

Project:	Type:
Product Code:	Date:

V041024



2" Square Downlight

2" Downlight 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, Wall Wash, Pinhole, Micro Flange, Flangeless, Decorative

Finish

White, Black, Bronze, Clear Diffuse, Warm Diffuse

LIGHT OUTPUT & DISTRIBUTION

Module

Downlight

Lumens (Power)

500 lm (9.5W), 750 lm (9.5W), 1000 lm (12.5W), 1250 lm (14.3W), 1500 lm (14.3W)

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 Wet 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	
XMD	Downlight	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
		12	1250 lm			40	4000K	FL	Flood (40°)		
		15	1500 lm			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 and not compatible with decorative trims

³ Only available with UN beam spread

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

⁵ Only available in 1000 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 1000 lm with Tunable White CCT, 1000 lm Warm Dim or 1250 lm with static CCT

TRIM

PRODUCT CODE		FINISH		OPTION	
X2TSDS	2" Standard Trim	WH	White	[Blank]	None
X2TSDW	2" Wall Wash Trim ⁸	BK	Black	MF	Micro Flange ⁹
X2TSDP	2" Pinhole Trim ^{9,10}	BZ	Bronze	FL	Flangeless ^{9,11}
		CW	Clear Diffuse, White Flange	DO	Decorative: Open ¹²
		WW	Warm Diffuse, White Flange	DH	Decorative: Float ¹²

⁸ Recommended with Wide Flood beam spread

⁹ Not available in Clear or Warm Diffuse finish

¹⁰ Not available in Micro Flange

¹¹ Requires Flangeless Mud or Wood Kit in New Construction housings; Not compatible with Remodel Housing

¹² Only available in 750 lm, Standard style, White finish

PRODUCT BUILDER

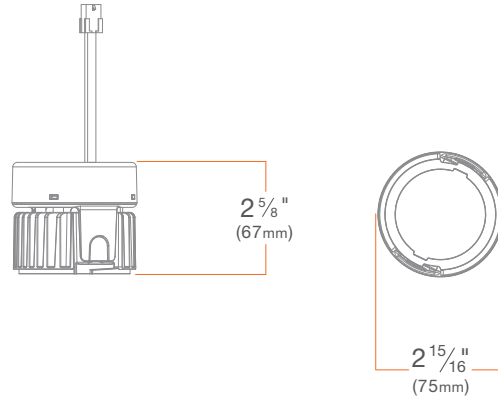
OPTICS

DXNS	Narrow Spot (20°) Optic
DXSP	Spot (30°) Optic
DXFL	Flood (40°) Optic
DXWF	Wide Flood (50°) Optic
DXLS	Linear Spread (50°x30°) Optic
DXOP	Bundled Downlight Optics Kit <i>(Includes Narrow Spot, Spot, Flood, Wide Flood and Linear Spread)</i>

ACCESSORIES

X2KSMUD	Flangeless Mud Kit <i>(Required for New Construction installation of Flangeless Trim in drywall ceiling)</i>
X2KSWOOD	Wood Kit <i>(Required for New Construction installation of all trims in wood ceiling)</i>
X2KSTEMPLATE	Router Template <i>(Recommended for routing 3 1/4" [82mm] cutout in wood ceiling)</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), 1250 lm (14.3W), 1500 lm (14.3W)	1000 lm (12.0W)	1000 lm (14.3W)
EFFICACY	53 lm/W, 79 lm/W, 80 lm/W, 87 lm/W, 105 lm/W	83 lm/W	70 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° x 30°)	Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50° x 30°)	Spot (30°), Flood (40°), Wide Flood (50°), Linear Spread (50° x 30°)
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 Wet Location, UL Certified US-CA, Declare, RoHS compliant, DALI-2 Compliant, NSF/ANSI 2 Listed ³ , Dark Sky Compliant ⁴		

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): 0.13 amps

MAX INPUT CURRENT (277V): 0.06 amps

CONNECTOR: 6-pin Molex

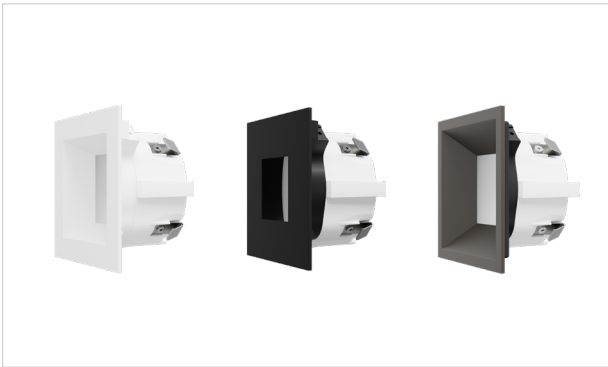
POWER FACTOR: Greater than 0.9

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

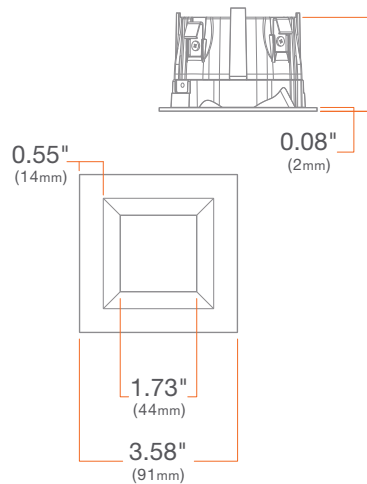
DECORATIVE: Acrylic diffuser

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

WARRANTY: 5 year limited warranty

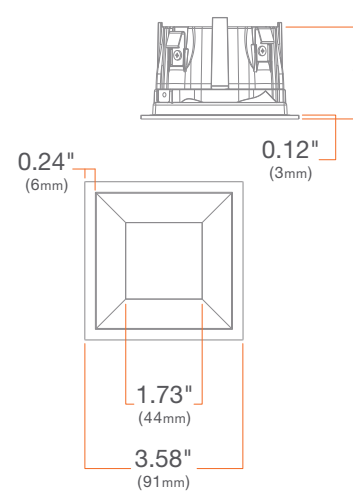
Standard

X2TSDSWH



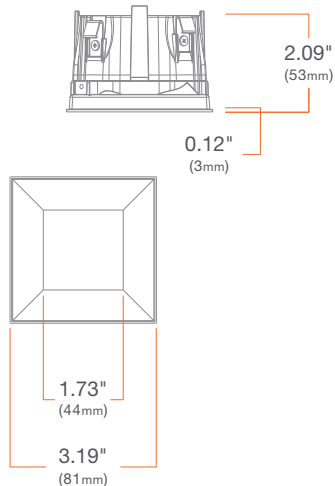
Standard Micro Flange

X2TSDSWHMF



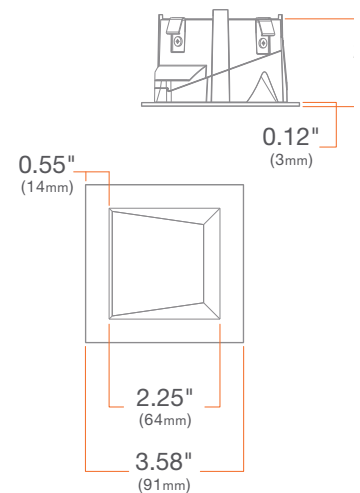
Standard Flangeless

X2TSDSWHFL



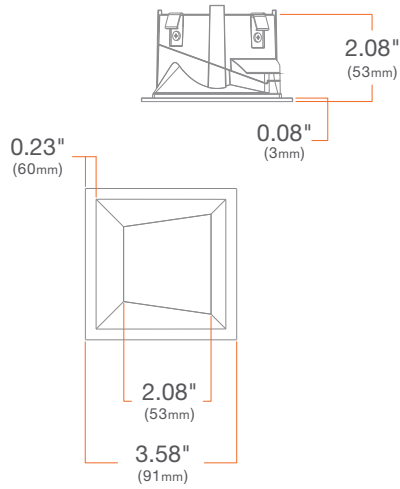
Wall Wash

X2TSDWWH



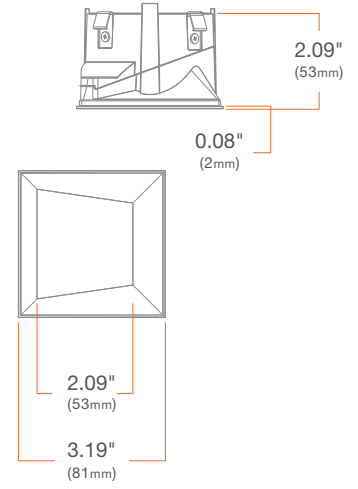
Wall Wash Micro Flange

X2TSDWWHMF



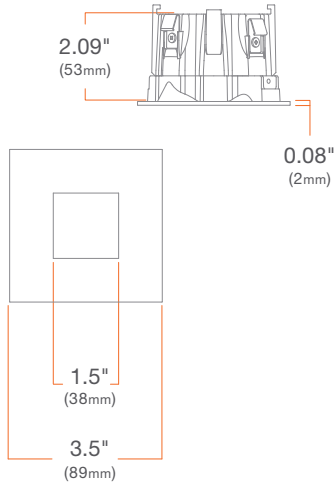
Wall Wash Flangeless

X2TSDWWHFL



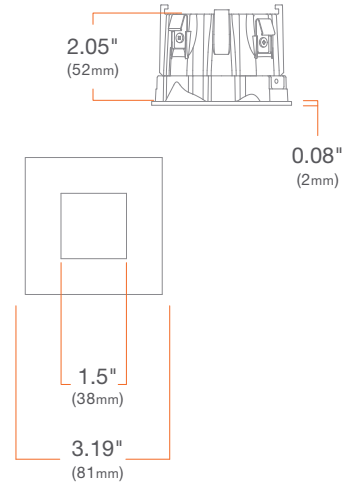
Pinhole

X2TSDPWH



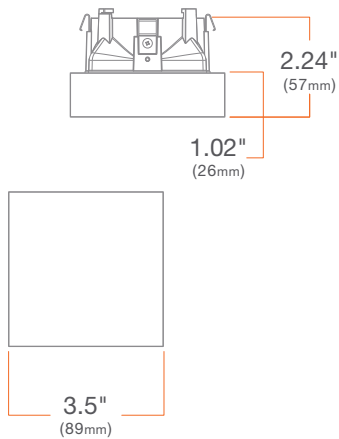
Pinhole Flangeless

X2TSDPWHFL



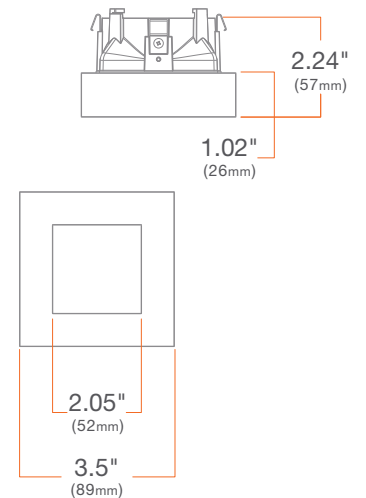
Decorative: Float

X2TSDSWHDF



Decorative: Open

X2TSDSWHDO



HOUSING



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

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.

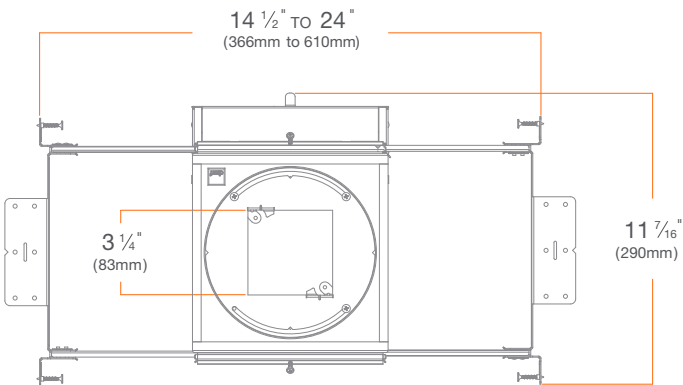
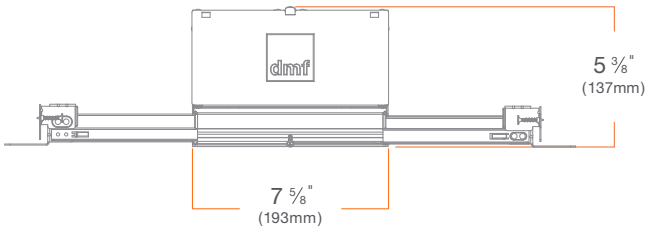
BAR HANGER MOUNTING: Adjustable Bar Hangers for 14.5" to 24" joist spacing, when bar hangers are broken down, up to 10.5" of joist spacing. Compatible with traditional joists, Armstrong™ ceiling, Hat Channel and T-Bar. Vertical adjustment (0.5"-1.25") through installation of the square collar.

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

CUTOUT: 3 1/4" (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

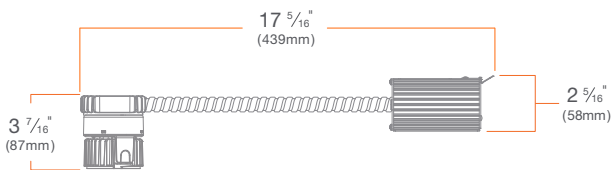
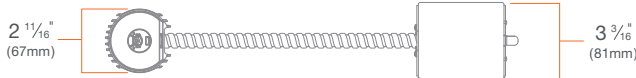
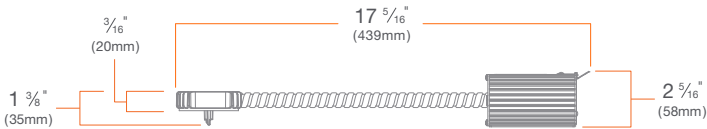
SUMMARY

JUNCTION BOX: Equipped with four knockouts: two 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) square opening

WARRANTY: 5 year limited warranty



ACCESSORIES

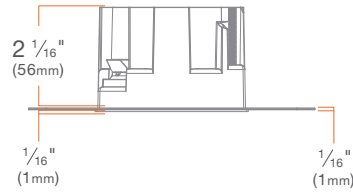
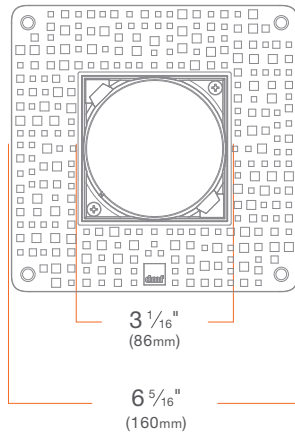


Flangeless Mud Kit

X2KSMUD

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

CEILING: 0.5" up to 1.25"

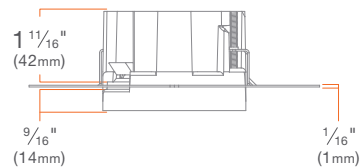
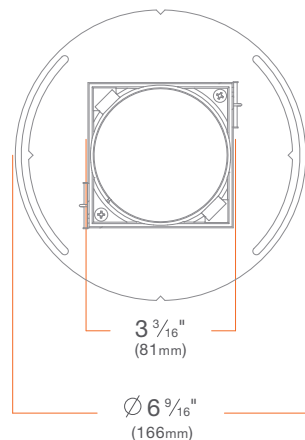


Wood Kit

X2KSWOOD

SUMMARY: Wood Kit (Required for New Construction installation of all trims in wood ceiling. Must be mounted to wood prior to ceiling installation.)

CEILING: 0.5" up to 1"



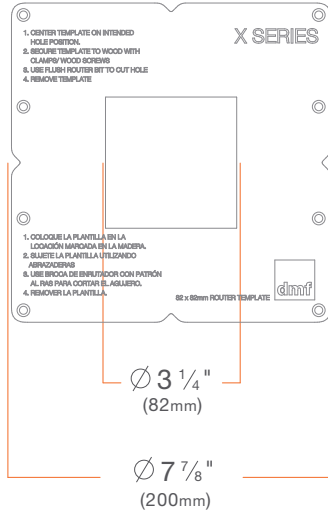
ACCESSORIES



Router Template

X2KSTEMPLATE

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

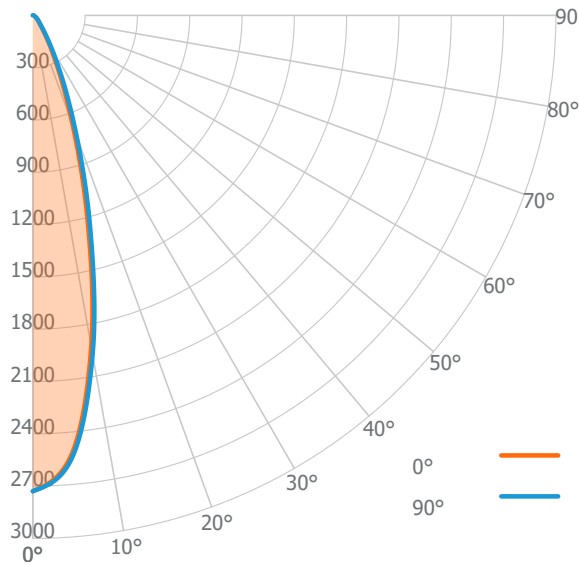


PHOTOMETRY

1000 lm, 3000K, Spot **XMD10930SPT**

2" Standard White Trim **X2TSDSWH**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	2729
5°	2532
10°	1930
15°	1213
20°	669
25°	354
30°	185
35°	100
40°	62
45°	45
50°	33
55°	25
60°	18
65°	11
70°	6
75°	3
80°	2
85°	1
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	691	85%
0° - 40°	751	92%
0° - 60°	800	98%
0° - 90°	813	100%
0° - 180°	813	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	303.2 fc	1.5 ft
6 ft	75.8 fc	3.0 ft
9 ft	33.7 fc	4.5 ft
12 ft	19.0 fc	6.0 ft

Input Watts: **12.0 W**

Lumens: **813 lm**

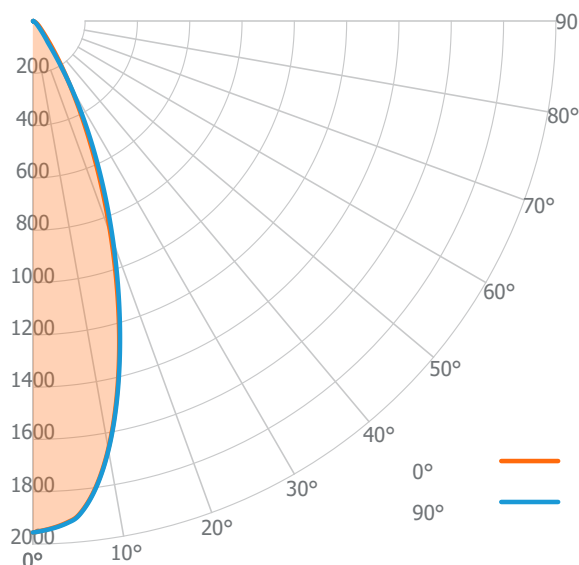
Efficacy: **68 lm/W**

Beam Angle: **28° x 29°**

1000 lm, 3000K, Flood **XMD10930FLT**

2" Standard White Trim **X2TSDSWH**

Candela Distribution



Luminous Intensity

Angle	Luminous Intensity (cd)
0°	1956
5°	1905
10°	1662
15°	1277
20°	870
25°	527
30°	286
35°	145
40°	76
45°	46
50°	32
55°	23
60°	16
65°	11
70°	6
75°	3
80°	2
85°	1
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	712	85%
0° - 40°	784	94%
0° - 60°	824	99%
0° - 90°	836	100%
0° - 180°	836	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	217.3 fc	2.0 ft
6 ft	54.3 fc	4.0 ft
9 ft	24.1 fc	6.1 ft
12 ft	13.6 fc	8.1 ft

Input Watts: **12.0 W**

Lumens: **836 lm**

Efficacy: **70 lm/W**

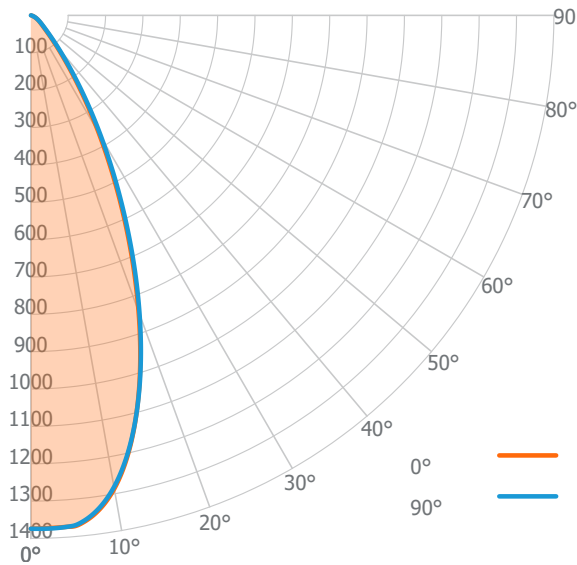
Beam Angle: **37° x 38°**

PHOTOMETRY

1000 lm, 3000K, Wide Flood **XMD10930WFT**

2" Standard White Trim **X2TSDSWH**

Candela Distribution



Luminous Intensity

	0°
0°	1374
5°	1372
10°	1287
15°	1096
20°	843
25°	584
30°	364
35°	203
40°	106
45°	58
50°	38
55°	27
60°	19
65°	13
70°	7
75°	4
80°	3
85°	2
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	643	77%
0° - 40°	756	91%
0° - 60°	818	98%
0° - 90°	835	100%
0° - 180°	835	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	152.7 fc	2.5 ft
6 ft	38.2 fc	5.1 ft
9 ft	17.0 fc	7.6 ft
12 ft	9.5 fc	10.2 ft

Input Watts: **12.0 W**

Lumens: **835 lm**

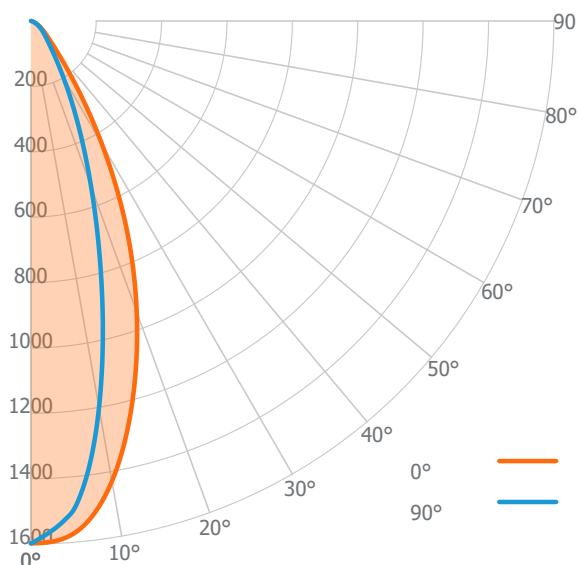
Efficacy: **70 lm/W**

Beam Angle: **46° x 46°**

1000 lm, 3000K, Linear Spread **XMD10930LST**

2" Standard White Trim **X2TSDSWH**

Candela Distribution



Luminous Intensity

	0°
0°	1598
5°	1570
10°	1429
15°	1202
20°	947
25°	687
30°	435
35°	242
40°	132
45°	82
50°	57
55°	41
60°	29
65°	19
70°	10
75°	5
80°	3
85°	2
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	603	76%
0° - 40°	702	88%
0° - 60°	775	97%
0° - 90°	796	100%
0° - 180°	796	100%

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3 ft	177.6 fc	2.5 ft
6 ft	44.4 fc	5.1 ft
9 ft	19.7 fc	7.6 ft
12 ft	11.1 fc	10.1 ft

Input Watts: **12.0 W**

Lumens: **796 lm**

Efficacy: **66 lm/W**

Beam Angle: **46° x 31°**