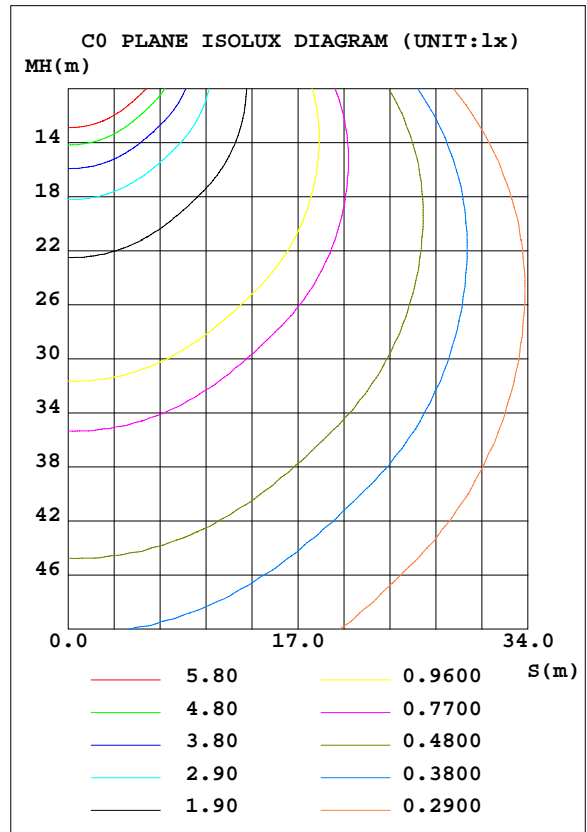
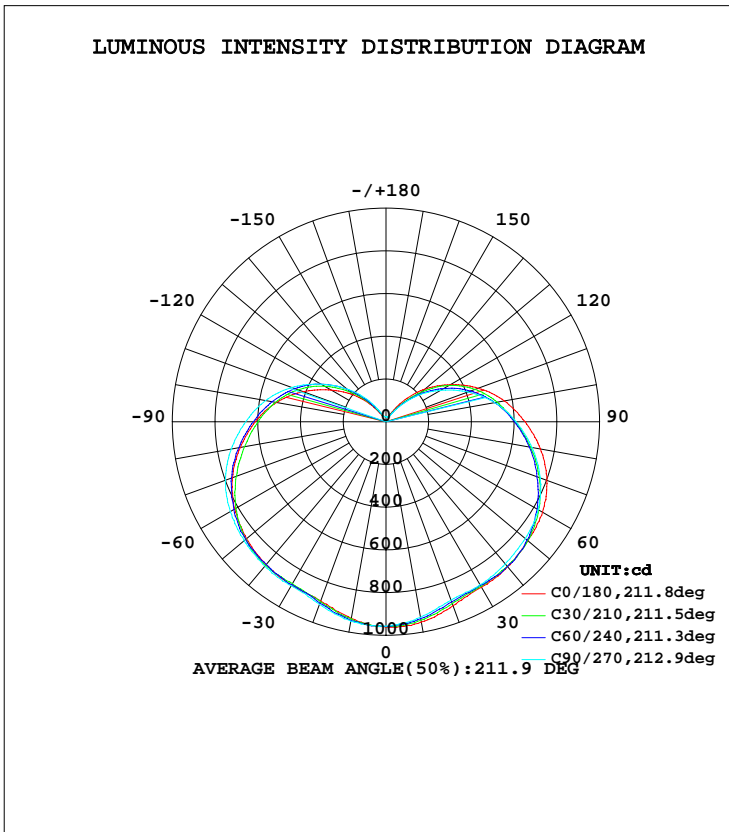


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 118.95 lm/W			
MODEL		I _{max} (cd)	963.8	S/MH(C0/180)	1.43
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	1.42
RATED VOLTAGE(V)	228	TOTAL FLUX(lm)	7029.8	η UP, DN(C0-180)	13.4, 35.6
NOMINAL FLUX(lm)	7029.8	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	14.8, 36.2
LAMPS INSIDE	1	η up(%)	28.2	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	228.2	η down(%)	71.8	CIBSE SHR MAX	1.75



