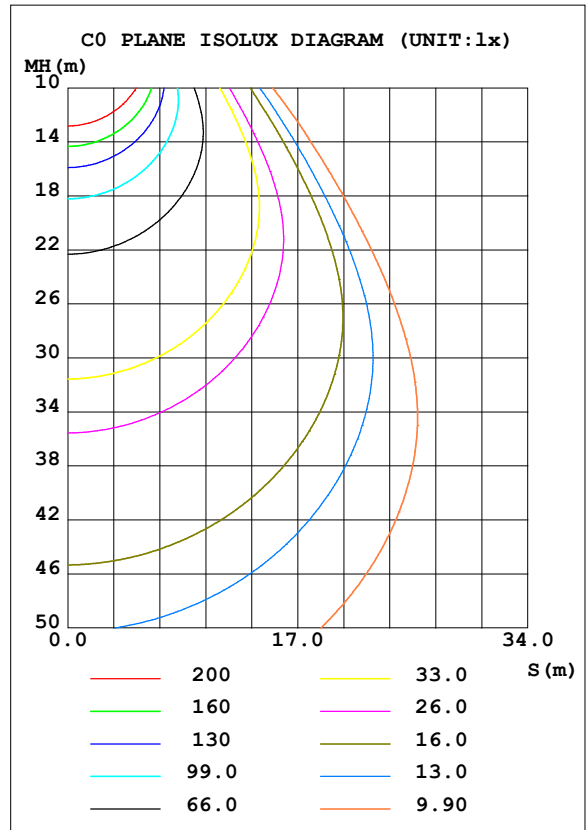
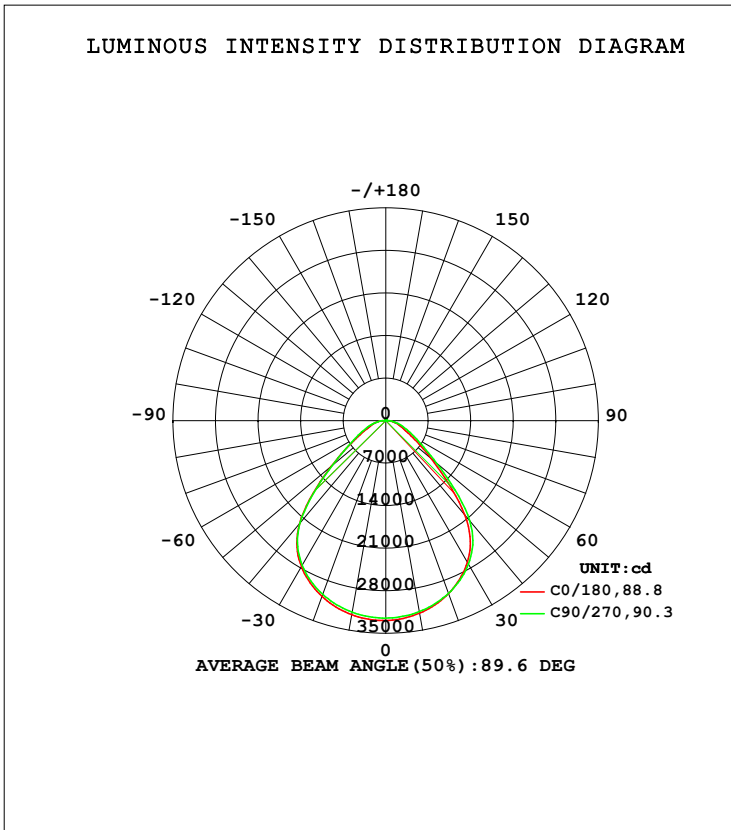


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 138.99 lm/W			
MODEL		I _{max} (cd)	32888	S/MH (C0/180)	1.25
NOMINAL POWER (W)	500	LOR (%)	98.0	S/MH (C90/270)	1.25
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	67079	<input type="checkbox"/> UP, DN (C0-180)	0.5, 47.8
NOMINAL FLUX (lm)	67079	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.4, 49.3
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	97.1	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	3216	3193	3190	3189	3241	3225	3199	3169	0- 10	3084	3084	4.56,4.47
20	3026	3006	3023	3033	3077	3073	3041	2990	10- 20	8841	11925	17.6,17.3
30	2688	2674	2723	2746	2776	2790	2750	2669	20- 30	13351	25276	37.4,36.7
40	2020	2008	2149	2212	2209	2262	2195	2027	30- 40	15456	40732	60.3,59.1
50	982.9	987.8	1097	1182	1171	1212	1152	988.4	40- 50	12353	53085	78.6,77
60	456.2	481.2	562.2	551.0	531.7	574.8	579.2	482.1	50- 60	6863	59948	88.7,86.9
70	250.8	279.3	313.4	306.2	278.4	318.7	321.4	276.7	60- 70	3896	63844	94.5,92.6
80	129.4	131.8	151.2	163.3	152.5	170.3	154.8	131.7	70- 80	2323	66166	97.9,96
90	2.354	2.437	2.399	4.252	3.473	12.59	2.196	2.244	80- 90	793.6	66960	99.1,97.1
100	3.873	3.993	3.889	3.544	3.408	3.365	3.640	3.725	90-100	32.56	66992	99.1,97.2
110	6.178	6.323	6.193	5.726	5.521	5.450	5.841	5.957	100-110	49.96	67042	99.2,97.2
120	9.041	9.165	9.002	8.479	8.279	8.159	8.592	8.744	110-120	71.85	67114	99.3,97.3
130	12.05	12.14	11.98	11.45	11.39	11.17	11.62	11.72	120-130	91.14	67205	99.5,97.5
140	14.68	14.99	14.74	14.26	14.30	14.14	14.62	14.65	130-140	101.4	67307	99.6,97.6
150	17.28	17.71	17.36	16.77	17.02	16.81	17.39	17.46	140-150	99.45	67406	99.8,97.8
160	20.12	20.42	20.11	19.42	19.96	19.61	20.27	20.27	150-160	85.74	67492	99.9,97.9
170	22.90	22.83	22.67	22.07	22.82	22.24	22.82	22.54	160-170	60.25	67552	100,98
180	23.87	23.66	23.86	23.45	24.01	23.56	23.94	23.39	170-180	22.10	67574	100,98
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 47677 lm

%lum = 70.6%

%lamp = 69.2%

Conical surface Flux(120deg): 59948 lm

%lum = 88.7%

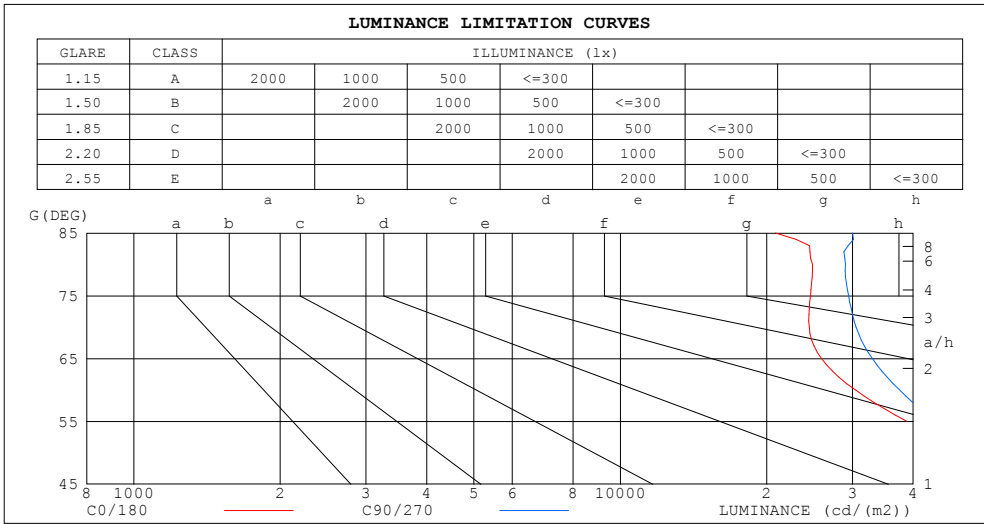
%lamp = 86.9%

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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	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	20840	30003
80	24835	29031
75	24596	29465
70	24446	30543
65	25923	32974
60	30411	37482
55	38762	44779
50	50970	56907
45	68859	76101

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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	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	.252 .143 .045	.245 .140 .044	.232 .133 .042	.220 .127 .041	.208 .121 .039	
2.0	.240 .131 .040	.234 .129 .040	.222 .124 .038	.212 .119 .037	.202 .114 .036	
3.0	.225 .120 .036	.220 .118 .035	.210 .114 .035	.201 .110 .034	.192 .106 .033	
4.0	.211 .110 .032	.206 .108 .032	.198 .105 .031	.189 .102 .031	.182 .099 .030	
5.0	.198 .101 .029	.194 .099 .029	.186 .097 .028	.179 .094 .028	.172 .092 .028	
6.0	.186 .093 .027	.182 .092 .026	.175 .090 .026	.169 .088 .026	.162 .085 .025	
7.0	.175 .087 .025	.172 .086 .024	.165 .084 .024	.159 .082 .024	.154 .080 .023	
8.0	.165 .081 .023	.162 .080 .023	.156 .078 .022	.151 .077 .022	.146 .075 .022	
9.0	.156 .075 .021	.153 .075 .021	.148 .073 .021	.143 .072 .021	.139 .071 .020	
10.0	.148 .071 .020	.145 .070 .020	.141 .069 .019	.136 .068 .019	.132 .067 .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	.193 .193 .193	.165 .165 .165	.113 .113 .113	.065 .065 .065	.021 .021 .021	
1.0	.180 .160 .143	.154 .138 .123	.105 .095 .085	.061 .055 .049	.019 .018 .016	
2.0	.170 .136 .109	.145 .117 .094	.100 .081 .065	.057 .047 .038	.018 .015 .012	
3.0	.161 .119 .085	.138 .102 .074	.095 .071 .052	.055 .042 .031	.018 .013 .010	
4.0	.153 .105 .069	.131 .091 .060	.090 .063 .042	.052 .037 .025	.017 .012 .008	
5.0	.145 .095 .057	.125 .082 .050	.086 .057 .035	.050 .034 .021	.016 .011 .007	
6.0	.138 .086 .049	.119 .075 .042	.082 .052 .030	.048 .031 .018	.015 .010 .006	
7.0	.132 .079 .042	.114 .069 .037	.079 .048 .026	.046 .028 .016	.015 .009 .005	
8.0	.126 .074 .037	.109 .064 .033	.075 .045 .023	.044 .026 .014	.014 .009 .005	
9.0	.121 .069 .033	.104 .060 .029	.072 .042 .021	.042 .025 .012	.014 .008 .004	
10.0	.116 .065 .030	.100 .056 .027	.069 .039 .019	.040 .023 .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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm										
NAME: ASD-WHB5A-A500DAC-500W-3500K					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	25.2	26.5	25.5	26.7	26.9
3H	25.3	26.5	25.5	26.7	26.9	25.9	27.1	26.2	27.3	27.6
4H	25.6	26.7	25.9	27.0	27.2	26.3	27.4	26.6	27.7	27.9
6H	25.9	26.9	26.2	27.2	27.5	26.6	27.7	26.9	27.9	28.2
8H	26.0	27.0	26.3	27.3	27.6	26.7	27.7	27.1	28.0	28.3
12H	26.0	27.0	26.4	27.3	27.6	26.8	27.8	27.2	28.1	28.4
4H 2H	24.9	26.0	25.2	26.3	26.6	25.3	26.5	25.6	26.7	27.0
3H	25.7	26.7	26.0	27.0	27.3	26.2	27.2	26.6	27.5	27.8
4H	26.1	27.0	26.5	27.4	27.7	26.7	27.7	27.1	28.0	28.3
6H	26.6	27.4	27.0	27.7	28.1	27.2	28.0	27.6	28.4	28.8
8H	26.8	27.5	27.2	27.9	28.3	27.4	28.2	27.8	28.5	28.9
12H	26.9	27.5	27.3	27.9	28.4	27.6	28.3	28.0	28.7	29.1
8H 4H	26.3	27.1	26.7	27.4	27.8	26.9	27.6	27.3	28.0	28.4
6H	26.9	27.5	27.4	27.9	28.4	27.5	28.1	28.0	28.5	29.0
8H	27.2	27.7	27.6	28.2	28.6	27.8	28.3	28.3	28.8	29.2
12H	27.4	27.8	27.9	28.3	28.8	28.1	28.5	28.5	29.0	29.5
12H 4H	26.3	27.0	26.8	27.4	27.8	26.9	27.6	27.3	28.0	28.4
6H	27.0	27.5	27.4	27.9	28.4	27.5	28.1	28.0	28.5	29.0
8H	27.3	27.7	27.8	28.2	28.7	27.9	28.3	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 / - 0.5					+ 0.6 / - 0.5				
2.0H	+ 1.4 / - 0.9					+ 1.4 / - 0.8				

CIE Pub.117, 68946 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 14.7)

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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

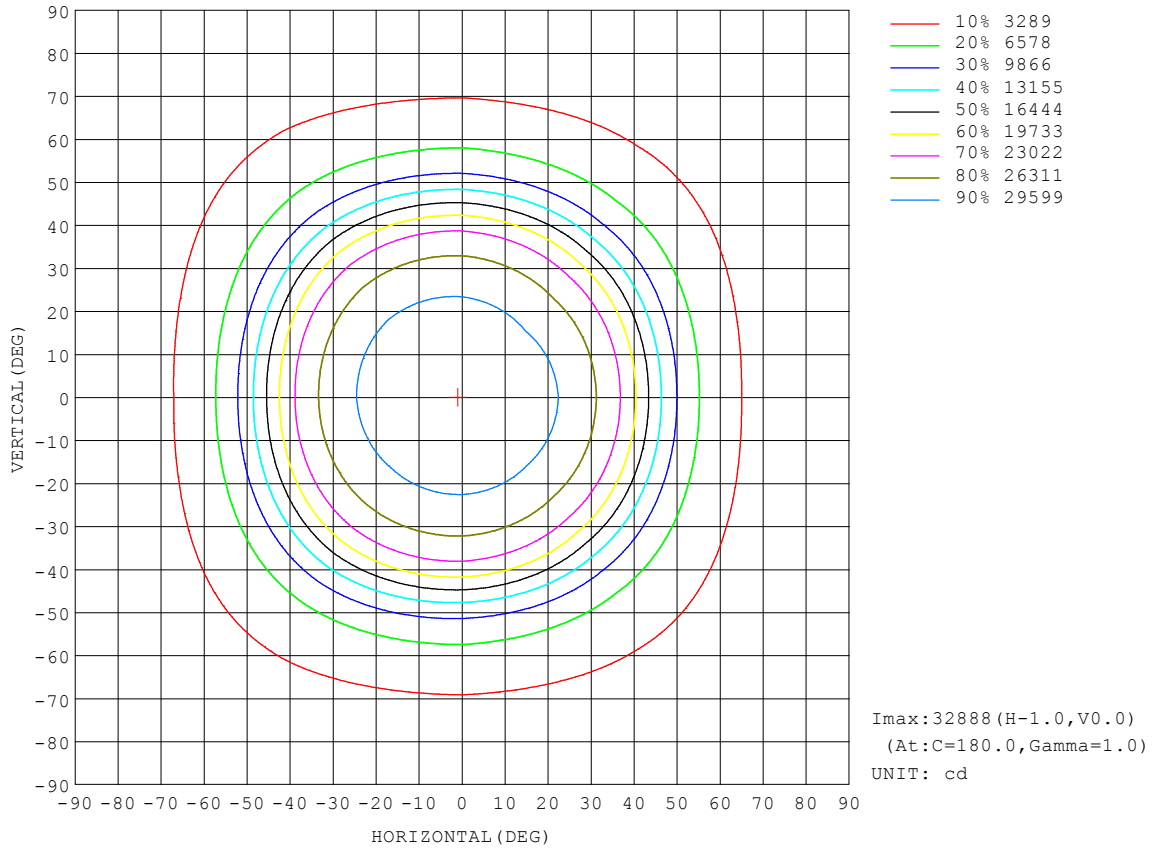
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	65	56	50	65	55	50	64	55	50	44
0.80	75	65	59	74	65	59	72	64	59	53
1.00	82	74	68	81	73	67	79	74	67	61
1.25	89	80	75	87	80	74	85	78	73	67
1.50	93	85	79	91	84	79	88	82	78	71
2.00	98	91	86	96	90	86	93	88	84	77
2.50	101	95	90	99	94	89	95	91	87	80
3.00	104	98	94	102	97	93	98	94	90	83
4.00	107	102	98	104	100	97	100	97	94	86
5.00	108	105	101	106	103	100	102	99	97	88
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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

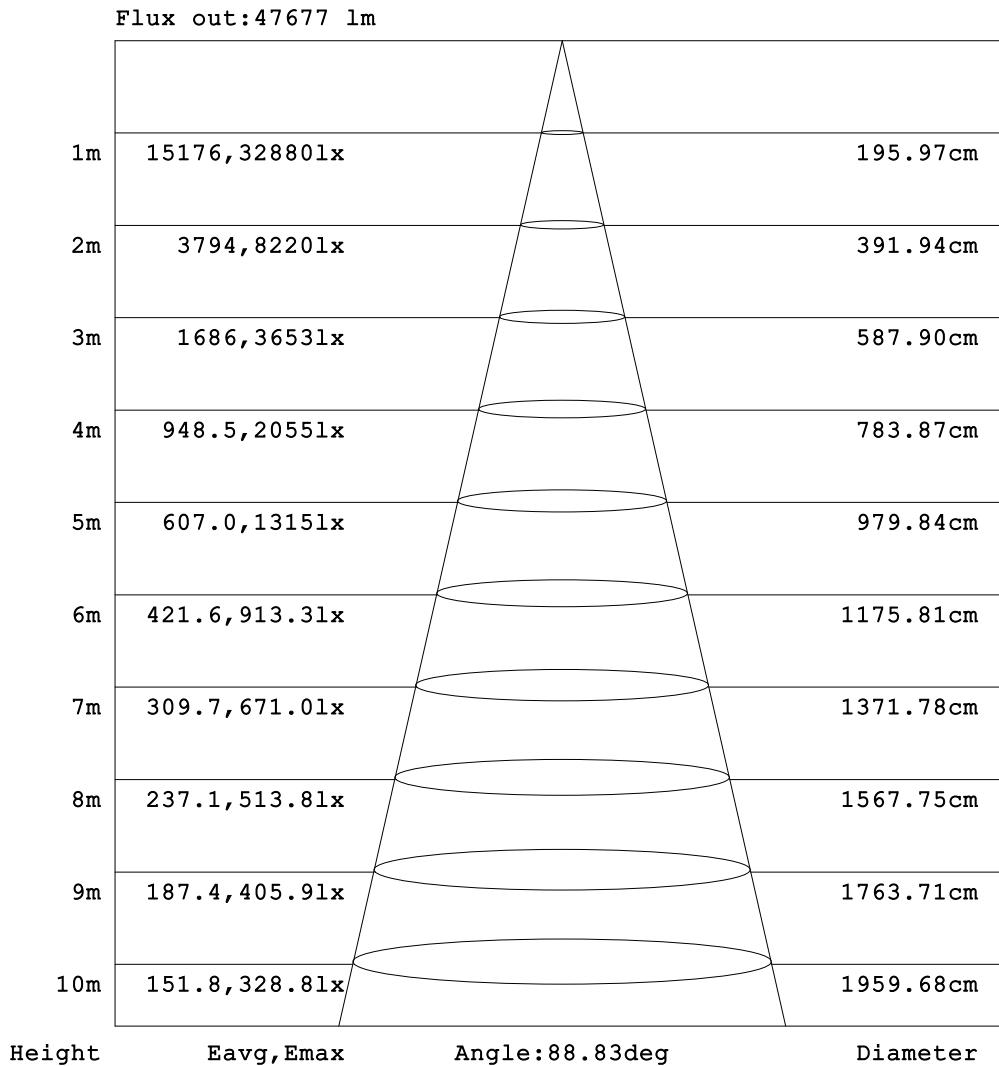


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 27DEG
 Operators: lianghaizhu
 Test Date: 2023-05-05

□ 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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD LIGHTING CORP	SUR.:1.0*0.3m	Shielding Angle:

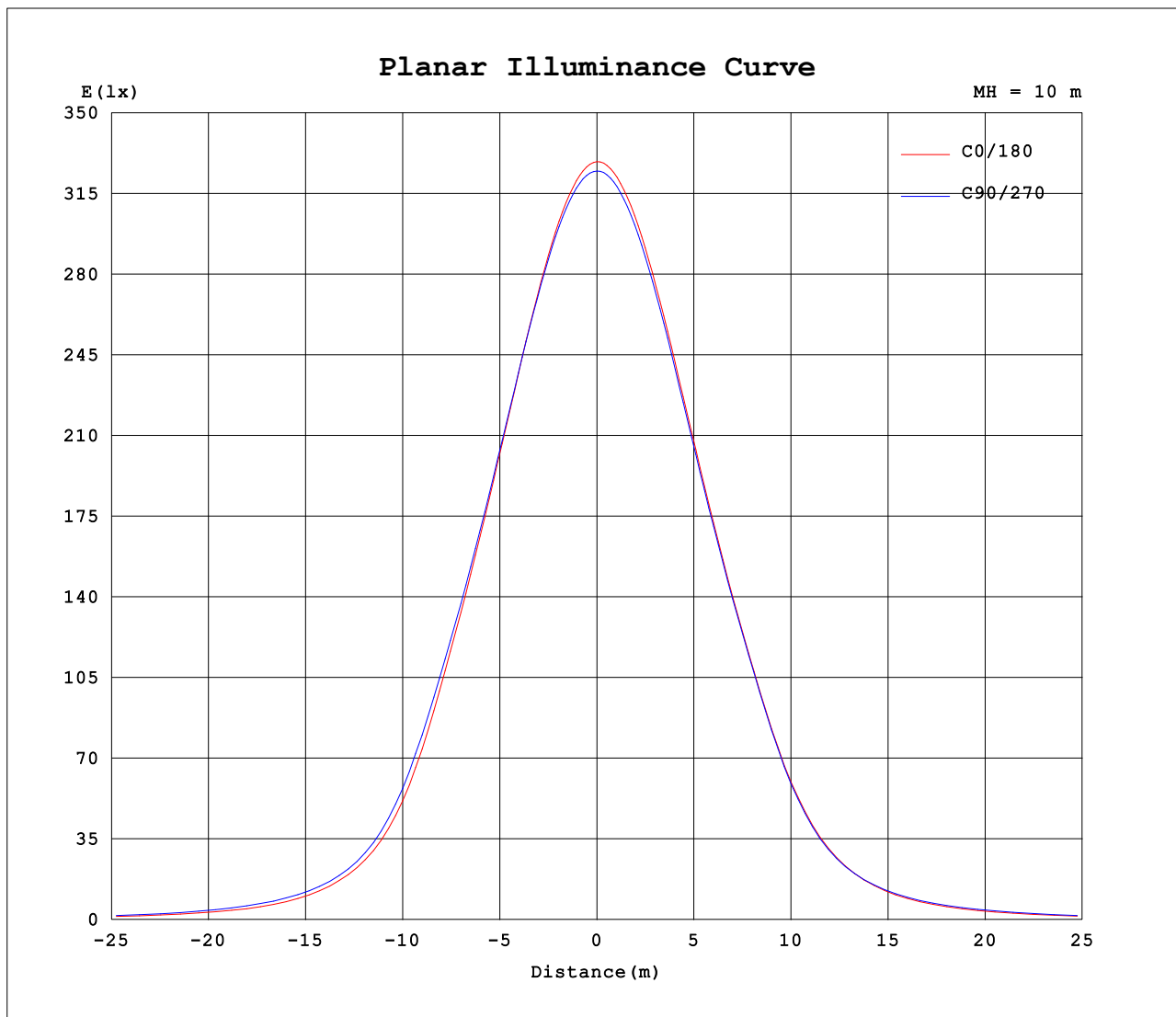


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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:120.8V I:4.046A P:482.6W PF:0.9979 Freq:59.98Hz Lamp Flux:67079x1 lm		
NAME: ASD-WHB5A-A500DAC-500W-3500K	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	3288	3265	3248	3235	3288	3265	3248	3235											
5	3266	3243	3233	3225	3279	3259	3237	3216											
10	3216	3193	3190	3189	3241	3225	3199	3169											
15	3137	3115	3121	3125	3174	3163	3134	3094											
20	3026	3006	3023	3033	3077	3073	3041	2990											
25	2878	2862	2893	2909	2947	2951	2915	2850											
30	2688	2674	2723	2746	2776	2790	2750	2669											
35	2426	2415	2496	2532	2549	2577	2530	2421											
40	2020	2008	2149	2212	2209	2262	2195	2027											
45	1461	1466	1614	1707	1693	1764	1670	1472											
50	983	988	1097	1182	1171	1212	1152	988											
55	667	677	771	797	787	818	800	682											
60	456	481	562	551	532	575	579	482											
65	329	361	418	399	373	417	430	358											
70	251	279	313	306	278	319	321	277											
75	191	206	229	236	214	244	234	205											
80	129	132	151	163	153	170	155	132											
85	54.5	54.9	78.4	92.0	86.6	96.6	82.0	54.8											
90	2.35	2.44	2.40	4.25	3.47	12.6	2.20	2.24											
95	3.02	3.12	3.02	2.76	2.65	2.62	2.82	2.90											
100	3.87	3.99	3.89	3.54	3.41	3.37	3.64	3.72											
105	4.94	5.08	4.96	4.55	4.37	4.31	4.66	4.75											
110	6.18	6.32	6.19	5.73	5.52	5.45	5.84	5.96											
115	7.55	7.70	7.55	7.05	6.84	6.74	7.17	7.30											
120	9.04	9.16	9.00	8.48	8.28	8.16	8.59	8.74											
125	10.6	10.7	10.5	9.96	9.83	9.65	10.1	10.2											
130	12.1	12.1	12.0	11.5	11.4	11.2	11.6	11.7											
135	13.4	13.6	13.4	12.9	12.9	12.7	13.1	13.2											
140	14.7	15.0	14.7	14.3	14.3	14.1	14.6	14.6											
145	16.0	16.3	16.0	15.5	15.7	15.5	16.0	16.1											
150	17.3	17.7	17.4	16.8	17.0	16.8	17.4	17.5											
155	18.7	19.1	18.7	18.0	18.4	18.2	18.8	18.9											
160	20.1	20.4	20.1	19.4	20.0	19.6	20.3	20.3											
165	21.6	21.8	21.5	20.8	21.5	21.1	21.7	21.6											
170	22.9	22.8	22.7	22.1	22.8	22.2	22.8	22.5											
175	23.8	23.5	23.5	23.0	23.7	23.1	23.6	23.2											
180	23.9	23.7	23.9	23.5	24.0	23.6	23.9	23.4											

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: