

90mm LED Adjustable Recessed Downlight (50mm lens) 220-240VAC

SORAA arc™

Product Specifications

The Soraa Arc™ Downlight series combines elegant design with Soraa's unique quality of light to create a dynamic and versatile solution for retail, hospitality, and residential applications. Soraa Arc gets its name from the form of its unique die-cast curved heat sink, which is precisely engineered for optimal thermal performance.

Soraa VIVID™ LED: Soraa Full Spectrum integral LED Light Engine available in 2700K, 3000K, and 4000K with 95 CRI, 95 R9 and 100 Rw. IR and UV free.

Soraa Optics: Soraa optic technology with exceptional beam control and smooth uniform light distribution. The 15° beam versions are compatible with all Soraa SNAP™ accessories.

Electrical: 220-240VAC fully integral LED electronic constant current driver (included). Frequency: 50/60Hz Power Factor: 0.93 Wattage: 18W.

Dimming and Flicker: Dimming as low as 1%*; Triac, 0-10V, and ELV dimming standard options. < 30% Flicker. See soraa.com for details.

Installation: Recessed mounting with trimmed or trimless options. 90mm (3.5") ceiling opening recommended.

Optional Trimless Adaptor: Order separately for use with trimless light engines only.

Construction and Finish: Light engine includes die-cast aluminum heat sink designed for optimal thermal management. Collar made of die cast aluminium. Durable non-glare satin finish. Tilt: 35°, rotation: 365°.

SNAP Trims Construction and Finish: Die-cast aluminum construction. Magnetic snap attachment allows easy tool-free installation and tight ceiling fit. 4 color options available.

Operating Temperature: Minimum -40°C, 25°C typical.

Compliance: CE compliant.

Warranty: Five year warranty. See www.soraa.com.



Simple Installation, Including SNAP™ Trim

Replaceable Light Engine

Fully Adjustable from Below Ceiling Without Tools

Adjusts to 35° tilt

Soraa Vivid Full Spectrum LED- 95CRI, R9 >95

Flicker-Free Phase Dim, DALI, 0-10V
Dimming as low as 1%*

25,000 hr lifetime at 70% Lumen Maintenance

5 year Warranty



Full Spectrum



Natural White



CRI 95



R9 95



No IR



No UV



Dimmable



Soraa SNAP Compatible



IC Rated



IP 20



UL LISTED

* see soraa.com/resources/arc_compatibility

Luminaire Specification Guide

1. Driver

Sample Number: DD50-E-S3

Product Code

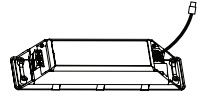
DD50 Downlight Driver Kit

Driver

E 220-240VAC Phase Dim
ED 220-240VAC DALI
E10 220-240VAC 0-10V

Region

S3 EU, APAC

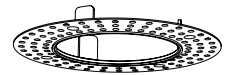


Trimless Adaptor

Product Code

DMS50 Downlight Trimless Adaptor Square

DMR50 Downlight Trimless Adaptor Round



2. Light Engine & Collar

Sample Number: DESA50-15D-927-R-T-W-S3

Product Code

DESA50 Downlight Light Engine Square Adjustable

DERA5 Downlight Light Engine Round Adjustable

Beam

15D 15° Narrow Spot (SNAP Compatible) ☺
25D 25° Narrow Flood
36D 36° Flood

CRI/CCT

927 95/2700K
930 95/3000K
940 92/4000K

Mount

R Remodel

Collar

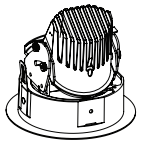
T Trimmed
TL Trimless

Finish

B Black
W White

Region

S3 EU, APAC



3. SNAP™ Trim

Sample Number: DTSA50-W

Product Code

DTSA50 Downlight Trim Square Adjustable

DTRA50 Downlight Trim Round Adjustable

Finish

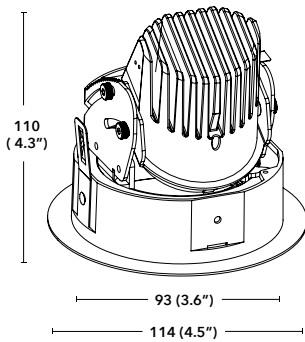
B Black
W White
S Silver
T Tangerine
C Custom



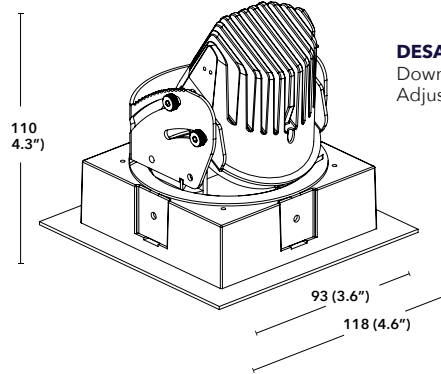
90mm LED Adjustable Recessed Downlight (50mm lens) 220-240VAC

Light Engine Overview

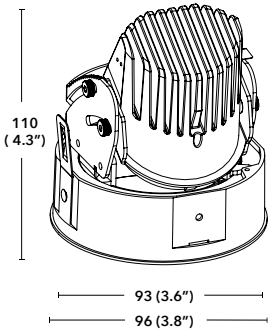
Output	Color & Optics	Operation	Electrical
Lumens 880-1040	CCT 2700K, 3000K, 4000K	Efficacy 48-58 lm/W	Input Voltage 220-240VAC, 50/60hz
CBCP 2560-8380	CRI 95	Ambient Operating Temperature Minimum -40°C, 25°C typical	Power Factor 0.93
	R9 >95	Lifetime 25,000 hours	Top Rated Power 18W
	SDCM 3-step McA		Dimming 100% - 1% (see soraa.com for performance details*)
	Beams 15°, 25°, 36°		



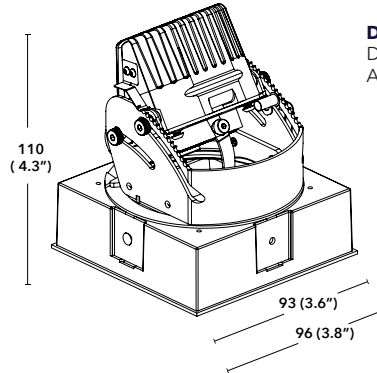
DERA50-T
Downlight Light Engine Round
Adjustable Trimmed



DESA50-T
Downlight Light Engine Square
Adjustable Trimmed



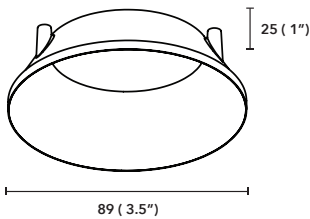
DERA50-TL
Downlight Light Engine Round
Adjustable Trimless



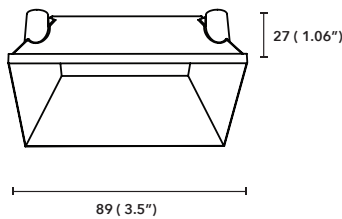
DESA50-TL
Downlight Light Engine Square
Adjustable Trimless

* soraa.com/resources/arc_compatibility

SNAP Trim Overview



DTRA50 Downlight Trim Round Adjustable



D TSA50 Downlight Trim Square Adjustable



B Black



W White



S Silver



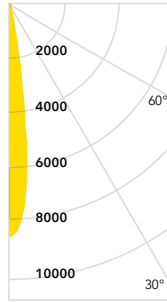
T Tangerine

90mm LED Adjustable Recessed Downlight (50mm lens) 220-240VAC

Photometrics

Data is shown for 3000K
FC Multipliers: 2700K: 0.95; 4000K: 1.0

Spot 15°

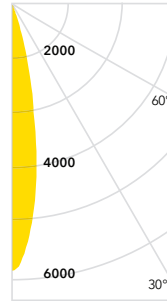


W	CCT	Lm	CBCP
18	2700	880	7650 cd
18	3000	930	8080 cd
18	4000	965	8380 cd

Candelas at Nadir

0°	8165
5°	6573
15°	628
25°	151
35°	87
45°	46

Narrow Flood 25°

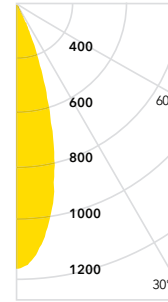


W	CCT	Lm	CBCP
18	2700	950	5510 cd
18	3000	1000	5800 cd
18	4000	1040	6030 cd

Candelas at Nadir

0°	5870
5°	4970
15°	1562
25°	128
35°	37
45°	25

Flood 36°



W	CCT	Lm	CBCP
18	2700	950	2560 cd
18	3000	1000	2700 cd
18	4000	1040	2800 cd

Candelas at Nadir

0°	2771
5°	2683
15°	1627
25°	408
35°	82
45°	32



Soraa SNAP
Compatible

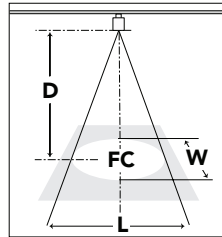
Aiming Angles

L and W refer to outer points where footcandles drop to 50% of maximum. FC refers to initial footcandles at the center of the beam.

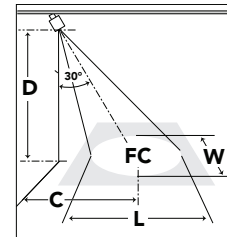
Key (distances in metres)

- L** Beam Distance
- D** Distance
- W** Beam Width
- FC** Footcandles
- C** Distance to Center Beam

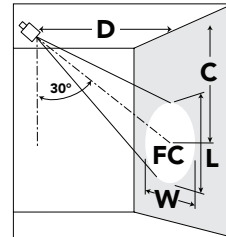
0° Horizontal



30° Horizontal



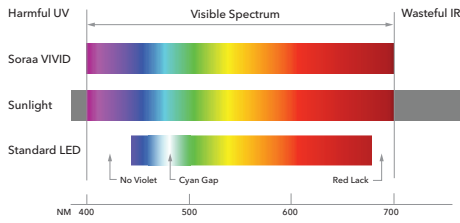
30° Vertical



	D	FC	L	W	D	C	FC	L	W	D	C	FC	L	W
Spot 15°	6	226	1.6	1.6	6	3.7	151	2.1	1.8	2	3.7	307	1.7	0.9
	8	127	2.1	2.1	8	4.8	86	2.8	2.3	3	5.4	140	2.5	1.3
	10	82	2.6	2.6	10	5.9	55	3.4	2.9	4	7.1	79	3.3	1.8
	12	57	3.1	3.1	12	7.0	39	4.1	3.5	5	8.7	51	4.1	2.1
Narrow Flood 25°	6	164	2.2	2.2	6	3.6	109	2.9	2.5	2	3.9	239	2.1	1.2
	8	93	2.9	2.9	8	4.8	62	3.8	3.3	3	5.7	108	3.1	1.8
	10	61	3.6	3.6	10	6.0	41	4.6	4.1	4	7.5	62	4.1	2.4
	12	43	4.3	4.3	12	7.1	28	5.5	4.9	5	9.3	40	5.1	2.9
Flood 36°	6	78	3.3	3.2	6	3.8	57	3.8	3.5	2	4.2	152	2.1	1.5
	8	45	4.3	4.2	8	5.0	32	5.0	4.6	3	6.0	68	3.2	2.2
	10	29	5.3	5.3	10	6.1	21	6.2	5.5	4	7.7	39	4.2	3.0
	12	21	6.2	6.2	12	7.1	15	7.5	6.6	5	9.3	25	5.1	3.6

Soraa Arc™ Color and Whiteness Rendering

CCT	CRI	R9	Rf	Rg	Rfh1	Rw	McA
2700	95	95	90	100	95	120	3
3000	95	95	90	100	95	120	3



Soraa has engineered the perfect balance between color rendering and white rendering. Soraa's core technology uses a violet LED emitter as the basis for full spectrum light. This allows both Vivid™ color rendering and Natural White™ white rendering, which creates whiteness by exciting fluorescing agents with violet radiation, without the harmful effect of UV.

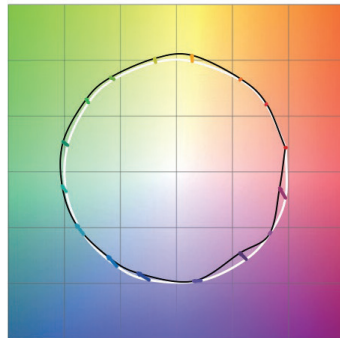
Rf: The TM-30 metric for color fidelity (similarity to colors under natural light), a more accurate version of the CRI Ra. Rf is 100 for natural light.

Rg: The TM-30 metric for color gamut (whether colors are more saturated than under natural light). Rg is 100 for natural light.

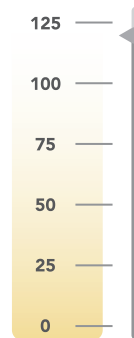
Rfh1: The TM-30 metric for color fidelity for red tones. Rfh1 is a more accurate version of the CRI R9. Rfh1 is 100 for natural light.

Rw: The Soraa-developed metric for white fidelity. Rw measures the magnitude of excitation of whitening agents within white materials. Rw is 100 for natural light.

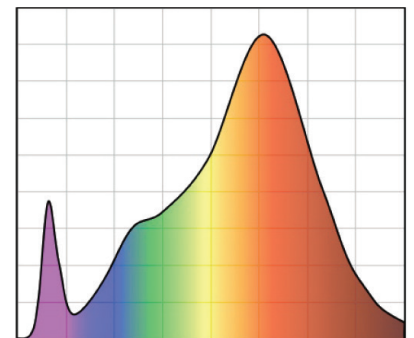
2700K



Rf: 90, Rg: 100, Rfh1: 95

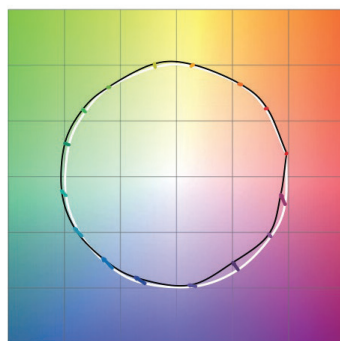


Rw: 120

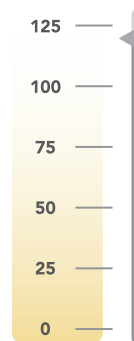


CRI: 95, R9: 95

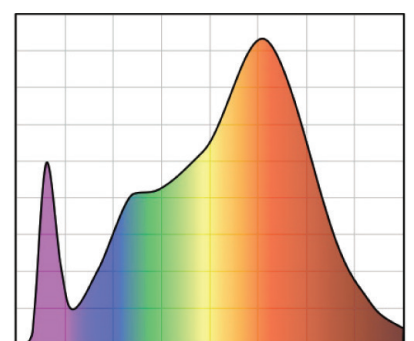
3000K



Rf: 90, Rg: 100, Rfh1: 95

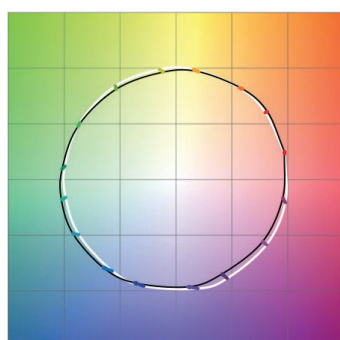


Rw: 120

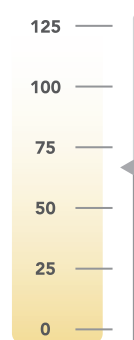


CRI: 95, R9: 95

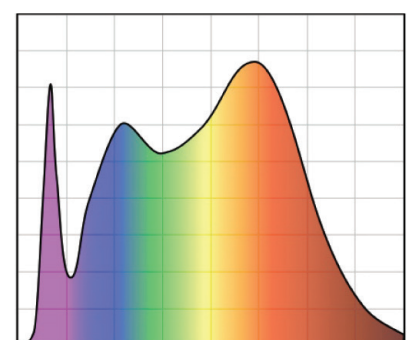
4000K



Rf: 90, Rg: 100, Rfh1: 95



Rw: 70



CRI: 95, R9: 95