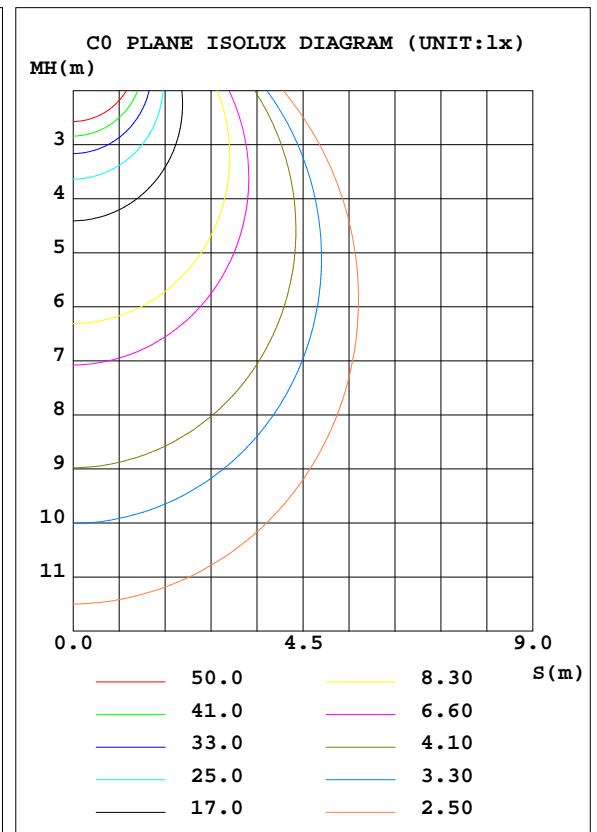
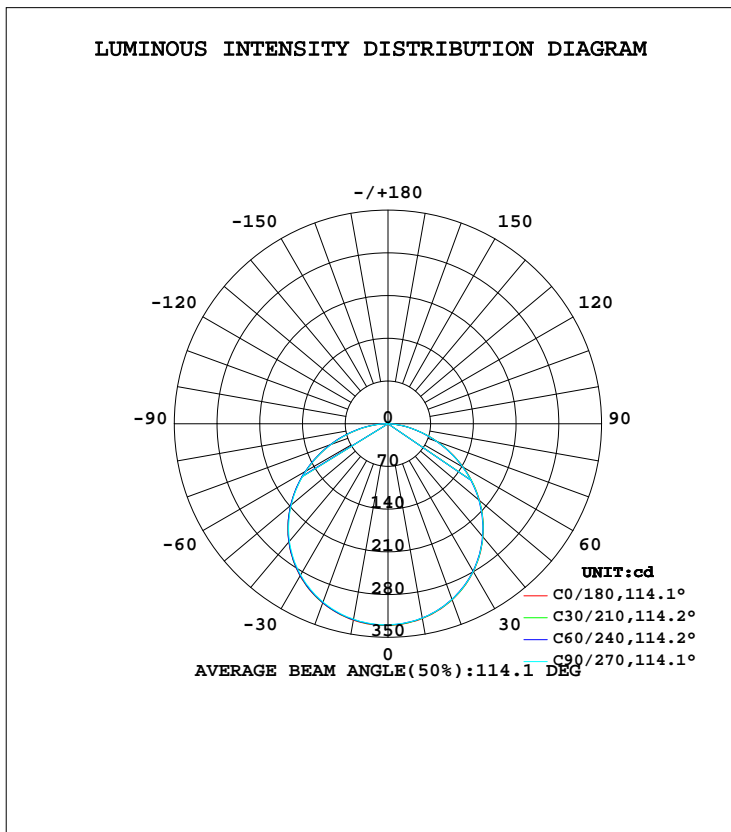


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 73.96 lm/W			
MODEL		I <sub>max</sub> (cd)	330.8	S/MH(C0/180)	1.26
NOMINAL POWER(W)	12	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	976.15	η UP, DN(C0-180)	0.9, 47.7
NOMINAL FLUX(lm)	976.15	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.6, 50.9
LAMPS INSIDE	1	η up(%)	1.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.3	η down(%)	98.5	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [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	324.0	323.3	323.3	323.0	326.8	326.1	325.3	324.5	0- 10	31.21	31.21	3.2,3.2
20	307.2	306.4	306.5	306.8	312.6	312.1	311.0	309.8	10- 20	89.79	121.0	12.4,12.4
30	279.6	279.0	279.3	279.9	288.1	287.5	286.2	284.9	20- 30	137.0	258.0	26.4,26.4
40	242.2	241.4	241.7	242.7	252.6	252.4	251.3	249.8	30- 40	166.4	424.4	43.5,43.5
50	195.8	194.9	194.9	196.3	208.0	208.3	206.9	205.2	40- 50	173.5	597.9	61.3,61.3
60	142.3	141.2	140.9	142.7	155.6	156.5	155.3	153.4	50- 60	156.9	754.8	77.3,77.3
70	86.00	85.25	85.24	86.68	99.10	100.7	99.22	97.37	60- 70	119.3	874.1	89.5,89.5
80	33.06	33.02	33.43	34.16	43.77	45.90	44.72	43.22	70- 80	68.64	942.7	96.6,96.6
90	1.909	1.886	1.886	1.953	2.887	3.828	3.411	2.775	80- 90	19.10	961.8	98.5,98.5
100	2.141	2.131	2.160	2.162	1.194	1.259	1.250	1.256	90-100	1.830	963.7	98.7,98.7
110	2.428	2.395	2.439	2.413	1.437	1.451	1.467	1.447	100-110	1.917	965.6	98.9,98.9
120	2.668	2.641	2.653	2.671	1.713	1.723	1.715	1.715	110-120	2.041	967.6	99.1,99.1
130	2.872	2.862	2.865	2.874	2.023	2.032	2.015	2.020	120-130	2.077	969.7	99.3,99.3
140	3.051	3.063	3.054	3.050	2.338	2.369	2.343	2.347	130-140	1.991	971.7	99.5,99.5
150	3.203	3.219	3.198	3.196	2.661	2.709	2.676	2.680	140-150	1.772	973.5	99.7,99.7
160	3.374	3.357	3.361	3.344	3.013	3.038	3.012	3.014	150-160	1.417	974.9	99.9,99.9
170	3.495	3.480	3.488	3.484	3.312	3.325	3.314	3.311	160-170	0.9326	975.8	100,100
180	3.526	3.524	3.539	3.542	3.526	3.528	3.537	3.546	170-180	0.3298	976.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

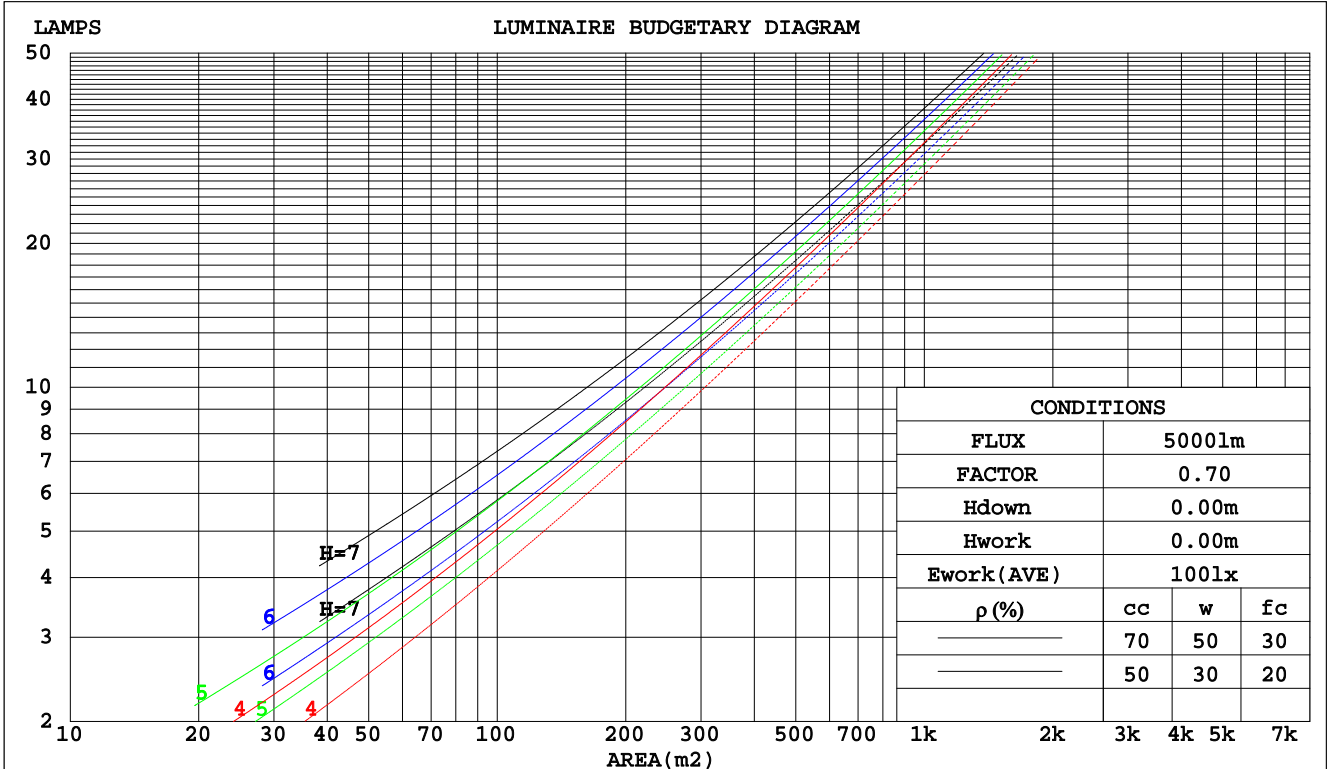
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	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																
pfc																
RCR	RCR:Room Cavity Ratio															
	Coefficients of Utilization(CU)															
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	.99
1.0	1.03	.99	.95	1.01	.97	.94	.96	.93	.90	.92	.90	.87	.88	.86	.84	.82
2.0	.90	.83	.77	.88	.82	.76	.84	.79	.74	.81	.76	.72	.77	.74	.71	.68
3.0	.79	.71	.64	.77	.70	.63	.74	.67	.62	.71	.65	.61	.68	.64	.60	.57
4.0	.70	.61	.54	.68	.60	.54	.66	.58	.53	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.47	.61	.53	.46	.59	.51	.46	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.41	.55	.46	.40	.53	.45	.40	.51	.44	.39	.49	.44	.39	.37
7.0	.51	.42	.36	.50	.41	.36	.48	.41	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.46	.37	.32	.44	.37	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.37	.30	.26	.36	.30	.25	.35	.30	.25	.23



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

WEC AND CCEC

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	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	.311	.177	.056	.304	.173	.055	.290	.166	.053	.277	.160	.051	.265	.153	.049	
2.0	.293	.160	.049	.286	.158	.049	.273	.152	.047	.262	.147	.046	.251	.142	.045	
3.0	.271	.144	.043	.265	.142	.043	.254	.137	.042	.243	.133	.041	.234	.130	.040	
4.0	.250	.130	.038	.244	.128	.038	.235	.124	.037	.225	.121	.037	.217	.118	.036	
5.0	.231	.118	.034	.226	.116	.034	.217	.113	.033	.209	.110	.033	.201	.108	.032	
6.0	.214	.107	.031	.210	.106	.030	.202	.103	.030	.195	.101	.030	.188	.099	.029	
7.0	.199	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.091	.027	
8.0	.186	.091	.026	.183	.090	.025	.176	.088	.025	.170	.086	.025	.165	.085	.025	
9.0	.174	.084	.024	.171	.083	.023	.165	.082	.023	.160	.080	.023	.155	.079	.023	
10.0	.164	.078	.022	.161	.078	.022	.156	.076	.022	.151	.075	.021	.146	.074	.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	.202	.202	.202	.172	.172	.172	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.192	.167	.146	.164	.144	.125	.112	.099	.087	.065	.057	.050	.021	.018	.016	
2.0	.184	.143	.109	.157	.123	.094	.108	.085	.066	.062	.050	.039	.020	.016	.013	
3.0	.176	.126	.086	.151	.108	.074	.104	.075	.052	.060	.044	.031	.019	.014	.010	
4.0	.168	.112	.070	.145	.097	.061	.099	.068	.043	.057	.040	.025	.018	.013	.008	
5.0	.161	.102	.059	.138	.088	.051	.095	.062	.036	.055	.036	.021	.018	.012	.007	
6.0	.154	.094	.051	.132	.081	.044	.091	.057	.031	.053	.033	.019	.017	.011	.006	
7.0	.147	.087	.045	.126	.075	.039	.087	.053	.028	.051	.031	.016	.016	.010	.005	
8.0	.141	.081	.040	.121	.070	.035	.084	.049	.025	.049	.029	.015	.016	.010	.005	
9.0	.135	.076	.037	.116	.066	.032	.080	.046	.023	.047	.027	.014	.015	.009	.005	
10.0	.129	.072	.034	.111	.062	.030	.077	.044	.021	.045	.026	.013	.015	.009	.004	

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

NAME: SLIMB180-4K		TYPE:4000K					WEIGHT:				
DIM.: D180*15mm		SPEC.:D180 Dimmable 4000K					SERIAL No.:1				
MFR.: EVERFINE		SUR.:0.126*0.126					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	23.7	25.2	24.0	25.4	25.6	23.6	25.1	23.9	25.4	25.6	
3H	25.1	26.5	25.4	26.8	27.0	25.1	26.4	25.4	26.7	27.0	
4H	25.6	27.0	26.0	27.2	27.5	25.6	26.9	25.9	27.2	27.5	
6H	26.0	27.2	26.3	27.5	27.8	25.9	27.2	26.3	27.5	27.8	
8H	26.1	27.3	26.4	27.6	27.9	26.0	27.2	26.4	27.6	27.9	
12H	26.1	27.3	26.5	27.6	27.9	26.1	27.2	26.5	27.6	27.9	
4H 2H	24.2	25.6	24.6	25.8	26.1	24.2	25.5	24.5	25.8	26.1	
3H	25.9	27.0	26.2	27.3	27.7	25.8	27.0	26.2	27.3	27.6	
4H	26.5	27.6	26.9	27.9	28.3	26.5	27.5	26.9	27.9	28.2	
6H	27.0	27.9	27.4	28.3	28.7	26.9	27.9	27.4	28.2	28.6	
8H	27.1	28.0	27.5	28.4	28.8	27.1	27.9	27.5	28.3	28.8	
12H	27.2	28.0	27.6	28.4	28.8	27.1	27.9	27.6	28.4	28.8	
8H 4H	26.7	27.6	27.2	28.0	28.4	26.7	27.6	27.1	28.0	28.4	
6H	27.3	28.1	27.8	28.5	28.9	27.3	28.0	27.8	28.4	28.9	
8H	27.5	28.2	28.0	28.6	29.1	27.5	28.1	28.0	28.6	29.1	
12H	27.6	28.2	28.1	28.7	29.2	27.6	28.2	28.1	28.7	29.2	
12H 4H	26.7	27.5	27.2	27.9	28.4	26.7	27.5	27.1	27.9	28.3	
6H	27.4	28.0	27.8	28.5	28.9	27.3	28.0	27.8	28.4	28.9	
8H	27.6	28.1	28.1	28.6	29.1	27.6	28.1	28.1	28.6	29.1	
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117 Corrected 976.1 lm Total Lamp Luminous Flux. (8log(F/F0) = -0.1)

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	PROTECTION ANGLE:

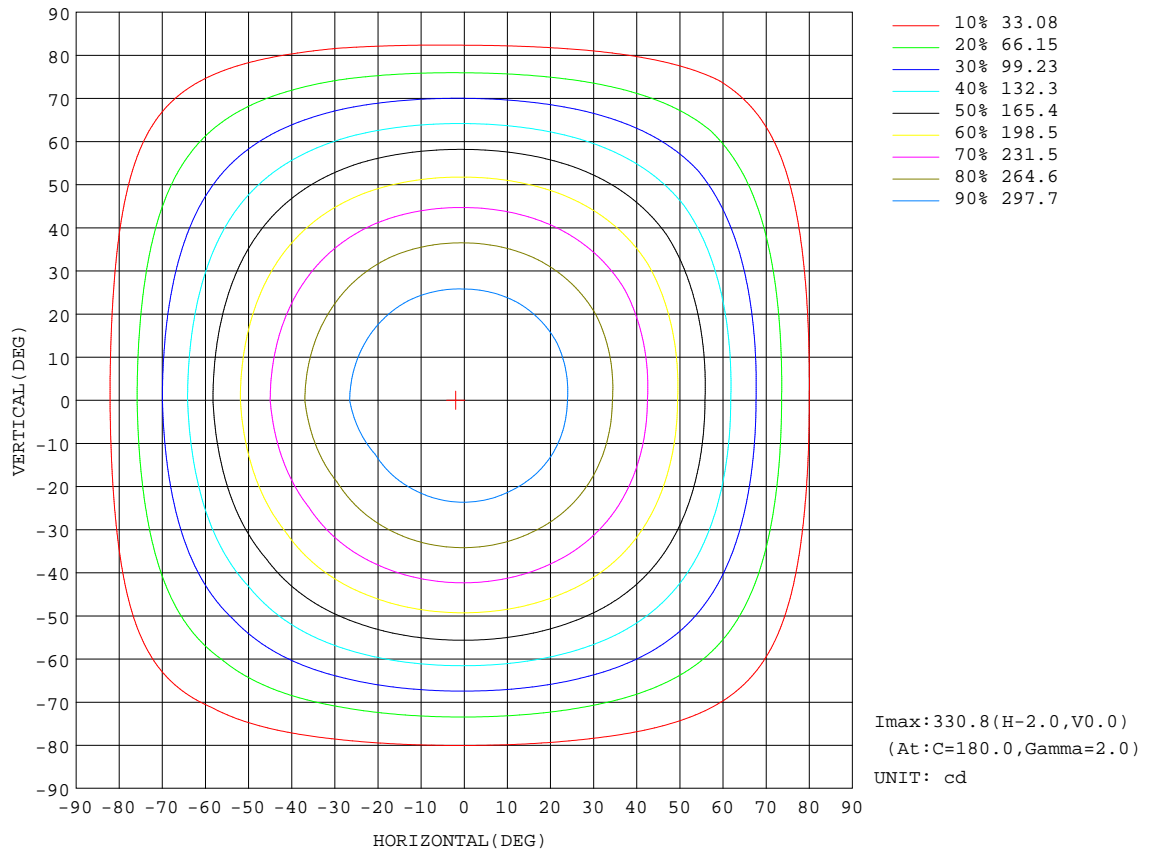
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	63	56	72	65	56	48
1.25	82	72	65	81	71	64	78	69	63	56
1.50	87	77	70	86	76	70	82	75	69	61
2.00	94	86	79	92	84	78	89	82	77	68
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	99	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	94	91	82
5.00	108	103	99	106	101	97	101	97	94	85
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:DAMIN  
 Test Date:2019-03-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	PROTECTION ANGLE:



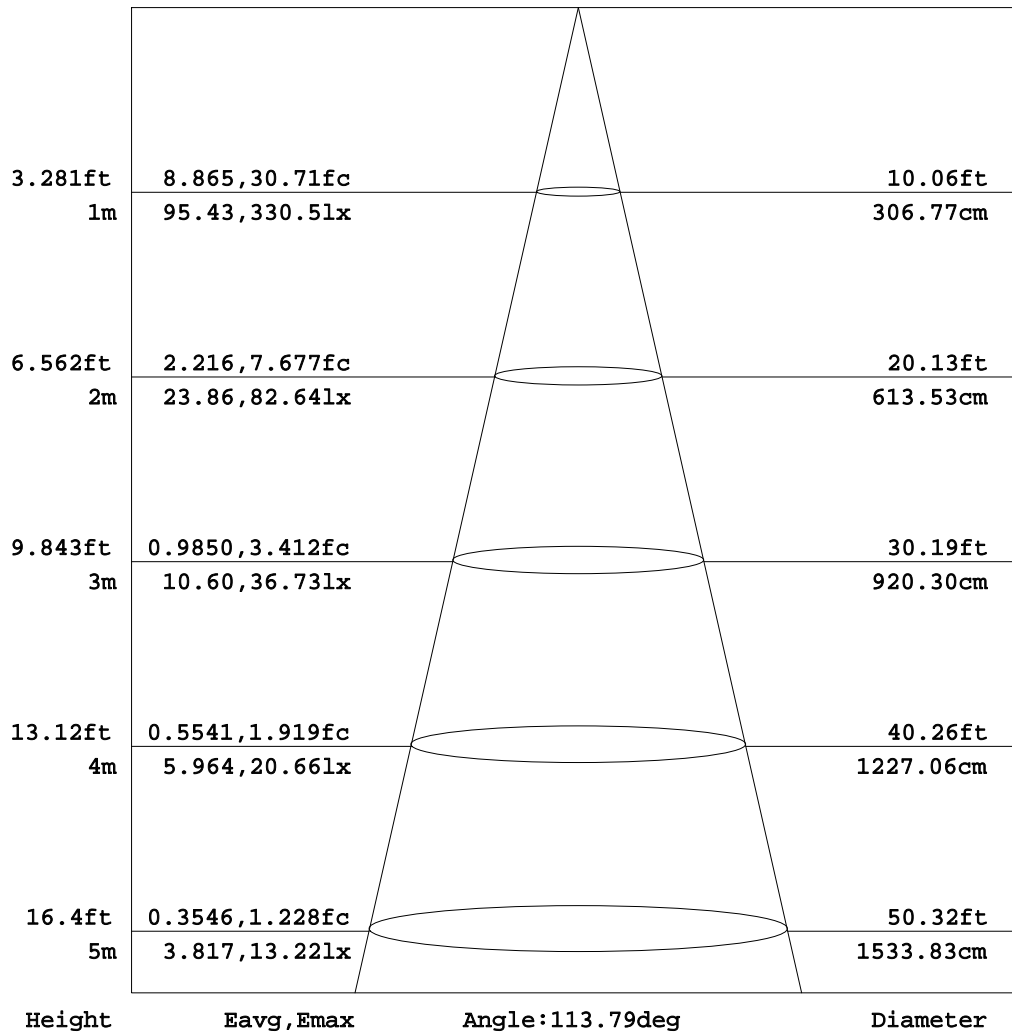
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

**AAI Figure**

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	PROTECTION ANGLE:

Flux out:710.9 lm



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

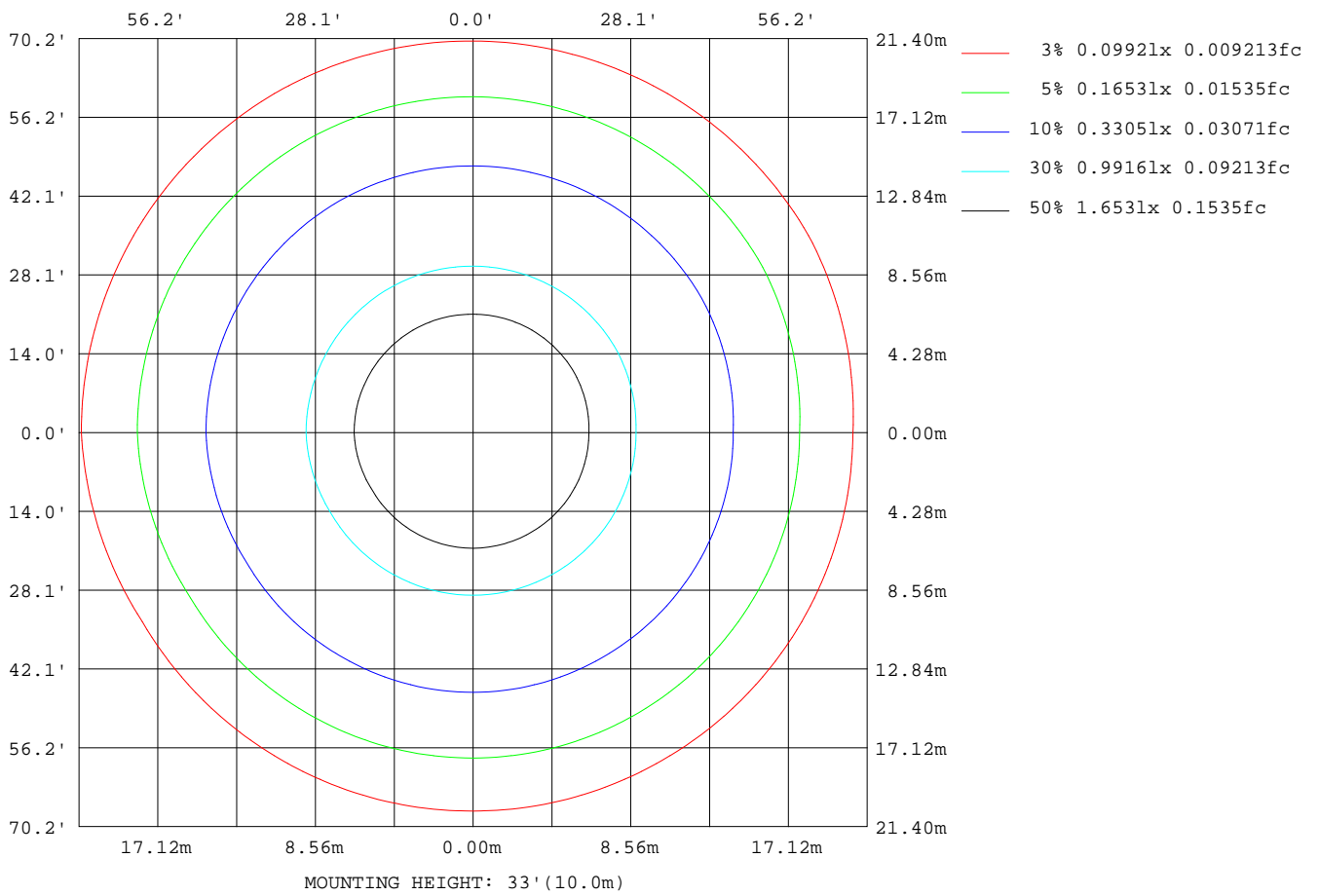
C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:



**ISOLUX DIAGRAM**

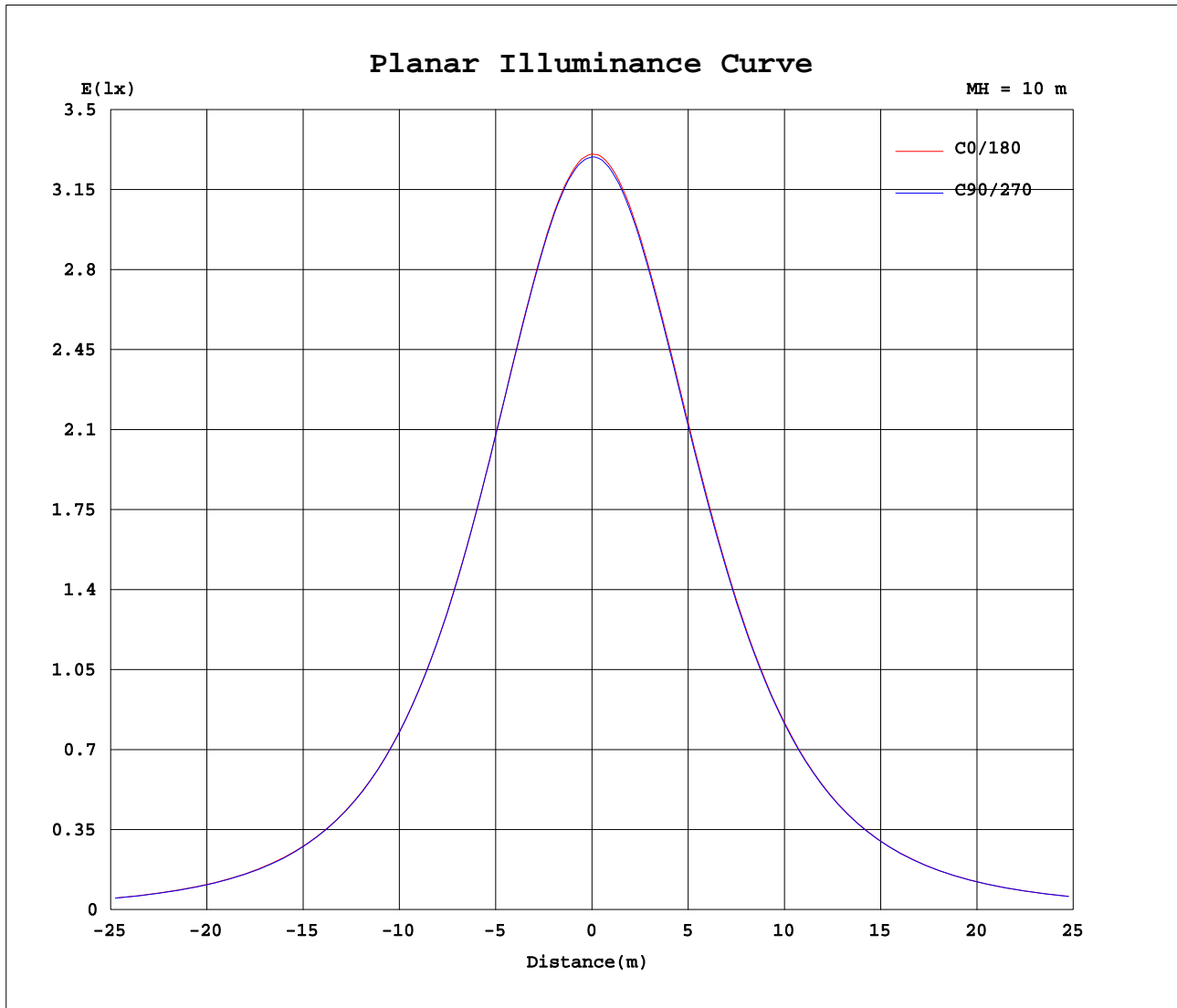
NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: DAMIN  
 Test Date: 2019-03-05

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity: 65.0%  
 Test Distance: 6.400m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: SLIMB180-4K	TYPE:4000K	WEIGHT:
DIM.: D180*15mm	SPEC.:D180 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.126*0.126	PROTECTION ANGLE:

Table--1

UNIT: cd

C( DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	331	330	330	329	329	329	331	330	330	329	329	329							
5	329	328	328	328	327	327	330	329	329	329	328	328							
10	324	324	323	323	323	323	327	326	326	325	325	324							
15	317	316	316	316	316	316	321	320	320	319	319	318							
20	307	307	306	307	306	307	313	312	312	311	310	309							
25	295	294	294	294	294	295	302	301	301	300	299	298							
30	280	279	279	279	279	280	288	288	287	286	286	284							
35	262	262	261	262	262	263	272	271	271	270	269	268							
40	242	242	241	242	242	244	253	252	253	251	251	249							
45	220	219	219	219	220	221	231	231	232	230	229	228							
50	196	195	194	195	195	197	208	208	209	207	206	204							
55	170	170	168	169	169	171	183	183	183	182	181	179							
60	142	141	141	141	142	144	156	156	157	155	154	152							
65	114	114	113	113	114	116	128	128	129	127	127	125							
70	86.0	85.7	84.8	85.2	85.6	87.8	99.1	101	101	99.2	98.2	96.5							
75	58.3	58.4	57.6	58.1	58.3	60.4	70.8	72.3	73.0	71.2	70.4	68.8							
80	33.1	33.1	32.9	33.4	33.6	34.7	43.8	45.3	46.5	44.7	43.9	42.5							
85	11.0	11.2	11.5	12.1	12.5	13.0	19.7	20.9	22.2	20.8	20.2	18.5							
90	1.91	1.89	1.88	1.89	1.91	1.99	2.89	3.41	4.24	3.41	3.44	2.11							
95	2.00	1.99	2.00	2.02	2.05	2.07	1.15	1.21	1.20	1.17	1.24	1.12							
100	2.14	2.12	2.14	2.16	2.15	2.18	1.19	1.26	1.26	1.25	1.30	1.21							
105	2.29	2.26	2.28	2.30	2.30	2.28	1.31	1.34	1.35	1.36	1.37	1.32							
110	2.43	2.39	2.40	2.44	2.43	2.40	1.44	1.45	1.45	1.47	1.45	1.44							
115	2.55	2.52	2.52	2.55	2.55	2.54	1.57	1.58	1.58	1.58	1.58	1.57							
120	2.67	2.64	2.65	2.65	2.67	2.67	1.71	1.73	1.71	1.72	1.71	1.72							
125	2.77	2.75	2.76	2.76	2.78	2.78	1.87	1.88	1.86	1.86	1.86	1.87							
130	2.87	2.87	2.86	2.87	2.88	2.87	2.02	2.04	2.03	2.01	2.02	2.03							
135	2.97	2.97	2.96	2.97	2.97	2.95	2.18	2.20	2.21	2.17	2.18	2.19							
140	3.05	3.07	3.06	3.05	3.06	3.04	2.34	2.36	2.37	2.34	2.34	2.35							
145	3.13	3.15	3.14	3.12	3.13	3.12	2.50	2.53	2.55	2.50	2.51	2.52							
150	3.20	3.22	3.22	3.20	3.20	3.19	2.66	2.70	2.72	2.68	2.67	2.69							
155	3.30	3.31	3.29	3.29	3.29	3.27	2.83	2.86	2.89	2.84	2.84	2.86							
160	3.37	3.37	3.35	3.36	3.35	3.34	3.01	3.02	3.05	3.01	3.00	3.02							
165	3.45	3.44	3.43	3.44	3.43	3.42	3.17	3.17	3.20	3.17	3.16	3.17							
170	3.50	3.49	3.47	3.49	3.49	3.48	3.31	3.31	3.34	3.31	3.30	3.32							
175	3.53	3.52	3.53	3.54	3.54	3.53	3.43	3.43	3.45	3.44	3.43	3.43							
180	3.53	3.52	3.53	3.54	3.55	3.54	3.53	3.52	3.53	3.54	3.55	3.54							

C Range: 0 - 360DEG  
 C Interval: 30.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2019-03-05

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.269  
 Humidity:65.0%  
 Test Distance:6.400m [K=1.0000]  
 Remarks: