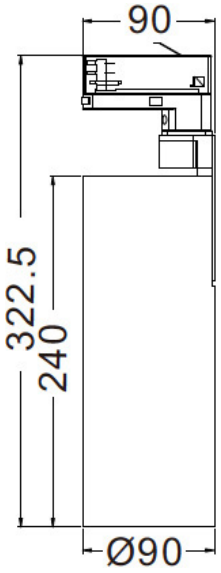
DARKLIGHT DESIGN

DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF



LED CE F 220V IP20

*complete with TRIAC dimmable driver

- 90° adjustable tilt
- 350° adjustable rotation
- 1.4kg weight

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com

DARKLIGHT DESIGN

DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF

PRODUCT OVERVIEW

Power	Beam	Flux	CCT	Non-DIM	1-10V DIM	Triac DIM
20W	13°	1011lm	2700K	Y	Y	Y
20W	13°	1019lm	3000K	Y	Y	Y
20W	13°	1222lm	4000K	Y	Y	Y
20W	28°	1067lm	2700K	Y	Y	Y
20W	28°	975lm	3000K	Y	Y	Y
20W	28°	1170lm	4000K	Y	Y	Y
20W	38°	1064lm	2700K	Y	Y	Y
20W	38°	856lm	3000K	Y	Y	Y
20W	38°	1198lm	4000K	Y	Y	Y
20W	65°	1019lm	2700K	Y	Y	Y
20W	65°	985lm	3000K	Y	Y	Y
20W	65°	1182lm	4000K	Y	Y	Y
28W	13°	1557lm	2700K	Y	Y	Y
28W	13°	1589lm	3000K	Y	Y	Y
28W	13°	1893lm	4000K	Y	Y	Y
28W	28°	1627lm	2700K	Y	Y	Y
28W	28°	1661lm	3000K	Y	Y	Y
28W	28°	1994lm	4000K	Y	Y	Y
28W	38°	1657lm	2700K	Y	Y	Y
28W	38°	1691lm	3000K	Y	Y	Y
28W	38°	2030lm	4000K	Y	Y	Y
28W	65°	1500lm	2700K	Y	Y	Y
28W	65°	1531lm	3000K	Y	Y	Y
28W	65°	1838lm	4000K	Y	Y	Y

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com

DARKLIGHT DESIGN

DARKLIGHT DESIGN FORTUNA LED

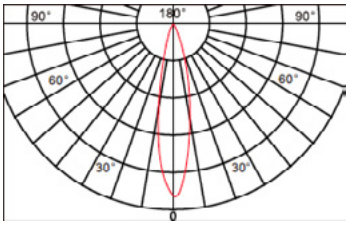
ADJUSTABLE TRACK SPOTLIGHT

6262038OF

LIGHTING DATA - 20W

LED COB 13°

Power	20W	20W	20W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	500mA	500mA	500mA
Efficacy	52lm/W	52lm/W	61lm/W



20W 2700K - Flux 1011lm

Lux

h(m)	d(cm)	Em	Emax
1	22	6481	10200
2	45	1620	2680
3	67	720	1130

20W 3000K - Flux 1019lm

Lux

h(m)	d(cm)	Em	Emax
1	22	7691	11400
2	44	1697	2920
3	67	754	1260

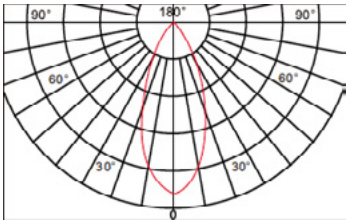
20W 4000K - Flux 1222lm

Lux

h(m)	d(cm)	Em	Emax
1	23	8149	13600
2	45	2037	3400
3	68	905	1510

LED COB 28°

Power	20W	20W	20W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	500mA	500mA	500mA
Efficacy	54lm/W	50lm/W	58lm/W



20W 2700K - Flux 1067lm

Lux

h(m)	d(cm)	Em	Emax
1	48	2427	3050
2	97	631	832
3	149	276	338

20W 3000K - Flux 975lm

Lux

h(m)	d(cm)	Em	Emax
1	50	2127	3200
2	101	531	858
3	151	236	355

20W 4000K - Flux 1170lm

Lux

h(m)	d(cm)	Em	Emax
1	51	2552	3740
2	102	638	935
3	150	283	415

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com

DARKLIGHT DESIGN

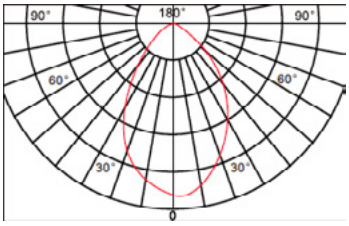
DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF

LIGHTING DATA - 20W (continued...)

LED COB 38°



Power	20W	20W	20W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	500mA	500mA	500mA
Efficacy	54lm/W	51lm/W	60lm/W

20W 2700K - Flux 1064lm

Lux h(m)	d(cm)	Em	Emax
1	65	1507	2080
2	130	376	571
3	195	167	231

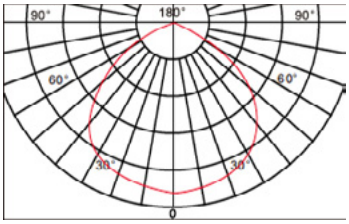
20W 3000K - Flux 856lm

Lux h(m)	d(cm)	Em	Emax
1	65	1518	2220
2	130	384	597
3	195	177	246

20W 4000K - Flux 1198lm

Lux h(m)	d(cm)	Em	Emax
1	66	1701	2660
2	131	425	665
3	194	189	295

LED COB 65°



Power	20W	20W	20W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	500mA	500mA	500mA
Efficacy	53lm/W	50lm/W	59lm/W

20W 2700K - Flux 1019lm

Lux h(m)	d(cm)	Em	Emax
1	121	557	942
2	243	139	258
3	361	61	104

20W 3000K - Flux 985lm

Lux h(m)	d(cm)	Em	Emax
1	120	565	1030
2	240	148	285
3	360	65	114

20W 4000K - Flux 1182lm

Lux h(m)	d(cm)	Em	Emax
1	121	666	1300
2	241	166	325
3	360	74	144

DARKLIGHT DESIGN

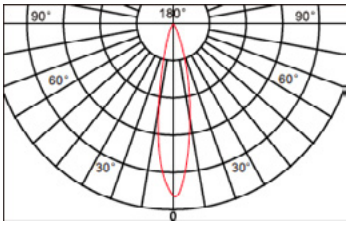
DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF

LIGHTING DATA - 28W

LED COB 13°



Power	28W	28W	28W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	700mA	700mA	700mA
Efficacy	56lm/W	57lm/W	67lm/W

28W 2700K - Flux 1557lm

Lux h(m)	d(cm)	Em	Emax
1	30	6850	11200
2	61	1710	2800
3	90	761	1240

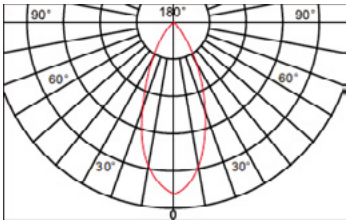
28W 3000K - Flux 1589lm

Lux h(m)	d(cm)	Em	Emax
1	31	6990	12500
2	60	1747	3130
3	91	776	1380

28W 4000K - Flux 1893lm

Lux h(m)	d(cm)	Em	Emax
1	30	8144	14500
2	60	2036	3600
3	90	904	1610

LED COB 28°



Power	28W	28W	28W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	700mA	700mA	700mA
Efficacy	59lm/W	60lm/W	71lm/W

28W 2700K - Flux 1627lm

Lux h(m)	d(cm)	Em	Emax
1	50	3221	5110
2	101	805	1270
3	151	357	567

28W 3000K - Flux 1661lm

Lux h(m)	d(cm)	Em	Emax
1	51	3370	5250
2	102	842	1310
3	151	374	583

28W 4000K - Flux 1994lm

Lux h(m)	d(cm)	Em	Emax
1	50	4045	6300
2	101	1011	1670
3	152	449	700

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com

DARKLIGHT DESIGN

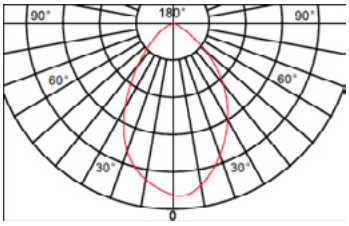
DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF

LIGHTING DATA - 28W (continued...)

LED COB 38°



Power	28W	28W	28W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	700mA	700mA	700mA
Efficacy	59lm/W	60lm/W	72lm/W

28W 2700K - Flux 1657lm

Lux h(m)	d(cm)	Em	Emax
1	70	2160	3460
2	139	540	865
3	208	240	384

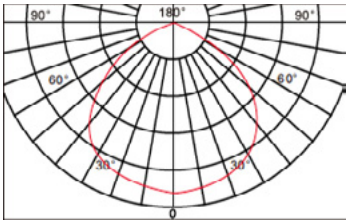
28W 3000K - Flux 1691lm

Lux h(m)	d(cm)	Em	Emax
1	70	2210	3540
2	138	552	885
3	207	245	393

28W 4000K - Flux 2030lm

Lux h(m)	d(cm)	Em	Emax
1	69	2653	4250
2	139	663	1170
3	208	294	472

LED COB 65°



Power	28W	28W	28W
CCT	2700K	3000K	4000K
CRI	>90	>90	>90
Output V.	37V DC	37V DC	37V DC
I	700mA	700mA	700mA
Efficacy	54lm/W	54lm/W	66lm/W

28W 2700K - Flux 1500lm

Lux h(m)	d(cm)	Em	Emax
1	118	929	1080
2	236	232	270
3	356	103	120

28W 3000K - Flux 1531lm

Lux h(m)	d(cm)	Em	Emax
1	117	959	1120
2	235	239	280
3	355	106	124

28W 4000K - Flux 1838lm

Lux h(m)	d(cm)	Em	Emax
1	118	1046	1240
2	236	261	310
3	354	116	137

DARKLIGHT DESIGN

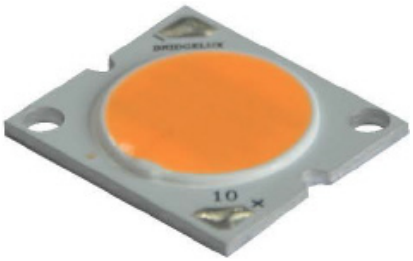
DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF

COB (chip-on-board)

COB (chip-on-board) technology generates the light evenly over the surface like that of an incandescent lamp, but without double image. The light generated from the fitting with COB makes the subject look natural and clean compared to a fitting with a single-LED-chip, which has a double image.

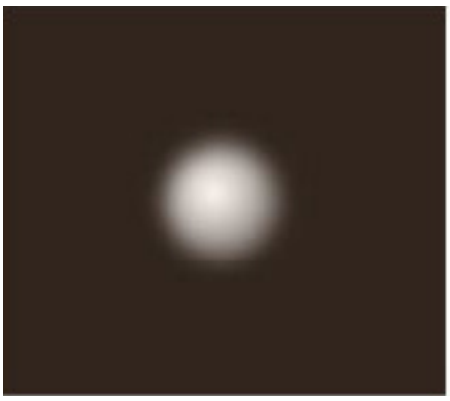


Fitting with COB generates the light even and soft, making the subject natural and clean and consequently creating strong stereoscopic feel.

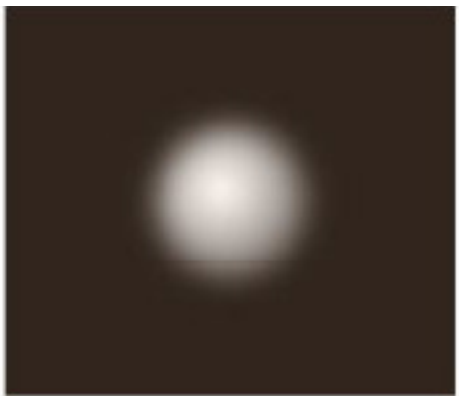
Fitting with single LED chip generates the light from the scattered chips, making the subject blur and unclear in boundary with double image and consequently creating weak stereoscopic feel.

ACCURATE LIGHT DISTRIBUTION AND CONTROL

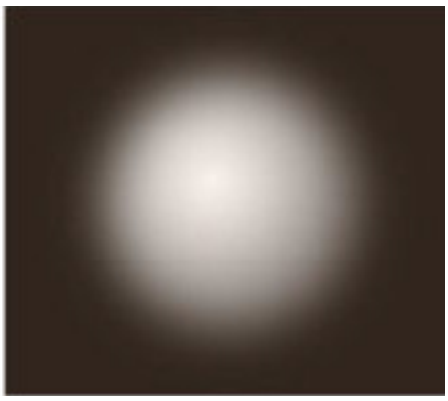
Available with beam angles at 13°, 28°, 38° or 65° to cater for differing requirements.



14°



24°



35°

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com

DARKLIGHT DESIGN

DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

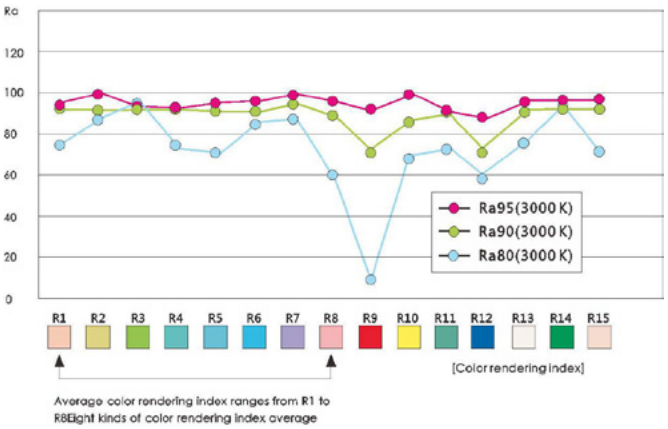
6262038OF

HIGH CRI

The Darklight Design range Utilizes world class LED chips which create a high Colour Rendering Index (CRI) of RA > 90. This makes the subject appear natural and fresh in a way that few other LED products can do at present.

Lighting in high power & high CRI results in higher definition of the colour and detail of the subject. Subsequently this fitting is an ideal lighting solution for both the retail sector and public spaces.

This fitting is available in CRI 80 or CRI 90.



AVERAGE RA EVALUATION INDEX

Ra Evaluation Index is applied to estimate the Colour Rendering Index (CRI) of the lighting product. This allows the user to see the reflection level of natural colour compared to those by conventional lighting.

Average colour rendering index ranges from RI to R8.

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com

DARKLIGHT DESIGN

DARKLIGHT DESIGN FORTUNA LED

ADJUSTABLE TRACK SPOTLIGHT

6262038OF

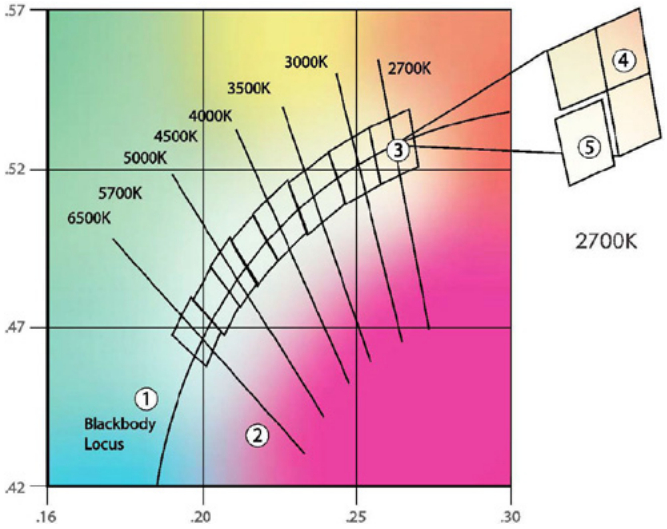
RA CONSISTENCY

The requirement of lighting manufacturers to source LED chips of a high Ra consistency is challenging in a market where colour temperature inconsistency exists. For this purpose our LED chips are sourced at a high consistency (SDCM<3) from the best LED chip manufacturers. All LED chips are sorted out, stored and processed to a strict and scientific criterion to guarantee the batch consistency of our LEDs.

When LEDs are manufactured, the most challenging part is producing consistent and precise white colour. Binning is the process of sorting the white LEDs into groups of similar white colours. The regulation of this process is outlined by the ANSI standards for tolerances of white colour variations to fit within a colour temperature group, or bin. Some LED manufacturers have adapted a more stringent process of sorting called micro-bins which allows for much smaller white colour variations.

Our LEDs exceed the ANSI binning standards, giving our fittings optimal colour matching. When white LEDs are created, whether they be on the warm or cool end of the spectrum, there are always slight inconsistencies with regards to specific colour temperatures.

Although there is a cost associated with consistency, various LED chip manufacturers now make smaller bins available. Micro-bin sizes vary between chip manufacturers and while micro-bins allow for better consistency by batch, there is commonly a colour variation between batches.



1. The arced black line in the graph represents the white colour spectrum.

2. These long intersecting lines represent the range, from one end of the line to the other, of variation in colour for each corresponding colour temperature.

3. In order to keep the range of each temperature as close to the same colour as possible, ANSI created tolerance zones. Only the LEDs that fall into this range are used for that particular colour temperature, these are referred to as "bins".

4. This bin still has plainly visible variations throughout. ANSI tolerance zones are adjacent to account for the challenges around manufacturing LED chips consistently.

5. Once divided into smaller bins, the differences in colour are much less, allowing for minimal variation when two or more LEDs are used together.

T 01189 882294 W www.darklightdesign.com E sales@darklightdesign.com