

Project:	Type:
Product Code:	Date:

V041024



2" Round 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" Extension Collar: 1 1/4" up to 3"

Ceiling Material

Drywall, Millwork

TRIMS

Style

Standard, Hyperbolic, Wall Wash, Pinhole, Micro Flange, Flangeless, Decorative

Finish

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

SPECIALTY LENS

Hexcell Louver

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





Warm Dim (3000K-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 Wet Location (Flanged Trims Only)



RoHS Compliant



(Y) NSF Listed (White and Black Finish Only)

WARRANTY

5 year limited warranty; 50,000 hours



















PRODUCT BUILDER

HOUSING

PRO	DUCT CODE	INST	ALLATION	SH	APE
X2	2" Housing	NC	New Construction	R	Round
		СР	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

PRODU	CT CODE	LUM	IENS	CI	RI	ССТ	2	BEAN	/ SPREAD	DIM	MMING
XMD	Downlight	05	500 lm ³	9	93 CRI	27	2700K	UN	Ultra Narrow Spot (10°) 6	0	0-10V
		07	750 lm			30	3000K	NS	Narrow Spot (20°)	Т	TRIAC/ELV
		10	1000 lm			35	3500K	SP	Spot (30°)	D	DALI-28
		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	UH	Ultra Narrow Spot Hex Louver 6		
								NH	Narrow Spot Hex Louver 7		
								SH	Spot Hex Louver ⁷		
								FH	Flood Hex Louver 7		
								WH	Wide Flood Hex Louver 7		

² DarkSky approved is only applicable to CCT options less than or equal to 3000K and not compatible with decorative trims

TRIM

PRODUCT	PRODUCT CODE		FINISH		OPTION		
X2TRDS	2" Standard Trim	WH	White	[Blank]	None		
X2TRDW	2" Wall Wash Trim 9	вк	Black	MF	Micro Flange 10		
X2TRDP	2" Pinhole Trim 10,11	BZ	Bronze	FL	Flangeless ^{10,12}		
X2TRDH	2" Hyperbolic Trim 10,11	CW	Clear Diffuse, White Flange	DO	Decorative: Open 2,13		
		ww	Warm Diffuse, White Flange	DH	Decorative: Hyperbolic 2,13		
		СС	Custom (RAL colors)				

⁹ Recommended with Wide Flood beam spread; Not available in custom color finish

³ Only available with UN or UH 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 Not available for 1250 lm, 1500 lm or DALI-2 modules

⁸ Only available in 1000 lm with Tunable White CCT, 1000 lm Warm Dim or 1250 lm with static CCT

¹⁰ Not available in Clear Diffuse, Warm Diffuse or Custom Color finish

¹¹ Not available in Micro flange

¹² Requires Flangeless Mud or Wood Kit in New Construction housings; Not compatible with Remodel Housing

 $^{^{\}rm 13}$ Only available in 750 lm, Standard style, White finish





PRODUCT BUILDER

OPTICS

XDXNS	Narrow Spot (20°) Optic
XDXSP	Spot (30°) Optic
XDXFL	Flood (40°) Optic
XDXWF	Wide Flood (50°) Optic
XDXLS	Linear Spread (50°x30°) Optic
XDXNH	Narrow Spot Optic with Hexcell Louver
XDXOP	Bundled Downlight Optics Kit (Includes Narrow Spot, Spot, Flood, Wide Flood and Linear Spread)
XDXSH	Spot Optic with Hexcell Louver
XDXFH	Flood Optic with Hexcell Louver
XDXWH	Wide Flood Optic with Hexcell Louver
XDXHD	High Diffusion Front Lens (Can be paired with all beam spreads to provide extra diffusion; Only available as an optical accessory)
XDXCD	Clear Front Lens (Can be paired with all beam spreads to decrease diffusion and define edges; Only available as an optical accessory)

ACCESSORIES

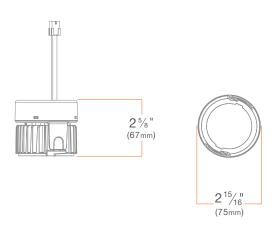
X2KRMUD	Flangeless Mud Kit (Required for New Construction installation of flangeless trim in drywall ceiling)
X2KRWOOD	Wood Kit (Required for New Construction installation in wood ceiling)
X2KRTEMPLATE	Router Template (Recommended for routing 3 3/16" [81mm] cutout in wood ceiling)
X2CREXT	Drywall Extension Collar (New Construction only, for ceilings up to 3")
X2KRWOODXL	Wood Extension Collar (New Construction only, for ceilings up to 3")





MODULE





PERFORMANCE SUMMARY

	STATIC CCT	WARM DIM	TUNABLE WHITE
ССТ	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°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	0-10V, TRIAC/ELV, DALI-2	DALI-2
LED CHIP	Cree	Bridgelux	Bridgelux
LISTINGS	ENERGY STAR® Qualified 2, Californ UL Certified US·CA, Declare, RoHS		oliant, UL Listed for Wet Location, F/ANSI 2 Listed ³ , Dark Sky Compliant ⁴

¹ Tested in accordance to IESNA LM-79-2008

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

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



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

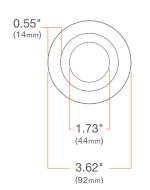
WARRANTY: 5 year limited warranty

Standard

X2TRDSWH



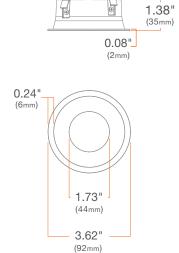




Standard Micro Flange

X2TRDSWHMF

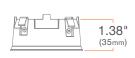


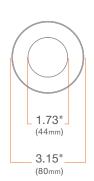


Standard Flangeless

X2TRDSWHFL



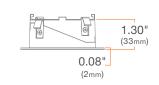


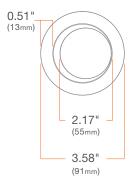


Wall Wash

X2TRDWWH







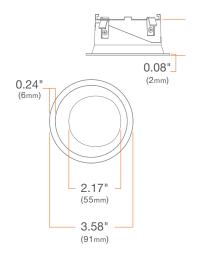
X Series



Wall Wash Micro Flange

X2TRDWWHMF

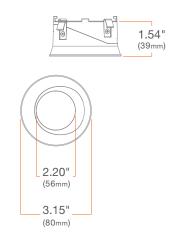




Wall Wash Flangeless

X2TRDWWHFL

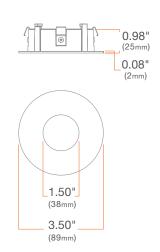




Pinhole

X2TRDPWH

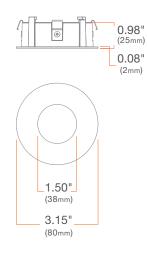




Pinhole Flangeless

X2TRDPWHFL

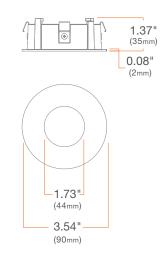




Hyperbolic

X2TRDHWH

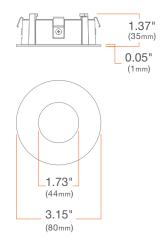




Hyperbolic Flangeless

X2TRDHWHFL







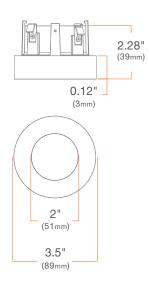
2" Round Downlight



Decorative: Open

X2TRDSWHDO

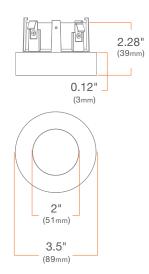




Decorative: Hyperbolic

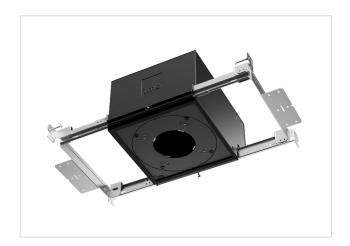
X2TRDSWHDH

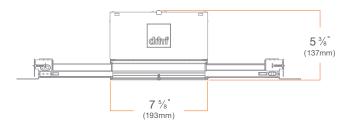


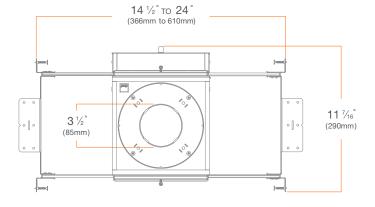




HOUSING







New Construction X2NCR Chicago Plenum X2CPR

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 round collar.

CEILING: ½" up to 1 ¼" with standard collar,

Up to 3" with Extension Collar

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

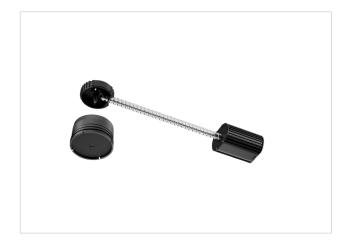
LISTINGS: Chicago Plenum, ASTM E283 certified Air Tight, IC (Insulation Contact) up to R-32 for Roll, Batt, and Loose Fill, up to R-60 Spray Foam with standard beveled trims, up to R-32 Spray Foam with other trims or Hex Louver

WARRANTY: 5 year limited warranty





HOUSING



Remodel

X2RMR

SUMMARY

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

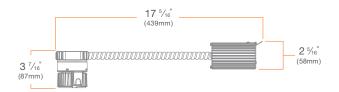
CEILING: 5/8" up to 1 1/4"

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

WARRANTY: 5 year limited warranty









ACCESSORIES



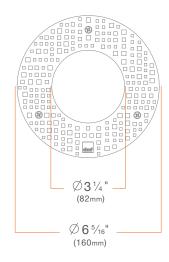
Flangeless Mud Kit

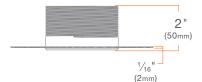
X2KRMUD

SUMMARY: Flangeless Mud Kit (Required for New

Construction installation of Flangeless Trim in drywall ceiling)

CEILING: 0.5" up to 1.25"





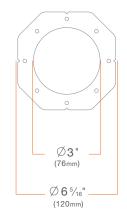


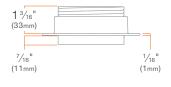
Wood Kit

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"









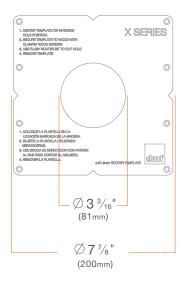
ACCESSORIES

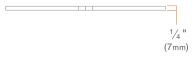


Router Template

X2KRTEMPLATE

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





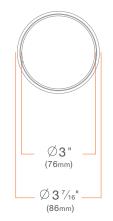


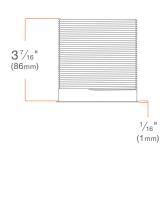
Extension Collar

X2CREXT

SUMMARY: Extension Collar for drywall ceiling with flanged trims

CEILING: 0.5" up to 3"









ACCESSORIES

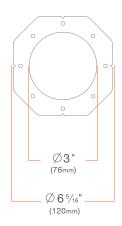


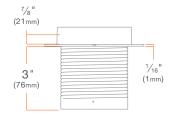
Wood Extension Collar

X2KRWOODXL

SUMMARY: Extension Collar for wood ceiling (Must be mounted on the wood prior to ceiling installation.)

CEILING: 0.5" up to 3"





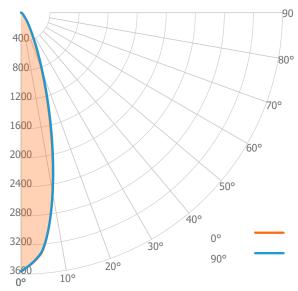


PHOTOMETRY

1000 lm, 3000K, Spot XMD10930SPT

2" Standard White Trim X2TRDSWH

Candela Distribution



Luminous Intensity

	0°
0°	3560
5°	3311
10°	2504
15°	1547
20°	844
25°	455
30°	253
35°	149
40°	89
45°	56
50°	39
55°	28
60°	22
65°	17
70°	12
75°	9
80°	6
85°	3
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	876	84%
0° - 40°	960	92%
0° - 60°	1019	98%
0° - 90°	1044	100%
0° - 180°	1044	100%

Illuminance Chart

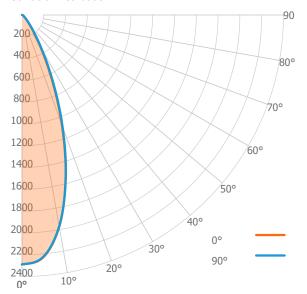
Distance from LED	Foot Candles	Diameter
3 ft	395.6 fc	1.5 ft
6 ft	98.9 fc	2.9 ft
9 ft	44.0 fc	4.4 ft
12 ft	24.7 fc	5.9 ft

Input Watts: 12.0 W Lumens: 1044 Im Efficacy: 87 lm/W Beam Angle: 27° x 28°

1000 lm, 3000K, Flood XMD10930FLT

2" Standard White Trim X2TRDSWH

Candela Distribution



Luminous Intensity

	0°
0°	2289
5°	2233
10°	1973
15°	1549
20°	1073
25°	645
30°	345
35°	178
40°	96
45°	57
50°	36
55°	24
60°	19
65°	15
70°	11
75°	8
80°	5
85°	3
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	860	82%
0° - 40°	967	92%
0° - 60°	1026	98%
0° - 90°	1048	100%
0° - 180°	1048	100%

Illuminance Chart

Foot Candles	Diameter
254.3 fc	2.1 ft
63.6 fc	4.2 ft
28.3 fc	6.3 ft
15.9 fc	8.4 ft
	254.3 fc 63.6 fc 28.3 fc

Input Watts: 12.0 W Lumens: 1048 Im Efficacy: 87 Im/W Beam Angle: 38° x 39°



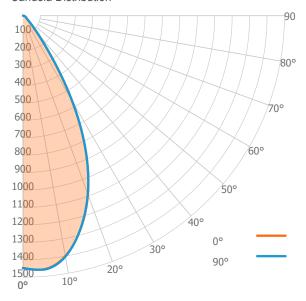


PHOTOMETRY

1000 lm, 3000K, Wide Flood XMD10930WFT

2" Standard White Trim X2TRDSWH

Candela Distribution



Luminous Intensity

	0°
0°	1447
5°	1459
10°	1400
15°	1271
20°	1090
25°	851
30°	562
35°	276
40°	122
45°	60
50°	35
55°	26
60°	21
65°	17
70°	13
75°	10
80°	6
85°	3
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	806	77%
0° - 40°	963	92%
0° - 60°	1025	98%
0° - 90°	1052	100%
0° - 180°	1052	100%

Illuminance Chart

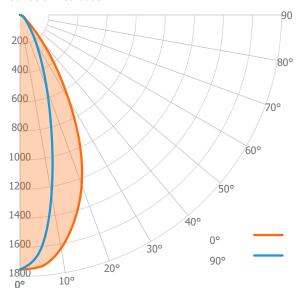
Distance from LED	Foot Candles	Diameter
3 ft	160.8 fc	3.1 ft
6 ft	40.2 fc	6.2 ft
9 ft	17.9 fc	9.2 ft
12 ft	10.1 fc	12.3 ft

Input Watts: 12.0 W Lumens: 1052 lm Efficacy: 88 lm/W Beam Angle: 54° x 54°

1000 lm, 3000K, Linear Spread XMD10930FLT

2" Standard White Trim X2TRDSWH

Candela Distribution



Luminous Intensity

	0°
0°	1751
5°	1736
10°	1631
15°	1458
20°	1243
25°	972
30°	672
35°	422
40°	238
45°	124
50°	68
55°	45
60°	37
65°	29
70°	22
75°	15
80°	9
85°	5
90°	1

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0° - 30°	717	72%
0° - 40°	870	87%
0° - 60°	965	96%
0° - 90°	1003	100%
0° - 180°	1003	100%

Illuminance Chart

Foot Candles	Diameter
194.6 fc	3.0 ft
48.6 fc	6.0 ft
21.6 fc	9.0 ft
12.2 fc	12.0 ft
	194.6 fc 48.6 fc 21.6 fc

Input Watts: 12.0 W Lumens: 1003 Im Efficacy: 84 Im/W Beam Angle: 53° x 29°