X Series

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

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

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 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 (Flanged Trims Only)

RoHS Compliant

NSF Listed (White and Black Finish Only)

WARRANTY

5 year limited warranty; 50,000 hours

PRODUCT BUILDER

HOUSING

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

[1] Non-IC installation only; Flanged trims only; Not available with DALI-2 dimming; Not available for wood ceiling

MODULE

PRODUCT CODE		LUMENS		CRI		CCT[2]		BEAM SPREAD		DIMMING	
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 UN beam spread

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

[5] Only available in 750 lm, DALI-2 dimming

[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	**WH**	White	**[Blank]**	None
X2TSAP	2" Pinhole Trim [8,9]	**BK**	Black	**MF**	Micro Flange [8]
		BZ	Bronze	**FL**	Flangeless [8,10]
		CW	Clear Diffuse, White Flange		
		WW	Warm Diffuse, White Flange		

[8] Not available in Clear or Warm Diffuse finish

[9] Not available in Micro flange

[10] Requires Flangeless Mud or Wood Kit in New Construction housings; Not compatible with Remodel Housing

PRODUCT BUILDER

OPTICS

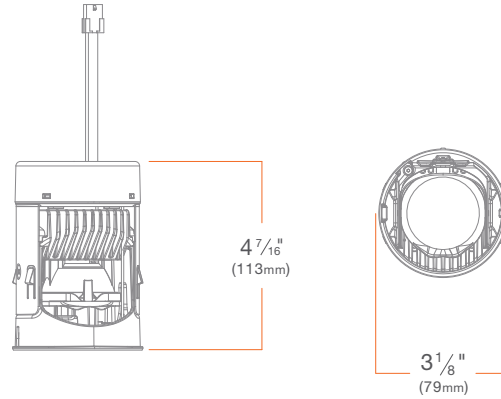|	
XAXNS	Narrow Spot (20°) Optic
XAXSP	Spot (30°) Optic
XAXFL	Flood (40°) Optic
XAXWF	Wide Flood (50°) Optic
XAXLS	Linear Spread (50°x30°) Optic
XAXOP	Bundled Adjustable Optics Kit *(Includes Narrow Spot, Spot, Flood, Wide Flood and Linear Spread)*

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)*

dmf.

MODULE

4 ⁷⁄₁₆" (113mm)

3 ¹⁄₈" (79mm)

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 (12.0W)	750 lm (13.4W)
EFFICACY	40 lm /W, 60 lm/W, 70 lm/W	83 lm/W	56 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°)	Narrow Spot (20°), Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50°x30°)
DIMMING	0-10V, TRIAC/ELV, DALI-2	0-10V, TRIAC/ELV, DALI-2	DALI-2
LED CHIP	Cree	Bridgelux	Bridgelux
LISTINGS	ENERGY STAR® qualified [2], 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 [3], Dark Sky Compliant [4]		
ADJUSTMENT	360° directional aim, 35° tilt		
SLOPE CEILING COMPATIBILITY	Up to 35°		

[1] Tested in accordance to IESNA LM-79-2008
[2] Refer to ENERGY STAR Certified light fixtures database

[3] In accordance to NSF/ANSI 2 for Splash Zone having designated trim finishes

[4] Only applicable to CCT options less than or equal to 3000K and not compatible with decorative trims

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
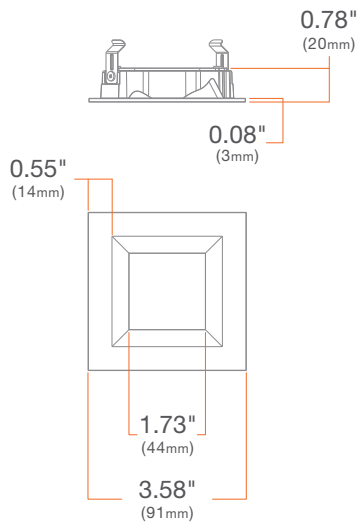
FINISH: Wet paint

INSTALLATION: Precision Lock Collar included with Flanged or Micro Flange Trim and Flangeless Mud or Wood Kit
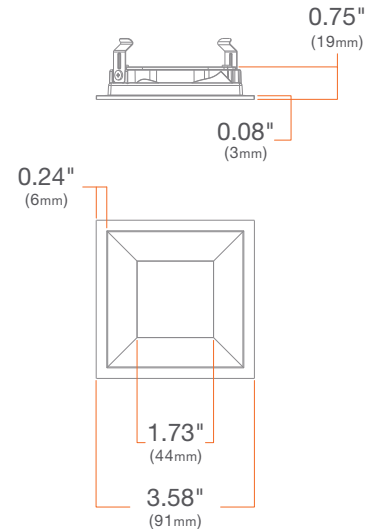
WARRANTY: 5 year limited warranty
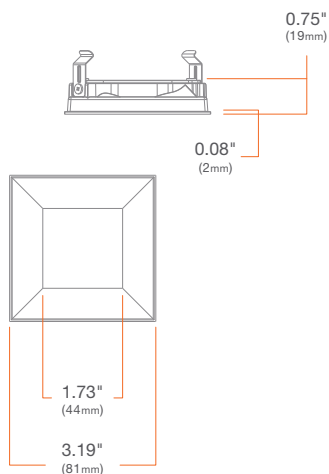

Standard

X2TSASWH

0.78" (20mm)
0.08" (3mm)
0.55" (14mm)
1.73" (44mm)
3.58" (91mm)

Standard Micro Flange

X2TSASWHMF

0.75" (19mm)
0.08" (3mm)
0.24" (6mm)
1.73" (44mm)
3.58" (91mm)

Standard Flangeless

X2TSASWHFL

0.75" (19mm)
0.08" (2mm)
1.73" (44mm)
3.19" (81mm)

Pinhole

X2TSAPWH

0.67" (17mm)
0.08" (2mm)
1.5" (38mm)
3.5" (89mm)
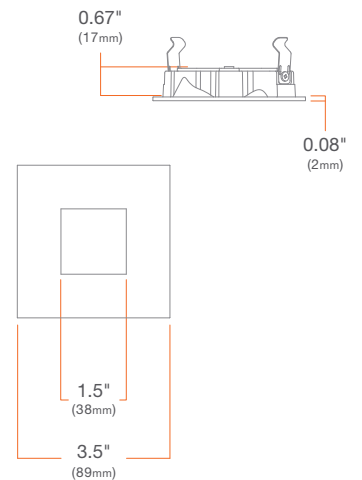
Pinhole Flangeless

X2TSAPWHFL

0.67"
(17mm)

0.08"
(2mm)

1.5"
(38mm)

3.19"
(81mm)
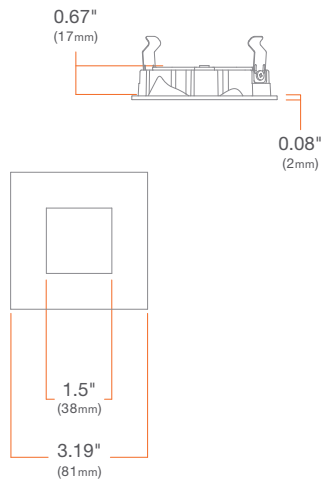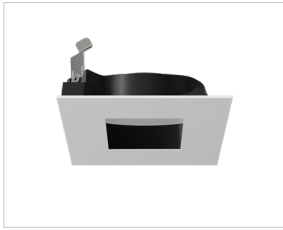
HOUSING
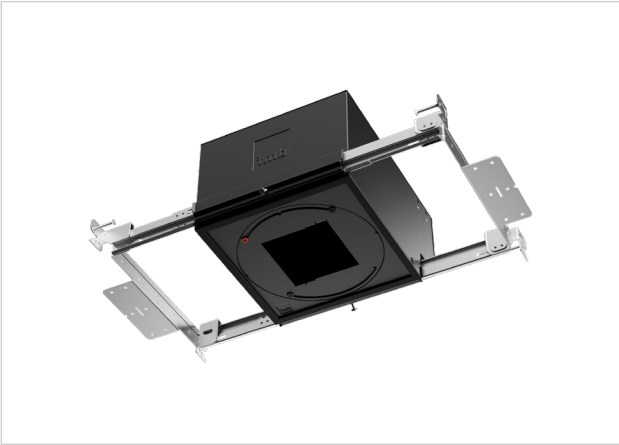
New Construction X2NCS
Chicago Plenum X2CPS

SUMMARY

JUNCTION BOX: Equipped with 10 knockouts: four ½" trade size knockouts, two ¾" 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 square collar.

CEILING: ½" up to 1 ¼"

CUTOUT: 3 ¼" (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

5 ³⁄₈"
(137mm)

7 ⁵⁄₈"
(193mm)

14 ½" TO 24"
(366mm to 610mm)

3 ¼"
(83mm)

11 ⁷⁄₁₆"
(290mm)
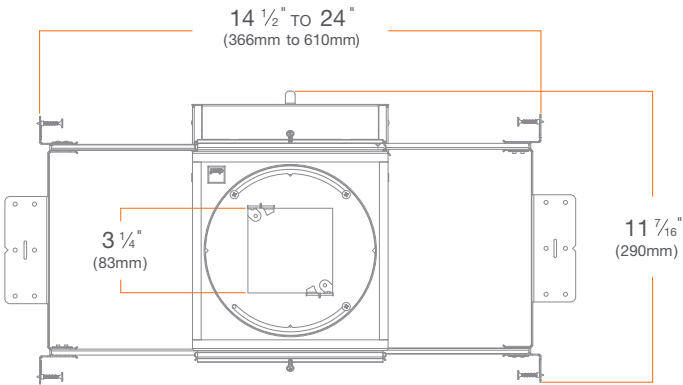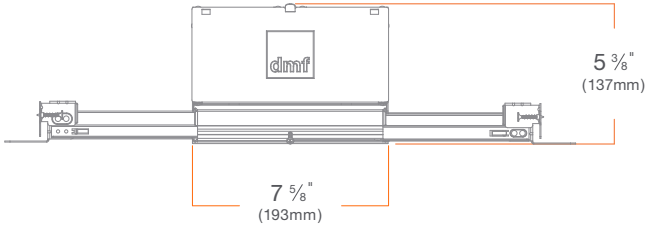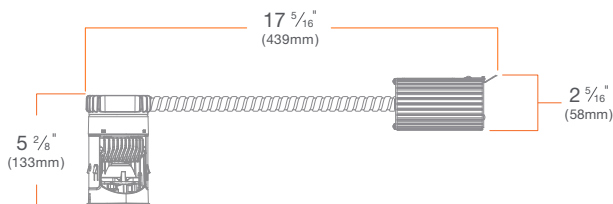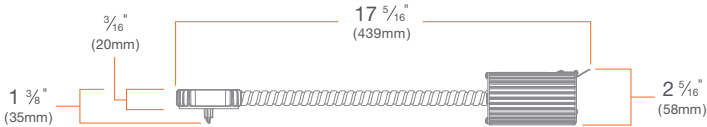
HOUSING

Remodel

X2RMS

SUMMARY

JUNCTION BOX: Equipped with four knockouts: two ½" trade size knockouts and two romex knockouts. Approved for 8 (four in, four out) #12 AWG 70°C.

CEILING: ⅝" up to 1 ¼"

CUTOUT: 3 ¼" (82mm) square opening

LISTINGS: Non-IC

WARRANTY: 5 year limited warranty
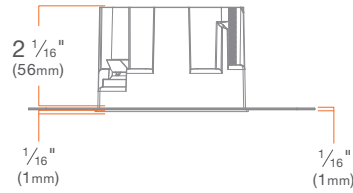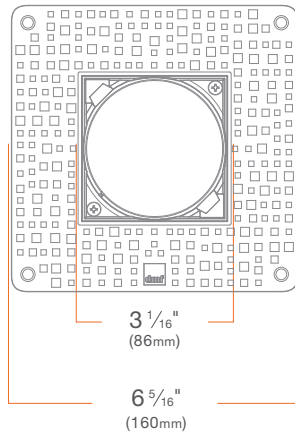
ACCESSORIES

Flangeless Mud Kit
X2KSMUD

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

CEILING: 0.5" up to 1.25"

2 $\frac{1}{16}$" (56mm)

$\frac{1}{16}$" (1mm) $\frac{1}{16}$" (1mm)

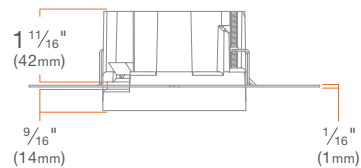3 $\frac{1}{16}$" (86mm)

6 $\frac{5}{16}$" (160mm)

Wood Kit
X2KSWOOD

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

CEILING: 0.5" up to 1"

1 $\frac{11}{16}$" (42mm)

$\frac{9}{16}$" (14mm) $\frac{1}{16}$" (1mm)

3 $\frac{3}{16}$" (81mm)

