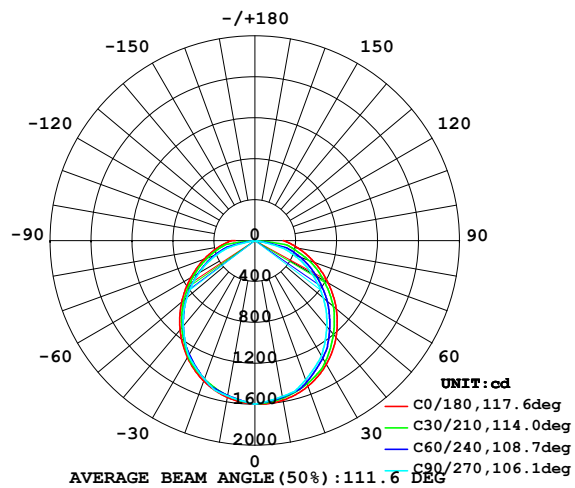


LUMINAIRE PHOTOMETRIC TEST REPORT

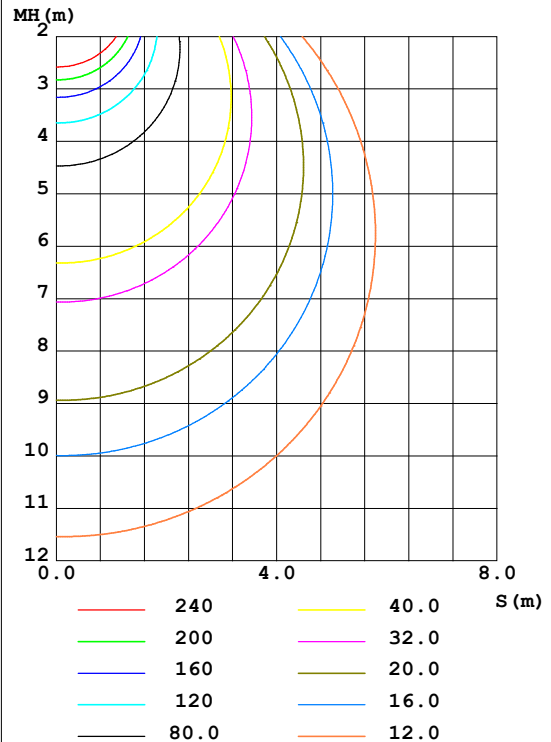
Test:U:231.1V I:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm					
NAME: BT-TB36W		TYPE:Frosted pc cover		WEIGHT:	
SPEC.:5000k 192LEDs R70 120D		DIM.: 1250*230*60mm		SERIAL No.:	
MFR.: EVERFINE		SUR.:1200*65.4*65.4mm		PROTECTION ANGLE:	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 125.57 lm/W
MODEL	SMD5630	Imax(cd)	1599	S/MH(C0/180)	1.23	
NOMINAL POWER(W)	36	LOR(%)	100.0	S/MH(C90/270)	1.21	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	4575.9	η UP,DN(C0-180)	0.0,50.0	
NOMINAL FLUX(lm)	4575.87	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	1597	1581	1572	1571	1583	1569	1569	1579	0- 5	37.88	37.88	0.83, 0.83
10	1584	1558	1547	1538	1556	1535	1542	1554	5- 10	111.8	149.7	3.27, 3.27
15	1556	1528	1522	1500	1515	1495	1514	1523	10- 15	181.8	331.5	7.24, 7.24
20	1516	1492	1449	1456	1461	1449	1442	1486	15- 20	245.6	577.1	12.6, 12.6
25	1462	1423	1376	1379	1395	1372	1370	1416	20- 25	299.7	876.8	19.2, 19.2
30	1397	1344	1303	1292	1319	1286	1298	1338	25- 30	343.6	1220	26.7, 26.7
35	1321	1263	1198	1204	1232	1198	1194	1257	30- 35	376.0	1596	34.9, 34.9
40	1234	1176	1093	1111	1138	1105	1090	1171	35- 40	394.9	1991	43.5, 43.5
45	1139	1067	988.7	998.8	1038	994.9	986.4	1064	40- 45	401.3	2393	52.3, 52.3
50	1039	957.9	873.1	888.8	933.9	887.2	867.6	958.1	45- 50	395.6	2788	60.9, 60.9
55	933.6	850.6	757.5	781.3	828.1	782.4	748.7	853.6	50- 55	378.0	3166	69.2, 69.2
60	826.2	737.1	641.8	668.7	723.3	667.5	629.8	737.9	55- 60	350.5	3517	76.9, 76.9
65	720.1	626.7	521.0	560.6	622.4	557.5	508.5	626.0	60- 65	314.5	3831	83.7, 83.7
70	616.7	521.4	400.1	459.5	526.3	455.6	387.2	519.7	65- 70	271.8	4103	89.7, 89.7
75	519.1	422.2	279.2	365.8	437.3	361.4	265.9	418.4	70- 75	223.2	4326	94.5, 94.5
80	429.4	271.8	0	230.6	357.1	226.3	0	266.7	75- 80	158.4	4485	98, 98
85	349.0	0	0	0	286.9	0	0	0	80- 85	71.61	4556	99.6, 99.6
90	276.9	0	0	0	191.7	0	0	0	85- 90	19.59	4576	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		

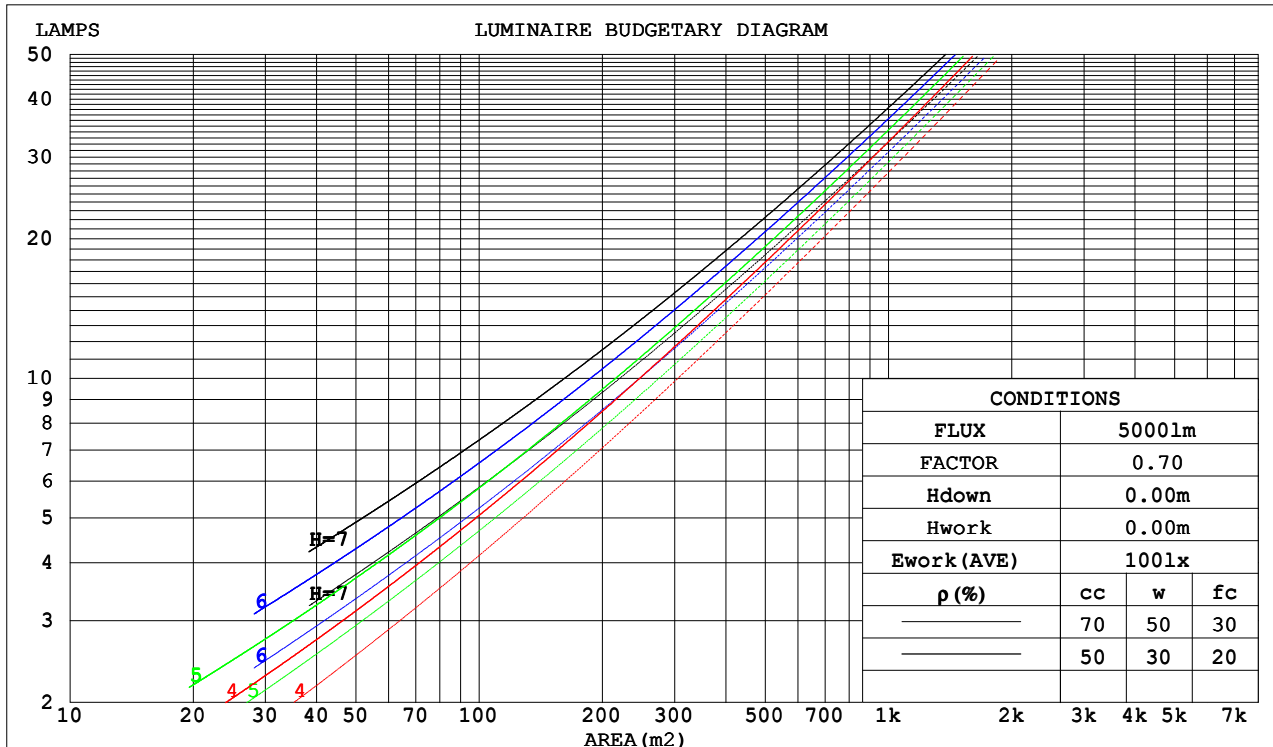
C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators:
 Test Date: 2015-08-17

