



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

## DETAILS

Product Number: BK-LED-097WB45  
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

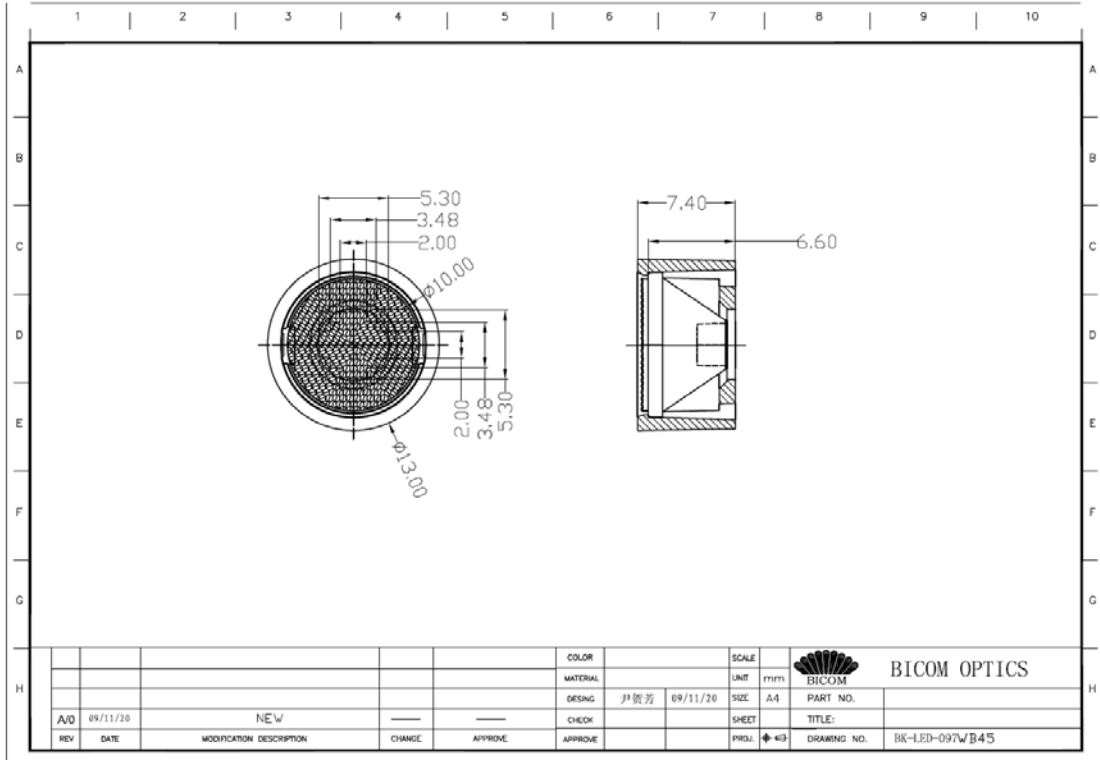


## Optical properties

LED	FWHM (50%)	FWHM (10%)	Efficiency	cd/lm	Beam Type
XLamp XP-G	50.7°	94.8°	89.5%	1.11	Wide

Shenzhen Baikang Optical Co.,Ltd.  
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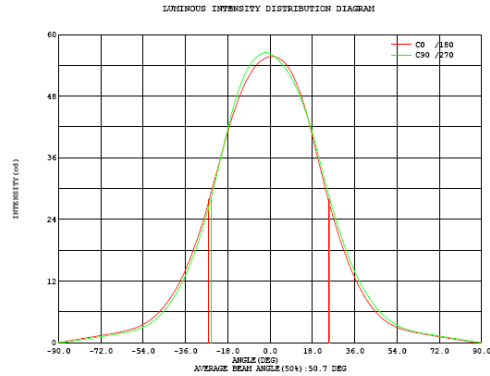
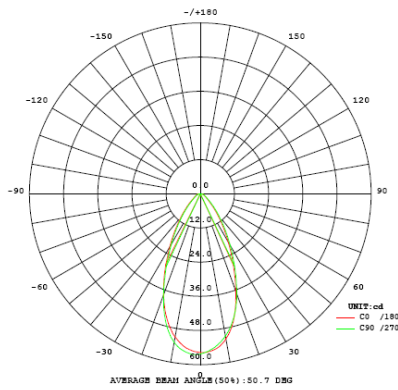
					COLOR		SCALE		 <b>BICOM OPTICS</b>
					MATERIAL		UNIT	mm	
A/0	09/11/20	NEW			DESIGN	尹贺芳	09/11/20	SIZE	A4
REV	DATE	MODIFICATION DESCRIPTION	CHANGE	APPROVE	CHECK			SHEET	
					APPROVE			PROJ	43
								DRAWING NO.	BK-LED-097WB45

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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	0.0843	-58.5	2.685	-27.0	26.03	4.5	55.09	36.0	12.68	67.5	1.446
-88.5	0.1387	-57.0	2.895	-25.5	28.59	6.0	54.63	37.5	11.21	69.0	1.387
-87.0	0.2252	-55.5	3.182	-24.0	31.02	7.5	53.79	39.0	9.957	70.5	1.273
-85.5	0.3772	-54.0	3.562	-22.5	33.53	9.0	52.65	40.5	8.751	72.0	1.158
-84.0	0.4616	-52.5	3.940	-21.0	36.07	10.5	51.19	42.0	7.720	73.5	1.047
-82.5	0.6069	-51.0	4.419	-19.5	38.63	12.0	49.65	43.5	6.780	75.0	0.9697
-81.0	0.6979	-49.5	4.978	-18.0	40.96	13.5	47.67	45.0	5.971	76.5	0.8355
-79.5	0.8344	-48.0	5.600	-16.5	43.30	15.0	45.49	46.5	5.244	78.0	0.7423
-78.0	0.9098	-46.5	6.264	-15.0	45.42	16.5	43.03	48.0	4.589	79.5	0.5592
-76.5	1.073	-45.0	7.050	-13.5	47.37	18.0	40.30	49.5	4.080	81.0	0.4738
-75.0	1.165	-43.5	7.992	-12.0	49.01	19.5	37.41	51.0	3.636	82.5	0.3528
-73.5	1.289	-42.0	9.033	-10.5	50.57	21.0	34.53	52.5	3.302	84.0	0.2707
-72.0	1.359	-40.5	10.07	-9.0	51.87	22.5	31.89	54.0	2.970	85.5	0.1387
-70.5	1.480	-39.0	11.22	-7.5	53.00	24.0	29.13	55.5	2.719	87.0	0.0832
-69.0	1.598	-37.5	12.69	-6.0	53.92	25.5	26.56	57.0	2.499	88.5	0.0610
-67.5	1.749	-36.0	14.12	-4.5	54.63	27.0	24.11	58.5	2.328	90.0	0.0588
-66.0	1.848	-34.5	15.81	-3.0	55.14	28.5	21.94	60.0	2.151		
-64.5	2.000	-33.0	17.62	-1.5	55.52	30.0	19.75	61.5	2.017		
-63.0	2.149	-31.5	19.53	0.0	55.69	31.5	17.76	63.0	1.871		
-61.5	2.321	-30.0	21.46	1.5	55.72	33.0	15.92	64.5	1.731		
-60.0	2.486	-28.5	23.60	3.0	55.51	34.5	14.25	66.0	1.619		

**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%):71.4deg @ (50%):50.7deg @ (75%):34.9deg @ (10%):94.8deg  
 C0 /180: @ (25%):71.5deg @ (50%):50.9deg @ (75%):34.9deg @ (10%):95.0deg  
 C0 /180 Imax = 55.75 cd (G=1.0deg) Io = 55.69 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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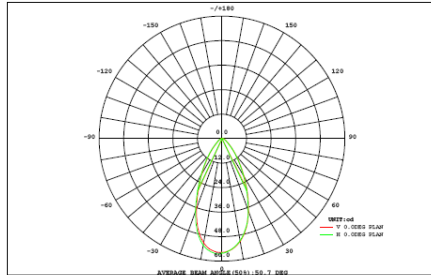
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XLamp XP-G

I: 0.35A

LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: DB097WB-45°	TYPE:	WEIGHT:
DIMENSION:	SPECIFICATION:	SERIAL No.:
MANUFACTURER:	SURFACE:	PROTECTION ANGLE:



DATA OF LAMP		PHOTOMETRIC DATA	
MODEL	XPG	Imax (cd)	56.51
NOMINAL POWER (W)	1	AVAILABILITY (%)	76.7
RATED VOLTAGE (V)	3.2	Avai. FLUX (lm)	43.72
NOMINAL FLUX (lm)	57.000	EFFICIENCY (%)	89.5
LAMPS INSIDE	1	TOTAL FLUX (lm)	51.03
TEST VOLTAGE (V)	3.2	θ @50% (H,V)	50,51DEG

AREA FLUX DIAGRAM																		UNIT: lm		Φ t	Φ a
90	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	0.01	0.00	0.00	0.00	0.00	0.09	0.00	
80	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.29	0.00	
70	0.00	0.00	0.01	0.02	0.03	0.04	0.04	0.05	0.06	0.06	0.05	0.05	0.04	0.03	0.02	0.01	0.00	0.00	0.49	0.00	
60	0.00	0.00	0.01	0.02	0.04	0.05	0.07	0.09	0.10	0.10	0.09	0.07	0.05	0.04	0.03	0.01	0.01	0.00	0.77	0.00	
50	0.00	0.01	0.01	0.03	0.05	0.08	0.12	0.17	0.21	0.21	0.18	0.13	0.08	0.05	0.03	0.02	0.01	0.00	1.39	0.59	
40	0.00	0.01	0.02	0.04	0.07	0.13	0.23	0.35	0.44	0.45	0.37	0.25	0.14	0.07	0.04	0.02	0.01	0.00	2.63	2.20	
30	0.00	0.01	0.02	0.04	0.09	0.20	0.40	0.65	0.84	0.85	0.67	0.43	0.23	0.10	0.05	0.02	0.01	0.00	4.61	4.30	
20	0.00	0.01	0.02	0.05	0.12	0.29	0.60	1.02	1.31	1.32	1.04	0.64	0.32	0.13	0.05	0.02	0.01	0.00	6.95	6.68	
10	0.00	0.01	0.02	0.05	0.13	0.34	0.74	1.28	1.60	1.59	1.28	0.78	0.38	0.15	0.06	0.03	0.01	0.00	8.45	8.21	
0	0.00	0.01	0.02	0.05	0.13	0.34	0.74	1.28	1.63	1.62	1.29	0.78	0.38	0.15	0.06	0.03	0.01	0.00	8.52	8.27	
-10	0.00	0.01	0.02	0.05	0.11	0.28	0.60	1.02	1.35	1.35	1.04	0.63	0.31	0.13	0.05	0.02	0.01	0.00	6.99	6.72	
-20	0.00	0.01	0.02	0.04	0.09	0.20	0.39	0.64	0.83	0.84	0.66	0.42	0.22	0.10	0.05	0.02	0.01	0.00	4.53	4.21	
-30	0.00	0.01	0.02	0.03	0.06	0.12	0.22	0.34	0.42	0.43	0.35	0.24	0.14	0.07	0.04	0.02	0.01	0.00	2.51	2.07	
-40	0.00	0.00	0.01	0.03	0.05	0.07	0.11	0.16	0.19	0.19	0.16	0.12	0.08	0.05	0.03	0.02	0.01	0.00	1.29	0.46	
-50	0.00	0.00	0.01	0.02	0.03	0.05	0.06	0.08	0.09	0.09	0.08	0.07	0.05	0.04	0.02	0.01	0.01	0.00	0.72	0.00	
-60	0.00	0.00	0.01	0.02	0.02	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.02	0.01	0.00	0.00	0.46	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	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.26	0.00	
-80	0.00	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	0.07	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	0.00	0.00	
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90				
Φ t	0.01	0.08	0.24	0.50	1.05	2.28	4.45	7.25	9.19	9.20	7.39	4.71	2.50	1.20	0.58	0.28	0.11	0.02	51	---	
Φ a	0.00	0.00	0.00	0.00	0.30	1.72	3.95	6.76	8.71	8.73	6.90	4.21	1.96	0.49	0.00	0.00	0.00	0.00	---	44	

H(β) Range:-90 - 90DEG  
H(β) 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]  
Remarks:

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