



Product Datasheet  
Lens Series  
Last update: 21/1/2014

## DETAILS

Product Number: BK-LED-097WB60  
Type: Lens  
Color: Clear  
Diameter: 13.00mm  
Height: 7.40mm  
Shape: Round  
Optic Material: PMMA  
Holder Material: PC  
ROHS Compliant: Yes  
Date Updated: 8/1/2014

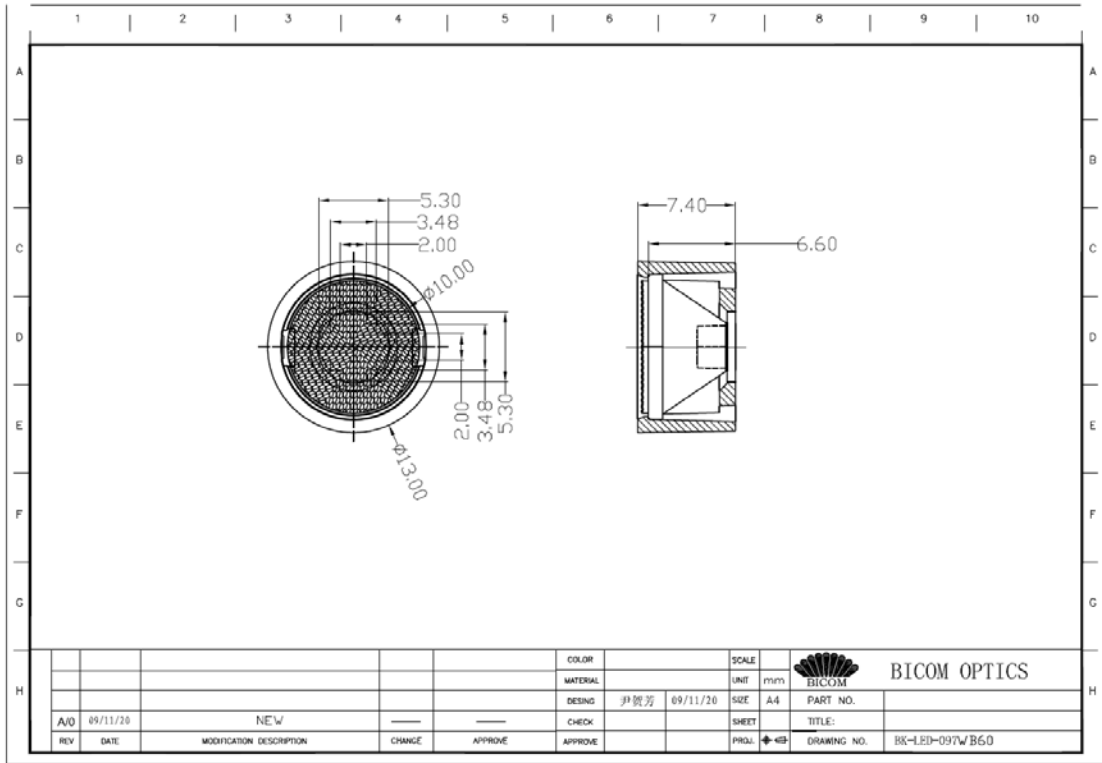


## Optical properties

LED	FWHM (50%)	FWHM (10%)	Efficiency	cd/lm	Beam Type
XLamp XP-G	61.6°	91.6°	90.1%	1.00	Wide

Shenzhen Baikang Optical Co.,Ltd.  
Add: B4 Building, Xinjianxing Industrial Park,  
Fengxin Road, Guangming District, Shenzhen  
Mail: 518107  
www.bicomoptics.com

Skype: szbaikang  
Fax: +86 755 82033711  
Phone: +86 755 29199996  
MSN: szbaikang@hotmail.com  
E-mail: sales@bicomoptics.com

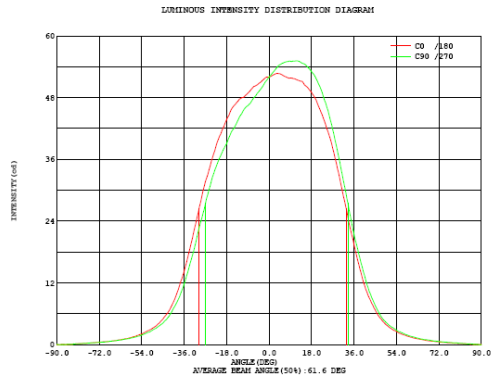
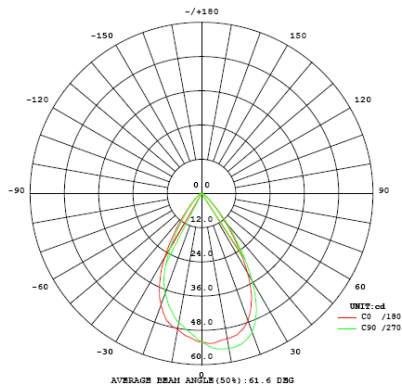


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**XLamp XP-G**

**I: 0.35A**



Intensity data:(deg , cd) C0 /180

A	I	A	I	A	I	A	I	A	I	A	I
-90.0	0	-58.5	1.360	-27.0	31.65	4.5	52.64	36.0	19.49	67.5	0.7400
-88.5	0	-57.0	1.561	-25.5	33.90	6.0	52.28	37.5	16.47	69.0	0.6502
-87.0	0.0521	-55.5	1.810	-24.0	36.29	7.5	51.93	39.0	13.95	70.5	0.5947
-85.5	0.0777	-54.0	2.085	-22.5	38.57	9.0	51.79	40.5	11.49	72.0	0.5326
-84.0	0.0632	-52.5	2.394	-21.0	40.46	10.5	51.65	42.0	9.558	73.5	0.4482
-82.5	0.1110	-51.0	2.749	-19.5	42.10	12.0	51.41	43.5	8.013	75.0	0.4183
-81.0	0.1531	-49.5	3.143	-18.0	43.72	13.5	51.16	45.0	6.751	76.5	0.3406
-79.5	0.1953	-48.0	3.593	-16.5	45.19	15.0	50.49	46.5	5.498	78.0	0.2796
-78.0	0.2463	-46.5	4.190	-15.0	46.38	16.5	49.87	48.0	4.649	79.5	0.2774
-76.5	0.2929	-45.0	4.974	-13.5	47.15	18.0	48.99	49.5	3.912	81.0	0.2419
-75.0	0.3439	-43.5	5.880	-12.0	47.83	19.5	47.89	51.0	3.362	82.5	0.1631
-73.5	0.4050	-42.0	6.899	-10.5	48.17	21.0	46.26	52.5	2.885	84.0	0.0943
-72.0	0.4582	-40.5	8.296	-9.0	48.88	22.5	44.68	54.0	2.563	85.5	0.0544
-70.5	0.5292	-39.0	10.08	-7.5	49.62	24.0	42.69	55.5	2.177	87.0	0.0965
-69.0	0.5636	-37.5	12.18	-6.0	50.22	25.5	40.65	57.0	1.906	88.5	0.0621
-67.5	0.6313	-36.0	14.22	-4.5	50.70	27.0	38.07	58.5	1.661	90.0	0
-66.0	0.7545	-34.5	16.93	-3.0	51.27	28.5	35.33	60.0	1.431		
-64.5	0.8077	-33.0	19.75	-1.5	51.86	30.0	32.20	61.5	1.258		
-63.0	0.9109	-31.5	22.81	0.0	51.99	31.5	28.90	63.0	1.114		
-61.5	1.032	-30.0	25.68	1.5	52.33	33.0	25.83	64.5	1.006		
-60.0	1.185	-28.5	28.86	3.0	52.66	34.5	22.47	66.0	0.8577		

**Electricity Parameter:**

Voltage : 3.200 V Current : 0.3500 A  
 Power P: 1.120 W Power Factor: 1.000

**Optical Parameter (Distance:3.160m) :**

Luminous flux = 99.18 lm Efficiency: Eff=88.56 lm/W  
 Avg. Beam angle: @ (25%):75.9deg @ (50%):61.6deg @ (75%):46.0deg @ (10%):91.6deg  
 C0 /180: @ (25%):76.4deg @ (50%):62.7deg @ (75%):48.4deg @ (10%):92.4deg  
 C0 /180 I<sub>max</sub> = 52.71 cd (G=3.5deg) I<sub>o</sub> = 51.99 cd

H (β) Range:-90 - 90DEG	V(B) Range:-90 - 90DEG
H (β) Interval: 0.5DEG	V(B) Interval: 0.5DEG
Test Speed: HIGH	Test System:EVERFINE GO-SPEC316 SYSTEM V1.0.255
Temperature:25.3DEG	Humidity:65.0%
Operators:BICOM	Test Distance:3.160m [K=1.0000]
Test Date:2012-06-30	Remarks:

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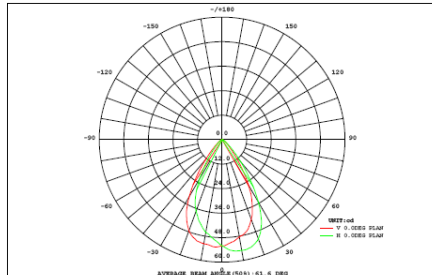
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XLamp XP-G

I: 0.35A

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: DB097WB-60°	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:	SERIAL No.:
MANUFACTURER:	SURFACE:	PROTECTION ANGLE:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	XPG	Imax (cd)	55.14
NOMINAL POWER (W)	1	AVAILABILITY (%)	82.0
RATED VOLTAGE (V)	3.2	Avai. FLUX (lm)	50.40
NOMINAL FLUX (lm)	61.500	EFFICIENCY (%)	90.1
LAMPS INSIDE	1	TOTAL FLUX (lm)	55.41
TEST VOLTAGE (V)	3.2	$\theta$ @50% (H,V)	59,61DEG

AREA FLUX DIAGRAM																	UNIT: lm		$\Phi$ t	$\Phi$ a
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
80	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.11	0.00
70	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.25	0.00
60	0.00	0.00	0.00	0.01	0.02	0.03	0.05	0.07	0.08	0.08	0.07	0.05	0.03	0.02	0.01	0.00	0.00	0.00	0.52	0.00
50	0.00	0.00	0.01	0.02	0.03	0.06	0.11	0.18	0.23	0.23	0.17	0.11	0.06	0.03	0.01	0.01	0.00	0.00	1.27	0.64
40	0.00	0.00	0.01	0.02	0.06	0.13	0.30	0.53	0.70	0.68	0.49	0.27	0.12	0.05	0.02	0.01	0.00	0.00	3.38	3.05
30	0.00	0.00	0.01	0.03	0.09	0.26	0.64	1.06	1.31	1.28	0.99	0.56	0.22	0.07	0.03	0.01	0.00	0.00	6.57	6.33
20	0.00	0.00	0.01	0.04	0.12	0.42	0.97	1.40	1.60	1.57	1.31	0.85	0.34	0.10	0.03	0.01	0.00	0.00	8.79	8.59
10	0.00	0.00	0.01	0.04	0.15	0.53	1.11	1.49	1.62	1.58	1.38	0.96	0.41	0.11	0.03	0.01	0.00	0.00	9.45	9.25
0	0.00	0.00	0.01	0.04	0.15	0.51	1.07	1.41	1.50	1.47	1.30	0.91	0.39	0.11	0.03	0.01	0.00	0.00	8.93	8.73
-10	0.00	0.00	0.01	0.04	0.11	0.38	0.84	1.20	1.30	1.27	1.11	0.73	0.29	0.09	0.03	0.01	0.00	0.00	7.41	7.20
-20	0.00	0.00	0.01	0.03	0.08	0.22	0.50	0.80	0.93	0.91	0.74	0.42	0.17	0.06	0.02	0.01	0.00	0.00	4.91	4.65
-30	0.00	0.00	0.01	0.02	0.05	0.11	0.21	0.35	0.42	0.41	0.31	0.18	0.09	0.04	0.02	0.01	0.00	0.00	2.23	1.84
-40	0.00	0.00	0.01	0.01	0.03	0.05	0.09	0.12	0.14	0.13	0.11	0.08	0.05	0.03	0.01	0.01	0.00	0.00	0.87	0.13
-50	0.00	0.00	0.00	0.01	0.02	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.02	0.01	0.00	0.00	0.00	0.39	0.00
-60	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.19	0.00
-70	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.09	0.00
-80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90			
$\Phi$ t	0.00	0.04	0.12	0.33	0.94	2.79	6.00	8.73	9.97	9.75	8.10	5.21	2.25	0.77	0.28	0.10	0.03	0.00	55	---
$\Phi$ a	0.00	0.00	0.00	0.00	0.39	2.39	5.64	8.38	9.63	9.39	7.74	4.84	1.82	0.19	0.00	0.00	0.00	0.00	---	50

H( $\beta$ ) Range:-90 - 90DEG  
 H( $\beta$ ) Interval: 0.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:BICOM  
 Test Date:2012-06-30

V(B) Range:-90 - 90DEG  
 V(B) Interval: 0.5DEG  
 Test System:EVERFINE GO-SPEC316 SYSTEM V1.0.255  
 Humidity:65.0%  
 Test Distance:3.160m [K=1.0000]  
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