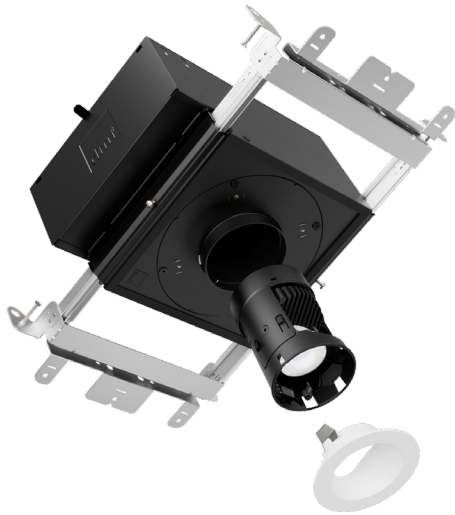


Project:	Type:
Product Code:	Date:

V041024



## 2" Round Adjustable

**2" Adjustable** delivers high quality light with field changeable optics

**Precision Lock Collar** eliminates overcutting and ensures flush installation

**Architectural Trims** are wet painted for a rich, matte finish

**Integrated Drivers** provide smooth dimming, ease of installation and serviceability

### INSTALLATION

#### Ceiling Thickness

New Construction: 1/2" up to 1 1/4"

Remodel: 5/8" up to 1 1/4"

#### Ceiling Material

Drywall, Millwork

### TRIMS

#### Style

Standard, Micro Flange, Pinhole, Flangeless

#### Finish

White, Black, Bronze, Clear Diffuse, Warm Diffuse, Custom (RAL colors)

### SPECIALTY LENS

Hexcell Louver

### LIGHT OUTPUT & DISTRIBUTION

#### Module

Adjustable

#### Adjustment

360° directional aim, 35° tilt

#### Lumens (Power)

500 lm (9.5W), 750 lm (9.5W), 1000 lm (12.5W)

#### Color Quality

93 CRI, 2-step SDCM

#### Color Temperature

- 2700K
- 3000K
- 3500K
- 4000K
- Warm Dim (3000K–1800K)
- Tunable White (4000K–1800K)
- Tunable White (6500K–2700K)

#### Beam Spread

- Ultra Narrow Spot (10°)
- Narrow Spot (20°)
- Spot (30°)
- Flood (40°)
- Wide Flood (50°)
- Linear Spread (50° x 30°)

### POWER & CONTROLS

#### Input Voltage

120 / 277V

#### Dimming

0-10V (1%), TRIAC/ELV (1%), DALI-2 (0.1%)

### RATINGS & CERTIFICATIONS

- IC Insulation Contact Rated (New Construction Only; IC for roll, batt, loose fill and spray foam)
- ASTM E283 Certified Air Tight
- Chicago Plenum
- UL Listed for Damp Location
- RoHS Compliant
- NSF Listed (White and Black Finish Only)

### WARRANTY

5 year limited warranty; 50,000 hours



## PRODUCT BUILDER

### HOUSING

PRODUCT CODE		INSTALLATION		SHAPE	
<b>X2</b>	2" Housing	<b>NC</b>	New Construction	<b>R</b>	Round
		<b>CP</b>	Chicago Plenum		
		<b>RM</b>	Remodel <sup>1</sup>		

<sup>1</sup> Non-IC installation only; Flanged trims only; Not available with DALI-2 dimming; Not available for wood ceiling

### MODULE

PRODUCT CODE		LUMENS		CRI	CCT <sup>2</sup>	BEAM SPREAD		DIMMING			
<b>XMA</b>	Adjustable	<b>05</b>	500 lm <sup>3</sup>	<b>9</b>	93 CRI	<b>27</b>	2700K	<b>UN</b>	Ultra Narrow Spot (10°) <sup>6</sup>	<b>O</b>	0-10V
		<b>07</b>	750 lm			<b>30</b>	3000K	<b>NS</b>	Narrow Spot (20°)	<b>T</b>	TRIAC/ELV
		<b>10</b>	1000 lm			<b>35</b>	3500K	<b>SP</b>	Spot (30°)	<b>D</b>	DALI-2 <sup>8</sup>
						<b>40</b>	4000K	<b>FL</b>	Flood (40°)		
						<b>3W</b>	Warm Dim (3000K–1800K) <sup>4</sup>	<b>WF</b>	Wide Flood (50°)		
						<b>T1</b>	Tunable White (4000K–1800K) <sup>5</sup>	<b>LS</b>	Linear Spread (50° x 30°)		
						<b>T2</b>	Tunable White (6500K–2700K) <sup>5</sup>	<b>UH</b>	Ultra Narrow Spot Hex Louver <sup>6</sup>		
								<b>NH</b>	Narrow Spot Hex Louver <sup>7</sup>		
								<b>SH</b>	Spot Hex Louver <sup>7</sup>		
								<b>FH</b>	Flood Hex Louver <sup>7</sup>		
								<b>WH</b>	Wide Flood Hex Louver <sup>7</sup>		

<sup>2</sup> DarkSky approved is only applicable to CCT options less than or equal to 3000K

<sup>3</sup> Only available with UN or UH beam spread

<sup>4</sup> Only available in 1000 lm; Not available in Narrow Spot beam spread

<sup>5</sup> Only available in 750 lm; DALI-2 dimming

<sup>6</sup> Only available in 500 lm; Not available as an optical accessory

<sup>7</sup> Not available for DALI-2 modules

<sup>8</sup> Only available in 750 lm with Tunable White CCT, 1000 lm Warm Dim or 1000 lm with static CCT

### TRIM

PRODUCT CODE		FINISH		OPTION	
<b>X2TRAS</b>	2" Standard Trim	<b>WH</b>	White	<b>[Blank]</b>	None
<b>X2TRAP</b>	2" Pinhole Trim <sup>9,10</sup>	<b>BK</b>	Black	<b>MF</b>	Micro Flange <sup>9</sup>
		<b>BZ</b>	Bronze	<b>FL</b>	Flangeless <sup>9,11</sup>
		<b>CW</b>	Clear Diffuse, White Flange		
		<b>WW</b>	Warm Diffuse, White Flange		
		<b>CC</b>	Custom (RAL colors)		

<sup>9</sup> Only available in White, Black & Bronze finish

<sup>10</sup> Not Available in Micro Flange

<sup>11</sup> Requires Flangeless Mud or Wood Kit in New Construction housings

## PRODUCT BUILDER

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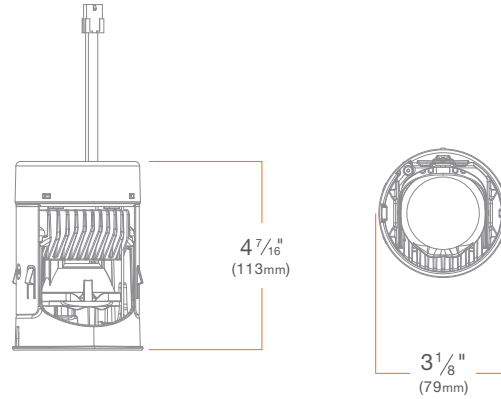
### OPTICS

<b>XAXNS</b>	Narrow Spot (20°) Optic
<b>XAXSP</b>	Spot (30°) Optic
<b>XAXFL</b>	Flood (40°) Optic
<b>XAXWF</b>	Wide Flood (50°) Optic
<b>XAXLS</b>	Linear Spread (50°x30°) Optic
<b>XAXOP</b>	Bundled Adjustable Optics Kit <i>(Includes Narrow Spot, Spot, Flood, Wide Flood and Linear Spread)</i>
<b>XAXNH</b>	Narrow Spot Optic with Hexcell Louver
<b>XAXSH</b>	Spot Optic with Hexcell Louver
<b>XAXFH</b>	Flood Optic with Hexcell Louver
<b>XAXWH</b>	Wide Flood Optic with Hexcell Louver
<b>XAXHD</b>	High Diffusion Front Lens <i>(Can be paired with all beam spreads to provide extra diffusion; Only available as an optical accessory)</i>
<b>XAXCL</b>	Clear Front Lens <i>(Can be paired with all beam spreads to decrease diffusion and define edges; Only available as an optical accessory)</i>

### ACCESSORIES

<b>X2KRMUD</b>	Flangeless Mud Kit <i>(Required for New Construction installation of Flangeless Trim in drywall ceiling)</i>
<b>X2KRWOOD</b>	Wood Kit <i>(Required for New Construction installation of all trims in wood ceiling)</i>
<b>X2KRTEMPLATE</b>	Router Template <i>(Recommended for routing 3 3/16" [81mm] cutout in wood ceiling)</i>

## MODULE



## PERFORMANCE SUMMARY

	STATIC CCT	WARM DIM	TUNABLE WHITE
<b>CCT</b>	2700K, 3000K, 3500K, 4000K	3000K - 1800K	4000K - 1800K; 6500K - 2700K
<b>LUMENS (POWER)</b>	500 lm (9.5W), 750 lm (9.5W), 1000 lm (12.5W)	1000 lm (12.0W)	750 lm (13.4W)
<b>EFFICACY</b>	40 lm /W, 60 lm/W, 70 lm/W	83 lm/W	56 lm/W
<b>COLOR QUALITY</b>	93 CRI <sup>1</sup> , 2-step SDCM	93 CRI <sup>1</sup> , 3-step SDCM	93 CRI <sup>1</sup> , 3-step SDCM
<b>BEAM SPREAD</b>	Ultra Narrow Spot (10°), Narrow Spot (20°), Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50°x30°)	Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50°x30°)	Narrow Spot (20°), Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50°x30°)
<b>DIMMING</b>	0-10V, TRIAC/ELV, DALI-2	0-10V, TRIAC/ELV, DALI-2	DALI-2
<b>LED CHIP</b>	Cree	Bridgelux	Bridgelux
<b>LISTINGS</b>	ENERGY STAR <sup>®</sup> qualified <sup>2</sup> , California Title 24 2019–2022 JA8-E Compliant, UL Listed for Damp Location, UL Certified US-CA, Declare, RoHS compliant, DALI-2 Compliant, NSF/ANSI 2 Listed <sup>3</sup> , Dark Sky Compliant <sup>4</sup>		
<b>ADJUSTMENT</b>	360° directional aim, 35° tilt		
<b>SLOPE CEILING COMPATIBILITY</b>	Up to 35°		

<sup>1</sup> Tested in accordance to IESNA LM-79-2008

<sup>2</sup> Refer to ENERGY STAR Certified light fixtures database

<sup>3</sup> In accordance to NSF/ANSI 2 for Splash Zone having designated trim finishes

<sup>4</sup> Only applicable to CCT options less than or equal to 3000K

## ADDITIONAL

**INPUT VOLTAGE:** 120/277V, 50/60Hz

**MAX INPUT CURRENT (120V):** 0.11 amps

**MAX INPUT CURRENT (277V):** 0.05 amps

**CONNECTOR:** 6-pin Molex

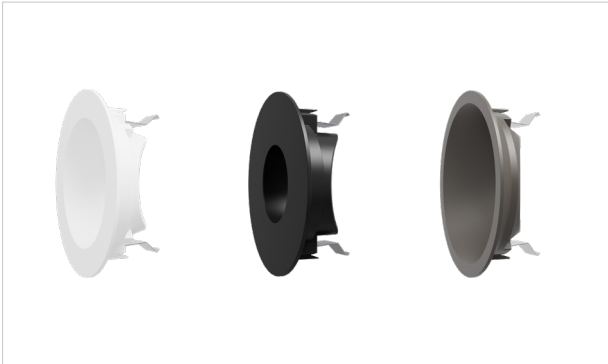
**POWER FACTOR:** Greater than 0.9

**TOTAL HARMONIC DISTORTION:** Less than 20%

**AMBIENT OPERATING TEMPERATURE:** -20°C to 40°C

**WARRANTY:** 5 year limited warranty; 50,000 hours at 70% lumen maintenance

**TRIMS**



**SUMMARY**

**CONSTRUCTION:** Die-cast aluminum

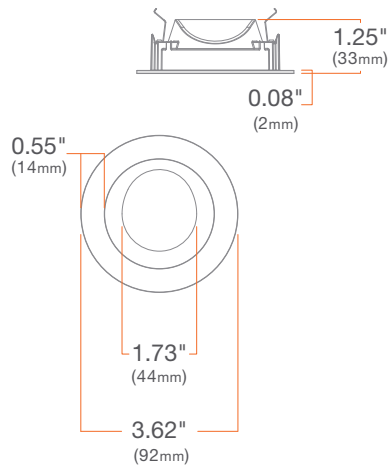
**FINISH:** Wet paint

**INSTALLATION:** Precision Lock Collar included with Flanged or Micro Flange Trim and Flangeless Mud or Wood Kit

**WARRANTY:** 5 year limited warranty

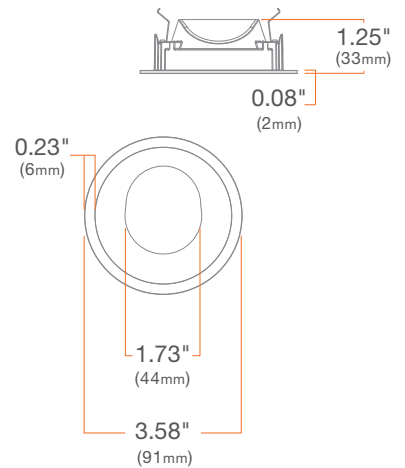
**Standard**

**X2TRASWH**



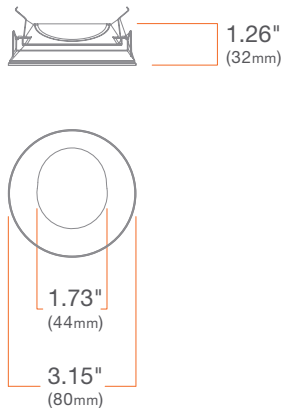
**Standard Micro Flange**

**X2TRASWHMF**



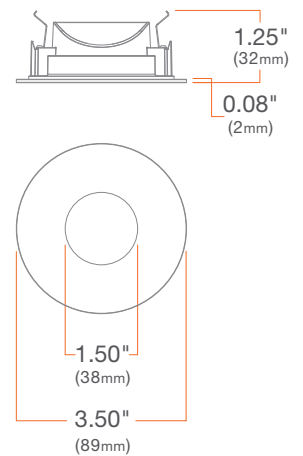
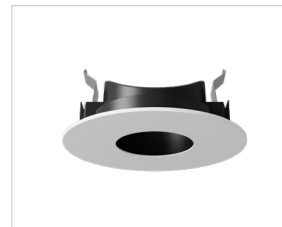
**Standard Flangeless**

**X2TRASWHFL**



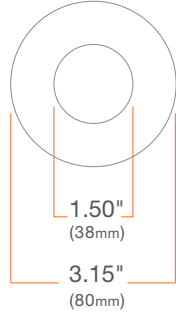
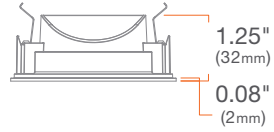
**Pinhole**

**X2TRAPWH**

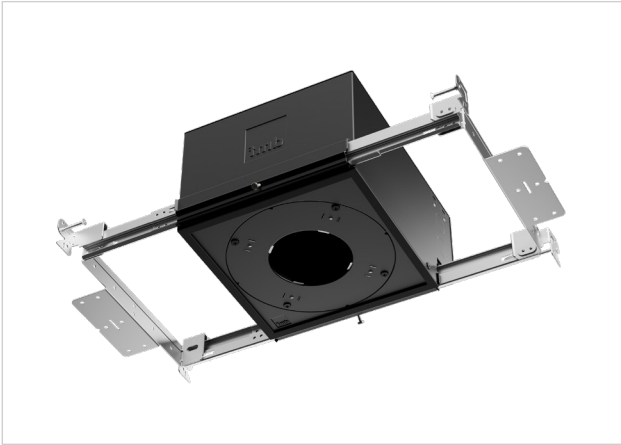


## Pinhole Flangeless

X2TRAPWHFL



## HOUSING



### New Construction **X2NCR** Chicago Plenum **X2CPR**

#### SUMMARY

**JUNCTION BOX:** Equipped with 10 knockouts: four 1/2" trade size knockouts, two 3/4" trade size knockouts, and four romex knockouts. Approved for 8 (four in, four out) #12 AWG 70°C.

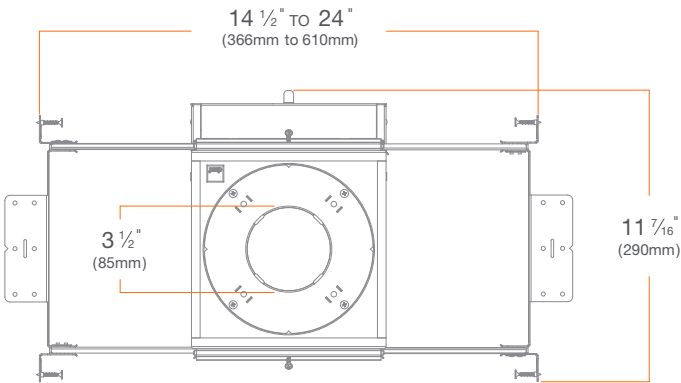
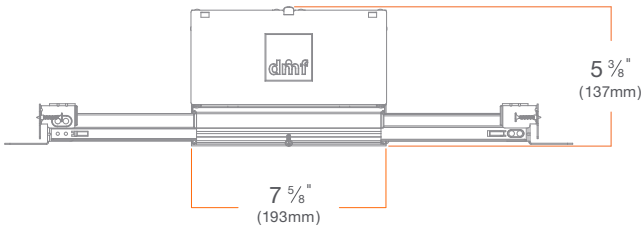
**BAR HANGER MOUNTING:** Adjustable Bar Hangers for 14.5" to 24" joist spacing, when bar hangers are broken down, up to 10.5" of joist spacing. Compatible with traditional joists, Armstrong TM ceiling, Hat Channel and T-Bar. Vertical adjustment (0.5"-1.25") through installation of the round collar.

**CEILING:** Collar allows for vertical adjustment from 1/2" up to 1 1/4" in the ceiling.

**CUTOUT:** 3 1/4" (82mm) round opening

**LISTINGS:** Chicago Plenum, ASTM E283 certified Air Tight, IC (Insulation Contact) up to R-32 for Roll, Batt, and Loose Fill, up to R-60 Spray Foam with standard trims, up to R-32 Spray Foam with other trims or hex louver

**WARRANTY:** 5 year limited warranty



**HOUSING**



**Remodel**

**X2RMR**

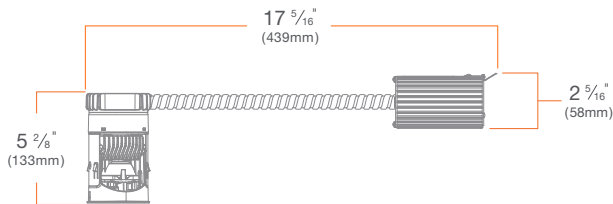
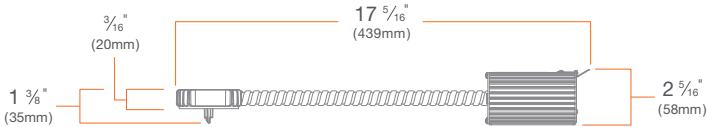
**SUMMARY**

**JUNCTION BOX:** Equipped with four knockouts: two 1/2" trade size knockouts and two romex knockouts. Approved for 8 (four in, four out) #12 AWG 70°C.

**CEILING:** 5/8" up to 1 1/4"

**CUTOUT:** 3 1/4" (82mm) round opening

**WARRANTY:** 5 year limited warranty





**ACCESSORIES**

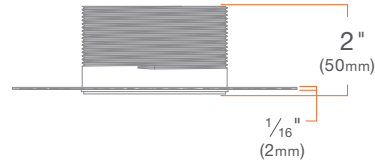
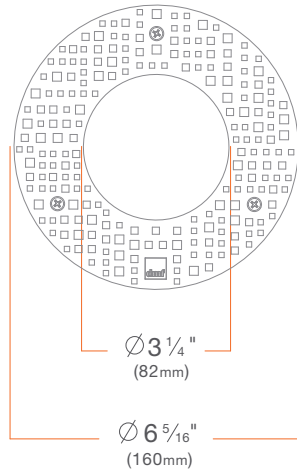


**Flangeless Mud Kit**

**X2KRMUD**

**SUMMARY:** Flangeless Mud Kit (Required for New Construction installation of Flangeless Trim in drywall ceiling)

**CEILING:** 0.5" up to 1.25"

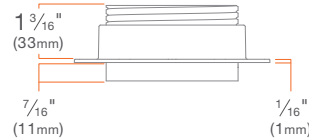
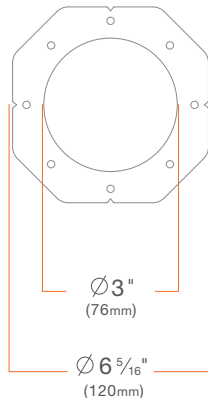


**Wood Kit**

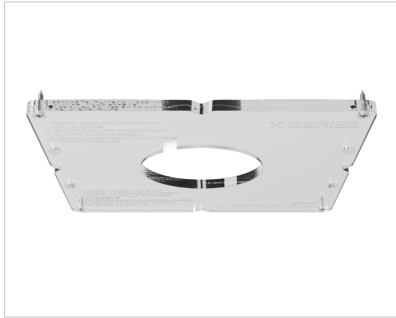
**X2KRWOOD**

**SUMMARY:** Wood Kit (Required for New Construction installation in wood ceiling. Must be mounted on wood before installation to ceiling.)

**CEILING:** 0.5" up to 1"



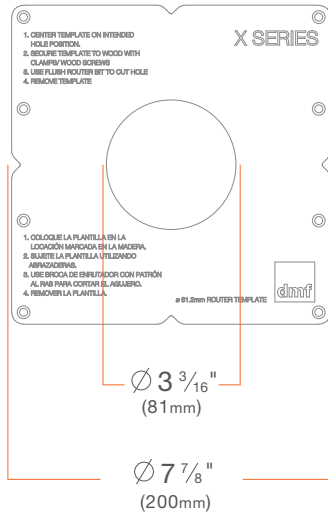
**ACCESSORIES**



**Router Template**

**X2KRTEMPLATE**

**SUMMARY:** Router Template (Recommended for routing 3 3/16" [81mm] cutout in wood ceiling)

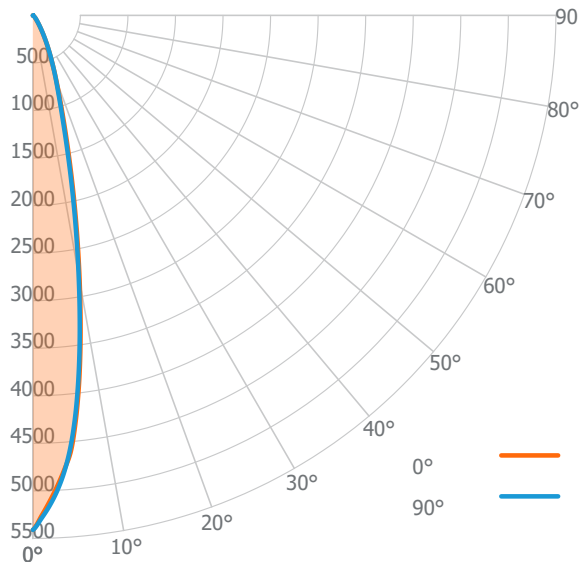


## PHOTOMETRY

1000 lm, 3000K, Narrow Spot **XMA10930NST**

2" Standard White Trim **X2TRASWH**

Candela Distribution



Luminous Intensity

	0°
0°	5411
5°	4598
10°	2835
15°	1398
20°	715
25°	385
30°	193
35°	96
40°	53
45°	33
50°	21
55°	15
60°	13
65°	11
70°	8
75°	6
80°	4
85°	2
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	890	90%
0° - 40°	944	95%
0° - 60°	978	98%
0° - 90°	994	100%
0° - 180°	994	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	601.2 fc	1.1 ft
6 ft	150.3 fc	2.2 ft
9 ft	66.8 fc	3.3 ft
12 ft	37.6 fc	4.4 ft

Input Watts: **12.0 W**

Lumens: **994 lm**

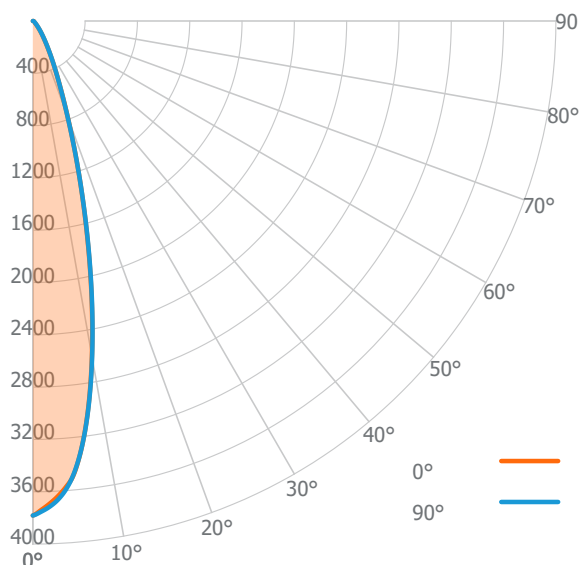
Efficacy: **83 lm/W**

Beam Angle: **21° x 20°**

1000 lm, 3000K, Spot **XMA10930SPT**

2" Standard White Trim **X2TRASWH**

Candela Distribution



Luminous Intensity

	0°
0°	3782
5°	3500
10°	2603
15°	1537
20°	780
25°	400
30°	212
35°	115
40°	62
45°	35
50°	22
55°	16
60°	14
65°	12
70°	9
75°	7
80°	4
85°	2
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	849	88%
0° - 40°	913	94%
0° - 60°	949	98%
0° - 90°	967	100%
0° - 180°	967	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	420.2 fc	1.4 ft
6 ft	105.0 fc	2.8 ft
9 ft	46.7 fc	4.2 ft
12 ft	26.3 fc	5.7 ft

Input Watts: **12.0 W**

Lumens: **967 lm**

Efficacy: **81 lm/W**

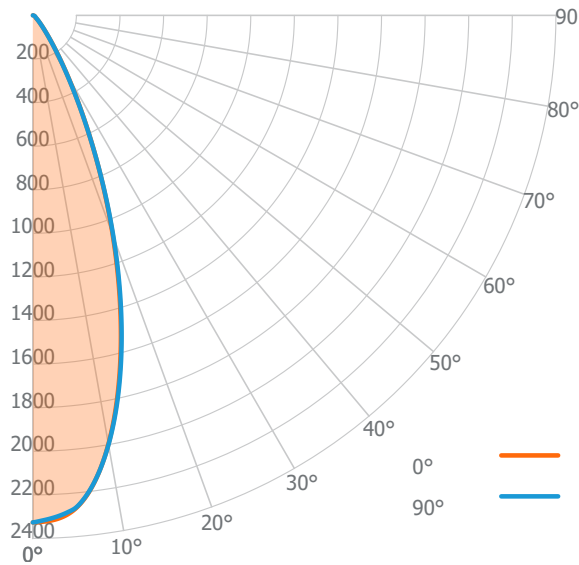
Beam Angle: **27° x 27°**

## PHOTOMETRY

1000 lm, 3000K, Flood **XMA10930FLT**

2" Standard White Trim **X2TRASWH**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	2326
5°	2270
10°	1998
15°	1561
20°	1072
25°	629
30°	319
35°	149
40°	72
45°	38
50°	21
55°	15
60°	12
65°	11
70°	9
75°	6
80°	4
85°	2
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	843	86%
0° - 40°	925	95%
0° - 60°	961	98%
0° - 90°	977	100%
0° - 180°	977	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	258.5 fc	2.1 ft
6 ft	64.6 fc	4.1 ft
9 ft	28.7 fc	6.2 ft
12 ft	16.2 fc	8.3 ft

Input Watts: **12.0 W**

Lumens: **977 lm**

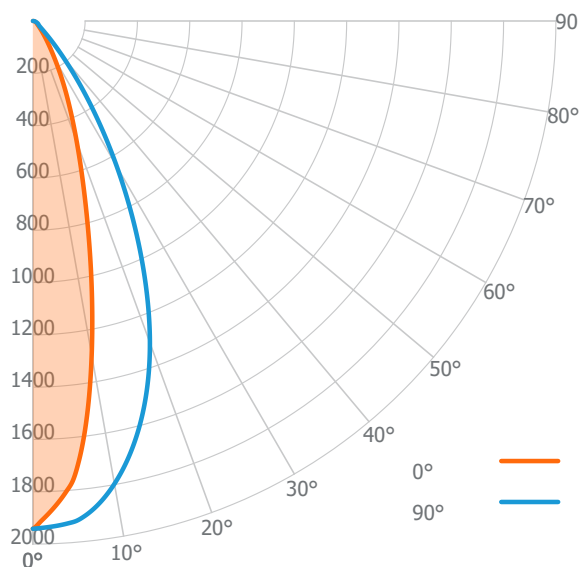
Efficacy: **81 lm/W**

Beam Angle: **38° x 38°**

1000 lm, 3000K, Linear Spread **XMA10930LST**

2" Standard White Trim **X2TRASWH**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	1941
5°	1763
10°	1296
15°	812
20°	491
25°	297
30°	169
35°	98
40°	59
45°	39
50°	27
55°	20
60°	17
65°	14
70°	11
75°	8
80°	5
85°	3
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	724	78%
0° - 40°	848	91%
0° - 60°	906	97%
0° - 90°	931	100%
0° - 180°	931	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	215.7 fc	1.4 ft
6 ft	53.9 fc	2.8 ft
9 ft	24.0 fc	4.2 ft
12 ft	13.5 fc	5.6 ft

Input Watts: **12.0 W**

Lumens: **931 lm**

Efficacy: **78 lm/W**

Beam Angle: **26° x 50°**