

# Technical Brochure



REFLECTION  
**LEDKO™** P White 5600 K

# Reflection Series



# Reflection LEDko P White 5600 K

## KEY FEATURES

- CRI > 90
- Superior flat field optics with no need of HD lenses
- Soft profiling thanks to Fresnel and PC optics (Coemar patent)
- Smooth 16 bit dimmer
- Guaranteed Flicker-free operation (DMX controlled PWM frequency)
- PowerCon In/Out, up to 16 fixtures powered in series for easy installations
- Adjustable fan setting allowing low noise operations, auto-silent, DMX, maximum speed
- Instant gobos from standard printers



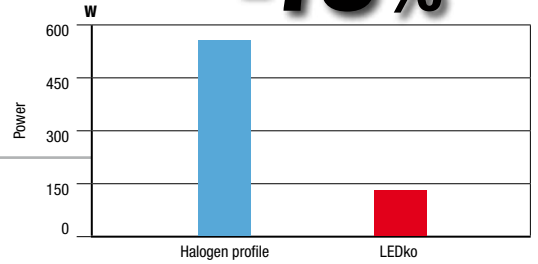
Reflection LEDko P White 5600 K - PC10011A812

\*Reflection LEDko P White 5600 K equipped with Soft Profile PC

# low power consumption

Reflection LEDko reduces power consumption levels by up to 75% and therefore recovers the financial investment within a few months.

# -75%



Reflection LEDko White Body



Reflection LEDko without optic



Reflection LEDko Rear panel

## Reflection LEDko P White 5600 K

### SPECIFICATIONS

Fixed white color temperature 5600 K

Four blade framing system, each shutter blade is adjustable for radial position and angle

Electronic 16 bit dimming with 2 selectable curves, simulating halogen or discharge lamp based fixtures

Synchronized, random or pulse electronic strobe

Flicker-free operation with LEDs frequency controlled via DMX from 600 Hz to 19000 Hz

Fan setting with 4 different options (low-noise, auto-silent, DMX, maximum speed)

CE, ETL, UL approved

Weatherproof rating IP 20

### PHYSICAL SIZE (With optic Soft Profile Fresnel )

Length: 601 mm (23.6 in)

Height: 189 mm (7.4 in)

Height with bracket: 372 mm (14.6 in)

Width: 212 mm (8.5)

Weight: 7 Kg (15.0 lbs)

### PHYSICAL SIZE (Without optic)

Length: 362 mm (14.2 in)

Height: 189 mm (7.4 in)

Height with bracket: 372 mm (14.6 in)

Width: 212 mm (8.3 in)

Weight: 5 kg (11.0 lbs)

### LIGHT SOURCE

Modular 150 W LED Array light source, CRI > 90

LEDs life: 50000 hours at 70% lumen intensity maintenance

### CONTROL PROTOCOL AND PROGRAMMING

USITT DMX512A

DMX channels: 5/1

Setting, addressing, testing and measurements via LEDs display

RDM

### ELECTRICAL SPECIFICATIONS/CONNECTIONS

AC power: 90-250 V, auto sensing, 50/60 Hz

In and Out PowerCon connectors to feed up to 16 (at 230 VAC) or 8 (90 VAC)

Power consumption: 0.81 A at 230 V, 2.07 A at 90 V - cosφ 0,9

DMX data in/out: 5 pin locking XLR

### ACCESSORIES

Gobo holder

Color frame

Iris

4-leaf barndoor

Flight case

Optics: Profile/Soft Profile, various angles available

## Reflection LEDko Optics

Picture	Code	Description
	BC10011A004	Profile 26°
	BC10011A017	Profile Zoom 15°-35°
	BC10011A019	Profile Zoom 25°-50°
	BC10011A003	Profile Zoom 28°-40°
	BC10011A002	Soft Profile Fresnel Zoom 22°- 51°
	BC10011A001	Soft Profile PC Zoom 20°- 41°

## Reflection LEDko Optics

Picture	Code	Description
	ZETC012E	Front barrel for lens tube
	BC10011A012	Profile 19°, lens tube
	BC10011A013	Profile 26°, lens tube
	BC10011A015	Profile 36°, lens tube
	BC10011A016	Profile 50°, lens tube






Reflection LEDko Optics

Picture	Code	Description
	BC10011A023	Profile 14°, lens tube
	BC10011A024	Profile 70°, lens tube
	BC10011A025	Profile 90°, lens tube

Reflection LEDko P White 5600 K - Accessories






Picture	Code	Description
	<p>ACO4202</p>	<p>4 leaf barndoor</p>
	<p>BC10011A006</p>	<p>gobo frame holder</p>
	<p>BC10011A010</p>	<p>iris</p>

Reflection LEDko - Accessories for Optic Zoom 15°/35° and 25°/50°






Picture	Code	Description
	BC10011A028	Donut (190.5 mm)
	BC10011A027	Half Top Hat (190.5 mm)
	BC10011A029	Top Hat (190.5 mm)
	BC10011A030	(Gobo Slot) Glass template holder (93.6 mm)
	ACO4204	Colour Frame Holder (185 mm)



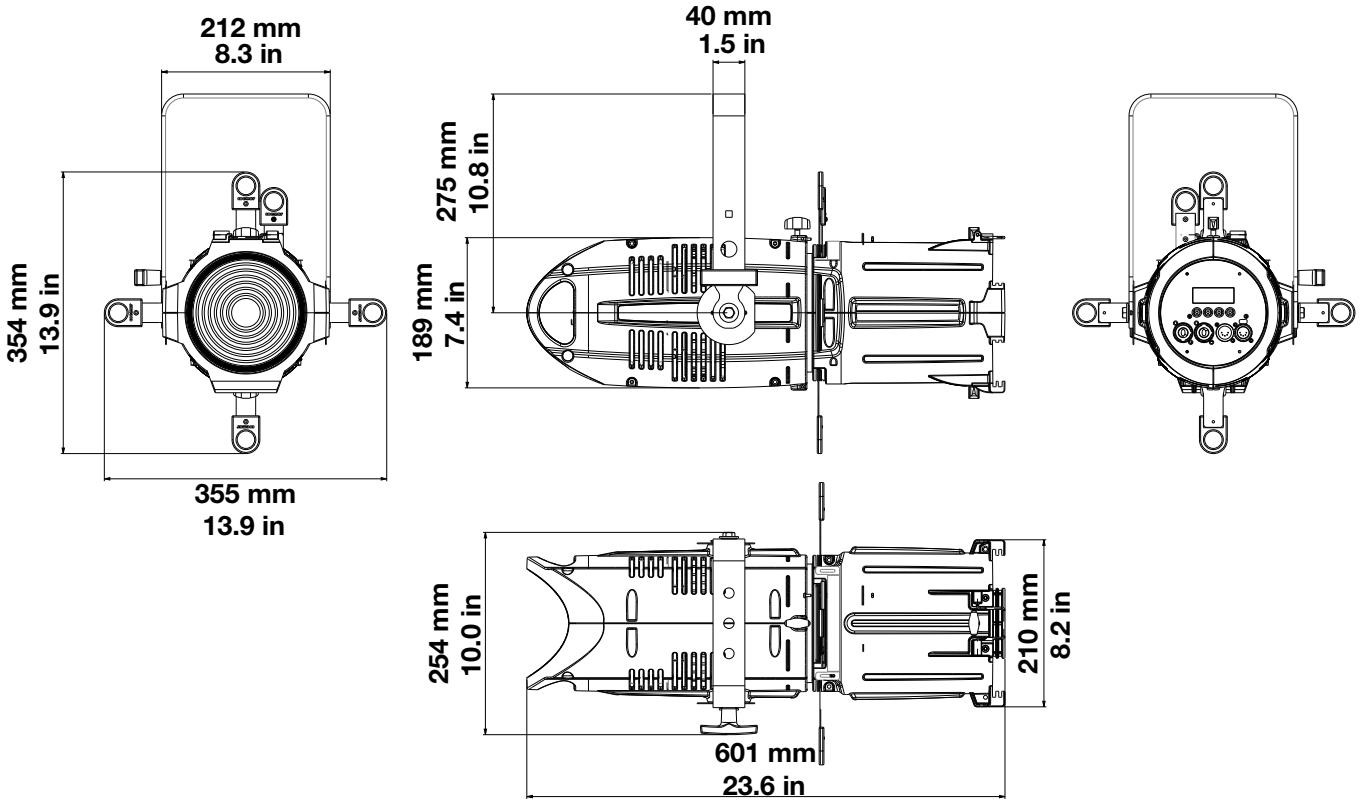
Reflection LEDko - Accessories for Optic Zoom 26° and 28°/40°

Picture	Code	Description
	BC10011A036	Donut (185 mm)
	BC10011A035	Half Top Hat (185 mm)
	BC10011A037	Top Hat (185 mm)
	BC10011A030	(Gobo Slot) Glass template holder (93.6 mm)
	ACO4204	Colour Frame Holder (185 mm)

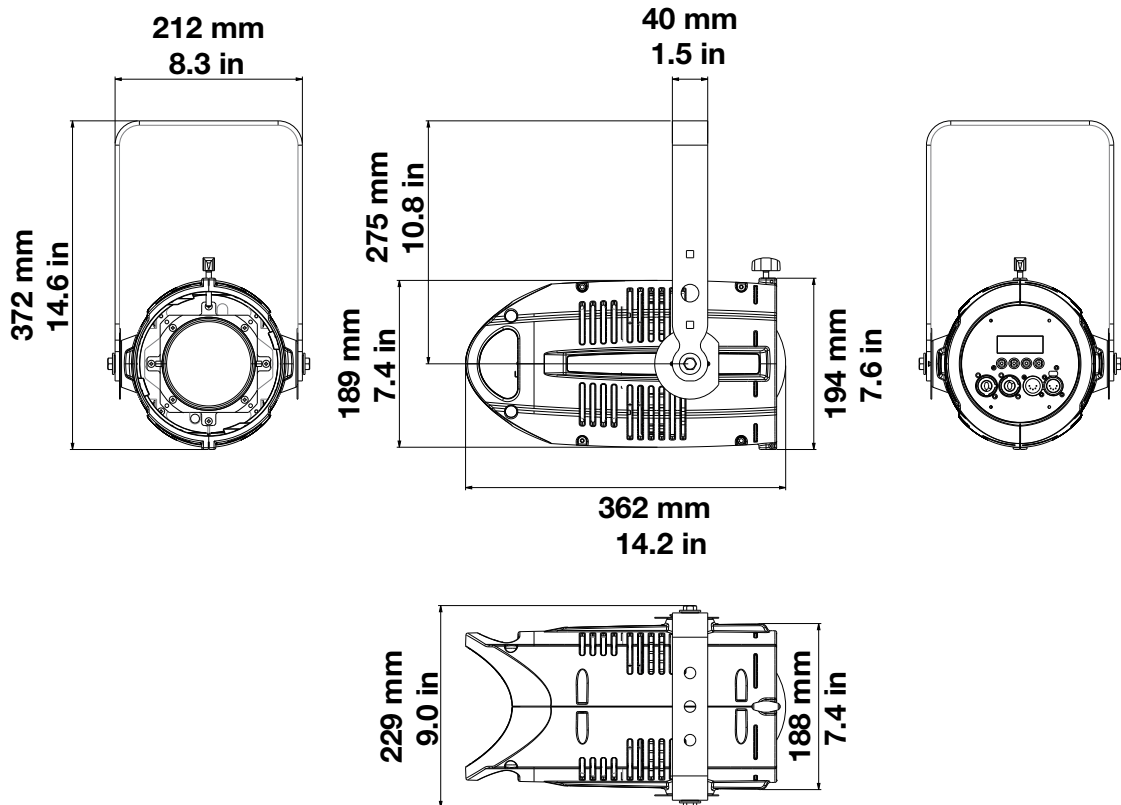
## Reflection LEDko - Accessories for Lens Tube

Picture	Code	Description
	BC10011A032	Donut (158.7 mm)
	BC10011A031	Half Top Hat (158.7 mm)
	BC10011A033	Top Hat (158.7 mm)
	BC10011A030	(Gobo Slot) Glass template holder (93.6 mm)
	BC10011A021	Colour Frame Holder (159 mm)

Reflection LEDko P White 5600 K - Drawing Size



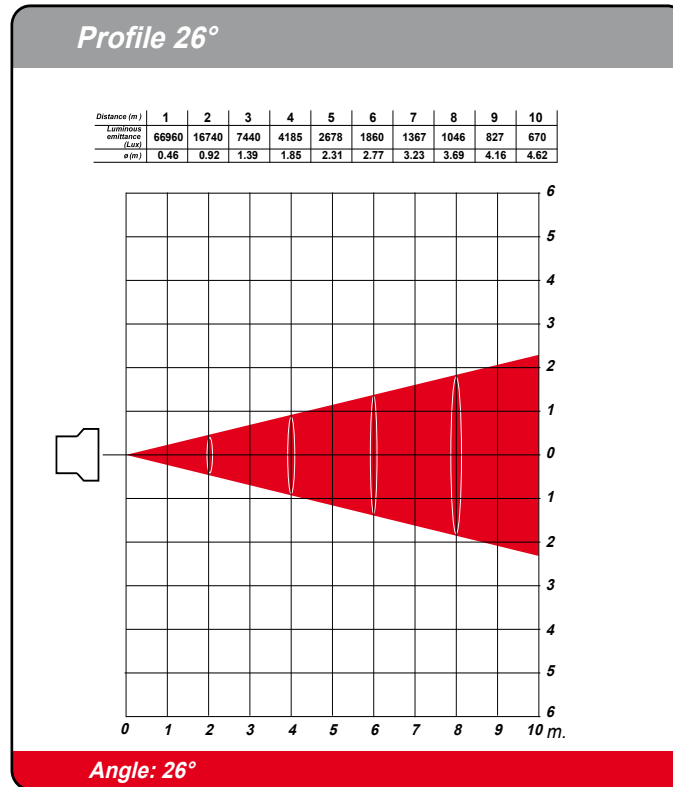
Reflection LEDko with optic Soft Profile Fresnel



## Reflection LEDko P White 5600 K - DMX Chart

channel		function	type of control	effect	decimal	percentage
1	1	<b>master dimmer</b>	proportional	adjust luminous output intensity from 0 to 100%	0 - 255	0% - 100%
	2	<b>spare channel</b>	step	no effect	0 - 255	0% - 100%
	3	<b>dimmer fine</b>	proportional	fine dimmer control 16 bit	0 - 255	0% - 100%
4		<b>strobe</b>	step	no effect	0 - 9	0% - 4%
			proportional	variable speed strobing effect, from slow to fast	10 - 57	4% - 22%
			step	stop strobe	58 - 59	23% - 23%
			proportional	sequenced pulse effect, slow closing, fast opening (variable speed pulsing, from slow to fast)	60 - 108	24% - 42%
			step	stop strobe	109 - 110	43% - 43%
			proportional	sequenced pulse effect, fast closing, slow opening (variable speed pulsing, from slow to fast)	111 - 159	44% - 62%
			step	stop strobe	160 - 161	63% - 63%
			proportional	random strobe effect with variable speed from slow to fast, synchronized colors	162 - 207	64% - 81%
			step	stop strobe	208 - 209	82% - 82%
			proporzionale	random strobe effect with variable speed from slow to fast, not synchronized colors	210 - 255	82% - 100%
5		<b>special functions</b>	step	park, no effect	0 - 9	0% - 4%
				600Hz	10 - 84	4% - 33%
				fan at low-noise speed	85 - 96	33% - 38%
				fan at auto-silent speed	97 - 108	38% - 42%
			proportional	fan speed control from minimum to maximum	109 - 120	43% - 47%
			step	fan at maximum speed	121 - 133	47% - 52%
				LCD display off	134 - 185	53% - 73%
				LCD display on	186 - 199	73% - 78%
				LED control frequency tuning 1000Hz	200 - 205	78% - 80%
				LED control frequency tuning 3000Hz	206 - 211	81% - 83%
				LED control frequency tuning 6000Hz	212 - 217	83% - 85%
				LED control frequency tuning 8000Hz	218 - 223	85% - 87%
				LED control frequency tuning 10000Hz	224 - 229	88% - 90%
				LED control frequency tuning 12000Hz	230 - 235	90% - 92%
				LED control frequency tuning 14000Hz	236 - 241	93% - 95%
				LED control frequency tuning 16000Hz	242 - 247	95% - 97%
LED control frequency tuning 19000Hz	248 - 255	97% - 100%				

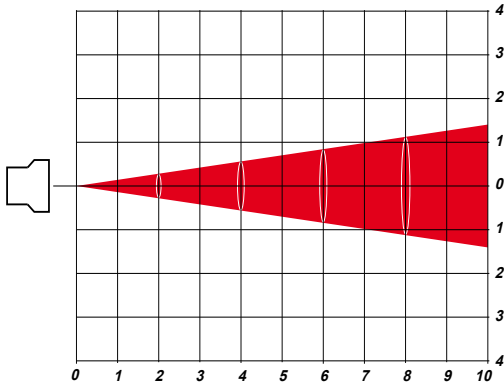
# Reflection LEDko P White 5600 K - Photometric Data



# Reflection LEDko P White 5600 K - Photometric Data

Profile 15/35° - Zoom min.

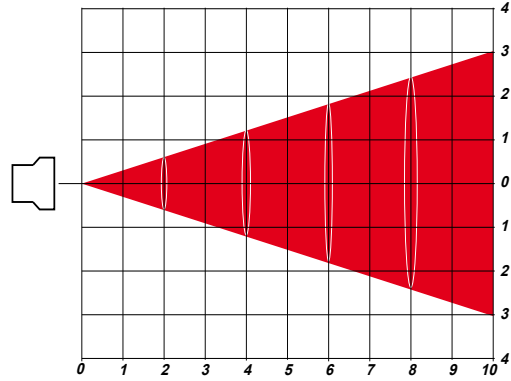
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (lm)	128250	32063	14250	8016	5130	3563	2617	2004	1583	1283
α (m)	0.28	0.56	0.84	1.12	1.41	1.69	1.97	2.25	2.53	2.81



Angle: 15°

Profile 15/35° - Zoom max.

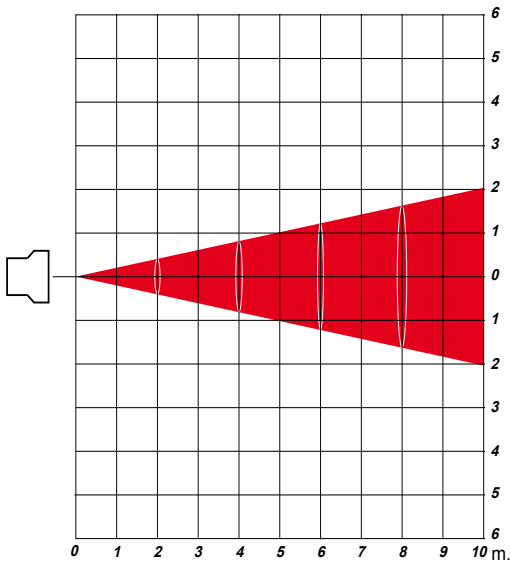
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (lm)	42660	10665	4740	2666	1706	1185	871	667	527	427
α (m)	0.63	1.26	1.89	2.52	3.15	3.78	4.41	5.04	5.68	6.31



Angle: 35°

Profile 25/50° - Zoom min.

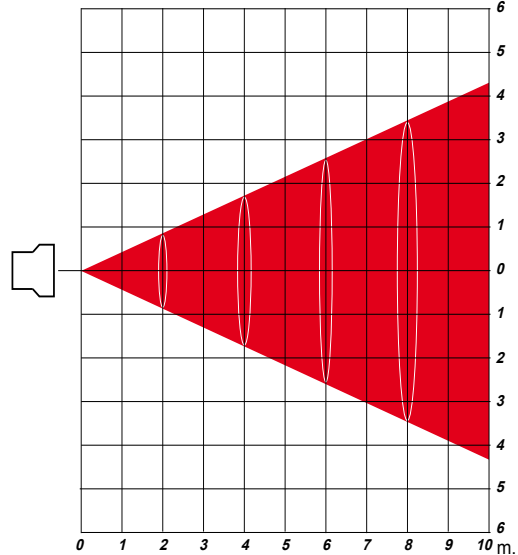
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (lm)	80100	20025	8900	5006	3204	2225	1635	1252	989	801
α (m)	0.41	0.81	1.22	1.63	2.03	2.44	2.85	3.26	3.66	4.07



Angle: 23°

Profile 25/50° - Zoom max.

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (lm)	21000	5250	2333	1313	840	583	429	328	259	210
α (m)	0.87	1.74	2.61	3.48	4.35	5.22	6.09	6.96	7.83	8.70

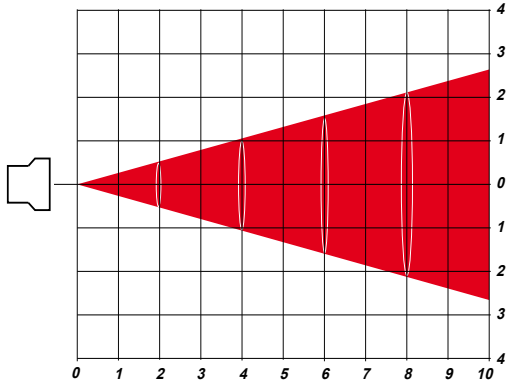


Angle: 47°

# Reflection LEDko P White 5600 K - Photometric Data

Profile 28/40° - Zoom min.

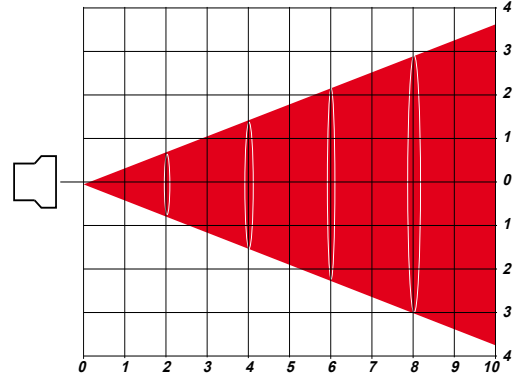
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (L <sub>exit</sub> )	60300	15075	6700	3769	2412	1675	1231	942	744	603
φ (m)	0.55	1.11	1.66	2.21	2.76	3.32	3.87	4.42	4.97	5.53



Angle: 28°

Profile 28/40° - Zoom max.

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (L <sub>exit</sub> )	35559	8890	3951	2222	1422	988	726	556	439	356
φ (m)	0.77	1.54	2.30	3.07	3.84	4.61	5.37	6.14	6.91	7.68

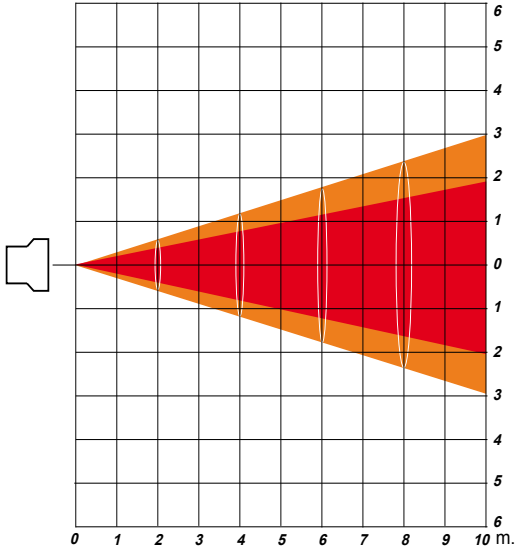


Angle: 40°

# Reflection LEDko P White 5600 K - Photometric Data

## Soft Profile Fresnel - Zoom min.

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (Lx)	66915	16729	7435	4182	2677	1859	1366	1046	826	669
1/2 peak angle $\alpha$ (m)	0.39	0.76	1.17	1.56	1.94	2.33	2.72	3.11	3.50	3.89
1/10 peak angle $\alpha$ (m)	0.61	1.22	1.83	2.45	3.06	3.67	4.28	4.89	5.50	6.11

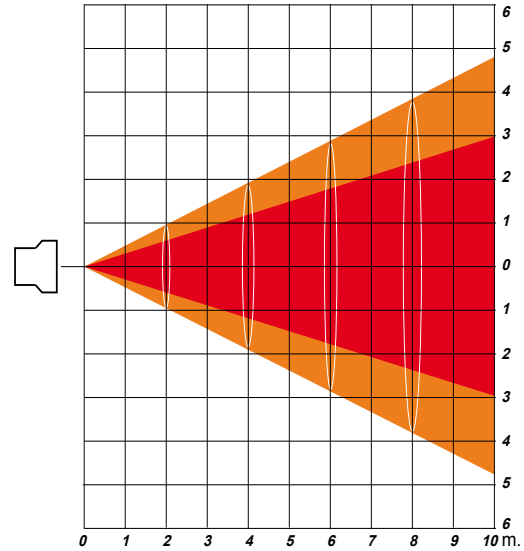


1/2 peak angle: 22°

1/10 peak angle: 33°

## Soft Profile Fresnel - Zoom min.

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (Lx)	21222	5306	2358	1326	849	590	433	332	262	212
1/2 peak angle $\alpha$ (m)	0.59	1.18	1.78	2.37	2.96	3.55	4.15	4.74	5.33	5.92
1/10 peak angle $\alpha$ (m)	0.79	1.58	2.37	3.16	3.95	4.74	5.53	6.32	7.11	7.90

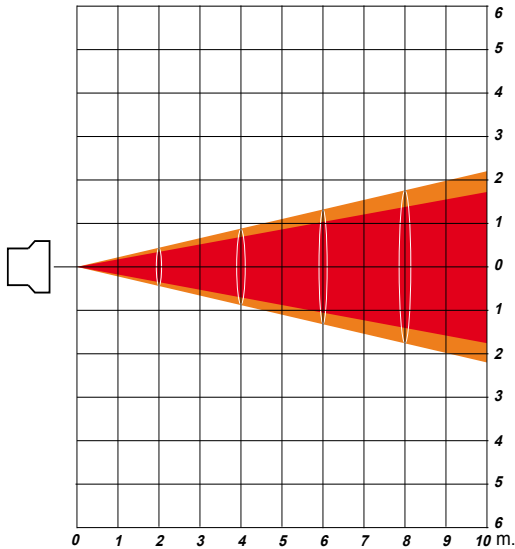


1/2 peak angle: 33°

1/10 peak angle: 51°

## Soft Profile PC - Zoom min.

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (Lx)	81450	20363	9050	5091	3258	2263	1662	1273	1006	815
1/2 peak angle $\alpha$ (m)	0.35	0.71	1.06	1.41	1.76	2.12	2.47	2.82	3.17	3.53
1/10 peak angle $\alpha$ (m)	0.48	0.96	1.44	1.92	2.40	2.88	3.36	3.84	4.32	4.80

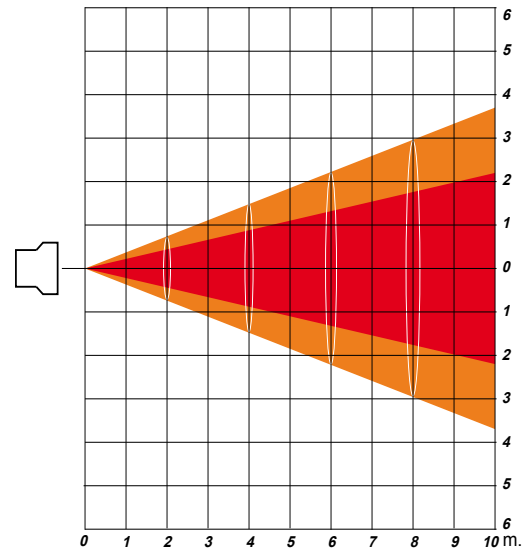


1/2 peak angle: 20°

1/10 peak angle: 27°

## Soft Profile PC - Zoom max.

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (Lx)	31122	7781	3458	1945	1245	865	635	486	384	311
1/2 peak angle $\alpha$ (m)	0.44	0.89	1.33	1.77	2.22	2.66	3.10	3.55	3.99	4.43
1/10 peak angle $\alpha$ (m)	0.75	1.50	2.24	2.99	3.74	4.49	5.23	5.98	6.73	7.48

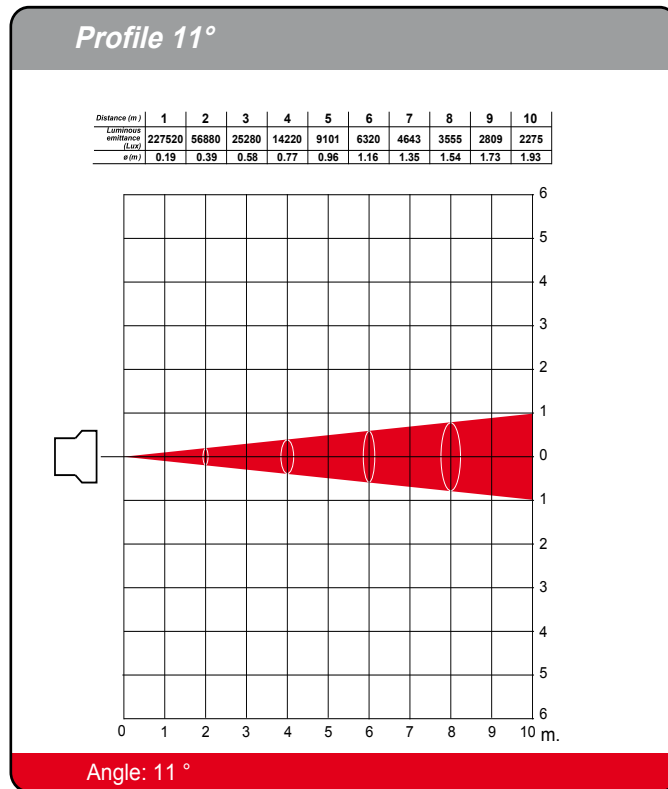


1/2 peak angle: 25°

1/10 peak angle: 41°



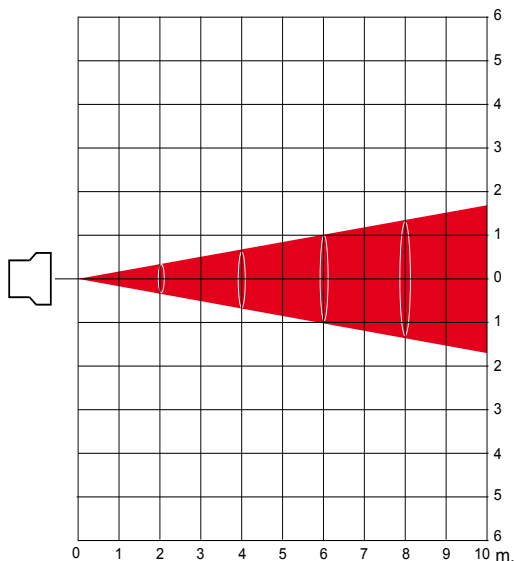
# Reflection LEDko P White 5600 K - Photometric Data with third part optics



# Reflection LEDko P White 5600 K - Photometric Data with third part optics

## 19° Lenses

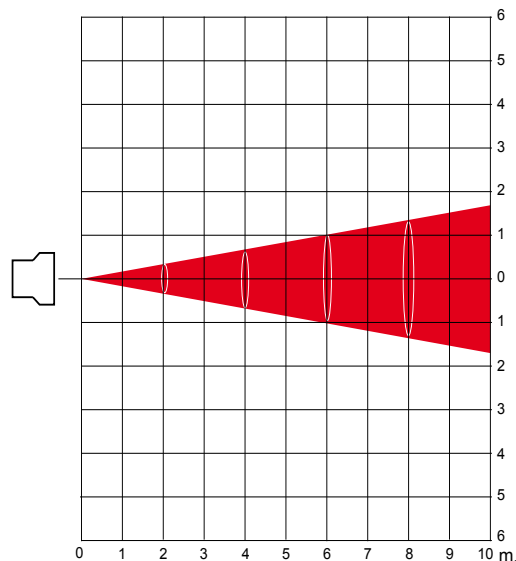
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (Lx)	82800	20700	9200	5175	3312	2300	1690	1294	1022	828
$\sigma$ (m)	0.33	0.67	1.00	1.34	1.67	2.01	2.34	2.68	3.01	3.35



Angle: 19°

## 19° Lenses HD

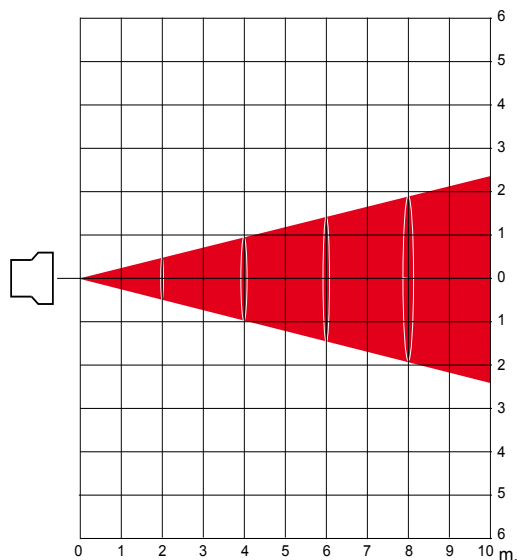
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (Lx)	86895	21724	9655	5431	3476	2414	1773	1358	1073	869
$\sigma$ (m)	0.33	0.67	1.00	1.34	1.67	2.01	2.34	2.68	3.01	3.35



Angle: 19°

## 26° Lenses

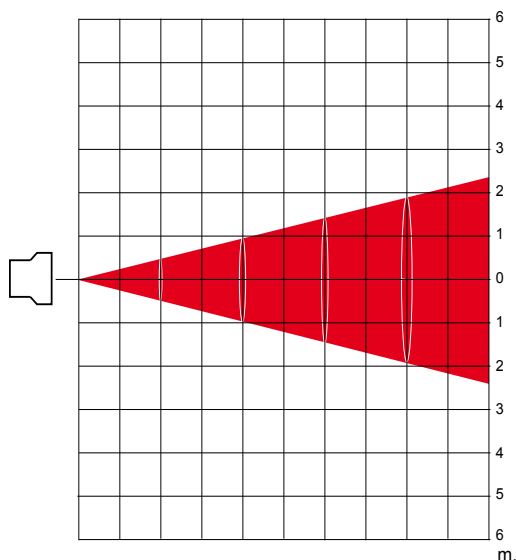
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (Lx)	60435	15109	6715	3777	2417	1679	1233	944	746	604
$\sigma$ (m)	0.46	0.92	1.39	1.85	2.31	2.77	3.23	3.69	4.16	4.62



Angle: 26°

## 26° Lenses HD

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous emittance (Lx)	72504	18126	8056	4532	2900	2014	1480	1133	895	725
$\sigma$ (m)	0.46	0.92	1.39	1.85	2.31	2.77	3.23	3.69	4.16	4.62

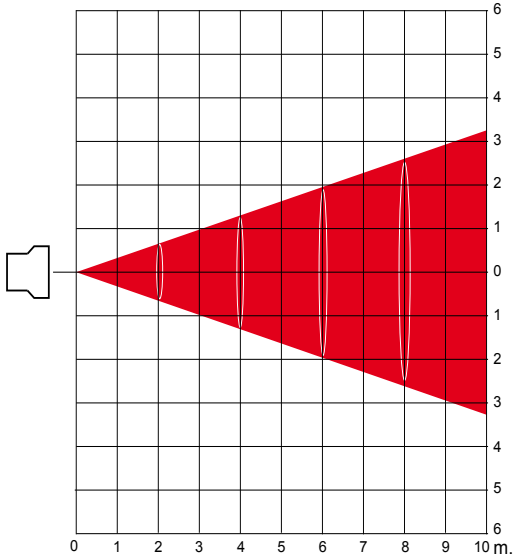


Angle: 26°

# Reflection LEDko P White 5600 K - Photometric Data with third part optics

## 36° Lenses

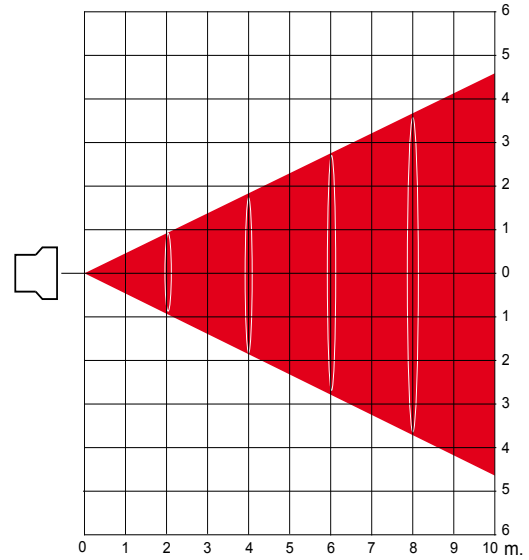
Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (LUX)	40806	10202	4534	2550	1632	1134	833	638	504	408
φ (m)	0.65	1.30	1.95	2.60	3.25	3.90	4.55	5.20	5.85	6.50



Angle: 36°

## 50° Lenses

Distance (m)	1	2	3	4	5	6	7	8	9	10
Luminous exitance (LUX)	16524	4131	1836	1033	661	459	337	258	204	165
φ (m)	0.93	1.87	2.80	3.73	4.66	5.60	6.53	7.46	8.39	9.33



Angle: 50°

# References TV studios



El Djazairia TV Studio  
Algérie



ESPN Studio  
USA



NTV  
Turkey



TV Atzeca  
Mexico



Al Jazeera TV Studios



BBC Studios  
Scotland

# References Theatres



**Accademia Nazionale di Santa Cecilia - Rome  
Italy**



**MSC Cruise  
Italy**



**Auditorium G. Arvedi - Cremona  
Italy**



**Auditorium G. Arvedi - Cremona  
Italy**



**Cincinnati Shakespeare Company - Grapes of Wrath  
USA**



**Concert Hall  
Vietnam**

# References Architectural



**Blue Planet Aquarium - Copenhagen  
Denmark**



**Cathedral's Museum - Monza  
Italy**



**Museum of Natural History - Wien  
Austria**



**"Cupid & Psyche" Exhibition - Milan  
Italy**



**Church of Gl. Holte - Copenhagen  
Denmark**



**Show Room of Italian Fashion House - Milan  
Italy**

# References Fashion Show



Lacoste Fashion Show - Viareggio  
Italy



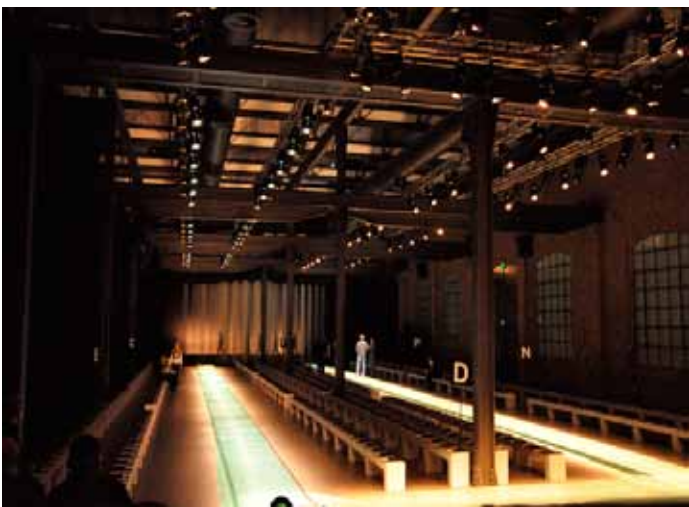
Lacoste Fashion Show - Viareggio  
Italy



S.Ferragamo Fashion Show - Milan  
Italy



S.Ferragamo Fashion Show - Milan  
Italy



Canali Fashion Show - Milan  
Italy



Canali Fashion Show - Milan  
Italy



**Coemar Lighting** S.r.l.  
Via Carpenedolo, 90  
46043 Castiglione delle Stiviere  
Mantova - Italy  
ph. +39 0376 1514412  
fax +39 0376 1514380

[www.coemar.com](http://www.coemar.com)