

Apex Series Recessed LED Downlight

Classic New Construction

4", 5", 6" Aperture

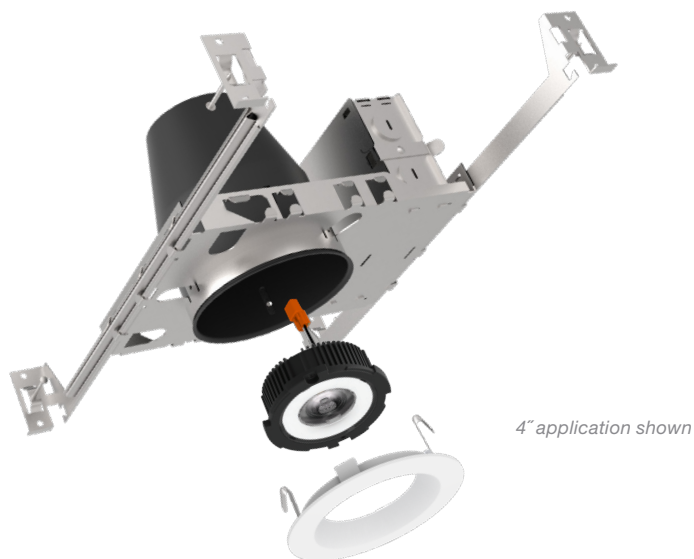
Project:

Type:

Product Code:

Date:

Spec Sheet V-11.15.19



- High-end, architectural-grade illumination with up to 4000 candelas of focused light
- Precise, controlled optics put light exactly where you want it with 20°, 30° and 40° beam angles
- All DRDH housings are UL Listed approved for use with DMF's advanced LED modules and can be installed in direct contact with insulation

Application New Construction		Aperture 4", 5", 6"	
Delivered Lumens 600 lm (10.0W), 750 lm (12.5W)		Color Quality 90+ CRI, 2-step SDCM	
Color Temperature  2700K 3000K 3500K 4000K		Optics  Spot (20°) Narrow Flood (30°) Flood (40°)	
Surround White, Black	Center Beam Candlepower 4000cd (Spot 750 lm)	Dimming TRIAC/ELV 5%, 0-10V 1%, Lutron Hi-lume® 1%	
Warm Dim Option  3000K – 1800K, 600 lm (12.0W), 93+ CRI, 3000cd		Emergency Lighting Emergency LED Driver for lighting up to 90 minutes in event of power failure	Input Voltage 120/277V
Trims Smooth, Baffle, Wall Wash, Square, Square on Round, Deep Smooth, Deep Baffle		Trim Finish White, Black, Silver, Alzak®, Custom	
Housing Ratings  ASTM E283 Certified Air Tight  IC (Insulation Contact) Rated		Module Ratings  UL Listed for Wet Location	
Standards   		Guarantee 50,000 hrs 5 years	



PRODUCT BUILDER

HOUSING

PRODUCT CODE		APPLICATION		IC/NON-IC		APERTURE		DRIVER		OPTION	
DRDH	Housing	N	New Construction	IC	Insulation Contact	4	4" Aperture	[Blank]	Integrated TRIAC/ELV	[Blank]	None
						4S	4" Shallow ¹	6OX	0-10V, 600 lm	EM	Emergency Driver ⁴
						5	5" Aperture	6OW	0-10V, 600 lm, Warm Dim		
						6	6" Aperture	7OX	0-10V, 750 lm		
						6S	6" Shallow	6CX	Lutron LDE1 ² , 600 lm		
								6CW	Lutron LDE1 ² , 600 lm, Warm Dim		
								7CX	Lutron LDE1 ² , 750 lm		
								6LX	Lutron LTEA2W ³ , 600 lm		
								6LW	Lutron LTEA2W ³ , 600 lm, Warm Dim		
								7LX	Lutron LTEA2W ³ , 750 lm		

MODULE

PRODUCT CODE		LUMENS		CRI		CCT		OPTICS		SURROUND		DRIVER	
DRD2X	Module	06	600 lm	9	90+ CRI	27	2700K	SP	Spot	WH	White	[Blank]	Integrated TRIAC/ELV
		07	750 lm			30	3000K	NF	Narrow Flood	BK	Black	A	Alternate
						35	3500K	FL	Flood				
						40	4000K						

Warm Dim Option

DRD2X	Module	06	600 lm	9	93+ CRI	3W	3000K - 1800K	SP	Spot	WH	White	[Blank]	Integrated TRIAC/ELV
								NF	Narrow Flood	BK	Black	A	Alternate
								FL	Flood				

TRIM

PRODUCT CODE		SHAPE		APERTURE		STYLE		FINISH		OPTION	
DRD2T	Trim	R	Round	4	4" Aperture	S	Smooth	WH	White	[Blank]	None
		S	Square ⁵	5	5" Aperture	B	Baffle	BK	Black	DF	Dead Front ^{7,9}
		Q	Square on Round ⁵	6	6" Aperture	W	Wall Wash ⁷	SW	Silver Reflector, White Flange		
		D	Deep ⁶					AZ	Low Iridescent Reflector, White Flange ⁸		
								CC	Custom Color		

¹ Only compatible with integrated TRIAC/ELV or 0-10V driver² Lutron LDE1 refers to Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black™³ Lutron LTEA2W refers to Lutron Hi-lume 1% 2-wire LED driver, 120V only⁴ Only available for 0-10V or Lutron Hi-lume driver⁵ Only available in 4" aperture, Smooth style⁶ Only available in 6" aperture, Smooth or Baffle style, White, Low Iridescent or Custom finish⁷ Only available in White finish⁸ Only available for Deep shape⁹ Only available for Round shape, 4" aperture, Smooth style

HOUSING



Classic Frame

4", 5", 6" New Construction

DRDHNIC

SUMMARY

HOUSING: 18 ga. die-formed aluminum box fastened to 22 ga. steel mounting frame (4" housing, 4" shallow housing), 20 ga. die-formed aluminum (5" housing), 22 ga. die-formed aluminum (6" housing), 20 ga. die-formed aluminum (6" shallow housing)

JUNCTION BOX: Galvanized steel. Equipped with (6) $\frac{1}{2}$ " and (1) $\frac{3}{4}$ " knockouts with pryout slots to allow straight conduit runs. (4) knockouts for non-metallic sheathed cable installation. Junction box tension spring allows snap-in installation of plate cover for easy access to wiring. Approved for 8 (four-in, four-out) #12 AWG 90 through wire conductors

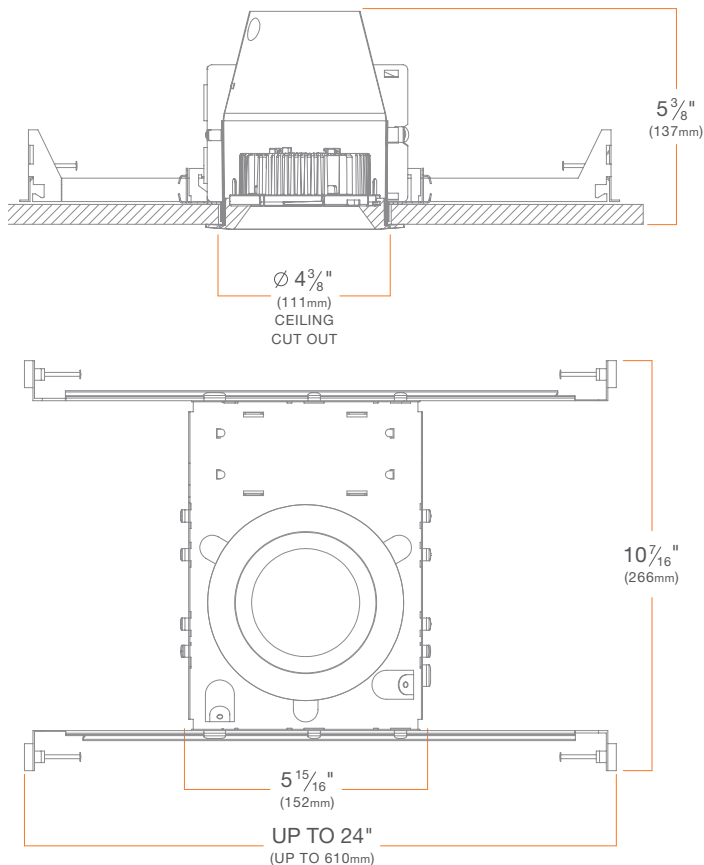
MOUNTING: Pre-installed adjustable bar hangers engineered to accommodate lumber, laminated beams and T-bar

CEILING: $\frac{1}{2}$ " up to 1"

CUTOUT: 4 $\frac{3}{8}$ " (4" housing, 4" shallow housing), 5 $\frac{3}{4}$ " (5" housing), 6 $\frac{3}{8}$ " (6" housing, 6" shallow housing)

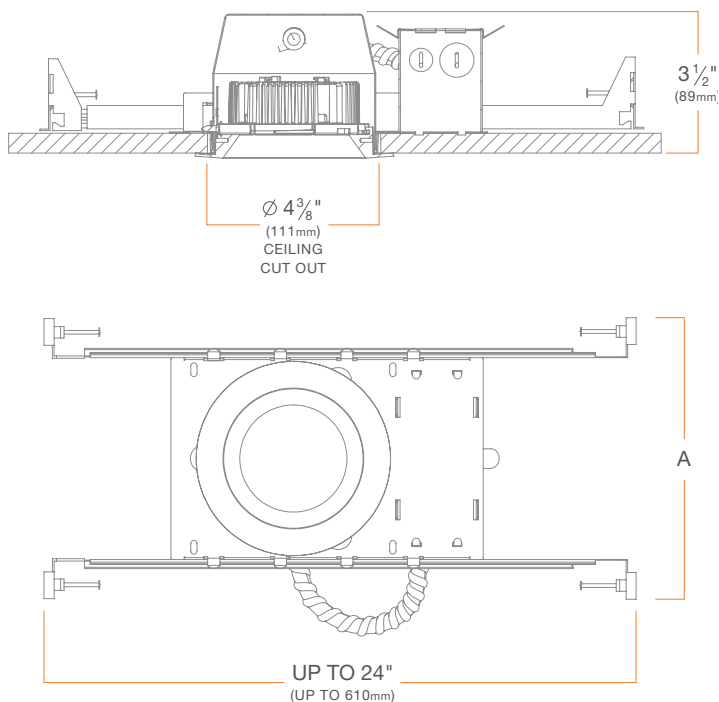
LISTINGS: ASTM E283 certified Air Tight, IC (Insulation Contact) rated

4" New Construction IC Frame-in Kit

DRDHNIC4


HOUSING

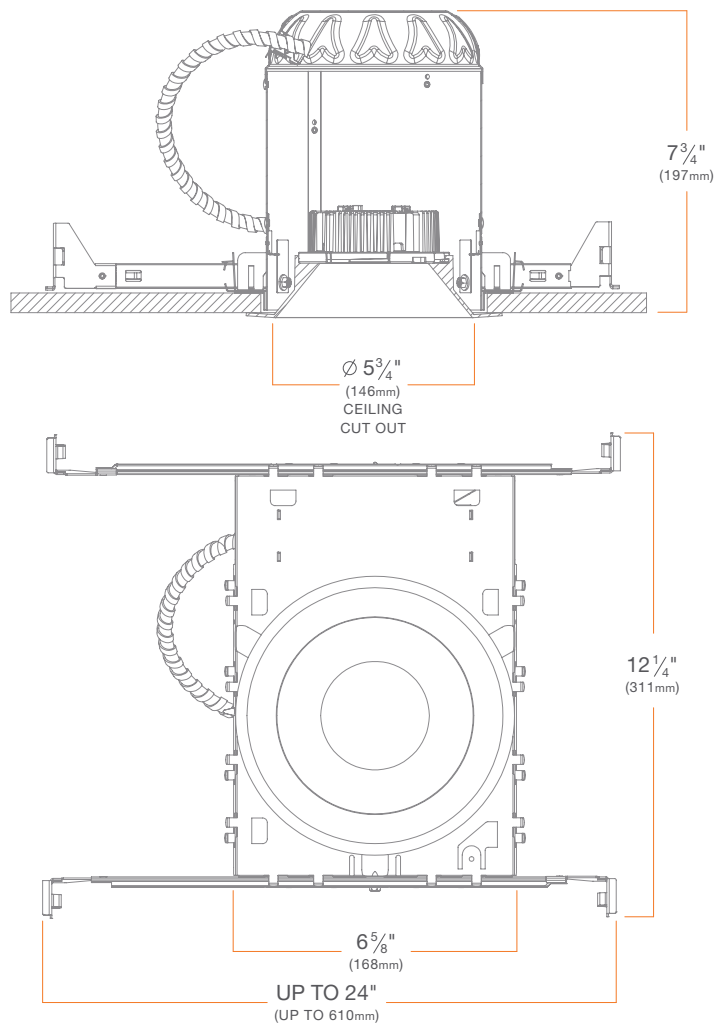
4" Shallow New Construction IC Frame-in Kit

DRDHNIC4S


DRDHNIC4S Measurements

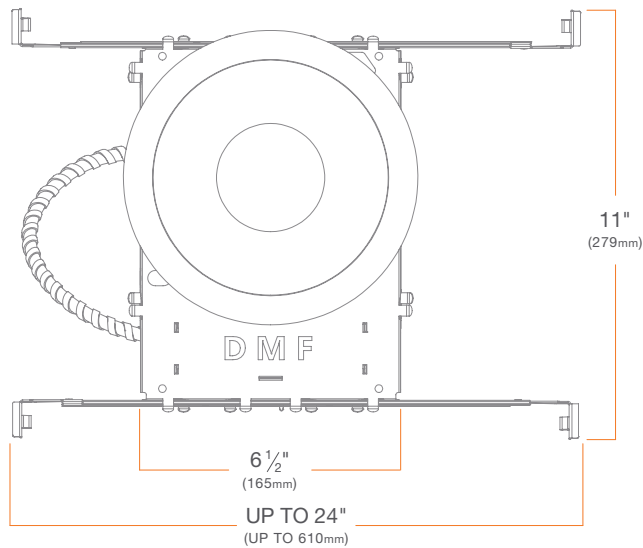
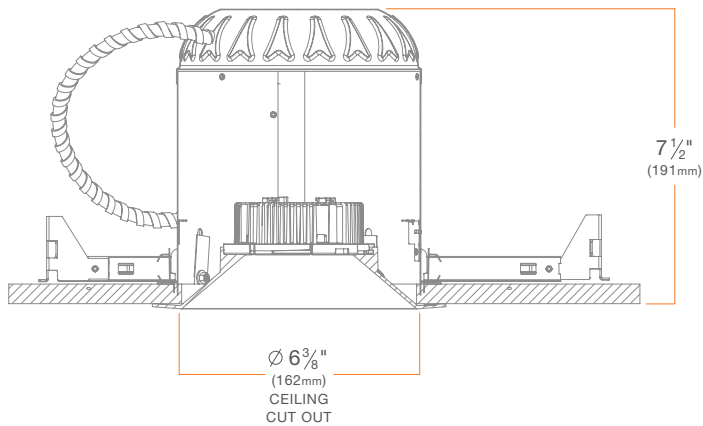
	A
Standard	7 1/4" [184 mm]
Alternate Dimming	12 1/4" [311 mm]

5" New Construction IC Frame-in Kit

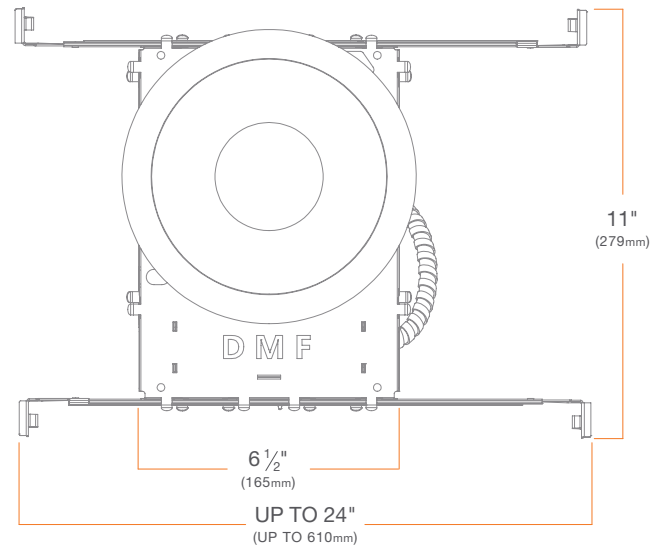
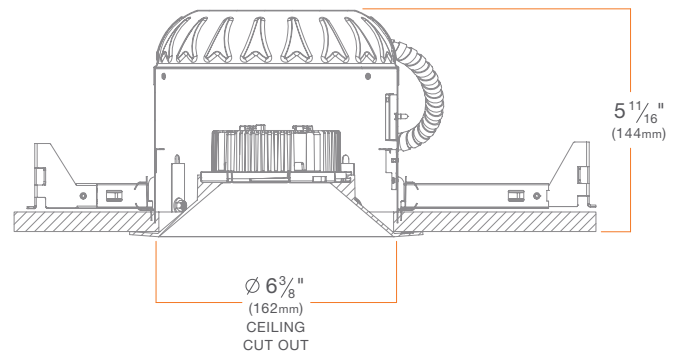
DRDHNIC5


HOUSING

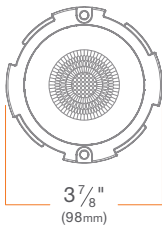
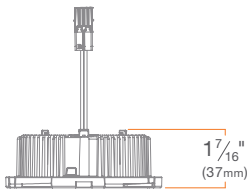
6" New Construction IC Frame-in Kit

DRDHNIC6


6" Shallow New Construction IC Frame-in Kit

DRDHNIC6S


MODULE

**DRD2X**

Apex Series LED Module

DRD2X

SUMMARY

LED: Cree® LED**DELIVERED LUMENS (w Trim):** 600 lm (10.0W), 750 lm (12.5W)**EFFICACY:** 60 lm/W**COLOR QUALITY:** 90+ CRI, 2-step SDCM**CCT:** 2700K, 3000K, 3500K, 4000K**OPTICS:** Spot (20°), Narrow Flood (30°), Flood (40°)**SURROUND:** White, Black**CENTER BEAM CANDLEPOWER:** 4000cd (Spot 750 lm)**CONNECTOR:** PowerPlug® Luminaire Disconnect Model 182 (Integrated TRIAC/ELV), Model 102 (Alternate Dimming)**DIMMING:** Down to less than 5% for TRIAC/ELV at 120V, 1% for 0-10V or Lutron Hi-lume® 1%**EMERGENCY LIGHTING:** Optional Emergency LED Driver for lighting up to 90 minutes in event of power failure**INPUT VOLTAGE:** 120/277V, 50/60Hz**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, cULus Listed**LIFETIME:** 50,000 hours at 70% lumen maintenance**WARRANTY:** 5 year limited warranty

● WARM DIM OPTION

LED: Bridgelux LED, **DELIVERED LUMENS (w Trim):** 600 lm (12.0W),**EFFICACY:** 50 lm/W, **COLOR QUALITY:** 93+ CRI, **CCT RANGE:** 3000K- 1800K, **CENTER BEAM CANDLEPOWER:** 3000cd (Spot), **MAX INPUT****CURRENT (120V):** 0.11 amps, **MAX INPUT CURRENT (277V):** 0.047 amps

TRIM



Classic Trims

4", 5", 6" Aperture

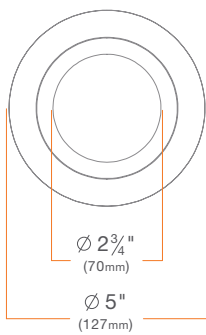
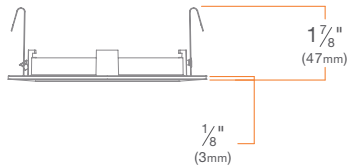
DRD2T

SUMMARY

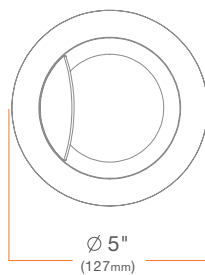
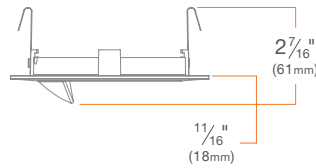
CONSTRUCTION: Die-cast aluminum

INSTALLATION: Twist & Lock

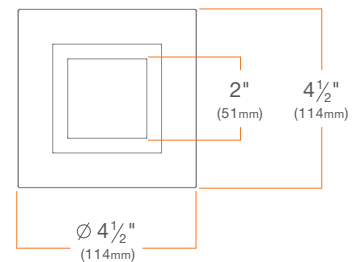
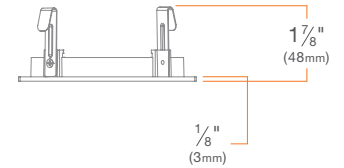
4" Round Trim

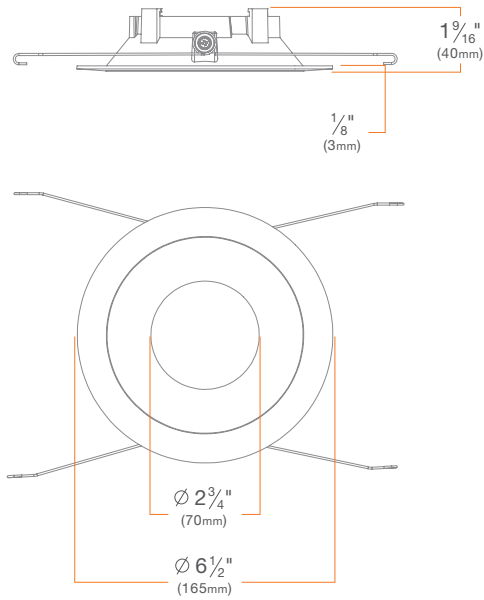
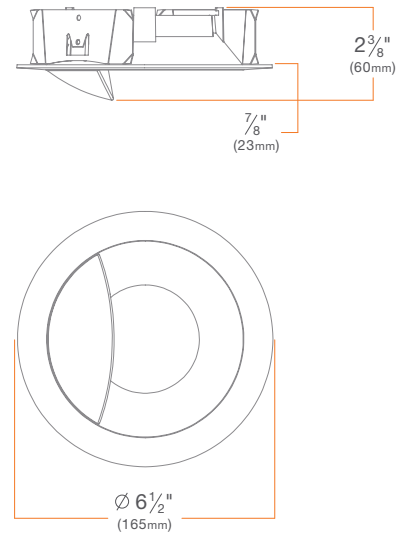
DRD2TR4SWH


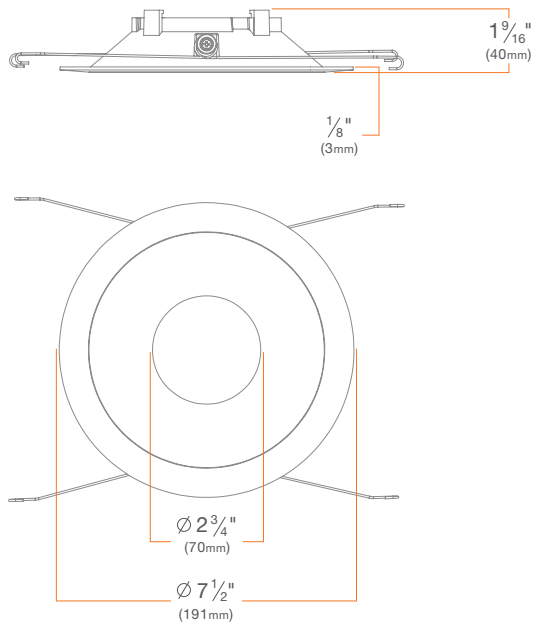
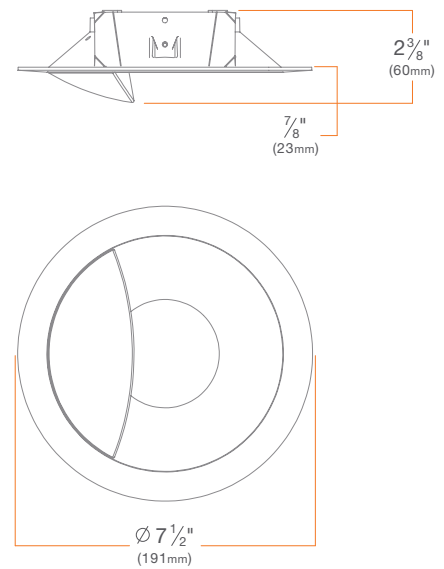
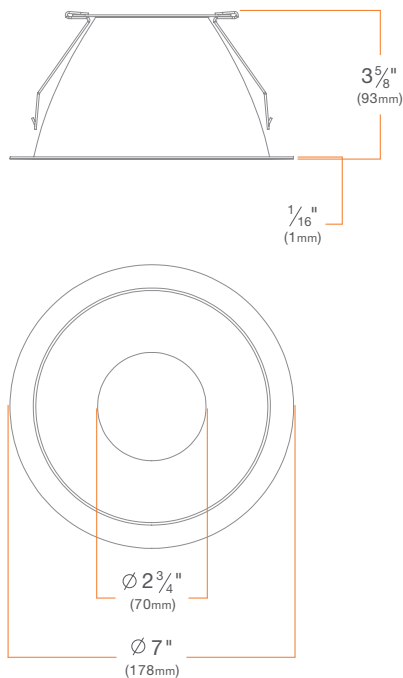
4" Wall Wash Trim

DRD2TR4WWH


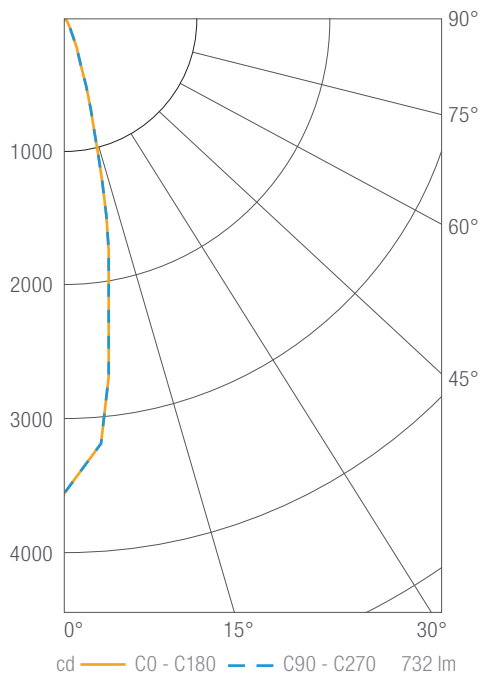
4" Square Trim

DRD2TS4SWH


TRIM
5" Round Trim
DRD2TR5SWH

5" Wall Wash Trim
DRD2TR5WWH


TRIM
6" Round Trim
DRD2TR6SWH

6" Wall Wash Trim
DRD2TR6WWH

6" Deep Trim
DRD2TD6SWH


PHOTOMETRY

DRD2X 750 lm, 3000K, Spot, White DRD2X07930SPWH / 6" Round Trim White DRD2TR6SWH

Luminous Intensity

Gamma	C 0°
0°	3569
5°	3203
10°	1981
15°	908
20°	397
25°	195
30°	111
35°	75
40°	53
45°	36
50°	26
55°	20
60°	14
65°	8
70°	4
75°	1
80°	0
85°	1
90°	0

Values in candela

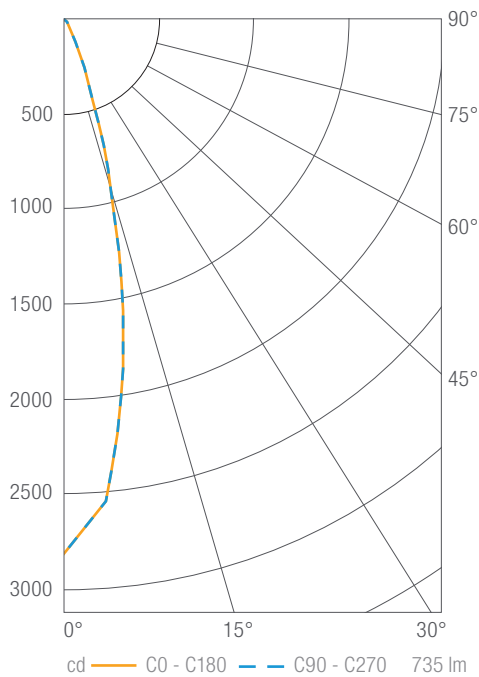
Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	630	86
0-40	677	93
0-60	722	99
0-90	732	100
0-180	732	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	397	1.1'
6'	99	2.2'
9'	44	3.3'
12'	25	4.4'

Beam Angle: 20°

DRD2X 750 lm, 3000K, Narrow Flood, White DRD2X07930NFWH / 6" Round Trim White DRD2TR6SWH

Luminous Intensity

Gamma	C 0°
0°	2814
5°	2546
10°	1818
15°	1002
20°	451
25°	202
30°	102
35°	59
40°	39
45°	28
50°	20
55°	15
60°	10
65°	7
70°	5
75°	3
80°	0
85°	0
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	649	87
0-40	693	93
0-60	731	98
0-90	743	100
0-180	743	100

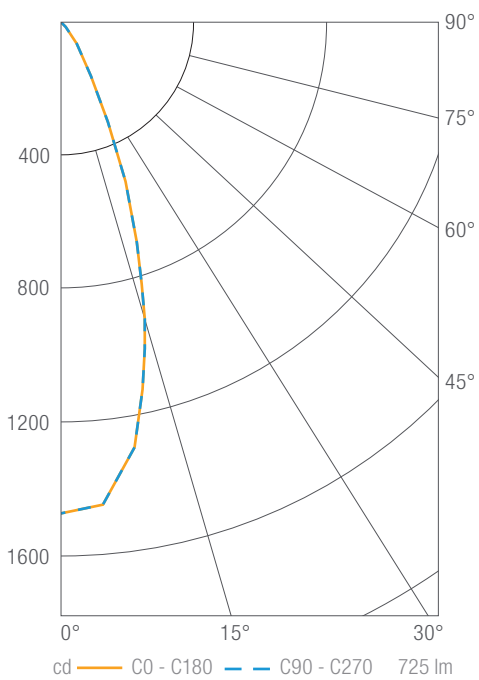
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	313	1.5'
6'	78	2.9'
9'	35	4.4'
12'	20	5.8'

Beam Angle: 28°

PHOTOMETRY

DRD2X 750 lm, 3000K, Flood, White **DRD2X07930FLWH** / **6" Round Trim White** **DRD2TR6SWH**



Luminous Intensity

Gamma	C 0°
0°	1474
5°	1454
10°	1295
15°	989
20°	632
25°	346
30°	180
35°	95
40°	55
45°	38
50°	28
55°	20
60°	15
65°	11
70°	6
75°	3
80°	2
85°	0
90°	0

Values in candela

Zonal Lumen Summary

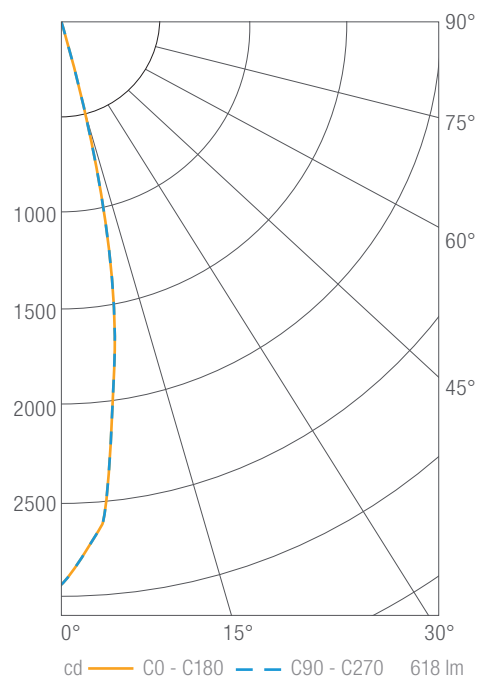
Zone	Lumens	Luminaire %
0-30	584	81
0-40	655	90
0-60	708	98
0-90	725	100
0-180	725	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	164	2.1'
6'	41	4.1'
9'	18	6.2'
12'	10	8.3'

Beam Angle: 38°

DRD2X Warm Dim 600 lm, 3000K, Spot, White **DRD2X0693WSPWH** / **6" Round Trim White** **DRD2TR6SWH**



Luminous Intensity

Gamma	C 0°
0°	2932
5°	2631
10°	1627
15°	746
20°	326
25°	160
30°	91
35°	62
40°	43
45°	30
50°	21
55°	16
60°	11
65°	7
70°	3
75°	1
80°	0
85°	1
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	531	86
0-40	571	92
0-60	609	99
0-90	618	100
0-180	618	100

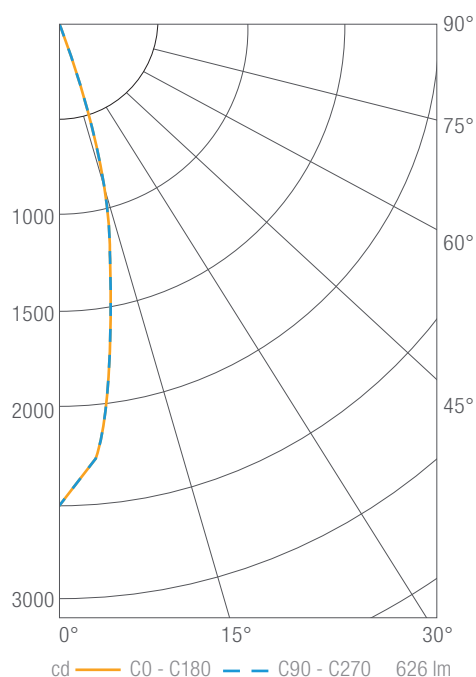
Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	326	1.2'
6'	81	2.3'
9'	36	3.5'
12'	20	4.6'

Beam Angle: 20°

PHOTOMETRY

DRD2X Warm Dim 600 lm, 3000K, N Flood, White DRD2X0693WNFWH / 6" Round Trim White DRD2TR6SWH



Luminous Intensity

Gamma	C 0°
0°	2516
5°	2276
10°	1626
15°	896
20°	403
25°	180
30°	91
35°	53
40°	35
45°	25
50°	18
55°	14
60°	9
65°	7
70°	4
75°	3
80°	0
85°	0
90°	0

Values in candela

Zonal Lumen Summary

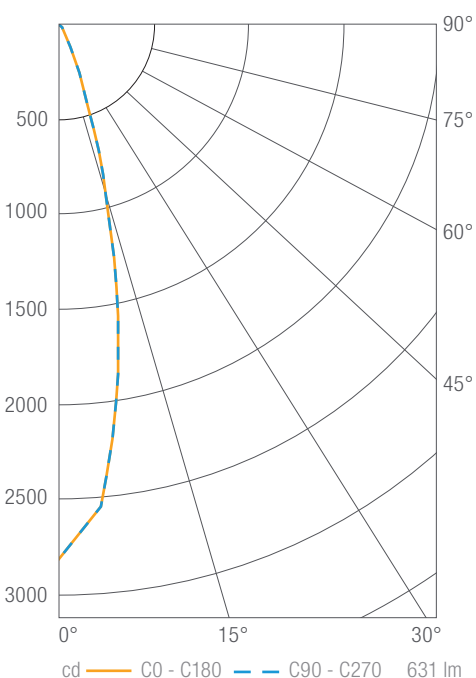
Zone	Lumens	Luminaire %
0-30	549	88
0-40	585	93
0-60	617	99
0-90	626	100
0-180	626	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	280	1.3'
6'	70	2.7'
9'	31	4.0'
12'	17	5.3'

Beam Angle: 26°

DRD2X Warm Dim 600 lm, 3000K, Flood, White DRD2X0693WFLWH / 6" Round Trim White DRD2TR6SWH



Luminous Intensity

Gamma	C 0°
0°	1326
5°	1308
10°	1165
15°	889
20°	569
25°	311
30°	162
35°	85
40°	50
45°	34
50°	25
55°	18
60°	13
65°	10
70°	6
75°	3
80°	2
85°	0
90°	0

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	514	82
0-40	573	91
0-60	617	98
0-90	631	100
0-180	631	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3'	147	2.0'
6'	37	4.0'
9'	16	6.0'
12'	9	8.0'

Beam Angle: 38°

Lumen Scaling

DRD2X06 (600 lm)	DRD2X07 (750 lm)
0.80	1.00

CCT Scaling

DRD2X07927 (2700K)	DRD2X07930 (3000K)	DRD2X07935 (3500K)	DRD2X07940 (4000K)
0.93	1.00	1.00	1.07

DIMMER COMPATIBILITY

Recommended Phase-control Dimmers (Dims down to 5% nominal measured light output)

Brand	Series	Model Number	Max Load DRD2X06	Max Load DRD2X07
Control 4	Control 4	C4-APD120	10	9
Cooper	Decorator	DLC03P, DAL06P	25	20
Legrand	Adorne	ADTP703TU	35	30
Lutron	Caseta	PD-6WCL	12	10
	CL Series	AYCL-153, CTCL-153, DVCL-153, LGCL-513, SCL-153, TGCL-513	12	10
	CL Series	AYCL-253, DVCL-253	20	15
	Grafik Eye 3000	QSGR-3P	30	25
	Grafik Sys / Homeworks	RPM-4A	25	20
	Grafik Sys / Homeworks	RPM-4U	30	25
	Maestro CL	MACL-153M, MSCL-OP153M, MSCL-VP153M	12	10
	Maestro Wireless	MRF2-6ELV, MRF2-6CL	12	10
	Radio RA	RRD-6NA, RRD-6CL, RRD-6D	12	10

Compatible Phase-control Dimmers¹ (Dims down to 20% nominal measured light output)

Brand	Series	Model Number	Max Load DRD2X06	Max Load DRD2X07
Cooper	Slide	SLC03P, SAL06P	25	20
Legrand	Harmony	H703PTU, HCL453P	30	25
Leviton	IllumaTech Slide	IPE04	25	20
	SureSlide	6621, 6674	10	10
Lutron	Diva	DV-600	12	10
	Maestro	MA-600	12	9
	Maestro ELV	MAELV-600, MSCELV-600	35	30
	Maestro Wireless	MRF2-6ND	12	10
	Power Booster	PHPM-PA, PHPM-WBX	25	20
Philips	Sunrise	SR400RPC120, ZP260QEW	20	15
Watt Stopper	Digital Light Management	LMRC-221	160	150
	Dimming Sensor	PW-100D	14	12

¹ Dimmer compatibility reflects performance compatibility only. Please reference your local codes for application.

DIMMER COMPATIBILITY

Recommended Phase-control Dimmers - Warm Dim (Dims down to 5% nominal measured light output)

Brand	Series	Model Number	Max Load
Cooper	Decorator	DAL06P, DLC03P	20
	Slide	SLC03P	20
Leviton	Sure Slide	6621, 6631	10
Lutron	Diva CL	DVCL-153P	10
	Diva CL	DVCL-253P	15
	Grafik	GTJ-150-WH	10
	Maestro	MRF2-6ND	10
	Maestro CL	MACL-153	10
	Maestro CL	MA-PRO-WH	15
	Maestro CL	MACL-153M, MSCL-OP153M, MSCL-VP153M	10
	Radio RA	RRD-6NA, RRD-6ND	10
	Skylark	SELV-300P	20