

Project:	Type:
Product Code:	Date:

V031425



2" Square 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

Embedded 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, Acoustic Ceiling Tiles

TRIMS

Style

Standard Micro Flange, Flangeless, Pinhole

Finish

White, Black, Bronze, Clear Diffuse (Coming Soon), Custom Color (RAL Colors)

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°x30°)

POWER & CONTROLS

Input Voltage

120 / 277V

Dimming

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

RATINGS & CERTIFICATIONS

- IC Insulation Contact Rated¹
- ASTM E283 Certified Air Tight
- Chicago Plenum
- UL Listed for Damp Location²
- RoHS Compliant
- DarkSky Approved³

¹ New Construction only; IC for Roll, Batt, Loose Fill and Spray Foam

² Flanged Trims, Under Covered Areas Only

³ CCT less than or equal to 3000K

WARRANTY

5 year limited warranty; 50,000 hours





PRODUCT BUILDER

HOUSING

PRODUCT CODE		INSTALLATION		SHAPE	
X2				S	
X2	2" Housing	NC	New Construction	S	Square
		CP	Chicago Plenum		
		RM	Remodel ¹		

¹ Non-IC installation only; Flanged trims and Micro Flange trims only; Not available with DALI-2 dimming.

MODULE

PRODUCT CODE		LUMENS		CRI	CCT ²		BEAM SPREAD		DIMMING		
XMA				9							
XMA	Adjustable	05	500 lm ³	9	93 CRI	27	2700K	UN	Ultra Narrow Spot (10°) ⁶	O	0-10V
		07	750 lm			30	3000K	NS	Narrow Spot (20°)	T	TRIAC/ELV
		10	1000 lm			35	3500K	SP	Spot (30°)	D	DALI-2 ⁷
						40	4000K	FL	Flood (40°)		
						3W	Warm Dim (3000K - 1800K) ⁴	WF	Wide Flood (50°)		
						T1	Tunable White (4000K - 1800K) ⁵	LS	Linear Spread (50°x30°)		
						T2	Tunable White (6500K - 2700K) ⁵				

² DarkSky approved is only applicable to CCT options less than or equal to 3000K

³ Only available with Ultra Narrow Spot beam spread

⁴ Only available in 1000 lm; Not available in Narrow Spot beam spread

⁵ Only available in 750 lm, DALI-2 dimming; Not available in Narrow Spot Beam Spread

⁶ Only available in 500 lm, not available as an optical accessory

⁷ Only available in 750 lm with Tunable White CCT, 1000 lm Warm Dim or 1000 lm with static CCT

TRIM

PRODUCT CODE		FINISH		OPTION	
X2TSAS	2" Standard Trim ⁸	WH	White	[Blank]	Flanged (Pinhole Only)
X2TSAP	2" Pinhole Trim ⁹	BK	Black	MF	Micro Flange
		BZ	Bronze	FL	Flangeless ¹⁰
		CW	Clear Diffuse, White Flange (Coming soon)		
		CC	Custom Color (RAL Colors)		

⁸ Only available with Micro Flange or Flangeless option

⁹ Not available in Bronze or Clear Diffuse finish; Not available in Micro Flange option

¹⁰ Requires Flangeless Mud or Wood Kit in New Construction housings; Not compatible with Remodel Housing; Not available in Clear Diffuse finish

ACCESSORIES

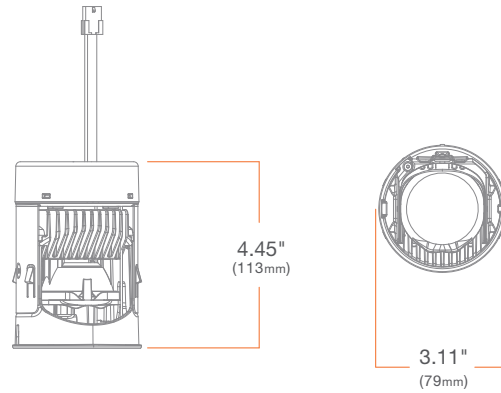
X2KSMUD	Flangeless Mud Kit (Required for New Construction installation of Flangeless Trim in drywall ceiling)
X2KSWOOD	Wood Kit (Required for New Construction installation of all trims in wood ceiling)
X2KSTEMPLATE	Router Template (Recommended for routing 3 1/4" [82mm] cutout in wood ceiling)

PRODUCT BUILDER

OPTICS

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

MODULE



PERFORMANCE SUMMARY

	STATIC CCT	WARM DIM	TUNABLE WHITE
CCT	2700K, 3000K, 3500K, 4000K	3000K - 1800K	4000K - 1800K; 6500K - 2700K
LUMENS (POWER)	500 lm (9.5W), 750 lm (9.5W), 1000 lm (12.5W)	1000 lm (12.5W)	750 lm (12.5W)
EFFICACY	53 lm /W, 79 lm/W, 80 lm/W	80 lm/W	60 lm/W
COLOR QUALITY	93 CRI ¹ , 2-step SDCM	93 CRI ¹ , 3-step SDCM	93 CRI ¹ , 3-step SDCM
BEAM SPREAD	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°)	Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50°x30°)
DIMMING	0-10V, TRIAC/ELV, DALI-2 ²	0-10V, TRIAC/ELV, DALI-2	DALI-2
LED CHIP	Cree	Bridgelux	Bridgelux
LISTINGS	ENERGY STAR [®] qualified ³ , California Title 24 2019–2022 JA8-E Compliant, UL Listed for Damp Location ⁴ , UL Certified US-CA, Declare, RoHS compliant, Shatter resistant construction, DALI-2 Compliant, Dark Sky Compliant ⁵ , Compliant with FCC CFR Title 47 Part 15; Class B		
ADJUSTMENT	360° directional aim, 35° tilt		
SLOPED CEILING COMPATIBILITY	Up to 35°		

¹ Tested in accordance to IESNA LM-79-2008

² Available in 1000lm Only (12.5W)

³ Refer to ENERGY STAR Certified light fixtures database

⁴ With Flanged trims, under covered areas only

⁵ 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

MODULE PERFORMANCE

Based on 93 CRI, 3000K Module + Standard Micro Flange Trim, White (X2TSASWHMF)

(Please refer to IES files for other trim types)

		STATIC CCT			WARM DIM	T1	T2
LED CHIP		CREE 93 CRI			Bridgelux 93 CRI		
SDCM		2-STEP			3-STEP		
PN DESIGNATOR		05	07	10	10	07	07
WATTAGE		9.5W	9.5W	12.5W	12.5W	12.5W	12.5W
UN	Lumens	460	N/A		N/A		
	LPW ¹	48.4					
	CBCP ²	2754					
	UGR ³	5.9					
NS	Lumens	N/A	575	756			
	LPW		60.5	60.5			
	CBCP		2323	3057			
	UGR		2.9	3.8			
SP	Lumens	N/A	545	717	617	400	396
	LPW		57.4	57.4	49.4	32	31.7
	CBCP		1858	2445	2103	1364	1349
	UGR		3.6	4.5	4.0	2.5	2.5
FL	Lumens	N/A	579	762	655	425	420
	LPW		60.9	61	52.4	34	33.6
	CBCP		299	1709	1469	953	943
	UGR		3.3	4.3	3.7	2.3	2.2
WF	Lumens	N/A	548	721	471	402	398
	LPW		57.7	57.7	37.7	32.2	31.8
	CBCP		864	1136	743	634	627
	UGR		4.1	5.1	3.6	3.1	3.0
LS	Lumens	N/A	477	628	540	350	347
	LPW		50.2	50.2	43.2	28	27.8
	CBCP		1005	1322	1137	738	730
	UGR		4.8	5.7	5.2	3.7	3.7

