



eW Graze Powercore Family

Linear exterior LED wall grazing fixtures with solid white light

eW Graze MX Powercore

eW Graze QLX Powercore

eW Graze QLX Powercore 5W

eW Graze EC Powercore

PHILIPS



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The new eW Graze Powercore family dramatically extends the range and flexibility of the popular line of solid white light LED grazing fixtures from Philips Color Kinetics. Featuring Powercore technology, eW Graze Powercore fixtures process power directly from line voltage, eliminating the need for external power supplies. Fixtures are available in standard color temperatures of 2700 K, 4000 K, and 5500 K, with additional custom color temperatures available, ranging from 3000 K to 6500 K. Multiple fixture lengths, beam angles, output levels, and power consumption levels support a large range of façade or surface illumination application. Low-profile housing, connectorized cabling, a universal power input range, and direct line-voltage operation make eW Graze Powercore fixtures easy to install and operate.

- Tailor light output to specific applications — Available in four standard lengths, with standard 9° x 9°, 10° x 60°, 15° x 30°, 30° x 60° and 60° x 30° beam angles.
- High-performance illumination and beam quality — eW Graze Powercore fixtures deliver up to 876 lumens of high-quality white light per foot. Superior beam quality offers striation-free saturation for several feet from fixture placement with no visible light scalloping between fixtures.
- Integrates Powercore technology — Powercore technology rapidly, efficiently, and accurately controls power output to fixtures directly from line voltage over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Versatile installation options — Convenient push-and-click connectors let you easily and rapidly install Leader Cables and Jumper Cables. Multiple cable lengths support a variety of layouts. Constant torque locking hinges offer simple and consistent position control
- from various angles. The low-profile aluminum housing accommodates placement within most architectural niches.
- Superior color consistency and accuracy — Optibin, an advanced binning algorithm, sets a new standard for the color consistency and uniformity of LED sources used in manufacturing.
- Universal power input range — Fixtures accept a universal power input range of 100 – 277 VAC for consistent installation anywhere in the world.
- “Cool lighting” functionality — eW Graze Powercore fixtures do not heat illuminated surfaces, discharge infrared radiation, or emit ultraviolet light.
- Dimming capability — Patented DIMand technology offers smooth dimming capability with selected commercially available reverse-phase ELV-type dimmers.

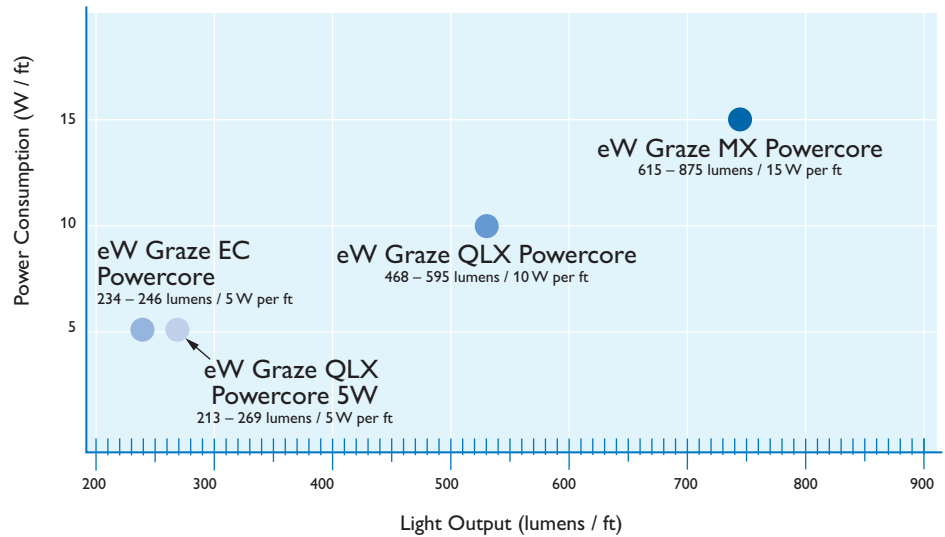


High performance + easy installation

With flexible mounting options, multiple fixture length and beam angle options, integrated Powercore technology, and a discreet low-profile housing rated for use in outdoor locations, eW Graze Powercore offers high performance and simple installation.

Illuminate surfaces with the right level of light

The expanded range of eW Graze Powercore solid white light grazing fixtures offer four levels of performance at four levels of power consumption. A range of beam angles lets you select exactly the right light distribution and output for your application.



eW Graze MX Powercore

Features the most light output in our line of solid white light grazing fixtures — more than any previous version — for high-intensity multi-story façade and surface illumination.

eW Graze QLX Powercore

Consumes 33% less energy than eW Graze MX Powercore. Perfect for surface illumination applications calling for a balance of cost and performance.

eW Graze QLX Powercore 5W

Fixtures are factory-set to consume a maximum of 5 W per foot, to support ASHRAE standards, LEED green building certification, and other power-limited projects. Offers the same beam spread options as eW Graze MX Powercore and eW Graze QLX Powercore.

eW Graze EC Powercore

Wide beam angle (90° x 90°) produces a soft-edged, volume fill for exterior cove, niche, and architectural detail illumination.

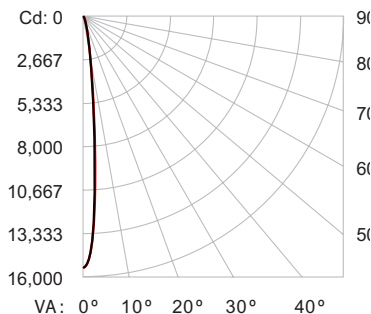
Photometrics / eW Graze MX Powercore, 2700 K

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

1 ft (305 mm), 9° x 9° beam angle

Lumens	Efficacy
735	49.3 lm / W

Polar Candela Distribution



0.0	22.5	45.0	67.5	90.0
0	15097	15097	15097	15097
5	7135	7125	7334	7565
15	569	541	516	533
25	74	69	72	64
35	23	19	22	22
45	8	7	9	10
55	5	4	5	6
65	3	3	3	3
75	1	0	0	2
85	0	0	0	0
90	0	0	0	0

Illuminance at Distance

Center Beam fc	Beam Width
943.6 fc	0.7 ft 0.7 ft
235.9 fc	1.4 ft 1.4 ft
104.8 fc	2.0 ft 2.1 ft
59.0 fc	2.7 ft 2.8 ft
37.7 fc	3.4 ft 3.6 ft
26.2 fc	4.1 ft 4.3 ft

123 ft (37.5 m)
1 fc maximum distance

■ Vert. Spread: 9.7°
■ Horiz. Spread: 10.2°

Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%														
RC RW	80			70			50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
0	119191911919	116116116116	1111111111	106106106	102102102	100										
1	116114112111	113112110109	108107106	104104103	101100100	98										
2	113110107105	111108106104	105103102	102101100	100	99	98	96								
3	110107104101	109105103100	103101	99	101	99	97	96	95							
4	108104101	107103100	101	98	97	99	97	95	97	96	94					
5	106101	105100	98	95	99	96	95	94	96	94	93	92				
6	104	99	96	94	103	99	96	93	95	94	92	91	90			
7	102	97	94	92	101	97	94	92	95	93	91	94	93	91	90	
8	101	96	93	91	100	95	92	90	92	90	89	90	89	88	87	
9	99	94	91	89	98	94	91	89	93	91	89	92	90	88	87	
10	98	93	90	88	97	93	90	88	92	89	88	91	89	88	87	

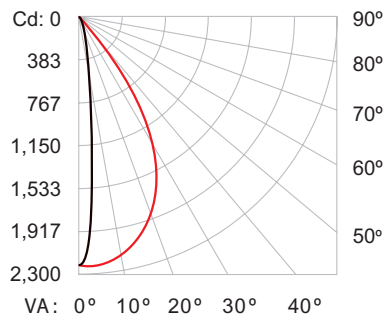
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	705	96.0
0- 40	719	97.9
0- 60	731	99.5
0- 90	735	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	735	100.0

1 ft (305 mm), 10° x 60° beam angle

Lumens	Efficacy
645	47.1 lm / W

Polar Candela Distribution



0.0	22.5	45.0	67.5	90.0
0	2231	2231	2231	2231
5	1228	1341	1677	2062
15	170	202	336	937
25	32	41	95	336
35	12	13	28	130
45	6	6	11	44
55	4	4	6	16
65	3	3	3	7
75	1	1	1	3
85	1	1	1	1
90	1	0	0	0

Illuminance at Distance

Center Beam fc	Beam Width
139.4 fc	.8 ft 5.1 ft
34.9 fc	1.5 ft 10.2 ft
15.5 fc	2.3 ft 15.3 ft
8.7 fc	3.1 ft 20.4 ft
5.6 fc	3.8 ft 25.6 ft
3.9 fc	4.6 ft 30.7 ft

47 ft (14.3 m)
1 fc maximum distance

■ Vert. Spread: 11.0°
■ Horiz. Spread: 65.1°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%																			
RC	80				70				50		30		10		0				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0				
0	119119119119				116116116116				1111111111			106106106		102102102	100				
1	114111109107				111109107105				105103102			101100		99	96	94			
2	108104100				106102				99	96	94	96		94	92	93	91	89	88
3	103	97	93	89					102	96	92	88		83					
4	99	92	87	83					97	91	86	82		78					
5	94	87	81	77					93	86	81	77		73					
6	90	82	76	73					89	81	76	72		69					
7	86	78	72	68					85	77	72	68		66					
8	83	74	69	65					82	74	68	65		63					
9	80	71	65	62					79	70	65	62		60					
10	77	68	62	59					76	67	62	59		57					

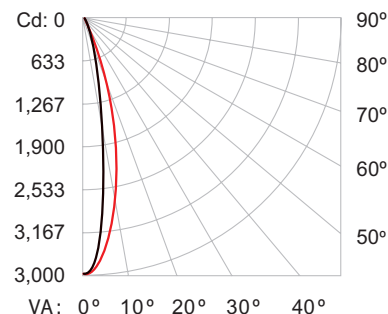
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	483	74.8
0- 40	578	89.7
0- 60	635	98.5
0- 90	645	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	645	100.0

1 ft (305 mm), 15° x 30° beam angle

Lumens	Efficacy
710	46.4 lm / W

Polar Candela Distribution



0.0	22.5	45.0	67.5	90.0
0	3780	3780	3780	3780
5	3006	3071	3235	3405
15	593	675	955	1422
25	77	92	151	289
35	21	22	30	50
45	9	9	12	15
55	6	6	6	8
65	4	4	4	5
75	2	2	2	2
85	1	1	1	1
90	1	1	0	0

Illuminance at Distance

Center Beam fc	Beam Width
236.3 fc	1.2 ft 2.0 ft
59.1 fc	2.5 ft 4.0 ft
26.3 fc	3.7 ft 6.0 ft
14.8 fc	4.9 ft 8.0 ft
9.5 fc	6.2 ft 10.0 ft
6.6 fc	7.4 ft 12.0 ft

61 ft (18.6 m)
1 fc maximum distance

■ Vert. Spread: 17.5°
■ Horiz. Spread: 28.0°

Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%															
RC	80				70				50		30		10		0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0
0	119119119119				116116116116				1111111111			106106106		102102102	100
1	115113111109				112111109107				107105104			103102101		100	99
2	111107104102				109106103101				103100			98	100	98	96
3	107103	99	96		106101	98	95		96	94		97	94	92	90
4	104	99	95	92	102	98	94	91	96	92	90	94	89	92	90
5	101	95	91	88	100	94	90	87	93	89	87	91	88	86	84
6	98	92	88	85	97	91	87	84	90	86	84	89	86	83	82
7	95	89	85	82	94	88	84	82	87	84	81	86	83	81	80
8	93	86	82	79	92	86	82	79	88	84	81	82	79	78	77
9	90	84	80	77	90	83	79	77	83	79	77	82	79	76	75
10	88	82	78	75	87	81	77	75	80	77	75	80	77	74	73

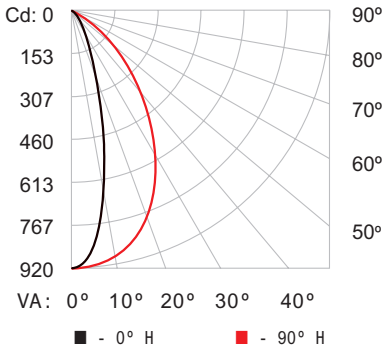
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	662	93.2
0- 40	687	96.7
0- 60	703	99.0
0- 90	710	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	710	100.0

1 ft (305 mm), 30° x 60° beam angle

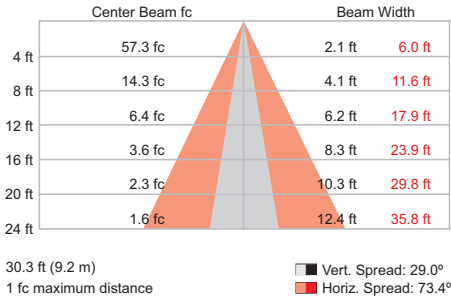
Lumens	Efficacy
615	45.9 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	917	917	917	917	917
5	851	858	878	900	908
15	435	475	598	758	838
25	123	151	268	519	703
35	35	41	85	271	498
45	17	18	28	105	273
55	12	11	13	35	109
65	7	7	7	12	34
75	3	3	3	4	9
85	1	1	1	1	1
90	1	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%															
RC	80	70	50	30	10	0	RC	80	70	50	30	10	0	RC	80	70	50
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	119119119119	116116116116	1111111111	106106106	102102102	100	1	113110107105	111108106103	104102100	100	99	97	95	94	93	93
2	107102	97	94	105100	96	93	97	94	91	94	91	89	91	89	87	85	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80
4	96	88	82	78	94	87	81	77	85	80	76	82	78	75	81	77	74
5	91	82	76	71	89	81	75	71	79	74	70	78	73	70	76	72	69
6	86	77	71	66	85	76	70	66	75	69	66	73	69	65	72	68	65
7	82	72	66	62	81	72	66	62	70	65	61	69	64	61	68	64	61
8	78	68	62	58	77	68	62	58	66	61	57	65	61	57	64	60	57
9	74	64	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51

Zonal Lumen

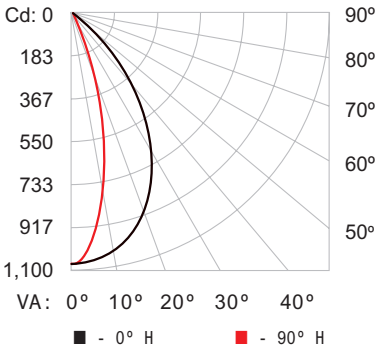
ZONE	LUMENS	%FIXT
0- 30	407	66.2
0- 40	512	83.2
0- 60	597	97.2
0- 90	615	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	615	100.0

For lux multiply fc by 10.7

1 ft (305 mm), 60° x 30° beam angle

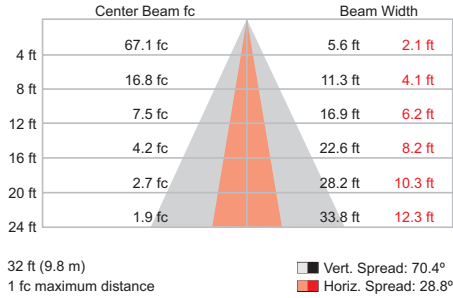
Lumens	Efficacy
694	48.2 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1073	1073	1073	1073	1073
5	1065	1051	1024	1001	991
15	982	884	695	554	506
25	811	594	308	176	143
35	542	293	96	46	37
45	259	106	31	19	17
55	87	35	14	11	11
65	24	13	8	7	7
75	6	4	3	3	3
85	3	2	1	1	1
90	2	1	1	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%															
RC	80	70	50	30	10	0	RC	80	70	50	30	10	0	RC	80	70	50
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	119119119119	116116116116	1111111111	106106106	102102102	100	1	113110108105	111108106104	104102100	100	99	97	97	96	95	93
2	107102	98	94	105100	97	93	97	94	91	94	92	89	91	89	87	86	86
3	102	95	90	86	100	94	89	85	91	87	84	89	85	82	86	83	81
4	96	89	83	79	95	87	82	78	85	81	77	83	79	76	81	78	75
5	92	83	77	73	90	82	76	72	80	75	72	79	74	71	77	73	70
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66
7	83	73	67	63	81	73	67	63	71	66	62	70	66	62	69	65	62
8	79	69	63	59	78	69	63	59	68	62	59	67	62	58	66	61	58
9	75	66	60	56	74	65	59	56	64	59	55	63	59	55	62	58	55
10	72	62	56	53	71	62	56	52	61	56	52	60	55	52	59	55	52

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	475	68.5
0- 40	592	85.3
0- 60	676	97.5
0- 90	693	99.9
90-120	0	0.1
90-130	0	0.1
90-150	0	0.1
90-180	0	0.1
0-180	694	100.0

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

Lumens	Efficacy
875	60.3 lm / W

0	0.0	22.5	45.0	67.5	90.0
5	19336	19336	19336	19336	19336
15	8713	8857	9294	9737	9895
25	673	628	593	632	697
35	75	62	73	59	63
45	21	16	18	18	19
55	6	7	9	9	11
65	3	3	4	4	6
75	3	2	3	2	3
85	1	0	1	1	1
90	0	0	0	0	0

	Center Beam fc		Beam Width
4 ft	1,208.5 fc	0.7 ft	0.7 ft
8 ft	302.1 fc	1.3 ft	1.4 ft
12 ft	134.3 fc	2.0 ft	2.1 ft
16 ft	75.5 fc	2.7 ft	2.9 ft
20 ft	48.3 fc	3.2 ft	3.6 ft
24 ft	33.6 fc	4.0 ft	4.3 ft

139 ft (127.1 m)
1 fc maximum distance

Vert. Spread: 9.5°
Horiz. Spread: 10.2°

		Effective Floor Cavity Reflectance: 20%																	
RC	RW	80			70			50			30			10			0		
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119119119119	116116116116	111111111111	106106106106	102102102102	100													
1	1161111131111	114112111109	108107106	104104103	101101100	98													
2	113110108106	11109106105	106104102	103101100	100	98	97	96	95	94									
3	1110107104102	109106103101	103101100	101	98	98	97	96	95	94									
4	108104101	99	97	103100	98	100	98	97	96	95	94								
5	106102	99	97	105101	98	96	100	97	95	98	96	95	94						
6	105100	97	95	104	98	97	94	96	95	93	96	94	93	92					
7	103	98	95	93	102	98	95	93	97	94	93	95	94	92	91				
8	102	97	94	92	101	96	94	92	96	93	93	91	90	89	88				
9	100	95	93	91	99	95	92	90	94	92	90	93	91	89	87	86			
10	98	94	91	90	98	94	91	89	93	91	89	92	90	89	88	87	86	85	84

ZONE	LUMENS	%FIXT
0- 30	848	97.0
0- 40	860	98.3
0- 60	871	99.6
0- 90	875	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	875	100.0

Lumens	Efficacy
829	60.5 lm / W

0	0.0	22.5	45.0	67.5	90.0
5	2700	2700	2700	2700	2700
15	1530	1664	2062	2509	2688
25	219	257	420	1192	2521
35	44	57	130	434	2063
45	15	17	39	175	1233
55	8	9	15	63	425
65	5	5	8	23	98
75	4	4	4	9	32
85	2	2	2	4	11
90	1	1	1	1	2
90	1	1	1	0	0

	Center Beam fc	Beam Width
4 ft	168.8 fc	0.8 ft
8 ft	42.2 fc	1.6 ft
12 ft	18.8 fc	2.4 ft
16 ft	10.5 fc	3.2 ft
20 ft	6.8 fc	3.9 ft
24 ft	4.7 fc	4.7 ft

52 ft (15.8 m)
1 fc maximum distance

Vert. Spread: 11.3°
Horiz. Spread: 67.4°

[illegible]

ZONE	LUMENS	%FIXT
0- 30	607	73.2
0- 40	736	88.7
0- 60	815	98.3
0- 90	829	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	829	100.0

Lumens	Efficacy
876	60.4 lm / W

	0.0	22.5	45.0	67.5	90.0
0	4677	4677	4677	4677	4677
5	3711	3791	4002	4218	4317
15	723	823	1168	1762	2128
25	93	110	181	354	519
35	24	25	35	60	84
45	12	12	15	19	23
55	8	7	8	10	11
65	5	5	5	6	7
75	2	2	2	3	3
85	1	1	1	1	0
90	1	0	0	0	0

	Center Beam fc	Beam Width
4 ft	292.3 fc	1.2 ft 2.0 ft
8 ft	73.1 fc	2.5 ft 4.0 ft
12 ft	32.5 fc	3.7 ft 6.0 ft
16 ft	18.3 fc	4.9 ft 8.0 ft
20 ft	11.7 fc	6.1 ft 10.1 ft
24 ft	8.1 fc	7.4 ft 12.1 ft

68 ft (20.7 m)
1 fc maximum distance

Vert. Spread: 17.5°
Horiz. Spread: 28.2°

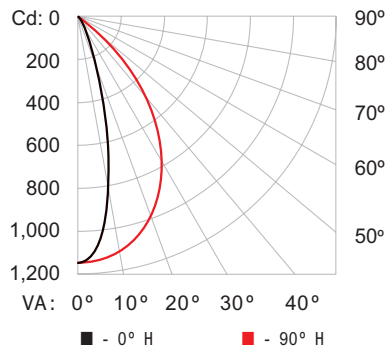
RC	Effective Floor Cavity Reflectance: 20%										
	80		70		50		30		10		
RM	70	50	30	10	70	50	30	10	70	50	0
0	119191911919	11616161616	11111111	106106106	10101010	10010010	102102102	100			
1	11513131119	11311110907	107105104	103102101	10010010	10010010	10010010	98	98	98	96
2	111107104102	109106103101	103100100	10010010	10010010	10010010	10010010	97	96	94	93
3	107103100106	10610100105	98100100	96100100	94100100	94100100	94100100	94	93	91	90
4	104109105102	103108104101	96100100	94100100	92100100	91100100	91100100	92	90	88	87
5	10010510100	100104100100	93100100	91100100	89100100	88100100	88100100	90	87	85	84
6	9810100100	9710100100	90100100	88100100	86100100	85100100	85100100	87	83	81	80
7	95100100100	94100100100	87100100	85100100	83100100	82100100	82100100	85	80	78	77
8	93100100100	92100100100	85100100	83100100	81100100	80100100	80100100	83	78	76	75
9	90100100100	89100100100	83100100	81100100	79100100	78100100	78100100	81	76	74	73

ZONE	LUMENS	%FIXT
0- 30	817	93.2
0- 40	847	96.7
0- 60	868	99.0
0- 90	876	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	876	100.0

1 ft (305 mm), 30° x 60° beam angle

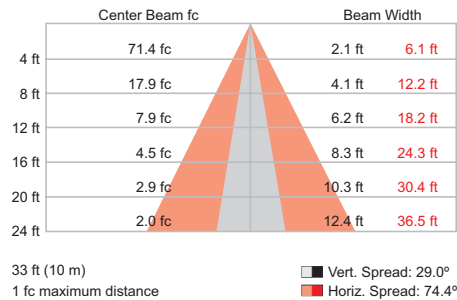
Lumens	Efficacy
775	57.8 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1143	1143	1143	1143	1143
5	1063	1071	1097	1125	1134
15	543	594	752	958	1062
25	153	188	338	664	905
35	43	51	106	345	640
45	22	22	34	130	340
55	16	15	16	42	130
65	9	9	9	15	39
75	4	4	4	5	10
85	2	1	1	1	1
90	1	1	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%																				
RC		80				70				50				30				10				0
RW		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	1191911911919					116116116116				111111111			106106106			102102102			100			
1	113110107105					111108106103				104102100			100	99	97	95	94	93				
2	107102	97	94			105100	96	93		97	94	91	89	91	89	87	85					
3	101	94	89	85		99	93	88	84		90	86	83	88	84	82	86	83	80			
4	96	88	82	78		94	87	81	77		85	80	76	83	79	75	81	77	74			
5	91	82	76	71		89	81	75	71		79	74	70	78	73	70	76	72	69			
6	86	77	71	66		85	76	70	66		75	69	66	73	69	65	72	68	65			
7	82	72	66	62		81	72	66	62		70	65	61	69	64	61	68	64	61			
8	78	68	62	58		77	68	62	58		66	61	57	65	61	57	64	60	57			
9	74	64	58	54		73	64	58	54		63	58	54	62	57	54	61	57	54			
10	71	61	55	51		70	61	55	51		60	55	51	59	54	51	58	54	52			

Zonal Lumen

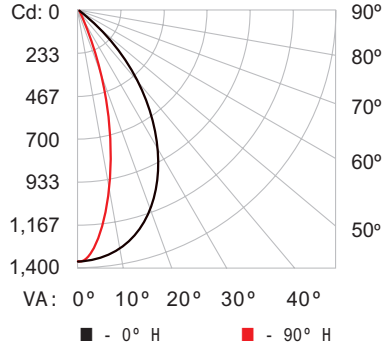
ZONE	LUMENS	%FIXT
0- 30	513	66.3
0- 40	647	83.5
0- 60	753	97.2
0- 90	775	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	775	100.0

For lux multiply fc by 10.7

1 ft (305 mm), 60° x 30° beam angle

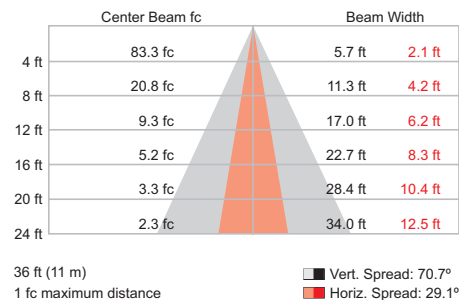
Lumens	Efficacy
872	60.1 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1332	1332	1332	1332	1332
5	1323	1309	1277	1244	1233
15	1224	1107	874	695	636
25	1011	748	389	221	179
35	679	371	121	57	46
45	332	134	38	23	21
55	113	44	17	14	14
65	30	16	10	9	9
75	9	6	4	4	4
85	4	2	1	1	1
90	2	1	1	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%																		
RC	RW	80			70			50			30			10			0			
		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
0		119119119119			116116116116			111111111111			106106106			102102102			100			93
1		113110108105			111108106104			104102100			100			99			97			96
2		107102			98			94			105100			97			93			97
3		102			95			90			86			100			94			89
4		96			89			83			78			95			87			82
5		91			83			77			72			80			75			74
6		87			78			72			67			75			70			68
7		83			73			67			63			71			66			64
8		79			69			63			59			67			62			60
9		75			65			59			55			64			59			57
10		72			62			56			52			61			56			55

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	595	68.2
0- 40	742	85.1
0- 60	849	97.4
0- 90	871	99.9
90-120	1	0.1
90-130	1	0.1
90-150	1	0.1
90-180	1	0.1
0-180	872	100.0

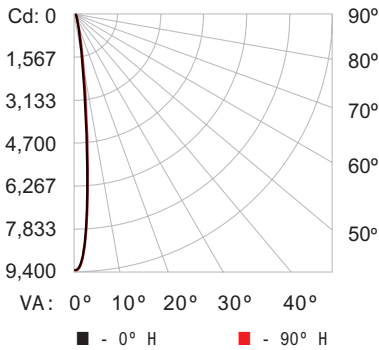
Photometrics / eW Graze Q LX Powercore, 2700 K

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

1 ft (305 mm), 9° x 9° beam angle

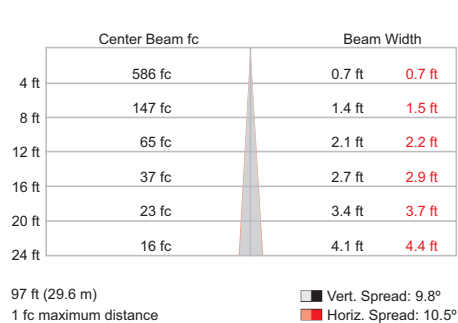
Lumens	Efficacy
468	49.8 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	9377	9377	9377	9377	9377
5	4537	4586	4753	4922	4962
15	378	362	351	365	401
25	45	40	42	38	39
35	13	10	11	11	12
45	5	4	5	6	6
55	3	2	2	3	4
65	3	1	1	2	2
75	1	1	0	1	1
85	1	0	0	0	0
90	1	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0	RC	80	70	50	30	10
RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0	RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10
0	119119119119	116116116116	1111111111	106106106	102102102	100	0	119119119119	116116116116	1111111111	106106106	102102102
1	116114112111	113112110109	108107106	104103103	101100100	98	1	116114112111	113112110109	108107106	104103103	101100100
2	113110107105	111108106104	105103102	102101100	100 99 98 96		2	113110107105	111108106104	105103102	102101100	100 99 98 96
3	110107104101	109105103101	103101 99	101 99 98	99 97 96 95		3	110107104101	109105103101	103101 99	101 99 98	99 97 96 95
4	108104101 98	107103100 98	101 98 97	99 97 96	97 96 95 94		4	108104101 98	107103100 98	101 98 97	99 97 96	97 96 95 94
5	106101 98 96	105101 98 95	99 97 95	98 96 94	96 95 93 92		5	106101 98 96	105101 98 95	99 97 95	98 96 94	96 95 93 92
6	104 99 96 94	103 99 96 94	97 95 93	96 94 92	95 93 92 91		6	104 99 96 94	103 99 96 94	97 95 93	96 94 92	95 93 92 91
7	102 97 94 92	101 97 94 92	96 93 92	95 93 91	94 92 91 90		7	102 97 94 92	101 97 94 92	96 93 92	95 93 91	94 92 91 90
8	101 96 93 91	100 95 93 91	95 92 90	94 92 90	93 91 90 89		8	101 96 93 91	100 95 93 91	95 92 90	94 92 90	93 91 90 89
9	99 94 91 89	99 94 91 89	93 91 89	93 90 89	92 90 89 88		9	99 94 91 89	99 94 91 89	93 91 89	93 90 89	92 90 89 88
10	98 93 90 88	97 93 90 88	92 90 88	92 89 88	91 89 88 87		10	98 93 90 88	97 93 90 88	92 90 88	92 89 88	91 89 88 87

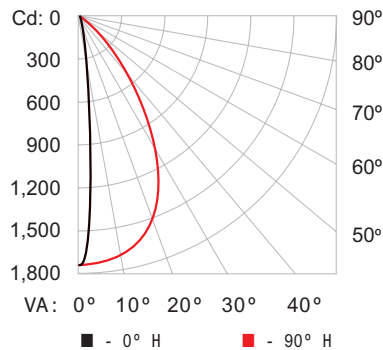
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	452	96.5
0- 40	459	98.0
0- 60	466	99.4
0- 90	468	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	468	100.0

1 ft (305 mm), 10° x 60° beam angle

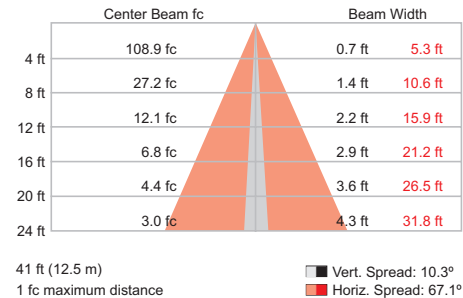
Lumens	Efficacy
475	50.4 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	1742	1742	1742	1742	1742
5	876	960	1229	1575	1729
15	110	133	228	680	1621
25	18	23	59	241	1313
35	8	8	16	93	788
45	4	4	7	30	286
55	3	3	4	10	68
65	2	2	2	4	20
75	1	1	1	2	7
85	1	1	1	0	1
90	0	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0	RC	80	70	50	30	10
RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0	RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10
0	119119119119	116116116116	1111111111	106106106	102102102	100	0	119119119119	116116116116	1111111111	106106106	102102102
1	116114112111	113112110109	108107106	104103103	101100100	98	1	116114112111	113112110109	108107106	104103103	101100100
2	113110107105	111108106104	105103102	102101100	100 99 98 96		2	113110107105	111108106104	105103102	102101100	100 99 98 96
3	110107104101	109105103101	103101 99	101 99 98	99 97 96 95		3	110107104101	109105103101	103101 99	101 99 98	99 97 96 95
4	108104101 98	107103100 98	101 98 97	99 97 96	97 96 95 94		4	108104101 98	107103100 98	101 98 97	99 97 96	97 96 95 94
5	106101 98 96	105101 98 95	99 97 95	98 96 94	96 95 93 92		5	106101 98 96	105101 98 95	99 97 95	98 96 94	96 95 93 92
6	104 99 96 94	103 99 96 94	97 95 93	96 94 92	95 93 92 91		6	104 99 96 94	103 99 96 94	97 95 93	96 94 92	95 93 92 91
7	102 97 94 92	101 97 94 92	96 93 92	95 93 91	94 92 91 90		7	102 97 94 92	101 97 94 92	96 93 92	95 93 91	94 92 91 90
8	101 96 93 91	100 95 93 91	95 92 90	94 92 90	93 91 90 89		8	101 96 93 91	100 95 93 91	95 92 90	94 92 90	93 91 90 89
9	99 94 91 89	99 94 91 89	93 91 89	93 90 89	92 90 89 88		9	99 94 91 89	99 94 91 89	93 91 89	93 90 89	92 90 89 88
10	98 93 90 88	97 93 90 88	92 90 88	92 89 88	91 89 88 87		10	98 93 90 88	97 93 90 88	92 90 88	92 89 88	91 89 88 87

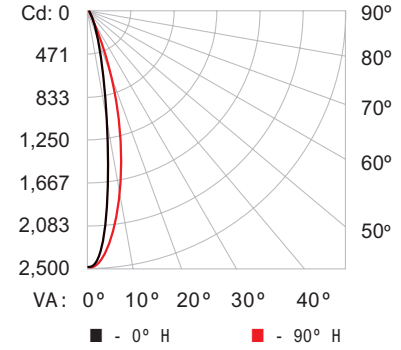
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	351	73.8
0- 40	422	89.0
0- 60	467	98.4
0- 90	475	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	475	100.0

1 ft (305 mm), 15° x 30° beam angle

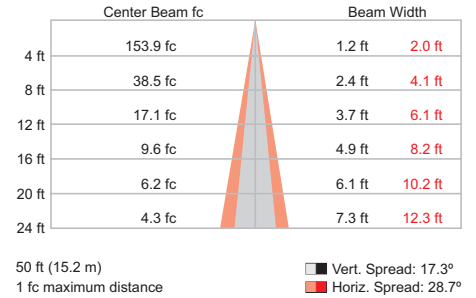
Lumens	Efficacy
470	49.4 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	3780	3780	3780	3780	3780
5	3006	3071	3235	3405	3479
15	593	675	955	1422	1699
25	77	92	151	289	405
35	21	22	30	50	67
45	9	9	12	15	18
55	6	6	6	8	9
65	4	4	4	5	5
75	2	2	2	2	2
85	1	1	1	1	1
90	1	1	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0	RC	80	70	50	30	10
RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0	RW	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10
0	119119119119	116116116116	1111111111	106106106	102102102	100	0	119119119119	116116116116	1111111111	106106106	102102102
1	116114112111	113112110109	108107106	104103103	101100100	98	1	116114112111	113112110109	108107106	104103103	101100100
2	113110107105	111108106104	105103102	102101100	100 98 96 95		2	113110107105	111108106104	105103102	102101100	100 98 96 95
3	110107104101	109105103101	103101 99	101 99 98	99 97 96 95		3	110107104101	109105103101	103101 99	101 99 98	99 97 96 95
4	108104101 98	107103100 98	101 98 97	99 97 96	97 96 95 94		4	108104101 98	107103100 98	101 98 97	99 97 96	97 96 95 94
5	106101 98 96	105101 98 95	99 97 95	98 96 94	96 95 93 92		5	106101 98 96	105101 98 95	99 97 95	98 96 94	96 95 93 92
6	104 99 96 94	103 99 96 94	97 95 93	96 94 92	95 93 92 91		6	104 99 96 94	103 99 96 94	97 95 93	96 94 92	95 93 92 91
7	102 97 94 92	101 97 94 92	96 93 92	95 93 91	94 92 91 90		7	102 97 94 92	101 97 94 92	96 93 92	95 93 91	94 92 91 90
8	101 96 93 91	100 95 93 91	95 92 90	94 92 90	93 91 90 89		8	101 96 93 91	100 95 93 91	95 92 90	94 92 90	93 91 90 89
9	99 94 91 89	99 94 91 89	93 91 89	93 90 89	92 90 89 88		9	99 94 91 89	99 94 91 89	93 91 89	93 90 89	92 90 89 88
10	98 93 90 88	97 93 90 88	92 90 88	92 89 88	91 89 88 87		10	98 93 90 88	97 93 90 88	92 90 88	92 89 88	91 89 88 87

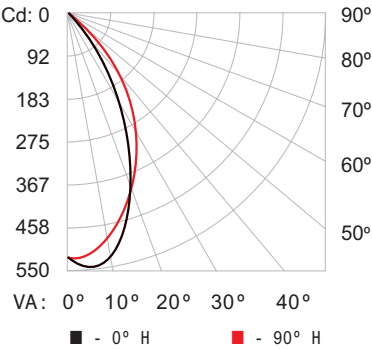
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	436	92.8
0- 40	454	96.6
0- 60	465	99.0
0- 90	470	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	470	100.0

1 ft (305 mm), 30° x 60° beam angle

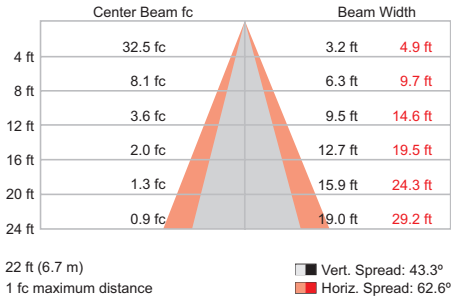
Lumens	Efficacy
470	49.7 lm / W

Polar Candela Distribution



	0.0	45.0	90.0	135.0	180.0
0	520	520	520	520	520
5	541	534	510	480	466
15	468	476	440	348	304
25	292	339	341	217	160
35	118	178	230	107	59
45	35	64	125	38	20
55	13	20	51	13	10
65	7	8	17	6	5
75	3	3	5	2	2
85	1	1	1	1	1
90	1	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%											
RC	80	70	50	30	10	0	80	70	50	30	10	0	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30
0	119119119119	116116116116	111111111111	106106106	102102102	100	119119119119	116116116116	111111111111	106106106	102102102	100	100
1	113110108105	110108105103	10310100	100	98	97	113110108105	110108105103	10310100	100	98	97	92
2	106101	97	93	104	99	95	106101	97	93	104	99	95	84
3	100	93	88	83	98	92	100	93	88	83	98	92	77
4	95	86	80	76	93	85	95	86	80	76	93	85	71
5	89	80	74	69	88	79	89	80	74	69	88	79	65
6	85	75	68	64	83	74	85	75	68	64	83	74	61
7	80	70	63	59	79	69	80	70	63	59	79	69	56
8	76	66	59	55	75	65	76	66	59	55	75	65	52
9	72	62	55	51	71	61	72	62	55	51	71	61	49
10	69	58	52	48	67	58	69	58	52	48	67	58	46

Zonal Lumen

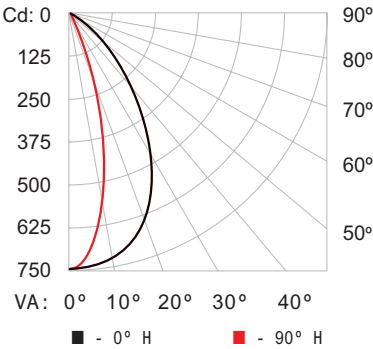
ZONE	LUMENS	%FIXT
0- 30	290	61.6
0- 40	385	81.8
0- 60	457	97.1
0- 90	470	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	470	100.0

For lux multiply fc by 10.7

1 ft (305 mm), 60° x 30° beam angle

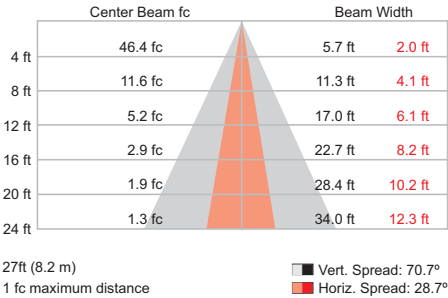
Lumens	Efficacy
480	50.4 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	742	742	742	742	742
5	736	728	710	691	685
15	682	614	482	382	347
25	566	415	213	119	97
35	378	205	65	30	25
45	180	73	21	13	11
55	59	24	9	8	8
65	15	9	6	5	5
75	4	3	2	2	2
85	2	1	1	1	1
90	1	1	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%											
RC	80	70	50	30	10	0	80	70	50	30	10	0	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30
0	119119119119	116116116116	111111111111	106106106	102102102	100	119119119119	116116116116	111111111111	106106106	102102102	100	100
1	113110108105	110108105103	10310100	100	98	97	113110108105	110108105103	10310100	100	98	97	93
2	107102	98	94	105	100	97	107102	98	94	105	100	97	86
3	102	95	90	86	100	94	102	95	90	86	100	94	79
4	96	89	83	79	95	88	96	89	83	79	95	88	74
5	92	83	77	73	90	82	92	83	77	73	90	82	69
6	87	78	72	67	85	77	87	78	72	67	85	77	64
7	83	73	67	63	81	73	83	73	67	63	81	73	60
8	79	69	63	59	78	69	79	69	63	59	78	69	57
9	75	66	60	56	74	65	75	66	60	56	74	65	54
10	72	62	56	53	71	62	72	62	56	53	71	62	51

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	329	68.5
0- 40	410	85.4
0- 60	468	97.5
0- 90	480	99.9
90-120	0	0.1
90-130	0	0.1
90-150	0	0.1
90-180	0	0.1
0-180	480	100.0

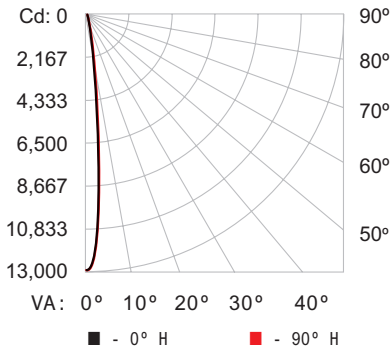
Photometrics / eW Graze Q LX Powercore, 4000 K

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

1 ft (305 mm), 9° x 9° beam angle

Lumens	Efficacy
595	63.1 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	12832	12832	12832	12832	12832
5	5948	5992	6249	6513	6647
15	446	425	400	424	461
25	56	45	51	41	43
35	17	12	13	13	14
45	7	4	6	6	8
55	4	2	3	3	3
65	3	2	2	2	2
75	1	0	0	0	1
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance

	Center Beam fc	Beam Width
4 ft	802.0 fc	0.7 ft 0.7 ft
8 ft	200.5 fc	1.3 ft 1.4 ft
12 ft	89.1 fc	2.0 ft 2.2 ft
16 ft	50.1 fc	2.7 ft 2.9 ft
20 ft	32.1 fc	3.2 ft 3.6 ft
24 ft	22.3 fc	4.0 ft 4.3 ft

113 ft (34.4 m)
1 fc maximum distance

■ Vert. Spread: 9.6°
■ Horiz. Spread: 10.3°

Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%																				
RC		80				70				50				30				10				0
RW		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	119191191919					116116116116				1111111111			106106106			102102102			100			
1	116114113111					114112111109				108107106			104104103			101101100			98			
2	113110108106					111109106105				105104102			103101100			100 99 98			97			
3	111107104102					109106103101				103101 99			101 99 98			99 98 97			95			
4	108104101 99					107103100 98				101 99 97			100 98 96			98 96 95			94			
5	106102 99 96					105101 98 96				100 97 95			98 96 95			97 95 94			93			
6	105100 97 95					103 99 96 94				98 96 94			97 95 93			96 94 93			92			
7	103 98 95 93					102 98 95 93				97 94 92			96 94 92			95 93 91			91			
8	101 97 94 92					101 96 93 91				95 93 91			95 92 91			94 92 90			90			
9	100 95 92 90					99 95 92 90				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			

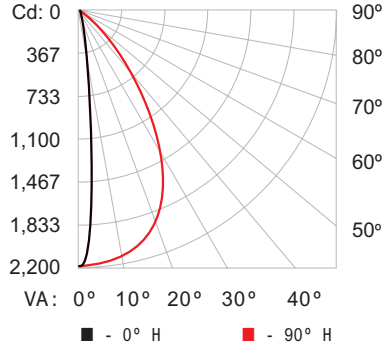
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	576	96.9
0- 40	585	98.3
0- 60	592	99.6
0- 90	595	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	595	100.0

1 ft (305 mm), 10° x 60° beam angle

Lumens	Efficacy
583	61.8 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	2184	2184	2184	2184	2184
5	1023	1136	1519	1979	2169
15	131	158	273	783	2042
25	19	23	66	287	1678
35	8	9	17	113	1026
45	4	4	8	35	384
55	3	3	4	12	91
65	2	2	3	5	26
75	1	1	1	2	9
85	1	1	1	0	1
90	0	0	0	0	0

Illuminance at Distance

	Center Beam fc	Beam Width
4 ft	136.5 fc	0.7 ft 5.4 ft
8 ft	34.1 fc	1.4 ft 10.8 ft
12 ft	15.2 fc	2.0 ft 16.2 ft
16 ft	8.5 fc	2.7 ft 21.7 ft
20 ft	5.5 fc	3.4 ft 27.1 ft
24 ft	3.8 fc	4.1 ft 32.5 ft

ft (m)
1 fc maximum distance

■ Vert. Spread: 9.8°
■ Horiz. Spread: 68.2°

Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%																			
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
0	119119119119				116116116116				1111111111			106106106			102102102			100			
1	114111109106				111109107105				105103102			101100 99			98 97 96			94			
2	108104100 97				106102 98 95				99 96 93			96 93 91			93 91 90			88			
3	103 97 92 89				101 96 91 88				93 90 87			91 88 85			89 86 84			82			
4	99 91 86 82				97 90 85 82				88 84 81			86 83 80			84 81 79			77			
5	94 86 81 77				93 85 80 76				84 79 76			82 78 75			80 77 74			73			
6	90 82 76 72				89 81 76 72				79 75 71			78 74 71			77 73 70			69			
7	86 78 72 68				85 77 72 68				76 71 67			74 70 67			73 70 67			65			
8	83 74 68 64				81 73 68 64				72 67 64			71 67 64			70 66 64			62			
9	79 70 65 61				78 70 65 61				69 64 61			68 64 61			67 63 61			59			
10	76 67 62 59				75 67 62 58				66 61 58			65 61 58			65 61 58			57			

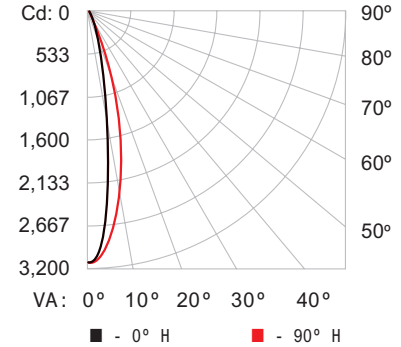
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	428	73.4
0- 40	517	88.7
0- 60	574	98.5
0- 90	583	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	583	100.0

1 ft (305 mm), 15° x 30° beam angle

Lumens	Efficacy
581	61.4 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	3102	3102	3102	3102	3102
5	2459	2509	2647	2795	2856
15	475	541	770	1158	1403
25	64	75	120	233	343
35	18	19	25	41	57
45	8	8	10	13	16
55	6	5	6	7	8
65	4	4	4	4	5
75	2	2	2	2	2
85	1	1	0	0	0
90	0	0	0	0	0

Illuminance at Distance

	Center Beam fc	Beam Width
4 ft	193.9 fc	1.2 ft 1.2 ft
8 ft	48.5 fc	2.4 ft 2.4 ft
12 ft	21.5 fc	3.7 ft 6.0 ft
16 ft	12.1 fc	4.9 ft 8.0 ft
20 ft	7.8 fc	6.1 ft 10.0 ft
24 ft	5.4 fc	7.3 ft 12.0 ft

55 ft (16.8 m)
1 fc maximum distance

■ Vert. Spread: 17.4°
■ Horiz. Spread: 28.1°

Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%											
C	80	70	50	30	10	0	C	80	70	50	30	10	0
W	70	50	30	10	70	50	30	10	70	50	30	10	0
0	119119119119	116116116116	1111111111	106106106	102102102	100	0	119119119119	116116116116	1111111111	106106106	102102102	100
1	115113111109	112111109107	107105104	103102101	100 99 98	96	1	115113111109	112111109107	107105104	103102101	100 99 98	96
2	111107104102	109106103100	102100 98	100 98 96	97 96 94	93	2	111107104102	109106103100	102100 98	100 98 96	97 96 94	93
3	107103 99 96	106101 98 95	99 96 94	96 94 92	94 93 91	90	3	107103 99 96	106101 98 95	99 96 94	96 94 92	94 93 91	90
4	104 98 94 91	102 97 94 91	95 92 90	94 91 89	92 90 88	87	4	104 98 94 91	102 97 94 91	95 92 90	94 91 89	92 90 88	87
5	101 95 91 88	99 94 90 87	92 89 87	91 88 86	90 87 85	84	5	101 95 91 88	99 94 90 87	92 89 87	91 88 86	90 87 85	84
6	98 92 87 84	97 91 87 84	90 86 84	88 85 83	87 85 83	81	6	98 92 87 84	97 91 87 84	90 86 84	88 85 83	87 85 83	81
7	95 89 85 82	94 88 84 81	87 84 81	86 83 81	85 82 80	79	7	95 89 85 82	94 88 84 81	87 84 81	86 83 81	85 82 80	79
8	93 86 82 79	92 86 82 79	85 81 79	84 81 78	83 80 78	77	8	93 86 82 79	92 86 82 79	85 81 79	84 81 78	83 80 78	77
9	90 84 80 77	89 83 79 77	82 79 76	82 79 76	81 78 76	75	9	90 84 80 77	89 83 79 77	82 79 76	82 79 76	81 78 76	75
10	88 81 77 75	87 81 77 75	80 77 74	80 77 74	79 76 74	73	10	88 81 77 75	87 81 77 75	80 77 74	80 77 74	79 76 74	73

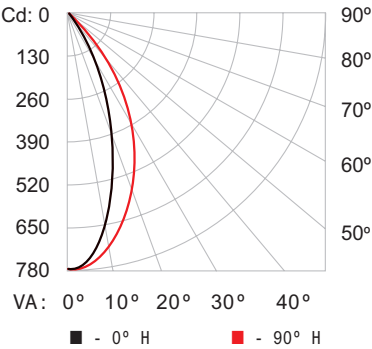
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	540	92.8
0- 40	561	96.5
0- 60	575	98.9
0- 90	581	100.0
90-120	0	0.0
90-130	0	0.0
90-150	0	0.0
90-180	0	0.0
0-180	581	100.0

1 ft (305 mm), 30° x 60° beam angle

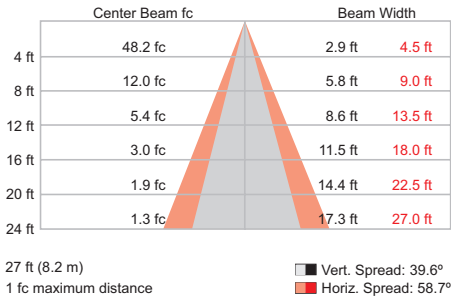
Lumens	Efficacy
579	61.2 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	771	771	771	771	771
5	740	742	750	753	758
15	520	536	582	628	651
25	252	274	342	428	474
35	85	97	145	225	276
45	27	30	47	90	125
55	13	13	16	30	45
65	7	8	8	11	15
75	3	3	3	4	5
85	1	1	1	1	1
90	1	1	1	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0						
RW	70	50	30	10	70	50	30	10	50	30	10	0
0	119119119119	116116116116	111111111111	106106106106	102102102102	100						
1	113110107105	111108106103	104102100	100	99	97	97	95	94	93		
2	107102	98	94	105100	96	93	97	94	91	91	89	87
3	101	95	89	85	99	93	88	85	81	86	83	81
4	96	88	82	78	94	87	82	77	85	80	77	73
5	91	82	76	72	89	81	76	71	80	75	71	68
6	86	77	71	67	85	76	71	66	75	70	66	63
7	82	73	66	62	81	72	66	62	71	65	61	59
8	78	68	62	58	77	68	62	58	67	61	57	56
9	74	65	59	55	73	64	58	54	63	58	54	52
10	71	61	55	51	70	61	55	51	60	55	51	50

Zonal Lumen

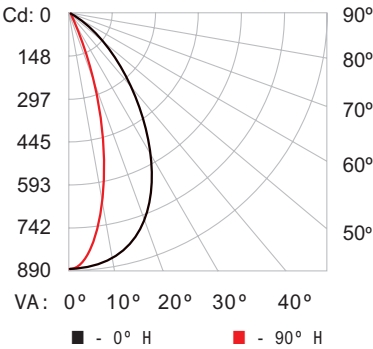
ZONE	LUMENS	%FIXT
0- 30	392	67.6
0- 40	494	85.4
0- 60	564	97.3
0- 90	579	99.9
90-120	0	0.1
90-130	0	0.1
90-150	0	0.1
90-180	0	0.1
0-180	579	100.0

For lux multiply fc by 10.7

1 ft (305 mm), 60° x 30° beam angle

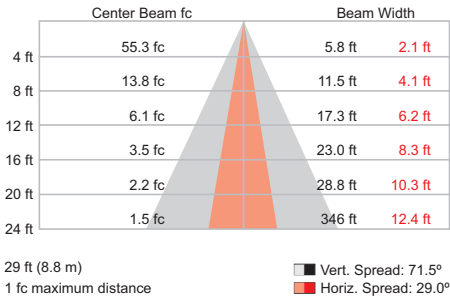
Lumens	Efficacy
580	61.3 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	884	884	884	884	884
5	879	869	848	826	817
15	818	738	579	460	420
25	683	502	258	146	119
35	461	249	80	38	30
45	219	88	25	16	14
55	71	28	12	10	9
65	18	10	7	6	6
75	5	4	3	3	3
85	2	2	1	1	0
90	1	1	1	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0						
RW	70	50	30	10	70	50	30	10	50	30	10	0
0	119119119119	116116116116	111111111111	106106106106	102102102102	100						
1	113110108105	111108106104	104102100	100	99	97	97	96	95	93		
2	107102	98	94	105100	97	93	97	94	91	94	92	89
3	102	95	90	86	100	94	89	85	81	87	84	81
4	96	89	83	79	95	87	82	78	85	81	77	74
5	91	83	77	72	90	82	76	72	80	75	71	69
6	87	78	72	67	85	77	71	67	75	70	67	64
7	83	73	67	63	81	73	67	63	71	66	62	60
8	79	69	63	59	78	69	63	59	67	62	58	57
9	75	65	60	56	74	65	59	55	64	59	55	53
10	72	62	56	52	71	62	56	52	61	56	52	51

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	396	68.3
0- 40	495	85.3
0- 60	565	97.5
0- 90	579	99.9
90-120	0	0.1
90-130	0	0.1
90-150	0	0.1
90-180	0	0.1
0-180	580	100.0

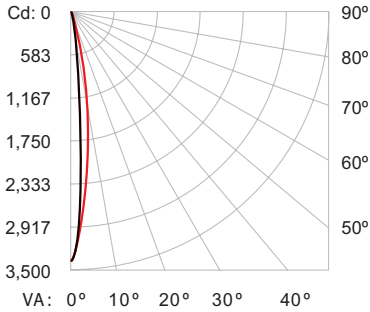
Photometrics / eW Graze Q LX Powercore 5W, 2700 K

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

1 ft (305 mm), 9° x 9° beam angle

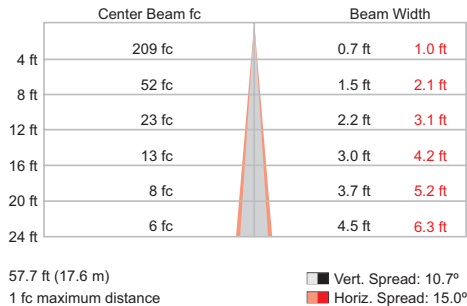
Lumens	Efficacy
226	54.3 lm / W

Polar Candela Distribution



	0°	25°	45°	70°	90°
0	3343	3343	3343	3343	3343
5	1311	1309	1546	1988	2224
15	74	82	104	166	230
25	13	12	13	17	20
35	5	4	5	5	5
45	2	2	2	2	3
55	1	1	1	1	2
65	1	1	1	1	1
75	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0
RW %:	0	0	0	0	0	0
RCR:	0	0	0	0	0	0
1	119 119 119 119	116 116 116 100	111 111 111	106 106 106	102 102 102	100
2	116 114 112 111	113 112 110 98	108 107 106	104 103 103	101 100 100	98
3	113 110 107 105	111 108 106 97	105 103 102	102 101 100	100 99 98	96
4	110 106 103 101	108 105 102 95	103 100 99	100 99 97	98 97 96	95
5	108 103 100 98	106 102 99 94	100 98 96	99 97 95	97 95 94	93
6	106 101 98 95	104 100 97 92	99 96 94	97 95 93	96 94 93	92
7	104 99 95 93	103 98 95 91	97 94 92	96 93 92	95 93 91	90
8	102 97 94 91	101 96 93 90	95 93 91	94 92 90	93 91 90	89
9	100 95 92 90	99 95 92 89	94 91 89	93 91 89	92 90 89	88
10	99 94 91 88	98 93 90 87	93 90 88	92 90 86	91 89 88	87
11	97 92 89 87	97 92 89 86	91 89 87	91 88 87	90 88 87	86

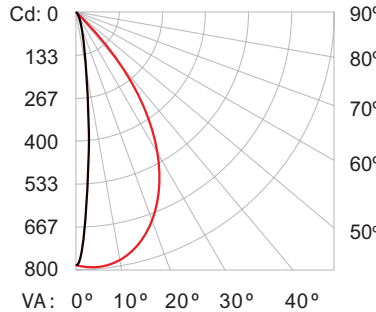
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	224.8	99.4 %
60 - 90	1.3	0.6 %
0 - 90	226.1	100.0 %

1 ft (305 mm), 10° x 60° beam angle

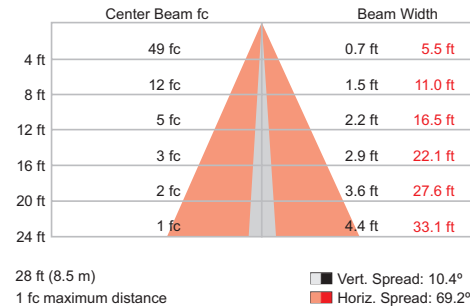
Lumens	Efficacy
221	49.6 lm / W

Polar Candela Distribution



	0°	25°	45°	70°	90°
0	784	784	784	784	784
5	364	400	512	699	787
15	39	51	89	345	750
25	7	9	23	121	616
35	3	3	6	47	375
45	2	2	3	15	136
55	1	1	2	5	31
65	1	1	1	2	9
75	0	0	0	1	3
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

		Effective Floor Ceiling Reflectance:												20%							
RCC %:		80			70			50			30			10			0				
RW:	RCR:	Z0	Z50	Z90	Z0	Z50	Z90	Z0	Z50	Z90	Z0	Z50	Z90	Z0	Z50	Z90	Z0				
0	1	119	119	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	2	114	111	109	107	111	110	107	104	103	97	105	103	102	101	100	99	98	97	96	94
2	3	108	104	100	97	106	102	99	89	99	96	94	94	94	92	93	91	90	89	88	87
3	4	103	97	93	89	101	96	92	83	93	90	87	87	88	85	85	86	86	84	83	82
4	5	99	92	86	82	97	90	80	70	89	86	83	83	84	81	81	82	82	80	79	78
5	6	94	86	81	77	93	86	80	74	84	79	76	82	78	75	75	76	75	73	72	71
6	7	90	82	76	72	88	81	76	70	75	70	67	72	74	71	71	72	71	69	68	67
7	8	86	78	72	68	85	77	72	67	76	71	68	73	75	71	67	74	70	67	66	65
8	9	83	74	69	65	82	73	68	64	72	68	64	71	73	67	64	70	67	64	63	62
9	10	80	71	65	61	79	70	65	61	69	65	62	68	70	66	63	68	65	62	61	60
10	11	78	68	62	59	75	67	62	58	66	62	59	66	68	64	61	65	61	58	57	56

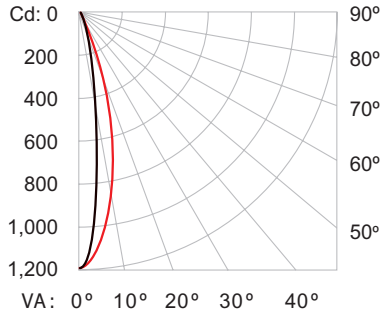
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	217.9	98.6 %
60 - 90	3.2	1.4 %
0 - 90	221.1	100.0 %

1 ft (305 mm), 15° x 30° beam angle

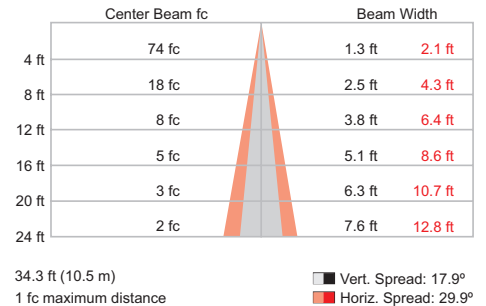
Lumens	Efficacy
238	52.7 lm / W

Polar Candela Distribution



	0°	25°	45°	70°	90°
0	1180	1180	1180	1180	1180
5	889	888	940	1014	1048
15	173	198	273	445	557
25	25	30	48	108	169
35	7	7	10	21	33
45	4	4	4	6	8
55	2	2	3	3	4
65	2	2	2	2	2
75	1	1	1	1	1
85	0	0	0	0	0
90	0	0	0	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance:													20%									
RCC %:	80				70				50				30				10				0	
RCR:	0	10	20	30	40	50	60	70	80	90	100	0	10	20	30	40	50	60	70	80	90	100
0	119	119	119	119	119	119	119	119	119	119	119	111	111	111	111	106	106	106	102	102	102	100
1	115	113	111	111	109	112	110	109	106	105	104	103	102	101	101	100	100	99	99	98	98	96
2	111	107	104	101	109	105	103	102	100	98	97	99	97	96	97	95	94	92	92	90	92	92
3	107	102	98	95	105	101	97	94	90	98	95	93	91	90	92	90	88	84	82	80	82	80
4	104	98	94	91	102	97	93	90	86	92	88	86	84	82	84	82	80	76	74	72	74	72
5	100	94	90	87	99	93	89	85	81	88	84	82	80	78	80	78	75	71	68	66	68	64
6	97	91	86	83	96	90	86	81	77	85	80	78	75	73	75	73	70	66	63	60	62	58
7	94	88	83	80	93	87	83	79	75	82	78	75	72	70	72	70	67	63	60	57	59	55
8	92	85	81	78	91	85	80	77	74	80	77	74	71	69	71	69	66	62	59	56	58	54
9	90	83	78	75	89	83	78	75	72	78	75	72	69	67	69	67	64	60	57	54	56	52
10	87	80	76	73	86	80	76	73	70	76	73	70	67	65	67	65	62	58	55	52	54	50

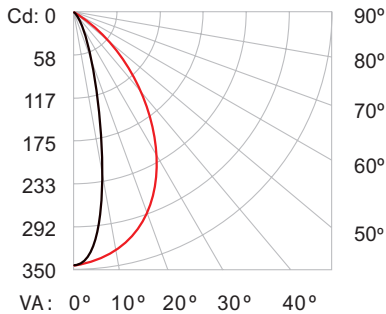
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	234.8	98.9 %
60 - 90	2.7	1.1 %
0 - 90	237.6	100.0 %

1 ft (305 mm), 30° x 60° beam angle

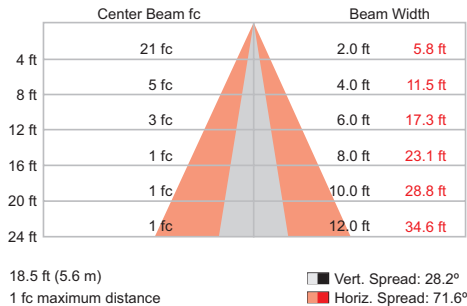
Lumens	Efficacy
213	50.9 lm / W

Polar Candela Distribution



	0° H	90° H
0	343	343
5	315	318
15	146	168
25	33	45
35	9	11
45	5	5
55	4	3
65	2	2
75	1	1
85	1	0
90	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0
RM %:	20 50 30 0	20 50 30 0	20 50 30 0	20 50 30 0	20 50 30 0	20 50 30 0
RCR:	0 113 110 108 105	111 108 106 93	104 102 100	100 99 97	97 96 95	93
1	113 110 108 105	111 108 106 93	104 102 100	100 99 97	97 96 95	93
2	107 102 98 94	105 100 97 87	97 94 91	94 92 89	91 89 87	86
3	102 95 90 86	100 94 89 80	91 87 84	88 85 82	86 83 81	79
4	96 89 83 79	95 87 82 75	85 81 77	83 79 76	81 78 75	74
5	91 83 77 73	90 82 76 70	80 75 72	78 74 71	77 73 70	69
6	87 78 72 67	85 77 71 66	76 70 67	74 70 66	73 69 66	64
7	83 73 67 63	81 73 67 62	71 66 62	70 66 62	69 65 62	60
8	79 69 63 59	78 69 63 58	68 62 59	67 62 58	66 61 58	57
9	75 66 60 56	74 65 59 55	64 59 55	63 59 55	62 58 55	54
10	72 62 56 53	71 62 56 52	61 56 52	60 56 52	59 55 52	51

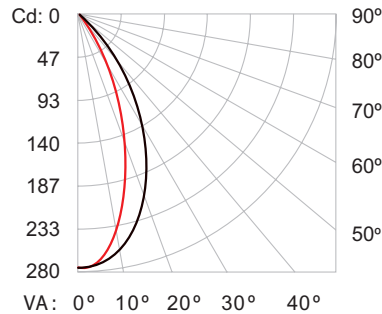
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	208.1	97.5 %
60 - 90	5.3	2.5 %
0 - 90	213.4	100.0 %

1 ft (305 mm), 60° x 30° beam angle

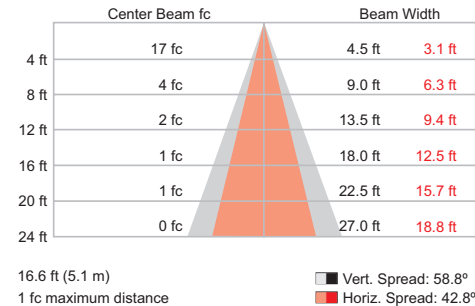
Lumens	Efficacy
219	53.3 lm / W

Polar Candela Distribution



	0° H	90° H
0	274	274
5	271	272
15	240	235
25	179	162
35	103	81
45	44	30
55	15	10
65	5	4
75	2	1
85	1	0
90	0	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0
RM %:	20 50 30 0	20 50 30 0	20 50 30 0	20 50 30 0	20 50 30 0	20 50 30 0
RCR:	0 113 110 107 105	111 108 106 93	104 102 100	100 99 97	97 95 94	93
1	113 110 107 105	111 108 106 93	104 102 100	100 99 97	97 95 94	93
2	107 102 98 94	105 100 96 86	97 94 91	94 92 89	91 89 87	85
3	101 94 89 85	99 93 88 80	90 86 83	88 85 82	86 83 80	79
4	96 88 82 78	94 87 81 74	85 80 76	83 79 75	81 77 74	73
5	91 82 76 71	89 81 75 69	79 74 70	78 73 70	76 72 69	68
6	86 77 71 66	85 76 70 64	74 69 65	73 68 65	72 68 64	63
7	82 72 66 61	80 71 66 60	70 65 61	69 64 61	68 64 60	59
8	78 68 62 57	76 67 61 56	66 61 57	65 60 57	64 60 57	55
9	74 64 58 54	73 64 58 53	63 57 54	62 57 53	61 56 53	52
10	71 61 55 51	70 60 54 50	59 54 50	58 53 50	58 53 50	49

Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	213.4	97.5 %
60 - 90	5.5	2.5 %
0 - 90	218.9	100.0 %

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

Lumens	Efficacy
269	66.1 lm / W

	■ - 0° H		■ - 90° H		
	0	25	45	70	90
0	3876	3876	3876	3876	3876
5	1658	1703	2143	2643	2738
15	161	176	189	239	279
25	21	22	25	30	28
35	6	5	6	6	6
45	3	2	3	3	3
55	2	1	1	2	2
65	1	1	1	1	1
75	1	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0

	Center Beam fc	Beam Width	
4 ft	242 fc	0.8 ft	1.1 ft
8 ft	61 fc	1.5 ft	2.2 ft
12 ft	27 fc	2.3 ft	3.3 ft
16 ft	15 fc	3.0 ft	4.4 ft
20 ft	10 fc	3.8 ft	4.4 ft
24 ft	7 fc	4.5 ft	6.5 ft

RCC %:		Effective Floor Cavity Reflectance:															0%	
		80			70			50			30			10			0	
RW %:		70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR: 0		119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102
	1	116	114	112	111	118	112	110	98	108	107	106	104	103	103	101	100	100
	2	113	107	107	105	111	108	106	97	105	103	102	102	101	100	100	99	98
	3	110	106	103	101	109	105	102	95	103	101	99	99	97	97	97	96	95
	4	108	104	100	98	106	103	100	93	100	98	96	95	93	93	93	92	91
	5	106	101	98	96	105	100	97	93	98	96	94	93	91	91	91	90	89
	6	104	99	96	93	103	98	95	91	97	95	93	92	90	90	89	88	87
	7	102	97	94	92	101	97	94	90	96	93	91	90	88	88	87	86	85
	8	100	96	92	90	100	95	92	89	94	92	90	89	87	87	86	85	84
	9	98	94	91	89	98	93	90	87	92	89	88	87	85	85	84	83	82
	10	98	93	90	88	97	92	90	87	92	89	88	87	85	85	84	83	82

Zone	Lumens	% Fixture
0 - 60	267.4	99.5 %
60 - 90	1.5	0.5 %
0 - 90	268.9	100.0 %

Lumens	Efficacy
261	64.5 lm / W

	- 0° H				- 90° H			
0	960	25	45	70	90			
5	434	960	960	960	960	960		
15	51	492	642	887	964			
25	8	66	111	409	921			
35	4	10	26	148	764			
45	2	4	7	57	463			
55	1	2	3	19	163			
65	1	1	2	5	34			
75	0	1	1	2	10			
85	0	0	0	1	3			
90	0	0	0	0	0			

	Center Beam fc	Beam Width
4 ft	60 fc	0.7 ft 5.6 ft
8 ft	15 fc	1.3 ft 11.2 ft
12 ft	7 fc	2.0 ft 16.8 ft
16 ft	4 fc	2.7 ft 22.4 ft
20 ft	2 fc	3.3 ft 28.0 ft
24 ft	2 fc	4.0 ft 33.7 ft

Effective Floor Cavity Reflectance: 20%													
RC %:	80			70			50			30			10
RN %:	70	50	30	70	50	30	70	50	30	70	50	30	10
1	119	119	119	119	119	119	119	119	119	119	106	106	102
2	114	111	109	106	111	109	107	105	103	101	100	98	96
3	108	104	100	97	106	102	98	98	96	93	91	93	91
4	103	97	92	89	101	96	91	83	83	89	86	88	86
5	98	91	86	82	97	90	84	78	88	84	81	84	79
6	94	86	81	77	92	85	80	76	82	78	75	78	73
7	90	82	76	72	88	81	76	70	75	71	78	74	71
8	86	77	72	68	85	77	71	66	76	70	74	70	67
9	82	74	68	64	81	73	68	63	72	67	74	67	64
10	78	70	65	61	77	69	64	59	68	63	70	63	60
11	76	67	62	58	75	67	62	58	66	61	68	61	58

Zone	Lumens	% Fixture
0 - 60	256.8	98.3 %
60 - 90	3.8	1.5 %
0 - 90	260.6	99.8 %

Lumens	Efficacy
267	65.5 lm / W

	■ - 0° H		■ - 90° H		
	0	25	45	70	90
0	1311	1311	1311	1311	1311
5	1147	1150	1188	1221	1209
15	242	285	396	607	667
25	31	39	65	158	213
35	8	9	13	30	44
45	4	4	5	8	10
55	3	3	3	4	4
65	2	2	2	2	2
75	1	1	1	1	1
85	0	0	0	0	0
90	0	0	0	0	0

	Center Beam fc	Beam Width
4 ft	82 fc	1.2 ft 2.2 ft
8 ft	20 fc	2.4 ft 4.3 ft
12 ft	9 fc	3.7 ft 6.5 ft
16 ft	5 fc	4.9 ft 8.6 ft
20 ft	3 fc	6.1 ft 10.8 ft
24 ft	2 fc	7.3 ft 13.0 ft

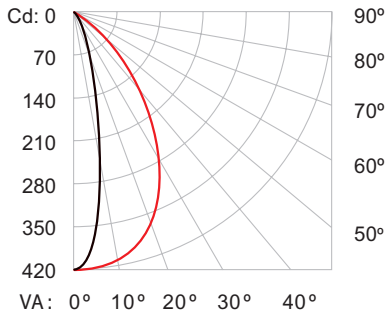
		Effective Floor Cavity Reflectance:															20%
RCC %:		80			70			50			30			10			
RW %:		70	50	30	70	50	30	70	50	30	70	50	30	70	50	30	
RCC:	0	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30	100
	1	119	119	119	119	116	116	116	111	111	111	106	106	106	102	102	100
	2	115	113	111	112	110	109	106	105	104	103	102	101	99	98	98	96
	3	117	107	104	101	105	102	98	102	100	98	97	96	97	95	94	92
	4	107	102	98	95	101	97	90	98	95	93	96	94	92	94	90	89
	5	103	98	94	91	99	93	87	92	89	83	90	87	88	81	89	86
	6	100	94	90	87	99	93	85	90	86	82	89	87	88	80	89	84
	7	97	91	86	83	96	90	81	89	85	82	87	84	82	86	84	80
	8	94	88	83	80	93	86	79	86	82	80	85	82	79	84	81	79
	9	92	85	81	78	91	84	77	83	80	77	83	79	77	82	79	77
	10	90	82	78	75	88	80	73	80	76	73	78	75	73	78	75	73
	10	87	80	76	73	86	78	72	79	75	73	78	75	73	78	75	73

Zone	Lumens	% Fixture
0 - 60	264.1	98.9 %
60 - 90	3.1	1.1 %
0 - 90	267.1	100.0 %

1 ft (305 mm), 30° x 60° beam angle

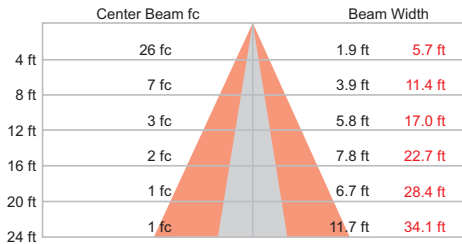
Lumens	Efficacy
258	63.6 lm / W

Polar Candela Distribution



	0° H	90° H
0	416	416
5	378	385
15	183	212
25	49	68
35	13	17
45	7	7
55	5	4
65	3	3
75	1	1
85	1	1
90	0	0

Illuminance at Distance



20.4 ft (6.2 m) 1 fc maximum distance
 Vert. Spread: 27.3°
 Horiz. Spread: 70.7°

Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0
RW %:	70	50	30	10	0	0
RCR:	0	113	110	107	105	111
	1	113	110	107	105	111
	2	107	102	98	94	105
	3	102	95	90	86	100
	4	96	89	83	79	95
	5	92	83	77	73	90
	6	87	78	72	67	86
	7	83	73	67	63	81
	8	79	69	63	59	78
	9	75	66	60	56	74
	10	72	62	57	53	71

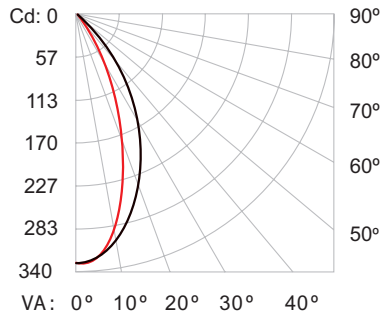
Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	251.3	97.5 %
60 - 90	6.5	2.5 %
0 - 90	257.8	100.0 %

1 ft (305 mm), 60° x 30° beam angle

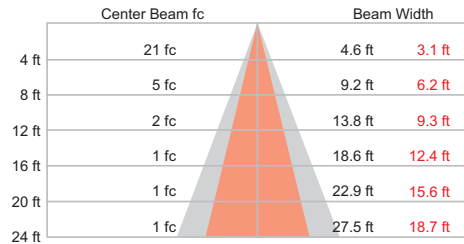
Lumens	Efficacy
263	64.7 lm / W

Polar Candela Distribution



	0° H	90° H
0	328	328
5	320	322
15	276	272
25	201	188
35	118	97
45	49	33
55	15	10
65	5	4
75	2	1
85	1	1
90	0	0

Illuminance at Distance



18.1 ft (5.5 m) 1 fc maximum distance
 Vert. Spread: 59.6°
 Horiz. Spread: 42.5°

Coefficients Of Utilization - Zonal Cavity Method

RCC %:	80	70	50	30	10	0
RW %:	70	50	30	10	0	0
RCR:	0	113	110	107	105	111
	1	113	110	107	105	111
	2	107	102	98	94	105
	3	102	95	89	85	100
	4	96	89	82	78	95
	5	91	82	76	71	90
	6	86	77	71	66	86
	7	82	72	66	62	81
	8	78	68	62	57	78
	9	74	64	58	54	74
	10	71	61	55	51	71

Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	256.5	97.6 %
60 - 90	6.2	2.4 %
0 - 90	262.8	100.0 %

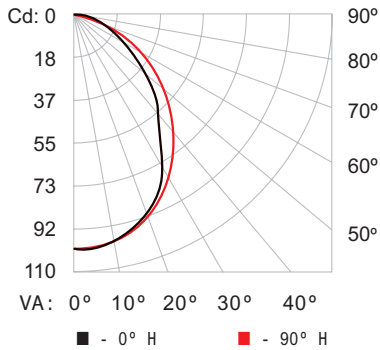
Photometrics / eW Graze EC Powercore

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

2700 K, 1 ft (305 mm), 90° x 90°

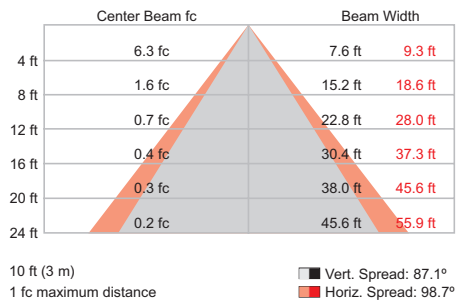
Lumens	Efficacy
234	44.3 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	100	100	100	100	100
5	100	100	100	100	100
15	95	95	95	95	95
25	84	85	86	87	87
35	63	65	71	73	74
45	48	49	51	57	58
55	30	31	35	39	41
65	20	19	20	24	25
75	13	12	11	12	12
85	9	8	6	4	2
90	7	6	4	2	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0	RC	80	70	50	30	10
RW	70	50	30	10	0	0	RW	70	50	30	10	0
0	119119119119	116116116116	110110110	105105105	101101101	99	0	119119119119	116116116116	110110110	105105105	101101101
1	109104100	96	106102	98	95	97	94	91	93	91	88	89
2	100	92	85	80	79	86	81	77	83	78	75	79
3	91	81	74	68	89	80	73	67	77	71	66	74
4	84	73	64	58	82	71	64	58	69	62	57	66
5	78	66	57	51	76	64	56	50	62	55	50	60
6	72	59	51	45	70	58	50	44	57	49	44	55
7	67	54	46	40	65	53	45	40	52	45	39	49
8	63	50	42	36	61	49	41	36	48	40	35	45
9	59	46	38	33	57	45	38	32	44	37	32	42
10	55	42	35	30	54	42	35	30	41	34	29	39

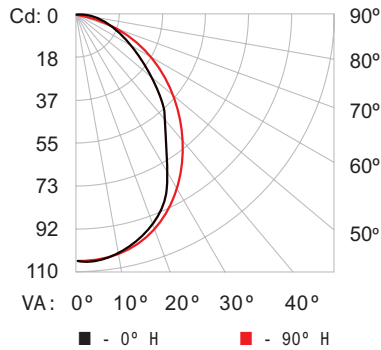
Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	76	32.3
0- 40	119	50.8
0- 60	191	81.4
0- 90	231	98.5
90-120	3	1.5
90-130	3	1.5
90-150	3	1.5
90-180	3	1.5
0-180	234	100.0

4000 K, 1 ft (305 mm), 90° x 90°

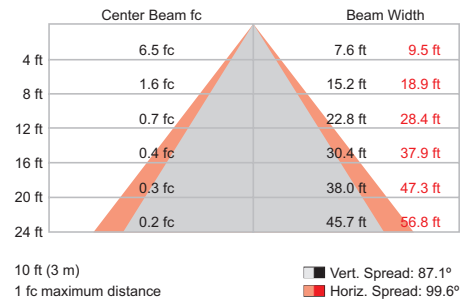
Lumens	Efficacy
246	45.9 lm / W

Polar Candela Distribution



	0.0	22.5	45.0	67.5	90.0
0	105	105	105	105	105
5	104	104	104	104	104
15	100	100	100	100	100
25	88	89	91	91	91
35	65	67	75	77	78
45	50	51	53	60	61
55	31	31	37	42	43
65	20	20	21	25	26
75	13	12	11	12	13
85	9	8	6	4	2
90	7	6	4	2	0

Illuminance at Distance



Coefficients Of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%												
RC	80	70	50	30	10	0	RC	80	70	50	30	10
RW	70	50	30	10	0	0	RW	70	50	30	10	0
0	119119119119	116116116116	110110110	105105105	101101101	98	0	119119119119	116116116116	110110110	105105105	101101101
1	109104100	96	106102	98	95	97	94	91	93	91	88	89
2	100	92	85	80	79	86	81	77	83	78	75	79
3	91	82	74	68	89	80	73	67	77	71	66	74
4	84	73	65	58	82	71	64	58	69	62	57	66
5	78	66	57	51	76	64	56	50	62	55	50	60
6	72	59	51	45	70	58	50	45	57	49	44	55
7	67	54	46	40	65	53	45	40	52	45	39	49
8	63	50	42	36	61	49	41	36	48	41	35	45
9	59	46	38	33	57	45	38	32	44	37	32	42
10	55	42	35	30	54	42	35	30	41	34	29	39

Zonal Lumen

ZONE	LUMENS	%FIXT
0- 30	79	32.3
0- 40	125	50.9
0- 60	200	81.5
0- 90	242	98.4
90-120	4	1.6
90-130	4	1.6
90-150	4	1.6
90-180	4	1.6
0-180	246	100.0

For lux multiply fc by 10.7

Specifications / eW Graze MX Powercore

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

CCT	Beam Angle	Lumens*				Efficacy (lm / W)
		1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)	
2700 K	9° x 9°	735	1470	2205	2940	49.3
	10° x 60°	645	1290	1935	2580	47.1
	15° x 30°	710	1420	2130	2840	46.4
	30° x 60°	615	1230	1845	2460	45.9
	60° x 30°	694	1388	2082	2776	48.2
4000 K	9° x 9°	875	1750	2625	3500	60.3
	10° x 60°	829	1658	2487	3316	60.5
	15° x 30°	876	1752	2628	3504	60.4
	30° x 60°	775	1550	2325	3100	57.8
	60° x 30°	872	1744	2616	3488	60.1

Item	Specification	1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)
Output	Color Temperature†	2700 K / 4000 K / 5500 K			
	CRI	81			
	Lumen Maintenance‡	60,000 hours L70 @ 25° C 60,000 hours L70 @ 50° C 60,000 hours L50 @ 25° C 60,000 hours L50 @ 50° C			
Electrical	Input Voltage	100 – 277 VAC, auto-ranging, 50 / 60 Hz			
	Power Consumption	15 W max. at full output, steady state	30 W max. at full output, steady state	45 W max. at full output, steady state	60 W max. at full output, steady state
Control	Dimming	Compatible with selected commercially available reverse-phase ELV-type dimmers§			
Physical	Dimensions (Height x Width x Depth)	2.7 x 12 x 2.8 in (69 x 305 x 71 mm)	2.7 x 24 x 2.8 in (69 x 610 x 71 mm)	2.7 x 36 x 2.8 in (69 x 914 x 71 mm)	2.7 x 48 x 2.8 in (69 x 1219 x 71 mm)
	Weight	2.1 lb (1.0 kg)	4.6 lb (2.1 kg)	7.1 lb (3.2 kg)	9.3 lb (4.2 kg)
	Housing	Extruded anodized aluminum			
	Lens	Clear polycarbonate			
	Fixture Connectors	Integral male / female waterproof connectors			
	Mounting	Multi-positional, constant torque locking hinges			
	Temperature	-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			
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/			
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE, C-Tick			
	Environment	Dry / Damp / Wet Location, IP66			

* 1 ft (305 mm) lumen output measurements comply with IES LM-79-08 testing procedures. 2 ft (610 mm), 3 ft (914 mm), and 4 ft (1219 mm) measurements are estimated based on the 1 ft (305 mm) measurements.

† Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A. LED sources used in 5500 K fixtures conform to ANSI CCT 5700 K.

‡ 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 for more information.

§ Refer to www.philipscolorkinetics.com/support/appnotes/ for more information.



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Specifications / eW Graze QLX Powercore

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

CCT	Beam Angle	Lumens*				Efficacy (lm / W)
		1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)	
2700 K	9° x 9°	468	936	1404	1872	49.8
	10° x 60°	475	950	1425	1900	50.4
	15° x 30°	470	940	1410	1880	49.4
	30° x 60°	470	940	1410	1880	49.7
	60° x 30°	480	960	1440	1920	50.4
4000 K	9° x 9°	595	1190	1785	2380	63.1
	10° x 60°	583	1166	1749	2332	61.8
	15° x 30°	581	1162	1743	2324	61.4
	30° x 60°	579	1158	1737	2316	61.2
	60° x 30°	580	1160	1740	2320	61.3

Item	Specification	1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)
Output	Color Temperature†	2700 K / 4000 K / 5500 K			
	CRI	81			
	Lumen Maintenance‡	60,000 hours L70 @ 25° C 60,000 hours L70 @ 50° C 60,000 hours L50 @ 25° C 60,000 hours L50 @ 50° C			
Electrical	Input Voltage	100 – 277 VAC, auto-ranging, 50 / 60 Hz			
	Power Consumption	10 W max. at full output, steady state	20 W max. at full output, steady state	30 W max. at full output, steady state	40 W max. at full output, steady state
Control	Dimming	Compatible with selected commercially available reverse-phase ELV-type dimmers§			
Physical	Dimensions (Height x Width x Depth)	2.7 x 12 x 2.8 in (69 x 305 x 71 mm)	2.7 x 24 x 2.8 in (69 x 610 x 71 mm)	2.7 x 36 x 2.8 in (69 x 914 x 71 mm)	2.7 x 48 x 2.8 in (69 x 1219 x 71 mm)
	Weight	2.1 lb (1.0 kg)	4.6 lb (2.1 kg)	7.1 lb (3.2 kg)	9.3 lb (4.2 kg)
	Housing	Extruded anodized aluminum			
	Lens	Clear polycarbonate			
	Fixture Connectors	Integral male / female waterproof connectors			
	Mounting	Multi-positional, constant torque locking hinges			
	Temperature	-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	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/			
	Certification	UL / cUL, FCC Class A, CE, PSE, C-Tick			
	Environment	Dry / Damp / Wet Location, IP66			

* 1 ft (305 mm) lumen output measurements comply with IES LM-79-08 testing procedures. 2 ft (610 mm), 3 ft (914 mm), and 4 ft (1219 mm) measurements are estimated based on the 1 ft (305 mm) measurements.



† Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A. LED sources used in 5500 K fixtures conform to ANSI CCT 5700 K.

‡ 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 for more information.

§ Refer to www.philipscolorkinetics.com/support/appnotes/ for more information.

DIMAND | **OPTIBIN** | **POWERCORE**
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Specifications / eW Graze QLX Powercore 5W

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

CCT	Beam Angle	Lumens*				Efficacy (lm / W)
		1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)	
2700 K	9° x 9°	226	452	678	904	54.3
	10° x 60°	221	442	663	884	49.6
	15° x 30°	238	476	714	952	52.7
	30° x 60°	213	426	639	852	50.9
	60° x 30°	219	438	657	876	53.3
4000 K	9° x 9°	269	538	807	1076	66.1
	10° x 60°	261	522	783	1044	64.5
	15° x 30°	267	534	801	1068	65.5
	30° x 60°	258	516	774	1032	63.6
	60° x 30°	263	526	789	1052	64.7

Item	Specification	1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)
Output	Color Temperature†	2700 K / 4000 K / 5500 K			
	CRI	82			
	Lumen Maintenance‡	60,000 hours L70 @ 25° C 60,000 hours L70 @ 50° C 60,000 hours L50 @ 25° C 60,000 hours L50 @ 50° C			
Electrical	Input Voltage	100 – 277 VAC, auto-ranging, 50 / 60 Hz			
	Power Consumption	5W max. at full output, steady state	10 W max. at full output, steady state	15 W max. at full output, steady state	20 W max. at full output, steady state
Control	Dimming	Compatible with selected commercially available reverse-phase ELV-type dimmers§			
Physical	Dimensions (Height x Width x Depth)	2.7 x 12 x 2.8 in (69 x 305 x 71 mm)	2.7 x 24 x 2.8 in (69 x 610 x 71 mm)	2.7 x 36 x 2.8 in (69 x 914 x 71 mm)	2.7 x 48 x 2.8 in (69 x 1219 x 71 mm)
	Weight	2.1 lb (1.0 kg)	4.6 lb (2.1 kg)	7.1 lb (3.2 kg)	9.3 lb (4.2 kg)
	Housing	Extruded anodized aluminum			
	Lens	Clear polycarbonate			
	Fixture Connectors	Integral male / female waterproof connectors			
	Mounting	Multi-positional, constant torque locking hinges			
	Temperature	-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			
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/			
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE, C-Tick			
	Environment	Dry / Damp / Wet Location, IP66			

* 1 ft (305 mm) lumen output measurements comply with IES LM-79-08 testing procedures. 2 ft (610 mm), 3 ft (914 mm), and 4 ft (1219 mm) measurements are estimated based on the 1 ft (305 mm) measurements.

† Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A. LED sources used in 5500 K fixtures conform to ANSI CCT 5700 K.

‡ 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 for more information.

§ Refer to www.philipscolorkinetics.com/support/appnotes/ for more information.



DIMAND | **OPTIBIN** | **POWERCORE**
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Specifications / eW Graze EC Powercore

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

Item	Specification	1 ft (305 mm)	2 ft (610 mm)	3 ft (914 mm)	4 ft (1219 mm)	
Output	Color Temperature*	2700 K / 4000 K / 5500 K				
	Beam Angle	90° x 90°				
	Lumens†	2700 K	234	468	702	936
		4000 K	246	492	738	984
	Efficacy (lm / W)	44.3 (2700 K) 45.9 (4000 K)				
	CRI	80 (2700 K) 87 (4000 K)				
	Lumen Maintenance‡	36,000 hours L70 @ 25° C 36,000 hours L70 @ 50° C 36,000 hours L50 @ 25° C 36,000 hours L50 @ 50° C				
Electrical	Input Voltage	100 – 277 VAC, auto-switching, 50 / 60 Hz				
	Power Consumption	5 W max. at full output, steady state	10 W max. at full output, steady state	15 W max. at full output, steady state	20 W max. at full output, steady state	
Control	Dimming	Compatible with selected commercially available reverse-phase ELV-type dimmers§				
Physical	Dimensions (Height x Width x Depth)	2.7 x 12 x 2.8 in (69 x 305 x 71 mm)	2.7 x 24 x 2.8 in (69 x 610 x 71 mm)	2.7 x 36 x 2.8 in (69 x 914 x 71 mm)	2.7 x 48 x 2.8 in (69 x 1219 x 71 mm)	
	Weight	2.1 lb (1.0 kg)	4.6 lb (2.1 kg)	7.1 lb (3.2 kg)	9.3 lb (4.2 kg)	
	Housing	Extruded anodized aluminum				
	Lens	Clear polycarbonate				
	Fixture Connectors	Integral male / female waterproof connectors				
	Mounting	Multi-positional, constant torque locking hinges				
	Temperature	-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				
	Fixture Run Lengths	To calculate fixture run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.philipscolorkinetics.com/support/install_tool/				
Certification and Safety	Certification	UL / cUL, FCC Class A, CE, PSE, C-Tick				
	Environment	Dry / Damp / Wet Location, IP66				

* Color temperatures conform to nominal CCTs as defined in ANSI Chromaticity Standard C78.377A. LED sources used in 5500 K fixtures conform to ANSI CCT 5700 K.



† 1 ft (305 mm) lumen output measurements comply with IES LM-79-08 testing procedures. 2 ft (610 mm), 3 ft (914 mm), and 4 ft (1219 mm) measurements are estimated based on the 1 ft (305 mm) 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 for more information.

§ Refer to www.philipscolorkinetics.com/support/appnotes/ for more information.

DIMAND | **OPTIBIN** | **POWERCORE**
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Fixtures and Accessories

eW Graze Powercore fixtures are part of a complete system which includes:

- Leader Cables to connect the first fixture in a series to power or a junction box
- Jumper Cables to connect fixtures in series, and optionally to add space between fixtures in a series
- 2 + ground copper wire to connect junction boxes to power if installing in parallel

You can control eW Graze Powercore fixtures with commercially available ON / OFF switches and selected reverse-phase ELV-type dimmers.

Item	Beam Angle	2700 K		4000 K		5500 K	
		Item Number	Philips 12NC	Item Number	Philips 12NC	Item Number	Philips 12NC
eW Graze MX Powercore 1 ft (305 mm)	9° x 9°	523-000080-00	910503703152	523-000080-01	910503703688	523-000080-02	910503703689
	10° x 60°	523-000080-03	910503703690	523-000080-04	910503703691	523-000080-05	910503703692
	15° x 30°	523-000080-06	910503703693	523-000080-07	910503703694	523-000080-08	910503703695
	30° x 60°	523-000080-09	910503703696	523-000080-10	910503703697	523-000080-11	910503703698
	60° x 30°	523-000080-12	910503703699	523-000080-13	910503703701	523-000080-14	910503703702
eW Graze MX Powercore 2 ft (610 mm)	9° x 9°	523-000080-15	910503703703	523-000080-16	910503703704	523-000080-17	910503703705
	10° x 60°	523-000080-18	910503703706	523-000080-19	910503703707	523-000080-20	910503703708
	15° x 30°	523-000080-21	910503703709	523-000080-22	910503703710	523-000080-23	910503703711
	30° x 60°	523-000080-24	910503703712	523-000080-25	910503703713	523-000080-26	910503703714
	60° x 30°	523-000080-27	910503703715	523-000080-28	910503703716	523-000080-29	910503703717
eW Graze MX Powercore 3 ft (914 mm)	9° x 9°	523-000080-30	910503703718	523-000080-31	910503703719	523-000080-32	910503703720
	10° x 60°	523-000080-33	910503703721	523-000080-34	910503703722	523-000080-35	910503703723
	15° x 30°	523-000080-36	910503703724	523-000080-37	910503703725	523-000080-38	910503703726
	30° x 60°	523-000080-39	910503703727	523-000080-40	910503703728	523-000080-41	910503703729
	60° x 30°	523-000080-42	910503703730	523-000080-43	910503703731	523-000080-44	910503703732
eW Graze MX Powercore 4 ft (1219 mm)	9° x 9°	523-000080-45	910503703733	523-000080-46	910503703734	523-000080-47	910503703735
	10° x 60°	523-000080-48	910503703736	523-000080-49	910503703737	523-000080-50	910503703738
	15° x 30°	523-000080-51	910503703739	523-000080-52	910503703740	523-000080-53	910503703741
	30° x 60°	523-000080-54	910503703742	523-000080-55	910503703743	523-000080-56	910503703744
	60° x 30°	523-000080-57	910503703745	523-000080-58	910503703746	523-000080-59	910503703747
eW Graze QLX Powercore 1 ft (305 mm)	9° x 9°	523-000081-00	910503703153	523-000081-01	910503703748	523-000081-02	910503703749
	10° x 60°	523-000081-03	910503703750	523-000081-04	910503703751	523-000081-05	910503703752
	15° x 30°	523-000081-06	910503703753	523-000081-07	910503703754	523-000081-08	910503703755
	30° x 60°	523-000081-09	910503703756	523-000081-10	910503703757	523-000081-11	910503703758
	60° x 30°	523-000081-12	910503703759	523-000081-13	910503703760	523-000081-14	910503703761
eW Graze QLX Powercore 2 ft (610 mm)	9° x 9°	523-000081-15	910503703762	523-000081-16	910503703763	523-000081-17	910503703764
	10° x 60°	523-000081-18	910503703765	523-000081-19	910503703766	523-000081-20	910503703767
	15° x 30°	523-000081-21	910503703768	523-000081-22	910503703769	523-000081-23	910503703770
	30° x 60°	523-000081-24	910503703771	523-000081-25	910503703772	523-000081-26	910503703773
	60° x 30°	523-000081-27	910503703774	523-000081-28	910503703775	523-000081-29	910503703776
eW Graze QLX Powercore 3 ft (914 mm)	9° x 9°	523-000081-30	910503703777	523-000081-31	910503703778	523-000081-32	910503703779
	10° x 60°	523-000081-33	910503703780	523-000081-34	910503703781	523-000081-35	910503703782
	15° x 30°	523-000081-36	910503703783	523-000081-37	910503703784	523-000081-38	910503703785
	30° x 60°	523-000081-39	910503703786	523-000081-40	910503703787	523-000081-41	910503703788
	60° x 30°	523-000081-42	910503703789	523-000081-43	910503703790	523-000081-44	910503703791
eW Graze QLX Powercore 4 ft (1219 mm)	9° x 9°	523-000081-45	910503703792	523-000081-46	910503703793	523-000081-47	910503703794
	10° x 60°	523-000081-48	910503703795	523-000081-49	910503703796	523-000081-50	910503703797
	15° x 30°	523-000081-51	910503703798	523-000081-52	910503703799	523-000081-53	910503703801
	30° x 60°	523-000081-54	910503703802	523-000081-55	910503703803	523-000081-56	910503703804
	60° x 30°	523-000081-57	910503703805	523-000081-58	910503703806	523-000081-59	910503703807

Use Item Number when ordering in North America.

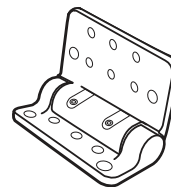
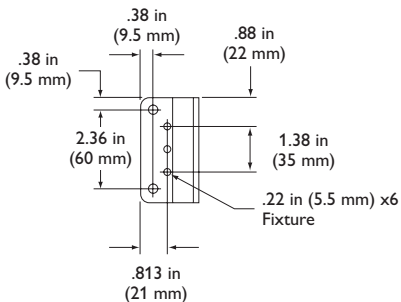
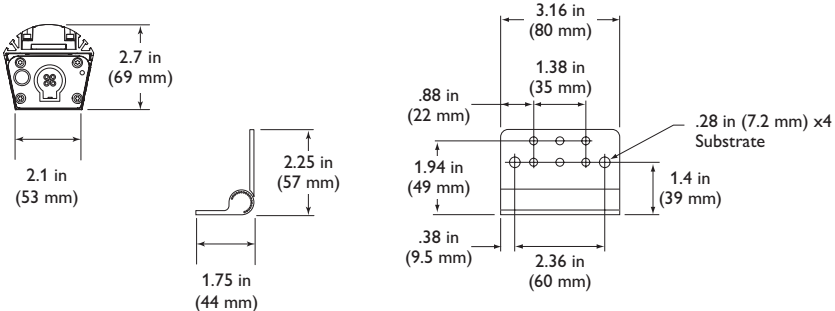
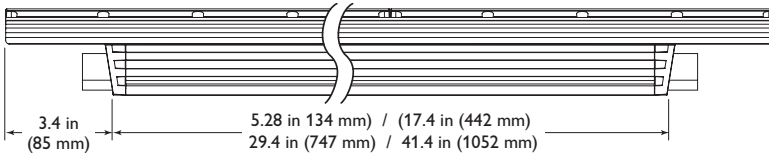
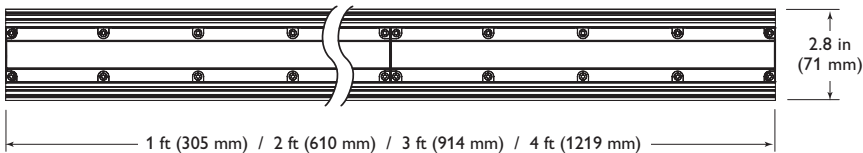
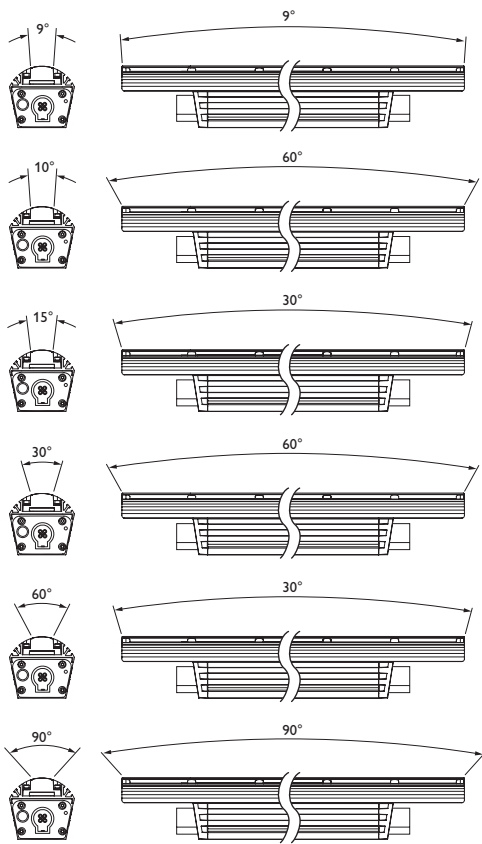
Item	Beam Angle	2700 K		4000 K		5500 K	
		Item Number	Philips 12NC	Item Number	Philips 12NC	Item Number	Philips 12NC
eW Graze Q LX Powercore 5W 1 ft (305 mm)	9° x 9°	523-000086-00	910503704061	523-000086-01	910503703838	523-000086-02	910503703839
	10° x 60°	523-000086-03	910503703840	523-000086-04	910503703841	523-000086-05	910503703842
	15° x 30°	523-000086-06	910503703843	523-000086-07	910503703844	523-000086-08	910503703845
	30° x 60°	523-000086-09	910503703846	523-000086-10	910503703847	523-000086-11	910503703848
	60° x 30°	523-000086-12	910503703849	523-000086-13	910503703850	523-000086-14	910503703851
eW Graze Q LX Powercore 5W 2 ft (610 mm)	9° x 9°	523-000086-15	910503703852	523-000086-16	910503703853	523-000086-17	910503703854
	10° x 60°	523-000086-18	910503703855	523-000086-19	910503703856	523-000086-20	910503703857
	15° x 30°	523-000086-21	910503703858	523-000086-22	910503703859	523-000086-23	910503703860
	30° x 60°	523-000086-24	910503703861	523-000086-25	910503703862	523-000086-26	910503703863
	60° x 30°	523-000086-27	910503703864	523-000086-28	910503703865	523-000086-29	910503703866
eW Graze Q LX Powercore 5W 3 ft (914 mm)	9° x 9°	523-000086-30	910503703867	523-000086-31	910503703868	523-000086-32	910503703869
	10° x 60°	523-000086-33	910503703870	523-000086-34	910503703871	523-000086-35	910503703872
	15° x 30°	523-000086-36	910503703873	523-000086-37	910503703874	523-000086-38	910503703875
	30° x 60°	523-000086-39	910503703876	523-000086-40	910503703877	523-000086-41	910503703878
	60° x 30°	523-000086-42	910503703879	523-000086-43	910503703880	523-000086-44	910503703881
eW Graze Q LX Powercore 5W 4 ft (1219 mm)	9° x 9°	523-000086-45	910503703882	523-000086-46	910503703883	523-000086-47	910503703884
	10° x 60°	523-000086-48	910503703885	523-000086-49	910503703886	523-000086-50	910503703887
	15° x 30°	523-000086-51	910503703888	523-000086-52	910503703889	523-000086-53	910503703890
	30° x 60°	523-000086-54	910503703891	523-000086-55	910503703892	523-000086-56	910503703893
	60° x 30°	523-000086-57	910503703894	523-000086-58	910503703895	523-000086-59	910503703896
eW Graze EC Powercore 1 ft (305 mm)	90° x 90°	523-000082-00	910503703154	523-000082-01	910503703808	523-000082-02	910503703809
eW Graze EC Powercore 2 ft (610 mm)	90° x 90°	523-000082-03	910503703810	523-000082-04	910503703811	523-000082-05	910503703812
eW Graze EC Powercore 3 ft (914 mm)	90° x 90°	523-000082-06	910503703813	523-000082-07	910503703814	523-000082-08	910503703815
eW Graze EC Powercore 4 ft (1219 mm)	90° x 90°	523-000082-09	910503703816	523-000082-10	910503703817	523-000082-11	910503703818

Use Item Number when ordering in North America.

Item	Type	Size	Item Number	Philips 12NC
Leader Cable with Terminator	UL / cUL	10 ft (3.0 m)	108-000056-03	910503704071
		50 ft (15.2 m)	108-000056-00	910503703138
	CE / PSE	10 ft (3.0 m)	108-000056-04	910503704072
		50 ft (15.2 m)	108-000056-01	910503704069
Jumper Cable	UL / cUL	End-to-End	108-000057-00	910503703139
		1 ft (305 mm)	108-000057-03	910503704076
		5 ft (1.5 m)	108-000057-06	910503704079
		10 ft (3.0 m)	108-000057-09	910503704082
	CE / PSE	End-to-End	108-000057-01	910503704074
		1 ft (305 mm)	108-000057-04	910503704077
		5 ft (1.5 m)	108-000057-07	910503704080
		10 ft (3.0 m)	108-000057-10	910503704083
Glare Shield		1 ft (305 mm)	120-000081-00	910503700745
		2 ft (610 mm)	120-000081-01	910503700746
		3 ft (914 mm)	120-000081-02	910503700747
		4 ft (1219 mm)	120-000081-03	910503700748
Additional Terminators		Quantity 10	120-000157-00	910503703142
Additional Hinge		Quantity 1	120-000098-00	910503700772

Use Item Number when ordering in North America.

Dimensions



Installation

eW Graze Powercore offers dimmable, high-quality solid white LED illumination for surface grazing and wall-washing applications, both indoors and outdoors. Patented Powercore technology integrates power management directly within the fixtures and 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 eW Graze 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.

Installing in Damp or Wet Locations

When installing in damp or wet locations, seal all fixtures and all junction boxes with electronics-grade RTV silicone sealant so that water or moisture cannot enter or accumulate in wiring compartments, cables, fixtures, or other electrical parts. Use suitable outdoor-rated junction boxes when installing in damp or wet locations. Additionally, use gaskets, clamps, and other parts required for installation to comply with all applicable local and national codes.

Start the Installation

1. Refer to the lighting design plan, architectural diagram, or other diagram that shows the physical layout of the installation to identify the locations of all switches, fixtures, and cables.

eW Graze Powercore fixtures can be installed in series or in parallel (wired to a common junction box). 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 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/, or consult Application Engineering Services at support@colorkinetics.com.

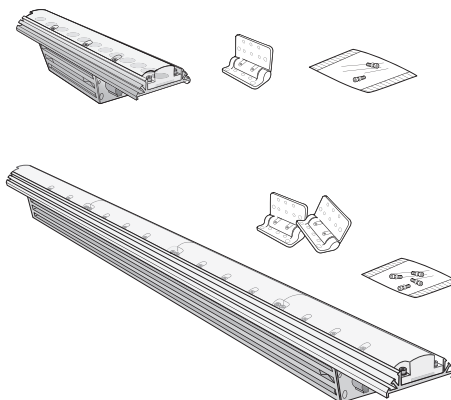
2. Carefully inspect the box containing eW Graze Powercore and the contents for any damage that may have occurred in transit.
3. Ensure that all additional parts and tools are available, including:
 - The included mounting hinges and hardware
 - 2 mm, 2.5 mm, and 4 mm hex key wrenches
 - 1/4 in (5 mm) socket cap fasteners, anchors, or screws for surface mounting
 - Conduit as needed
 - 2 + ground copper wire, as needed. Standard 12 AWG (2.05 mm) stranded wire is recommended.
 - Junction boxes, as needed, rated for your application. (Refer to the manufacturer's literature for additional items required for mounting or sealing.)
 - Electronics-grade room temperature vulcanizing (RTV) silicone sealant, as needed

✳ Refer to the eW Graze Powercore Installation Instructions for specific warning and caution statements.

✳ Clean the lens with water and mild detergent using a soft cleaning cloth, and wipe dry. Because they will scratch, soften, pit, haze, yellow, mar, or crack the lens, do not use paper towels, abrasive cleaning products, window cleaners, or cleaning solutions containing chemicals such as ammonia, sodium hydroxide, and isopropyl alcohol.

Included in the box

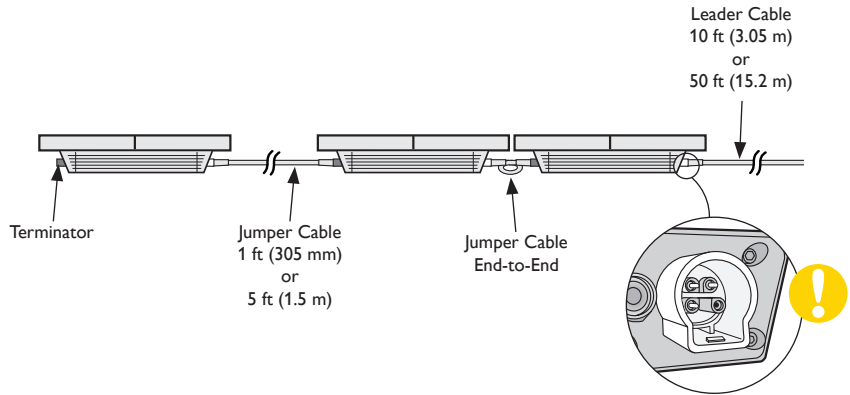
eW Graze Powercore fixture
(1) or (2) Mounting hinges
(2) or (4) M5, 15 mm stainless steel hex bolts for hinge installation
Installation Instructions



Mount and Connect Fixtures

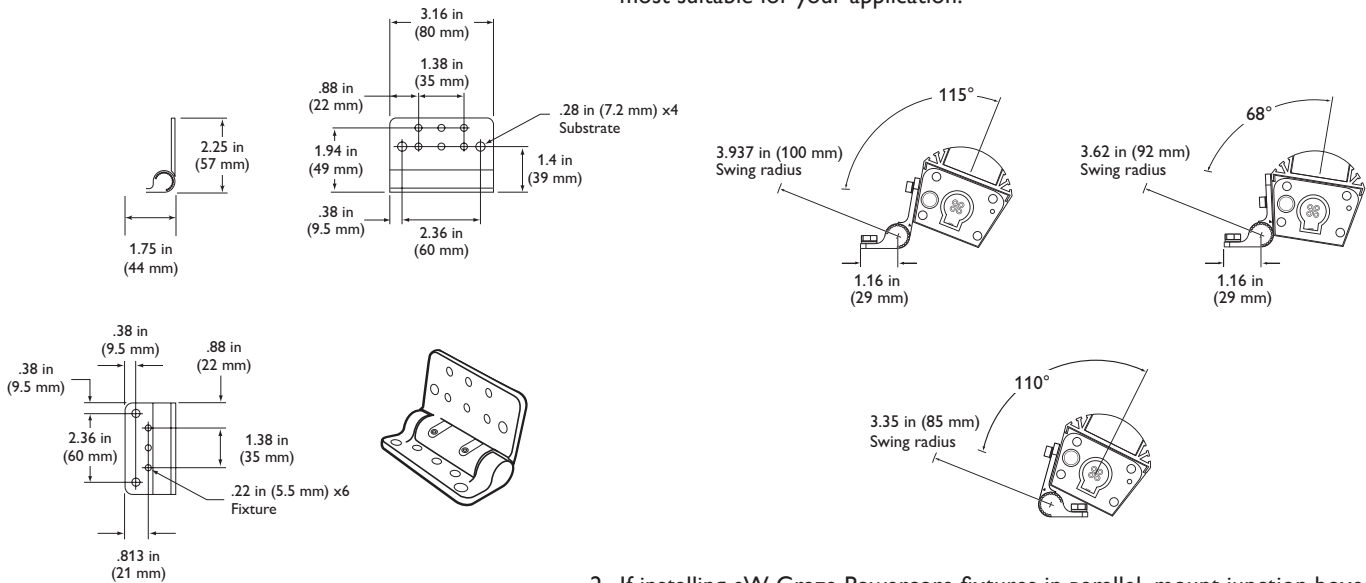
Make sure the power is OFF before mounting and connecting eW Graze Powercore fixtures.

eW Graze Powercore fixtures offer bulkhead connectors that accept the eW Graze Powercore pre-configured Leader and Jumper Cables. Because they have a male connector on one end of the fixture and a female connector on the other end, eW Graze Powercore fixtures are directional, and must all be oriented in the same direction.



Mount Fixtures

- Using the included 4 mm hex hardware, attach two hinges to each fixture. There are three possible methods for attaching hinges to the fixtures, each method offering differing degrees of swing radius and space-efficiency. Select the method most suitable for your application.



- If installing eW Graze Powercore fixtures in parallel, mount junction boxes in accordance with the lighting design plan.
- When installing a linear series of eW Graze Powercore fixtures, make sure that all fixtures are oriented in the same direction. The white connectors are for cable inputs, and the black connectors are for cable outputs. The Leader Cable connects to the male bulkhead connector on the first fixture in each series.
- Rotate the fixture hinge assemblies into the desired positions. For consistent position control, use the indicators on the side of each hinge knuckle for reference. Use a 2 mm hex key wrench to loosen the set screws, as needed.

- To accommodate installation from various angles, each hinge has four set screws designed to lock the hinge position. All four, or only two, of the set screws may be used, depending on the mounting method and swing radius you select for the hinge. For example, if the hinge leaves are to be fully closed, the interior set screws may not be accessible.

Do not lock the hinges positions at this time; the hinges have a built-in constant torque feature that allows temporary positioning. For optimal light output performance, aim and lock the hinges following installation.

Make Cable Connections

1. Connect Leader Cables:

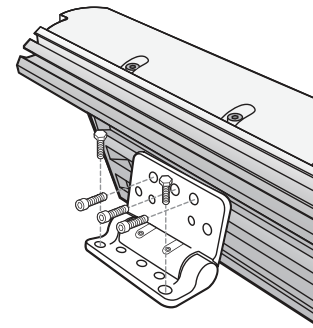
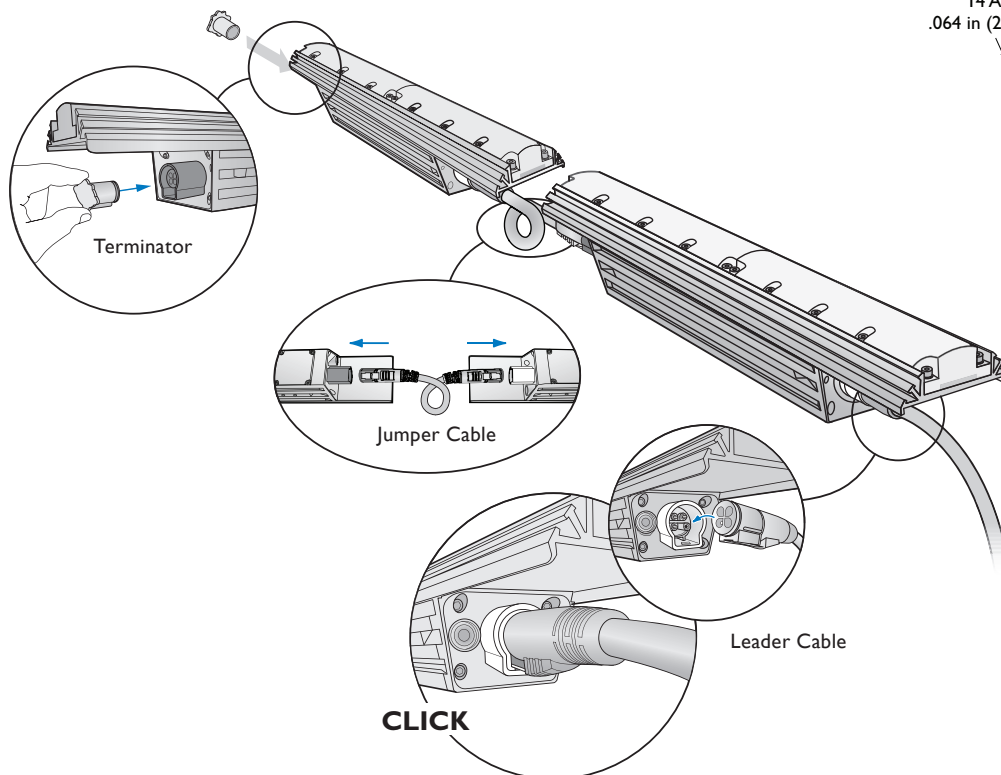
- If installing fixtures in series, run a 10 ft (3.0 m) or 50 ft (15.2 m) Leader Cable from a line voltage source to the input side of the first fixture in the series. Push the Leader Cable into the connector to lock it into place.
- If installing fixtures in parallel, run 2 + ground copper wire from a line voltage source to a common junction box.

Run Leader Cables from the common junction box to the input side of the first fixture in each series. Push the Leader Cables into the connectors to lock them into place.

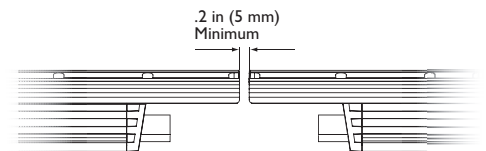
Within the common junction box, use wire nuts to connect line, neutral, and ground data wires. Tuck wire connections into the junction box.

Secure all junction box covers. If installing in a damp or wet location, seal all junction boxes and points of entry with contractor-grade RTV silicone sealant. Use gaskets, clamps, and other parts and fittings required to comply with local outdoor wiring codes.

- Connect all Jumper Cables between fixtures. Push the cable ends into the connectors to lock them into place.
- Insert a terminator into the output side of the last fixture in each series. (Terminators are provided with the eW Graze Powercore Leader Cables.)



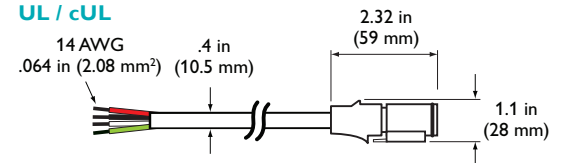
Minimum distance between fixtures



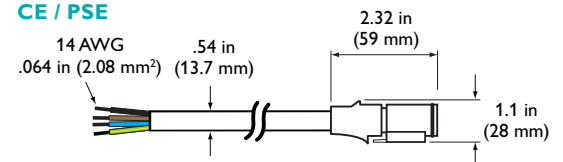
❗ Be sure to position fixtures close enough together so that Leader Cables and Jumper Cables are not stretched or taut when installed.

Leader Cable Connector Dimensions

UL / cUL



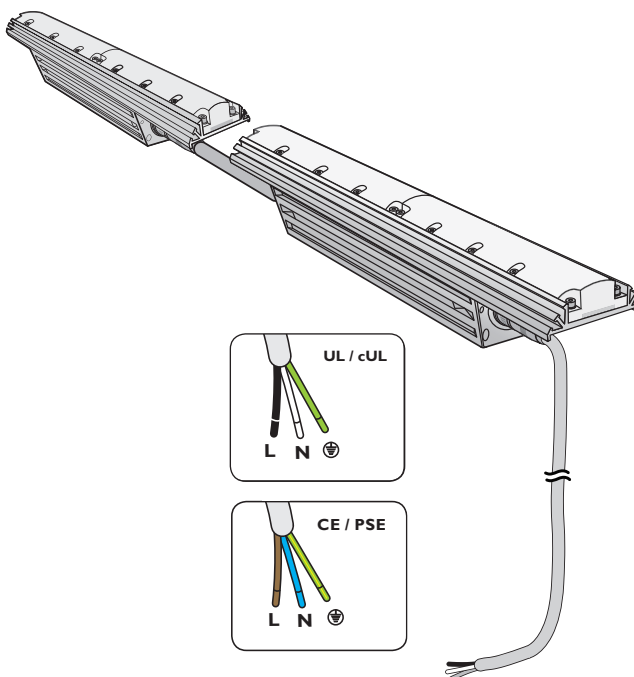
CE / PSE



✱ To ensure CE compliance when using a terminal block, the terminal block must conform to EN 60998-2-1 or EN 60998-2-2 and meet the specified ratings for the voltage listed in this Product Guide.

Make Power Connections

Once you've made all fixture and junction box connections, connect the flying leads from a Leader Cable, or the 2 + ground wire from a common junction box, to a line circuit by a method that meets all national, regional, and local regulations.



✱ Do not look directly into a fixture when aiming and locking.

✱ The hinge position set screws have factory applied thread lock. Confirm the fixture angle and positioning before locking each hinge.

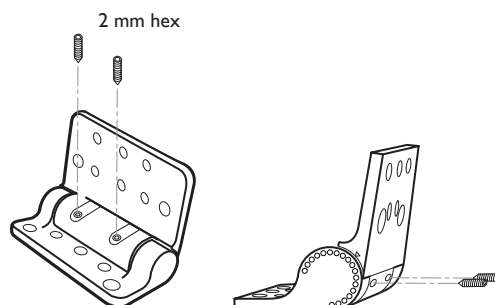
Aim and Lock the Fixtures

Make sure power is ON before aiming fixtures.

Rotate the fixtures to achieve the optimal angle for light output. For consistent position control, use the indicators on the side of each hinge knuckle as reference.

For fine horizontal adjustment, you can change the position of the hinge mounting block located on the side of each fixture. Loosen the set screw with a 2.5 mm hex key, slide the mounting block to the desired position, then tighten the set screw.

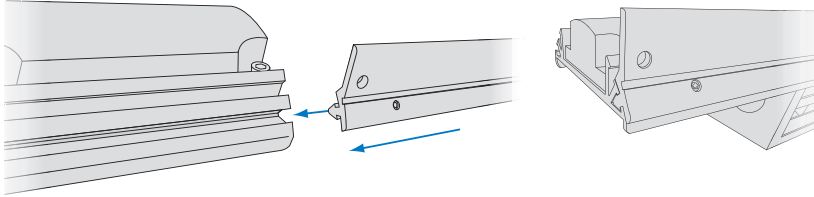
Once satisfied with fixture angles and positioning, use a 2 mm hex key wrench to tighten the hinge position set screws and lock each hinge.



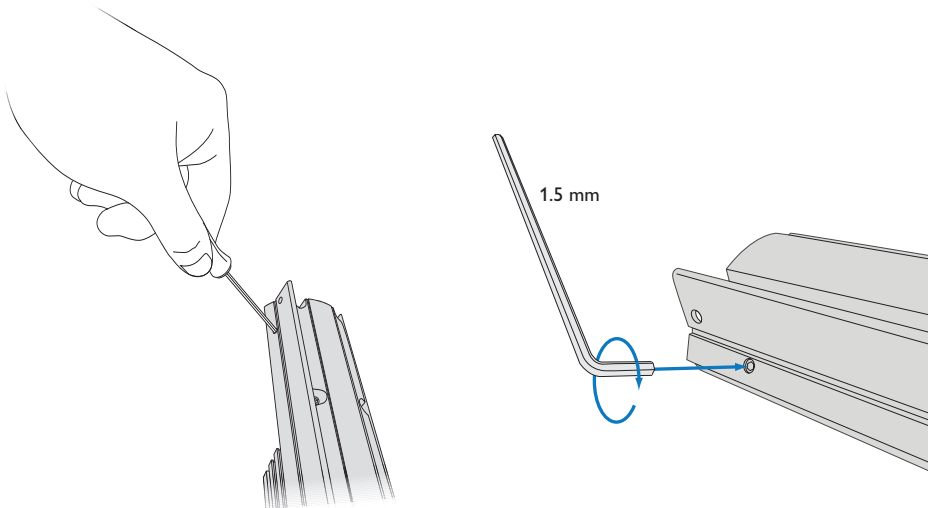
Attach Glare Shields (Optional)

Glare Shields, in 1 ft (305 mm), 2 ft (610 mm), 3 ft (914 mm), and 4 ft (1.2 m) lengths, can be inserted in the grooves in the eW Graze Powercore housing. Glare Shields block unwanted spill light, and can shield the light sources from being directly visible in certain mounting situations.

1. Insert the Glare Shield's triangular tab in the outer groove on the side of the eW Graze Powercore housing.



2. Using a hex wrench, tighten the locking screws to hold the Glare Shield in place.
3. (Optional) Attach a tether to the knockout in the Glare Shield, and affix the tether to a secure anchor point.
4. Using a small screwdriver, hand-tighten all set screws. Using a 1.5 mm hex wrench, torque the set screws to approximately 3.5 in-lbs (4 kgf/cm) to hold the Glare Shield in place.



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