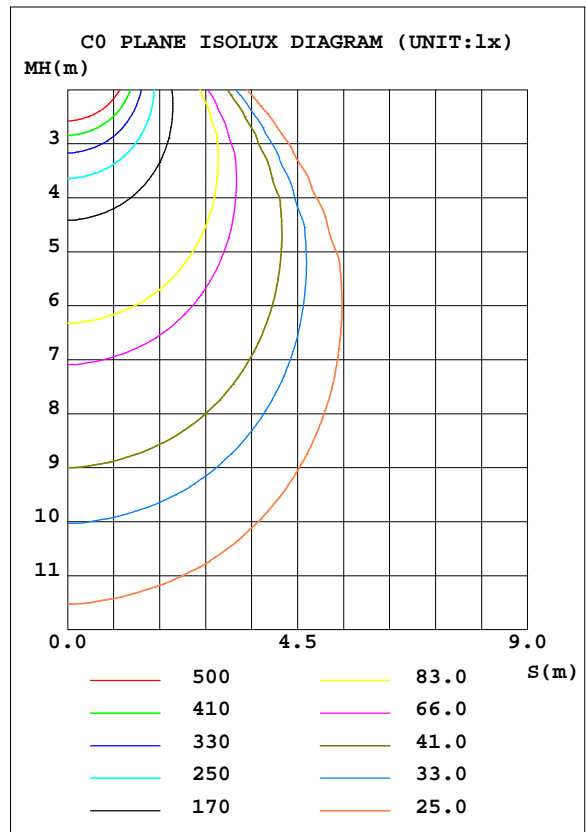
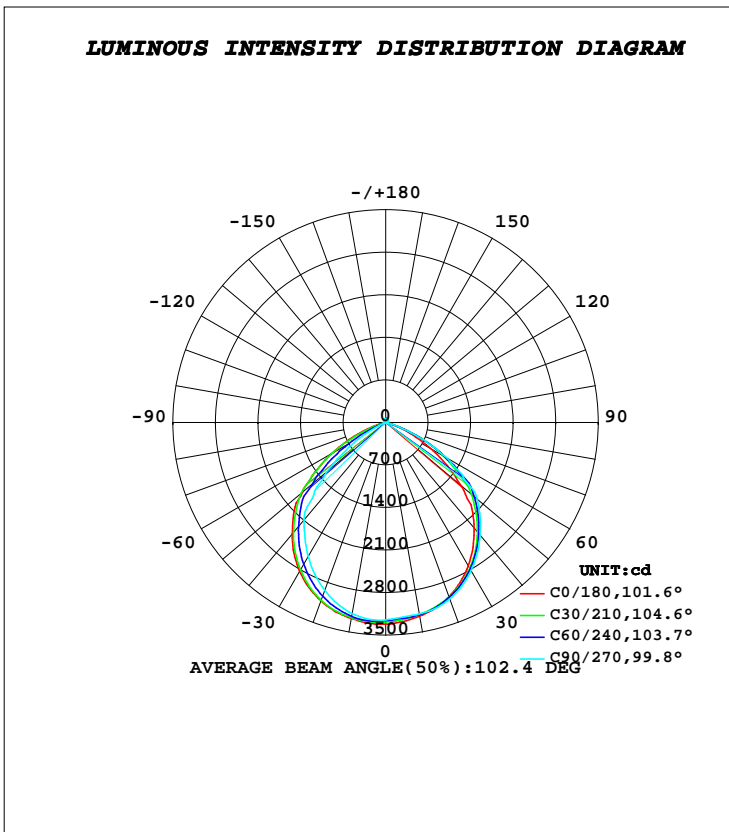


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	IMSYLF100WBKSLMDL	Imax(cd)	3321	S/MH(C0/180)	1.22
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	7697.9	η UP, DN(C0-180)	1.2, 51.8
NOMINAL FLUX(lm)	7697.95	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.6, 45.5
LAMPS INSIDE	1	η up(%)	2.7	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.3	η down(%)	97.3	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-09-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	3237	3210	3197	3147	3274	3251	3192	3133	0- 10	308.1	308.1	4,4
20	3050	3058	3089	3010	3123	3075	2940	2909	10- 20	882.8	1191	15.5,15.5
30	2720	2776	2813	2763	2832	2751	2551	2565	20- 30	1330	2521	32.7,32.7
40	2264	2368	2420	2389	2393	2299	2089	2111	30- 40	1573	4094	53.2,53.2
50	1634	1877	1966	1926	1791	1695	1284	1500	40- 50	1561	5655	73.5,73.5
60	848.6	1098	1162	1233	1034	856.3	426.6	663.0	50- 60	1187	6842	88.9,88.9
70	205.9	312.5	294.4	448.9	329.7	135.9	31.58	78.29	60- 70	544.8	7387	96,96
80	12.55	15.61	21.52	17.88	23.94	21.29	19.04	19.40	70- 80	84.00	7471	97.1,97.1
90	9.762	8.220	7.597	8.035	18.31	19.08	19.31	19.09	80- 90	16.51	7487	97.3,97.3
100	15.49	12.94	10.33	11.11	22.96	24.45	25.56	24.63	90-100	17.13	7505	97.5,97.5
110	23.04	20.05	16.73	17.34	30.29	31.46	32.49	31.16	100-110	22.96	7528	97.8,97.8
120	31.20	27.98	24.73	24.60	37.84	38.54	39.41	37.49	110-120	28.60	7556	98.2,98.2
130	38.68	36.18	33.10	31.96	44.52	44.66	45.13	42.51	120-130	32.26	7588	98.6,98.6
140	45.28	43.50	40.47	38.27	49.91	49.26	48.52	46.08	130-140	32.61	7621	99,99
150	51.77	49.95	46.88	44.35	54.65	53.50	52.63	50.18	140-150	29.75	7651	99.4,99.4
160	58.42	56.60	53.68	51.06	60.22	58.59	57.65	55.39	150-160	24.49	7675	99.7,99.7
170	64.77	62.95	59.97	57.89	65.73	63.80	62.43	60.48	160-170	16.66	7692	99.9,99.9
180	67.86	66.03	63.63	61.76	68.56	65.98	63.20	61.80	170-180	6.031	7698	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

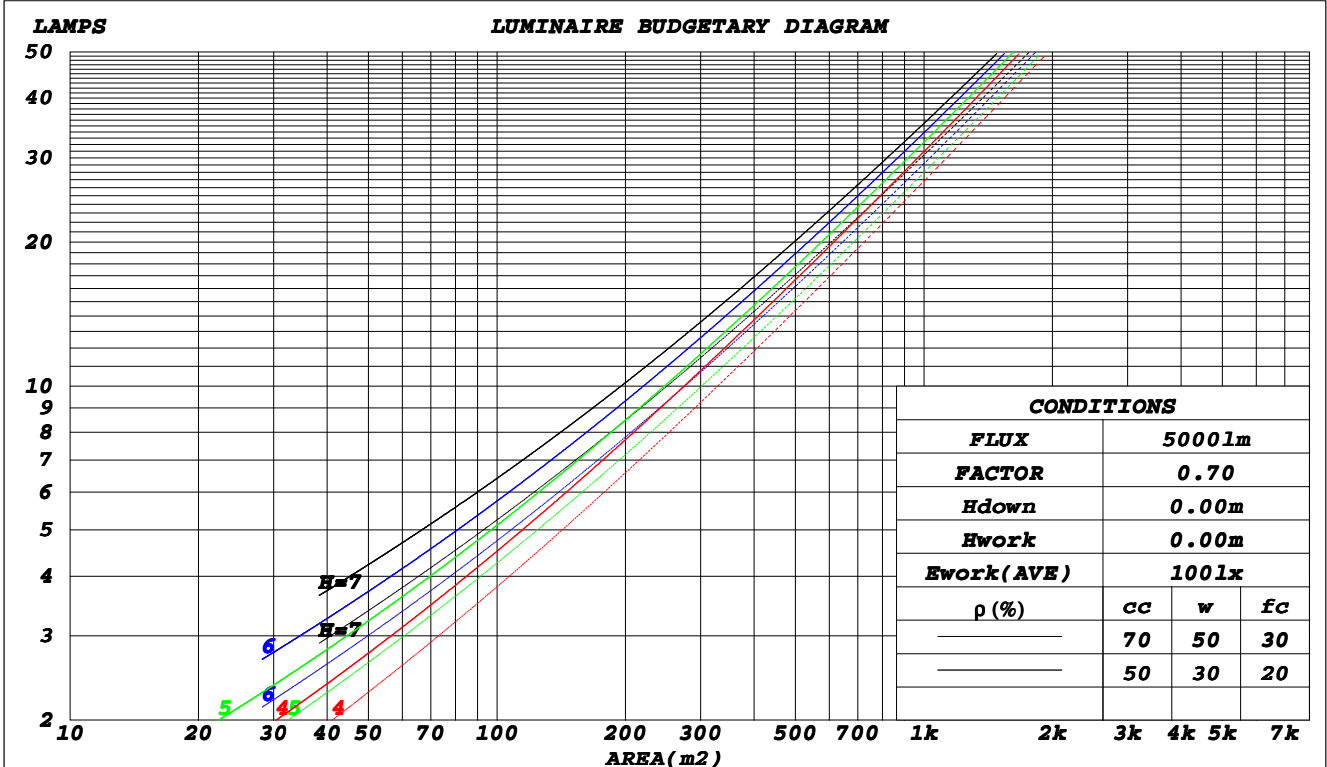
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-09-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw																
ρfc																
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.10	1.10	1.10	1.04	1.04	1.04	.00	.00	.00	.97
1.0	1.06	1.03	.00	1.04	1.01	.98	.99	.97	.94	.95	.93	.91	.91	.89	.88	.86
2.0	.95	.89	.84	.93	.87	.83	.89	.85	.81	.85	.82	.79	.82	.79	.76	.74
3.0	.85	.77	.72	.83	.76	.71	.80	.74	.69	.77	.72	.68	.74	.70	.66	.64
4.0	.76	.68	.62	.74	.67	.61	.71	.65	.60	.69	.64	.59	.67	.62	.58	.56
5.0	.68	.60	.54	.67	.59	.54	.65	.58	.53	.62	.57	.52	.60	.55	.51	.49
6.0	.62	.53	.48	.61	.53	.47	.59	.52	.47	.57	.51	.46	.55	.50	.45	.43
7.0	.56	.48	.42	.55	.47	.42	.53	.47	.42	.52	.46	.41	.50	.45	.41	.39
8.0	.51	.43	.38	.50	.43	.38	.49	.42	.37	.48	.41	.37	.46	.41	.37	.35
9.0	.47	.39	.34	.46	.39	.34	.45	.38	.34	.44	.38	.33	.43	.37	.33	.31
10.0	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.40	.34	.30	.28