$\varnothing$ 6 $\frac{9}{16}$" (166mm)
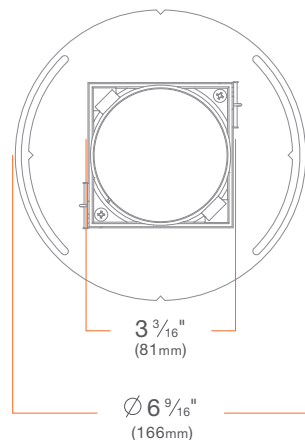
ACCESSORIES

Router Template

X2KSTEMPLATE

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

$\varnothing$ 3 $\frac{1}{4}$ "
(82mm)

$\varnothing$ 7 $\frac{7}{8}$ "
(200mm)

$\frac{1}{4}$ "
(7mm)

PHOTOMETRY
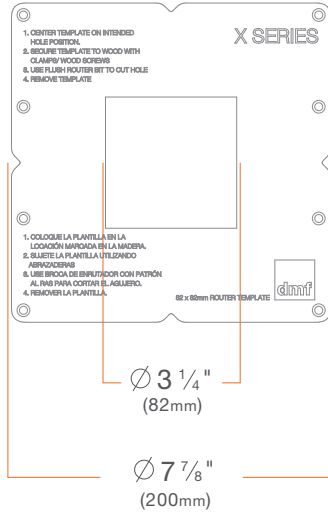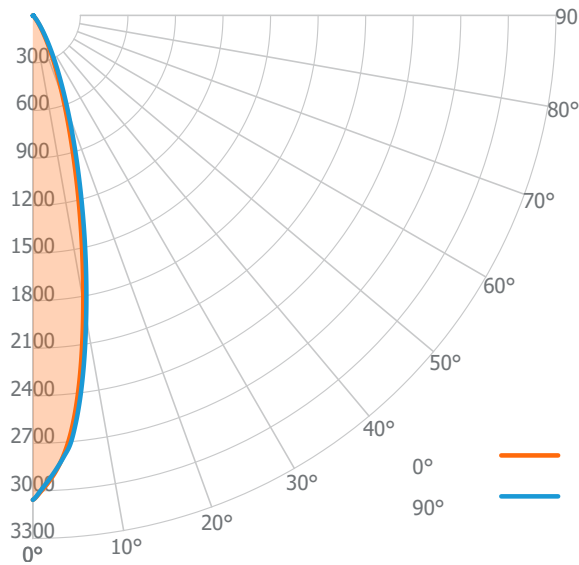
1000 lm, 3000K, Narrow Spot XMA10930NST
2" Standard White Trim X2TSASWH

Candela Distribution

0°	90°

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°	755	100%
0° - 180°	755	100%

Illuminance Chart

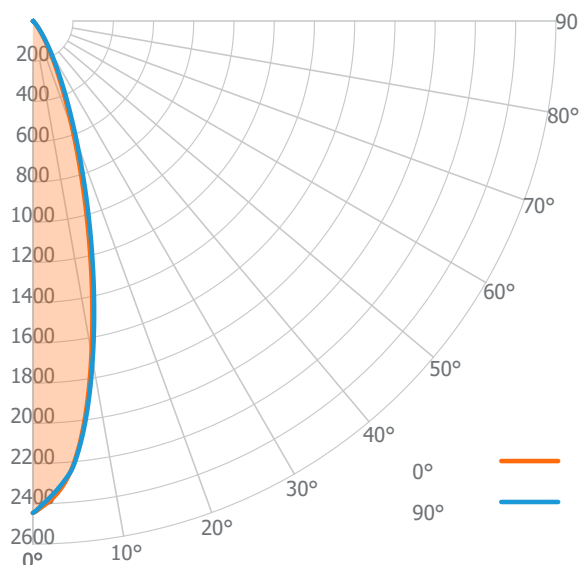| Distance from LED	Foot Candles	Diameter
3 ft	339.6 fc	1.3 ft
6 ft	84.9 fc	2.5 ft
9 ft	37.7 fc	3.8 ft
12 ft	21.2 fc	5.0 ft

Input Watts: **12.0 W**
Lumens: **755 lm**
Efficacy: **63 lm/W**
Beam Angle: **24° x 25°**

1000 lm, 3000K, Spot XMA10930SPT
2" Standard White Trim X2TSASWH

Candela Distribution

0°	90°

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°	716	100%
0° - 180°	716	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: **12.0 W**
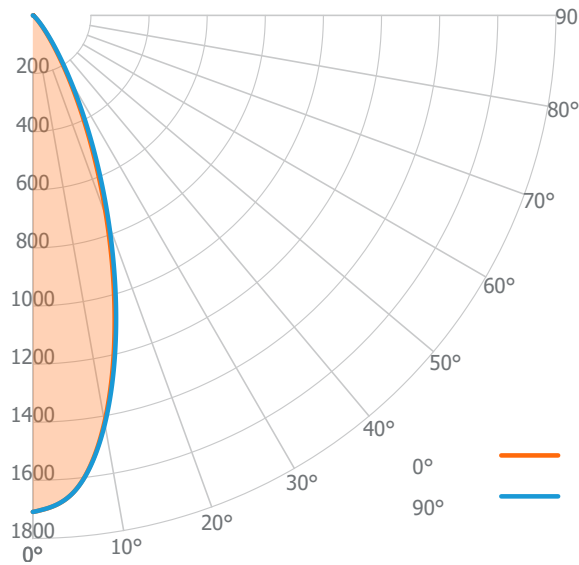Lumens: **716 lm**
Efficacy: **60 lm/W**
Beam Angle: **27° x 28°**

dmf

PHOTOMETRY

1000 lm, 3000K, Flood XMA10930FLT
2" Standard White Trim X2TSASWH

Candela Distribution

Luminous Intensity

	0°
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: **12.0 W**
Lumens: **762 lm**
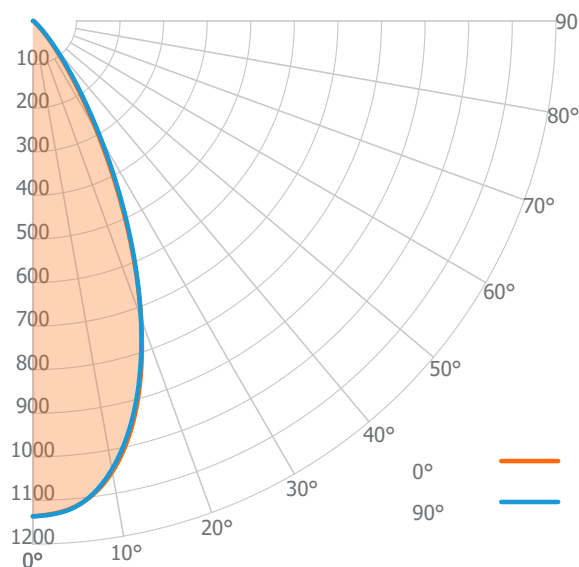Efficacy: **64 lm/W**
Beam Angle: **37° x 37°**

1000 lm, 3000K, Wide Flood XMA10930WFT
2" Standard White Trim X2TSASWH

Candela Distribution

Luminous Intensity

	0°
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

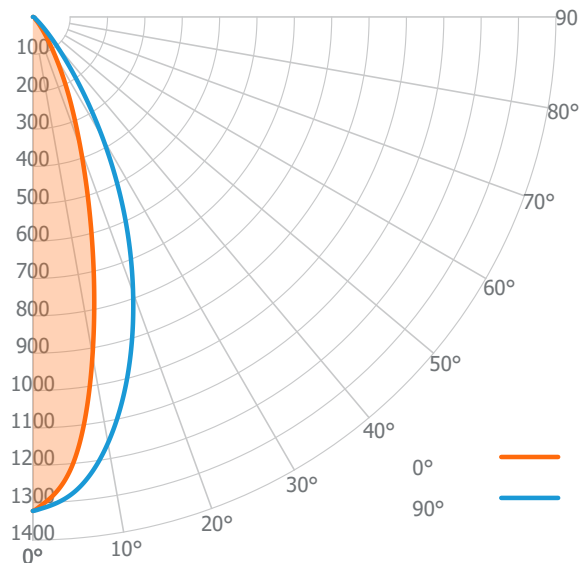Input Watts: **12.3 W**
Lumens: **721 lm**
Efficacy: **59 lm/W**
Beam Angle: **47° x 47°**

PHOTOMETRY

1000 lm, 3000K, Linear Spread XMA10930LST
2" Standard White Trim X2TSASWH

Candela Distribution

	0°
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

Luminous Intensity

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: **12.0 W**
Lumens: **628 lm**
Efficacy: **52 lm/W**
Beam Angle: **28° x 46°**