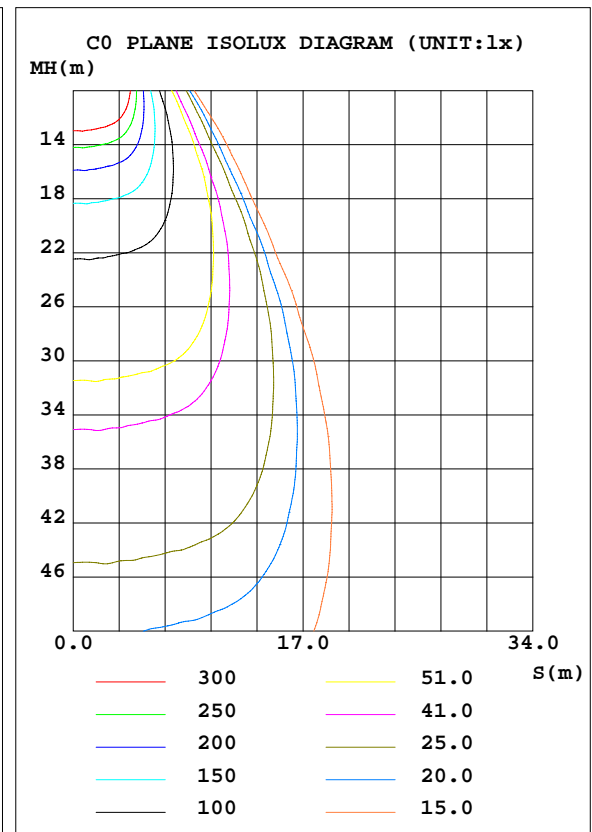
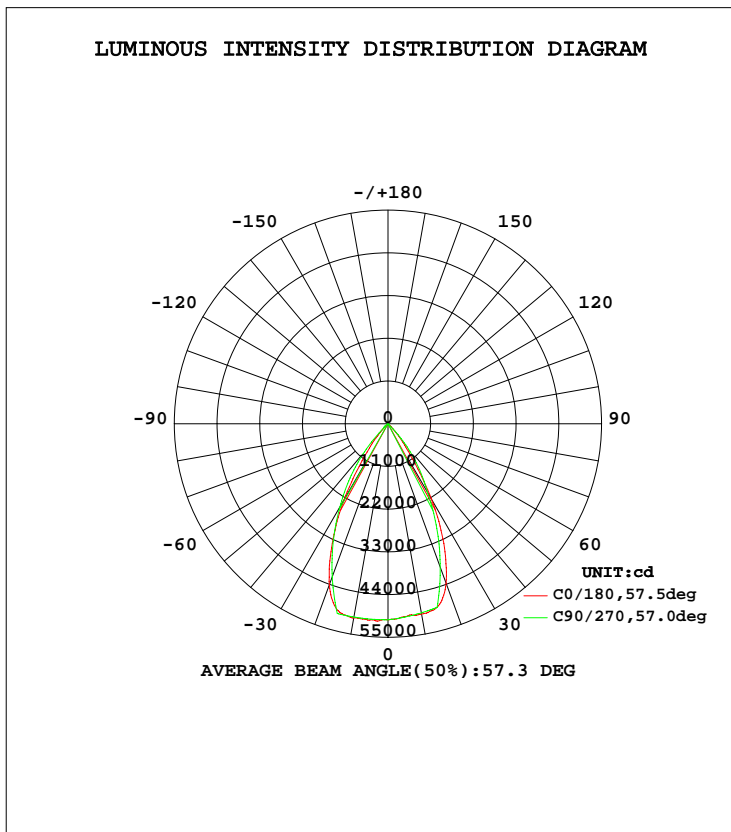


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.01 lm/W			
MODEL	QH-HBL-500W	I <sub>max</sub> (cd)	50885	S/MH(C0/180)	0.86
NOMINAL POWER(W)	500	LOR(%)	100.0	S/MH(C90/270)	0.90
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	42786	η UP, DN(C0-180)	0.0, 52.0
NOMINAL FLUX(lm)	42785.9	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 48.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	220.0	η down(%)	100.0	CIBSE SHR MAX	0.85



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum
5	5068	5079	5051	5010	4989	4968	4996	5033	0- 5	1203	1203	2.81
10	5076	5036	5054	4947	4976	4851	4945	4922	5- 10	3573	4777	11.2
15	4980	4893	5058	4816	4889	4662	4894	4703	10- 15	5827	10603	24.8
20	4419	4509	4197	4451	4374	4245	3937	4225	15- 20	7500	18103	42.3
25	3397	3434	3337	3400	3405	3176	2981	3141	20- 25	7796	25899	60.5
30	2265	2293	2477	2291	2230	2073	2025	2044	25- 30	6806	32705	76.4
35	1166	1298	1709	1294	1119	1119	1369	1110	30- 35	4925	37629	87.9
40	541.6	576.1	941.9	575.3	504.5	425.2	712.4	440.8	35- 40	2996	40626	95
45	153.2	280.6	174.5	287.1	139.8	202.1	56.22	210.1	40- 45	1434	42059	98.3
50	29.67	104.1	120.4	107.2	30.04	74.78	40.79	77.67	45- 50	399.2	42459	99.2
55	17.35	18.66	66.37	19.01	17.40	16.94	25.36	16.36	50- 55	147.0	42606	99.6
60	10.19	12.41	12.29	12.63	10.29	11.23	9.934	10.92	55- 60	79.92	42686	99.8
65	6.481	7.570	9.193	7.690	6.473	6.757	7.282	6.692	60- 65	43.39	42729	99.9
70	3.963	4.515	6.101	4.572	3.967	3.897	4.629	3.934	65- 70	28.75	42758	99.9
75	2.266	2.800	3.009	2.840	2.272	2.270	1.977	2.317	70- 75	17.96	42776	100
80	1.070	1.160	0	1.162	1.030	0.7786	0	0.8264	75- 80	8.406	42784	100
85	0.2860	0	0	0	0.2152	0	0	0	80- 85	1.727	42786	100
90	0.0759	0	0	0	0.0703	0	0	0	85- 90	0.1125	42786	100
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

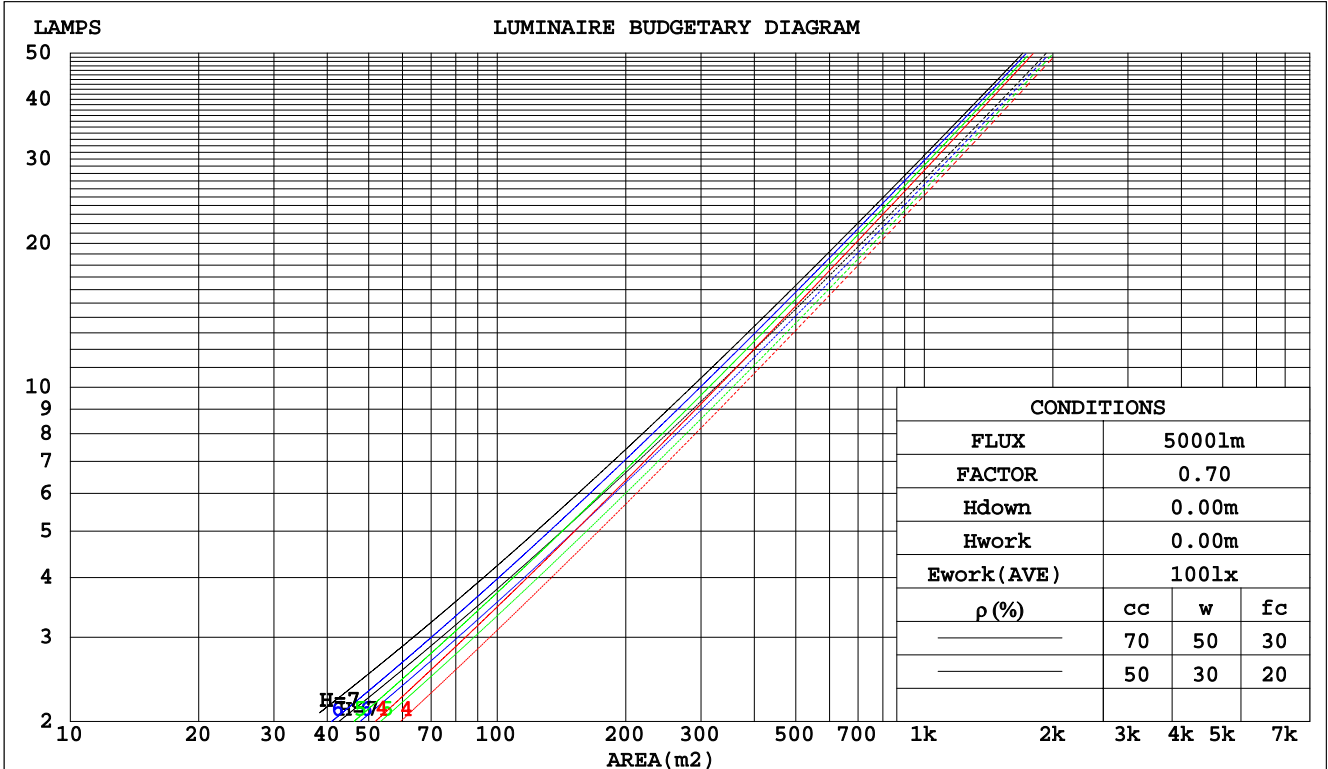
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2014-08-20

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
Humidity:65.0%  
Test Distance:8.000m [K=1.0000]  
Remarks: 60度反光杯

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.03	1.02	1.01	.00	.99	.98	.97	.96	.94
2.0	1.04	.00	.97	1.02	.98	.96	.99	.96	.93	.96	.93	.91	.93	.91	.90	.88
3.0	.97	.92	.88	.96	.91	.88	.93	.89	.86	.91	.88	.85	.88	.86	.84	.82
4.0	.91	.86	.82	.90	.85	.81	.88	.84	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.86	.80	.76	.85	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.74	.72
6.0	.81	.75	.71	.80	.74	.70	.78	.74	.70	.77	.73	.69	.76	.72	.69	.68
7.0	.76	.70	.66	.75	.70	.66	.74	.69	.66	.73	.69	.65	.72	.68	.65	.64
8.0	.72	.66	.62	.71	.66	.62	.70	.65	.62	.69	.65	.61	.68	.64	.61	.60
9.0	.68	.62	.58	.67	.62	.58	.67	.62	.58	.66	.61	.58	.65	.61	.58	.56
10.0	.64	.59	.55	.64	.59	.55	.63	.58	.55	.62	.58	.55	.62	.58	.55	.53



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

WEC AND CCEC

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	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	.172	.098	.031	.165	.094	.030	.153	.088	.028	.141	.081	.026	.131	.076	.024	
2.0	.164	.090	.028	.159	.087	.027	.148	.082	.026	.138	.078	.024	.130	.073	.023	
3.0	.157	.083	.025	.152	.081	.024	.143	.077	.024	.135	.074	.023	.127	.070	.022	
4.0	.149	.078	.023	.145	.076	.022	.137	.073	.022	.130	.070	.021	.124	.067	.020	
5.0	.142	.073	.021	.139	.071	.021	.132	.069	.020	.126	.066	.020	.120	.064	.019	
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.122	.063	.019	.116	.061	.018	
7.0	.130	.064	.018	.128	.064	.018	.122	.062	.018	.117	.060	.018	.113	.059	.017	
8.0	.125	.061	.017	.122	.060	.017	.118	.059	.017	.113	.057	.017	.109	.056	.016	
9.0	.120	.058	.016	.118	.057	.016	.114	.056	.016	.110	.055	.016	.106	.054	.016	
10.0	.115	.055	.015	.113	.055	.015	.109	.054	.015	.106	.053	.015	.103	.052	.015	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.171	.157	.145	.146	.135	.125	.100	.093	.086	.058	.054	.050	.018	.017	.016	
2.0	.155	.133	.113	.133	.114	.098	.091	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.143	.114	.090	.122	.098	.078	.084	.068	.055	.048	.040	.032	.016	.013	.011	
4.0	.132	.099	.073	.113	.085	.064	.078	.059	.045	.045	.035	.026	.015	.011	.009	
5.0	.123	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.110	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.104	.064	.036	.089	.055	.032	.062	.039	.023	.036	.023	.013	.012	.008	.004	
9.0	.099	.059	.032	.085	.051	.028	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.094	.054	.028	.081	.047	.024	.056	.033	.017	.033	.020	.010	.011	.006	.003	

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

## Uncorrected UGR Table

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm										
NAME: High bay light					TYPE:IP65			WEIGHT:10		
SPEC.:Samsung					DIM.:			SERIAL No.:		
MFR.: QINHAN					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	20.1	21.0	20.3	21.2	21.4	22.2	23.1	22.4	23.2	23.4
3H	19.9	20.8	20.2	21.0	21.2	22.0	22.8	22.3	23.0	23.2
4H	19.9	20.7	20.1	20.9	21.1	21.9	22.7	22.2	22.9	23.1
6H	19.8	20.5	20.1	20.8	21.0	21.8	22.6	22.1	22.8	23.1
8H	19.7	20.4	20.0	20.7	21.0	21.8	22.5	22.1	22.7	23.0
12H	19.7	20.4	20.0	20.6	20.9	21.7	22.4	22.0	22.7	23.0
4H 2H	19.9	20.7	20.1	20.9	21.1	21.9	22.7	22.2	22.9	23.1
3H	19.7	20.4	20.0	20.6	20.9	21.7	22.4	22.1	22.7	23.0
4H	19.6	20.2	19.9	20.5	20.8	21.6	22.3	22.0	22.6	22.9
6H	19.5	20.0	19.9	20.4	20.7	21.5	22.1	21.9	22.4	22.8
8H	19.5	20.0	19.8	20.3	20.7	21.5	22.0	21.9	22.4	22.7
12H	19.4	19.9	19.8	20.2	20.6	21.4	21.9	21.9	22.3	22.7
8H 4H	19.5	20.0	19.8	20.3	20.7	21.5	22.0	21.9	22.4	22.7
6H	19.4	19.8	19.8	20.2	20.6	21.4	21.8	21.8	22.2	22.6
8H	19.3	19.7	19.7	20.1	20.5	21.3	21.7	21.8	22.1	22.6
12H	19.2	19.6	19.7	20.0	20.5	21.3	21.6	21.7	22.0	22.5
12H 4H	19.4	19.9	19.8	20.2	20.6	21.4	21.9	21.9	22.3	22.7
6H	19.3	19.7	19.7	20.1	20.5	21.3	21.7	21.8	22.1	22.6
8H	19.2	19.6	19.7	20.0	20.5	21.3	21.6	21.7	22.0	22.5
Variations with the observer position at spacings:										
S = 1.0H	+ 3.4 / -15.3					+ 3.5 / -15.0				
1.5H	+ 5.9 / -13.3					+ 6.2 / -15.0				
2.0H	+ 7.6 / - 6.5					+ 6.4 / - 8.1				

CIE Pub.117 Corrected 42786 lm Total Lamp Luminous Flux. (8log(F/F0) = 13.1)

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

## UTILIZATION FACTORS TABLE

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

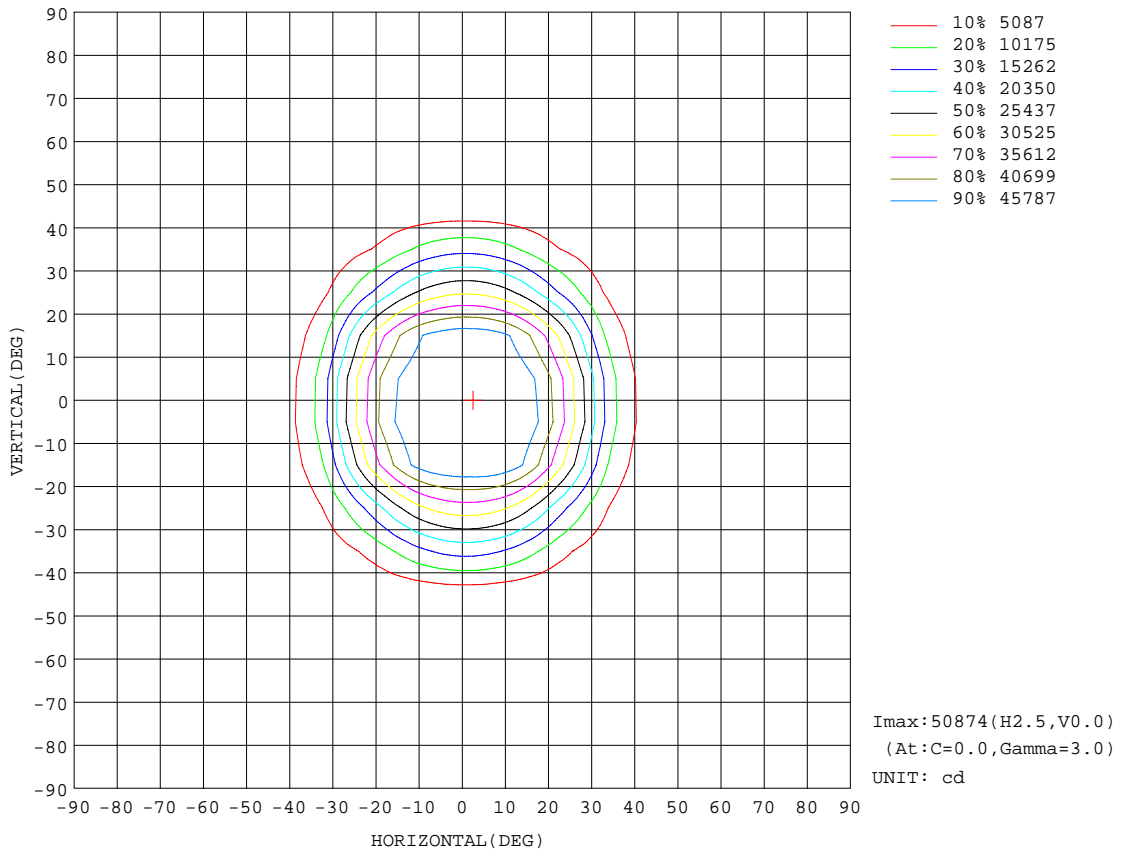
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	88	82	79	88	82	78	87	82	78	75
0.80	96	90	87	95	90	86	94	89	86	82
1.00	100	95	91	99	94	91	98	94	90	87
1.25	104	99	96	103	98	95	101	97	94	90
1.50	107	102	99	105	101	98	103	100	97	93
2.00	109	105	102	108	104	101	105	102	100	95
2.50	111	107	104	109	106	103	106	103	101	96
3.00	112	109	106	110	107	105	107	105	103	97
4.00	114	111	109	112	110	108	108	107	105	98
5.00	115	113	111	113	111	110	109	108	107	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

ISOCANDELA DIAGRAM

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

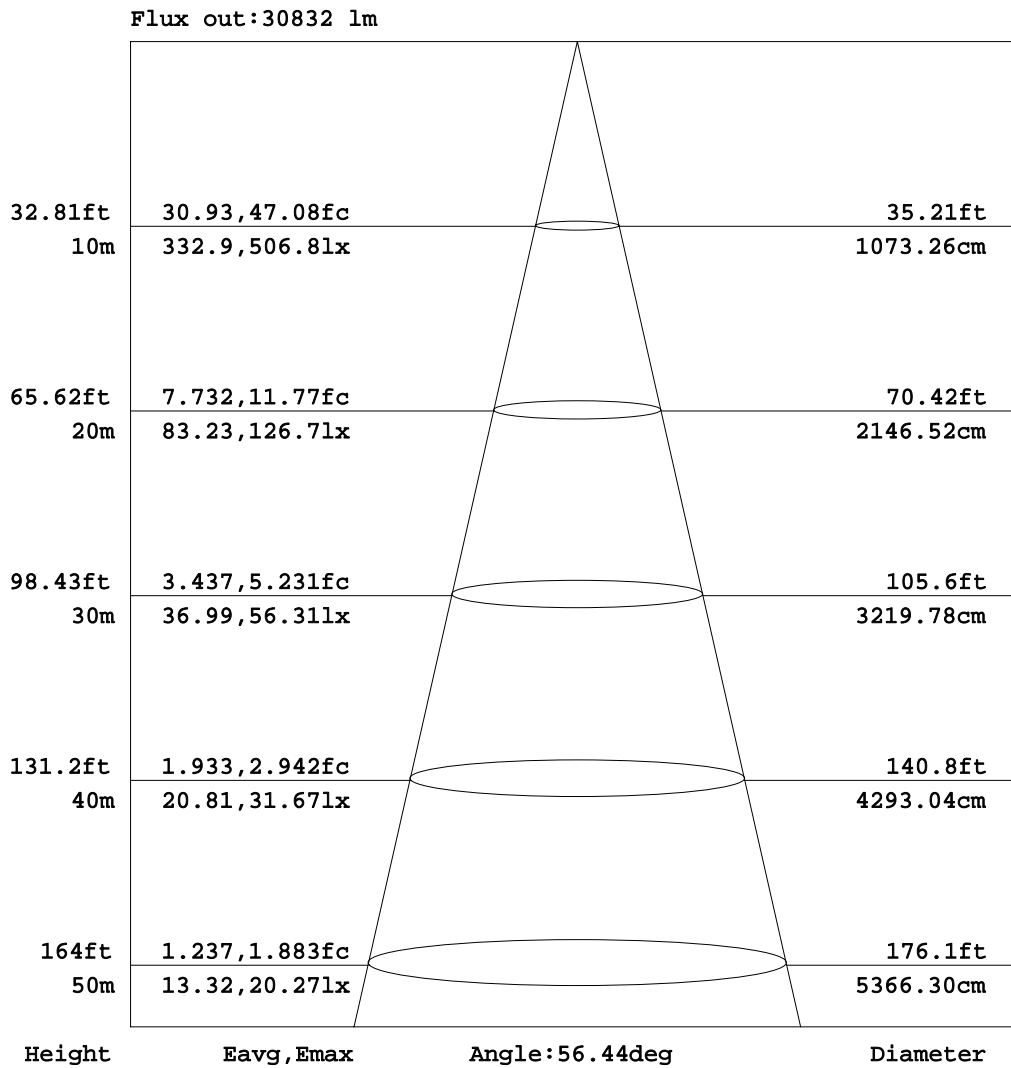


C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0000]  
 Remarks: 60度反光杯

AAI Figure

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:



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

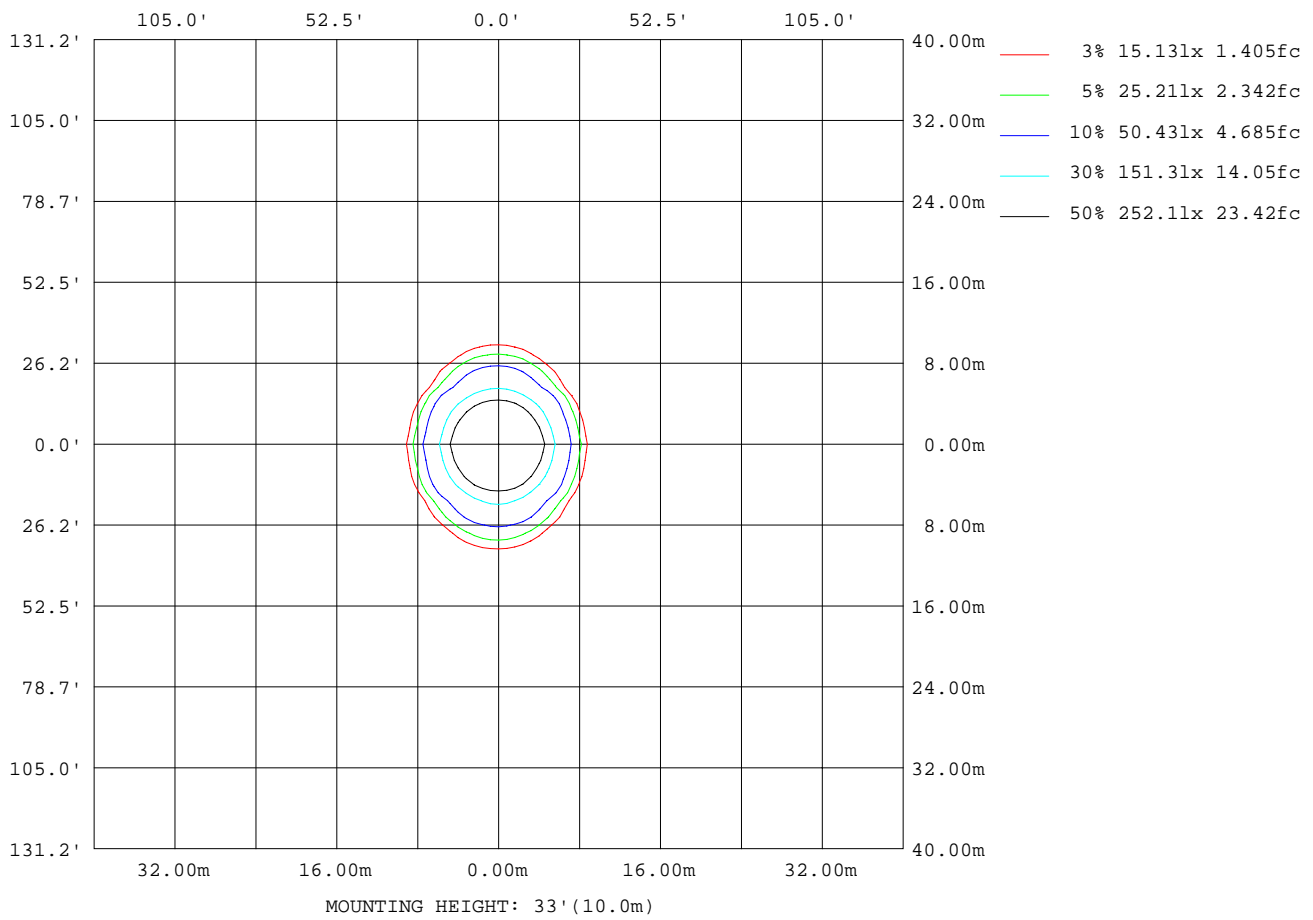
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯



ISOLUX DIAGRAM

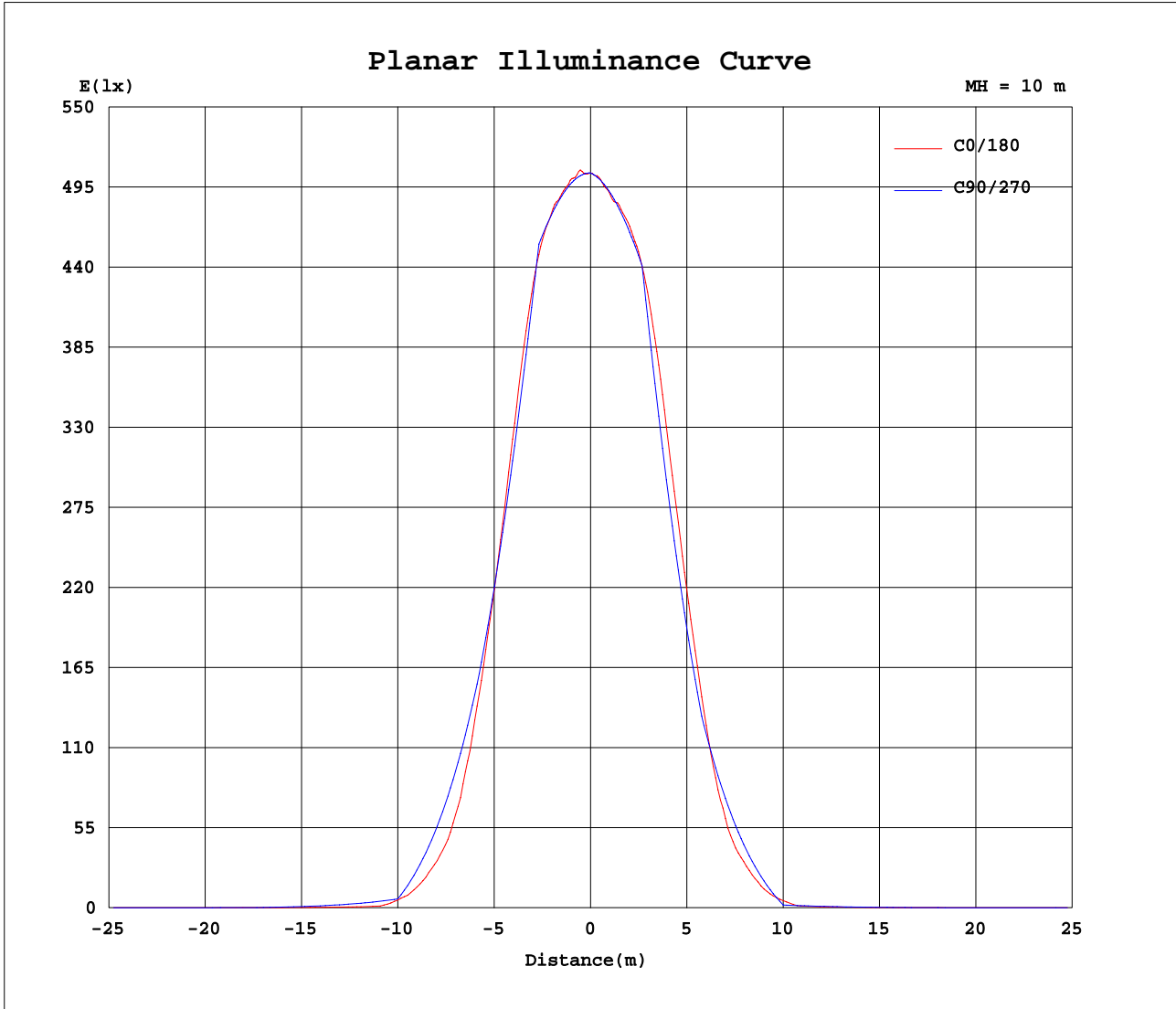
Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2014-08-20

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity: 65.0%  
 Test Distance: 8.000m [K=1.0000]  
 Remarks: 60度反光杯

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

Table--1

UNIT: x10cd

C(DEG)\ γ (DEG)	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
0	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047
5	5068	5068	5067	5066	5065	5063	5065	5068	5073	5079	5081	5079	5069	5059	5052	5047	5046	5049	5051
10	5076	5063	5048	5035	5025	5021	5022	5025	5031	5036	5042	5053	5058	5061	5070	5067	5055	5051	5054
15	4980	4928	4885	4854	4831	4821	4828	4839	4860	4893	4925	4961	4998	5023	5049	5058	5063	5056	5058
20	4419	4325	4258	4219	4208	4220	4257	4325	4408	4509	4535	4466	4410	4358	4309	4270	4233	4207	4197
25	3397	3291	3227	3205	3232	3292	3368	3493	3459	3434	3430	3418	3409	3391	3377	3358	3351	3342	3337
30	2265	2160	2108	2111	2162	2244	2321	2307	2304	2293	2306	2329	2352	2377	2405	2426	2448	2471	2477
35	1166	1095	1064	1081	1143	1229	1283	1313	1313	1298	1265	1277	1400	1504	1590	1646	1678	1703	1709
40	542	502	492	507	536	538	550	587	578	576	642	711	798	866	904	924	932	941	942
45	153	138	136	144	173	188	177	176	229	281	318	331	327	320	280	238	202	183	175
50	29.7	28.8	29.2	30.4	31.3	44.1	32.1	40.4	81.6	104	97.9	59.7	35.4	42.1	54.5	76.6	96.6	115	120
55	17.4	16.8	17.2	17.3	17.5	18.0	18.8	19.6	21.1	18.7	20.3	22.0	23.9	25.6	34.2	44.7	54.0	63.5	66.4
60	10.2	9.98	10.2	10.3	10.4	10.8	11.0	10.6	11.4	12.4	13.3	13.8	14.2	14.2	15.6	15.6	14.5	13.1	12.3
65	6.48	6.34	6.40	6.52	6.55	6.63	6.70	6.95	7.34	7.57	7.50	7.20	7.53	7.81	8.25	8.56	8.88	9.11	9.19
70	3.96	3.92	3.94	3.99	4.02	4.11	4.27	4.32	4.29	4.51	4.77	5.05	5.23	5.37	5.60	5.77	5.93	6.05	6.10
75	2.27	2.23	2.27	2.28	2.32	2.39	2.47	2.61	2.71	2.80	2.89	2.97	3.01	3.01	3.01	3.01	3.01	3.01	3.01
80	1.07	1.05	1.05	1.09	1.13	1.27	1.33	1.34	1.30	1.16	0.99	0.82	0.65	0.48	0.32	0.19	0.09	0.02	0.00
85	0.29	0.27	0.34	0.38	0.39	0.22	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	0.08	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

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: x10cd

C( DEG) γ (DEG)	95	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	
0	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047
5	5049	5043	5039	5039	5039	5035	5029	5020	5010	5003	4998	4995	4993	4992	4991	4990	4989	4989	4983	4983
10	5048	5045	5039	5018	5005	4996	4978	4956	4947	4949	4951	4946	4941	4941	4947	4955	4965	4976	4952	4952
15	5052	5044	5016	4998	4957	4926	4895	4850	4816	4791	4760	4742	4745	4751	4769	4799	4840	4889	4821	4821
20	4198	4205	4231	4255	4303	4349	4411	4465	4451	4353	4279	4213	4174	4166	4182	4222	4285	4374	4264	4264
25	3332	3327	3325	3333	3344	3358	3366	3386	3400	3433	3498	3380	3290	3239	3213	3238	3299	3405	3276	3276
30	2463	2435	2400	2369	2340	2307	2291	2273	2291	2305	2314	2321	2245	2156	2098	2092	2132	2230	2104	2104
35	1699	1669	1625	1569	1467	1364	1242	1254	1294	1316	1309	1267	1207	1125	1066	1052	1067	1119	1048	1048
40	939	929	913	890	845	776	700	640	575	588	582	556	540	535	508	485	479	504	465	465
45	184	205	238	278	315	323	328	317	287	236	170	172	189	176	145	128	125	140	118	118
50	116	99.0	79.3	57.5	42.4	36.3	60.5	101	107	80.2	37.4	31.6	43.7	31.8	31.1	29.9	29.3	30.0	29.0	29.0
55	64.2	54.5	45.8	36.1	26.4	24.6	22.6	20.8	19.0	20.6	19.6	18.9	18.0	17.7	17.7	17.6	17.0	17.4	16.8	16.8
60	13.1	14.6	15.9	16.2	14.5	14.5	14.1	13.5	12.6	11.6	10.8	11.1	11.0	10.4	10.4	10.4	10.1	10.3	10.0	10.0
65	9.16	8.98	8.72	8.43	8.01	7.72	7.37	7.60	7.69	7.48	7.07	6.83	6.74	6.63	6.51	6.50	6.42	6.47	6.34	6.34
70	6.09	6.00	5.88	5.72	5.52	5.34	5.13	4.85	4.57	4.35	4.40	4.33	4.20	4.12	4.05	4.01	4.01	3.97	3.96	3.96
75	3.03	3.05	3.07	3.09	3.09	3.07	3.02	2.94	2.84	2.74	2.63	2.49	2.41	2.36	2.32	2.27	2.28	2.27	2.24	2.24
80	0.02	0.09	0.19	0.33	0.49	0.66	0.83	1.00	1.16	1.29	1.32	1.30	1.22	1.11	1.07	1.04	1.02	1.03	1.00	1.00
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.32	0.31	0.26	0.21	0.22	0.18	0.18
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	0.07	0.00	0.00

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

Table--3

UNIT: x10cd

C(DEG) γ (DEG)	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280
0	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047
5	4978	4974	4969	4966	4963	4962	4964	4968	4974	4980	4984	4986	4985	4985	4988	4994	4996	4993	4990
10	4930	4910	4893	4881	4875	4868	4859	4851	4855	4870	4881	4891	4907	4924	4931	4937	4945	4937	4938
15	4761	4713	4677	4651	4632	4633	4648	4662	4688	4719	4747	4779	4810	4841	4868	4883	4894	4881	4880
20	4180	4121	4084	4066	4075	4113	4167	4245	4244	4172	4104	4044	3997	3964	3946	3937	3937	3939	3960
25	3190	3140	3130	3162	3226	3315	3248	3176	3133	3091	3060	3029	3001	2984	2981	2981	2981	2984	2988
30	2038	2015	2031	2105	2158	2151	2122	2073	2024	1994	1976	1978	1980	1988	2007	2026	2025	2024	2007
35	1015	1006	1021	1075	1127	1153	1156	1119	1035	950	1054	1151	1245	1300	1338	1365	1369	1364	1339
40	451	458	471	469	469	473	456	425	495	541	590	650	689	707	713	715	712	714	712
45	113	122	150	163	137	100.0	158	202	237	257	249	234	199	152	106	70.6	56.2	69.7	105
50	29.4	30.0	30.3	37.2	29.4	31.6	45.7	74.8	75.5	49.3	30.1	32.2	33.9	35.4	39.3	41.3	40.8	40.7	38.9
55	17.3	17.2	17.1	17.1	17.8	18.3	18.1	16.9	18.4	19.6	20.7	21.6	22.4	23.0	24.6	25.7	25.4	25.4	24.4
60	10.2	10.1	10.0	10.4	10.5	9.97	10.6	11.2	11.9	12.2	12.3	12.1	11.6	11.1	10.6	10.1	9.93	10.1	10.6
65	6.35	6.27	6.32	6.36	6.38	6.53	6.69	6.76	6.54	6.15	6.42	6.62	6.78	6.98	7.15	7.25	7.28	7.26	7.18
70	3.89	3.89	3.90	3.91	3.94	3.88	3.76	3.90	4.02	4.14	4.26	4.36	4.41	4.50	4.57	4.61	4.63	4.63	4.60
75	2.18	2.19	2.18	2.13	2.13	2.21	2.26	2.27	2.27	2.24	2.20	2.15	2.09	2.04	2.00	1.98	1.98	2.00	2.04
80	0.99	0.97	0.94	0.96	0.99	0.97	0.88	0.78	0.66	0.54	0.43	0.31	0.21	0.12	0.06	0.01	0.00	0.01	0.06
85	0.20	0.21	0.14	0.10	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	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

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:222.1V I:2.293A P:480.7W PF:0.9820 Lamp Flux:42785.9x1 lm		
NAME: High bay light	TYPE:IP65	WEIGHT:10
SPEC.:Samsung	DIM.:	SERIAL No.:
MFR.: QINHAN	SUR.:	PROTECTION ANGLE:

Table--4

UNIT: x10cd

C(DEG) γ (DEG)	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355				
0	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047	5047				
5	4991	4996	5004	5016	5027	5032	5033	5030	5029	5030	5033	5040	5047	5054	5061				
10	4947	4949	4937	4932	4931	4924	4922	4926	4932	4940	4949	4966	4990	5018	5047				
15	4866	4844	4816	4786	4759	4725	4703	4681	4669	4678	4695	4728	4776	4833	4902				
20	3985	4020	4069	4119	4175	4236	4225	4150	4097	4066	4062	4087	4130	4199	4295				
25	2995	3011	3031	3054	3077	3103	3141	3198	3245	3177	3129	3099	3109	3164	3260				
30	1988	1975	1971	1970	1982	2009	2044	2089	2105	2114	2077	2019	2010	2043	2127				
35	1294	1237	1151	1054	964	1034	1110	1149	1147	1128	1087	1034	1017	1023	1076				
40	705	687	647	598	546	496	441	462	481	471	473	475	462	464	489				
45	150	199	233	251	259	244	210	167	112	138	165	152	127	122	130				
50	35.0	33.3	31.3	29.0	48.7	76.0	77.7	48.8	30.8	28.6	38.0	29.4	28.7	28.4	28.4				
55	22.8	22.0	21.0	20.0	18.9	17.7	16.4	17.6	17.8	17.4	16.8	16.7	16.7	16.8	16.6				
60	11.1	11.6	11.9	12.0	11.8	11.5	10.9	10.3	9.74	10.3	10.3	9.96	9.93	9.90	9.87				
65	7.03	6.82	6.63	6.38	6.13	6.48	6.69	6.58	6.44	6.27	6.25	6.26	6.25	6.26	6.26				
70	4.54	4.45	4.39	4.28	4.16	4.03	3.93	3.82	3.92	3.94	3.88	3.87	3.87	3.88	3.88				
75	2.09	2.15	2.21	2.25	2.29	2.31	2.32	2.33	2.28	2.20	2.18	2.19	2.19	2.20	2.20				
80	0.13	0.22	0.33	0.45	0.57	0.70	0.83	0.94	1.03	1.06	1.03	1.00	1.02	1.01	1.03				
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.16	0.23	0.26	0.22				
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				

C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2014-08-20

γ Range: 0 - 90DEG  
 γ Interval: 0.5DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.279  
 Humidity:65.0%  
 Test Distance:8.000m [K=1.0000]  
 Remarks: 60度反光杯