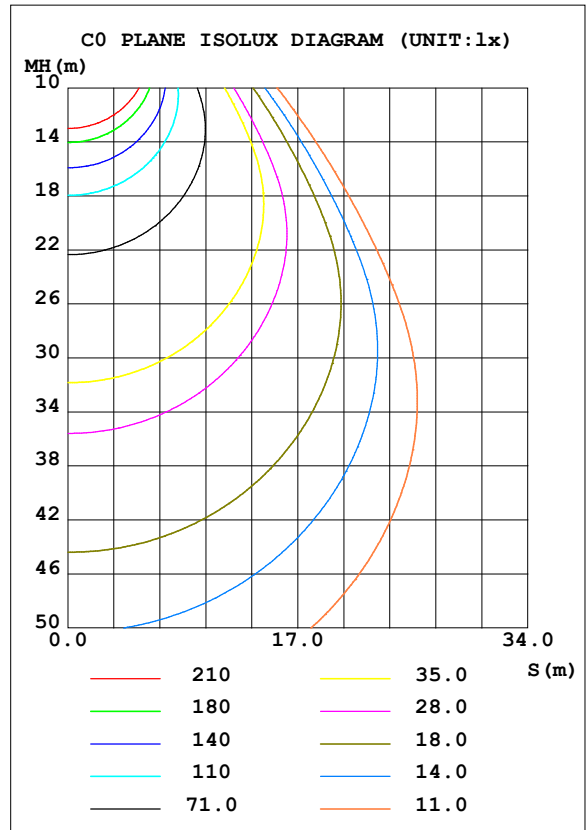
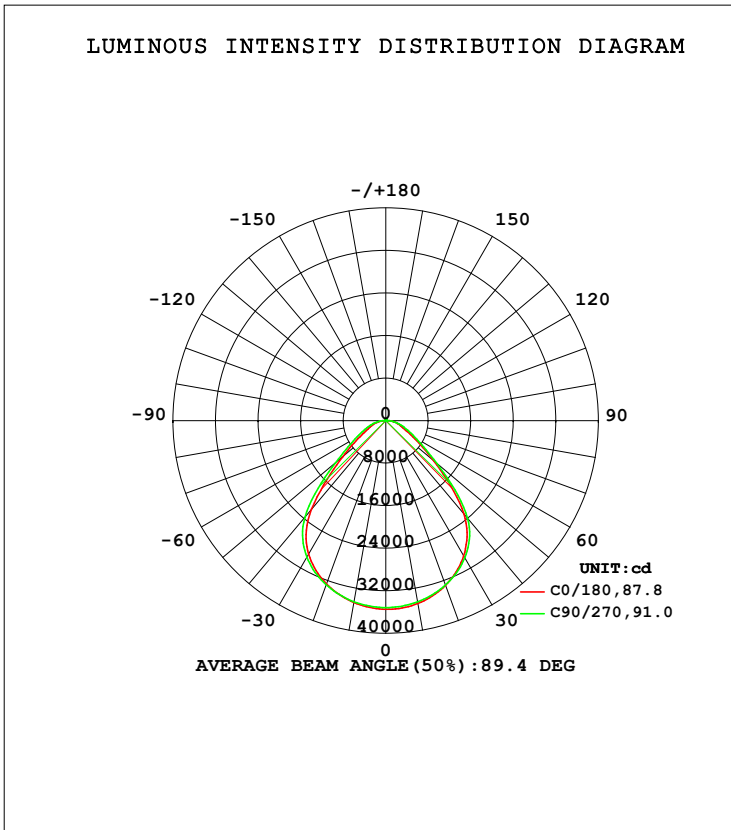


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 150.17 lm/W			
MODEL	ASD-WHB5A-500D50	I _{max} (cd)	35465	S/MH (C0/180)	1.22
NOMINAL POWER (W)	500	LOR (%)	100.0	S/MH (C90/270)	1.25
RATED VOLTAGE (V)	120-277	TOTAL FLUX (lm)	73306	<input type="checkbox"/> UP, DN (C0-180)	0.5, 49.9
NOMINAL FLUX (lm)	73306.3	CIE CLASS	DIRECT	<input type="checkbox"/> UP, DN (C180-360)	0.5, 49.1
LAMPS INSIDE	1	<input type="checkbox"/> up (%)	1.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	<input type="checkbox"/> down (%)	99.0	CIBSE SHR MAX	1.30



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 27DEG
 Operators: lianghaizhu
 Test Date: 2023-10-16

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	3490	3472	3459	3443	3470	3464	3457	3451	0- 10	3335	3335	4.55,4.55
20	3294	3291	3288	3259	3267	3280	3284	3269	10- 20	9559	12894	17.6,17.6
30	2933	2950	2974	2930	2900	2945	2966	2932	20- 30	14418	27313	37.3,37.3
40	2287	2312	2391	2289	2171	2297	2366	2300	30- 40	16657	43970	60,60
50	1182	1205	1258	1162	1068	1159	1238	1178	40- 50	13276	57247	78.1,78.1
60	556.0	583.6	645.0	571.9	504.1	571.3	636.5	578.3	50- 60	7462	64709	88.3,88.3
70	306.9	336.8	365.2	331.6	287.6	331.1	361.5	335.2	60- 70	4348	69056	94.2,94.2
80	169.8	174.2	181.3	165.9	146.3	165.7	177.9	170.4	70- 80	2644	71701	97.8,97.8
90	7.336	3.474	8.947	2.791	2.873	3.077	3.487	3.402	80- 90	894.8	72595	99,99
100	3.980	4.227	4.443	4.314	4.740	4.774	4.876	4.606	90-100	39.84	72635	99.1,99.1
110	6.369	6.651	6.943	6.810	7.357	7.367	7.513	7.148	100-110	60.24	72695	99.2,99.2
120	9.395	9.702	9.989	9.891	10.58	10.49	10.69	10.27	110-120	84.48	72780	99.3,99.3
130	12.72	12.93	13.21	13.17	14.10	13.85	14.10	13.66	120-130	105.6	72885	99.4,99.4
140	15.73	16.09	16.27	16.24	17.28	17.12	17.33	16.95	130-140	116.3	73002	99.6,99.6
150	18.62	19.11	19.21	18.96	20.23	19.97	20.41	20.03	140-150	113.3	73115	99.7,99.7
160	21.92	22.36	22.47	22.06	23.37	23.12	23.65	23.16	150-160	97.39	73212	99.9,99.9
170	25.36	25.42	25.63	25.14	26.46	26.01	26.49	25.91	160-170	68.59	73281	100,100
180	27.15	26.99	27.39	26.91	27.25	26.96	27.46	26.87	170-180	25.24	73306	100,100
DEG	LUMINOUS INTENSITY:×10cd								UNIT:lm			

Conical surface Flux(90deg): 51442 lm

%lum = 70.2%

%lamp = 70.2%

Conical surface Flux(120deg): 64709 lm

%lum = 88.3%

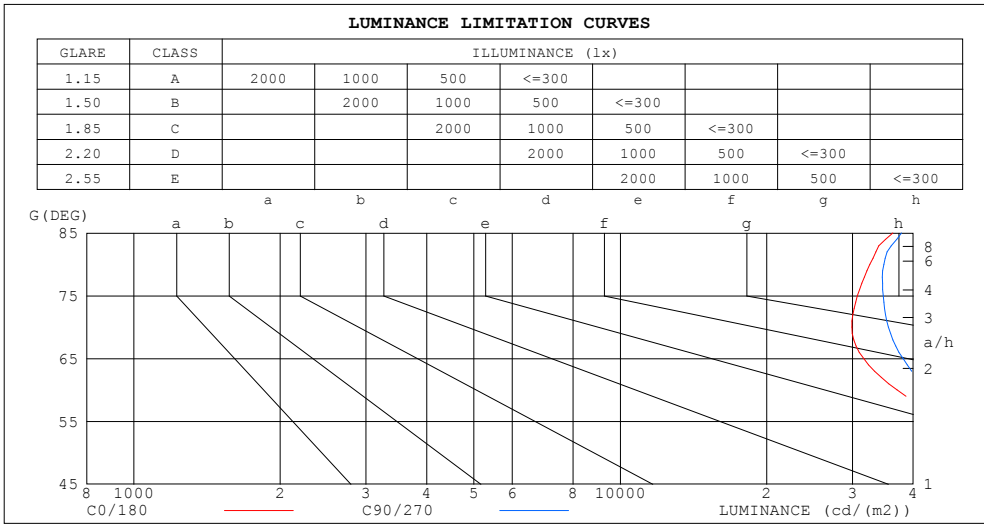
%lamp = 88.3%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2023-10-16

□ 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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	36318	37856
80	32591	34800
75	30727	34704
70	29907	35588
65	31629	38116
60	37064	43000
55	46662	51072
50	61310	65214
45	81112	86711

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2023-10-16

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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	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	.259 .147 .047	.252 .144 .046	.238 .137 .044	.226 .130 .042	.214 .124 .040	
2.0	.246 .135 .041	.240 .132 .041	.228 .127 .039	.217 .122 .038	.207 .117 .037	
3.0	.231 .123 .037	.226 .121 .036	.215 .117 .035	.206 .113 .035	.197 .109 .034	
4.0	.216 .112 .033	.211 .111 .033	.202 .107 .032	.194 .104 .031	.186 .101 .031	
5.0	.203 .103 .030	.198 .102 .030	.190 .099 .029	.183 .096 .029	.176 .094 .028	
6.0	.190 .095 .027	.186 .094 .027	.179 .092 .027	.172 .090 .026	.166 .087 .026	
7.0	.179 .088 .025	.176 .087 .025	.169 .085 .025	.163 .084 .024	.157 .082 .024	
8.0	.169 .082 .023	.166 .082 .023	.160 .080 .023	.154 .078 .023	.149 .077 .022	
9.0	.159 .077 .022	.157 .076 .021	.151 .075 .021	.146 .073 .021	.142 .072 .021	
10.0	.151 .072 .020	.149 .072 .020	.144 .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	.198 .198 .198	.169 .169 .169	.115 .115 .115	.066 .066 .066	.021 .021 .021	
1.0	.184 .164 .146	.158 .141 .126	.108 .097 .087	.062 .056 .050	.020 .018 .016	
2.0	.174 .140 .111	.149 .120 .096	.102 .083 .067	.059 .048 .039	.019 .016 .013	
3.0	.165 .122 .087	.141 .105 .076	.097 .073 .053	.056 .043 .031	.018 .014 .010	
4.0	.156 .108 .071	.134 .093 .061	.092 .065 .043	.053 .038 .026	.017 .012 .008	
5.0	.149 .097 .059	.128 .084 .051	.088 .059 .036	.051 .034 .021	.016 .011 .007	
6.0	.142 .088 .050	.122 .077 .044	.084 .054 .031	.049 .032 .018	.016 .010 .006	
7.0	.136 .081 .044	.117 .071 .038	.081 .050 .027	.047 .029 .016	.015 .010 .005	
8.0	.130 .076 .039	.112 .066 .034	.077 .046 .024	.045 .027 .014	.015 .009 .005	
9.0	.124 .071 .035	.107 .061 .030	.074 .043 .021	.043 .025 .013	.014 .008 .004	
10.0	.119 .066 .031	.103 .058 .027	.071 .041 .020	.041 .024 .012	.013 .008 .004	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2023-10-16

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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm										
NAME: ASD-WHB5A-500D50					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp.					SUR.:0.3*1			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	25.6	26.9	25.9	27.1	27.3	25.9	27.3	26.2	27.5	27.7
3H	26.2	27.4	26.5	27.6	27.9	26.7	27.9	26.9	28.1	28.3
4H	26.5	27.7	26.8	27.9	28.2	27.0	28.2	27.3	28.4	28.7
6H	26.9	28.0	27.2	28.2	28.5	27.4	28.5	27.7	28.7	29.0
8H	27.0	28.1	27.4	28.4	28.7	27.5	28.6	27.9	28.9	29.2
12H	27.2	28.2	27.5	28.5	28.8	27.7	28.7	28.0	29.0	29.3
4H 2H	25.8	26.9	26.1	27.2	27.5	26.1	27.2	26.4	27.5	27.8
3H	26.6	27.6	27.0	27.9	28.2	27.0	28.0	27.4	28.3	28.6
4H	27.1	28.0	27.5	28.4	28.7	27.6	28.5	27.9	28.8	29.1
6H	27.6	28.4	28.0	28.8	29.2	28.1	28.9	28.5	29.2	29.6
8H	27.9	28.6	28.3	29.0	29.4	28.3	29.1	28.7	29.4	29.8
12H	28.1	28.8	28.5	29.2	29.6	28.5	29.2	28.9	29.6	30.0
8H 4H	27.3	28.1	27.8	28.5	28.9	27.7	28.5	28.2	28.9	29.3
6H	28.0	28.6	28.5	29.1	29.5	28.4	29.0	28.9	29.4	29.9
8H	28.4	28.9	28.8	29.3	29.8	28.7	29.3	29.2	29.7	30.2
12H	28.7	29.1	29.2	29.6	30.1	29.0	29.5	29.5	30.0	30.5
12H 4H	27.3	28.0	27.8	28.4	28.8	27.7	28.4	28.2	28.8	29.2
6H	28.1	28.6	28.6	29.1	29.5	28.5	29.0	28.9	29.5	29.9
8H	28.5	28.9	29.0	29.4	29.9	28.8	29.3	29.3	29.8	30.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.6 / - 0.7					+ 0.5 / - 0.6				
1.5H	+ 0.4 / - 0.4					+ 0.4 / - 0.4				
2.0H	+ 1.3 / - 0.8					+ 1.3 / - 0.7				

CIE Pub.117, 73306 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 14.9)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:27DEG
Operators:lianghaizhu
Test Date:2023-10-16

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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	Shielding Angle:

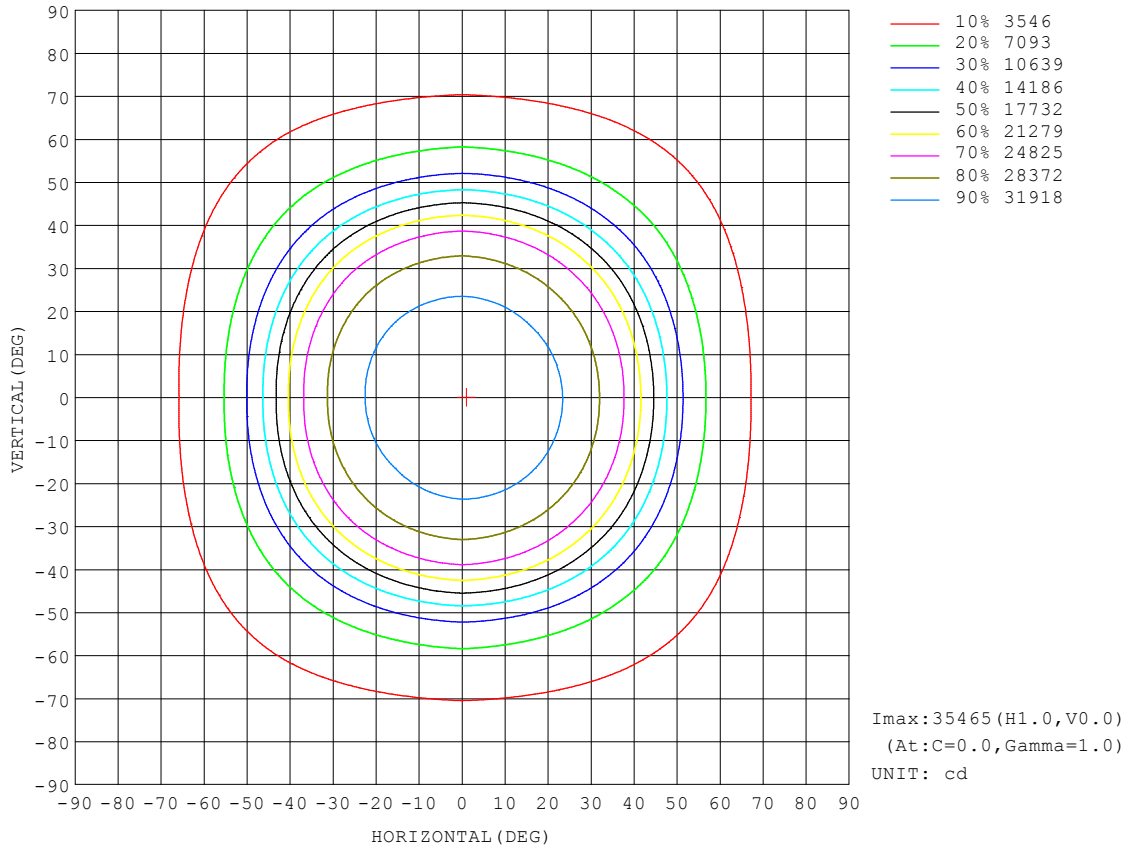
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	67	57	51	66	56	51	65	56	50	45
0.80	76	67	60	75	66	60	74	65	60	54
1.00	84	75	69	83	74	68	81	75	68	62
1.25	90	82	76	89	81	75	86	79	75	68
1.50	94	86	81	93	86	80	90	84	79	73
2.00	100	93	88	98	92	87	95	90	85	78
2.50	103	97	92	101	95	91	97	93	89	81
3.00	106	100	96	103	98	94	100	95	92	84
4.00	109	104	100	106	102	99	102	99	96	87
5.00	111	107	103	108	105	102	104	101	98	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:2023-10-16

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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	Shielding Angle:

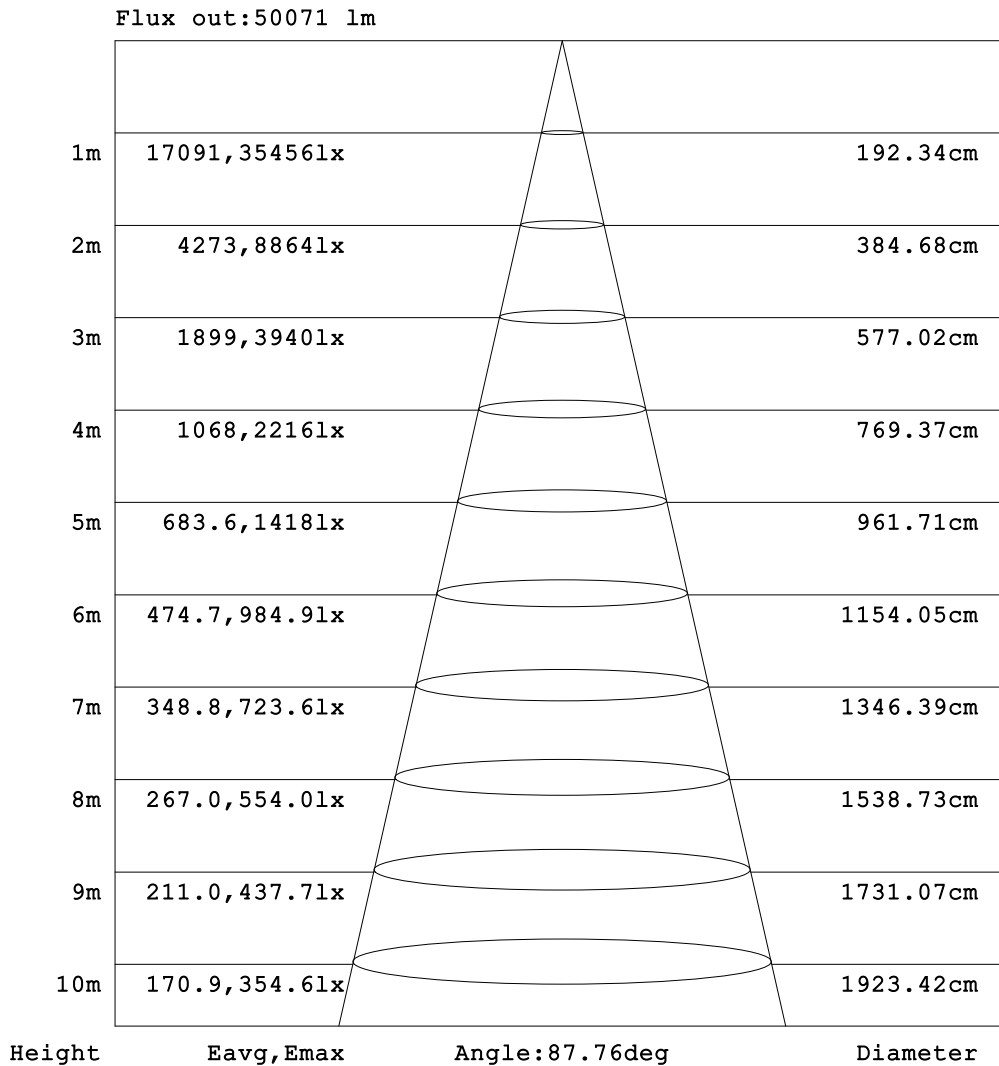


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 27DEG
 Operators: lianghaizhu
 Test Date: 2023-10-16

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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	Shielding Angle:

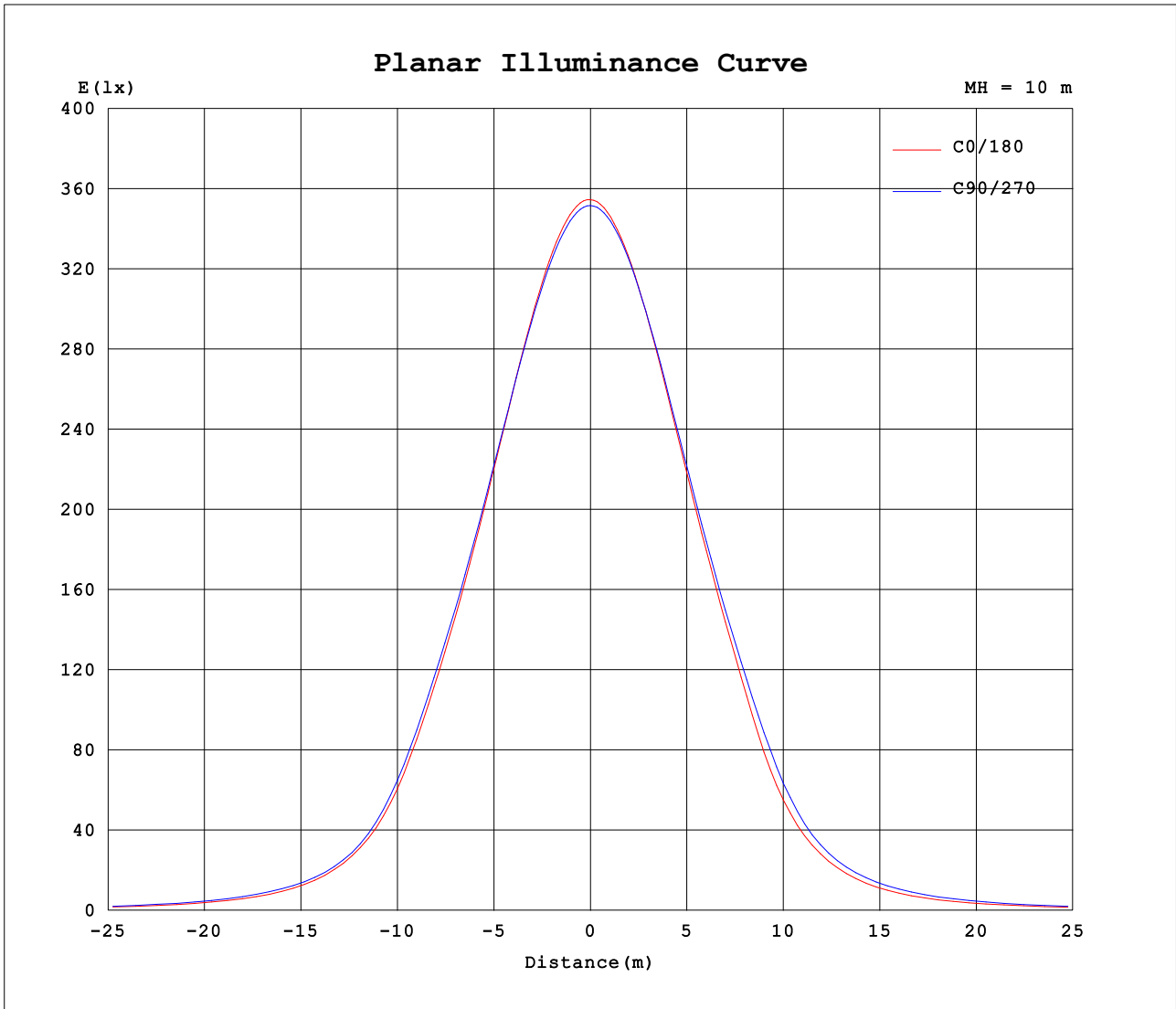


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2023-10-16

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: 2023-10-16

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:119.8V I:4.082A P:488.2W PF:0.9979 Freq:59.98Hz Lamp Flux:73306.3x1 lm		
NAME: ASD-WHB5A-500D50	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp.	SUR.:0.3*1	Shielding Angle:

Table--1

UNIT: x10cd

C (DEG) □ (DEG)	0	45	90	135	180	225	270	315											
0	3546	3529	3516	3507	3546	3529	3516	3507											
5	3534	3516	3502	3491	3524	3512	3501	3495											
10	3490	3472	3459	3443	3470	3464	3457	3451											
15	3411	3398	3389	3367	3386	3388	3386	3377											
20	3294	3291	3288	3259	3267	3280	3284	3269											
25	3137	3145	3153	3116	3109	3136	3147	3124											
30	2933	2950	2974	2930	2900	2945	2966	2932											
35	2666	2693	2738	2678	2618	2688	2726	2679											
40	2287	2312	2391	2289	2171	2297	2366	2300											
45	1721	1747	1839	1690	1563	1701	1799	1719											
50	1182	1205	1258	1162	1068	1159	1238	1178											
55	803	827	879	806	725	800	869	811											
60	556	584	645	572	504	571	636	578											
65	401	432	483	427	370	426	478	430											
70	307	337	365	332	288	331	362	335											
75	239	257	269	250	220	249	266	254											
80	170	174	181	166	146	166	178	170											
85	95.0	89.3	99.0	81.5	56.1	79.6	94.8	86.2											
90	7.34	3.47	8.95	2.79	2.87	3.08	3.49	3.40											
95	3.13	3.34	3.49	3.40	3.70	3.74	3.83	3.60											
100	3.98	4.23	4.44	4.31	4.74	4.77	4.88	4.61											
105	5.08	5.35	5.61	5.47	5.97	6.00	6.13	5.80											
110	6.37	6.65	6.94	6.81	7.36	7.37	7.51	7.15											
115	7.81	8.10	8.41	8.28	8.91	8.86	9.05	8.64											
120	9.40	9.70	9.99	9.89	10.6	10.5	10.7	10.3											
125	11.1	11.3	11.6	11.5	12.4	12.2	12.4	12.0											
130	12.7	12.9	13.2	13.2	14.1	13.9	14.1	13.7											
135	14.3	14.5	14.8	14.8	15.7	15.5	15.7	15.3											
140	15.7	16.1	16.3	16.2	17.3	17.1	17.3	17.0											
145	17.2	17.6	17.7	17.6	18.8	18.6	18.9	18.5											
150	18.6	19.1	19.2	19.0	20.2	20.0	20.4	20.0											
155	20.2	20.7	20.8	20.4	21.7	21.5	22.0	21.6											
160	21.9	22.4	22.5	22.1	23.4	23.1	23.6	23.2											
165	23.7	24.0	24.1	23.7	25.1	24.8	25.2	24.7											
170	25.4	25.4	25.6	25.1	26.5	26.0	26.5	25.9											
175	26.7	26.5	26.8	26.3	27.2	26.8	27.3	26.7											
180	27.2	27.0	27.4	26.9	27.3	27.0	27.5	26.9											

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:27DEG
 Operators:lianghaizhu
 Test Date:2023-10-16

□ 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: