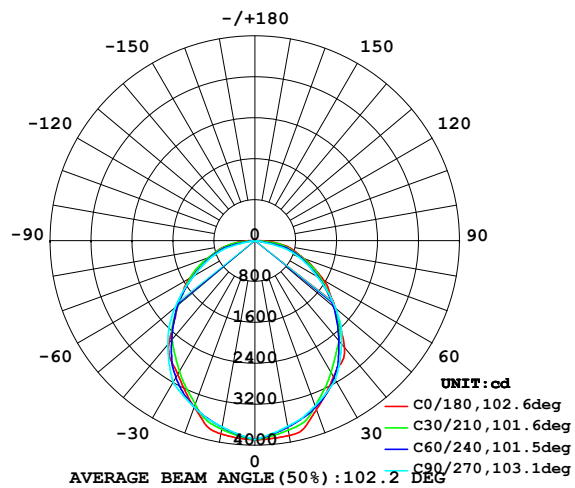


LUMINAIRE PHOTOMETRIC TEST REPORT

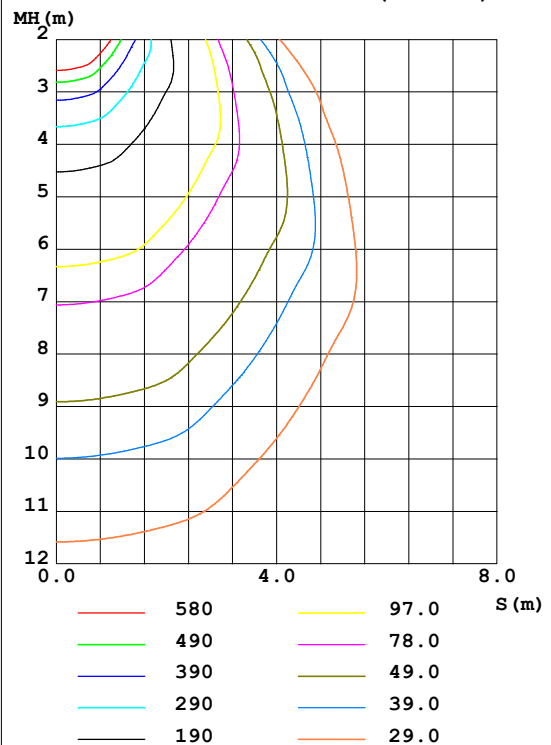
Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.1lx1 lm		
NAME: BT-MG100W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 96LEDs 120D	DIM.: 305*154*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*125mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 98.53 lm/W
MODEL	SMD3030	Imax(cd)	3890	S/MH(C0/180)	1.16	
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.22	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	9970.1	η UP,DN(C0-180)	0.0,50.0	
NOMINAL FLUX(lm)	9970.11	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,50.0	
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	230	η down(%)	100.0	CIBSE SHR MAX	1.35	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.390m [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
5	3881	3814	3789	3807	3872	3811	3793	3817	0- 5	91.91	91.91	0.92, 0.92
10	3867	3724	3687	3708	3835	3716	3697	3732	5- 10	270.1	362.0	3.63, 3.63
15	3778	3630	3586	3598	3724	3609	3601	3643	10- 15	437.7	799.8	8.02, 8.02
20	3520	3509	3439	3463	3467	3477	3467	3509	15- 20	584.2	1384	13.9, 13.9
25	3292	3242	3292	3193	3236	3215	3333	3250	20- 25	702.3	2086	20.9, 20.9
30	3075	2995	3145	2944	3018	2974	3199	3012	25- 30	795.4	2882	28.9, 28.9
35	2932	2762	2892	2705	2863	2742	2923	2788	30- 35	862.7	3744	37.6, 37.6
40	2726	2534	2639	2478	2609	2516	2648	2563	35- 40	901.3	4646	46.6, 46.6
45	2350	2289	2386	2232	2234	2252	2372	2305	40- 45	902.0	5548	55.6, 55.6
50	2056	2034	2058	1970	1971	1975	2039	2038	45- 50	866.3	6414	64.3, 64.3
55	1781	1747	1730	1694	1706	1687	1705	1742	50- 55	806.3	7220	72.4, 72.4
60	1557	1471	1402	1430	1475	1423	1372	1464	55- 60	729.4	7950	79.7, 79.7
65	1272	1220	1146	1191	1188	1176	1113	1212	60- 65	637.8	8588	86.1, 86.1
70	1011	982.6	889.5	955.9	937.7	937.6	854.0	972.6	65- 70	537.7	9125	91.5, 91.5
75	807.0	751.5	633.2	730.2	745.3	713.4	594.9	742.4	70- 75	431.0	9556	95.8, 95.8
80	611.4	449.2	0	437.2	532.7	423.5	0	442.9	75- 80	292.8	9849	98.8, 98.8
85	337.4	0	0	0	291.8	0	0	0	80- 85	105.7	9955	99.8, 99.8
90	53.92	0	0	0	58.38	0	0	0	85- 90	15.43	9970	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:cd MAX (Ii - Iavg)/Iavg (0-135) = 100.0 %									UNIT:lm		

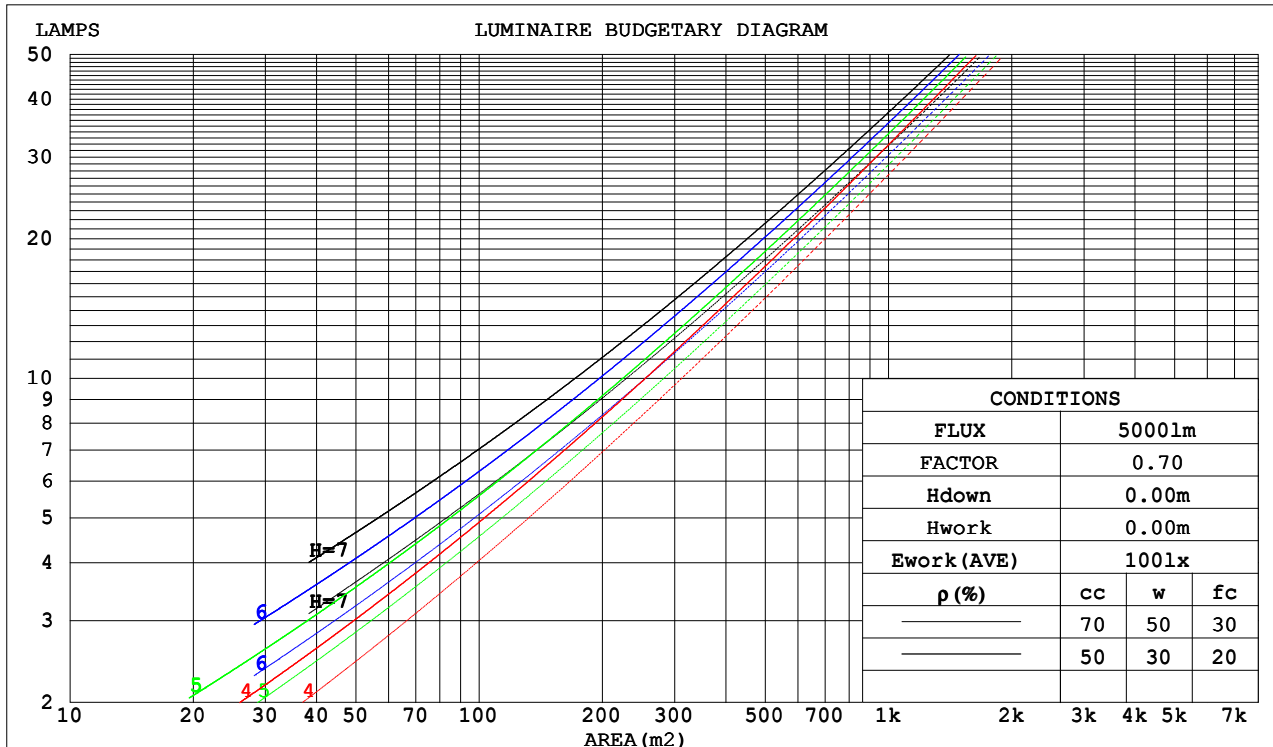
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity: 65.0%
 Test Distance: 9.390m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.1lx1 lm		
NAME: BT-MG100W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 96LEDs 120D	DIM.: 305*154*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*125mm	PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	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	.00
1.0	1.04	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.79	.89	.83	.78	.86	.80	.76	.82	.78	.74	.79	.76	.73	.70
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.67	.63	.70	.66	.62	.59
4.0	.71	.62	.56	.70	.62	.55	.67	.60	.55	.65	.59	.54	.63	.57	.53	.51
5.0	.64	.55	.48	.63	.54	.48	.60	.53	.47	.58	.52	.47	.57	.51	.46	.44
6.0	.57	.49	.42	.56	.48	.42	.55	.47	.42	.53	.46	.41	.51	.45	.41	.39
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.42	.37	.47	.41	.36	.34
8.0	.48	.39	.33	.47	.39	.33	.46	.38	.33	.44	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.35	.30	.42	.35	.30	.41	.34	.30	.40	.34	.30	.28
10.0	.40	.33	.27	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25



C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.390m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.11x1 lm					
NAME: BT-MG100W			TYPE:Clear pc cover		WEIGHT:
SPEC.:5000k 96LEDs 120D			DIM.: 305*154*185mm		SERIAL No.:
MFR.: EVERFINE			SUR.:275*125mm		PROTECTION ANGLE:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)															
0.0																
1.0	.301	.171	.054	.294	.168	.053	.281	.161	.051	.268	.155	.050	.257	.149	.048	
2.0	.286	.157	.048	.279	.154	.047	.268	.149	.046	.257	.144	.045	.247	.140	.044	
3.0	.265	.141	.042	.260	.139	.042	.249	.135	.041	.240	.131	.040	.231	.128	.040	
4.0	.245	.127	.037	.240	.126	.037	.231	.123	.037	.223	.120	.036	.215	.117	.036	
5.0	.227	.116	.033	.223	.114	.033	.214	.112	.033	.207	.109	.032	.200	.107	.032	
6.0	.211	.106	.030	.207	.104	.030	.200	.102	.030	.193	.100	.029	.187	.098	.029	
7.0	.196	.097	.027	.193	.096	.027	.186	.094	.027	.180	.092	.027	.175	.091	.027	
8.0	.183	.090	.025	.180	.089	.025	.175	.087	.025	.169	.086	.025	.164	.084	.025	
9.0	.172	.083	.023	.169	.083	.023	.164	.081	.023	.159	.080	.023	.155	.079	.023	
10.0	.162	.078	.022	.159	.077	.021	.155	.076	.021	.150	.075	.021	.146	.074	.021	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.147	.114	.085	.101	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.134	.075	.034	.116	.065	.029	.080	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.128	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.025	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
 Humidity:65.0%
 Test Distance:9.390m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.11x1 lm										
NAME: BT-MG100W					TYPE:Clear pc cover			WEIGHT:		
SPEC.:5000k 96LEDs 120D					DIM.: 305*154*185mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:275*125mm			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	28.5	30.0	28.8	30.2	30.4	28.3	29.8	28.5	30.0	30.2
3H	30.1	31.5	30.4	31.8	32.0	29.7	31.1	30.0	31.3	31.6
4H	31.0	32.3	31.3	32.5	32.8	30.3	31.6	30.6	31.9	32.1
6H	31.8	33.0	32.1	33.3	33.6	30.4	31.6	30.7	31.9	32.2
8H	32.1	33.3	32.4	33.6	33.8	30.3	31.5	30.7	31.8	32.1
12H	32.3	33.4	32.6	33.7	34.0	30.3	31.4	30.6	31.7	32.0
4H 2H	29.1	30.4	29.4	30.7	30.9	28.9	30.2	29.2	30.5	30.7
3H	31.0	32.1	31.3	32.4	32.7	30.6	31.7	30.9	32.0	32.3
4H	31.9	33.0	32.3	33.3	33.6	31.3	32.4	31.7	32.7	33.0
6H	32.9	33.8	33.3	34.2	34.6	31.4	32.4	31.8	32.7	33.1
8H	33.3	34.2	33.7	34.5	34.9	31.4	32.3	31.8	32.6	33.0
12H	33.5	34.3	34.0	34.7	35.1	31.4	32.2	31.8	32.5	32.9
8H 4H	32.3	33.1	32.7	33.5	33.9	31.7	32.6	32.2	33.0	33.4
6H	33.4	34.2	33.9	34.6	35.0	31.9	32.6	32.4	33.0	33.5
8H	34.0	34.6	34.4	35.0	35.5	31.9	32.5	32.3	32.9	33.4
12H	34.4	34.9	34.9	35.4	35.9	31.8	32.4	32.3	32.8	33.3
12H 4H	32.2	33.0	32.7	33.4	33.8	31.8	32.6	32.2	33.0	33.4
6H	33.4	34.1	33.9	34.5	35.0	32.0	32.6	32.5	33.1	33.5
8H	34.0	34.5	34.5	35.0	35.5	32.0	32.5	32.4	33.0	33.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
2.0H	+ 0.1 / - 0.2					+ 0.3 / - 0.3				

CIE Pub.117 Corrected 9970 lm Total Lamp Luminous Flux. (8log(F/F0) = 8.0)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-08-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.11x1 lm		
NAME: BT-MG100W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 96LEDs 120D	DIM.: 305*154*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*125mm	PROTECTION ANGLE:

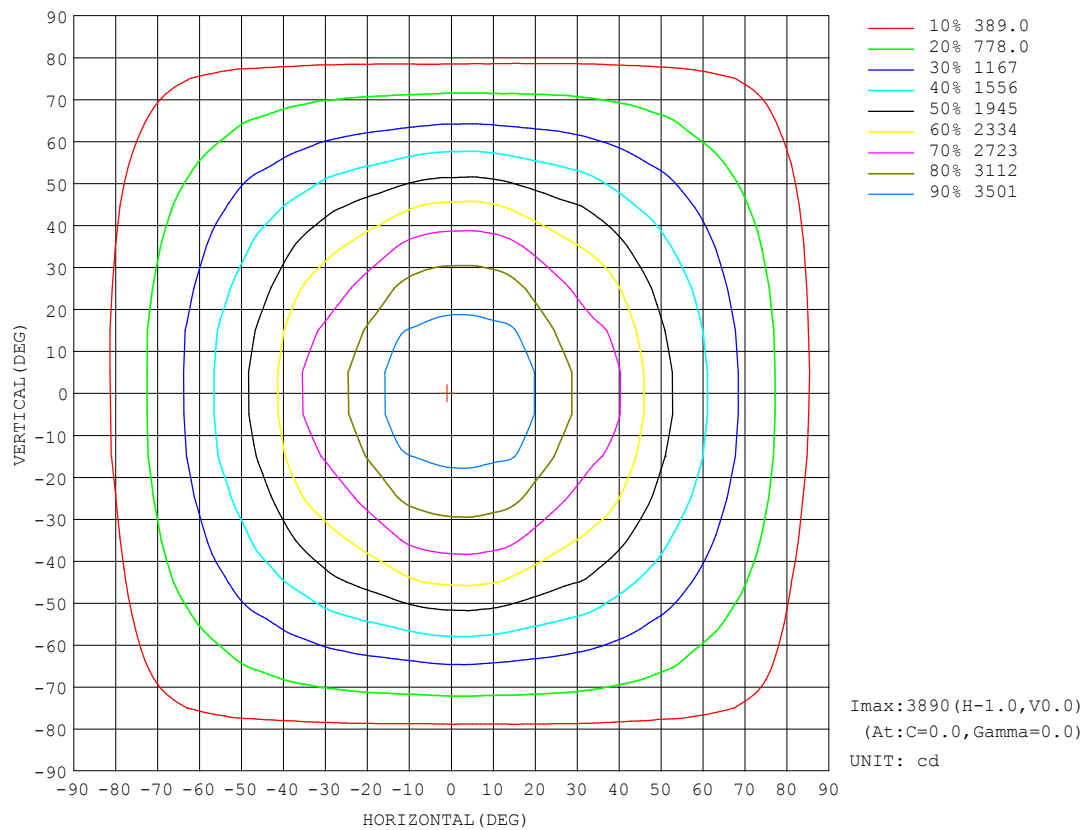
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	41	58	47	40	57	47	40	34
0.80	69	57	50	68	57	50	66	56	50	43
1.00	77	66	59	76	66	59	74	67	58	51
1.25	84	74	67	83	73	66	80	72	65	58
1.50	89	79	72	87	78	72	84	77	71	63
2.00	96	87	81	94	86	80	90	84	79	71
2.50	99	92	86	97	90	85	94	88	83	75
3.00	103	96	91	101	95	90	97	92	87	79
4.00	107	101	97	104	99	95	100	96	93	84
5.00	109	104	100	107	102	99	102	99	96	87
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:30DEG
Operators:
Test Date:2015-08-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.1lx1 lm		
NAME: BT-MG100W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 96LEDs 120D	DIM.: 305*154*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*125mm	PROTECTION ANGLE:

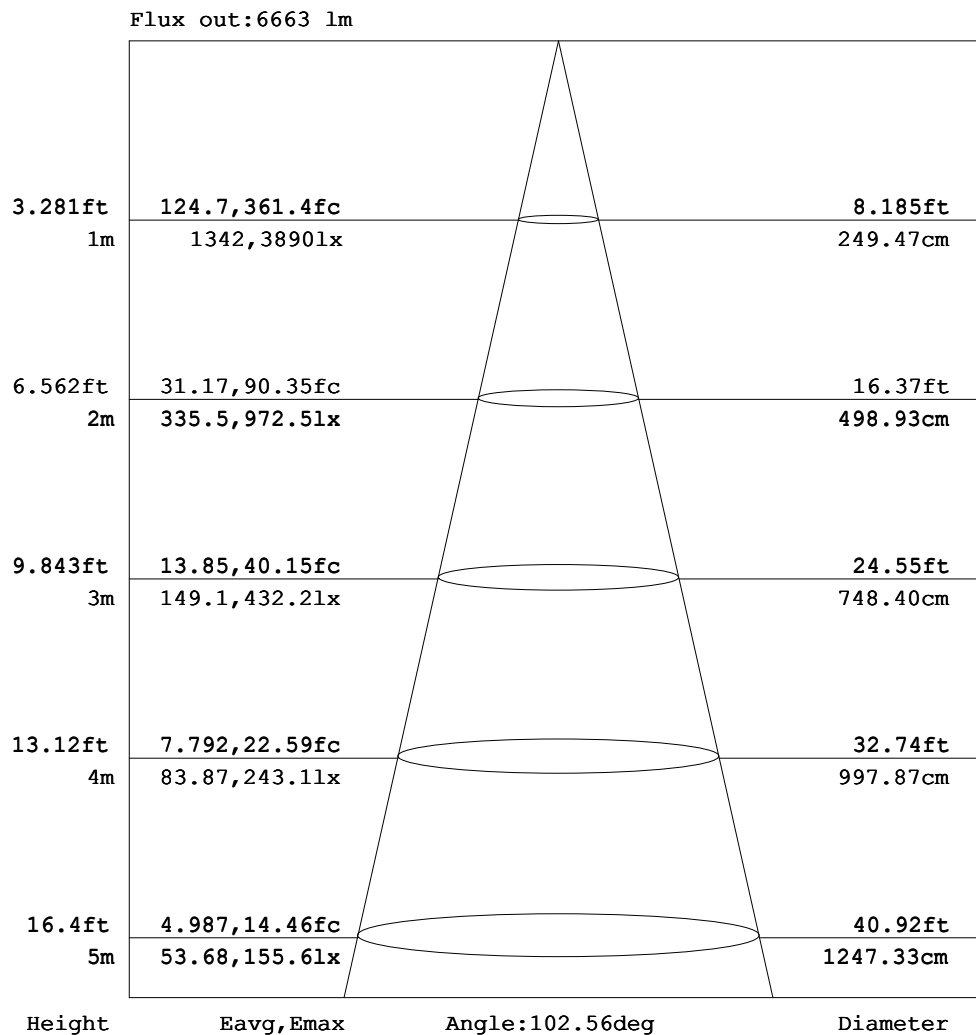


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-08-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

AAI Figure

Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.1lx1 lm		
NAME: BT-MG100W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 96LEDs 120D	DIM.: 305*154*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*125mm	PROTECTION ANGLE:



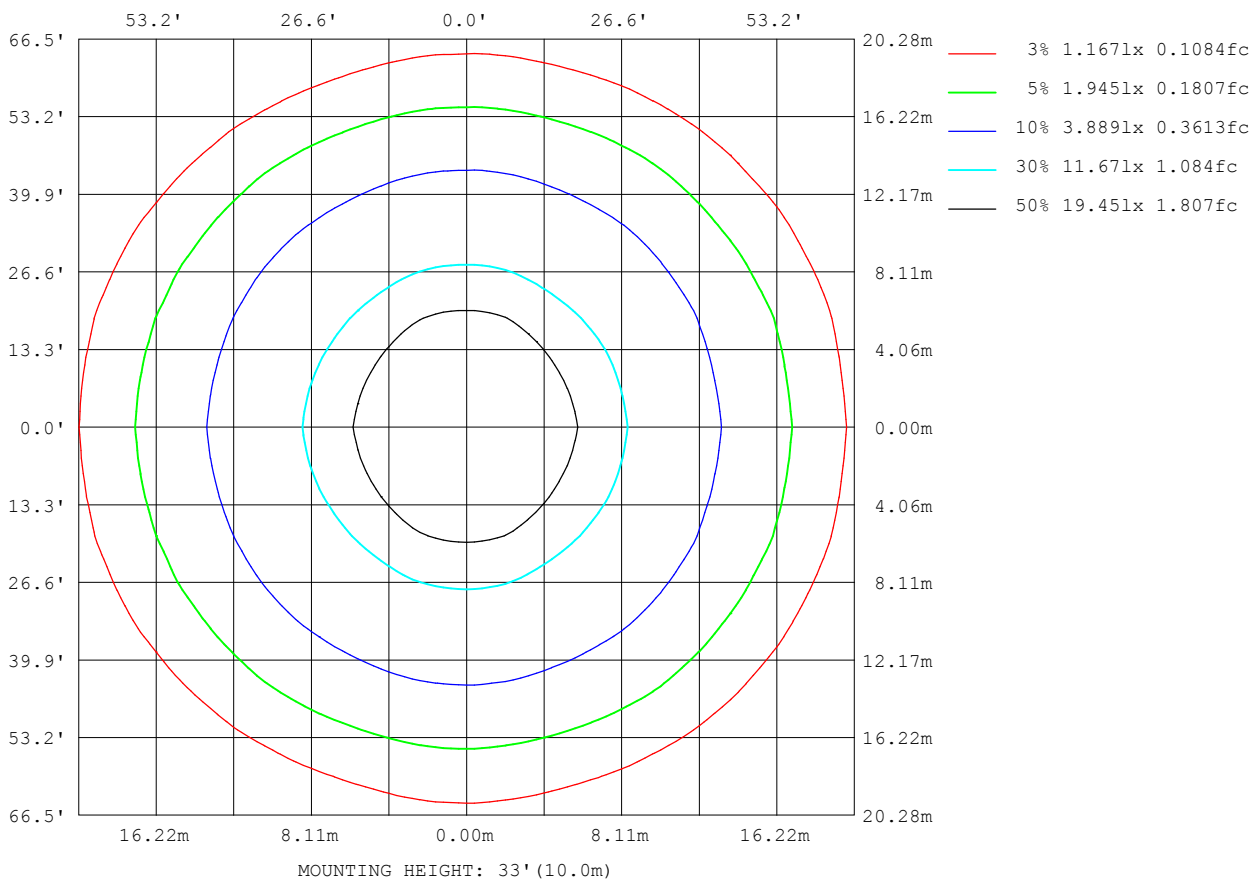
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-08-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.390m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

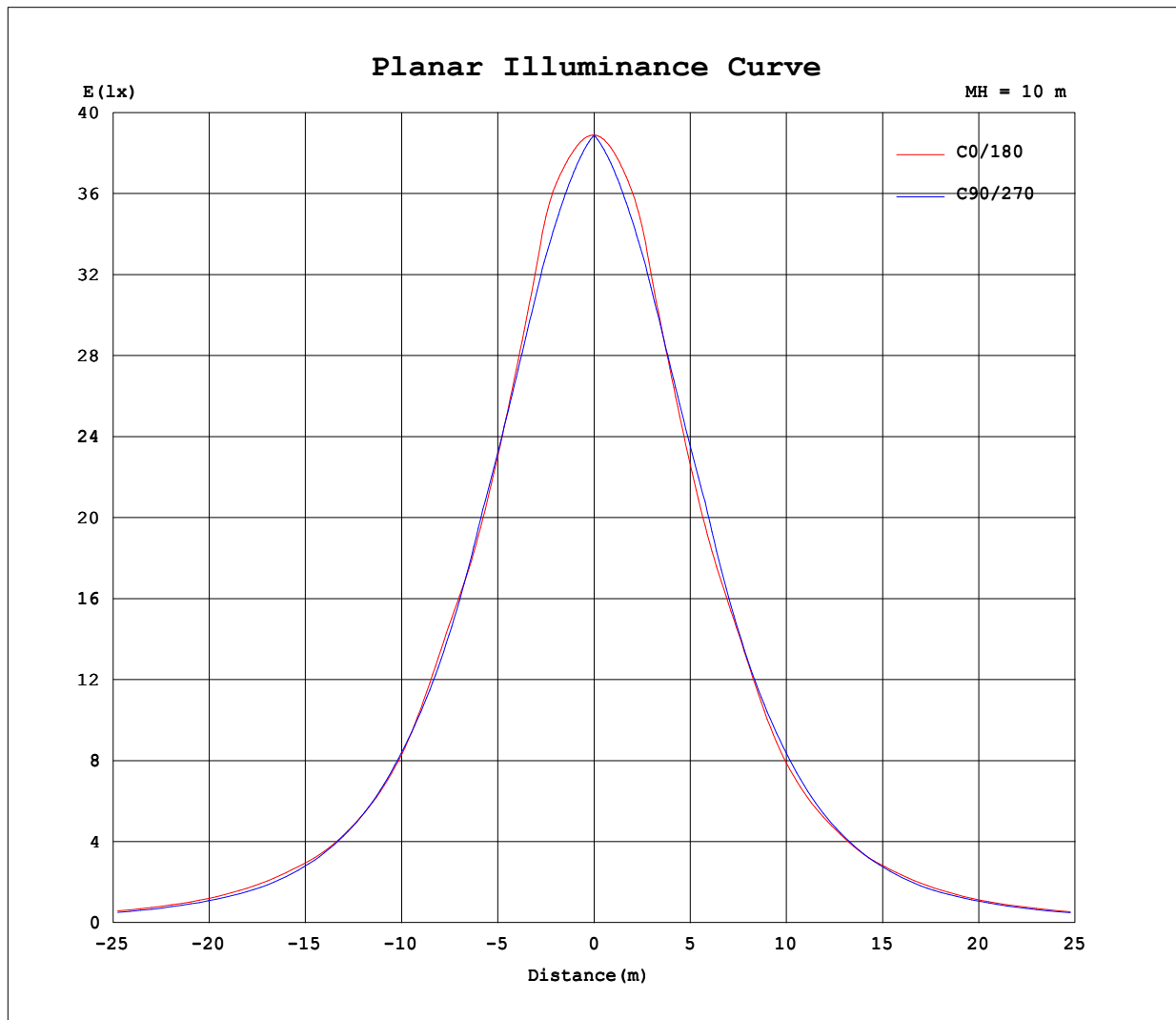
Test:U:231.2V I:0.4628A P:101.2W PF:0.9458 Lamp Flux:9970.1lx1 lm		
NAME: BT-MG100W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 96LEDs 120D	DIM.: 305*154*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*125mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-08-17

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity:65.0%
Test Distance:9.390m [K=1.0000]
Remarks:

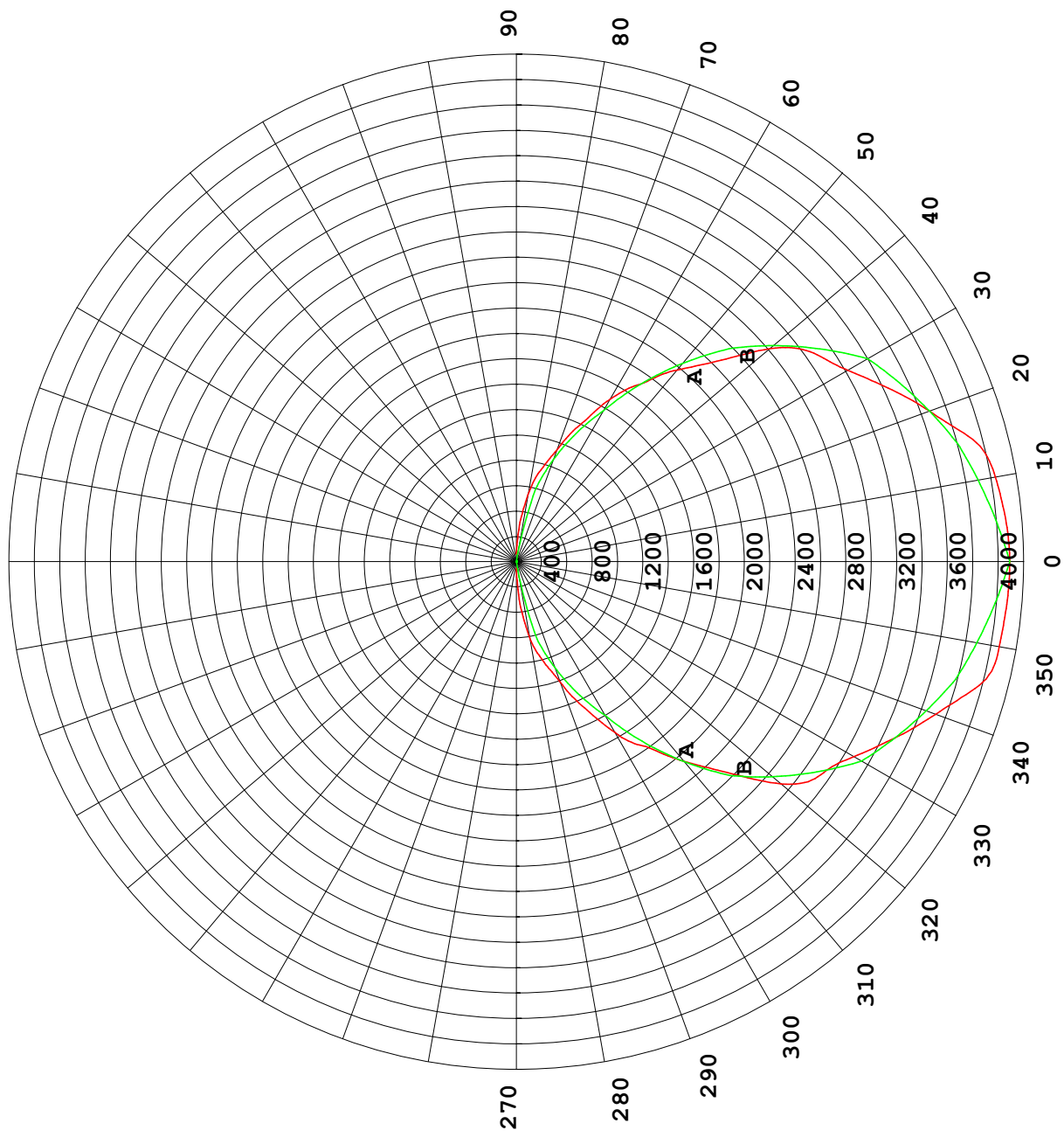
Planar Illuminance Curve

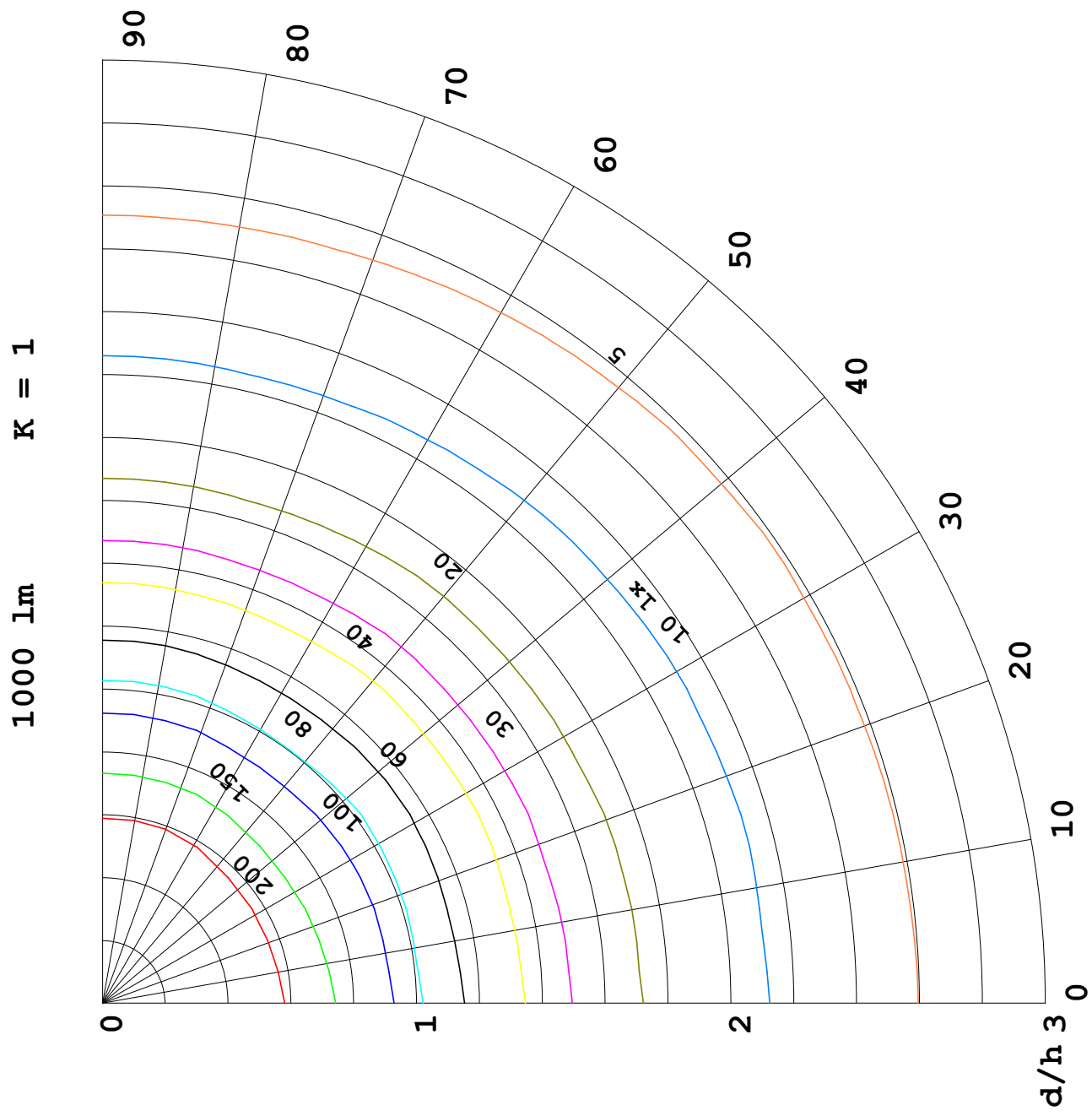


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-08-17

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.390m [K=1.0000]
Remarks:

I (cd)





F = 5000 lm
K = 0.7
Hcc = 0.0 m
Hfc = 0.0 m
Eave = 100 lx

Pcc
70
50

Pw
50
30

Pfc
30
20