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:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 192LEDs 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
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	1.03	.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	.63	.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	.37	.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:2015-08-17

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:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm														
NAME: BT-TB36W					TYPE:Frosted pc cover					WEIGHT:				
SPEC.:5000k 192LEDs 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	.319	.181	.057	.311	.178	.056	.298	.171	.055	.286	.165	.053	.275	.159	.051			
2.0	.299	.164	.050	.292	.161	.050	.281	.156	.048	.270	.151	.047	.260	.147	.046			
3.0	.275	.146	.044	.270	.144	.043	.259	.140	.043	.250	.137	.042	.241	.133	.041			
4.0	.253	.132	.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	.052	.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:2015-08-17

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:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm										
NAME: BT-TB36W					TYPE:Frosted pc cover			WEIGHT:		
SPEC.:5000k 192LEDs 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	23.2	24.7	23.4	24.9	25.1	22.1	23.6	22.4	23.9	24.1
3H	25.2	26.6	25.5	26.8	27.1	23.6	25.0	23.9	25.3	25.5
4H	26.2	27.5	26.5	27.8	28.0	24.2	25.6	24.5	25.8	26.1
6H	27.2	28.4	27.5	28.7	29.0	24.3	25.5	24.6	25.8	26.1
8H	27.7	28.9	28.0	29.2	29.5	24.2	25.4	24.5	25.7	26.0
12H	28.3	29.5	28.7	29.8	30.1	24.2	25.3	24.5	25.6	25.9
4H 2H	23.7	25.1	24.1	25.4	25.6	22.9	24.3	23.3	24.6	24.8
3H	26.0	27.2	26.3	27.5	27.8	24.7	25.9	25.0	26.2	26.5
4H	27.1	28.2	27.5	28.5	28.9	25.4	26.5	25.8	26.8	27.2
6H	28.3	29.3	28.7	29.6	30.0	25.5	26.5	25.9	26.8	27.2
8H	28.9	29.8	29.3	30.2	30.6	25.5	26.4	25.9	26.7	27.1
12H	29.7	30.5	30.1	30.9	31.3	25.4	26.3	25.9	26.6	27.1
8H 4H	27.4	28.4	27.9	28.7	29.1	26.0	26.9	26.4	27.3	27.7
6H	28.9	29.6	29.3	30.0	30.5	26.2	26.9	26.6	27.3	27.8
8H	29.7	30.4	30.2	30.8	31.3	26.1	26.8	26.6	27.2	27.7
12H	30.7	31.3	31.2	31.7	32.2	26.1	26.7	26.6	27.1	27.6
12H 4H	27.4	28.3	27.9	28.6	29.1	26.1	27.0	26.6	27.4	27.8
6H	28.9	29.6	29.3	30.0	30.4	26.3	27.0	26.8	27.4	27.9
8H	29.7	30.3	30.2	30.8	31.2	26.3	26.9	26.8	27.3	27.8
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 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				

CIE Pub.117 Corrected 4576 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.3)

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:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 192LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:

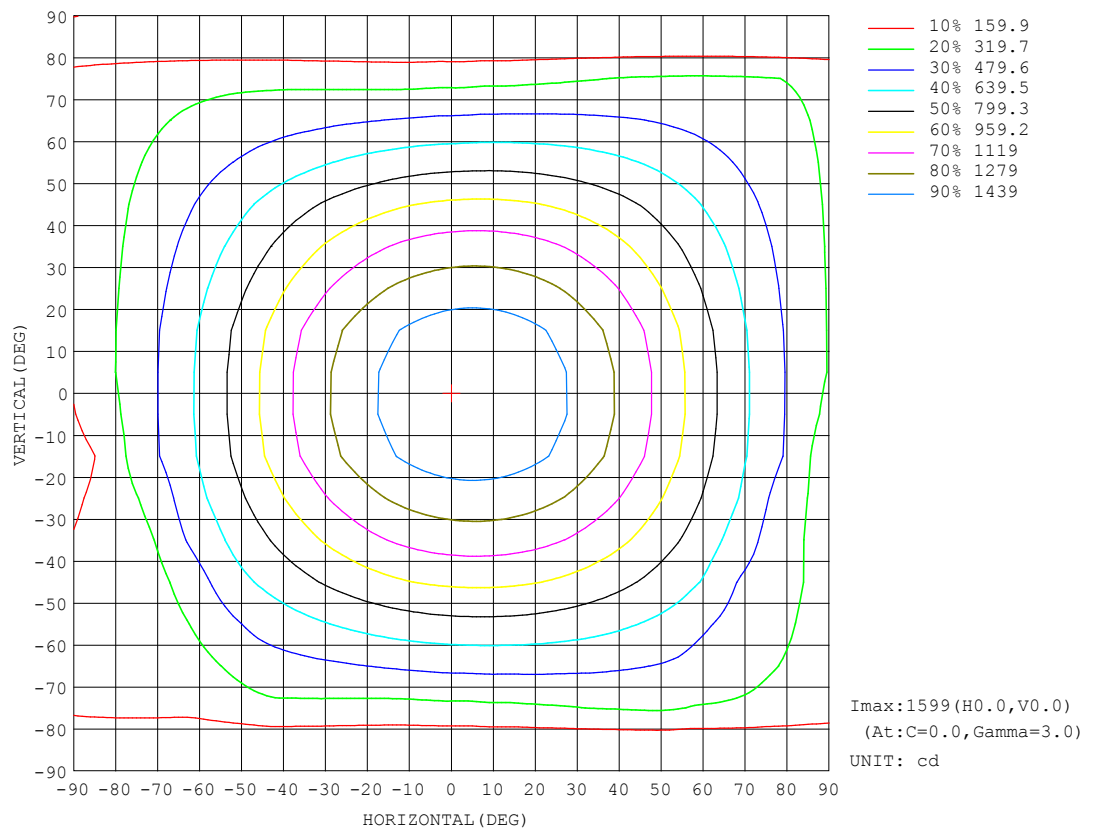
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	57	45	38	56	45	38	55	45	38	32
0.80	67	55	48	66	55	48	64	54	47	40
1.00	75	64	56	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	68	61
2.00	94	85	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:2015-08-17

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:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 192LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:

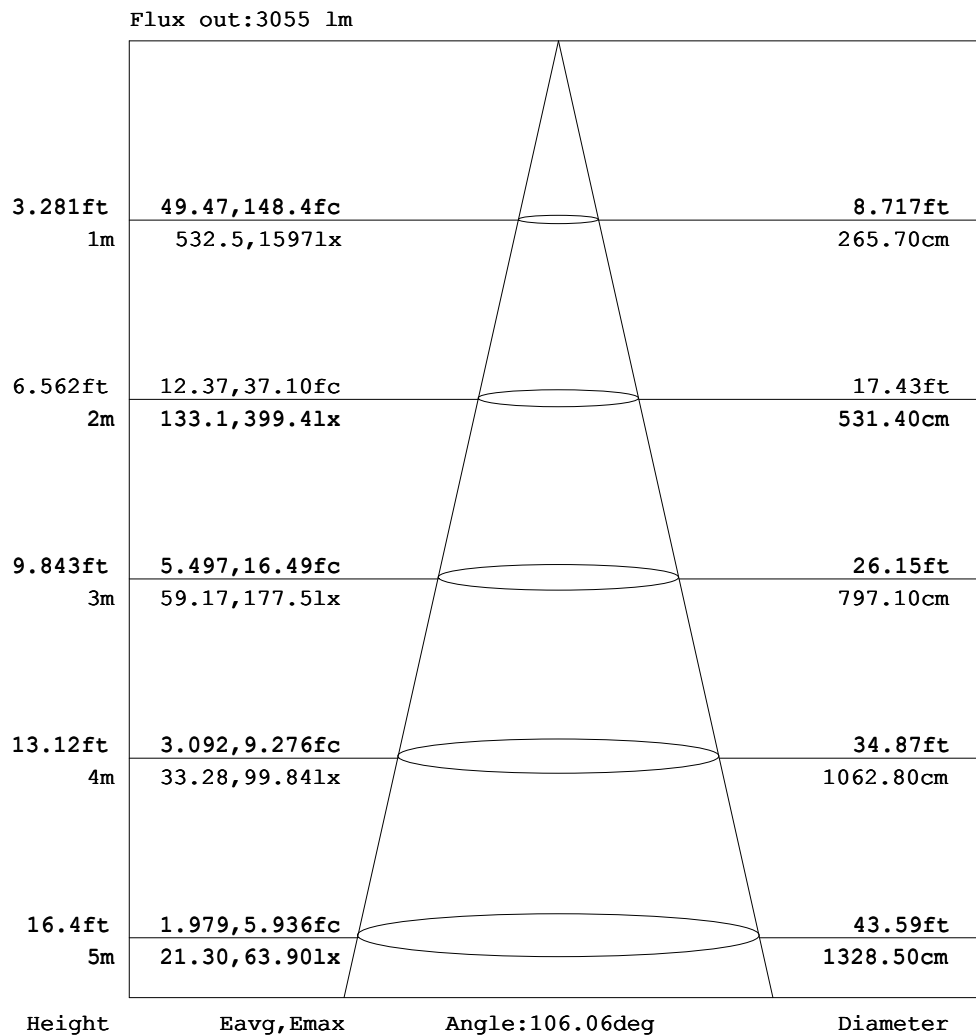


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:30DEG
Operators:
Test Date:2015-08-17

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:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 192LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:



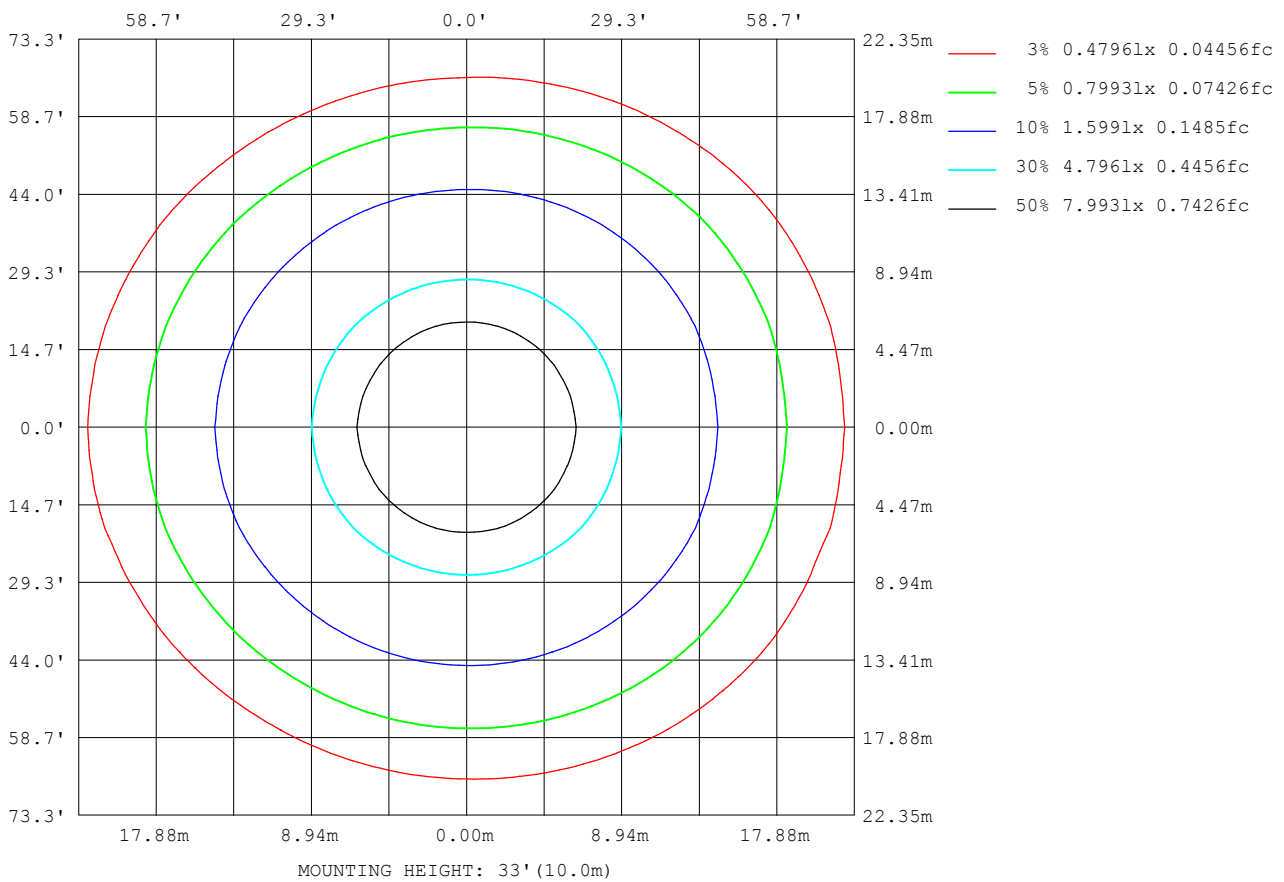
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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

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

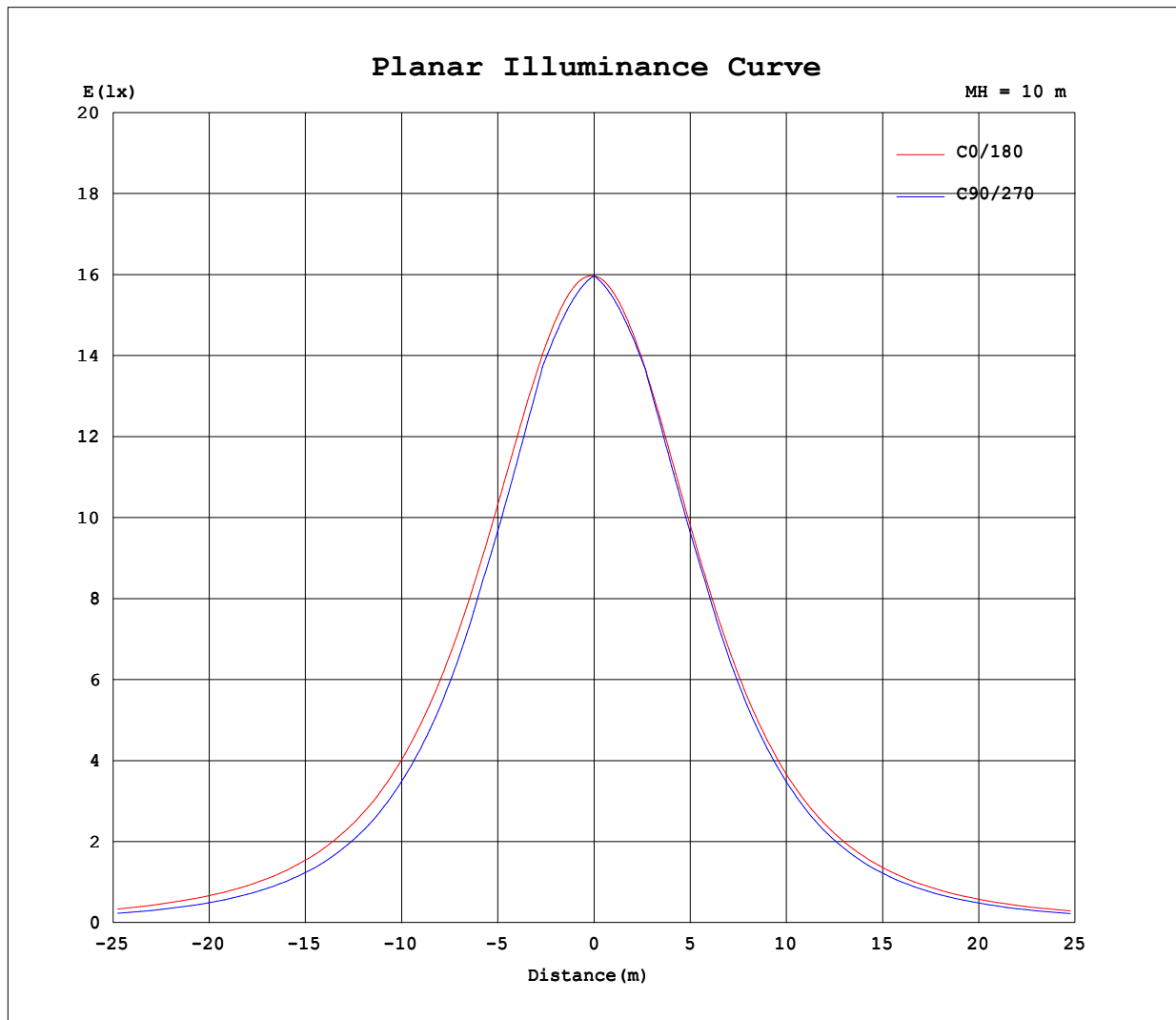
Test:U:231.1V I:0.1645A P:36.44W PF:0.9586 Lamp Flux:4575.87x1 lm		
NAME: BT-TB36W	TYPE:Frosted pc cover	WEIGHT:
SPEC.:5000k 192LEDs R70 120D	DIM.: 1250*230*60mm	SERIAL No.:
MFR.: EVERFINE	SUR.:1200*65.4*65.4mm	PROTECTION ANGLE:



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

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:

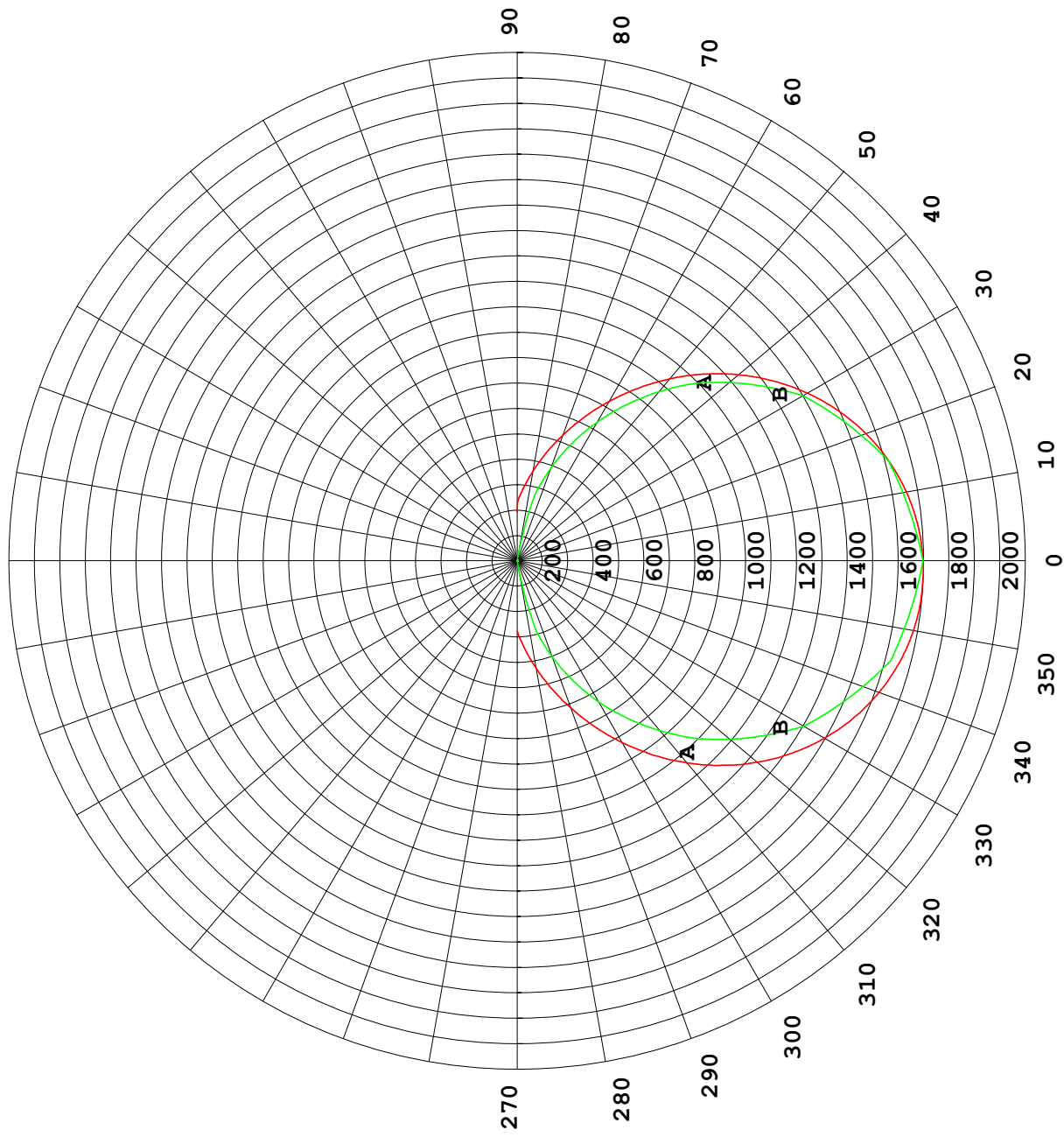
Planar Illuminance Curve

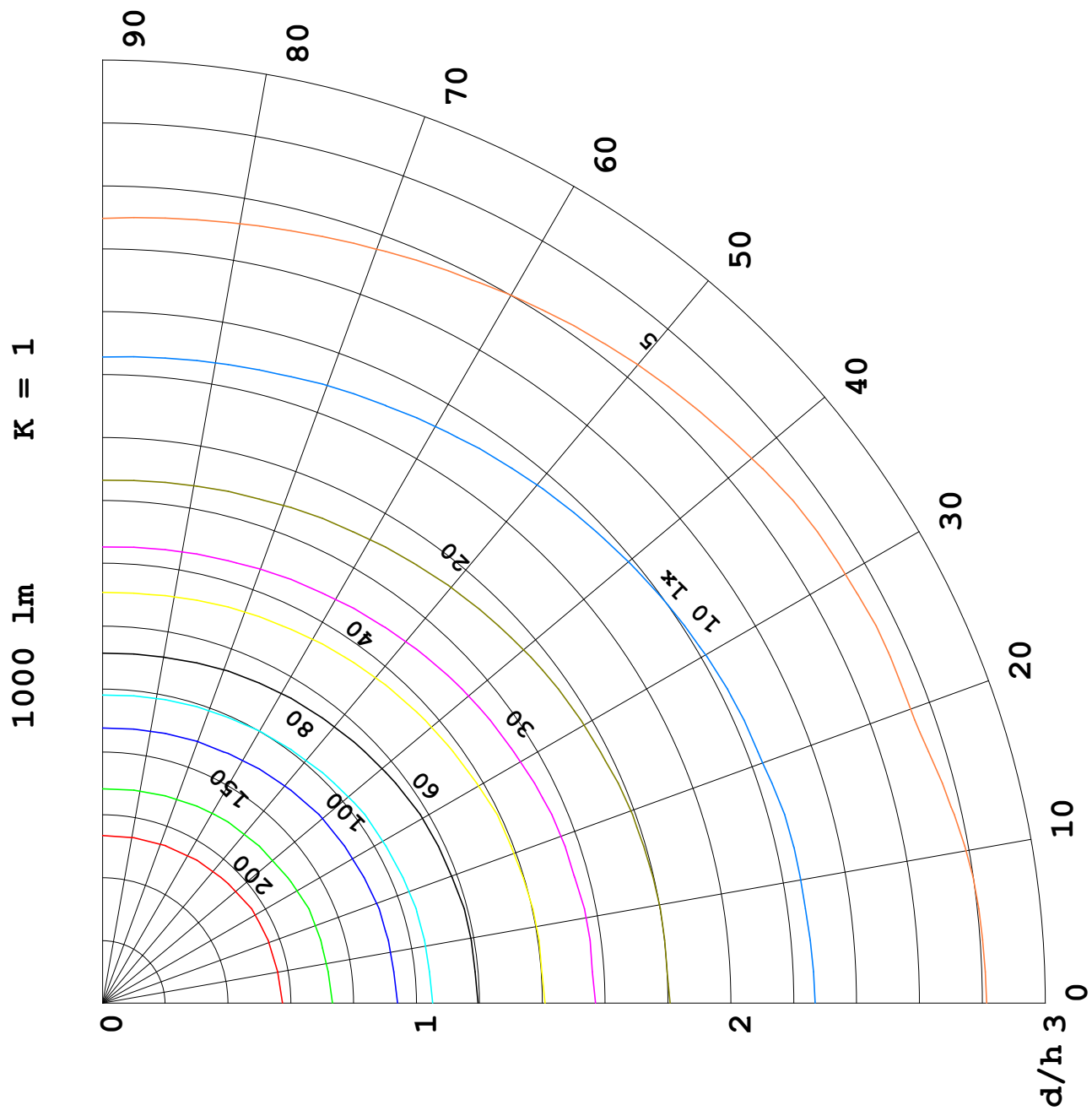


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators:
Test Date: 2015-08-17

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

