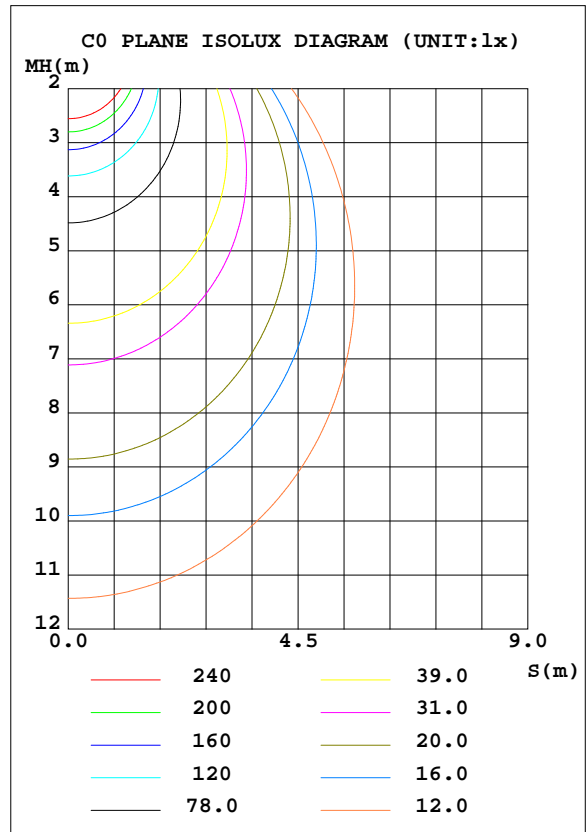
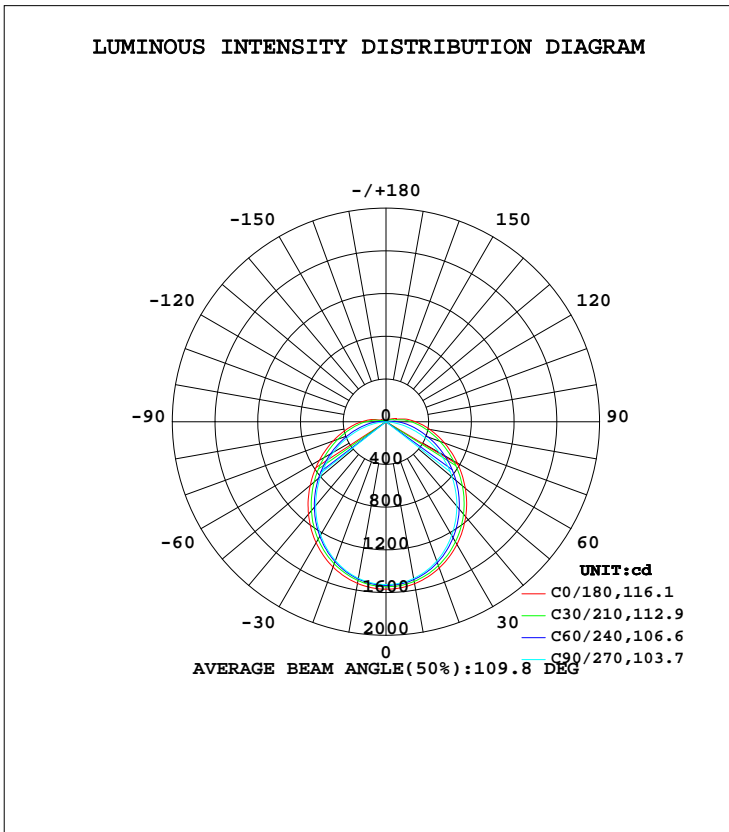


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 105.12 lm/W			
MODEL		I _{max} (cd)	1568	S/MH(C0/180)	1.24
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.20
RATED VOLTAGE(V)		TOTAL FLUX(lm)	4714.4	η UP, DN(C0-180)	2.5,47.9
NOMINAL FLUX(lm)	4714.39	CIE CLASS	DIRECT	η UP, DN(C180-360)	2.3,47.3
LAMPS INSIDE	1	η up(%)	4.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)		η down(%)	95.2	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:24DEG
 Operators:苏盛笙
 Test Date:2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity:58%
 Test Distance:15.050m [K=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

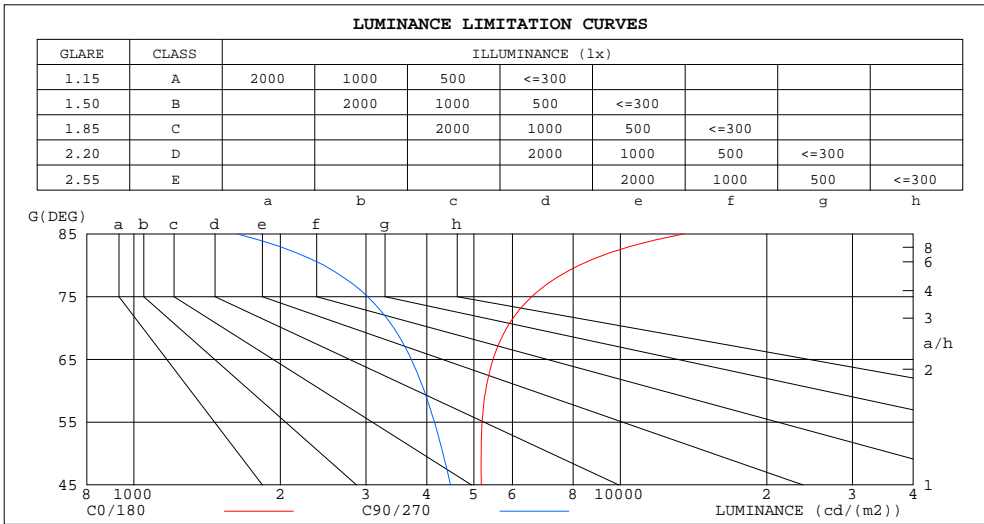
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum,lamp
10	1541	1510	1490	1478	1537	1503	1488	1485	0- 10	144.8	144.8	3.07,3.07
20	1458	1419	1389	1382	1448	1406	1385	1396	10- 20	412.0	556.8	11.8,11.8
30	1328	1278	1230	1233	1309	1255	1225	1256	20- 30	617.2	1174	24.9,24.9
40	1161	1098	1032	1046	1129	1066	1025	1079	30- 40	733.7	1908	40.5,40.5
50	970.2	894.8	809.4	836.0	926.2	852.4	801.9	878.6	40- 50	752.4	2660	56.4,56.4
60	771.0	682.0	576.2	621.9	719.1	634.6	568.3	669.5	50- 60	681.3	3341	70.9,70.9
70	582.5	479.4	341.3	422.7	527.1	432.0	334.6	469.8	60- 70	544.8	3886	82.4,82.4
80	416.9	306.2	124.5	256.9	361.8	262.9	118.9	300.1	70- 80	378.1	4264	90.5,90.5
90	277.9	175.9	1.916	136.7	228.9	139.9	1.526	163.3	80- 90	222.0	4486	95.2,95.2
100	155.1	70.24	2.499	52.91	125.6	53.98	2.349	65.25	90-100	113.8	4600	97.6,97.6
110	89.67	39.16	3.948	24.23	49.91	25.06	3.825	37.39	100-110	46.00	4646	98.6,98.6
120	52.28	24.69	5.277	15.65	33.34	16.02	5.175	24.03	110-120	26.93	4673	99.1,99.1
130	32.70	16.99	6.578	11.38	21.41	11.70	6.456	16.54	120-130	16.04	4689	99.5,99.5
140	21.38	11.70	7.811	9.425	14.18	9.767	7.705	11.69	130-140	10.23	4699	99.7,99.7
150	13.31	10.11	8.944	9.113	10.43	9.312	8.809	10.10	140-150	6.563	4706	99.8,99.8
160	11.29	10.18	9.895	9.738	10.19	9.803	9.664	10.11	150-160	4.583	4710	99.9,99.9
170	10.86	10.52	10.45	10.34	10.75	10.40	10.24	10.37	160-170	2.905	4713	100,100
180	10.98	10.73	10.57	10.51	11.11	10.65	10.49	10.51	170-180	1.007	4714	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:24DEG
 Operators:苏盛笙
 Test Date:2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity:58%
 Test Distance:15.050m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	13514	1627
80	8233	2458
75	6576	3023
70	5841	3422
65	5473	3717
60	5288	3952
55	5197	4149
50	5176	4318
45	5179	4476

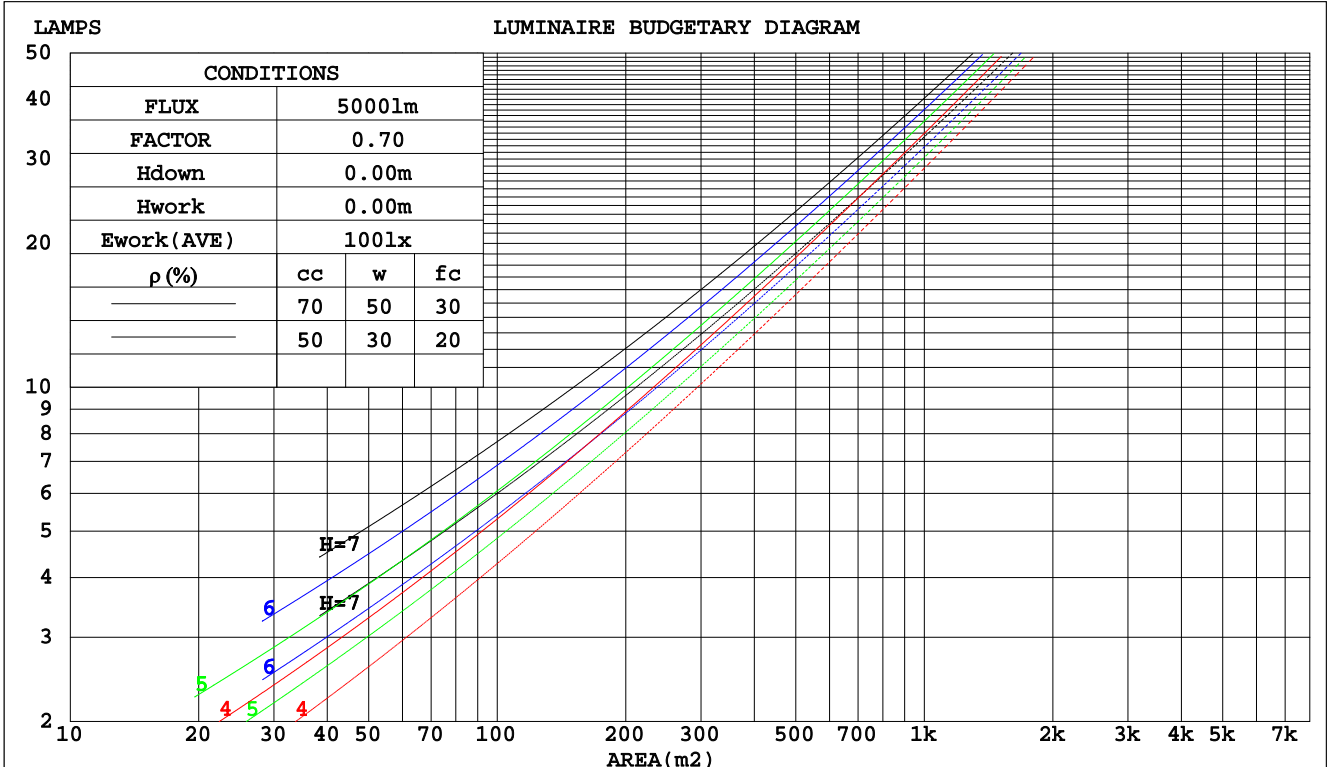
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding 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	1.18	1.18	1.18	1.15	1.15	1.15	1.08	1.08	1.08	1.03	1.03	1.03	.98	.98	.98	.95
1.0	1.01	.96	.92	.98	.94	.90	.93	.89	.86	.88	.85	.83	.84	.82	.79	.77
2.0	.87	.80	.74	.85	.78	.73	.81	.75	.70	.77	.72	.68	.73	.69	.66	.63
3.0	.77	.68	.61	.75	.67	.60	.71	.64	.59	.67	.62	.57	.64	.60	.55	.53
4.0	.68	.59	.52	.66	.58	.51	.63	.56	.50	.60	.54	.49	.57	.52	.48	.45
5.0	.60	.51	.44	.59	.50	.44	.56	.49	.43	.54	.47	.42	.52	.46	.41	.39
6.0	.54	.45	.39	.53	.45	.38	.51	.43	.38	.49	.42	.37	.47	.41	.36	.34
7.0	.49	.40	.34	.48	.40	.34	.46	.39	.33	.44	.38	.33	.43	.37	.32	.30
8.0	.45	.36	.31	.44	.36	.30	.42	.35	.30	.41	.34	.29	.39	.33	.29	.27
9.0	.41	.33	.27	.41	.33	.27	.39	.32	.27	.38	.31	.26	.36	.30	.26	.24
10.0	.38	.30	.25	.37	.30	.25	.36	.29	.24	.35	.28	.24	.34	.28	.24	.22



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding 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	.343	.195	.062	.334	.191	.061	.318	.183	.058	.303	.175	.056	.290	.168	.054	
2.0	.309	.169	.052	.301	.166	.051	.287	.159	.050	.274	.153	.048	.261	.148	.047	
3.0	.280	.149	.045	.273	.146	.044	.260	.141	.043	.249	.136	.042	.238	.132	.041	
4.0	.256	.133	.039	.249	.131	.039	.238	.126	.038	.227	.122	.037	.217	.118	.036	
5.0	.234	.119	.035	.229	.118	.034	.219	.114	.034	.209	.110	.033	.200	.107	.032	
6.0	.216	.108	.031	.211	.107	.031	.202	.104	.030	.194	.101	.030	.185	.098	.029	
7.0	.201	.099	.028	.196	.098	.028	.188	.095	.027	.180	.092	.027	.173	.090	.026	
8.0	.187	.091	.026	.183	.090	.025	.175	.088	.025	.168	.085	.025	.162	.083	.024	
9.0	.175	.085	.024	.171	.083	.023	.164	.081	.023	.158	.079	.023	.152	.077	.022	
10.0	.164	.079	.022	.161	.078	.022	.155	.076	.021	.149	.074	.021	.143	.072	.021	

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	.227	.227	.227	.194	.194	.194	.133	.133	.133	.076	.076	.076	.024	.024	.024	
1.0	.220	.193	.169	.188	.166	.145	.129	.114	.101	.074	.066	.058	.024	.021	.019	
2.0	.212	.169	.133	.182	.146	.115	.124	.101	.080	.072	.059	.047	.023	.019	.015	
3.0	.204	.152	.110	.175	.131	.096	.120	.091	.067	.069	.053	.040	.022	.017	.013	
4.0	.196	.139	.095	.168	.120	.083	.116	.084	.058	.067	.049	.034	.022	.016	.011	
5.0	.189	.129	.084	.162	.111	.073	.112	.078	.052	.065	.046	.031	.021	.015	.010	
6.0	.181	.120	.077	.156	.104	.067	.107	.073	.047	.062	.043	.028	.020	.014	.009	
7.0	.174	.114	.071	.150	.098	.062	.104	.069	.044	.060	.041	.026	.019	.013	.009	
8.0	.168	.108	.067	.144	.094	.058	.100	.066	.041	.058	.039	.025	.019	.013	.008	
9.0	.161	.103	.063	.139	.089	.055	.096	.063	.039	.056	.037	.023	.018	.012	.008	
10.0	.156	.099	.061	.134	.086	.053	.093	.060	.038	.054	.036	.022	.018	.012	.007	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:

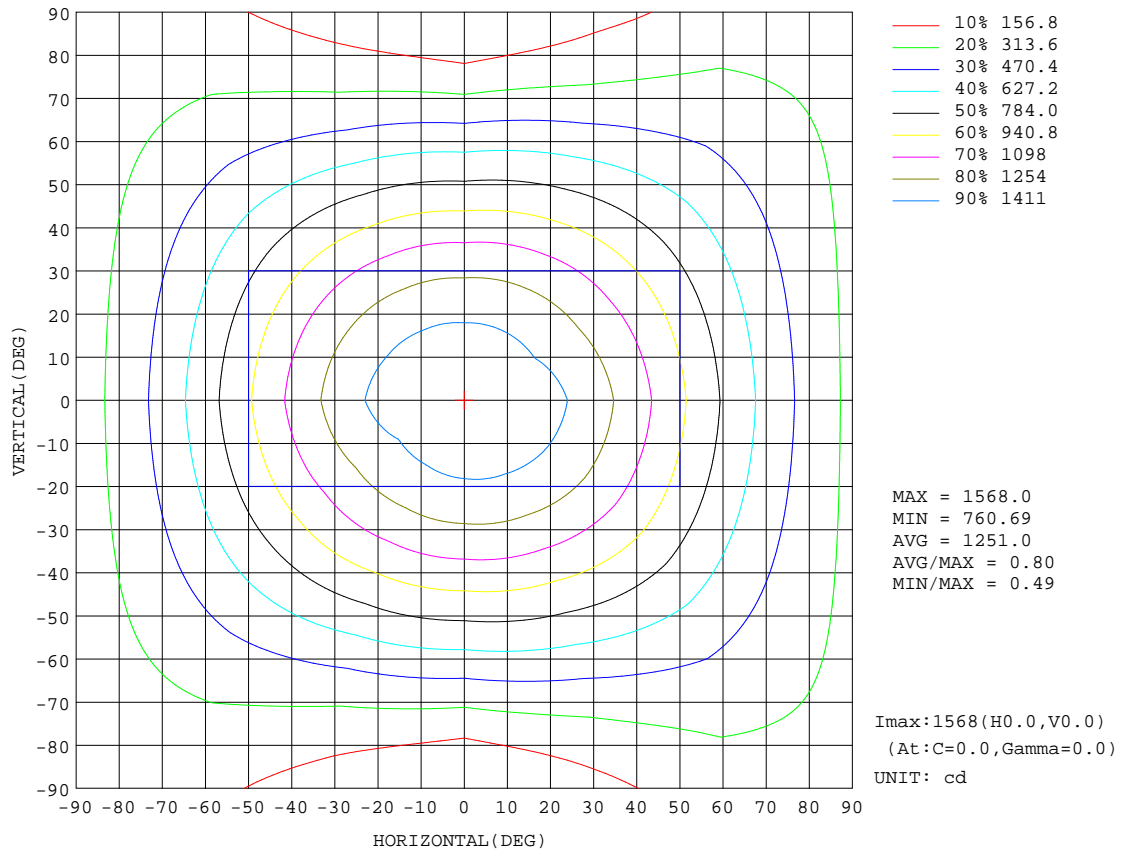
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	36	54	43	36	53	42	36	29
0.80	65	53	45	64	52	45	61	51	44	37
1.00	73	61	53	71	60	53	69	62	52	45
1.25	80	68	61	78	68	60	75	66	59	51
1.50	85	74	66	83	73	66	79	71	64	56
2.00	91	82	75	89	81	74	85	78	72	63
2.50	95	87	80	93	85	79	89	82	77	67
3.00	99	91	85	96	89	84	92	86	81	71
4.00	103	97	91	100	94	89	95	90	86	76
5.00	106	100	95	103	98	93	98	93	90	79
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: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:

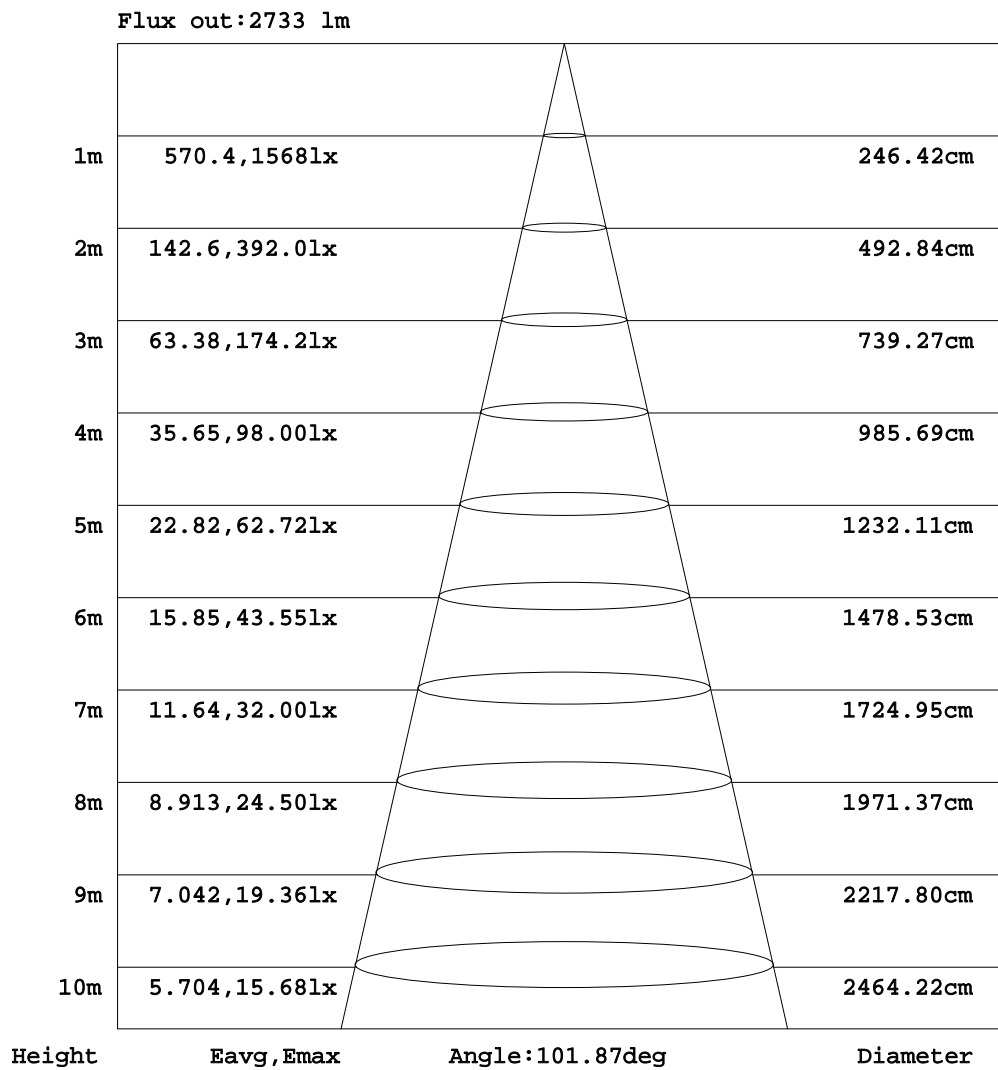


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:24DEG
 Operators:苏盛笙
 Test Date:2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity:58%
 Test Distance:15.050m [K=1.0000]
 Remarks:

AAI Figure

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:



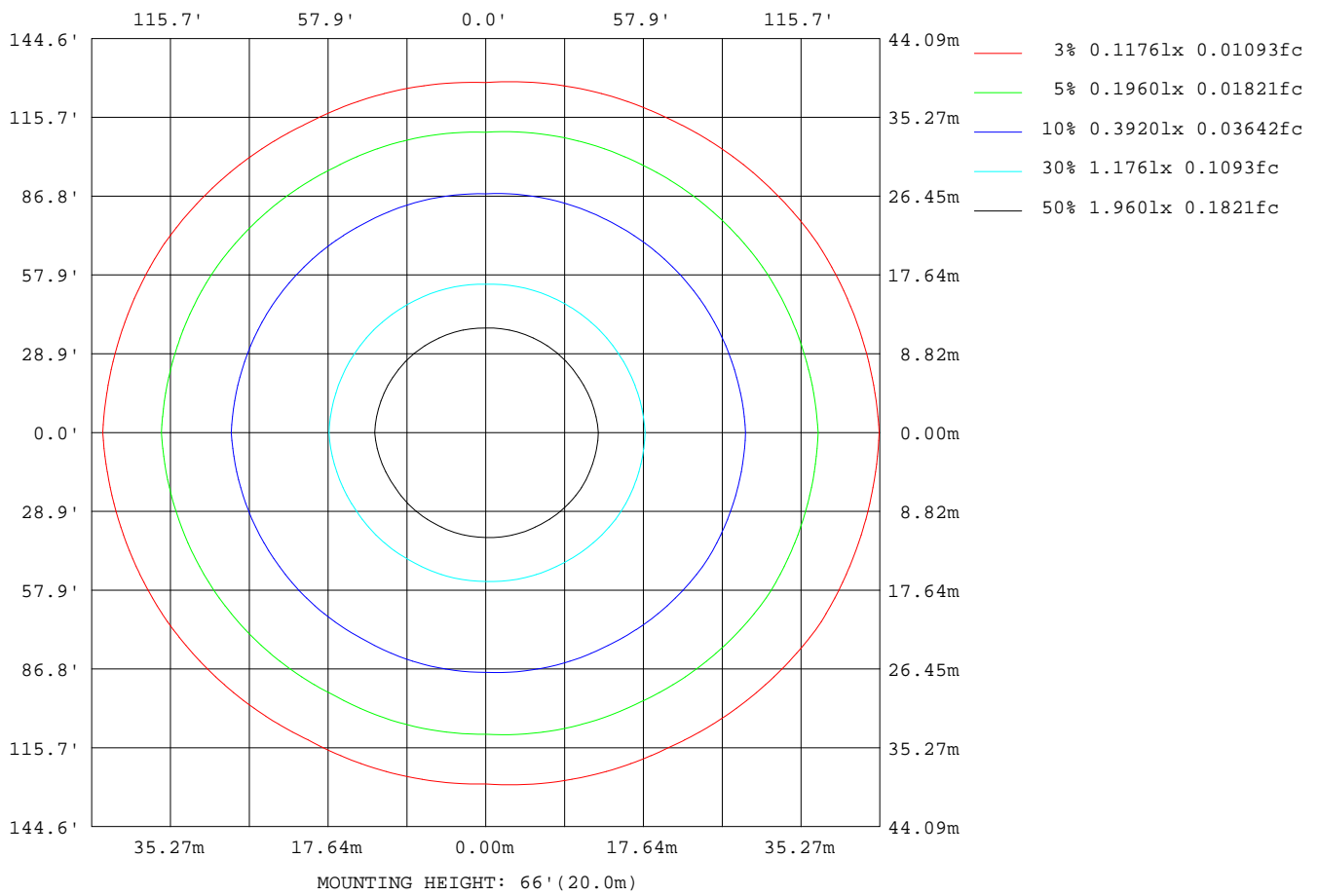
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:24DEG
 Operators:苏盛笙
 Test Date:2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity:58%
 Test Distance:15.050m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:

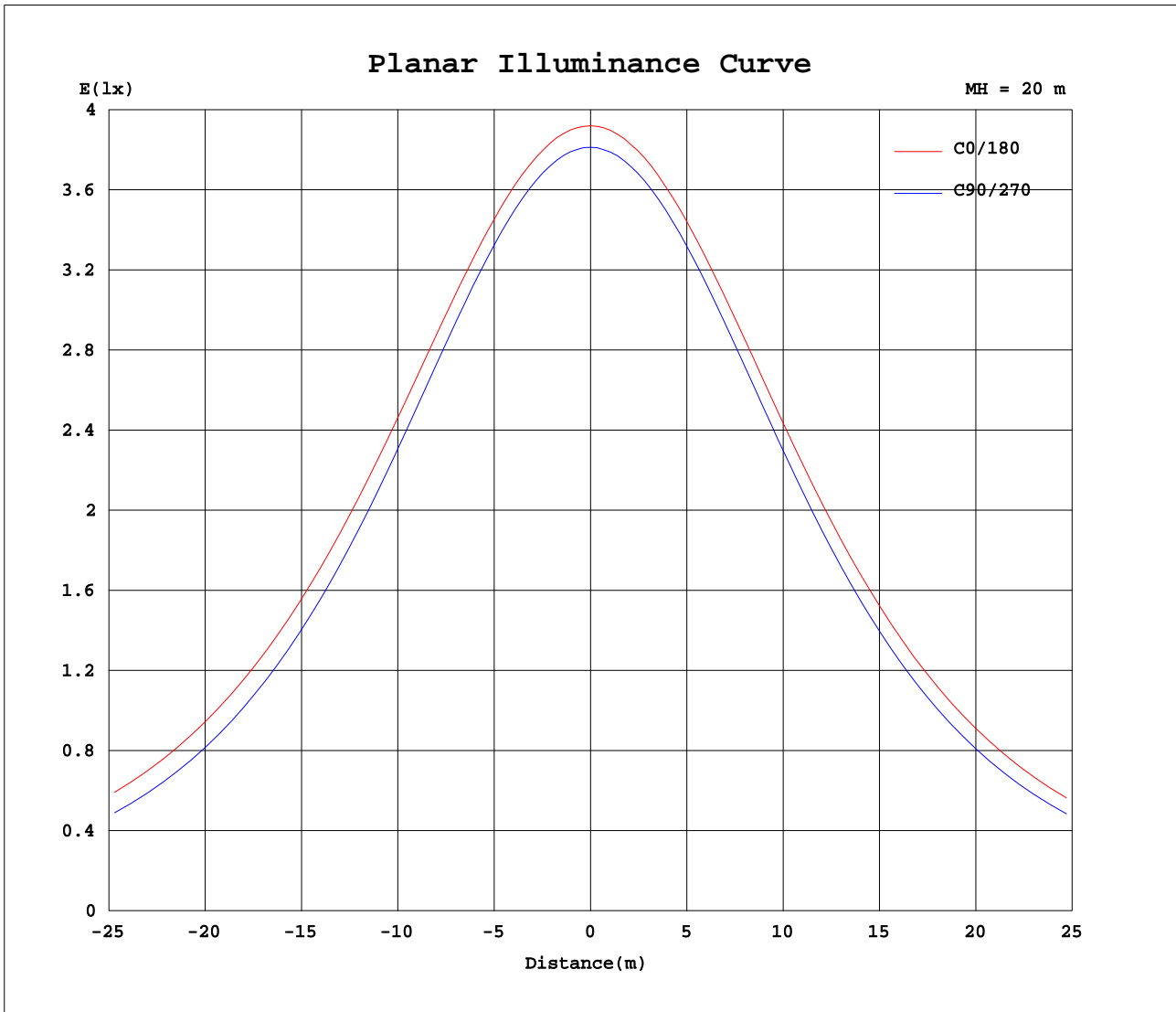
AvgL	cd/m2
L_0~180(65)av	5254
L_0~180(75)av	6204
L_0~180(85)av	12481
L_90~270(65)av	3690
L_90~270(75)av	2981
L_90~270(85)av	1559
L_45(65)av	4450
L_45(75)av	4813
L_45(85)av	8511

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 24DEG
 Operators: 苏盛笙
 Test Date: 2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity: 58%
 Test Distance: 15.050m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.16V I:0.1991A P:44.848W PF:0.9787 Freq:49.99Hz Lamp Flux:4714.39x1 lm		
NAME: F1146-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: FILUX	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG)\γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	1568	1545	1533	1525	1517	1511	1568	1545	1533	1525	1517	1511							
5	1562	1540	1525	1517	1506	1501	1560	1536	1523	1516	1510	1505							
10	1541	1518	1501	1490	1479	1477	1537	1510	1496	1488	1487	1484							
15	1506	1482	1460	1447	1436	1438	1499	1470	1453	1444	1447	1449							
20	1458	1433	1405	1389	1378	1385	1448	1417	1395	1385	1392	1400							
25	1397	1372	1336	1315	1307	1320	1384	1349	1322	1311	1324	1340							
30	1328	1300	1256	1230	1223	1243	1309	1271	1239	1225	1243	1269							
35	1248	1219	1165	1135	1130	1157	1224	1183	1145	1129	1155	1189							
40	1161	1129	1067	1032	1028	1064	1129	1087	1044	1025	1057	1101							
45	1068	1034	963	923	922	965	1030	985	937	915	955	1008							
50	970	934	855	809	812	860	926	879	825	802	848	909							
55	869	832	745	694	699	757	822	774	712	686	738	810							
60	771	730	634	576	588	656	719	670	599	568	629	710							
65	675	631	524	458	480	559	620	571	489	451	520	615							
70	583	538	421	341	377	468	527	479	385	335	415	525							
75	496	451	325	228	284	386	440	393	291	222	319	442							
80	417	372	241	124	203	311	362	316	209	119	236	364							
85	343	300	170	41.4	137	244	291	248	142	37.9	166	289							
90	278	237	115	1.92	86.6	187	229	189	90.5	1.53	102	224							
95	222	184	57.2	1.81	45.2	139	176	141	49.7	1.68	52.6	177							
100	155	108	32.0	2.50	18.8	87.0	126	86.9	21.0	2.35	31.1	99.4							
105	96.8	77.9	22.5	3.22	14.3	47.6	64.9	49.3	15.5	3.07	21.8	75.7							
110	89.7	60.3	18.1	3.95	11.2	37.3	49.9	38.2	12.0	3.82	17.2	57.6							
115	68.4	46.4	15.4	4.62	9.47	29.1	45.0	29.1	10.0	4.50	14.8	46.3							
120	52.3	36.4	12.9	5.28	8.37	22.9	33.3	23.3	8.73	5.18	12.5	35.6							
125	40.6	29.6	9.90	5.92	7.76	18.7	26.7	19.1	7.97	5.80	9.65	29.1							
130	32.7	24.7	9.32	6.58	7.50	15.3	21.4	15.7	7.66	6.46	8.78	24.3							
135	26.9	20.4	9.04	7.19	7.49	12.8	17.3	13.2	7.79	7.07	8.76	19.9							
140	21.4	14.5	8.94	7.81	7.82	11.0	14.2	11.4	8.17	7.71	8.84	14.5							
145	15.2	12.8	8.94	8.42	8.28	9.81	11.9	10.2	8.58	8.30	8.94	12.4							
150	13.3	11.1	9.15	8.94	8.77	9.45	10.4	9.58	9.04	8.81	9.25	10.9							
155	11.9	10.5	9.48	9.45	9.24	9.58	10.0	9.55	9.47	9.27	9.58	10.4							
160	11.3	10.6	9.76	9.90	9.61	9.86	10.2	9.73	9.88	9.66	9.91	10.3							
165	11.0	10.6	10.1	10.3	9.96	10.2	10.5	10.1	10.2	9.99	10.2	10.3							
170	10.9	10.7	10.3	10.5	10.2	10.5	10.7	10.3	10.5	10.2	10.4	10.3							
175	10.9	10.9	10.5	10.6	10.4	10.5	11.1	10.5	10.6	10.3	10.5	10.4							
180	11.0	10.9	10.6	10.6	10.5	10.5	11.1	10.7	10.7	10.5	10.5	10.5							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:24DEG
 Operators:苏盛笙
 Test Date:2019-09-18

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.406.11
 Humidity:58%
 Test Distance:15.050m [K=1.0000]
 Remarks: