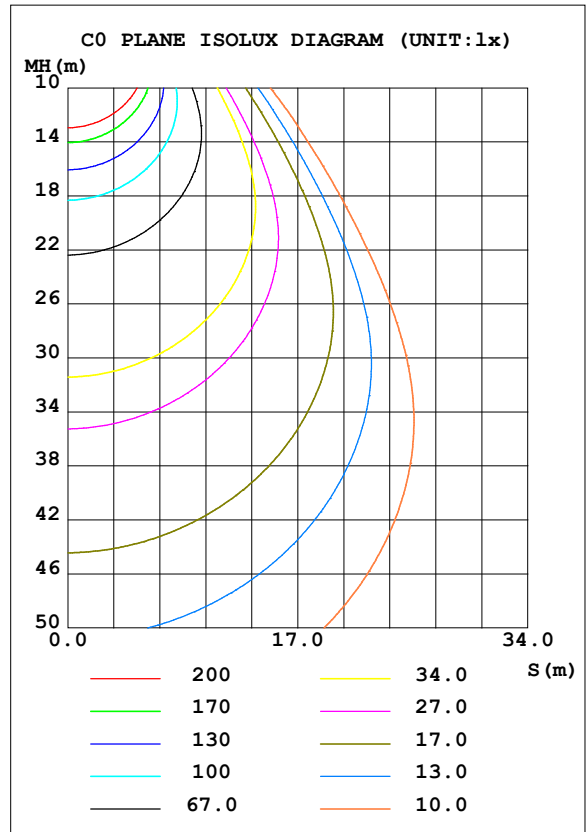
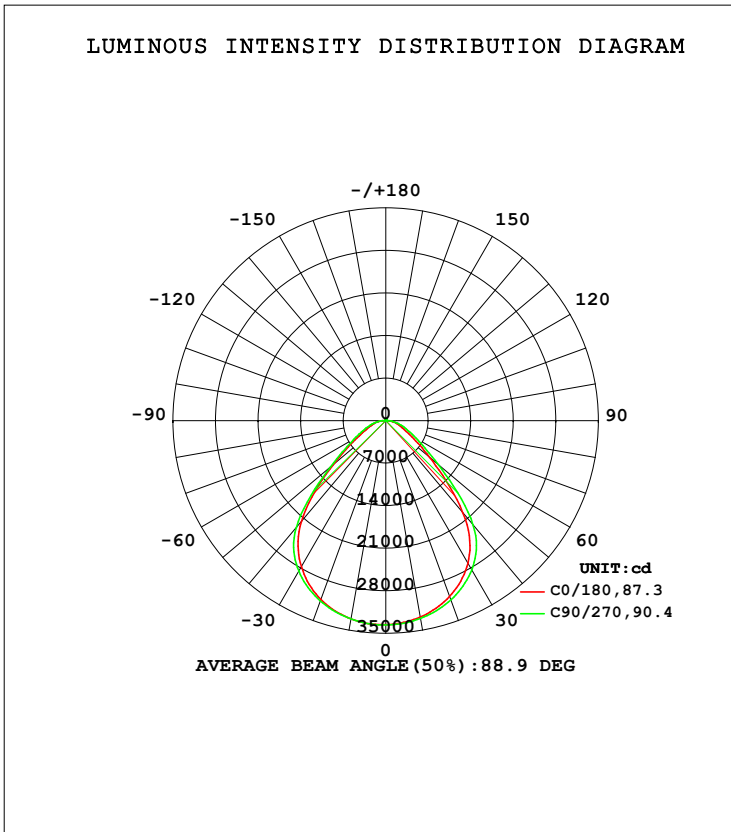


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 141.09 lm/W			
MODEL		I <sub>max</sub> (cd)	33615	S/MH (C0/180)	1.23
NOMINAL POWER (W)	500	LOR (%)	102.0	S/MH (C90/270)	1.26
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	68664	<input type="checkbox"/> UP, DN (C0-180)	0.5, 49.7
NOMINAL FLUX (lm)	67311	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.5, 51.3
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	101.1	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:

°	C0	C45	C90	C135	C180	C225	C270	C315	°	□ zone	□ total	%lum, lamp
10	3280	3287	3303	3313	3312	3317	3313	3296	0- 10	3180	3180	4.63,4.72
20	3077	3098	3137	3140	3131	3151	3155	3115	10- 20	9114	12294	17.9,18.3
30	2706	2756	2833	2809	2778	2828	2862	2784	20- 30	13725	26019	37.9,38.7
40	1972	2042	2233	2207	2160	2245	2291	2088	30- 40	15729	41748	60.8,62
50	947.6	994.8	1128	1171	1134	1199	1195	1011	40- 50	12401	54148	78.9,80.4
60	441.5	485.4	573.9	547.3	515.8	569.9	596.1	493.2	50- 60	6868	61017	88.9,90.6
70	246.8	281.0	319.7	306.3	273.3	317.7	329.8	282.7	60- 70	3907	64924	94.6,96.5
80	124.4	130.7	153.9	163.9	149.3	170.5	159.1	133.7	70- 80	2333	67257	98,99.9
90	2.314	2.422	2.471	4.666	3.678	6.671	2.277	2.250	80- 90	783.1	68040	99.1,101
100	3.810	3.970	3.995	3.621	3.327	3.405	3.689	3.732	90-100	32.32	68073	99.1,101
110	6.103	6.303	6.370	5.884	5.417	5.540	5.944	5.990	100-110	50.26	68123	99.2,101
120	8.988	9.176	9.261	8.738	8.190	8.322	8.772	8.845	110-120	72.55	68196	99.3,101
130	12.08	12.21	12.31	11.83	11.36	11.42	11.86	11.92	120-130	92.39	68288	99.5,101
140	14.81	15.12	15.14	14.75	14.36	14.45	14.88	14.96	130-140	103.1	68391	99.6,102
150	17.48	17.89	17.83	17.33	17.15	17.20	17.73	17.86	140-150	101.3	68492	99.8,102
160	20.36	20.68	20.65	20.03	20.12	20.05	20.66	20.77	150-160	87.42	68580	99.9,102
170	23.20	23.17	23.30	22.73	23.02	22.75	23.28	23.17	160-170	61.46	68641	100,102
180	24.26	24.06	24.47	24.12	24.25	24.08	24.47	24.14	170-180	22.56	68664	100,102
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 48731 lm

%lum = 71.0%

%lamp = 72.4%

Conical surface Flux(120deg): 61017 lm

%lum = 88.9%

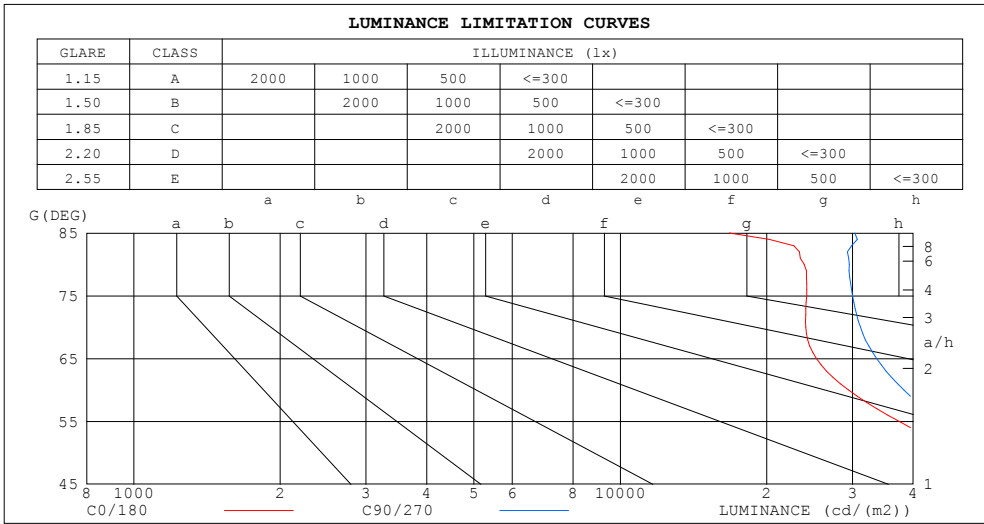
%lamp = 90.6%

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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	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	16760	30314
80	23888	29546
75	24156	30026
70	24056	31155
65	25311	33645
60	29436	38263
55	37376	45844
50	49140	58480
45	66383	78696

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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	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	.261 .149 .047	.254 .145 .046	.240 .138 .044	.227 .131 .042	.216 .125 .040	
2.0	.249 .136 .042	.242 .133 .041	.230 .128 .040	.219 .123 .038	.209 .118 .037	
3.0	.234 .124 .037	.228 .122 .037	.217 .118 .036	.208 .114 .035	.199 .110 .034	
4.0	.219 .114 .033	.214 .112 .033	.205 .109 .032	.196 .105 .032	.188 .102 .031	
5.0	.205 .105 .030	.201 .103 .030	.193 .100 .030	.185 .098 .029	.178 .095 .029	
6.0	.193 .097 .028	.189 .095 .027	.182 .093 .027	.175 .091 .027	.168 .089 .026	
7.0	.182 .090 .025	.178 .089 .025	.171 .087 .025	.165 .085 .025	.160 .083 .024	
8.0	.171 .084 .024	.168 .083 .023	.162 .081 .023	.157 .079 .023	.151 .078 .023	
9.0	.162 .078 .022	.159 .078 .022	.154 .076 .022	.149 .075 .021	.144 .073 .021	
10.0	.153 .074 .020	.151 .073 .020	.146 .072 .020	.141 .070 .020	.137 .069 .020	

<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	.201 .201 .201	.172 .172 .172	.117 .117 .117	.067 .067 .067	.022 .022 .022	
1.0	.187 .167 .149	.160 .143 .128	.110 .099 .088	.063 .057 .051	.020 .018 .017	
2.0	.176 .142 .113	.151 .122 .098	.103 .085 .068	.060 .049 .040	.019 .016 .013	
3.0	.167 .124 .089	.143 .107 .077	.098 .074 .054	.057 .043 .032	.018 .014 .010	
4.0	.159 .109 .072	.136 .095 .063	.094 .066 .044	.054 .039 .026	.017 .013 .009	
5.0	.151 .098 .060	.130 .085 .052	.089 .060 .037	.052 .035 .022	.017 .011 .007	
6.0	.144 .090 .051	.124 .078 .044	.085 .054 .031	.050 .032 .019	.016 .010 .006	
7.0	.137 .083 .044	.118 .072 .038	.082 .050 .027	.047 .030 .016	.015 .010 .005	
8.0	.131 .077 .039	.113 .066 .034	.078 .047 .024	.046 .028 .014	.015 .009 .005	
9.0	.126 .072 .035	.108 .062 .030	.075 .044 .022	.044 .026 .013	.014 .008 .004	
10.0	.121 .067 .032	.104 .058 .028	.072 .041 .020	.042 .024 .012	.014 .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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm										
NAME: ASD-WHB5A-A500DAC-500W-5000K					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	24.6	25.9	24.8	26.1	26.3	25.3	26.6	25.6	26.8	27.0
3H	25.1	26.3	25.4	26.6	26.8	26.0	27.2	26.3	27.4	27.7
4H	25.4	26.6	25.7	26.8	27.1	26.3	27.5	26.7	27.7	28.0
6H	25.7	26.8	26.0	27.1	27.3	26.7	27.7	27.0	28.0	28.3
8H	25.8	26.9	26.2	27.1	27.4	26.8	27.8	27.1	28.1	28.4
12H	25.9	26.9	26.2	27.2	27.5	26.9	27.9	27.3	28.2	28.5
4H 2H	24.8	25.9	25.1	26.2	26.4	25.4	26.5	25.7	26.8	27.1
3H	25.6	26.5	25.9	26.8	27.2	26.3	27.3	26.7	27.6	27.9
4H	26.0	26.9	26.4	27.2	27.6	26.8	27.7	27.2	28.0	28.4
6H	26.4	27.2	26.8	27.6	28.0	27.3	28.1	27.7	28.4	28.8
8H	26.6	27.3	27.0	27.7	28.1	27.5	28.2	27.9	28.6	29.0
12H	26.7	27.4	27.1	27.8	28.2	27.7	28.3	28.1	28.7	29.1
8H 4H	26.2	26.9	26.6	27.3	27.7	26.9	27.7	27.4	28.1	28.5
6H	26.8	27.4	27.2	27.8	28.2	27.6	28.2	28.0	28.6	29.0
8H	27.0	27.6	27.5	28.0	28.5	27.8	28.4	28.3	28.8	29.3
12H	27.2	27.6	27.7	28.1	28.6	28.1	28.6	28.6	29.0	29.5
12H 4H	26.2	26.9	26.7	27.3	27.7	26.9	27.6	27.4	28.0	28.4
6H	26.8	27.4	27.3	27.8	28.3	27.6	28.1	28.1	28.6	29.0
8H	27.1	27.6	27.6	28.1	28.5	27.9	28.4	28.4	28.8	29.3
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, 67311 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = 14.6$ )

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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

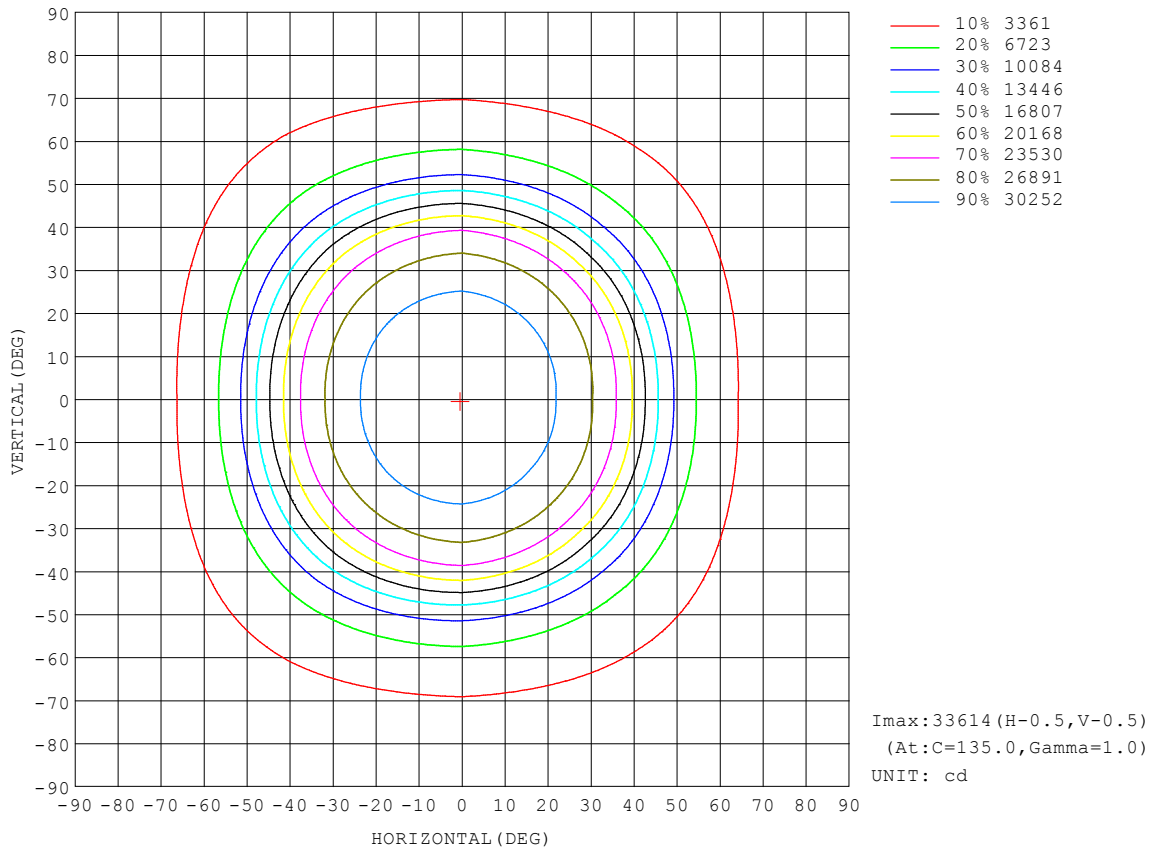
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	68	58	52	68	58	52	67	58	52	46
0.80	78	68	62	77	68	62	76	67	62	56
1.00	86	77	71	85	76	70	83	77	70	64
1.25	92	84	78	91	83	77	88	82	77	70
1.50	97	89	83	95	88	82	92	86	81	75
2.00	102	95	90	100	94	89	97	92	88	81
2.50	105	99	94	103	98	93	100	95	91	83
3.00	108	102	98	106	101	97	102	98	94	86
4.00	111	106	103	109	105	101	104	101	98	90
5.00	113	109	106	111	107	104	106	103	101	92
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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

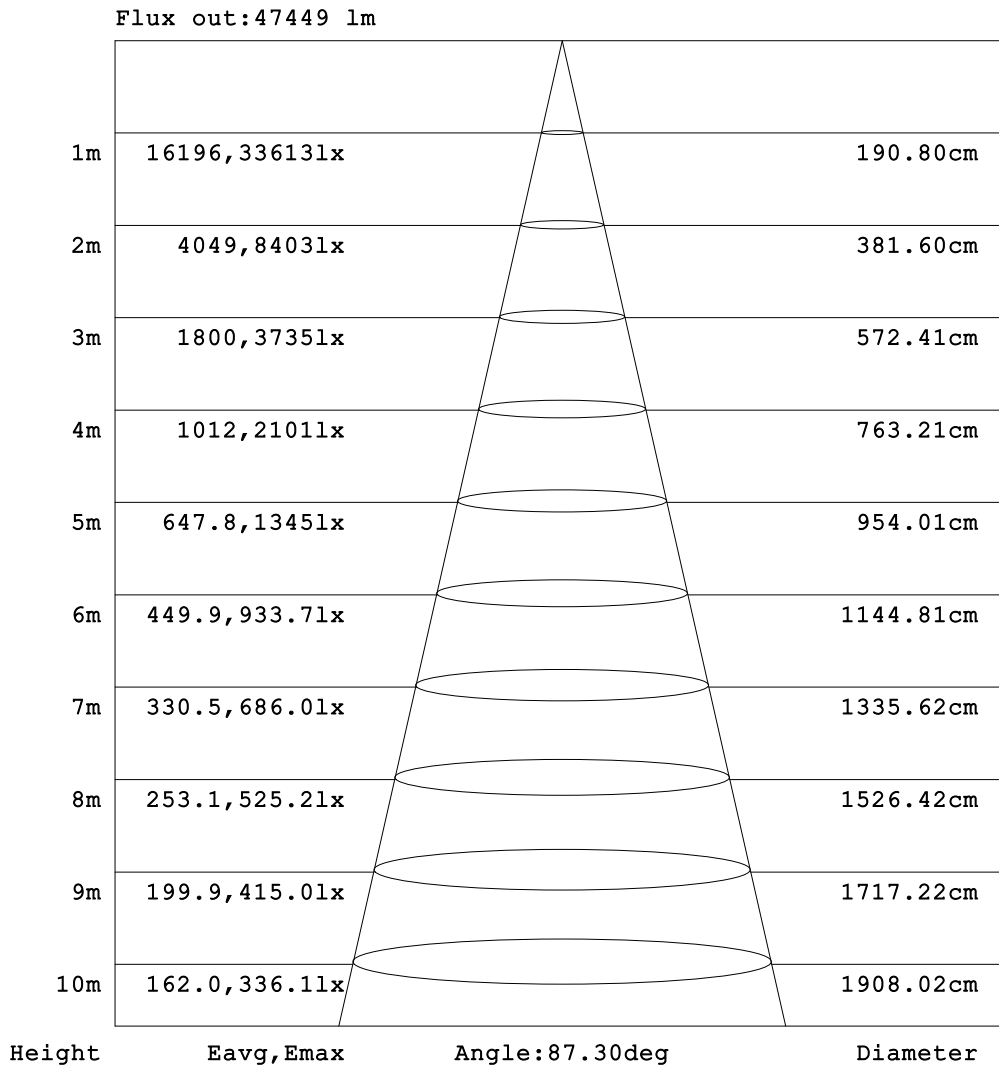


C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:27DEG  
 Operators:lianghaizhu  
 Test Date:2023-05-05

□ 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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:



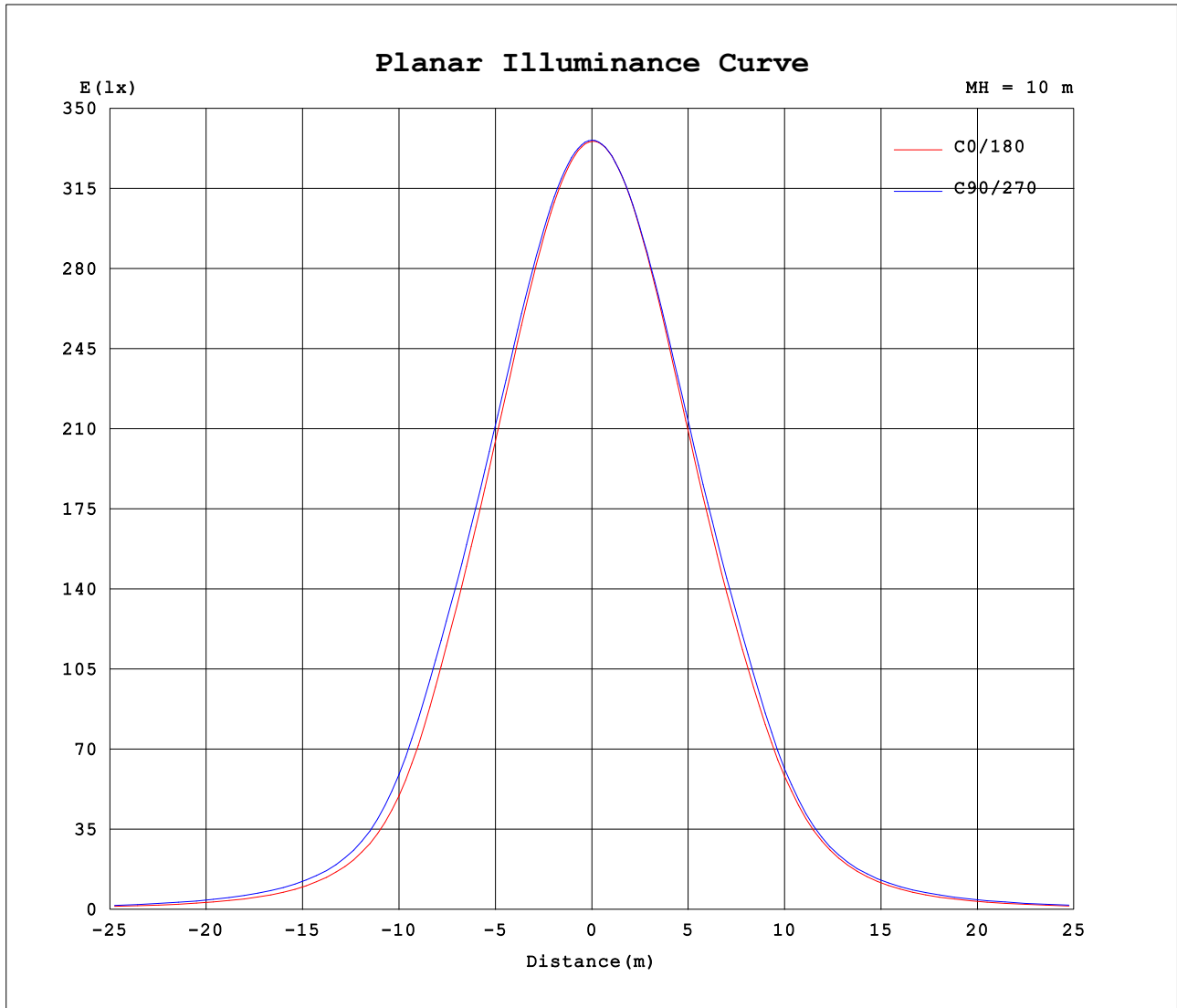
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:121.1V I:4.026A P:486.7W PF:0.9979 Freq:59.98Hz Lamp Flux:67311x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-5000K	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	3357	3359	3361	3361	3357	3359	3361	3361										
5	3333	3338	3346	3351	3350	3353	3351	3343										
10	3280	3287	3303	3313	3312	3317	3313	3296										
15	3196	3208	3234	3242	3239	3251	3248	3221										
20	3077	3098	3137	3140	3131	3151	3155	3115										
25	2919	2950	3005	2998	2978	3012	3029	2973										
30	2706	2756	2833	2809	2778	2828	2862	2784										
35	2413	2479	2599	2559	2519	2585	2637	2516										
40	1972	2042	2233	2207	2160	2245	2291	2088										
45	1408	1477	1669	1697	1650	1743	1740	1503										
50	948	995	1128	1171	1134	1199	1195	1011										
55	643	682	789	790	762	811	826	698										
60	442	485	574	547	516	570	596	493										
65	321	364	427	398	364	414	441	367										
70	247	281	320	306	273	318	330	283										
75	188	207	233	237	211	244	241	209										
80	124	131	154	164	149	170	159	134										
85	43.8	50.5	79.3	92.5	83.5	96.8	85.9	53.2										
90	2.31	2.42	2.47	4.67	3.68	6.67	2.28	2.25										
95	2.96	3.10	3.10	2.81	2.59	2.65	2.86	2.90										
100	3.81	3.97	4.00	3.62	3.33	3.40	3.69	3.73										
105	4.87	5.06	5.10	4.66	4.27	4.38	4.73	4.77										
110	6.10	6.30	6.37	5.88	5.42	5.54	5.94	5.99										
115	7.48	7.70	7.77	7.25	6.73	6.86	7.31	7.36										
120	8.99	9.18	9.26	8.74	8.19	8.32	8.77	8.85										
125	10.6	10.7	10.8	10.3	9.75	9.86	10.3	10.4										
130	12.1	12.2	12.3	11.8	11.4	11.4	11.9	11.9										
135	13.5	13.7	13.8	13.3	12.9	13.0	13.4	13.4										
140	14.8	15.1	15.1	14.8	14.4	14.5	14.9	15.0										
145	16.1	16.5	16.5	16.1	15.8	15.9	16.3	16.4										
150	17.5	17.9	17.8	17.3	17.1	17.2	17.7	17.9										
155	18.9	19.3	19.2	18.6	18.6	18.6	19.2	19.3										
160	20.4	20.7	20.7	20.0	20.1	20.0	20.7	20.8										
165	21.9	22.1	22.1	21.5	21.7	21.6	22.1	22.1										
170	23.2	23.2	23.3	22.7	23.0	22.7	23.3	23.2										
175	24.1	23.9	24.1	23.7	23.9	23.6	24.1	23.9										
180	24.3	24.1	24.5	24.1	24.3	24.1	24.5	24.1										

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: