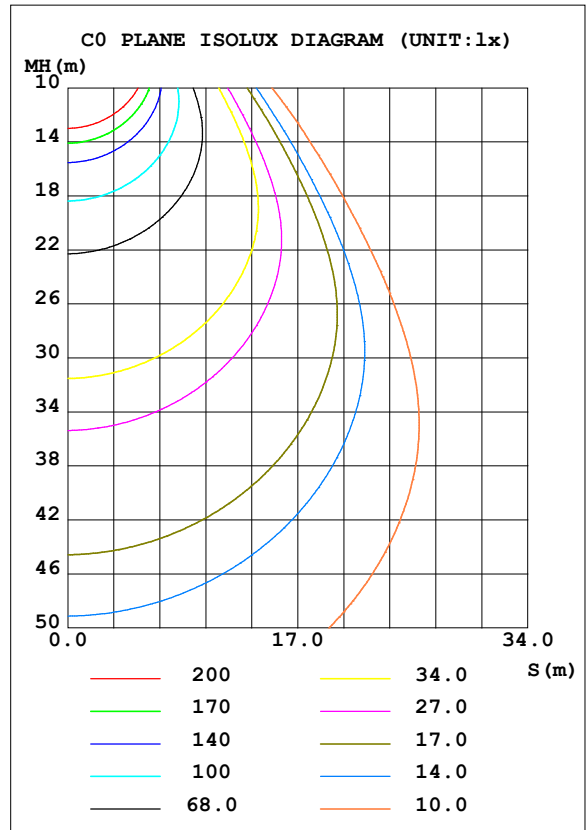
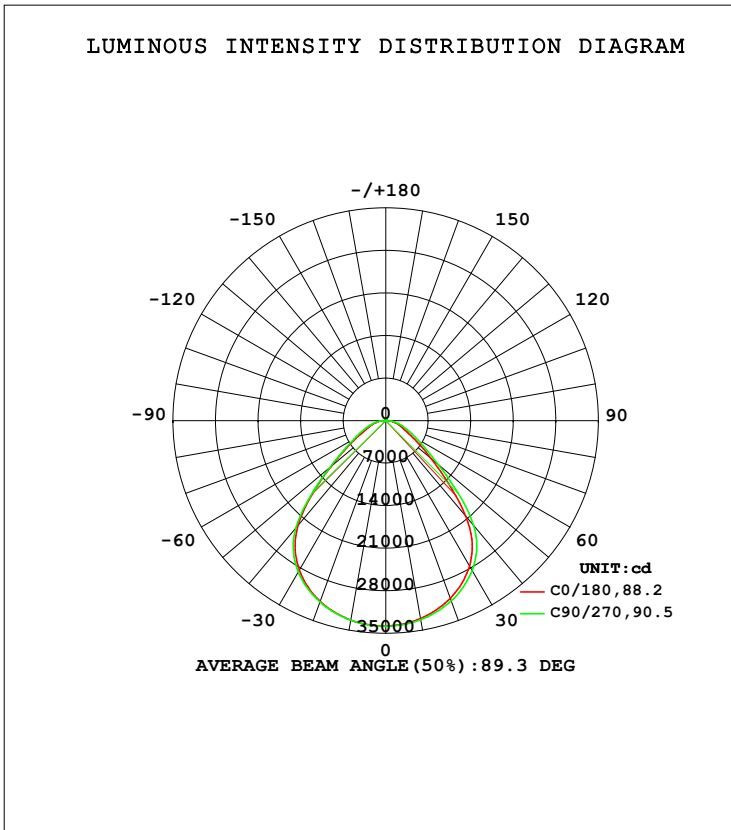


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 148.47 lm/W			
MODEL		I <sub>max</sub> (cd)	33861	S/MH (C0/180)	1.24
NOMINAL POWER (W)	500	LOR (%)	100.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	69834	<input type="checkbox"/> UP, DN (C0-180)	0.5, 48.7
NOMINAL FLUX (lm)	69834.4	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.4, 50.4
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	99.1	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 27DEG  
 Operators: lianghaizhu  
 Test Date: 2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

mm	C0	C45	C90	C135	C180	C225	C270	C315	mm	□ zone	□ total	%lum, lamp
10	3304	3307	3325	3338	3332	3341	3335	3319	0- 10	3201	3201	4.58,4.58
20	3110	3116	3153	3173	3163	3184	3174	3135	10- 20	9181	12382	17.7,17.7
30	2758	2775	2845	2863	2842	2882	2877	2803	20- 30	13866	26248	37.6,37.6
40	2042	2072	2245	2284	2246	2320	2305	2122	30- 40	16010	42258	60.5,60.5
50	981.0	1012	1140	1214	1179	1240	1209	1031	40- 50	12710	54968	78.7,78.7
60	455.7	493.4	582.4	566.3	534.9	588.2	605.1	502.5	50- 60	7042	62009	88.8,88.8
70	253.0	286.0	324.5	315.7	281.5	326.7	335.3	288.0	60- 70	4001	66010	94.5,94.5
80	128.0	133.4	156.2	168.3	153.4	174.7	161.8	136.9	70- 80	2386	68396	97.9,97.9
90	2.384	2.489	2.512	4.426	3.652	12.28	2.330	2.316	80- 90	804.1	69200	99.1,99.1
100	3.931	4.082	4.057	3.685	3.423	3.461	3.746	3.846	90-100	33.41	69234	99.1,99.1
110	6.293	6.474	6.460	5.971	5.565	5.620	6.028	6.163	100-110	51.38	69285	99.2,99.2
120	9.232	9.405	9.391	8.843	8.377	8.428	8.884	9.074	110-120	74.02	69359	99.3,99.3
130	12.35	12.47	12.48	11.96	11.59	11.55	12.03	12.19	120-130	94.06	69453	99.5,99.5
140	15.07	15.40	15.35	14.91	14.59	14.61	15.09	15.26	130-140	104.8	69558	99.6,99.6
150	17.75	18.19	18.08	17.52	17.38	17.39	17.98	18.19	140-150	102.8	69661	99.8,99.8
160	20.68	21.03	20.95	20.28	20.39	20.29	20.96	21.14	150-160	88.67	69749	99.9,99.9
170	23.55	23.53	23.63	23.03	23.33	23.04	23.61	23.54	160-170	62.35	69812	100,100
180	24.60	24.39	24.81	24.45	24.58	24.41	24.81	24.47	170-180	22.88	69834	100,100
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

Conical surface Flux(90deg): 49412 lm

%lum = 70.8%

%lamp = 70.8%

Conical surface Flux(120deg): 62009 lm

%lum = 88.8%

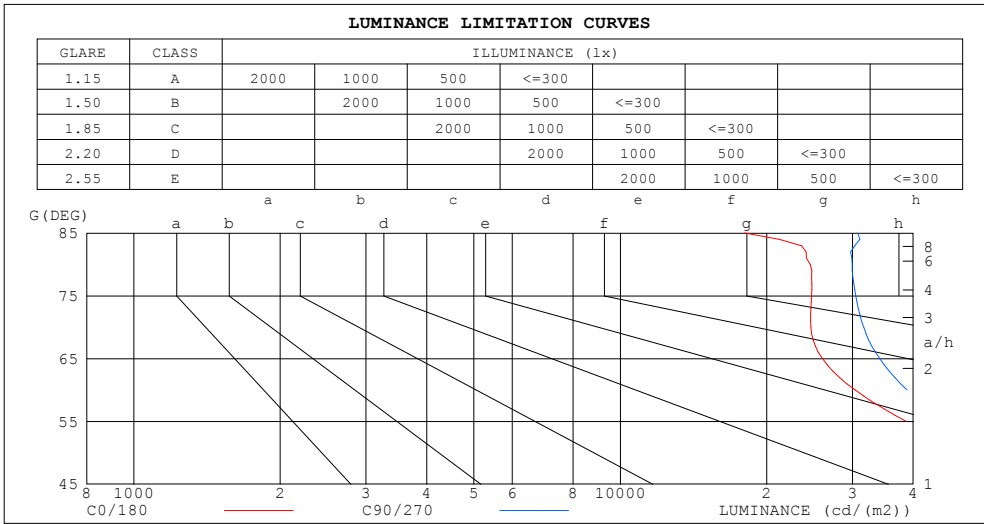
%lamp = 88.8%

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	18014	30760
80	24563	29987
75	24738	30495
70	24656	31628
65	26016	34150
60	30377	38825
55	38658	46057
50	50873	59140
45	68838	79263

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio		Wall Exitance Coefficients (WEC)			
0.0						
1.0	.257 .146 .046	.249 .142 .045	.236 .135 .043	.224 .129 .041	.212 .123 .040	
2.0	.244 .134 .041	.238 .131 .040	.226 .126 .039	.215 .121 .038	.205 .116 .037	
3.0	.230 .122 .037	.224 .120 .036	.214 .116 .035	.204 .112 .034	.195 .108 .033	
4.0	.215 .112 .033	.210 .110 .033	.201 .107 .032	.193 .103 .031	.185 .100 .031	
5.0	.202 .103 .030	.197 .101 .030	.189 .099 .029	.182 .096 .029	.175 .093 .028	
6.0	.189 .095 .027	.186 .094 .027	.178 .091 .027	.172 .089 .026	.165 .087 .026	
7.0	.178 .088 .025	.175 .087 .025	.168 .085 .025	.162 .083 .024	.157 .081 .024	
8.0	.168 .082 .023	.165 .081 .023	.159 .080 .023	.154 .078 .022	.149 .076 .022	
9.0	.159 .077 .021	.156 .076 .021	.151 .075 .021	.146 .073 .021	.141 .072 .021	
10.0	.151 .072 .020	.148 .072 .020	.143 .070 .020	.139 .069 .020	.135 .068 .019	

<input type="checkbox"/> cc	80%	70%	50%	30%	10%	0
<input type="checkbox"/> w	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	50% 30% 10%	0
<input type="checkbox"/> fc	20%	20%	20%	20%	20%	0
RCR	RCR:Room Cavity Ratio		Ceiling Cavity Exitance Coefficients (CCEC)			
0.0	.197 .197 .197	.169 .169 .169	.115 .115 .115	.066 .066 .066	.021 .021 .021	
1.0	.184 .164 .146	.157 .140 .125	.107 .097 .087	.062 .056 .050	.020 .018 .016	
2.0	.173 .139 .111	.148 .120 .096	.102 .083 .067	.059 .048 .039	.019 .016 .013	
3.0	.164 .121 .087	.140 .104 .076	.096 .073 .053	.056 .042 .031	.018 .014 .010	
4.0	.156 .107 .070	.133 .093 .061	.092 .065 .043	.053 .038 .026	.017 .012 .008	
5.0	.148 .097 .059	.127 .084 .051	.088 .058 .036	.051 .034 .021	.016 .011 .007	
6.0	.141 .088 .050	.121 .076 .043	.084 .053 .031	.049 .031 .018	.016 .010 .006	
7.0	.135 .081 .043	.116 .070 .038	.080 .049 .027	.047 .029 .016	.015 .009 .005	
8.0	.129 .075 .038	.111 .065 .033	.077 .046 .024	.045 .027 .014	.014 .009 .005	
9.0	.123 .070 .034	.106 .061 .030	.074 .043 .021	.043 .025 .013	.014 .008 .004	
10.0	.118 .066 .031	.102 .057 .027	.071 .040 .019	.041 .024 .011	.013 .008 .004	

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm										
NAME: ASD-WHB5A-A500DAC-500W-4000K					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD LIGHTING CORP					SUR.:1.0*0.3m			Shielding 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	24.7	26.0	25.0	26.2	26.4	25.3	26.6	25.6	26.8	27.0
3H	25.2	26.4	25.5	26.7	26.9	26.0	27.2	26.3	27.5	27.7
4H	25.5	26.7	25.9	26.9	27.2	26.4	27.5	26.7	27.8	28.0
6H	25.8	26.9	26.2	27.2	27.5	26.7	27.8	27.0	28.0	28.3
8H	25.9	27.0	26.3	27.3	27.6	26.8	27.9	27.2	28.1	28.4
12H	26.0	27.0	26.3	27.3	27.6	26.9	27.9	27.3	28.2	28.5
4H 2H	24.9	26.0	25.2	26.3	26.5	25.4	26.6	25.7	26.8	27.1
3H	25.7	26.6	26.0	27.0	27.3	26.3	27.3	26.7	27.6	28.0
4H	26.1	27.0	26.5	27.3	27.7	26.9	27.8	27.2	28.1	28.4
6H	26.5	27.3	26.9	27.7	28.1	27.3	28.1	27.7	28.5	28.9
8H	26.7	27.5	27.1	27.8	28.2	27.5	28.3	27.9	28.6	29.0
12H	26.8	27.5	27.2	27.9	28.3	27.7	28.4	28.1	28.8	29.2
8H 4H	26.3	27.0	26.7	27.4	27.8	27.0	27.7	27.4	28.1	28.5
6H	26.9	27.5	27.3	27.9	28.3	27.6	28.2	28.0	28.6	29.1
8H	27.1	27.7	27.6	28.1	28.6	27.9	28.4	28.4	28.9	29.3
12H	27.3	27.8	27.8	28.2	28.7	28.1	28.6	28.6	29.1	29.6
12H 4H	26.3	27.0	26.7	27.4	27.8	27.0	27.7	27.4	28.0	28.5
6H	26.9	27.5	27.4	27.9	28.4	27.6	28.2	28.1	28.6	29.1
8H	27.2	27.7	27.7	28.2	28.6	28.0	28.4	28.4	28.9	29.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.6 / - 0.8					+ 0.5 / - 0.7				
1.5H	+ 0.7 / - 0.6					+ 0.6 / - 0.6				
2.0H	+ 1.4 / - 0.9					+ 1.5 / - 0.8				

CIE Pub.117, 69834 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 14.8)

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

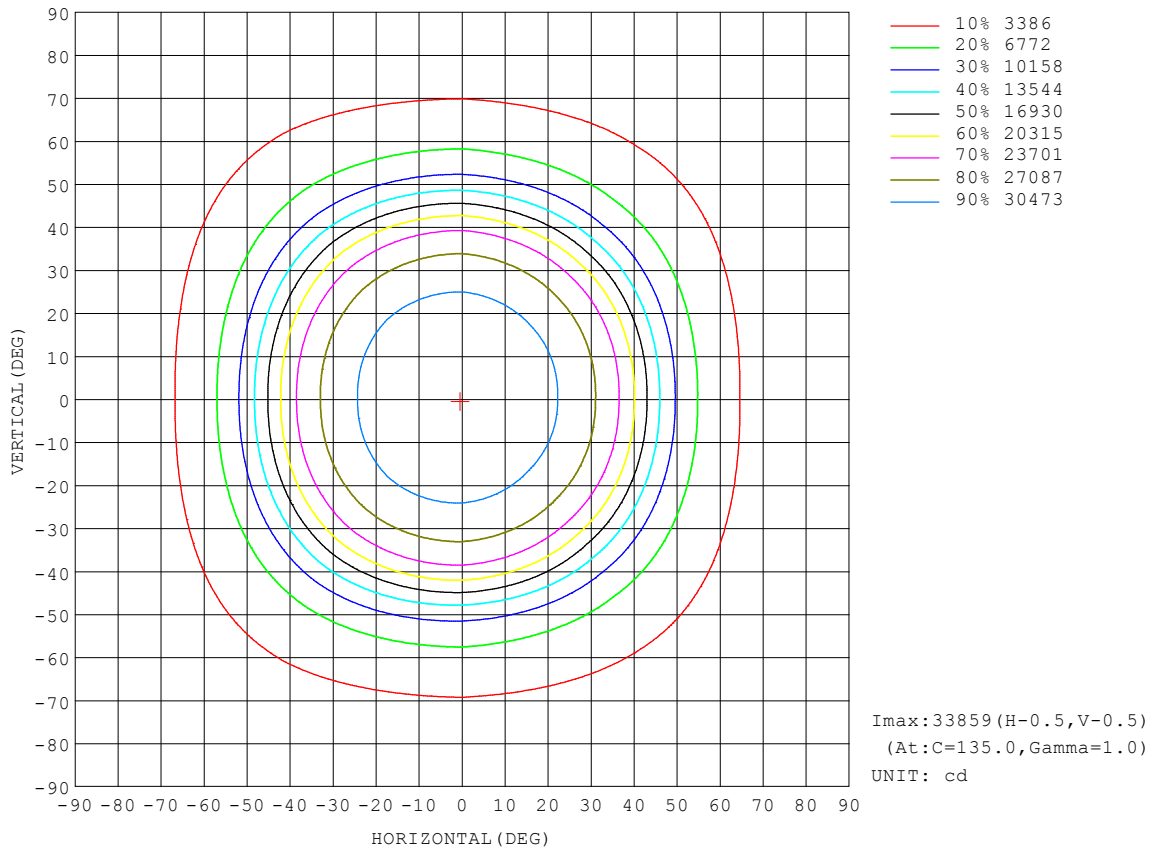
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	67	57	51	66	57	51	65	56	51	45
0.80	77	67	61	76	66	61	74	66	60	54
1.00	84	75	69	83	75	69	81	75	68	62
1.25	90	82	76	89	81	76	87	80	75	69
1.50	95	87	81	93	86	81	90	84	80	73
2.00	100	93	88	98	92	87	95	90	86	79
2.50	103	97	92	101	96	91	97	93	89	82
3.00	106	100	96	104	99	95	100	96	92	84
4.00	109	104	101	107	102	99	102	99	96	88
5.00	111	107	104	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

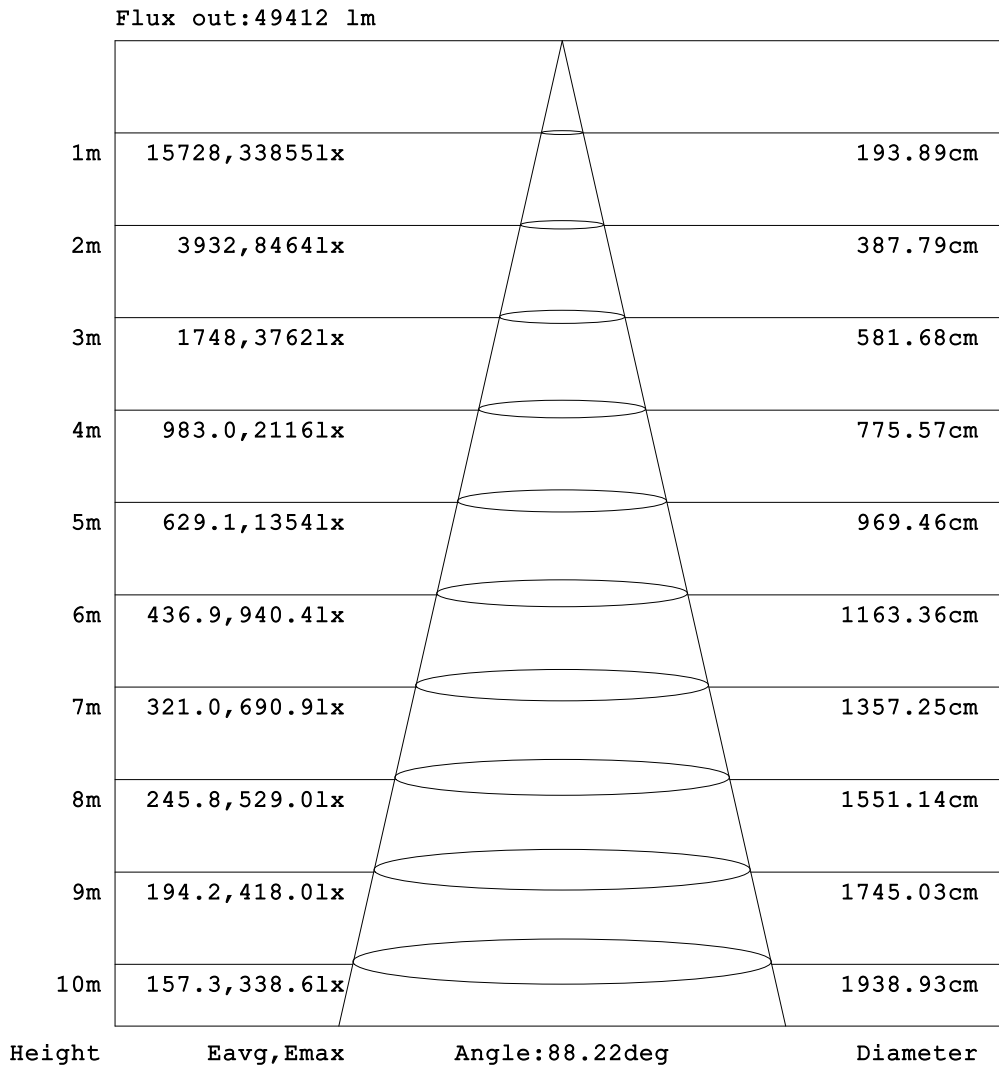


C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:



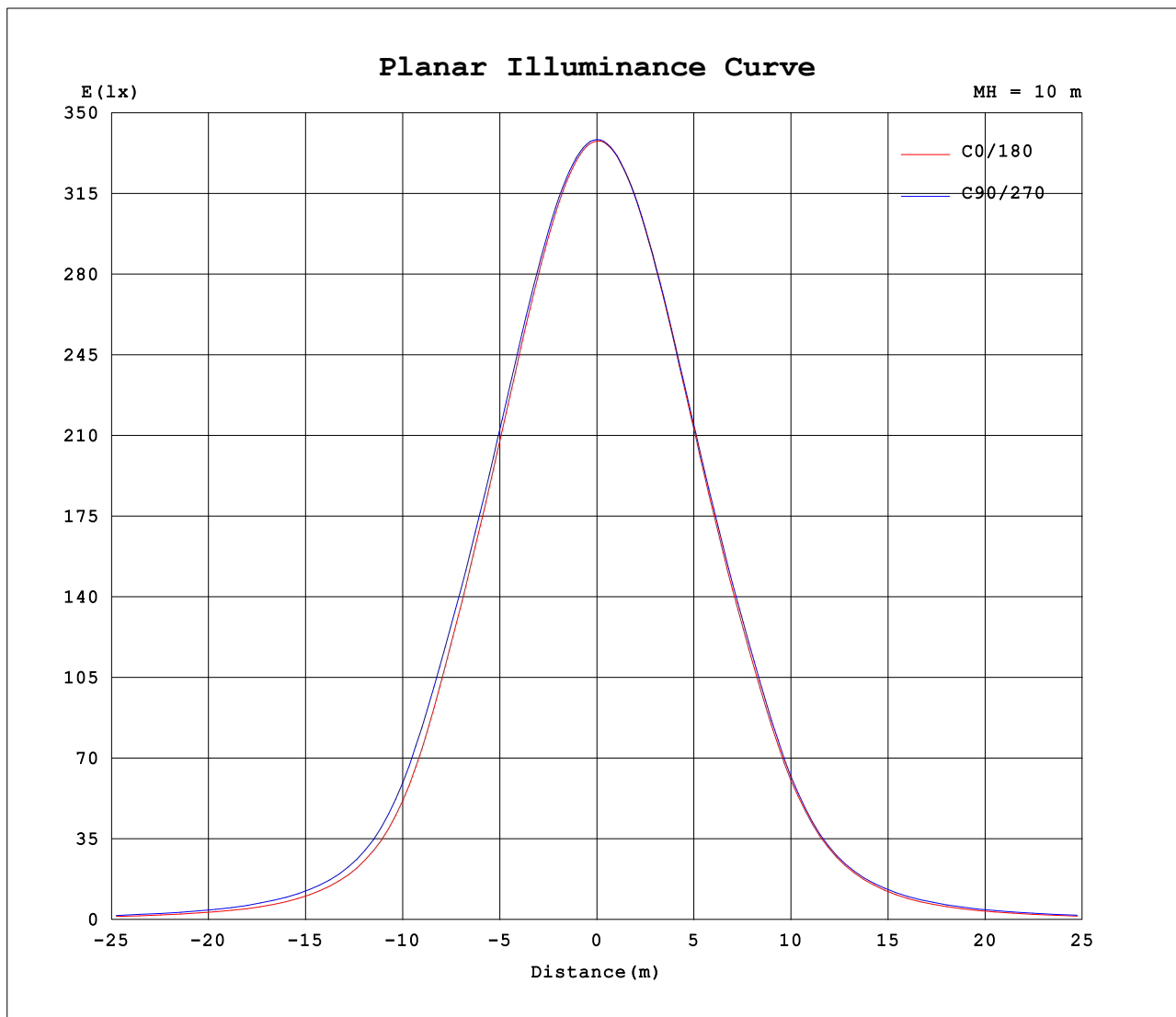
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 27DEG  
 Operators: lianghaizhu  
 Test Date: 2023-05-05

Range: 0 - 180DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity: 56%  
 Test Distance: 6.500m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:121.0V I:3.895A P:470.3W PF:0.9979 Freq:59.98Hz Lamp Flux:69834.4x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-4000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

Table--1

UNIT: x10cd

C (DEG) □ (DEG)	0	45	90	135	180	225	270	315										
0	3378	3382	3384	3386	3378	3382	3384	3386										
5	3356	3359	3368	3376	3370	3375	3373	3366										
10	3304	3307	3325	3338	3332	3341	3335	3319										
15	3223	3228	3253	3270	3264	3278	3269	3242										
20	3110	3116	3153	3173	3163	3184	3174	3135										
25	2958	2968	3020	3040	3025	3054	3046	2992										
30	2758	2775	2845	2863	2842	2882	2877	2803										
35	2480	2505	2609	2628	2600	2653	2650	2542										
40	2042	2072	2245	2284	2246	2320	2305	2122										
45	1460	1503	1681	1754	1711	1805	1755	1534										
50	981	1012	1140	1214	1179	1240	1209	1031										
55	665	693	793	819	792	837	838	711										
60	456	493	582	566	535	588	605	502										
65	330	370	433	411	376	427	449	373										
70	253	286	325	316	281	327	335	288										
75	192	211	237	243	217	250	245	213										
80	128	133	156	168	153	175	162	137										
85	47.1	52.8	80.4	94.8	86.1	99.1	87.3	56.0										
90	2.38	2.49	2.51	4.43	3.65	12.3	2.33	2.32										
95	3.06	3.18	3.15	2.87	2.66	2.69	2.91	2.99										
100	3.93	4.08	4.06	3.69	3.42	3.46	3.75	3.85										
105	5.02	5.19	5.17	4.74	4.40	4.44	4.80	4.91										
110	6.29	6.47	6.46	5.97	5.57	5.62	6.03	6.16										
115	7.70	7.89	7.88	7.35	6.91	6.95	7.41	7.57										
120	9.23	9.41	9.39	8.84	8.38	8.43	8.88	9.07										
125	10.8	10.9	10.9	10.4	9.97	9.98	10.4	10.6										
130	12.3	12.5	12.5	12.0	11.6	11.6	12.0	12.2										
135	13.7	13.9	14.0	13.5	13.1	13.1	13.6	13.7										
140	15.1	15.4	15.4	14.9	14.6	14.6	15.1	15.3										
145	16.4	16.8	16.7	16.2	16.0	16.0	16.5	16.7										
150	17.7	18.2	18.1	17.5	17.4	17.4	18.0	18.2										
155	19.2	19.6	19.5	18.9	18.8	18.8	19.5	19.7										
160	20.7	21.0	21.0	20.3	20.4	20.3	21.0	21.1										
165	22.2	22.4	22.4	21.7	22.0	21.8	22.4	22.5										
170	23.6	23.5	23.6	23.0	23.3	23.0	23.6	23.5										
175	24.5	24.2	24.5	24.0	24.3	24.0	24.4	24.2										
180	24.6	24.4	24.8	24.5	24.6	24.4	24.8	24.5										

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

□ Range: 0 - 180DEG  
 □ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.364  
 Humidity:56%  
 Test Distance:6.500m [K=1.0000]  
 Remarks: