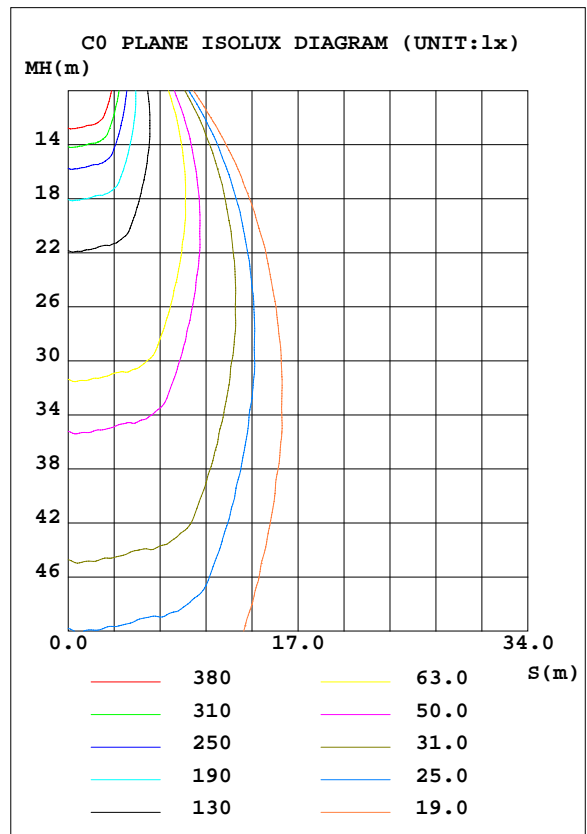
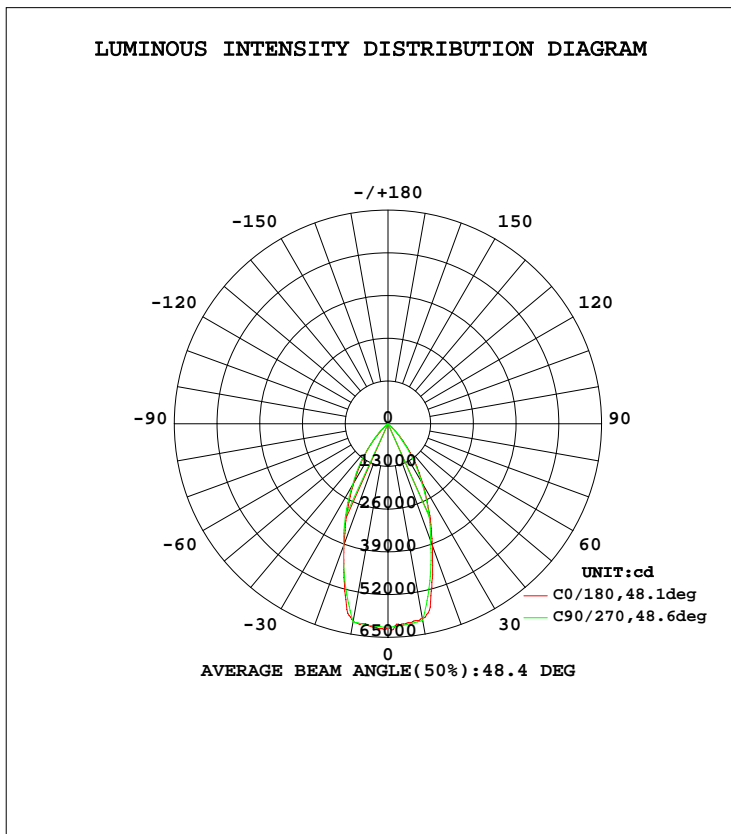


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.59 lm/W			
MODEL	QH-HBZSL-500W	I _{max} (cd)	62787	S/MH(C0/180)	0.76
NOMINAL POWER(W)	499	LOR(%)	100.0	S/MH(C90/270)	0.76
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	44784	η UP, DN(C0-180)	0.0, 50.6
NOMINAL FLUX(lm)	44784.5	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 49.4
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.75
TEST VOLTAGE(V)	219.9	η down(%)	100.0	CIBSE SHR MAX	0.80