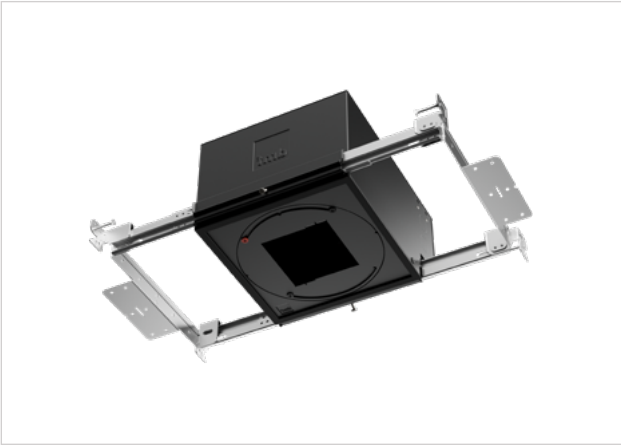
CCT MULTIPLIER	STATIC				WARM DIM		T1 TUNABLE WHITE			T2 TUNABLE WHITE		
	2700K	3000K	3500K	4000K	1800K	3000K	1800K	3000K	4000K	2700K	3000K	6500K
	0.93	1	1.05	1.07	0.05	1	0.7	1	1.12	0.96	1	1.07

¹ LPW: Lumens per watt

² CBCP: Center beam candlepower

³ UGR: Unified glare ratio (0.7/0.5/0.2, 4H/8H)

HOUSING



New Construction **X2NCS** Chicago Plenum **X2CPS**

SUMMARY

JUNCTION BOX: Equipped with 10 knockouts: four 0.5" trade size knockouts, two 0.75" trade size knockouts, and four romex knockouts. Approved for 8 (four in, four out) #12 AWG 70°C.

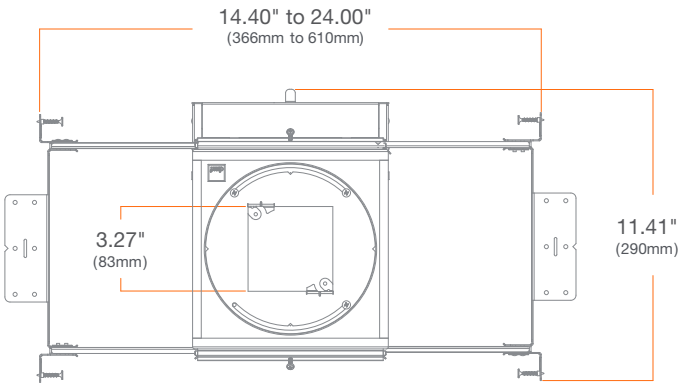
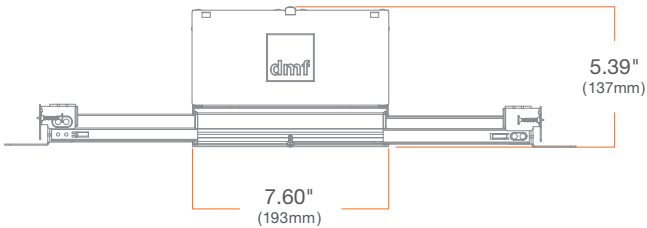
BAR HANGER MOUNTING: Adjustable Bar Hangers for 14.5" to 24" joist spacing, when bar hangers are broken down, up to 10.5" of joist spacing. Compatible with traditional joists, Armstrong™ ceiling, Hat Channel and T-Bar. Vertical adjustment (0.5"-1.25") through installation of the square collar. Front plate can be adjusted by 90°.

CEILING: 1/2" - 1 1/4" (12mm-32mm)

CUTOUT: 3.25" (82mm) square 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

WARRANTY: 5 year limited warranty



HOUSING



Remodel

X2RMS

SUMMARY

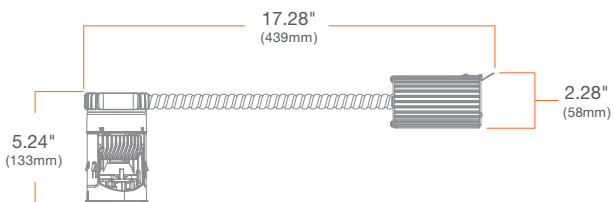
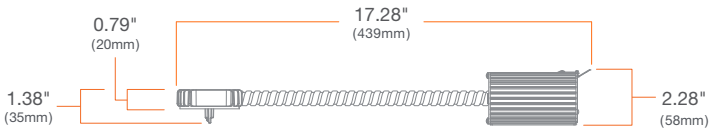
JUNCTION BOX: Equipped with four knockouts: two 0.5" trade size knockouts and two romex knockouts. Approved for 8 (four in, four out) #12 AWG 70°C.

CEILING: Drywall: 1/2" - 1 1/4" (12mm-32mm)
 Wood Ceiling: 1/2" - 1" (12mm-25mm)
 Acoustic Ceiling Tiles: 5/8" - 1 1/4" (16mm-32mm)

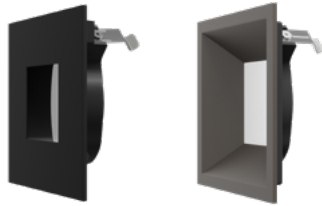
CUTOUT: 3.25" (82mm) square opening

LISTINGS: Non-IC

WARRANTY: 5 year limited warranty



TRIMS



SUMMARY

CONSTRUCTION: Die-cast aluminum

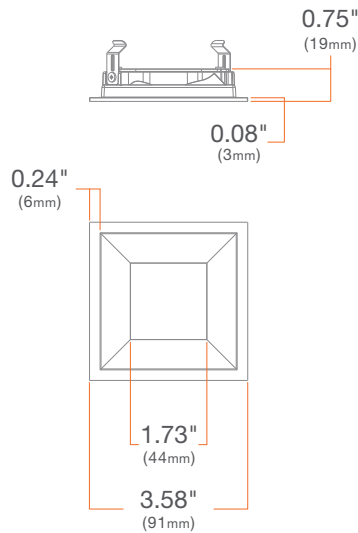
FINISH: Wet paint

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

WARRANTY: 5 year limited warranty

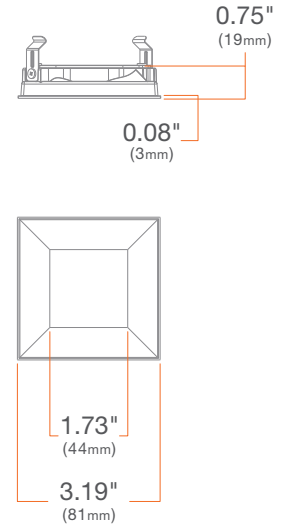
Standard Micro Flange

X2TSASWHMF



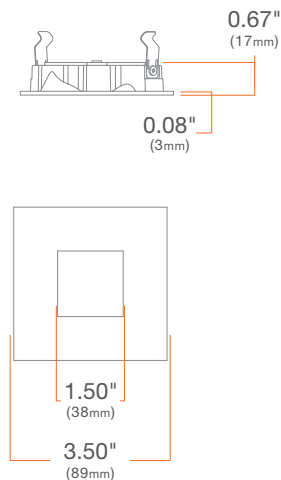
Standard Flangeless

X2TSASWHFL



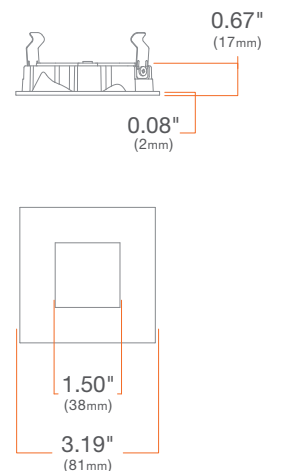
Pinhole

X2TSAPWH



Pinhole Flangeless

X2TSAPWHFL



ACCESSORIES

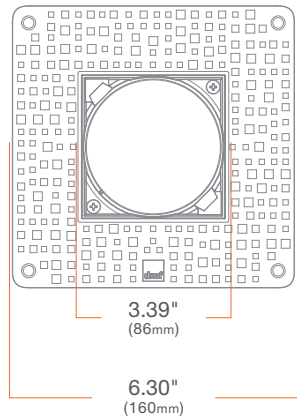


Flangeless Mud Kit

X2KSMUD

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

CEILING: 1/2" up to 1 1/4"

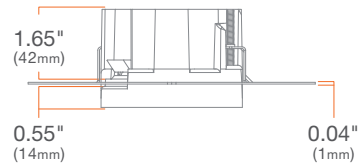
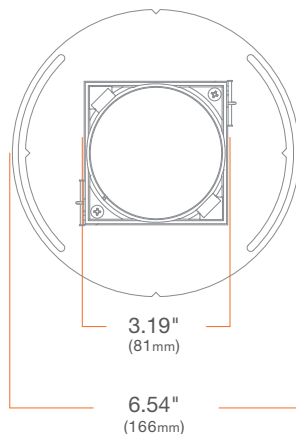


Wood Kit

X2KSWOOD

SUMMARY: Wood Kit (Required for New Construction installation of all trims in wood ceiling)

CEILING: 1/2" up to 1"



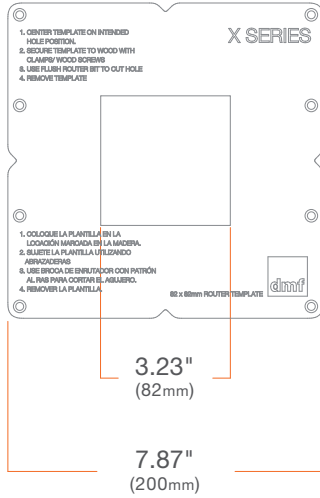
ACCESSORIES



Router Template

X2KSTEMPLATE

SUMMARY: Router Template (Recommended for routing 3 1/4" [82mm] cutout in wood ceiling)

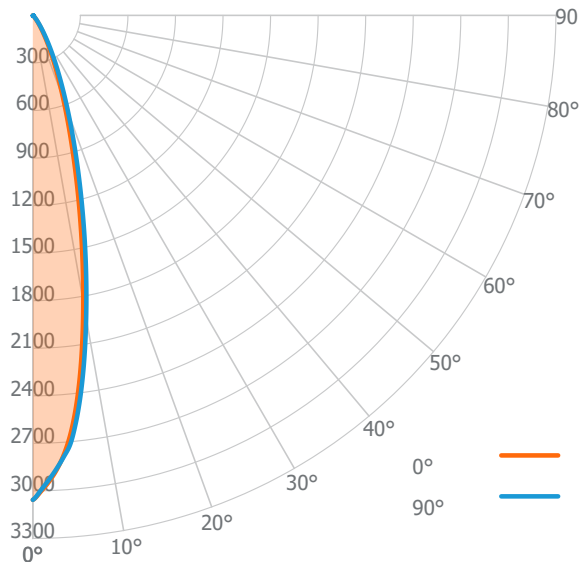


PHOTOMETRY

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

2" Standard Micro Flange Trim, White **X2TSASWHMF**

Candela Distribution



Luminous Intensity

	0°
0°	3057
5°	2670
10°	1832
15°	1055
20°	563
25°	294
30°	143
35°	65
40°	29
45°	13
50°	7
55°	6
60°	5
65°	4
70°	3
75°	2
80°	1
85°	1
90°	0

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	686	91%
0° - 40°	732	97%
0° - 60°	749	99%
0° - 90°	756	100%
0° - 180°	756	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	339.6 fc	1.3 ft
6 ft	84.9 fc	2.5 ft
9 ft	37.7 fc	3.8 ft
12 ft	21.2 fc	5.0 ft

Input Watts: **12.5 W**

Lumens: **756 lm**

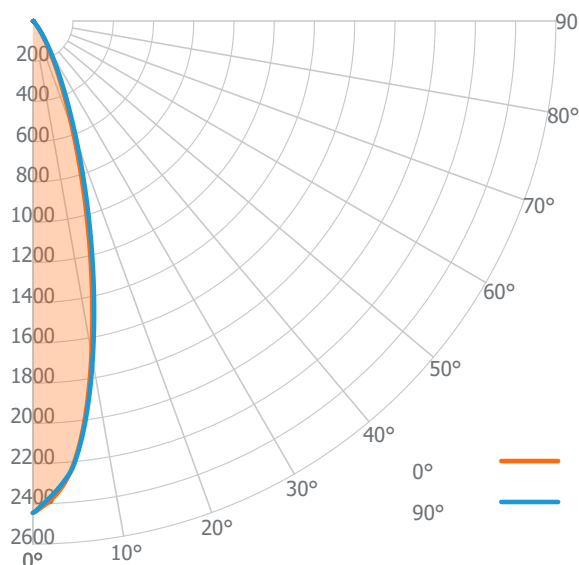
Efficacy: **60 lm/W**

Beam Angle: **24° x 25°**

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

2" Standard Micro Flange Trim, White **X2TSASWHMF**

Candela Distribution



Luminous Intensity

	0°
0°	2445
5°	2231
10°	1679
15°	1055
20°	583
25°	308
30°	158
35°	75
40°	33
45°	15
50°	8
55°	6
60°	5
65°	4
70°	3
75°	2
80°	1
85°	1
90°	0

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	640	89%
0° - 40°	691	97%
0° - 60°	710	99%
0° - 90°	717	100%
0° - 180°	717	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	271.7 fc	1.5 ft
6 ft	67.9 fc	2.9 ft
9 ft	30.2 fc	4.4 ft
12 ft	17.0 fc	5.8 ft

Input Watts: **12.5 W**

Lumens: **717 lm**

Efficacy: **57 lm/W**

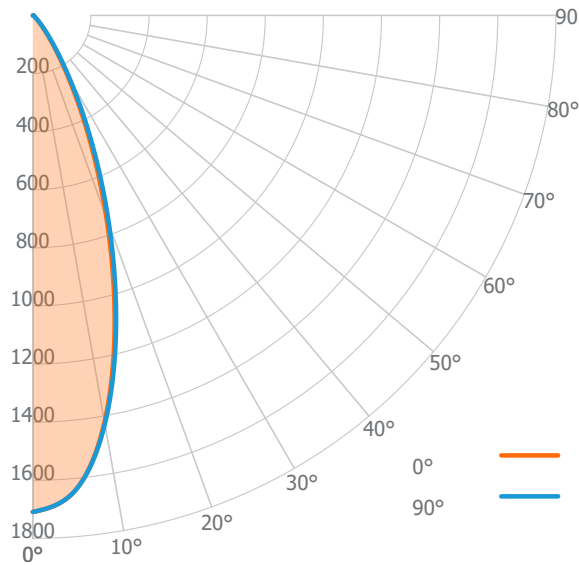
Beam Angle: **27° x 28°**

PHOTOMETRY

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

2" Standard Micro Flange Trim, White **X2TSASWHMF**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	1709
5°	1644
10°	1421
15°	1088
20°	740
25°	448
30°	239
35°	114
40°	50
45°	22
50°	10
55°	6
60°	5
65°	4
70°	3
75°	2
80°	1
85°	1
90°	0

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	653	86%
0° - 40°	730	96%
0° - 60°	755	99%
0° - 90°	762	100%
0° - 180°	762	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	189.8 fc	2.0 ft
6 ft	47.5 fc	4.0 ft
9 ft	21.1 fc	6.0 ft
12 ft	11.9 fc	7.9 ft

Input Watts: **12.5 W**

Lumens: **762 lm**

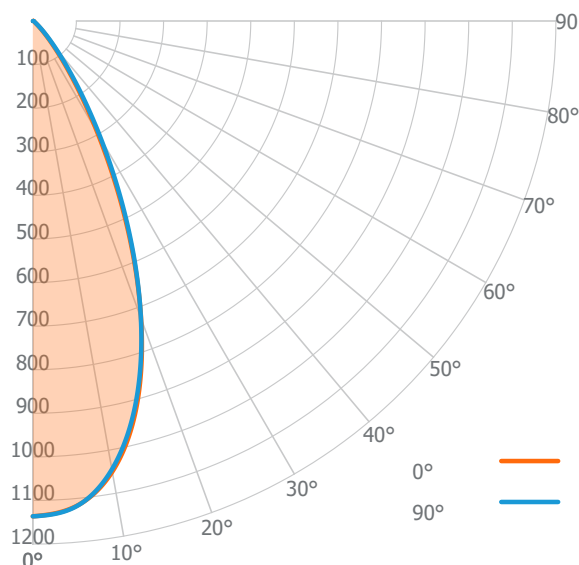
Efficacy: **61 lm/W**

Beam Angle: **37° x 37°**

1000 lm, 3000K, Wide Flood **XMA10930WFT**

2" Standard Micro Flange Trim, White **X2TSASWHMF**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	1136
5°	1118
10°	1050
15°	918
20°	726
25°	503
30°	298
35°	154
40°	71
45°	29
50°	12
55°	7
60°	5
65°	5
70°	3
75°	2
80°	1
85°	1
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	581	81%
0° - 40°	681	94%
0° - 60°	713	99%
0° - 90°	721	100%
0° - 180°	721	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	126.3 fc	2.6 ft
6 ft	31.6 fc	5.2 ft
9 ft	14.0 fc	7.8 ft
12 ft	7.9 fc	10.5 ft

Input Watts: **12.5 W**

Lumens: **721 lm**

Efficacy: **58 lm/W**

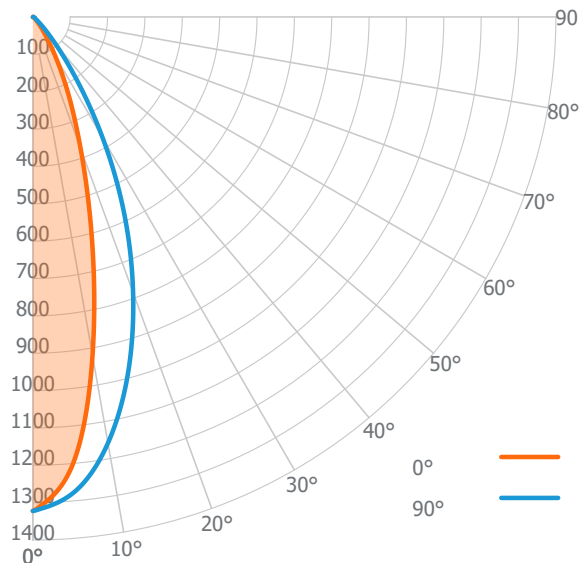
Beam Angle: **47° x 47°**

PHOTOMETRY

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

2" Standard Micro Flange Trim, White **X2TSASWHMF**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	1322
5°	1206
10°	920
15°	610
20°	373
25°	221
30°	118
35°	58
40°	28
45°	14
50°	8
55°	6
60°	5
65°	4
70°	3
75°	2
80°	1
85°	1
90°	0

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	509	81%
0° - 40°	591	94%
0° - 60°	619	99%
0° - 90°	628	100%
0° - 180°	628	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	146.9 fc	1.5 ft
6 ft	36.7 fc	3.0 ft
9 ft	16.3 fc	4.5 ft
12 ft	9.2 fc	6.0 ft

Input Watts: **12.5 W**
 Lumens: **628 lm**
 Efficacy: **50 lm/W**
 Beam Angle: **28° x 46°**