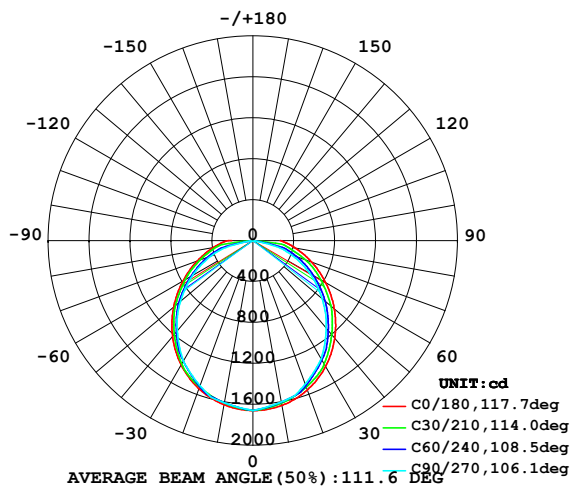


## LUMINAIRE PHOTOMETRIC TEST REPORT

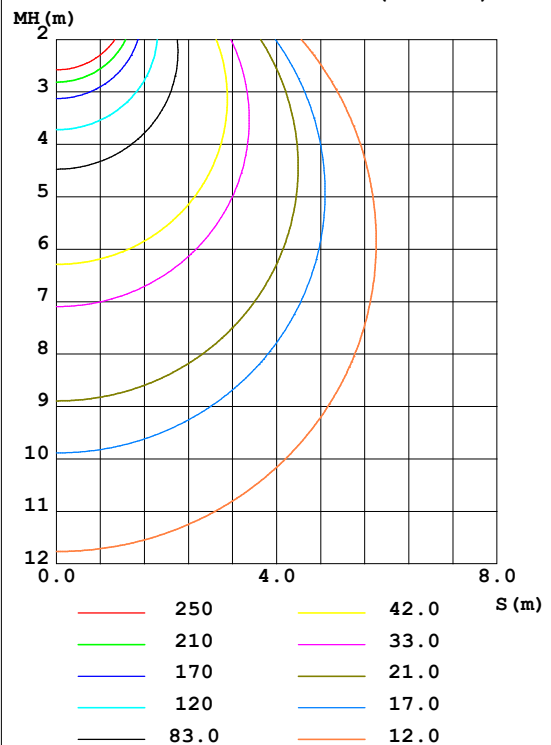
Test:U:231.1V I:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 129.90 lm/W			
MODEL	SMD5630	Imax(cd)	1661	S/MH(C0/180)	1.26
NOMINAL POWER(W)	36	LOR(%)	100.0	S/MH(C90/270)	1.22
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	4751.3	$\eta$ UP,DN(C0-180)	0.0,49.3
NOMINAL FLUX(lm)	4751.31	CIE CLASS	DIRECT	$\eta$ UP,DN(C180-360)	0.0,50.7
LAMPS INSIDE	1	$\eta$ up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	$\eta$ 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:2015-08-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
5	1655	1637	1631	1635	1652	1638	1635	1640	0- 5	39.38	39.38	0.83,0.83
10	1635	1607	1601	1603	1629	1608	1610	1613	5- 10	116.2	155.6	3.28,3.28
15	1602	1570	1572	1564	1592	1573	1584	1579	10- 15	189.0	344.7	7.25,7.25
20	1555	1527	1493	1519	1541	1531	1510	1538	15- 20	255.3	600.0	12.6,12.6
25	1494	1450	1415	1440	1478	1454	1435	1464	20- 25	311.5	911.4	19.2,19.2
30	1421	1364	1336	1352	1403	1369	1361	1380	25- 30	357.0	1268	26.7,26.7
35	1339	1276	1226	1261	1317	1281	1256	1295	30- 35	390.6	1659	34.9,34.9
40	1245	1182	1116	1165	1222	1187	1151	1203	35- 40	410.2	2069	43.6,43.6
45	1145	1067	1006	1049	1120	1074	1046	1091	40- 45	416.8	2486	52.3,52.3
50	1039	953.6	884.8	934.9	1012	963.1	924.0	980.6	45- 50	410.9	2897	61,61
55	931.0	842.0	764.0	822.6	900.5	853.7	802.3	871.5	50- 55	392.6	3290	69.2,69.2
60	821.3	725.6	643.2	704.2	789.2	734.2	680.6	753.7	55- 60	363.9	3653	76.9,76.9
65	713.6	612.4	518.5	589.5	681.1	619.0	555.5	640.3	60- 65	326.5	3980	83.8,83.8
70	609.7	505.5	393.9	481.7	576.8	509.9	430.4	531.5	65- 70	281.9	4262	89.7,89.7
75	511.8	405.4	269.3	381.5	479.6	406.8	305.3	426.7	70- 75	231.2	4493	94.6,94.6
80	421.4	257.9	0	238.7	392.3	257.1	0	271.7	75- 80	164.1	4657	98,98
85	340.2	0	0	0	315.4	0	0	0	80- 85	74.03	4731	99.6,99.6
90	266.0	0	0	0	208.7	0	0	0	85- 90	20.13	4751	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		

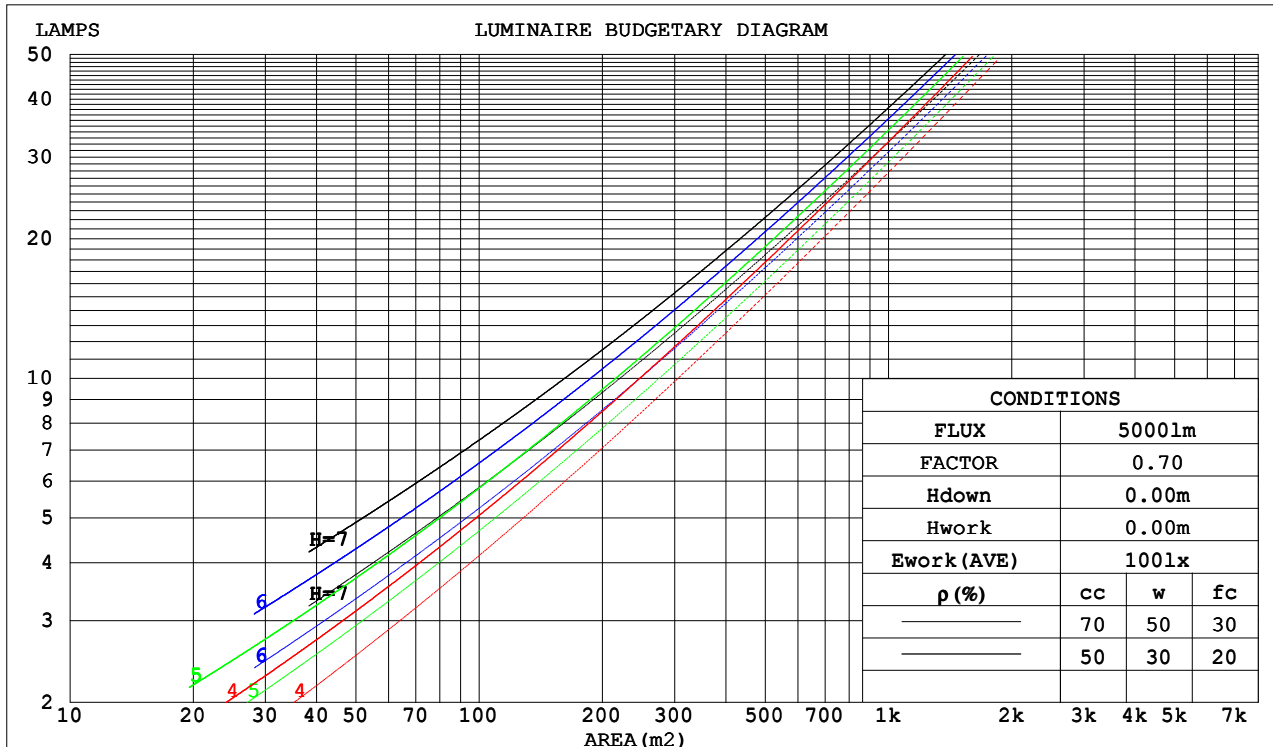
C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:  
 Test Date:2015-08-21

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  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:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	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	1.00
1.0	1.03	.99	.95	1.01	.97	.93	.97	.94	.90	.93	.90	.88	.89	.87	.85	.83
2.0	.90	.83	.77	.88	.81	.76	.84	.79	.74	.81	.76	.72	.78	.74	.71	.69
3.0	.79	.70	.64	.77	.69	.63	.74	.67	.62	.71	.65	.61	.69	.64	.60	.57
4.0	.69	.60	.54	.68	.60	.53	.66	.58	.52	.63	.57	.52	.61	.56	.51	.49
5.0	.62	.53	.46	.61	.52	.46	.59	.51	.45	.57	.50	.45	.55	.49	.44	.42
6.0	.56	.47	.40	.55	.46	.40	.53	.45	.40	.51	.44	.39	.50	.44	.39	.37
7.0	.51	.42	.35	.50	.41	.35	.48	.41	.35	.47	.40	.35	.45	.39	.34	.32
8.0	.46	.38	.32	.45	.37	.31	.44	.37	.31	.43	.36	.31	.42	.35	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.30	.26	.37	.30	.25	.36	.30	.25	.24



C Range: 0 - 360DEG  
 C Interval: 5.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:  
 Test Date:2015-08-21

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:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	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	.318	.181	.057	.311	.178	.056	.298	.171	.055	.286	.165	.053	.274	.159	.051			
2.0	.298	.164	.050	.292	.161	.050	.280	.156	.048	.270	.151	.047	.260	.147	.046			
3.0	.275	.146	.044	.270	.144	.043	.259	.140	.043	.249	.137	.042	.241	.133	.041			
4.0	.253	.131	.039	.248	.130	.038	.239	.127	.038	.230	.124	.037	.222	.121	.037			
5.0	.233	.119	.034	.229	.118	.034	.221	.115	.034	.213	.112	.033	.206	.110	.033			
6.0	.216	.108	.031	.212	.107	.031	.205	.105	.031	.198	.103	.030	.192	.101	.030			
7.0	.201	.099	.028	.197	.098	.028	.191	.096	.028	.185	.095	.028	.179	.093	.027			
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.173	.088	.025	.168	.086	.025			
9.0	.175	.085	.024	.172	.084	.024	.167	.083	.023	.162	.081	.023	.158	.080	.023			
10.0	.165	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.149	.075	.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	.181	.156	.134	.155	.134	.115	.106	.092	.080	.061	.053	.046	.020	.017	.015	
2.0	.173	.132	.097	.148	.114	.084	.102	.079	.059	.059	.046	.034	.019	.015	.011	
3.0	.165	.114	.074	.142	.099	.064	.097	.069	.045	.056	.040	.026	.018	.013	.009	
4.0	.158	.101	.058	.135	.087	.050	.093	.061	.035	.054	.036	.021	.017	.012	.007	
5.0	.150	.091	.047	.129	.078	.041	.089	.055	.029	.051	.032	.017	.017	.011	.006	
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.029	.112	.060	.025	.077	.042	.018	.045	.025	.011	.015	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.118	.060	.022	.101	.052	.019	.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:2015-08-21

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:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm										
NAME: BT-TB36W					TYPE:Frosted pc cover			WEIGHT:		
SPEC.:5000k 360LEDs R70 120D					DIM.: 1250*230*60mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:1200*65.4*65.4mm			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	23.0	24.5	23.2	24.7	24.9	22.0	23.5	22.2	23.7	23.9
3H	25.0	26.4	25.3	26.6	26.9	23.4	24.8	23.7	25.1	25.3
4H	25.9	27.3	26.2	27.5	27.8	23.9	25.3	24.3	25.6	25.8
6H	26.9	28.2	27.2	28.5	28.7	24.0	25.3	24.3	25.5	25.8
8H	27.4	28.7	27.8	29.0	29.2	23.9	25.2	24.3	25.5	25.7
12H	28.1	29.3	28.4	29.6	29.9	23.9	25.1	24.2	25.4	25.7
4H 2H	23.5	24.9	23.9	25.2	25.4	22.8	24.1	23.1	24.4	24.6
3H	25.7	26.9	26.1	27.2	27.5	24.4	25.6	24.8	25.9	26.2
4H	26.8	27.9	27.2	28.3	28.6	25.1	26.2	25.5	26.5	26.9
6H	28.0	29.0	28.4	29.3	29.7	25.2	26.2	25.6	26.5	26.9
8H	28.7	29.6	29.1	29.9	30.3	25.2	26.1	25.6	26.4	26.8
12H	29.4	30.3	29.9	30.6	31.1	25.1	25.9	25.5	26.3	26.7
8H 4H	27.2	28.1	27.6	28.4	28.8	25.7	26.6	26.1	27.0	27.4
6H	28.6	29.3	29.0	29.7	30.2	25.8	26.6	26.3	27.0	27.4
8H	29.4	30.1	29.9	30.5	31.0	25.8	26.5	26.3	26.9	27.4
12H	30.4	31.0	30.9	31.4	31.9	25.8	26.3	26.3	26.8	27.3
12H 4H	27.1	28.0	27.6	28.4	28.8	25.8	26.7	26.2	27.0	27.4
6H	28.6	29.3	29.0	29.7	30.1	26.0	26.7	26.5	27.1	27.6
8H	29.4	30.0	29.9	30.5	30.9	26.0	26.5	26.4	27.0	27.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.1 / - 0.2				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117 Corrected 4751 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.4)

C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:  
Test Date:2015-08-21

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:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:

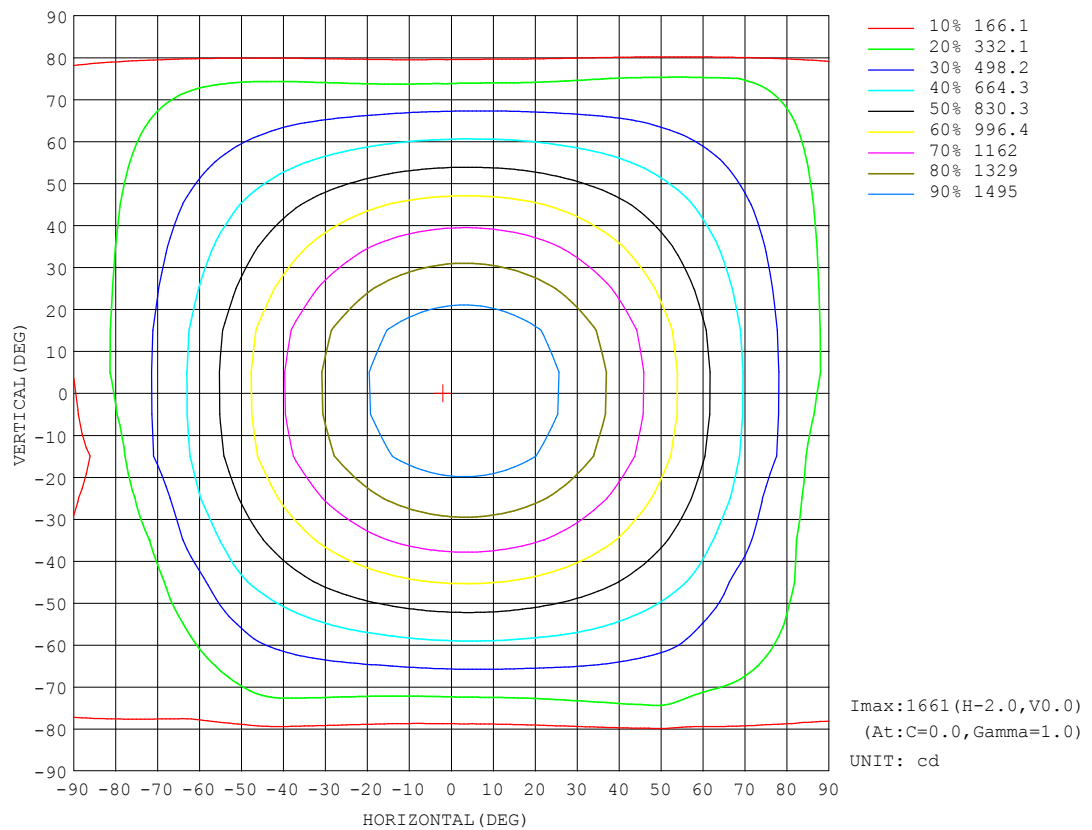
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	45	38	32
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	57	74	63	56	72	65	56	48
1.25	82	72	64	81	71	64	78	69	63	56
1.50	87	77	70	86	76	70	83	75	69	61
2.00	94	86	79	92	84	78	89	82	77	69
2.50	98	90	84	96	89	83	92	86	81	73
3.00	102	95	89	100	93	88	95	90	86	77
4.00	106	100	95	103	98	94	99	95	91	82
5.00	108	103	99	106	101	98	101	98	95	85
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:2015-08-21

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:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:

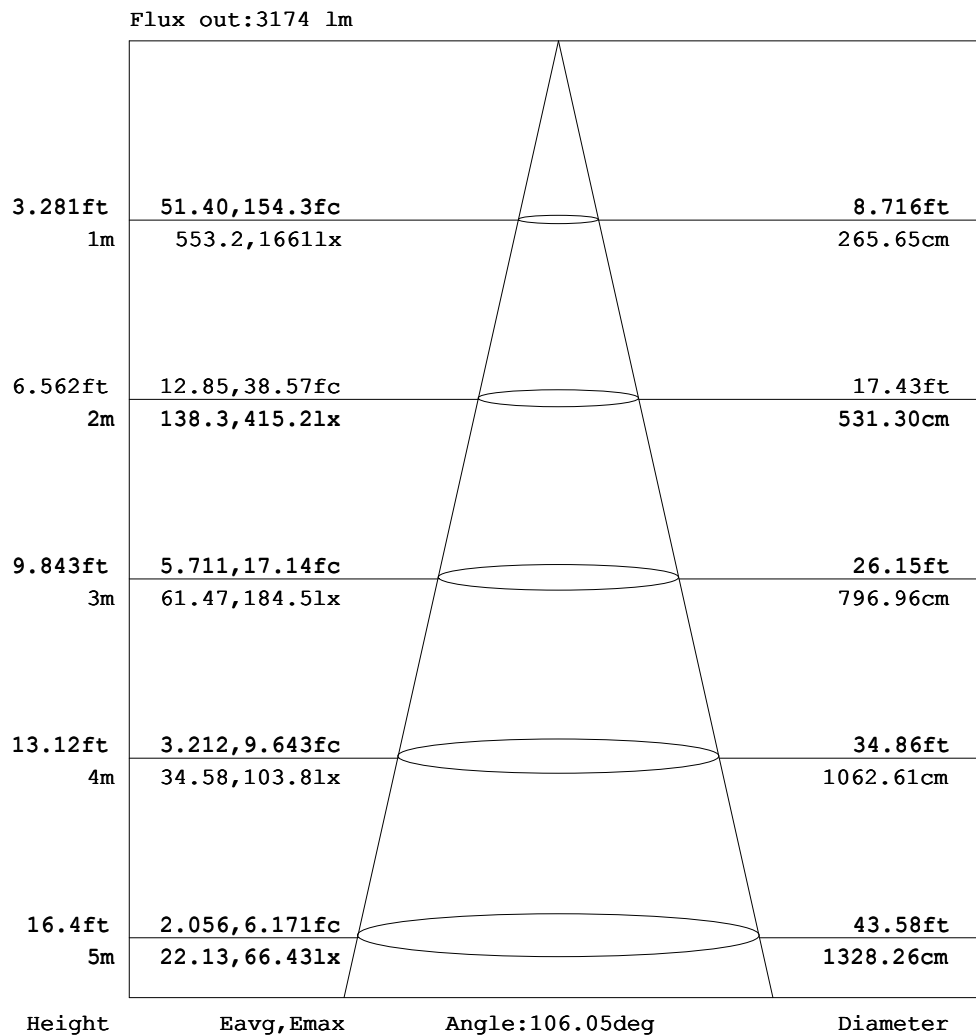


C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:  
Test Date:2015-08-21

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:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:



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

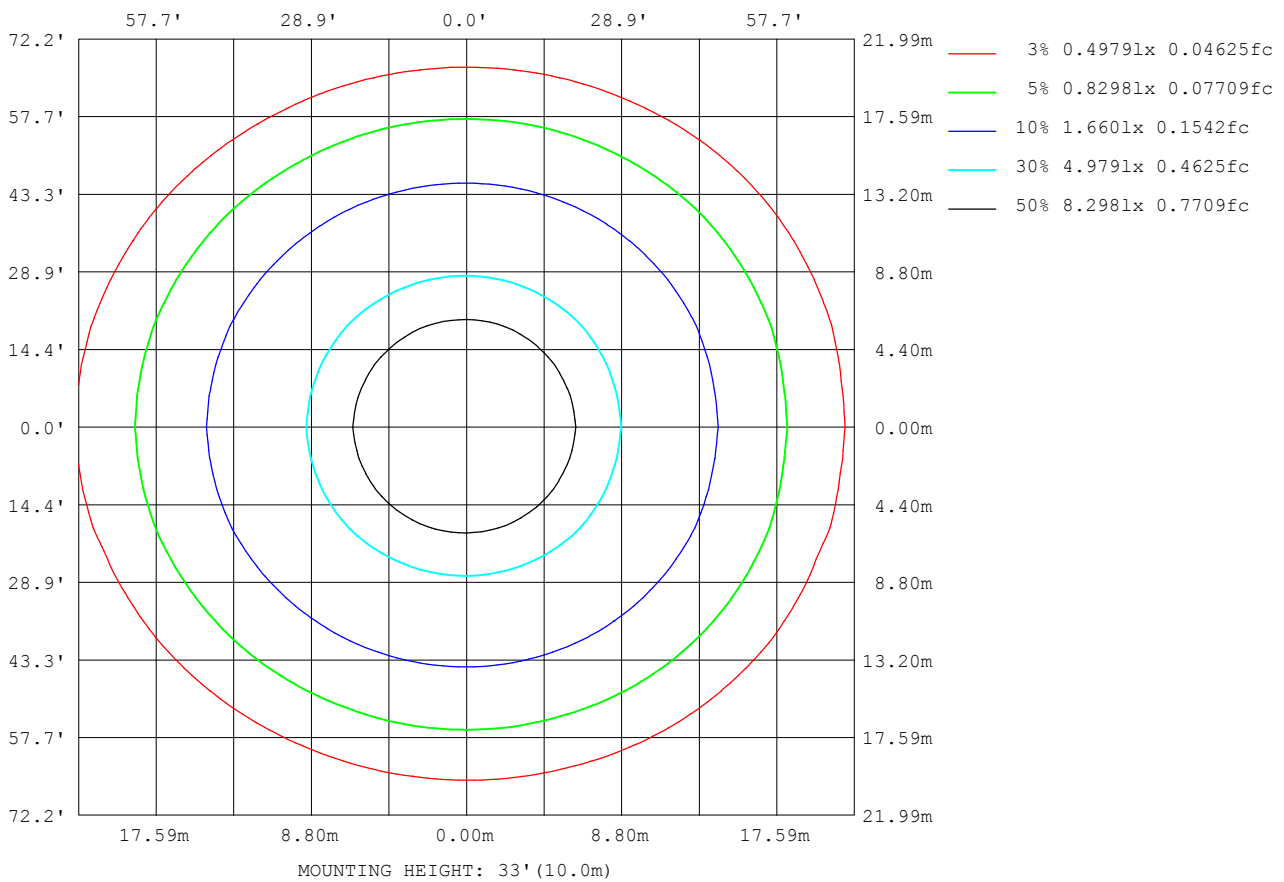
C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:  
Test Date:2015-08-21

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

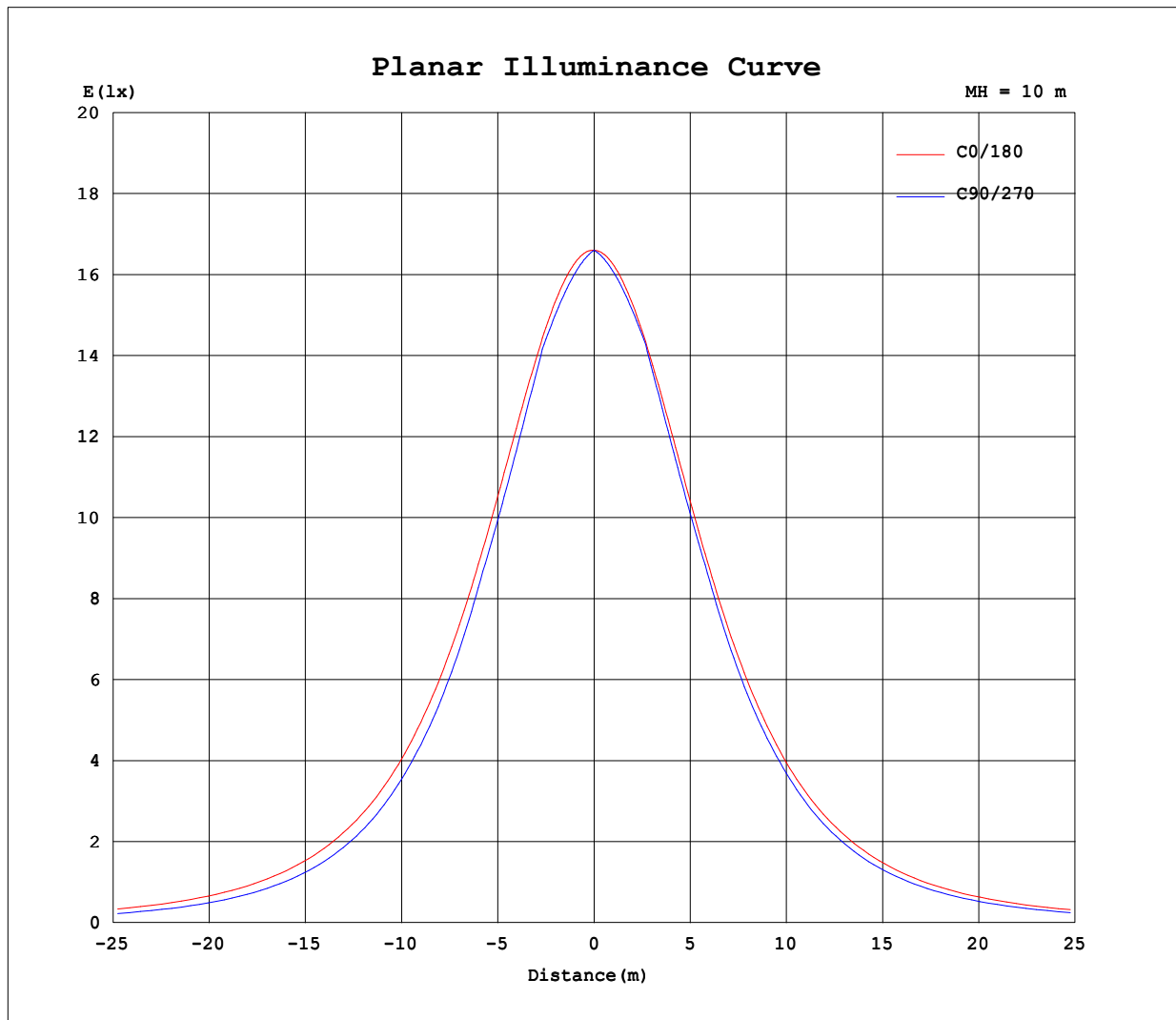
Test:U:231.1V I:0.1651A P:36.58W PF:0.9587 Lamp Flux:4751.31x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 360LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:  
Test Date:2015-08-21

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:

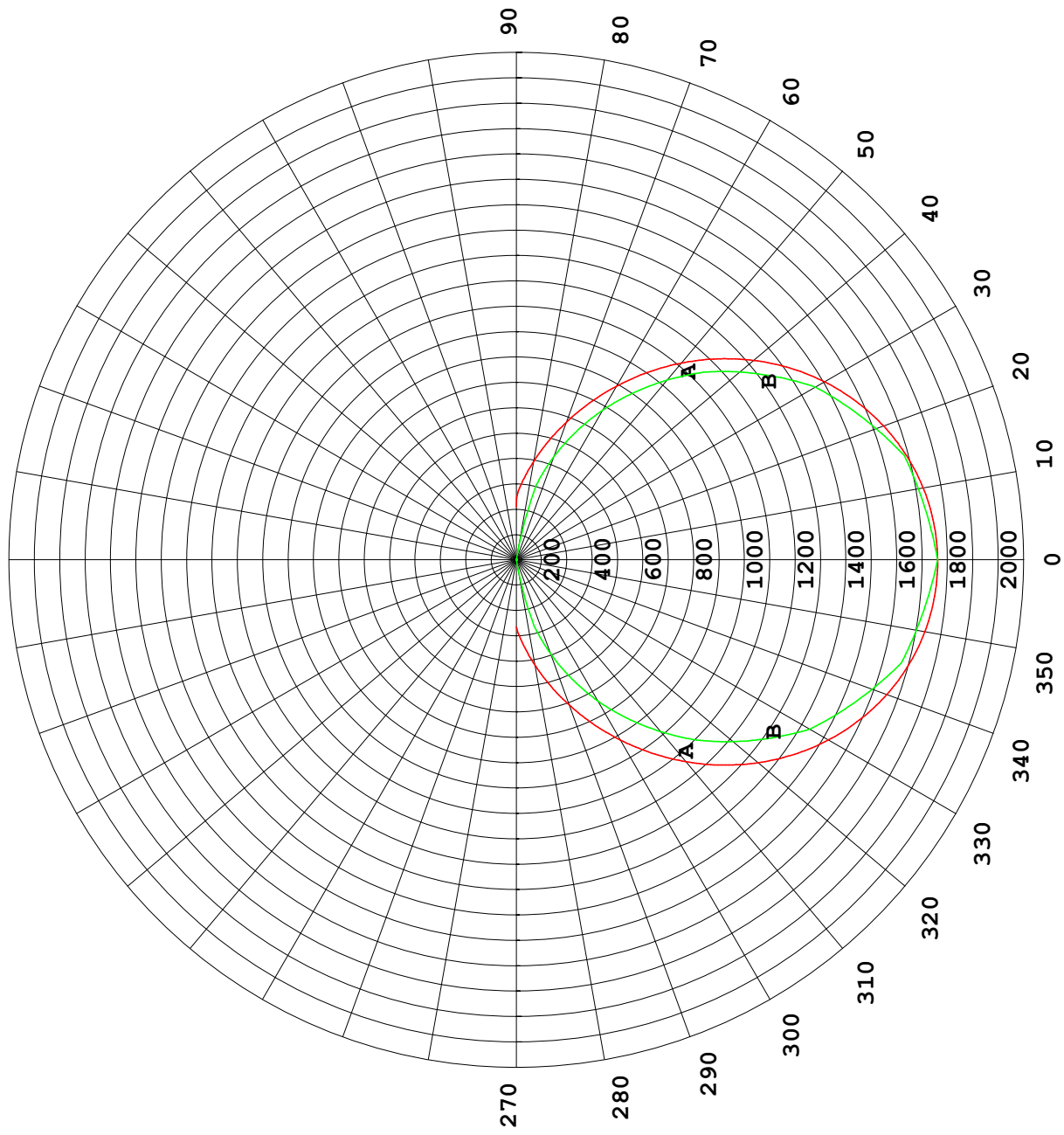
## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 5.0DEG  
Test Speed: HIGH  
Temperature: 30DEG  
Operators:  
Test Date: 2015-08-21

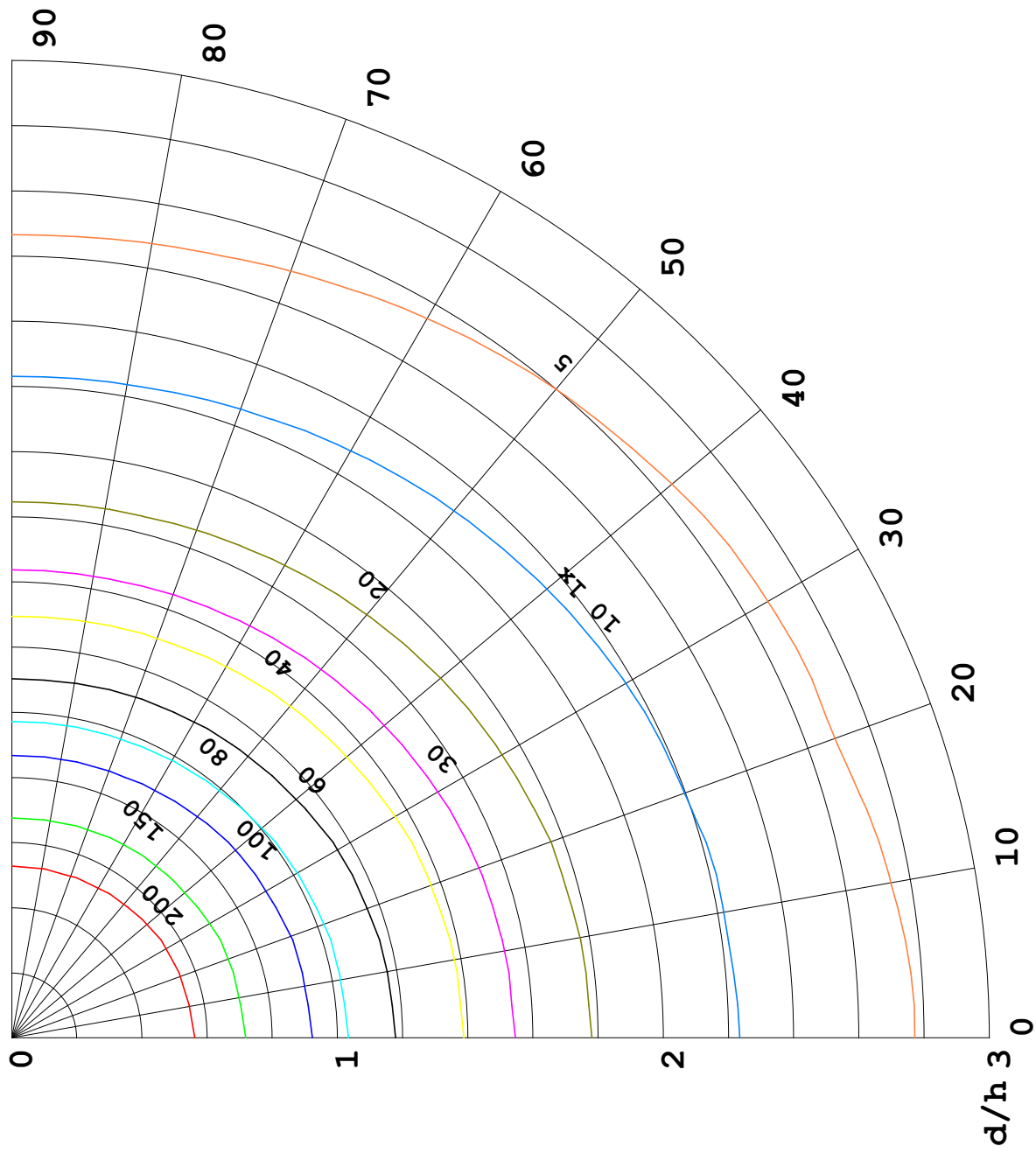
$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 0.5DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks:

I (cd)



$\kappa = 1$

1000 lm



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

