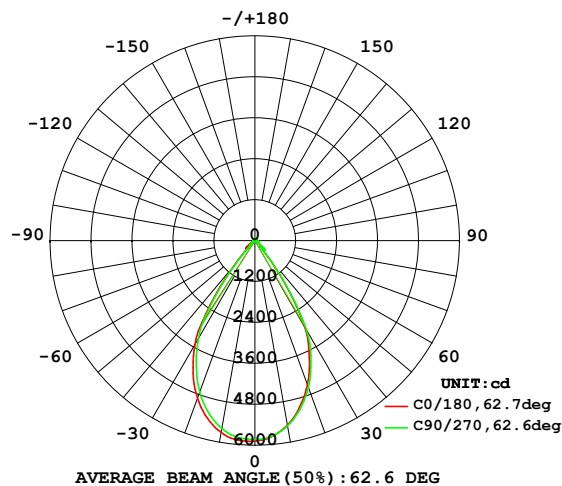


## LUMINAIRE PHOTOMETRIC TEST REPORT

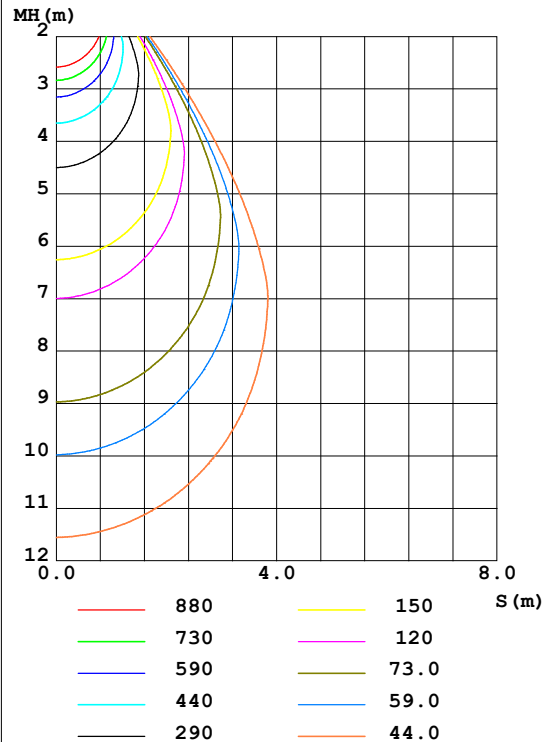
Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm		
NAME: BT-AS60W-6	TYPE:AL reflector	WEIGHT:1150g
SPEC.:5000K COB 60D	DIM.: 169*175mm	SERIAL No.:
MFR.: EVERFINE	SUR.:123*123mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 96.62 lm/W
MODEL	VER 029 COB	I <sub>max</sub> (cd)	5885	S/MH(C0/180)	0.96	
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	0.94	
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	5876.1	η UP,DN(C0-180)	2.3,44.9	
NOMINAL FLUX(lm)	5876	CIE CLASS	DIRECT	η UP,DN(C180-360)	2.3,50.5	
LAMPS INSIDE	1	η up(%)	4.6	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	100	η down(%)	95.4	CIBSE SHR MAX	0.95	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:VISION  
 Test Date:2015-03-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.256m [K=1.0000]  
 Remarks:

# ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C90	C180	C270					$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	5496	5512	5711	5594					0- 10	546.2	546.2	9.3, 9.3
20	4501	4583	4922	4727					10- 20	1454	2000	34, 34
30	2935	3024	3523	3310					20- 30	1827	3827	65.1, 65.1
40	445.7	472.6	957.1	857.3					30- 40	1169	4996	85, 85
50	284.4	332.2	361.3	200.7					40- 50	272.7	5269	89.7, 89.7
60	93.49	102.7	113.8	84.04					50- 60	151.4	5421	92.2, 92.2
70	72.12	76.15	78.42	67.59					60- 70	83.86	5504	93.7, 93.7
80	50.17	51.89	57.28	54.62					70- 80	66.83	5571	94.8, 94.8
90	13.52	14.94	7.272	7.350					80- 90	32.84	5604	95.4, 95.4
100	43.25	41.95	41.99	45.53					90-100	33.90	5638	95.9, 95.9
110	44.08	41.06	47.05	48.05					100-110	46.81	5685	96.7, 96.7
120	37.75	31.07	35.11	40.48					110-120	39.04	5724	97.4, 97.4
130	45.10	38.12	42.73	39.58					120-130	34.32	5758	98, 98
140	52.02	50.08	51.23	46.18					130-140	35.16	5793	98.6, 98.6
150	56.42	57.69	55.99	51.58					140-150	33.28	5827	99.2, 99.2
160	60.11	62.96	59.12	55.63					150-160	26.48	5853	99.6, 99.6
170	60.83	64.43	61.90	58.62					160-170	17.30	5870	99.9, 99.9
180	71.05	71.52	71.57	71.09					170-180	5.724	5876	100, 100
DEG	LUMINOUS INTENSITY:cd MAX  (Ii - Iavg)/Iavg  (0-135) = 344.0 %									UNIT:lm		

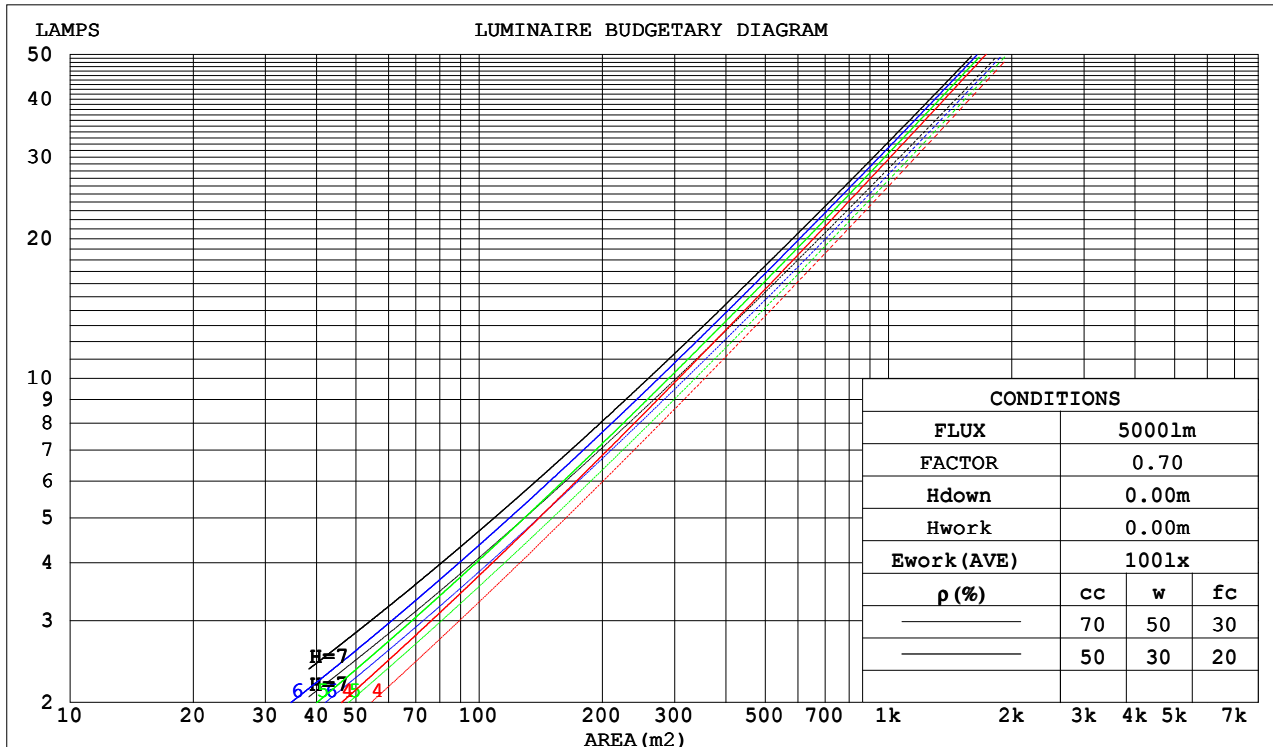
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:VISION  
Test Date:2015-03-26

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:9.256m [K=1.0000]  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm		
NAME: BT-AS60W-6	TYPE:AL reflector	WEIGHT:1150g
SPEC.:5000K COB 60D	DIM.: 169*175mm	SERIAL No.:
MFR.: EVERFINE	SUR.:123*123mm	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	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.03	1.03	1.03	.98	.98	.98	.95
1.0	1.09	1.06	1.03	1.06	1.03	1.01	1.01	.99	.97	.97	.95	.94	.92	.91	.90	.88
2.0	1.00	.96	.92	.98	.94	.91	.94	.91	.88	.90	.88	.85	.87	.85	.83	.81
3.0	.93	.87	.83	.91	.86	.82	.88	.84	.80	.85	.81	.78	.82	.79	.77	.75
4.0	.86	.80	.76	.85	.79	.75	.82	.77	.74	.79	.76	.72	.77	.74	.71	.69
5.0	.80	.74	.70	.79	.73	.69	.77	.72	.68	.75	.70	.67	.73	.69	.66	.64
6.0	.75	.69	.64	.74	.68	.64	.72	.67	.63	.70	.66	.62	.69	.65	.62	.60
7.0	.70	.64	.60	.70	.64	.59	.68	.63	.59	.66	.62	.58	.65	.61	.58	.56
8.0	.66	.60	.56	.65	.60	.55	.64	.59	.55	.63	.58	.54	.61	.57	.54	.52
9.0	.62	.56	.52	.62	.56	.52	.60	.55	.51	.59	.54	.51	.58	.54	.51	.49
10.0	.59	.53	.49	.58	.53	.49	.57	.52	.48	.56	.51	.48	.55	.51	.48	.46



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:VISION  
 Test Date:2015-03-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.256m [K=1.0000]  
 Remarks:

### WEC AND CCEC

Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm														
NAME: BT-AS60W-6					TYPE:AL reflector					WEIGHT:1150g				
SPEC.:5000K COB 60D					DIM.: 169*175mm					SERIAL No.:				
MFR.: EVERFINE					SUR.:123*123mm					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															

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	.226	.226	.226	.193	.193	.193	.132	.132	.132	.076	.076	.076	.024	.024	.024	
1.0	.208	.193	.179	.178	.165	.154	.122	.114	.106	.070	.066	.062	.022	.021	.020	
2.0	.194	.168	.146	.166	.145	.127	.114	.100	.088	.066	.058	.052	.021	.019	.017	
3.0	.182	.150	.124	.156	.129	.107	.107	.090	.075	.062	.052	.044	.020	.017	.015	
4.0	.173	.135	.107	.148	.117	.093	.102	.081	.065	.059	.048	.039	.019	.016	.013	
5.0	.164	.124	.094	.141	.107	.082	.097	.075	.058	.056	.044	.034	.018	.014	.011	
6.0	.157	.115	.085	.135	.100	.074	.093	.070	.052	.054	.041	.031	.017	.013	.010	
7.0	.151	.108	.077	.130	.093	.067	.089	.065	.048	.052	.039	.028	.017	.013	.009	
8.0	.145	.101	.072	.125	.088	.062	.086	.062	.044	.050	.036	.026	.016	.012	.009	
9.0	.140	.096	.067	.120	.084	.059	.083	.059	.042	.049	.035	.025	.016	.011	.008	
10.0	.135	.092	.063	.116	.080	.055	.081	.056	.039	.047	.033	.023	.015	.011	.008	

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:VISION  
Test Date:2015-03-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:9.256m [K=1.0000]  
Remarks:

### UGR(Unified Glare Rating) Table

Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm										
NAME: BT-AS60W-6					TYPE:AL reflector			WEIGHT:1150g		
SPEC.:5000K COB 60D					DIM.: 169*175mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:123*123mm			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	21.1	22.1	21.4	22.3	22.6	21.4	22.4	21.7	22.6	22.9
3H	21.4	22.3	21.7	22.6	22.9	21.7	22.6	22.0	22.9	23.2
4H	21.6	22.5	22.0	22.8	23.1	21.9	22.8	22.3	23.1	23.4
6H	22.0	22.8	22.4	23.1	23.5	22.3	23.1	22.7	23.4	23.7
8H	22.2	23.0	22.6	23.3	23.7	22.5	23.2	22.9	23.6	23.9
12H	22.3	23.0	22.7	23.4	23.7	22.6	23.3	23.0	23.7	24.0
4H 2H	21.0	21.9	21.4	22.2	22.5	21.3	22.2	21.7	22.5	22.8
3H	21.5	22.2	21.9	22.6	23.0	21.8	22.5	22.2	22.9	23.2
4H	21.9	22.6	22.3	23.0	23.4	22.2	22.8	22.6	23.2	23.6
6H	22.5	23.1	22.9	23.5	23.9	22.7	23.3	23.2	23.7	24.2
8H	22.8	23.3	23.3	23.8	24.2	23.0	23.6	23.5	24.0	24.5
12H	22.9	23.4	23.4	23.9	24.4	23.2	23.7	23.7	24.2	24.6
8H 4H	22.1	22.6	22.5	23.0	23.5	22.3	22.8	22.8	23.3	23.7
6H	22.9	23.3	23.4	23.8	24.3	23.1	23.5	23.6	24.0	24.5
8H	23.3	23.7	23.8	24.2	24.7	23.5	23.9	24.0	24.4	24.9
12H	23.5	23.8	24.0	24.3	24.9	23.7	24.1	24.3	24.6	25.2
12H 4H	22.1	22.6	22.6	23.0	23.5	22.3	22.8	22.8	23.3	23.8
6H	22.9	23.3	23.5	23.8	24.4	23.1	23.5	23.7	24.0	24.6
8H	23.4	23.7	23.9	24.3	24.8	23.6	23.9	24.2	24.5	25.0
Variations with the observer position at spacings:										
S = 1.0H	+ 1.3 / - 0.8					+ 1.4 / - 0.8				
1.5H	+ 2.2 / - 0.9					+ 2.2 / - 1.1				
2.0H	+ 1.4 / - 0.7					+ 1.4 / - 0.7				

CIE Pub.117 Corrected 5876 lm Total Lamp Luminous Flux. (8log(F/F0) = 6.2)

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:VISION  
Test Date:2015-03-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:9.256m [K=1.0000]  
Remarks:

### UTILIZATION FACTORS TABLE

Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm		
NAME: BT-AS60W-6	TYPE:AL reflector	WEIGHT:1150g
SPEC.:5000K COB 60D	DIM.: 169*175mm	SERIAL No.:
MFR.: EVERFINE	SUR.:123*123mm	PROTECTION ANGLE:

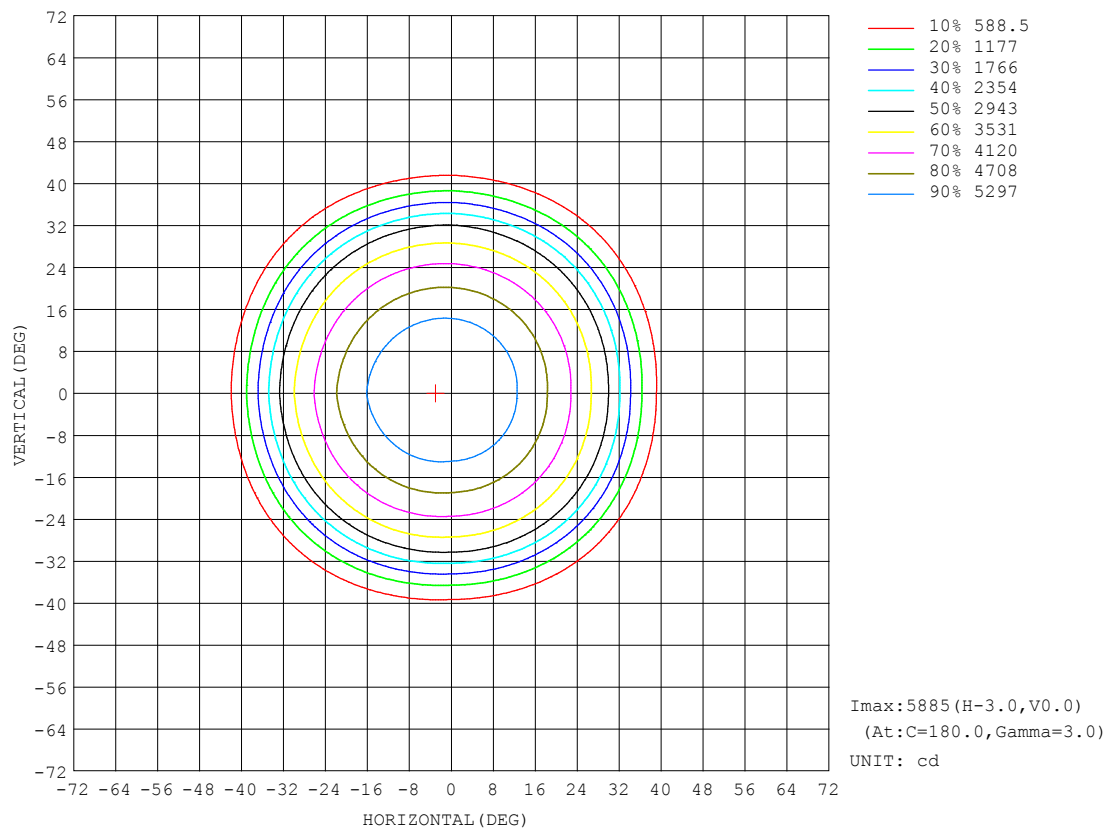
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	82	75	71	82	75	71	80	74	71	67
0.80	90	83	79	89	83	79	87	82	78	74
1.00	95	88	84	94	88	84	92	87	83	78
1.25	99	93	89	98	92	88	95	91	87	82
1.50	102	96	93	100	95	92	98	94	90	85
2.00	105	100	97	103	99	96	100	96	94	87
2.50	107	103	99	105	101	98	101	98	96	88
3.00	109	105	102	107	103	100	103	100	98	90
4.00	111	108	105	109	106	104	104	102	100	92
5.00	113	110	108	110	108	106	105	104	102	93
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:VISION  
Test Date:2015-03-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:9.256m [K=1.0000]  
Remarks:

## ISOCANDELA DIAGRAM

Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm		
NAME: BT-AS60W-6	TYPE:AL reflector	WEIGHT:1150g
SPEC.:5000K COB 60D	DIM.: 169*175mm	SERIAL No.:
MFR.: EVERFINE	SUR.:123*123mm	PROTECTION ANGLE:

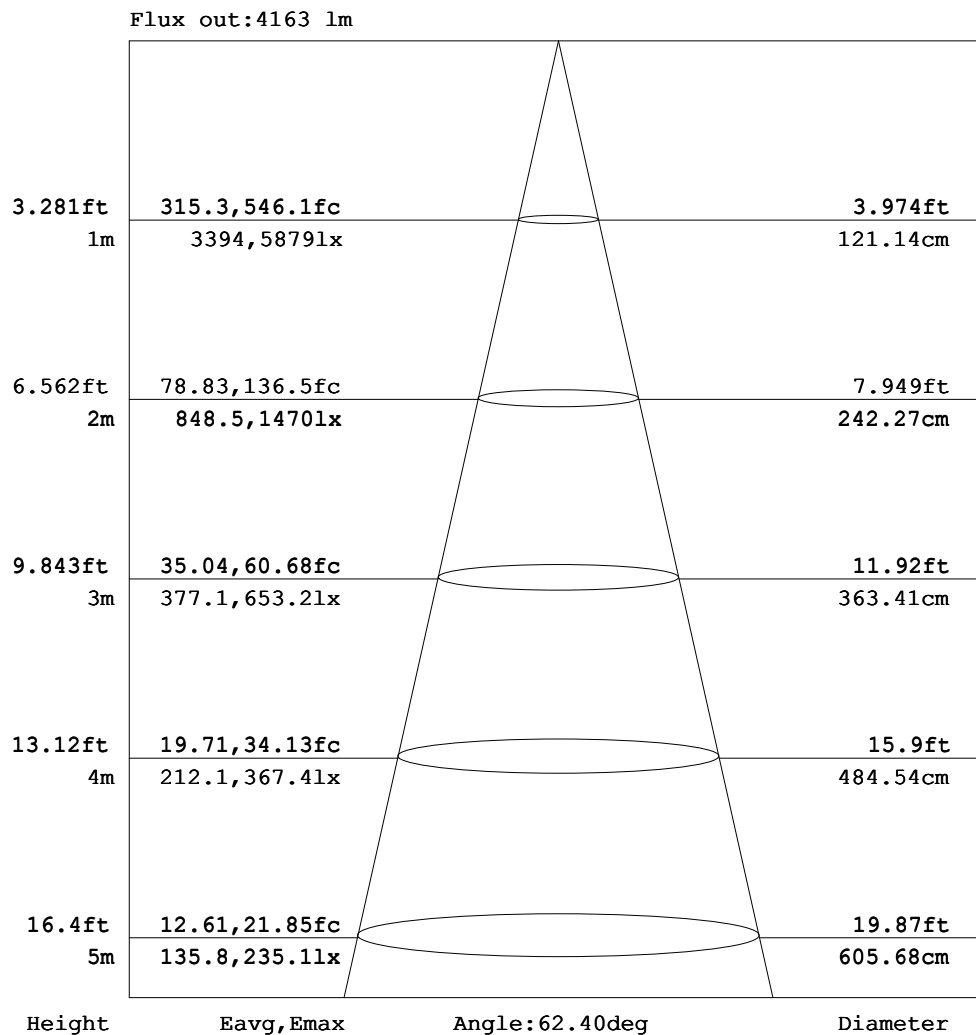


C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:30DEG  
 Operators:VISION  
 Test Date:2015-03-26

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
 Humidity:65.0%  
 Test Distance:9.256m [K=1.0000]  
 Remarks:

### AAI Figure

Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm		
NAME: BT-AS60W-6	TYPE:AL reflector	WEIGHT:1150g
SPEC.:5000K COB 60D	DIM.: 169*175mm	SERIAL No.:
MFR.: EVERFINE	SUR.:123*123mm	PROTECTION ANGLE:



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

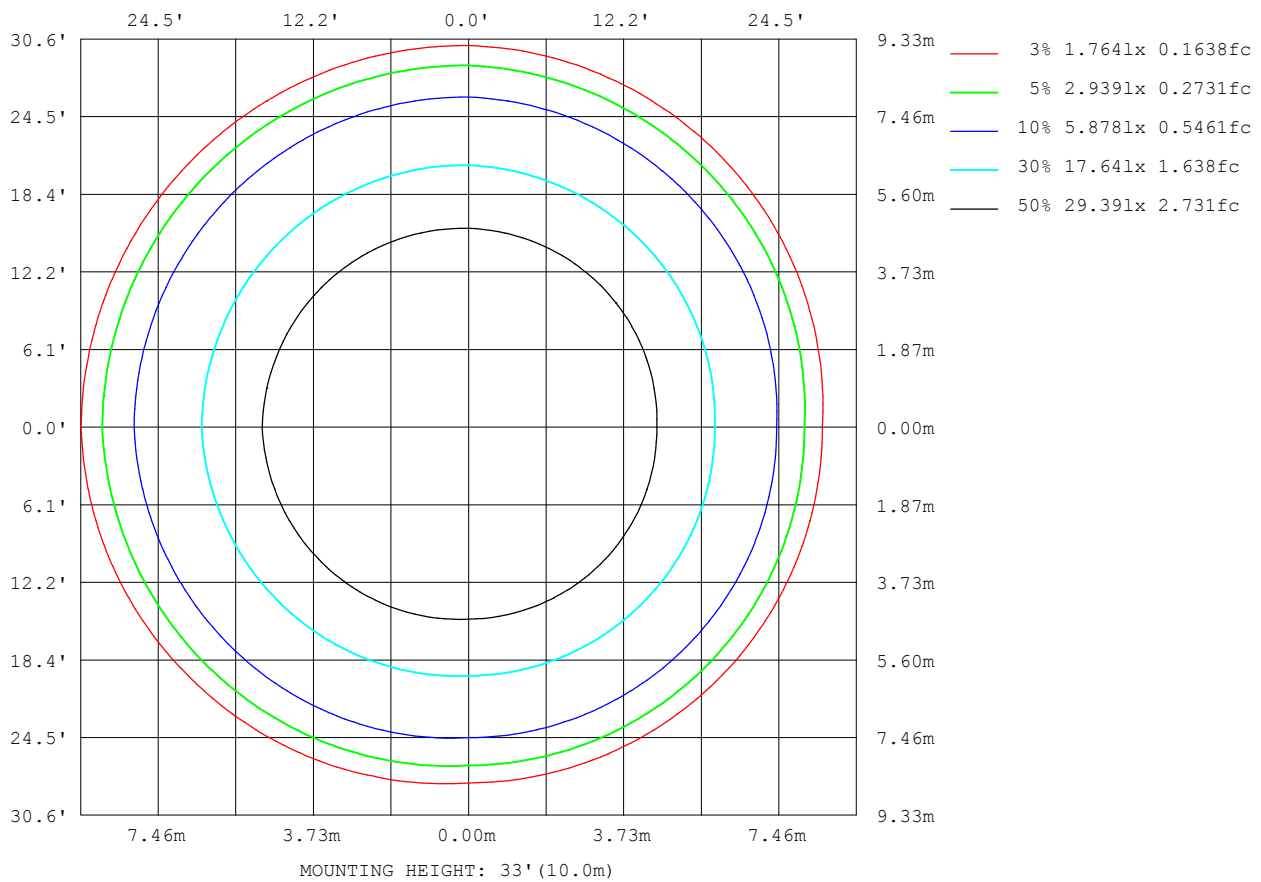
C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 30DEG  
Operators: VISION  
Test Date: 2015-03-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.256m [K=1.0000]  
Remarks:



# ISOLUX DIAGRAM

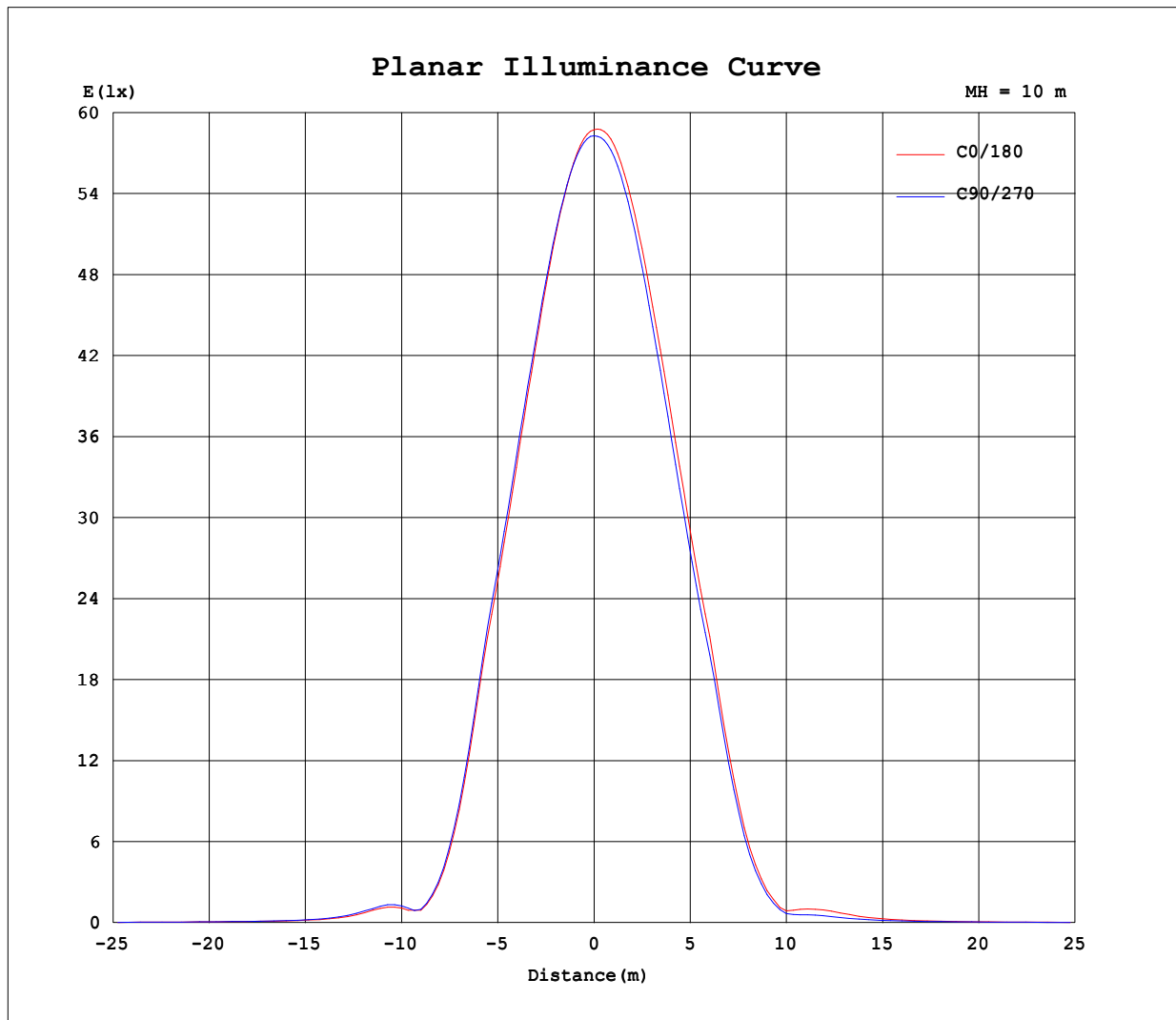
Test:U:100.2V I:0.6086A P:60.82W PF:0.9977 Lamp Flux:5876x1 lm		
NAME: BT-AS60W-6	TYPE:AL reflector	WEIGHT:1150g
SPEC.:5000K COB 60D	DIM.: 169*175mm	SERIAL No.:
MFR.: EVERFINE	SUR.:123*123mm	PROTECTION ANGLE:



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature:30DEG  
Operators:VISION  
Test Date:2015-03-26

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity:65.0%  
Test Distance:9.256m [K=1.0000]  
Remarks:

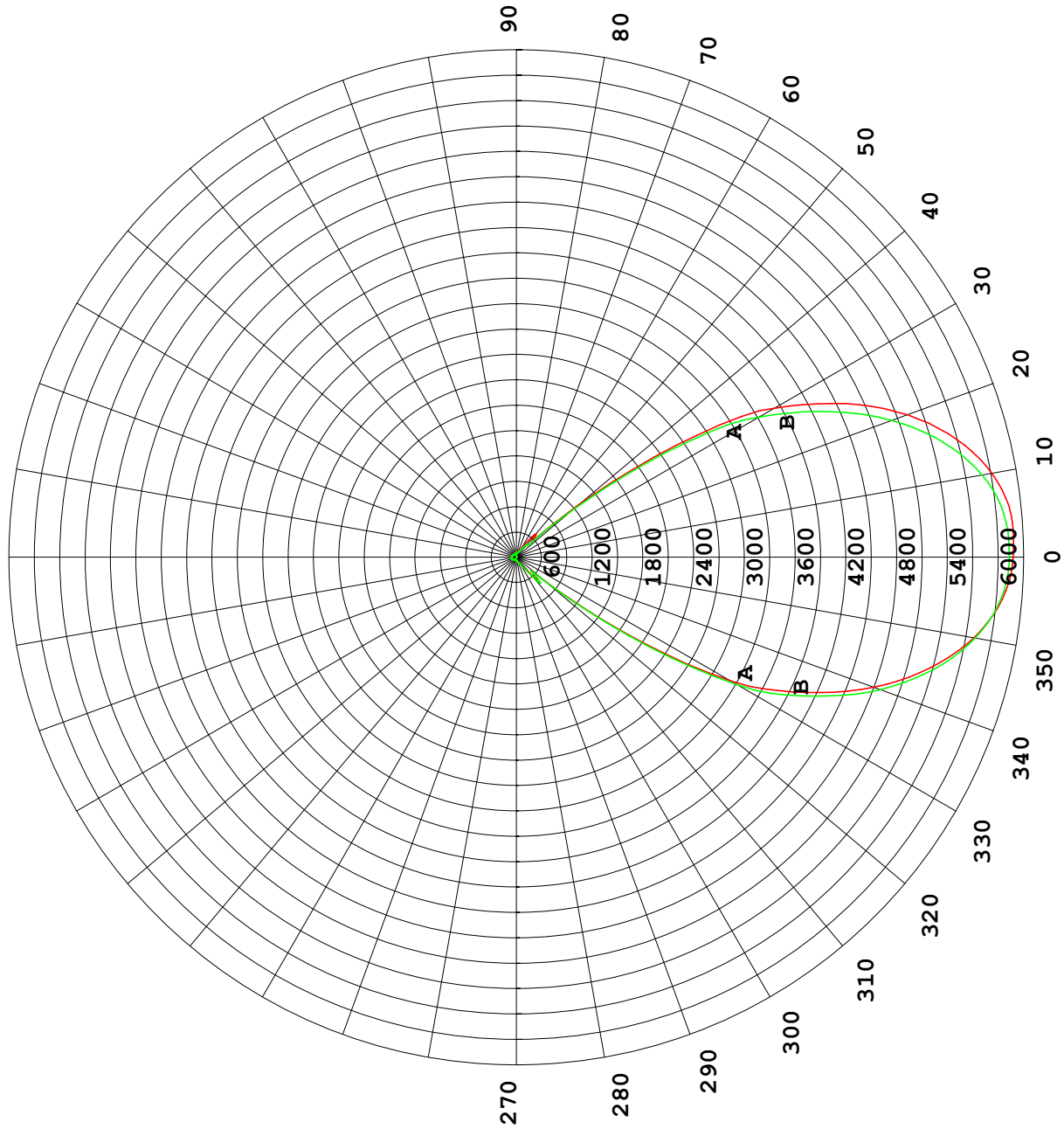
## Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 90.0DEG  
Test Speed: HIGH  
Temperature: 30DEG  
Operators: VISION  
Test Date: 2015-03-26

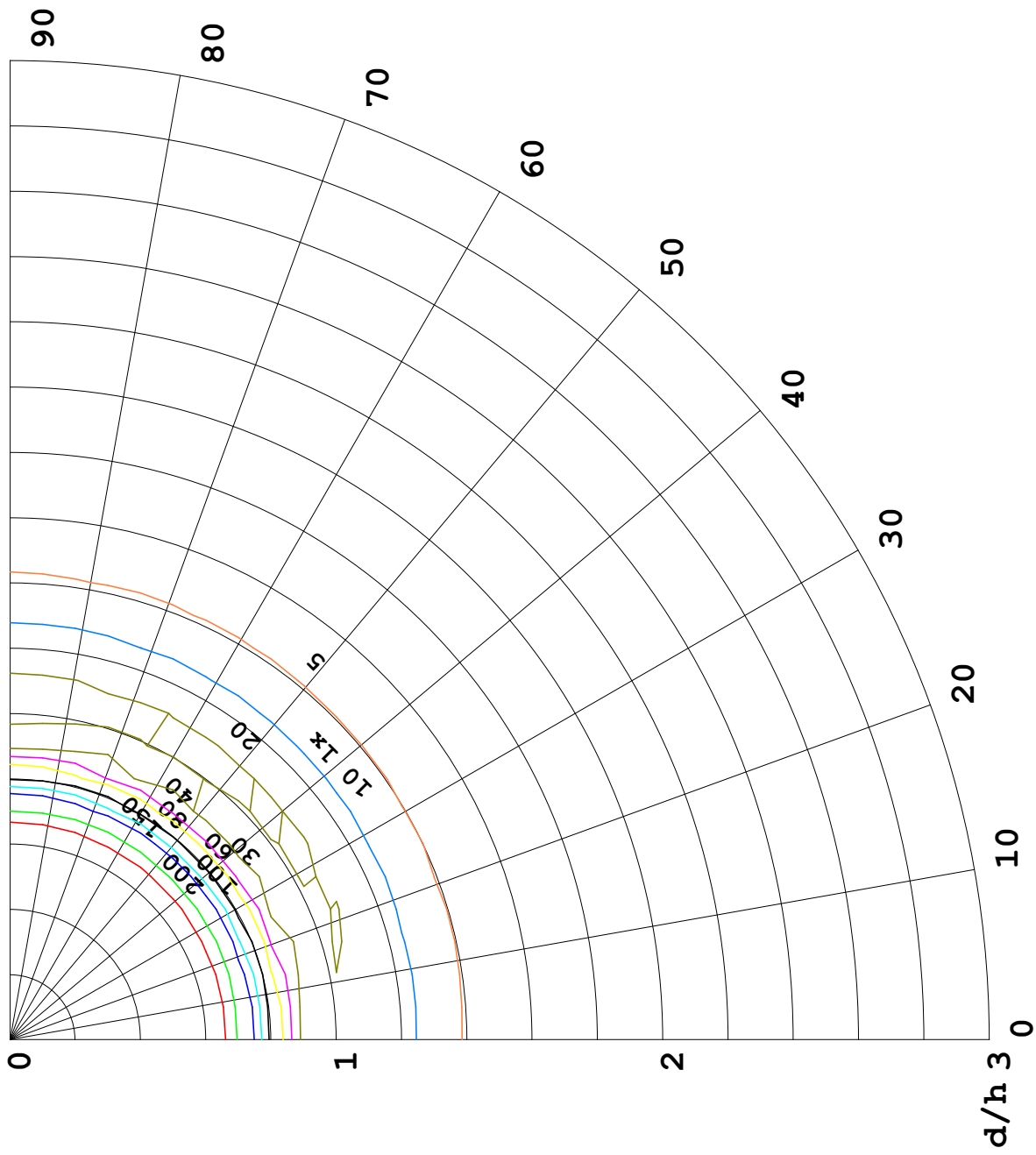
$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.284  
Humidity: 65.0%  
Test Distance: 9.256m [K=1.0000]  
Remarks:

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

