

INNOVATIVE SOLUTIONS TO LIGHTING CHALLENGES

EX5
OUTDOOR LIGHTING

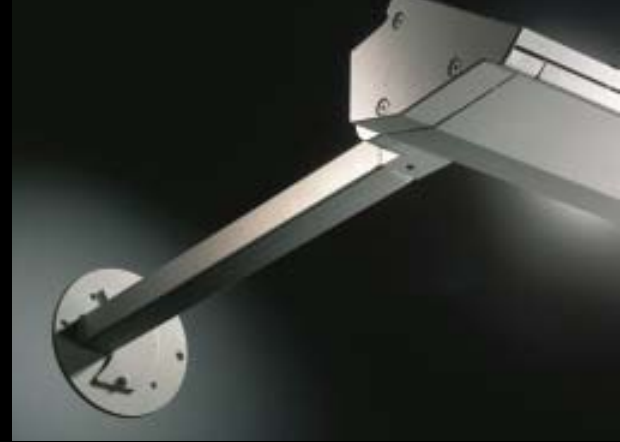
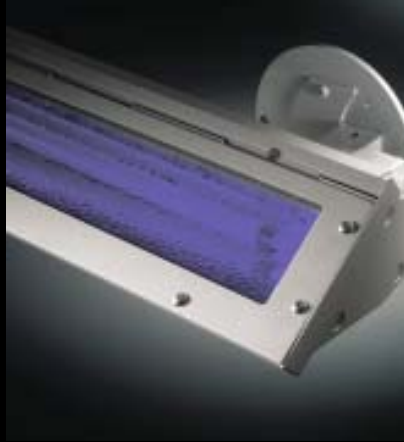


I N S I G H T 



ATTENTION TO DETAIL IN BOTH DESIGN AND
INSTALLATION REQUIREMENTS SET EX5
APART FROM THE OTHERS.

THE EX5 POSSESSES THE FEATURES
AND BENEFITS OF SIGNIFICANTLY
LARGER OUTDOOR OFFERINGS.



EX5 LUMINAIRES ARE UNDERWRITERS
LABORATORIES AND CANADIAN STANDARDS
APPROVED FOR WET LOCATIONS IN ANY
MOUNTING ORIENTATION.





DESIGNED AS THE EXTERIOR COMPANION TO INSIGHT'S COMPACT-5, THE EX5 POSSESSES THE FEATURES AND BENEFITS OF SIGNIFICANTLY LARGER OUTDOOR OFFERINGS. DIMINUTIVE AND STYLED, EX5 ACCOMMODATES A MYRIAD OF LAMP CHOICES, FINISHES AND OPTIONS THAT MAKE IT THE MOST VERSATILE OUTDOOR FLUORESCENT LUMINAIRE AVAILABLE. ATTENTION TO DETAIL IN BOTH DESIGN AND INSTALLATION REQUIREMENTS SET EX5 APART FROM THE OTHERS.

WHETHER ILLUMINATING THE CANOPY, SIGNAGE OR THE FACADE, THE EX5 REPRESENTS THE DESIGNER'S BEST CHOICE WHEN SIZE AND PERFORMANCE MATTERS.

MISSION STATEMENT

INSIGHT LIGHTING BELIEVES IN THE INTEGRITY OF PRODUCT AND LIGHTING DESIGN. OUR MISSION IS TO DEVELOP INNOVATIVE NEW PRODUCTS TO ASSIST OUR CUSTOMERS IN MEETING THEIR LIGHTING CHALLENGES. BY CREATING FUNCTIONAL, AESTHETIC AND ENERGY CONSCIOUS PRODUCTS, WE STRIVE TO ENHANCE THE APPEARANCE AND PERFORMANCE OF A WORKING ENVIRONMENT.

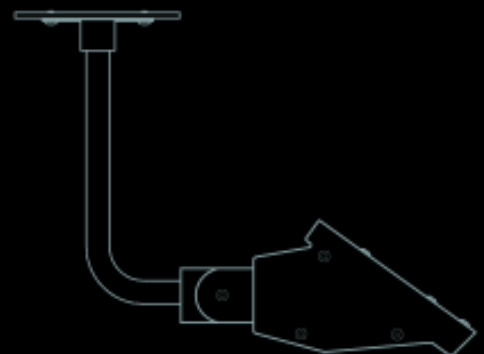
INSIGHT LIGHTING – THERE IS NO SUBSTITUTE FOR INTEGRITY.



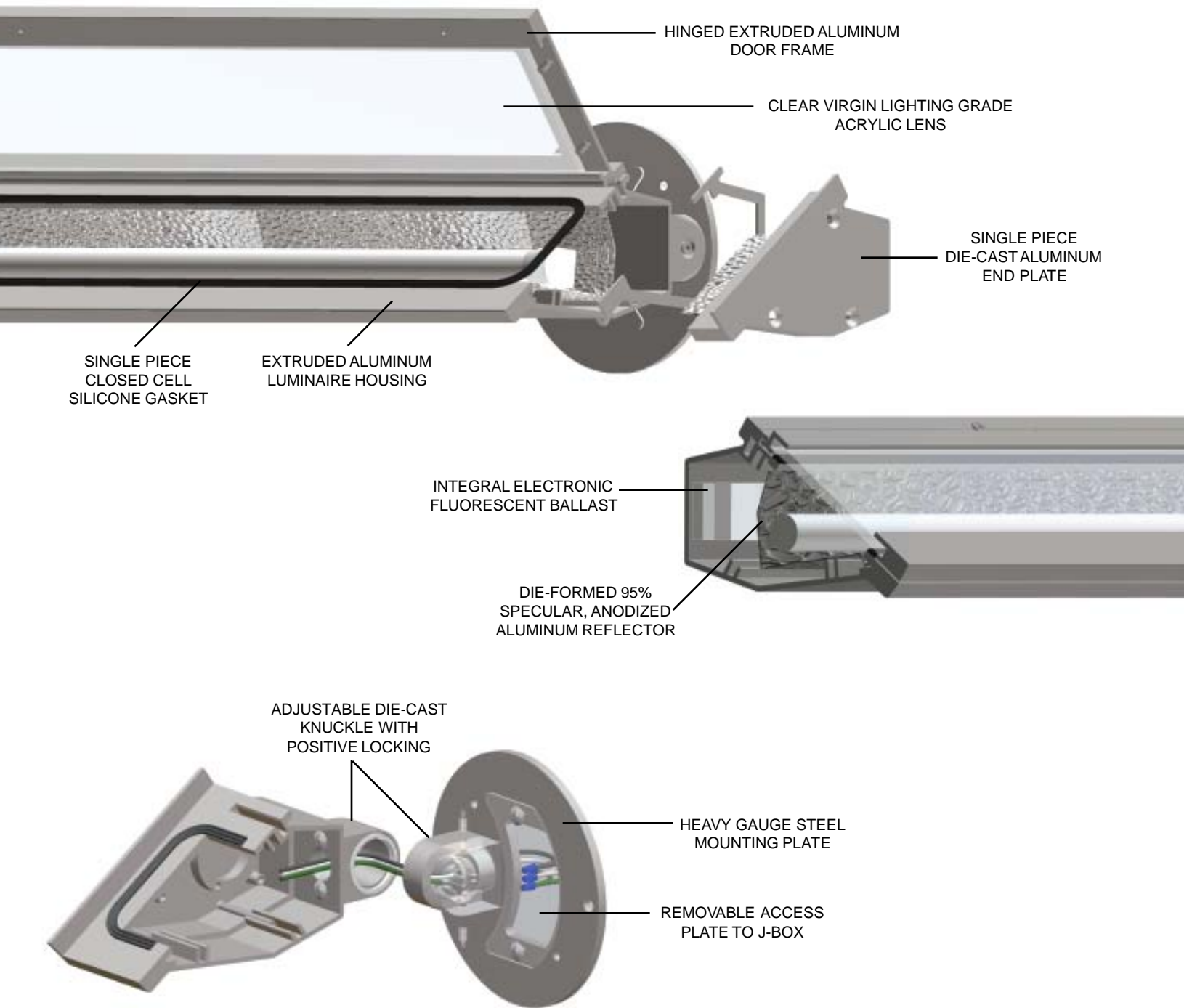


EX5

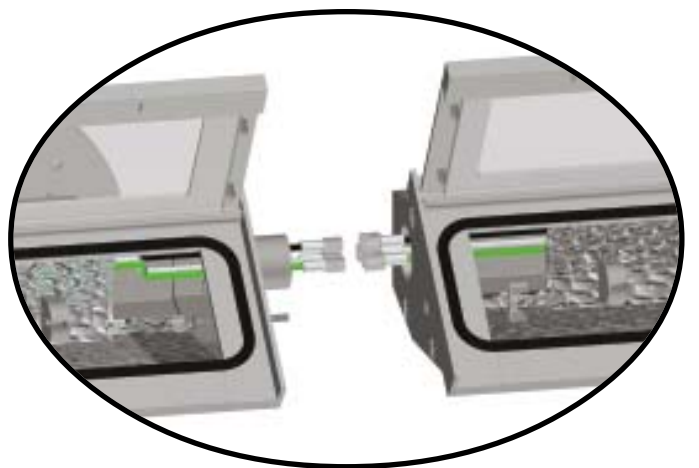
OUTDOOR LIGHTING



Features



QUICK-CONNECT ELECTRICAL DEVICES ARE PROVIDED BETWEEN SECTIONS OF CONTINUOUS ROWS TO MINIMIZE INSTALLATION TIME. A UNIQUE GASKETED MECHANICAL CONNECTOR DEVICE IS USED FOR CONNECTING LUMINAIRES IN CONTINUOUS ROWS.





Luminaire Housing

The **EX5 Series** offers a 3" X 5" fully rotatable luminaire housing, constructed of an extruded aluminum housing with single piece diecast aluminum end plates. **EX5** is available in numerous lengths and a wide range of mounting options. **EX5** luminaires are Underwriters Laboratories and Canadian Standards approved for Wet Locations in any mounting orientation.



Finish

Outdoor grade powder coat finish to 3 mill minimum thickness with a phosphate pre-wash. Standard finishes are available in semi-gloss textured white, black, bronze, light bronze, natural and verdi. Consult factory for custom colors and different gloss levels.



Lens & Doorframe

The hinged doorframe assembly is constructed from a single piece extruded aluminum doorframe and is painted to match luminaire. Standard lens is clear, virgin acrylic and is siliconed to the extruded aluminum doorframe. Lens and doorframe are retained to the housing with stainless steel fasteners. The doorframe is sealed to the housing with a single piece closed cell memory retentive silicone gasket.



Reflector

EX5 reflectors are computer aided designed, die formed and constructed of 95% specular, peened, anodized aluminum. All optics are asymmetric performance. All photometry is independently tested.



Lamp Choices

EX5 is available in a wide range of linear fluorescent lamp choices including Long Twin Tube, T5HO, T5, T8 and T8HO in wattages from 14W to 80W.

Electrical

Ballasts for Long Twin Tube, T5HO, T5 and T8 are integral electronic, power factor greater than .90, thermally protected, less than 10% THD. T8HO* ballasts are remote mounted inside a NEMA 3R enclosure and painted to match luminaire. Minimum starting temperature is 0° F (-20° F for T8HO). Optional dimming ballasts are available. Contact factory for details and availability.



Mounting

A wide selection of mounting options can be specified. All mounting options are supplied with diecast knuckles allowing for ease of adjustment of the luminaire. Rigid teeth on the knuckles keep the luminaire from moving once adjustment is completed. The Wall/Ground and Extended Arm mounting options are supplied with a mounting bracket that is constructed of heavy gauge aluminum and is provided with a gasketed, easily removable access cover plate.



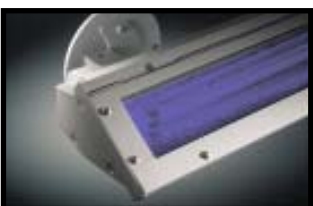
Louver

Louvers are single piece extruded aluminum and blades are die formed. Louvers are painted to match luminaire unless otherwise specified. The louver and doorframe assembly provides 45 degree shielding where low brightness lateral cutoff is desired. The louver is part of the door assembly, thus requiring no extra fasteners or added labor to attach the louver to the doorframe assembly.



Solid Cutoff Visor

Solid cutoff visors are single piece aluminum. Cutoff visors are painted to match luminaire unless otherwise specified. The solid cutoff visor provides shielding, where cutoff is desired in front of luminaire.



Optional Lenses

Optional lens choices include "Lighting Grade Colored Acrylic". Five standard colors are available, dark blue, light blue, green, yellow and red. Additional colors can be specified to match Rosco theatrical transparencies. All colored lenses include a 3-year warranty from fading and scratching. "Clear Polycarbonate" is offered where additional vandal resistance is required. "Linear Prismatic Acrylic" is also offered where a beam softening effect becomes a design criterion.

Mounting Options



SMS & SMM - Wall / Ground Mount

The Wall/Ground bracket is constructed of heavy gauge steel and is supplied with a gasketed access cover to the J-box (by others) for ease of wiring. The bracket mounts to a standard 4-0 J-Box (by others). Additional structural support within the wall is required (by others). The luminaire is fully adjustable.



EAS & EAM - Extended Arm Mount

Steel arms attach to the luminaire with minimal hardware, allowing for ease of adjustment of the rotatable housing. The wall bracket is heavy gauge steel and is supplied with a gasketed access cover to the J-box (by others) for ease of wiring. Additional structural support within the wall is required (by others). The luminaire is fully adjustable.



PNS & PNM - Straight Pendant Mount

Straight 5/8" diameter rigid steel stems are supplied with the PNS / PNM mounting options. Stems are painted to match the luminaire. The ceiling bracket is heavy gauge steel and is supplied with a gasketed access cover to the J-box (by others) for ease of wiring. The luminaire is fully adjustable.

suspended luminaires mount to a rigid mounting strap at the ceiling for attachment to a standard independently supported 4-0 J-Box (by others). Ceiling brackets are 5" in diameter and painted to match luminaire, unless otherwise specified. The luminaire is fully adjustable.



PNS90 & PNM90 - 90° Degree Pendant Mount

Straight 5/8" diameter rigid steel stems with a 90 degree soft bend at the stem/knuckle transition. Stems are painted to match the luminaire. Ceiling brackets are 5" in diameter and painted to match luminaire, unless otherwise specified. The luminaire is fully adjustable.



CDS & CDM - Conduit Mount

The die-cast knuckle mounts to 3/4" conduit connector to allow for use with 3/4" conduit (by others) or a reducer (by others) for 1/2" conduit. The knuckles allow for easy adjustment of the luminaire by loosening a stainless steel socket head screw. The luminaire is fully adjustable.

Ordering Information

EX5 Exterior 5
Outdoor Linear Fluorescent Luminaire

PREFIX ①

SMS Wall/Ground Mount - Single Luminaire, 12' Max. Luminaire Length
SMM Wall/Ground Mount - Continuous Run, 100' Max. Continuous Run Length
EAS-X Extended Arm Mount - Single Luminaire, 12' Max. Luminaire Length
EAM-X Extended Arm Mount - Continuous Run, 100' Max. Continuous Run Length
CDS-XX Conduit Mount - Single Luminaire, 12' Max. Luminaire Length*
CDM-XX Conduit Mount - Continuous Run, 100' Continuous Run Length*
PNS-X Pendant Mount, Straight - Single Luminaire, 12' Max. Luminaire Length
PNM-X Pendant Mount, Straight - Continuous Run, 100' Continuous Run Length
PNS90-X Pendant Mount, 90° - Single Luminaire, 12' Max. Luminaire Length
PNM90-X Pendant Mount, 90° - Continuous Run, 100' Continuous Run Length

X = Arm or Pendant Length. See page 10 & 11 for details.

* (3/4" conduit connector provided. Conduit by others.)

Continuous runs are provided with a series of single luminaires.

MOUNTING ②








1 120V
2 277V
7 347V (Consult factory for availability)

VOLTAGE ②

TW Textured White
TBL Textured Black
TBR Textured Bronze
TLB Textured Light Bronze
TN Textured Natural
TS Textured Sandstone
TV Textured Verdi
SF Specify Finish
CC Custom Finish (Contact factory)

FINISH ③

③ ④ ⑤ ⑥

Reflector Type	Lamp Type	Lamp Wattage	Available Luminaire Lengths	Total Number of Lamps
SA Single Lamp 	T5	14W 21W 28W	2' 3', 6' 4', 8', 12'	1 1, 2 1, 2, 3
TA Twin Lamp 	T5	14W 21W 28W	2' 3', 6' 4', 8', 12'	2 2, 4 2, 4, 6
SA Single Lamp 	T5HO	24W 39W 54W	2' 3', 6' 4', 8', 12'	1 1, 2 1, 2, 3
TA Twin Lamp 	T5HO	24W 39W 54W	2' 3', 6' 4', 8', 12'	2 2, 4 2, 4, 6
SA Single Lamp 	T8	17W 25W 32W	2' 3', 6' 4', 8', 12'	1 1, 2 1, 2, 3
SA Single Lamp 	T8HO**	44W 65W 86W	4', 8', 12' 6' 8'	1, 2, 3 1 1
SA Single Lamp 	LTT	40W 50W	2', 4', 6', 8', 12' 2', 4', 6', 8', 12'	1, 2, 3, 4, 6 1, 2, 3, 4, 6

For continuous runs, specify nominal run length in feet.

** See dimensions for remote NEMA enclosure for T8HO ballasts on page 11.

Contact factory for LED's.

REFLECTOR / LAMP TYPE / WATTAGE / LUMINAIRE LENGTH

PL Linear Prismatic Acrylic Lens
PC Clear Polycarbonate Lens
LV Louver
VS Visor
DM Dimming Ballast***
(120V or 277V only)
WCF Color Lens
BPH Button Photocell
1F Single Inline Fusing For 120V
BP Emergency Battery Pack
(Contact Factory)
EM Emergency Circuit

*** Not available with T8HO Lamps.

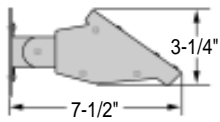
OPTIONS ④

ORDERING EXAMPLE

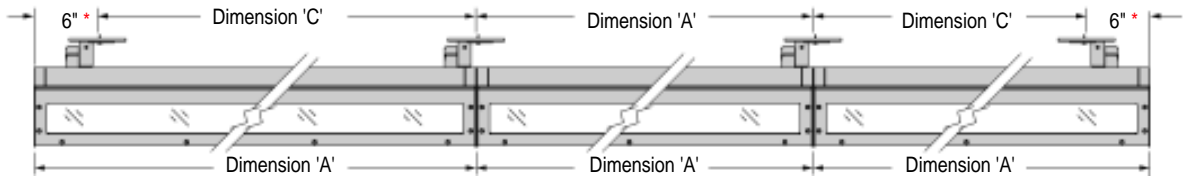
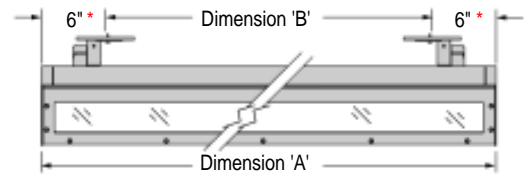
EX5 / SMS / SA / T5HO / 54W / 8' / 2 / TS / LV
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Mounting & Dimensions

SMS & SMM - Wall / Ground Mount

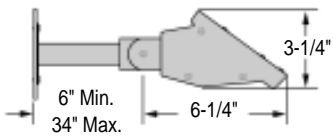


* Power Feed & Mounting Locations For 8' & 12' Luminaires = 24"

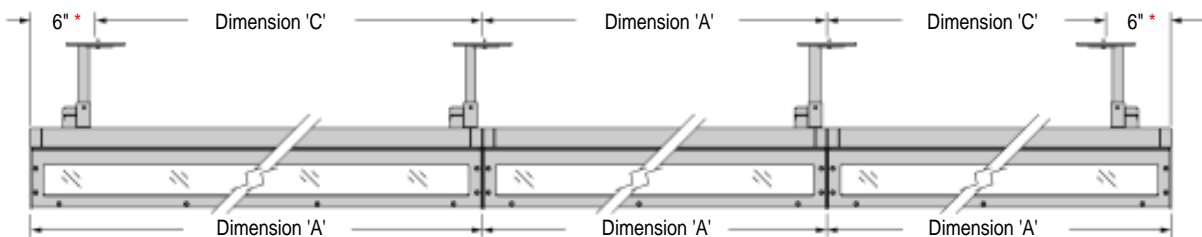
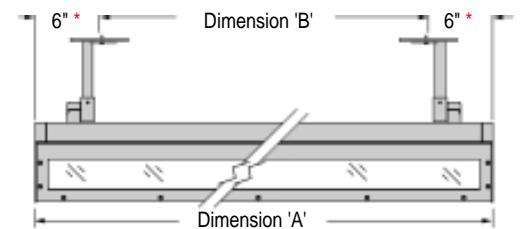


Nominal Length	2'	3'	4'	6'	8' *	12' *
Dimension 'A'	26"	38"	50"	74"	98"	146"
Dimension 'B'	14"	26"	38"	62"	50"	98"
Dimension 'C'	20"	32"	44"	68"	74"	122"

EAS & EAM - Extended Arm Mount

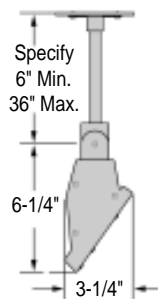


* Power Feed & Mounting Locations For 8' & 12' Luminaires = 24"

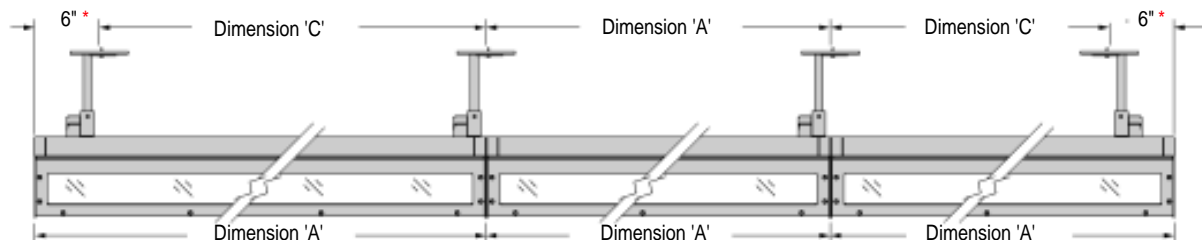
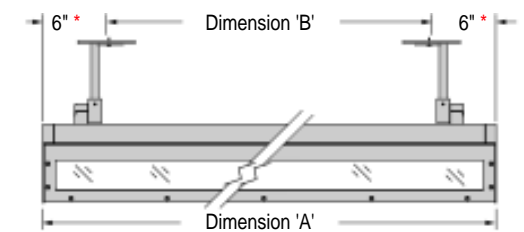


Nominal Length	2'	3'	4'	6'	8' *	12' *
Dimension 'A'	26"	38"	50"	74"	98"	146"
Dimension 'B'	14"	26"	38"	62"	50"	98"
Dimension 'C'	20"	32"	44"	68"	74"	122"

PNS & PNM - Straight Pendant Mount



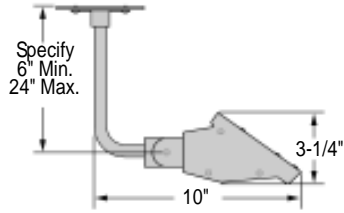
* Power Feed & Mounting Locations For 8' & 12' Luminaires = 24"



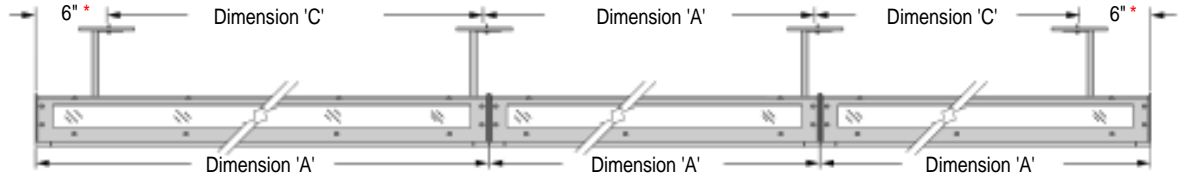
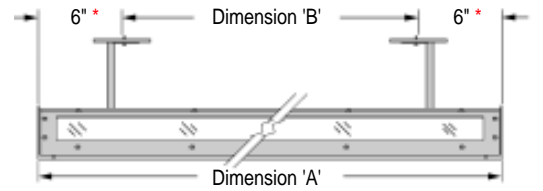
Nominal Length	2'	3'	4'	6'	8' *	12' *
Dimension 'A'	26"	38"	50"	74"	98"	146"
Dimension 'B'	14"	26"	38"	62"	50"	98"
Dimension 'C'	20"	32"	44"	68"	74"	122"

Mounting & Dimensions

PNS90 & PNM90 - 90° Pendant Mount

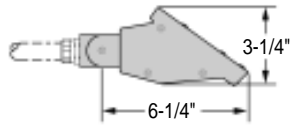


* Power Feed & Mounting Locations For 8' & 12' Luminaires = 24"

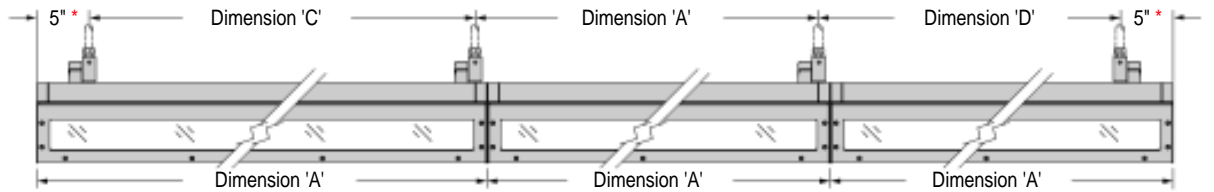
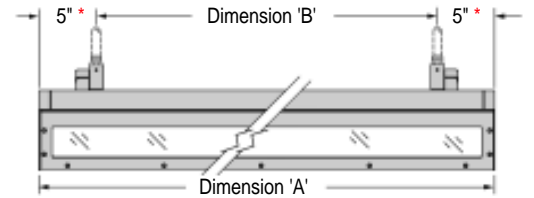


Nominal Length	2'	3'	4'	6'	8' *	12' *
Dimension 'A'	26"	38"	50"	74"	98"	146"
Dimension 'B'	14"	26"	38"	62"	50"	98"
Dimension 'C'	20"	32"	44"	68"	74"	122"

CDS & CDM - Conduit Mount

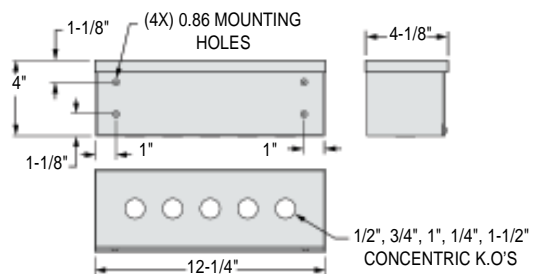
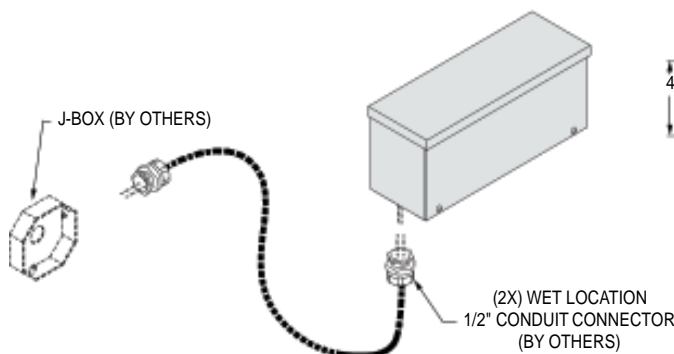


* Power Feed & Mounting Locations For 8' & 12' Luminaires = 23"



Nominal Length	2'	3'	4'	6'	8' *	12' *
Dimension 'A'	26"	38"	50"	74"	98"	146"
Dimension 'B'	16"	28"	40"	64"	52"	100"
Dimension 'C'	20"	32"	44"	68"	74"	122"
Dimension 'D'	22"	34"	46"	70"	76"	124"

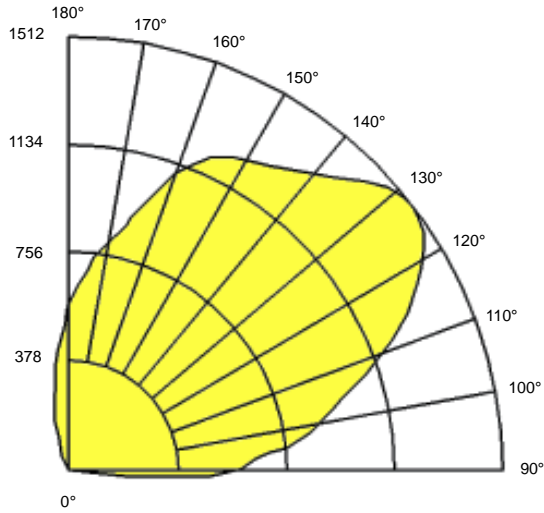
Remote Nema Enclosure For T8HO Ballast



Maximum ballast distance away from furthest socket = fixture = 20'

Photometric Data

**Indirect Polar Curve
EX5 - 54W T5HO, 1 Lamp**

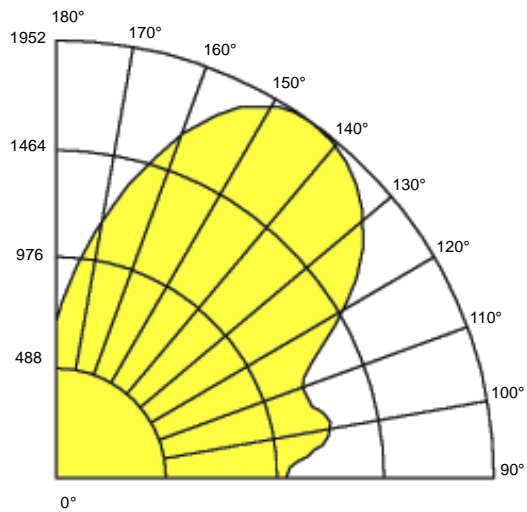


Multipliers:

- (1) 28 Watt T5 Fluor. 2900 Lumens X 0.58
- (1) 54 Watt T5HO Fluor. 5000 Lumens X 1.0

All IES photometry is independently tested.
For additional lamp types, refer to the Insight Lighting website: www.insightlighting.com.

**Indirect Polar Curve
EX5 - 54W T5HO, 2 Lamp**

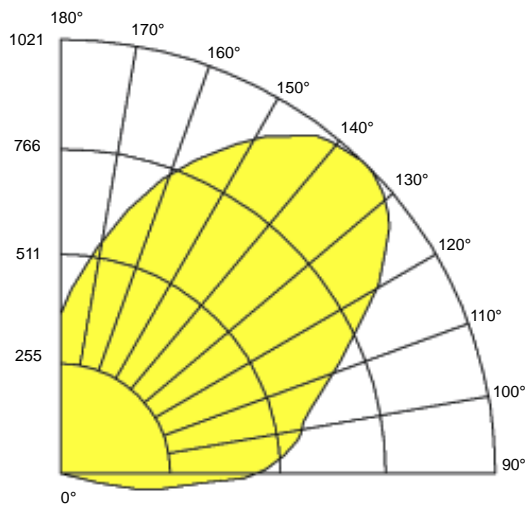


Multipliers:

- (2) 28 Watt T5 Fluor. 2900 Lumens/Lamp X 0.58
- (2) 54 Watt T5HO Fluor. 5000 Lumens/Lamp X 1.0

All IES photometry is independently tested. For additional lamp types, refer to the Insight Lighting website: www.insightlighting.com.

**Indirect Polar Curve
EX5 - 32W T8, 1 Lamp**



Multipliers:

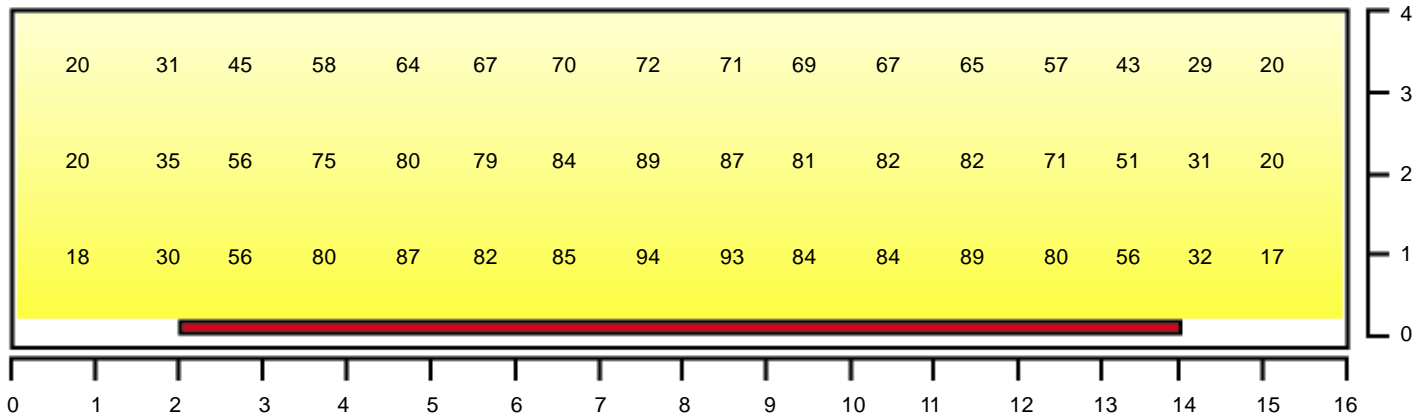
- (1) 17 Watt T-8 Fluor. 1400 Lumens X 0.45
- (1) 25 Watt T-8 Fluor. 2225 Lumens X 0.72
- (1) 32 Watt T-8 Fluor. 3100 Lumens X 1.0

All IES photometry is independently tested. For additional lamp types, refer to the Insight Lighting website: www.insightlighting.com.

Temperature Effect On Lumen Output
Percent Of Published Lumen Output VS. Temperature For T8 & T5 Lamps

AMBIENT TEMPERATURE °F	41°F	50°F	59°F	68°F	77°F	86°F	95°F	104°F	113°F	122°F	131°F
RELATIVE LIGHT OUTPUT T5	25	40	58	72	89	98	100	98	92	85	79
RELATIVE LIGHT OUTPUT T8	60	74	90	98	100	98	92	85	79	71	69

Sign Lighting Application
 16 Feet Wide by 4 Feet Tall
 EX5/SMS/TA/T5HO/54W/12'/X/SF



Lighting Calculation Results:

Vertical Illuminance = 61.21 Average Maintained Fc

Uniformity Ratio = 5.53 : 1 Maximum to Minimum

Lamp Data Per Luminaire

(6)-54 Watt T-5 Miniature Bi-Pin High Output Fluorescents

Initial Lamp Lumens = 5000/Lamp

Light Loss Factor = .82

Luminaire Mounting Location:

One 12' Luminaire Ground Mounted

Offset From Vertical Sign = 30 Inches

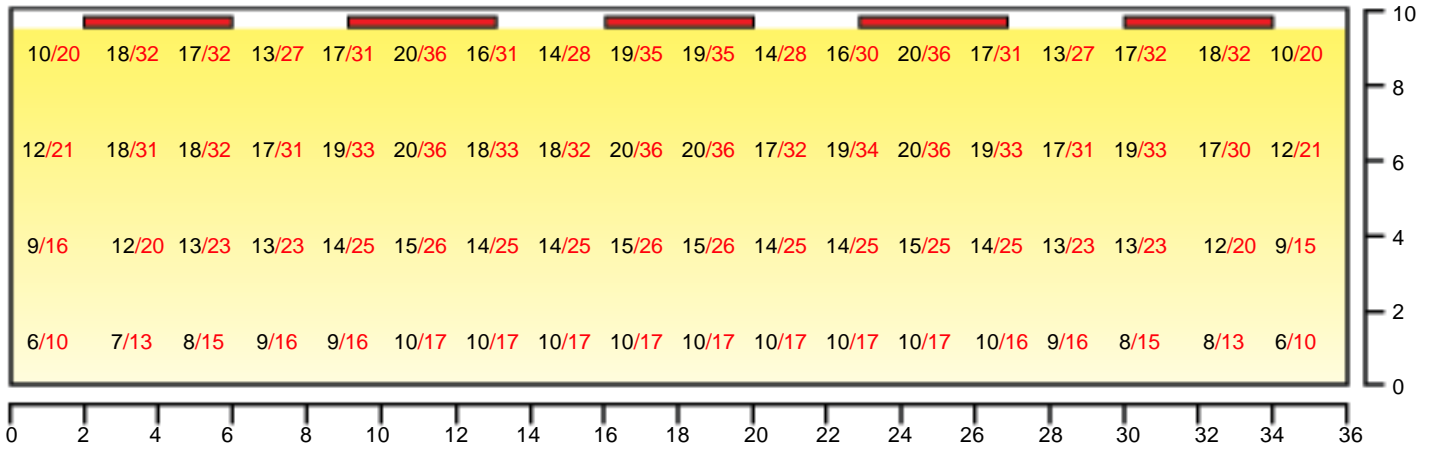
Multipliers:

(2) 28 Watt T-5 Fluorescent 2900 Lumens/Lamp X .58

Photometric Data

Canopy Ceiling Application 10 Feet Wide by 36 Feet Wide by 14 Feet Above Grade

Single Lamp: EX5/SMS/SA/T5HO/54W/4'/X/SF Twin Lamp: EX5/SMS/TA/T5HO/54W/4'/X/SF



Lighting Calculation Results:

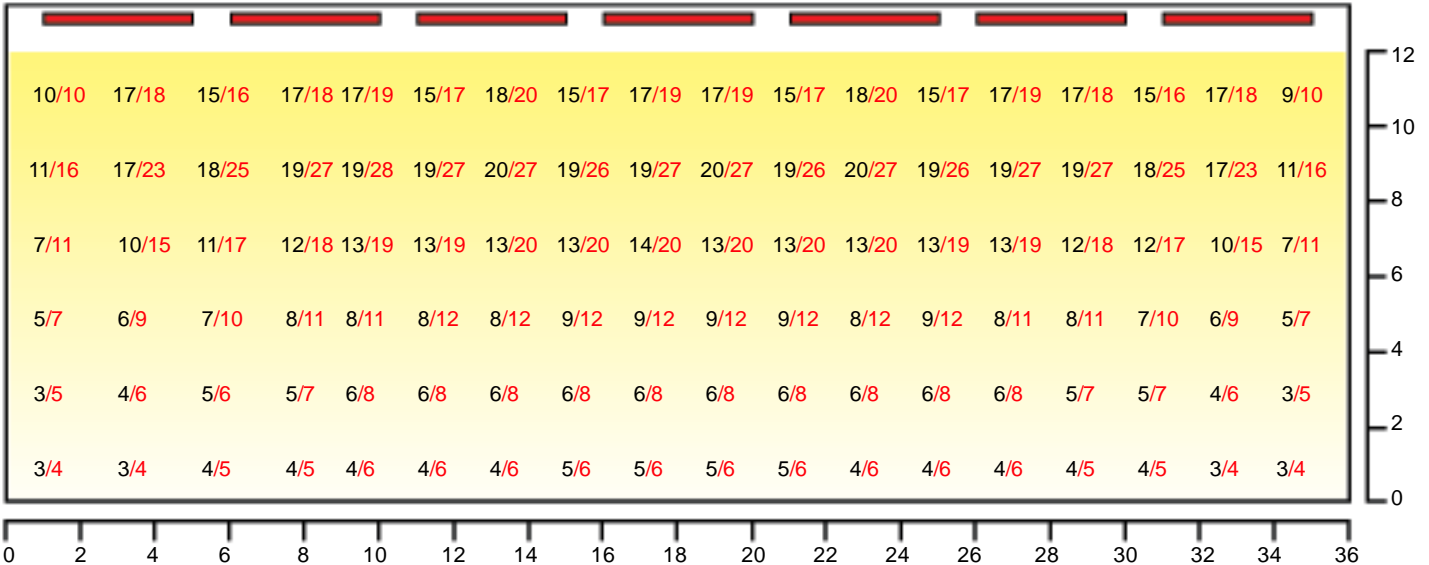
Horizontal Illuminance = 13.89 Average Maintained Fc
 Uniformity Ratio = 3.46 : 1 Maximum to Minimum
 Lamp Data Per Luminaire:
 (1)-54 Watt T-5 Miniature Bi-Pin High Output Fluorescent
 Initial Lamp Lumens = 5000/Lamp
 Light Loss Factor = .86
 Canopy Reflectance Value = 0.47
 Luminaire Mounting Locations:
 Five 4' Luminaires Mounted on Building Wall at 10 Feet
 Offset From Canopy Ceiling Surface = 48 Inches
 Luminaire Spacing = 7 Feet 2-1/2 Inches on Center

Lighting Calculation Results:

Horizontal Illuminance = 25.03 Average Maintained Fc
 Uniformity Ratio = 3.52 : 1 Maximum to Minimum
 Lamp Data Per Luminaire:
 (2)-54 Watt T-5 Miniature Bi-Pin High Output Fluorescents
 Initial Lamp Lumens = 5000/Lamp
 Light Loss Factor = .86
 Canopy Reflectance Value = 0.47
 Luminaire Mounting Locations:
 Five 4' Luminaires Mounted on Building Wall at 10 Feet
 Offset From Canopy Ceiling Surface = 48 Inches
 Luminaire Spacing = 7 Feet 2-1/2 Inches on Center

Wallwash Application 36 Feet Wide by 12 Feet Tall

30" Offset: EX5/EAS-30"/SA/T5HO/54W/4'/X/SF 36" Offset: EX5/EAS-36"/TA/T5HO/54W/4'/X/SF



Lighting Calculation Results:

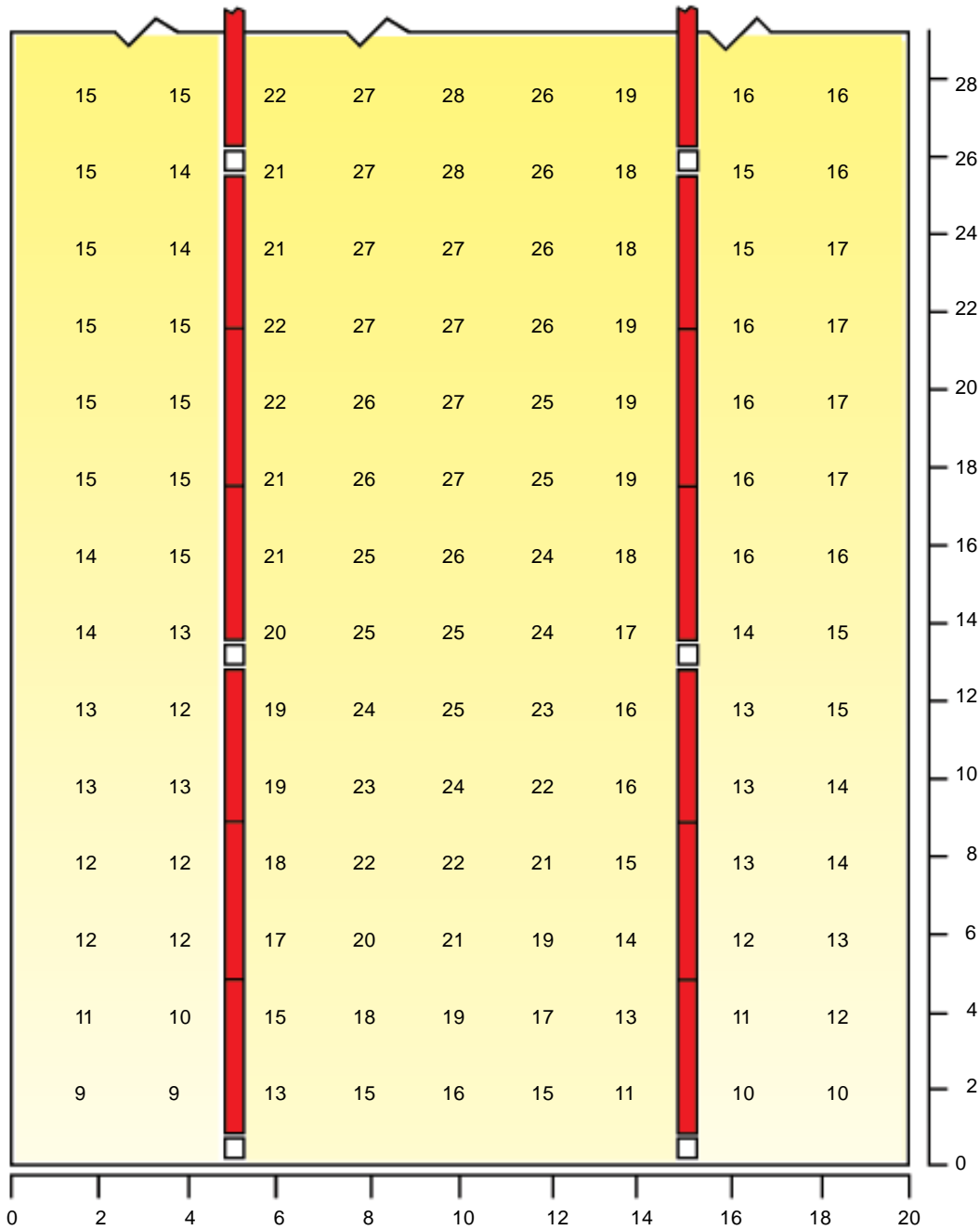
Vertical Illuminance = 10.35 Average Maintained Fc
 Uniformity Ratio = 7.77 : 1 Maximum to Minimum
 Lamp Data Per Luminaire:
 (1)-54 Watt T-5 Miniature Bi-Pin High Output Fluorescent
 Initial Lamp Lumens = 5000/Lamp
 Light Loss Factor = .86
 Wall Reflectance Value = 0.29
 Luminaire Mounting Locations:
 Seven 4' Luminaires Mounted on Canopy Ceiling
 Offset From Vertical Surface = 30 Inches
 Luminaire Spacing = 5 Feet on Center

Lighting Calculation Results:

Vertical Illuminance = 13.73 Average Maintained Fc
 Uniformity Ratio = 7.89 : 1 Maximum to Minimum
 Lamp Data Per Luminaire:
 (2)-54 Watt T-5 Miniature Bi-Pin High Output Fluorescents
 Initial Lamp Lumens = 5000/Lamp
 Light Loss Factor = .86
 Wall Reflectance Value = 0.29
 Luminaire Mounting Locations:
 Seven 4' Luminaires Mounted on Canopy Ceiling
 Offset From Vertical Surface = 36 Inches
 Luminaire Spacing = 5 Feet on Center

Photometric Data

Barrel Vault Canopied Walkway Lighting Application
Walkway Area Description: 20 Feet Wide by 77 Feet Long
Canopy Description: 10 Feet Tall at Edges and 12 Feet Tall at Peak
 EX5 / PNS-24" / SA / T5HO / 54W / 12' / X / SF



Lighting Calculation Results:

Horizontal Illuminance at Grade = 18.68 Average Maintained Fc
 Uniformity Ratio = 3.11 : 1 Maximum to Minimum

Lamp Data Per 12 Foot Luminaire:

(3)-54 Watt T-5 Miniature Bi-Pin High Output Fluorescent
 Initial Lamp Lumens = 5000/Lamp
 Light Loss Factor = .82

Luminaire Mounting Locations:

Twelve Each 12' Luminaires Pendant Suspension Mount
 Mounting Height = 9.4 Feet Above Grade
 Luminaire Spacing = 12.7 Feet on Center

Reflectance Values:

Canopy Surface Reflectance = 0.65
 Walkway Surface Reflectance = 0.29

I N S I G H T 

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INSIGHT LIGHTING

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