



# EvenBalance Essential White Powercore

Interior linear solid white light forward throw asymmetric luminaire

**PHILIPS**



# EvenBalance Essential White Powercore

## Interior linear solid white light forward throw asymmetric luminaire

EvenBalance Essential White Powercore is a compact interior linear luminaire that is ideal for washing and grazing applications where uniform light is paramount. The forward-throw asymmetric optic efficiently provides industry-leading illuminance uniformity. Two beam spreads: Washing and Grazing, two lengths: 305 mm (1 ft) and 1219 mm (4 ft), and the ability to continuously rotate the fixture up to 180° enable a high degree of flexibility for lighting designers when using EvenBalance Essential White Powercore.

- Uniform illumination—EvenBalance Essential White Powercore delivers a uniformity ratio of less than 3:1 on a 3 m (9 ft) wall with an 0.5 m (1.5 ft) setback.
- Precise control of light—Asymmetric optic design provides precise control of light and delivers more illumination with higher uniformity at a lower power than comparable fluorescent asymmetric reflector solutions.
- Design flexibility—EvenBalance Essential White Powercore is available in two lengths: 305 mm (1 ft) and 1219 mm (4 ft) and two different beam spreads: Washing or Grazing.
- Integrates patented Powercore technology—Powercore rapidly, efficiently, and accurately controls power directly from line voltage, eliminating the need for an external power supply. Contractor-friendly installation dramatically simplifies installation and lowers total system cost.
- Multiple color temperatures—Available in 2700K, 3000K, 3500K, and 4000K color temperatures for applications calling for warm, neutral, or cool white light.
- Simple installation—The linear design and small form factor of EvenBalance Essential White Powercore makes it easy to install and conceal in tight interior spaces. The 180° continuous rotation and constant torque rotation make the fixture extremely adaptable in any application.
- Support for multiple voltages—Accepts line voltage of 100 – 277 VAC for consistent installation and operation around the world.
- Dimming capability—Patented DIMand technology offers smooth dimming capability with selected commercially available reverse-phase ELV-type dimmers.



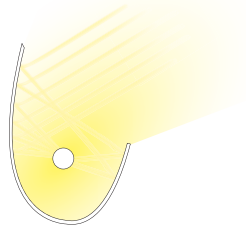
### Industry-best white light quality and color consistency

Optibin, Philips proprietary binning optimization process, provides color-consistency within a 2-step MacAdam's ellipse from fixture to fixture and manufacturing run to manufacturing run.

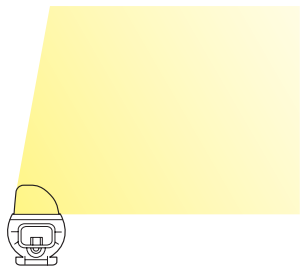
# Unprecedented uniformity and consistency for demanding white-light applications

Fluorescent asymmetric reflectors are often used in applications that require balanced light. However, the inherent limitations of fluorescent light and asymmetric reflectors generate sub-optimal results. These solutions can only provide low delivered lumens, and often require layering and other work-arounds that help give the illusion of seamless illumination.

The innovative LED asymmetric optic design of EvenBalance Essential White Powercore enables the fixture to deliver consistent, bright light for both Grazing and Washing applications. With a uniformity ratio of up to  $<3:1$ , and a  $<2$  step MacAdam ellipse color variance from fixture to fixture that is virtually unnoticeable to the human eye, EvenBalance Essential White Powercore provides industry-leading illuminance uniformity and color consistency. The new optic also allows for precise control of light from the source, resulting in higher efficacy and higher delivered lumens, while requiring less power compared to fluorescent asymmetric solutions.



Inconsistent control and low delivered lumens are typical issues when using fluorescent asymmetric reflectors.



EvenBalance Essential White Powercore features an innovative optic design that delivers light precisely where it is needed.

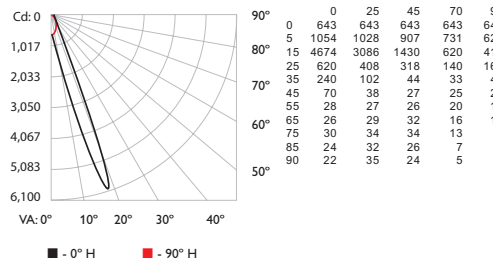
# Photometrics / EvenBalance Essential White Powercore, 305 mm (12 in), 12.5 W / ft

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at [www.philipscolorkinetics.com/support/ies](http://www.philipscolorkinetics.com/support/ies).

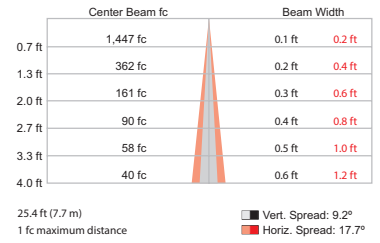
## 2700K, Washing

Lumens	Efficacy	CRI
775	64.9	81

### Polar Candela Distribution



### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	531.7	68.6%
0-40	588.9	75.9%
0-60	661.2	85.3%
0-90	737.0	95.0%
60-90	75.9	9.8%
70-100	59.7	7.7%
90-120	32.2	4.1%
90-180	38.4	5.0%
0-180	775.4	100.0%

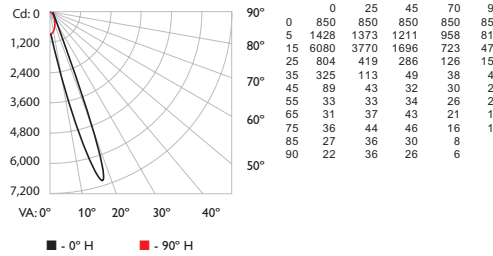
### Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80				70				Effective Floor Cavity Reflectance: 20%						
	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0
RCR:	0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	0.95	1.08	1.08	1.03	1.03	1.03	0.97
0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	0.95	1.08	1.08	1.03	1.03	1.03	0.97	0.97
1	1.10	1.07	1.04	1.01	1.07	1.04	1.01	0.86	0.99	0.97	0.95	0.94	0.93	0.91	0.90
2	1.04	0.98	0.93	0.89	1.01	0.96	0.91	0.79	0.92	0.88	0.85	0.88	0.85	0.82	0.84
3	0.98	0.91	0.85	0.80	0.96	0.89	0.84	0.73	0.86	0.81	0.77	0.82	0.79	0.76	0.74
4	0.93	0.85	0.78	0.74	0.91	0.83	0.77	0.68	0.80	0.75	0.71	0.78	0.73	0.70	0.75
5	0.88	0.79	0.73	0.68	0.86	0.78	0.72	0.64	0.76	0.70	0.67	0.73	0.69	0.65	0.71
6	0.84	0.75	0.68	0.64	0.82	0.73	0.67	0.60	0.71	0.66	0.62	0.69	0.65	0.61	0.68
7	0.80	0.70	0.64	0.60	0.78	0.69	0.63	0.57	0.68	0.62	0.59	0.66	0.61	0.58	0.64
8	0.76	0.67	0.60	0.56	0.75	0.66	0.60	0.54	0.64	0.59	0.55	0.63	0.58	0.55	0.62
9	0.73	0.63	0.57	0.53	0.72	0.63	0.57	0.51	0.61	0.56	0.52	0.60	0.55	0.52	0.59
10	0.70	0.60	0.54	0.50	0.69	0.60	0.54	0.49	0.58	0.53	0.50	0.57	0.53	0.49	0.56

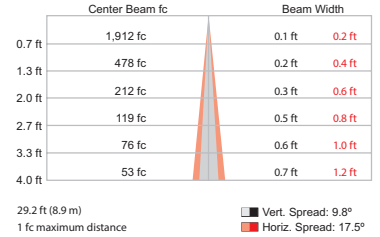
## 3000K, Washing

Lumens	Efficacy	CRI
927	79.1	81

### Polar Candela Distribution



### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	645.6	69.6%
0-40	713.1	76.9%
0-60	796.2	85.9%
0-90	885.7	95.5%
60-90	89.5	9.6%
70-100	68.9	7.4%
90-120	34.5	3.7%
90-180	41.4	4.5%
0-180	927.1	100.0%

### Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80				70				Effective Floor Cavity Reflectance: 20%						
	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0
RCR:	0	1.18	1.18	1.18	1.15	1.15	1.15	0.96	1.09	1.09	1.09	1.03	1.03	1.03	0.98
0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	0.96	1.09	1.09	1.09	1.03	1.03	1.03	0.98
1	1.11	1.07	1.04	1.01	1.08	1.04	1.02	0.86	1.00	0.97	0.95	0.95	0.93	0.92	0.91
2	1.04	0.98	0.94	0.90	1.02	0.96	0.92	0.80	0.92	0.89	0.86	0.89	0.86	0.83	0.85
3	0.99	0.91	0.86	0.81	0.96	0.90	0.84	0.74	0.86	0.82	0.78	0.83	0.79	0.76	0.80
4	0.94	0.85	0.79	0.74	0.91	0.84	0.78	0.69	0.81	0.76	0.72	0.78	0.74	0.71	0.76
5	0.89	0.80	0.74	0.69	0.87	0.79	0.73	0.65	0.76	0.71	0.67	0.74	0.70	0.66	0.72
6	0.85	0.75	0.69	0.65	0.83	0.74	0.68	0.61	0.72	0.67	0.63	0.70	0.66	0.63	0.69
7	0.81	0.71	0.65	0.61	0.79	0.70	0.64	0.58	0.69	0.63	0.60	0.67	0.62	0.59	0.66
8	0.77	0.68	0.61	0.57	0.76	0.67	0.61	0.55	0.65	0.60	0.57	0.64	0.59	0.56	0.63
9	0.74	0.64	0.58	0.54	0.73	0.64	0.58	0.53	0.62	0.57	0.54	0.61	0.57	0.53	0.60
10	0.71	0.61	0.55	0.52	0.70	0.61	0.55	0.50	0.60	0.55	0.51	0.58	0.54	0.51	0.57

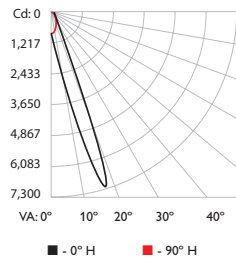
For lux multiply fc by 10.7



### 3500K, Washing

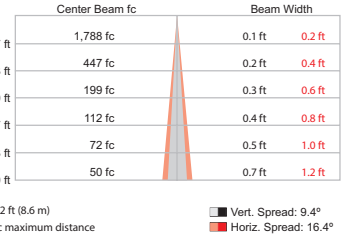
Lumens	Efficacy	CRI
887	77.2	83

### Polar Candela Distribution



90°	0	25	45	70	90
0	795	795	795	795	795
5	1316	1258	1090	882	760
15	6508	3898	1625	680	477
25	687	336	208	121	169
35	266	97	44	35	44
45	66	37	29	27	26
55	29	30	31	23	20
65	29	34	39	19	15
75	32	38	39	14	8
85	24	35	27	6	2
90	22	39	24	5	3

### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	617.2	69.6%
0-40	680.8	76.8%
0-60	760.6	85.8%
0-90	844.6	95.2%
60-90	84.0	9.5%
70-100	65.1	7.3%
90-120	35.3	4.0%
90-180	42.2	4.8%
0-180	886.8	100.0%

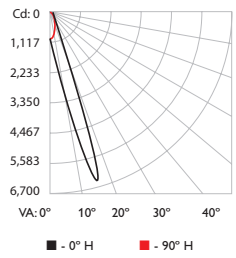
### Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0													
RW %:	70	50	30	20	50	30	20	50	30	20	0								
RCR:	0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	0.95	1.08	1.08	1.03	1.03	1.03	0.98	0.98	0.98	0.95	
	1	1.11	1.07	1.04	1.01	1.08	1.04	1.02	0.86	0.99	0.97	0.95	0.95	0.93	0.91	0.91	0.89	0.86	0.86
	2	1.04	0.99	0.94	0.90	1.02	0.96	0.92	0.79	0.92	0.89	0.86	0.83	0.86	0.83	0.85	0.83	0.81	0.79
	3	0.99	0.91	0.86	0.81	0.96	0.90	0.84	0.74	0.86	0.82	0.78	0.83	0.80	0.76	0.80	0.77	0.75	0.73
	4	0.94	0.85	0.79	0.75	0.91	0.84	0.78	0.69	0.81	0.76	0.72	0.78	0.74	0.71	0.76	0.73	0.70	0.68
	5	0.89	0.80	0.74	0.69	0.87	0.79	0.73	0.65	0.76	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.66	0.64
	6	0.85	0.75	0.69	0.65	0.83	0.74	0.69	0.61	0.72	0.67	0.63	0.71	0.66	0.63	0.69	0.65	0.62	0.60
	7	0.81	0.71	0.65	0.61	0.79	0.70	0.65	0.58	0.69	0.64	0.60	0.67	0.63	0.59	0.66	0.62	0.59	0.57
	8	0.77	0.68	0.62	0.58	0.76	0.67	0.61	0.55	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.54
	9	0.74	0.64	0.59	0.55	0.73	0.64	0.58	0.53	0.62	0.57	0.54	0.61	0.57	0.53	0.60	0.56	0.53	0.52
	10	0.71	0.61	0.56	0.52	0.70	0.61	0.55	0.50	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.49

### 4000K, Washing

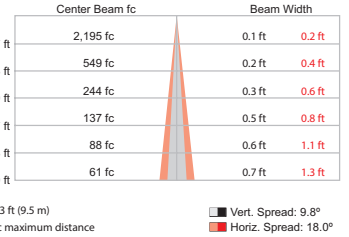
Lumens	Efficacy	CRI
881	76.6	81

### Polar Candela Distribution



90°	0	25	45	70	90
0	976	976	976	976	976
5	1660	1536	1336	1062	894
15	6439	3643	1564	654	457
25	680	295	146	92	126
35	253	88	44	35	39
45	60	38	30	28	26
55	30	32	32	22	20
65	31	36	40	18	15
75	33	39	38	13	8
85	24	35	27	6	2
90	23	37	23	5	3

### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	613.5	69.6%
0-40	675.8	76.7%
0-60	755.4	85.7%
0-90	841.7	95.5%
60-90	86.2	9.8%
70-100	66.8	7.6%
90-120	34.1	3.9%
90-180	39.6	4.5%
0-180	881.3	100.0%

### Coefficients Of Utilization - Zonal Cavity Method

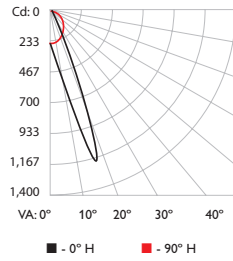
RCC %:	80	70	50	30	10	0													
RW %:	70	50	30	20	50	30	20	50	30	20	0								
RCR:	0	1.18	1.18	1.18	1.18	1.15	1.15	1.15	0.96	1.09	1.09	1.03	1.03	1.03	0.98	0.98	0.98	0.96	
	1	1.11	1.07	1.04	1.01	1.08	1.05	1.02	0.87	1.00	0.97	0.95	0.95	0.93	0.92	0.91	0.89	0.86	0.86
	2	1.04	0.99	0.94	0.90	1.02	0.97	0.92	0.80	0.92	0.89	0.86	0.89	0.86	0.83	0.85	0.83	0.81	0.79
	3	0.99	0.92	0.86	0.82	0.96	0.90	0.85	0.74	0.87	0.82	0.79	0.83	0.80	0.77	0.81	0.78	0.75	0.73
	4	0.94	0.86	0.80	0.75	0.92	0.84	0.79	0.70	0.81	0.77	0.73	0.79	0.75	0.72	0.76	0.73	0.70	0.69
	5	0.89	0.81	0.74	0.70	0.87	0.79	0.74	0.65	0.77	0.72	0.68	0.75	0.71	0.67	0.73	0.69	0.66	0.65
	6	0.85	0.76	0.70	0.65	0.83	0.75	0.69	0.62	0.73	0.68	0.64	0.71	0.67	0.63	0.69	0.66	0.63	0.61
	7	0.82	0.72	0.66	0.62	0.80	0.71	0.65	0.59	0.70	0.64	0.61	0.68	0.63	0.60	0.66	0.62	0.59	0.58
	8	0.78	0.69	0.63	0.58	0.77	0.68	0.62	0.56	0.66	0.61	0.58	0.65	0.60	0.57	0.64	0.60	0.57	0.55
	9	0.75	0.65	0.60	0.56	0.74	0.65	0.59	0.54	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.53
	10	0.72	0.62	0.57	0.53	0.71	0.62	0.56	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.50

For lux multiply fc by 10.7

## 2700K, Grazing

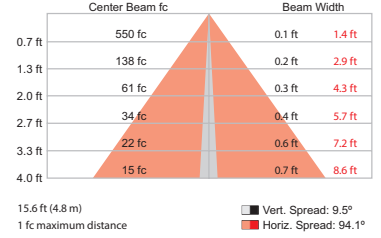
Lumens	Efficacy	CRI
764	67.0	81

### Polar Candela Distribution



Cd: 0	0	25	45	70	90
0	244	244	244	244	244
5	348	338	313	270	244
15	1036	922	641	348	227
25	187	249	1212	461	198
35	85	96	148	813	166
45	47	52	62	1068	126
55	35	37	40	411	83
65	37	35	33	104	41
75	38	36	31	24	14
85	34	32	27	11	4
90	34	32	27	8	3

### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	294.2	38.5%
0-40	429.6	56.3%
0-60	616.4	80.7%
0-90	717.2	93.9%
60-90	100.8	13.2%
70-100	72.2	9.5%
90-120	40.6	5.3%
90-180	46.4	6.1%
0-180	763.6	100.0%

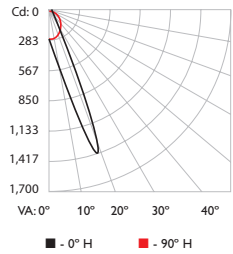
### Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80				70				Effective Floor Cavity Reflectance: 20%							
	50	30	10	0	50	30	10	0	50	30	20	10	0			
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0	
RCR:	0	1.18	1.18	1.18	1.14	1.14	1.14	0.94	1.08	1.08	1.08	1.02	1.02	1.02	0.96	
0	1.08	1.04	1.00	0.97	1.05	1.01	0.98	0.81	0.96	0.93	0.90	0.91	0.89	0.87	0.86	0.85
1	1.00	0.93	0.87	0.81	0.97	0.90	0.85	0.71	0.86	0.81	0.77	0.82	0.78	0.75	0.78	0.75
2	0.92	0.83	0.76	0.70	0.89	0.81	0.74	0.63	0.77	0.72	0.67	0.74	0.69	0.65	0.71	0.67
3	0.86	0.75	0.67	0.61	0.83	0.73	0.66	0.56	0.70	0.64	0.59	0.67	0.62	0.58	0.64	0.60
4	0.79	0.68	0.60	0.54	0.77	0.67	0.59	0.50	0.64	0.57	0.52	0.61	0.56	0.51	0.59	0.54
5	0.74	0.62	0.54	0.48	0.72	0.61	0.53	0.45	0.58	0.52	0.47	0.56	0.51	0.46	0.54	0.49
6	0.69	0.57	0.49	0.43	0.67	0.56	0.48	0.41	0.54	0.47	0.42	0.52	0.46	0.42	0.50	0.45
7	0.65	0.52	0.45	0.39	0.63	0.51	0.44	0.37	0.50	0.43	0.38	0.48	0.42	0.38	0.47	0.41
8	0.61	0.48	0.41	0.36	0.59	0.48	0.41	0.34	0.46	0.40	0.35	0.45	0.39	0.35	0.43	0.38
9	0.57	0.45	0.38	0.33	0.56	0.44	0.37	0.31	0.43	0.37	0.32	0.42	0.36	0.32	0.40	0.35
10	0.57	0.45	0.38	0.33	0.56	0.44	0.37	0.31	0.43	0.37	0.32	0.42	0.36	0.32	0.40	0.35

## 3000K, Grazing

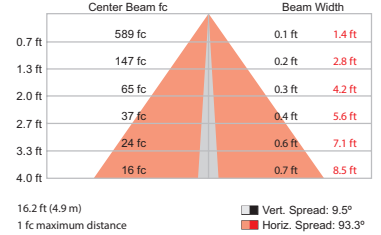
Lumens	Efficacy	CRI
927	79.3	81

### Polar Candela Distribution



Cd: 0	0	25	45	70	90
0	262	262	262	262	262
5	355	350	322	285	262
15	1051	901	624	349	244
25	291	679	1495	433	215
35	126	142	235	591	180
45	63	69	88	1140	141
55	44	45	49	643	89
65	45	43	40	175	47
75	47	44	37	39	18
85	42	40	33	15	6
90	41	39	33	11	5

### Illuminance at Distance



### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	340.2	36.7%
0-40	507.8	54.8%
0-60	740.9	80.0%
0-90	865.6	93.4%
60-90	124.7	13.5%
70-100	88.8	9.6%
90-120	51.7	5.6%
90-180	61.1	6.6%
0-180	926.7	100.0%

### Coefficients Of Utilization - Zonal Cavity Method

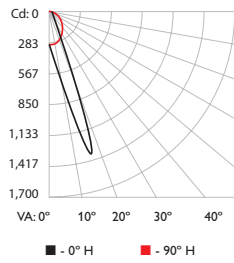
RCC %:	80				70				Effective Floor Cavity Reflectance: 20%							
	50	30	10	0	50	30	10	0	50	30	20	10	0			
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0	
RCR:	0	1.17	1.17	1.17	1.14	1.14	1.14	0.93	1.07	1.07	1.07	1.01	1.01	1.01	0.96	
0	1.08	1.04	1.00	0.96	1.05	1.01	0.97	0.80	0.95	0.92	0.90	0.90	0.88	0.86	0.86	0.84
1	1.00	0.92	0.86	0.81	0.96	0.90	0.84	0.70	0.85	0.81	0.77	0.81	0.77	0.74	0.77	0.74
2	0.92	0.82	0.75	0.69	0.89	0.80	0.74	0.61	0.77	0.71	0.66	0.73	0.68	0.64	0.70	0.66
3	0.85	0.74	0.66	0.60	0.82	0.72	0.65	0.54	0.69	0.63	0.58	0.66	0.61	0.57	0.63	0.59
4	0.79	0.67	0.59	0.53	0.76	0.66	0.58	0.49	0.63	0.56	0.51	0.60	0.55	0.50	0.58	0.53
5	0.73	0.61	0.53	0.47	0.71	0.60	0.52	0.44	0.57	0.51	0.46	0.55	0.49	0.45	0.53	0.48
6	0.68	0.56	0.48	0.42	0.66	0.55	0.47	0.39	0.53	0.46	0.41	0.51	0.45	0.40	0.49	0.44
7	0.64	0.51	0.44	0.38	0.62	0.50	0.43	0.36	0.49	0.42	0.37	0.47	0.41	0.37	0.45	0.40
8	0.60	0.47	0.40	0.35	0.58	0.47	0.39	0.33	0.45	0.38	0.34	0.43	0.38	0.33	0.42	0.37
9	0.56	0.44	0.37	0.32	0.55	0.43	0.36	0.30	0.42	0.35	0.31	0.40	0.35	0.31	0.39	0.34
10	0.56	0.44	0.37	0.32	0.55	0.43	0.36	0.30	0.42	0.35	0.31	0.40	0.35	0.31	0.39	0.34

For lux multiply fc by 10.7

### 3500K, Grazing

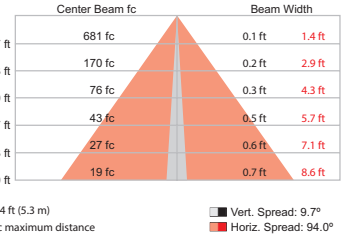
Lumens	Efficacy	CRI
884	76.0	83

### Polar Candela Distribution



90°	0	25	45	70	90
0	303	303	303	303	303
5	454	433	397	342	304
15	1294	1187	826	451	267
25	195	239	1271	618	243
35	97	107	153	1193	197
45	52	57	68	1243	150
55	39	40	44	500	102
65	41	39	37	158	54
75	41	40	35	41	16
85	36	35	30	15	5
90	36	35	31	11	4

### Illuminance at Distance



17.4 ft (5.3 m)  
1 fc maximum distance

Vert. Spread: 9.7°  
Horiz. Spread: 94.0°

### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	346.3	39.2%
0-40	501.6	56.8%
0-60	716.2	81.0%
0-90	832.3	94.2%
60-90	116.2	13.1%
70-100	81.2	9.2%
90-120	45.0	5.1%
90-180	51.5	5.8%
0-180	883.8	100.0%

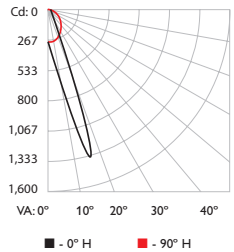
### Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80				70				50				30				10				0			
	RW	%	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0	50	30	20	0
RCR:	0	1.18	1.18	1.18	1.18	1.14	1.14	1.14	0.94	1.08	1.08	1.08	1.02	1.02	1.02	0.97	0.97	0.97	0.97	0.94	0.94	0.94	0.94	0.94
1	1.08	1.04	1.00	0.97	1.05	1.01	0.98	0.82	0.86	0.82	0.78	0.82	0.78	0.75	0.82	0.78	0.75	0.78	0.75	0.73	0.70	0.70	0.70	
2	1.00	0.93	0.87	0.82	0.97	0.90	0.85	0.71	0.88	0.82	0.78	0.82	0.78	0.75	0.78	0.75	0.78	0.75	0.73	0.70	0.70	0.70	0.70	
3	0.93	0.83	0.76	0.70	0.90	0.81	0.75	0.63	0.78	0.72	0.67	0.74	0.70	0.66	0.71	0.67	0.64	0.62	0.62	0.62	0.62	0.62	0.62	
4	0.86	0.75	0.67	0.62	0.83	0.74	0.66	0.56	0.70	0.64	0.59	0.68	0.62	0.58	0.65	0.60	0.57	0.55	0.55	0.55	0.55	0.55	0.55	
5	0.80	0.68	0.60	0.54	0.77	0.67	0.59	0.50	0.64	0.58	0.53	0.62	0.56	0.52	0.59	0.55	0.51	0.49	0.49	0.49	0.49	0.49	0.49	
6	0.74	0.62	0.54	0.49	0.72	0.61	0.54	0.45	0.59	0.52	0.47	0.57	0.51	0.47	0.55	0.50	0.46	0.44	0.44	0.44	0.44	0.44	0.44	
7	0.69	0.57	0.49	0.44	0.67	0.56	0.49	0.41	0.54	0.48	0.43	0.52	0.47	0.42	0.51	0.45	0.42	0.40	0.40	0.40	0.40	0.40	0.40	
8	0.65	0.53	0.45	0.40	0.63	0.52	0.45	0.38	0.50	0.44	0.39	0.49	0.43	0.38	0.47	0.42	0.38	0.36	0.36	0.36	0.36	0.36	0.36	
9	0.61	0.49	0.41	0.36	0.60	0.48	0.41	0.35	0.47	0.40	0.36	0.45	0.39	0.35	0.44	0.39	0.35	0.33	0.33	0.33	0.33	0.33	0.33	
10	0.58	0.45	0.38	0.33	0.56	0.45	0.38	0.32	0.43	0.37	0.33	0.42	0.36	0.32	0.41	0.36	0.32	0.30	0.30	0.30	0.30	0.30	0.30	

### 4000K, Grazing

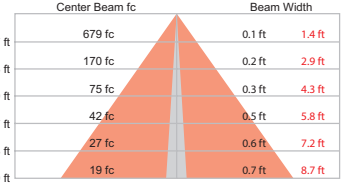
Lumens	Efficacy	CRI
878	74.3	81

### Polar Candela Distribution



90°	0	25	45	70	90
0	302	302	302	302	302
5	441	426	390	337	299
15	1290	1183	814	432	273
25	200	248	1324	561	234
35	101	113	166	848	191
45	52	58	72	1244	144
55	40	40	43	549	67
65	42	40	36	145	44
75	43	41	34	32	12
85	38	36	30	13	6
90	38	36	30	10	4

### Illuminance at Distance



17.4 ft (5.3 m)  
1 fc maximum distance

Vert. Spread: 9.8°  
Horiz. Spread: 94.7°

### Zonal Lumen

Zone	Lumens	% Luminaire
0-30	343.1	39.1%
0-40	496.4	56.5%
0-60	708.2	80.6%
0-90	824.5	93.9%
60-90	116.3	13.2%
70-100	83.2	9.5%
90-120	46.7	5.3%
90-180	53.7	6.1%
0-180	878.2	100.0%

### Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80				70				50				30				10				0			
	RW	%	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0	50	30	20	0
RCR:	0	1.18	1.18	1.18	1.14	1.14	1.14	0.94	1.08	1.08	1.08	1.02	1.02	1.02	0.96	0.96	0.96	0.96	0.94	0.94	0.94	0.94	0.94	0.94
1	1.08	1.04	1.00	0.97	1.05	1.01	0.98	0.81	0.96	0.93	0.90	0.91	0.89	0.87	0.96	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
2	1.00	0.93	0.87	0.82	0.97	0.90	0.85	0.71	0.88	0.81	0.77	0.82	0.78	0.75	0.78	0.75	0.78	0.75	0.72	0.70	0.70	0.70	0.70	0.70
3	0.92	0.83	0.76	0.70	0.90	0.81	0.75	0.63	0.77	0.72	0.67	0.74	0.69	0.65	0.71	0.67	0.64	0.61	0.61	0.61	0.61	0.61	0.61	0.61
4	0.86	0.75	0.67	0.61	0.83	0.73	0.66	0.56	0.70	0.64	0.59	0.67	0.62	0.58	0.65	0.60	0.56	0.54	0.54	0.54	0.54	0.54	0.54	0.54
5	0.80	0.68	0.60	0.54	0.77	0.67	0.59	0.50	0.64	0.58	0.53	0.62	0.56	0.52	0.59	0.54	0.51	0.48	0.48	0.48	0.48	0.48	0.48	0.48
6	0.74	0.62	0.54	0.49	0.72	0.61	0.54	0.45	0.59	0.52	0.47	0.57	0.51	0.46	0.55	0.50	0.46	0.44	0.44	0.44	0.44	0.44	0.44	0.44
7	0.69	0.57	0.49	0.44	0.67	0.56	0.49	0.41	0.54	0.48	0.43	0.52	0.46	0.42	0.50	0.45	0.41	0.39	0.39	0.39	0.39	0.39	0.39	0.39
8	0.65	0.53	0.45	0.40	0.63	0.52	0.45	0.38	0.50	0.44	0.39	0.48	0.43	0.38	0.47	0.42	0.38	0.36	0.36	0.36	0.36	0.36	0.36	0.36
9	0.61	0.49	0.41	0.36	0.59	0.48	0.41	0.34	0.47	0.40	0.36	0.45	0.39	0.35	0.44	0.39	0.35	0.33	0.33	0.33	0.33	0.33	0.33	0.33
10	0.58	0.45	0.38	0.33	0.56	0.45	0.38	0.32	0.43	0.37	0.33	0.42	0.36	0.32	0.41	0.36	0.32	0.30	0.30	0.30	0.30	0.30	0.30	0.30

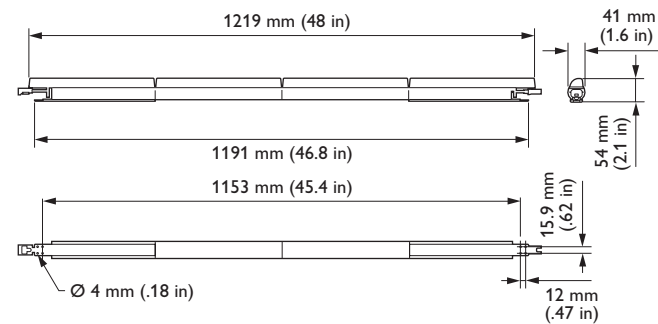
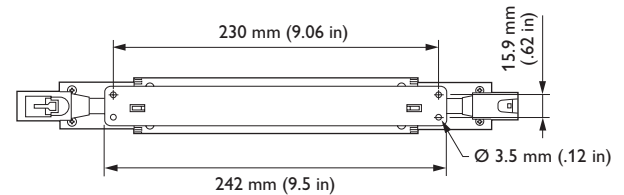
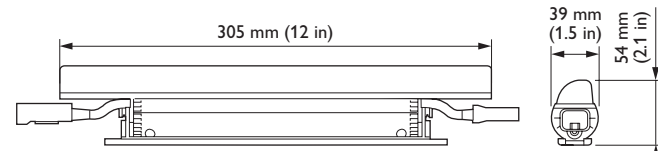
For lux multiply fc by 10.7

# EvenBalance Essential White Powercore Specifications:

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

Application	Color Temperature*	Lumens (305mm)	Lumens† (1219 mm)	Efficacy (lm / W)	CRI
Washing	2700K	775	3100	64.9	81
	3000K	927	3708	79.1	81
	3500K	887	3548	77.2	83
	4000K	881	3524	76.6	81
Grazing	2700K	764	3056	67.0	81
	3000K	927	3708	79.3	81
	3500K	884	3536	76.0	83
	4000K	878	3512	74.3	81

Item	Specification	Details
Output	Lumen Maintenance‡	>54,000 hours L90 @ 25° C Reported >54,000 hours L90 @ 50° C Reported >200,000 hours L80 @ 25° C Calculated >200,000 hours L80 @ 50° C Calculated >200,000 hours L70 @ 25° C Calculated >200,000 hours L70 @ 50° C Calculated
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz
	Power Consumption	12.5 W maximum at full output, steady state (305 mm) 50 W maximum at full output, steady state (1219 mm)
	Power Factor	.99 @ 120 V
Control	Dimming	Compatible with selected commercially available reverse-phase ELV-type dimmers§
Physical	Dimensions (Height x Width x Depth)	54 x 305 x 39 mm (2.1 x 12 x 1.5 in) 54 x 1219 x 41 mm (2.1 x 48 x 1.6 in)
	Weight	445 g (0.98 lb) 1.98 kg (4.37 lb)
	Housing	Die-cast aluminium, white powder-coated finish.
	Lens	Polycarbonate
	Fixture Connections	Integral male / female connectors
	Temperature Ranges	-40° – 122° F (-40° – 50° C) Operating -4° – 122° F (-20° – 50° C) Startup -40° – 176° F (-40° – 80° C) Storage
	Humidity	0 – 95%, non-condensing
Certification and Safety	Certification	UL / cUL, FCC Class B, CE, C-Tick, CCC
	Environment	UL Dry / Damp Location, IP20



\* Color temperatures conform to nominal CCTs as defined ANSI Chromaticity Standard C78.377A.



† 305 mm (1 ft) lumen output measurement complies with IES LM-79-08 testing procedures. 1219 mm (4 ft) measurements are estimated based on the 305 mm (1 ft) measurements.

‡ L70 = 70% lumen maintenance (when light output drops below 70% of initial output). L50 = 50% lumen maintenance (when light output drops below 50% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED fixtures are based on measurements that comply with IES LM-80-08 testing procedures. Refer to [www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf](http://www.philipscolorkinetics.com/support/appnotes/lm-80-08.pdf) for more information.

§ Refer to [www.philipscolorkinetics.com/support/appnotes/](http://www.philipscolorkinetics.com/support/appnotes/) for specific details.



# Product Selection

To order EvenBalance Essential White Powercore, choose a color temperature, an application, a fixture length, a line voltage connection option, and any extra options you may need.

**1** Choose beam angle

**2** Choose color temperature

**3** Choose fixture length

**4** Choose line voltage connection option

**5** Choose extra options

## Fixtures

Application	Color Temperature	Type	Item Number	Philips 12NC
Washing	2700 K	305 mm (1 ft)	523-000099-08	912400134219
		1219 mm (4 ft)	523-000099-12	912400134223
	3000 K	305 mm (1 ft)	523-000099-09	912400134220
		1219 mm (4 ft)	523-000099-13	912400134224
	3500 K	305 mm (1 ft)	523-000099-10	912400134221
		1219 mm (4 ft)	523-000099-14	912400134225
	4000 K	305 mm (1 ft)	523-000099-11	912400134222
		1219 mm (4 ft)	523-000099-15	912400134226
Grazing	2700 K	305 mm (1 ft)	523-000099-00	912400134211
		1219 mm (4 ft)	523-000099-04	912400134215
	3000 K	305 mm (1 ft)	523-000099-01	912400134212
		1219 mm (4 ft)	523-000099-05	912400134216
	3500 K	305 mm (1 ft)	523-000099-02	912400134213
		1219 mm (4 ft)	523-000099-06	912400134217
	4000 K	305 mm (1 ft)	523-000099-03	912400134214
		1219 mm (4 ft)	523-000099-07	912400134218

Use Item Number when ordering in North America.

## Accessories

Item	Type		Item Number	Philips 12NC
Leader Cable with terminator and strain relief	UL / cUL	3 m (10 ft)	108-000047-00	910503700972
	CE / CCC	3 m (10 ft)	108-000047-01	910503700973
Wiring Compartment with terminator	UL / cUL	44.5 x 44.5 x 111.1 mm (1.75 x 1.75 x 4.38 in)	120-000077-01	910503700994
Jumper Cable	UL / cUL	305 mm (12 in)	108-000048-00	910503700974
		1.5 m (5 ft)	108-000048-01	910503700975
	CE / CCC	305 mm (12 in)	108-000048-02	910503700976
		1.5 m (5 ft)	108-000048-03	910503700977
Terminators	10 / box		120-000099-00	910503701120
Mounting Track, White	Quantity 1	1219 mm (4 ft)	120-000124-00	910503701787

Use Item Number when ordering in North America.

# Installation

EvenBalance Essential White Powercore offers high-output, energy-efficient indoor white cove and indirect general lighting with Powercore technology. Powercore technology, which integrates LED power and data management within the fixture, eases installation by eliminating the need for external power supplies.

## Owner / User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate EvenBalance Essential White 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.

## Create a Layout Plan

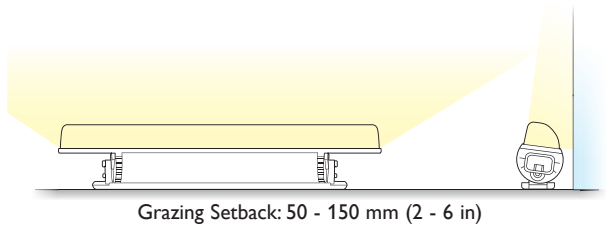
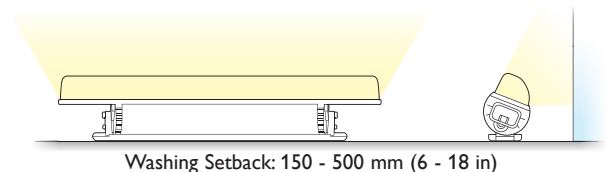
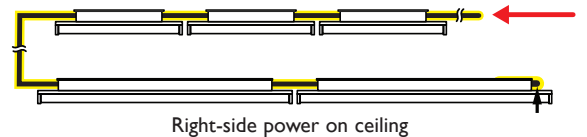
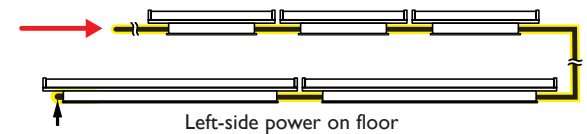
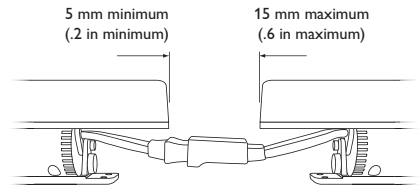
Regardless of the size and complexity of your installation, the time you spend planning can help minimize installation and configuration issues later. Keep these suggestions in mind as you plan your installation:

- On an architectural diagram or other diagram that shows the physical layout of the installation, create a layout map that specifies the appropriate location of the light fixtures in relation to each other, and to any dimmer switches, wall switches, and line power sources. Identify any obstacles or physical features requiring flexible jumper cables between fixtures.
- EvenBalance Essential White Powercore fixtures are installed in series. The in-line connectors allow end-to-end fixture connections for the best visual effects. Joined directly together, the connectors on the 305 mm (1 ft) fixtures allow for spacing of 10 mm (0.4 in) to 23 mm (0.9 in) without a jumper cable, while the connectors on the 1219 mm (4 ft) fixtures allow for spacing of 23 mm (0.9 in) to 51 mm (2 in) without a jumper cable. When you need to separate fixtures by more than these minimums, use the 305 mm (1 ft) or 1.5 m (5 ft) jumper cables.
- You can install a run of EvenBalance Essential White Powercore fixtures using the 3 m (10 ft) Leader Cable with flying leads. This option is preferable when connecting to a third-party junction box, or when retrofitting an existing incandescent or fluorescent cove lighting installation.
- EvenBalance Essential White Powercore fixtures accept power in the left-side when on the floor facing up, or the right-side when on the ceiling facing down.
- In North America, you can use the Wiring Compartment when you want to run branch conduit all the way to the first fixture in a series, or where local codes require it.
- The maximum number of fixtures each circuit can support depends on specific configuration details such as fixture length, fixture spacing, circuit size, line voltage, and leader and jumper cable length. For more information, and for help calculating the number of fixtures your specific installation can support, download the Configuration Calculator from [www.philipscolorkinetics.com/support/install\\_tool/](http://www.philipscolorkinetics.com/support/install_tool/), or consult Application Engineering Services at [support@colorkinetics.com](mailto:support@colorkinetics.com).
- A 150 – 500 mm (6 – 18 in) setback is required for the washing application and a 50 – 150 mm (2 – 6 in) setback is required for the grazing application.

✳ Refer to the EvenBalance Essential White Powercore Installation Instructions for specific warning and caution statements.

✳ End-to-end locking power connectors can make turns of up to 180° without jumper cables.

Distance between fixtures joined end-to-end

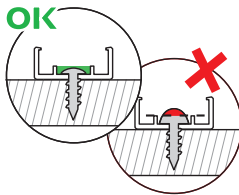


✳ Refer to the installation instructions included with the wall or dimmer switch for installation and wiring information.

### Included in the box

EvenBalance Essential White Powercore fixture  
Installation Instructions

✳ You can use the fixture base as a template when pre-drilled pilot holes are required. Hold the fixture in place and mark the four screw holes.



## Install Wall and Dimmer Switches (optional)

EvenBalance Essential White Powercore fixtures can be controlled either with a standard wall switch (on / off) or a compatible, commercially available reverse-phase ELV-type dimmers. EvenBalance Essential White Powercore fixtures work with selected trailing edge reverse-phase (ELV) dimmers.

For a list of compatible dimmers, and for details on selecting the appropriate dimmer for your lighting installation, visit [www.colorkinetics.com/support/appnotes](http://www.colorkinetics.com/support/appnotes), or consult Application Engineering services at [support@colorkinetics.com](mailto:support@colorkinetics.com).

## Prepare for the Installation

1. Verify that all supporting equipment (switches, line power sources) is in place.
2. If your installation calls for jumper cables to add space between fixtures, make sure they are available.
3. Ensure that all additional parts (optional mounting tracks, mounting hardware, terminators) and tools are available.

## Install the Fixtures

You can mount EvenBalance Essential White Powercore fixtures directly to a wall, ceiling, cabinet, or other secure surface. You can install EvenBalance Essential White Powercore fixtures in optional 1219 mm (4 ft) lengths of mounting track to ensure a straight run.

### Install Mounting Tracks (Optional)

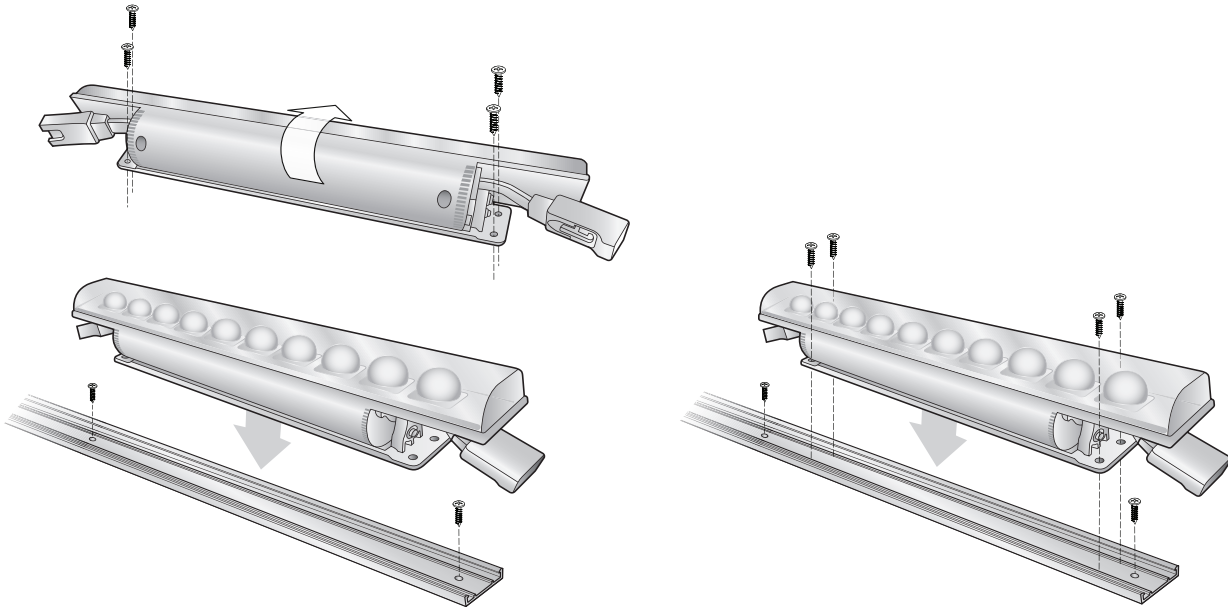
1. Field-cut the mounting tracks to the desired length with a hacksaw or tin snips.
2. Install the mounting tracks using hardware suitable for the mounting surface.

To ensure proper fixture fit, hardware must not extend above the track standoffs after installation. The recommended maximum spacing between screws is 305 mm (1 ft).

## Mount and Connect the Fixtures

Make sure the power is OFF before mounting and connecting EvenBalance Essential White Powercore fixtures.

1. Rotate an EvenBalance Essential White Powercore fixture as necessary to provide unobstructed access to the mounting holes.



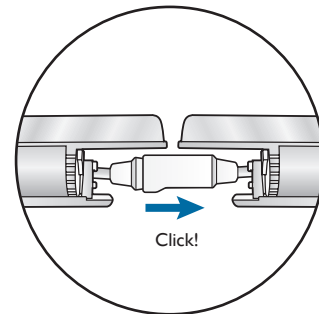
2. Position the first fixture in a series.

If using mounting tracks on a horizontal surface, snap the fixture into the track.

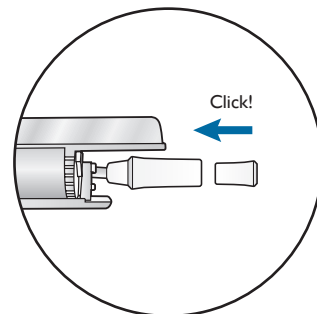
If using mounting tracks on vertical or overhead surfaces, or if not using mounting tracks, attach 1 ft (305 mm) fixtures with four #6 (3.5 mm) mounting screws each (not included) suitable for the mounting surface. Attach 1219 mm (4 ft) fixtures with eight #6 (3.5 mm) mounting screws suitable for the mounting surface, four at each end of the fixture,

Ensure that the male connector is in position to receive power from the female connector on the Leader Cable or Wiring Compartment.

3. Position the next fixture in the series, matching the male connector end to the female connector of the previously mounted fixture. Attach the fixture to the surface or snap it into the track.
4. Continue mounting the fixtures, making power connections as you go, until all lights in the series are mounted.
5. Insert the provided terminator into the last fixture in the series.
6. Make power connections.



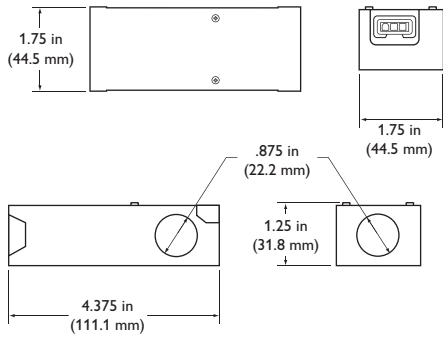
Male and Female Connectors



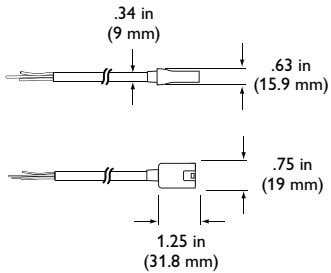
Terminator



## Wiring Compartment dimensions

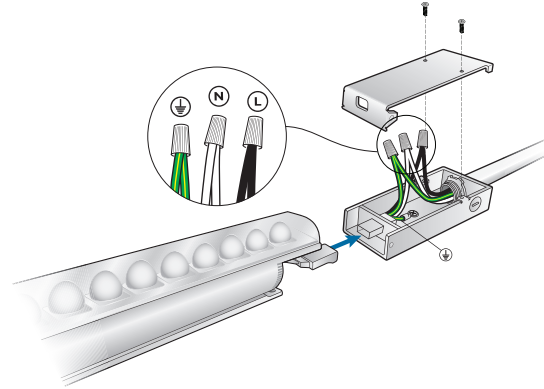


## Leader Cable connector dimensions



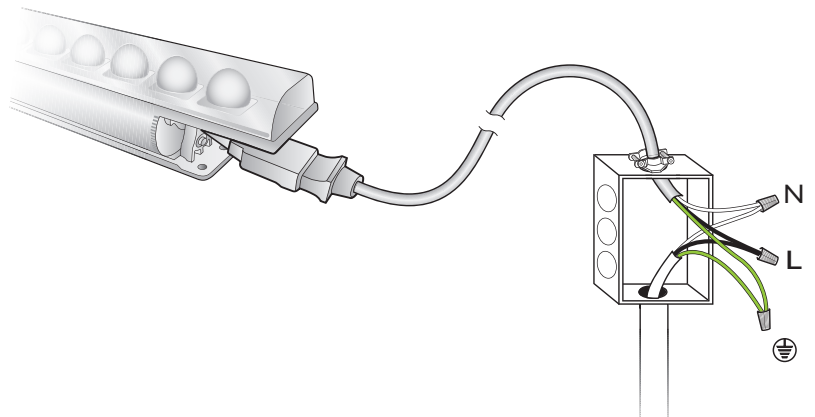
## To run power or conduit to the first fixture in a series (UL / cUL installations):

1. Remove the cover from the EvenBalance Essential White Powercore Wiring Compartment.
2. Using wire nuts, connect ground, neutral, and line inside the Wiring Compartment housing, then replace the cover.
3. Connect the EvenBalance Essential White Powercore Wiring Compartment to the first fixture in the series.



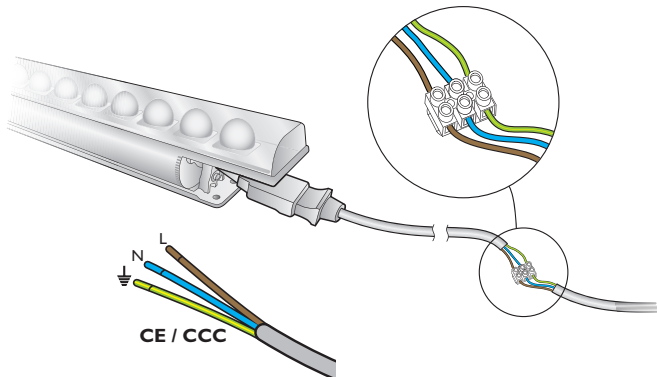
## To connect the first fixture in a series to a third-party junction box using the 3 m (10 ft) Leader Cable (UL / cUL installations):

1. Remove the cover of the third-party junction box.
2. Connect ground, neutral, and line inside the junction box housing, then replace the junction box cover.
3. Connect the 3 m (10 ft) Leader Cable to the first fixture in the series.



**For CE / CCC installations:**

1. Connect the Leader Cable to a terminal block. For CE installation, the terminal block must conform to EN 60998-2-1 or EN 60998-2-2, rated 220 – 240 VAC.
2. Connect ground, neutral, and line to a power source.
3. Connect the 3 m (10 ft) Leader Cable to the first fixture in the series.

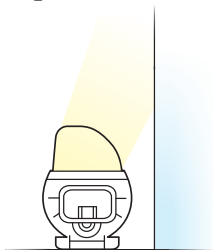


## Aim and Lock the Fixtures

Make sure the power is ON before aiming fixtures.

When aiming a fixture in either application, make sure to apply the brightest spot at the top of the wall you are illuminating. When the brightest spot is aimed at the top of the wall it provides the highest illuminance and uniformity possible.

(Optional) Using a 2 mm hex key wrench, tighten the set screw



located on each end of the fixture to lock the fixture in place.

