



Features industry leading visual comfort, excellent uniform illumination over time, and patented installation flexibility. IntelliHue color changing capability combines the consistent quality of light from both Lightolier Calculite downlights with Color Kinetics, and provides millions of combinations of precise white and color to maximize potential of architectural appeal in application. Calculite plus Color Kinetics greatly expands product flexibility in addition to providing peace of mind with precision quality from a broad array of IntelliHue luminaires.

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cat.No: \_\_\_\_\_

Type: \_\_\_\_\_

Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_

Notes: \_\_\_\_\_

Complete luminaire = Frame + Engine + Trim + Accessories (optional)

### Frame

example: 6RN

Series	Installation	Voltage / Options
6R 6" Non-IC Round	N New construction	— Universal 120V/277V
	R Remodeler	— Universal 120V/277V

### Engine

example: C6L15CKMDMXU

Series	Lumens <sup>2</sup>	Color Kinetics	Beam	Dimming	Voltage
C6L					
C6L Calculite LED 6"	15 1500lm <sup>3</sup>	CK IntelliHue by Color Kinetics	M Medium (56°) W Wide (76°)	DMX Digital Multiplexing	U Universal 120V/277V

### Trim

example: C6RDLCCP

Series	Aperture	Style	Finish	Flange
C6				
C6 Calculite LED 6"	R Round	DL Downlight WW Wall Wash <sup>1</sup>	BK Black (anodized) CL Specular clear	CC Comfort clear CD Comfort clear diffuse CZ Champagne bronze
			WH White (matte)	— White (matte) P Polished (matches aperture) F Flangeless (requires CA6RFT)

### Accessories

CA6RFT	Mud-in ring for use in flangeless trim installations (ordered with a flangeless trim)
C6RVPWH	IP65 Rated vandal proof matte white accessory mounts onto flangeless trims (C6RDL*F) and new construction frame only

- Specify Wide (W) beam light engine only for Wall Wash trim option.
- Nominal Lumens at 25°C ambient temperature.
- Nominal output varies by color temperature/hue selected.

# C6RCK Calculite LED 6" gen 3

## Downlight & Wall Wash with IntelliHue

### Frame-in-kits

#### New Construction:

Galvanized stamped steel for dry or plaster ceilings. Preinstalled telescoping mounting bars from 13" to 24". For 4' distances, use 1/2" EMT, 1-1/2" x 1/2" U or C channel.

**Max ceiling thickness is 2.75" (70 mm) including PoE frame 4.88" (124 mm) plenum depth for installation.**

#### Emergency:

For reflector mounted emergency test switch add "EM" to end of catalog code (example: C6RDLCCCEM). Leave blank for ceiling mounted test switch. Reflector mounted test switch requires above ceiling access.

#### Patented install Mounting frame:

- Pre-installed mounting bars for fast and tool-less installs into T-grid & hat channel ceilings.
- Close-cut aperture design eliminates possibility of gap between ceiling opening and reflector flange.
- Separate wiring compartment for wiring frame to building allows inspection prior to light engine install.
- Simple plug-and-play connection between frame and light engine from below ceiling.

### Control

#### Interface:

Data Enabler Pro (DMX or Ethernet)

#### Control System:

Color Kinetics full range of controllers, including Light System Manager, Video System Manager Pro, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro

#### Remote Monitoring & Management:

Philips Activesite ready, works with Interact Landmark.

### Light engine

Quick connect power pack allow for easy installation and replacement from below ceiling with no need for additional wiring. This allows for:

- Frame and ceiling installation to be performed while still finalizing details such as lumen packages, CCT and control type.
- Easy replacement of electronics at end of life with minimal wasted material and labor required.
- Ease and upgradability of technology.
- Predicted 70% lumen maintenance to 78,000 hrs.
- Max operating ambient temperature 30°C.

### Optical systems

#### Comfort throughout the space:

True 50° physical cutoff and 45° reflected cutoff.

#### Quality of light:

2 SDCM ensures color consistency from fixture to fixture and over the luminaire's long lifetime.

Time tested 3-step technology from Color Kinetics now exclusively available in Calculite downlights assures color consistency between luminaires in the space.

#### Optibin

A proprietary binning optimization process that exceeds industry standards for chromaticity leading to uniformity and consistency of hue and color temperature

#### Chromasync

An advanced algorithm that delivers improved color consistency between luminaires by adjusting color points. Factory adjustments translates to less time calibrating in the field and more time commissioning for desired lighting effect.

#### IntelliHue

Brings unparalleled consistency in CRI and quality of both white and color LED light to Calculite downlights. Color-control technology enables use of millions of colors and shades of white light with pinpoint precision.

### Options and Accessories

#### Flangeless mud-in ring:

Use CA4RFT for use with flangeless plaster installations.

**Sloped ceilings:** Compatible with sloped ceiling adapters (see SCA spec sheet).

**Vandal Proof:** Use C4RVPWH for an IP65 rated vandal proof matte white accessory. Must be ordered with flangeless trim and new construction frame.

### Labels and Listings

- cULus listed for wet locations

- IP65 rated with vandal proof accessory

### Warranty



5 year limited warranty

Visit [Signify.com/warranties](https://www.signify.com/warranties) for more information on Signify's standard 5-year limited warranty on complete luminaire systems.

### Output

Beam Angle	Medium	Wide
Lumens @ 2700K	1601	1514
Lumens @ 4000K	1610	1524
Efficacy @ 2700K	72.9	68.8
Efficacy @ 4000K	71.0	69.9
CRI @ 2700K	88	88
CRI R9 @ 2700K	74	75
CRI @ 4000K	90	91
CRI R9 @ 4000K	59	61
LED Channels	Red-Orange, Green, Blue, Mint, Lime	

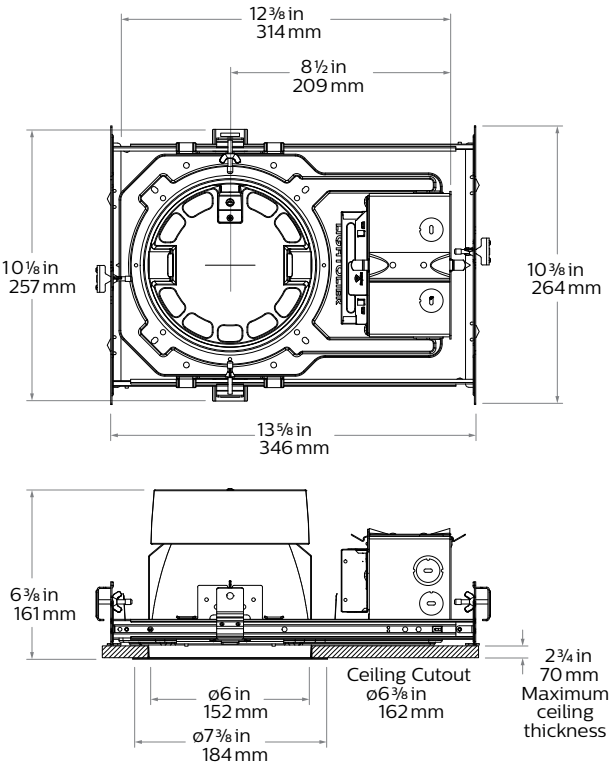
### Electrical

Input Voltage	100 to 277 VAC, auto-ranging, 50/60Hz
Power Consumption	24W
Input Current	120V @ 0.205A
	277V @ 0.087A
Power Factor	>0.9 @ 100 to 240 VAC
LED Channels	>0.85 @ 277 VAC

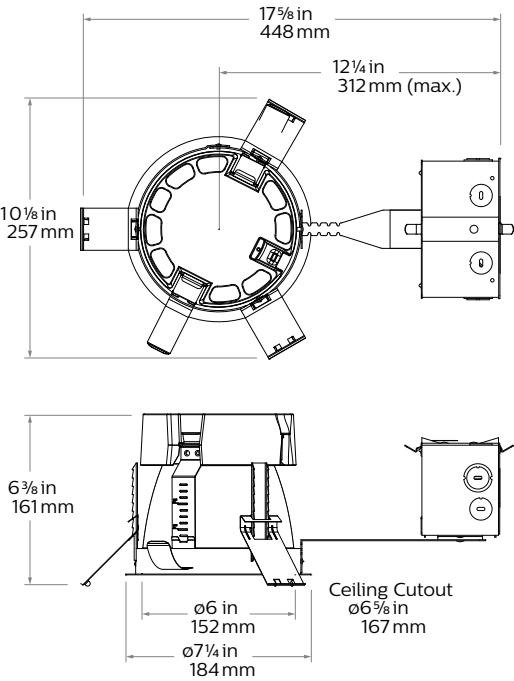
# C6RCK    Calculite LED 6" gen 3

Downlight & Wall Wash with IntelliHue

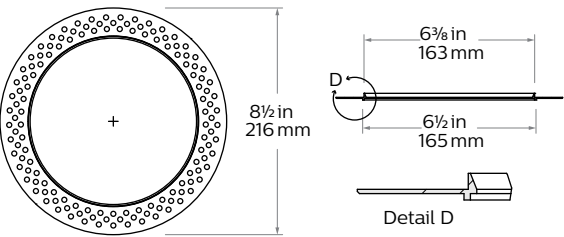
## New Construction (N)



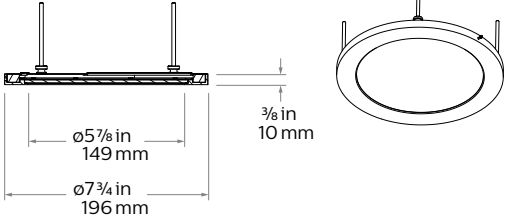
## Remodeler (R)



## Flangeless mud-in ring (CA6RFT) accessory



## Vandal Proof (VP) accessory



# C6RCK Calculite LED 6" gen 3

## Downlight & Wall Wash with IntelliHue

### Reflector



**Specular clear (CL):** Most specular and most efficient finish, delivers maximum photometric performance but can produce a mirror image effect of the interior space.



**Champagne bronze (CZ):** Semi-specular finish that softens light at the source of the reflector while providing a warmer reflector appearance (slightly warmer).



**Comfort clear (CC):** Semi-specular finish that softens the light at the source of the reflector and creates a subtle, even luminance from the reflector cone.



**White (WH):** (matte) Brightest illuminated aperture and provides the smoothest transition to most ceilings when off (white is only available with a white flange).



**Comfort clear diffuse (CD):** Slightly diffuse clear finish, that eliminates iridescence and reduces the mirror image effect inherent with specular finishes.



**Black (BK):** (matte) Specular finish that provides the lowest aperture brightness possible and significantly reduces source identification in a ceiling.



**Vandal proof (VP):** Provides an elegant solution for vandal resistant needs. One piece machined aluminum ring with impact resistant clear lens. Flangeless (F) flange must be ordered. Provides the luminaire with an IK10 impact and IP65 rating.

### Flange



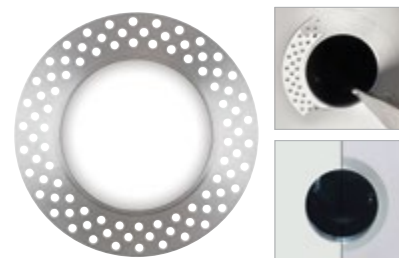
**White (-):** (matte) Provides the smoothest transition to ceilings when off.



**Polished (P):** (matches aperture) Produces a continuous look throughout the reflector (aperture matching).



**Flangeless (F):** (flush-mount) Creates a flush, virtually seamless transition from aperture to ceiling.



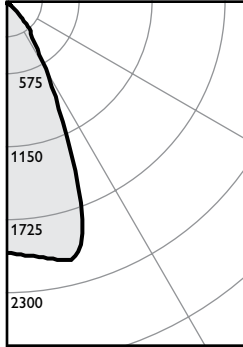
**Mud-in ring (FT):** Low profile, machined aluminum mud-in ring provides a raised rib to plaster up to and a 3/16" flange thickness. The ring is attached to the ceiling material as opposed to the frame-in kit to avoid conduction of heat and vibration which can cause yellowing or cracking of the plaster.

# C6RCK Calculite LED 6" gen 3

## Downlight & Wall Wash with IntelliHue

### Downlight, Medium beam, 1500lm Engine, 74.8 lm/W at 20.7W

#### Candela Curve



Frame: **6RN**  
Engine: **C6L15CKMDMXU**  
Trim: **C6RDLCL**

Output lumens: 1548 lms  
Input watts<sup>1</sup>: 20.7 W  
CRI: 90 min  
CCT<sup>2</sup>: 3500K  
Spacing Crit.: 0.84

#### Zonal summary

Zone	Lumens	%Luminaire
0-30	1223	79.0%
0-40	1458	94.2%
0-60	1543	99.7%
0-90	1548	100.0%

Angle	Mean CP	Lumens
0	1982	
5	2010	
10	2058	195
15	2075	
20	1689	549
25	1039	
30	601	479
35	366	
40	245	236
45	100	
50	9	82
55	3	
60	2	3
65	1	
70	1	1
75	0	
80	0	0
85	0	
90	0	

#### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	79	4.2'
6'	55	5.0'
7'	40	5.9'
8'	31	6.7'
9'	24	7.6'

\* Beam diameter is where foot-candles drop to 50% of maximum.

#### Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	72.0	0.92
6'	47.0	0.60
7'	34.0	0.43
8'	28.0	0.36
9'	22.0	0.29

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: **74.8 lm/w**  
Report<sup>3</sup>: STMR-95-I

#### Adjustment factors

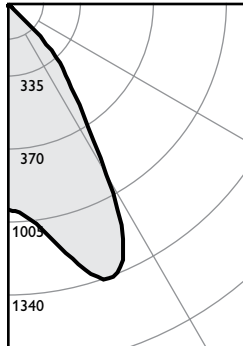
Finish	CCT
CL = 100%	2700K = 103%
CC = 95%	3000K = 101%
CD = 87%	3500K = 100%
CZ = 63%	4000K = 103%
WH = 87%	5000K = 96%
BK = 57%	6500K = 88%

#### Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	106	106	100	100	100
1	114	111	109	107	109	105	105	102	102	101	99	94	101	99	94	94	94
2	109	104	100	97	102	96	96	94	94	96	92	88	96	92	88	88	88
3	104	98	93	89	96	89	89	87	87	91	86	83	91	86	83	83	83
4	99	92	87	83	91	82	82	81	81	87	80	78	87	80	78	78	78
5	94	87	81	77	86	77	77	76	76	84	75	73	82	75	73	73	73
6	90	82	76	72	81	72	72	71	71	78	71	69	78	71	69	69	69
7	86	77	72	68	77	68	68	67	67	74	67	65	74	67	65	65	65
8	82	73	68	64	73	64	64	63	63	71	63	62	71	63	62	62	62
9	79	70	64	60	69	60	60	59	59	67	60	58	67	60	58	58	58
10	75	66	61	57	66	57	57	56	56	64	57	55	64	57	55	55	55

### Downlight, Wide beam, 1500lm Engine, 70.7 lm/W at 20.7W

#### Candela Curve



Frame: **6RN**  
Engine: **C6L15CKWDMXU**  
Trim: **C6RDLCL**

Output lumens: 1464 lms  
Input watts<sup>1</sup>: 20.7 W  
CRI: 90 min  
CCT<sup>2</sup>: 3500K  
Spacing Crit.: 1.24

#### Zonal summary

Zone	Lumens	%Luminaire
0-30	974	66.5%
0-40	1327	90.6%
0-60	1459	99.7%
0-90	1464	100.0%

Angle	Mean CP	Lumens
0	792	
5	824	
10	923	81
15	1028	
20	1077	285
25	1035	
30	835	449
35	566	
40	381	349
45	173	
50	16	127
55	3	
60	2	4
65	1	
70	1	1
75	0	
80	0	0
85	0	
90	0	

#### Single unit data

Height to lighted plane	Initial center beam foot-candles	Beam diameter (ft)*
5'	32	6.2'
6'	22	7.4'
7'	16	8.7'
8'	12	9.9'
9'	10	11.2'

\* Beam diameter is where foot-candles drop to 50% of maximum.

#### Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq. ft.
5'	59.0	0.92
6'	43.0	0.60
7'	31.0	0.43
8'	25.0	0.36
9'	21.0	0.29

38' x 38' x 10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Efficacy: **70.7 lm/w**  
Report<sup>3</sup>: STMR-95-I

#### Adjustment factors

Finish	CCT
CL = 100%	2700K = 103%
CC = 95%	3000K = 101%
CD = 87%	3500K = 100%
CZ = 63%	4000K = 103%
WH = 87%	5000K = 96%
BK = 57%	6500K = 88%

#### Coefficients of utilization

Ceiling	80%				70%				50%				30%				0%
Wall	70	50	30	10	50	10	50	10	50	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%																
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100	106	106	100	100	100
1	113	110	108	105	108	104	104	104	104	100	98	93	100	98	93	93	93
2	107	102	98	95	101	94	94	97	97	91	84	86	94	89	86	86	86
3	102	95	90	86	93	85	85	91	91	84	77	79	88	82	79	79	79
4	96	88	82	78	87	78	78	85	85	77	70	68	83	76	73	73	73
5	91	82	76	71	81	71	71	79	79	70	63	61	78	70	68	68	68
6	86	77	70	66	76	65	65	74	74	65	57	55	73	65	63	63	63
7	81	71	65	61	71	61	61	69	69	60	51	49	68	60	58	58	58
8	77	67	61	56	66	56	56	65	65	56	47	45	64	56	54	54	54
9	73	63	56	52	62	52	52	61	61	52	43	41	60	52	50	50	50
10	69	59	53	49	58	49	49	58	58	48	39	37	57	48	47	47	47

1. Wattage controlled to within 65%.

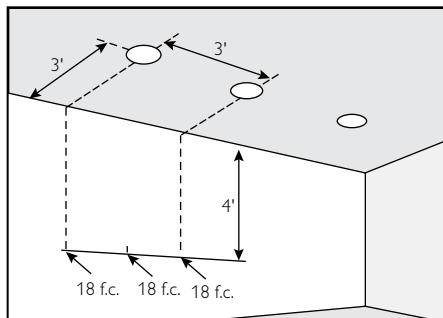
2. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

# C6RCK Calculite LED 6" gen 3

## Downlight & Wall Wash with IntelliHue

### Spacing

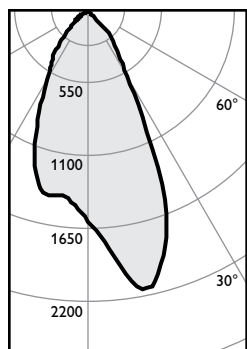


#### Adjustment factors

Finish	CCT
CL = 100%	2700K = 103%
CC = 95%	3000K = 101%
CD = 87%	3500K = 100%
CZ = 63%	4000K = 103%
WH = 87%	5000K = 96%
BK = 57%	6500K = 88%

### Wall wash, 1500lm Engine, 68.0 lm/W at 21.3W

#### Candela Curve



Frame: **4RN**  
Engine: **C4L15CKWDMXU**  
Trim: **C4RWWCL**

Output lumens: 1447 lms  
Input watts: 21.3 W  
CRI: 90 min  
CCT<sup>1</sup>: 3500K

Efficacy: **68.0 lm/w**  
Report<sup>2</sup>: STMR-95-1

#### Multiple unit data

##### Footcandles on wall

	2' from wall			
	3' on ctr.			
Distance from ceiling in feet	1	5	6	5
2	15	16	16	15
3	22	23	22	
4	26	27	26	
5	25	26	25	
6	22	24	22	
7	19	20	19	
8	16	17	16	
9	14	14	14	
10	12	12	12	
12	11	11	11	
14	10	10	10	

#### Multiple unit data

##### Footcandles on wall

	3' from wall			
	3' on ctr.			
Distance from ceiling in feet	1	5	5	5
2	11	11	11	
3	16	16	16	
4	18	18	18	
5	18	18	18	
6	16	17	16	
7	14	15	14	
8	13	13	13	
9	11	11	11	
10	10	10	10	
12	8	9	8	
14	7	8	7	

#### Multiple unit data

##### Footcandles on wall

	3' from wall			
	4' on ctr.			
Distance from ceiling in feet	1	3	3	3
2	6	6	6	
3	10	10	10	
4	12	12	12	
5	13	13	13	
6	12	12	12	
7	12	12	12	
8	12	12	12	
9	11	11	11	
10	10	10	10	
12	9	9	9	
14	8	8	8	

1. Wattage controlled to within 65%.

2. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

