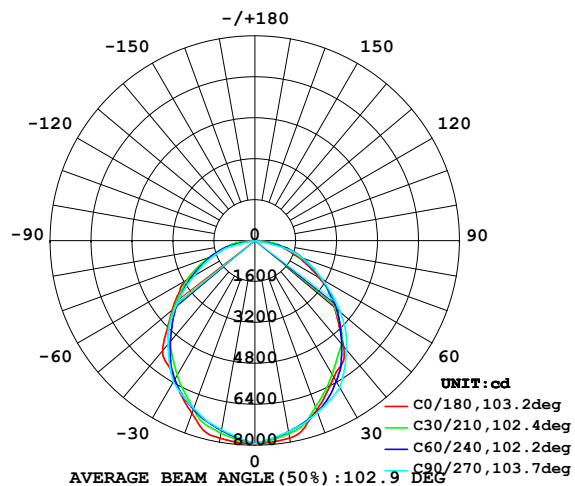


LUMINAIRE PHOTOMETRIC TEST REPORT

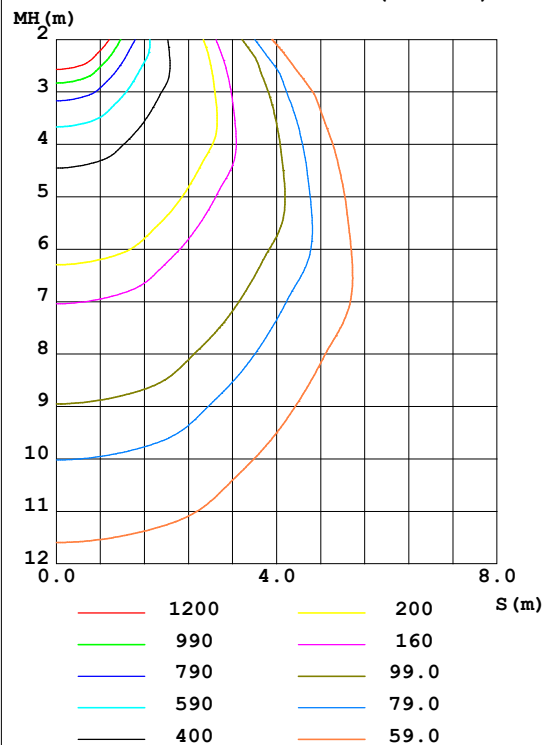
Test:U:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm					
NAME: BT-MG200W		TYPE:Clear pc cover		WEIGHT:	
SPEC.:5000k 192LEDs 120D		DIM.: 305*305*185mm		SERIAL No.:	
MFR.: EVERFINE		SUR.:275*275mm		PROTECTION ANGLE:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 100.10 lm/W
MODEL	SMD3030	Imax(cd)	7933	S/MH(C0/180)	1.19	
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.20	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	20269	η UP,DN(C0-180)	0.0,51.0	
NOMINAL FLUX(lm)	20269.4	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,49.0	
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	7899	7785	7755	7796	7910	7770	7718	7759	0- 5	187.5	187.5	0.93,0.93
10	7834	7605	7578	7627	7842	7573	7503	7556	5- 10	551.1	738.5	3.64,3.64
15	7550	7410	7401	7427	7699	7348	7288	7335	10- 15	892.3	1631	8.05,8.05
20	7055	7084	7149	7219	7188	7103	6984	7000	15- 20	1191	2822	13.9,13.9
25	6603	6566	6898	6764	6735	6584	6680	6452	20- 25	1435	4257	21,21
30	6178	6113	6647	6269	6285	6079	6376	5968	25- 30	1628	5885	29,29
35	5915	5667	6109	5813	5935	5609	5829	5501	30- 35	1769	7654	37.8,37.8
40	5393	5235	5571	5350	5618	5146	5282	5048	35- 40	1852	9506	46.9,46.9
45	4639	4737	5033	4812	4840	4633	4734	4547	40- 45	1860	11366	56.1,56.1
50	4061	4199	4362	4314	4215	4103	4067	4008	45- 50	1789	13155	64.9,64.9
55	3526	3598	3691	3750	3662	3516	3399	3421	50- 55	1666	14821	73.1,73.1
60	2884	3029	3020	3155	3089	2951	2732	2860	55- 60	1505	16326	80.5,80.5
65	2270	2491	2482	2615	2432	2412	2207	2324	60- 65	1301	17627	87,87
70	1676	1958	1943	2093	1853	1885	1682	1794	65- 70	1077	18704	92.3,92.3
75	1212	1448	1405	1571	1329	1383	1157	1290	70- 75	838.6	19542	96.4,96.4
80	814.8	821.2	0	912.9	920.2	773.6	0	704.2	75- 80	536.2	20079	99.1,99.1
85	363.7	0	0	0	393.3	0	0	0	80- 85	170.0	20249	99.9,99.9
90	41.23	0	0	0	39.95	0	0	0	85- 90	20.86	20269	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		

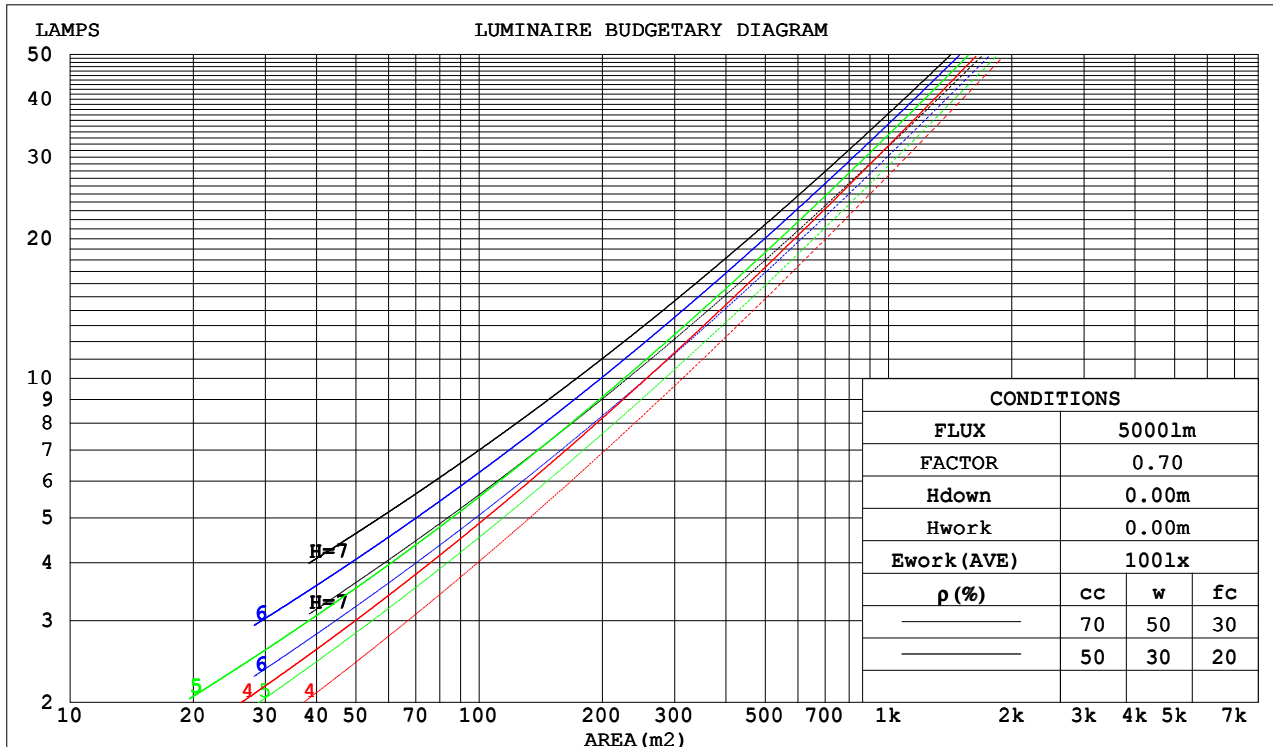
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:
 Test Date:2015-08-17

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:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm		
NAME: BT-MG200W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 192LEDs 120D	DIM.: 305*305*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*275mm	PROTECTION ANGLE:

pcc	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 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	1.05	1.00	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.89	.91	.89	.87	.85
2.0	.91	.85	.79	.90	.83	.78	.86	.81	.76	.83	.78	.75	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.70	.64	.73	.68	.63	.71	.66	.62	.60
4.0	.71	.63	.56	.70	.62	.56	.68	.61	.55	.65	.59	.54	.63	.58	.54	.51
5.0	.64	.55	.49	.63	.54	.48	.61	.53	.48	.59	.52	.47	.57	.51	.47	.45
6.0	.58	.49	.42	.57	.48	.42	.55	.47	.42	.53	.47	.42	.52	.46	.41	.39
7.0	.52	.44	.38	.52	.43	.37	.50	.43	.37	.49	.42	.37	.47	.41	.37	.35
8.0	.48	.39	.34	.47	.39	.34	.46	.39	.33	.45	.38	.33	.43	.37	.33	.31
9.0	.44	.36	.30	.43	.36	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.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:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm		
NAME: BT-MG200W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 192LEDs 120D	DIM.: 305*305*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*275mm	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	.296	.168	.053	.289	.165	.052	.275	.158	.050	.263	.152	.049	.252	.146	.047				
2.0	.282	.155	.047	.276	.152	.047	.265	.147	.046	.254	.142	.045	.244	.138	.044				
3.0	.263	.140	.042	.258	.138	.042	.247	.134	.041	.238	.130	.040	.229	.127	.039				
4.0	.244	.127	.037	.239	.125	.037	.230	.122	.036	.221	.119	.036	.213	.116	.035				
5.0	.226	.115	.033	.222	.114	.033	.213	.111	.033	.206	.109	.032	.199	.106	.032				
6.0	.210	.105	.030	.206	.104	.030	.199	.102	.030	.192	.100	.029	.186	.098	.029				
7.0	.196	.097	.027	.192	.096	.027	.186	.094	.027	.180	.092	.027	.174	.090	.027				
8.0	.183	.089	.025	.180	.089	.025	.174	.087	.025	.169	.086	.025	.164	.084	.024				
9.0	.172	.083	.023	.169	.082	.023	.164	.081	.023	.159	.080	.023	.154	.078	.023				
10.0	.162	.077	.022	.159	.077	.021	.154	.076	.021	.150	.075	.021	.146	.073	.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	.179	.156	.135	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011	
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.059	.133	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.148	.090	.048	.127	.078	.042	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.141	.082	.040	.121	.071	.035	.084	.050	.024	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.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	.069	.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:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm										
NAME: BT-MG200W					TYPE:Clear pc cover			WEIGHT:		
SPEC.:5000k 192LEDs 120D					DIM.: 305*305*185mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:275*275mm			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	28.0	29.5	28.3	29.7	29.9	28.2	29.7	28.5	29.9	30.1
3H	29.4	30.7	29.7	31.0	31.2	29.7	31.1	30.0	31.3	31.6
4H	29.9	31.2	30.2	31.5	31.7	30.4	31.7	30.7	31.9	32.2
6H	30.4	31.6	30.7	31.9	32.2	30.4	31.7	30.8	31.9	32.2
8H	30.5	31.7	30.9	32.0	32.3	30.4	31.6	30.7	31.9	32.2
12H	30.6	31.8	31.0	32.0	32.4	30.3	31.5	30.7	31.8	32.1
4H 2H	28.7	30.0	29.0	30.2	30.5	28.8	30.1	29.1	30.4	30.6
3H	30.2	31.4	30.6	31.7	32.0	30.6	31.7	30.9	32.0	32.3
4H	31.0	32.0	31.3	32.3	32.6	31.4	32.4	31.7	32.7	33.0
6H	31.6	32.5	32.0	32.8	33.2	31.5	32.4	31.9	32.8	33.1
8H	31.8	32.6	32.2	33.0	33.4	31.4	32.3	31.8	32.7	33.0
12H	31.9	32.7	32.3	33.1	33.5	31.4	32.2	31.8	32.6	33.0
8H 4H	31.3	32.2	31.7	32.5	32.9	31.7	32.5	32.1	32.9	33.3
6H	32.1	32.9	32.6	33.3	33.7	31.8	32.6	32.3	33.0	33.4
8H	32.5	33.1	32.9	33.5	34.0	31.8	32.4	32.3	32.9	33.3
12H	32.7	33.3	33.2	33.7	34.2	31.8	32.3	32.2	32.8	33.2
12H 4H	31.3	32.1	31.7	32.5	32.9	31.7	32.5	32.1	32.9	33.3
6H	32.1	32.8	32.6	33.2	33.7	31.9	32.5	32.3	32.9	33.4
8H	32.5	33.0	33.0	33.5	34.0	31.9	32.4	32.3	32.8	33.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.1 / - 0.2				
2.0H	+ 0.2 / - 0.2					+ 0.3 / - 0.4				

CIE Pub.117 Corrected 20269 lm Total Lamp Luminous Flux.(8log(F/F0) = 10.5)

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:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm		
NAME: BT-MG200W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 192LEDs 120D	DIM.: 305*305*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*275mm	PROTECTION ANGLE:

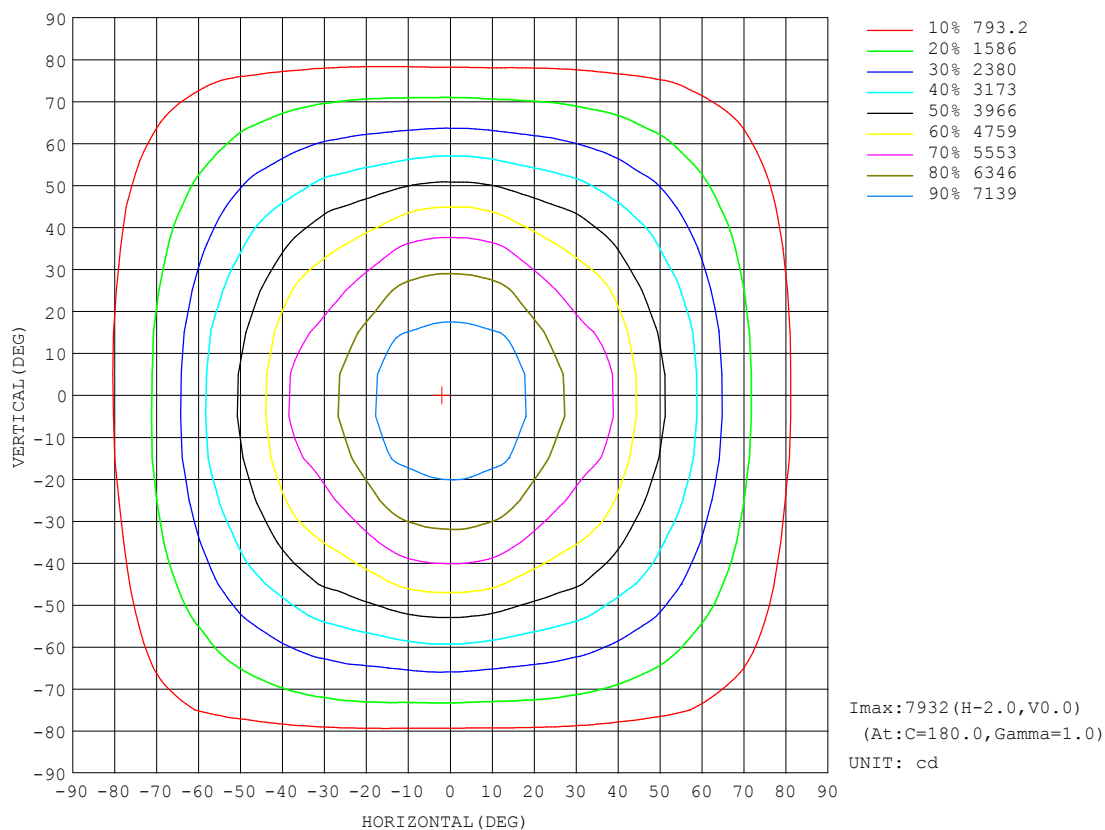
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	41	58	47	41	57	47	40	34
0.80	69	58	50	68	57	50	66	56	50	43
1.00	77	66	59	76	66	59	74	67	58	52
1.25	84	74	67	83	73	67	80	72	66	59
1.50	89	80	73	88	79	72	85	77	71	64
2.00	96	88	81	94	86	81	91	84	79	71
2.50	100	92	86	98	91	85	94	88	84	76
3.00	103	96	91	101	95	90	97	92	88	80
4.00	107	101	97	105	100	96	100	96	93	84
5.00	109	105	101	107	103	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:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm		
NAME: BT-MG200W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 192LEDs 120D	DIM.: 305*305*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*275mm	PROTECTION ANGLE:

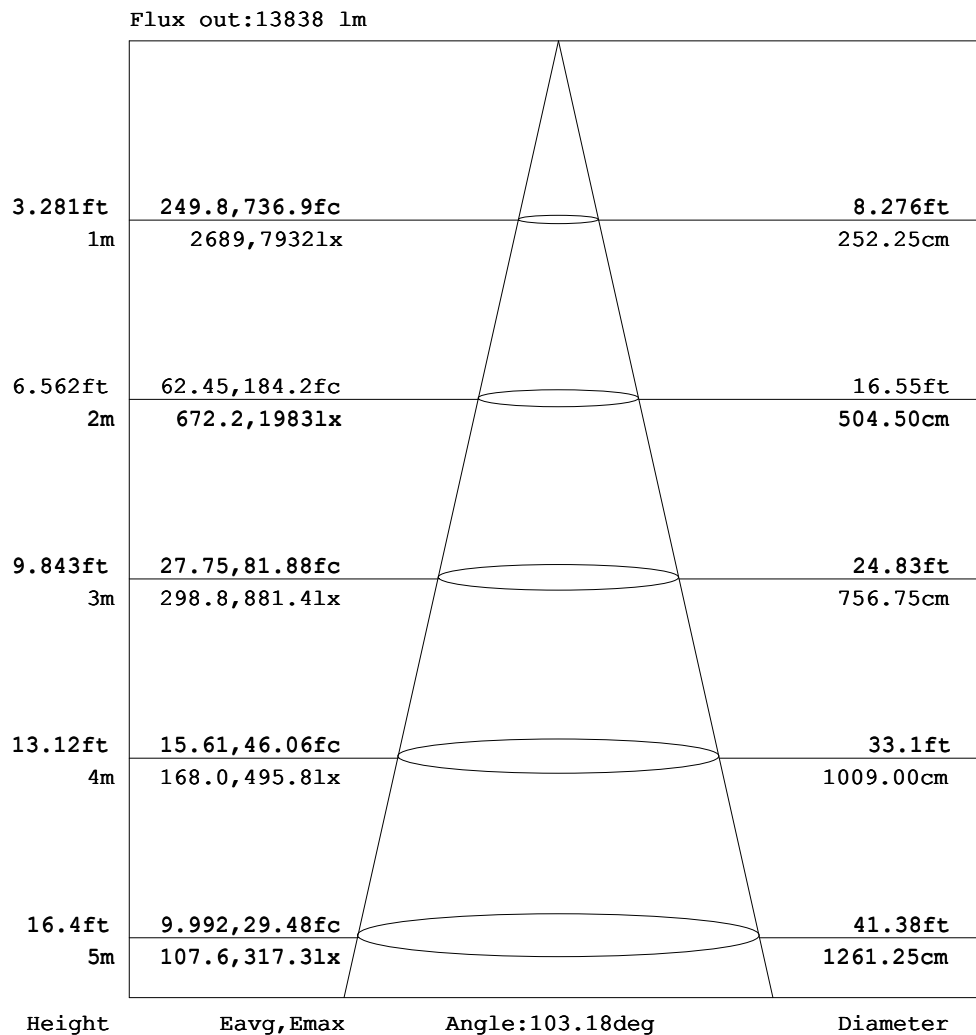


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-08-17

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:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm		
NAME: BT-MG200W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 192LEDs 120D	DIM.: 305*305*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*275mm	PROTECTION ANGLE:



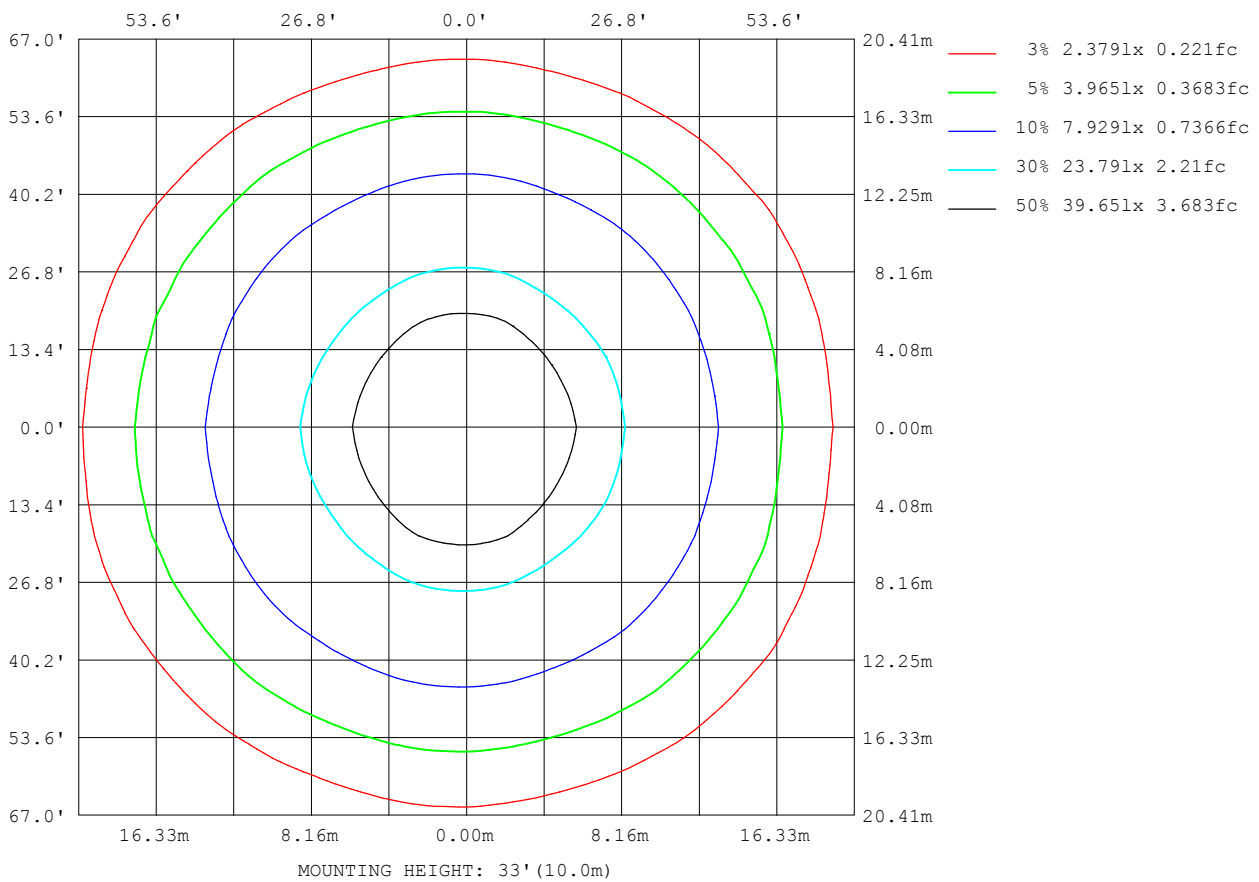
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

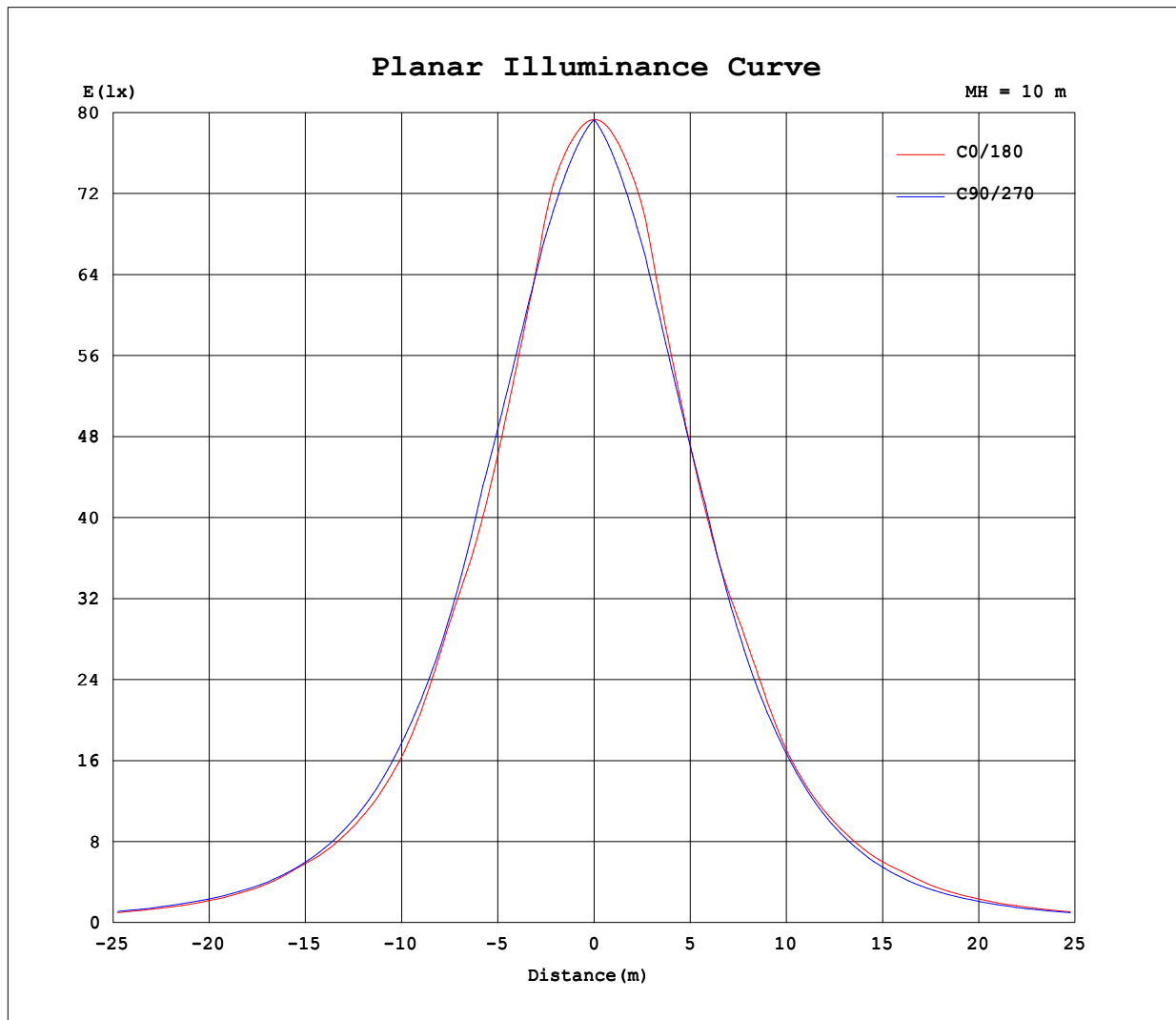
Test:U:231.1V I:0.8994A P:202.5W PF:0.9744 Lamp Flux:20269.4x1 lm		
NAME: BT-MG200W	TYPE:Clear pc cover	WEIGHT:
SPEC.:5000k 192LEDs 120D	DIM.: 305*305*185mm	SERIAL No.:
MFR.: EVERFINE	SUR.:275*275mm	PROTECTION ANGLE:



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:

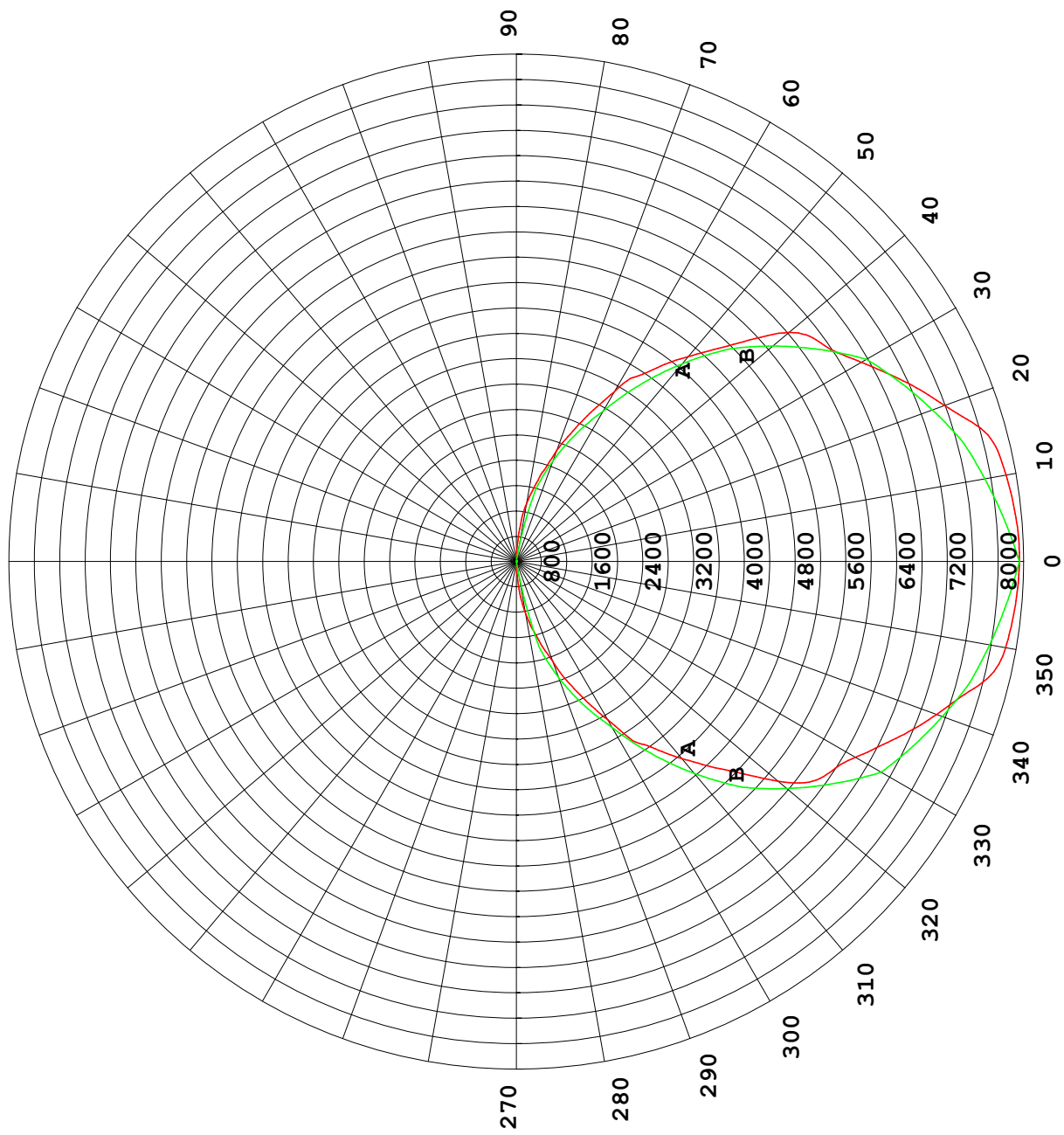
Planar Illuminance Curve

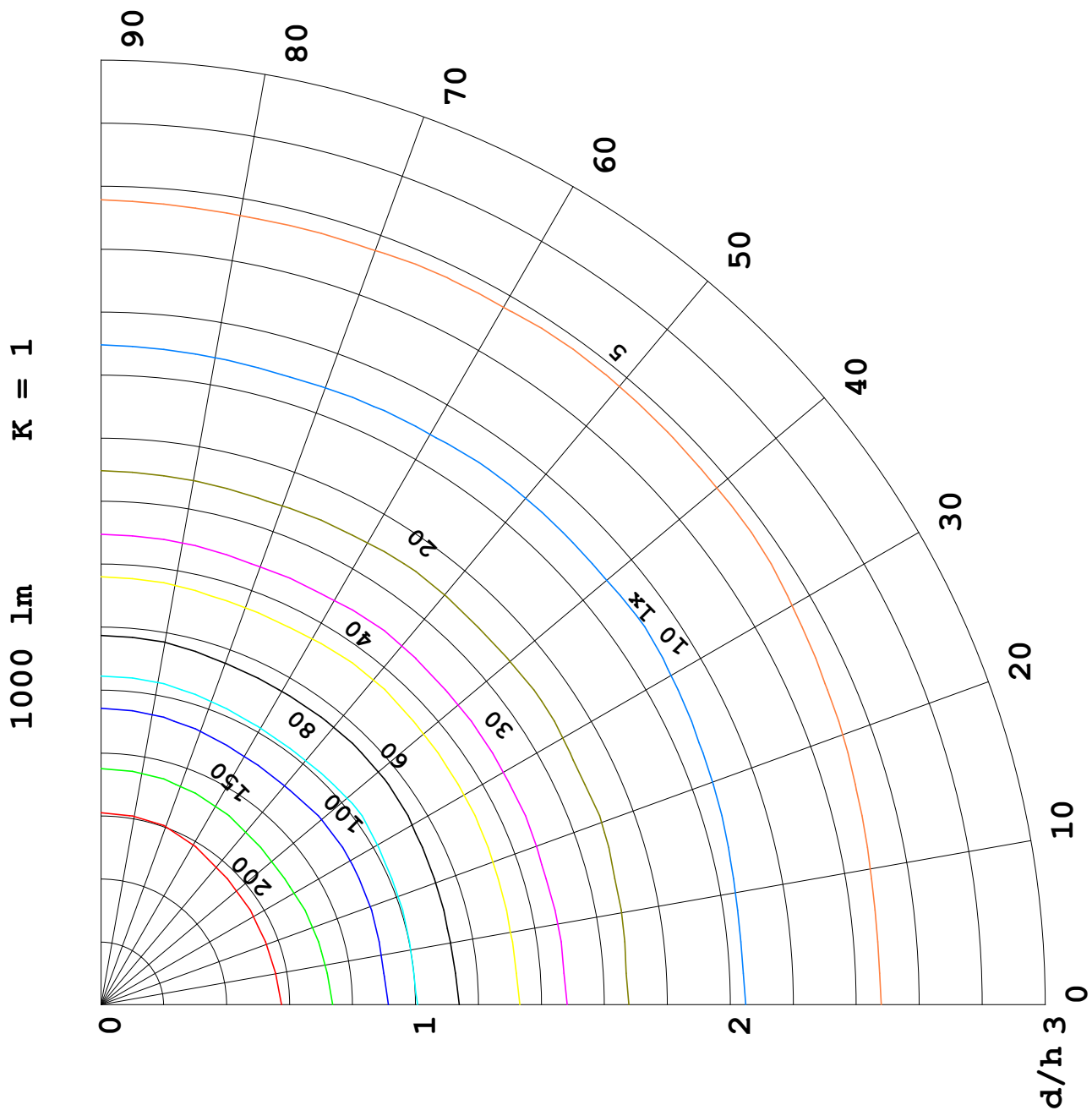


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-08-17

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	Pw	Pfc
—————	70	50	30
—————	50	30	20

