

# M Series Commercial

Project:	Type:
Product Code:	Date:

V112724



## 4" Round Downlight

**Versatile Solution** for all spaces providing high quality lighting ranging from 750lm all the way up to 3500lm

**Expedited Install** with our easily adjustable universal housing and bar hanger systems allowing for application in most ceiling types

**Enhanced Serviceability** is achieved through interchangeable modules, optics, and trims, all of which allow for ease of maintenance and implementation of design changes below the ceiling plane

**Seamless Integration** with several control systems allowing two-channel control dimming options down as low as 0.1%

### INSTALLATION

#### Ceiling Thickness

New Construction: 1/2" up to 2"

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

Extension Collar: 2" to 3"

#### Ceiling Material

Drywall, Millwork

### TRIMS

#### Aperture

4"

#### Shape

Round

#### Style

Standard, Hyperbolic, Pinhole, Wall Wash/Sloped Ceiling, Flangeless, Decorative, Vandal Proof/IP66

#### Finish

White, Black, Bronze, Clear Diffuse, Custom Color (RAL)

### LIGHT OUTPUT & DISTRIBUTION

#### Module

Downlight

#### Lumens (Power)

750 lm (9.5W), 1000 lm (12.5W), 1250 lm (14.3W), 1500 lm (14.3W), 2000 lm (24.5W), 2500 lm (27.5W), 3000 lm (34.0W), 3500 lm (40.5W)

#### Color Quality

93 CRI, 2-step SDCM

#### Color Temperature

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

#### Beam Spread

- 15° Narrow Spot
- 25° Spot
- 40° Flood
- 60° Wide Flood
- 90°+ General

### POWER & CONTROLS

#### Input Voltage

120 / 277V

#### Dimming

0-10V (1%), Lutron Athena Wireless Node (1%), DALI-2 (0.1%)

### RATINGS & CERTIFICATIONS

#### Housing

✓ RoHS Compliant

#### Module and Trim

Wet Location/IP66 Rated Configurations Available (Flanged Trims and Covered Areas Only)

NSF Listed (White and Black Finish Only)

IK10 Rated Option Available (Vandal Proof Trim)

#### Warranty

5 year limited warranty; 50,000 hours



Declare.



### PRODUCT BUILDER | ROUND | DOWNLIGHT | EMBEDDED 0-10V

#### HOUSING

PRODUCT CODE	
<b>M4NCRN</b>	4" Round Housing, New Construction, Non-IC Rated
<b>M4RMRN</b>	4" Round Housing, Remodel, Non-IC Rated <sup>1</sup>

<sup>1</sup> Not available with Flangeless or Vandal Proof trim options nor Extension Collars

#### LIGHT MODULE

PRODUCT CODE		LUMENS		CRI		CCT		BEAM SPREAD		DIMMING	
<b>MD</b>				<b>9</b>						<b>O</b>	
<b>MD</b>	Downlight Module	<b>07</b>	750 lm	<b>9</b>	93 CRI	<b>27</b>	2700K	<b>GA</b>	General Ambient (90°+) <sup>3</sup>	<b>O</b>	0-10V
		<b>10</b>	1000 lm			<b>30</b>	3000K	<b>NS</b>	Narrow Spot (15°) <sup>3</sup>		
		<b>12</b>	1250 lm			<b>35</b>	3500K	<b>SP</b>	Spot (25°)		
		<b>15</b>	1500 lm			<b>40</b>	4000K	<b>FL</b>	Flood (40°)		
		<b>20</b>	2000 lm			<b>3W</b>	Warm Dim (3000-1800K) <sup>2</sup>	<b>WF</b>	Wide Flood (60°)		
		<b>25</b>	2500 lm								
		<b>30</b>	3000 lm								
		<b>35</b>	3500 lm								

<sup>2</sup> Only available in 1000 lm; not available in Narrow Spot beam spread

<sup>3</sup> Only available in 750 - 2000 lm

#### TRIM | STANDARD

PRODUCT CODE		FINISH		OPTION	
<b>M4TRS</b>	Standard Trim	<b>WH</b>	White	<b>[Blank]</b>	None
<b>M4TRL</b>	Wall Wash/Sloped Ceiling Trim <sup>4</sup>	<b>BK</b>	Black	<b>FL</b>	Flangeless <sup>8</sup>
<b>M4TRP</b>	Pinhole Trim <sup>5,6</sup>	<b>BZ</b>	Bronze <sup>7</sup>	<b>VP</b>	Vandal Proof/IP66 <sup>9</sup>
<b>M4TRH</b>	Hyperbolic Trim <sup>6</sup>	<b>CW</b>	Clear Diffuse, White Flange		
		<b>CC</b>	Custom Color (RAL)		

<sup>4</sup> Recommended with WF Beam spread for general wall washing and SP for sloped ceilings. Not available in Bronze finish

<sup>5</sup> Only available in 750 - 1500 lm

<sup>6</sup> Only available in White or Black or Customer Color finish

<sup>7</sup> Only available in Standard Trim

<sup>8</sup> Mud plate required for FL installation, except for wood ceiling; Not compatible with remodel housing; Not available in Clear Diffuse finish

<sup>9</sup> Only available in Standard Style and White, Anti-Microbial finish for Installation in New Construction housing only. Not compatible with extension collars

<sup>10</sup> Recommended for use with General Ambient beam spread

#### TRIM | DECORATIVE (WHITE FINISH ONLY)

PRODUCT CODE	
<b>M4TRSWHDOF</b>	Decorative Open, Frosted <sup>5,10</sup>
<b>M4TRSWHDCF</b>	Decorative Closed, Frosted <sup>5,10</sup>
<b>M4TRSWHDCC</b>	Decorative Closed, Clear Frosted Side <sup>5,10</sup>
<b>M4TRSWHDCCF</b>	Decorative Closed, Clear Frosted Inside <sup>5,10</sup>

#### ACCESSORIES

<b>M4XRMUD</b>	Flangeless Mud Plate (Required for Flangeless Trim drywall installation)
<b>M4KRTEMPLATE</b>	Flangeless Wood Template (Recommended for Flangeless Trim wood installation)
<b>M4CREXT</b>	Round Extension Collar (For New Construction Only - Ceiling Installations up to 3")

#### OPTICS

<b>MDLX-GA</b>	Low Lumen (750-2000LM) Downlight Optic GA 90° Beam Spread	<b>MDLX-WF</b>	Low Lumen (750-2000LM) Downlight Optic WF 60° Beam Spread
<b>MDLX-NS</b>	Low Lumen (750-2000LM) Downlight Optic NS 15° Beam Spread	<b>MDHX-SP</b>	High Lumen (2500-3500LM) Downlight Optic SP 25° Beam Spread
<b>MDLX-SP</b>	Low Lumen (750-2000LM) Downlight Optic SP 25° Beam Spread	<b>MDHX-FL</b>	High Lumen (2500-3500LM) Downlight Optic FL 40° Beam Spread
<b>MDLX-FL</b>	Low Lumen (750-2000LM) Downlight Optic FL 40° Beam Spread	<b>MDHX-WF</b>	High Lumen (2500-3500LM) Downlight Optic WF 60° Beam Spread

### PRODUCT BUILDER | ROUND | DOWNLIGHT | ATHENA WIRELESS NODE/DALI-2

#### HOUSING

PRODUCT CODE		INSTALLATION		SHAPE		RATING		OUTPUT		DIMMING		WIRELESS	
M4		NC		R		N							
M4	4" Housing	NC	New Construction	R	Round	N	Non-IC	07	750 lm	O	0-10V (AWN Only)	[Blank]	None (DALI-2 Only)
								10	1000 lm	DS	DALI-2 (Static CCT) <sup>2</sup>	AWN	Athena Wireless Node
								12	1250 lm	DT	DALI-2 (Tunable White) <sup>1,8</sup>		
								15	1500 lm				
								20	2000 lm				
								25	2500 lm				
								30	3000 lm				
								35	3500 lm				

<sup>1</sup> Not available in NS or GA Beam Spreads

<sup>2</sup> Not available in 3500 lm

#### LIGHT MODULE

PRODUCT CODE		LUMENS		CRI		CCT		BEAM SPREAD		DIMMING	
MD				9						A	
MD	Downlight Module	07	750 lm	9	93 CRI	27	2700K	GA	General Ambient (90°+) <sup>3</sup>	A	Alternate
		10	1000 lm			30	3000K	NS	Narrow Spot (15°) <sup>3</sup>		
		12	1250 lm			35	3500K	SP	Spot (25°)		
		15	1500 lm			40	4000K	FL	Flood (40°)		
		20	2000 lm			3W	Warm Dim (3000–1800K) <sup>4,5</sup>	WF	Wide Flood (60°)		
		25	2500 lm			T2	Tunable White (6500–2700K) <sup>1,6,8</sup>				
		30	3000 lm								
		35	3500 lm								

<sup>3</sup> Only available in 750 - 2000 lm

<sup>5</sup> Not available in Narrow Spot beam spread

<sup>7</sup> Recommended with WF beam spread for standard wall washing and SP for sloped ceiling; Not available in Bronze color

<sup>4</sup> Only available in 1000 lm

<sup>6</sup> Only available in DALI-2 Dimming

#### TRIM | STANDARD

PRODUCT CODE		FINISH		OPTION	
M4TRS	Standard Trim	WH	White	[Blank]	None
M4TRL	Wall Wash/Sloped Ceiling Trim <sup>7</sup>	BK	Black	FL	Flangeless <sup>11</sup>
M4TRP	Pinhole Trim <sup>8,9</sup>	BZ	Bronze <sup>10</sup>	VP	Vandal Proof/IP66 <sup>12</sup>
M4TRH	Hyperbolic Trim <sup>9</sup>	CW	Clear Diffuse, White Flange		
		CC	Custom Color (RAL)		

<sup>8</sup> Only available in 750 - 1500 lm

<sup>9</sup> Only available in White, Black, or Custom finish

<sup>10</sup> Only available in Standard Trim

<sup>11</sup> Mud Plate required for FL Install except for wood ceiling; not available in Clear Diffuse finish

<sup>12</sup> Only available in Standard Style with White, Anti-Microbial Finish. Not compatible with extension collar

#### TRIM | DECORATIVE (WHITE FINISH ONLY)

PRODUCT CODE		
M4TRSWHDOF	Decorative: Open, Frosted <sup>8,13</sup>	
M4TRSWHDCF	Decorative: Closed, Frosted <sup>8,13</sup>	
M4TRSWHDCC	Decorative: Closed, Clear Frosted Side <sup>8,13</sup>	
M4TRSWHDCCF	Decorative: Closed, Clear Frosted Inside <sup>8,13</sup>	

<sup>13</sup> Recommended with General Ambient beam spread

#### ACCESSORIES

M4XRMUD	Flangeless Mud Plate (Required for Flangeless Trim drywall installation)
M4KRTEMPLATE	Flangeless Wood Template (Recommended for Flangeless Trim wood installation)
M4CREXT	Round Extension Collar (For New Construction Only - Ceiling Installations up to 3")

### PRODUCT BUILDER | ROUND | DOWNLIGHT | EMERGENCY LIGHTING

#### HOUSING

PRODUCT CODE		INSTALLATION		SHAPE		RATING		LUMEN		DIMMING		WIRELESS		OPTION	
M4		NC		R		N									
M4	4" Housing	NC	New Construction	R	Round	N	Non-IC	07	750 lm	O	0-10V for EM only	[Blank]	None	EM	Emergency driver, Integrated switch <sup>3</sup>
								10	1000 lm	DS	DALI-2 Static CCT <sup>1</sup>	AWN	Athena Wireless Node	EMS	Emergency driver, Remote switch
								12	1250 lm	DT	DALI-2 Tunable White CCT <sup>2,10</sup>				
								15	1500 lm						
								20	2000 lm						
								25	2500 lm						
								30	3000 lm						
								35	3500 lm						

#### LIGHT MODULE

PRODUCT CODE		LUMENS		CRI		CCT		BEAM SPREAD		DIMMING	
MD				9						A	
MD	Downlight Module	07	750 lm	9	93 CRI	27	2700K	GA	General Ambient (90°+) <sup>4</sup>	A	Alternate
		10	1000 lm			30	3000K	NS	Narrow Spot (15°) <sup>4</sup>		
		12	1250 lm			35	3500K	SP	Spot (25°)		
		15	1500 lm			40	4000K	FL	Flood (40°)		
		20	2000 lm			3W	Warm Dim (3000-1800K) <sup>6,7</sup>	WF	Wide Flood (60°)		
		25	2500 lm			T2	Tunable White (6500-2700K) <sup>2,8,10</sup>				
		30	3000 lm								
		35	3500 lm								

#### TRIM | STANDARD

PRODUCT CODE		FINISH		OPTION	
M4TRS	Standard Trim	WH	White	[Blank]	None
M4TRL	Wall Wash/ Sloped Ceiling <sup>7</sup>	BK	Black	FL	Flangeless <sup>12</sup>
M4TRP	Pinhole Trim <sup>9,10</sup>	BZ	Bronze <sup>11</sup>	EM	Integrated Test Switch <sup>3,13</sup>
M4TRH	Hyperbolic Trim <sup>9</sup>	CW	Clear Diffuse, White Flange	VP	Vandal Proof/IP66 <sup>14</sup>
		CC	Custom Color(RAL)		

#### TRIM | DECORATIVE (WHITE FINISH ONLY)

PRODUCT CODE		
M4TRSWHDOF	Decorative: Open, Frosted <sup>10,15</sup>	
M4TRSWHDCF	Decorative: Closed, Frosted <sup>10,15</sup>	
M4TRSWHDCC	Decorative: Closed, Clear Frosted Side <sup>10,15</sup>	
M4TRSWHDCCF	Decorative: Closed, Clear Frosted Inside <sup>10,15</sup>	

#### ACCESSORIES

M4XRMUD	Flangeless Mud Plate (Required for Flangeless Trim drywall installation)
M4KRTEMPLATE	Flangeless Wood Template (Recommended for Flangeless Trim wood installation)
M4CREXT	Round Extension Collar (For New Construction Only - Ceiling Installations up to 3")

<sup>1</sup> Not available in 3500 lm

<sup>2</sup> Not available with GA or NS Beam Spread

<sup>3</sup> Integrated test switch must be selected for both housing and trim

<sup>4</sup> Only available in 750 - 2000 lm

<sup>5</sup> Only available in 1000 lm

<sup>6</sup> Not available in Narrow Spot beam Spread

<sup>7</sup> Recommended with WF beam spread for general wall washing and SP beam spread for sloped ceiling. Not available in Bronze color

<sup>8</sup> Only available in DALI-2 Dimming

<sup>9</sup> Only available in White, Black, or Custom finish

<sup>10</sup> Only available 750 - 1500 lm

<sup>11</sup> Only available in Standard Trim

<sup>12</sup> Mud Plate required for FL Install except for wood ceiling; not available in clear diffuse

<sup>13</sup> Only available in Standard Style and White or Clear Diffuse

<sup>14</sup> Only available in Standard Style and White, Anti-Microbial Finish not compatible with extension collar

<sup>15</sup> Recommended in General Ambient beam spread

## MODULE



## 4" Downlight

**MD**

### SUMMARY

**INPUT VOLTAGE:** 120/277V, 50/60Hz**COLOR QUALITY:** 93 CRI <sup>1</sup>**MAX INPUT CURRENT (120V):** 0.350 amps**MAX INPUT CURRENT (277V):** 0.165 amps**AC CONNECTOR:** 6 pin Molex**DC CONNECTOR:** Male 4-Pin Low Voltage Connector**POWER FACTOR:** Greater than 0.9**TOTAL HARMONIC DISTORTION:** Less than 20%**AMBIENT OPERATING TEMPERATURE:** -20°C to 40°C**LISTINGS:** ENERGY STAR<sup>®</sup> qualified <sup>2</sup>, UL Listed for Wet Location (Under covered ceilings only), UL Certified US•CA, Declare, RoHS Compliant, NSF/ANSI 2 listed, suitable for splash zone <sup>3</sup>, DALI-2 Compliant, Compliant to FCC Title 47 Part 15; Class B**SPECIAL LISTINGS (VANDAL PROOF TRIM):** IK10 Rating, IP66 Listing, Anti-Microbial**WARRANTY:** 5 year limited warranty; 50,000 hours at 70% lumen maintenance

<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> White and Black Finish only

### MODULE PERFORMANCE

Based on 93 CRI, 3000K Module + STD White + Trim (M4TRSWH)

(Please refer to IES files for other trim types)

		STATIC CCT							WARM DIM	T2	
LED CHIP		CREE 93 CRI							Bridgelux 93 CRI		
SDCM		2-STEP							3-STEP		
		07	10	12	15	20	25	30	35	10	10
NS	Lumens	718	983	1111	1278	2163	N/A				
	LPW <sup>1</sup>	75.5	78.6	77.7	77.4	90.1					
	CBCP <sup>2</sup>	6227	8530	9639	11089	18766					
	UGR <sup>3</sup>	13	14.1	14.5	15	16.8					
SP	Lumens	696	953	1077	1239	2097	2603	3044	3709	848	1094
	LPW	73.2	76.2	75.3	75.1	87.4	94.7	89.5	91.6	67.9	75.4
	CBCP	2131	2919	3298	3795	6421	12861	15037	18327	2598	2479
	UGR	13.2	14.3	14.7	15.2	17	12.2	12.8	13.5	13.8	16.8
FL	Lumens	685	939	1061	1221	2066	2545	2976	3627	836	1079
	LPW	72.2	75.1	74.2	74	86.1	92.5	87.5	89.5	66.9	74.4
	CBCP	1196	1638	1851	2130	3604	9094	10634	12960	1458	1382
	UGR	14.9	16	16.4	16.9	18.8	12.6	13.1	13.8	15.6	17.7
WF	Lumens	677.5	928	1049	1206	2042	2453	2868	3495.5	826	1052
	LPW	71.3	74.2	73.3	73.1	85.1	89.2	84.4	86.3	66.1	72.6
	CBCP	696	953	1077	1239	2096	1926	2252	2745	848	1199
	UGR	17.3	18.4	18.8	19.3	21.1	22.4	23	23.7	18	18.1
GA	Lumens	654	896	1012	1165	1971	N/A			797	1134
	LPW	68.9	71.7	70.8	70.6	82.1				63.8	78.2
	CBCP	264	362	409	470	796				322	655
	UGR	22.1	23.2	23.6	24.1	25.9				22.8	22.2

		STATIC				WARM DIM		T2 TUNABLE WHITE		
CCT MULTIPLIER		2700K	3000K	3500K	4000K	1800K	3000K	2700K	3000K	6500K
		0.93	1	1.05	1.07	0.05	1	0.96	1	1.07
EMERGENCY BATTERY MULTIPLIER		LPW x 5								

<sup>1</sup> LPW: Lumens per watt

<sup>2</sup> CBCP: Center beam candlepower

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

## HOUSING



## New Construction

M4NCRN

## SUMMARY

**JUNCTION BOX:** Equipped with 6 knockouts: two 1/2" and two 3/4" trade size knockouts on top, two 1/2" trade size knockouts on side. Approved for 8 (four in, four out) #12 AWG 70°C.

**BAR HANGER MOUNTING:** Adjustable Bar Hangers for 14"-24" joist spacing. Compatible with traditional joists, Armstrong™ ceiling, Hat Channel, T-Bar.

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

**CUTOUT:** 4 1/4" (107mm) round opening

**WARRANTY:** 5 year limited warranty

## ALTERNATE DIMMING SPECIFICATIONS

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

**MAX INPUT CURRENT (120V):** 0.130 amps

**MAX INPUT CURRENT (277V):** 0.065 amps

**POWER FACTOR:** Greater than 0.9

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

**LISTINGS:** Compliant to FCC Title 47 Part 15; Class B

## EMERGENCY BATTERY SPECIFICATIONS

**EMERGENCY BATTERY :** Emergency Battery Back up is designed to provide output for 90 minutes when in an emergency state

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

**ILLUMINATION TIME:** 90min

**WATTAGE IN EM STATE:** 5W

**LUMEN OUTPUT IN EM STATE:** LPW x 5

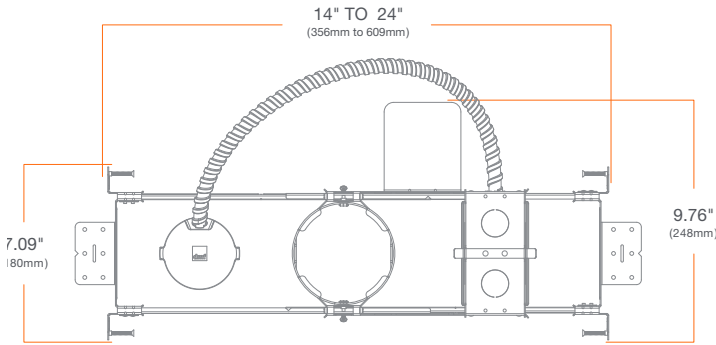
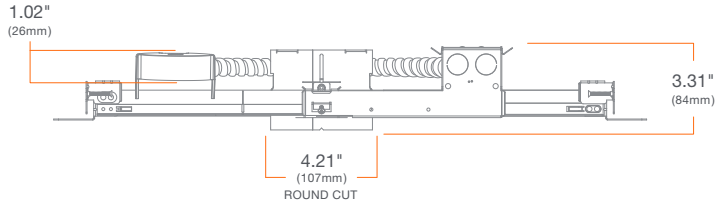
## TEST SWITCH OPTIONS:

- **INTEGRATED TEST SWITCH (-EM HOUSING):** Requires Compatible trim - Flanged, Standard Style trim Only
- **REMOTE TEST SWITCH(-EMS HOUSING):** Must be installed according to local code can be used with any flanged, flangeless, or decorative trim type

New Construction

M4NCRN

(Dimensions not including module)

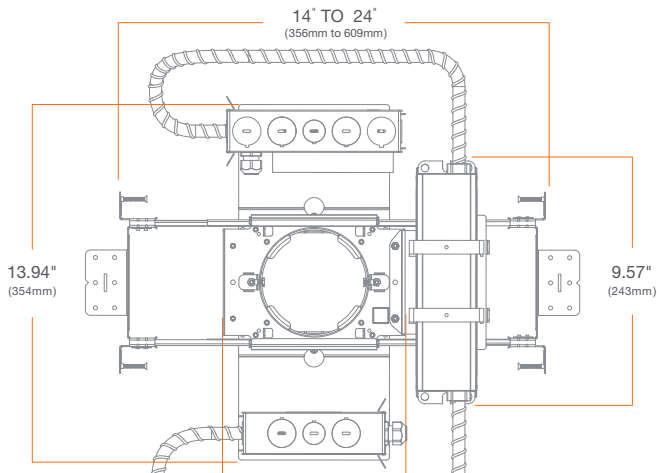
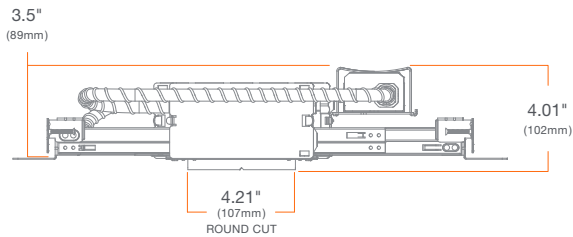


Emergency Lighting

M4NCRNxxxEM

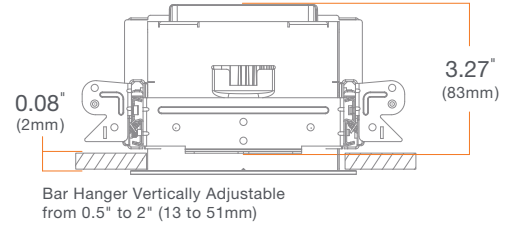
M4NCRNxxxAWNEM

(Dimensions not including module)

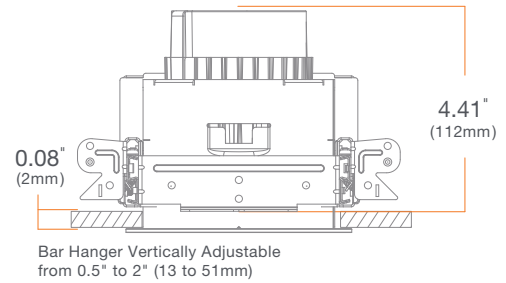


Total Height in Plenum

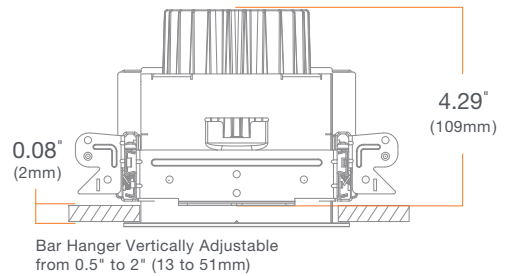
750LM-1500LM



2000LM



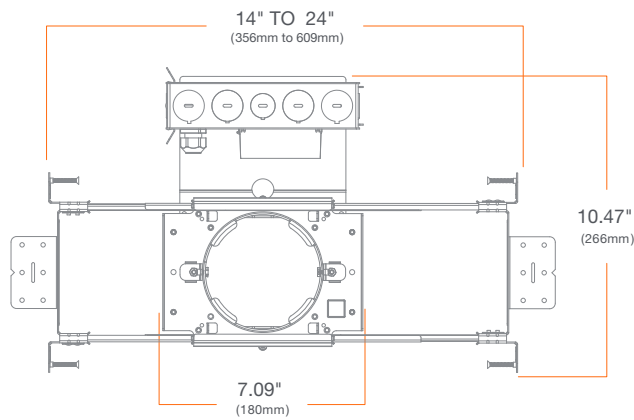
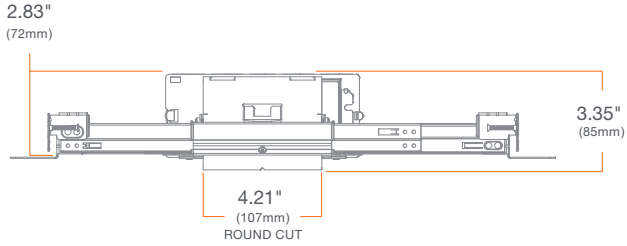
2500LM-3500LM/DALI-2



### New Construction Static DALI/Lutron Athena Node

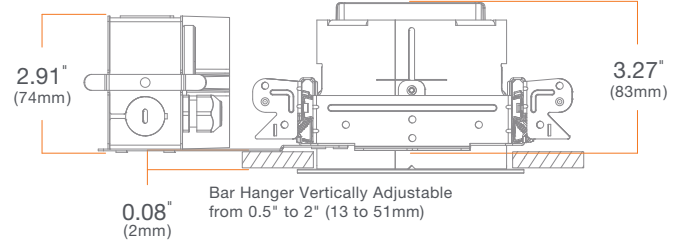
- M4NCRNxxDS
- M4NCRNxxOAWN
- M4NCRNxxDSAWN

(Dimensions not including module)

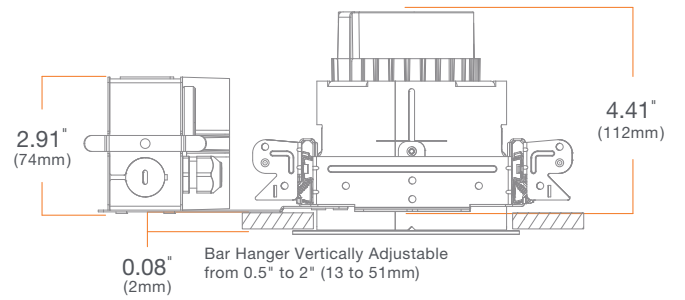


### Total Height in Plenum

750LM-1500LM



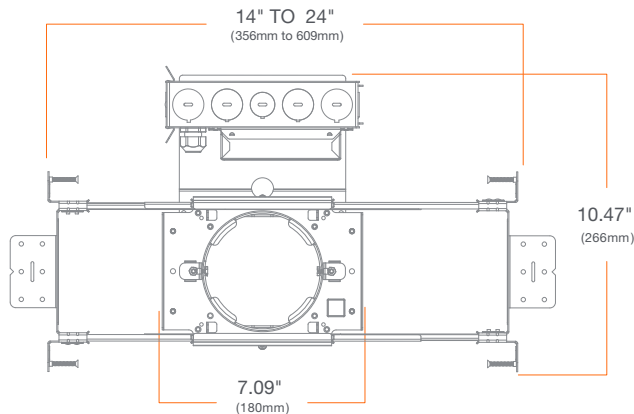
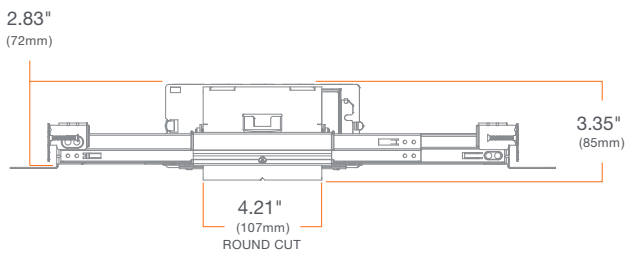
2000LM



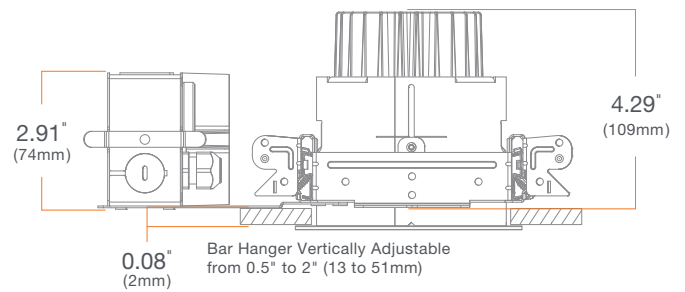
### New Construction Tunable White DALI-2

M4NCRNxxDT

(Dimensions not including module)



2500LM-3500LM/DALI-2



## HOUSING

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## Remodel

**M4RMRN**

### SUMMARY

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

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

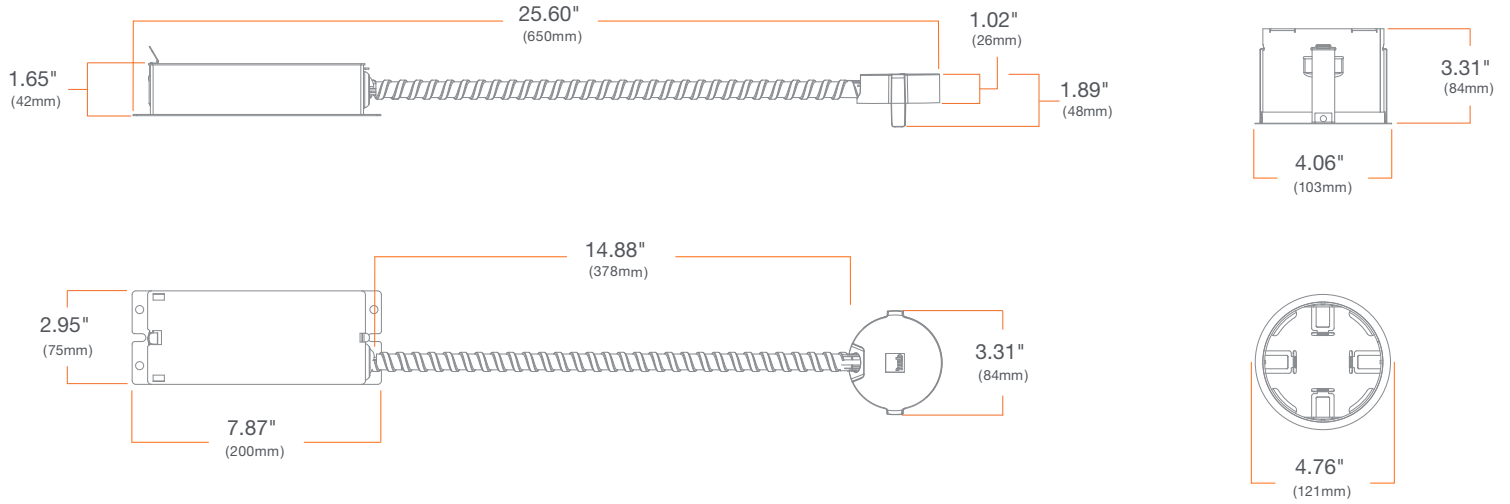
**CUTOUT:** 4 3/8" (111mm) round opening

**WARRANTY:** 5 year limited warranty

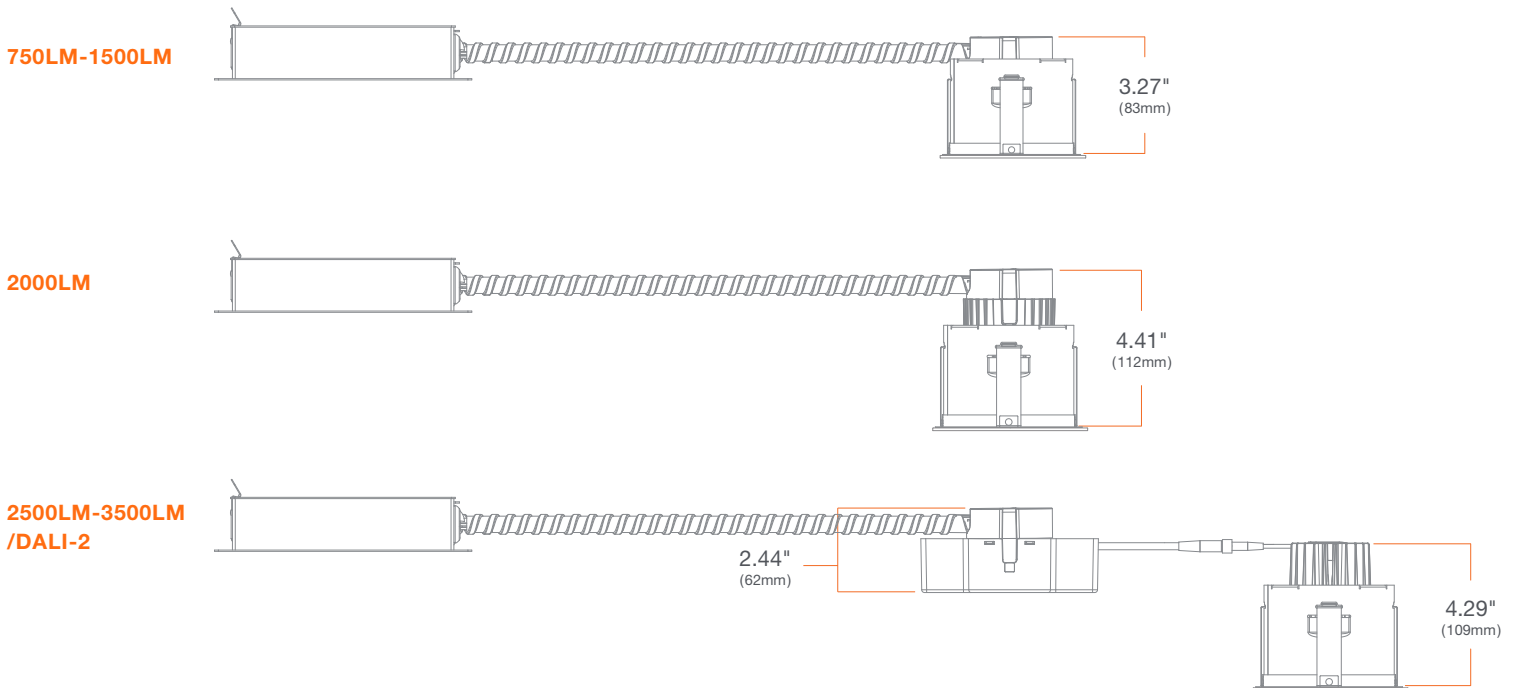
Standard

M4RMRN

(Dimensions not including module)



Total Height in Plenum



### TRIMS



## 4" Round Trims

**M4TR**

### SUMMARY

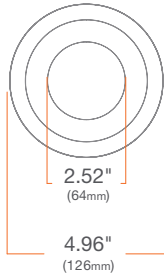
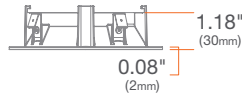
**CONSTRUCTION:** Die-cast aluminum

**DECORATIVE:** Acrylic diffuser

**INSTALLATION:** Twist & Lock

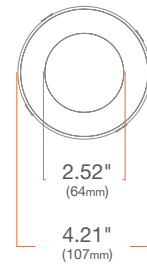
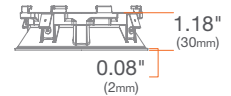
### Standard

**M4TRSWH**



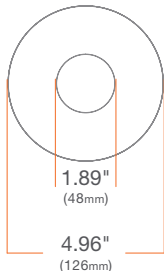
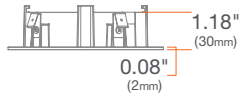
### Flangeless Standard

**M4TRSWHFL**



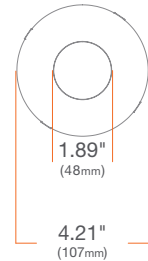
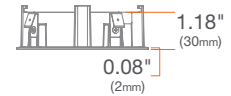
### Pinhole

**M4TRPWH**



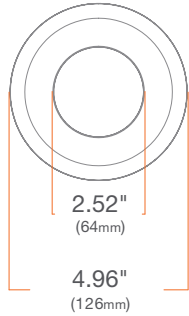
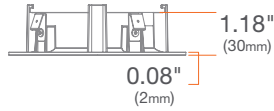
### Flangeless Pinhole

**M4TRPWHFL**



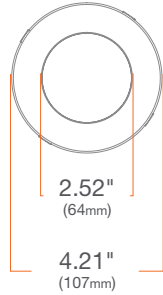
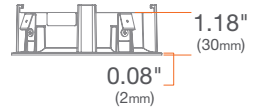
Hyperbolic

M4TRHWH



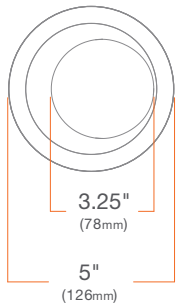
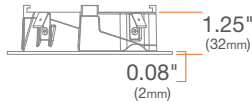
Flangeless Hyperbolic

M4TRHWHFL



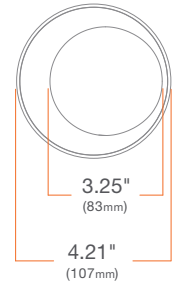
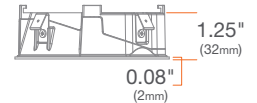
Wall Wash

M4TRLWH



Flangeless Wall Wash

M4TRLWHFL

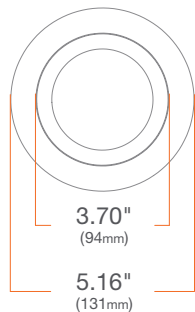
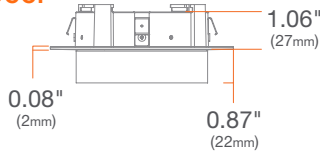


Decorative Closed

Frosted: M4TRSWHDCF

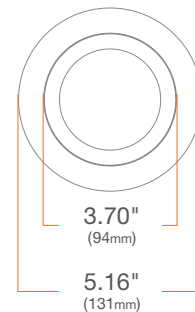
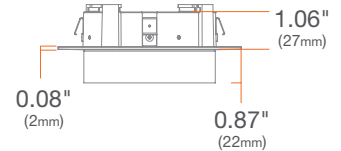
Clear, Frosted Inside: M4TRSWHDCC

Clear, Frosted Sides: M4TRSWHDCCF



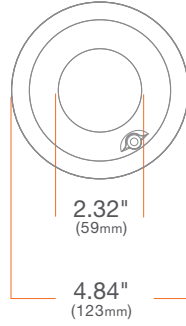
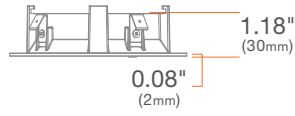
Decorative Open

Frosted: M4TRSWHDOF



### Emergency with Integrated Test Switch

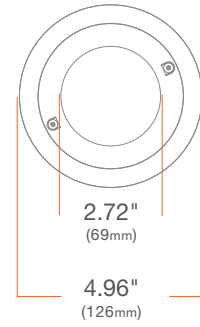
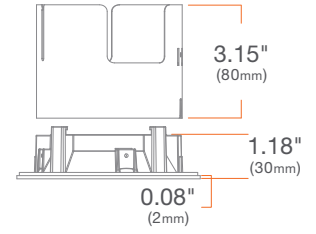
#### M4TRSWHEM



### Vandal Proof/IP66

*\*For use with Standard New Construction Only*

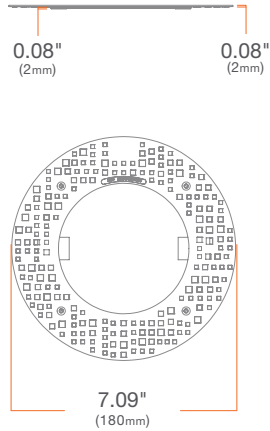
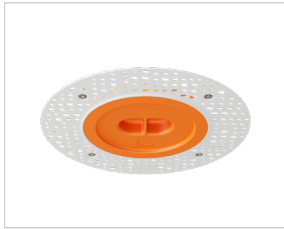
#### M4TRSWHVP



### ACCESSORIES

#### Flangeless Mud Plate

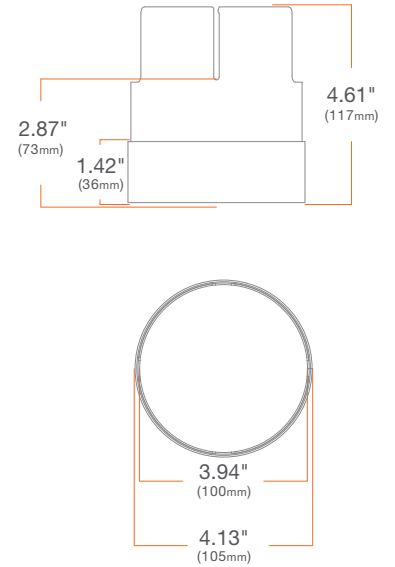
M4XRMUD



#### Extension Collar

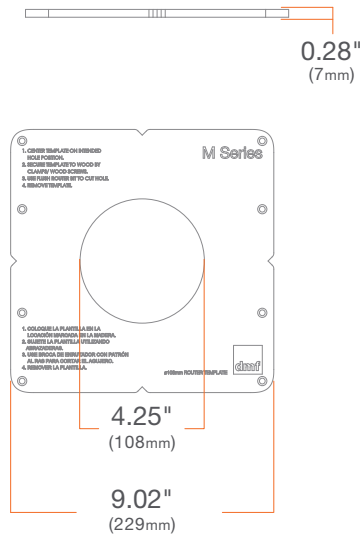
*\*For use with Standard New Construction Only*

M4CREXT



#### Router Template

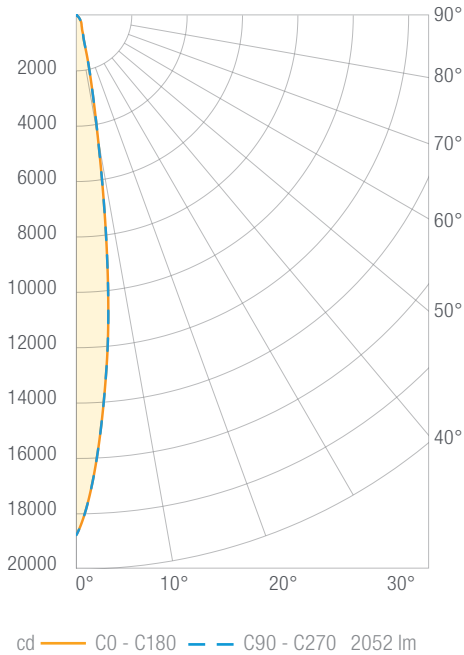
M4KRTEMPLATE



### PHOTOMETRY

#### MD 2000 lm, 3000K, Narrow Spot

MD20930NS | M4TRSWH



#### Luminous Intensity

Gamma	C 0°
0°	18766
5°	12609
10°	4461
15°	1402
20°	682
25°	466
30°	372
35°	304
40°	221
45°	162
50°	116
55°	81
60°	53
65°	30
70°	13
75°	8
80°	5
85°	2
90°	0

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	1625	79
0-40	1810	88
0-60	2010	98
0-90	2052	100
0-180	2052	100

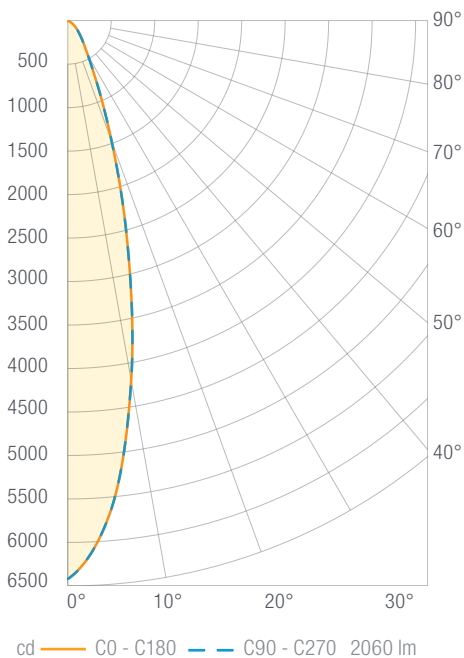
#### Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	2085.2	0.7'
6'	521.3	1.5'
9'	231.7	2.2'
12'	130.3	2.9'

Beam Angle: 14°

#### MD 2000 lm, 3000K, Spot

MD20930SP | M4TRSWH



#### Luminous Intensity

Gamma	C 0°
0°	6422
5°	5661
10°	4202
15°	2653
20°	1478
25°	799
30°	472
35°	319
40°	227
45°	166
50°	119
55°	82
60°	50
65°	29
70°	13
75°	8
80°	4
85°	2
90°	0

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	1612	78
0-40	1817	88
0-60	2020	98
0-90	2060	100
0-180	2060	100

#### Illuminance Chart

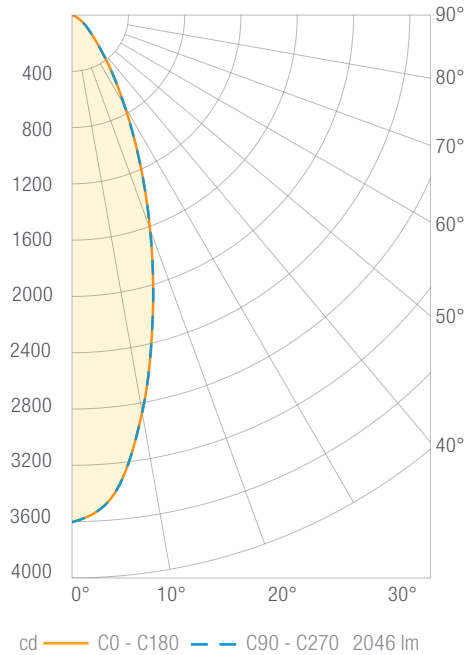
Distance from LED	Foot Candles	Diameter
3'	713.5	1.4'
6'	178.4	2.8'
9'	79.3	4.2'
12'	44.6	5.6'

Beam Angle: 26°

### PHOTOMETRY

#### MD 2000 lm, 3000K, Flood

MD20930FL | M4TRSWH



#### Luminous Intensity

Gamma	C 0°
0°	3604
5°	3418
10°	2867
15°	2215
20°	1620
25°	1123
30°	746
35°	487
40°	309
45°	204
50°	141
55°	98
60°	57
65°	34
70°	15
75°	10
80°	6
85°	3
90°	0

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	1438	70
0-40	1748	85
0-60	1998	98
0-90	2046	100
0-180	2046	100

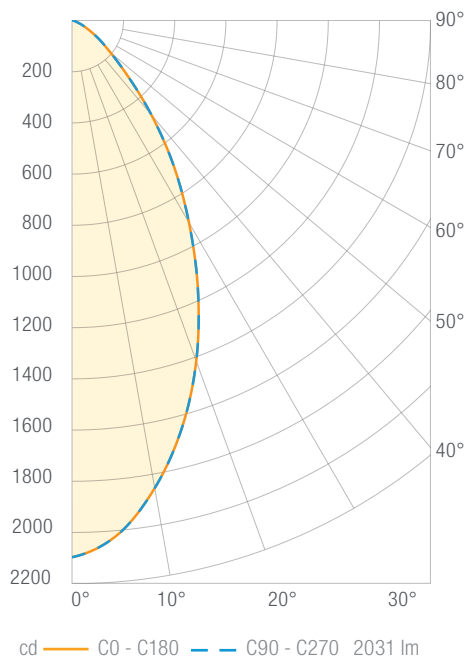
#### Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	400.5	2.0'
6'	100.1	4.0'
9'	44.5	6.0'
12'	25.0	8.0'

Beam Angle: 37°

#### MD 2000 lm, 3000K, Wide Flood

MD20930WF | M4TRSWH



#### Luminous Intensity

Gamma	C 0°
0°	2096
5°	2018
10°	1855
15°	1651
20°	1416
25°	1162
30°	912
35°	689
40°	480
45°	307
50°	195
55°	129
60°	78
65°	45
70°	22
75°	12
80°	7
85°	4
90°	1

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	1179	58
0-40	1605	79
0-60	1967	97
0-90	2031	100
0-180	2031	100

#### Illuminance Chart

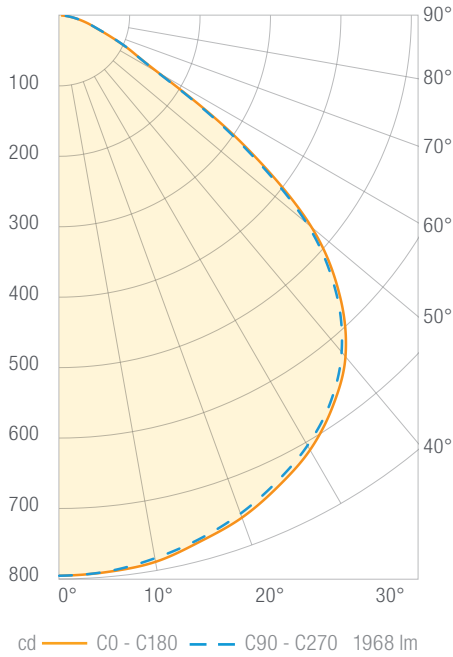
Distance from LED	Foot Candles	Diameter
3'	232.9	3.1'
6'	58.2	6.2'
9'	25.9	9.3'
12'	14.6	12.4'

Beam Angle: 55°

### PHOTOMETRY

#### MD 2000 lm, 3000K, General Ambient

MD20930GA



#### Luminous Intensity

Gamma	C 0°
0°	796
5°	793
10°	788
15°	773
20°	759
25°	737
30°	712
35°	677
40°	632
45°	564
50°	468
55°	318
60°	163
65°	103
70°	62
75°	41
80°	24
85°	11
90°	3

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	640	32
0-40	1067	54
0-60	1798	91
0-90	1968	100
0-180	1968	100

#### Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	88.4	7.8'
6'	22.1	15.5'
9'	9.8	23.3'
12'	5.5	31.1'

Beam Angle: 105° x 104°