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	952.1	939.8	929.8	923.0	935.4	941.2	948.2	952.7	0- 10	90.58	90.58	1.29,1.29
20	916.5	902.1	889.2	884.3	892.3	900.6	909.9	918.8	10- 20	260.5	351.1	4.99,4.99
30	895.2	886.7	880.8	880.6	885.9	878.4	887.0	889.8	20- 30	412.0	763.1	10.9,10.9
40	884.9	884.1	869.0	877.0	874.5	874.5	882.3	894.2	30- 40	555.2	1318	18.8,18.8
50	867.7	864.0	850.8	851.2	852.8	856.8	867.8	884.5	40- 50	676.2	1995	28.4,28.4
60	846.3	821.0	821.7	805.4	816.4	816.8	842.3	854.7	50- 60	759.1	2754	39.2,39.2
70	800.9	757.6	770.0	741.6	765.2	757.9	800.0	803.7	60- 70	794.4	3548	50.5,50.5
80	734.4	684.4	693.9	665.8	691.8	685.6	735.3	739.0	70- 80	779.8	4328	61.6,61.6
90	652.1	604.4	608.9	587.4	612.2	609.7	656.9	659.9	80- 90	721.0	5049	71.8,71.8
100	562.6	523.3	516.2	504.7	521.4	533.4	573.0	583.5	90-100	633.7	5683	80.8,80.8
110	459.6	432.5	408.3	408.1	412.8	445.8	470.3	495.5	100-110	520.8	6203	88.2,88.2
120	347.8	326.0	294.9	296.7	297.1	343.3	352.7	394.9	110-120	387.4	6591	93.8,93.8
130	238.6	206.2	186.9	172.8	193.3	224.3	238.3	274.9	120-130	249.1	6840	97.3,97.3
140	127.4	93.96	83.12	67.21	90.85	110.3	135.5	147.0	130-140	125.5	6965	99.1,99.1
150	40.52	29.63	24.78	23.77	29.21	38.45	46.24	53.35	140-150	42.23	7008	99.7,99.7
160	23.67	23.27	23.05	22.73	26.16	26.81	27.38	27.50	150-160	13.00	7021	99.9,99.9
170	23.06	23.05	23.02	22.88	24.44	24.86	25.22	25.27	160-170	6.948	7028	100,100
180	23.49	23.77	23.92	23.87	23.57	23.75	23.90	23.86	170-180	2.277	7030	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

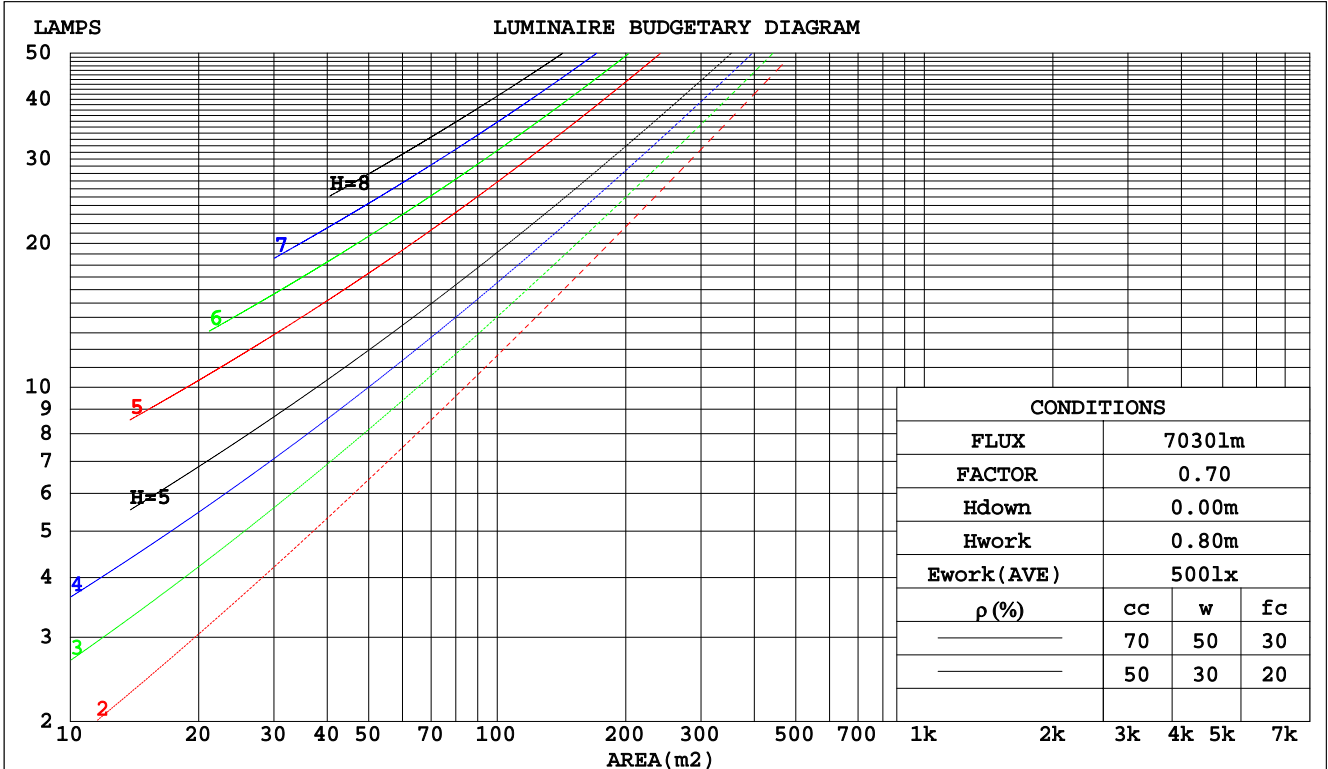
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dial128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.12	1.12	1.12	1.06	1.06	1.06	.95	.95	.95	.85	.85	.85	.76	.76	.76	.72
1.0	.91	.85	.80	.86	.81	.76	.76	.72	.68	.68	.64	.61	.59	.57	.54	.50
2.0	.77	.68	.61	.72	.65	.58	.64	.58	.53	.56	.52	.47	.49	.46	.42	.38
3.0	.66	.56	.49	.62	.54	.47	.55	.48	.42	.48	.43	.38	.42	.38	.34	.30
4.0	.57	.48	.40	.54	.45	.38	.48	.41	.35	.42	.36	.31	.37	.32	.28	.24
5.0	.51	.41	.34	.48	.39	.32	.42	.35	.29	.37	.31	.26	.33	.28	.23	.20
6.0	.45	.36	.29	.43	.34	.27	.38	.30	.25	.34	.27	.22	.29	.24	.20	.17
7.0	.41	.31	.25	.38	.30	.24	.34	.27	.22	.30	.24	.20	.27	.21	.18	.15
8.0	.37	.28	.22	.35	.27	.21	.31	.24	.19	.28	.22	.17	.24	.19	.15	.13
9.0	.33	.25	.19	.32	.24	.18	.28	.22	.17	.25	.19	.15	.22	.17	.14	.12
10.0	.31	.22	.17	.29	.22	.16	.26	.20	.15	.23	.18	.14	.21	.16	.12	.10



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Deng
 Test Date: 2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity: 65.0%
 Test Distance: 10.330m [K=1.0000]
 Remarks:

WEC AND CCEC

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.427	.243	.077	.411	.234	.074	.381	.219	.070	.354	.204	.065	.329	.190	.061	
2.0	.358	.196	.060	.343	.189	.058	.316	.176	.055	.291	.163	.051	.268	.152	.048	
3.0	.312	.166	.050	.299	.160	.048	.274	.149	.045	.252	.138	.042	.231	.128	.039	
4.0	.278	.144	.042	.266	.139	.041	.243	.129	.039	.222	.119	.036	.203	.110	.034	
5.0	.250	.128	.037	.239	.123	.036	.219	.114	.034	.200	.105	.031	.182	.097	.029	
6.0	.228	.114	.033	.218	.110	.032	.199	.102	.030	.182	.094	.028	.165	.087	.026	
7.0	.209	.103	.029	.200	.100	.028	.183	.092	.027	.167	.085	.025	.151	.079	.023	
8.0	.193	.094	.027	.185	.091	.026	.169	.084	.024	.154	.078	.022	.140	.072	.021	
9.0	.179	.087	.024	.172	.084	.023	.157	.078	.022	.143	.072	.021	.130	.066	.019	
10.0	.167	.080	.022	.160	.077	.022	.147	.072	.020	.134	.066	.019	.121	.061	.018	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.405	.405	.405	.346	.346	.346	.236	.236	.236	.136	.136	.136	.043	.043	.043	
1.0	.405	.372	.342	.346	.319	.294	.237	.219	.203	.136	.127	.118	.044	.041	.038	
2.0	.399	.350	.308	.342	.301	.266	.234	.208	.186	.135	.121	.109	.043	.039	.035	
3.0	.392	.334	.287	.336	.288	.249	.231	.200	.175	.133	.117	.103	.043	.038	.034	
4.0	.384	.322	.274	.329	.278	.238	.227	.194	.168	.131	.113	.099	.042	.037	.033	
5.0	.376	.312	.265	.323	.270	.231	.223	.189	.163	.129	.111	.097	.042	.036	.032	
6.0	.369	.305	.259	.317	.264	.225	.219	.185	.159	.127	.109	.095	.041	.036	.031	
7.0	.361	.298	.254	.311	.258	.221	.215	.181	.157	.125	.107	.093	.040	.035	.031	
8.0	.354	.293	.250	.305	.254	.218	.211	.178	.155	.123	.105	.092	.040	.034	.031	
9.0	.348	.288	.247	.300	.250	.216	.208	.176	.153	.121	.104	.091	.039	.034	.030	
10.0	.342	.284	.245	.295	.247	.214	.205	.173	.152	.119	.103	.091	.039	.034	.030	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

Uncorrected UGR Table

NAME: BB-GL128-60W					TYPE:Garden Light					WEIGHT:0.44kg				
DIM.: Dia128*180mm					SPEC.:					SERIAL No.:				
MFR.: BBier					SUR.:					PROTECTION ANGLE:				
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3				
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3				
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2				
Room dimensions	Viewed crosswise					Viewed endwise								
x = 2H y = 2H	24.9	26.2	25.5	26.8	27.6	24.8	26.1	25.4	26.7	27.5				
3H	27.8	29.0	28.5	29.7	30.5	27.6	28.8	28.3	29.5	30.3				
4H	29.4	30.6	30.1	31.3	32.1	29.2	30.4	29.9	31.1	31.9				
6H	31.3	32.3	32.0	33.1	33.9	31.0	32.1	31.7	32.8	33.7				
8H	32.3	33.3	33.0	34.0	34.9	32.0	33.0	32.7	33.7	34.6				
12H	33.4	34.4	34.1	35.1	36.0	33.1	34.1	33.8	34.8	35.7				
4H 2H	25.7	26.9	26.4	27.6	28.4	25.7	26.8	26.3	27.5	28.4				
3H	28.8	29.8	29.6	30.6	31.5	28.7	29.7	29.4	30.4	31.3				
4H	30.6	31.5	31.4	32.3	33.2	30.4	31.4	31.2	32.1	33.0				
6H	32.6	33.4	33.3	34.2	35.1	32.4	33.2	33.1	34.0	34.9				
8H	33.7	34.5	34.5	35.3	36.2	33.4	34.2	34.2	35.0	36.0				
12H	34.9	35.7	35.7	36.5	37.4	34.7	35.4	35.4	36.2	37.2				
8H 4H	31.2	32.0	32.0	32.8	33.8	31.1	31.9	31.9	32.7	33.6				
6H	33.5	34.1	34.3	34.9	35.9	33.3	34.0	34.1	34.8	35.8				
8H	34.7	35.3	35.6	36.2	37.2	34.5	35.1	35.4	36.0	37.0				
12H	36.2	36.8	37.1	37.6	38.6	36.0	36.5	36.8	37.4	38.4				
12H 4H	31.4	32.1	32.2	32.9	33.9	31.3	32.0	32.0	32.8	33.8				
6H	33.7	34.3	34.5	35.2	36.2	33.6	34.2	34.4	35.0	36.0				
8H	35.1	35.6	35.9	36.5	37.5	34.9	35.5	35.8	36.3	37.3				
Variations with the observer position at spacings:														
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1								
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3								
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4								

CIE Pub.117 Corrected 7030 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.8)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:

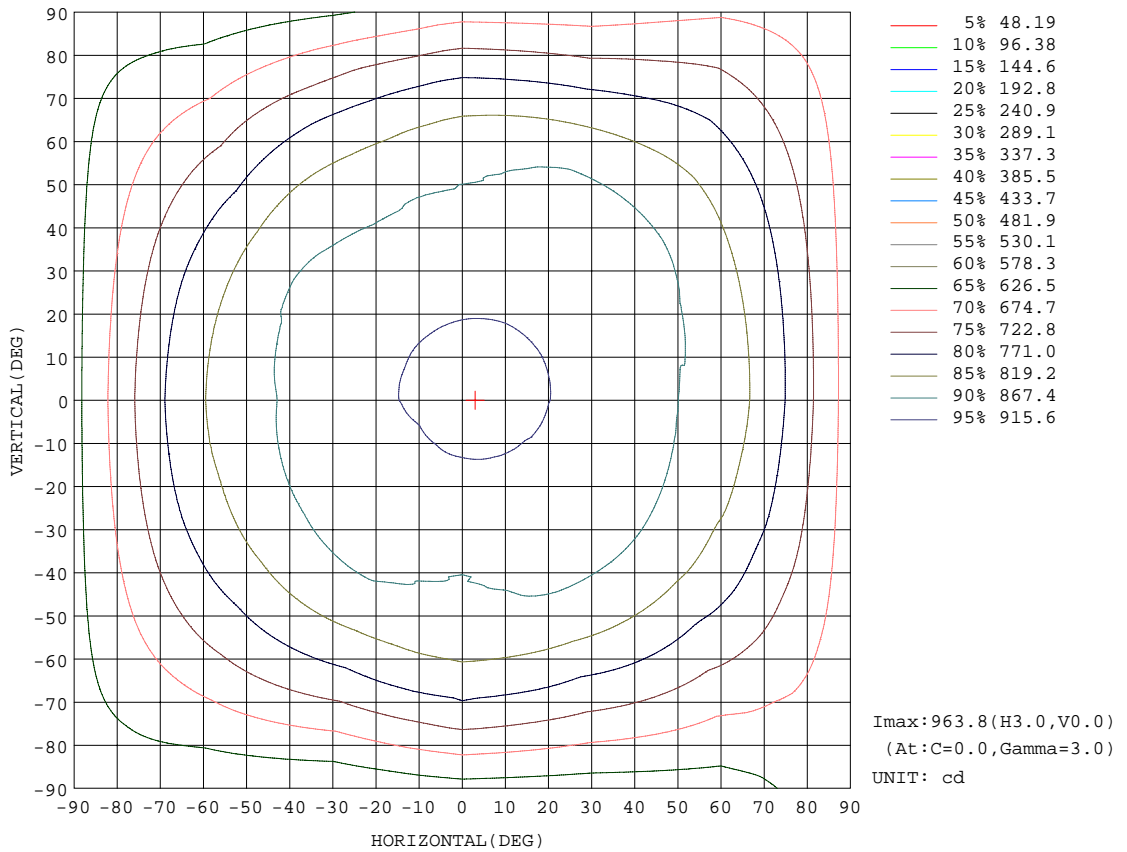
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	42	29	21	40	28	21	38	27	20	13
0.80	50	36	28	48	35	27	45	34	26	18
1.00	58	44	35	55	42	34	51	42	32	23
1.25	65	51	41	62	49	40	57	46	38	27
1.50	70	56	47	67	54	45	61	50	43	31
2.00	77	65	55	74	62	54	67	57	50	36
2.50	82	71	62	78	68	59	71	62	55	40
3.00	86	76	67	82	72	64	74	66	60	44
4.00	92	82	75	87	78	72	78	71	66	48
5.00	95	87	80	90	83	76	81	75	70	51
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:



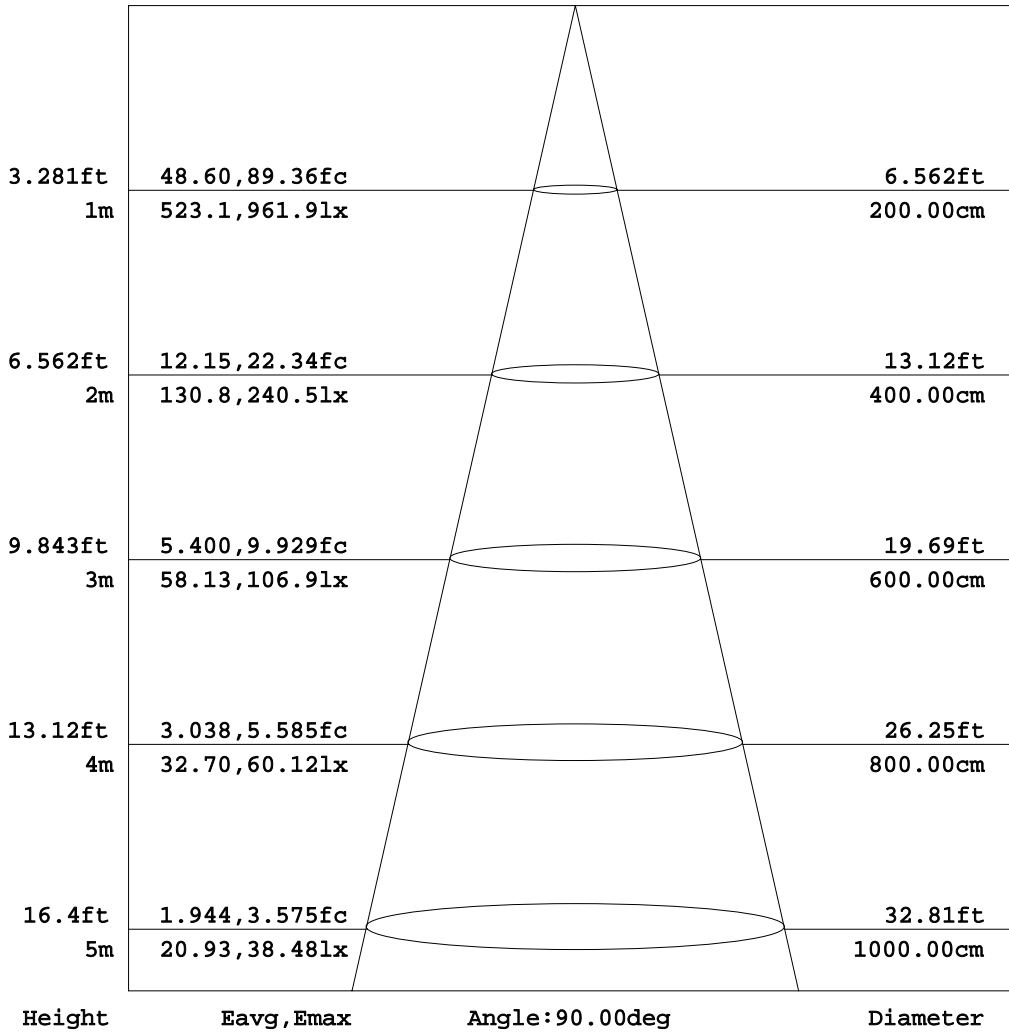
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

AAI Figure

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:

Flux out:1643 lm



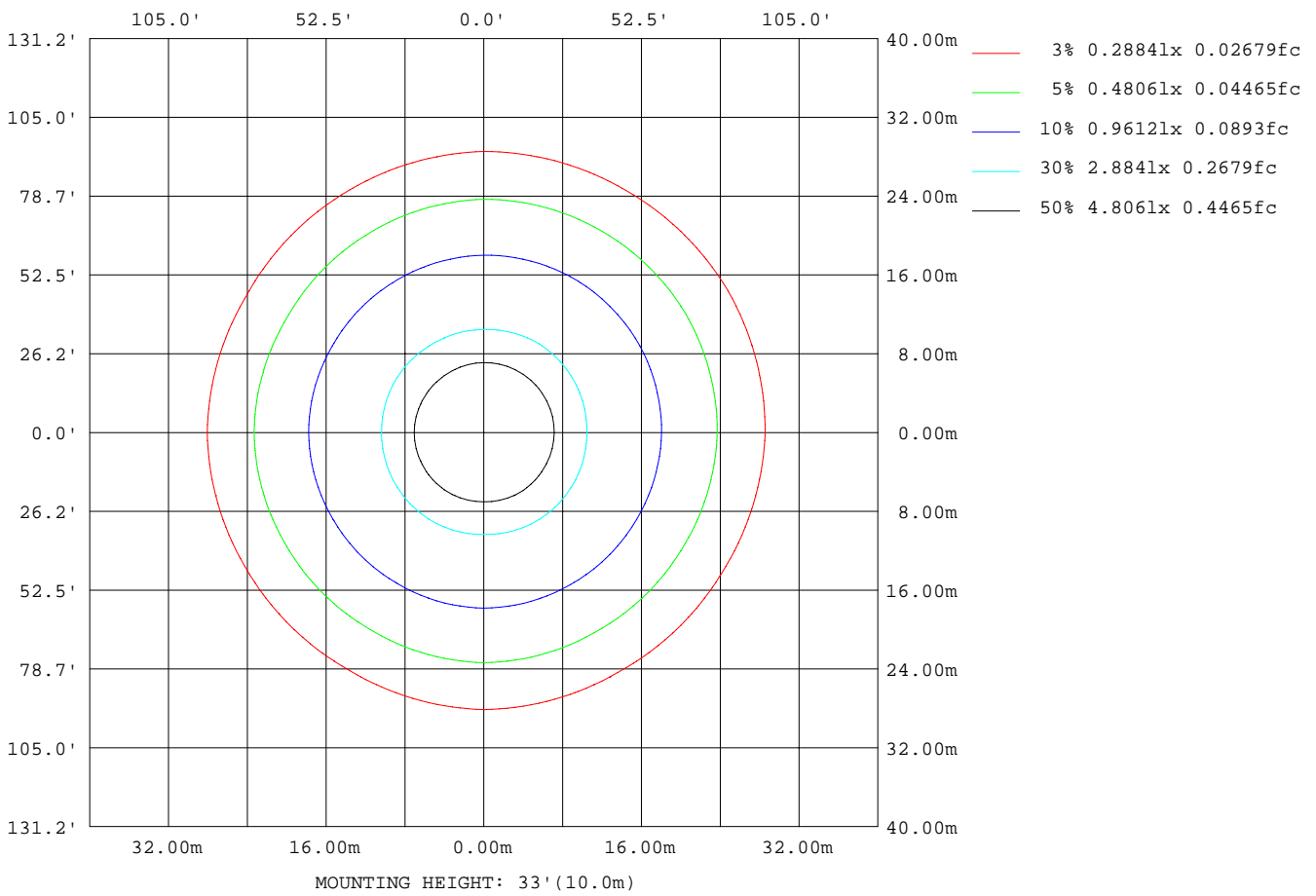
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

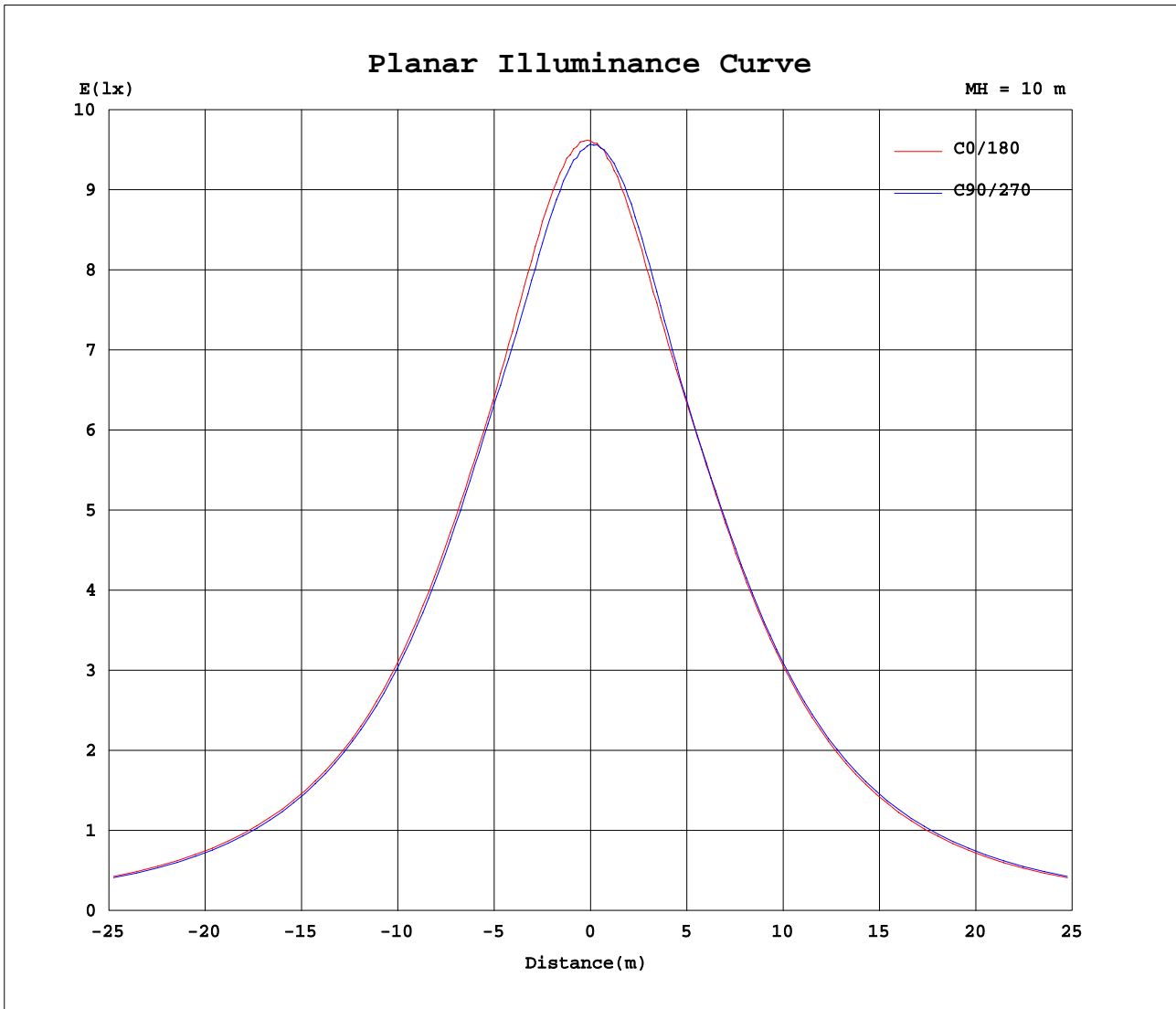
NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
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γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Deng
 Test Date: 2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity: 65.0%
 Test Distance: 10.330m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: BB-GL128-60W	TYPE:Garden Light	WEIGHT:0.44kg
DIM.: Dia128*180mm	SPEC.:	SERIAL No.:
MFR.: BBier	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	961	959	958	957	955	957	961	959	958	957	955	957							
5	962	957	951	948	946	944	950	952	957	956	961	959							
10	952	944	936	930	923	923	935	937	945	948	952	954							
15	936	927	916	909	902	900	915	917	926	931	940	939							
20	916	906	898	889	885	883	892	897	904	910	917	920							
25	902	893	887	881	881	878	886	883	885	890	900	901							
30	895	890	884	881	882	879	886	876	881	887	889	891							
35	892	888	886	878	880	878	880	878	877	888	890	892							
40	885	884	885	869	878	876	874	877	872	882	895	893							
45	877	877	876	859	869	866	864	869	867	875	896	889							
50	868	866	862	851	852	851	853	856	857	868	887	882							
55	859	850	842	841	831	831	836	837	843	854	876	872							
60	846	824	818	822	805	806	816	812	822	842	854	856							
65	827	798	787	797	773	775	792	781	797	824	831	834							
70	801	764	751	770	739	744	765	746	770	800	798	810							
75	770	726	720	733	702	709	732	709	737	770	767	782							
80	734	688	681	694	663	669	692	672	699	735	728	750							
85	694	647	641	652	624	629	651	636	660	697	692	711							
90	652	607	602	609	586	589	612	599	620	657	651	668							
95	607	567	561	565	548	547	570	563	582	617	617	630							
100	563	530	517	516	508	501	521	525	542	573	577	590							
105	513	488	472	465	465	451	469	484	498	523	538	544							
110	460	444	421	408	417	399	413	438	454	470	495	496							
115	405	395	369	351	363	345	354	388	406	411	448	447							
120	348	341	311	295	306	287	297	333	353	353	395	395							
125	293	280	253	242	241	228	243	274	295	294	338	336							
130	239	216	196	187	177	168	193	214	235	238	275	275							
135	182	154	139	132	115	113	140	156	175	187	211	211							
140	127	97.8	90.1	83.1	67.0	67.4	90.9	105	116	136	146	148							
145	77.8	57.1	48.9	43.4	37.9	34.5	50.0	62.9	69.6	86.4	92.8	94.1							
150	40.5	33.2	26.0	24.8	23.9	23.7	29.2	35.1	41.8	46.2	52.9	53.8							
155	24.8	23.9	23.6	23.4	23.1	23.0	27.4	27.8	28.4	29.0	31.2	31.2							
160	23.7	23.4	23.2	23.0	22.8	22.7	26.2	26.6	27.1	27.4	27.6	27.4							
165	23.2	23.1	23.0	22.9	22.7	22.6	25.2	25.5	25.9	26.2	26.4	26.2							
170	23.1	23.1	23.0	23.0	22.9	22.8	24.4	24.7	25.0	25.2	25.3	25.2							
175	23.2	23.3	23.4	23.4	23.3	23.2	23.9	24.1	24.3	24.5	24.5	24.4							
180	23.5	23.7	23.8	23.9	23.9	23.8	23.6	23.7	23.8	23.9	23.9	23.8							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Deng
 Test Date:2012-06-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.274
 Humidity:65.0%
 Test Distance:10.330m [K=1.0000]
 Remarks: