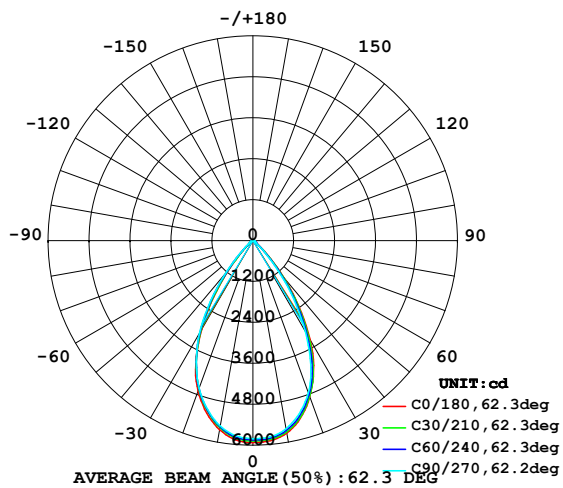


LUMINAIRE PHOTOMETRIC TEST REPORT

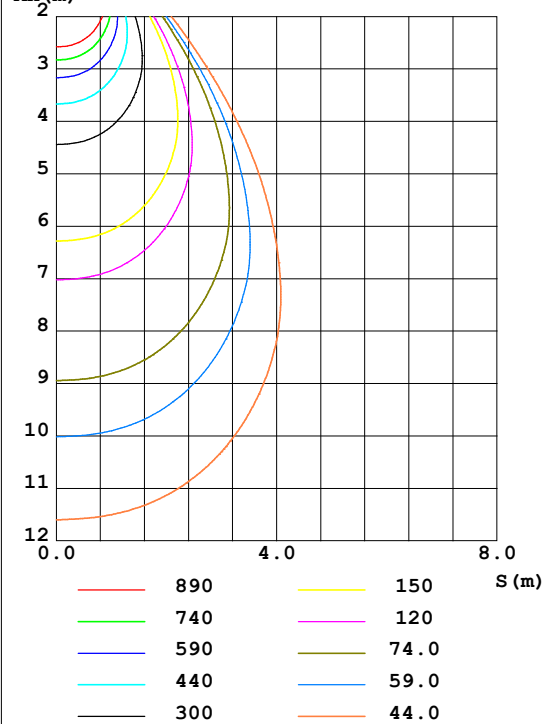
Test:U:100.2V I:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm		
NAME: BT-AS60W-8	TYPE:AL reflector	WEIGHT:1340g
SPEC.:5000K COB 60D	DIM.: 220*171mm	SERIAL No.:
MFR.: EVERFINE	SUR.:175*175mm	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 96.11 lm/W
MODEL	VER 029 COB	I _{max} (cd)	5921	S/MH(C0/180)	0.91	
NOMINAL POWER(W)	60	LOR(%)	100.0	S/MH(C90/270)	0.94	
RATED VOLTAGE(V)	100	TOTAL FLUX(lm)	5800.9	η UP,DN(C0-180)	0.2,49.9	
NOMINAL FLUX(lm)	5800	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.2,49.8	
LAMPS INSIDE	1	η up(%)	0.4	CIBSE SHR NOM	0.75	
TEST VOLTAGE(V)	100	η down(%)	99.6	CIBSE SHR MAX	0.95	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 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:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	5727	5673	5599	5489	5627	5558	5521	5549	0- 10	545.6	545.6	9.41, 9.41
20	4874	4838	4757	4601	4703	4632	4608	4704	10- 20	1459	2005	34.6, 34.6
30	3363	3238	3085	2895	3014	3072	3143	3287	20- 30	1820	3824	65.9, 65.9
40	1409	1317	1180	1013	1056	1130	1226	1385	30- 40	1330	5155	88.9, 88.9
50	269.2	237.1	193.6	156.2	163.4	177.1	201.1	263.9	40- 50	449.2	5604	96.6, 96.6
60	96.92	82.93	69.71	69.07	76.49	85.22	94.76	101.8	50- 60	110.9	5715	98.5, 98.5
70	45.42	36.00	22.87	8.677	6.449	7.837	13.95	39.93	60- 70	58.26	5773	99.5, 99.5
80	0.9582	0.9317	0.7975	0.6592	0.5820	0.6210	0.6724	0.7509	70- 80	3.770	5777	99.6, 99.6
90	0.1779	0.1206	0.0952	0.1195	0.1078	0.1286	0.0952	0.1016	80- 90	0.3910	5777	99.6, 99.6
100	0.1773	0.1774	0.2030	0.2187	0.2157	0.2092	0.1266	0.1368	90-100	0.1566	5778	99.6, 99.6
110	0.4685	0.4720	0.5328	0.6082	0.7384	0.4056	0.2787	0.2946	100-110	0.2992	5778	99.6, 99.6
120	1.367	1.441	1.566	1.727	1.040	0.9917	0.7977	0.7193	110-120	0.7468	5779	99.6, 99.6
130	3.476	3.615	3.831	4.112	2.760	2.595	2.362	2.127	120-130	1.818	5780	99.6, 99.7
140	7.225	7.388	7.608	7.997	5.936	5.732	5.396	4.994	130-140	3.608	5784	99.7, 99.7
150	11.59	11.64	11.82	12.14	9.586	9.275	8.939	8.473	140-150	5.306	5789	99.8, 99.8
160	15.21	15.26	15.36	15.54	12.92	12.57	12.20	11.75	150-160	5.591	5795	99.9, 99.9
170	18.08	18.07	18.06	17.99	15.85	15.53	15.17	14.82	160-170	4.304	5799	100, 100
180	19.35	19.24	19.11	18.74	19.49	19.25	18.99	18.74	170-180	1.676	5801	100, 100
DEG	LUMINOUS INTENSITY:cd MAX (Ii - Iavg)/Iavg (0-135) = 343.2 %									UNIT:lm		

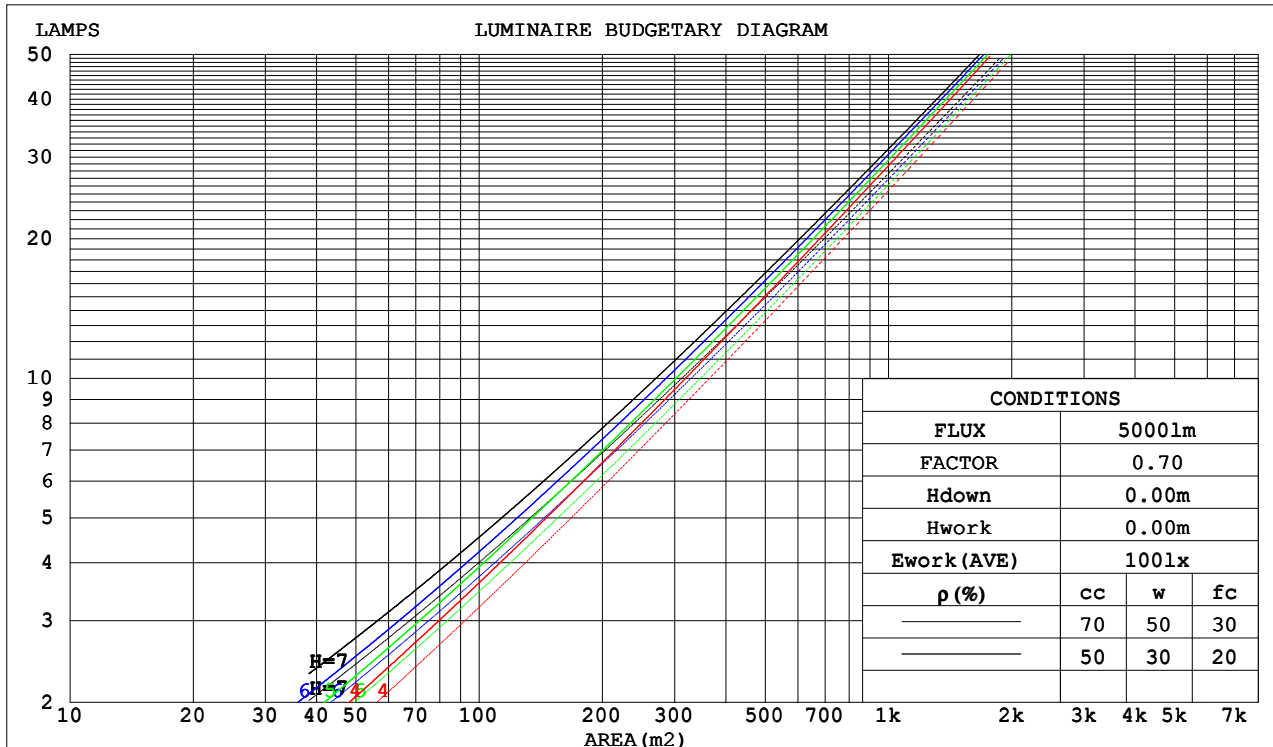
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 30DEG
 Operators: VISION
 Test Date: 2015-03-26

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:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:100.2V I:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm		
NAME: BT-AS60W-8	TYPE:AL reflector	WEIGHT:1340g
SPEC.:5000K COB 60D	DIM.: 220*171mm	SERIAL No.:
MFR.: EVERFINE	SUR.:175*175mm	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	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	.99	.97	.97	.96	.94	.93
2.0	1.02	.98	.94	1.00	.97	.93	.97	.94	.91	.94	.92	.89	.91	.89	.87	.86
3.0	.95	.90	.86	.93	.89	.85	.91	.87	.83	.88	.85	.82	.86	.83	.81	.79
4.0	.88	.82	.78	.87	.82	.78	.85	.80	.77	.83	.79	.76	.81	.77	.75	.73
5.0	.82	.76	.72	.81	.76	.71	.79	.74	.71	.78	.73	.70	.76	.72	.69	.68
6.0	.77	.71	.66	.76	.70	.66	.74	.69	.65	.73	.68	.65	.72	.68	.64	.63
7.0	.72	.66	.61	.71	.65	.61	.70	.65	.61	.69	.64	.60	.68	.63	.60	.59
8.0	.68	.61	.57	.67	.61	.57	.66	.60	.57	.65	.60	.56	.64	.59	.56	.55
9.0	.64	.57	.53	.63	.57	.53	.62	.57	.53	.61	.56	.53	.60	.56	.53	.51
10.0	.60	.54	.50	.59	.54	.50	.59	.53	.50	.58	.53	.50	.57	.53	.49	.48



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 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:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm					
NAME: BT-AS60W-8			TYPE:AL reflector		WEIGHT:1340g
SPEC.:5000K COB 60D			DIM.: 220*171mm		SERIAL No.:
MFR.: EVERFINE			SUR.:175*175mm		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	.185	.105	.033	.178	.101	.032	.165	.095	.030	.153	.088	.028	.142	.082	.027	
2.0	.178	.098	.030	.172	.095	.029	.161	.090	.028	.151	.085	.027	.142	.080	.025	
3.0	.170	.091	.027	.165	.088	.027	.156	.084	.026	.147	.081	.025	.139	.077	.024	
4.0	.162	.084	.025	.158	.083	.024	.150	.080	.024	.142	.076	.023	.135	.074	.022	
5.0	.155	.079	.023	.151	.078	.023	.144	.075	.022	.137	.072	.022	.131	.070	.021	
6.0	.148	.074	.021	.144	.073	.021	.138	.071	.021	.132	.069	.020	.127	.067	.020	
7.0	.141	.070	.020	.138	.069	.020	.133	.067	.019	.127	.065	.019	.122	.064	.019	
8.0	.135	.066	.019	.132	.065	.018	.127	.064	.018	.123	.062	.018	.118	.061	.018	
9.0	.129	.062	.017	.127	.062	.017	.122	.060	.017	.118	.059	.017	.114	.058	.017	
10.0	.124	.059	.016	.122	.059	.016	.118	.058	.016	.114	.056	.016	.110	.055	.016	

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	.194	.194	.194	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.175	.160	.147	.150	.138	.127	.102	.095	.088	.059	.055	.051	.019	.018	.016	
2.0	.160	.136	.115	.137	.117	.099	.094	.081	.069	.054	.047	.041	.017	.015	.013	
3.0	.148	.117	.092	.127	.101	.079	.087	.070	.056	.050	.041	.033	.016	.013	.011	
4.0	.139	.102	.074	.119	.088	.065	.082	.062	.046	.047	.036	.027	.015	.012	.009	
5.0	.130	.091	.062	.112	.079	.054	.077	.055	.038	.045	.032	.022	.014	.011	.007	
6.0	.123	.082	.052	.106	.071	.045	.073	.049	.032	.042	.029	.019	.014	.010	.006	
7.0	.117	.074	.044	.100	.064	.039	.069	.045	.027	.040	.027	.016	.013	.009	.005	
8.0	.111	.068	.038	.096	.059	.033	.066	.041	.024	.039	.024	.014	.012	.008	.005	
9.0	.106	.063	.034	.091	.055	.029	.063	.038	.021	.037	.023	.012	.012	.007	.004	
10.0	.102	.059	.030	.088	.051	.026	.061	.036	.019	.035	.021	.011	.011	.007	.004	

C Range: 0 - 360DEG
C Interval: 30.0DEG
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:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm										
NAME: BT-AS60W-8					TYPE:AL reflector			WEIGHT:1340g		
SPEC.:5000K COB 60D					DIM.: 220*171mm			SERIAL No.:		
MFR.: EVERFINE					SUR.:175*175mm			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	21.4	22.4	21.7	22.6	22.8	20.8	21.8	21.0	22.0	22.1
3H	21.4	22.3	21.6	22.5	22.7	20.7	21.6	20.9	21.8	22.0
4H	21.3	22.1	21.5	22.4	22.6	20.6	21.4	20.9	21.7	21.9
6H	21.2	22.0	21.5	22.2	22.5	20.5	21.3	20.8	21.5	21.8
8H	21.1	21.9	21.4	22.2	22.4	20.4	21.2	20.8	21.5	21.7
12H	21.1	21.8	21.4	22.1	22.4	20.4	21.1	20.7	21.4	21.7
4H 2H	21.2	22.1	21.5	22.3	22.5	20.6	21.4	20.9	21.7	21.9
3H	21.2	21.9	21.5	22.2	22.5	20.5	21.2	20.8	21.5	21.8
4H	21.1	21.7	21.4	22.0	22.4	20.4	21.0	20.7	21.4	21.7
6H	21.0	21.6	21.3	21.9	22.2	20.3	20.9	20.7	21.2	21.6
8H	20.9	21.5	21.3	21.8	22.2	20.2	20.8	20.6	21.1	21.5
12H	20.9	21.4	21.3	21.7	22.1	20.2	20.7	20.6	21.1	21.5
8H 4H	20.9	21.5	21.3	21.8	22.2	20.2	20.8	20.6	21.1	21.5
6H	20.8	21.3	21.3	21.7	22.1	20.1	20.6	20.6	21.0	21.4
8H	20.8	21.2	21.2	21.6	22.0	20.1	20.5	20.5	20.9	21.3
12H	20.7	21.0	21.2	21.5	22.0	20.0	20.4	20.5	20.8	21.3
12H 4H	20.9	21.4	21.3	21.7	22.1	20.2	20.7	20.6	21.1	21.5
6H	20.8	21.2	21.2	21.6	22.0	20.1	20.5	20.5	20.9	21.3
8H	20.7	21.0	21.2	21.5	22.0	20.0	20.4	20.5	20.8	21.3
Variations with the observer position at spacings:										
S = 1.0H	+ 2.8 / - 7.5					+ 2.7 / - 8.3				
1.5H	+ 4.8 / - 7.3					+ 4.8 / - 7.5				
2.0H	+ 6.0 / - 4.2					+ 5.6 / - 3.6				

CIE Pub.117 Corrected 5800 lm Total Lamp Luminous Flux. (8log(F/F0) = 6.1)

C Range: 0 - 360DEG
C Interval: 30.0DEG
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:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm		
NAME: BT-AS60W-8	TYPE:AL reflector	WEIGHT:1340g
SPEC.:5000K COB 60D	DIM.: 220*171mm	SERIAL No.:
MFR.: EVERFINE	SUR.:175*175mm	PROTECTION ANGLE:

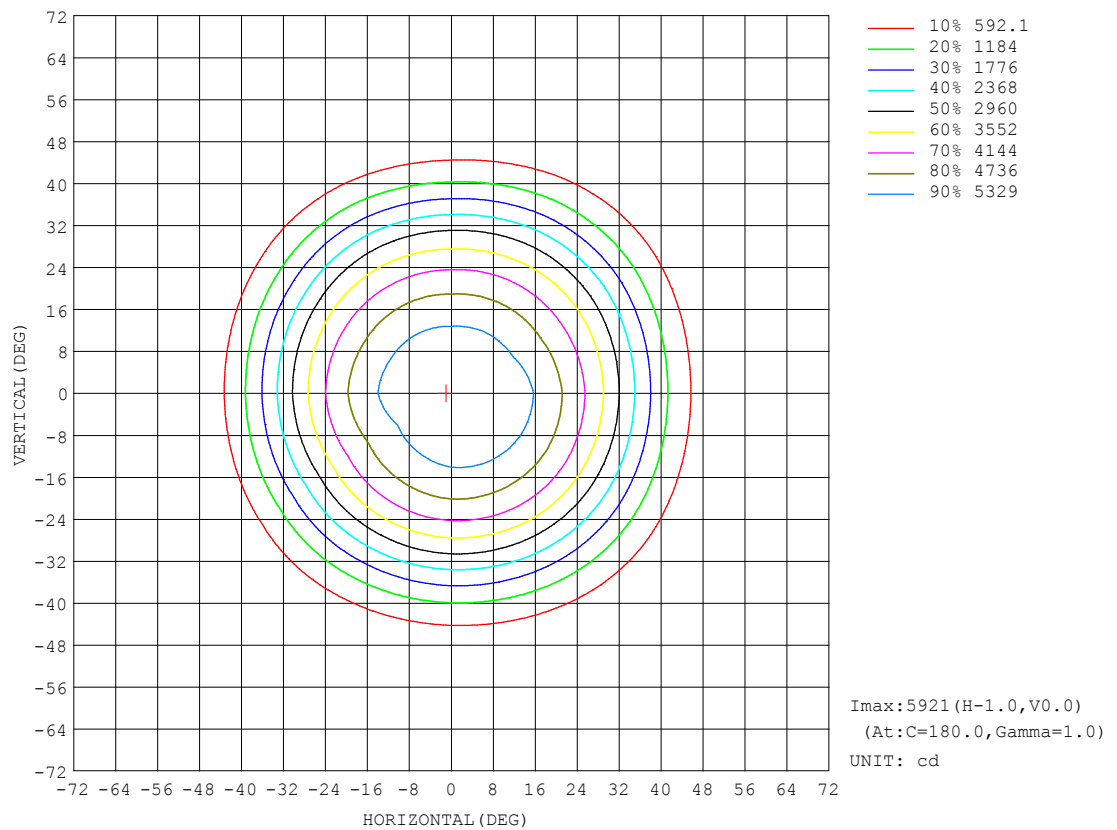
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	85	78	74	84	78	74	83	77	73	70
0.80	92	86	82	92	86	82	90	85	82	78
1.00	97	91	88	97	91	87	95	91	87	83
1.25	102	96	93	101	96	92	99	94	91	87
1.50	105	100	96	103	99	96	101	97	94	90
2.00	108	103	100	106	102	99	103	100	98	92
2.50	110	106	102	108	104	101	105	102	99	93
3.00	111	108	105	109	106	104	106	103	101	95
4.00	113	110	108	111	109	107	107	105	104	97
5.00	115	112	110	112	110	109	108	107	105	98
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
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:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm		
NAME: BT-AS60W-8	TYPE:AL reflector	WEIGHT:1340g
SPEC.:5000K COB 60D	DIM.: 220*171mm	SERIAL No.:
MFR.: EVERFINE	SUR.:175*175mm	PROTECTION ANGLE:

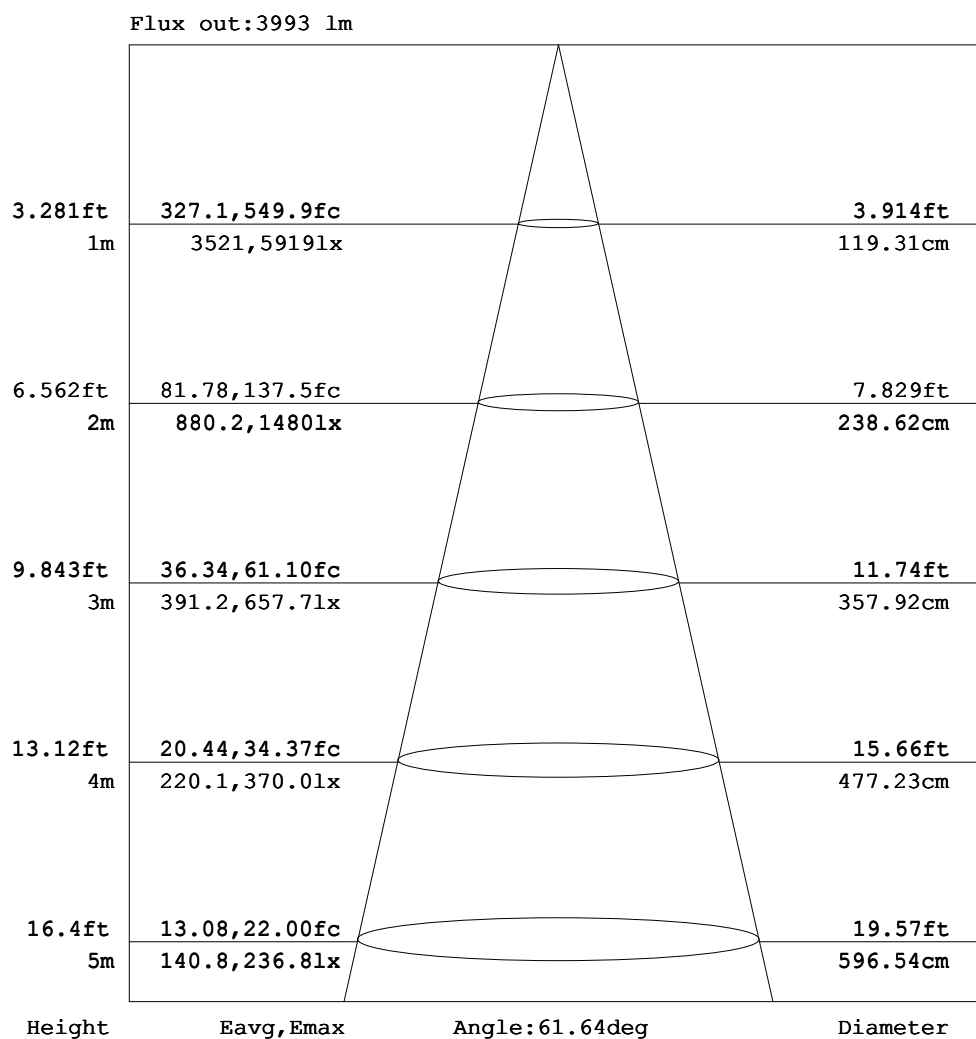


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:30DEG
 Operators:VISION
 Test Date:2015-03-26

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:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm		
NAME: BT-AS60W-8	TYPE:AL reflector	WEIGHT:1340g
SPEC.:5000K COB 60D	DIM.: 220*171mm	SERIAL No.:
MFR.: EVERFINE	SUR.:175*175mm	PROTECTION ANGLE:



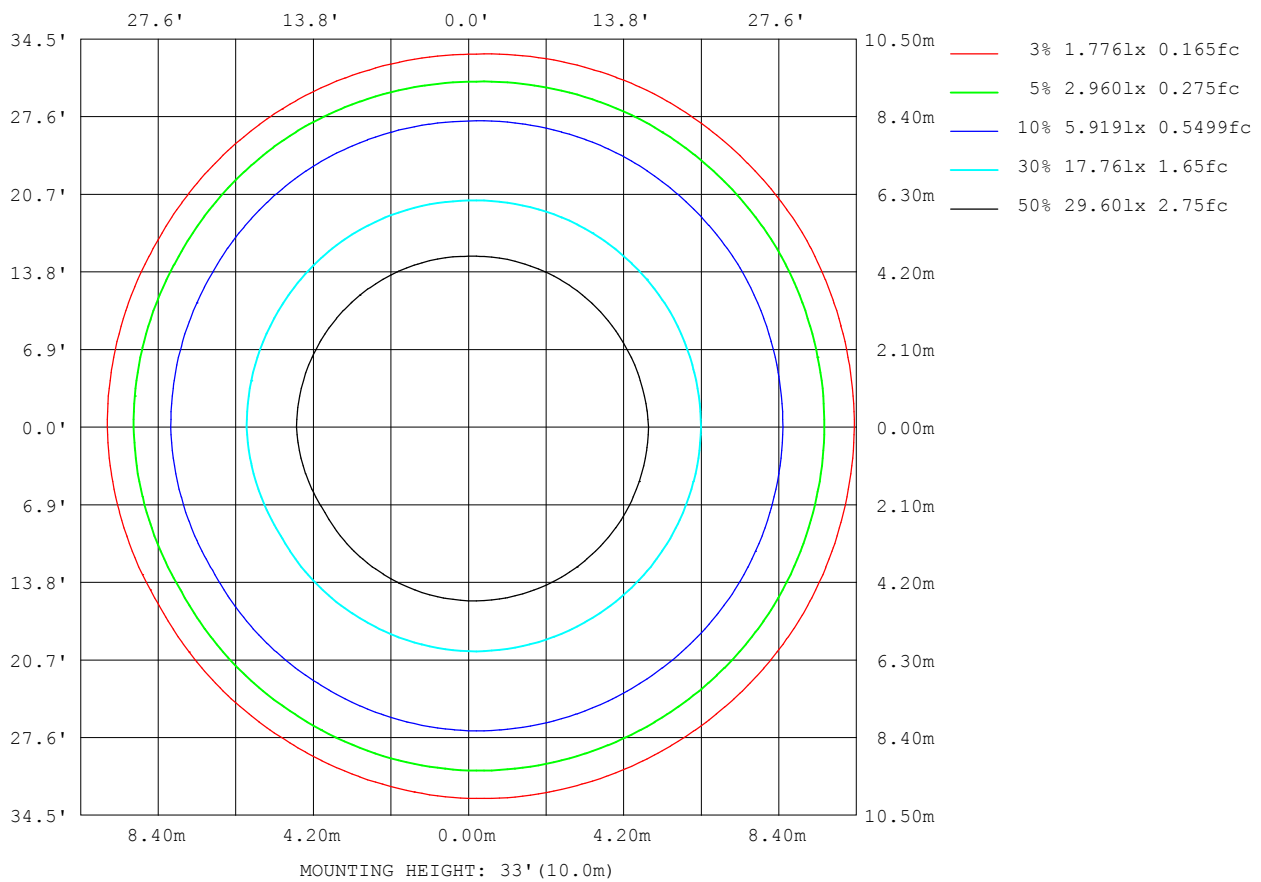
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
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

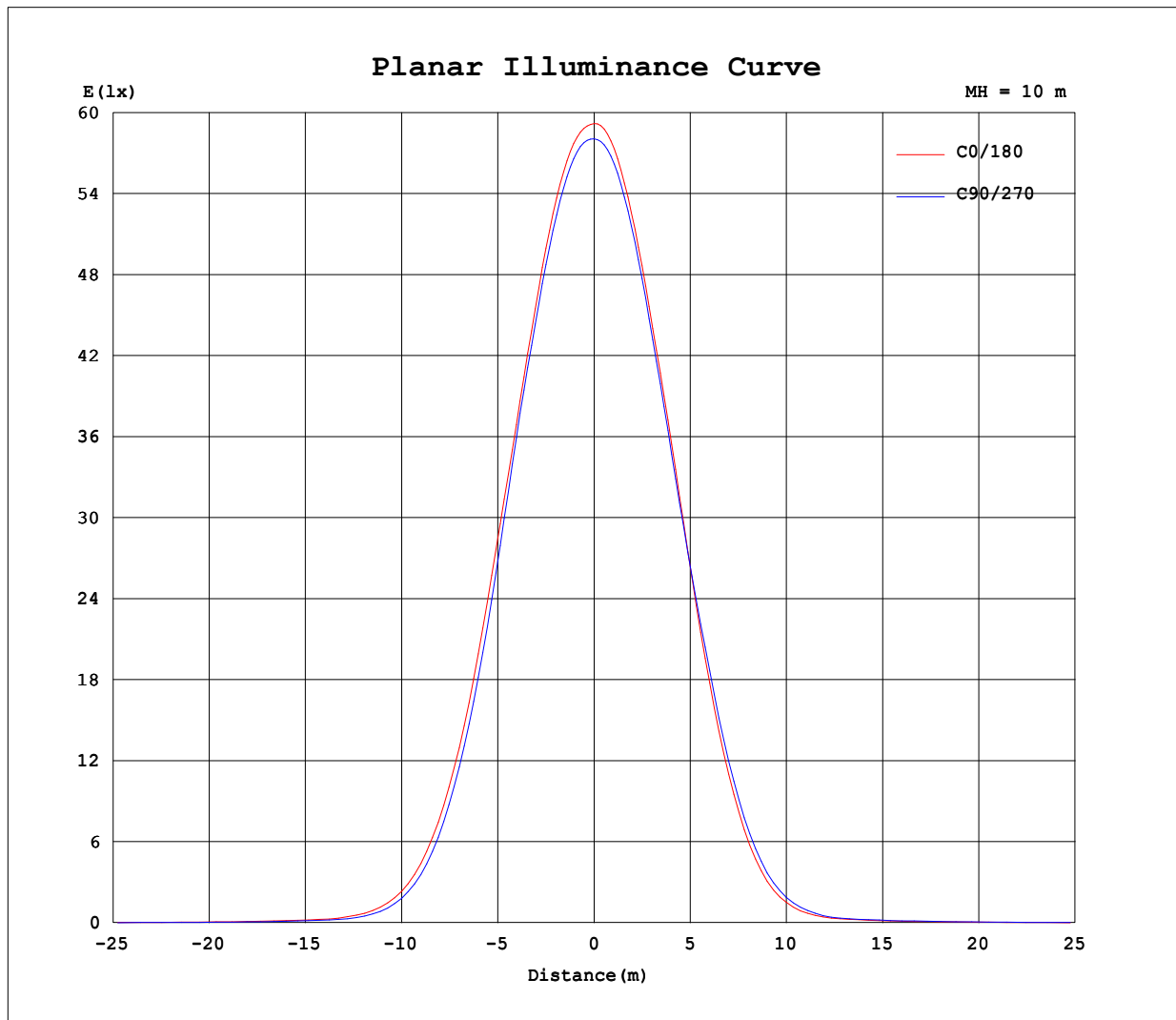
Test:U:100.2V I:0.6040A P:60.36W PF:0.9976 Lamp Flux:5800x1 lm		
NAME: BT-AS60W-8	TYPE:AL reflector	WEIGHT:1340g
SPEC.:5000K COB 60D	DIM.: 220*171mm	SERIAL No.:
MFR.: EVERFINE	SUR.:175*175mm	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
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:

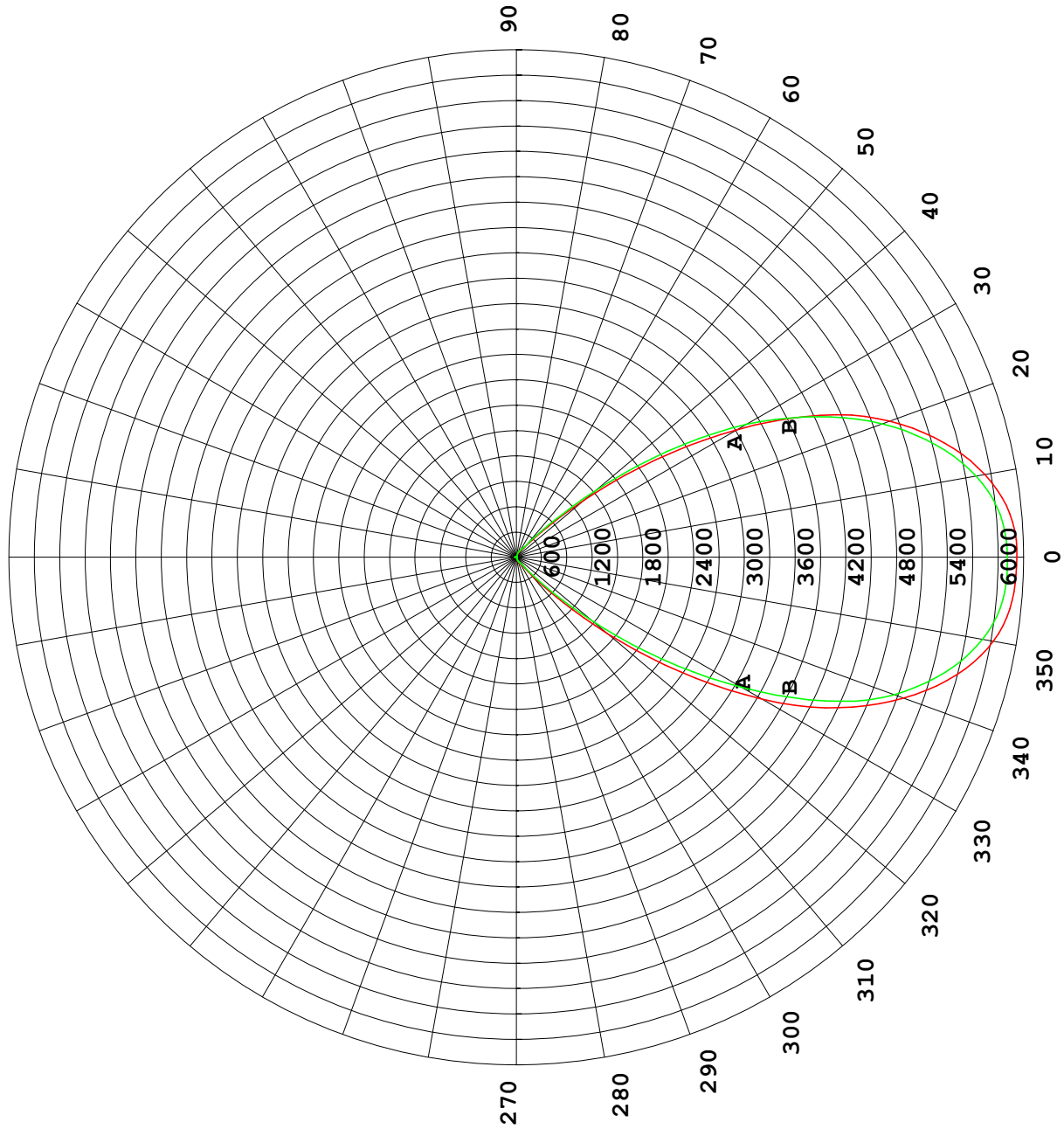
Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 30DEG
Operators: VISION
Test Date: 2015-03-26

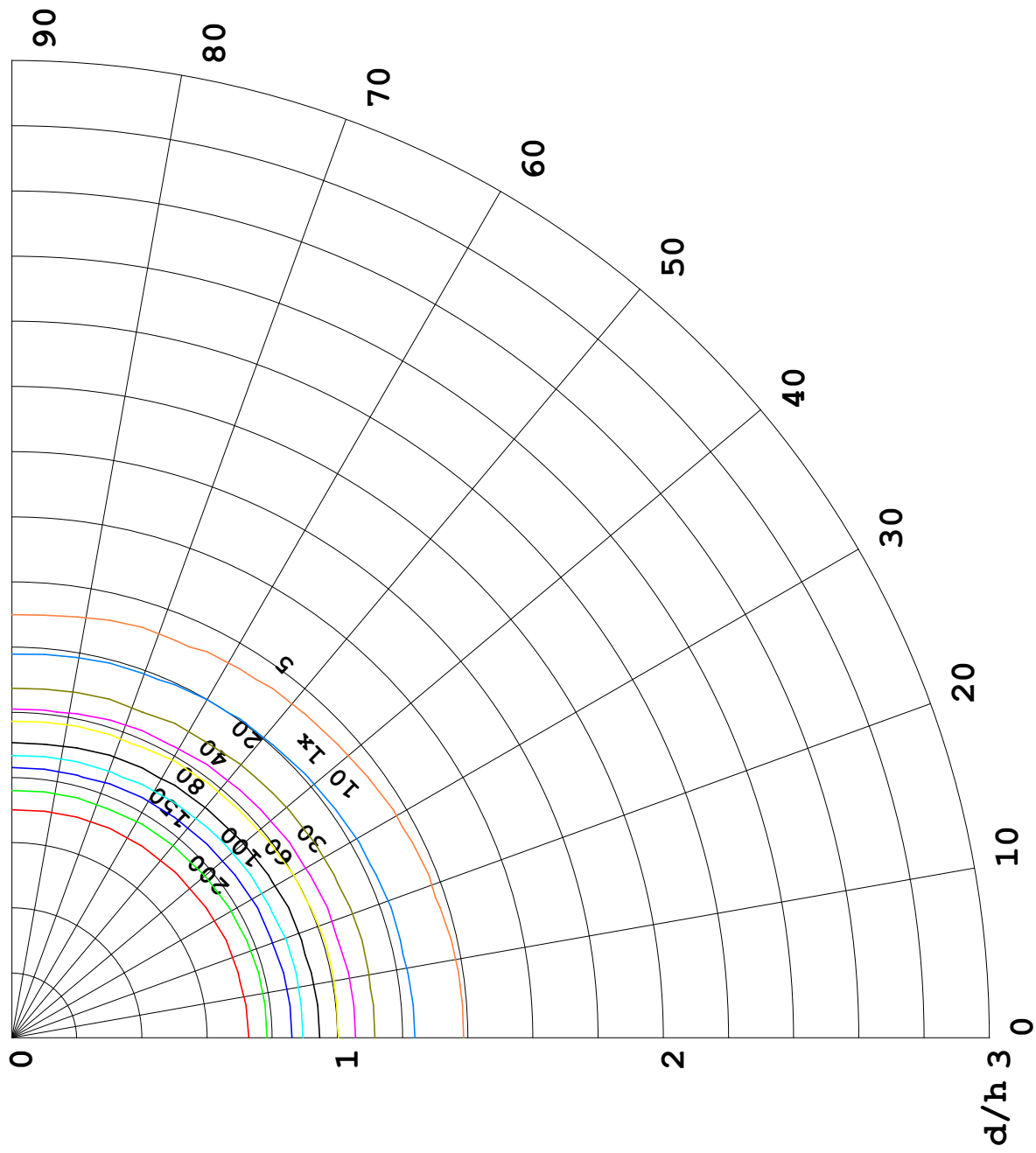
γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.284
Humidity: 65.0%
Test Distance: 9.256m [K=1.0000]
Remarks:

I (cd)



$\kappa = 1$

1000 lm



	Pcc	Pw	Pfc
————	70	50	30
————	50	30	20

