

# ColorReach TR Powercore

Next-generation LED floodlight for entertainment environments



## ColorReach TR Powercore Next-generation LED floodlight for entertainment environments

ColorReach<sup>™</sup> TR Powercore is the road-ready version of our flagship, high-performance floodlight, specifically designed to withstand the rigors of the temporary and touring markets. This rental-friendly fixture offers ease of installation and control, along with the ability to produce millions of saturated colors without gels or filters. With unprecedented lumen output and light projection, this powerful fixture represents the next generation in set and stage lighting.

- Integrates Powercore<sup>®</sup> technology Powercore technology rapidly, efficiently, and accurately controls power output to ColorReach TR Powercore fixtures directly from line voltage. Philips Data Enabler merges line voltage and control data and delivers them to fixtures over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Unparalleled light output With an output of over 5,200 lumens, light projection of over 500 feet, and a 5° native beam angle, ColorReach TR Powercore is the first LED fixture powerful enough to replace multiple flood and wash fixtures for brilliant large-scale and long-throw applications.
- Entertainment-ready High output, colorchanging light with no gels to carry or moving parts to maintain.
- Stage-friendly accessories ColorReach TR Powercore is freestanding with optional accessory holder. Lightweight tubular yoke supports mounting to a pipe, truss, or stand. Available barndoors, top hats, half top hats, egg crate

louvers, and gel frames slide into accessory holder for easy insertion and removal.

- Interchangeable Lenses Spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5° x 17° support a variety of photometric distributions. Simply slot spread lenses behind accessory holder and secure with built-in toggle lens retainers.
- Simple fixture positioning in permanent installations — Rugged, slim-profile mounting bracket offers pre-tapped holes for bolting fixture to a substrate. Mounting bracket allows fixture rotation through a full 360°. Side locking T-Handle bolt reliably secures fixture.
- Universal power input range ColorReach TR Powercore accepts a universal power input range of 100 to 240 VAC, allowing simple, locationindependent installation.
- Industry-leading controls ColorReach TR Powercore works seamlessly with the complete Philips line of controllers, including iPlayer 3 and Light System Manager, as well as third-party DMX controllers.



## Unique split design supports diffuser combinations Each half of the fixture is individually addressable and controllable, allowing

you to use different spread lenses on each fixture half to illuminate different areas with different colors and effects.

## ColorReach TR Powercore Accessories

Designed specifically for ColorReach TR Powercore fixtures, accessories provide additional options for controlling light output.

The Accessory Holder screws to the front of the fixture housing, features a flat base which allows the fixture to stand safely on the ground, and includes an area with four threaded posts for attaching a Data Enabler. The Accessory Holder is required for installing and securing Spread Lenses and other accessories. Spread Lenses slot in between the Accessory Holder and the top and bottom halves of the fixture housing, and are secured by flipping down the Accessory Holder's built-in toggle lens retainers. Gel Frames slide into the Accessory Holder's back slot, while Top Hats, Half Top Hats, Barndoors, and Egg Crate Louvers slide into the front slot. This arrangement allows simple and rapid fixture set-up with multiple accessories.

The Accessory Holder includes a yoke, removable pin, and hardware for mounting ColorReach TR Powercore on trusses, pipes, or stands.





Half Top Hat



Top Hat



BarnDoor



Egg Crate Louver



## **Photometrics**

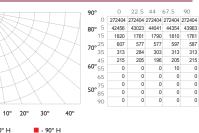
Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at www.colorkinetics.com/support/ies.

## ColorReach TR Powercore No lens, full unit

LED	Lumens	Watts	Efficacy
RGB	5211	290	17.97



## **Polar Candela Distribution**



## Illuminance at Distance

	Center Beam fc	Beam Width
1.0 ft	17025 fc	0.4 ft 0.4 ft
.0 ft	4256 fc	0.8 ft 0.8 ft
12.0 ft	1892 fc	1.1 ft 1.2 ft
6.0 ft	1064 fc	1.5 ft 1.6 ft
0.0 ft	681 fc	1.9 ft 1.9 ft
24.0 ft	473 fc	2.3 ft 2.3 ft

522 ft (159.1 m) 1 fc maximum distance

Vert. Spread: 5.4° Horiz. Spread: 5.6°

### Zonal Lumen

- 0° H

Cd: 0

45,401

90.801

136.202

181,603

227,003

272.404

VA: 0°

Zone	Lumens '	% Lamp %	6 Luminaire
0-30	4,850.5	93.1%	93.1%
0-40	5,049.8	96.9%	96.9%
0-60	5,211.4	100%	100%
60-90	0	0%	0%
0-90	5,211.4	100%	100%
90-180	0	0%	0%
0-180	5,211.4	100%	100%
Total E	fficiency:	100%	

## Coefficients Of Utilization - Zonal Cavity Method

0

0

22.5 44 67.5 90

 1484/6
 1484/6
 1484/6
 1484/6

 19715
 21231
 22532
 23251

 894
 919
 935
 911

 293
 301
 309
 298

 142
 146
 154
 15

 106
 106
 110
 111

148476 148476 148476 148476 148476

0

19284 902

309 138 98

0 0 0

0 0

0 0

									Effe	ctive F	loor	Cavity	y Refle	ectan	ce: 20	1%
RCC %:	80			7	0			50			30			10		0
RW %: 70 5	0 30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0 1.19 1.	19 1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1 1.16 1.	14 1.13	1.11	1.14	1.12	1.11	.99	1.08	1.07	1.06	1.05	1.04	1.03	1.01	1.01	1.00	.98
2 1.13 1.													1.00			.97
3 1.11 1.										1.01	.99		.99			.95
4 1.08 1.										1.00	.98		.98			.94
5 1.06 1.			1.05					.97		.98	.96		.97			.93
6 1.05 1.			1.03			.92	.98		.94	.97		.93		.94		.92
7 1.03 .			1.02			.91	.97		.92	.96	.94			.93		.91
	97 .94		1.01	.96			.95			.95	.92		.94			.90
9 1.00 .			.99			.90			.90	.94				.91	.90	.89
10 .99 .	94 .91	.89	.98	.94	.91	.89	.93	.91	.89	.93	.91	.89	.92	.90	.89	.88
DOO 0/- 0-11					-						D	00.0				

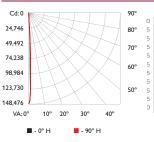
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio

## ColorReach TR Powercore No lens, half unit

Lumens	Watts	Efficacy
2622	146	17.96
		LumensWatts2622146



### **Polar Candela Distribution**



### Illuminance at Distance

_	Center Beam fc	Beam Width
4.0 ft	9280 fc	0.3 ft 0.4 ft
3.0 ft	2320 fc	0.7 ft 0.8 ft
12.0 ft	1031 fc	1.0 ft 1.2 ft
16.0 ft	580 fc	1.3 ft 1.6 ft
20.0 ft	371 fc	1.7 ft 2.0 ft
24.0 ft	258 fc	2.0 ft 2.3 ft

385 ft (117.3 m) 1 fc maximum distance

Vert. Spread: 4.8° Horiz. Spread: 5.6°

## Zonal Lumen

Zone	Lumens	% Lamp	% Luminaire
0-30	2,442.8	93.2%	93.2%
0-40	2,542.5	97%	97%
0-60	2,621.9	100%	100%
60-90	0	0%	0%
0-90	2,621.9	100%	100%
90-180	0	0%	0%
0-180	2.621.9	100%	100%

## Coefficients Of Utilization - Zonal Cavity Method

											Effe	ctive I	loor	Cavity	/ Refle	ectan	ce: 20	)%
RCC %:		8	0			7	0			50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0 1	.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
			1.13		1.14			.99	1.08						1.01	1.01	1.00	.98
2 1	.13	1.10	1.08	1.06	1.11	1.09	1.06	.97	1.06	1.04	1.02	1.03	1.01	1.00	1.00	.99	.98	.97
3 1	.11	1.07	1.04		1.09				1.03		.99	1.01	.99	.98	.99	.98	.97	.95
4 1	.08	1.04	1.01	.99	1.07	1.03	1.00	.95	1.01	.99	.97	1.00	.98	.96	.98	.96	.95	.94
5 1	.06	1.02		.96	1.05		.98	.93	1.00	.97	.95	.98	.96	.94	.97	.95	.94	.93
6 1	.04	1.00	.97	.94	1.03	.99	.96	.92	.98	.95	.94	.97	.95	.93	.96	.94	.93	.92
7 1	.03	.98	.95	.93	1.02	.98	.95	.91	.97	.94	.92	.96	.93	.92	.95	.93	.91	.91
8 1	.01	.97	.94	.92	1.01	.96	.93	.90	.95	.93	.91	.95	.92	.91	.94	.92	.90	.90
9 1	.00	.95	.92	.90	.99	.95	.92	.89	.94	.92	.90	.94	.91	.90	.93	.91	.90	.89
10	.99	.94	.91	.89	.98	.94	.91	.89	.93	.91	.89	.93	.90	.89	.92	.90	.89	.88

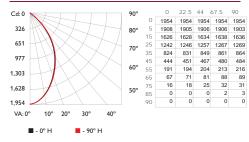
For lux multiply fc by 10.7



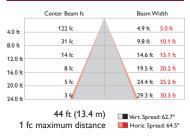
LED Lumens Watts Efficacy RGB 2395 146 16.4



### **Polar Candela Distribution**



### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Lamp	% Luminair
0-30	1,208.9	50.5%	50.5%
0-40	1,736.0	72.5%	72.5%
0-60	2,284.4	95.4%	95.49
60-90	110.8	4.6%	4.6%
0-90	2,395.2	100%	100%
90-180	0	0%	09
0-180	2,395.2	100%	1009
Total E	fficiency:	100%	

## Coefficients Of Utilization - Zonal Cavity Method

											Effe	ctive F	loor	Cavity	/ Refle	ectan	ce: 20	)%
RCC %:		8	0			7	0			50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11		1.06		1.02		1.02	1.00
1	1.12	1.09	1.06	1.03	1.10	1.07	1.04	.91	1.03	1.00	.98	.99	.97	.95	.95	.94	.93	.91
2	1.05	.99	.94	.90	1.03	.97	.93	.82	.94	.90	.87	.91	.88	.85	.88	.85		.81
3	.98	.90	.84	.79	.96	.89	.83	.74	.86	.81	.77	.84	.80	.76	.81	.78	.75	.73
4	.92	.83	.76	.71	.90	.81	.75	.67	.79	.74	.70	.77	.72	.69	.75	.71	.68	.66
5	.86	.76	.69	.64	.84	.75	.68	.61	.73	.67	.63	.71	.66	.62	.70	.65	.62	.60
6	.81	.70	.63	.58	.79	.69	.63	.56	.68	.62	.57	.66	.61	.57	.65	.60	.56	.55
7	.76	.65	.58	.53	.74	.64	.57	.52	.63	.57	.52	.62	.56	.52	.60	.55	.52	.50
8	.72	.60	.53	.48	.70	.60	.53	.48	.59	.52	.48	.57	.52	.48	.56	.51	.48	.46
9	.68	.56	.49	.45	.66	.56	.49	.44	.55	.49	.44	.54	.48	.44	.53	.48	.44	.43
10	.64	.53	.46	.42	.63	.52	.46	.41	.51	.45	.41	.50	.45	.41	.50	.45	.41	.40
RCC %:	Ceilir	ng ref	lectar	nce pe	ercent	age,	RW %	6: Wa	ll refle	ctan	ce per	centa	ge, R	CR: F	Room	cavity	y ratio	

## ColorReach TR Powercore 40° Spread Lens

RGB 2418	146	16.56



### **Polar Candela Distribution**

0

5

5

5

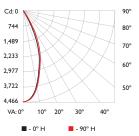
5

62 30 64 32

7 9 0

0

0 0



#### 22.5 44 67.5 90 0 4466 4466 4466 4466 4417 4417 4410 4412 2977 3023 3069 3082 4466 4260 4.0 ft 2953 8.0 ft 1390 1438 1477 1493 1361 427 441 473 149 496 159 50' 163 12.0 ft

7€ 4' 1€

#### Center Beam fc Beam Width 280 fc 2.8 ft 2.9 ft 70 fc 5.6 ft 5.9 ft 31 fc 8.4 ft 8.8 ft 18 fc 11.2 ft 11.8 ft 16.0 ft 11 fc 14.0 ft 14.7 ft 20.0 ft 8 fc 16.8 ft 17.7 ft 24.0 ft

67 ft (20.4 m) Vert. Spread: 38.6° 1 fc maximum distance

Illuminance at Distance

Horiz. Spread: 40.4°

### Coefficients Of Utilization - Zonal Cavity Method

											Effe	ctive F	loor	Cavity	y Refl	ectan	ce: 20	0%
RCC %:		8	0			7	0			50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.14	1.11	1.09	1.06	1.11	1.09	1.07	.94		1.03	1.01	1.01	1.00	.98	.98	.97	.96	.94
2	1.08	1.04		.96	1.06		.98	.88	.99		.93	.96	.93	.91	.93	.91	.89	.88
3	1.03	.97	.92	.88	1.01	.96	.91	.83	.93	.89	.86	.91	.88	.85	.88	.86	.84	.82
4	.98	.91	.86	.82	.97	.90	.85	.78	.88			.86	.82	.79	.84	.81	.79	.77
5	.94	.86	.80	.76	.92	.85	.80	.74	.83	.79	.75	.82	.78	.75	.80	.77	.74	.73
6	.90	.81	.76	.72	.88	.81	.75	.70	.79		.71	.78	.74	.70	.76	.73	.70	.69
7	.86	.77	.71	.67	.85	.76	.71	.66	.75	.70	.67	.74	.70	.67	.73	.69	.66	.65
8	.82	.73	.68	.64	.81	.73	.67	.63	.72		.63	.71	.66	.63	.70	.66	.63	.62
9	.79	.70	.64	.61	.78	.69	.64	.60	.68	.64	.60	.68	.63	.60	.67	.63	.60	.59
10	.76	.67	.61	.58	.75	.66	.61	.57	.65	.61	.57	.65	.60	.57	.64	.60	.57	.56
RCC %:	Ceilir	ng ref	lectar	nce pe	ercent	age,	RW %	6: Wa	ll refle	ectano	ce per	centa	ge, R	CR: F	Room	cavity	/ ratio	

For lux multiply fc by 10.7

Zonal Lumen

1,877.1 77.6% 2,183.0 90.3%

2,367.3 97.9% 50.7 2.1%

Zone

0-30

0-40 0-60 60-90

0-90 2,418.0

90-180 0 0% 0-180 2,418.0 100%

Total Efficiency: 100%

Lumens % Lamp % Luminaire

100%

77.6% 90.3%

97.9% 2.1%

100%

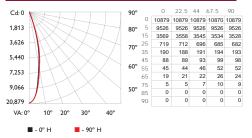
0% 100%

## ColorReach TR Powercore 23° Spread Lens

LED	Lumens	Watts	Efficacy
RGB	2415	146	16.54



### **Polar Candela Distribution**



### Illuminance at Distance

	Center Beam fc	Beam Width
4.0 ft	680 fc	1.7 ft 1.7 ft
8.0 ft	170 fc	3.3 ft 3.3 ft
12.0 ft	75 fc	5.0 ft 5.0 ft
16.0 ft	43 fc	6.6 ft 6.6 ft
20.0 fr	27 fc	8.3 ft 8.3 ft
24.0 ft	19 fc	9.9 ft 9.9 ft

105 ft (32 m) Vert. Spread: 23.4° 1 fc maximum distance Horiz. Spread: 23.3°

## Zonal Lumen

Lumens	% Lamp	% Luminaire
2,142.3	88.7%	88.7%
2,268.3	93.9%	93.9%
2,385.2	98.8%	98.8%
29.9	1.2%	1.2%
2,415.1	100%	100%
0	0%	0%
2,415.1	100%	100%
fficiency:	100%	
	2,142.3 2,268.3 2,385.2 29.9 2,415.1 0 2,415.1	2,268.3 93.9% 2,385.2 98.8% 29.9 1.2% 2,415.1 100% 0 0%

	Coefficients	<b>Of Utilization</b>	- Zonal	Cavity	Method
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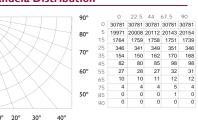
											Effe	ctive I	Floor	Cavit	y Refle	ectan	ce: 20	)%
RCC %:		8	0			7	0			50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.15	1.12	1.10	1.08	1.12	1.10	1.08	.96	1.06	1.05	1.03	1.03	1.01	1.00	.99	.98	.97	.96
2	1.10	1.06	1.03	1.00	1.08	1.05	1.02	.92	1.02	.99	.97	.99	.97	.95	.96	.95	.93	.92
3	1.06	1.01	.97	.94	1.05		.96	.89	.97	.94		.95	.93	.91	.93	.91	.89	.88
4	1.03	.97	.93	.89	1.01	.96	.92	.85	.94	.90	.88	.92	.89	.87	.90	.88	.86	.85
5	.99	.93	.88	.85	.98	.92	.88	.82	.90	.87	.84	.89	.86	.83	.87	.85	.83	.81
6	.96	.89	.85	.82	.95	.89	.84	.79	.87	.84	.81	.86	.83	.80	.85	.82	.80	.79
7	.93	.86	.82	.78	.92	.86	.81	.77	.84	.81	.78	.83	.80	.77	.82	.79	.77	.76
8	.90	.83	.79		.89	.83	.79		.82			.81	.77	.75	.80	.77	.75	.74
9	.88	.81	.76	.73	.87	.80	.76	.72	.79	.76		.79	.75		.78	.75	.73	.72
10	.85	.78	.74	.71	.85	.78	.74	.70	.77	.73	.71	.76	.73	.71	.76	.73	.70	.69
RCC %:	Ceilir	na ref	lectar	nce pe	ercent	age.	RW %	6: Wa	ll refle	ctan	e per	centa	ae. R		Room	cavity	v ratio	

## ColorReach<sup>™</sup> Powercore TR 13° Spread Lens

LED	Lumens	Watts	Efficacy
RGB	2423	146	16.59



## **Polar Candela Distribution**



## 10°

91.1% 95.4%

99.3% 0.7% 100%

0% 100%

■ - 0° H - 90° H

Zonal Lumen Zone Lumens % Lamp % Luminaire 2,207.5 91.1% 2,311.1 95.4%

0-60 2,407.0 99.3% 60-90 16.4 0.7% 0-90 2,423.5 100%

90-180 0 0% 0-180 2,423.5 100%

Total Efficiency: 100%

Cd: 0

5,130

10,260

15,391

20,521

25.651

30.781 VA: 0°

0-30 0-40

### Illuminance at Distance

	Center Beam fc	Beam Width
4.0 ft	1924 fc	0.9 ft 0.9 ft
8.0 ft	481 fc	1.8 ft 1.8 ft
12.0 ft	214 fc	2.7 ft 2.7 ft
16.0 ft	120 fc	3.6 ft 3.6 ft
20.0 ft	77 fc	4.5 ft 4.6 ft
24.0 ft	53 fc	5.4 ft 5.5 ft

175 ft (53.3 m) Vert. Spread: 12.9° Horiz. Spread: 13.0° 1 fc maximum distance

### Coefficients Of Utilization - Zonal Cavity Method

											LIIC	ctive I	1001	Cavit	y iveni	socali	00.20	//0
RCC %:		8	0			7	0			50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.0
1	1.15	1.13	1.12	1.10	1.13	1.11	1.10	.98	1.07	1.06	1.05	1.04	1.03	1.02	1.00	1.00	.99	.9
2	1.12	1.09	1.06	1.04				.95		1.02		1.01		.98	.98	.97	.96	.9
3	1.09	1.05	1.01	.99	1.07	1.03	1.00	.93	1.01	.99	.97	.99	.97	.95	.97	.95	.94	.9
	1.06		.98		1.05		.97	.91	.98		.93	.97	.94	.92	.95	.93	.91	.9
	1.04	.98			1.02			.89	.96		.91	.95	.92	.90	.93	.91	.89	.8
6	1.01	.96	.92	.89	1.00	.95	.92	.87	.94	.91	.89	.93	.90	.88	.92	.89	.88	.8
7	.99	.94	.90	.87	.98	.93	.90	.86	.92		.87	.91	.88	.86	.90	.88	.86	.8
8	.97	.91	.88	.85	.96	.91	.88	.84	.90	.87	.85	.89	.87	.85	.89	.86	.84	.8
9	.95	.90	.86	.84	.95	.89	.86	.83	.89	.86	.84	.88	.85	.83	.87	.85	.83	.8
10	.94	.88	.85	.82	.93	.88	.85	.82	.87	.84	.82	.87	.84	.82	.86	.84	.82	.8

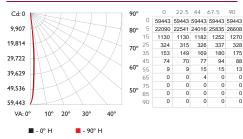
For lux multiply fc by 10.7

## ColorReach TR Powercore 8° Spread Lens

LED Lumens Watts Efficacy RGB 2447 146 16.76



### **Polar Candela Distribution**



### Illuminance at Distance

	Center Beam fc	Beam Width
4.0 ft	3715 fc	0.6 ft 0.6 ft
8.0 ft	929 fc	1.2 ft 1.3 ft
12.0 ft	413 fc	1.7 ft 1.9 ft
16.0 ft	232 fc	2.3 ft 2.6 ft
20.0 ft	149 fc	2.9 ft 3.2 ft
24.0 ft	103 fc	3.5 ft 3.9 ft

244 ft (74.4 m) Vert. Spread: 8.3° 1 fc maximum distance Horiz. Spread: 9.3

#### Coefficients Of Utilization - Zonal Cavity Method Zonal Lumen Effective Floor Cavity Reflectance: 20% 2.262.7 92.5% 0-30 92.5% RCC %: 80 RW %: 70 50 30 0 RCR:0 1.19 1.19 1.19 1.19 1 1.16 1.14 1.12 1.11 2 1.13 1.10 1.07 1.03 3 1.10 1.06 1.03 1.01 4 1.07 1.03 1.00 .97 5 1.05 1.00 .97 .95 6 1.03 .98 .96 .93 .91 9 .98 .93 .90 .88 .60 FCC %: Ceiling reflectance per .98 .60 .60 .97 Effer 50 50 30 20 1.11 1.11 1.11 1.11 1.08 1.07 1.02 1.03 1.02 1.02 1.03 1.02 1.02 1.03 1.02 1.02 1.03 1.02 1.02 1.03 1.02 1.03 1.02 1.03 1.02 1.03 1.02 1.03 1.02 1.03 1.02 1.03 1.02 1.03 1.02 1.03 1.03 1.02 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.04 1 30 50 30 20 1.06 1.02 1.01 .99 1.00 .98 .97 .94 .93 .95 .93 .91 .97 .94 .93 .95 .93 .91 .94 .93 .95 .93 .91 .94 .93 .95 .93 .91 .92 .90 .88 .86 .97 .90 .88 .87 .90 .88 .87 .90 .88 .86 .92 .90 .88 .86 .92 .92 .93 .87 .93 .91 .90 .88 .86 .92 .93 .87 .93 <td 2,367.6 96.8% 96.7% 70 70 50 30 1.16 1.16 1.16 1 1.13 1.12 1.10 1.11 1.08 1.06 1.08 1.05 1.02 1.06 1.02 .99 1.04 1.00 .97 1.02 .98 .94 1.00 .96 .93 .99 .94 .91 .97 .93 .90 .98 .91 .88 0-60 2.445.0 99.9% 99.9% 1.00 .98 .96 .95 .93 .92 .90 .89 .88 .87 .86 60-90 0-90 2,447.3 100% 0.1% 90-180 0 0% 0% 0-180 2,447.3 100% 100% Total Efficiency: 100%

0 0

0

0

0 2

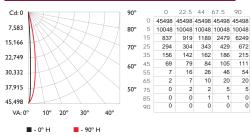
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance pe

## ColorReach TR Powercore 5° x 17° Asymmetric Spread Lens

LED	Lumens	Watts	Efficacy
RGB	2474	146	16.95
			17 °
	5°	e V	£#
	י נ		

## **Polar Candela Distribution**

0-40



### Illuminance at Distance

	Center Beam fc	Beam Width
4.0 ft	2844 fc	0.4 ft 1.2 ft
8.0 ft	711 fc	0.8 ft 2.4 ft
12.0 ft	316 fc	1.1 ft 3.6 ft
16.0 ft	178 fc	1.5 ft 4.8 ft
0.0 ft	114 fc	1.9 ft 6.0 ft
24.0 ft	79 fc	2.3 ft 7.2 ft
	213 ft (64.9 m	N) Vert. Spread: 5.4°

1 fc maximum distance

Vert. Spread: 5.4° Horiz. Spread: 17.0°

 10

 30
 20

 1.02
 1.02

 1.00
 1.00

 .98
 .97

 .95
 .94

 .93
 .92

 .92
 .91

 .91
 .89

 .90
 .88

 .88
 .87

 .87
 .86

0 1.00 .98 .96 .94 .93 .91 .90 .88 .87 .86 .85

50 1.02 1.01 1.00 .98 .97 .95 .94 .93 .92 .91 .90

ntage, RCR: Room cavity ratio

### Zonal Lumen

∠one	Lumens '	% Lamp	% Luminaire
0-30	2,254.4	91.1%	91.1%
0-40	2,361.8	95.5%	95.5%
0-60	2,458.4	99.4%	99.4%
60-90	15.5	0.6%	0.6%
0-90	2,473.9	100%	100%
90-180	0	0%	0%
0-180	2,473.9	100%	100%
Total E	fficiency: '	100%	

## Coefficients Of Utilization - Zonal Cavity Method

0

0

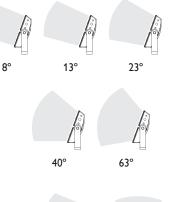
											Effe	ctive I	Floor	Cavity	/ Refle	ectan	ce: 20	)%
RCC %:		8	0			7	0			50			30			10		0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR: 0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.15	1.13	1.12	1.10	1.13	1.11	1.10	.98	1.07	1.06	1.05	1.04	1.03	1.02	1.00	1.00	.99	.97
2	1.12	1.09	1.06	1.03	1.10	1.07	1.04	.95	1.04	1.02	1.00	1.01	.99	.98	.98	.97	.96	.95
3	1.09	1.04	1.01	.98	1.07	1.03	1.00	.93	1.01	.98	.96	.98	.96	.95	.96	.95	.93	.92
4	1.06	1.01	.97	.95	1.04	1.00	.97	.91	.98	.95	.93	.96	.94	.92	.95	.93	.91	.90
5	1.03	.98	.94	.92	1.02	.97	.94	.89	.96	.93	.90	.94	.92	.90	.93	.91	.89	.88
6	1.01	.95	.92	.89	1.00	.95	.91	.87	.93	.90	.88	.92	.90	.88	.91	.89	.87	.86
7	.99	.93	.89	.87	.98	.92	.89	.85	.91	.88	.86	.90	.88	.86	.89	.87	.85	.84
8	.97	.91	.87	.85	.96	.90	.87	.84	.90	.87	.84	.89	.86	.84	.88	.86	.84	.83
9	.95	.89	.86	.83	.94	.89	.85	.82	.88	.85	.83	.87	.84	.83	.87	.84	.82	.81
10	.93	.87	.84	.82	.92	.87	.84	.81	.86	.83	.81	.86	.83	.81	.85	.83	.81	.80
RCC %: Ceiling reflectance percentage, RW %: Wall reflectance percentage, RCR: Room cavity ratio																		

For lux multiply fc by 10.7

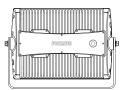
## Specifications

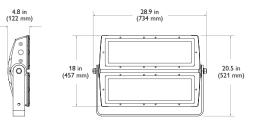
Due to continuous improvements and innovations, specifications may change without notice.

ltem	Specification	Details								
Output	Beam Angle	8°, 13°, 23°, 40°, and 63° spread lenses 5° x 17° asymmetric spread lens								
	Lumens†	5,211								
	Color Range	16.7 million additive RGB colors; continuously variable intensity								
	Mixing Distance	50 ft (15.2 m) to uniform light								
	Lumen Maintenance‡	90,000 hours L50 @ 25° C 68,000 hours L50 @ 50° C (for specific applications, see Lumen Maintenance below)								
Electrical	Input Voltage	100 – 240 VAC, auto-switching, 50 / 60 Hz via Data Enabler								
	Power Consumption 290 W maximum at full output, steady state									
	Interface Data Enabler (DMX or Ethernet)									
Control	Control System Philips full range of controllers, including Light System Manager, and iPlayer 3, or third-party DMX controllers									
	Dimensions (Height x Width x Depth)	20.5 x 28.9 x 4.8 in (521 x 734 x 122 mm)								
	Weight	75 lb (34 kg)								
	Effective Projected Area (EPA)	0.42 m <sup>2</sup>								
Physical	Housing	Die-cast aluminium, powder-coated finish								
	Lens	Tempered glass								
	Fixture Connections	Integrated 12 ft (3.7 m) fixture cable with flying leads								
	Operating Temperature	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup								
	Humidity	0 – 95%, non-condensing								
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE								
	LED Class	Class 2 LED product								
	Environment	Dry / Damp Location								
† Lumen measu	rement complies with IES	LM-79-08 testing procedures								

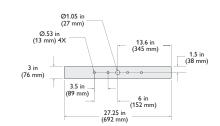


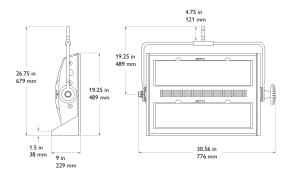












± L50 = 50% maintenance of lumen output. (When light output drops below 50% of initial output.) CHROMACORE® OPTIBIN°

## Lumen Maintenance

The table below details the specific lumen maintenance values per application. Channel column refers to RGB channels. Temperature value represents the fixture's ambient operating temperature.

1 Channel	L <sub>50</sub>	L <sub>70</sub>		
@ 25° C	100,000+ hours	100,000 hours		
@ 50° C	100,000+ hours	90,000 hours		
2 Channel	L <sub>50</sub>	L <sub>70</sub>		
@ 25° C	100,000+ hours	90,000 hours		
@ 50° C	90,000 hours	70,000 hours		
3 Channel	L50	L70		
@ 25° C	90,000 hours	70,000 hours		
@ 50° C	68,000 hours	45,000 hours		

\*  $L_{50}$  = 50% maintenance of lumen output. (When light output drops below 50% of initial output.) \* L<sub>70</sub> = 70% maintenance of lumen output. (When light output drops below 70% of initial output.)

## Fixtures, Data Enablers, and Controllers

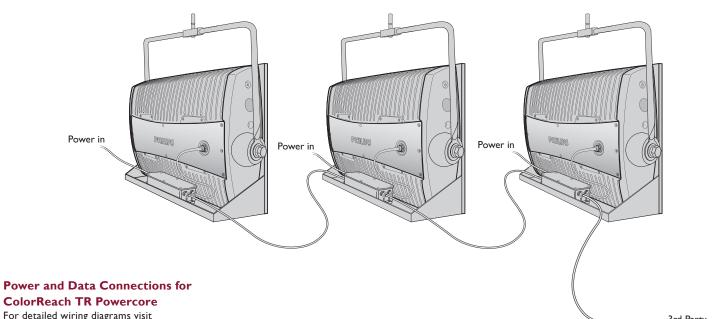
ColorReach TR Powercore fixtures are part of a complete line-voltage system which includes fixtures and:

- One or more Data Enablers.
- Any Philips controller, including Light System Manager and iPlayer 3, or a thirdparty DMX controller.
- Optional spread lenses.
- Optional Accessory Holder and yoke, Spread Lenses, and accessories for a range of mounting, light dispersal, and light control options.

	-				
Item	Туре	Item Number	Philips 12NC		
ColorReach TR Powercore Includes integrated 12 ft (3.7 m) fixture cable	UL / cUL and CE / PSE	123-000016-00	910503700771		
Data Enabler	DMX	106-000003-04	910403326801		
	Ethernet	106-000003-05	910503700064		
Light System Manager		103-000015-00	910503700221		
iPlayer 3	N.A. Power Cord	103-000019-00	910403327101		
iriayer 5	Europe Power Cord	103-000019-01	910503700392		
ColorDial		103-000014-00	910403326901		
Synchronizer		103-000001-00	—		
Multi Synchronizer		103-000002-00	-		
SmartJack Pro		103-000024-00	910503700582		

You can use any Philips controller or third-party DMX controller.

Use Item Number when ordering in North America.



For detailed wiring diagrams visit www.colorkinetics.com/support/wiring/ ls\_prod.html

3rd Party DMX Control

## Accessories

Designed specifically for ColorReach TR Powercore fixtures, accessories provide additional options for controlling light output.

The Accessory Holder screws to the front of the fixture housing, features a flat base which allows the fixture to stand safely on the ground, and includes an area with four threaded posts for attaching a Data Enabler. The Accessory Holder is required for installing and securing Spread Lenses and other accessories. Spread Lenses slot in between the Accessory Holder and the top and bottom halves of the fixture housing, and are secured by flipping down the Accessory Holder's built-in toggle lens retainers. Gel Frames slide into the Accessory Holder's back slot, while Top Hats, Half Top Hats, Barndoors, and Egg Crate Louvers slide into the front slot. This arrangement allows simple and rapid fixture set-up with multiple accessories.

The Accessory Holder includes a yoke, removable pin, and hardware for mounting ColorReach TR Powercore on trusses, pipes, or stands.

ltem Туре Item Number Philips 12NC Accessory Holder Includes yoke and Black Finish 120-000090-00 910503700792 hardware 8° 120-000102-05 910503701016 13° 120-000102-00 910503701011 23° 120-000102-01 910503701012 Spread Lens 40° 120-000102-02 910503701013 63° 120-000102-03 910503701014 Asymmetric 120-000102-04 910503701015 (5° x 17°) Black Finish 120-000093-00 910503700795 Half Top Hat Black Finish 120-000092-00 910503700794 Top Hat Black Finish 120-000091-00 910503700793 Egg Crate Louver 910503700796 Barndoor Black Finish 120-000094-00 Gel Frame Black Finish 120-000095-00 910503700797

You can exchange Spread Lenses without removing an installed Top Hat, Half Top Hat, or Barndoor.

Use Item Number when ordering in North America.

## Installation

ColorReach TR Powercore, a road-ready, high-performance floodlight with light projection of over 500 ft (152.4 m), is specifically designed for the temporary and touring markets. Because each ColorReach TR Powercore fixture weighs 75 lb (34 kg), you may need two people to lift, position, and mount the fixture.

## **Owner / User Responsibilities**

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate ColorReach TR Powercore fixtures in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

## Prepare for the Installation

In conjunction with the separately available Accessory Holder and accessories, ColorReach TR Powercore offers options and conveniences specifically designed for entertainment and rental applications, including TV, film, stage, touring, and other temporary applications.

To make ColorReach TR Powercore completely road- and stage-ready, remove and discard the mounting bracket included with the fixture, and install the ColorReach TR Powercore Accessory Holder and yoke. The Accessory Holder is designed to provide quick installation of spread lenses and other accessories without the need for special tools. The yoke, included with the Accessory Holder, provides enough clearance for accessories such as top hats and barndoors, and includes a removable pin for mounting ColorReach TR Powercore on stands or receiver clamps.

ColorReach TR Powercore fixtures are freestanding with the Accessory Holder installed. The Accessory Holder base also provides an area with four threaded posts for installing a Data Enabler. We recommend the installation of one connectorized and sealed Data Enabler per fixture. This way, you can easily connect data and power using standard cabling, and reuse fixtures and power supplies without having to rewire or reconfigure them.

Keep the following in mind as you prepare for the installation:

- 1. If mounting on a pipe, truss, or stand, ensure that all required Accessory Holders, yokes, and hardware are available.
- 2. Refer to the lighting plot, lighting design plan, or other diagram that shows the physical layout of the installation to identify the locations of all fixtures, cables, and supporting equipment.
- 3. Ensure that all Data Enablers are available, and verify that all additional supporting equipment (switches, controllers) is in place.
- 4. Ensure that all additional parts and tools are available, including data and power cabling as required.

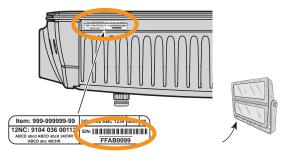
Refer to the ColorReach TR Powercore Installation Instructions for specific warning and caution statements.

You can use ColorReach TR Powercore with the included mounting bracket for architectural and permanent installations. For installation instructions, and for information on spread lenses and other accessories designed for architectural applications, refer to the ColorReach Powercore Product Guide, available online at www.colorkinetics.com/ls/rgb/colorreach/

If you prefer, you can connect multiple ColorReach TR Powercore fixtures to each Data Enabler, within limits imposed by circuit size and data integrity. Refer to the ColorReach Powercore Product Guide for complete details.

## Unpack Fixtures

- Unpack ColorReach TR Powercore fixtures. Because each ColorReach TR Powercore fixture weighs 75 lb (34 kg), you may need two people to lift the fixture out of the box and handle it.
- 2. Each ColorReach TR Powercore fixture comes pre-programmed with a unique serial number. As you unpack the fixtures, record the serial numbers in a layout grid (typically a spreadsheet or list) for easy reference and light addressing.



- 3. Assign each fixture to a position in the lighting plot or lighting design plan.
- 4. To streamline installation and aid in light show programming, you can affix a weatherproof label identifying the order or placement in the installation to an inconspicuous location on each light fixture's housing.

## Install Accessory Holder and Yoke

1. Remove the included mounting bracket by disengaging the locking bolts with a 28 mm hex or adjustable wrench. Discard the included mounting bracket.



2. With the Philips logo on the back of the fixture housing upright, identify the top and bottom of the fixture. For easy access to the front of the fixture housing, and to protect the connector on the back of the fixture housing, rest the fixture on a workbench or other surface, making sure that the connector and fixture cable hang freely over the edge of the surface.



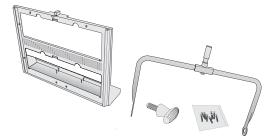
## Included in the box

ColorReach TR Powercore fixture Installation Instructions

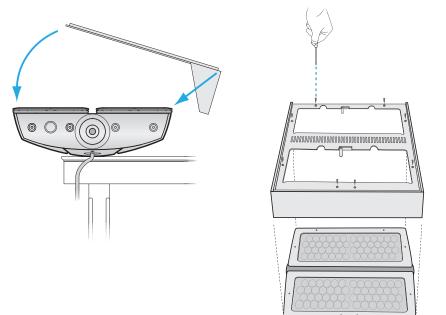


## Included in the box

Accessory Holder with (4) threaded posts, nuts, and washers
Yoke with 1 1/8 in mounting pin
(2) 3/4 in flat washers
(2) friction washers
3/4 in hex bolt
T-bar handle



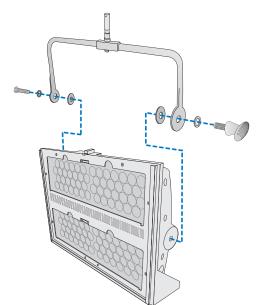
- 3. Position the Accessory Holder over the front of the fixture, making sure that its orientation matches the orientation of the fixture. (The flat base should be at the bottom of the fixture.)
- 4. Using a screw gun with a Philips #2 bit, install the Accessory Holder using the provided countersunk #10 screws. Be careful not to overtighten the screws.



5. Install the yoke. Set the fixture on the base created by the installed Accessory Holder.

Insert the 3/4 in hex bolt through a 3/4 in flat washer, one arm of the yoke, and one friction washer, into one side of the fixture housing. Make sure to place the 3/4 in flat washer between the hex bolt and the yoke, and the friction washer between the yoke and the fixture housing, as shown. Using a 3/4 in hex wrench, tighten the hex bolt until the yoke is partially locked into position.

Insert the T-bar handle through a 3/4 in flat washer, the other arm of the yoke, and one friction washer, into the other side of the fixture housing. Tighten the T-bar handle to fully lock the yoke.



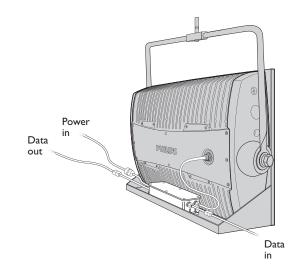


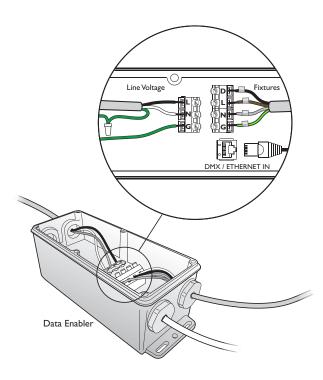
ColorReach TR Powercore is freestanding with the Accessory Holder installed

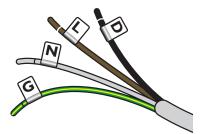
## Connectorize and Install Data Enablers

We recommend connectorizing Data Enablers and installing them on the Accessory Holder base so that you can quickly and easily connect power and data with standard cabling.

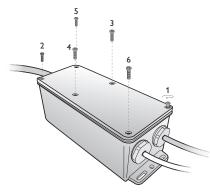
- 1. Remove Data Enabler cover.
- 2. Install a Data Enabler on the Accessory Holder base. Insert the center mounting hole and one slot, located on either end of the Data Enabler, over the Accessory Holder's four threaded posts, and secure with the four included nuts.
- Trim the fixture cable to fit in the Data Enabler, leaving enough cable to make wiring connections. Connect line, neutral, ground, and data to the fixture POWER OUT terminal block inside the Data Enabler housing.
- 4. Install a DMX cable whip with an RJ45 connector at one end and an XLR-5 connector at the other end in both RJ45 DATA IN and DATA OUT ports inside the Data Enabler housing. Make sure the XLR-5 connectors emerge from opposite ends of the Data Enabler.
- 5. Connect a power cable whip with a standard power connector, such as an Edison plug, at one end, to the line voltage POWER IN terminal block.







6. Secure the Data Enabler cover.

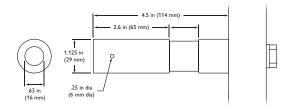


## Mount Fixtures

The Accessory Holder, yoke, and removable 1 1/8 in pin provide a full range of options for mounting and hanging ColorReach TR Powercore fixtures. Fixtures are freestanding with the Accessory Holder installed. With the yoke installed, ColorReach TR Powercore fixtures can be installed on stands, pipes, trusses, and other standard lighting positions.

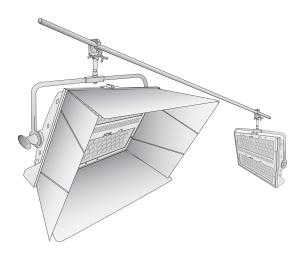
## For TV / film installations:

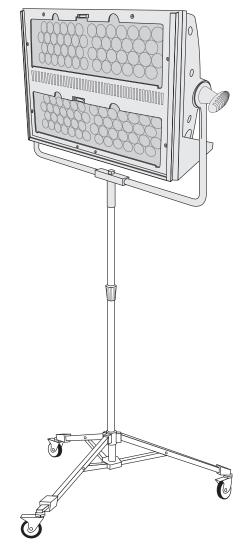
- To mount ColorReach TR Powercore on a junior or senior stand, insert the yoke pin into the female receiver on the stand, and lock with the receiver's set screw.
- To mount ColorReach TR Powercore on a pipe or truss, insert the yoke pin into a pipe clamp, and secure the fixture with the pipe clamp's cotter pin or set screw.



## For entertainment / stage installations:

• Remove the yoke pin and insert a half Cheereborough clamp, Mega-Clamp, or other standard mounting hardware in the 1/2 in bolt hole on the yoke.

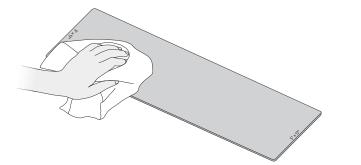




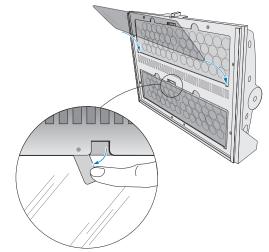
## Exchange Spread Lenses

Exchangeable spread lenses of 8°, 13°, 23°, 40°, 63°, and an asymmetric 5°  $\times$  17° support a variety of photometric distributions for a multitude of applications. Each half of ColorReach TR Powercore can be individually addressed and controlled. You can install different spread lenses on each half of the fixture's housing for precise control of light diffusion.

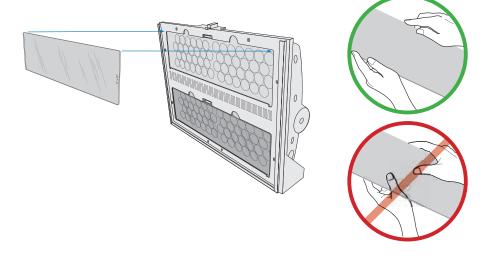
- 1. Remove the installed lens, if any, by flipping the toggle lens retainer up and sliding the lens from the slot in the Accessory Holder.
- 2. Clean both sides of the spread lens that you want to install, using a mild, non-abrasive cleaner. Ensure that all surfaces are dry.



You can use the spread lenses with any of the other iW Reach Powercore TR accessories. You don't need to remove any installed barndoors or top hats to exchange lenses.



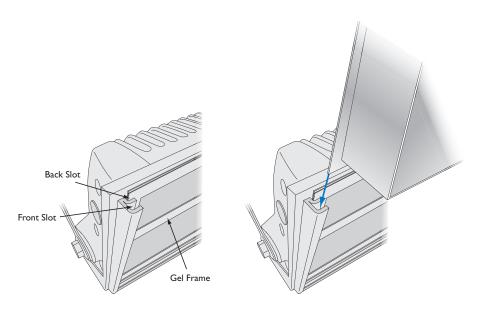
3. Position the spread lens so that the beam-angle designation on the side of the lens is face up. Handle the spread lens by the edges, making sure not to touch or soil either surface of the spread lens.



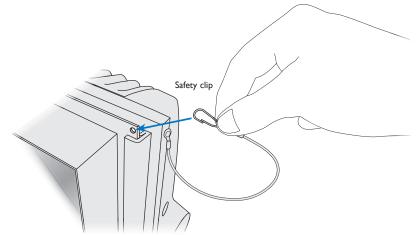
- 4. Slide the spread lens into the bottom lip of the Accessory Holder, and gently press the lens into place.
- 5. Flip the toggle lens retainer down to secure the lens.

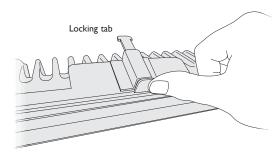
## Install Accessories

The Accessory Holder has two slots. The back slot is for the gel frame, while the front slot is for egg crate louvers, top hats, half top hats, and barndoors. The egg crate nests inside the top hat or half top hat, so you can use them together in the front slot.



- 1. Orient the accessory so that the safety clip attachment hole in its edge is at the top.
- 2. Pull back the locking tab at the top of the Accessory Holder.
- 3. Slide the accessory into the appropriate slot in the Accessory Holder.
- 4. Release the locking tab to secure the accessory.
- 5. Clip the attached safety wire to the attachment hole in the top edge of the accessory.





## Address and Configure the Fixtures

Make sure the power is ON before addressing and configuring fixtures.

## **Light Numbers**

Each ColorReach TR Powercore fixture has a *light number*, which controllers use to communicate with the fixture. ColorReach TR Powercore fixtures come factory-addressed to light number 1. A fixture's light number corresponds to three or more sequential DMX addresses, depending on the fixture's configuration (3-channel mode or 6-channel mode; 8-bit mode or 16-bit mode).

For light show designs where all fixtures work in unison, all fixtures must be set to the same light number. If lights were previously readdressed, make sure to reset all fixtures to the same light number, if necessary. For light show designs that show dynamic effects, you must readdress your fixtures with unique light numbers.

## 8-Bit Mode and 16-Bit Mode

ColorReach TR Powercore fixtures operate in 8-bit mode by default. You can configure ColorReach TR Powercore to operate in 16-bit mode, which increases fixture resolution for smoother dimming.

In 8-bit mode, fixtures use one DMX address per LED channel (red, green, and blue). In 16-bit mode, fixtures use two DMX addresses per channel. The first DMX address corresponds to the "coarse" data for that channel, and the second corresponds to the "fine" data. By using double the number of DMX addresses, 16-bit mode increases fixture resolution from 256 dimming steps to 65,536 (256 x 256) dimming steps.

## 3-Channel Mode and 6-Channel Mode

The two halves of ColorReach TR Powercore can illuminate either in unison or independently, depending on whether you put the fixture in 3-channel mode or 6-channel mode.

3-channel mode controls an entire ColorReach TR Powercore fixture in unison. In 3-channel mode, a fixture's light number corresponds to three sequential DMX addresses in 8-bit mode (red-green-blue), and six sequential DMX addresses in 16-bit mode (red-red-green-green-blue).

6-channel mode controls the top and bottom halves of a ColorReach TR Powercore fixture independently. In 6-channel mode, the light number corresponds to a sequence of six sequential DMX addresses in 8-bit mode, and 12 sequential addresses in 16-bit mode. The first half of the sequence controls the top half of the fixture, and the second half of the sequence controls the bottom half of the fixture.

## For More Information . . .

You can switch between 8-bit mode and 16-bit mode, activate 3-channel mode or 6-channel mode, assign unique light numbers to fixtures, or set all fixtures to the same light number using QuickPlay Pro. Fixtures are identified within QuickPlay Pro by serial number, so you will need the layout grid that you created when you recorded the serial numbers of your fixtures during installation planning.

- In Ethernet installations, you can you use QuickPlay Pro with a computer connected directly to a switch within the light system's network. QuickPlay Pro can automatically discover all fixtures, controllers, and Data Enablers for quick configuration.
- In DMX installations, you can address and configure fixtures using QuickPlay Pro with iPlayer 3 or SmartJack Pro. You can manually enter fixture serial numbers, or you can import a spreadsheet listing each fixture's serial number and starting DMX address.

For complete details on addressing and configuration, refer to Addressing and Configuration using QuickPlay Pro at: www.colorkinetics.com/support/addressing.

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You must use a 16-bit compatible controller to

operate fixtures in 16-bit mode.

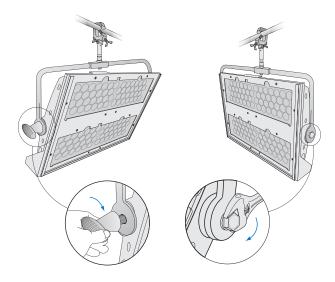
## DMX Addresses Per Configuration

Fixture Mode	8-Bit	16-Bit
3-Channel Fixture halves controlled in unison	3	6
6-Channel Fixture halves controlled independently	6	12

You can download QuickPlay Pro from www.colorkinetics.com/support/addressing/

## Aim and Lock the Fixtures

- 1. Aim the fixtures by rotating each fixture to the correct angle.
- 2. Lock the fixtures by tightening the T-bar handle.





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