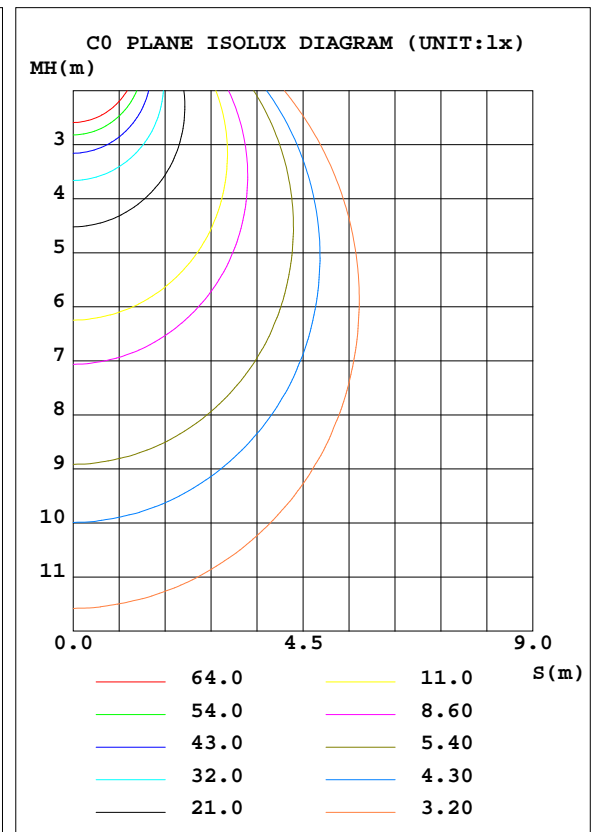
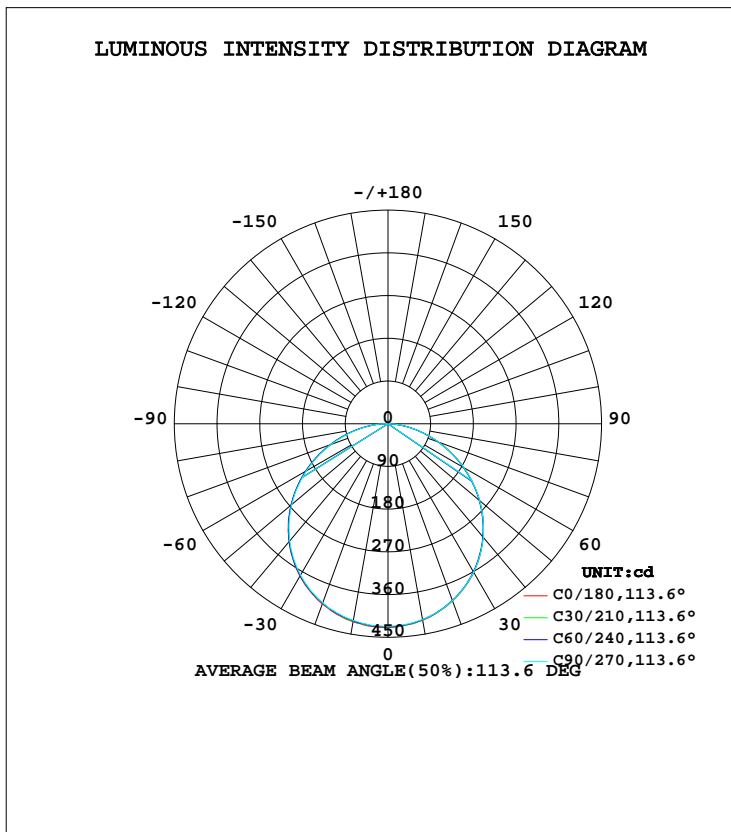


LUMINAIRE PHOTOMETRIC TEST REPORT

NAME: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 66.77 lm/W			
MODEL		I _{max} (cd)	429.5	S/MH(C0/180)	1.25
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1264.5	η UP, DN(C0-180)	0.9, 47.8
NOMINAL FLUX(lm)	1264.49	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.6, 50.7
LAMPS INSIDE	1	η up(%)	1.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230.4	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:2019-03-02

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	420.5	419.2	418.7	418.8	423.5	421.9	420.7	420.7	0- 10	40.47	40.47	3.2,3.2
20	397.3	396.4	396.3	396.8	404.2	402.6	401.8	401.0	10- 20	116.2	156.7	12.4,12.4
30	361.7	359.9	360.8	361.2	370.8	369.7	368.3	367.2	20- 30	176.9	333.6	26.4,26.4
40	312.0	311.0	312.1	312.3	324.5	323.5	322.0	321.1	30- 40	214.2	547.8	43.3,43.3
50	252.2	251.3	251.6	252.9	267.2	266.2	264.8	263.3	40- 50	222.9	770.8	61,61
60	184.2	183.5	184.3	185.6	200.6	200.0	198.6	197.0	50- 60	201.9	972.7	76.9,76.9
70	113.6	112.8	113.1	114.7	129.5	129.5	127.6	125.8	60- 70	154.7	1127	89.2,89.2
80	46.79	46.70	47.04	47.97	60.78	61.17	59.07	57.95	70- 80	91.19	1219	96.4,96.4
90	2.457	2.443	2.423	2.481	4.516	4.999	4.200	3.528	80- 90	27.24	1246	98.5,98.5
100	2.774	2.767	2.765	2.772	1.605	1.652	1.620	1.634	90-100	2.345	1248	98.7,98.7
110	3.136	3.110	3.118	3.109	1.948	1.949	1.948	1.945	100-110	2.498	1251	98.9,98.9
120	3.446	3.437	3.436	3.435	2.310	2.304	2.299	2.304	110-120	2.680	1253	99.1,99.1
130	3.722	3.716	3.707	3.720	2.713	2.711	2.692	2.715	120-130	2.728	1256	99.3,99.3
140	3.957	3.953	3.942	3.958	3.126	3.140	3.113	3.140	130-140	2.614	1259	99.5,99.5
150	4.180	4.173	4.170	4.185	3.566	3.570	3.539	3.565	140-150	2.324	1261	99.7,99.7
160	4.420	4.394	4.405	4.402	4.010	3.993	3.986	3.981	150-160	1.861	1263	99.9,99.9
170	4.596	4.584	4.599	4.579	4.392	4.372	4.376	4.357	160-170	1.229	1264	100,100
180	4.640	4.651	4.650	4.628	4.660	4.641	4.650	4.626	170-180	0.4342	1264	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

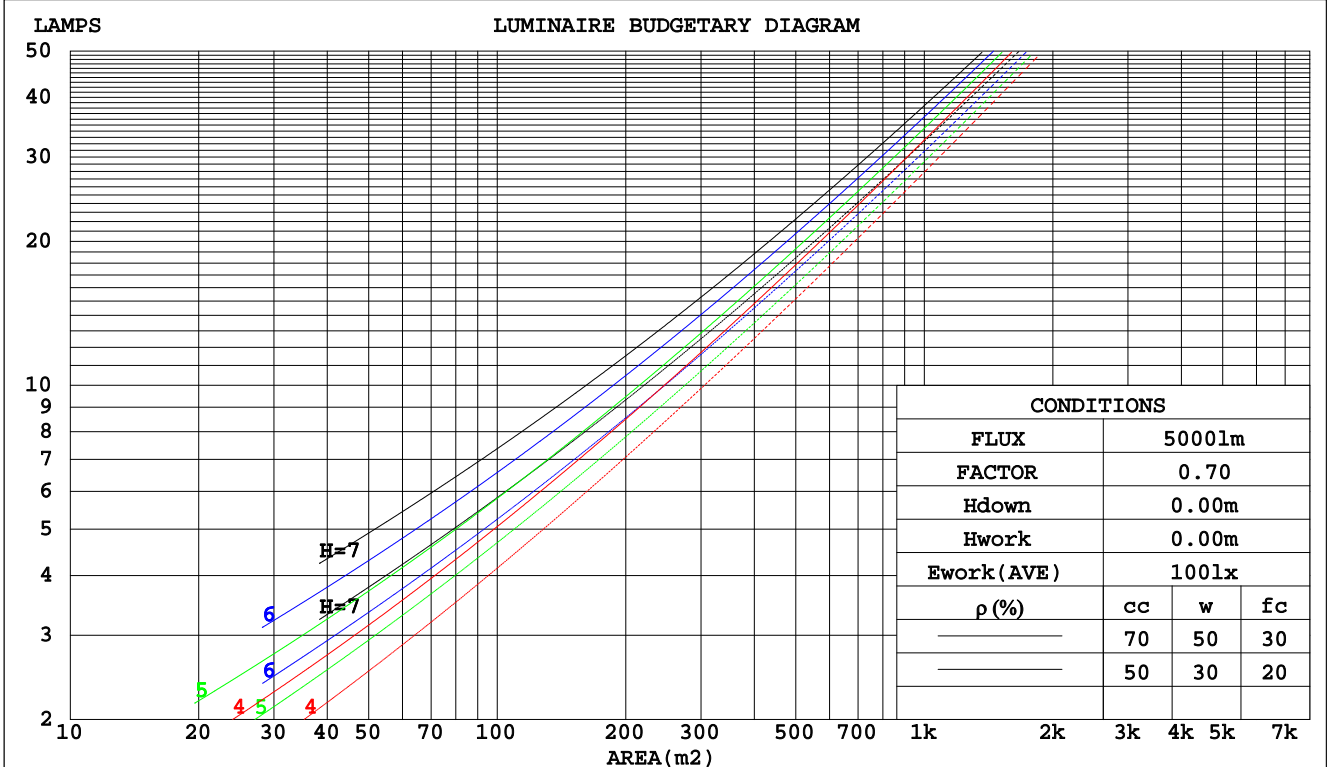
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	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	.93	.96	.93	.90	.92	.90	.87	.88	.86	.84	.82
2.0	.90	.83	.77	.88	.81	.76	.84	.79	.74	.80	.76	.72	.77	.74	.70	.68
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.65	.61	.68	.63	.59	.57
4.0	.70	.61	.54	.68	.60	.54	.66	.58	.53	.63	.57	.52	.61	.55	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.56	.50	.45	.54	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.44	.39	.49	.43	.39	.37
7.0	.51	.42	.36	.50	.41	.35	.48	.41	.35	.46	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.45	.37	.32	.44	.37	.31	.43	.36	.31	.41	.35	.31	.29
9.0	.42	.34	.29	.42	.34	.28	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.25	.35	.29	.25	.23



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	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	.314	.179	.057	.307	.175	.056	.293	.168	.054	.280	.161	.052	.268	.155	.050	
2.0	.294	.161	.049	.288	.158	.049	.275	.153	.048	.264	.148	.046	.253	.143	.045	
3.0	.272	.145	.043	.266	.142	.043	.255	.138	.042	.244	.134	.041	.235	.130	.040	
4.0	.250	.130	.038	.245	.128	.038	.235	.125	.037	.226	.121	.037	.218	.118	.036	
5.0	.231	.118	.034	.227	.116	.034	.218	.113	.033	.210	.111	.033	.202	.108	.032	
6.0	.214	.107	.031	.210	.106	.031	.202	.104	.030	.195	.101	.030	.188	.099	.029	
7.0	.199	.099	.028	.196	.097	.028	.189	.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	.166	.082	.023	.160	.080	.023	.155	.079	.023	
10.0	.164	.079	.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	.145	.164	.144	.125	.112	.099	.087	.065	.057	.050	.021	.018	.016	
2.0	.184	.143	.109	.158	.123	.094	.108	.085	.066	.062	.050	.039	.020	.016	.013	
3.0	.176	.126	.086	.151	.109	.074	.104	.075	.052	.060	.044	.031	.019	.014	.010	
4.0	.169	.113	.070	.145	.097	.061	.100	.068	.043	.058	.040	.025	.019	.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	.127	.075	.039	.088	.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	.047	.023	.047	.027	.014	.015	.009	.005	
10.0	.129	.072	.034	.111	.063	.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:2019-03-02

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: SLIMB230-4K		TYPE:4000K					WEIGHT:				
DIM.: D230*15mm		SPEC.:D230 Dimmable 4000K					SERIAL No.:1				
MFR.: EVERFINE		SUR.:0.175*0.175					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	22.3	23.8	22.6	24.0	24.3	22.3	23.8	22.6	24.0	24.2	
3H	23.8	25.2	24.1	25.4	25.7	23.7	25.1	24.0	25.4	25.7	
4H	24.3	25.7	24.7	25.9	26.2	24.3	25.6	24.6	25.9	26.2	
6H	24.7	26.0	25.1	26.3	26.6	24.7	26.0	25.1	26.3	26.6	
8H	24.9	26.1	25.2	26.4	26.7	24.8	26.0	25.2	26.4	26.7	
12H	24.9	26.1	25.3	26.4	26.7	24.9	26.1	25.3	26.4	26.7	
4H 2H	22.9	24.2	23.2	24.5	24.8	22.8	24.2	23.2	24.5	24.7	
3H	24.5	25.7	24.9	26.0	26.3	24.5	25.7	24.9	26.0	26.3	
4H	25.2	26.3	25.6	26.6	27.0	25.2	26.3	25.6	26.6	27.0	
6H	25.8	26.7	26.2	27.1	27.5	25.7	26.7	26.1	27.0	27.4	
8H	25.9	26.8	26.4	27.2	27.6	25.9	26.8	26.3	27.2	27.6	
12H	26.0	26.8	26.5	27.2	27.7	26.0	26.8	26.5	27.2	27.7	
8H 4H	25.5	26.4	25.9	26.7	27.2	25.4	26.3	25.9	26.7	27.1	
6H	26.1	26.9	26.6	27.3	27.8	26.1	26.8	26.6	27.3	27.7	
8H	26.4	27.0	26.9	27.5	28.0	26.4	27.0	26.8	27.5	28.0	
12H	26.6	27.1	27.1	27.6	28.1	26.5	27.1	27.0	27.6	28.1	
12H 4H	25.5	26.3	25.9	26.7	27.1	25.5	26.3	25.9	26.7	27.1	
6H	26.2	26.8	26.7	27.3	27.8	26.2	26.8	26.7	27.3	27.8	
8H	26.5	27.0	27.0	27.5	28.0	26.5	27.0	27.0	27.5	28.0	
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 1264 lm Total Lamp Luminous Flux.(8log(F/F0) = 0.8)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	PROTECTION ANGLE:

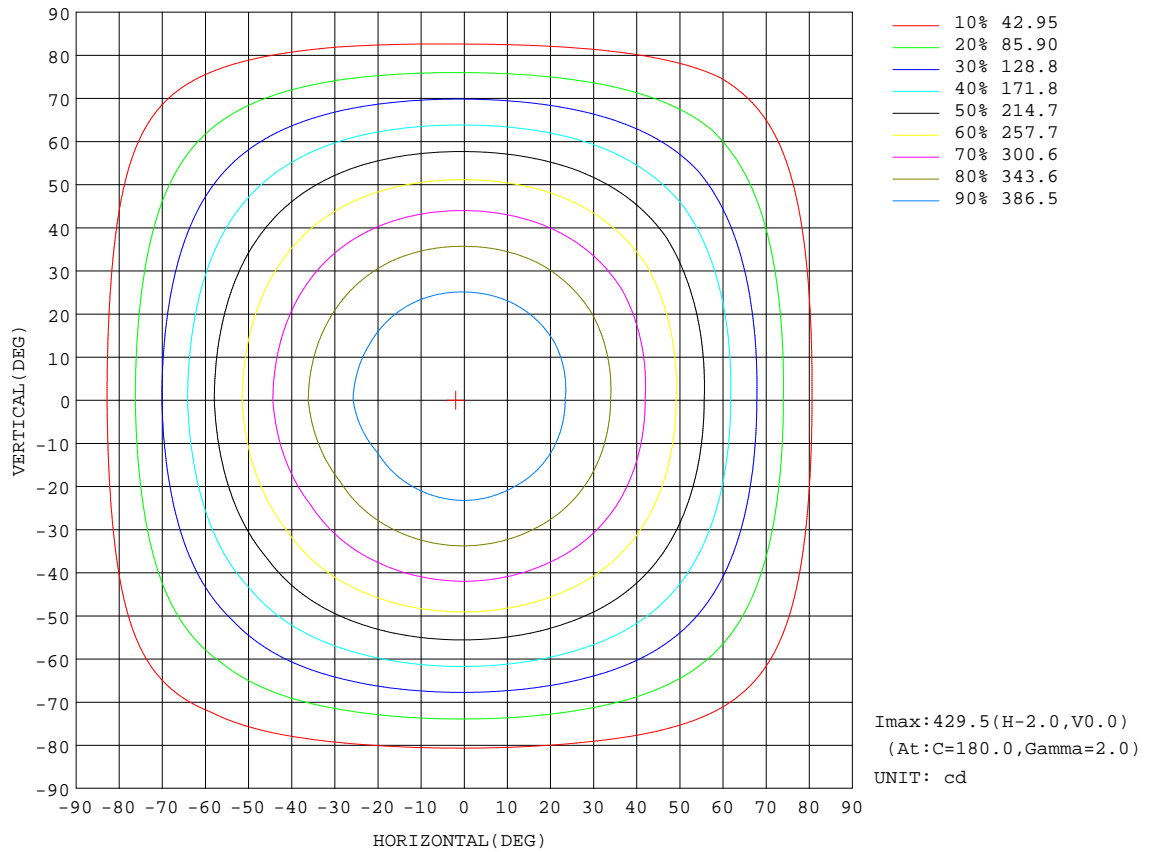
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	57	45	38	56	45	38	55	44	38	31
0.80	67	55	48	66	55	47	64	54	47	40
1.00	75	64	56	74	63	56	71	65	56	48
1.25	82	72	64	81	71	64	78	69	63	55
1.50	87	77	70	85	76	70	82	74	68	61
2.00	94	85	79	92	84	78	89	82	76	68
2.50	98	90	84	96	89	83	92	86	81	72
3.00	102	95	89	99	93	88	95	90	85	76
4.00	106	100	95	103	98	93	99	94	91	81
5.00	108	103	99	105	101	97	101	97	94	84
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:2019-03-02

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:

ISOCANDELA DIAGRAM

NAME: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	PROTECTION ANGLE:

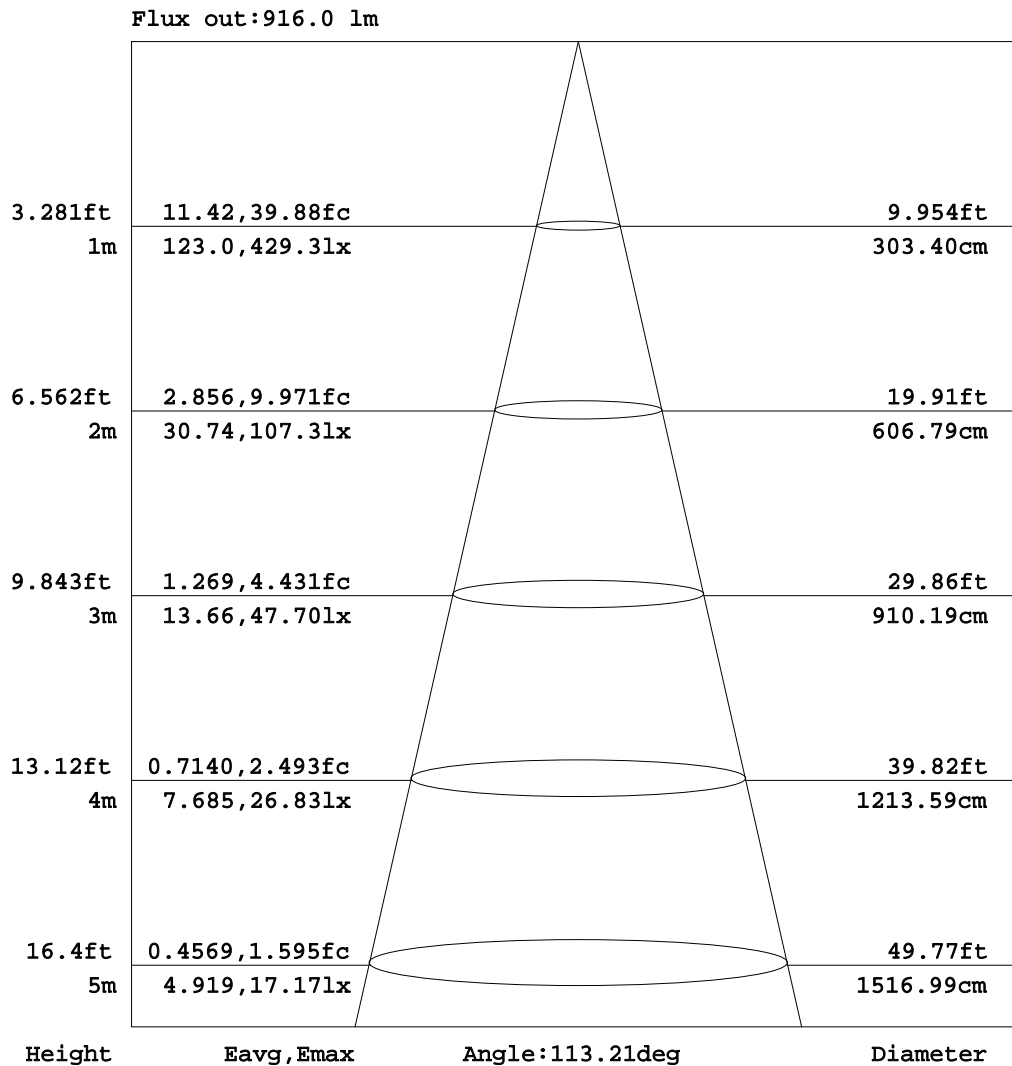


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	PROTECTION ANGLE:



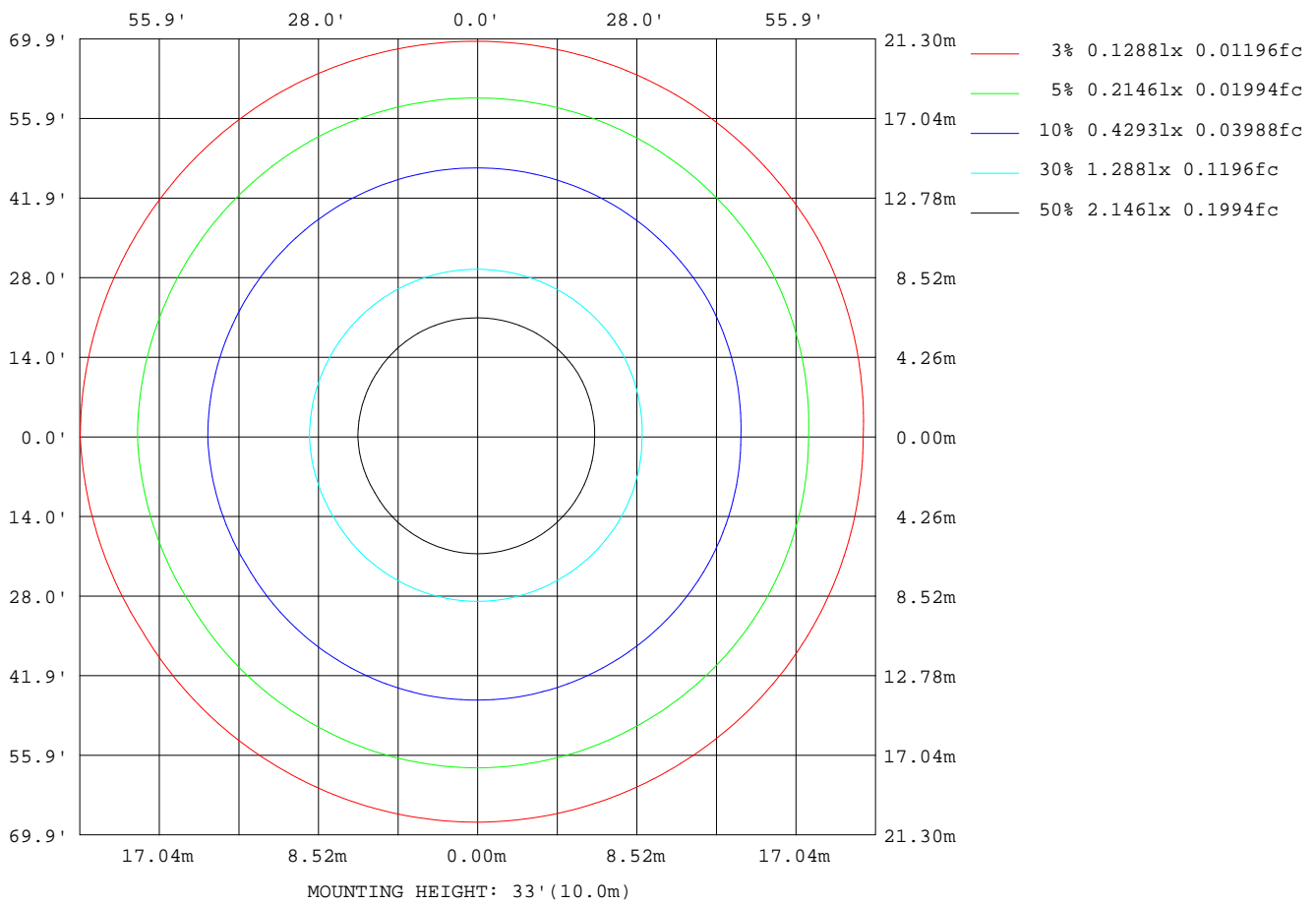
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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

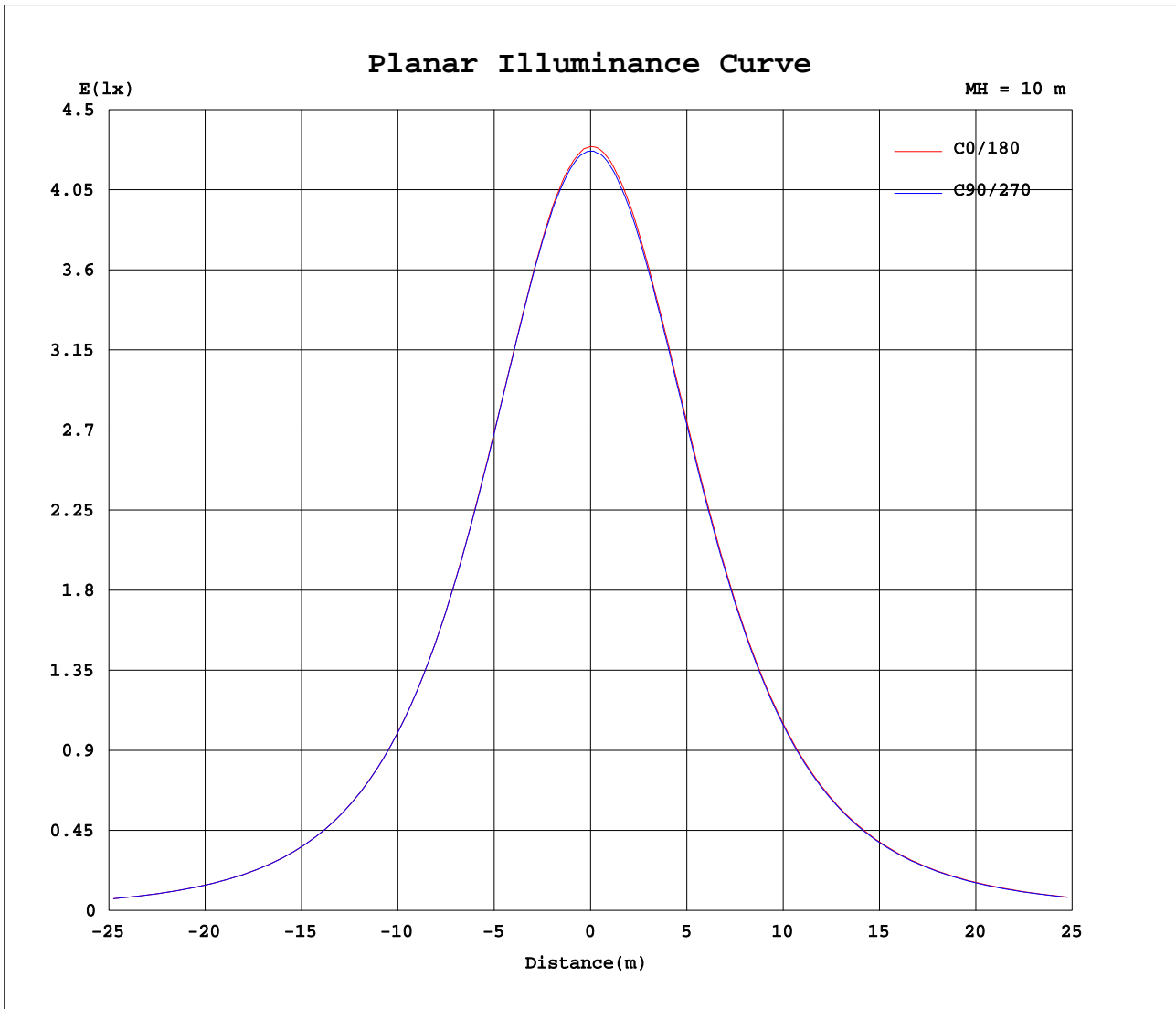
NAME: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	PROTECTION ANGLE:



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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: 2019-03-02

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

NAME: SLIMB230-4K	TYPE:4000K	WEIGHT:
DIM.: D230*15mm	SPEC.:D230 Dimmable 4000K	SERIAL No.:1
MFR.: EVERFINE	SUR.:0.175*0.175	PROTECTION ANGLE:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	429	428	428	427	427	427	429	428	428	427	427	427							
5	426	426	425	424	425	425	428	426	426	426	426	425							
10	421	419	419	419	419	419	424	422	422	421	421	420							
15	410	410	409	409	409	410	416	414	414	413	413	412							
20	397	397	396	396	397	397	404	402	403	402	402	400							
25	381	381	380	381	380	381	389	388	388	387	387	385							
30	362	360	359	361	361	361	371	370	370	368	368	366							
35	338	338	337	338	338	339	349	348	348	347	347	345							
40	312	312	310	312	312	313	325	324	323	322	322	320							
45	283	283	282	283	283	285	297	296	296	295	294	292							
50	252	252	251	252	252	254	267	266	266	265	264	262							
55	219	219	217	219	219	221	235	234	234	232	232	230							
60	184	184	183	184	184	187	201	200	200	199	198	196							
65	149	148	148	148	149	152	166	165	165	163	163	161							
70	114	113	112	113	114	116	130	130	129	128	126	125							
75	79.0	79.1	78.1	78.8	79.2	81.4	94.5	95.0	94.4	92.6	91.5	90.5							
80	46.8	47.1	46.3	47.0	47.2	48.7	60.8	61.0	61.3	59.1	58.5	57.4							
85	17.5	17.8	17.7	18.7	18.9	19.5	29.9	29.9	30.7	28.8	28.4	27.4							
90	2.46	2.45	2.44	2.42	2.44	2.53	4.52	4.76	5.24	4.20	4.13	2.93							
95	2.59	2.59	2.60	2.59	2.60	2.64	1.53	1.56	1.55	1.49	1.54	1.48							
100	2.77	2.76	2.77	2.76	2.77	2.78	1.60	1.65	1.65	1.62	1.65	1.62							
105	2.95	2.93	2.93	2.95	2.94	2.94	1.77	1.79	1.79	1.78	1.78	1.77							
110	3.14	3.11	3.11	3.12	3.10	3.12	1.95	1.96	1.94	1.95	1.95	1.94							
115	3.30	3.27	3.28	3.29	3.26	3.29	2.12	2.13	2.12	2.12	2.12	2.12							
120	3.45	3.44	3.43	3.44	3.43	3.44	2.31	2.31	2.30	2.30	2.30	2.31							
125	3.59	3.59	3.58	3.58	3.58	3.58	2.51	2.51	2.50	2.50	2.51	2.51							
130	3.72	3.72	3.71	3.71	3.72	3.72	2.71	2.71	2.71	2.69	2.71	2.72							
135	3.85	3.84	3.83	3.83	3.84	3.84	2.92	2.93	2.92	2.90	2.92	2.93							
140	3.96	3.96	3.95	3.94	3.96	3.95	3.13	3.14	3.14	3.11	3.14	3.14							
145	4.07	4.07	4.05	4.06	4.07	4.07	3.35	3.36	3.35	3.33	3.34	3.37							
150	4.18	4.18	4.16	4.17	4.19	4.18	3.57	3.58	3.57	3.54	3.55	3.58							
155	4.28	4.28	4.26	4.28	4.29	4.28	3.79	3.78	3.78	3.76	3.76	3.79							
160	4.42	4.40	4.39	4.40	4.41	4.39	4.01	3.99	3.99	3.99	3.97	3.99							
165	4.53	4.52	4.51	4.53	4.53	4.51	4.21	4.19	4.20	4.20	4.17	4.19							
170	4.60	4.59	4.58	4.60	4.59	4.57	4.39	4.37	4.38	4.38	4.35	4.36							
175	4.65	4.64	4.64	4.65	4.65	4.62	4.54	4.53	4.53	4.53	4.51	4.51							
180	4.64	4.65	4.65	4.65	4.63	4.62	4.66	4.63	4.65	4.65	4.63	4.62							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2019-03-02

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: