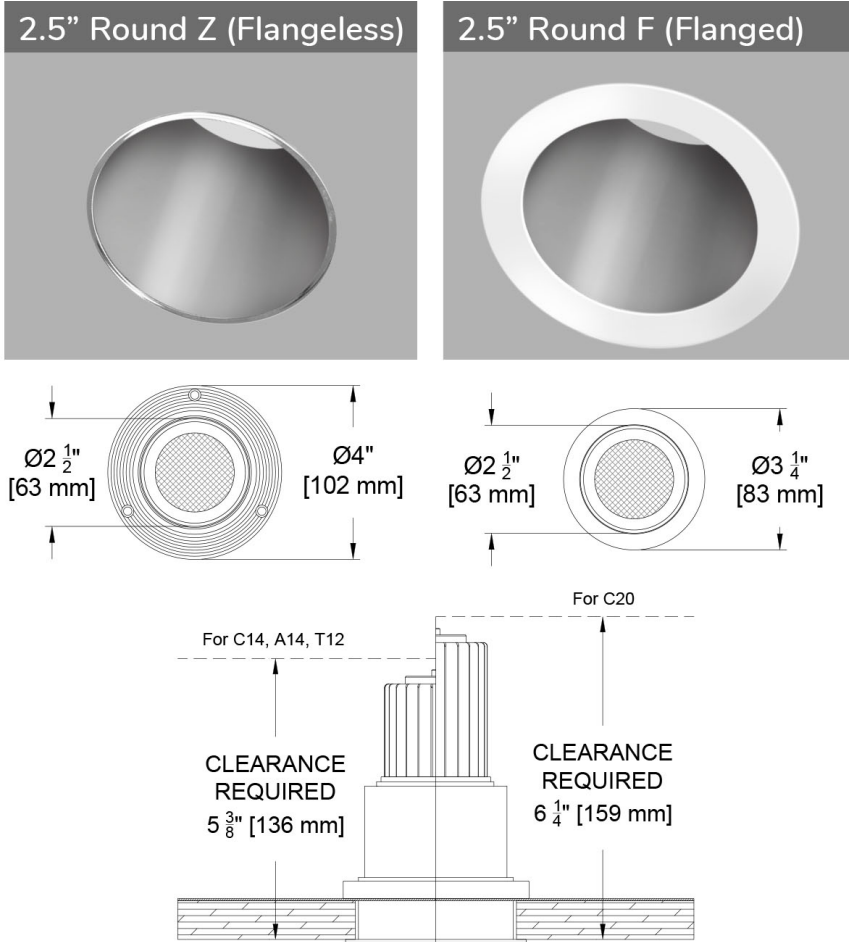


# Scope O 2.5" Round Downlight (64mm)

Formerly 4500 (FA, GA, PA), 4501, 4600  
Fixed Recessed Accent Light

## Scope Original

The Scope Original is a small aperture downlight family used to great acclaim in thousands of projects over the last 20 years. Featuring some plenum intrusions <math>< 3 \frac{1}{2}"</math> and a wide selection of aperture types, we have expanded this offering with new mounting options, a large selection of source technology and control options. This modifiable fixture has over 40 finish options including a wood trim selection. You have found the Round Downlight Datasheet and we hope you enjoy the details



PROJECT:

TYPE:

SPECIFIER:

DATE:

### Key Points (SCOD-R)

#### Trim

- Machined aluminum Body in USA
- Wood trim bezel available on Flangeless option
- 40 finish colors + custom and RAL available for trim flange and bezel. Finishes can be mixed and matched. See Finish Guide
- Flange or flangeless

#### Source / Optics

- 3 beam spreads - 10°, 20° and 30°
- Up to 1385 delivered lumens
- <math>< 2</math> MacAdams Ellipses (<math>< 2</math> SDCM)
- 90+ CRI, 60+ R9 Standard, 95+ CRI, 90+ R9 available with Ambient Dim option
- 2700, 3000, 3500, 4000K, Ambient Dim (1900K to 3000K) and Tunable White with 2 available ranges (1800 to 4000K and 2700 to 6500K)
- **TITLE 24** Source supports California Title 24 Requirements to JA8 in many combinations
- Lifetime: L87B3>55,000 hours at 40°C Ambient (for fixed White)

#### Housing

- 2 pan options rated IC / Airtight for use in direct contact with insulation (not for spray foam)
- **TITLE 24** IC Rated / airtight housing approved for use in direct contact with insulation Chicago Plenum Available and meets CA Title 24
- **UL** listed for damp location - wet rating with Shower Trim selection
- Remodel or millwork option available

#### Driver And Control

- Drivers are integral with fixtures unless noted as remote mount with \* in ordering code options. "K can" type drivers do not fit through the 2.5" hole
- Phase, 0-10, DALI, Ecosystem or Wireless Control
- Flicker free to IEEE 1789-2015 available
- Universal 120-277v

### 2.5" Aperture Options



Deep Regress (DR) Formerly known as 4500    Shallow Regress (SR) Formerly known as 4501    Drop Glass (DG) Formerly known as 4500    FL- Flat (Pin Hole) Formerly known as 4500    Semi Recessed (SM) Formerly known as 4600

ROUND Beamspreads		10°				20°				30°				
Source	System watts (W)	Delivered Lumens (lm)	Lumens/Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/Watt	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/Watt	Peak CD	10% Field	
Deep Regress	Citizen C14	14	1014	72	6304	40°	1009	72	3599	61°	963	69	2136	73°
	Citizen C20	21	1372	65	7323	50°	1385	66	4911	61°	1323	63	2947	73°
	Ambient Dim A14	15	693	47	4486	37°	707	48	2825	56°	693	47	1628	71°
	Tunable White 1840	10	452	45	2634	32°	470	47	2178	41°	452	45	1080	71°
	Tunable White 2765	10	596	60	3401	33°	631	63	2970	40°	620	62	1468	71°

# Scope O 2.5" Round Downlight (64mm)

Formerly 4500 (FA, GA, PA), 4501, 4600  
Fixed Recessed Accent Light



## Ordering Codes

PROJECT:

SPECIFIER:

DATE:

TYPE:

QUANTITY:

Ordering Code Example: SCOD-R-SR-F-NP-C20-30-20-C1-A24-P16-91L

FIXTURE	APERTURE	TRIM	MOUNTING	SOURCE / WATTS	CCT	BEAM	DRIVER / CONTROL	BEZEL FINISH	TRIM FINISH	LENS ACCESSORIES	ACCESSORIES
SCOPE-R											
Scope Original 2.5" Downlight - Round	DR Deep Regress SR Shallow Regress FL Flat (Pin Hole) DG Drop Glass * SM Semi-Recessed^ <small>^Available with Flanged Trim only</small> <small>*Available with 10° optic only</small>	F Flanged Trim Z Flangeless Trim FS Flanged Shower Trim* ZS Flangeless Shower Trim* <small>*Requires aperture lens selection for wet listing</small>	BP Bracket Pan (IC/Airtight) for mounting with hanger bars to studs or T-bar^ NP New Pan (IC/Airtight) for Mounting to bottom of wood studs^ AT Airtight Housing* RM Remodel mounts direct to ceiling - Wing Springs for flanged and drywall anchors for flangeless PM Panel Mount§ APM Panel Mount Airtight/IC Housing * §  ● Supports CA Title 24 Compliance to JA8  * Chicago Plenum available with AT  ^ Not for use with spray foam insulation  § Must be used with flangeless trims	<b>Citizen</b> C14 ●● 14W 1009Lm* 90+CRI, 60+R9 C20 ●● 21W 1385Lm* 90+CRI, 60+R9 <b>Ambient Dim</b> A14 ●● 15W 707Lm* 95+CRI, 90+R9 3000 to 1900K  T7 ●● 10W 631Lm** 90+CRI, 70+R9 Tunable White+  ●● Supports CA Title 24 Compliance (not for Drop Glass or C20/A14 Flat)  *Based on 20° Deep Regress  ** Based on Deep Regress with 20° Beam & 2765 CCT  +LTT or EldoLED driver selection required and will be supplied with 2 channel version	27 2700K 30 3000K 35 3500K 40 4000K <b>Ambient Dim</b> AD 3000-1900K  1840 1800-4000K Tunable White* 2765 2700-6500K Tunable White*  * Some apertures not compliant with California Title 24	10 Spot* 20 Narrow Flood 30 Flood  *Other than Drop Glass, not recommended to use with Tunable (TW) source due to source imaging	C1 0-10 1.0%, UNV (120-277V) linear C2 ELV/Triac 1.0%, (120V) linear <b>EldoLED</b> E1 0-10* 0.1%, UNV (120-277V) log E2 DALI-2* 0.1%, UNV (120-277V) log E3 0-10* 0.1%, UNV (120-277V) linear <b>Lutron</b> LD Digital Ecosystem* 1.0%, UNV (120-277V) ECO Hi-Lume SoftOn/Fade-to-Black LDE1 LP Digital Ecosystem 0.1%, UNV (120-277V) ECO Premier Hi-Lume SoftOn/Fade-to-Black, PEQ0, 20W max LTT Digital* 1.0%, UNV (120-277V) T Series digital 2-channel Tunable White PSQD  * Requires remote mounting	A01 Black Anodize  A32 Clear Aluminum Anodize  AXX Other Anodize colors*  D Wood** (Z trim only)  PXX Specialty Paint Color*  C Custom/RAL Color**   * See Finish Guide **See Wood Trim Guide  	A01 Black Anodize  A32 Clear Aluminum Anodize  AXX Specialty anodize color*  W White Paint  PXX Specialty Paint Color*  C Custom/RAL Color Paint*  K Blank for use with Flangeless or Panel Mount   * See Finish Guide **See Wood Trim Guide  	Reflector (lamp) Media 91L Solite 92L Supertex (spreader lens) 97L Black Hexcel Louver XXL Other reflector (lamp) media*  	CP Chicago Plenum EM Emergency Pack <b>Controls</b> LR Lutron Wireless RF PowPak ATH Lutron Athena Wireless Node <i>Must be used with E2 driver (DALI-2)</i> CA Casambi Wireless BLE to be paired with driver

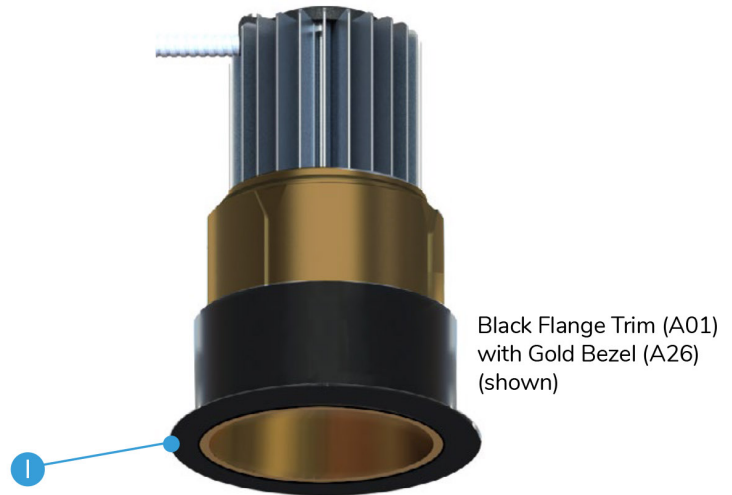
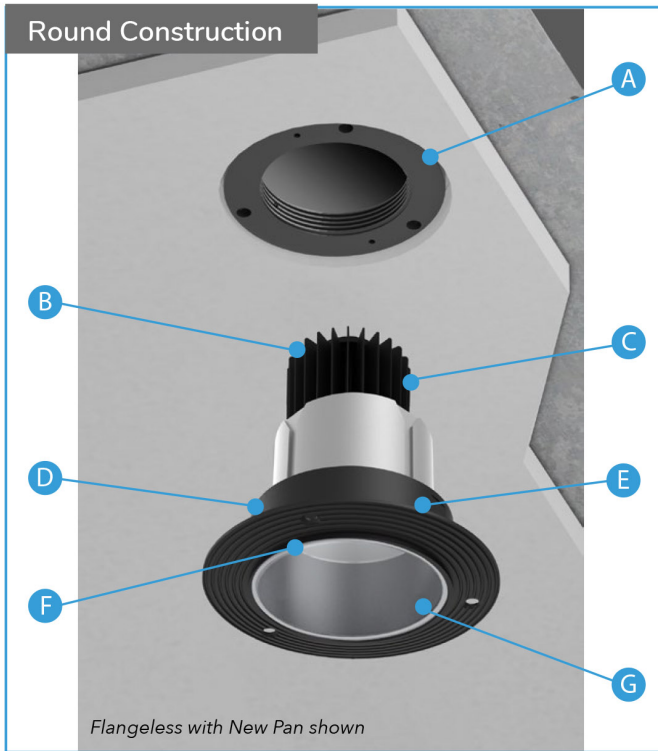
# Scope O 2.5" Round Downlight (64mm)

Formerly 4500 (FA, GA, PA), 4501, 4600

Fixed Recessed Accent Light

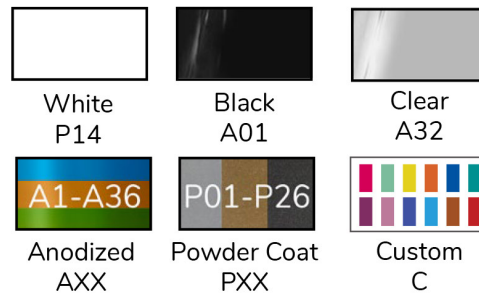
## Fixture Details

Threaded collar comes integral with Pan. Receiver with integral trim flange threads into collar. Body assembly attaches to receiver with twist and drop, J hook, mounting mechanism.



### Finish Options

Trim and bezel are separate pieces and can be finished with any combination

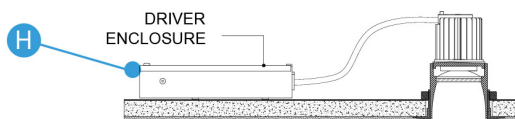
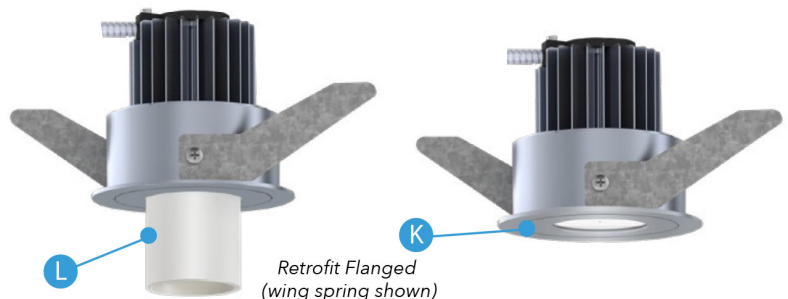
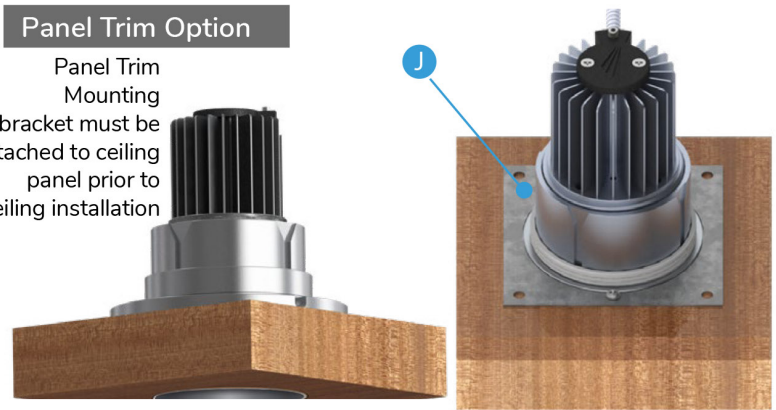


## Standard Assembly Specs

- A Machined mounting collar (located above pan) integral with Pan or Housing to accommodate up to 1 1/4" ceiling thickness. Remodel Flanged Trim uses Wing Springs (shown below)
- B 22AWG wire to Driver. Enclosed in flexible conduit connected to driver enclosure.
- C Thermal management system and body. High grade anodized aluminum, precision machined in the U.S.A.
- D Receiver – High Grade Aluminum precision machined in U.S.A. with integral flange
- E LED Assembly- Field serviceable as part of thermal management system (not shown)
- F Lens optic- Field changeable
- G Bezel, Integral with body- available in all finish options
- H Driver and enclosure – UL approved for IC
- I Finish trim flange- integral with receiver
- J Panel trim mounting collar and bracket
- K Pinhole or Semi Recessed aperture bezel- integral with body-
- L Drop glass- for decorative accent

### Panel Trim Option

Panel Trim Mounting bracket must be attached to ceiling panel prior to ceiling installation



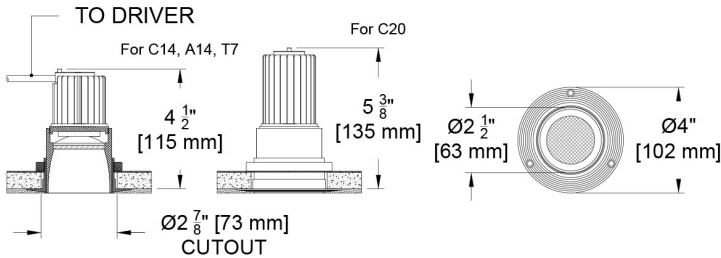
# Ceiling Cutouts and Dimensions

## Round Flangeless (Deep Regress)

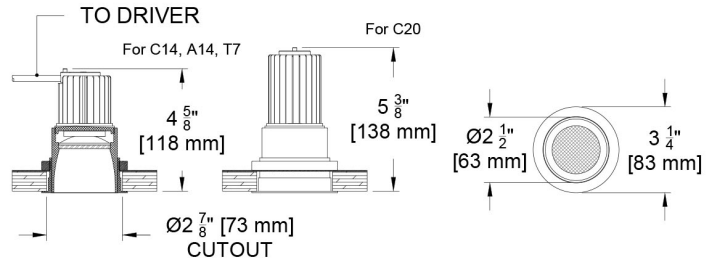
for Bracket Pan / New Pan

## Round Flanged (Deep Regress)

DR



(SCOD-R-DR-Z-BP)

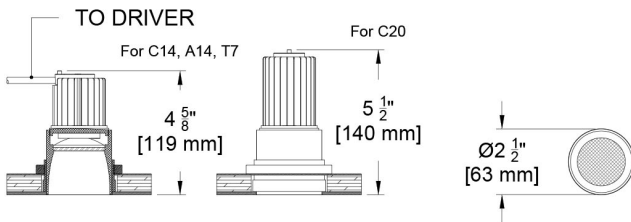


(SCOD-R-DR-F-BP)

## Round Panel Trim (Deep Regress)

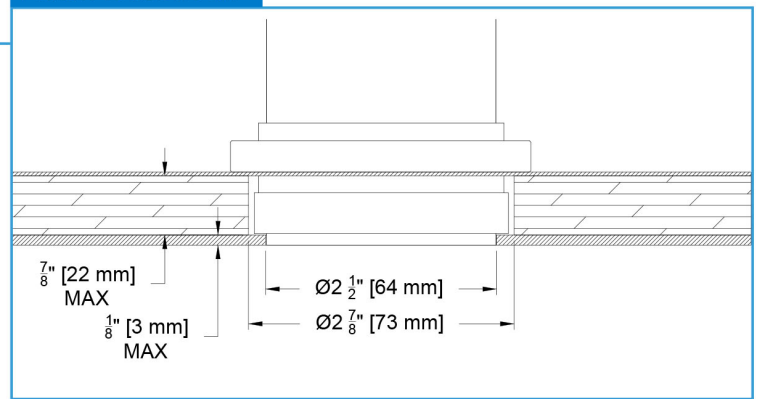
DR

for Panel Mount



(SCOD-R-DR-Z-PM)

## Panel Mount Detail (SCOD-R-DR-Z-PM)

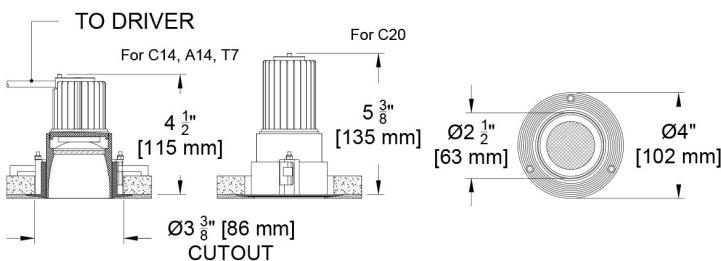


## Round Flangeless (Deep Regress)

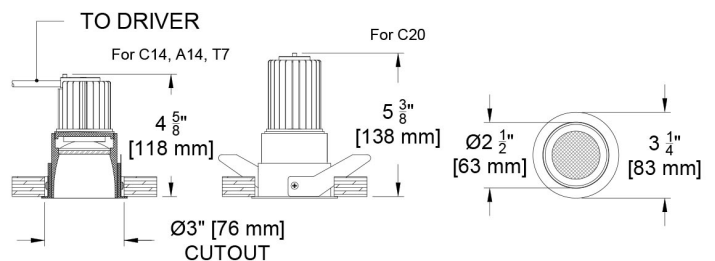
for Retrofit

## Round Flanged (Deep Regress)

DR



(SCOD-R-DR-Z-RM)



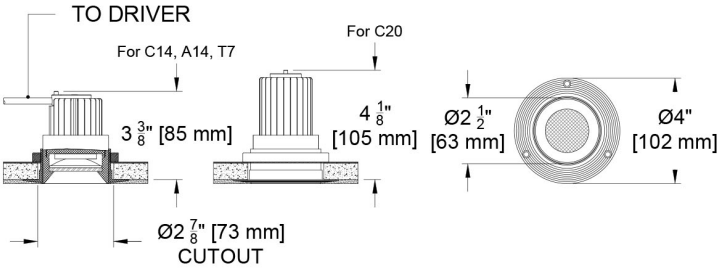
(SCOD-R-DR-F-RM)



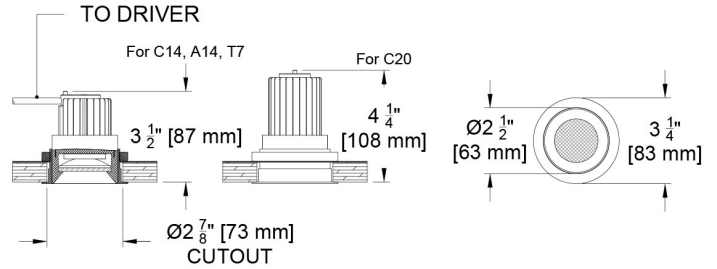
# Ceiling Cutouts and Dimensions

## Round Flangeless (Shallow Regress) SR

for Bracket Pan / New Pan



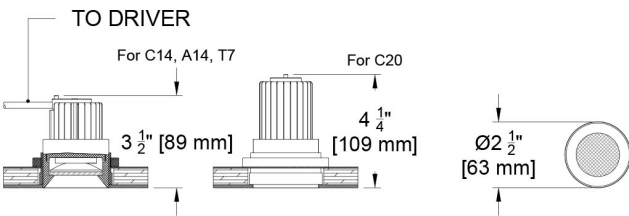
(SCOD-R-SR-Z-BP)



(SCOD-R-SR-F-BP)

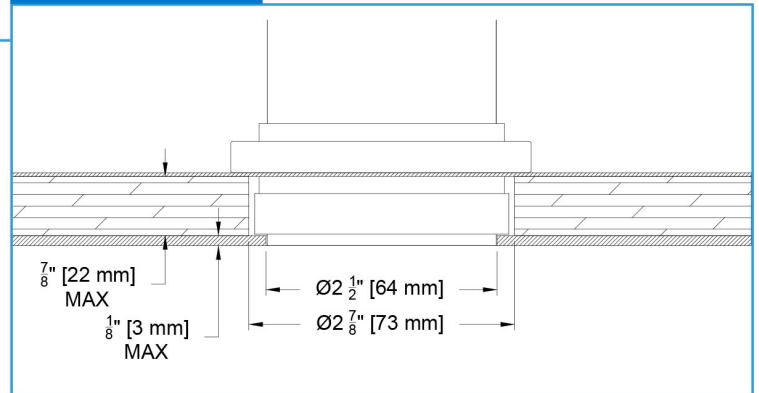
## Round Panel Trim (Shallow Regress) SR

for Panel Mount



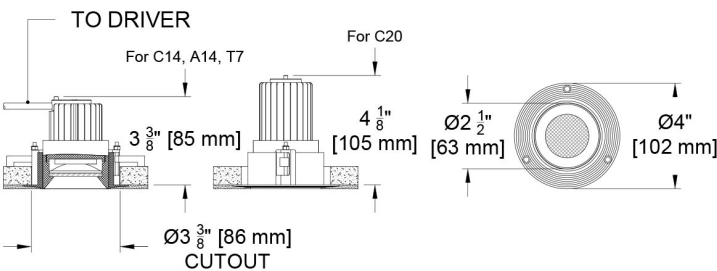
(SCOD-R-SR-Z-PM)

### Panel Mount Detail (SCOD-R-SR-Z-PM)

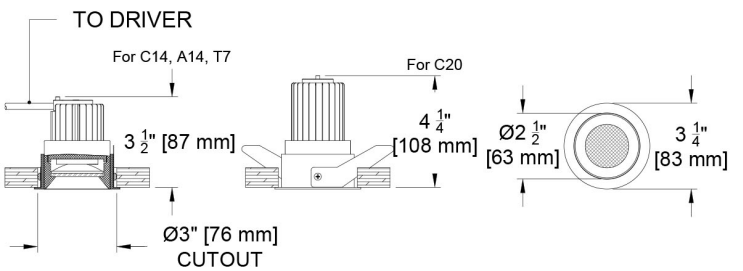


## Round Flangeless (Shallow Regress) SR

for Retrofit



(SCOD-R-SR-Z-RM)



(SCOD-R-SR-F-RM)

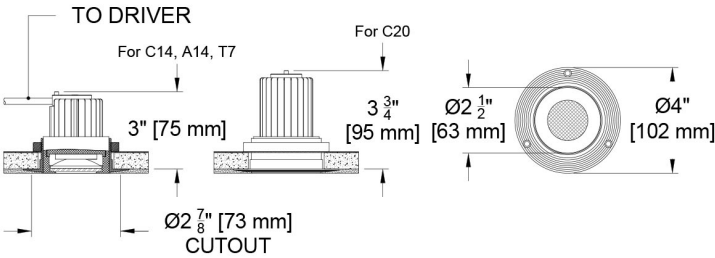
# Ceiling Cutouts and Dimensions

## Round Flangeless (Pin Hole)

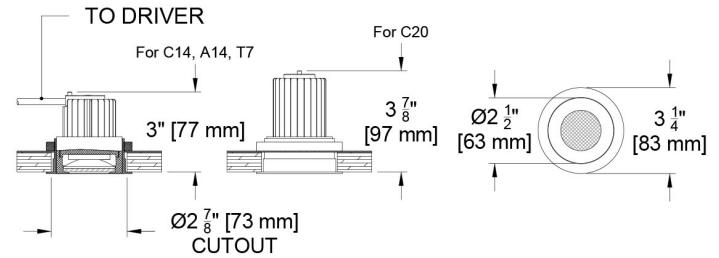
for Bracket Pan / New Pan

## Round Flanged (Pin Hole)

PH



(SCOD-R-PH-Z-BP)

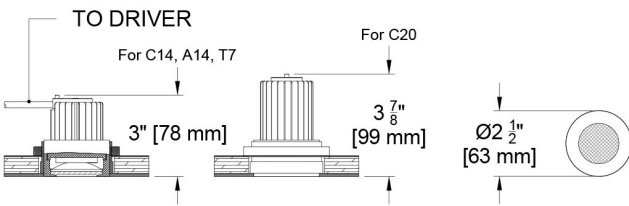


(SCOD-R-PH-F-BP)

## Round Panel Trim (Pin Hole)

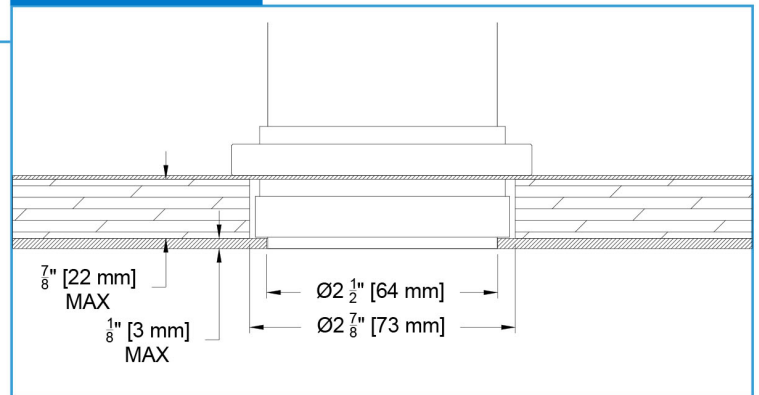
for Panel Mount

PH



(SCOD-R-PH-Z-PM)

## Panel Mount Detail (SCOD-R-PH-Z-PM)

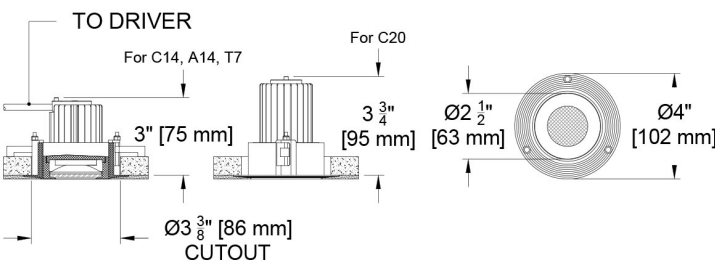


## Round Flangeless (Pin Hole)

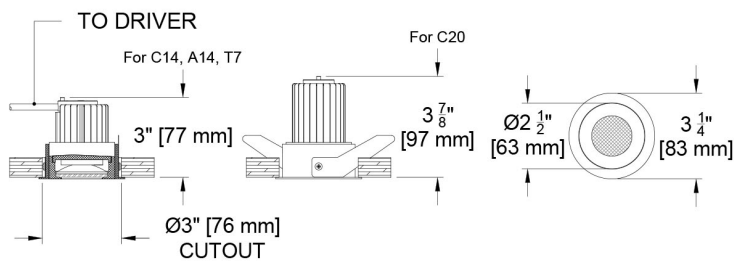
for Retrofit

## Round Flanged (Pin Hole)

PH



(SCOD-R-PH-Z-RM)



(SCOD-R-PH-F-RM)

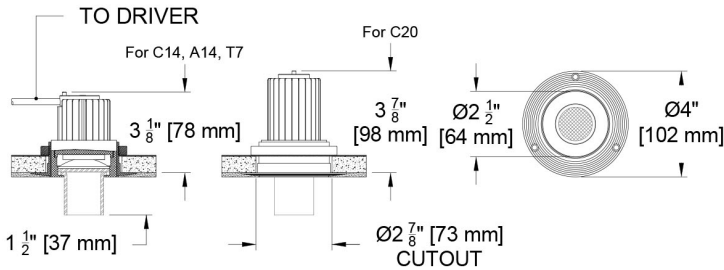
# Ceiling Cutouts and Dimensions

## Round Flangeless (Drop Glass)

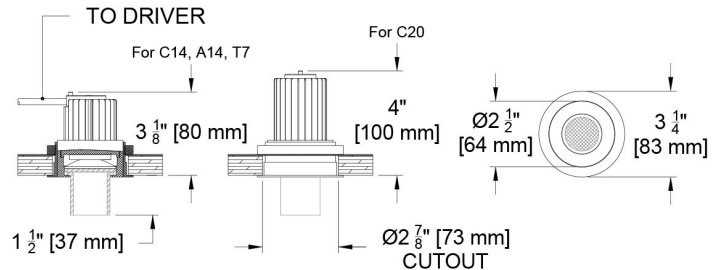
for Bracket Pan / New Pan

## Round Flanged (Drop Glass)

DG



(SCOD-R-DG-Z-BP)

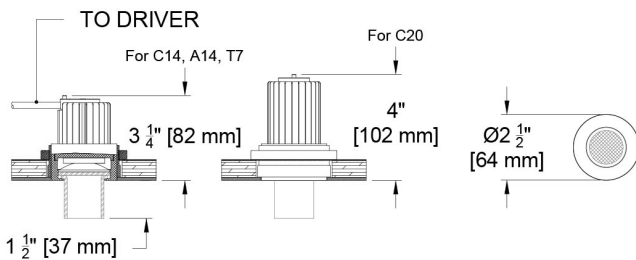


(SCOD-R-DG-F-BP)

## Round Panel Trim (Drop Glass)

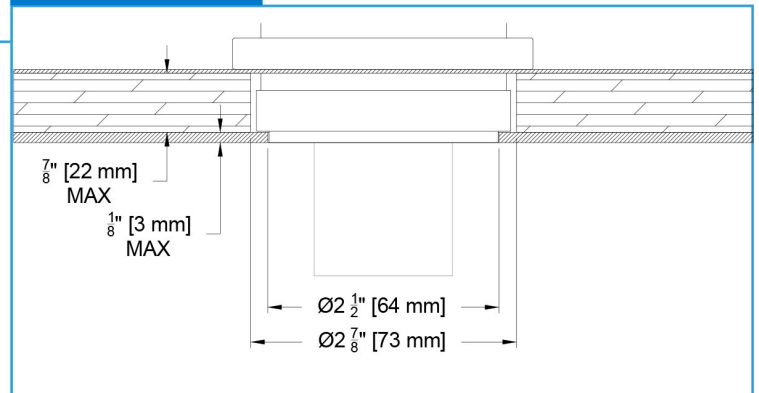
for Panel Mount

DG



(SCOD-R-DG-Z-PM)

### Panel Mount Detail (SCOD-R-DG-Z-PM)

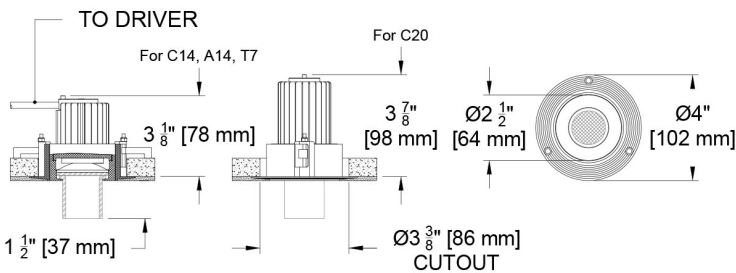


## Round Flangeless (Drop Glass)

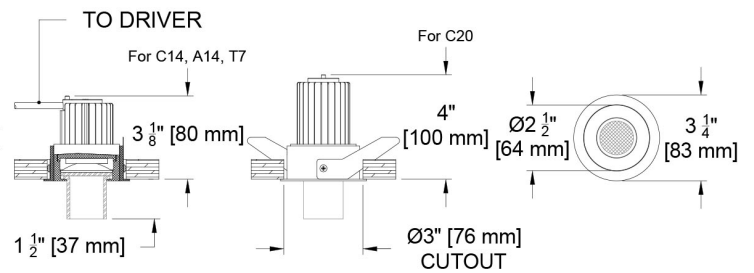
for Retrofit

## Round Flanged (Drop Glass)

PH



(SCOD-R-DG-Z-RM)



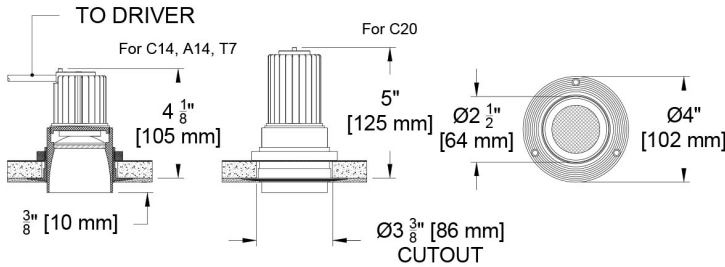
(SCOD-R-DG-F-RM)

# Ceiling Cutouts and Dimensions

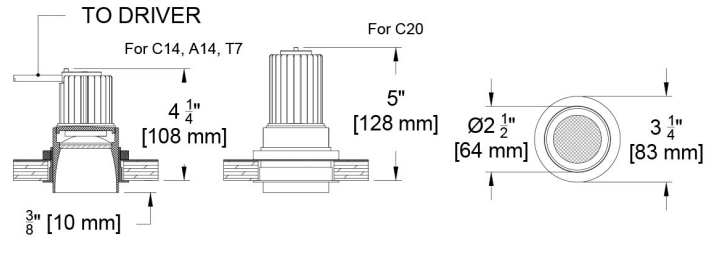
## Round Flangeless (Semi Recessed)

for Bracket Pan / New Pan

## Round Flanged (Semi Recessed)



(SCOD-R-SM-Z-BP)

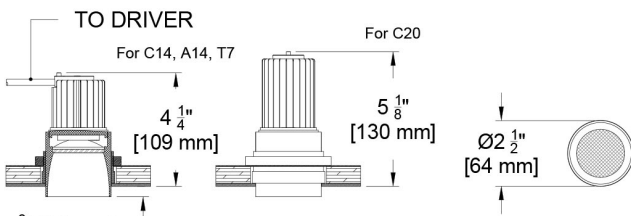


(SCOD-R-SM-F-BP)

## Round Panel Trim (Semi Recessed)

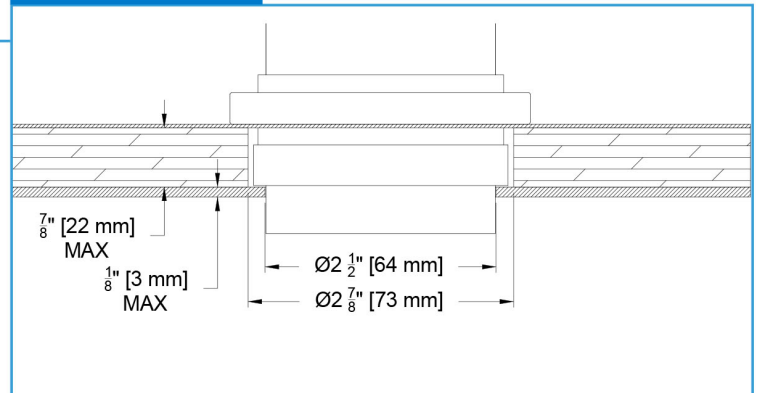


for Panel Mount



(SCOD-R-SM-Z-PM)

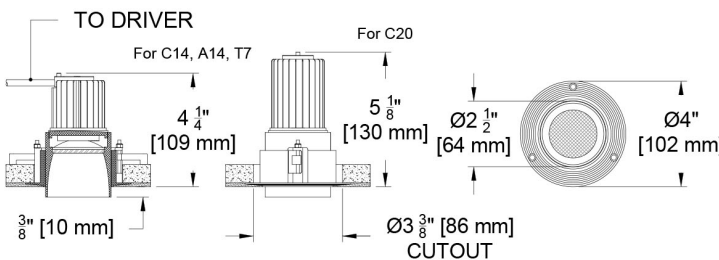
## Panel Mount Detail (SCOD-R-SM-Z-PM)



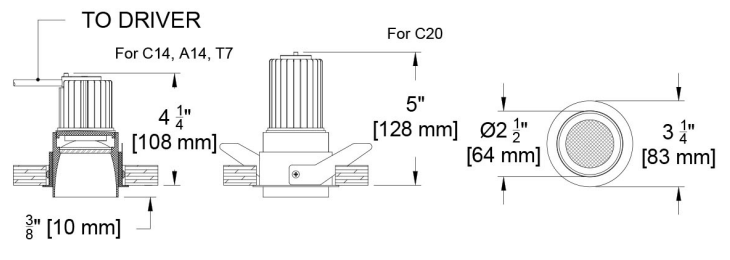
## Round Flangeless (Semi Recessed)

for Retrofit

## Round Flanged (Semi Recessed)



(SCOD-R-SM-Z-RM)

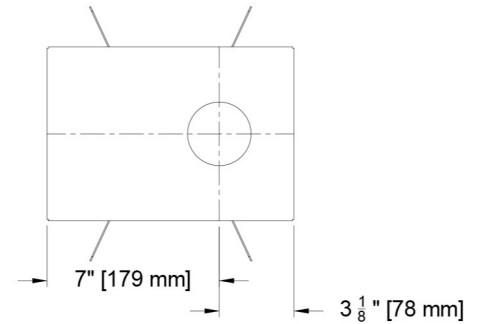
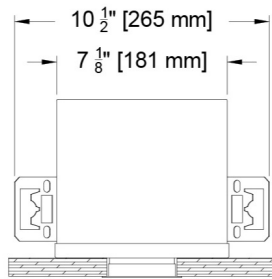
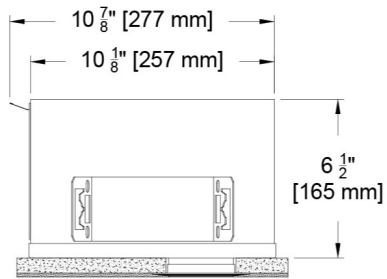


(SCOD-R-SM-F-RM)



# Ceiling Cutouts and Dimensions

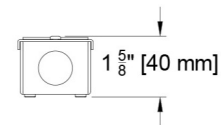
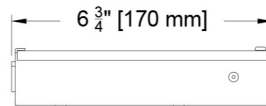
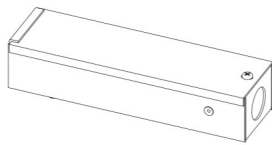
## Round Airtight (AT)



(SCOD-R-\_-\_-AT)

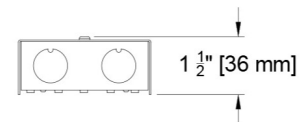
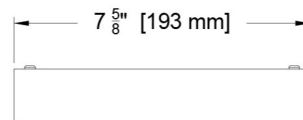
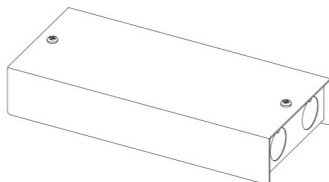
## Driver Enclosure for C1, LTP

INTEGRAL WITH FIXTURE



## Driver Enclosure for E1, E2, E3, E4, L3, LD

REMOTE MOUNTING REQUIRED

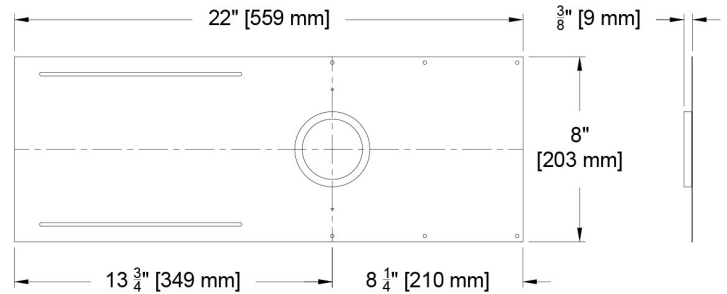


# Mounting Options

## New Pan

(SCOD-R\_-NP)

For new construction and attachment to bottom of studs

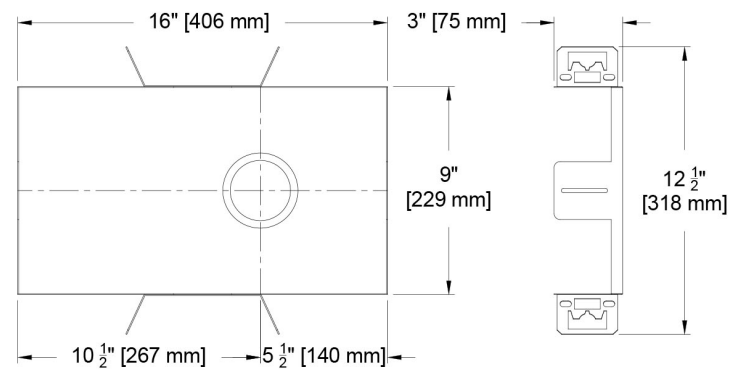
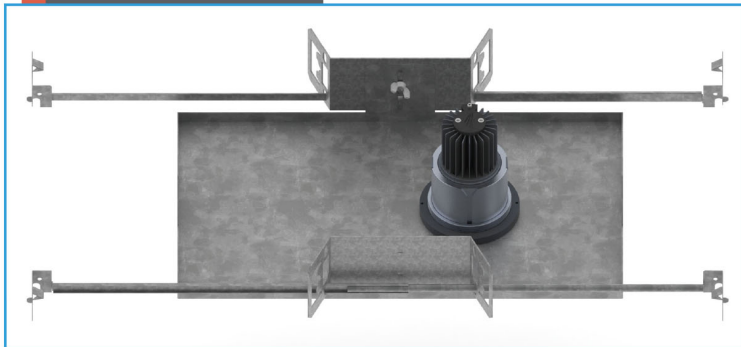


## Bracket Pan

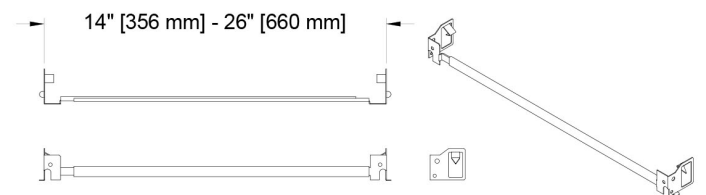
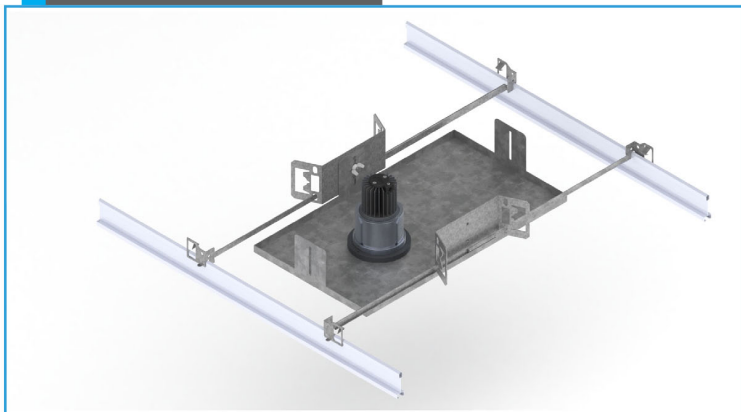
(SCOD-R\_-BP)

For new construction using hanger bars for attaching to studs or drop ceiling

### Option 1- Attaching to Studs



### Option 2- Attaching to Drop Ceiling



For Panel Mounting- See picture on page 3 and installation instructions for more detail.

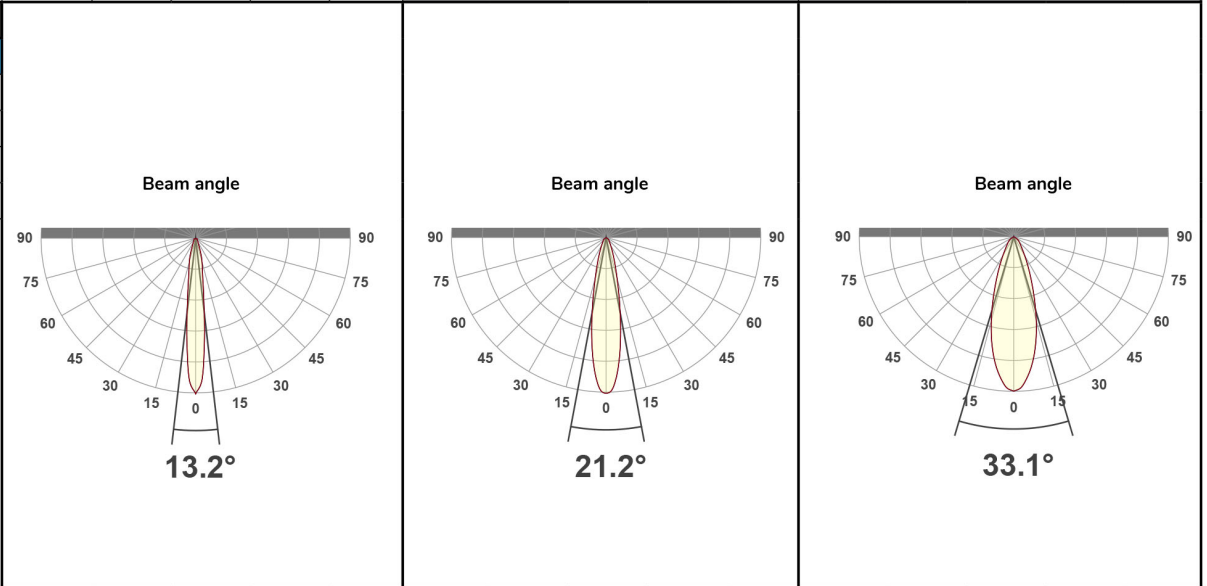
# Photometric Table

All data below are delivered lumens based on goniometer measurements of production representative product. All lumen values can vary +/- 10% from LED manufacturer rated nominal flux. The following combinations do not meet California Title 24 efficacy requirements - Shallow Regress - Tunable White (TW) 1840; Flat (pin hole) - C20, A14, TW1840; and all of Drop Glass

ROUND Beamspreads		10°					20°					30°					
Source	System watts (W)	Delivered Lumens (lm)	Lumens/Watt	UGR	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/Watt	UGR	Peak CD	10% Field	Delivered Lumens (lm)	Lumens/Watt	UGR	Peak CD	10% Field	
Deep Regress	Citizen C14	14	1014	72	30	6304	40°	1009	72	31	3599	61°	963	69	33	2136	73°
	Citizen C20	21	1372	65	30	7323	50°	1385	66	32	4911	61°	1323	63	34	2947	73°
	Ambient Dim A14	15	693	47	30	4486	37°	707	48	30	2825	56°	693	47	31	1628	71°
	Tunable White 1840	10	452	45	26	2634	32°	470	47	26	2178	41°	452	45	28	1080	71°
	Tunable White 2765	10	596	60	27	3401	33°	631	63	27	2970	40°	620	62	29	1468	71°
Shallow Regress	Citizen C14	14	1004	72	36	4113	46°	1002	72	35	3064	55°	971	69	36	1876	71°
	Citizen C20	21	1379	66	37	7030	42°	1377	66	36	4211	55°	1341	64	37	2562	71°
	Ambient Dim A14	15	657	45	34	4129	38°	683	47	34	2568	49°	682	47	34	1393	69°
	Tunable White 1840	10	418	42	30	2669	38°	411	41	29	1618	47°	411	41	29	874	66°
	Tunable White 2765	10	483	47	31	3126	38°	512	50	30	2000	48°	499	49	30	1058	66°
Pin Hole	Citizen C14	14	773	55	33	4173	42°	800	57	33	3020	51°	766	55	34	1649	71°
	Citizen C20	21	1055	50	33	5683	42°	1122	53	34	4186	51°	1051	50	35	2262	71°
	Ambient Dim A14	15	543	37	31	3622	37°	571	39	31	2407	47°	548	38	32	1248	68°
	Tunable White 1840	10	347	35	27	2072	33°	362	36	27	1630	42°	373	37	29	774	73°
	Tunable White 2765	10	441	45	28	2684	33°	475	48	28	2201	41°	473	48	30	959	74°
Drop Glass	Citizen C14	14	605	43	40	1472	53°										
	Citizen C20	21	816	39	40	1985	53°										
	Ambient Dim A14	15	425	29	38	1393	44°										
	Tunable White 1840	10	269	27	36	661	49°										
	Tunable White 2765	10	352	35	36	866	49°										

CCT Multiplier	
CCT	Citizen
2700	0.95
3000	1.00
3500	1.02
4000	1.03

All Measurements are delivered lumens based on 3000K unless otherwise noted below. Ambient dim measured at full output. Tunable White measurements at mid-point CCT of range (2700k for 1840 and 4500k for 2765). Deep Regress and Semi-Recessed has the same photometry. ISO cd Plots based on Shallow Regress with Ambient Dim source. Beams very based on aperture. Refer to photometry tab on product page for exact ISO cd plot and IES file. UGR values based on 4H 3H table cell. The following combinations do not meet CA Title 24 JA8 requirements: Shallow Regress - Tunable 1840; Flat - C20, A14, Tunable 1840; all sources in Drop Glass.

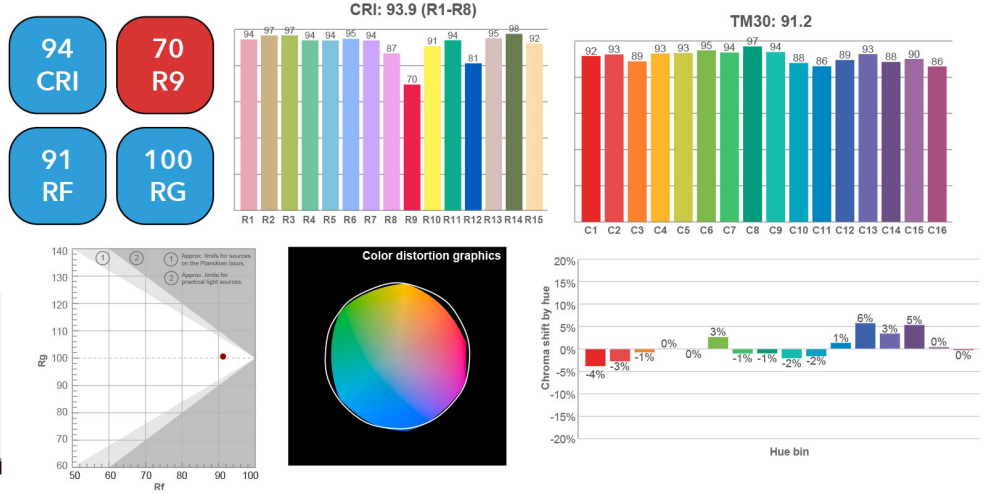


# Color Data

All data below are delivered lumens. Color and flux information based on goniometer measurements of production representative product. All values can vary +/- 10% from LED manufacturer data range as listed on their datasheet.

## Citizen Source C14, C20

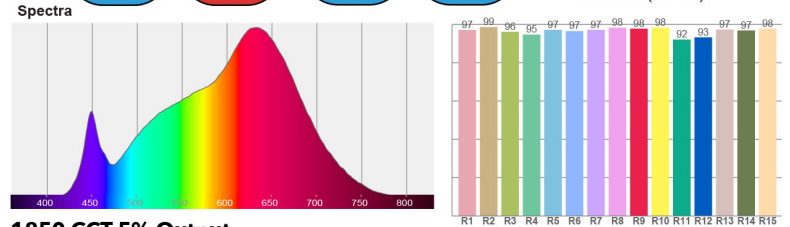
- <2 MacAdam Ellipse (<2 SDCM)
- 90+ CRI and RF
- 60+R9, Hue Bin 1



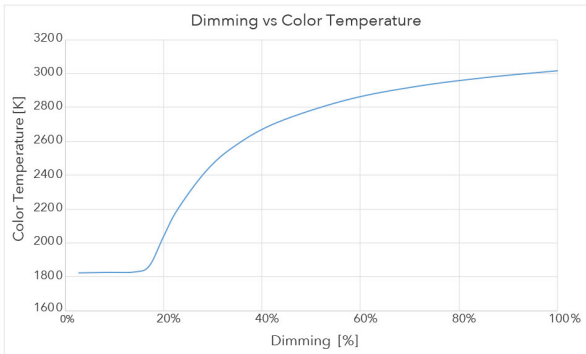
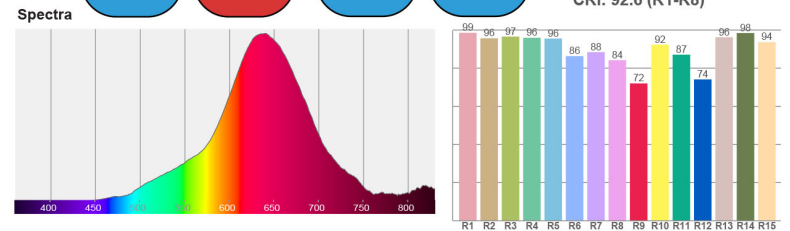
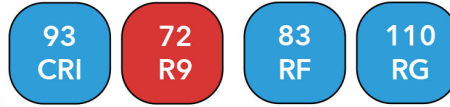
## Ambient Dim Source A14 (AD - 3000k to 1900k)

- <3 MacAdam Ellipse (<3 SDCM)
- 95+ CRI and RF
- 90+R9, Hue Bin 1
- Follows Black Body Locus through dimming range

### 3000 CCT Full Output



### 1850 CCT 5% Output





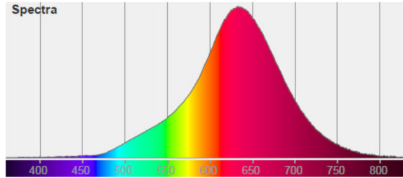
## Tunable White source T7 - CCT 1840 (1800k to 4000k)

- <3 MacAdam Ellipse (<3 SDCM)
- 94 CRI average across all CCTs
- 76 R9 average across all CCTs
- Available in both wired or wireless control

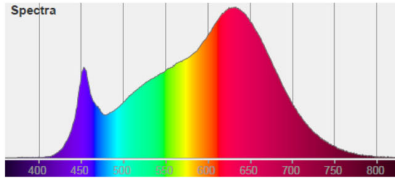
INR	TUNABLE WHITE - 1800-4000K						
	1800	2200	2500	2700	3000	3500	4000
<b>Color Temp</b>	1800	2200	2500	2700	3000	3500	4000
<b>System Watts</b>	10	10	10	10	10	10	10
<b>Delivered Lumens</b>	363	414	448	470	516	546	546
<b>Luminaire Efficiency</b>	38	44	47	49	54	58	58

Flux and Color data based on Deep Regress 20° measurement at 2700k. All other values are extrapolated from actual and analytical tests

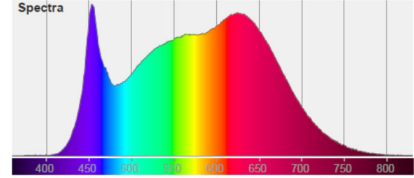
Spectral Power Distributions at all listed CCTs available upon request



1800K



3000K



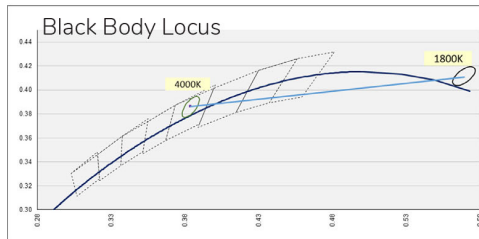
4000K

94  
CRI

76  
R9

89  
RF

97  
RG



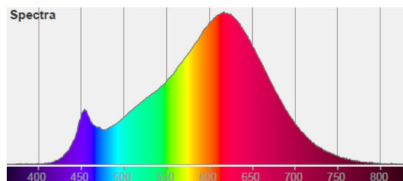
## Tunable White source T7 - CCT 2765 (2700k to 6500k)

- <3 MacAdam Ellipse (<3 SDCM)
- 94 CRI average across all CCTs
- 96 R9 average across all CCTs
- Available in both wired or wireless control

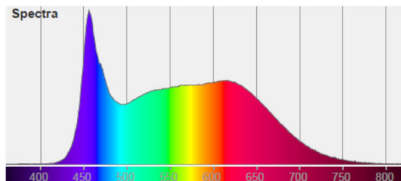
INR	TUNABLE WHITE - 2700-6500K								
	2700	3000	3500	4000	4500	5000	5500	6000	6500
<b>Color Temp</b>	2700	3000	3500	4000	4500	5000	5500	6000	6500
<b>System Watts</b>	10	10	10	10	10	10	10	10	10
<b>Delivered Lumens</b>	602	620	640	631	640	639	638	636	644
<b>Luminaire Efficiency</b>	63	65	67	66	67	67	67	67	68

Flux and Color data based on Deep Regress 20° measurement at 4500k. All other values are extrapolated from actual and analytical tests

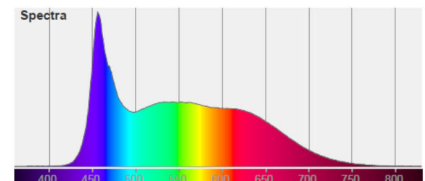
Spectral Power Distributions at all listed CCTs available upon request



2700K



5000K



6500K

96  
CRI

96  
R9

91  
RF

99  
RG

