

UNDERSTANDING LIGHTING

STUDIO MUNGE EDUCATIONAL SEMINAR

STUDIO
MUNGE

TYPES OF LIGHTING

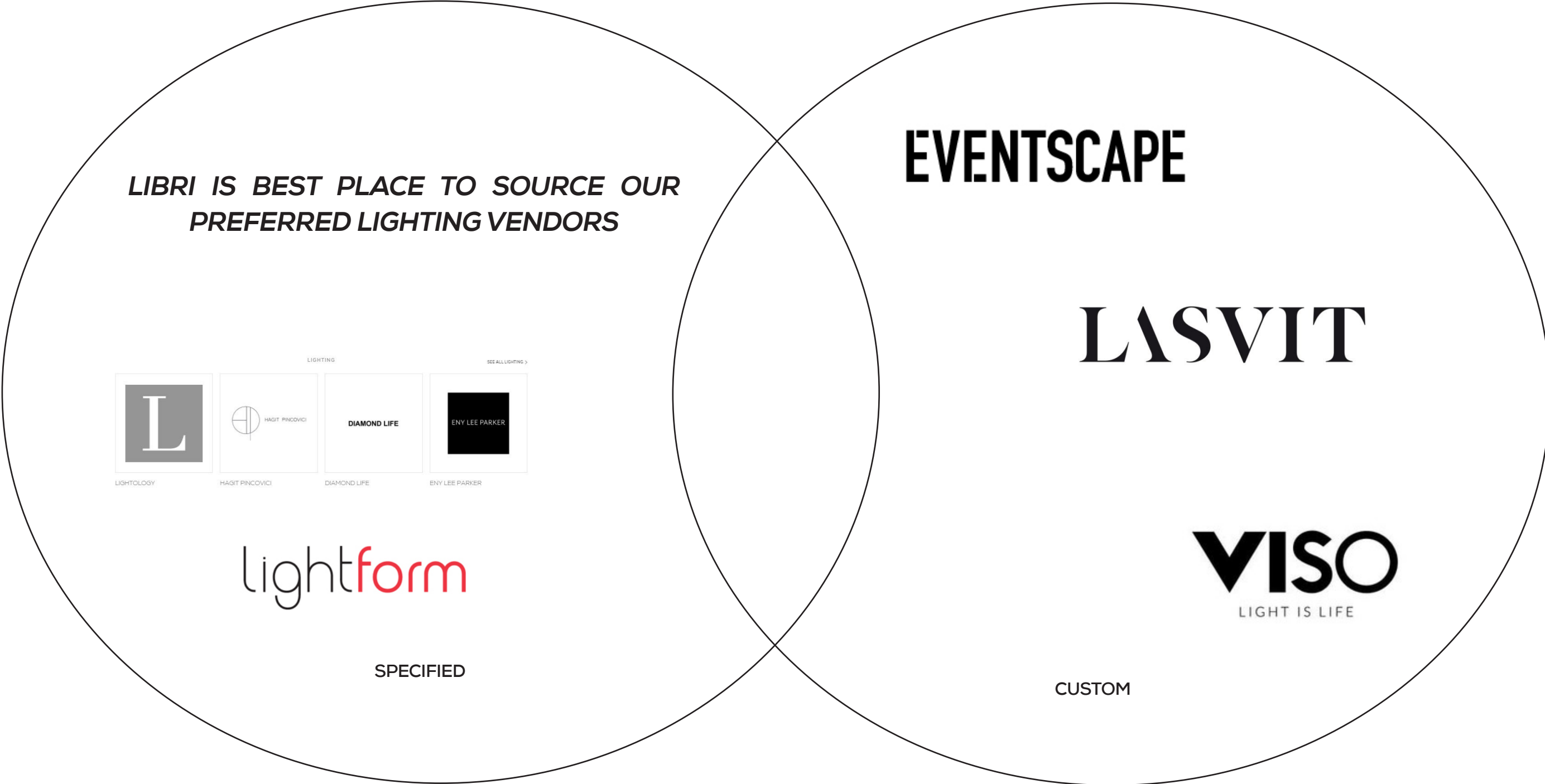


- Table Lamps
- Floor Lamps
- Pedants
- Chandeliers
- Mounted Lighting
- Potlights
- Spotlights
- Pin Lights



“The system of pipes, tanks ,fittings and other apparatus required for water supply, heating and sanitation in a building”

LIGHTING SUPPLIERS AND CUSTOM MANUFACTURERS



Regardless of specified or custom, lighting needs to comply with the necessary codes and be coordinated in our to ensure proper function and installation



HOW TO CHOOSE LIGHTING FIXTURES?

LA-Lamping
LT-Hardwired Lighting
FFE-LT-Hardwired Lighting FFE
Scope

WHAT ARE MY NEEDS?

-What kind of project am I working on?

(Home, Restaurant, Condo, Hotel, Restaurant, Outdoor)-this are the factors in understanding what type of lighting is required for the project

-What is my budget?

Budget parameters will be outlined by your project lead from client discussion

-What is my lead time?

When the goods needed for your project? Project Leads will have this accounted for in schedule

-What kind of codes are in place?

Project Managers/Leads to discuss with client and AOR mechanical parameters and blocking (if any) to ensure we are complying with necessary specification requirements

-Know your hero pieces!


Central Chandelier, jewel like pendant? Beyond function, what are we accentuating through lighting

Lighting Terminology –

What they actually mean

Lumens

Lumens are a measure of the brightness of a bulb. One lumen is equal to the light of one candle from one foot away.

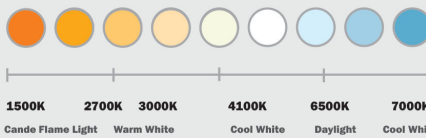


Watt

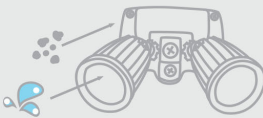
Watts measure the amount of energy a bulb uses to produce light. Wattage is the amount of power required to operate an electrical appliance or device.

