

# Technical Brochure



 REFLECTION  
**EDKO™ FullSpectrum Series 2**

# Reflection Series



# Reflection LEDko FullSpectrum Series 2

## KEY FEATURES

- RGBW color mixing
- 2.700 K - 10.000 K Continuously Variable Correlated Color Temperature with color rendering index greater than 90 (CRI>90)
- Plus minus green correction
- Color saturation adjustment
- Uniform light beam with no multicolor shadows
- Also compatible with new Fresnel and PC optics with shutters (Soft Profile)
- Guaranteed Flicker-free operation (DMX controlled PWM frequency)
- Smooth 16 bit dimmer
- The fan setting allows three options : low, auto, DMX regulated
- Instant gobos from standard printers



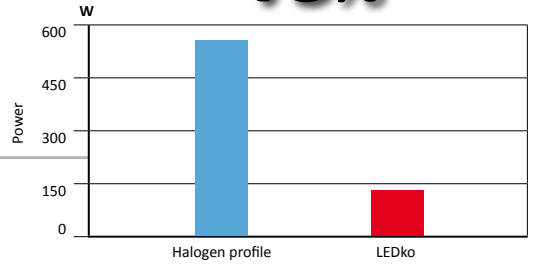
Reflection LEDko FullSpectrum Series 2 - PC10011A302

\*Reflection LEDko FullSpectrum Series 2 equipped with PC optic

# -75%

## low power consumption

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



### Reflection LEDko FullSpectrum Series 2

#### SPECIFICATIONS

RBG+W colour mixing with Hue and Saturation control

CCT: all whites from 2.700 to 10.000 K

Plus minus green correction

RGBW built-in libraries

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

Electronic 16 bit dimming with 3 selectable curves (exponential, logarithmic, linear)

Synchronized, random or pulse electronic strobe

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

Fan setting with 3 different options (low, auto, DMX regulated)

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 (8.3 in)

Weight: 8.5 Kg (18.7 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: 6 kg (13.2 lbs)

#### LIGHT SOURCE

Modular 210 W multiple LEDs , CRI>90

20,000-hour LED life (20,000 hours to 70% intensity)

#### CONTROL PROTOCOL AND PROGRAMMING

USITT DMX512A

DMX Channels: 1/4/7/8/14

Setting, addressing, testing and measurements via LEDs display

Remote Device Management (RDM)

#### ELECTRICAL SPECIFICATIONS/CONNECTIONS

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

In and Out PowerCon connectors to feed up to 8 (at 230 VAC) or 4 (90 VAC)

Power consumption: 1.1 A at 230 V, 2.83 A at 90 V - cosφ 0,9

DMX data in/out: 5 pin locking XLR

Reflection LEDko FullSpectrum Series 2 - Optics

Picture	Code	Description
	BC10011A017	Profile Zoom 15°-35°
	BC10011A019	Profile Zoom 25°-50°
	BC10011A003	Profile Zoom 28°-40°
	BC10011A002	Soft Profile Fresnel Zoom 18°- 44°
	BC10011A001	Soft Profile PC Zoom 11°- 38°




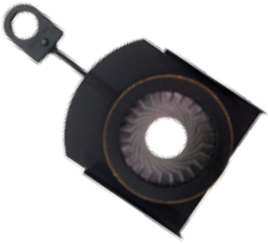
Reflection LEDko FullSpectrum Series 2 - Optics

Picture	Code	Description
	BC10011A200	Front barrel for lens tube with burnished blades
	BC10011A012	Profile 19°, lens tube
	BC10011A013	Profile 26°, lens tube
	BC10011A015	Profile 36°, lens tube
	BC10011A016	Profile 50°, lens tube





Reflection LEDko FullSpectrum Series 2 - Optics

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

Reflection LEDko FullSpectrum Series 2 - Accessories

Picture	Code	Description
	<p>ACO4202</p>	<p>4 leaf barndoor</p>
	<p>BC10011A006</p>	<p>Gobo frame holder</p>
	<p>BC10011A030</p>	<p>Gobo glass holder</p>
	<p>BC10011A010</p>	<p>Iris</p>

Reflection LEDko FullSpectrum Series 2 - Accessories

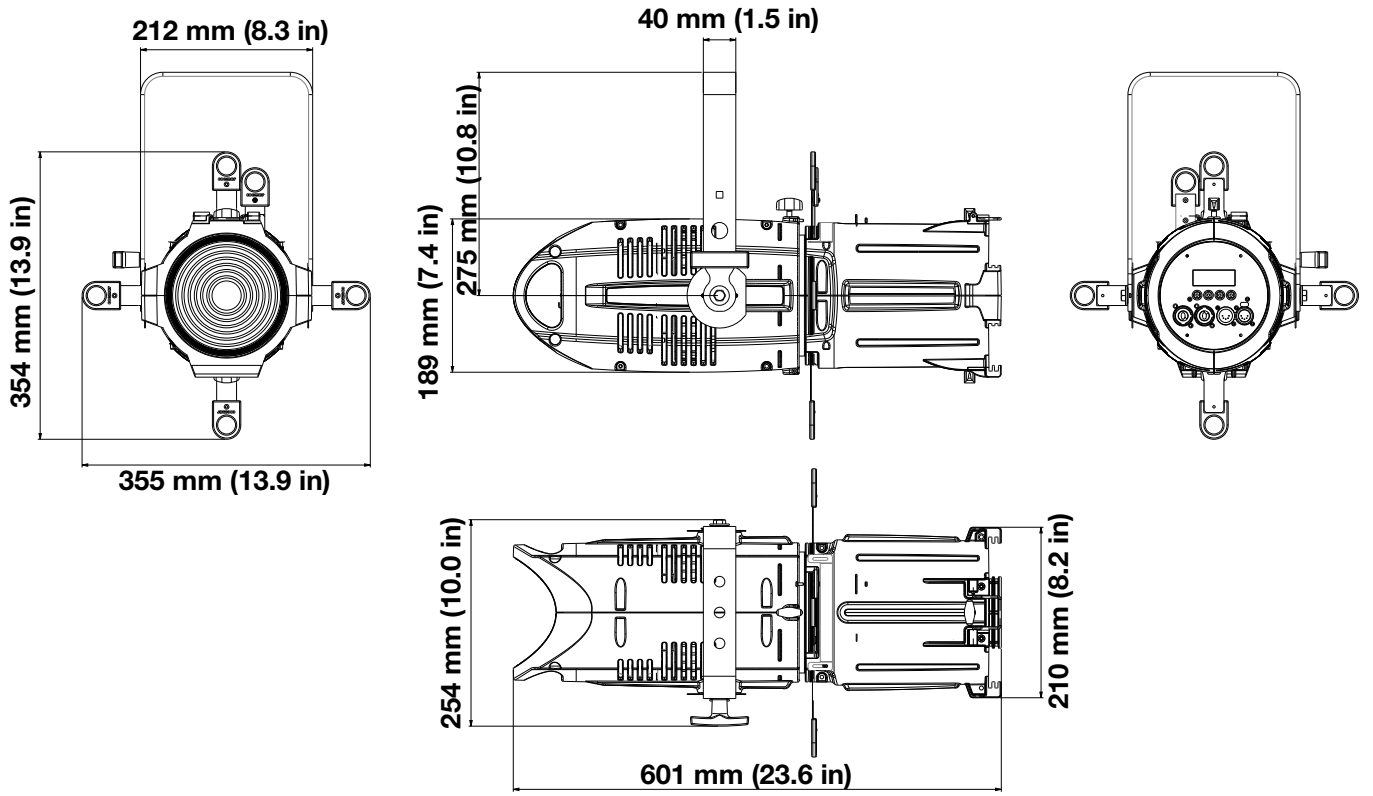
Picture	Code	Description
	<p>BC10011A028 BC10011A036 BC10011A032</p>	<p>Donut for Profile Zoom (190.5 mm) Donut for Soft Profile (185 mm) Donut for Lens Tube (159 mm)</p>
	<p>BC10011A027 BC10011A035 BC10011A031</p>	<p>Half Top Hat for Profile Zoom (190.5 mm) Half Top Hat for Soft Profile (185 mm) Half Top Hat for Lens Tube (159 mm)</p>
	<p>BC10011A029 BC10011A037 BC10011A033</p>	<p>Top Hat for Profile Zoom (190.5 mm) Half Top Hat for Soft Profile (185 mm) Half Top Hat for Lens Tube (159 mm)</p>
	<p>BC10011A040 ACO4204 BC10011A021</p>	<p>Colour Frame Holder for Profile Zoom (190.5 mm) Colour Frame Holder for Soft Profile (185 mm) Colour Frame Holder for Lens Tube (159 mm)</p>



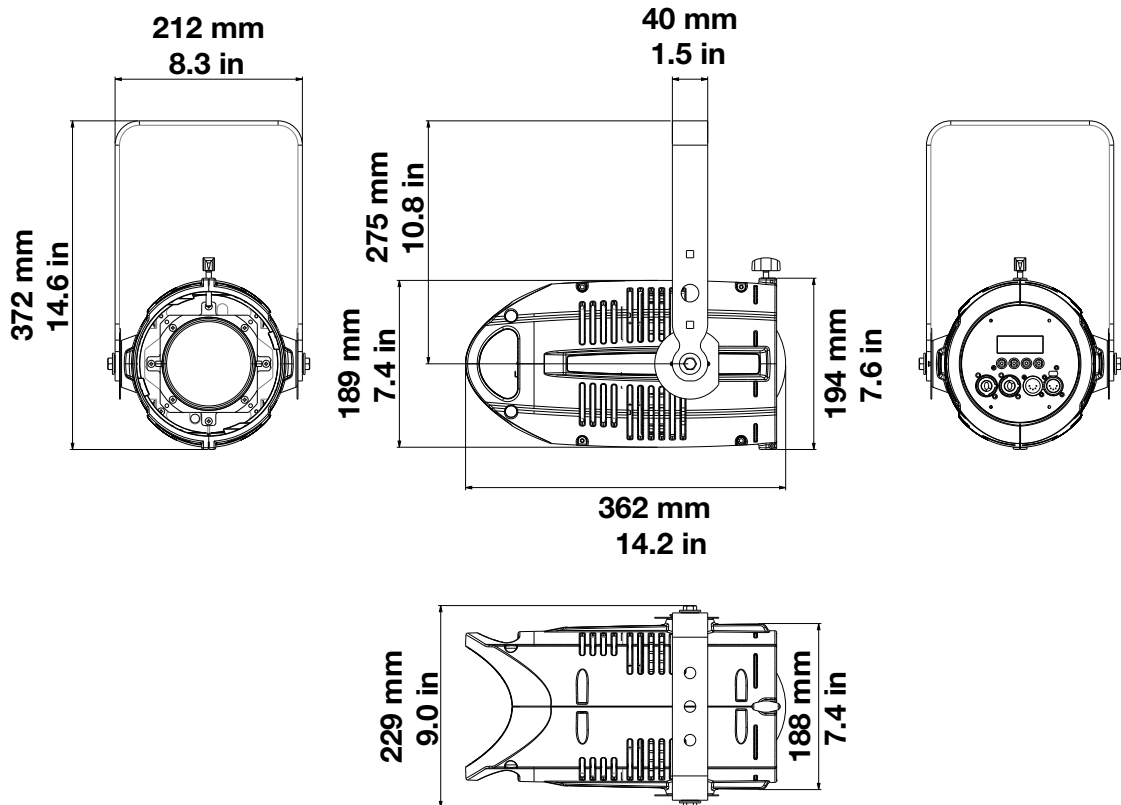
Reflection LEDko FullSpectrum Series 2 - Accessories

Picture	Code	Description
	BC10011A047	<p>Hook Clamp 48 - 51 mm (Safe Working Load 20 Kg.)</p>
	BC10011A045	<p>Light Clamp silver 48 - 51 mm (Safe Working Load 75 Kg.)</p>
	BC10011A046	<p>Light Clamp black 48 - 51 mm (Safe Working Load 75 Kg.)</p>
	BC10011A043	<p>Clamp silver flat 13 - 30 mm / <math>\varnothing</math> 15 - 50 mm (Safe Working Load: 20 Kg.)</p>
	BC10011A044	<p>Clamp black flat 13 - 30 mm / <math>\varnothing</math> 15 - 50 mm (Safe Working Load 20 Kg.)</p>

Reflection LEDko FullSpectrum Series 2 - Drawing Size



Reflection LEDko with optic Soft Profile Fresnel



DMX Chart 14 Channels	
channel	effect
1	Master dimmer
2	Red
3	Green
4	Blue
5	White
6	Strobe effect
7	Dimmer fine
8	Special functions
9	Red tone
10	Green tone
11	Blue tone
12	White tone
13	Green saturation
14	Saturation

DMX Chart 7 Channels	
channel	effect
1	Master dimmer
2	Color temperature
3	Green saturation
4	Saturation
5	Hue
6	Dimmer fine
7	Special function

DMX Chart 4 Channels	
channel	effect
1	Red
2	Green
3	Blue
4	White

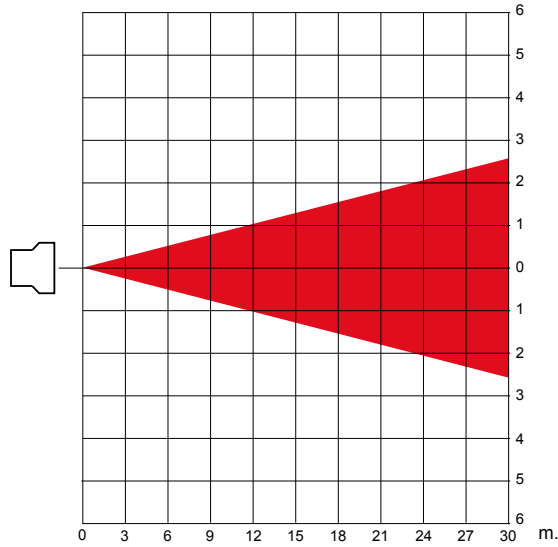
DMX Chart 8 Channels	
channel	effect
1	Master dimmer
2	Red
3	Green
4	Blue
5	White
6	Strobe effect
7	Dimmer fine
8	Special functions

DMX Chart 1 Channels	
channel	effect
1	Master dimmer (color temperature settable by display)

# Reflection LEDko FullSpectrum Series 2 - Photometric Data

## Profile 10°

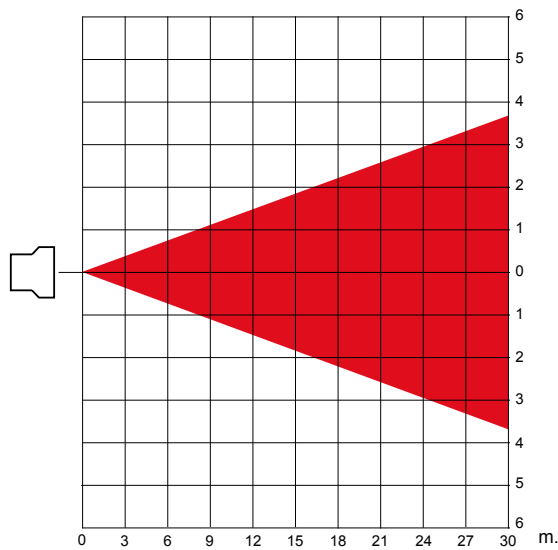
Distance (m.)	3	6	9	12	15	18	21	24	27	30
FULL	17226	4307	1914	1077	689	479	352	269	213	172
RGB	9795	2449	1088	612	392	272	200	153	121	98
Luminous emittance (Lux)										
RED	3310	828	368	207	132	92	68	52	41	33
GREEN	6419	1605	713	401	257	178	131	100	79	64
BLUE	920	230	102	58	37	26	19	14	11	9
WHITE	8461	2115	940	529	338	235	173	132	104	85
Ø (m.)	0.52	1.05	1.57	2.10	2.62	3.15	3.67	4.20	4.72	5.25



Angle: 10°

## Profile 14°

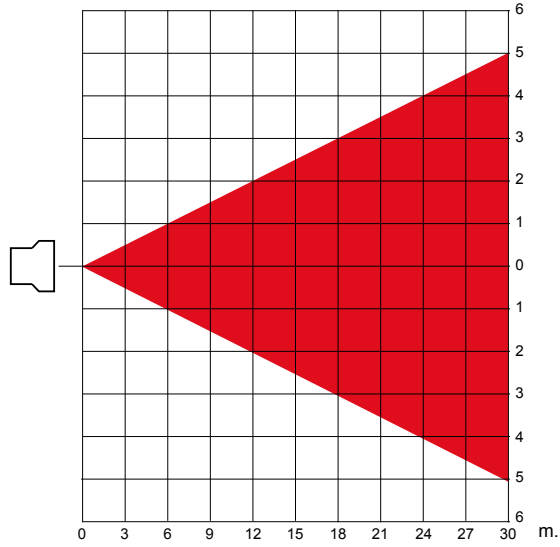
Distance (m.)	3	6	9	12	15	18	21	24	27	30
FULL	8325	2081	925	520	333	231	170	130	103	83
RGB	4562	1141	507	285	182	127	93	71	56	46
Luminous emittance (Lux)										
RED	1443	361	160	90	58	40	29	23	18	14
GREEN	3065	766	341	192	123	85	63	48	38	31
BLUE	441	110	49	28	18	12	9	7	5	4
WHITE	4127	1032	459	258	165	115	84	64	51	41
Ø (m.)	0.74	1.47	2.21	2.95	3.68	4.42	5.16	5.89	6.63	7.37



Angle: 14°

Profile 19°

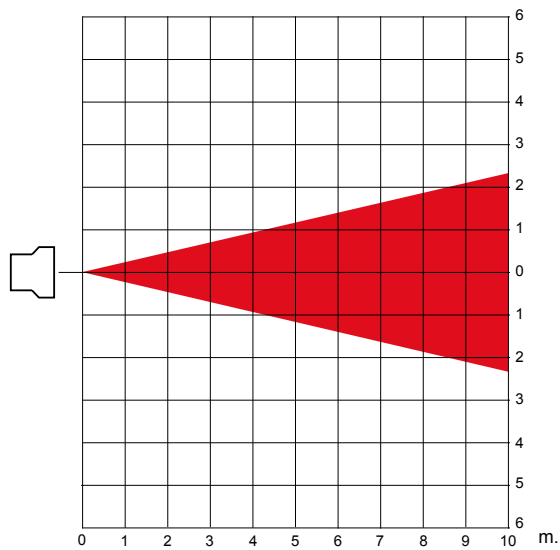
Distance (m.)	3	6	9	12	15	18	21	24	27	30
FULL	5711	1428	635	367	228	159	117	89	71	57
RGB	3103	776	345	194	124	86	63	48	38	31
RED	931	233	103	58	37	26	19	15	11	9
GREEN	1971	493	219	123	79	55	40	31	24	20
BLUE	294	74	33	18	12	8	6	5	4	3
WHITE	2679	670	298	167	107	74	55	42	33	27
∅ (m.)	1.00	2.01	3.01	4.02	5.02	6.02	7.03	8.03	9.04	10.04



Angle: 19°

Profile 26°

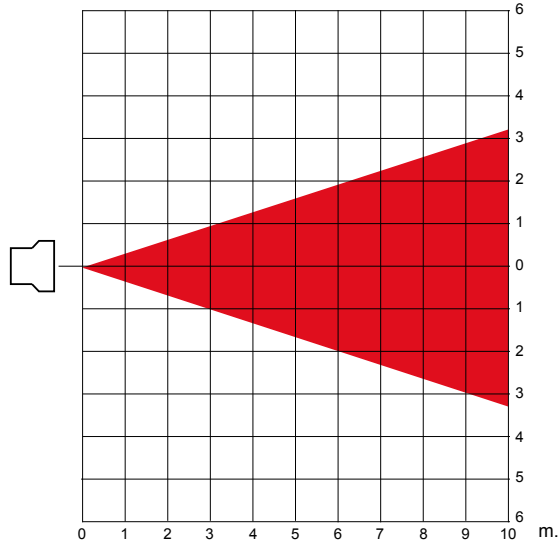
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	30331	7583	3370	1896	1213	843	619	474	374	303
RGB	16562	4141	1840	1035	662	460	338	259	204	166
RED	5145	1286	572	322	206	143	105	80	64	51
GREEN	11711	2928	1301	732	468	325	239	183	145	117
BLUE	1764	441	196	110	71	49	36	28	22	18
WHITE	14210	3553	1579	888	568	395	290	222	175	142
∅ (m.)	0.46	0.92	1.39	1.85	2.31	2.77	3.23	3.69	4.16	4.62



Angle: 26°

Profile 36°

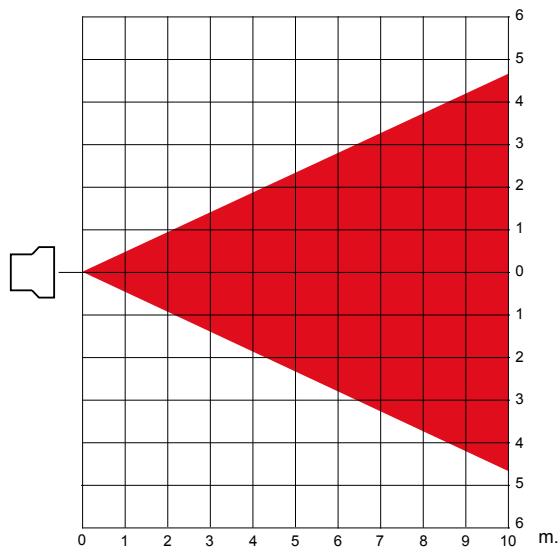
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	23275	5819	2586	1455	931	647	475	364	287	233
RGB	9555	2389	1062	597	382	265	195	149	118	96
RED	3822	956	425	239	153	106	78	60	47	38
GREEN	9624	2156	958	539	345	240	176	135	106	86
BLUE	4323	331	147	83	53	37	27	21	16	13
WHITE	11221	2805	1247	701	449	312	229	175	139	112
Ø (m.)	0.65	1.30	1.95	2.60	3.25	3.90	4.55	5.20	5.85	6.50



Angle: 36°

Profile 50°

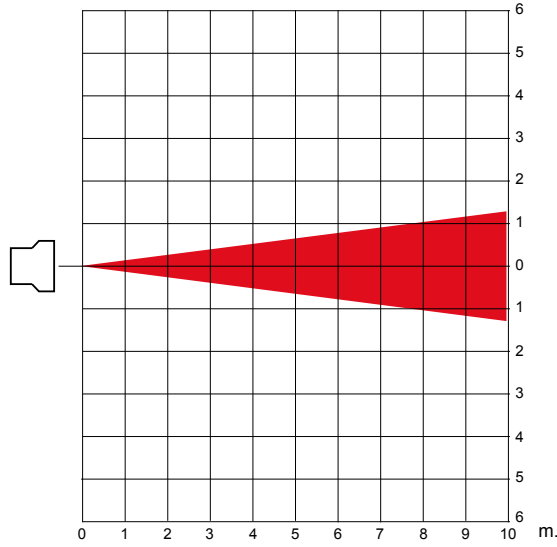
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	11417	2854	1269	1268	457	317	233	178	141	114
RGB	6272	1568	697	392	251	174	128	98	77	63
RED	1911	478	212	119	76	53	39	30	24	19
GREEN	4214	1054	468	263	169	117	86	66	52	42
BLUE	637	159	71	40	25	18	13	10	8	6
WHITE	5488	1372	610	343	220	152	112	86	68	55
Ø (m.)	0.93	1.87	2.80	3.73	4.66	5.60	6.53	7.46	8.39	9.33



Angle: 50°

Profile 15°/35° Zoom min.

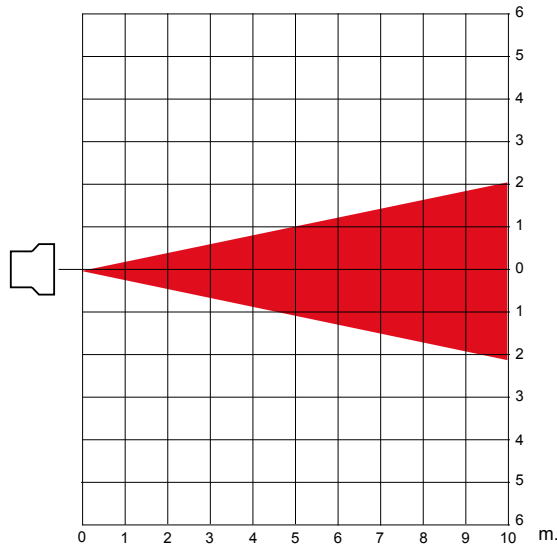
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	82565	20641	9174	5160	3303	2293	1685	1290	1019	826
RGB	46305	11576	5145	2894	1852	1286	945	724	572	463
RED	13720	3430	1524	858	549	381	280	214	169	137
GREEN	30968	7742	3441	1936	1239	860	632	484	382	310
BLUE	4508	1127	501	282	180	125	92	70	56	45
WHITE	39690	9923	4410	2491	1588	1103	810	620	490	397
∅ (m.)	0.26	0.53	0.79	1.05	1.32	1.58	1.84	2.11	2.37	2.63



Angle: 15°

Profile 15°/35° Zoom med.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	44639	11160	4960	2790	1786	1240	911	697	551	446
RGB	26705	6676	2967	1669	1068	742	545	417	330	267
RED	7987	1997	887	499	319	222	163	125	99	80
GREEN	18081	4520	2009	1130	723	502	369	283	223	181
BLUE	2793	698	310	175	112	78	57	44	34	28
WHITE	23520	5880	2613	1470	941	653	480	368	290	235
∅ (m.)	0.43	0.85	1.28	1.70	2.13	2.55	2.98	3.40	3.83	4.25

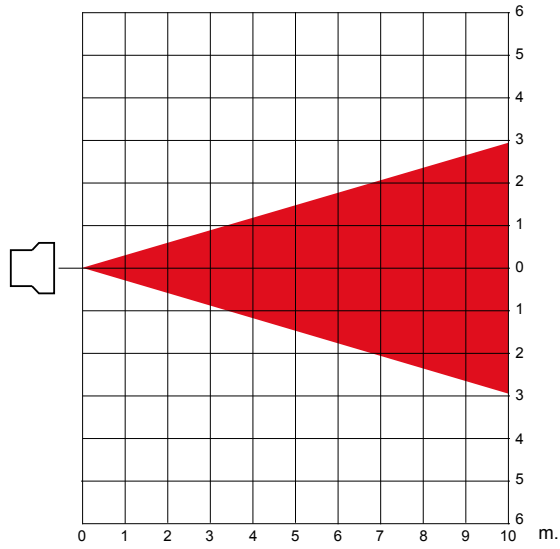


Angle: 24°

## Reflection LEDko FullSpectrum Series 2 - Photometric Data

### Profile 15°/35° Zoom max.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	28224	7056	3136	1764	1129	784	576	441	348	282
RGB	15729	3932	1748	983	629	437	321	246	194	157
Luminous emittance (Lux)										
RED	4214	1054	468	263	169	117	86	66	52	42
GREEN	9751	2438	1083	609	390	271	199	152	120	98
BLUE	1519	380	169	95	61	42	31	24	19	15
WHITE	12495	3124	1388	781	500	347	255	195	154	125
Ø (m.)	0.69	1.18	1.78	2.37	2.96	3.55	4.15	4.74	5.33	5.92

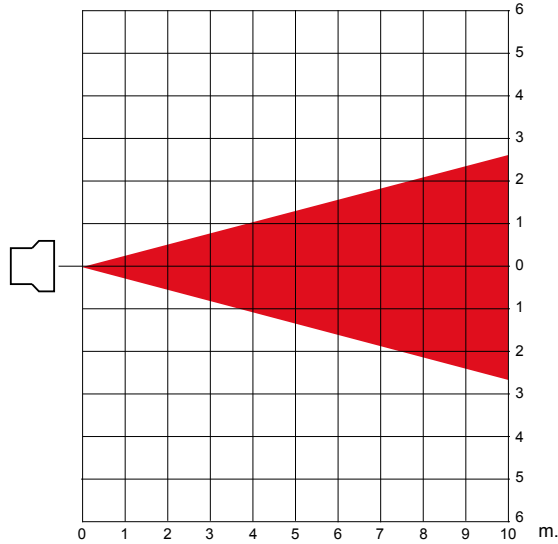


Angle: 33°



Profile 25°/50° Zoom min.

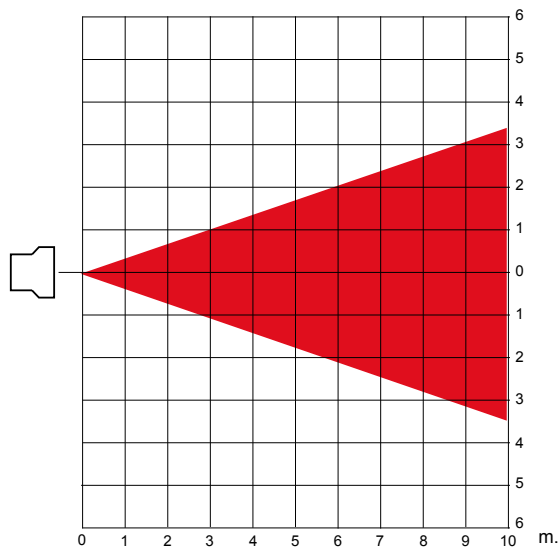
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	31850	7963	3539	1991	1274	885	650	498	393	319
RGB	17738	4435	1971	1109	710	493	362	277	219	177
RED	5439	1360	604	340	218	151	111	85	67	54
GREEN	11760	2940	1307	735	470	327	240	184	145	118
BLUE	1764	441	196	110	71	49	36	28	22	18
WHITE	15190	3798	1688	949	608	422	310	237	188	152
Ø (m.)	0.52	1.03	1.55	2.07	2.59	3.10	3.62	4.14	4.66	5.17



Angle: 29°

Profile 25°/50° Zoom med.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	21560	5390	2396	1348	862	599	440	337	266	216
RGB	12250	3063	1361	766	490	340	250	191	151	123
RED	3724	931	414	233	149	103	75	58	46	37
GREEN	8055	2021	898	505	323	225	165	126	100	81
BLUE	1225	306	136	77	49	34	25	19	15	12
WHITE	10094	2524	1122	631	404	280	206	158	125	101
Ø (m.)	0.69	1.38	2.07	2.75	3.44	4.13	4.82	5.51	6.20	6.89

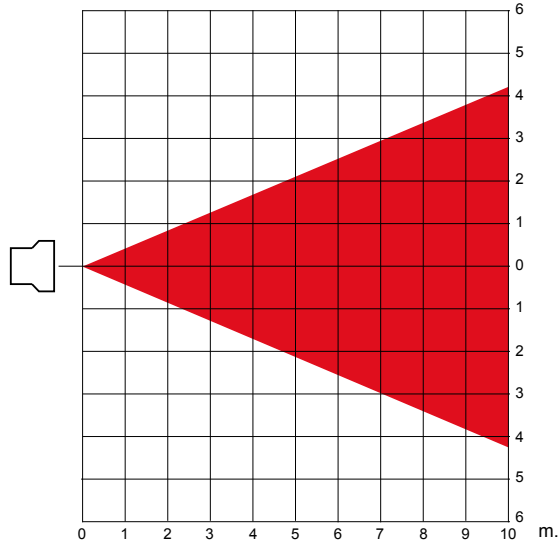


Angle: 38°

# Reflection LEDko FullSpectrum Series 2 - Photometric Data

## Profile 25°/50° Zoom max.

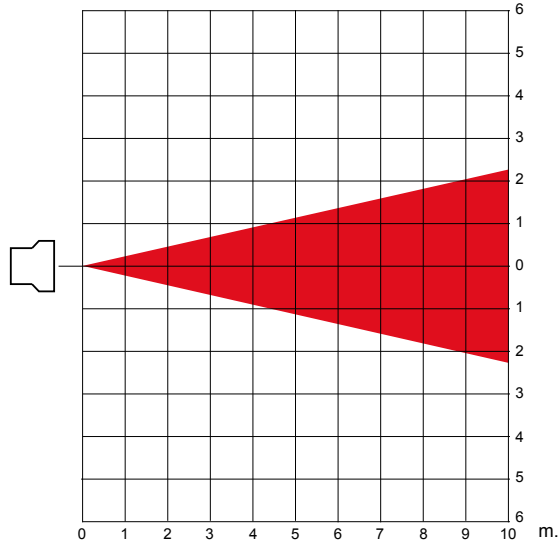
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	15288	3822	1699	956	612	425	312	239	189	153
RGB	8232	2058	915	515	329	229	168	129	102	82
RED	2352	588	261	147	94	65	48	37	29	24
Luminous emittance (Lux)										
GREEN	5635	1409	626	352	225	157	115	88	70	56
BLUE	833	208	93	52	33	23	17	13	10	8
WHITE	7301	1825	811	456	292	203	149	114	90	73
Ø (m.)	0.85	1.70	2.55	3.40	4.24	5.09	5.94	6.79	7.64	8.49



Angle: 46°

Profile 28°/40° Zoom min.

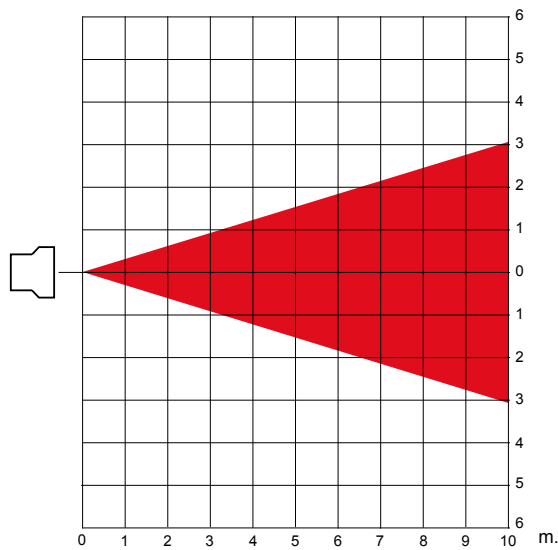
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	38318	9580	4258	2395	1533	1064	782	599	473	383
RGB	21903	5476	2434	1369	876	608	447	342	270	219
Luminous emittance (Lux)	RED	6416	1606	713	401	257	178	131	100	79
	GREEN	14602	3651	1622	913	584	406	298	228	180
	BLUE	2156	539	240	135	86	60	44	34	27
	WHITE	18375	4594	2042	1148	735	510	375	287	227
Ø (m.)	0.46	0.92	1.39	1.85	2.31	2.77	3.23	3.69	4.16	4.62



Angle: 26°

Profile 28°/40° Zoom med.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	26558	6640	2951	1660	1062	738	542	415	328	266
RGB	15190	3798	1688	949	608	422	310	237	188	152
Luminous emittance (Lux)	RED	4459	1115	495	279	178	124	91	70	55
	GREEN	9849	2462	1094	616	394	274	201	154	122
	BLUE	1470	368	163	92	59	41	30	23	18
	WHITE	12740	3185	1416	796	510	354	260	199	157
Ø (m.)	0.61	1.22	1.83	2.45	3.06	3.67	4.28	4.89	5.50	6.11

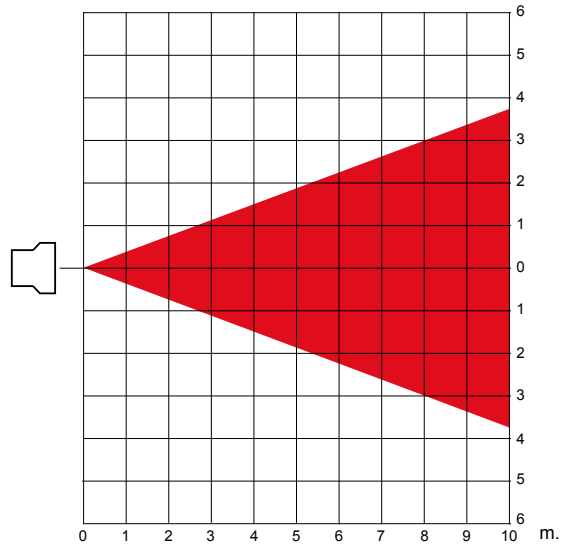


Angle: 34°

## Reflection LEDko FullSpectrum Series 2 - Photometric Data

### Profile 28°/40° Zoom max.

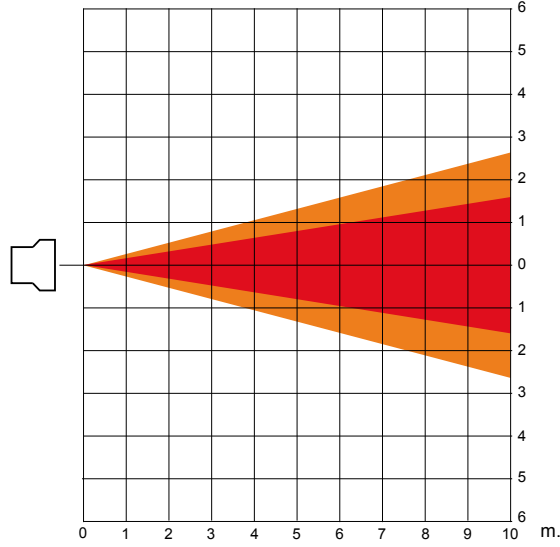
Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	16856	4214	1873	1054	674	468	344	263	208	169
RGB	9555	2389	1062	597	382	265	195	149	118	96
Luminous emittance (Lux)	2895	674	299	168	108	75	56	42	33	27
RED	6615	1654	735	413	265	184	135	103	82	66
GREEN	980	245	109	61	39	27	20	15	12	10
BLUE	8134	2034	904	508	325	226	166	127	100	81
WHITE	0.75	1.50	2.24	2.99	3.74	4.49	5.23	5.98	6.73	7.48
Ø (m.)										



Angle: 41°

Soft Profile F Zoom min.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	24892	6223	2766	1556	996	691	508	389	307	249
RGB	13720	3430	1524	858	549	381	280	214	169	137
Luminous emittance (Lux)	RED	3773	943	419	236	154	105	77	59	47
	GREEN	9555	2389	1062	597	382	265	195	149	118
	BLUE	1372	343	152	86	55	38	28	21	17
	WHITE	12250	3063	1361	766	490	340	250	191	151
1/2 peak angle Ø (m.)	0.32	0.63	0.95	1.27	1.58	1.90	2.22	2.53	2.85	3.17
1/10 peak angle Ø (m.)	0.52	1.03	1.55	2.07	2.69	3.10	3.62	4.14	4.66	5.17

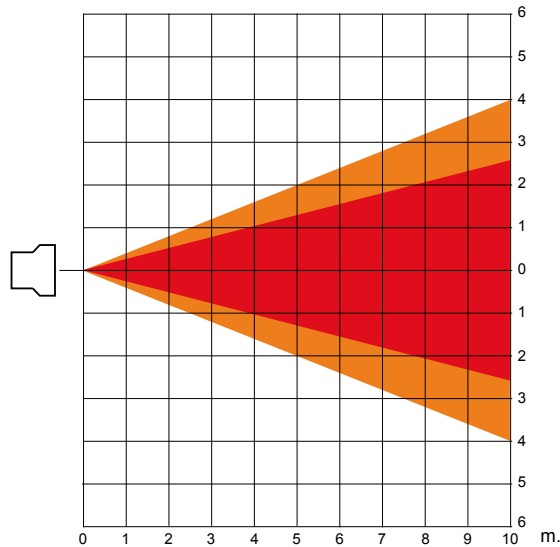


1/2 peak angle: 18°

1/10 peak angle: 29°

Soft Profile F Zoom max.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	14210	3553	1579	888	568	395	290	222	175	142
RGB	7987	1997	887	499	319	222	163	125	99	80
Luminous emittance (Lux)	RED	2254	564	250	141	90	63	46	35	28
	GREEN	5243	1311	583	328	210	146	107	82	65
	BLUE	784	196	87	49	31	22	16	12	10
	WHITE	6811	1703	757	426	272	189	139	106	84
1/2 peak angle Ø (m.)	0.52	1.03	1.55	2.07	2.69	3.10	3.62	4.14	4.66	5.17
1/10 peak angle Ø (m.)	0.81	1.62	2.42	3.23	4.04	4.85	5.66	6.46	7.27	8.08

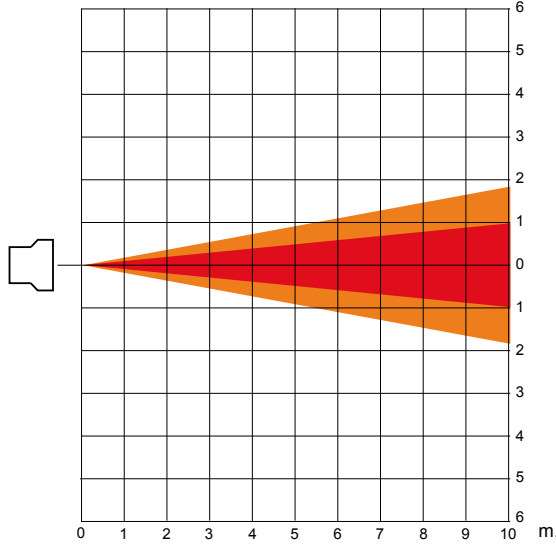


1/2 peak angle: 29°

1/10 peak angle: 44°

Soft Profile PC Zoom min.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	38612	9653	4290	2413	1544	1073	788	603	477	386
RGB	21070	5268	2341	1317	843	585	430	329	260	211
Luminous emittance (Lux)	RED	5495	1372	610	343	220	152	112	88	55
	GREEN	14847	3712	1650	928	594	412	303	232	183
	BLUE	2499	625	278	156	100	69	51	39	25
	WHITE	18914	4729	2102	1182	757	525	386	296	234
1/2 peak angle $\theta$ (m.)	0.19	0.39	0.58	0.77	0.96	1.16	1.35	1.54	1.73	1.93
1/10 peak angle $\theta$ (m.)	0.37	0.74	1.11	1.48	1.85	2.22	2.59	2.97	3.34	3.71

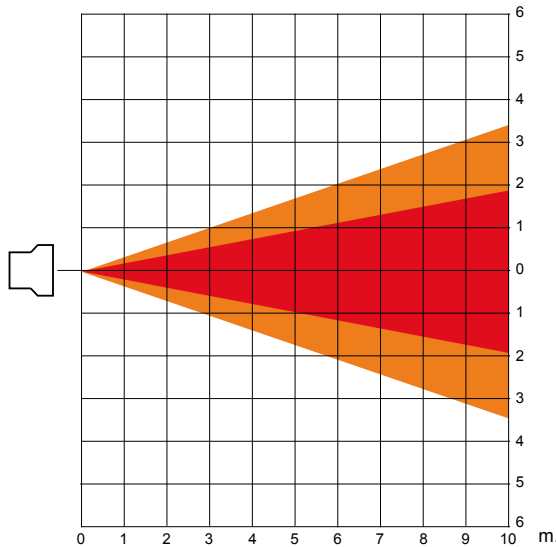


1/2 peak angle: 11°

1/10 peak angle: 21°

Soft Profile PC Zoom max.

Distance (m.)	1	2	3	4	5	6	7	8	9	10
FULL	21903	5476	2434	1369	876	608	447	342	270	219
RGB	12250	3063	1361	766	490	340	250	191	151	123
Luminous emittance (Lux)	RED	3773	943	419	236	151	105	77	59	47
	GREEN	8281	2070	920	518	331	230	169	129	102
	BLUE	1372	343	152	86	55	38	28	21	17
	WHITE	10878	2720	1209	680	435	302	222	170	134
1/2 peak angle $\theta$ (m.)	0.39	0.78	1.17	1.56	1.94	2.33	2.72	3.11	3.50	3.89
1/10 peak angle $\theta$ (m.)	0.69	1.38	2.07	2.75	3.44	4.13	4.82	5.51	6.20	6.89



1/2 peak angle: 22°

1/10 peak angle: 38°



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