LED Conversion Kit

Looking for an LED solution for your Phantom™ halogen contour projector? LED conversion kits are now available for all our projector models including those with square or round housings, as well as surface mount models. This is not a simple lamp change, but a major upgrade that improves light levels, energy efficiency and overall performance. The conversion process involves changing the electrical power supply, updating the optical system and installing a high output LED light engine for maintenance free operation. The unique tri-dimming driver is compatible with forward phase (MLV), reverse phase (ELV) and 0-10V dimming.

SAFETY NOTE: LED retrofit kit installation requires knowledge of Luminaires Electrical Systems. If you are not qualified, **do not** attempt installation and instead contact a qualified and licensed electrician in your area.

If you have any questions or need help identifying the right model for your application, contact tech support at **(800) 863-1184** for assistance.

Intertek 73355

ETL CLASSIFIED

Conforms to UL STD 1598C Requirements
Certified to CSA STD C22.2 NO.250.1

Our Custom-Engineered Solution

If you are having trouble finding 75W MR16 Halogen lamps for your Phantom™ Halogen Contour projector, it is because the manufacturer of those lamps, Ushio, has discontinued the product altogether. Because of the concentrated focus of light provided by the speciality Halogen lamp, using alternate replacement lamps (Halogen or LED) will not achieve the same light levels. We have custom-engineered a solution – a direct retrofit kit – to adapt your existing Halogen projector into an energy-efficient, long-lasting LED projector that delivers the high-caliber quality of light you've come to expect from your Phantom™ product.

1 Ushio JCR12V-75W/FO Halogen Lamp (discontinued by manufacturer)
2 Phantom™ proprietary Gen4 LED light engine
3 CREE© XHP Extreme High-Powered LED light chip (inside light engine)

SQUARE HOUSING MODELS

KIT F CONTENTS

1 LED light engine with active cooling fan
2 Power assembly, **flat hatch** with LED Drivers
3 Two-part condensing lens holders and spring
4 Focal cone, focal lens spacer, and focal lens clip
5 Achromatic focal lenses (2x 75fl standard)
6 Brass thumb screws and allen wrench
7 ETL labels (2x)

ROUND HOUSING MODELS

KIT C CONTENTS

1 LED light engine with active cooling fan
2 Power assembly, **curved hatch** with LED Drivers
3 Two-part condensing lens holders and spring
4 Focal cone, focal lens spacer, and focal lens clip
5 Achromatic focal lenses (2x 75fl standard)
6 Brass thumb screws and allen wrench
7 ETL labels (2x)

CANOPY-MOUNTED MODELS

KIT S CONTENTS

1 LED light engine with active cooling fan
2 **Mounting canopy** with LED drivers (round std.)
3 Two-part condensing lens holders and spring
4 Focal cone, focal lens spacer, and focal lens clip
5 Achromatic focal lenses (2x 75fl standard)
6 Brass thumb screws and allen wrench
7 ETL labels (2x)

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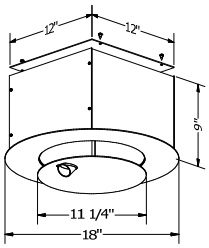
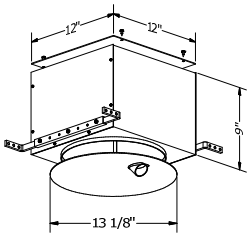
PHANTOM LIGHTING SYSTEM

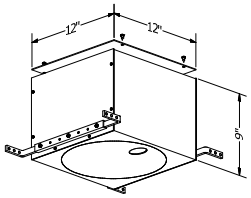
Existing Housing Models



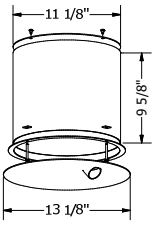
FF Series Housing
FLAT HATCH



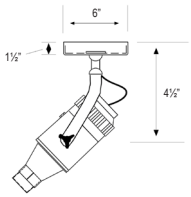
NC Series Housing
FLAT HATCH



TA Series Housing
FLAT HATCH



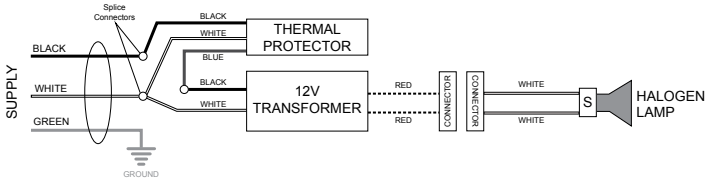
RM Series Housing
CURVED HATCH



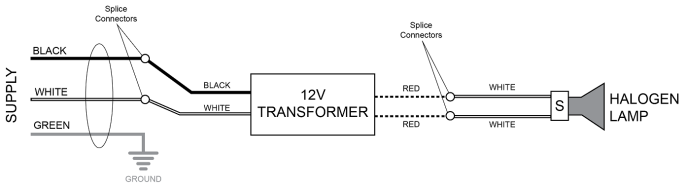
SM Series Housing
CANOPY BASE

Reference Wiring Diagrams

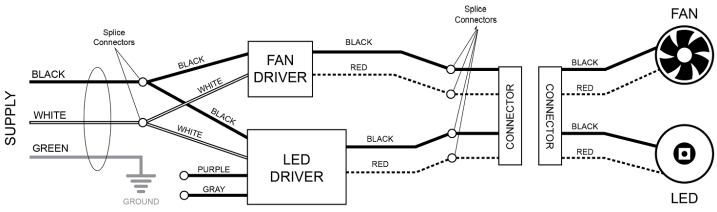
EXISTING WIRING (NC, FF, RM, TA SERIES)



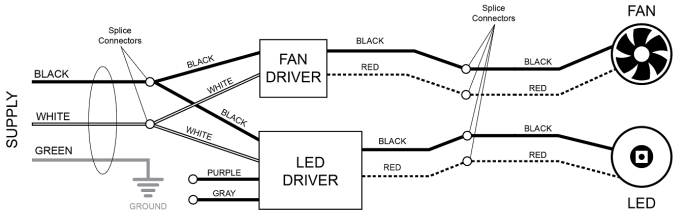
EXISTING WIRING (SM SERIES)



NEW WIRING (NCL, FFL, RML, TAL SERIES)



NEW WIRING (SML SERIES)



Phantom LED Conversion Kits - Ordering Matrix
Sample Order Number: **PRP-LED-KIT-F-1-0-0-U**

	HATCH TYPE	LENS COMBINATION	ACCESSORY OPTIONS	CANOPY	COLOR
PRP-LED-KIT	**F**	**1**	**0**	**0**	**U**
	F - NC, TA, FF **C** - RM **S** - SM	**1** - Achromatic 75fl Lenses *(Wide Flood Lenses)* **2** - Achromatic 100fl Lenses *(Flood Light Lenses)* **3** - Achromatic 150fl Lenses *(Narrow Spot Lenses)*	**0** - None **1** - 2700K Dichroic Filter **2** - 3500K Dichroic Filter **3** - 4000K Dichroic Filter **4** - On-board 0-10V Dimmer	**0** - No Canopy **1** - Round **2** - Square	**U** - Unfinished **W** - White **B** - Black

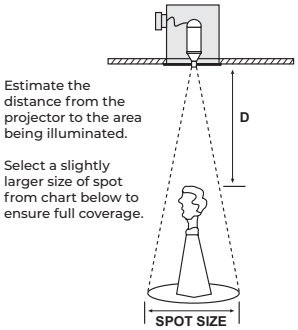
Determining the Location of Projector in Ceiling

Example: Let's say you have a painting that is 36" High x 24" Wide and it is down from the ceiling roughly 20" to the top of the canvas. Doing the math, you get **20" + 12" + 4" = 36"** out from the wall to the front of the housing as a starting point. The projector can be moved back, left or right as needed to avoid obstructions in the ceiling or to address reflective glare and frame shadows.

An oversized painting can be accommodated in the same way by using two (2) Contour Projectors, mounted at oblique angles.

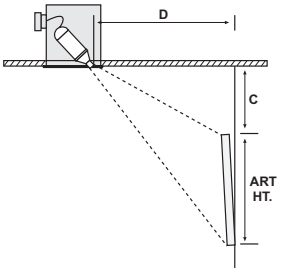
Complimentary design assistance is available from the factory. Please give us a call at 1 (800) 863-1184 if you have any questions.

HORIZONTAL TARGET



PIN HOLE COVER PLATE
(OPTIONAL)

VERTICAL TARGET



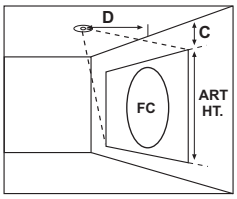
SLOTTED COVER PLATE
(STANDARD)

CALCULATING THROW DISTANCE:

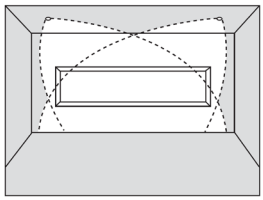
C + 1/3 of art height + 4 = D

C = Distance down from ceiling to top of the art
D = Distance out from wall where projector mounts

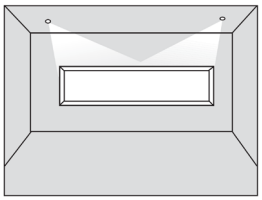
(See first illustration to the right)



Formula Illustration



Overlapping Beam Diagram



Oversize Beam Spread Result

Achromatic Focal Lens Performance Chart

DATA FOR THE PHANTOM GENERATION 4 LIGHT ENGINE

THROW DISTANCE (IN FEET)			1'		2'		3'		4'		5'	
Beam Spread	Lens Combo	Beam Angle	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles
Wide Flood Lens	75/75	60°	14"	1010	28"	585	42"	194	55"	94	69"	57
Flood Light	100/100	48°	11"	1185	21"	1011	32"	375	43"	183	53"	107
Narrow Spot	150/150	28°	6"	3285	12"	2035	18"	911	24"	431	30"	246
THROW DISTANCE (IN FEET)			**6'**		**7'**		**8'**		**9'**		**10'**	
Beam Spread	Lens Combo	Beam Angle	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles
Wide Flood Lens	75/75	60°	83"	41	97"	29	111"	23	125"	16	139"	12
Flood Light	100/100	48°	64"	71	75"	54	85"	41	96"	31	107"	26
Narrow Spot	150/150	28°	36"	166	42"	127	48"	88	54"	67	60"	55
THROW DISTANCE (IN FEET)			**11'**		**12'**		**13'**		**14'**		**15'**	
Beam Spread	Lens Combo	Beam Angle	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles
Wide Flood Lens	75/75	60°	–	–	–	–	–	–	–	–	–	–
Flood Light	100/100	48°	118"	21	128"	17	139"	14	150"	11	160"	9
Narrow Spot	150/150	28°	66"	44	72"	39	78"	33	84"	29	90"	23
THROW DISTANCE (IN FEET)			**16'**		**17'**		**18'**		**19'**		**20'**	
Beam Spread	Lens Combo	Beam Angle	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles	Spot Size	Foot Candles
Wide Flood Lens	75/75	60°	–	–	–	–	–	–	–	–	–	–
Flood Light	100/100	48°	–	–	–	–	–	–	–	–	–	–
Narrow Spot	150/150	28°	98"	21	102"	19	108"	17	114"	15	120"	13

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