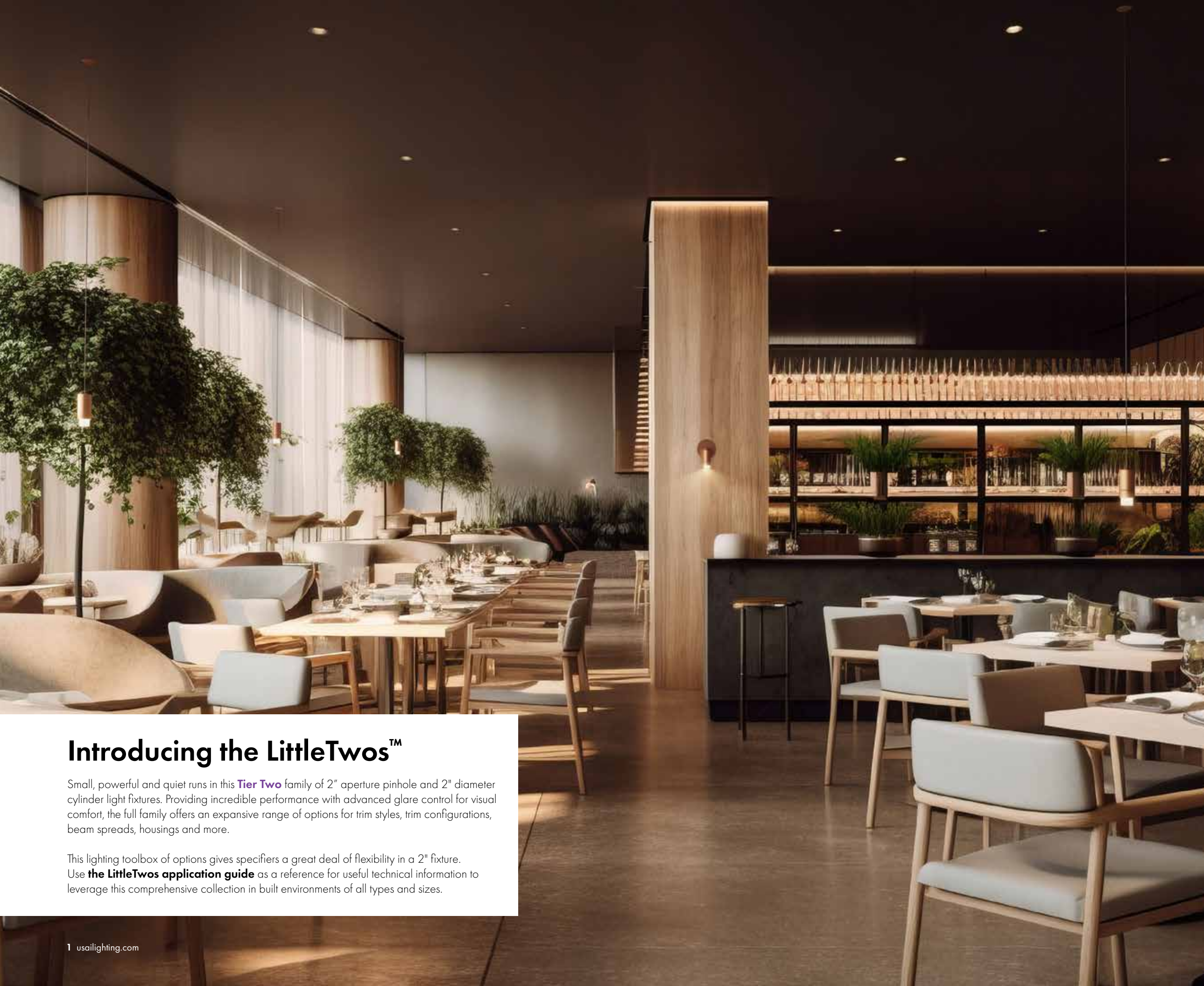


USAI[®] Lighting

the LittleTwos[™]

APPLICATION GUIDE





Introducing the LittleTwos™

Small, powerful and quiet runs in this **Tier Two** family of 2" aperture pinhole and 2" diameter cylinder light fixtures. Providing incredible performance with advanced glare control for visual comfort, the full family offers an expansive range of options for trim styles, trim configurations, beam spreads, housings and more.

This lighting toolbox of options gives specifiers a great deal of flexibility in a 2" fixture. Use **the LittleTwos application guide** as a reference for useful technical information to leverage this comprehensive collection in built environments of all types and sizes.

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Optics
Installation & Housing Options
Drivers & Enclosures

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Home
Corridor
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Retail

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USAI Products

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the LittleTwos™ Pinhole

High Performance Features and Specifications



2"

TIER 2



THE POWER

Up to 2000 Delivered Lumens*

TRIMMED



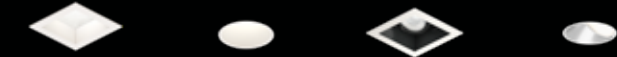
TRIMLESS



FUNCTIONS



Standard Regress Downlight Deep Regress Downlight Adjustable Wall Wash



BEAM SPREADS



HOUSINGS

the LittleTwos Pinhole offers new construction and install from below housing options for easy installation in any site condition. Always serviceable from below, select from options to install from above or below the ceiling.

Install from Below:

- Retrofit, Flex Driver Case

New Construction Installation, Service from Below:

- New Construction Tray (NCT)
- Insulation Contact and Chicago Plenum Housings (NCIC, NCCP)

New Construction Installation, Service from Above:

- New Construction Above Ceiling Access Housing (ABC)

LED COLOR OPTIONS

- Classic White® – 80+ and 90+CRI
- Dim-to-Warm – 90+ CRI
- Dim-to-Warm + – 90+ CRI
- Color Select® Tunable White – 90+ CRI

LISTINGS

- IBEW Union Made
- Meets WELL Building Standards
- 0.1% Dimming Options
- Dry, Damp, Wet Locations
- 5 Year Warranty
- Buy American Act Compliant
- CSA-US Listed
- T24/JA8*
- Declare Label Red List Approved*

* Coming Soon

the LittleTwos™ Trim Matrix

Choose from a variety of trim options and combinations. the LittleTwos Recessed Pinholes are available in trimmed, trimless, and millwork, round or square, standard regress downlight, deep regress downlight, adjustable, and wall wash. A selection of finishes are available along with options perfect for visually quiet ceiling integrations.

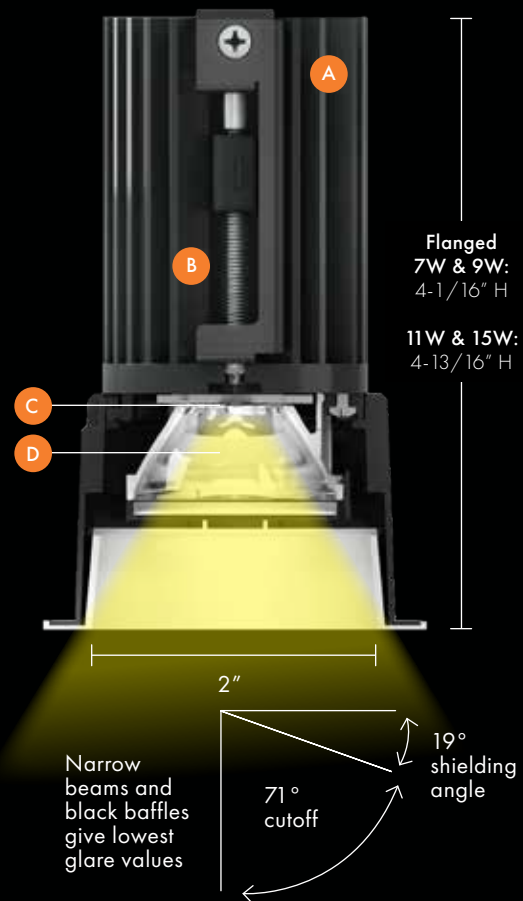
	Trimmed	Trimless	Millwork
Round Downlight			
Square Downlight			
Round Comfort Downlight			
Square Comfort Downlight			
Round Adjustable			
Square Adjustable			
Round Wall Wash			
Square Wall Wash			

FINISH OPTIONS

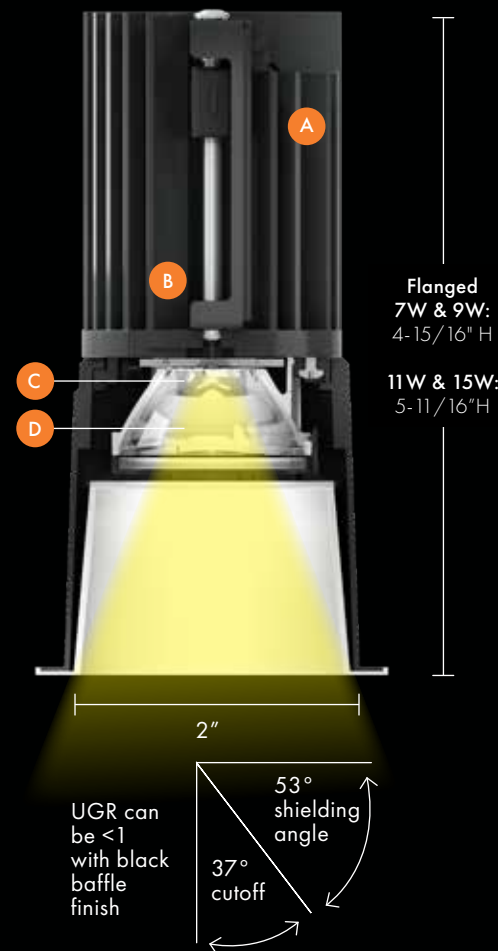
- White Matte
- Black Matte
- Silver Matte
- Black Specular

the LittleTwos™ Pinhole Optics

Standard Regress Downlight



Deep Regress Downlight



Spacing Criterion*				
20°	25°	30°	50°	65°
0.38	0.42	0.54	0.80	0.96

*Spacing criterion is an estimated maximum spacing to mounting height ratio to produce acceptable uniformity on the workplane.

What is UGR?

UGR = Unified Glare Rating, a measure of the discomfort glare produced by a light fixture. Best practices recommend to use lighting fixtures with UGR < 19.

About Cutoff

The cutoff angle is the lowest angle going up from nadir at which you do not have a direct view of the light source. Smaller cutoff angles are better for glare control.

KEY

- A Thermal management engineered for premium light quality over fixture lifetime
- B Flip-and-compress mounting wings
- C Highly efficient LED light engine with 2-step MacAdam ellipse color consistency
- D Native TIR Optic
- E Trim Fitting
- F Optic Holder
- G Adjustment Mechanism with Tilt Angle Indicators
- H Optic Media & Accessories
- I Accessories Holder
- J Trim



OPTIC MEDIA & ACCESSORIES

- Linear
- Filters
- Spread Lens
- Hexcell Louver
- Warm Filter (CTO)

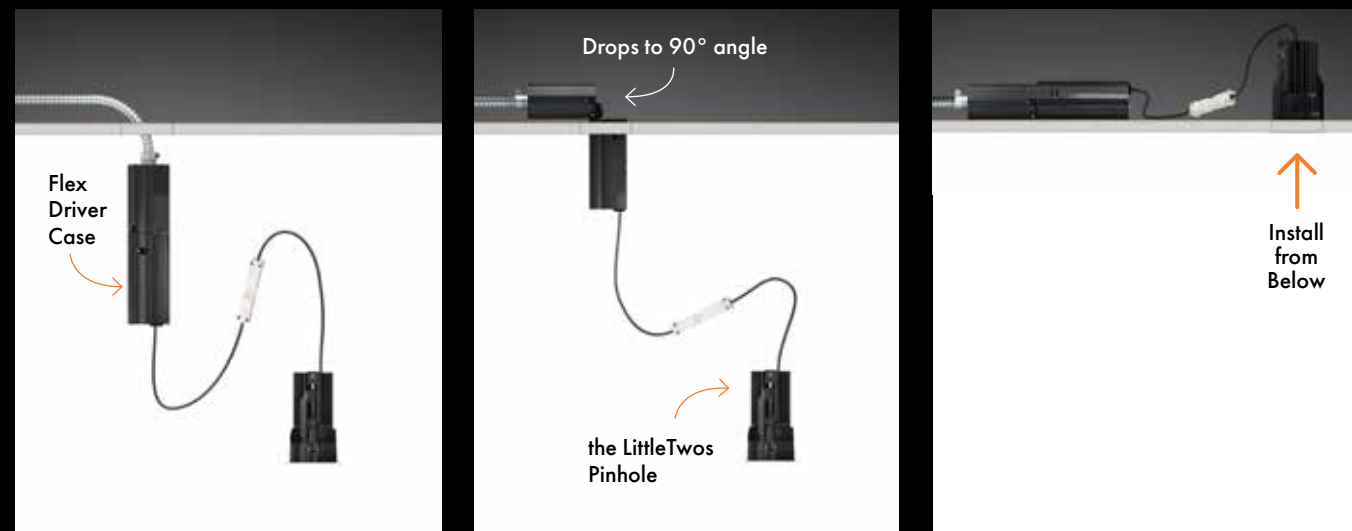
Adjustable Downlight



Installation & Housing Options

Integral Drivers

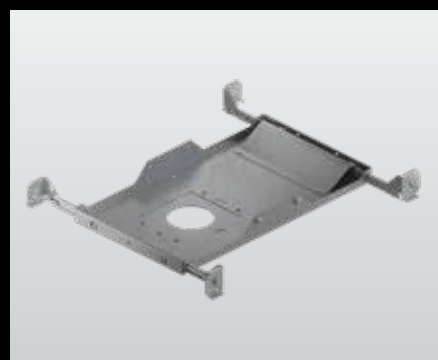
Retrofit Installation



1. Insert Flex Driver Case from Below Ceiling Plane
2. Flex Driver Case Automatically Drops to 90° Angle and Reduces Plenum Height Requirements
3. Finished Installation from Below with Integral Driver

New Construction Installation

SERVICE FROM BELOW:



NCT can be specified as an accessory to RT flex driver case fixtures. 6-3/4" plenum height required for driver.



Insulation Contact and Chicago Plenum Housings (NCIC, NCCP)

SERVICE FROM ABOVE:



New Construction Above Ceiling Access Housing (ABC)

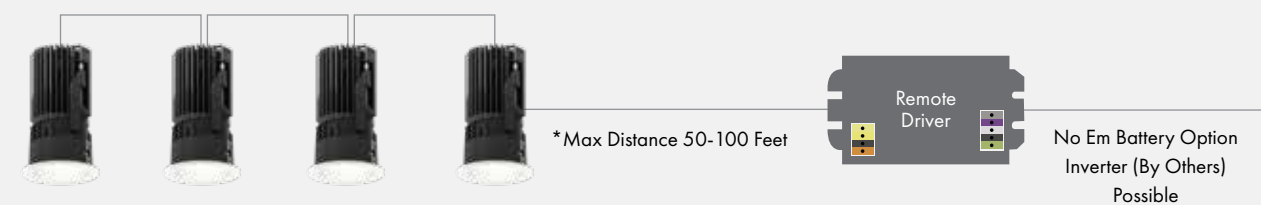
Remote Drivers for Pinhole and Cylinder

Remote drivers can be provided with mounting plates, single driver enclosures, or in pre-wired, big-box enclosures for multiple drivers upon request. The LittleTwos are compatible with all common lighting controls. Choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

2 Ways To Work With Remote Dimming Drivers

1 Standard Output with 2+ Multiple Fixtures Per Driver

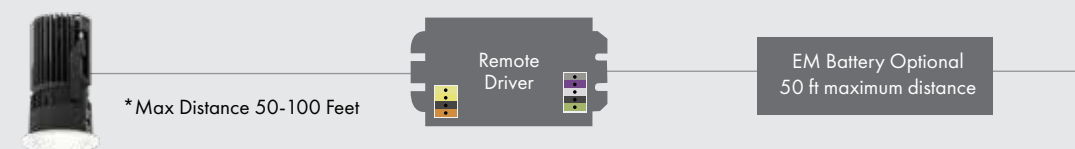
Connect up to four light fixtures at a time to one dimming driver for efficient power distribution and cost savings.



*Quantity of fixtures connected to driver depend on driver selection, please refer to spec sheets for more information. Contact your local USAI representative for additional driver layouts and different power requirements, or for custom configurations.

2 High Output with 1 Fixture Per Driver

Dedicating one fixture per driver provides optimal performance and best possible delivered light output



Remote Driver Applications Assistance

USAI offers applications assistance for configuration of remote drivers and remote driver enclosures. Contact your local USAI representative for additional driver layouts and different power requirements, or for custom configurations.



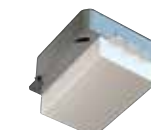
SNAP to Learn More

Single Driver Enclosure Options

For one remote driver at a time only.



Single Driver Enclosure (ENC)



Junction Box Mounting Plate (MP)



Recessed Rough-In Driver Enclosure (RRO, RR1)

Prewired Enclosures by USAI

Enclosures can house up to 12 dimming drivers.



Actual Size

the LittleTwos™ Cylinder

High Performance Features and Specifications

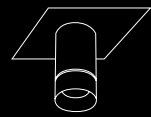
TIER 2



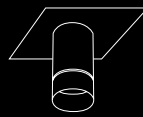
THE POWER

Over 1000 Delivered Lumens*

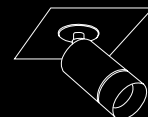
FUNCTION:



Downlight



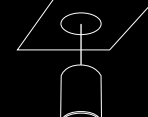
Deep Regress Downlight



Adjustable



Wall Wash



Glow Glass

2', 4', 6' and 8' suspension lengths are field adjustable

Cable Mount

APERTURE & SHAPE

2" Round x 4" Height

BEAM SPREADS



LED COLOR OPTIONS

- Classic White® – 80+ and 90+CRI
- Dim-to-Warm – 90+ CRI
- Dim-to-Warm + – 90+ CRI

LISTINGS

- IBEW Union Made
- Meets WELL Building Standards
- 0.1% Dimming Options
- Dry, Damp, Wet Locations
- 5 Year Warranty
- Buy American Act Compliant
- UL Listed
- T24/JA8*
- Declare Label Red List Approved*

* Coming Soon

4"

2"

Cylinder Configurations

the LittleTwos Cylinders are available in an expansive assortment of configurations to provide solutions for nearly every design requirement.



Standard Regress Downlight

Deep Regress Downlight

Adjustable

Wall Wash

Canopy Choices



5" Canopy Recessed Driver

2" Canopy Remote Driver

5" Canopy Remote Driver

Conduit Cutout Canopy Remote Driver

Driver Canopy

Conduit Cutout Driver Canopy

FINISH OPTIONS

Inner Baffle

- White
- Conduit Silver
- Grey
- Black

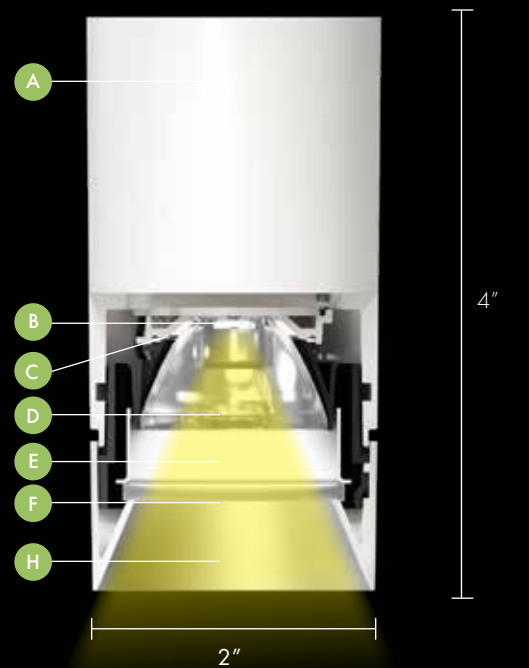
- Bronze
- Clear Matte
- Piano Gloss Black
- Custom RAL#

Body, Canopy and Stem

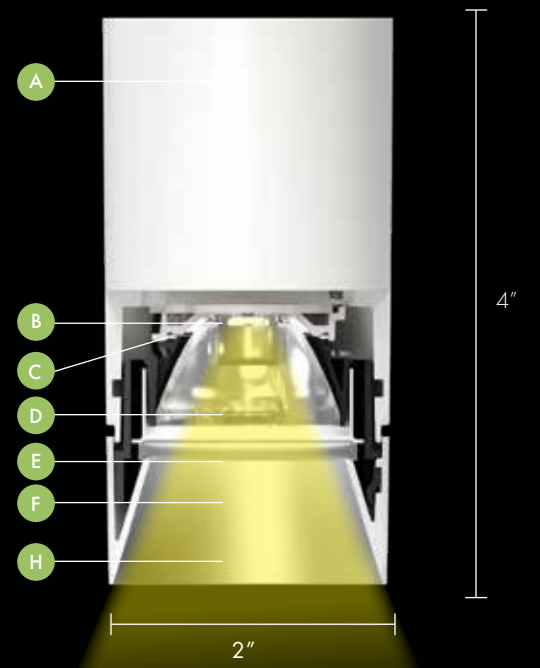
- White
- Conduit Silver
- Grey
- Black
- Bronze
- Custom RAL#

the LittleTwos™ Cylinder Optics

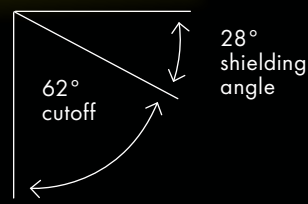
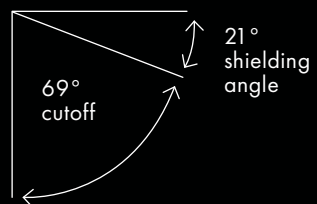
Standard Regress Downlight



Deep Regress Downlight



Narrow beams and black baffles give lowest glare values



Spacing Criterion*

15°	20°	25°	35°	40°	45°	55°	65°	70°
0.30	0.40	0.45	0.58	0.67	0.70	0.83	1.01	1.08

*Spacing criterion is an estimated maximum spacing to mounting height ratio to produce acceptable uniformity on the workplane.

What is UGR?

UGR = Unified Glare Rating, a measure of the discomfort glare produced by a light fixture. Best practices recommend to use lighting fixtures with UGR < 19.

About Cutoff

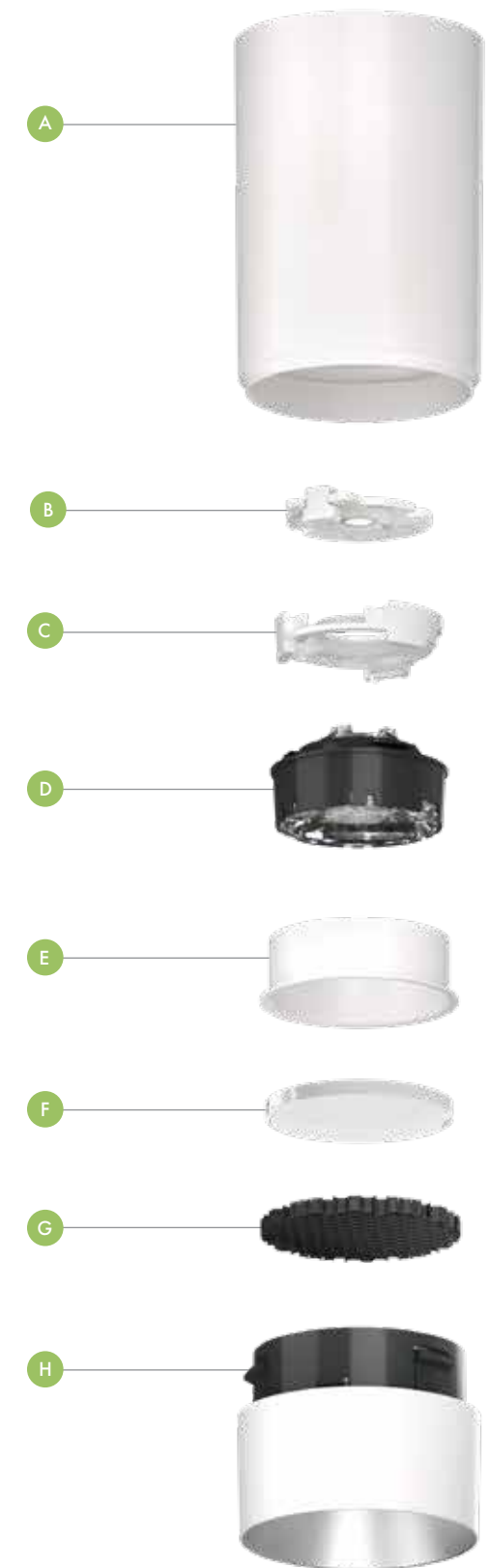
The cutoff angle is the lowest angle going up from nadir at which you do not have a direct view of the light source. Lower cutoff angles are better for glare control.

KEY

- A** Cylinder body with heatsink for optimal thermal performance
- B** Highly efficient LED light engine with 2-step MacAdam ellipse color consistency
- C** LED Holder
- D** Native TIR Optic
- E** Accessories Sleeve
- F** Trim Lens Options Include:
Solite Glass
Borosilicate Clear (For 15 degree beam)
Linear Spread Lens
Warm Filter (CTO)
- G** Optional Optic Media - Hexcell Louver
- H** Cylinder end cap

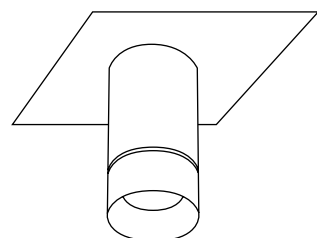


Standard Regress Downlight



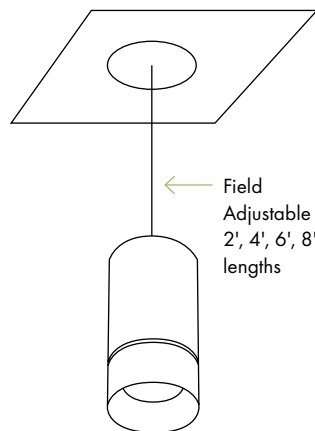
Mounting Options

Choose the best option for your ceiling installation.



Surface Mount

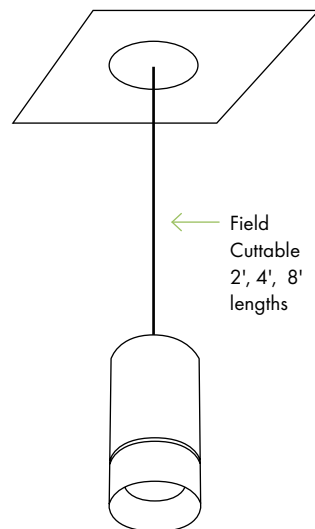
The lowest profile installation possible, completed with no visible hardware.



Cable Mount

1/8" Ø high-tension shielded conductor cable is silver in color and can be adjusted in the field to desired length.

Not available with Adjustable and Wall Wash.



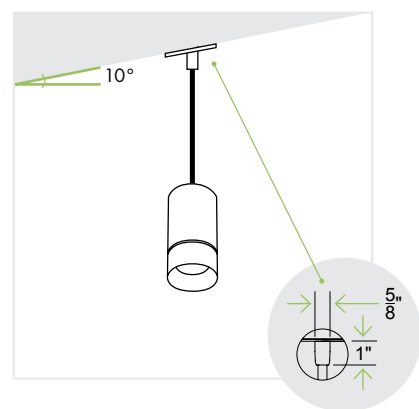
Pendant Stem Mount

3/8" Ø steel stem is provided in a powdercoat painted finish with either a 10° hang straight or a 30° hang straight. Hang straight details are shown below.

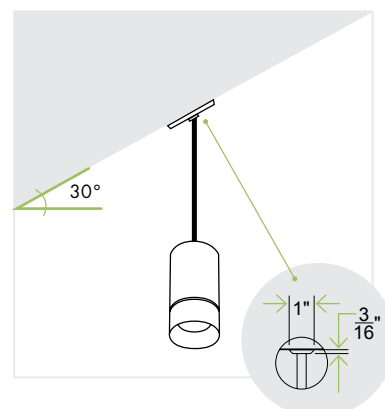
Hang Straight Options

Available with Pendant Stems Only

10° Hang Straight



30° Hang Straight



3

ways to stash your drivers

USAI's the LittleTwos are compatible with all common lighting controls. Choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

1 Recessed Rough-In Driver Enclosure

USAI offers recessed rough-ins which allows for placement of drivers in the ceiling at the light fixture location. Recessed rough-ins act as enclosures for drivers which can be accessed and serviced through the rough-in aperture behind the cylinder canopy.



Recessed Driver

- 5" Canopy
- High Output with **1** Fixture Per Driver

2 Canopy Mounted Drivers

USAI offers two driver canopy solutions – one for use with recessed junction boxes, and a driver canopy for use with surface mounted junction boxes.



Canopy Mounted Driver

- 5" Canopy
- High Output with **1** Fixture Per Driver



Canopy Mounted Driver

- Conduit Cutout Canopy
- High Output with **1** Fixture Per Driver

3 Remote Driver and Enclosures

For the remote drivers, you can use either 1 fixture per driver or multiple fixtures per driver (Max of 4 fixtures). Depending on your output preference.



Remote Driver

- 2" Canopy
- High Output with **1** Fixture Per Driver
- Standard Output with **2+** Multiple Fixtures Per Driver



Remote Driver

- Conduit Cutout Canopy
- High Output with **1** Fixture Per Driver
- Standard Output with **2+** Multiple Fixtures Per Driver

Optional USAI Enclosures

All remote drivers require enclosures by code. We make your specification process easier by offering different driver enclosures to fulfill all of your project needs. See page 8 for more information.

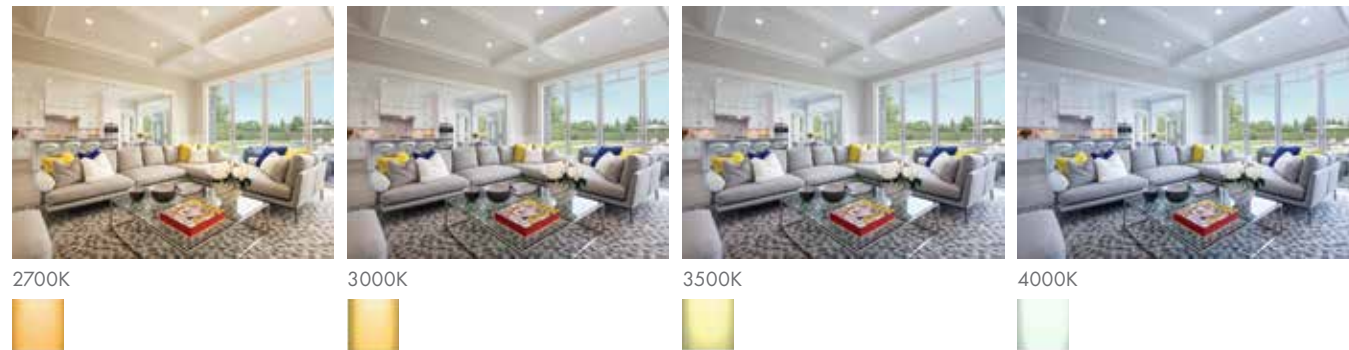



SNAP
to Learn More

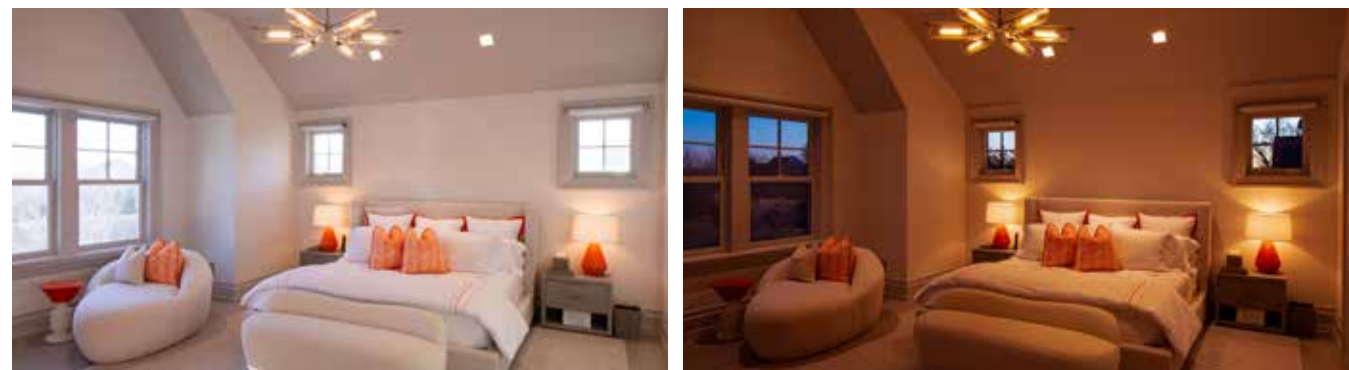
the LittleTwos™ LED Color Choices

Light is equally as precious as the finishes and materials in a room. Every space, object, or task has an ideal shade of light to be lit by. Choosing the right light can make everything, everyone, and the experience extraordinary. Offering white color temperatures ranging from 2200K to 6000K, the LittleTwos are available with **Classic White**, **Dim to Warm**, **Dim to Warm +**, and **Color Select Tunable White**. Choose the USAI LED color option(s) that's best for your next project.

 **Classic White®**
2700K, 3000K, 3500K, 4000K, 80+ and 90+ CRI




 **Dim-to-Warm** 3000K - 1800K 90+ CRI
Dim-to-Warm + 3000K - 2000K 90+ CRI



100% INTENSITY AT 3000K

18% INTENSITY AT 2200K

 **Color Select® Tunable White**
6000K-2200K, Tunable White Light 90+ CRI



3600K, 80% INTENSITY

4800K, 70% INTENSITY

2400K, 50% INTENSITY



the LittleTwos™ Pinhole Performance Data


Small, Powerful, Quiet and Flexible.

	 Classic White 2700K, 3000K, 3500K, 4000K 80+ and 90+ CRI					 Dim-to-Warm 3000K-1800K 90+ CRI Dim-to-Warm + 3000K-2000K 90+ CRI	 Color Select Tunable White 6000K-2200K 90+ CRI
Wattage	7W	9W	11W	15W	20W	15W	15W
Source Lumens	800	1200	1125	1875	2600	1100	1000
Maximum Delivered Lumens	725	900	1025	1400	2000	800	775



the LittleTwos™ Cylinder Performance Data

Come for the power. Stay for the comfort.

	 Classic White 2700K, 3000K, 3500K, 4000K 80+ and 90+ CRI				 Dim-to-Warm 3000K-1800K, 90+ CRI Dim-to-Warm + 3000K-2000K, 90+ CRI
Wattage	7W	9W	11W	15W	15W
Source Lumens	800	875	1125	1275	1100
Maximum Delivered Lumens	550	700	800	1050	600

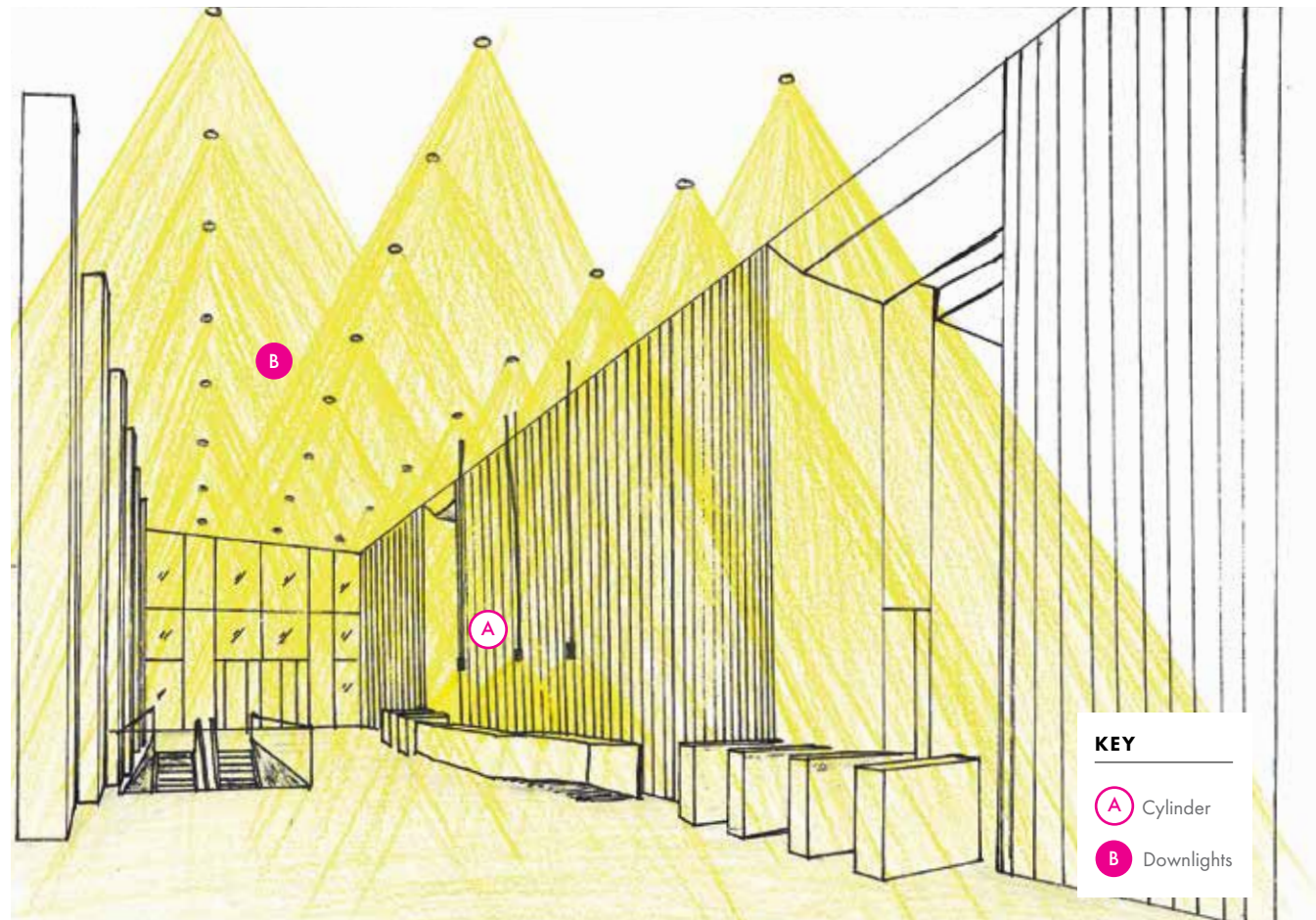


Make your design a reality with the LittleTwos™

Layer in your specifications with the LittleTwos™. This 2" family's vast offering provides an abundance of possibilities. The following pages are filled with inspirational application illustrations and helpful technical information to help turn specifiers' designs and concepts into a reality. Use these pages as a resource and let your creativity take the lead. **Get TWO It!** →

Lobby 18' Ceiling

DESIGN GOAL: Create a well-lit and inviting atmosphere in a lobby with a high ceiling that allows occupants to navigate through the space intuitively. Utilize an efficient lighting scheme to achieve the average IES recommended light levels on all surfaces.



LAYER A SPECIFICATION:

Cable Mount Cylinder

FIXTURE SPEC: CLRD4-07V4C-35KH-15-WH

MOUNTING HEIGHT: 7FT

BEAM ANGLE: 15°

WATTAGE: 7W

COLOR TEMPERATURE: 3500K, 90+ CRI

DELIVERED LIGHT: 504 Lumens

GLARE (UGR): 11.7



LAYER B SPECIFICATION:

Trimless Round Downlight

FIXTURE SPEC: S2RD-15V2M-35KH-30-P1-WH

MOUNTING HEIGHT: 18FT

BEAM ANGLE: 30°

WATTAGE: 15W

COLOR TEMPERATURE: 3500K, 90+ CRI

DELIVERED LIGHT: 1382 Lumens

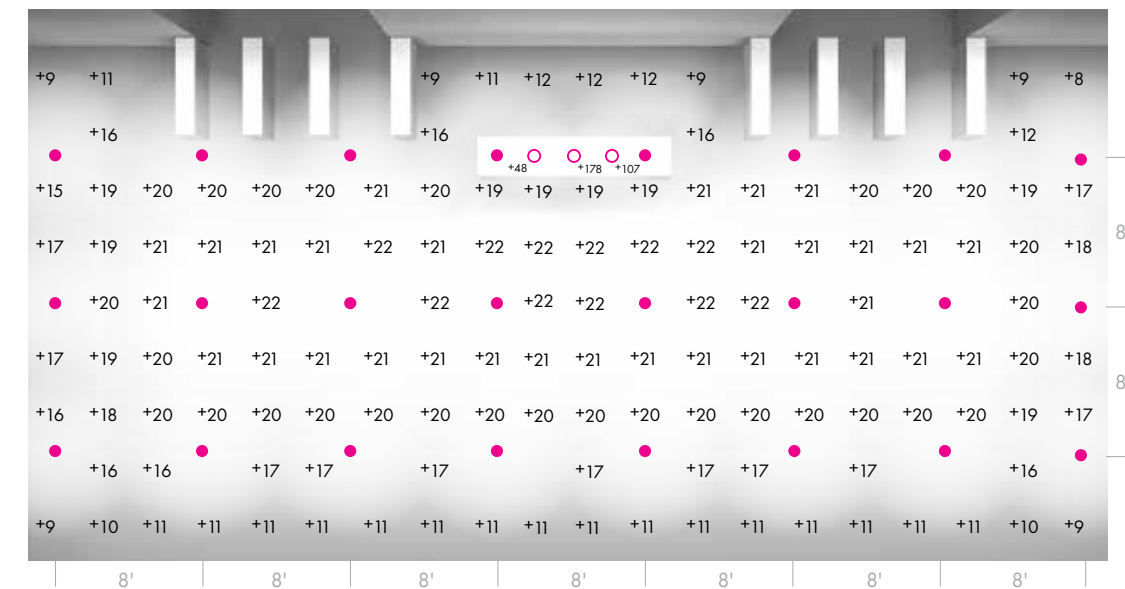
GLARE (UGR): 16



Smooth Transitions

SOLUTION: To meet the design goal, the lobby uses two layers of lighting. **Layer A, Cylinder** is placed 2' on center to highlight the reception desk and provide adequate task lighting. **Layer B, Downlights** are used in an 8'x8' spacing to provide even ambient illumination in this 18' ceiling space. The lighting calculation below illustrates that this layout delivers over 110 footcandles on the work plane and over 17 footcandles on the floor. This design provides light levels that allow occupants to navigate intuitively through the lobby.

FLOOR PLAN: ○ A.Cylinder ● B.Downlight



LIGHTING INTENSITY

Avg On Floor: 17 FC
Max/Min: 3.6

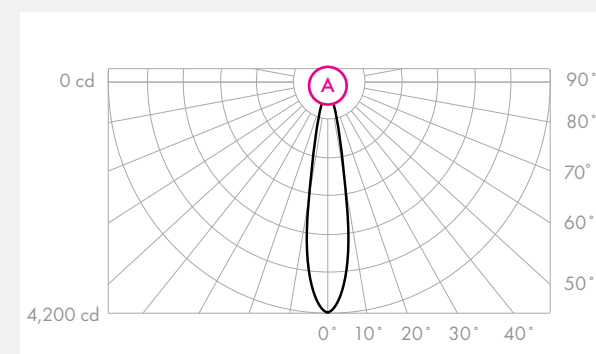
Room Dimension:
30'W x 60'L x 18'H

Avg On Reception Desk: 100 FC
Max/Min: 5.7

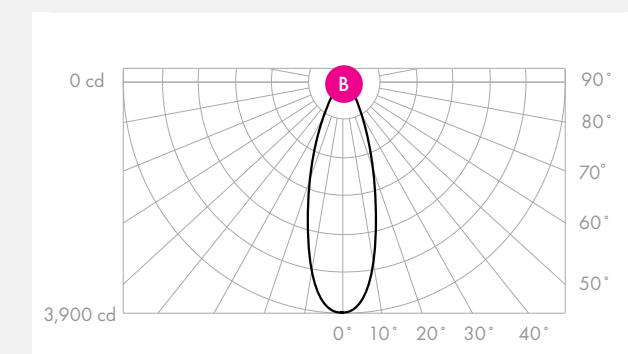
Table Dimension:
2'W x 10'L x 3'-6"H

NOTE: Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

15° Beam Distribution

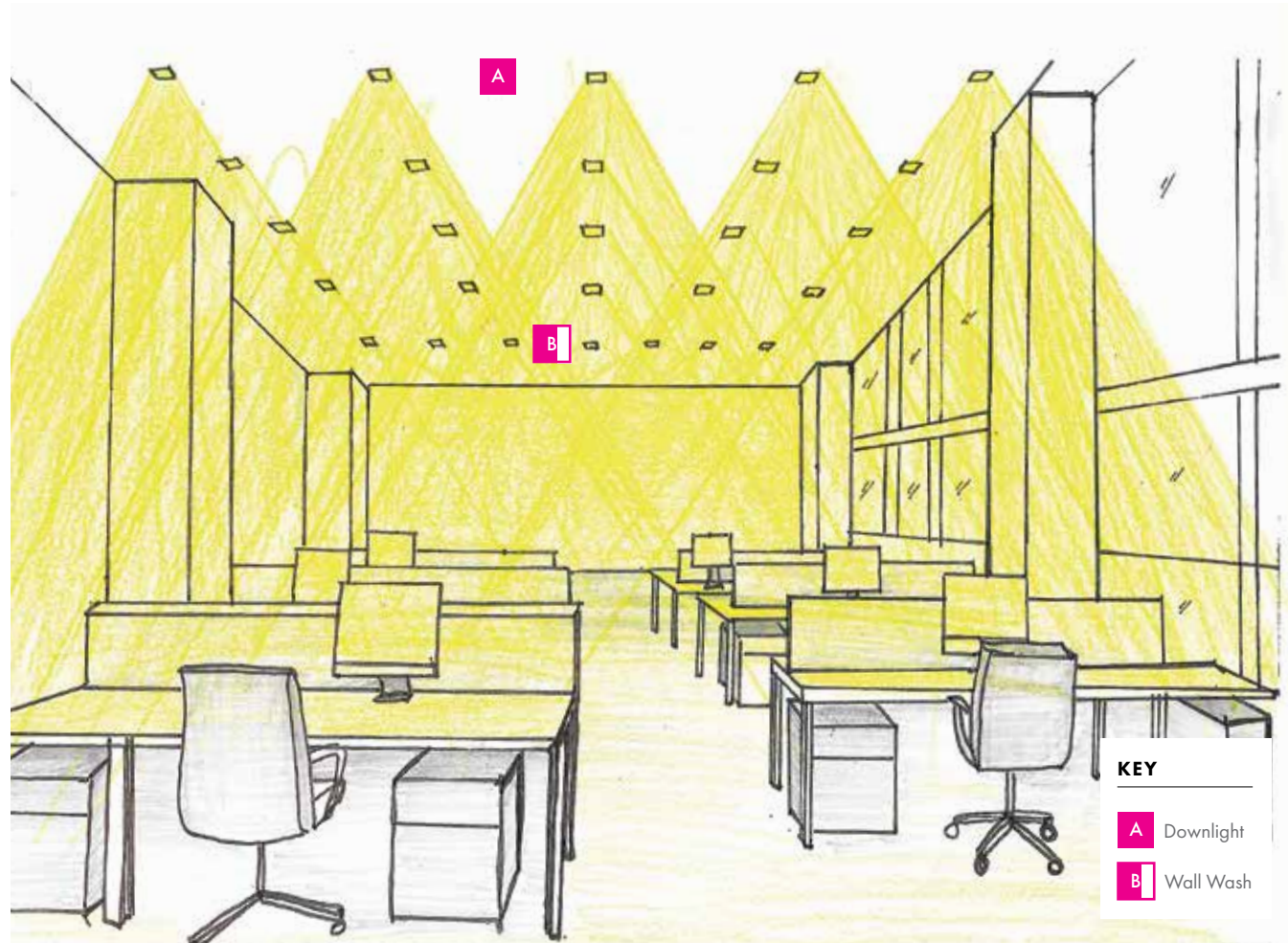


30° Beam Distribution



Open Office 9' Ceiling

DESIGN GOAL: Formulate an open office lighting design that provides sufficient light levels for productive work while at the same time minimizing glare for employees' visual comfort. Utilize an efficient lighting scheme to achieve the average IES recommended light levels on all surfaces.



LAYER A SPECIFICATION:

Trimmed Square Downlight

FIXTURE SPEC: S2SD-15V2M-30KS-65-P1-BG

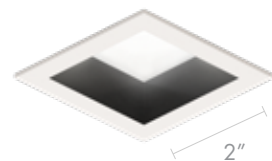
BEAM ANGLE: 65°

WATTAGE: 15W

COLOR TEMPERATURE: 3000K, 80+ CRI

DELIVERED LIGHT: 906 Lumens

GLARE (UGR): 18



LAYER B SPECIFICATION:

Trimmed Square Wall Wash

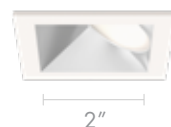
FIXTURE SPEC: S2SW-15V2M-30KS-W1-D1-SG

BEAM ANGLE: Wall Wash

WATTAGE: 15W

COLOR TEMPERATURE: 3000K, 80+ CRI

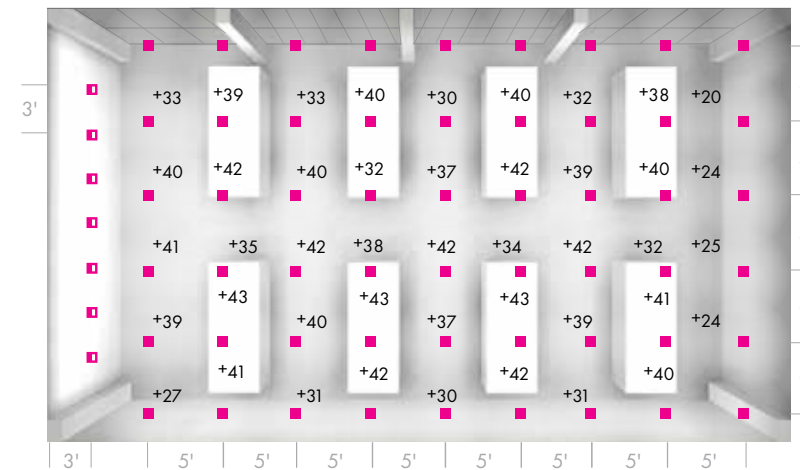
DELIVERED LIGHT: 830 Lumens



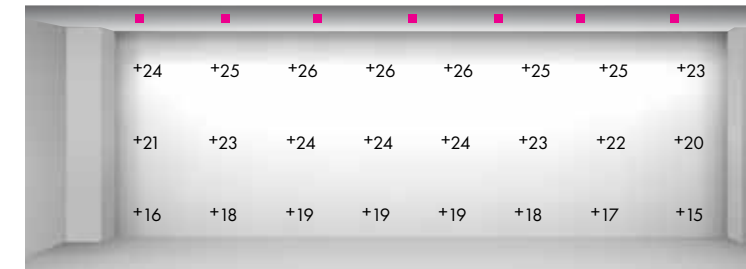
Lighting for Productivity

SOLUTION: Two layers of lighting are used to meet the design goal. **Layer A, Downlights** spaced 6'x 6' apart, achieve 44 footcandles on the work plane and 28 footcandles on the floor. This lighting layer provides even illumination for circulation and plenty of illumination for computer work, paperwork, and more. **Layer B, Wall Wash** spaced 3' away from the wall and 3' apart, achieves 21 footcandles on the wall. This lighting layer can be used to highlight artwork, graphics, or any vertical wall surface to create visual interest.

FLOOR PLAN: ■ A. Downlight ■ B. Wall Wash



WALL WASH FOR THE BACK WALL



LIGHTING INTENSITY

Avg On Floor: 28 FC
Max/Min: 4.7

Avg On Desk: 43 FC
Max/Min: 1

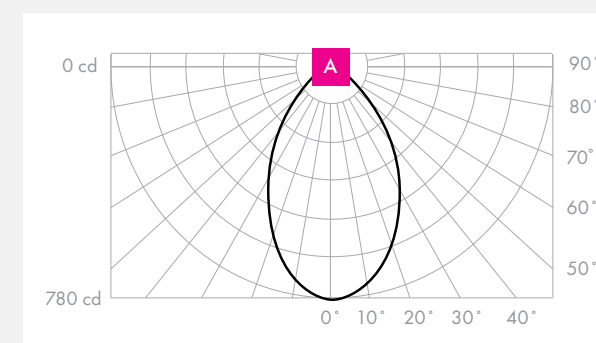
Avg On Back Wall: 21 FC
Max/Min: 2.9

Room Dimension:
50'W x 30'L x 9'H

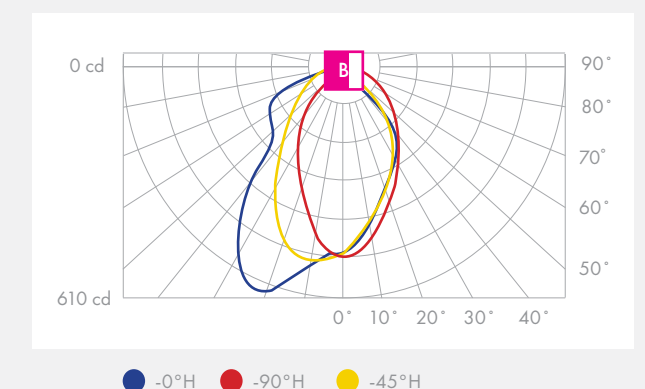
Table Dimension:
4'W x 10'L x 2'-6"H

NOTE: Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

65° Beam Distribution

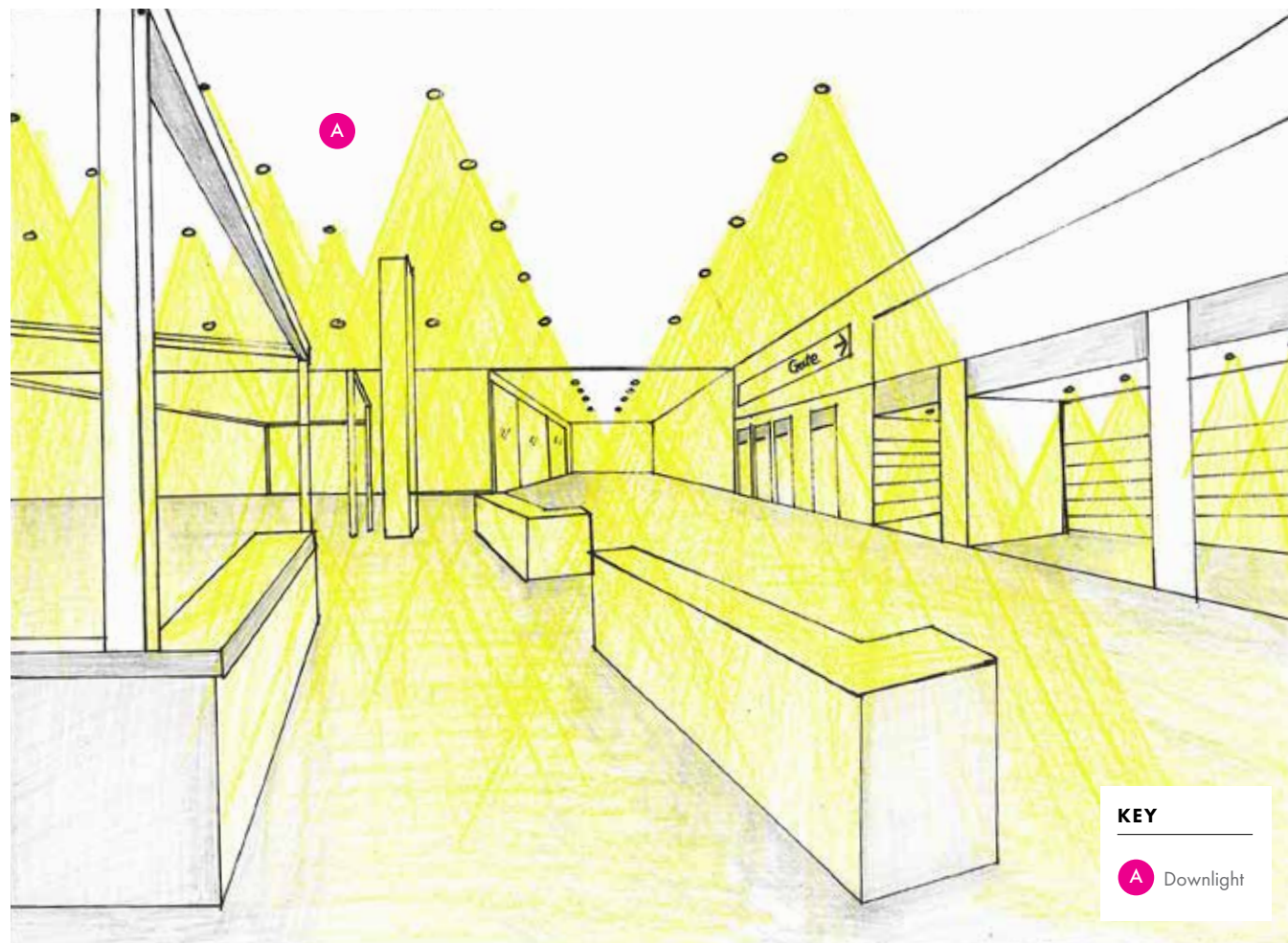


Wall Wash Distribution



Airport 25' Ceiling

DESIGN GOAL: Typical airport terminals are voluminous spaces, with high ceilings and broad open areas. The intent is to utilize a low-glare ambient lighting scheme to achieve the average IES recommended light levels, create a sense of space, and guide traffic flow in the Airport terminal interior spaces.



LAYER A SPECIFICATION:

Trimmed Round Downlight

FIXTURE SPEC: S2RD-15V2M-40KH-30-P1-WH

BEAM ANGLE: 30°

WATTAGE: 15W

COLOR TEMPERATURE: 4000K, 90+ CRI

DELIVERED LIGHT: 1199 Lumens

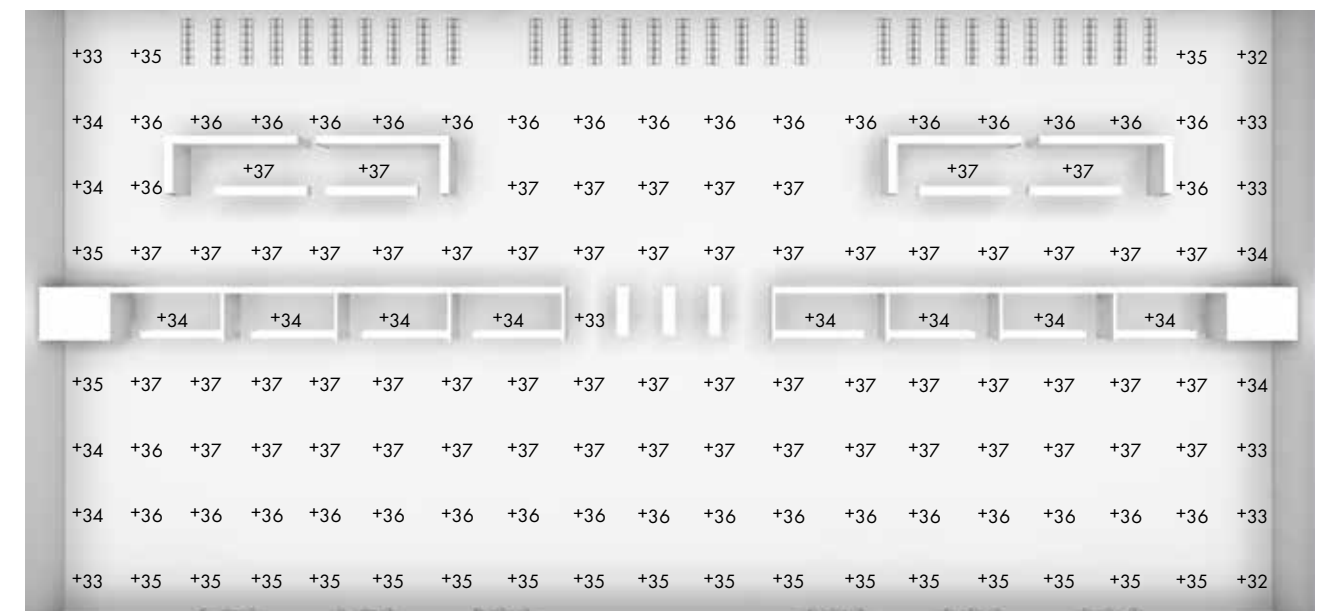
GLARE (UGR): 15.5



Small and Powerful

SOLUTION: The design strategy uses one layer of lighting to meet the design goal. **Layer A, Downlights** are spaced 8'x 8' apart and achieve 44 footcandles on the work plane and 24 footcandles on the floor. This lighting layer provides plenty of illumination for circulation, service stations, and any signage on the walls for wayfinding to retail shops.

FLOOR PLAN



LIGHTING INTENSITY

Avg On Floor: 23 FC
Max/Min On Floor: 3.4

Avg On Desk: 38 FC
Max/Min On Desk: 1

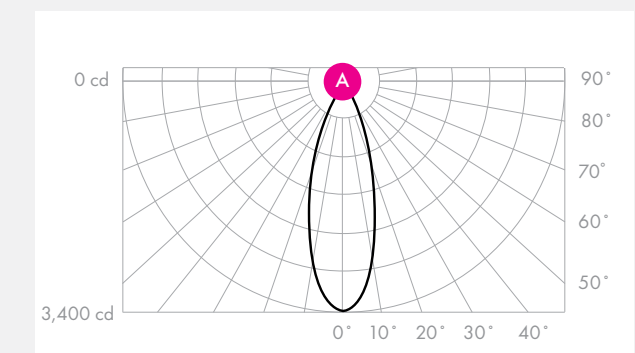
Avg On Wall: 7 FC
Max/Min On Desk: 5

Room Dimension:
200'W x 400'L x 25'H

Table Dimension:
15'W x 2'L x 3'H

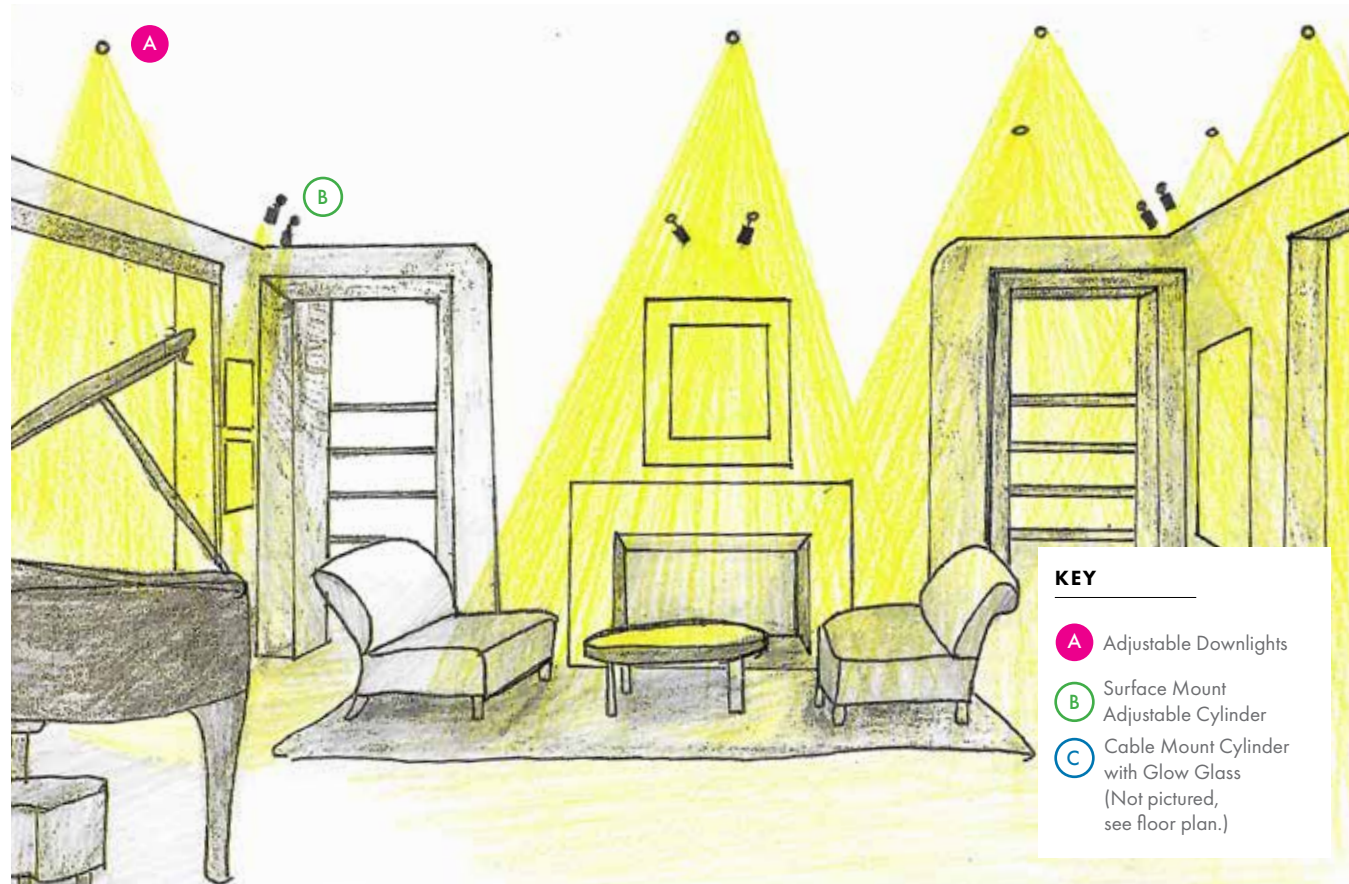
NOTE: Fixtures symbol indication not shown in the plan, refer to fixture spacing 8' by 8' calculation plan. Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

30° Beam Distribution



Home 12' Ceiling

DESIGN GOAL: Incandescent lighting is the most familiar and comforting light source for residential spaces because of the warm color temperature. Our intent is to utilize an efficient lighting scheme to provide a beautiful, dim to warm lighting experience with energy efficient LEDs and still achieve the average IES recommended light levels.



KEY

- A Adjustable Downlights
- B Surface Mount Adjustable Cylinder
- C Cable Mount Cylinder with Glow Glass (Not pictured, see floor plan.)



LAYER A SPECIFICATION:
Trimless Round Adjustable

FIXTURE SPEC: S2RA-15DW2-3020KH-65-WH
BEAM ANGLE: 65°
WATTAGE: 15W
COLOR TEMPERATURE: 3000K, 90+ CRI
DELIVERED LIGHT: 577 Lumens
GLARE (UGR): 22.8

LAYER B SPECIFICATION:
Surface Mount Adjustable Cylinder

FIXTURE SPEC: CLRD4-15DW2-3020KH-25-S-WH
BEAM ANGLE: 25°
WATTAGE: 15W
COLOR TEMPERATURE: 3000K, 90+ CRI
DELIVERED LIGHT: 603 Lumens
GLARE (UGR): 20.6

LAYER C SPECIFICATION:
Cable Mount Cylinder with Glow Glass

FIXTURE SPEC: CLRD4-15DW2-3020KH-25-G1-WH
BEAM ANGLE: 25°
WATTAGE: 15W
COLOR TEMPERATURE: 3000K, 90+ CRI
DELIVERED LIGHT: 603 Lumens
GLARE (UGR): 20.6

Layer Fixtures for Visual Hierarchy

SOLUTION: The design strategy uses three layers of lighting. **Layer A, Adjustable Downlights**, achieves more than 18 footcandles on the furniture and 16 footcandles on the floor. This lighting layer provides general illumination for the living area and can be aimed toward specific points of interest. **Layer B, Surface Mount Adjustable Cylinder**, achieves more than 42 footcandles on the wall art. **Layer C, Cable Mount Cylinder with Glow Glass**, achieves 70 footcandles on the bar top. This lighting layer highlights the bar with decorative glow glass and provides task lighting at the same time.

FLOOR PLAN:
● A: Adjustable Downlight ● B: Surface Mount Adjustable Cylinder ● C: Pendant Cylinder Downlight



LIGHTING INTENSITY

Avg On Floor: 17 FC
Max/Min: 12

Avg On Bar: 69 FC
Max/Min: 2.5

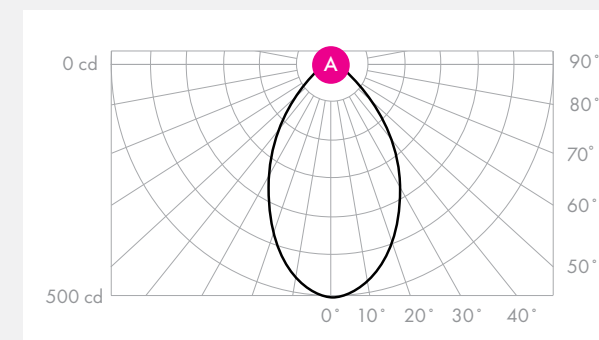
Avg On Artwork: 42 FC
Max/Min: 1.6
Max/Min: 1.4

Room Dimension:
25'W x 20'L x 12'H

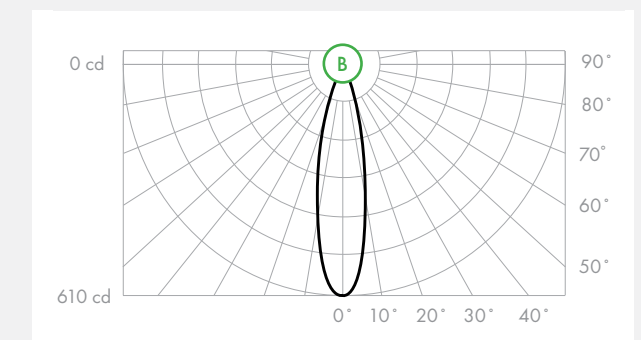
Bar Dimension:
2'W x 8'L x 3'-6"H

NOTE: Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

65° Beam Distribution

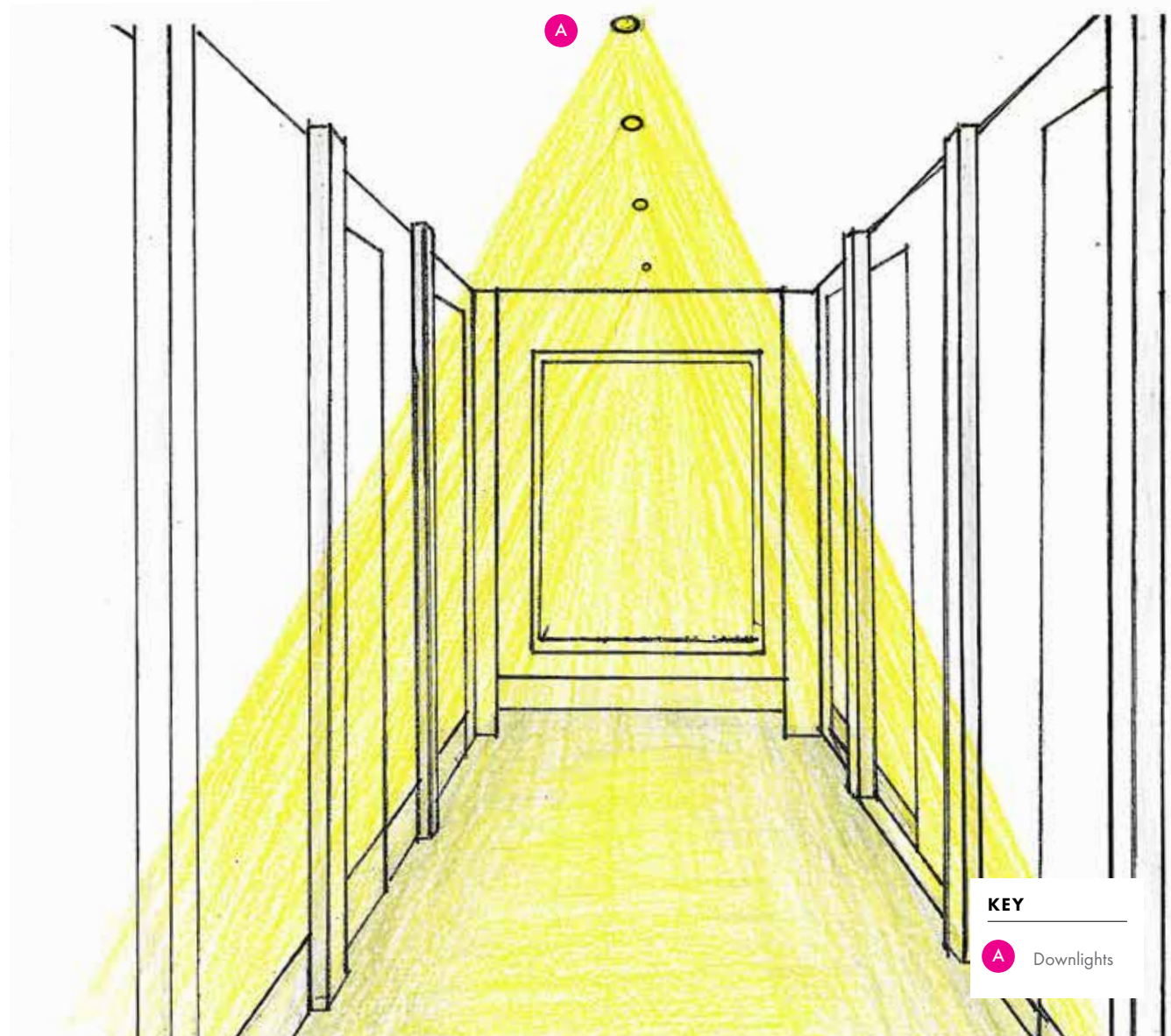


25° Beam Distribution



Wayfinding 8' Ceiling

DESIGN GOAL: Provide a uniform and adequate level of light for people to move around safely and create the overall mood and atmosphere for the corridor.



LAYER A SPECIFICATION:

Trimmed Round Downlight

FIXTURE SPEC: S2RD-15V2M-35KS-65-P1-WH

BEAM ANGLE: 65°

WATTAGE: 15W

COLOR TEMPERATURE: 3500K, 80+ CRI

DELIVERED LIGHT: 904 Lumens

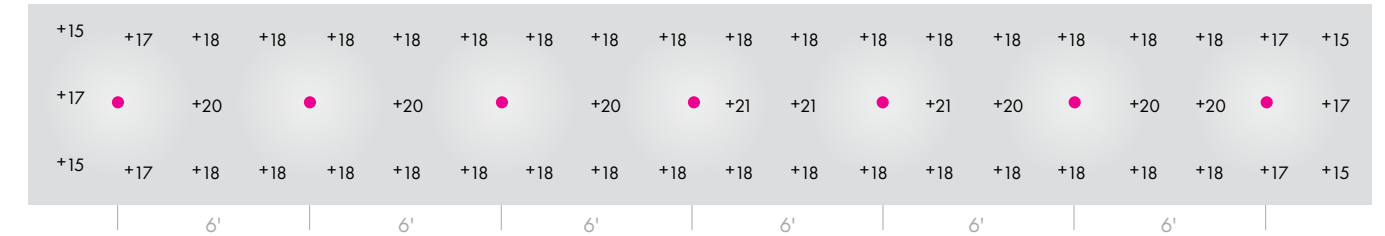
GLARE (UGR): 26.1



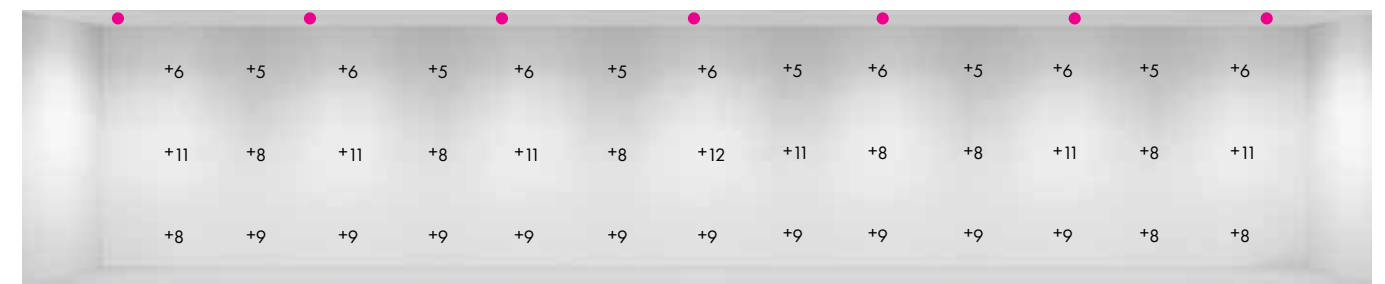
Navigating Paths

SOLUTION: The lighting design uses one layer of lighting to achieve the intent of the space. **Layer A, Downlights** are spaced 6'x 6' apart and achieve 18 footcandles on the floor. This lighting layer provides even, shadow-free lighting on the floor, ensuring safe transitions as occupants move through the space.

FLOOR PLAN: ● A:Downlight



ELEVATION



LIGHTING INTENSITY

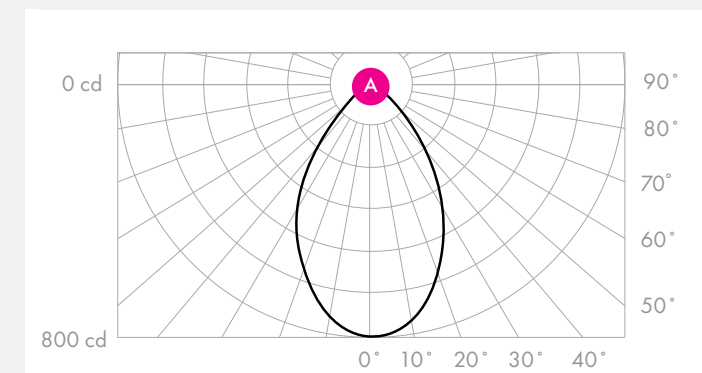
Avg On Floor: 18 FC
Max/Min: 1.2

Avg On Wall: 8 FC
Max/Min: 1.6

Room Dimension:
8'W x 40'L x 8'H

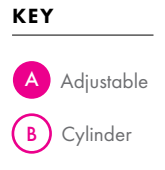
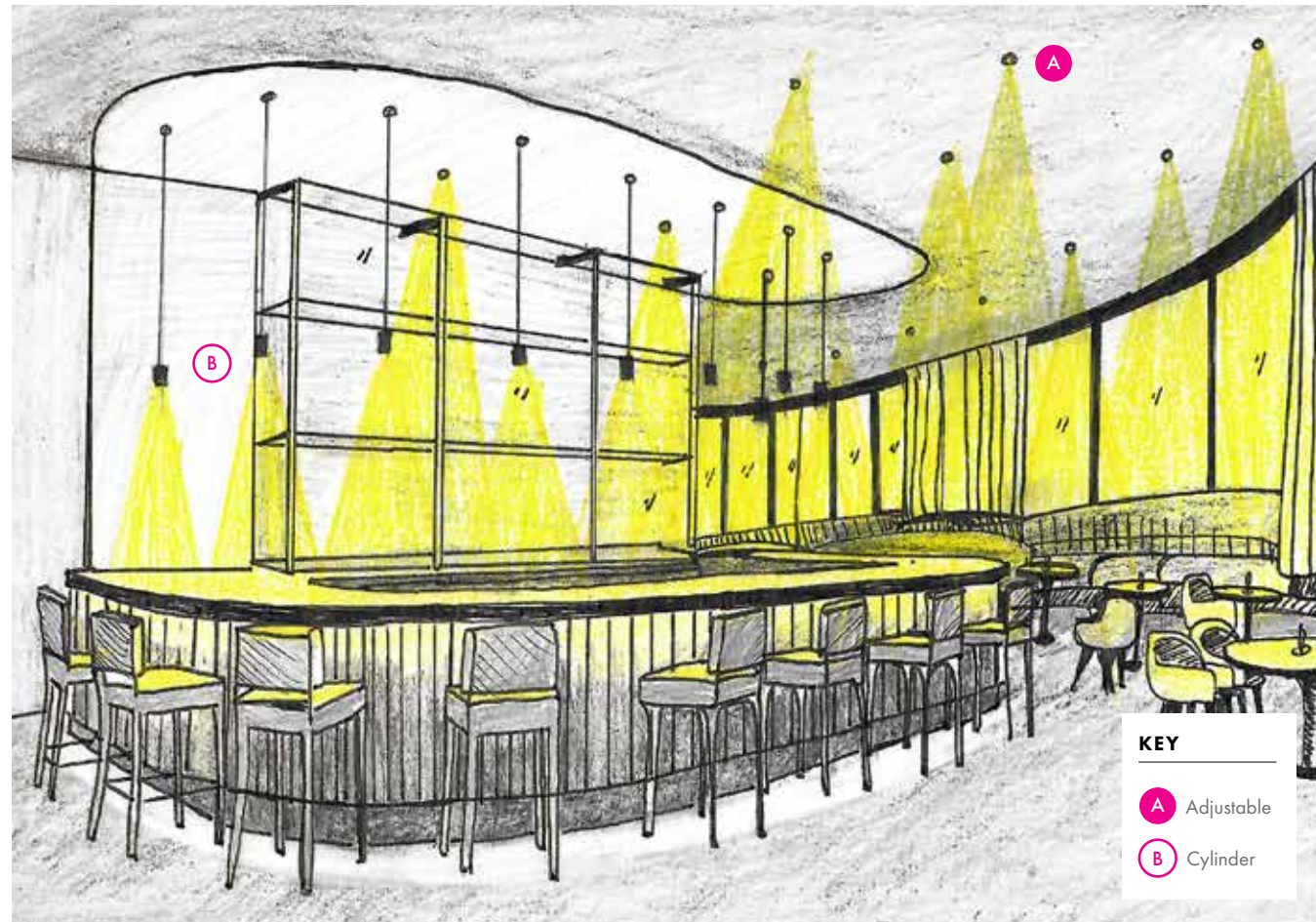
NOTE: Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

65° Beam Distribution



Restaurant 14' Ceiling

DESIGN GOAL: The first impression of a restaurant is influenced by its lighting design, which also enhances the dining experience. The design intent is to provide adequate light levels, low glare, and a suitable mood and ambiance.



LAYER A SPECIFICATION:

Trimmed Round Adjustable

FIXTURE SPEC: S2RA-09V2M-27KH-30-BL

BEAM ANGLE: 30°

WATTAGE: 9W

COLOR TEMPERATURE: 2700K, 90+ CRI

DELIVERED LIGHT: 691 Lumens

GLARE (UGR): 1.6



LAYER B SPECIFICATION:

Cable Mount Cylinder

FIXTURE SPEC: CLRD4-09V2M-27KH-15-BC-BL

BEAM ANGLE: 15°

WATTAGE: 9W

COLOR TEMPERATURE: 2700K, 90+ CRI

DELIVERED LIGHT: 518 Lumens

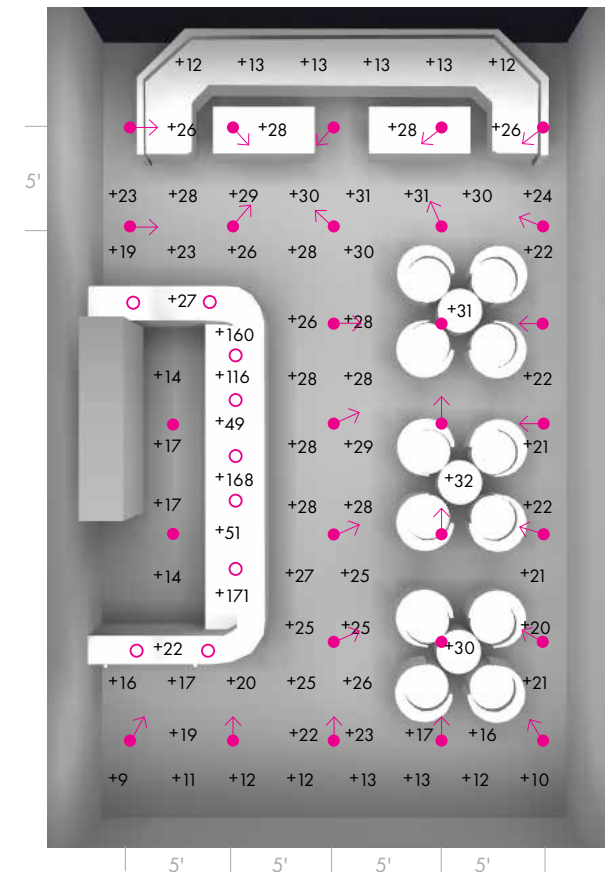
GLARE (UGR): 11.8



Play of Brilliance

SOLUTION: To achieve the design goal, two layers of lighting are used for the restaurant. **Layer A, Adjustable** downlights are spaced 5'x 5' to achieve 20 footcandles on the floor evenly, and 30 footcandles on the dining tables. **Layer B, Cylinders** are spaced 3' apart and provide 57 footcandles along the bar surface. This lighting layer provides intimate lighting for the guests in this area. The fixtures can be zoned separately for flexibility and control of brightness levels to create the desired mood from section to section.

FLOOR PLAN: A:Adjustable B:Cylinder



LIGHTING INTENSITY

Avg On Floor: 19 FC
Max/Min: 15

Avg On Bar: 54 FC
Max/Min: 4.7

Avg On Table: 28 FC
Max/Min: 1

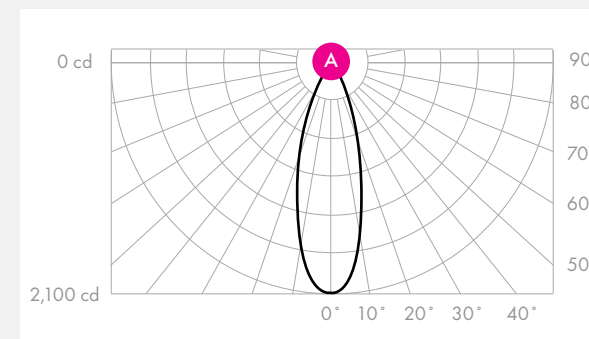
Room Dimension:
23'W x 40'L x 14'H

Table Dimension:
2.3 Diameter x 2'-3"H

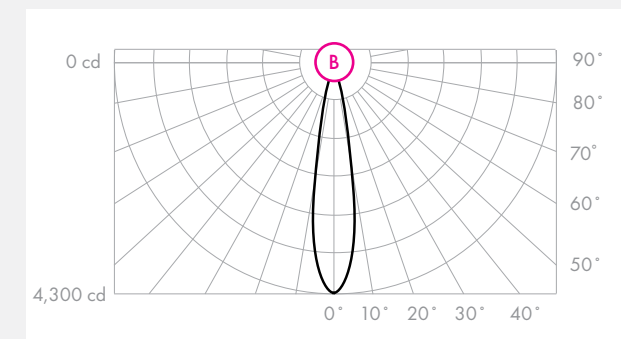
Bar Height:
3'-8"H

NOTE: Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

30° Beam Distribution

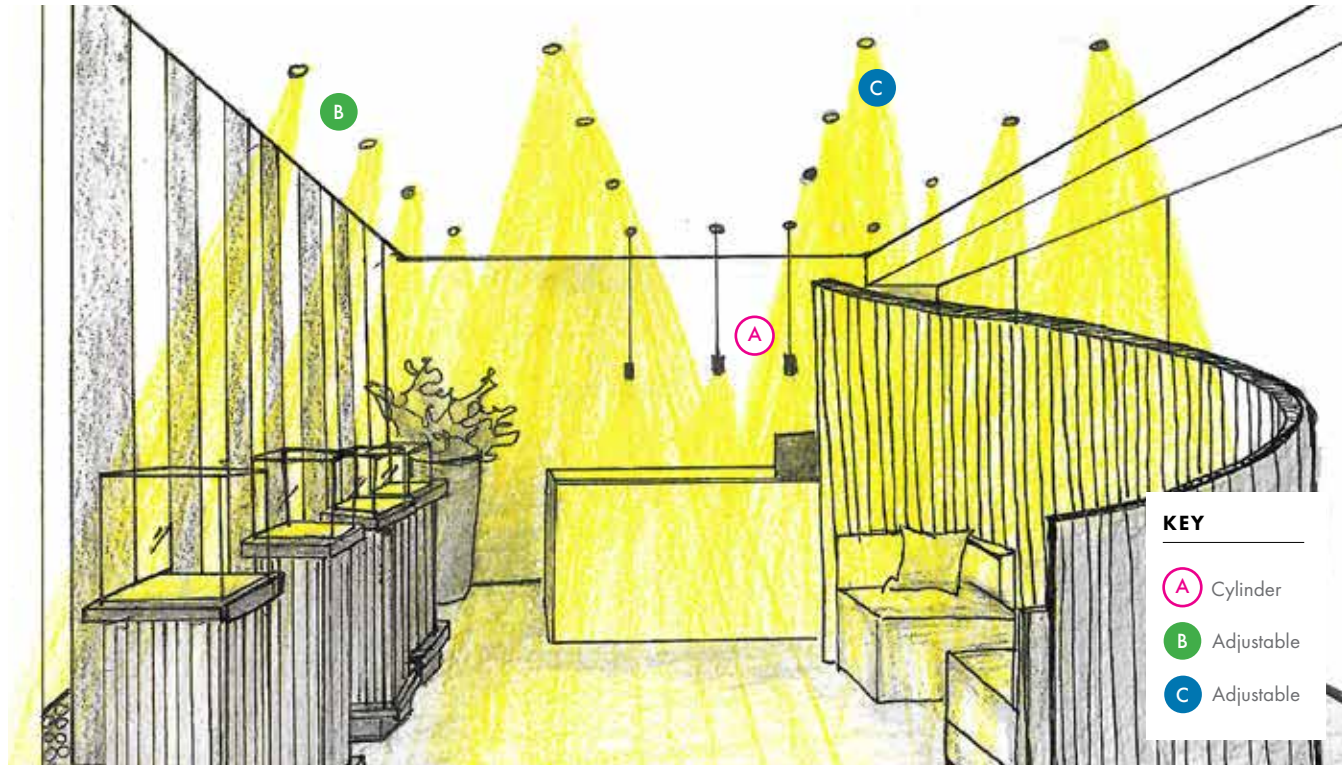


15° Beam Distribution



Amenity & Retail 10' Ceiling

DESIGN GOAL: Use a lighting scheme to create a welcoming and relaxing atmosphere for the reception area. Create visual attention within the retail section with the intention to attract customers and increase product sales.



LAYER A SPECIFICATION:
Adjustable Pendant Cylinder

FIXTURE SPEC:
CLRA4-07V4C-35KH-20-WH
BEAM ANGLE: 20°
WATTAGE: 7W
COLOR TEMPERATURE: 3500K, 90+ CRI
DELIVERED LIGHT: 491 Lumens
GLARE (UGR): 14.9



LAYER B SPECIFICATION:
Millwork Round Adjustable

FIXTURE SPEC:
S2RA-09V2M-35KH-20-PO-BL
BEAM ANGLE: 20°
WATTAGE: 9W
COLOR TEMPERATURE: 3500K, 90+ CRI
DELIVERED LIGHT: 684 Lumens
GLARE (UGR): 2.8



LAYER C SPECIFICATION:
Millwork Round Adjustable

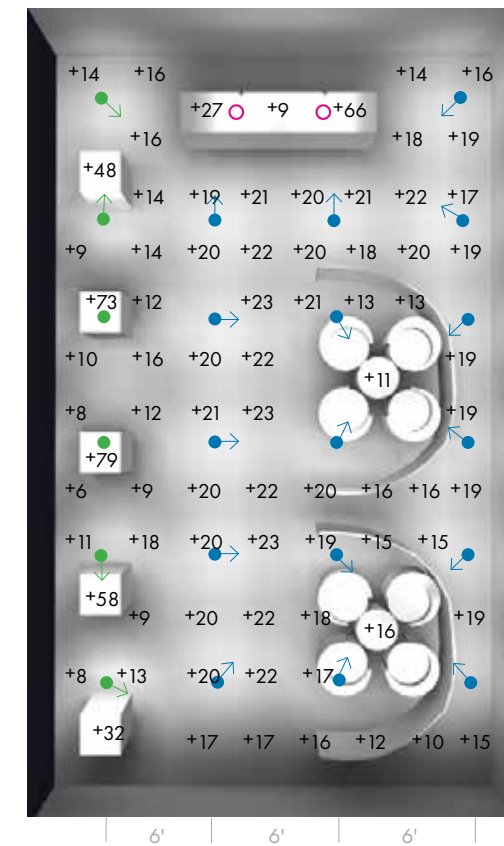
FIXTURE SPEC:
S2RA-09V2M-35KH-30-PO-BL
BEAM ANGLE: 30°
WATTAGE: 9W
COLOR TEMPERATURE: 3500K, 90+ CRI
DELIVERED LIGHT: 739 Lumens
GLARE (UGR): <3

Focal Glow

SOLUTION: The lighting strategy uses three layers of lighting to meet the design objectives. **Layer A, Adjustable Pendant Cylinder** spaced 3' apart over the reception desk, provides 35 footcandles on that surface. **Layer B and C Adjustable** downlights with 20° & 30° beam distributions are spaced 6'x 6' on center to achieve 74 footcandles on the display cases and 18 footcandles on the lounge tables. The LittleTws recessed adjustable downlight is an excellent choice for this purpose; the range of beam spread options allows light to be focused on specific product displays or seating areas without glare, yet still provides a cozy environment for clients. The recessed lighting shown here is installed with a millwork trim to blend seamlessly with the millwork ceiling materials.

FLOOR PLAN:

- A: Adjustable Pendant Cylinder
- B: Adjustable Downlight 20°
- C: Adjustable Downlight 30°



LIGHTING INTENSITY

Avg On Floor: 15 FC
Max/Min: 12

Avg On Reception Desk: 35 FC
Max/Min: 5.9

Avg On Table: 18 FC
Max/Min: 1.3

Avg On Display: 74 FC
Max/Min: 1

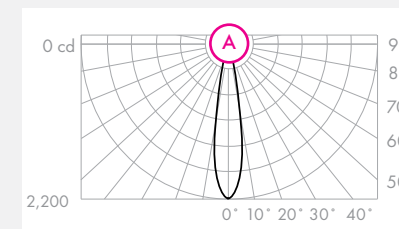
Room Dimension:
23'W x 40'L x 10'H

Table Dimension:
2.3 Diameter x 2'-3"H

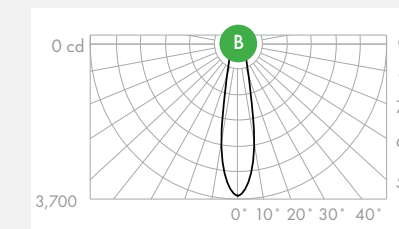
Display Dimension:
1'W x 1'L x 4'-6"H

NOTE: Light level calculations reflectance values use standard 20% for floors, 50% for walls, and 80% for ceilings.

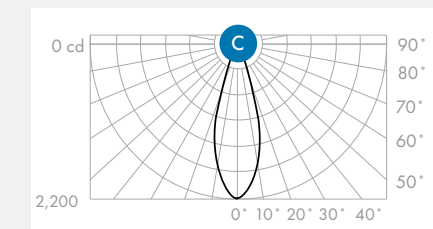
20° Beam Distribution



20° Beam Distribution



30° Beam Distribution



Better **TWO**gether

USAI Lighting believes in the power of innovating for small, whether it is housings, recessed downlights, or surface mounts and pendants. Mix and match with other USAI high-performance product ranges. Each product has its own set of capabilities with full family offerings to address every design requirement with the greatest flexibility from space-to-space.

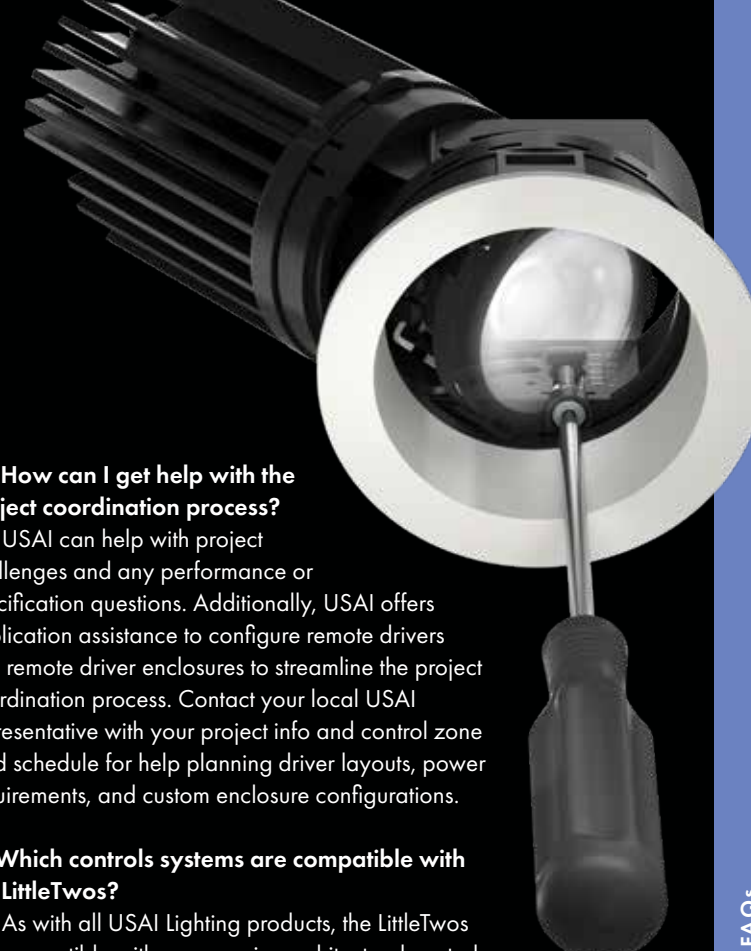
SHALLOW HOUSINGS



RECESSED DOWNLIGHTS



FAQs



Q : How to aim the LittleTwos Pinhole adjustable?

A : The adjustable 2" pinhole provides additional flexibility to light spaces with a 360° rotation and a maximum 40° tilt angle while maintaining a quiet below ceiling appearance.

- **Set Rotation:** Insert small flathead screwdriver or hex driver tool into the rotation pocket and push to turn the trim to the desired angle. Rotation is smooth from 0° - 360° and is set and held with friction.
- **Set Tilt Angle:** Insert hex driver tool into the adjustment screw and turn until desired tilt angle is reached. The screw can be seen easily from below, and tilt angle indicators are visible when the optic is removed.

Q : When should I use an install from below fixture vs new construction housing for the LittleTwos Pinhole?

A : Projects with existing ceilings can use the LittleTwos Pinhole Retrofit fixture, which installs from below with a Flex Driver Case to house the dimming driver. This option is available for both trimmed and trimless fixtures.

Projects that require fixture installations prior to finished ceiling installation can use the new construction tray accessory (NCT) to rough-in light fixture position. The RT fixture with Flex driver case can then be installed from below at a later time. Alternatively, we also offer IC and CP rated housings which are both serviceable from below, as well as an Above Ceiling Access only housing (ABC) which is a new construction service from above housing option specifically designed for ACT ceiling types.

Q : How to aim the LittleTwos adjustable cylinder?

A : The adjustable 2" cylinder can be surface mounted to the ceiling as a monopoint or suspended by a rigid stem to light spaces with a 360° rotation and a maximum 90° tilt angle.

- **Set Rotation:** Simply turn the cylinder to desired rotation angle, friction will hold the position.
- **Set Tilt Angle:** This is also a toolless adjustment, simply set the tilt position with your hand and friction will do the rest.

Q : What design challenges can the LittleTwos fixture family address?

A : The LittleTwos Pinhole and Cylinder Family offers a wide range of product functions and mounting options – from standard regress downlight, deep regress comfort downlight, adjustable, and wall wash, to decorative glow glass options. With a range of wattages and lumen outputs from 500 to 2000 delivered lumens, the LittleTwos product family can be used in a variety of spaces, ceiling types and heights, to fulfill most project needs, including sloped and/or exposed ceiling types.

Q : How can I get help with the project coordination process?

A : USAI can help with project challenges and any performance or specification questions. Additionally, USAI offers application assistance to configure remote drivers and remote driver enclosures to streamline the project coordination process. Contact your local USAI representative with your project info and control zone load schedule for help planning driver layouts, power requirements, and custom enclosure configurations.

Q : Which controls systems are compatible with the LittleTwos?

A : As with all USAI Lighting products, the LittleTwos are compatible with every major architectural controls systems, including 0-10V low voltage dimming, line voltage phase dimming, and digital dimming protocols such as DMX and DALI. Wireless dimming controls are available by specifying the Lutron Athena dimming driver option.

Q : Can I place LittleTwos in wet locations such as showers and outdoor covered spaces?

A : Yes! The LittleTwos family is dry/damp/wet location rated and can be installed outdoors under covered ceilings.

Q : Can I change the LittleTwos beam spread from below?

A : Yes! Optics are field interchangeable. Please refer to the installation instruction and spec sheets optic media page for guidance.

Q : Can I use the LittleTwos to meet my project's code requirements?

A : Yes! The LittleTwos Pinhole family is NRTL/CSA-US tested to UL standards, while the LittleTwos Cylinder family is UL listed. All products are IBEW union made and are Buy American Act (BAA) compliant. We offer airtight housing options, as well as Insulation Contact and Chicago Plenum rated housings. The LittleTwos can be used to meet LEED and WELL Building requirements. Title 24 JA8 Certification is underway and Declare Labels with Red List Approved status will be completed soon.

If your project requires something else not listed here, please don't hesitate to contact us!

the LittleTwos™

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