



UL LLC  
1075 W Lambert Rd Suite B  
Brea, CA 92821

## Photometric Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002

Prepared For  
**Auroralight Inc**  
2742 Loker Ave. West  
Carlsbad, CA 92010

Catalog Number  
**LBD250-S7-GTL-NL-12-30-25 (NO LOUVERS, 3000K)**  
Order Number  
11263738  
Test Number  
1254211

Test Date

2016-07-27

Prepared By

Tony Rubio, Technician

Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Spherical 7" stacked copper shades with no louvers and cylindrical 25" copper stem with brass base  
**Lamp:** Six (6) Cree XPL-L 3000K LEDs  
**Mounting:** Path/Area  
**Ballast/Driver:** L.T.F. DL112W480C24LP6?-0000

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 7.00 in.  
Luminous Height: 1.000 in.

**Summary of Results**

Roadway Classification: Type V, Very Short  
Cutoff Classification: Cutoff  
BUG Rating: B0 U1 G0

**Test Conditions**

Test Temperature: 24.7 °C  
Voltage: 12.05 VAC  
Current: 1.874 A  
Power: 13.28 W  
Power Factor: 0.588  
Frequency: 60 Hz  
Current THD: 77.7 %

Tested in 30 planes left side, 30 planes right side, left and right averaged  
Vertical test increments are 2.5 degrees  
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance  
Ballast factors have not been applied



## Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	12.05 VAC	1.874 A	13.28 W	0.588	60 Hz	77.7 %

### Summary of Results

#### Spacing Criteria

0-180: 1.64

90-270: 1.64

Total Lumen Output:

328.3 Lumens

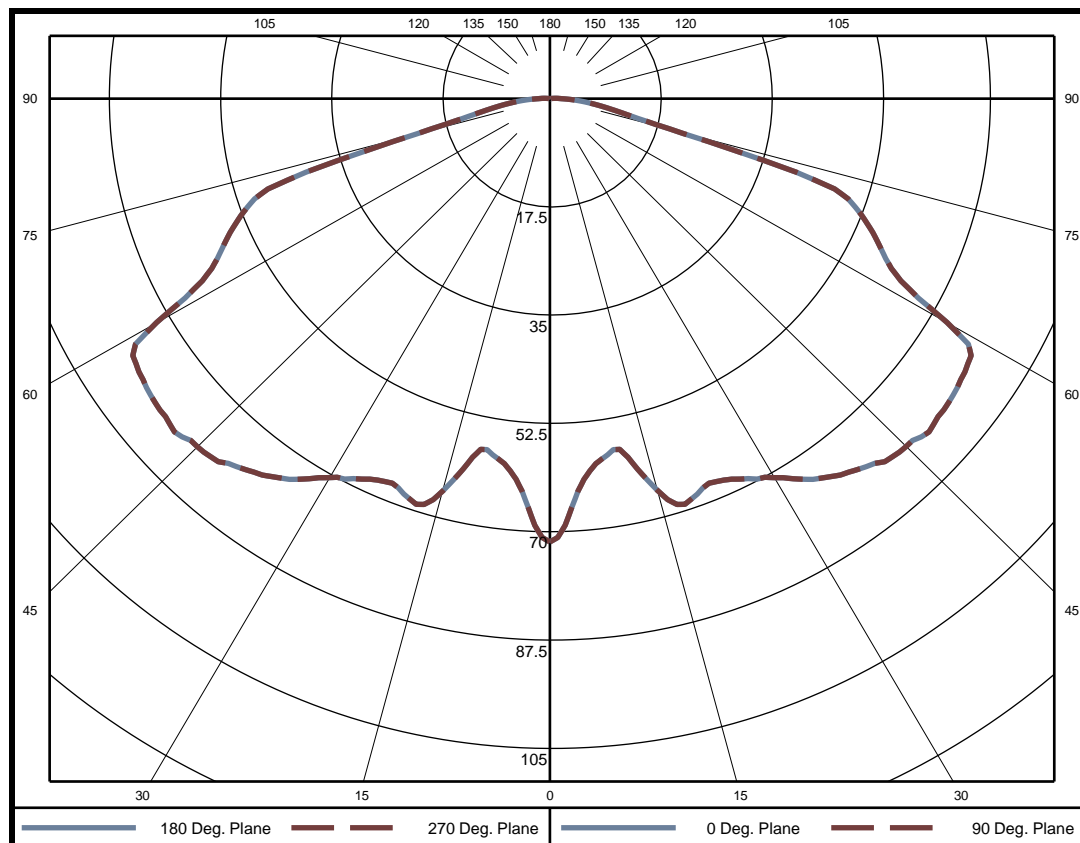
Luminaire Efficacy:

24.7 lm/w

Maximum Candela:

80 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.57	0.5%	60-65	30.45	9.3%	120-125	0	0.0%
5-10	4.23	1.3%	65-70	27.64	8.4%	125-130	0	0.0%
10-15	7.23	2.2%	70-75	21.31	6.5%	130-135	0	0.0%
15-20	11.21	3.4%	75-80	7.55	2.3%	135-140	0	0.0%
20-25	14.13	4.3%	80-85	3.99	1.2%	140-145	0	0.0%
25-30	17.52	5.3%	85-90	1.85	0.6%	145-150	0	0.0%
30-35	21.46	6.5%	90-95	0.63	0.2%	150-155	0	0.0%
35-40	25.46	7.8%	95-100	0.06	0.0%	155-160	0	0.0%
40-45	29.18	8.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	32.32	9.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	34.63	10.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	35.91	10.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	103	31.3%
0-60	235	71.5%
0-90	328	99.8%
90-180	1	0.2%



### Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60	71.60
	5	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71	61.71
	10	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56	57.56
	15	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49	65.49
	20	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97	67.97
	25	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81	67.81
	30	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69	70.69
	35	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80	74.80
	40	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59	77.59
	45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45	79.45
	50	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90	79.90
	55	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10	79.10
	60	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31	72.31
	65	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67	57.67
	70	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26	51.26
	75	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79	21.79
	80	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78	9.78
	85	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
	90	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77	1.77
	95	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
	100	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
	105	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
	110	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
	115	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
	120	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
	125	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
	130	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
	135	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
	140	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
	145	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
	150	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
	155	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
	160	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
	165	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
	170	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
	175	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
	180	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

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

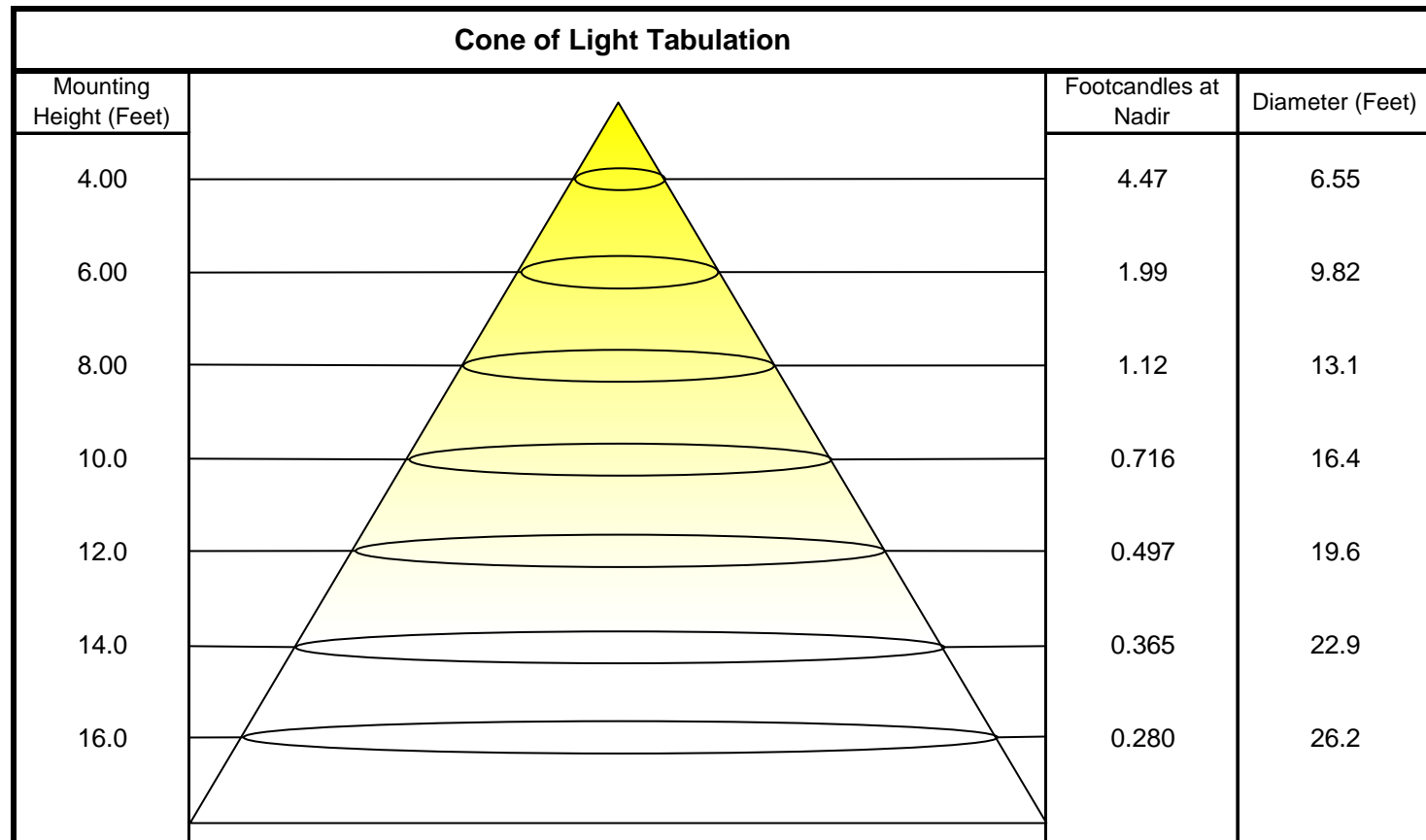
Vertical Angle (Degrees)	0	45	90
	0	2884	2884
	45	9239	9239
	55	6003	6003
	65	3943	3943
	75	1378	1378
	85	316	316



### Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	391	391	391	391	382	382	382	382	364	364	364	349	349	349	334	334	334	328
1	353	335	320	306	343	328	313	300	313	302	291	300	291	282	288	280	273	266
2	316	286	260	239	307	279	256	236	267	247	231	256	239	225	246	232	220	212
3	284	245	215	191	275	240	212	189	229	205	186	220	199	182	211	194	179	171
4	257	213	181	156	248	208	178	155	199	173	152	191	169	150	184	164	148	140
5	233	187	154	130	226	183	152	129	175	148	127	168	144	126	162	141	124	116
6	213	165	133	110	207	162	131	109	156	128	108	150	125	107	144	123	106	98
7	196	148	116	94	190	145	115	94	139	113	93	134	110	92	130	108	91	84
8	181	133	103	82	176	131	102	82	126	100	81	122	98	80	118	96	80	73
9	168	121	92	72	163	119	91	72	115	89	71	111	88	71	107	86	70	64
10	157	111	83	64	153	109	82	64	105	81	63	102	79	63	99	78	63	56

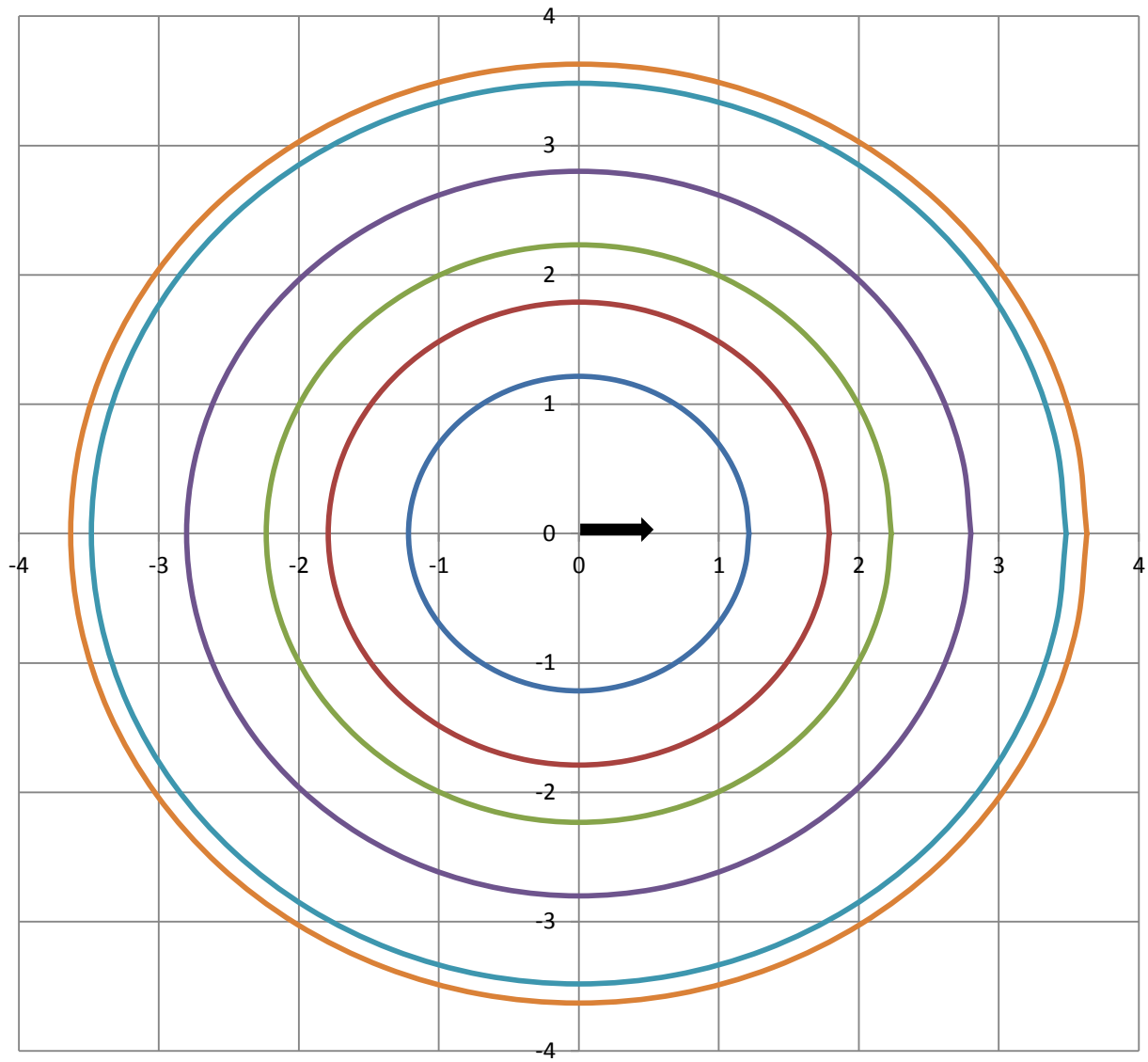
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	71.60 Candela
Central Cone Intensity:	67 Candela
Beam Flux:	309.6 Lumens
Beam Angle (0-180):	146.9 Degrees
Beam Angle (90-270):	146.9 Degrees
Field Angle (0-180):	165.3 Degrees
Field Angle (90-270):	165.3 Degrees





# ISOFootcandle Plot

Mounting Height - 2 Feet

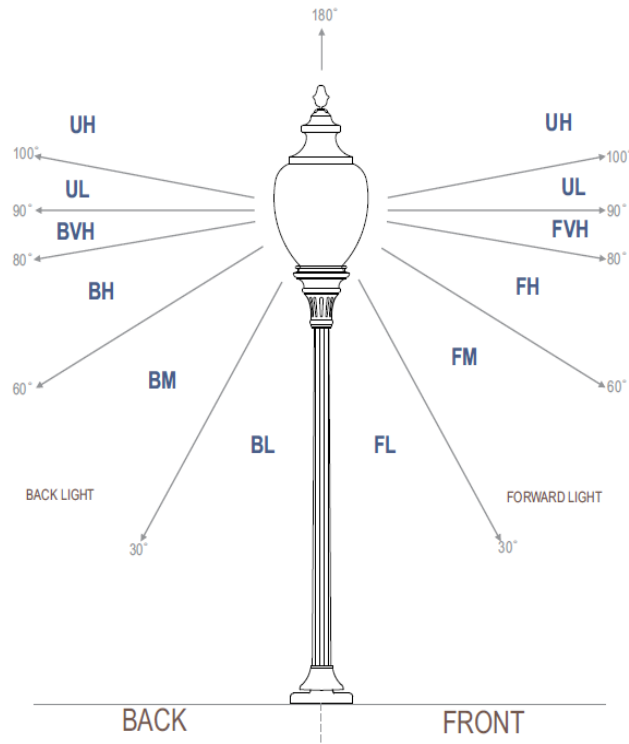


Grid Lines in Units of Mounting Height





**IES "BUG" Rating**  
(Back Light, Uplight, Glare)  
Per IES TM-15-11



**Luminaire Classification System (LCS)**

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	27.9	8.6%
FM	(30-60)	88.6	27.1%
FH	(60-80)	43.4	13.3%
FVH	(80-90)	2.9	0.9%
BL	(0-30)	27.9	8.6%
BM	(30-60)	88.6	27.1%
BH	(60-80)	43.4	13.3%
BVH	(80-90)	2.9	0.9%
UL	(90-100)	0.7	0.2%
UH	(100-180)	0.0	0.0%
Total		326.4	100.0%
<b>BUG Rating</b>	<b>B0 U1 G0</b>		