

Super LED F14

Led Power 360W – Consumption 400W – PFC 0,96

LED Fresnel SPOTLIGHT CRI greater than 90

White light, either Tungsten or Daylight balanced Correlated Colour Temperature



IP23 rated: "Rain Protected"



LED Lighting, Green Energy

OVERVIEW

The Super LED F14 is an HIGH OUTPUT LED Fresnel lens spotlight by DE SISTI and includes:

- the De Sisti Internationally Patented optical system for LED FRESNELS and Plano Convex Optics.
- It is available with either Tungsten (3.200°K) or Daylight (5.600°K) Balanced CCT (Correlated Color Temperature), in both cases with a CRI higher than 95 and both in Manual or Pole operated versions.
- It is using 360W High CRI - COB LED ARRAYS.
- **The Fixture is rated for IP23 and it is ideal for Location Work, it can be use under the RAIN and it has been tested for minus 20° C ambient temperature operation.**
- It is DMX Controlled from 0 to 100% with a super smooth Dimming and a negligible variation of Colour Temperature while controlling the Light intensity.
- The lighting Performances of the Tungsten Balanced CCT are similar from medium to full flood to those of a 3kW tungsten Fresnels, while the Daylight Balanced CCT is equivalent to a 1.200W.

The fixture combines the classical SPOT/FLOOD beam control on an equivalent FOCUS RANGE to a conventional lamp fresnel, with an excellent barn door cutting.

It utilizes Standard accessories from the DE SISTI range of equivalent Fresnel Lens size, such as Barndoor, Colour Frame, Cones, scrims.

FEATURES

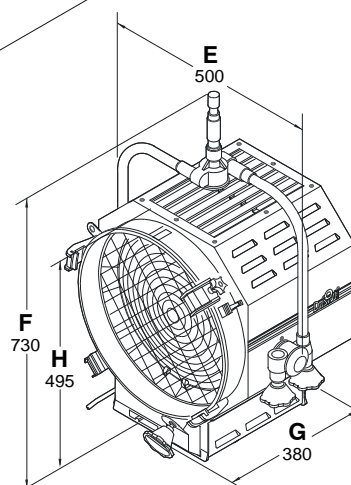
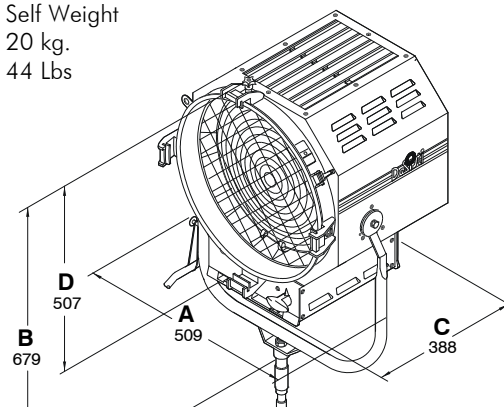
- 350 mm. (14") diameter high quality, shock resistant Borosilicate glass Fresnel lens on spring supports.
- Rugged and Lightweight Carbon Steel housing with low glare black epoxy powder coating, with internal double walls and reinforces.
- High efficiency Self Stabilizing Active Cooling: Automatic, thermal stabilization of the LED operating temperature is managed by an internal thermal sensor and CPU, variable speed fan and heat sink to maintain the LED Array's constant temperature at a maximum of 65°C. The hydro dynamic bearing fan operates silently with a very low RPM.
- Special Patented Optics for LED Technology.
- Steel cable driven focus mechanism which guides Teflon bushings supported LED ENGINE along 2 rods. This ensures smooth operation during focusing, in any tilting position of the fixture. The Teflon bushings also provide a wiping action, which cleans the steel guide rails during focus. The focusing mechanism can be activated from both front and rear of the fixture and the whole spot to flood action is accomplished with 1 and half turn of the focusing knob.
- The unit is equipped with a hinged lens door with wire-guard, it includes accessory holding brackets. One of the 4 brackets has a locking knob and is spring loaded, it can be locked to either safely hold barndoor, color frame and scrims or to be rotated 90° and locked in an open position for fast accessories changes. A double safety accessory bracket with spring loaded catch is available on request to be assembled opposite to the locking knob.
- The accessories are secure regardless of the orientation of the fixture. Accessories have been designed for one hand installation.
- Available with either positive lock manual yokes for comfort and ease of handling, or pole operated yokes which can be used via the lighting pole for Panning and Tilting the lights as well as manually, since the mechanical activators are equipped with clutches.

CHARACTERISTICS & PERFORMANCE DATA

DESCRIPTION	VALUE	
➤ Power to LED	360W DC Current to the LED (no flicker)	
➤ Power Consumption	Europe	America
	400W @ 230 V 50-60 Hz	400W @ 120 V 50-60 Hz
➤ DMX Data link USITT DMX512-A	This product uses a 5-pin XLR for DMX input and output. Use a shielded data cables. Do not overload the daisy chain. Up to a maximum of 32 devices can be used on a single DMX chain.	
➤ DMX Channels	1 at 8bit: Dimmer	
	2 at 16bit: Dimmer	
➤ LED ARRAY Lifetime	50.000 hours with 70% Lumen Maintenance. The LED ARRAYS are tested and certified up to LM80	
➤ Protection Type	IP 23 (Rain Protection)	
➤ Max. Housing Surface Temperature	70° C	
➤ Weight of Fixture	M.O.	P.O.
	20 kg.	21,5 kg.
➤ Weight of Barndoor	4 leaf	8 leaf
	1,85 kg.	2,1 kg.
➤ Size of Barndoor ring	Seat Diameter	Ring Diameter
	402 mm.	399 mm.($\approx 15\frac{3}{4}$)
➤ Weight of color frame	0,5 kg.	
➤ Size of scrims & color frame	Seat Diameter	Accessory Diameter
	395 mm.	393 mm ($\approx 15\frac{1}{2}$)
➤ Lens diameter	350 mm.	

Dimensioni in mm.

Self Weight
20 kg.
44 Lbs



Self Weight
21,5 kg.
47.3 Lbs

POWER AND DMX DAISY CHAIN, IP Rated



The Super LED FRESNELS permit both POWER and DMX DAISY CHAIN. In fact each Fixture is respectively equipped with:

DMX SECTION: XLR5 pin Panel Mount Male & Female (DMX IN & OUT with covers for IP rating).

MAINS SUPPLY with PowerCON TRUE1:

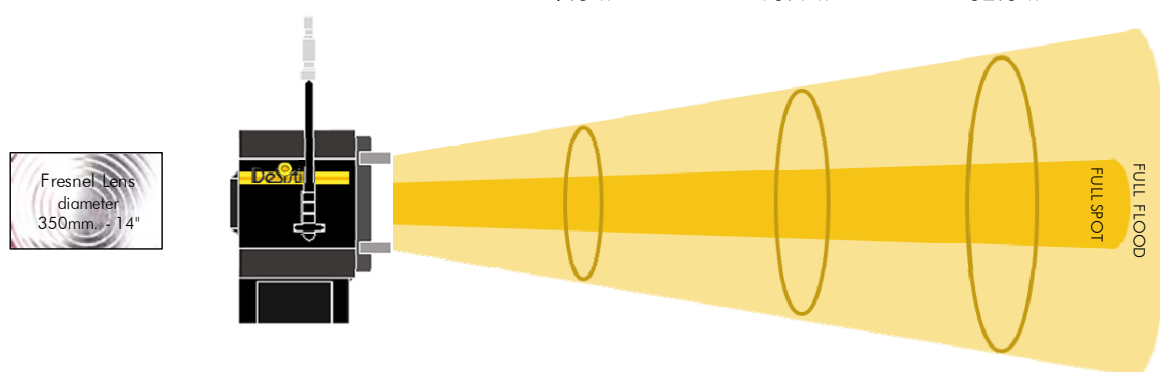
The powerCON TRUE1 are connectors with breaking capacity (CBC), i.e. they can be connected or disconnected under load or live, 16A max. The connectors and covers are rated IP65.

PHOTOMETRIC DATA

PHOTOMETRIC DATA SUPER LED F14T, 360W to the LED, 400W Power Consumption, CRI 97

C.C.T. (Correlated Color Temperature) balanced to match 3.200°K TUNGSTEN LAMPS

Illumination center values at Distances		3.774 lux	1.359 lux	340 lux
Central Light intensity (Candle Power)	33.966 cd	<i>351 FC</i>	<i>126 FC</i>	<i>32 FC</i>
Light beam diameter with Beam Angle		2,86 mt	4,77 mt	9,54 mt
(50% of center value):	51,0°	<i>9.4 ft</i>	<i>15.6 ft</i>	<i>31.3 ft</i>
Light beam diameter with Field Angle		4,52 mt	7,54 mt	15,07 mt
(10% of center value):	74,0°	<i>14.8 ft</i>	<i>24.7 ft</i>	<i>49.4 ft</i>
FULL FLOOD	DISTANCES	3 mt	5 mt	10 mt
		<i>9.8 ft</i>	<i>16.4 ft</i>	<i>32.8 ft</i>



FULL SPOT		DISTANCES	3 mt <i>9.8 ft</i>	5 mt <i>16.4 ft</i>	10 mt <i>32.8 ft</i>
Illumination center values at Distances			19.878 lux	7.156 lux	1.789 lux
Central Light intensity (Candle Power)	178.902 cd		<i>1,847 FC</i>	<i>665 FC</i>	<i>166 FC</i>
Light beam diameter with Beam Angle			0,63 mt	1,05 mt	2,10 mt
(50% of center value):	12,0°		<i>2.1 ft</i>	<i>3.4 ft</i>	<i>6.9 ft</i>
Light beam diameter with Field Angle			1,17 mt	1,94 mt	3,89 mt
(10% of center value):	22,0°		<i>3.8 ft</i>	<i>6.4 ft</i>	<i>12.8 ft</i>

$$\text{LUX AT ANY DISTANCE} = \text{Candle Power} : [\text{Distance(in m.)}]^2$$

$$\text{F.C. AT ANY DISTANCE} = \text{Candle Power} : [\text{Distance(in ft)}]^2$$

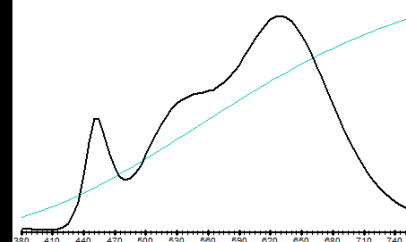
F14-T-FLOOD : CCT = P3105 (+0.4)

TLCI-2012 : 96 (P3105)



Television Lighting Consistency Index-2012

Sector	Lightness	Chroma	Hue
R	0	0	0
R/Y	0	0	0
Y	0	0	0
Y/G	0	0	0
G	0	0	0
G/C	0	0	+
C	0	0	+
C/B	0	0	0
B	0	-	-
B/M	0	0	+
M	0	0	+
M/R	0	0	+

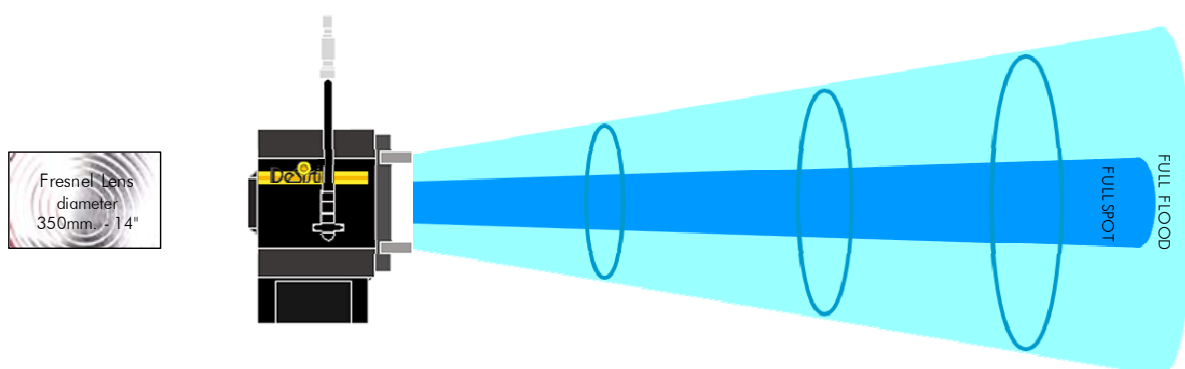


PHOTOMETRIC DATA

PHOTOMETRIC DATA SUPER LED F14D, 360W to the LED, 400W Power Consumption, CRI 95

C.C.T. (Correlated Color Temperature) balanced to match 5.600°K DAYLIGHT LAMPS

Illumination center values at Distances		4.367 lux	1.572 lux	393 lux
Central Light intensity (Candle Power)	39.303 cd	406 FC	146 FC	37 FC
Light beam diameter with Beam Angle		2,86 mt	4,77 mt	9,54 mt
(50% of center value):	51,0°	9.4 ft	15.6 ft	31.3 ft
Light beam diameter with Field Angle		4,52 mt	7,54 mt	15,07 mt
(10% of center value):	74,0°	14.8 ft	24.7 ft	49.4 ft
FULL FLOOD	DISTANCES	3 mt	5 mt	10 mt
		9.8 ft	16.4 ft	32.8 ft



FULL SPOT	DISTANCES	3 mt	5 mt	10 mt
		9.8 ft	16.4 ft	32.8 ft
Illumination center values at Distances		22.840 lux	8.222 lux	2.056 lux
Central Light intensity (Candle Power)	205.560 cd	2,122 FC	764 FC	191 FC
Light beam diameter with Beam Angle		0,63 mt	1,05 mt	2,10 mt
(50% of center value):	12,0°	2.07 ft	3.45 ft	6.90 ft
Light beam diameter with Field Angle		1,17 mt	1,94 mt	3,89 mt
(10% of center value):	22,0°	3.83 ft	6.38 ft	12.75 ft

$$\text{LUX AT ANY DISTANCE} = \text{Candle Power} : [\text{Distance(in m.)}]^2$$

$$\text{F.C. AT ANY DISTANCE} = \text{Candle Power} : [\text{Distance(in ft)}]^2$$

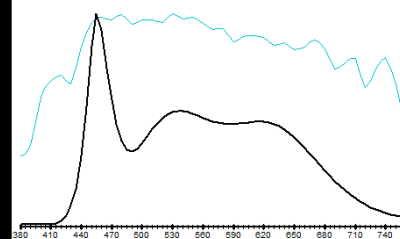
F14-D-FLOOD : CCT = D5651 (+0.7)

TLCI-2012 : 95 (D5651)



Television Lighting Consistency Index-2012

Sector	Lightness	Chroma	Hue
R	0	0	0
R/Y	0	0	-
Y	0	0	-
Y/G	0	0	0
G	0	0	0
G/C	0	0	0
C	0	0	-
C/B	0	0	---
B	0	-	0
B/M	0	+	0
M	0	0	0
M/R	0	0	0



Super LED F14

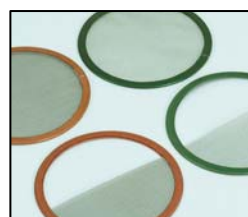
VERSIONS & MODEL NUMBERS

MOD.	DESCRIPTION
TUNGSTEN BALANCED CCT (CRI higher than 90)	
"F14T".MO	Super LED "F 14 T" - high power CRI>90 Tungsten CCT, M.O. LED Fresnel Spotlight including:
The Model Number for the DIN Spigot Version is "F14T".MO.DIN	<ul style="list-style-type: none"> - Mod. "F14T".MO.H IP23 Rain Protected M.O. FIXTURE HEAD with - 350 mm. (14") diameter Fresnel lens - PowerCON TRUE 1 IN & OUT PANEL MOUNTED CONNECTORS. - XLR 5 Pin DMX IN & OUT PANEL MOUNTED CONNECTORS. - 360W high power CRI>90 LED with Tungsten Balanced Correlated Color Temperature (CCT) - Built In UNIVERSAL Power Supply 80-270V 50/60Hz DMX controlled, PFC 0,96 - Mod. 5403.435 3 mt. det.ble Mains cable w/ PowerCON TRUE 1 mod. NAC3FX-W and other bare end - Mod. LT350.110.40 M.O. yoke with 28,57 mm. spigot (B.S. 1 1/8"), with top end for "C" clamp - Mod. 356.110 four leaf rotating barndoor - Mod. 357.300 colour frame
	DMX cable is not included, to be ordered separately
"F14T".PO	Super LED "F 14 T" - high power CRI>90 Tungsten CCT, P.O. LED Fresnel Spotlight including:
The Model Number for the DIN Spigot Version is "F14T".PO.DIN	<ul style="list-style-type: none"> - Mod."F14T".PO.H IP23 Rain Protected P.O. FIXTURE HEAD with - 350 mm. (14") diameter Fresnel lens - POWERCON TRUE 1 IN & OUT PANEL MOUNTED CONNECTORS. - XLR 5 Pin DMX IN & OUT PANEL MOUNTED CONNECTORS. - 360W high power CRI>90 LED with Tungsten Balanced Correlated Color Temperature (CCT) - Built In UNIVERSAL Power Supply 80-270V 50/60Hz DMX controlled, PFC 0,96 - Mod. 5403.435 3 mt. det.ble Mains cable w/ PowerCON TRUE 1 mod. NAC3FX-W and other bare end - Mod. 351.110.40 P.O. yoke with 28,57 mm. spigot (B.S. 1 1/8"), with top end for "C" clamp - Mod. 356.110 four leaf rotating barndoor - Mod. 357.300 colour frame
	DMX cable is not included, to be ordered separately
DAYLIGHT BALANCED CCT (CRI higher than 90)	
"F14D".MO	Super LED "F 14 D" - high power CRI>90 Daylight CCT, M.O. LED Fresnel Spotlight including:
The Model Number for the DIN Spigot Version is "F14D".MO.DIN	<ul style="list-style-type: none"> - Mod. "F14D".MO.H IP23 Rain Protected M.O. FIXTURE HEAD with - 350 mm. (14") diameter Fresnel lens - PowerCON TRUE 1 IN & OUT PANEL MOUNTED CONNECTORS. - XLR 5 Pin DMX IN & OUT PANEL MOUNTED CONNECTORS. - 360W high power CRI>90 LED with Daylight Balanced Correlated Color Temperature (CCT) - Built In UNIVERSAL Power Supply 80-270V 50/60Hz DMX controlled, PFC 0,96 - Mod. 5403.435 3 mt. det.ble Mains cable w/ PowerCON TRUE 1 mod. NAC3FX-W and other bare end - Mod. LT350.110.40 M.O. yoke with 28,57 mm. spigot (B.S. 1 1/8"), with top end for "C" clamp - Mod. 356.110 four leaf rotating barndoor - Mod. 357.300 colour frame
	DMX cable is not included, to be ordered separately
"F14D".PO	Super LED "F 10 D" - high power CRI>90 Daylight CCT, P.O. LED Fresnel Spotlight including:
The Model Number for the DIN Spigot Version is "F14D".PO.DIN	<ul style="list-style-type: none"> - Mod. "F14D".PO.H IP23 Rain Protected P.O. FIXTURE HEAD with - 350 mm. (14") diameter Fresnel lens - PowerCON TRUE 1 IN & OUT PANEL MOUNTED CONNECTORS. - XLR 5 Pin DMX IN & OUT PANEL MOUNTED CONNECTORS. - 360W high power CRI>90 LED with Daylight Balanced Correlated Color Temperature (CCT) - Built In UNIVERSAL Power Supply 80-270V 50/60Hz DMX controlled, PFC 0,96 - Mod. 5403.435 3 mt. det.ble Mains cable w/ PowerCON TRUE 1 mod. NAC3FX-W and other bare end - Mod. 351.110.40 P.O. yoke with 28,57 mm. spigot (B.S. 1 1/8"), with top end for "C" clamp - Mod. 356.110 four leaf rotating barndoor - Mod. 357.300 colour frame
	DMX cable is not included, to be ordered separately
5402.503	DMX DAISY CHAIN CABLE 3 mt. (10') LONG, including:
	- 3 mt. (10') cable terminated with XLR 5 pin Connectors (male and female) at the ends, to allow daisy chain of DMX fixtures.

Super LED F14

OPTIONALS & ACCESSORIES

MOD.	Super LED "F 14" - OPTIONALS & ACCESSORIES
LT350.110.40	Steel tube (M.O.) stirrup with 28,57 mm. spigot (B.S.1 1/8") with top end for attachment to "C" clamp
LT350.300.40	Steel tube (M.O.) stirrup with 28,00 mm. spigot (D.I.N.)
351.110.40	Pole operated stirrup with 28,57 mm. spigot (B.S. 1 1/8"), with top end for attachment to "C" clamp.
351.300.40	Pole operated stirrup with 28,00 mm. spigot (D.I.N.)
355.310	Stainless Steel wire guard
356.110	Four leaf rotating barndoor
356.210	Eight way rotating barndoor
357.300	Colour frame
358.100	Cone with two discs (with front aperture diameter: 275 mm. 215 mm. 155 mm.).
359.100	Set of scrims - Stainless steel
359.101	Full single scrim - Stainless steel
359.102	Full double scrim - Stainless steel
359.103	1/2 single scrim - Stainless steel
359.104	1/2 double scrim - Stainless steel
397.100	Outrigger colour frame
397.110	Outrigger colour frame holding kit
91.210	Aluminum black painted "C" clamp to hang fixtures overhead and for mounting on pipe with diameters up to 52 mm. (2"), with safety pin (no adapters)
15.300	DIN SPIGOT 28 mm. to M12 thread stud with washer and nut.
95.100	28,57 mm. (1-1/8") spigot to M12 threaded stud with washer and nut for "C" clamp or stand mounting
20.100	Safety cable 800 mm. long with 4 mm. diameter steel rope and safety catch.
DGP-A1035 CS	Combo steel stand 35
DGP-A9000N	Wheel set with brakes



INCREASED OUTPUT Super LED F14 versus Super LED F10 HP:

The SUPER LED F14 is featuring a relevant increase of Light output if compared to the SUPER LED F 10 HP.

The table shows the Main Lighting Parameters comparison between the two products:

	Super LED F10T HP	Super LED F14	Super LED F10T HP	Super LED F14
	Super LED F10T HP Tungsten CCT 230W	Super LED F14T Tungsten CCT 360W	Super LED F10D HP Daylight CCT 230W	Super LED F14D Daylight CCT 360W
Measuring distance	3 mt	3 mt	3 mt	3 mt
FULL FLOOD		Central Light Intensity Increase 74,08%		Central Light Intensity Increase 94,35%
Illumination center values at Distances	2.168 lux	3.774 lux	2.247 lux	4.367 lux
Central Light intensity (Candle Power)	19.512 cd	33.966 cd	20.223 cd	39.303 cd
FULL SPOT		Increase 68,89%		Increase 56,76%
Illumination center values at Distances	11.770 lux	19.878 lux	14.570 lux	22.840 lux
Central Light intensity (Candle Power)	105.930 cd	178.902 cd	131.130 cd	205.560 cd

ENERGY SAVINGS:

The Energy Savings introduced by this products are remarkable.

The following table shows a Comparison of the energy conversion for both Tungsten and Daylight Super LED F14 when compared respectively to 3.000W Tungsten Fresnel and to a 1.200W HMI, which are the equivalent lighting performance conventional fixtures, when analysing the output beam from middle to full flood:

DE SISTI - SUPER LED F14 Energy & Thermal Savings versus equivalent Conventional Fixtures

The DE SISTI LED FRESNELS Tungsten are:

- 100% Dimmable locally or via DMX with super smooth dimming dynamics
- No separate DIMMERS required (No Dimmer Room and Simpler Cabling system)
- All self contained in the Luminaire housing (no separate ballasts or power supply)
- Power and DMX Daysy chain able
- High energy savings when compared to Tungsten Fixtures with negligible POWER REQUIREMENTS and very low Thermal Emission for contained cooling systems in the studio.
- Extremely contained Maintenance (mostly cleaning): no lamps replacement

ENERGY CONVERSION	
Visible Light	
IR	
UV	
Total Radiant Energy	
Heat (Conduction + Convection)	
Total Power Consumption of Lighting Fixture	
Total % of Input Energy converted in Thermal Dissipation	

ENERGY SAVINGS on LIGHTING FIXTURE consumption with DE SISTI LED
THERMAL EMISSION SAVINGS with DE SISTI LED

BTU to refrigerate the Dissipation of the Lighting Fixture	
HVAC Power Consumption to produce the above BTU	

Tot. CONSUMPTION in kWhrs in 2600 hrs (typical yearly use)
TOTAL yearly cost for Electricity per Fixture with 1 kWh = 0,2 €

TOTAL ENERGY SAVINGS with DS LEDS
= on LIGHTING FIXTURE + HVAC consumption

SUPER LED F14T 360W Tungsten balanced CCT Energy & Thermal Savings versus equivalent Filament Fixture			
The lighting Performances of the 360W Tungsten Balanced CCT from medium to full flood, are comparable and slightly outperforming those of a 3000W tungsten Fresnels			
Tungsten Fresnel	3.000 W	LED Fresnel	400 W
8%	240 W	25%	100 W
73%	2.190 W	0%	0 W
0%	0 W	0%	0 W
81%	2.430 W	0%	0 W
19%	570 W	75%	300 W
100%	3.000 W	100%	400 W
92%	2.760 W	75%	300 W
87% 89% Using the DE SISTI LED instead of Tungsten Fixtures			
9.420 BTU		1.024 BTU	
879 W		96 W	
10.086 kWh		1.288 kWh	
€ 2.017,18		€ 257,69	
Per Fixture Savings € 1.759,5		Per Fixture Savings in % 87%	

The DE SISTI LED FRESNELS Daylight are:

- much less expensive then equivalent HMIs fixtures
- They are 100% Dimmable locally or via DMX with super smooth dimming dynamics
- All self contained in the Luminaire housing (no separate ballasts or power supply)
- Power and DMX Daysy chain able
- Yet introduce significant energy savings when compared to HMIs
- Extremely contained Maintenance (mostly cleaning): no expensive lamps replacement

ENERGY CONVERSION	
Visible Light	
IR	
UV	
Total Radiant Energy	
Heat (Conduction + Convection)	
Total Power Consumption of Lighting Fixture	
Total % of Input Energy converted in Thermal Dissipation	

ENERGY SAVINGS on LIGHTING FIXTURE consumption with DE SISTI LED
THERMAL EMISSION SAVINGS with DE SISTI LED

BTU to refrigerate the Dissipation of the Lighting Fixture	
HVAC Power Consumption to produce the above BTU	

Tot. CONSUMPTION in kWhrs in 2600 hrs (typical yearly use)
TOTAL yearly cost for Electricity per Fixture with 1 kWh = 0,2 €

TOTAL ENERGY SAVINGS with DS LEDS
= on LIGHTING FIXTURE + HVAC consumption

SUPER LED F14D 360W Daylight balanced CCT Energy & Thermal Savings versus equivalent Daylight Discharge Lamp Fixture			
The lighting Performances of the 360W Daylight Balanced CCT from medium to full flood, are comparable and slightly outperforming those of a 1.200W HMI Fresnel.			
HMI Fresnel	1.200 W	LED Fresnel	400 W
27%	324 W	25%	100 W
17%	204 W	0%	0 W
19%	228 W	0%	0 W
63%	756 W	0%	0 W
37%	444 W	75%	300 W
100%	1.200 W	100%	400 W
73%	876 W	75%	300 W
67% 66% Using the DE SISTI LED instead of Discharge Fixtures			
2.990 BTU		1.024 BTU	
279 W		96 W	
3.846 kWh		1.288 kWh	
€ 769,10		€ 257,69	
Per Fixture Savings € 511,4		Per Fixture Savings in % 66%	

DE SISTI LED FRESNELS – LIGHTING QUALITY FIRST:

When choosing a FRESNEL you are expecting:

- Appropriate and effective Focusing Range from Spot to Flood
- Single shadows and their consistency within the Flood Field
- Even and wide Flood with appropriate Barn-door capability

This is exactly what you get with the DE SISTI LED FRESNELS.

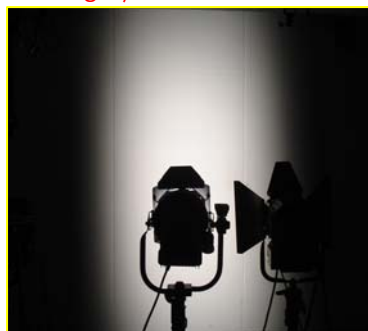
The Internationally Patented Optical system specifically developed by DE SISTI to optimize the use of a LED Engine Technology in combination with a Fresnel Lens (or a Plano Convex) is providing to the DE SISTI LED FRESNELS the exact same lighting projection you would expect from a Standard Fresnel.

The following EXAMPLE SHOWS a COMPARISON between:

LED FIXTURE by "OTHERS" NOT REAL FRESNEL performances



- The Beam in full flood is NARROW (only 45°) and shows an HOT SPOT (large area to go from Beam to Field Angle)



- The Barndoor in a NOT REAL FRESNEL optics does not work properly: the projection is OVAL and the more you barndoor the more you dim the central beam



LED FIXTURE by "DE SISTI" EXACT FRESNEL performances



- The Beam in full flood is LARGE (above 60°), even and flat (No Hot Spots and rapid passage from Beam to Field Angle)



- The Barndoor on the DE SISTI LED FRESNEL has exactly the same functionality obtained with a PROPER FRESNEL optics.