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2017-09-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:8.000m [K=0.7100]
 Remarks:

WEC AND CCEC

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.248	.141	.045	.241	.137	.044	.226	.130	.041	.213	.123	.039	.201	.116	.037	
2.0	.244	.134	.041	.237	.130	.040	.224	.125	.039	.212	.119	.037	.202	.114	.036	
3.0	.233	.124	.037	.227	.121	.037	.215	.117	.035	.205	.112	.034	.195	.108	.033	
4.0	.220	.114	.034	.215	.112	.033	.205	.108	.032	.195	.105	.032	.187	.101	.031	
5.0	.207	.106	.031	.202	.104	.030	.193	.101	.030	.185	.098	.029	.177	.095	.028	
6.0	.195	.098	.028	.191	.096	.028	.183	.094	.027	.175	.091	.027	.168	.088	.026	
7.0	.183	.091	.026	.180	.090	.026	.172	.087	.025	.166	.085	.025	.159	.083	.024	
8.0	.173	.085	.024	.170	.083	.024	.163	.081	.023	.157	.079	.023	.151	.078	.023	
9.0	.163	.079	.022	.160	.078	.022	.154	.076	.022	.149	.075	.021	.143	.073	.021	
10.0	.155	.074	.021	.152	.073	.020	.146	.072	.020	.141	.070	.020	.136	.069	.020	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0																
1.0	.211	.211	.211	.181	.181	.181	.123	.123	.123	.071	.071	.071	.023	.023	.023	
2.0	.187	.153	.125	.160	.132	.108	.110	.091	.075	.063	.053	.044	.020	.017	.014	
3.0	.179	.135	.101	.153	.117	.087	.105	.081	.061	.061	.047	.036	.020	.015	.012	
4.0	.171	.122	.084	.147	.105	.073	.101	.073	.051	.058	.043	.030	.019	.014	.010	
5.0	.164	.111	.072	.141	.096	.063	.097	.067	.044	.056	.039	.026	.018	.013	.009	
6.0	.157	.103	.063	.135	.089	.055	.093	.062	.039	.054	.037	.023	.017	.012	.008	
7.0	.151	.096	.057	.130	.083	.050	.090	.058	.035	.052	.034	.021	.017	.011	.007	
8.0	.145	.090	.052	.125	.078	.045	.087	.055	.032	.050	.032	.019	.016	.011	.006	
9.0	.140	.085	.048	.120	.074	.042	.083	.052	.030	.049	.031	.018	.016	.010	.006	
10.0	.135	.081	.045	.116	.070	.039	.080	.049	.028	.047	.029	.017	.015	.010	.006	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-09-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks:

Uncorrected UGR Table

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

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	27.3	28.6	27.6	28.9	29.1	28.0	29.3	28.3	29.6	29.8
3H	27.6	28.8	27.9	29.1	29.3	28.3	29.5	28.6	29.8	30.1
4H	27.5	28.6	27.8	28.9	29.2	28.2	29.4	28.6	29.7	30.0
6H	27.4	28.4	27.7	28.7	29.1	28.1	29.2	28.5	29.5	29.8
8H	27.3	28.3	27.7	28.7	29.0	28.1	29.1	28.4	29.4	29.8
12H	27.3	28.2	27.6	28.6	28.9	28.0	29.0	28.4	29.3	29.7
4H 2H	27.7	28.8	28.0	29.1	29.4	28.2	29.4	28.6	29.7	30.0
3H	28.0	29.0	28.4	29.3	29.7	28.6	29.6	29.0	29.9	30.3
4H	27.9	28.8	28.3	29.2	29.5	28.5	29.4	28.9	29.8	30.2
6H	27.8	28.6	28.2	29.0	29.4	28.4	29.2	28.9	29.6	30.0
8H	27.8	28.5	28.2	28.9	29.3	28.4	29.1	28.8	29.5	29.9
12H	27.7	28.4	28.2	28.8	29.3	28.3	29.0	28.8	29.4	29.9
8H 4H	27.8	28.5	28.2	28.9	29.4	28.4	29.1	28.9	29.5	30.0
6H	27.7	28.3	28.2	28.7	29.2	28.3	28.9	28.8	29.4	29.8
8H	27.7	28.2	28.2	28.7	29.2	28.3	28.8	28.8	29.3	29.8
12H	27.6	28.1	28.1	28.6	29.1	28.2	28.7	28.8	29.2	29.7
12H 4H	27.8	28.4	28.2	28.8	29.3	28.4	29.0	28.8	29.4	29.9
6H	27.7	28.2	28.2	28.7	29.2	28.3	28.8	28.8	29.3	29.8
8H	27.6	28.1	28.1	28.6	29.1	28.2	28.7	28.7	29.2	29.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.6 / - 0.8					+ 0.5 / - 0.5				
1.5H	+ 0.6 / - 1.0					+ 0.6 / - 0.8				
2.0H	+ 0.8 / - 1.9					+ 1.3 / - 1.1				

CIE Pub.117 Corrected 7698 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.1)
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-09-21
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

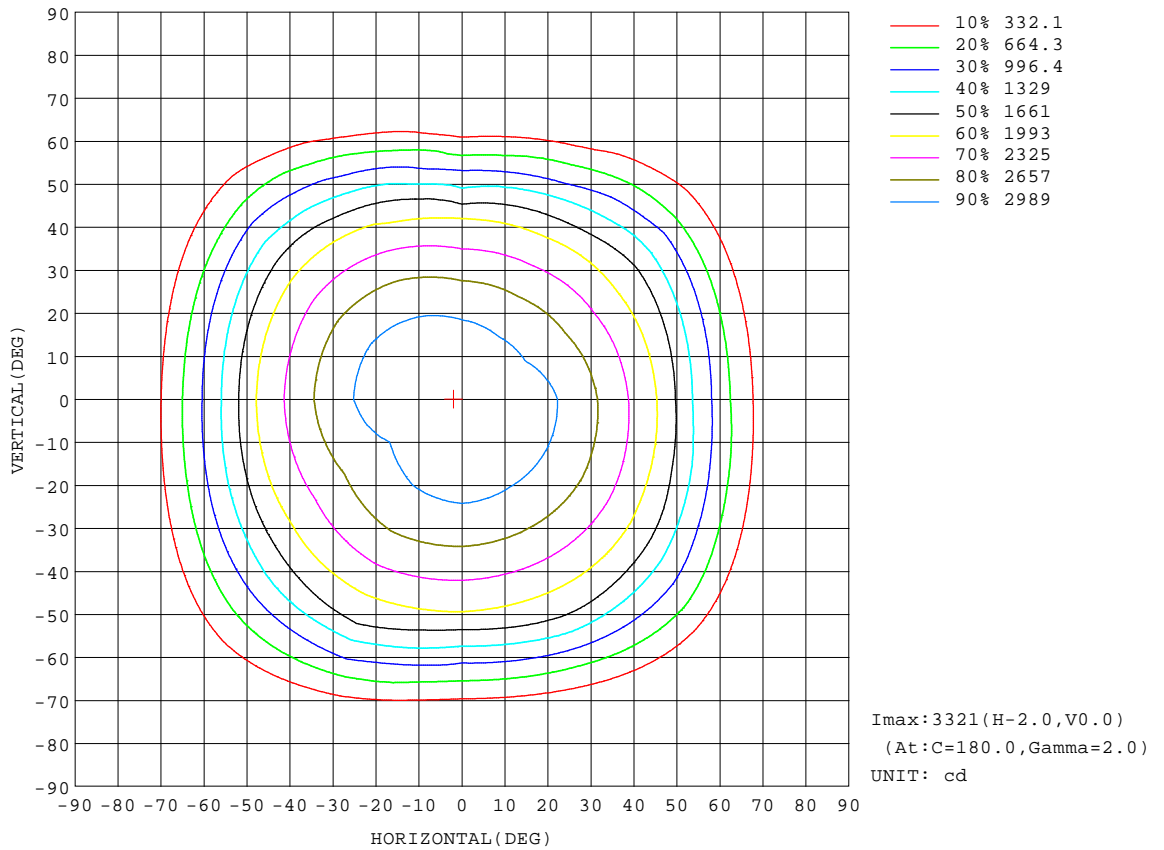
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	62	51	44	61	51	44	60	50	44	38
0.80	72	62	55	71	61	55	69	60	54	48
1.00	81	71	65	80	71	65	78	71	64	57
1.25	88	79	73	87	78	72	84	77	71	65
1.50	93	84	79	91	83	78	88	81	77	70
2.00	99	92	87	97	91	86	93	88	84	76
2.50	102	96	91	100	94	90	96	91	87	79
3.00	105	99	95	103	98	94	99	94	91	83
4.00	108	104	100	106	102	98	101	98	95	86
5.00	110	106	103	108	104	101	103	100	98	88
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:2017-09-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks:

ISOCANDELA DIAGRAM

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		



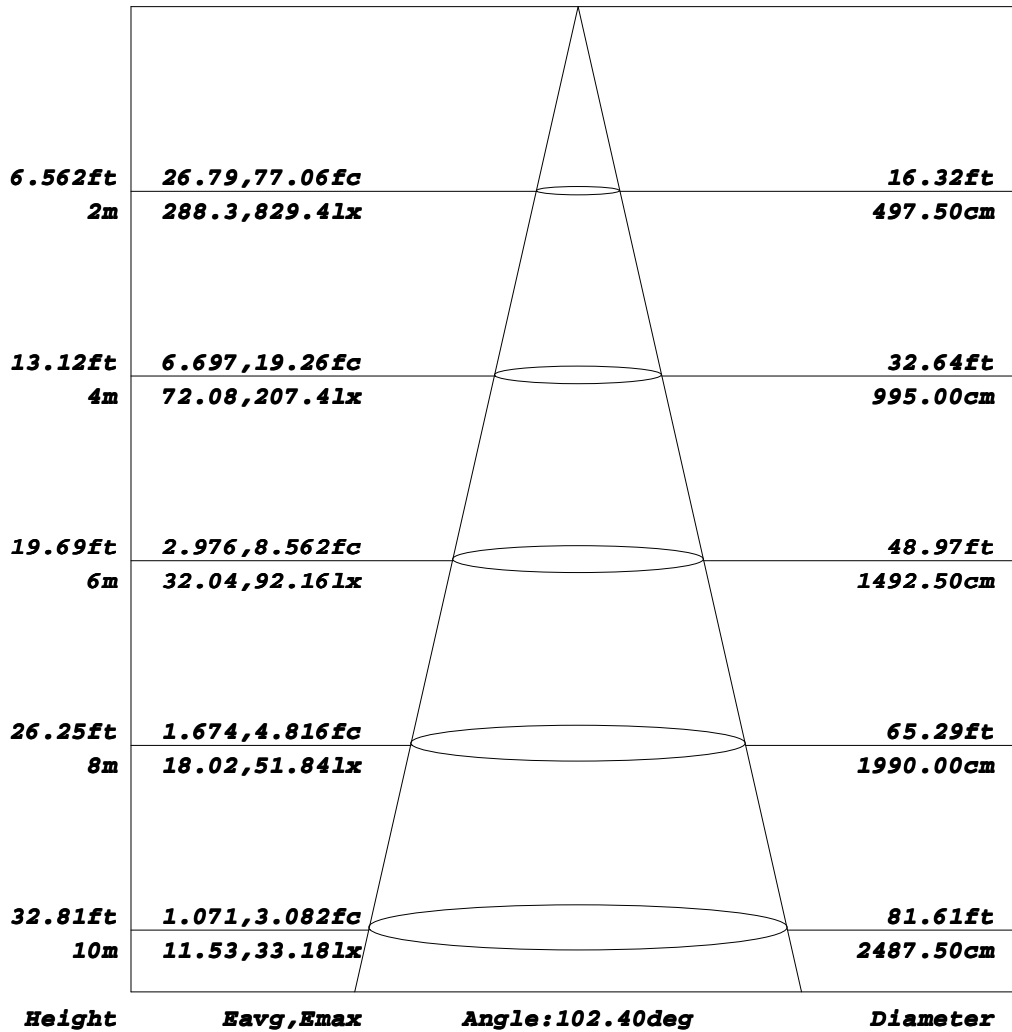
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-09-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7100]
Remarks:

AAI Figure

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

Flux out:5936 lm



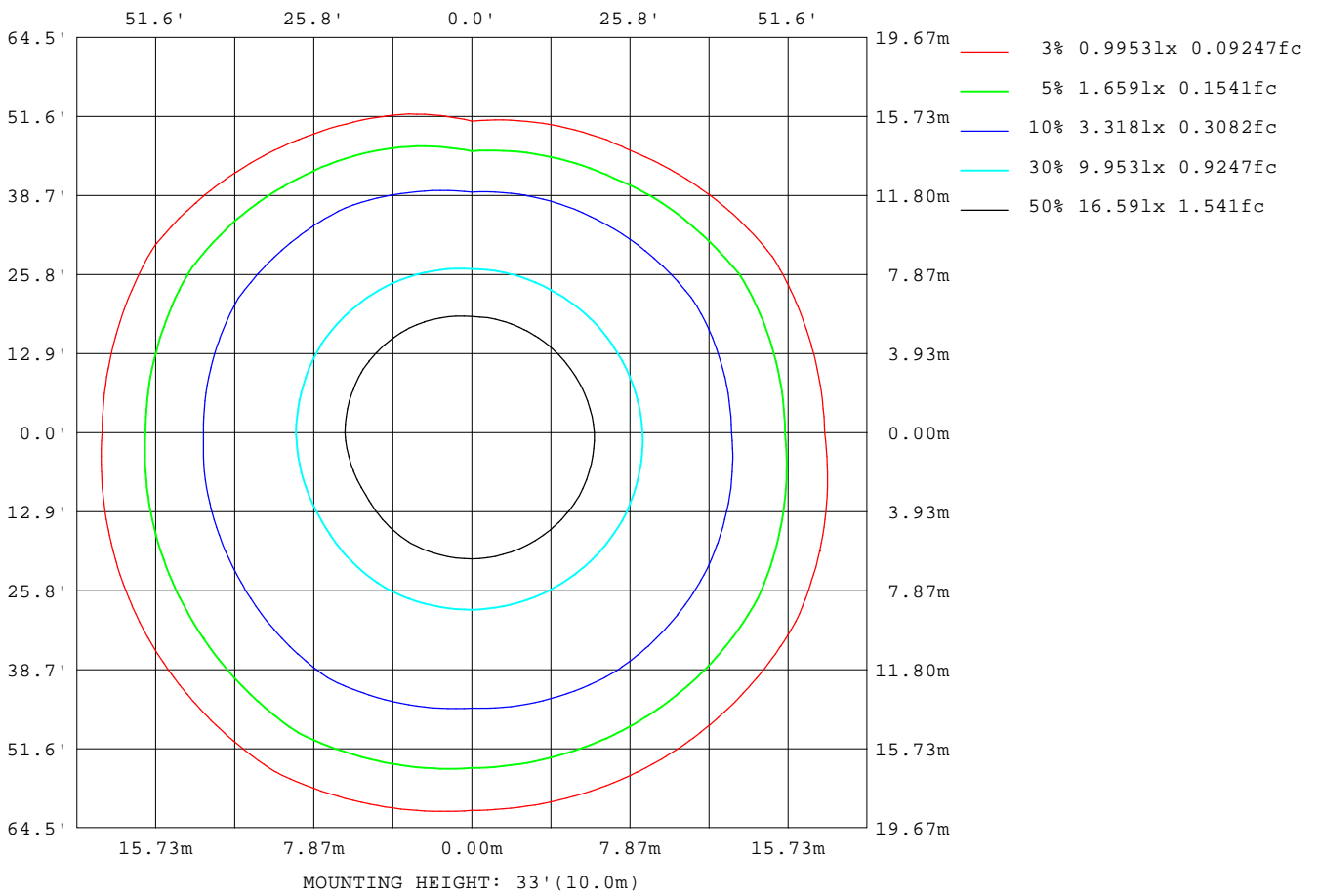
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-09-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7100]
Remarks:

