

# DRD2 & SurfaceFrame

## Fixed Downlighting System

New Construction  
Junction Box

Project:	Type:
Product Code:	Date:

V 093022



**Modular Design** Flexibility during and after installation with interchangeable modules, optics and trims

**Quick Install** Integrated driver and plug-and-play connection require no wiring

**High Performance** Precise lighting control without sacrificing stellar efficiency

**Enhanced Dimming** Smooth, flicker-free dimming down to 1%

### OPTICAL

#### Delivered Lumens (Power)

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

#### Color Quality

93+ CRI, 2-step SDCM

#### Color Temperature

- 2700K ● 3000K ○ 3500K  
○ 4000K ● Warm Dim (3000–1800K)

#### Beam Spread

- ▲ Narrow Spot (15°) ▲ General (90°+)  
▲ Spot (25°) ▲ Linear (40° x 20°)  
▲ Flood (40°) ▲ Soft Focus  
▲ Wide Flood (60°)

### PHYSICAL

#### Application

New Construction

#### Aperture

4" Octagonal Junction Box

#### Ceiling Thickness

½" up to 1¾"

### TRIMS

#### Available Trims

Surface Mount

#### Trim Finish

White, Custom

### ELECTRICAL & CONTROLS

#### Input Voltage

120 / 277V

#### 1% Dimming

TRIAC/ELV, 0-10V, Lutron EcoSystem

### RATINGS

#### Housing

- 🔥 Code compliant for use in fire-rated assemblies up to a maximum of 2-hours  
🔊 STC/IIC Sound Rated  
🌀 ASTM E283 Certified Air Tight  
🔌 IC (Insulation Contact) Rated

#### Module

- 💧 UL Listed for Wet Location



## PRODUCT BUILDER

### SURFACEFRAME HOUSING

PRODUCT CODE		APPLICATION		APERTURE		DIMMING		OPTION	
<b>DRDH</b>	Housing	<b>N</b>	New Construction	<b>JO</b>	Junction Box	[Blank]	Integrated	[Blank]	None
						<b>70</b>	0-10V <sup>1</sup> , 750 lm	<b>EMS</b>	Emergency Battery <sup>3</sup> , Remote Test Switch
						<b>100</b>	0-10V <sup>1</sup> , 1000 lm		
						<b>100W</b>	0-10V <sup>1</sup> , 1000 lm, Warm Dim		
						<b>120</b>	0-10V <sup>1</sup> , 1250 lm		
						<b>7C</b>	Lutron EcoSystem <sup>2</sup> , 750 lm		
						<b>10C</b>	Lutron EcoSystem <sup>2</sup> , 1000 lm		
						<b>10CW</b>	Lutron EcoSystem <sup>2</sup> , 1000 lm, Warm Dim		
						<b>12C</b>	Lutron EcoSystem <sup>2</sup> , 1250 lm		

### DRD2 MODULE

PRODUCT CODE		LUMENS		CRI		CCT		BEAM SPREAD		DIMMING	
<b>DRD2M</b>	Module	<b>07</b>	750 lm	<b>9</b>	93+ CRI	<b>27</b>	2700K	<b>GA</b>	General Ambient (90°+)	<b>T</b>	Integrated TRIAC/ELV
		<b>10</b>	1000 lm			<b>30</b>	3000K	<b>NS</b>	Narrow Spot (15°) <sup>5</sup>		
		<b>12</b>	1250 lm			<b>35</b>	3500K	<b>SP</b>	Spot (25°)		
						<b>40</b>	4000K	<b>FL</b>	Flood (40°)	<b>O</b>	Integrated 0-10V
						<b>3W</b>	Warm Dim <sup>4</sup>	<b>WF</b>	Wide Flood (60°)		
								<b>LS</b>	Linear Spread (40° x 20°)		
								<b>SF</b>	Soft Focus	<b>A</b>	Alternate for use with EM or Lutron EcoSystem

### SURFACEFRAME TRIM

PRODUCT CODE		SHAPE		APERTURE		STYLE		FINISH	
<b>DRD2T</b>	Trim	<b>R</b>	Round	<b>J</b>	Surface Mount	<b>S</b>	Beveled	<b>WH</b>	White

<sup>1</sup> Only available in Emergency Battery option

<sup>2</sup> Lutron EcoSystem refers to LDE1 Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black™

<sup>3</sup> Only available in 0-10V or Lutron EcoSystem dimming

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

<sup>5</sup> Not available in Warm Dim CCT



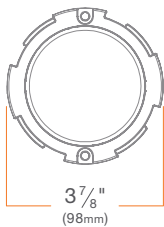
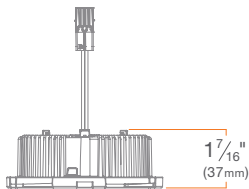
## PRODUCT BUILDER

---

### OPTICS ACCESSORIES

PRODUCT CODE	
<input type="text"/>	
<b>DRD2X-GA</b>	Conversion Kit: DRD2 Module to General Ambient (90°+)
<b>DRD2X-NS</b>	Narrow Spot (15°)
<b>DRD2X-SP</b>	Spot (25°)
<b>DRD2X-FL</b>	Flood (40°)
<b>DRD2X-WF</b>	Wide Flood (60°)
<b>DRD2X-LS</b>	Linear Spread (40° x 20°)
<b>DRD2X-SF</b>	Soft Focus
<b>DRD2X-OP</b>	Optics Kit: Narrow Spot (15°), Spot (25°), Flood (40°), Wide Flood (60°), Linear Spread (40° x 20°), Soft Focus

## MODULE



## DRD2

Fixed Downlight

**DRD2M**

### SUMMARY

**LED CHIP:** Cree

**DELIVERED LUMENS (w Trim):** 750 lm (9.5W), 1000 lm (12.5W), 1250 lm (14.3W)

**EFFICACY:** 79 lm/W, 80 lm/W, 87 lm/W

**COLOR QUALITY:** 93+ CRI, 2-step SDCM

**CCT:** 2700K, 3000K, 3500K, 4000K

**BEAM SPREAD:** General Ambient (90°+), Narrow Spot (15°), Spot (25°), Flood (40°), Wide Flood (60°), Linear Spread (40° x 20°), Soft Focus

**CONNECTOR:** PowerPlug® Luminaire Disconnect Model 182

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

**DIMMING:** Down to less than 1% for TRIAC/ELV at 120V, 0-10V or Lutron EcoSystem at 120/277V

**MAX INPUT CURRENT (120V):** 0.090 amps, 0.107 amps

**MAX INPUT CURRENT (277V):** 0.042 amps, 0.050 amps

**POWER FACTOR:** Greater than 0.9

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

**AMBIENT OPERATING TEMPERATURE:** -20°C to 40°C

**PHOTOMETRIC TESTING:** Tested in accordance to IESNA LM-79-2008

**LISTINGS:** ENERGY STAR® qualified\*, California Title 24 2016 JA8 compliant, UL Listed for Wet Location (flanged trims only), cULus Listed, Declare

**LIFETIME:** 50,000 hours at 70% lumen maintenance

**WARRANTY:** 5 year limited warranty

### WARM DIM OPTION

**LED:** Bridgelux LED, **DELIVERED LUMENS (w Trim):** 1000 lm (12.0W),

**EFFICACY:** 83 lm/W, **CCT RANGE:** 3000K - 1800K, **MAX INPUT**

**CURRENT (120V):** 0.11 amps, **MAX INPUT CURRENT (277V):** 0.047 amps

*\*Excludes Pinhole and Wall Wash Trims*

## HOUSING



## SurfaceFrame

New Construction

Octagonal Junction Box

**DRDHNJO**

### SUMMARY

**JUNCTION BOX:** Equipped with (4) 1/2" trade size knockouts (four side, two top) to allow straight conduit runs. Approved for 6 (three in, three out) #12 AWG 70°C through wiring conductors.

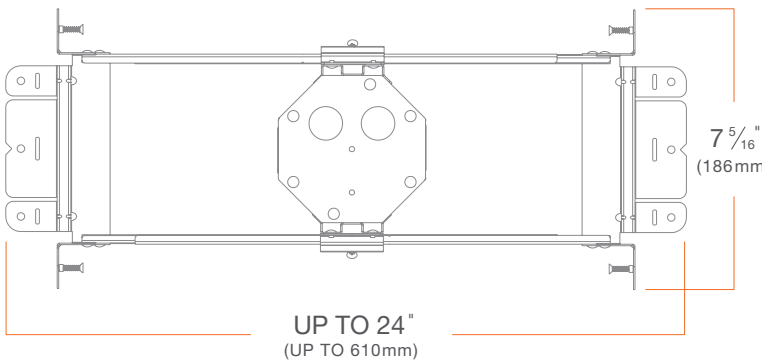
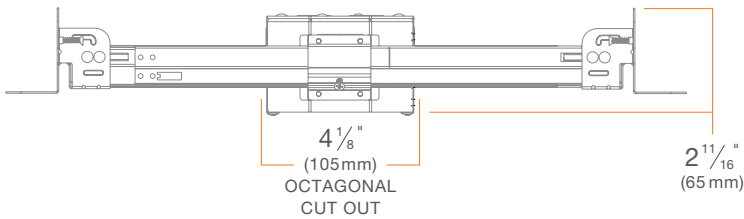
**MOUNTING:** Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1".

**CEILING:** 1/2" up to 1 3/4"

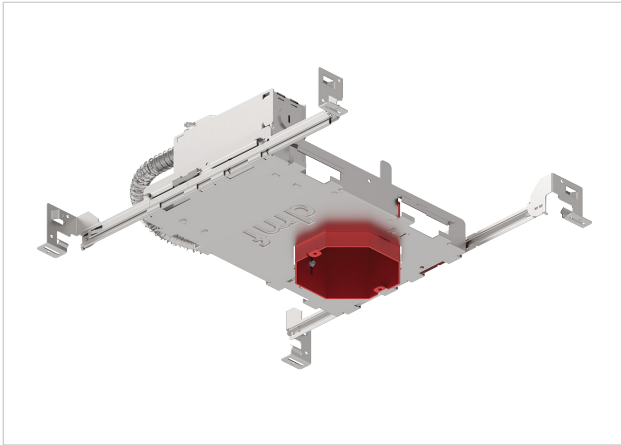
**CUTOUT:** 4 1/8" (105mm) octagonal opening

**LISTINGS:** Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated

**WARRANTY:** 5 year limited warranty



## HOUSING - Lutron EcoSystem Dimming



## SurfaceFrame

Lutron EcoSystem Dimming

Octagonal Junction Box

**DRDHNJO**

- Offers compatible dimming with Lutron EcoSystem Hi-Lume® 1% protocol

### SUMMARY

**JUNCTION BOX:** Equipped with (4) 1/2" trade size knockouts (four side, two top) to allow straight conduit runs. Approved for 6 (three in, three out) #12 AWG 70°C through wiring conductors.

**MOUNTING:** Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1".

**CEILING:** 1/2" up to 1 3/4"

**CUTOUT:** 4 1/8" (105mm) octagonal opening

**LISTINGS:** Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated

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

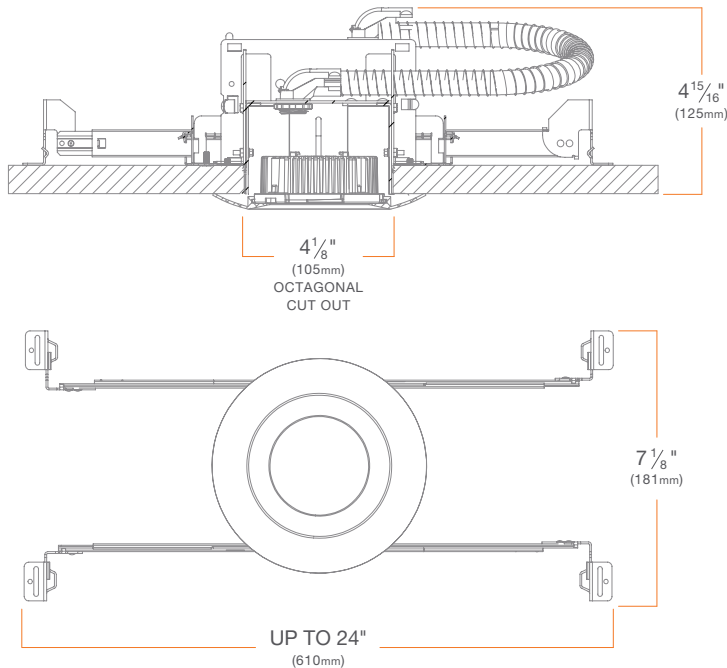
**MAX INPUT CURRENT (120V):** 0.090 amps (750 lm), 0.107 amps (1000 lm), 0.11 amps (1000 lm Warm Dim)

**MAX INPUT CURRENT (277V):** 0.042 amps (750 lm), 0.050 amps (1000 lm), 0.047 amps (1000 lm Warm Dim)

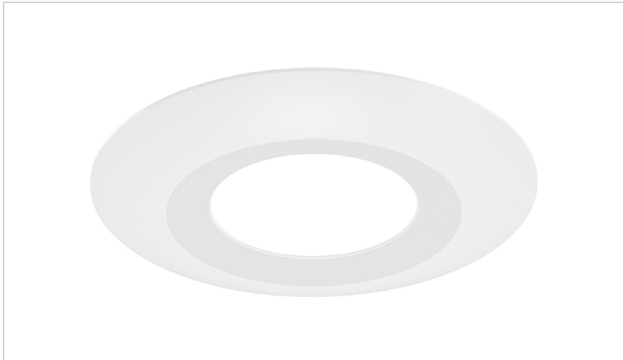
**POWER FACTOR:** Greater than 0.9

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

**WARRANTY:** 5 year limited warranty



## TRIM



## SurfaceFrame Trim

Recessed LED Downlight Trim

**DRD2T**

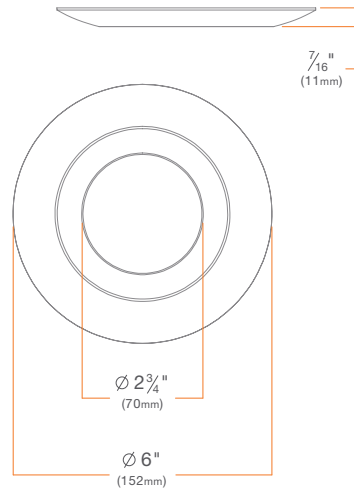
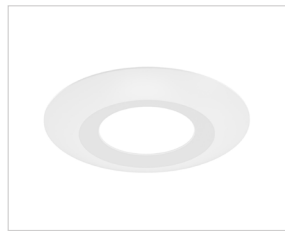
### SUMMARY

**CONSTRUCTION:** Die-cast aluminum

**INSTALLATION:** Twist & Lock

## SurfaceFrame Trim

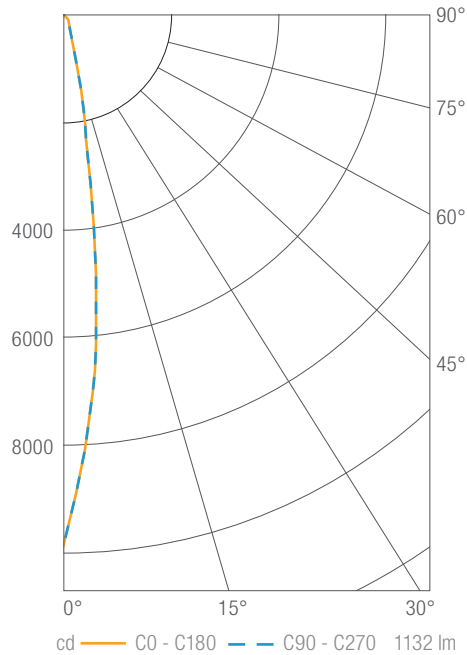
**DRD2TRJSWH**



## PHOTOMETRY

### DRD2 1000 lm, 3000K, Narrow Spot

DRD2M10930NS



#### Luminous Intensity

Gamma	C 0°
0°	9823
5°	6600
10°	2335
15°	734
20°	357
25°	244
30°	195
35°	159
40°	116
45°	85
50°	61
55°	42
60°	28
65°	16
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	906	80
0-40	1004	89
0-60	1110	98
0-90	1131	100
0-180	1132	100

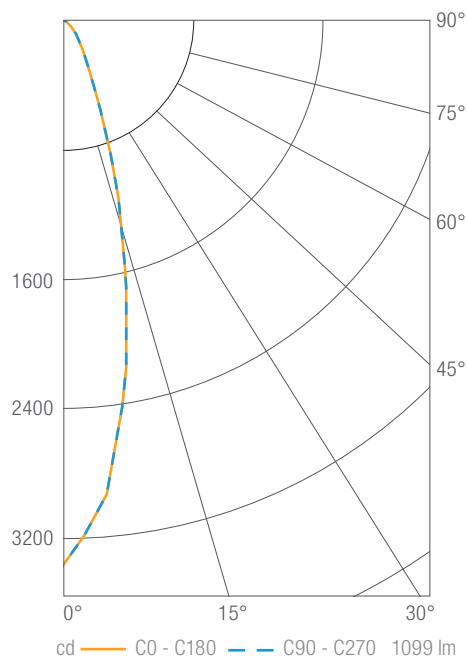
#### Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	1091	0.7'
6'	273	1.5'
9'	121	2.2'
12'	68	2.9'

Beam Angle: 14°

### DRD2 1000 lm, 3000K, Spot

DRD2M10930SP



#### Luminous Intensity

Gamma	C 0°
0°	3366
5°	2967
10°	2203
15°	1391
20°	775
25°	419
30°	248
35°	167
40°	119
45°	87
50°	62
55°	43
60°	26
65°	15
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

#### Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	862	78
0-40	971	88
0-60	1078	98
0-90	1098	100
0-180	1099	100

#### Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	374	1.4'
6'	93	2.8'
9'	42	4.2'
12'	23	5.6'

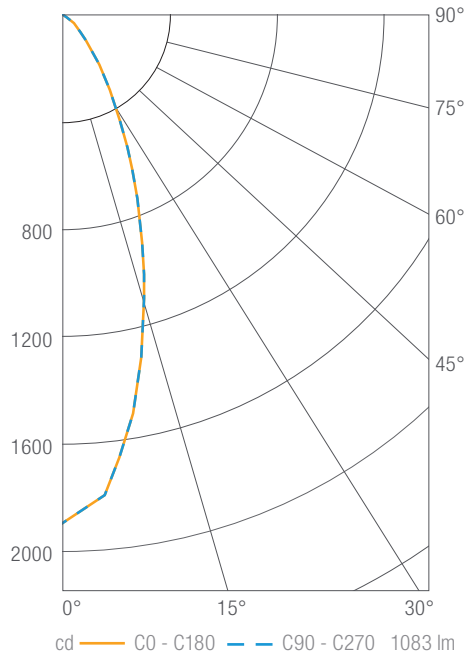
Beam Angle: 26°



## PHOTOMETRY

### DRD2 1000 lm, 3000K, Flood

DRD2M10930FL



Luminous Intensity

Gamma	C 0°
0°	1890
5°	1792
10°	1503
15°	1161
20°	849
25°	589
30°	391
35°	256
40°	162
45°	107
50°	74
55°	51
60°	30
65°	18
70°	8
75°	5
80°	3
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	760	70
0-40	925	85
0-60	1058	98
0-90	1081	100
0-180	1083	100

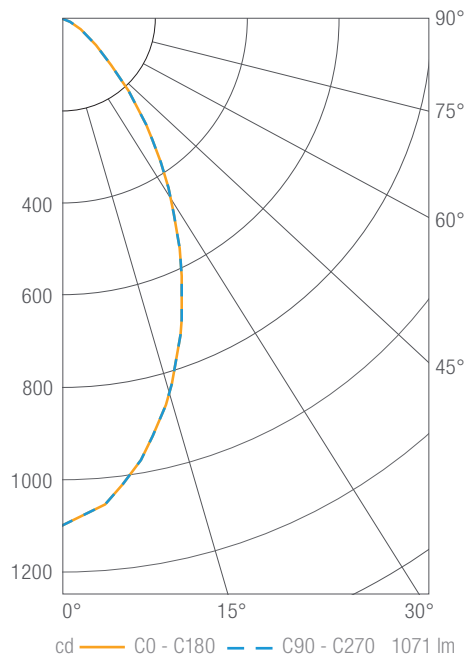
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	210	2.0'
6'	52	4.0'
9'	23	6.0'
12'	13	8.0'

Beam Angle: 37°

### DRD2 1000 lm, 3000K, Wide Flood

DRD2M10930WF



Luminous Intensity

Gamma	C 0°
0°	1100
5°	1058
10°	973
15°	866
20°	743
25°	609
30°	478
35°	361
40°	252
45°	161
50°	102
55°	68
60°	41
65°	24
70°	11
75°	6
80°	4
85°	2
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	620	58
0-40	845	79
0-60	1037	97
0-90	1069	100
0-180	1071	100

Illuminance Chart

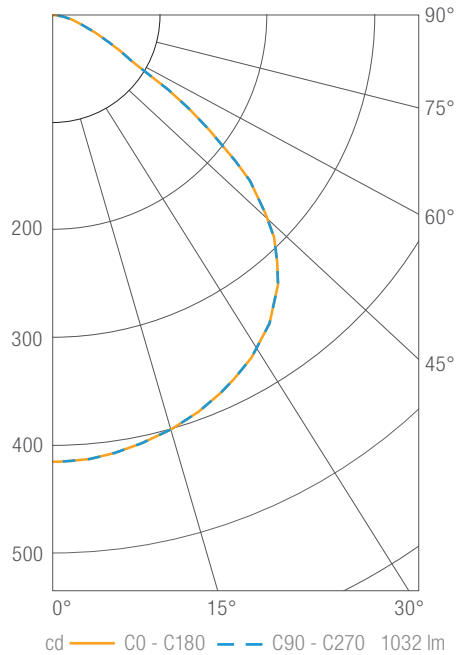
Distance from LED	Foot Candles	Diameter
3'	122	3.1'
6'	31	6.2'
9'	14	9.3'
12'	8	12.3'

Beam Angle: 55°

## PHOTOMETRY

### DRD2 1000 lm, 3000K, General Ambient

DRD2M10930GA



Luminous Intensity

Gamma	C 0°
0°	416
5°	415
10°	410
15°	403
20°	394
25°	382
30°	369
35°	351
40°	327
45°	291
50°	240
55°	162
60°	84
65°	54
70°	33
75°	21
80°	12
85°	6
90°	1

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	333	32
0-40	557	54
0-60	942	91
0-90	1024	99
0-180	1032	100

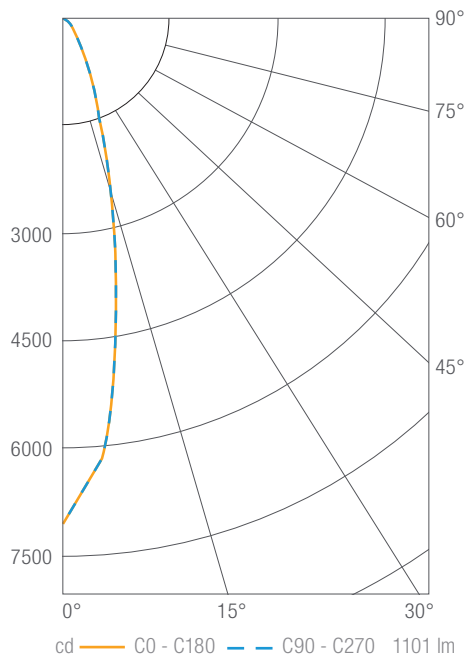
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	46	7.8'
6'	12	15.5'
9'	5	23.3'
12'	3	31.1'

Beam Angle: 100°

### DRD2 1000 lm, 3000K, Soft Focus

DRD2M10930SF



Luminous Intensity

Gamma	C 0°
0°	7280
5°	5603
10°	2489
15°	875
20°	381
25°	247
30°	194
35°	161
40°	122
45°	90
50°	64
55°	45
60°	28
65°	16
70°	7
75°	4
80°	2
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	868	79
0-40	968	88
0-60	1078	98
0-90	1100	100
0-180	1101	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	809	0.9'
6'	202	1.7'
9'	90	2.6'
12'	51	3.4'

Beam Angle: 16°