Kelvins

The color temperature, measured in Kelvins, refers to a lamp's emitted color.



IP Rating



Ingress protection rating classifies the degrees of protections provided against the intrusion of solid objects, dust, water in electrical enclosures.

I (First digit) - indicates the level of protection that the enclosure provides against access to hazardous parts and the ingress of solid foreign objects.

P (Second digit) - is the protection of the equipment inside the enclosure against harmful ingress of water.

Brand

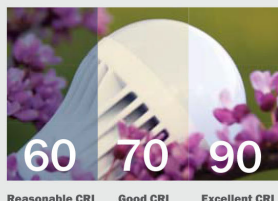
The manufacturer.

Efficacy

Lumens per Watt measures efficiency. The higher the number, the more efficient the product.

CRI

The Color Rendering Index (CRI) is a rating scale up to a 100 that rates how accurately a light source can express true color in comparison with an ideal or natural light source.

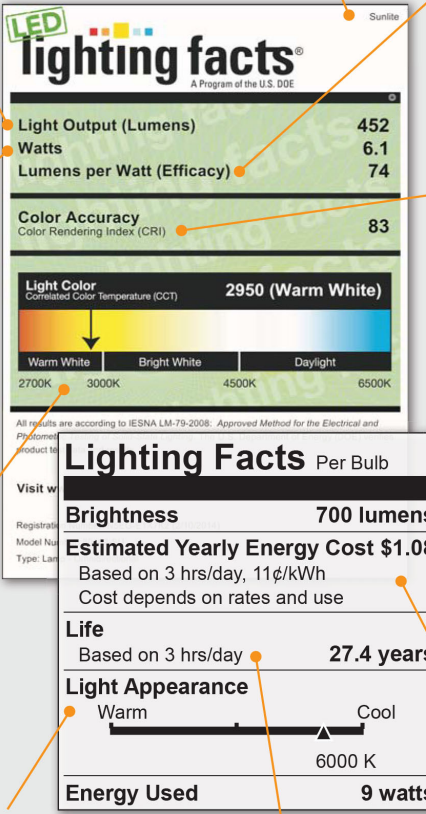


Yearly Cost

Estimated Yearly Energy Cost based on 3 hrs/day 11¢/kWh (cost depends on rates and use)

Life

Life of the bulb, based on 3 hours a day work.



Lighting Facts	
Light Output (Lumens)	452
Watts	6.1
Lumens per Watt (Efficacy)	74
Color Accuracy Color Rendering Index (CRI)	83
Light Color Correlated Color Temperature (CCT)	2950 (Warm White)
Lighting Facts Per Bulb	
Brightness	700 lumens
Estimated Yearly Energy Cost	\$1.08
Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use	
Life	27.4 years
Based on 3 hrs/day	
Light Appearance	Warm to Cool
Energy Used	9 watts

sunlite.COM
Lighting America one bulb at a time

5

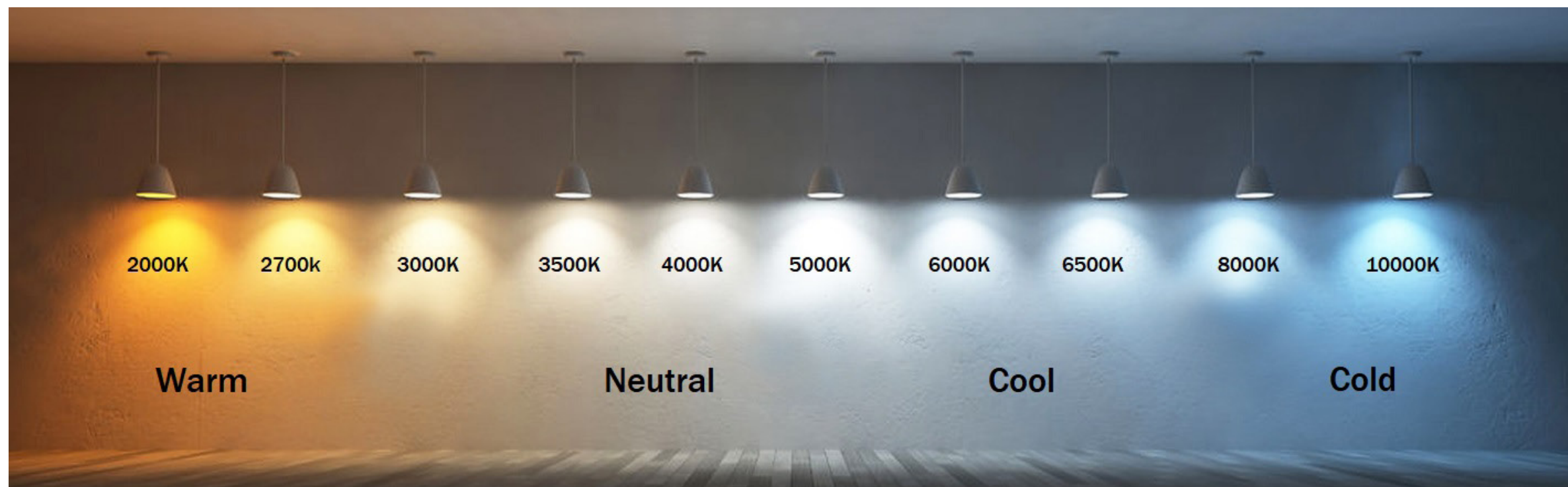
SPECIFYING LIGHTING

UNDERSTANDING LAMPING AND DIMMING

-As a Studio standard, all floor lamps, table lamps and any hardwired lighting is required to be dimmable

-Watt(brightness) and Lumens(energy) to be noted in Bulb Type and designer to specifying is if bulb is included or not in specification to ensure client purchases on their end

Kelvin- is a measurement used to describe the color temperature of a light source. Higher Kelvin temperatures (3600–5500 K) are what we consider cool and lower color temperatures (2700–3000 K) are considered warm. Studio Munge prefers all lighting levels to be @ 2700K to enhance the over ambiance in our projects

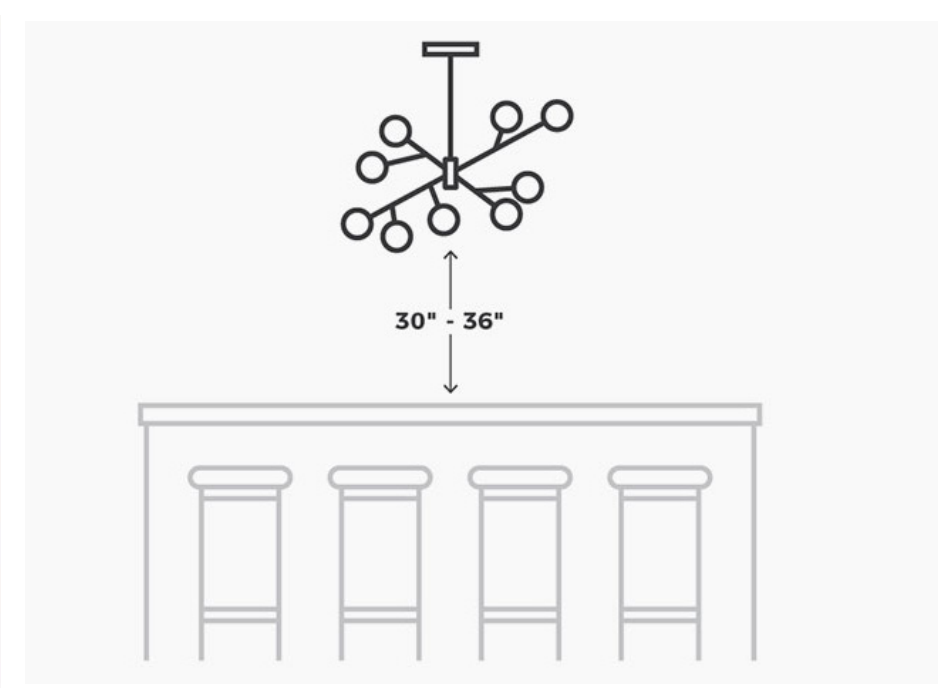
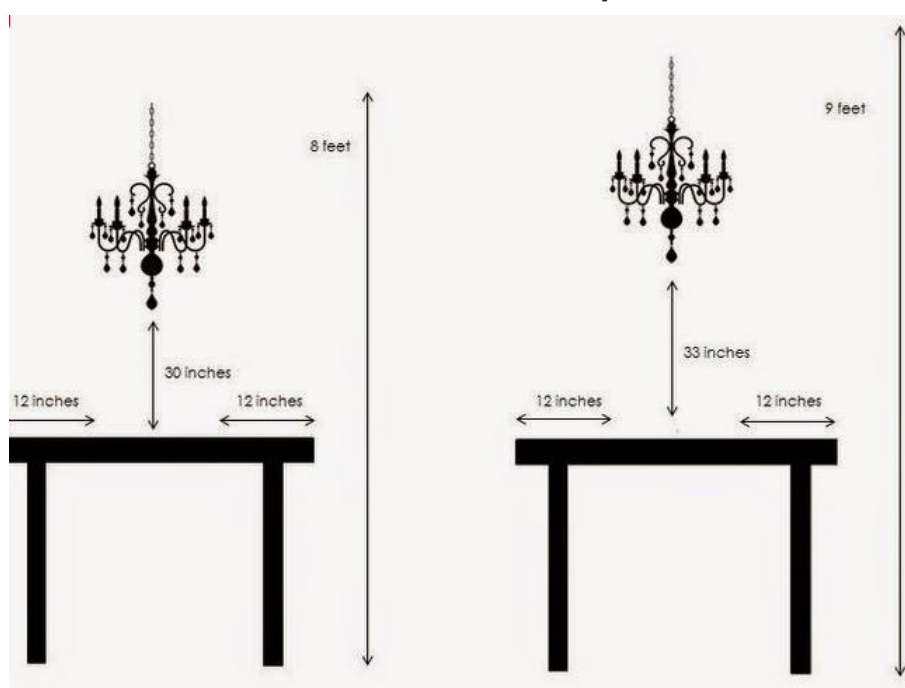
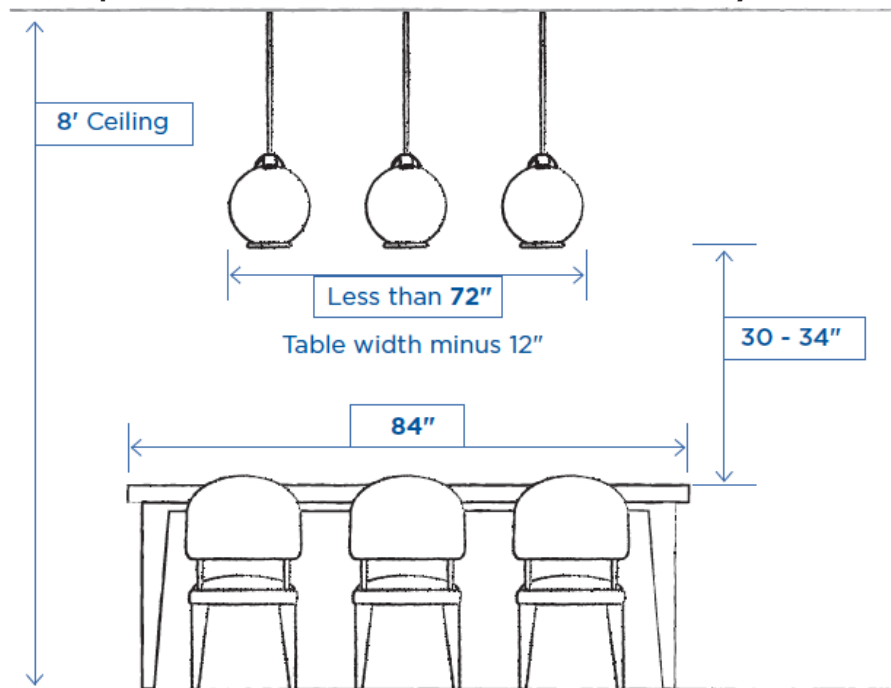


UNDERSTANDING MOUNTING INSTRUCTIONS

- Why do we need to add mounting instructions?-This ensures that our lights are being installed at the right height from surface and distance from each other
- Mounting Heights depend on project required, as ceiling and table heights can vary
- AFF="above finish floor," this is measure from bottom of light
- Mounting heights be be included in the mounting heigh column in specification
- Depending on light, the hanging rod may need to be a custom size to to attain our light height, designer to specifying rod length for procurement to purchase correct size light
- Weight to be specified in order for contractor to ensure proper blocking is required-blocking is in contractor scope and specified in our SM standard instruction package

Sconces

ADA requirement for sconces note that they cannot protrude 4" from the wall when they are mounted below 80"AFF.



*The above images are note standards, just an example of different mounting heights and spaces

UNDERSTANDING LISTING

All listing to be noted in our specification packages, listing is required for all contract and residential projects



cUL Listing-The cUL mark applies to products intended for the Canadian market that have been tested and found to comply with the requirements of CAN/CSA 22.1-12, which is the Canadian Electrical Code issued by the Canadian Standards Association. For wet area, to be noted as “damp location rated”

Mehari Hot Tip:
Ensure if you are specifying for a pool area to inquire with pool consoltant regarding NATATORIUM standards



UL Listing-The Underwriters Laboratories UL mark applies to products that have been designed and approved for the US market and have received specific Underwriters Laboratories certification that they comply with the respective US standards. For wet area, to be noted as “damp location rated”



ETL Listing-The ETL Mark is proof of product compliance to North American safety standards. Authorities Having Jurisdiction(AHJs) and code officials across the US and Canada accept the ETL Listed Mark as proof of product compliance to published industry standards. For wet area, to be noted as “damp location rated”

*AOR to confirm that ETL accepted for hardwired lights, we have had troubles with projects in Florida where the inspectors only confirm UL, AOR/lighting consultant

3rd PARTY LISTING

A light should be rated listed for one of the 3 listing above, if a vendor notes 3rd party listing is necessary, listing should happen prior to site installation. It is a gamble to note “3rd party listing required” on a specification as it might not be possible when going to site

Most lighting vendors will list PRIOR to shipping, however confirmation is need to ensure this happens



INTEPERETTING SPECIFICATION

Noted as "non-dimmable" further discussion with vendor to see if dimmable to add into our project

Need to be dimmable to interact with lighting controls and change in ambiance(night vs day)

PROJECT:

PREPARED BY:

PREPARED FOR:

DATE:

LOCATION:

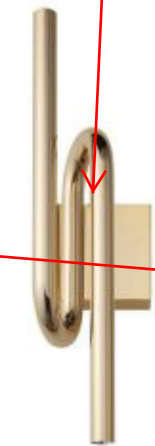
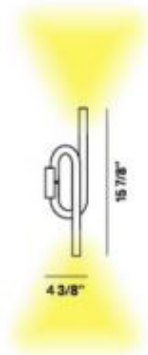
APPROVED:

TOBIA WALL
TOBIA WALL GLD HARDWIRED

DESCRIPTION:	The lightness of a sign that outlines a body and a form to narrate a function. Tobia is an example of how simplicity can have character. Available with and without cable, Tobia wall emits light upwards and downwards.
MANUFACTURER:	Foscarini
CODE:	294005P-71U
CONNECTION TYPE:	Plug-In Hardwired <input checked="" type="checkbox"/>
FINISH:	Black Gold <input checked="" type="checkbox"/> Orange White Yellow
DIMMING:	Non-Dimmable
MATERIALS:	Aluminium/Metal
BULB INFORMATION:	1x15W LED (Integrated) 2700K CRI>80 1400lm (integrated)
WARRANTY:	1 year
DRIVER/POWER SUPPLY:	Supply Voltage :120V
ENVIRONMENT/ IK/IP RATING:	Indoor
DIMENSIONS:	Width: 11.8 cm Height: 40.3 cm Depth: 13 cm Weight: 1.7 kg
CERTIFICATIONS:	cULus

*Specified finish may be different than that shown in image.

LINE DRAWING FOR SELECTED ITEM
294005P-71U: ☒



Noted as hardwired



TROU SUSPENSION

COLLECTION	VENICEM
DESIGNER	MELISSA LUNARDI & MASSIMO TONETTO
DESCRIPTION	Suspended lamp with diffused light. Light burnished brass or matte black structure. Transparent dove grey or polished white blown glass diffuser.
MATERIALS	Metal, Glass
COLOURS	White Glass, Dove Grey
FINISHES	Light Burnished Brass, Matte Black Metal
CERTIFICATIONS	Please enquire. Contact us
DIMENSIONS	Diameter: 17.72" (45cm) Height: 35.43" (90cm)
ADDITIONAL DETAILS	Lamping: 1 x 12W COB LED strip; dimmable Colour Temperature: 2700K Ballast included

"Please inquire" cannot specify until listing is confirmed by vendor in writing

Listing

INTEPERETTING SPECIFICATION

FLOS

Captain Flint Outdoor 2700K Grey Lava, Brushed Brass - Specification Sheet
by Michael Anastassiades

Mounting	Free Standing
Lamp (Bulb) Description	13W, 557lm, 2700K, 80 CRI
Environment	Outdoor - Wet location
Finish	Brushed Brass/Grey Lava

Electrical

Voltage	120
Switching	On/Off Dimmer switch - 30-100% dimmable LED
IP Rating	IP65

Physical

Cord Length (inches)	16' Black
Construction Material	Aluminum, Stone
Weight	11 lbs

F011A23FU59 - do not use Brushed Brass/Grey Lava

Dimensional Image

PROJECT:
PREPARED BY:
PREPARED FOR:
DATE:
LOCATION:
APPROVED:

lightform

info@lightform.ca • 1.866.526.7232

TYPE/TAG:

CAPTAIN FLINT FLOOR

CAPTAIN FLINT FLOOR BRS

DESCRIPTION:

Steele and graceful, this versatile floor lamp features smart details from head to toe. At the top, its spinning cone diffuser provides direct light that can be repositioned. On the bottom, it is weighted by a stunning white Carrara or black Marquina marble base. Its stem and cone are available in painted steel or brushed brass. The diffuser is injection-molded opal photoengraved PC (polycarbonate). Its power cord measures 260 centimeters and features a foot dimmer switch with ON-OFF functions and 10-100% light adjustment. The plug-in power supply includes interchangeable plugs.

MANUFACTURER:

Flos

CODE:

F1530059

FINISH:

Black Brass

DIFFUSER FINISH:

Injection-molded opal photoengraved

CONNECTION TYPE:

Plug-In

DIMMING:

Dimmer on Cord

MATERIALS:

Aluminum/Brass/Marble/Polycarbonate/Steel

CORD COLOUR:

Black

CORD LENGTH:

260 cm

BULB INFORMATION:

20W LED 2700K CRI93 1410lm (integrated)

WARRANTY:

1 Year

PROJECT:
PREPARED BY:
PREPARED FOR:
DATE:
LOCATION:
APPROVED:

CAPTAIN FLINT FLOOR

CAPTAIN FLINT FLOOR BRS

DRIVER/POWER SUPPLY:

Supply Voltage :120V

ENVIRONMENT/IK/IP RATING:

Indoor - Dry Location
IP20

DIMENSIONS:

Length: 37.3 cm
Width: 32 cm
Height: 153.7 cm
Diameter: 21.1 cm
Weight: 9 kg

CERTIFICATIONS:

cULus

*Specified finish may be different than that shown in image.

LINE DRAWING FOR SELECTED ITEM
F1530059:

Example of specification from manufacturer vs from vendor-information updated to match listing requirements as Lightform does in house listing



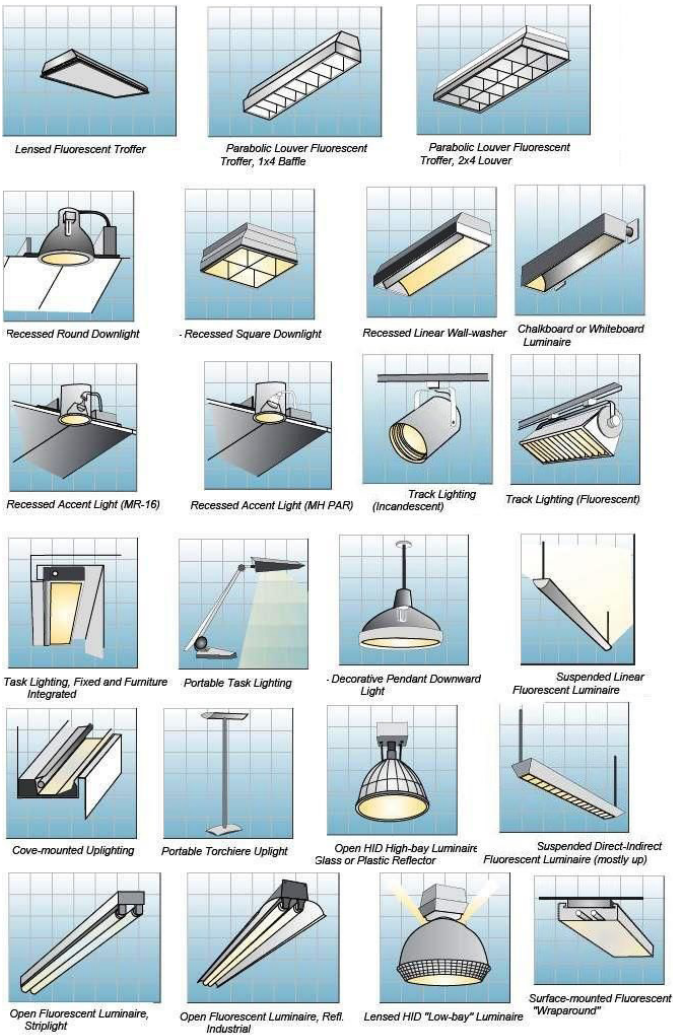
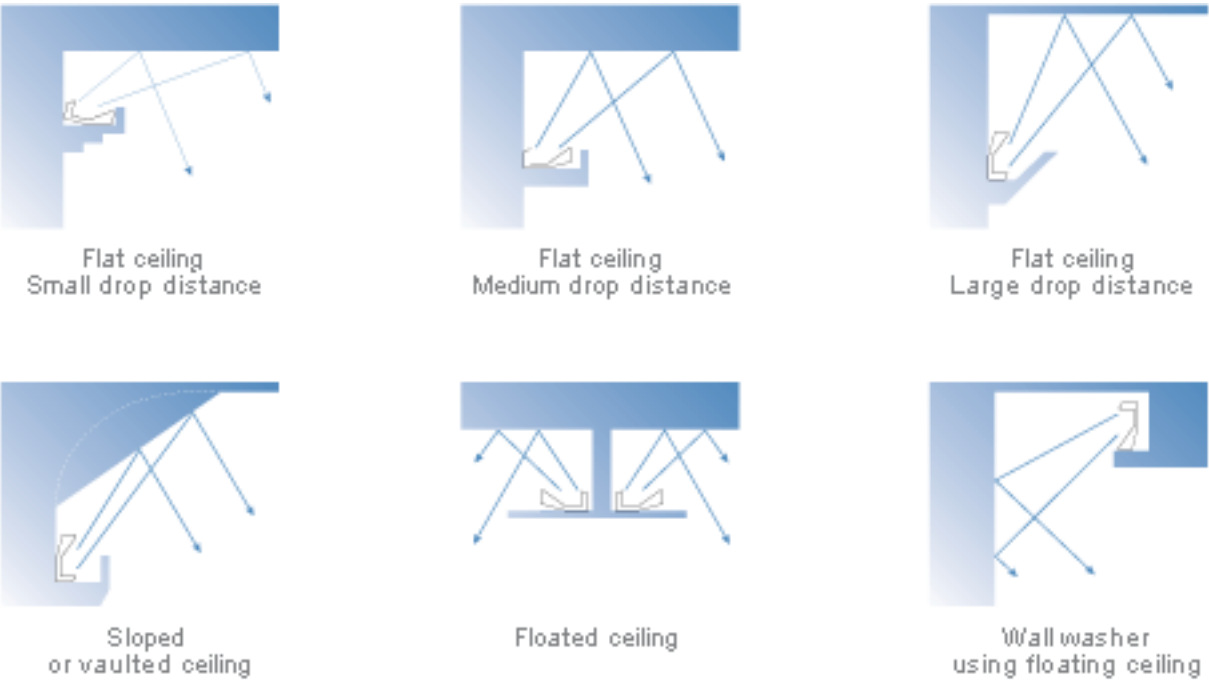
DESIGNER SCOPE VS LIGHTING CONSULTANT

As designers, it is our job to specify decorative lighting to add to the over aesthetic to our spaces, we ensure our specification meet project and internal standards and pass on this information to the lighting consultant to tackle “the bigger picture”. This means we are not responsible for the architectural lighting aspect of design

-This is why we integrate our hardwire lighting specifications into our architectural packages to the best of our ability

A lighting consultants works in conjunction with us as designers as well as the AOR to ensure the following:

- Coordinates with the integrated architectural details, ensures light details(eg cove lighting) is properly calculated
- provide the light levels users needs (different ambiances for type of day, calculates the what lights need to be on and off to achieve this, integrates technologies to support this eg. LUTRON system)
- stream line overall lamping requirements
- ensure efficiency and regulate energy consumptions
- ensure lighting adheres to local codes



COLLABORATING WITH CUSTOM MANUFACTURERS

-As designers, if the Industrial Designers are not involved on your project, we can still successfully collaborate to develop custom lighting with our vendors

-What we need to provide:

- listing requirements and any site specific conditions

- Budget paremeters

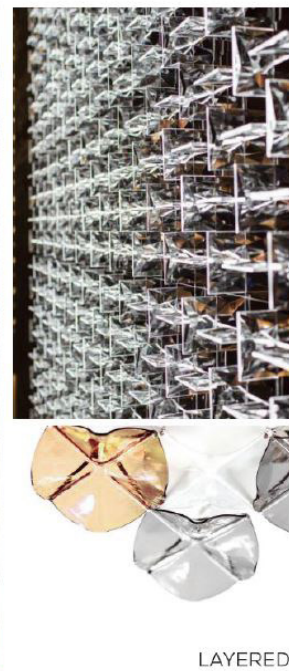
- Design intent in the form of the following:

 - INSPIRATION: images we like/any renderings we have developed during our schematic design process

 - NDA document in order to protect our design and client

ARIA CASINO // GLASS ENTRY FEATURES

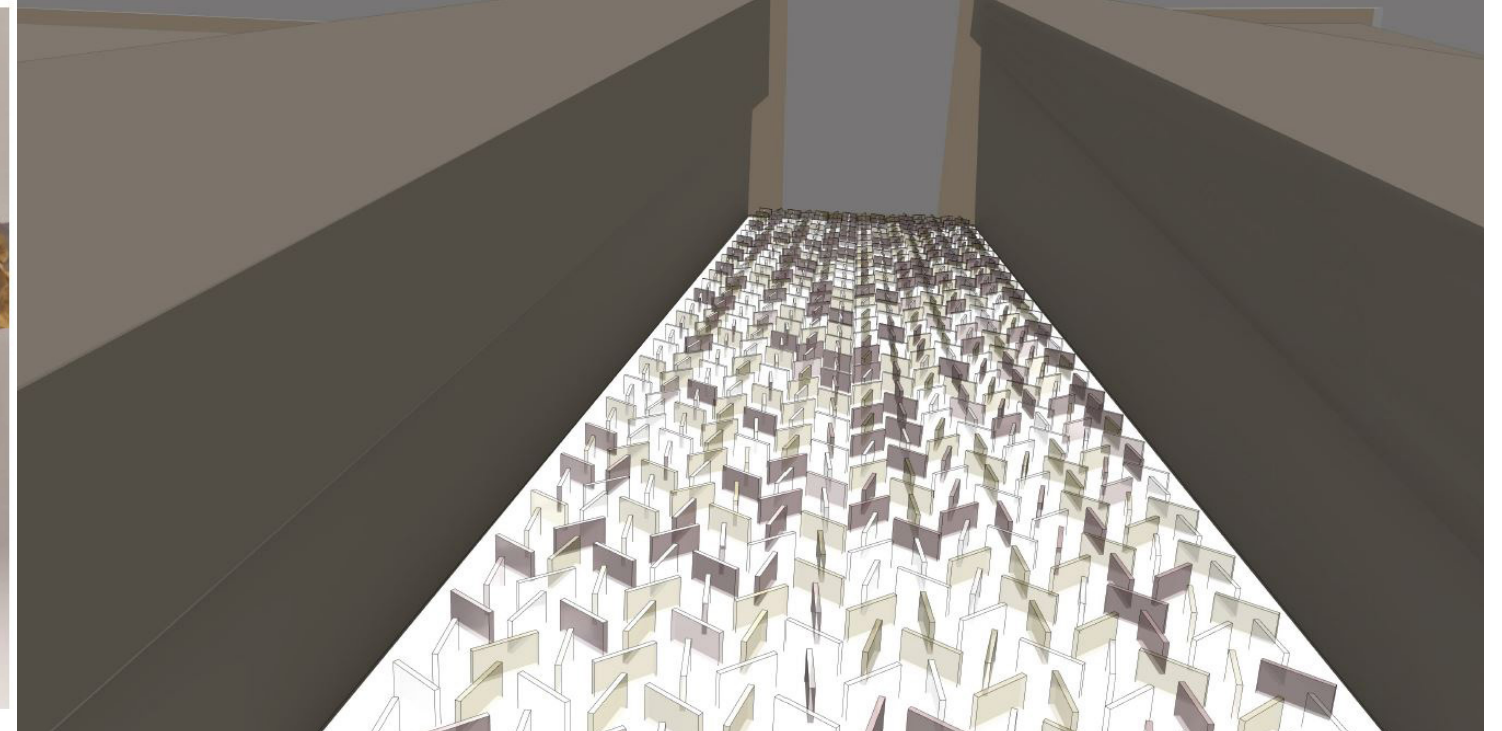
CLIENT IMAGES



LAYERED

ARIA CASINO // GLASS ENTRY FEATURES

OPTION 2 "RANDOMIZED GRID"



SPECIFICATIONS-EXAMPLE 1

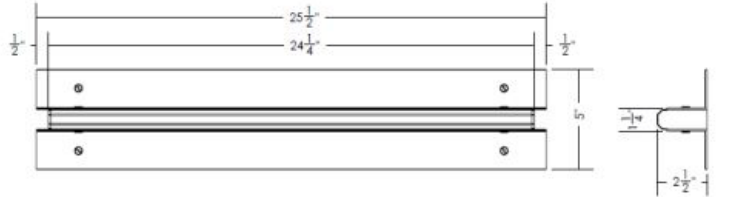


Issue Date:	Sep-17-21
Issue Type:	FF&E Specifications Issued for 100% DD
Area:	100 HOTEL_MUR
Unit Type:	Each
Supplier:	Juniper https://www.juniper-design.com/ mel.sanez@juniper-design.com 68 33rd Street, Brooklyn, New York, 11232, United States
Manufacturer:	Juniper
Item Description:	Suite Entry LED Wall Sconce
Product Name:	Axis Wall Sconce (24IN)
Colour:	Black Oxide
Cord Color:	N/A
Shade/Diffuser Style:	Bronze Metal, Frosted Acrylic Lens
Overall Dimensions:	25.5"L x 5"W x 2.5"D
Hanging Instructions:	Wall Mounted - Wood Screws Provided
Weight:	9 Lbs.

Colour Temperature Option:	2700K
Lamp Wattage:	9W, 0-650LM, Class 2, 120-277 AC Input, 24VDC Output
Dimmer type:	Dimmable: 0-10V Dimming (Electrical Engineer to Select Final Dimming System from Options Available - Refer to Cut Sheet)
Listing:	UL, cUL, CE, Title 24, Damp Location Rated
Designer Notes:	<ul style="list-style-type: none">- Assembly of Light Fixtures & Lamps to be Done on Site by Contractor;- Lighting Designer to Review / Approve All Lighting Specifications, Drawings and Cut Sheets- Lighting Designer / Electrical Engineer to Confirm Fixture Works with Hotel Lighting Control System- Electrical Engineer to Verify Concealed Proposed J-Box Works with Fixture- Electrical Engineer to Confirm Appropriate Dimming System from Options- Purchaser to Verify if Bulbs are Included and Provide If Not- Contractor To Provide Blocking As Required
Order Lead Time:	8-10 Week Typical Lead Time. Lead Time Subject to Change Based on Order and Stock Quantities.
Instructions:	REFER TO STUDIO MUNGE INSTRUCTION BOOKLET FOR ALL DETAILS REGARDING PRODUCT AND MATERIALS
Website Link:	juniper-design
Product Docs:	lt100_entry_wall_sconce2_09/16/2021 fflt100_entry_wall_sconce_06/22/2021

Great note example in order to ensure Contractor/AOR/ lighting consultant liability

Purchase to verify bulbs per coordination with vendor



AXIS WALL SCNCE

SPECIFICATIONS				
Typical Lead Time 6-8 Weeks	Color / Finish Black Oxide	Size 24 in	Color Temperature 2700K	Power Supply R. Standard Remote 120-277V 0-10V Dimming
Total Wattage & Lumens 12 IN - 4.5W, 0-270LM 24 IN - 9W, 0-550LM 36 IN - 14W, 0-900LM 48 IN - 18.5W, 0-1200LM	Light Quality CRI 95+, R9 90+	LED Lifespan 50,000 hrs, L80	Body Material Bronze, Frosted PMMA	Weight 12 IN - 5 lbs 24 IN - 9 lbs 36 IN - 13 lbs 48 IN - 17 lbs
Power Class 2, 120-277 AC input, 24VDC output	Mounting Mounted to wall using provided wood screws	Certifications UL, UL, CE, Title 24, Damp Location Rated		
MORE INFORMATION & OPTIONS				
Designer Miren Lasnier at Juniper	Length Options 12 IN 24 IN 36 IN 48 IN 2.5 IN x 5 IN Profile	Color Temperature Options 2700K 3000K 3500K 4000K	Finish Options Satin Brass Polished Brass Black Oxide Antique Pewter Black Walnut Grey-Stained Ash	Dimming Options 2-Wire/TRIAC/Forward Phase 0-10V 3-Wire/Ecosystem
Power Supply Options L. Standard Local 120-277V 2-Wire/TRIAC/Forward-Phase, 0-10V, ELV Dimming/Reverse-Phase R. Standard Remote 120-277V 0-10V Dimming R. Standard Remote 120-277V ELV Dimming R. Standard Remote 120V 2-Wire/TRIAC/Forward-Phase R. Standard Remote 277V 2-Wire/TRIAC/Forward-Phase R. Lutron Remote 120-277V 3-Wire, Digital Ecosystem Dimming Hi-lume Series R. Lutron Remote 120V 2-Wire/TRIAC/Forward-Phase Dimming Hi-lume Series				

Cutsheets REQUIRED



SPECIFICATIONS-EXAMPLE 2



Dyna Linear Suspension

Item # 700LSDYNAR4PB-LED927

Designer: Tech Lighting

Specifications

4ft version ships with 32 watt, 1306 delivered lumen, 90 CRI, 2700K, 3000K or 3500K LED linear modules. 8ft ships with 50.4 watt, 2612 delivered lumen, 90 CRI, 2700K, 3000K or 3500K LED linear modules. Dimmable with most LED compatible E.V or Triac dimmers. Ships with twelve feet field cuttable cable.

Length: 47.5"

Width: 1.3"

Height: 1"

Features

Dimmable

Field-Cuttable Cable

Available in LED

Issue Date:	Dec-02-21	
Issue Type:	100% Design Development	
Area:	300 South Tower-7th Floor Amenities / L7-Boardroom	
Unit Type:	Each	
Supplier:	Circa Lighting http://circalighting.com international <international@circalighting.com> 513 west jones street, Savannah, Georgia, 31401, United States	
Item Description:	Pendant @ Boardroom	
Product Name:	Dyna Linear Suspension	
Model:	700LSDYNAR4PB-LED927	Listing: ETL Listing ✓
Colour:	B-Anodized Black	Designer Notes: -Purchaser to verify quantities
Shade/Diffuser Style:	Prismatic	Order Lead Time: In Stock
Overall Dimensions:	L 47.5" x W: 1.3"	Product Docs: It300 11/30/2021
Hanging Instructions:	84" AFF ✓	
Colour Temperature	2700K ✓	



circa LIGHTING®

CUTSHEET REQUIRED

SPECIFYING LIGHTING



SPECIFICATIONS-EXAMPLE 3

GARRISON POINT-BUILDING A

LA-04



Area:

Unit Type:

Supplier:

Manufacturer:

Item Description:

Product Name:

Bulb Type:

Model:

Colour:

Overall Dimensions:

Lamp Wattage:

Dimmer type:

Listing:

Website Link:

300 3rd Floor Amentities

Each

Lightform
https://www.lightformshop.com
anja@lightform.ca
Anja Prostran
267 Niagara St, Toronto, Ontario, M6J2L7, Canada
416.745.5656 x4113

Pablo Studio

Table Lamp

Circa Table Lamp

Integrated ✓

CIRC TBL GPT

Graphite

Height :35 cm
Width : 30 cm
Length : 30 cm

1x8.5W LED 2700K CRI85 380lm (integrated)

Dimmer on Body

ETL ✓

lightformshop

PROJECT:

PREPARED BY:

PREPARED FOR:

DATE:

LOCATION:

APPROVED:

lightform

info@lightform.ca • 1.866.526.7232

CIRCA TABLE

CIRCA TABLE GPT

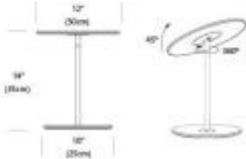
DESCRIPTION:	Circa's revolutionary flat-panel LED light source combines seamless movement with warm and balanced illumination. Through its integrated USB charging port, 45Å° shade tilt and 360Å° rotation, Circa redefines the ambient lighting category. Circa is available in a wide range of models to satisfy all residential, office and hospitality applications.
MANUFACTURER:	Pablo Designs
CODE:	CIRC TBL GPT
FINISH:	Graphite ✓ White
CONNECTION TYPE:	Plug-In
DIMMING:	Dimmer on Body
MATERIALS:	ABS/Polycarbonate/Aluminum/Steel
CORD LENGTH:	244 cm
ADA APPROVED:	Yes
BULB INFORMATION:	1x8.5W LED 2700K CRI85 380lm (integrated)
WARRANTY:	1 Year
DRIVER/POWER SUPPLY:	Supply Voltage :120V
ENVIRONMENT/ IK/ IP RATING:	Indoor
DIMENSIONS:	Length: 30 cm Width: 30 cm Height: 35 cm
CERTIFICATIONS:	cETLus



*Specified finish may be different than that shown in image.

LINE DRAWING FOR SELECTED ITEM

CIRC TBL GPT: ✓



IF YOU HAVE ANY QUESTION ABOUT THOSE SPECIFICATIONS,
PLEASE CONNECT WITH OUR RESOURCE SPECIALIST.

THANK YOU

太感谢了

GRACIAS

धन्यवाद

OBRIGADO

MERCI

اركش

Благодарность

ありがとう

DANKE

감사 해요

הודות

GRAZIE