ISOLUX DIAGRAM

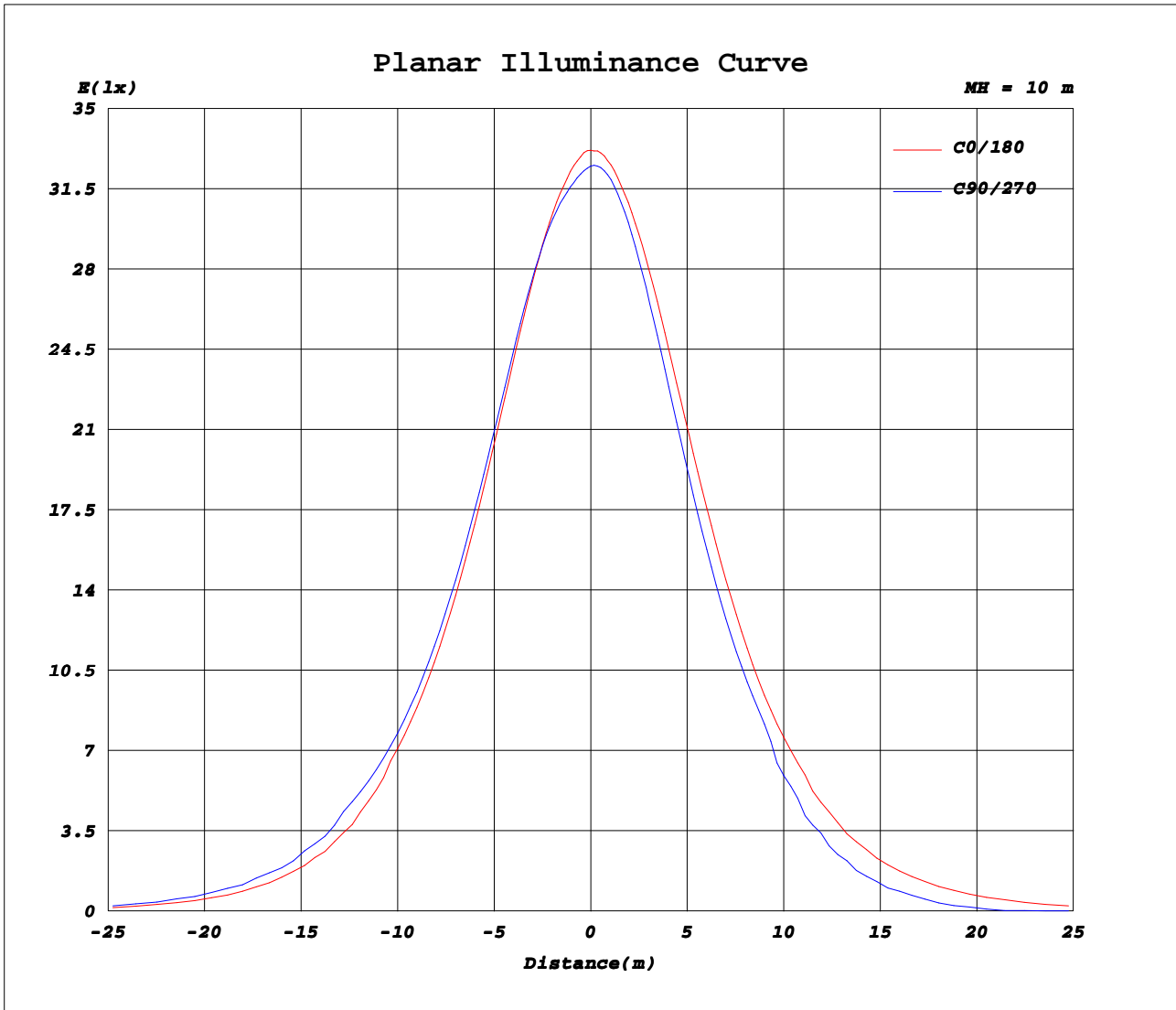
Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-09-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2017-09-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 8.000m [K=0.7100]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:220.3V I:0.4620A P:97.80W PF:0.9610 Lamp Flux:7697.95x1 lm		
NAME: IMSYLF100WBKSLMDL	TYPE:LED	
DIM.: 350*290mm	SUR.:220*160mm	
MFR.: SYNERJI		

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	3318	3285	3263	3249	3230	3210	3318	3285	3263	3249	3230	3210							
5	3290	3257	3235	3214	3198	3191	3311	3290	3274	3249	3215	3187							
10	3237	3208	3212	3197	3155	3139	3274	3261	3241	3192	3149	3116							
15	3161	3145	3156	3166	3110	3076	3221	3205	3157	3088	3041	3033							
20	3050	3054	3062	3089	3044	2976	3123	3112	3038	2940	2899	2918							
25	2903	2928	2939	2968	2942	2862	2995	2979	2886	2760	2732	2773							
30	2720	2769	2784	2813	2806	2720	2832	2805	2698	2551	2536	2594							
35	2506	2574	2596	2627	2637	2549	2630	2603	2479	2321	2312	2378							
40	2264	2352	2384	2420	2433	2345	2393	2362	2235	2089	2078	2143							
45	2010	2104	2151	2196	2209	2116	2146	2098	1979	1674	1836	1888							
50	1634	1847	1907	1966	1972	1880	1791	1823	1567	1284	1408	1591							
55	1241	1489	1564	1560	1717	1537	1424	1390	1168	809	929	1209							
60	849	1087	1109	1162	1313	1152	1034	1005	708	427	523	803							
65	497	717	684	721	869	790	665	589	284	49.5	158	399							
70	206	310	315	294	441	457	330	236	36.1	31.6	31.8	125							
75	17.7	70.8	48.0	33.8	122	148	67.8	38.6	26.7	24.3	23.7	24.8							
80	12.5	13.6	17.7	21.5	20.9	14.8	23.9	21.8	20.8	19.0	18.9	19.8							
85	8.90	9.60	10.8	13.1	12.7	10.4	20.1	18.8	18.0	17.5	17.7	17.4							
90	9.76	8.78	7.66	7.60	8.08	7.99	18.3	19.0	19.2	19.3	19.4	18.8							
95	12.3	11.0	9.43	8.13	8.34	9.41	20.3	21.1	21.6	22.2	22.1	21.0							
100	15.5	13.9	12.0	10.3	10.5	11.7	23.0	24.0	24.9	25.6	25.3	23.9							
105	19.1	17.4	15.2	13.2	13.2	14.7	26.5	27.5	28.4	29.1	28.7	27.1							
110	23.0	21.2	18.9	16.7	16.6	18.0	30.3	31.0	31.9	32.5	31.9	30.4							
115	27.1	25.1	22.8	20.6	20.3	21.5	34.1	34.7	35.3	36.0	35.1	33.6							
120	31.2	29.1	26.9	24.7	24.2	25.0	37.8	38.2	38.9	39.4	38.3	36.6							
125	35.1	33.1	31.1	29.0	28.1	28.5	41.4	41.4	42.3	42.6	41.2	39.2							
130	38.7	37.1	35.3	33.1	31.9	32.0	44.5	44.3	45.0	45.1	43.7	41.4							
135	42.0	40.8	39.1	37.0	35.4	35.2	47.3	47.0	47.2	47.0	45.5	43.2							
140	45.3	44.4	42.6	40.5	38.5	38.1	49.9	49.4	49.1	48.5	47.0	45.1							
145	48.5	47.7	45.8	43.7	41.6	40.9	52.3	51.6	51.0	50.4	48.8	47.1							
150	51.8	51.0	48.9	46.9	44.7	44.0	54.6	53.7	53.3	52.6	51.0	49.4							
155	55.1	54.3	52.3	50.3	48.0	47.2	57.4	56.1	55.8	55.1	53.7	51.7							
160	58.4	57.5	55.6	53.7	51.5	50.7	60.2	58.7	58.5	57.6	56.4	54.3							
165	61.6	60.8	58.9	56.9	54.8	54.2	63.0	61.4	61.2	60.2	59.1	57.1							
170	64.8	64.1	61.8	60.0	58.1	57.7	65.7	64.0	63.6	62.4	61.3	59.7							
175	67.0	66.2	64.0	62.3	60.5	60.1	68.0	66.0	64.8	63.2	62.2	61.0							
180	67.9	67.2	64.9	63.6	62.0	61.5	68.6	66.6	65.4	63.2	62.3	61.3							

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2017-09-21

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:8.000m [K=0.7100]
Remarks: