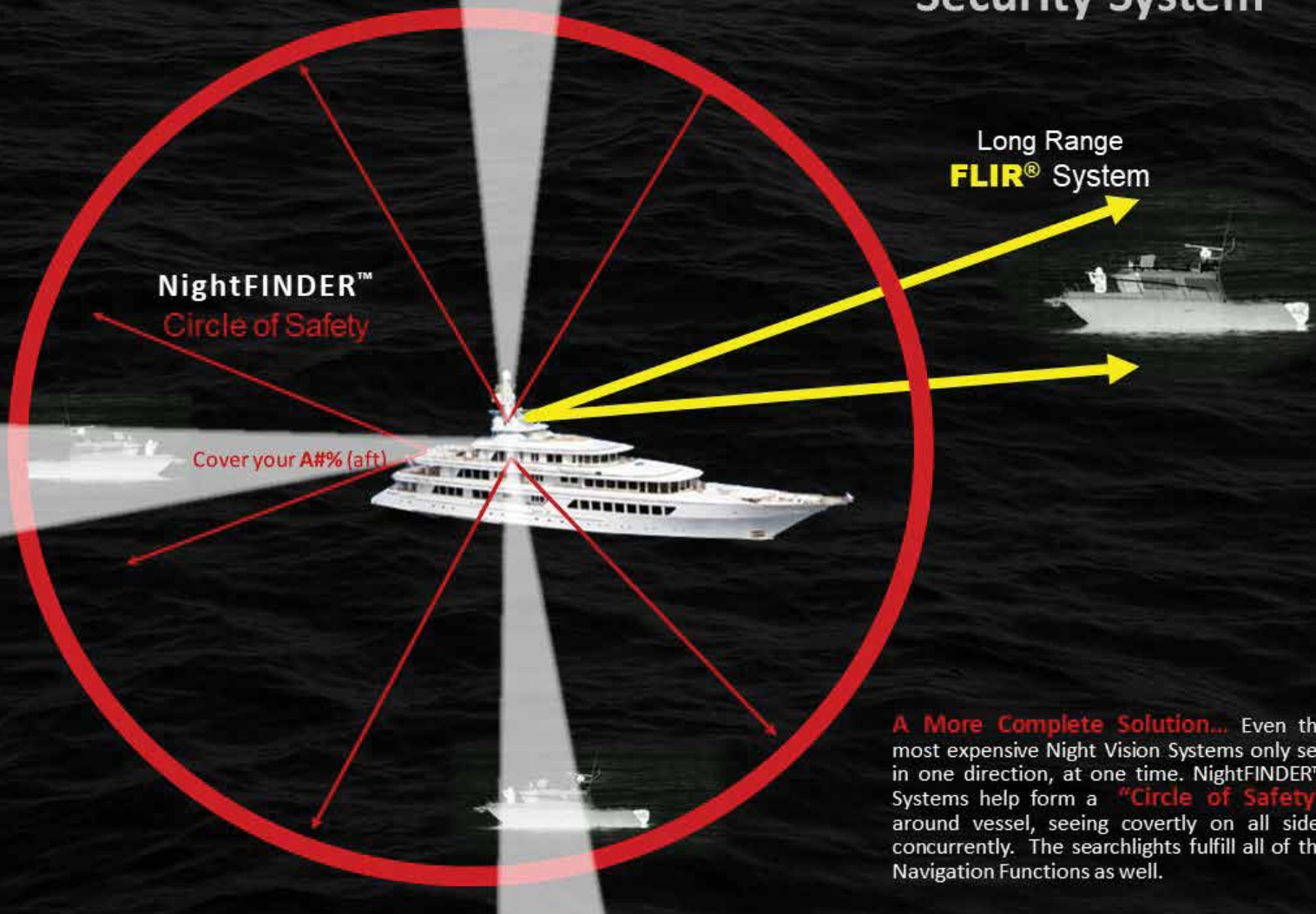
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NightFINDER™

NightFINDER™

A Total Navigation & Security System



A More Complete Solution... Even the most expensive Night Vision Systems only see in one direction, at one time. NightFINDER™ Systems help form a **"Circle of Safety"** around vessel, seeing covertly on all sides concurrently. The searchlights fulfill all of the Navigation Functions as well.

"There will never be a bigger plane built."

—A Boeing engineer, after the first flight of the 247, a twin engine plane that holds ten people

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NightFINDER™

NightFINDER™ ... a "Covert Targeting Device"

Strobe blinds and
disorients Intruder with
Nonlethal Force!

Powerful Nonlethal
Weapon

STROBE

Thermal Camera

Camera is used as **Covert Targeting Device** i.e....
"Operator covertly scans horizon with camera, and
after Intruder is spotted, searchlight instantly
illuminates the target."

"There is no reason for any individual to have a computer in his home."

—Ken Olson, president, chairman and founder of Digital Equipment Corporation (DEC), in a talk given to a 1977 World Future Society meeting in Boston



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385mm DIAMETER XENON SEARCHLIGHT

Features



Carlisle & Finch is the standard of the U.S. Navy, U.S. Coast Guard and U.S. Federal Prisons.

- **Beam Intensity:** 45 Million Beam Candlepower illuminates an object approximately 6700 meters away on a clear night!
- **Electric Beam-Size Focus:** Beam can be widened and narrowed remote electrically, throughout a continuous spectrum.
- **Beam-size Focus Knob:** External Knob changes beam-size with no tools, and provides back-up should the focus motor fail.
- **Proportional-Speed Joystick:** Speed and Direction are controlled by Joystick... i.e. "Move Joystick to the first position and Beam moves slowly... move the Joystick further and it speeds up!"
- **"Multi-board Safety Back-up"...** electronic power supply design incorporates two boards in parallel, and if one fails, the beam will still operate in back-up mode!
- **Bullet-Resistant Reflector...** Precision-Optic Reflector with virtually indestructible Nickel Material helps prevent breakage if fixture is impacted by bullets or rocks.
- **Anti-icing Heater: (optional):** Thermostatically-controlled heaters are located in the Arm Pivots, Rack and Base.
- **Azimuth Indicator (optional):** Position Indicator LCD panel displays where the Beam is aimed in degrees.
- **Thermal Camera (optional):** Optional thermal camera added to searchlight provides greater Night Vision capability.
- **SmartVIEW™ Control (optional):** Micro-processor controls provide switching throughout a Digital BUS Network, and multiple protocols are offered: TCP/IP, RS232, RS422 and RS485.
- **LED Hybrid (optional):** Auxiliary LED Light Modules project a "Wall of Light", 150 Meters Wide and over 230 Meters away, for strategic wide area and short range lighting.

Searchlight Specifications

Electric Beam-Size Focus: 1 to 20° (throughout continuous spectrum)
Temperature Range: -25 °C to +48 °C (approx)
Environmental Protection: IP56
Power Consumption: 115VAC/12 Amps or 230 VAC/6Amps; 50/60HZ
Vertical Span: +35 Deg to -35 Deg (Total 70 Deg approx)
Horizontal Span: Beyond Full Circle (385 Degrees with sliding stop)
Beam Speed: 25° per sec (Horizontal); 14° per sec (Vertical)
Lamp: 500 Watt, Xenon Short Arc, 6500 °Kelvin
Beam Intensity: 45 Million Candela
Distance Serviced measuring 1 LUX: 6708 meters on a clear night
Reflector: Precision Electroformed, Nickel Material, Bullet-Resistant
Materials: Marine Grade Aluminum and Stainless Steel

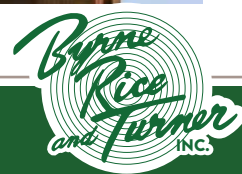


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ELECTRONIC POWER SUPPLY

GO GREEN with the New C&F 500 Watt Xenon Power Supply... “Less than 1/3 the weight, Less than 1/3 the size, and 15% more efficient than previous models.”

Features

- ⊙ Light Weight
- ⊙ Small Footprint
- ⊙ Improved Efficiency
- ⊙ *Multi-Board Safety Back-up Design
- ⊙ 120 & 230 Volt Models Available
- ⊙ Integrated Hour Meter and Ammeter
- ⊙ Optional Outdoor Models Available
- ⊙ Backward compatible with previous generation power supplies



Qty(2) Electronic Boards in parallel provide immediate Safety Back-up!

***Multi-Board Safety Back-up Design:** The unique Carlisle & Finch design has multiple electronic boards connected in parallel which provide built-in redundancy. If a board fails, the searchlight will still operate in “back-up” mode. This feature insures greater searchlight reliability, and is offered by no other searchlight company in the world. Other searchlights, have a complete outage, if an electronic board fails!

“How, sir, would you make a ship sail against the wind and currents by lighting a bonfire under her deck? I pray you, excuse me, I have not the time to listen to such nonsense.”

—Napoleon Bonaparte, when told of Robert Fulton’s steamboat, 1800s



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PROPORTIONAL-SPEED JOYSTICK



The Carlisle & Finch Company offers a “Proportional-Speed Joystick”, which controls the Beam-Speed and Beam-Direction by moving the Joystick with a single hand... i.e. “move the Joystick to the first position, and the Beam moves slowly... move it further and the Beam speeds up!”. Since the need for an additional Speed-Dial or Fast/Slow Switch has now been eliminated (which requires the user to use two hands of operation), the operator can now use his/her free hand to steer the vessel, hold binoculars, or hold a fire arm. Additional Joystick Functions are: Beam-ON, Beam-OFF, Electric Beam-size Focus, Proportional-Speed Joystick (described above), and Beam-On Indicator light (offered on Indoor Stations-only).

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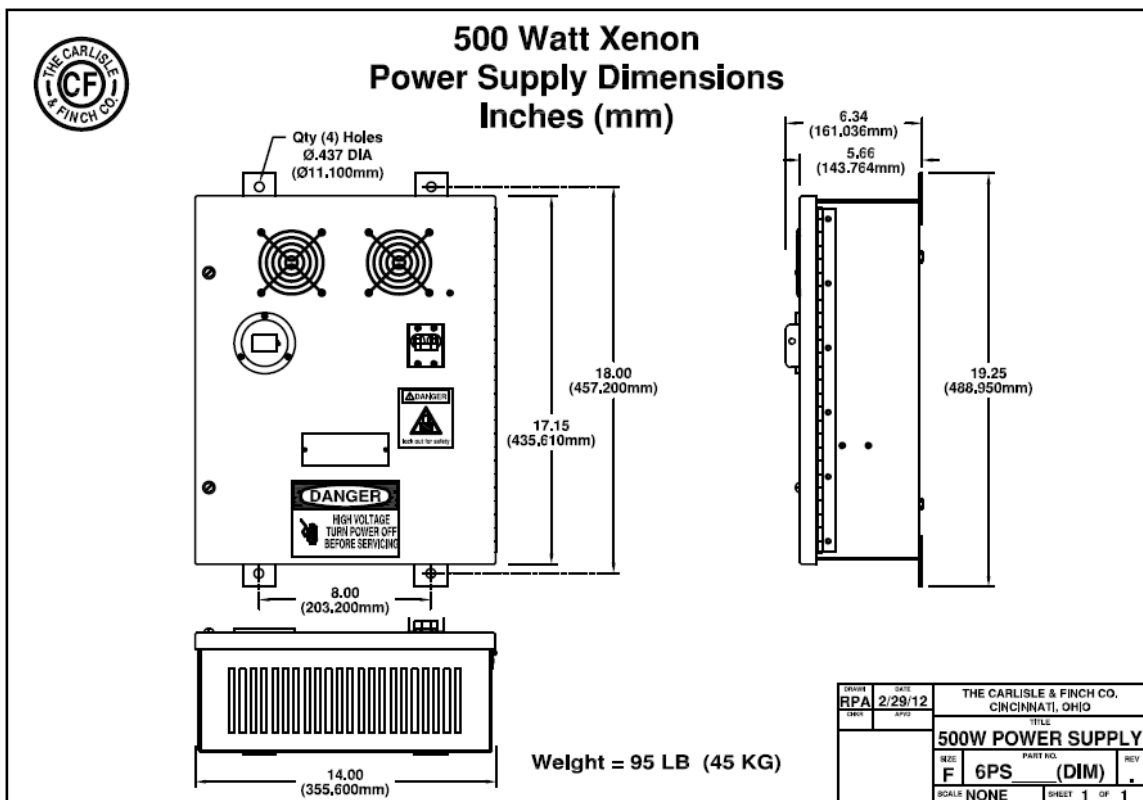
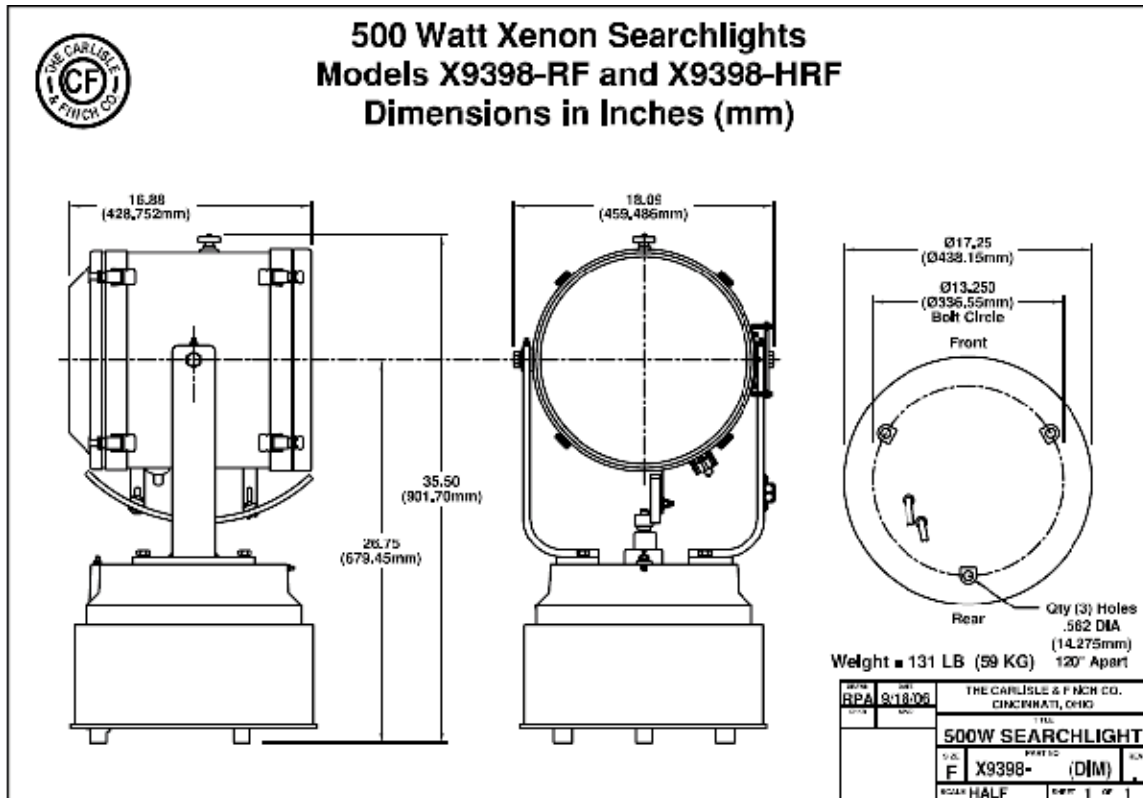


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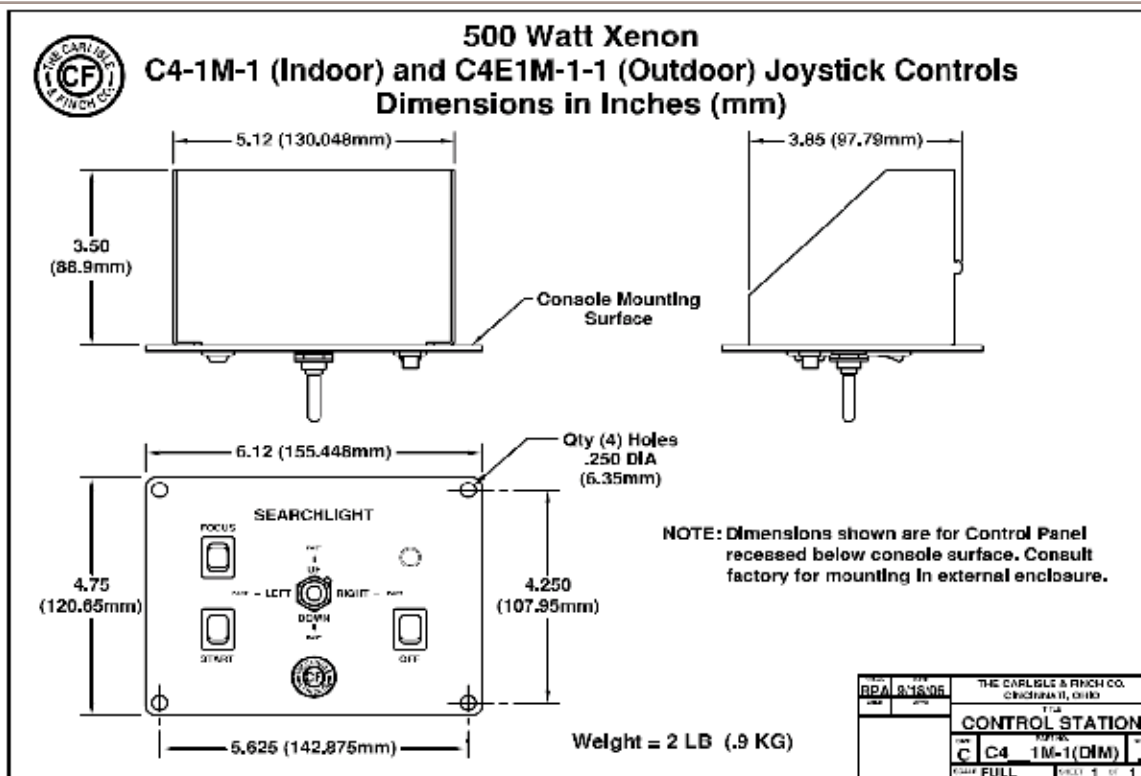
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DIMENSIONS



DIMENSIONS



How to Specify a Searchlight System

Searchlight Model	Power Supply Model	Joystick Controller Model
X9398-RF (Standard)	6PS115DE (115 VAC)	C4-1M-1 (Indoor Station)
or	or	and/or
X9398-HRF (Includes Anti-icing Heaters)	6PS230DE (230 VAC)	C4E1M-1-2 (Outdoor Weatherproof Station)

How to Specify a System: Read across the table and select one Searchlight, one Power Supply and one or more Joystick Controllers. For special options listed below, insert the letter into the searchlight model number, to the right of the hyphen, and in alphabetical order.

- To order Anti-icing Heaters add "-H" to the searchlight model number.
- To order Azimuth Position Indicator add "-A" to the searchlight model number.
- To order Full Manual Back add "-M" to the searchlight model number.
- To order a Thermal Camera, LED Module, or SmartVIEW™ Controls, Consult Factory.

Example Order: Searchlight with Anti-icing Heaters and Azimuth Indicator, 115VAC and (1) indoor and (2) outdoor stations... Qty(1) X9398-AHRF, Qty(1) 6PS115DE, Qty(1) C4-1M-2 and Qty(2) C4E1M-1-2

385mm DIAMETER XENON SEARCHLIGHT

Features



Standard of U.S. Coast Guard, U.S. Navy, and U.S. Prison System!

- **Beam Intensity:** 45 Million Beam Candlepower illuminates an object approximately 6700 meters away on a clear night!
- **Electric Beam-Size Focus:** Beam can be widened and narrowed remote electrically, throughout a continuous spectrum.
- **Beam-size Focus Knob:** External Knob changes beam-size with no tools, and provides back-up should the focus motor fail.
- **Beyond 360° of Rotation...** Unique Sliding-Stop Design allows 385 Degrees horizontal motion.
- **"Multi-board Safety Back-up"...** electronic design incorporates two boards in parallel, and if one fails, the beam will still operate in back-up mode!
- **Bullet-Resistant Reflector...** Precision-Optic Reflector with virtually indestructible Nickel Material helps prevent breakage if fixture is impacted by bullets or rocks.
- **Robust Lever-Gear Aiming Assembly...** twist the lever handle and a rack and pinion design moves head up and down with a built-in friction brake. Swing Lever side to side for horizontal aiming.
- **Thermal Camera (optional):** Optional integrated thermal camera provides additional Night Vision Capability.
- **LED Hybrid (optional):** Auxiliary LED Light Modules project a "Wall of Light", 150 Meters Wide and over 230 Meters away, for strategic wide area, short-range lighting.

Searchlight Specifications

Electric Beam-Size Focus: 1 to 20° (throughout continuous spectrum)

Temperature Range: -25 °C to +48 °C (approx)

Environmental Protection: IP56

Power Consumption: 115VAC/12 Amps or 230 VAC/6 Amps; 50/60HZ

Vertical Span: +35 Deg to -35 Deg (Total 70 Deg approx)

Horizontal Span: Beyond Full Circle (385 Degrees with sliding stop)

Lamp: 500 Watt, Xenon Short Arc, 6500 °Kelvin

Beam Intensity: 45 Million Candela

Distance Serviced measuring 1 LUX: 6708 Meters on a clear night

Reflector: Precision Electroformed, Nickel Material, Bullet-Resistant

Materials: Marine Grade Aluminum and Stainless Steel



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ELECTRONIC POWER SUPPLY

GO GREEN with the New C&F 500 Watt Xenon Power Supply... “Less than 1/3 the weight, Less than 1/3 the size, and 15% more efficient than previous models.”

Features

- ⊙ Light Weight
- ⊙ Small Footprint
- ⊙ Improved Efficiency
- ⊙ *Multi-Board Safety Back-up Design
- ⊙ 120 & 230 Volt Models Available
- ⊙ Integrated Hour Meter and Ammeter
- ⊙ Optional Outdoor Models Available
- ⊙ Backward compatible with previous generation power supplies



Qty(2) Electronic Boards in parallel provide immediate Safety Back-up!

***Multi-Board Safety Back-up Design:** The unique Carlisle & Finch design has multiple electronic boards connected in parallel which provide built-in redundancy. If a board fails, the searchlight will still operate in “back-up” mode. This feature insures greater searchlight reliability, and is offered by no other searchlight company in the world. Other searchlights, have a complete outage, if an electronic board fails!

“The idea that cavalry will be replaced by these iron coaches is absurd. It is little short of treasonous.”

—Comment of Aide-de-camp to Field Marshal Haig,
at tank demonstration, 1916

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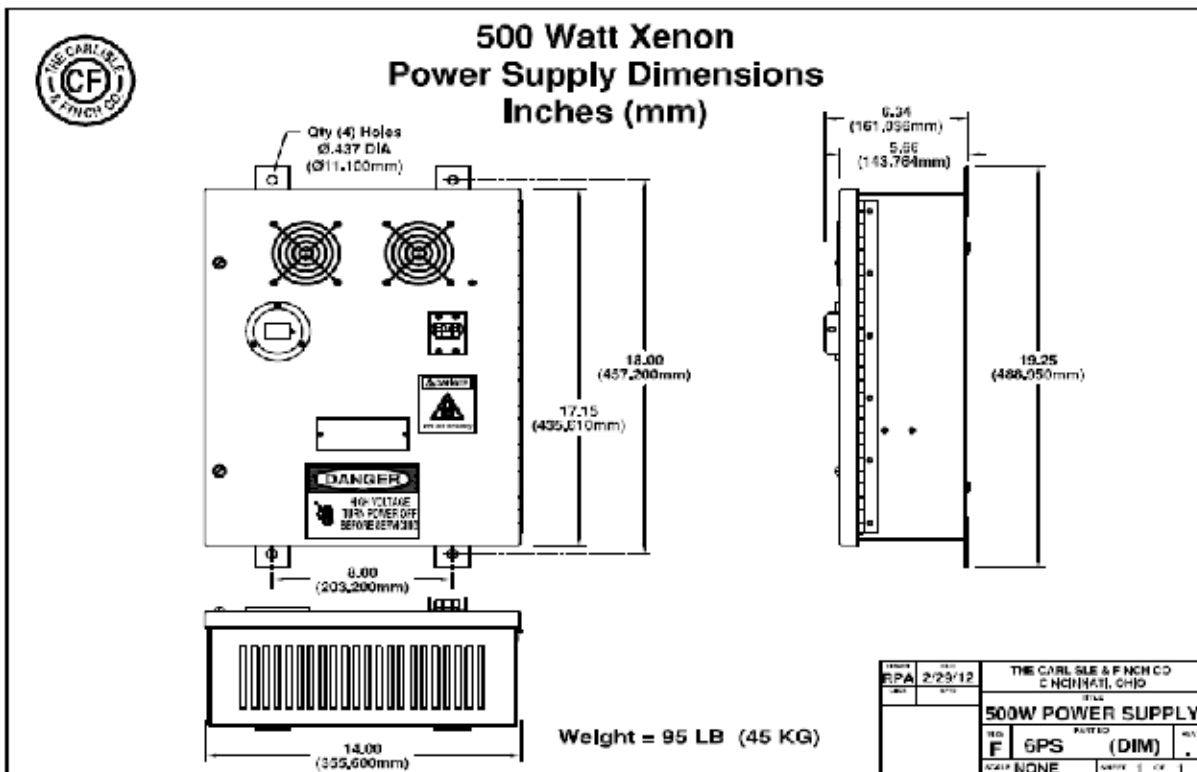
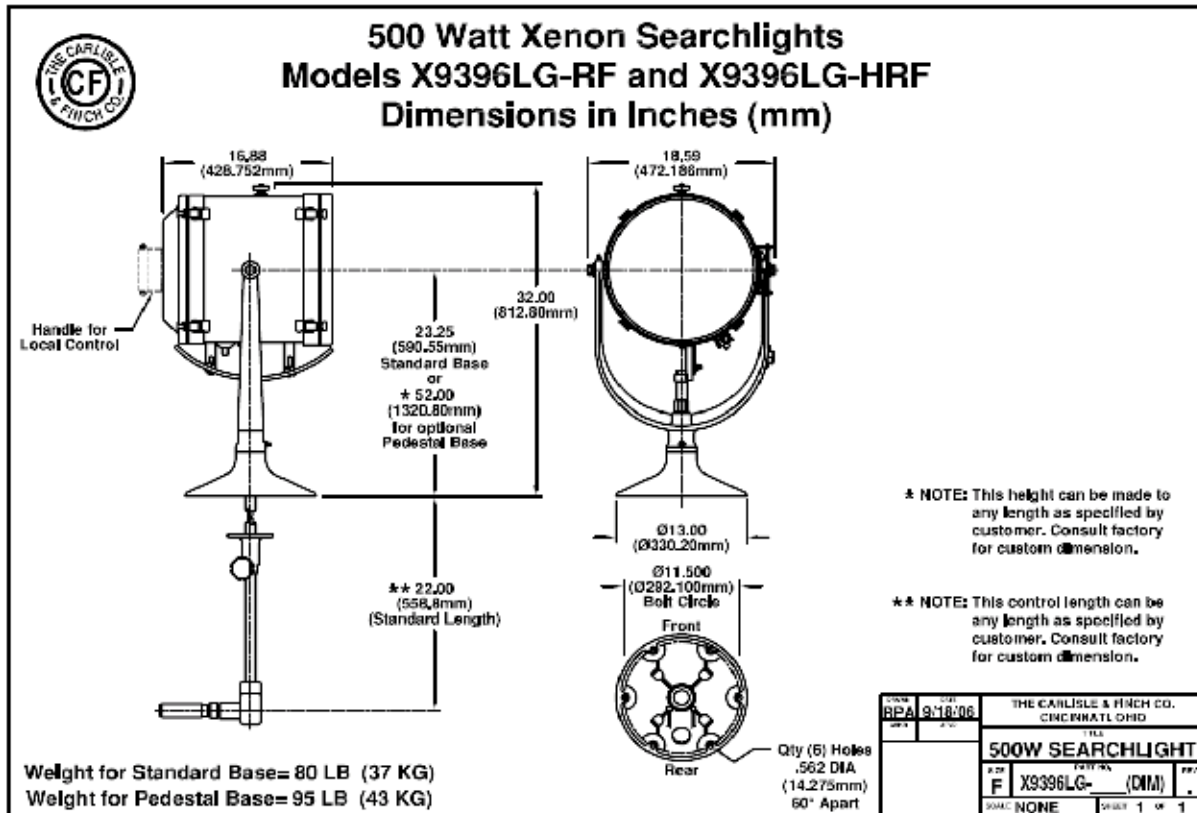


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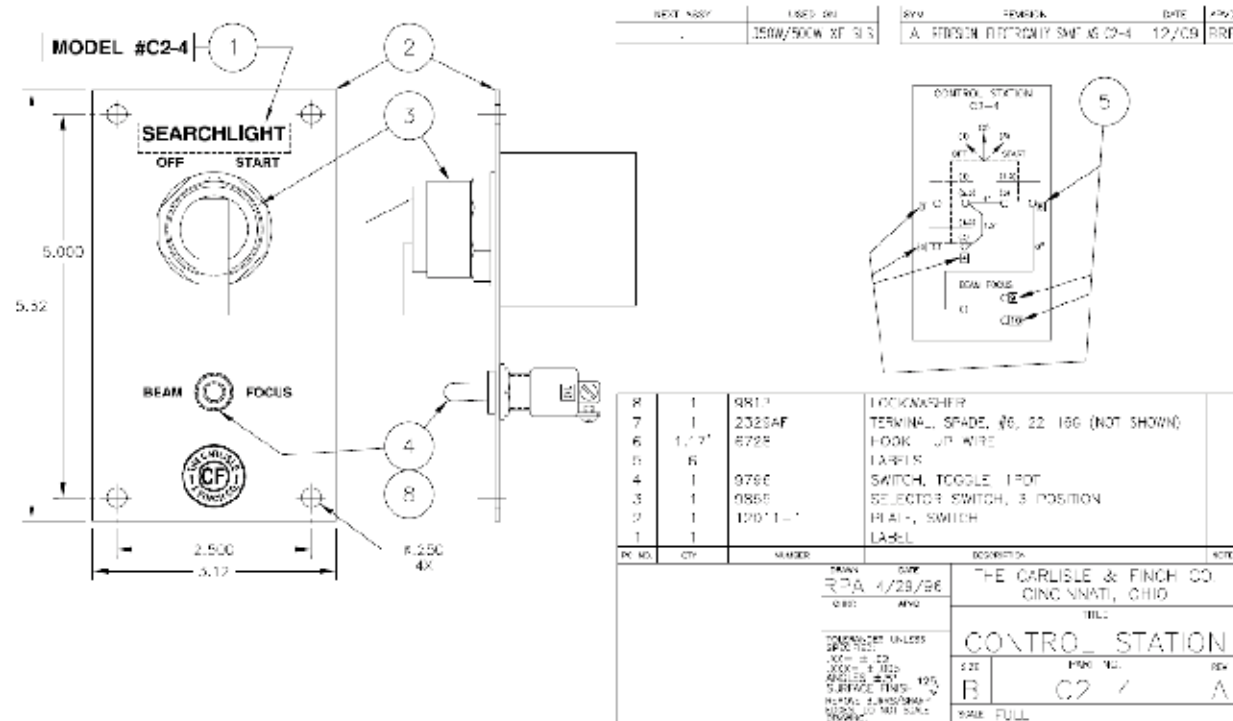
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DIMENSIONS

Control Station Dimensions in Inches



How to Specify a Searchlight System

Searchlight Model	Power Supply Model	Control Station Model
X9396LG-RF	6PS115 (115 VAC) or 6PS230 (230 VAC)	C2-4

How to Specify a System: Read across the table and select one Searchlight, one Power Supply and one 9754X-RF Control Station. NOTE: Then specify Lever Control Length (reference previous page 3, and see the dimension **22 inches marked by the double asterisk. This is the standard length, but this dimension can be specified to any length which meets the customer's exact requirement. Please consult Factory for the custom length you desire.

Example Order: Searchlight powered from 115VAC Input... Qty(1) X9396LG-RF, Qty(1) 6PS115, Qty(1) C2-4.

Note: To add an Optional Thermal Camera and/or LED Hybrid Feature, Consult Factory.

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385mm LOCAL CONTROL XENON SEARCHLIGHT

Features



- **Beam Intensity:** Illuminates an object or person approx. 6700 Meters away on a clear night.
- **Xenon Lamp...** 500 Watts with 6500° Kelvin Color Temp
- **Beam-Size Focus:** Twist Knob on top of Searchlight Head changes the Beam-Size, with no tools required.
- **Manual Aiming Methods:** Handle on head provides accurate aiming, and Beam can be locked in Horizontal and Vertical Positions, quickly and easily with no tools required.
- **“Multi-board Safety Back-up”...** electronic power supply design incorporates two boards in parallel, and if one fails, the beam will still operate in back-up mode!
- **Bullet-Resistant Reflector...** Virtually Indestructible Nickel Material with Polished Rhodium Finish helps prevent breakage if fixture is impacted by bullets or rocks
- **Anti-corrosive Design:** Marine Grade Aluminum and Stainless Steel with Salt Resistant Powder Coat Finish
- **Thermal Camera (optional):** Optional thermal camera added to searchlight provides additional Night Vision capability.
- **LED Hybrid (optional):** Auxiliary LED Light Modules project a “Wall of Light”, 150 Meters Wide and over 230 Meters away, for strategic wide area, short-range lighting.

*Carlisle & Finch is the standard
of the U.S. Navy, U.S. Coast
Guard and U.S. Federal Prisons!*

Searchlight Specifications

Electric Beam-Size Focus: approx 1 to 20° (thru continuous spectrum)

Temperature: -25 °C to +48 °C (approx)

Environmental Protection: IP 56

Power: 115VAC or 230 VAC 50/60 HZ

Vertical Aiming: +35 Deg to -35 Deg (Total 70 Deg approx)

Horizontal Aiming: Beyond Full Circle

Lamp: 500 Watt Xenon Short Arc

Candlepower: 45 Million Candela

Distance Serviced measuring 1 LUX: 6708 Meters (approx.)

Reflector: Precision-Parabolic, Nickel with Rhodium Finish, Bullet-Resistant

Materials: Marine Grade Aluminum and Stainless Steel



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ELECTRONIC POWER SUPPLY

GO GREEN with the New C&F 500 Watt Xenon Power Supply... “Less than 1/3 the weight, Less than 1/3 the size, and 15% more efficient than previous models.”

Features

- ⦿ *Light Weight*
- ⦿ *Small Footprint*
- ⦿ *Improved Efficiency*
- ⦿ **Multi-Board Safety Back-up Design*
- ⦿ *120 & 230 Volt Models Available*
- ⦿ *Integrated Hour Meter and Ammeter*
- ⦿ *Optional Outdoor Models Available*
- ⦿ *Backward compatible with previous generation power supplies*



Qty(2) Electronic Boards in parallel provide immediate Safety Back-up!

***Multi-Board Safety Back-up Design:** The unique Carlisle & Finch design has multiple electronic boards connected in parallel which provide built-in redundancy. If a board fails, the searchlight will still operate in “back-up” mode. This feature insures greater searchlight reliability, and is offered by no other searchlight company in the world. Other searchlights, have a complete outage, if an electronic board fails!

“I must confess that my imagination refuses to see any sort of submarine doing anything but suffocating its crew and floundering at sea.”

—H.G. Wells, British novelist, 1901

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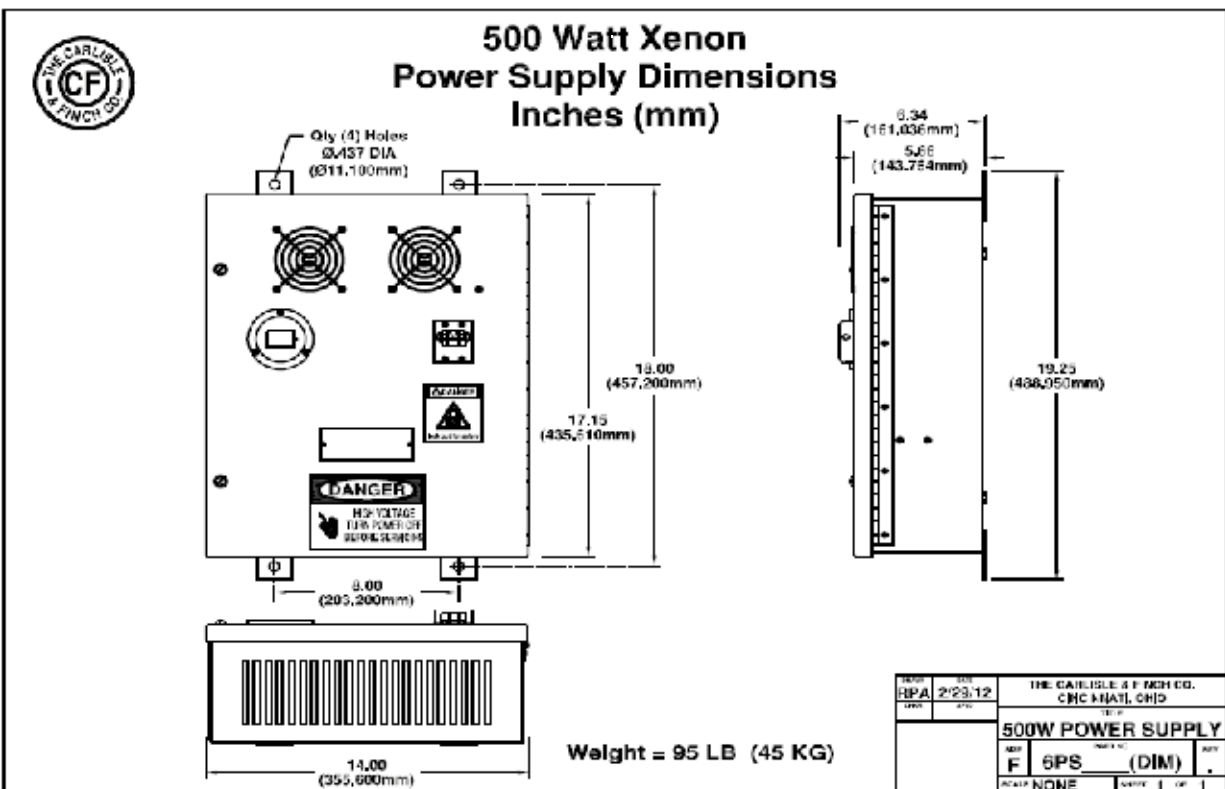
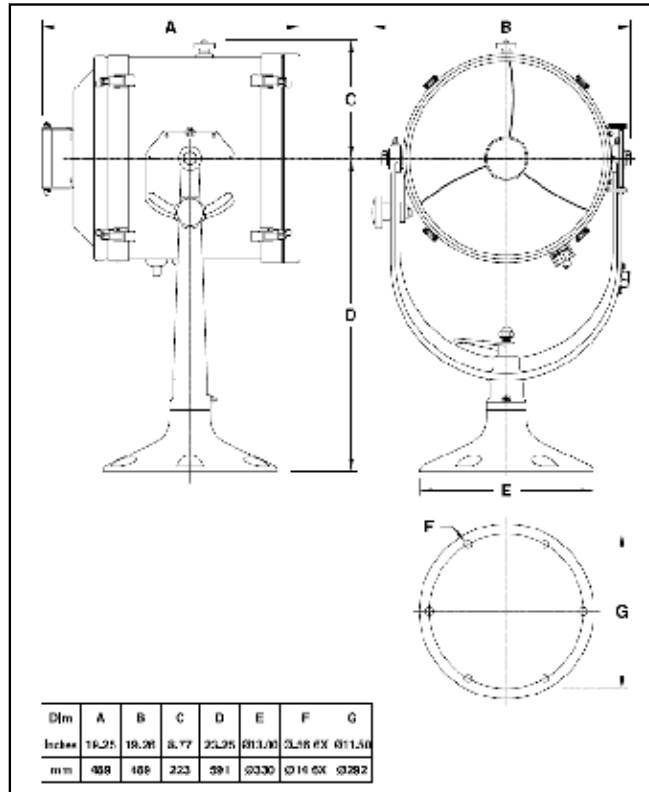


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DIMENSIONS



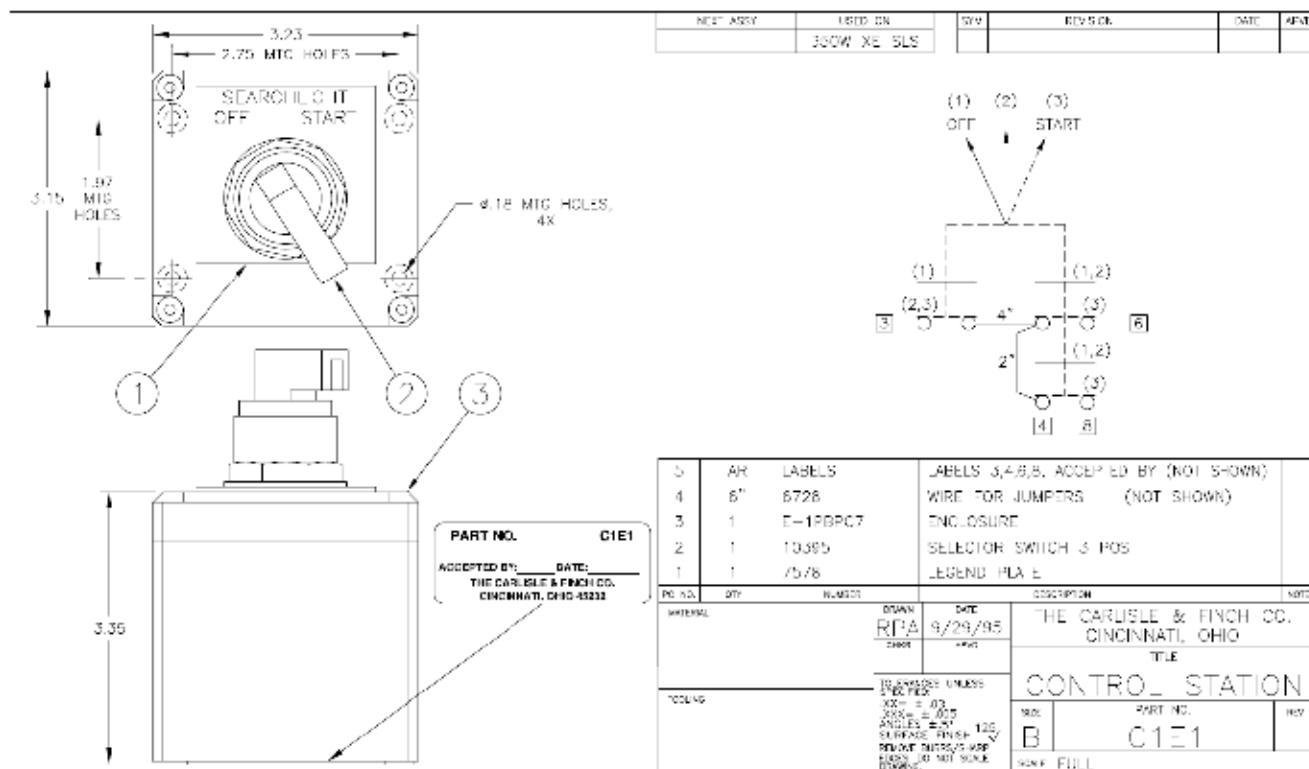
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DIMENSIONS



How to Specify a Searchlight System

Searchlight Model	Power Supply Model	Control Station Model
<p>X4197</p> <p>or</p> <p>X4197-RF (includes electric beam focus option)</p>	<p>6PS115 (115 VAC)</p> <p>or</p> <p>6PS230 (230 VAC)</p>	<p>C1E1</p> <p>or</p> <p>C2E4 (includes electric beam focus option)</p>

How to Specify a System: Read across the table and select one Searchlight, one Power Supply and one Control Station. If manual beam-size focus is sufficient, select X4197 Searchlight and C1E1 Control Station. If optional electric beam-size focus is desired, select X4197-RF searchlight and C2E4 Control Station.

Example Order: Searchlight powered from 115VAC with Manual Beam-Size Focus... Qty(1) X4197 Searchlight, Qty(1) 6PS115 Power Supply, Qty(1) C1E1 Outdoor Control Station.

Note: To add an Optional Thermal Camera and/or LED Hybrid Feature, Consult Factory.

485mm DIAMETER XENON SEARCHLIGHT



Carlisle & Finch is the standard of the U.S. Navy, U.S. Coast Guard and U.S. Federal Prisons.

Features

- **Beam Intensity:** 80 Million Beam Candlepower illuminates an object/person approximately 9000 meters away on a clear night!
- **Electric Beam-Size Focus:** Beam can be widened and narrowed remote electrically, throughout a continuous spectrum.
- **Beam-size Focus Knob:** External Knob changes beam-size with no tools, and provides back-up should the focus motor fail.
- **Proportional-Speed Joystick:** Speed and Direction are controlled by Joystick... i.e. "Move Joystick to the first position and Beam moves slowly... move the Joystick further and it speeds up!"
- **"Multi-board Safety Back-up"...** electronic power supply design incorporates three boards in parallel, and if one fails, the beam will still operate in back-up mode!
- **Bullet-Resistant Reflector...** Virtually indestructible Nickel Material helps prevent breakage if fixture is hit by bullets or rocks.
- **Anti-icing Heater: (optional):** Thermostatically-controlled heaters are located in the Arm Pivots, Rack and Base.
- **Azimuth Position Indicator (optional):** Position Indicator panel displays where the Beam is aimed in degrees.
- **Thermal Camera (optional):** Optional thermal camera added to searchlight provides additional Night Vision capability.
- **SmartVIEW™ Control (optional):** Micro-processor controls provide intelligent switching throughout a BUS Network, with multiple protocols offered: TCP/IP, RS232, RS422 and RS485.
- **High Powered Strobe (optional):** Powerful nonlethal deterrent disorients intruder and denies night vision.
- **LED Hybrid (optional):** Auxiliary LED Light Modules project a "Wall of Light", 150 Meters Wide and over 230 Meters away, for strategic short range and wide area lighting.

Searchlight Specifications

Electric Beam-Size Focus: 1 to 20° (throughout continuous spectrum)

Temperature Range: -25 °C to +48 °C (approx)

Environmental Protection: IP56

Power Consumption: 115VAC/18 Amps or 230 VAC/9Amps; 50/60HZ

Vertical Span: +35 Deg to -35 Deg (Total 70 Deg approx)

Horizontal Span: Beyond Full Circle (385 Degrees with sliding stop)

Beam Speed: 25° per sec (Horizontal); 14° per sec (Vertical)

Lamp: 1000 Watt, Xenon Short Arc, 6500 °Kelvin

Beam Intensity: 80 Million Candela

Distance Serviced measuring 1 LUX: 8959 Meters on a clear night.

Reflector: Precision Electroformed, Nickel Material, Bullet-Resistant

Materials: Marine Grade Aluminum and Stainless Steel



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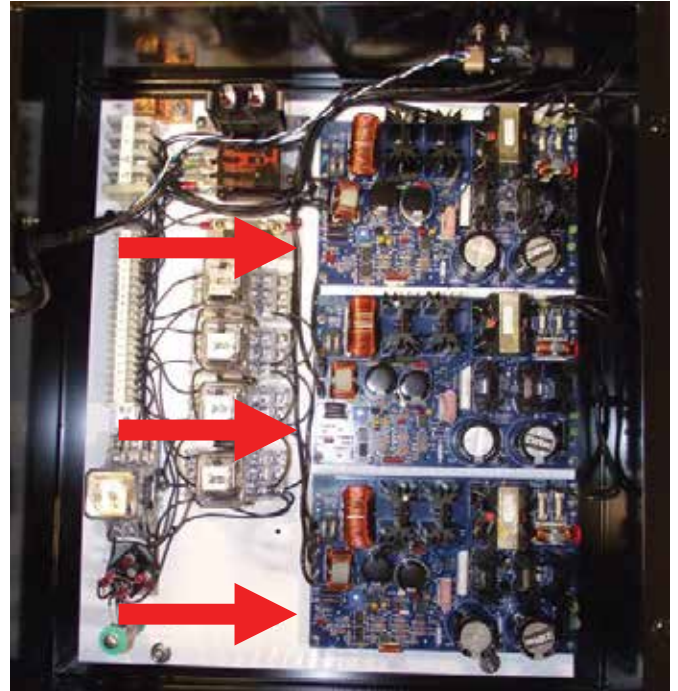


ELECTRONIC POWER SUPPLY

GO GREEN with the C&F 1000 Watt Xenon Power Supply... “Less than 1/3 the weight, Less than 1/3 the size, and 15% more efficient than previous models.”

Features

- ⊙ *Light Weight*
- ⊙ *Small Footprint*
- ⊙ *Improved Efficiency*
- ⊙ **Multi-Board Safety Back-up Design*
- ⊙ *120 & 230 Volt Models Available*
- ⊙ *Integrated Hour Meter and Ammeter*
- ⊙ *Optional Outdoor Models Available*
- ⊙ *Backward compatible with previous generation power supplies*



Qty(3) Electronic Boards in parallel provide immediate Safety Back-up!

***Multi-Board Safety Back-up Design:** The unique Carlisle & Finch design has multiple electronic boards connected in parallel which provide built-in redundancy. If a board fails, the searchlight will still operate in “back-up” mode. And when there is a board failure, an indicator light on the control panel warns the operator that the light is in “back-up mode”, and that the board should be replaced. This feature insures greater searchlight reliability, and is offered by no other searchlight company in the world. Other searchlights, have a complete outage, if an electronic board fails!

“The world potential market for copying machines is 5,000 at most.”

—IBM, to the eventual founders of Xerox, saying the photocopier had no market large enough to justify production, 1959

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PROPORTIONAL-SPEED JOYSTICK

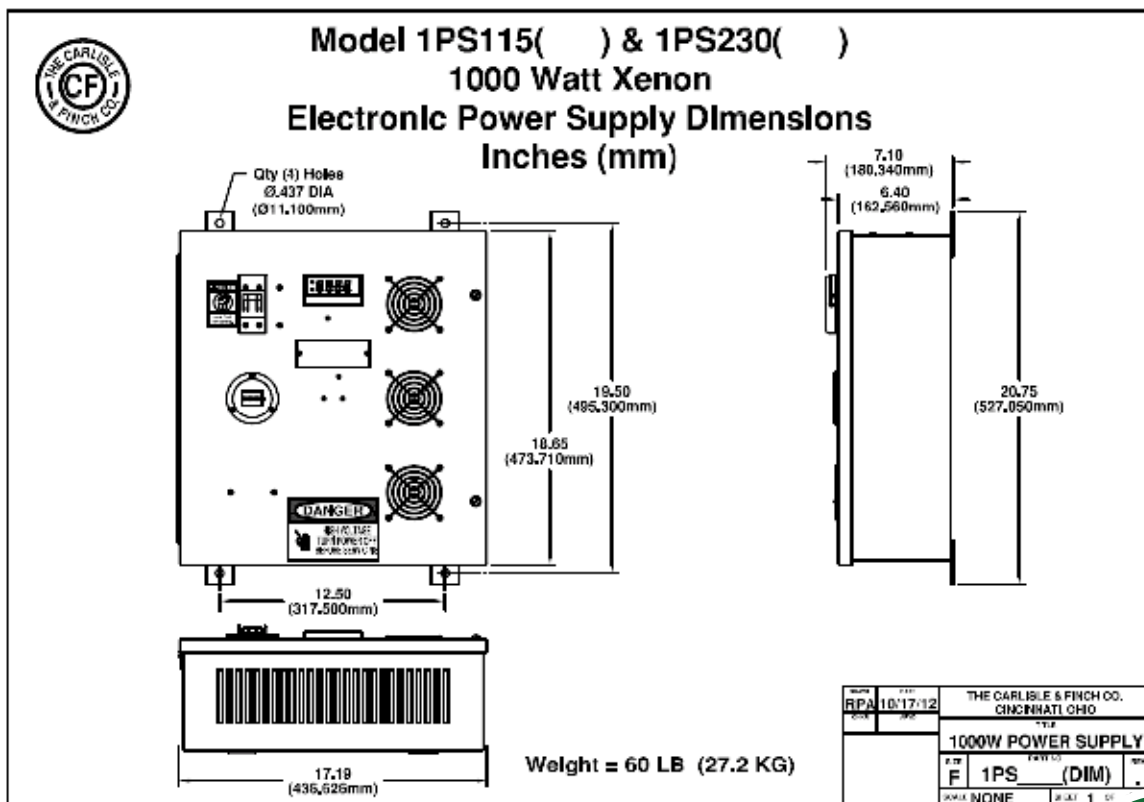
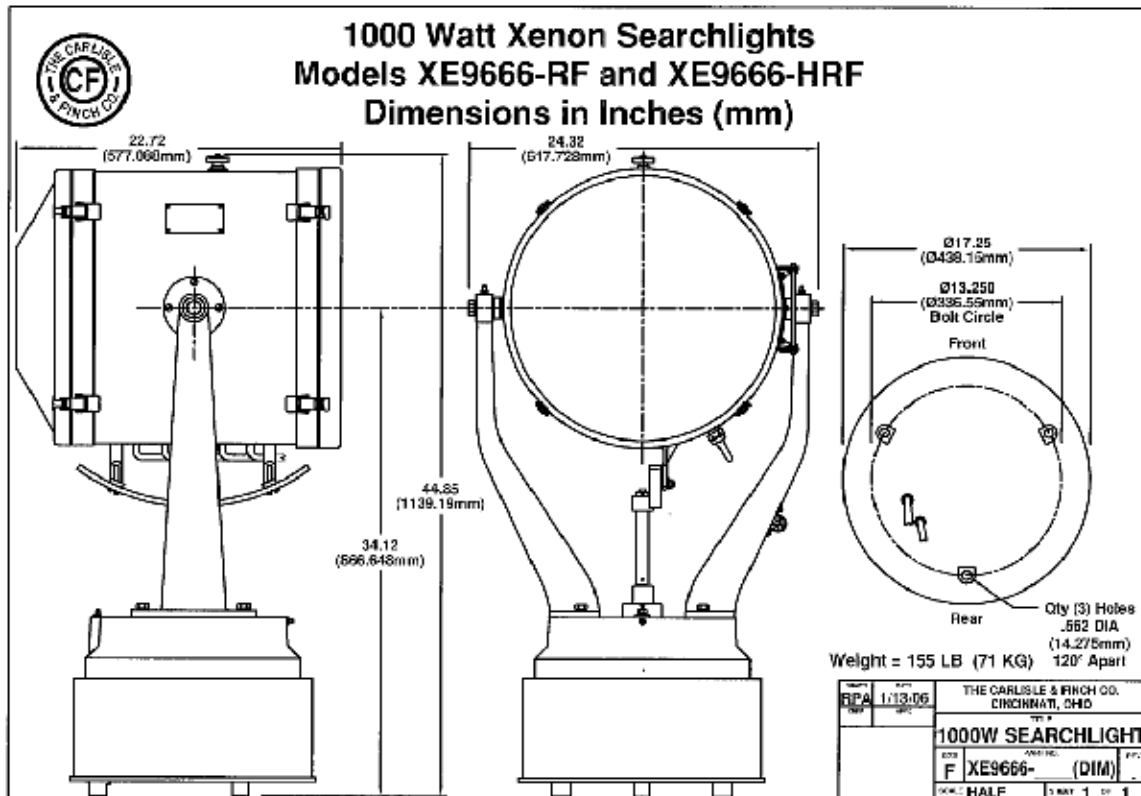


The Carlisle & Finch Company offers a “Proportional-Speed Joystick”, which controls the Beam-Speed and Beam-Direction by moving the Joystick with a single hand... i.e. “move the Joystick to the first position, and the Beam moves slowly... move it further and the Beam speeds up!”. Since the need for an additional Speed-Dial or Fast/Slow Switch has now been eliminated (which requires the user to use two hands of operation), the operator can now use his/her free hand to steer the vessel, hold binoculars, or hold a fire arm. Additional Joystick Functions are: Beam-ON, Beam-OFF, Electric Beam-size Focus, Proportional-Speed Joystick (described above), Beam-On Indicator light (offered on Indoor Stations-only), and OverTemp/Hazard Warning Light.



BT

DIMENSIONS



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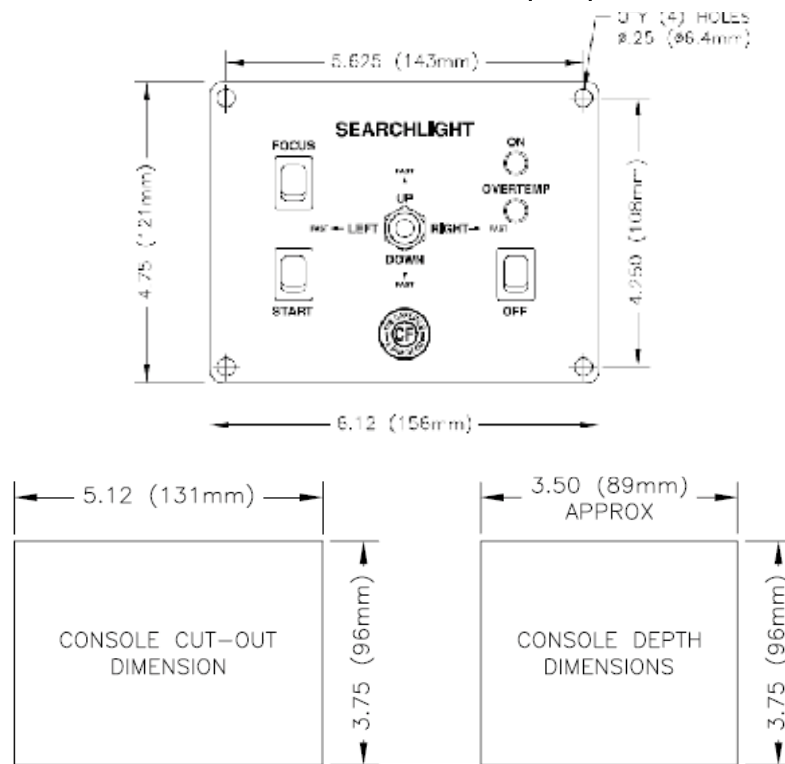
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DIMENSIONS

Control Station Models C4-1M-2 and C4E1M-2-2 Dimensions in Inches (mm)



How to Specify a Searchlight System

Searchlight Model	Power Supply Model	Joystick Controller Model
XE9666-RF (Standard)	1PS115DE (115 VAC)	C4-1M-2 (Indoor Station)
or	or	and/or
XE9666-HRF (Includes Anti-icing Heaters)	1PS230DE (230 VAC)	C4E1M-2-2 (Outdoor Weatherproof Station)

How to Specify a System: Read across the table and select one Searchlight, one Power Supply and one or more Joystick Controllers. For special options listed below, insert the letter into the searchlight model number, to the right of the hyphen, and in alphabetical order.

- To order Anti-icing Heaters add "-H" to the searchlight model number.
- To order Azimuth Position Indicator add "-A" to the searchlight model number.
- To order Full Manual Back add "-M" to the searchlight model number.
- To order a Thermal Camera, LED Hybrid Module, or SmartVIEW™ Controls, consult Factory.

Example Order: Searchlight with Anti-icing Heaters and Azimuth Indicator, 115VAC and (1) indoor and (2) outdoor stations... Qty(1) XE9666-AHRF, Qty(1) 1PS115DE, Qty(1) C4-1M-2 and Qty(2) C4E1M-2-2



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485mm DIAMETER XENON SEARCHLIGHT

Features

- **Beam Intensity:** 80 Million Beam Candlepower illuminates an object approximately 9000 meters away on a clear night!
- **Electric Beam-Size Focus:** Beam can be widened and narrowed electrically, throughout a continuous spectrum.
- **Beam-size Focus Knob:** External Knob changes beam-size with no tools, and provides back-up should the focus motor fail.
- **Beyond Full Circle of Rotation...** Unique Sliding-Stop Design allows 385 Degrees horizontal motion.
- **"Multi-board Safety Back-up"...** electronic power supply design incorporates three boards in parallel, and if one fails, the beam will still operate in back-up mode!
- **Bullet-Resistant Reflector...** Precision-Optic Reflector with virtually indestructible Nickel Material helps prevent breakage if fixture is impacted by bullets or rocks.
- **Anti-icing Heater: (optional):** Thermostatically-controlled heaters located in the Arm Pivots, Rack and Base.
- **Thermal Camera (optional):** Optional thermal camera added to searchlight provides additional Night Vision capability.
- **High Powered Strobe (optional):** Powerful nonlethal deterrent dis-orients enemy and denies night vision.
- **LED Hybrid (optional):** Auxiliary LED Light Modules project a "Wall of Light", 150 Meters Wide, and over 230 Meters away, for strategic wide-area, short-range lighting.



Searchlight above shown with the NightFINDER™ Thermal Camera Option!

Searchlight Specifications

Electric Beam-Size Focus: 1 to 20° (throughout continuous spectrum)

Temperature Range: -25 °C to +48 °C (approx)

Environmental Protection: IP56

Power Consumption: 115VAC/18 Amps or 230 VAC/9Amps; 50/60HZ

Vertical Span: +35 Deg to -35 Deg (Total 70 Deg approx)

Horizontal Span: Beyond Full Circle (385 Degrees with sliding stop)

Lamp: 1000 Watt, Xenon Short Arc, 6500 °Kelvin

Beam Intensity: 80 Million Candela

Distance Serviced measuring 1 LUX: 8959 Meters on a clear night

Reflector: Precision Electroformed, Nickel Material, Bullet-Resistant

Materials: Marine Grade Aluminum and Stainless Steel

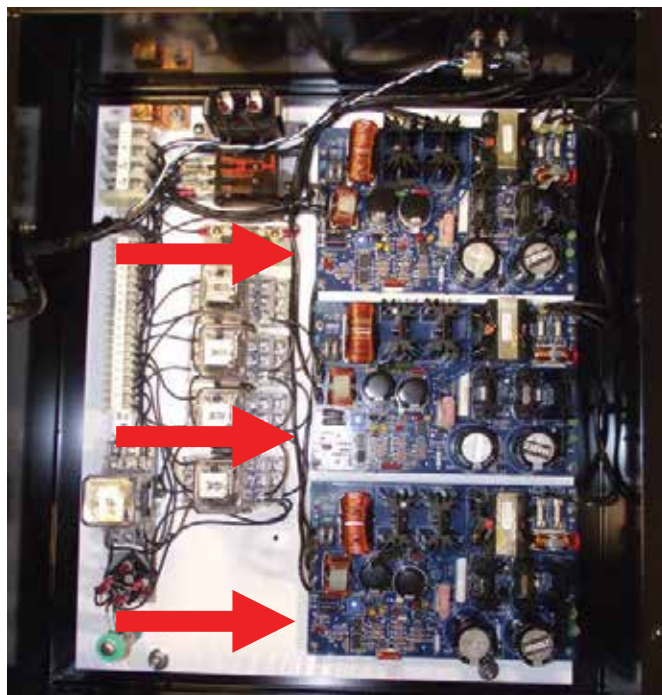


ELECTRONIC POWER SUPPLY

GO GREEN with the C&F 1000 Watt Xenon Power Supply... “Less than 1/3 the weight, Less than 1/3 the size, and 15% more efficient than previous models.”

Features

- ⊙ *Light Weight*
- ⊙ *Small Footprint*
- ⊙ *Improved Efficiency*
- ⊙ **Multi-Board Safety Back-up Design*
- ⊙ *120 & 230 Volt Models Available*
- ⊙ *Integrated Hour Meter and Ammeter*
- ⊙ *Optional Outdoor Models Available*
- ⊙ *Backward compatible with previous generation power supplies*



Qty(3) Electronic Boards in parallel provide immediate Safety Back-up!

***Multi-Board Safety Back-up Design:** The unique Carlisle & Finch design has multiple electronic boards connected in parallel which provide built-in redundancy. If a board fails, the searchlight will still operate in “back-up” mode. And when there is a board failure, an indicator light on the control panel warns the operator that the light is in “back-up mode”, and that the board should be replaced. This feature insures greater searchlight reliability, and is offered by no other searchlight company in the world. Other searchlights, have a complete outage, if an electronic board fails!

“The Americans have need of the telephone, but we do not. We have plenty of messenger boys.”

—Sir William Preece, Chief Engineer, British Post Office, 1878



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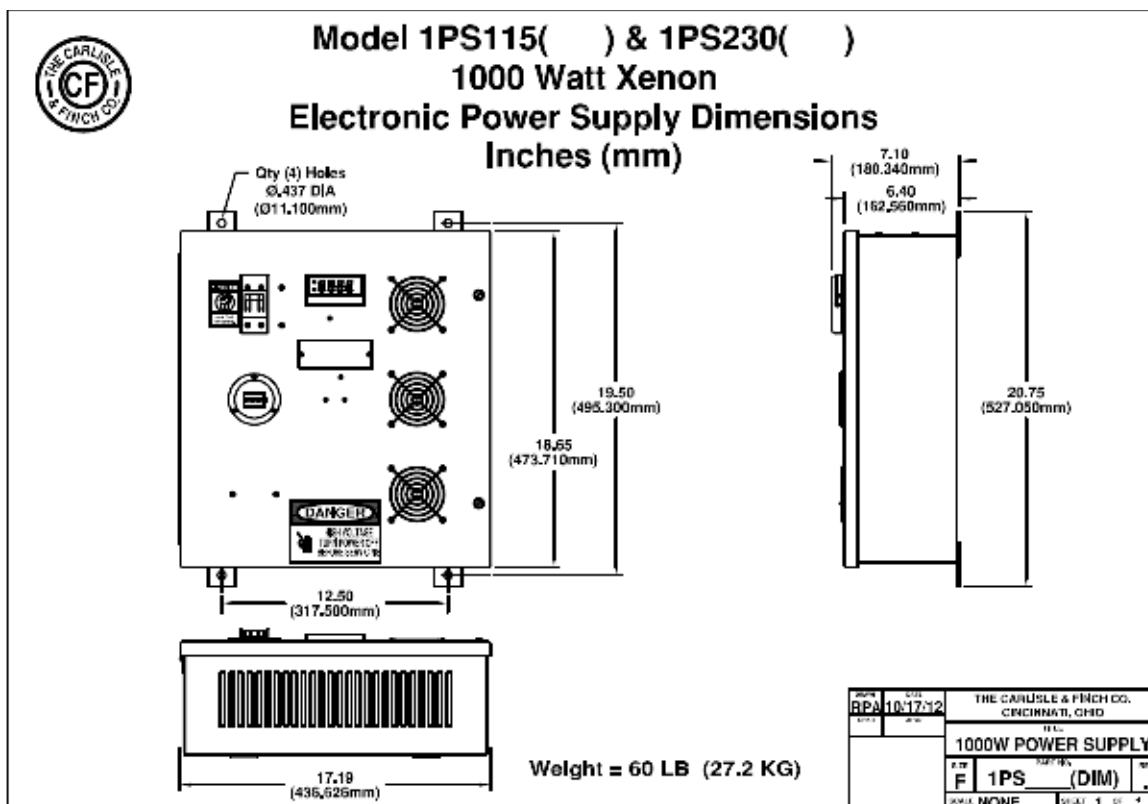
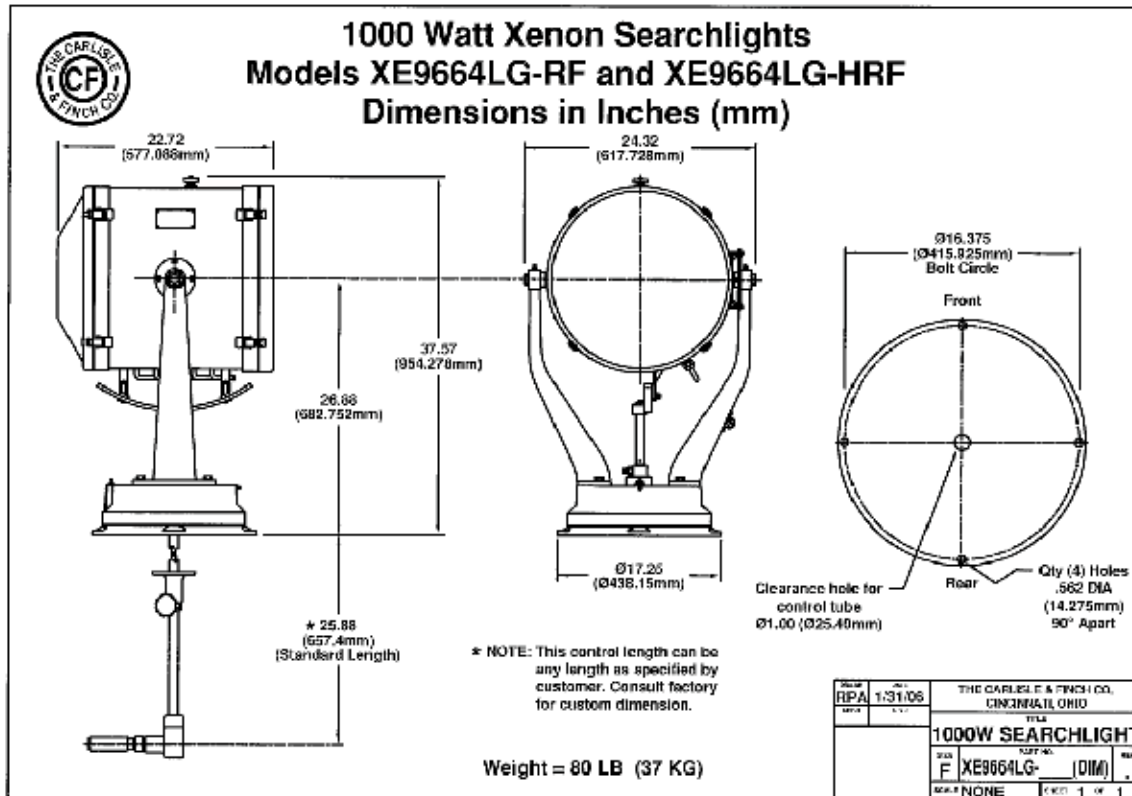
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DIMENSIONS



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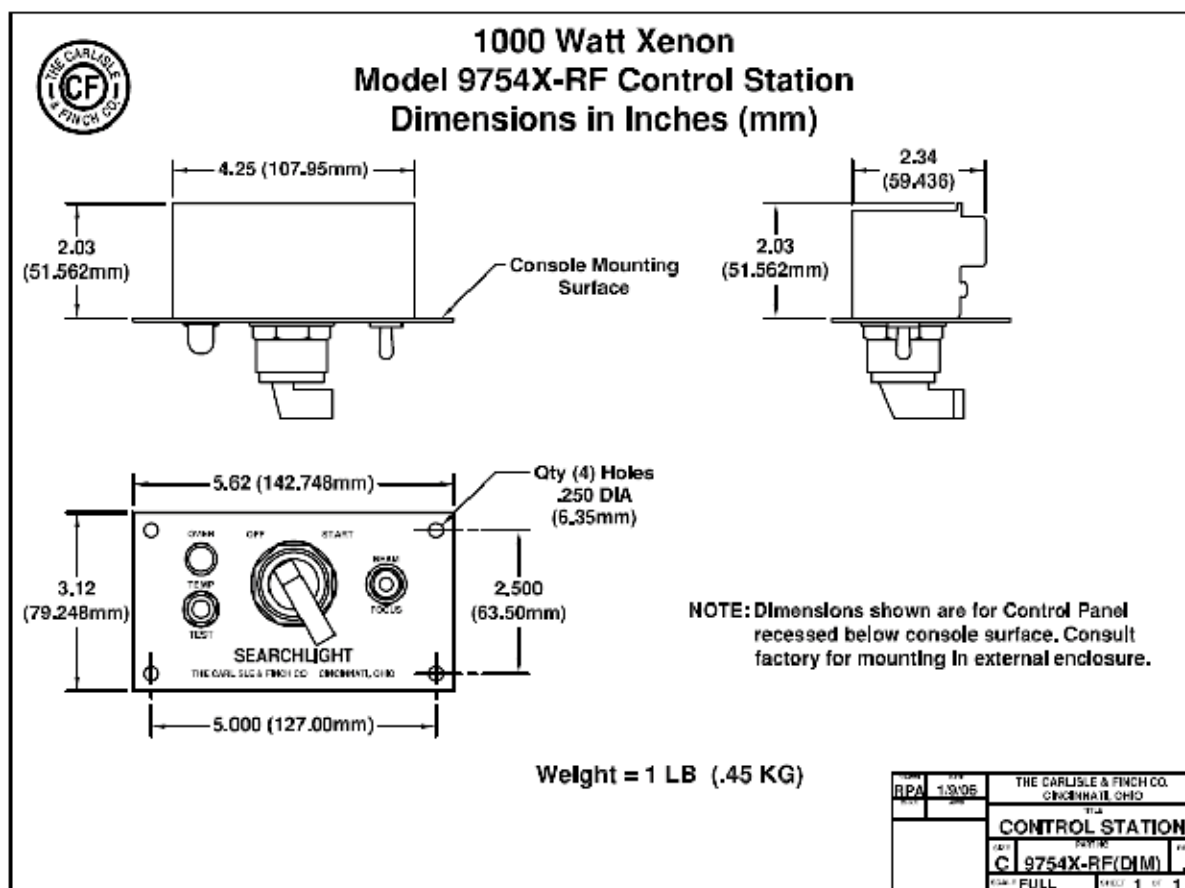


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DIMENSIONS



How to Specify a Searchlight System

Searchlight Model	Power Supply Model	Control Station Model
XE9664LG-RF (Standard)	1PS115 (115 VAC)	9754X-RF
or	or	
XE9664LG-HRF (Includes Anti-icing Heaters)	1PS230 (230 VAC)	

How to Specify a System: Read across the table and select one Searchlight, one Power Supply and one 9754X-RF Control Station. NOTE: Then specify Lever Control Length (reference previous page 3, and see the dimension *25.88 inches marked by the asterisk. This is the standard length, but this dimension can be specified to the customer's exact requirement. Please consult Factory for any custom control length you desire.

Example Order: Searchlight with Anti-icing Heaters and 115VAC Input... Qty(1) XE9664LG-HRF, Qty(1) 1PS115, and Qty(1) 9754X-RF.



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HALOGEN SEARCHLIGHTS

Features

- **Powerful Beams... 1KM to 2KM Range!**
 - 1.0 Million Candela (10-inch/254mm Diameter)
 - 1.6 Million Candela (12-inch/305mm Diameter)
 - 3.0 Million Candela (15-inch/483mm Diameter)
- **Materials...** High Quality Brass and Stainless Materials.
- **Finish...** Salt-resistant Powder Coat (White, Black and Grey) or custom colors. Chrome can be special-ordered.
- **Anti-shock Lamp Holder...** helps prevent lamp filament damage due to vessel vibration, or impact from bullets and rocks.
- **Wide Range of Voltages...** 12VDC, 24VDC, 115VAC or 230VAC.
- **Aiming Control-types:** Local Handle Control or Remote Lever-Gear Control from inside Marine Pilothouse or Guardhouse (remote lever-gear control pictured at right).
- **LED Hybrid (optional):** Auxiliary LED Modules illuminate wide areas closer to the Guardhouse or Ship, where the narrower halogen beam cannot effectively service.
- **NightFINDER™ (optional):** Embedded Thermal Camera integrated onto the Searchlight Pan/Tilt Base.



“Rugged and Powerful”

“Over 122 Years of Quality”... The Carlisle & Finch Co. is the standard supplier of searchlights to the U.S. State and Federal Prison System, the U.S. Army, the U.S. Navy, the U.S. Coast Guard, and the North American Commercial Marine Market. The company invented the world's first Carbon Arc Searchlight in 1894, and pioneered xenon arc searchlight technology, in the 1900's!



Carlisle & Finch is the standard of the U.S. Coast Guard!

“Don't interfere with somethin' that ain't botherin' you none.”

—Old Hillbilly Wisdom.

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HALOGEN SEARCHLIGHTS

A. Available in Three Beautiful External Finishes: white enamel, polished brass, or polished chrome. Interior finished with heat resistant flat black paint.

B. Vented Drum Available for 12" and 15" searchlights allowing use of 1000 watt lamps.

C. Many Lamp Types accommodated. See listing on page 3.

D. Metal Louvers eliminate front spill light.

E. High Quality Silvered Glass Reflector efficiently concentrates light into a powerful beam.

F. Choice of Lampholders

		10"	12"	15"
1	Medium Screw	Yes	Yes	Yes
2	Medium Prefocus	*Yes	*Yes	*Yes
3	Mogul Screw	No	Yes	Yes
4	Mogul Bipost	No	No	Yes
5	2-Pin Prefocus	Yes	Yes	Yes

*Supplied as standard if lampholder not specified.

G. External Focus Control permits changing beam from spot to flood with lamp operating, without the use of tools.

H. Heat-Tempered Cover Glass and tight sealing door gasket provide maximum protection for drum interior.

I. Double seals around control shaft prevent leakage to pilot house. Lubricated for life.

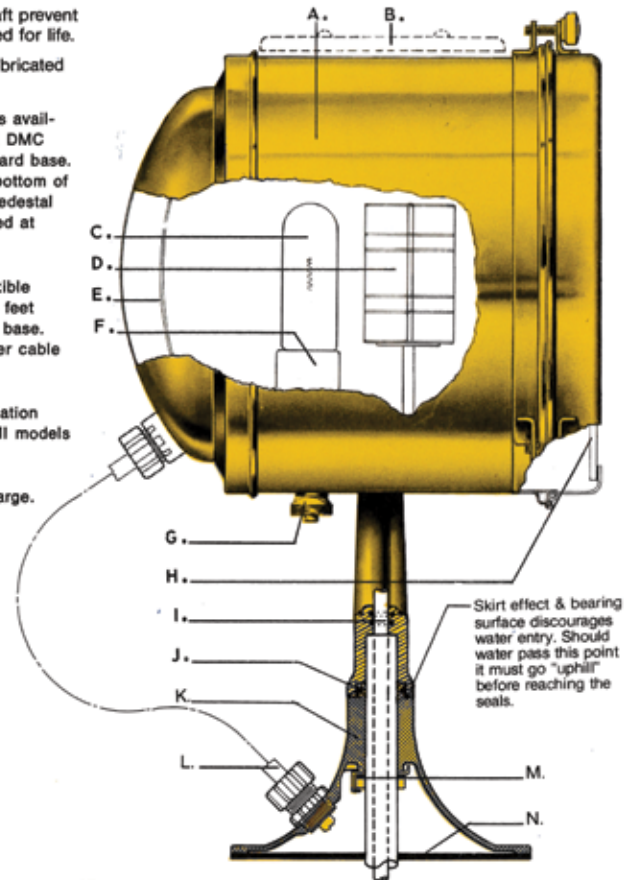
J. Seal between base and yoke. Lubricated for life.

K. Standard, High, or Pedestal Bases available with any control type except DMC which is available only with standard base. Special heights (measured from bottom of base to centerline of beam) for pedestal base searchlights may be specified at extra charge.

L. Heavy Duty Three-Conductor Flexible Cable extends approximately two feet below water-tight stuffing tube in base. Third conductor grounded. Longer cable can be supplied at extra charge.

M. Sliding Stop allows horizontal rotation in excess of 360°. Supplied on all models except Local Control and DMC.

N. Base Gasket optional at extra charge.

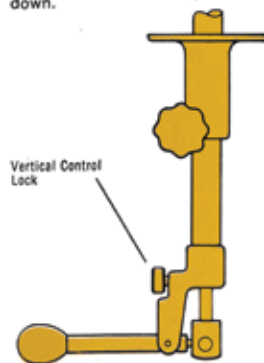


These searchlights are ruggedly constructed entirely of brass and are designed for heavy duty marine service.

Six Basic Control Types

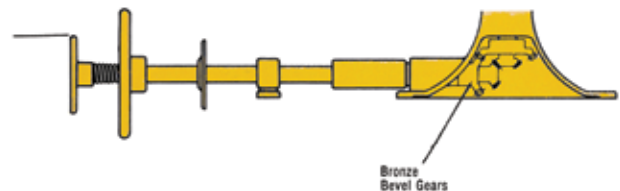
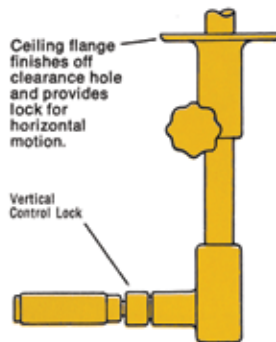
Lever Control:

Single lever controls all motions. Horizontal movement by pointing lever, vertical by moving knob on lever up or down.



Lever-Gear Control:

Operates conveniently with one hand. Horizontal movements by pointing lever. Vertical by twisting handle.



Distant Mechanical Control (DMC):

Similar to wheel control except that control shafts are at right angle to searchlight base.

Wheel Control:

Upper wheel controls horizontal motion, lower wheel the vertical motion. Friction brake holds searchlight in any vertical position.

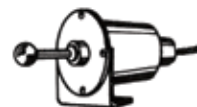


Local Control

(see Figs. 1, 2, 3, on page 5): Searchlight has training handle on back dome and hand clamps for clamping in any position.

Distant Electric Control (DEC):

See latest revision of bulletin D116 for these same size searchlights controlled from one or more electric remote control stations.



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SEARCHLIGHTS LAMP DATA

Searchlight Lamp Data

Lamp Data								Peak Beam Candlepower			
Ref.	Code	Watts	Volts	Bulb Size	Base	Description	Filament	*Average Hrs. Life	10" Scht.	12" Scht.	15" Scht.
21.5	FDT	100	12	T4	2-Pin Prefocus	Tungsten Halogen	C6	50	765,000	1,170,000	1,750,000
22	CPR	108	6	T10	Medium Prefocus	Projection	C8	50	350,000	563,000	-----
23.01	FDS	150	24	T4	2-Pin Prefocus	Tungsten Halogen	C6	100	935,000	1,380,000	2,030,000
46.5	BTM	500	120	T6	Medium Prefocus	Tungsten Halogen	C13D	100	950,000	1,160,000	2,080,000
47	CZX	500	120	T10	Medium Prefocus	Projection	C13D	25	900,000	1,170,000	-----
51	DMX	500	120	T20	Medium Prefocus	Projection	C13	50	475,000	780,000	-----
53.8	DYS	600	120	G7	2-Pin Prefocus	Tungsten Halogen	CC6	75	**781,000	1,130,000	1,840,000
54.5	BTP	750	120	T6	Medium Prefocus	Tungsten Halogen	C13D	200	not used	1,520,000	2,820,000

LAMPS BELOW TO BE USED IN VENTED DRUMS ONLY

68.05	BTR	1000	120	T7	Medium Prefocus	Tungsten Halogen	C13D	200	not used	1,520,000	2,820,000
70	DRS	1000	120	T20	Medium Prefocus	Projection	C13D	25	not used	1,650,000	3,280,000
71	DRC	1000	120	T20	Medium Prefocus	Projection	C13	50	not used	800,000	1,760,000

* These lamp manufacturer's figures are relative only. Individual lamps may vary considerably.

**Intermittent duty only (one hour or less).

NEW!!

Medium Prefocus Lampholders on 12 and 15-inch searchlights have unique Shock Absorbing Base Design, which helps prevent lamp filament damage due to excess vibration and shock impact.

Accessories & Parts

Description	Part No. For Size Scht.		
	10"	12"	15"
Cover, Protective	SL3322A	SL3322A	SL3322B
Cover Glass	SL62	SL102	SL1085
Gasket, Base, DMC	SL3318B	SL3318B	SL3318B
Gasket, Base, High	SL3318B	SL3318B	SL3318B
Gasket, Base, Pedestal	SL3318C	SL3318C	SL3318C
Gasket, Base, Standard	SL3318A	SL3318B	SL3318B
Lampholder, Med. Pref.	SL1250C	SL1250C	SL1250C
Lampholder, Med. Screw	SL1087-1	SL1087-1	SL1087-1
Lampholder, Mogul Bip.	—	—	FE132X
Lampholder, Mogul Screw	—	SL96	SL96
Lampholder, 2-Pin Pref.	8704	8704	8704
Reflector	SL1083A	SL107	SL1084

How to Order Searchlights

Specify size searchlight, type control, type base, type drum, type finish, type lampholder, and give code word or catalog number. Give ordering code and volts of lamp. Specify length of control (measured from bottom of base to centerline of lever or upper wheel) if other than the standard dimensions shown on the dimension drawings. Specify pedestal height (measured from bottom of base to centerline of drum) if different from the standard 48 inches.

Example: 12" searchlight, lever control, standard base, vented drum, enamel finish, medium prefocus lampholder, code RECITE-E2. Special length control 22" base to centerline lever. Two lamps code BTR 120 volts.

To designate the specific lampholder desired add one of the following suffixes to the code word or catalog number:

Medium Screw Lampholder	—1	Mogul Screw Lampholder	—3
Medium Prefocus Lampholder	—2	Mogul Bipost Lampholder	—4
		2-Pin Prefocus Lampholder	—5

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SEARCHLIGHT SELECTION TABLE

	Type Control	Type Base		Type Drum	Searchlight Code Word or Catalog No.			Net	Shipping
					Enamel Finish	Polished Finish	Chromium Finish	Wt. Lbs.	Wt. Lbs.
10 inch	Local	Standard	(Fig. 1)	Non Vented	RAIN-E	RAIN	CRAIN	15	21
		High	(Fig. 2)	Non Vented	ROSE-E	ROSE	CROSE	22	28
		Pedestal	(Fig. 3)	Non Vented	RAJAH-E	RAJAH	CRAJAH	29	59
	Lever	Standard	(Figs. 4 & 7)	Non Vented	REDAN-E	REDAN	CREDAN	19	25
		High	(Figs. 5 & 7)	Non Vented	REFORM-E	REFORM	CREFORM	27	33
		Pedestal	(Figs. 6 & 7)	Non Vented	10SL1624XE	10SL1624X	10SL1624XC	34	55
	Lever-Gear	Standard	(Figs. 4 & 8)	Non Vented	10SL8425E	10SL8425P	10SL8425C	22	28
		High	(Figs. 5 & 8)	Non Vented	10SL8426E	10SL8426P	10SL8426C	30	36
		Pedestal	(Figs. 6 & 8)	Non Vented	10SL8427E	10SL8427P	10SL8427C	37	58
	Wheel	Standard	(Figs. 4 & 9)	Non Vented	RANK-E	RANK	CRANK	19	25
		High	(Figs. 5 & 9)	Non Vented	ROPE-E	ROPE	CROPE	27	33
		Pedestal	(Figs. 6 & 9)	Non Vented	10SL1620XE	10SL1620X	10SL1620XC	37	55
DMC	Standard	(Fig. 10)	Non Vented	10SL200E	10SL200P	10SL200C	32	53	
12 inch	Local	Standard	(Fig. 1)	Non Vented	RAKE-E	RAKE	CRAKE	22	31
		High	(Fig. 2)	Vented	RATE-E	RATE	CRATE	22	31
				Vented	ROME-E	ROME	CROME	27	36
				Vented	RUN-E	RUN	CRUN	27	36
	Lever	Pedestal	(Fig. 3)	Vented	RETARD-E	RETARD	CRETARD	34	64
				Vented	12SL1648XE	12SL1648X	12SL1648XC	34	64
				Vented	REDEEM-E	REDEEM	CREDEEM	26	35
		Lever	High	(Figs. 5 & 7)	Vented	RECITE-E	RECITE	CRECITE	26
	Vented				REFUGE-E	REFUGE	CREFUGE	32	41
	Vented				RESIN-E	RESIN	CRESIN	32	41
	Lever-Gear		Pedestal	(Figs. 6 & 7)	Vented	12SL1625XE	12SL1625X	12SL1625XC	39
		Vented			12SL1650XE	12SL1650X	12SL1650XC	39	60
Vented		12SL8186E			12SL8186P	12SL8186C	29	38	
Lever		High	(Figs. 5 & 8)	Vented	12SL8186VE	12SL8186VP	12SL8186VC	29	38
	Vented			12SL8410E	12SL8410P	12SL8410C	35	44	
	Vented			12SL8410VE	12SL8410VP	12SL8410VC	35	44	
	Lever	Pedestal	(Figs. 6 & 8)	Vented	12SL8428E	12SL8428P	12SL8428C	42	63
Vented				12SL8428VE	12SL8428VP	12SL8428VC	42	63	
Vented				RASP-E	RASP	CRASP	26	35	
Wheel		High	(Figs. 5 & 9)	Vented	REAR-E	REAR	CREAR	26	35
	Vented			RUSE-E	RUSE	CRUSE	32	41	
	Vented			RIPE-E	RIPE	CRIFE	32	41	
	Lever	Pedestal	(Figs. 6 & 9)	Vented	12SL1621XE	12SL1621X	12SL1621XC	39	60
Vented				12SL1649XE	12SL1649X	12SL1649XC	39	60	
Vented				12SL201E	12SL201P	12SL201C	37	58	
DMC		Standard	(Fig. 10)	Non Vented	12SL203E	12SL203P	12SL203C	37	58
15 inch	Local	Standard	(Fig. 1)	Non Vented	REDGUM-E	REDGUM	CREDGUM	39	51
		High	(Fig. 2)	Vented	REDGUM-VE	REDGUM-V	CREDGUM-V	39	51
				Vented	REEL-E	REEL	CREEL	44	56
				Vented	REEL-VE	REEL-V	CREEL-V	44	56
	Lever	Pedestal	(Fig. 3)	Vented	RONTY-E	RONTY	CRONTY	50	80
				Vented	RONTY-VE	RONTY-V	CRONTY-V	50	80
				Vented	RADIAL-E	RADIAL	CRADIAL	43	55
		Lever	High	(Figs. 5 & 7)	Vented	RADIAL-VE	RADIAL-V	CRADIAL-V	43
	Vented				RAINBOW-E	RAINBOW	CRAINBOW	49	61
	Vented				RAINBOW-VE	RAINBOW-V	CRAINBOW-V	49	61
	Lever-Gear		Pedestal	(Figs. 6 & 7)	Vented	15SL1626XE	15SL1626X	15SL1626XC	56
		Vented			15SL1626XVE	15SL1626XV	15SL1626XVC	56	77
Vented		15SL8184E			15SL8184P	15SL8184C	46	58	
Lever		High	(Figs. 5 & 8)	Vented	15SL8184VE	15SL8184VP	15SL8184VC	46	58
	Vented			15SL8408E	15SL8408P	15SL8408C	52	64	
	Vented			15SL8408VE	15SL8408VP	15SL8408VC	52	64	
	Lever-Gear	Pedestal	(Figs. 6 & 8)	Vented	15SL8429E	15SL8429P	15SL8429C	59	80
Vented				15SL8429VE	15SL8429VP	15SL8429VC	59	80	
Vented				RACKET-E	RACKET	CRACKET	43	55	
Wheel		High	(Figs. 5 & 9)	Vented	RACKET-VE	RACKET-V	CRACKET-V	43	55
	Vented			RABBIT-E	RABBIT	CRABBIT	49	61	
	Vented			RABBIT-VE	RABBIT-V	CRABBIT-V	49	61	
	Lever	Pedestal	(Figs. 6 & 9)	Vented	15SL1622XE	15SL1622X	15SL1622XC	56	77
Vented				15SL1622XVE	15SL1622XV	15SL1622XVC	56	77	
Vented				15SL202E	15SL202	15SL202C	54	75	
DMC		Standard	(Fig. 10)	Non Vented	15SL202VE	15SL202V	15SL202VC	54	75

SEARCHLIGHT SELECTION TABLE

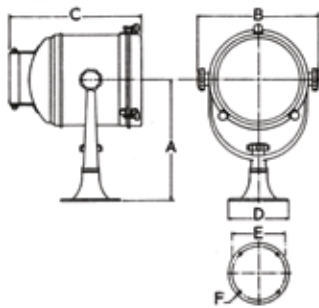


FIG. 1 LOCAL CONTROL
STANDARD BASE

SIZE	A	B	C	D	E	F
10"	12 $\frac{3}{4}$	13 $\frac{3}{8}$	12	6 $\frac{3}{8}$	5 $\frac{3}{8}$	1 $\frac{1}{2}$
12"	15 $\frac{3}{8}$	15 $\frac{3}{8}$	15 $\frac{1}{2}$	8 $\frac{1}{4}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
15"	19 $\frac{3}{8}$	18 $\frac{3}{8}$	16 $\frac{3}{8}$	8 $\frac{1}{4}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$

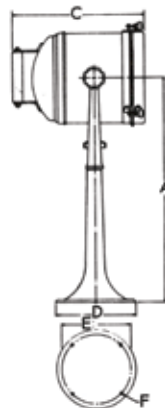


FIG. 2 LOCAL CONTROL
HIGH BASE

SIZE	A	C	D	E	F
10"	23 $\frac{3}{8}$	12	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
12"	25 $\frac{3}{8}$	15 $\frac{1}{2}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
15"	29 $\frac{1}{2}$	16 $\frac{3}{8}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$



FIG. 3 LOCAL CONTROL
PEDESTAL BASE

SIZE	A	C	D	E	F
10"	48	12	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
12"	48	15 $\frac{1}{2}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
15"	48	16 $\frac{3}{8}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$

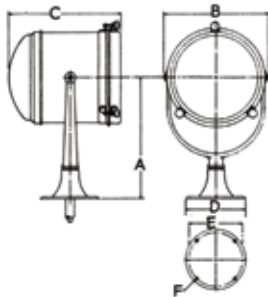


FIG. 4 STANDARD BASE
MANUAL CONTROLS BELOW

SIZE	A	B	C	D	E	F
10"	12 $\frac{3}{4}$	11	10	6 $\frac{3}{8}$	5 $\frac{3}{8}$	1 $\frac{1}{2}$
12"	15 $\frac{3}{8}$	13 $\frac{1}{2}$	13 $\frac{1}{4}$	8 $\frac{1}{4}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
15"	19 $\frac{3}{8}$	16 $\frac{3}{4}$	14 $\frac{3}{4}$	8 $\frac{1}{4}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$



FIG. 5 HIGH BASE
MANUAL CONTROLS
BELOW

SIZE	A	C	D	E	F
10"	23 $\frac{3}{8}$	10	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
12"	25 $\frac{3}{8}$	13 $\frac{1}{4}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
15"	29 $\frac{1}{2}$	14 $\frac{3}{8}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$

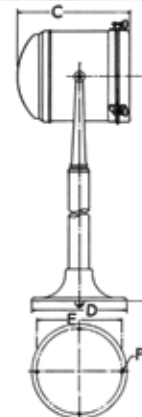


FIG. 6 PEDESTAL BASE
MANUAL CONTROLS
BELOW

SIZE	A	C	D	E	F
10"	48	10	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
12"	48	13 $\frac{1}{4}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$
15"	48	14 $\frac{3}{8}$	8 $\frac{3}{8}$	7 $\frac{3}{8}$	1 $\frac{3}{4}$

FIG. 7 LEVER CONTROL SEARCHLIGHT BASE

SIZE	G
10"	11 $\frac{3}{8}$
12"	10 $\frac{3}{8}$
15"	10 $\frac{3}{8}$

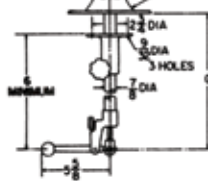


FIG. 8 LEVER-GEAR CONTROL

SIZE	G
10"	11 $\frac{3}{8}$
12"	10 $\frac{3}{8}$
15"	10 $\frac{3}{8}$

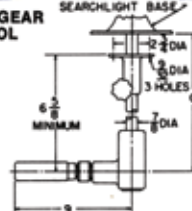


FIG. 9 WHEEL CONTROL

SIZE	G
10"	9 $\frac{1}{2}$
12"	9
15"	9

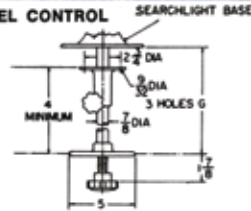
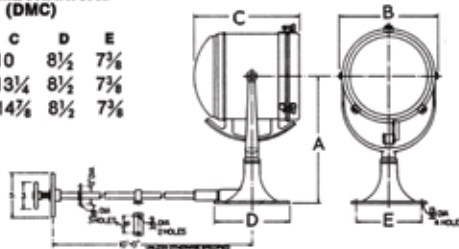


FIG. 10 DISTANT MECHANICAL
CONTROL (DMC)

SIZE	A	B	C	D	E
10"	14 $\frac{3}{8}$	11	10	8 $\frac{1}{2}$	7 $\frac{3}{8}$
12"	16 $\frac{3}{8}$	13 $\frac{1}{2}$	13 $\frac{1}{4}$	8 $\frac{1}{2}$	7 $\frac{3}{8}$
15"	20 $\frac{3}{8}$	16 $\frac{3}{4}$	14 $\frac{3}{4}$	8 $\frac{1}{2}$	7 $\frac{3}{8}$



NOTE: The specifications and details described by drawings or text in this literature are subject to change without notice.

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MARINE & SECURITY HALOGEN SEARCHLIGHTS

Features



- **Powerful Beams... 1KM to 2KM Range!**
 - 1.0 Million Candlepower (254mm/10-inch Diameter)
 - 1.6 Million Candlepower (305mm/12-inch Diameter)
 - 3.0 Million Candlepower (381mm/15-inch Diameter)
- **Materials/Finish...** Brass and Stainless Steel, with Salt-Resistant Powder Coat or Chrome Finish.
- **Anti-shock Lamp Holder Design...** helps prevent lamp filament damage due to vessel vibration, or impact from bullets and rocks.
- **Anti-condensation Heater...** located in base which helps prolong life of electrical components.
- **Wide Range of Voltages...** 12VDC, 24VDC, 115VAC and 230VAC.
- **Multiple Weatherproof Controls...** unlimited Joystick Controllers can control the same searchlight.
- **Anti-icing Heater Circuitry (optional)...** heaters in base prevent ice-build-up in cold weather climates.
- **LED Hybrid (optional):** Auxiliary LED Modules illuminate wide areas closer to the Guardhouse or Marine Vessel, where the narrower halogen beam cannot effectively service.
- **NightFINDER™ (optional):** Embedded Thermal Camera integrated onto Searchlight Pan/Tilt Base.

Powerful and Robust!

Marine and Security Applications

This searchlight family is used widely throughout the U.S. Army, U.S. Navy and U.S. Coast Guard for Marine and Security Use. It is a rugged and high quality Brass and Stainless Fixture, with a powerful Beam which services distances from 1 to 2KM, depending on the fixture-size selected. The beam will immediately stop on the target, with built-in electric braking. The rotation is beyond a full circle (385°) with a unique sliding stop design!



U.S. Coast Guard Vessel using Carlisle & Finch Searchlight!

"Timing has a lot to do with the outcome of a rain dance."

—Old Hillbilly Wisdom



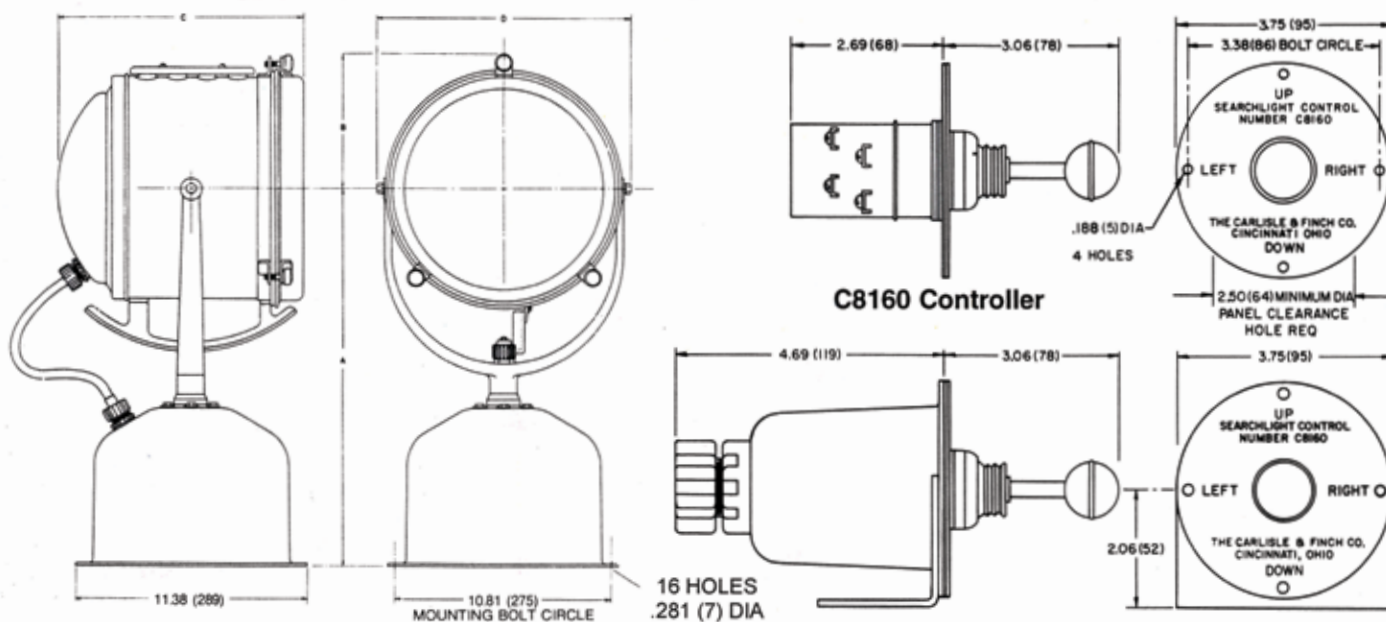
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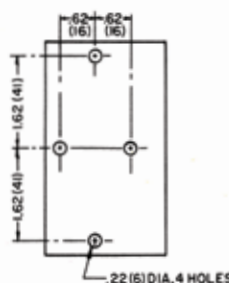
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SEARCHLIGHTS DIMENSIONS



SIZE	A	B	C	D
10-Inch	18.18(462)	6.00(152)	10.00(254)	11.00(279)
12-Inch	20.12(511)	7.12(181)	13.25(337)	13.75(349)
15-Inch	24.06(611)	8.00(203)	15.00(381)	16.75(425)



8171X Enclosure and Bracket Assembly (with controller installed).
Polished chrome finish over brass.

*** NOTE ***

220 VOLTS and 24 VOLTS OFFERED.
CONSULT FACTORY

SEARCHLIGHT SELECTION TABLE

The complete catalog number must include a suffix for the lampholder desired. Add one of the following suffixes to the basic catalog number: medium screw lampholder, -1; medium prefocus, -2; mogul screw, -3; mogul bipost, -4; 2-pin prefocus, -5.

Size	Drum	Base	SEARCHLIGHT CATALOG NUMBER			Weight lb (kg)	
			Enamel Finish	Polished Finish	Chrome Finish	Net	Ship
10-Inch	Non-Vented	Aluminum	105AE	105AP	105AC	30(14)	40(18)
		Brass	105BE	105BP	105BC	35(16)	45(20)
12-Inch	Non-Vented	Aluminum	125AE	125AP	125AC	35(16)	46(21)
		Brass	125BE	125BP	125BC	40(18)	51(23)
	Vented	Aluminum	125AEV	125APV	125ACV	35(16)	46(21)
		Brass	125BEV	125BPV	125BCV	40(18)	51(23)
15-Inch	Non-Vented	Aluminum	155AE	155AP	155AC	51(23)	65(29)
		Brass	155BE	155BP	155BC	56(25)	70(32)
	Vented	Aluminum	155AEV	155APV	155ACV	51(23)	65(29)
		Brass	155BEV	155BPV	155BCV	56(25)	70(32)

HOW TO ORDER SEARCHLIGHT SYSTEMS

Specify quantity Distant Electric Control (DEC) Searchlight, size, drum, base material, finish, and lampholder desired. Give searchlight catalog number from table above and add suffix for lampholder type. Specify quantity controller C8160, with or without Enclosure and Bracket Assembly 8171X. Specify quantity lamps and give volts, watts, and ordering code from lamp list.

Order Example:

2 DEC Searchlight, 12", vented, aluminum base, enamel finish, medium prefocus lampholder, catalog no. 125AE-2.

4 Controller C8160

4 Enclosure and Bracket Assembly 8171X

4 Lamp, 120V, 1000W, code BTR

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LED “HYBRID” MARINE SEARCHLIGHT



1.0KW Xenon “HYBRID” above

LED Features

- **Eliminates Blind Spots:** LED Beam illuminates wide areas nearer to Vessel which traditional Halogen and Xenon narrower beams have difficulty servicing.
- **Dual LED Module Design:** Two LED Light Modules powered by separate electronics, provides emergency backup, if one fails.
- **Low LED Power Consumption:** Only 43 Watts per module (86 Watts Total!)
- **Long LED Lamp-Life:** 50,000 Hours!
- **Field Upgradeable:** Add “LED Hybrid Kit” to your existing C&F 19-inch (483mm) Halogen, 500 Watt and 1000 Watt Xenon Searchlights!
- **Battery Back-up:** Can be run directly off battery power because Voltage Input is 12VDC to 28VDC.
- **Environmentally Robust:** IP67-Rated
- **LED Beam Pattern:** See Exhibit A on page two.

What is an LED Hybrid Searchlight? Although LED Technology illuminates shorter distances very effectively, it still cannot compete with the long range distances achieved by Xenon and Larger Halogen Searchlights. However, in order to service those greater distances, these traditional light sources produce narrower beams of light, which have great difficulty servicing areas nearer to the vessel. Therefore, Carlisle & Finch has created the “LED Hybrid” Searchlight. The “LED Hybrid” strategically combines LED Lighting, with traditional light sources such as Xenon and Halogen, to efficiently utilize the strengths of multiple technologies combined into one versatile product!

Imagine being able to instantly direct a **“Wall of light”**, wider than a football field, approximately 230 meters away, anywhere around the vessel! The beam has evenly spread illumination, and a “pure white” color rendering, pleasing to the human eye. And of course, the operator can also use the Xenon or Halogen Beam to reach out long distances instantly on demand. The “LED Hybrid” Searchlight performs all marine lighting applications using the same flexible product!



Standard of U.S. Navy, U.S. Coast Guard and Commercial Marine Vessels worldwide!



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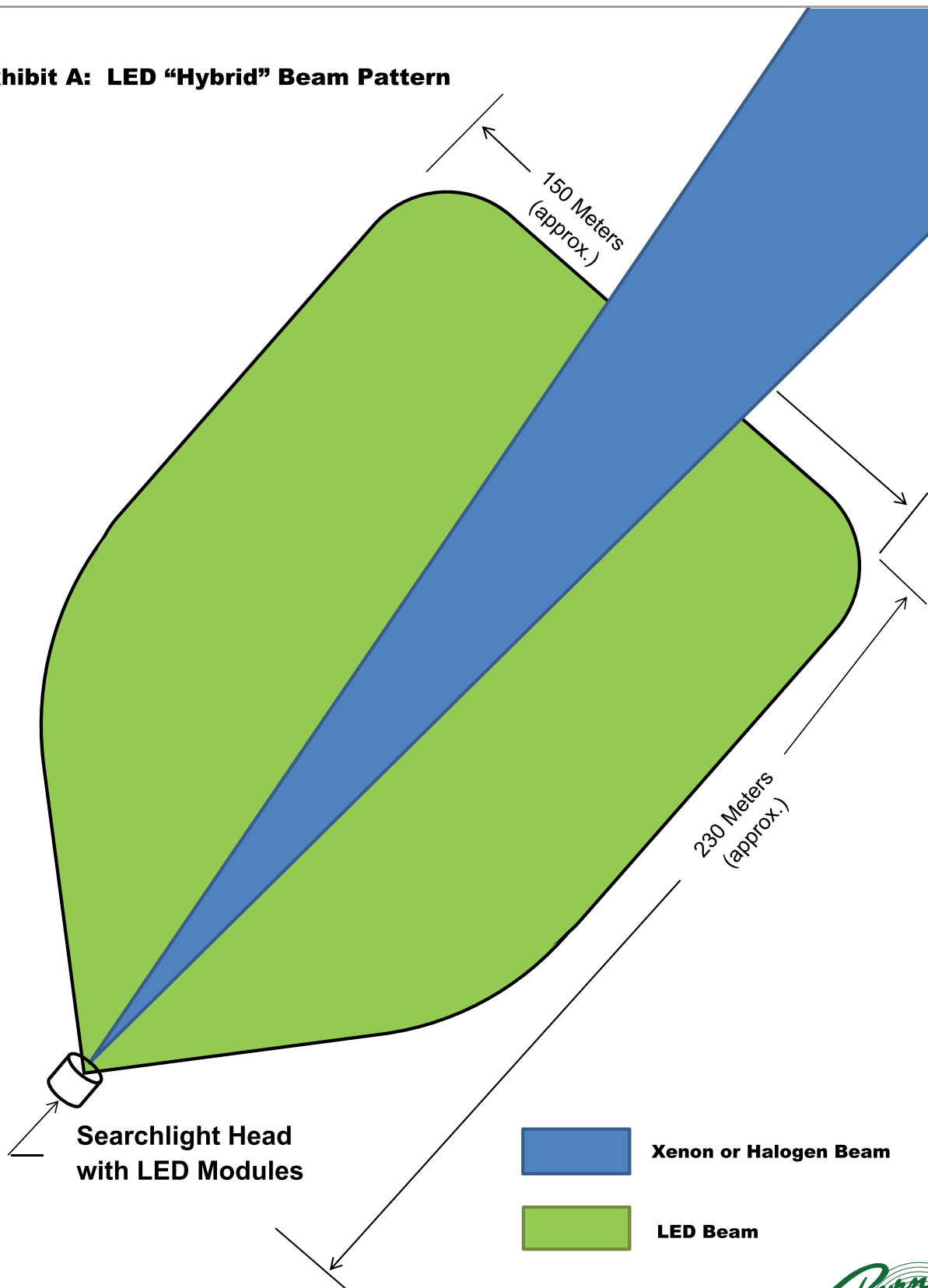
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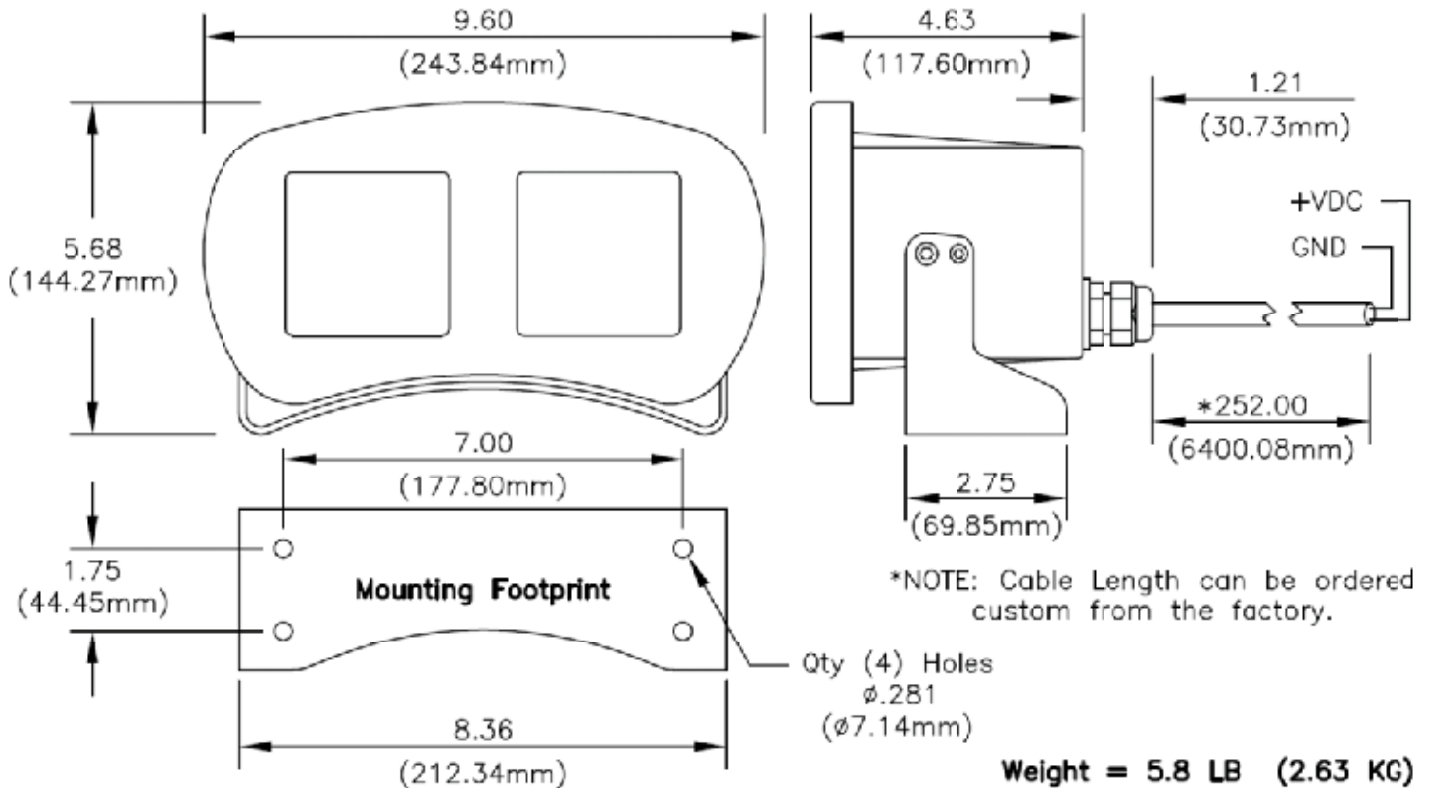


LED "HYBRID" BEAM PATTERN

Exhibit A: LED "Hybrid" Beam Pattern



DIMENSIONS



LED Hybrid Kit Ordering Information

Model Number	Description	Searchlight Used On
K15215X-500	Complete LED Hybrid Kit: Includes LED Fixture, Mounting Bracket, Fasteners, Template, 21 Ft Cable, AND Counter-Balance	500 Watt Xenon
K15215X-1000	Complete LED Hybrid Kit: Includes LED Fixture, Mounting Bracket, Fasteners, Template, 21 Ft Cable, AND Counter-Balance	1.0KW Xenon and
K15215X-19	Complete LED Hybrid Kit: Includes LED Fixture, Mounting Bracket, Fasteners, Template, 21 Ft Cable, AND Counter-Balance	19-in Halogen

Model Number	Description	Searchlight Used On
K15215X	LED Fixture Assembly: Includes LED Fixture, Mounting Bracket, Fasteners, Template and 21 Ft. Cable (No Counter-Balance)	All
K15242-500	Counter-Balance, 500 Watt Xenon	500 Watt Xenon
K15242-1000	Counter-Balance, 1.0KW Xenon	1.0KW Xenon
K15242-19	Counter-Balance, 19-inch Halogen	19-in Halogen

NOTE: Above Model Numbers pertain to the LED Fixture-only. To order a complete Hybrid Searchlight, you must provide the traditional Searchlight Model, as well the complete LED Hybrid Kit Numbers above.



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CLASSIC-STYLE NightFINDER™

Features

- NightFINDER™ Option offered on all C&F Classic Searchlight Products (Halogen and Xenon!)
- Camera Upgrades offered for Searchlights in the Field
- Two Thermal Cameras offered:
 Medium Range: services 800 Meters (approx.)
 Long Range: services 1500 Meters (approx.)
- Reduces Cabling and Saves Mounting Space
- Camera is used as a **“Covert Targeting Device”** to strategically light up object or person!
- **“Built-in-Tracking”** between Searchlight and Camera
- 2X/4X Digital Zoom (Long Camera Range-only)
- White Hot/Black Hot (Long-range Camera only)
- Optional Strobe provides Nonlethal Deterrence



350 Watt Xenon Searchlight seen above with NightFINDER™ Option

By integrating a searchlight and thermal camera within the same design, you will realize the following benefits: **Save Money... Reduce Mounting Space...** have **“Built-in-Tracking”** between Searchlight and Camera, and provide **“Synergism with other Night Vision Systems”**.

The camera and searchlight are precisely aligned, so they track together on the same target as the Pan/Tilt Base moves. Therefore, the camera can be used as a **“Covert Targeting Device”** to instantly and accurately illuminate the object (i.e. operator scans horizon covertly with camera, and when further recognition is required, the searchlight instantly and accurately illuminates the target!). This not only enhances ship navigation, but will also deny an intruder's night vision, with an intense blinding beam of light. And the optional strobe feature provides a disorienting and dizzying effect, thereby transforming the NightFINDER™ into a powerful nonlethal weapon! Scroll down to see the Camera Specifications (ref. page 2), and application diagrams with descriptions (ref. Exhibits A, B, C and D).



Search and Rescue!



See Intruders Covertly!

“Borrowing trouble from the future doesn't deplete the supply.”

—Old Hillbilly Wisdom

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SPECIFICATIONS

Long Range Camera



Camera Specifications

- Sensor: 336 x 256 uncooled
- Field of View: 6.5° H x 5° V
- Digital Zoom: 2X, 4X
- White Hot/Black Hot offered
- Temp Range: -40°C to +80°C
- Video Signal: NTSC or PAL
- Voltage/Power: 12VDC/15W
- Environmental Protection IP67
- Distance Serviced: *1500 Meters

*Note: Distances approx. and based on size and heat signature of object.

Specify a Model

<u>Model</u>	<u>Description</u>
15151X-12	Camera Kit for 305mm Diameter Halogen, and 350 Watt Xenon Searchlights.
15151X-19	Camera Kit for 381mm and 483mm Diameter Halogen, and 500 Watt, 1000 Watt and 2500 Watt Xenon Searchlights.

Medium Range Camera



Camera Specifications

- Sensor: 384 x 288 uncooled
- Field of View: 28° H x 21° V
- Temp Range: -40°C to +80°C
- Video Signal: NTSC or PAL
- Voltage/Power: 12VDC/15W
- Environmental Protection IP67
- Distance Serviced: *800 Meters

*Note: Distances approx. and based on size and heat signature of object.

Specify a Model

<u>Model</u>	<u>Description</u>
NF14400X-12	Camera Kit for 305mm Halogen
NF14400X-15	Camera Kit for 381mm Halogen
NF14400X-19	Camera Kit for 483mm Halogen
NF14400X-350	Camera Kit for 350W Xenon
NF14400X-500	Camera Kit for 500W Xenon
NF14400X-1000	Camera Kit for 1000W Xenon
NF14400X-2500	Camera Kit for 2500W Xenon



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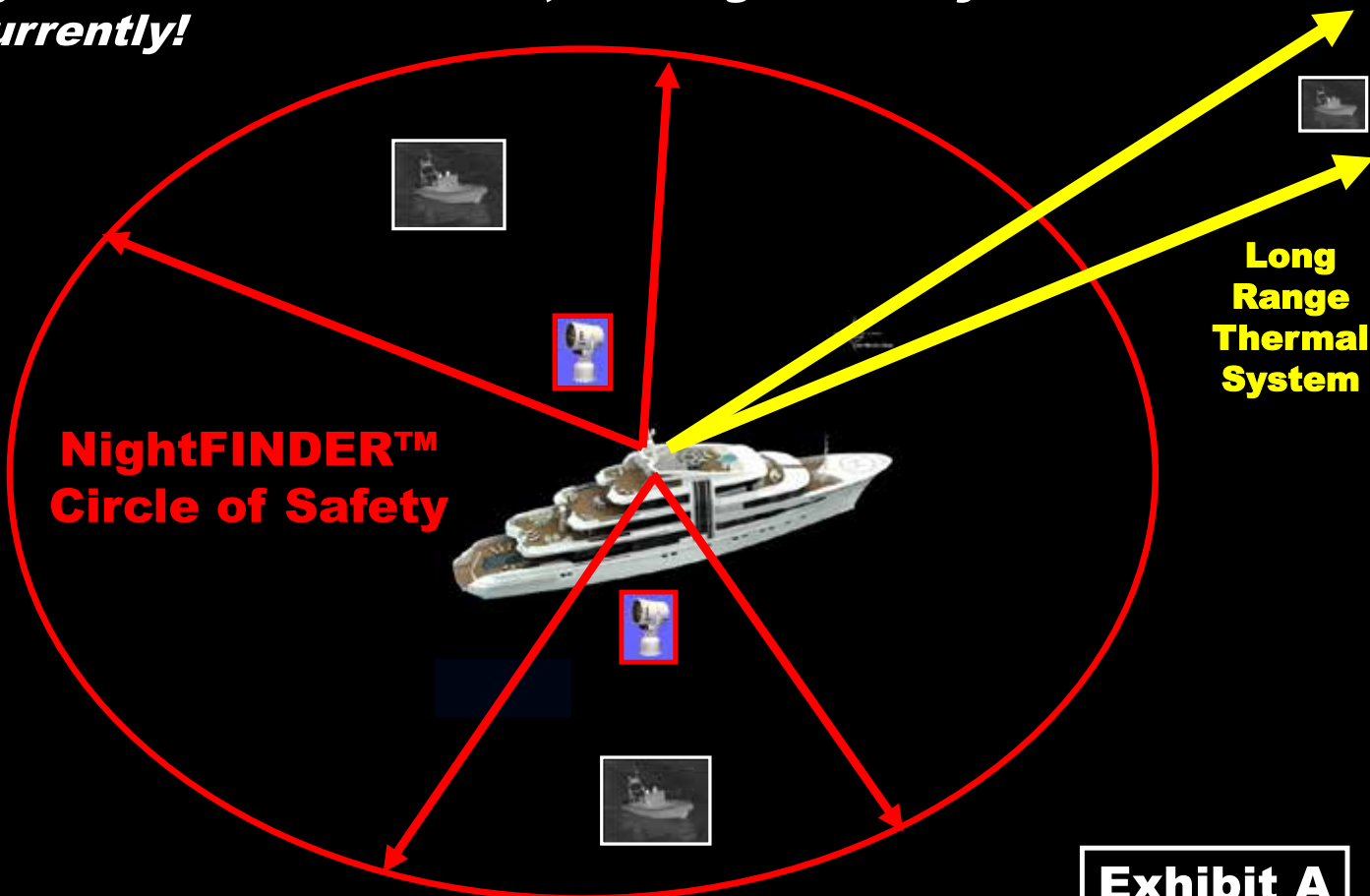
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COMPLETE SECURITY SOLUTION

"A Complete Security Solution"... Even the highest end long range Night Vision Systems can only see in one direction at one time. NightFINDER™ Systems help form a "Circle of Safety" around the vessel, seeing covertly on all sides concurrently!



"When the Paris Exhibition [of 1878] closes, electric light will close with it and no more will be heard of it."

—Oxford professor Erasmus Wilson

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COVERT TARGETING DEVICE

Precise alignment of the Searchlight and Camera on the same target, allows them to track on that same target as the Pan/Tilt base moves. As a result, the Camera can be used as a “Covert Targeting Device” to strategically light up a person or object!



Searchlight Beam



Thermal Camera



Exhibit B

“Silence is sometimes the best answer.”

—Old Hillbilly Wisdom



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POWERFUL NONLETHAL WEAPON

“High Powered Strobe”... blinds and disorients the intruder, transforming the NightFINDER™ into a Powerful Nonlethal Weapon!



Exhibit C

“When you wallow with pigs, expect to get dirty.”

—Old Hillbilly Wisdom.

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CIRCLE OF SAFETY

Works Strategically with other Systems... Intruder is picked up by long range system first, then when comes closer, and enters "Circle of Safety", the NightFINDER™ Camera and Searchlight track on the same target together!

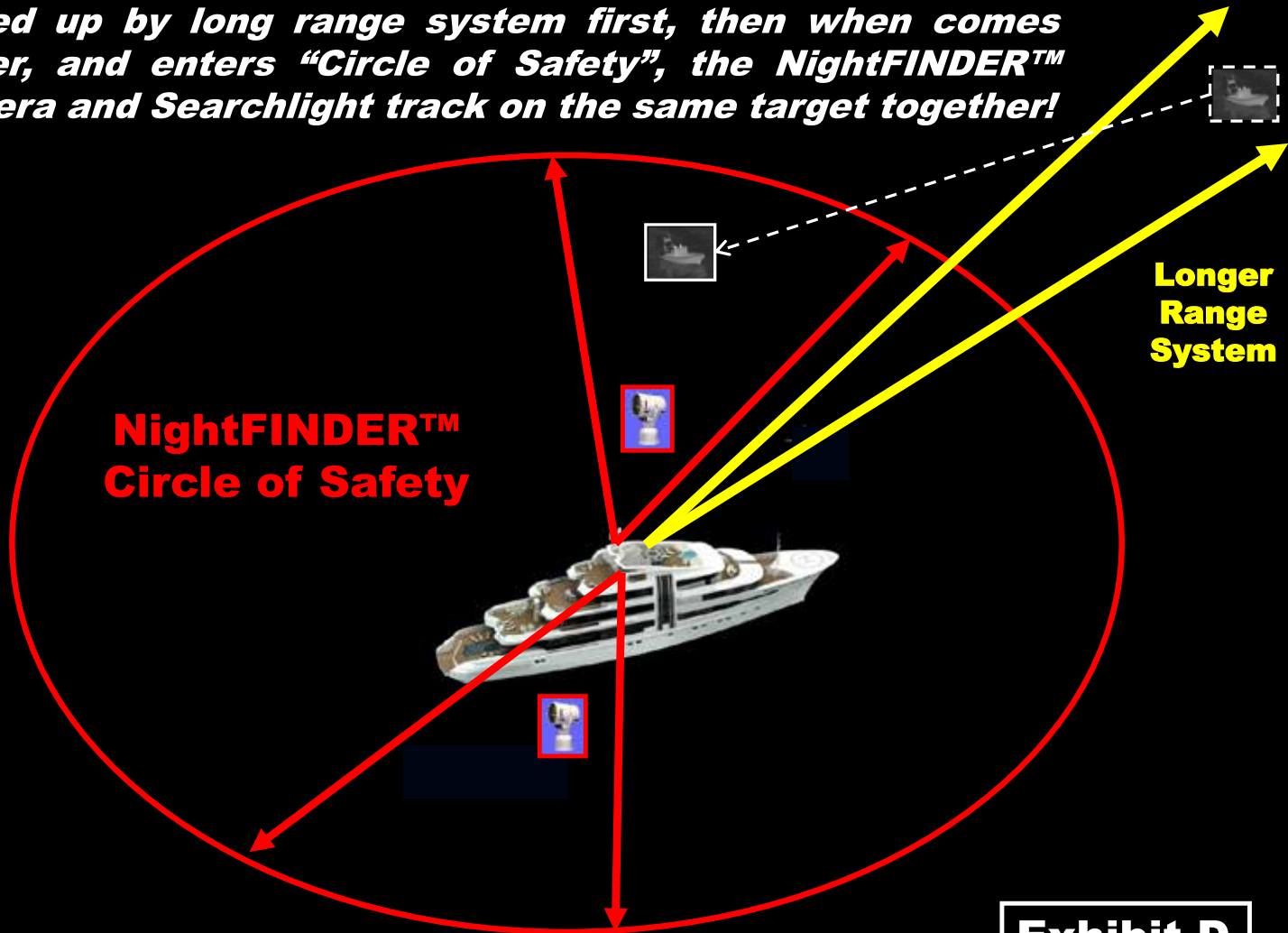


Exhibit D

"Don't judge folks by their relatives."

—Old Hillbilly Wisdom



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