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:梅媛屏
 Test Date:2014-01-13

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: LED:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
5	6189	6165	6160	6126	6113	6119	6139	6150	0- 5	1478	1478	3.3,3.3
10	6090	5987	6123	5979	6018	5953	6080	5919	5- 10	4350	5828	13,13
15	5108	5245	5036	5290	5173	5125	4934	5157	10- 15	6623	12451	27.8,27.8
20	3918	3936	3950	3938	3950	3842	3787	3875	15- 20	7309	19760	44.1,44.1
25	2929	2888	3052	2900	2972	2844	2911	2850	20- 25	7041	26801	59.8,59.8
30	2094	2102	2154	2107	2125	2069	2034	2055	25- 30	6294	33095	73.9,73.9
35	1402	1411	1478	1414	1436	1370	1365	1371	30- 35	5116	38212	85.3,85.3
40	805.5	804.1	803.1	808.0	820.4	742.2	696.1	754.7	35- 40	3608	41820	93.4,93.4
45	278.6	319.7	411.8	329.1	283.9	287.6	356.3	294.7	40- 45	1937	43757	97.7,97.7
50	20.48	19.92	20.61	21.74	20.17	17.72	16.53	18.34	45- 50	613.0	44370	99.1,99.1
55	17.39	20.78	24.30	21.76	18.48	21.76	23.08	21.94	50- 55	109.3	44479	99.3,99.3
60	29.84	26.30	27.99	26.39	29.22	27.11	29.62	27.44	55- 60	108.1	44588	99.6,99.6
65	17.89	14.96	15.66	15.05	18.50	12.87	16.18	13.30	60- 65	112.8	44700	99.8,99.8
70	3.554	4.984	3.331	5.398	3.094	3.591	2.747	3.772	65- 70	51.01	44751	99.9,99.9
75	3.642	3.512	2.401	3.529	3.257	2.991	1.822	3.047	70- 75	17.92	44769	100,100
80	1.123	1.829	1.471	1.812	1.293	1.440	0.8964	1.462	75- 80	11.02	44780	100,100
85	0.4027	0.3394	0	0.3132	0.3529	0.1977	0	0.2102	80- 85	3.822	44784	100,100
90	0.0942	0	0	0	0.0937	0	0	0	85- 90	0.3582	44785	100,100
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			

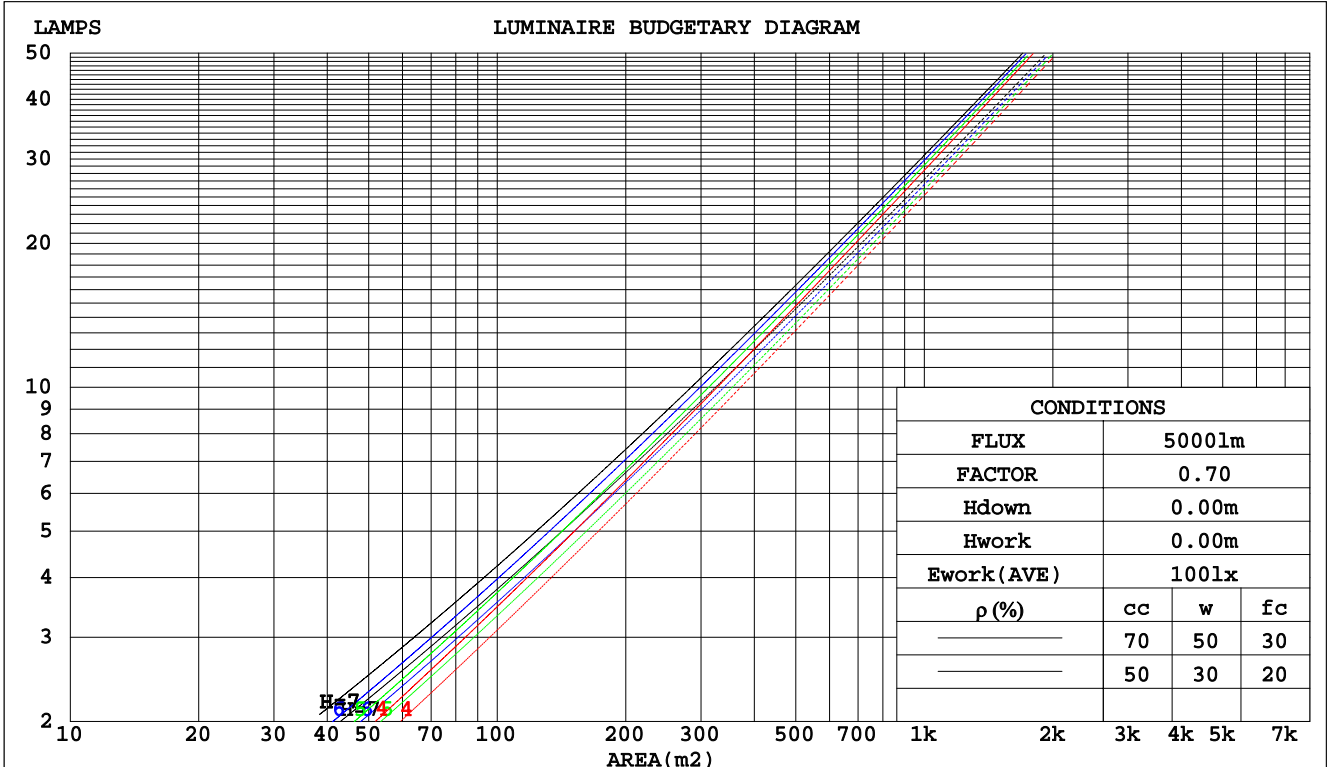
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:梅媛屏
 Test Date:2014-01-13

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: LED:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	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	1.06	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	.95	.99	.96	.93	.96	.93	.91	.93	.91	.89	.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	.83	.80	.86	.82	.79	.84	.81	.78	.77
5.0	.85	.80	.76	.85	.79	.75	.83	.78	.75	.81	.77	.74	.80	.76	.73	.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	.62	.68	.64	.61	.60
9.0	.68	.62	.59	.68	.62	.59	.67	.62	.58	.66	.61	.58	.65	.61	.58	.57
10.0	.65	.59	.55	.64	.59	.55	.63	.59	.55	.63	.58	.55	.62	.58	.55	.54



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:梅媛屏
 Test Date:2014-01-13

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: LED:

UTILIZATION FACTORS TABLE

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

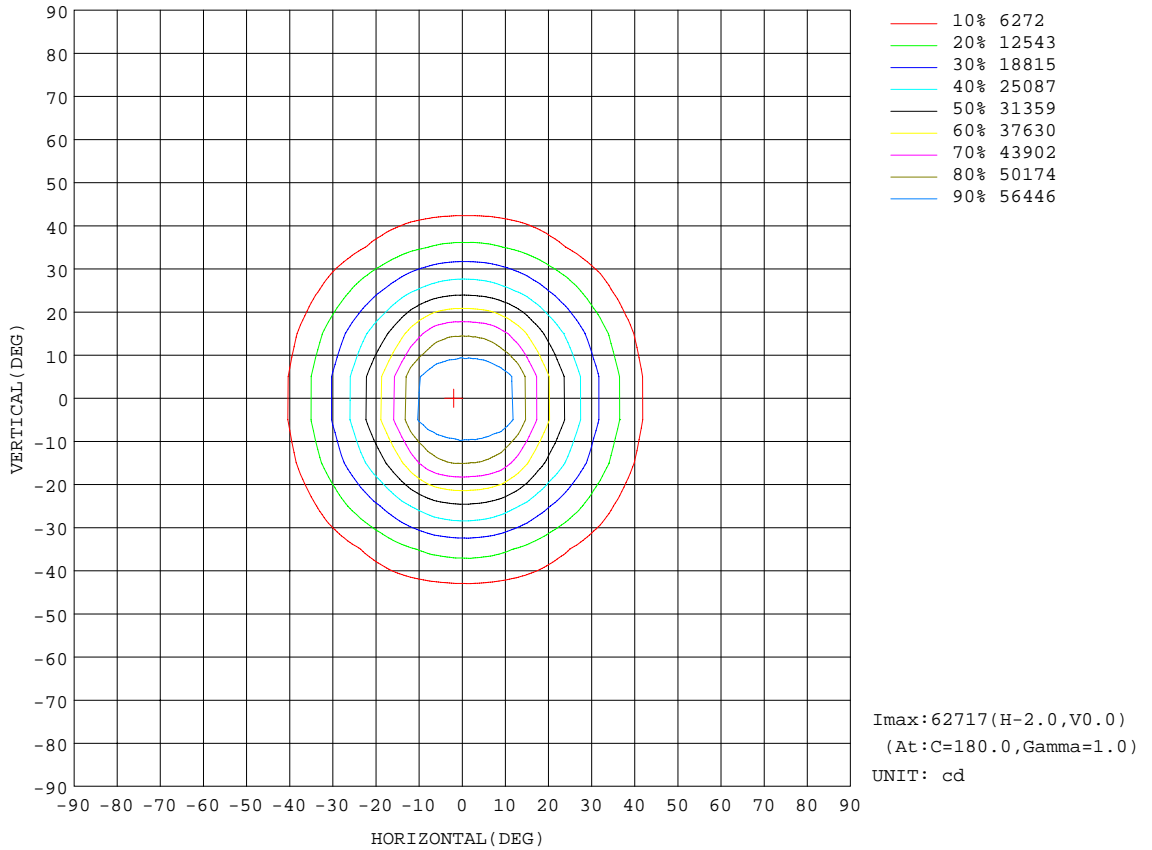
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	87	81	77	87	81	77	86	81	77	74
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	99	93	90	97	93	89	86
1.25	103	98	95	102	98	94	100	97	94	90
1.50	106	101	98	105	101	98	103	99	97	92
2.00	109	105	102	107	104	101	105	102	99	94
2.50	110	107	104	109	105	103	106	103	101	95
3.00	112	109	106	110	107	105	107	104	103	96
4.00	114	111	109	112	110	108	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	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:梅媛屏
 Test Date:2014-01-13

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: LED:

ISOCANDELA DIAGRAM

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:

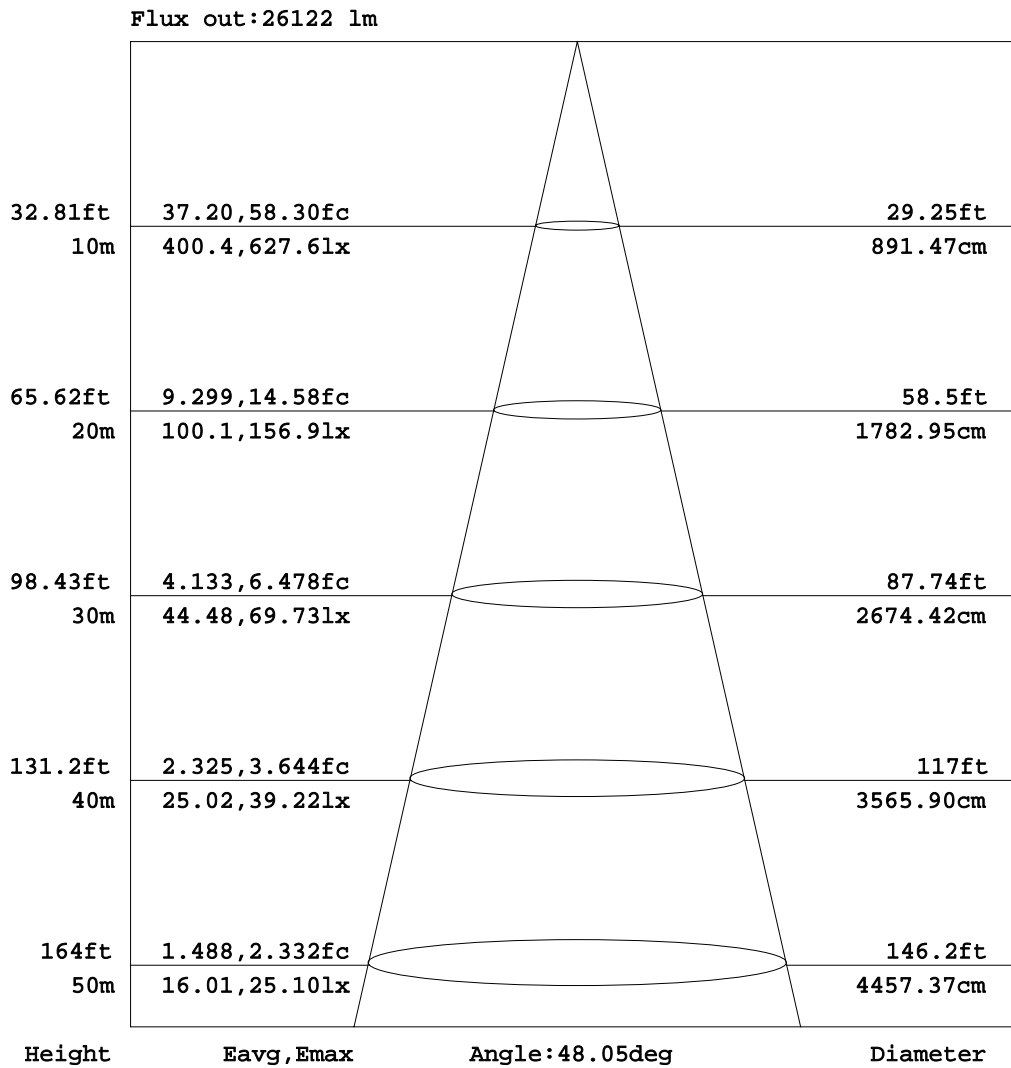


C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 梅媛屏
 Test Date: 2014-01-13

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: LED:

AAI Figure

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



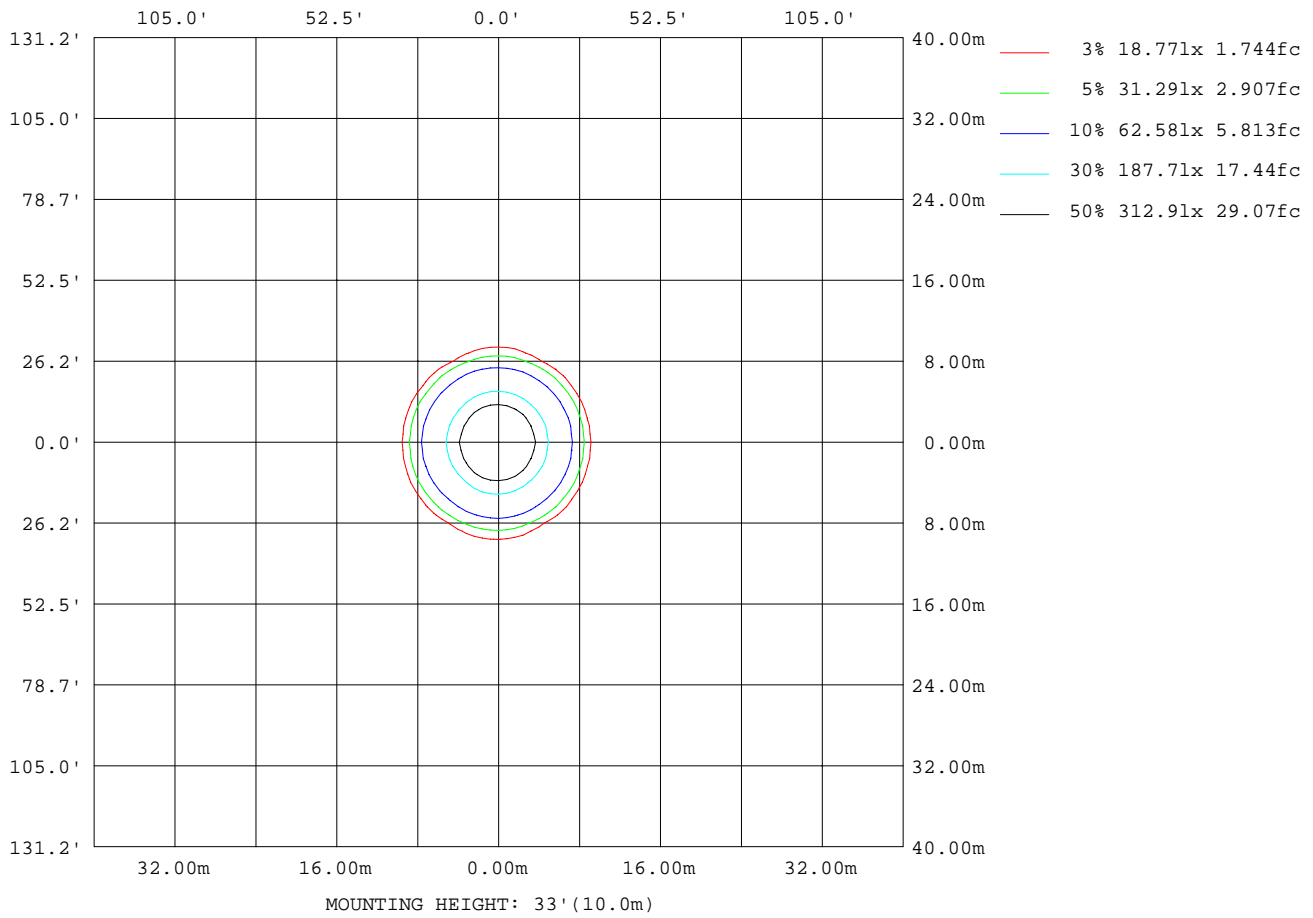
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:梅媛屏
 Test Date:2014-01-13

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: LED:

ISOLUX DIAGRAM

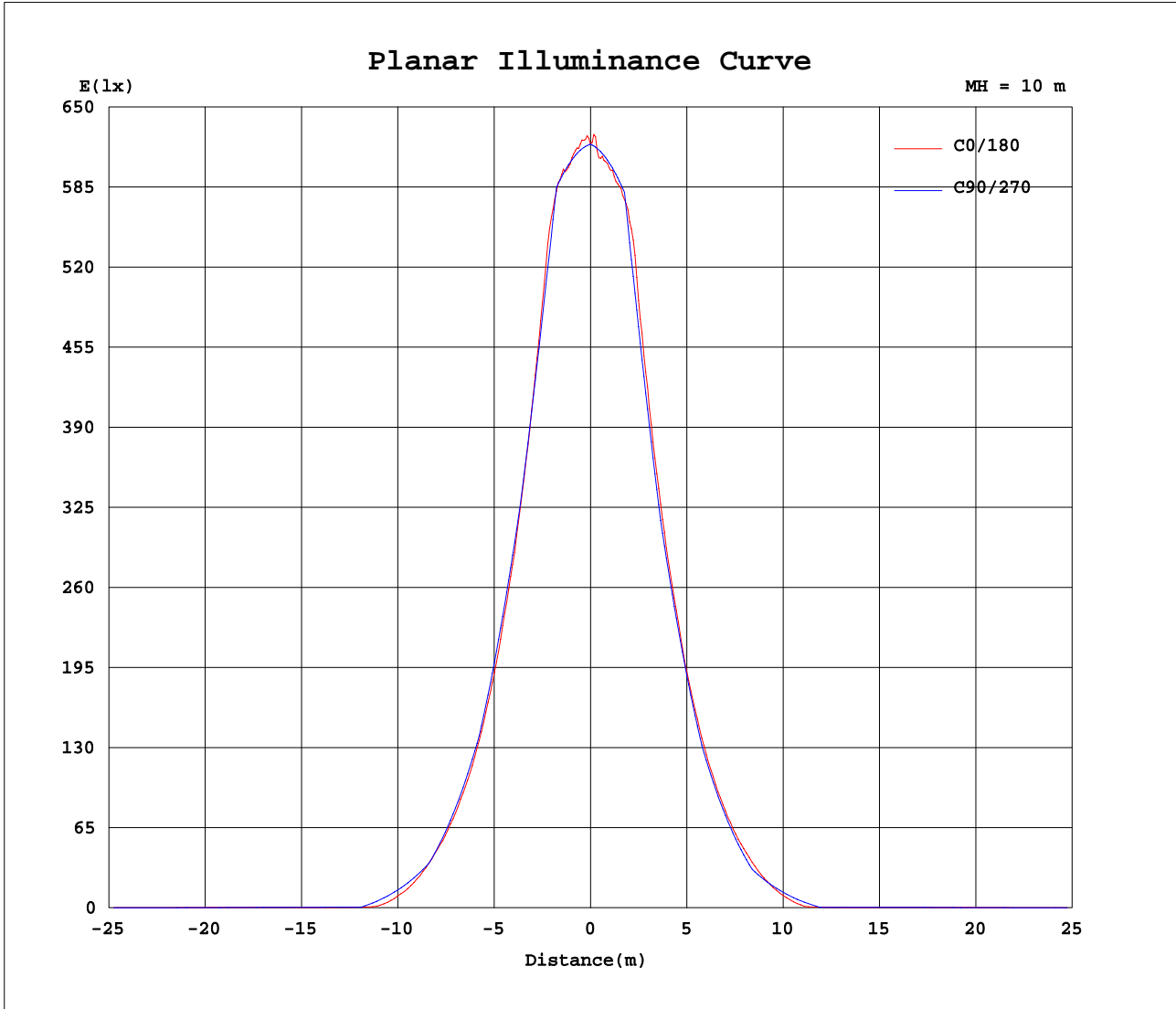
Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:梅媛屏
 Test Date:2014-01-13

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: LED:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: 梅媛屏
 Test Date: 2014-01-13

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: LED:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	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	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198
5	6189	6183	6178	6173	6170	6168	6169	6172	6170	6165	6168	6176	6190	6191	6177	6175	6186	6179	6160
10	6090	6042	6003	5977	5957	5937	5953	5975	5977	5987	6001	6043	6059	6082	6106	6112	6107	6106	6123
15	5108	5027	4982	4971	4968	4994	5064	5155	5238	5245	5252	5262	5211	5155	5118	5085	5052	5020	5036
20	3918	3840	3795	3781	3795	3831	3872	3873	3888	3936	3965	3982	3980	3985	3957	3952	3945	3934	3950
25	2929	2879	2868	2876	2914	2925	2893	2872	2875	2888	2908	2942	2960	2979	3013	3030	3038	3041	3052
30	2094	2062	2064	2110	2117	2100	2094	2103	2105	2102	2098	2111	2148	2152	2160	2177	2169	2158	2154
35	1402	1380	1393	1442	1410	1409	1415	1419	1420	1411	1399	1394	1415	1442	1444	1467	1477	1478	1478
40	806	783	800	803	792	807	797	797	792	804	806	796	799	805	806	803	799	805	803
45	279	258	276	262	266	288	282	287	327	320	299	266	293	350	385	401	404	411	412
50	20.5	20.4	21.4	22.7	22.0	35.6	21.6	46.7	73.7	19.9	34.1	86.6	114	119	105	77.9	48.8	28.2	20.6
55	17.4	17.4	17.6	17.1	17.9	17.1	19.0	17.1	18.3	20.8	20.9	19.8	15.8	17.8	20.1	21.9	23.1	24.0	24.3
60	29.8	29.6	29.4	28.4	28.6	27.0	27.7	23.9	27.3	26.3	20.8	20.3	22.3	25.2	27.4	28.4	28.4	28.2	28.0
65	17.9	18.5	18.1	18.0	17.1	18.2	16.3	19.0	18.5	15.0	15.0	19.8	21.7	21.4	20.0	18.4	16.9	16.0	15.7
70	3.55	3.60	3.67	3.90	3.89	4.01	4.74	6.03	3.48	4.98	7.53	9.44	9.30	7.90	6.24	4.89	3.98	3.49	3.33
75	3.64	3.58	3.52	3.35	3.42	3.18	3.36	2.83	2.95	3.51	3.52	3.17	2.79	2.53	2.39	2.36	2.37	2.39	2.40
80	1.12	1.12	1.09	1.14	1.17	1.30	1.21	1.50	1.74	1.83	1.74	1.57	1.44	1.39	1.39	1.41	1.43	1.45	1.47
85	0.40	0.38	0.38	0.44	0.48	0.59	0.61	0.50	0.41	0.34	0.27	0.21	0.16	0.12	0.08	0.05	0.02	0.01	0.00
90	0.09	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:梅媛屏
 Test Date:2014-01-13

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: LED:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	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	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198
5	6106	6103	6101	6100	6100	6103	6110	6119	6111	6106	6109	6123	6156	6184	6186	6162	6139	6168	6186
10	5911	5868	5842	5839	5839	5855	5893	5953	5985	6006	6038	6079	6097	6112	6087	6109	6080	6107	6075
15	4982	4928	4910	4928	4986	5026	5086	5125	5116	5129	5141	5107	5054	5032	4996	4952	4934	4942	4966
20	3804	3770	3761	3773	3800	3802	3810	3842	3882	3887	3888	3878	3858	3828	3817	3800	3787	3782	3781
25	2880	2873	2892	2887	2860	2841	2832	2844	2859	2890	2903	2911	2913	2922	2924	2920	2911	2908	2907
30	2086	2111	2106	2084	2074	2080	2072	2069	2054	2070	2086	2089	2079	2076	2067	2047	2034	2039	2050
35	1401	1434	1400	1388	1401	1391	1383	1370	1362	1347	1362	1373	1373	1375	1380	1372	1365	1371	1380
40	795	792	778	799	769	754	748	742	760	752	738	732	739	720	710	703	696	708	721
45	258	255	254	282	258	240	296	288	254	220	235	295	336	352	358	358	356	361	363
50	19.6	21.0	20.9	32.2	19.2	32.3	61.4	17.7	26.8	61.6	91.0	100	89.8	68.6	42.6	23.5	16.5	23.6	42.9
55	19.0	18.4	19.5	18.8	20.4	19.3	18.9	21.8	23.2	21.6	17.8	17.6	19.2	20.7	22.1	22.8	23.1	22.8	22.1
60	28.4	27.4	28.2	26.3	27.2	23.8	25.9	27.1	21.7	19.4	20.4	22.8	25.8	27.9	29.1	29.5	29.6	29.5	29.0
65	17.7	16.5	15.6	16.6	14.2	15.8	15.8	12.9	11.3	14.3	17.3	18.5	18.5	17.9	17.1	16.4	16.2	16.4	17.1
70	3.12	3.23	3.31	3.21	3.78	4.64	2.70	3.59	5.47	7.02	7.47	6.77	5.59	4.39	3.45	2.90	2.75	2.98	3.61
75	3.12	2.95	2.95	2.88	2.83	2.28	2.48	2.99	3.01	2.70	2.37	2.10	1.95	1.85	1.81	1.81	1.82	1.85	1.91
80	1.19	1.18	1.18	1.22	1.04	1.24	1.42	1.44	1.33	1.17	1.04	0.95	0.91	0.89	0.89	0.89	0.90	0.90	0.91
85	0.27	0.29	0.27	0.23	0.26	0.26	0.23	0.20	0.17	0.13	0.10	0.08	0.05	0.03	0.01	0.00	0.00	0.00	0.01
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:梅媛屏
 Test Date:2014-01-13

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: LED:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:226.0V I:2.238A P:499.9W PF:0.9850 Lamp Flux:44784.5x1 lm		
NAME: LED HIGH BAY LIGHT	TYPE:	WEIGHT:13
SPEC.:CREE XTE	DIM.:	SERIAL No.:
MFR.: QINHAN LIGHTING	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	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198	6198				
5	6172	6162	6169	6178	6165	6155	6150	6160	6166	6164	6165	6166	6170	6175	6181				
10	6087	6068	6064	6029	5997	5962	5919	5896	5889	5877	5880	5910	5946	5986	6034				
15	4998	5032	5074	5093	5107	5125	5157	5137	5078	5006	4960	4939	4942	4968	5022				
20	3807	3828	3834	3864	3866	3882	3875	3843	3847	3854	3801	3776	3769	3792	3839				
25	2901	2880	2874	2866	2868	2834	2850	2834	2845	2857	2884	2882	2858	2855	2874				
30	2062	2075	2076	2076	2063	2048	2055	2051	2058	2062	2073	2094	2103	2062	2062				
35	1376	1377	1369	1359	1341	1351	1371	1371	1374	1378	1380	1390	1429	1387	1377				
40	722	738	736	741	751	761	755	752	760	765	782	774	796	796	782				
45	354	338	298	242	219	258	295	310	258	258	272	246	255	269	254				
50	68.4	90.9	102	93.3	62.1	27.3	18.3	64.4	34.5	21.4	31.5	22.1	22.5	21.5	20.5				
55	20.8	19.1	17.4	17.2	20.7	23.1	21.9	19.1	18.8	20.7	18.2	18.9	17.9	18.3	17.7				
60	27.9	25.8	22.9	20.2	18.9	21.3	27.4	26.9	24.2	28.0	26.9	29.2	28.6	29.3	29.9				
65	18.0	18.7	18.8	17.7	14.5	11.3	13.3	16.9	16.3	14.5	16.9	15.6	16.8	17.2	17.8				
70	4.63	5.90	7.17	7.90	7.28	5.62	3.77	3.24	5.40	4.24	3.84	3.78	3.84	3.64	3.58				
75	2.01	2.16	2.39	2.71	3.05	3.26	3.05	2.57	2.66	3.26	3.04	3.37	3.34	3.50	3.57				
80	0.92	0.94	1.01	1.12	1.27	1.41	1.46	1.37	1.17	1.02	1.18	1.10	1.11	1.08	1.10				
85	0.03	0.05	0.08	0.11	0.14	0.17	0.21	0.25	0.29	0.32	0.31	0.30	0.35	0.34	0.36				
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:梅媛屏
 Test Date:2014-01-13

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: LED: