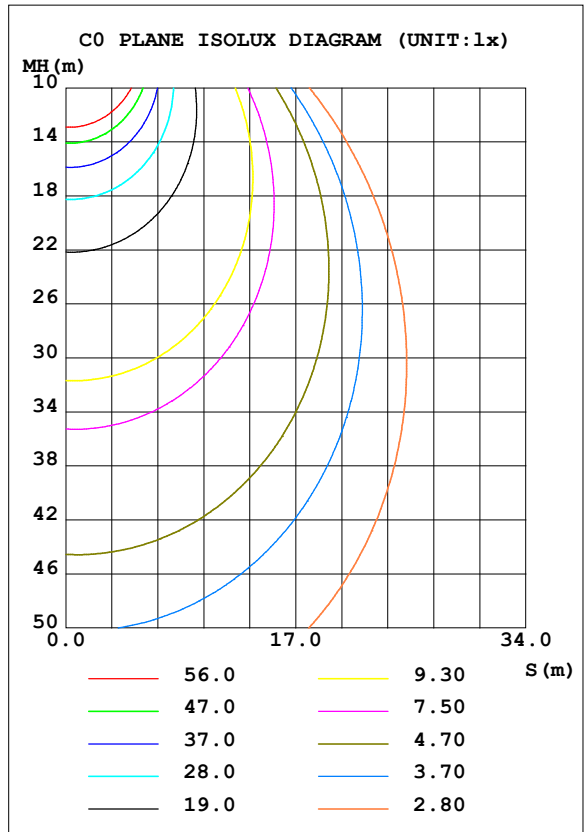
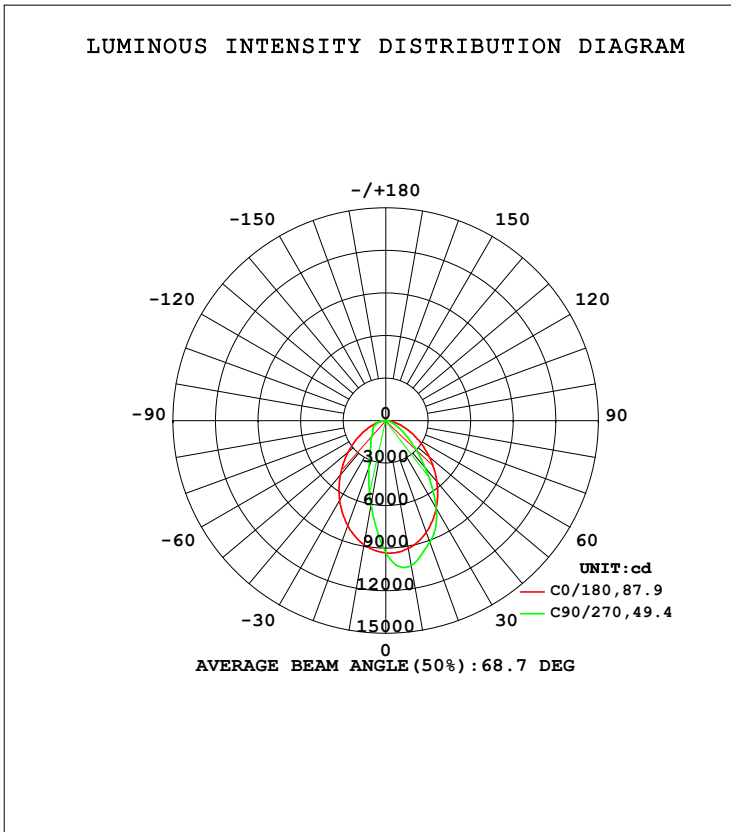


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 136 lm/W			
MODEL	ASD-WLP03-120D50-BZ	I _{max} (cd)	10449	S/MH (C0/180)	1.07
NOMINAL POWER (W)	120	LOR (%)	100.0	S/MH (C90/270)	0.48
RATED VOLTAGE (V)	120-277	TOTAL FLUX (lm)	16320	η UP, DN (C0-180)	0.4, 62.6
NOMINAL FLUX (lm)	16320	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.5, 36.5
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.00
TEST VOLTAGE (V)	120	η down (%)	99.1	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 22.8DEG
 Operators: wudashuai
 Test Date: 2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity: 57%
 Test Distance: 6.500m [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	915.8	1034	1038	1020	887.9	674.5	603.6	693.8	0- 10	852.3	852.3	5.51,5.51
20	837.2	941.0	910.5	918.8	787.5	443.7	352.1	467.3	10- 20	2202	3055	19.8,19.8
30	712.6	793.3	711.5	765.5	651.0	280.4	216.0	299.7	20- 30	2895	5950	38.5,38.5
40	561.6	600.7	433.0	580.1	498.2	187.6	158.9	199.4	30- 40	2983	8933	57.8,57.8
50	404.1	383.9	230.4	372.8	347.8	135.3	122.8	142.7	40- 50	2559	11492	74.3,74.3
60	257.4	207.4	116.9	199.5	213.0	93.95	105.0	100.3	50- 60	1893	13385	86.6,86.6
70	136.8	90.19	54.31	83.46	107.0	61.16	78.72	65.30	60- 70	1195	14581	94.3,94.3
80	48.37	21.97	15.00	17.89	32.95	29.89	44.88	33.78	70- 80	586.2	15167	98.1,98.1
90	0.9959	0.3654	0.3911	0.3962	0.6450	2.620	9.911	5.033	80- 90	150.7	15318	99.1,99.1
100	0.9536	0.5477	0.5366	0.5910	1.022	0.9551	0.6829	0.9232	90-100	9.369	15327	99.1,99.1
110	1.489	0.8420	0.7391	0.8908	1.578	1.571	1.227	1.525	100-110	10.48	15338	99.2,99.2
120	2.140	1.285	1.034	1.329	2.238	2.330	2.026	2.278	110-120	15.06	15353	99.3,99.3
130	2.870	1.923	1.518	1.946	2.977	3.167	3.001	3.110	120-130	19.57	15372	99.4,99.4
140	3.631	2.732	2.250	2.705	3.739	3.983	4.000	3.925	130-140	22.88	15395	99.6,99.6
150	4.350	3.611	3.196	3.498	4.457	4.682	4.756	4.591	140-150	23.54	15419	99.7,99.7
160	4.972	4.450	4.156	4.243	5.076	5.222	5.226	5.068	150-160	20.66	15439	99.9,99.9
170	5.439	5.143	4.955	4.913	5.510	5.541	5.505	5.345	160-170	14.29	15454	100,100
180	5.676	5.578	5.474	5.377	5.687	5.571	5.483	5.372	170-180	5.153	15459	100,100
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm		

Conical surface Flux(90deg): 10287 lm

%lum = 66.5%

%lamp = 66.5%

Conical surface Flux(120deg): 13385 lm

%lum = 86.6%

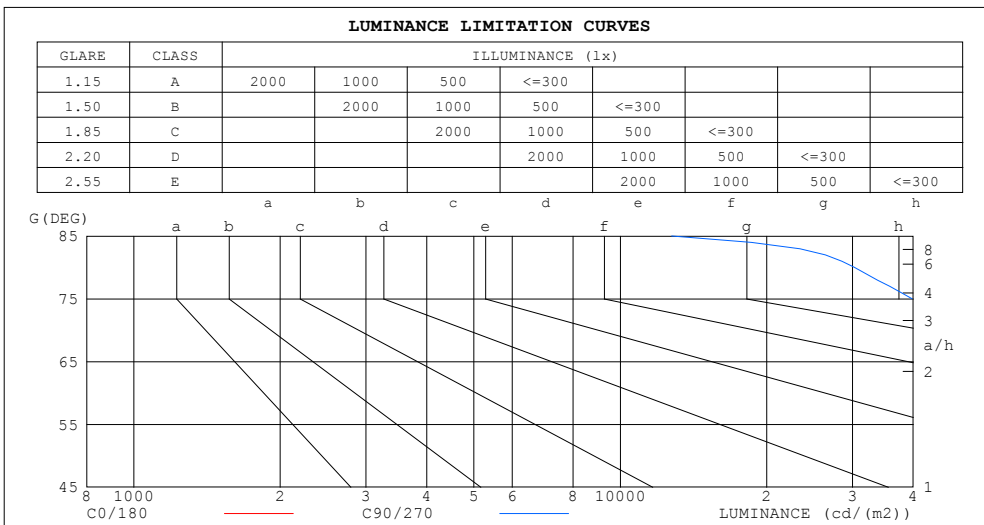
%lamp = 86.6%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:22.8DEG
 Operators:wudashuai
 Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:57%
 Test Distance:6.500m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	70664	12751
80	97736	30306
75	119809	39812
70	140304	55714
65	160421	67646
60	180612	82029
55	200650	100300
50	220599	125768
45	239398	159214

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:22.8DEG
 Operators:wudashuai
 Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:57%
 Test Distance:6.500m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{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	.241	.138	.044	.228	.132	.042	.217	.126	.040	
2.0	.250	.137	.042	.243	.134	.041	.231	.129	.040	.221	.124	.039	.210	.119	.038	
3.0	.234	.125	.037	.229	.122	.037	.218	.118	.036	.209	.114	.035	.200	.111	.034	
4.0	.219	.114	.033	.214	.112	.033	.205	.109	.032	.196	.105	.032	.188	.102	.031	
5.0	.204	.104	.030	.200	.103	.030	.192	.100	.029	.184	.097	.029	.177	.095	.028	
6.0	.191	.096	.027	.187	.095	.027	.180	.092	.027	.173	.090	.027	.167	.088	.026	
7.0	.180	.089	.025	.176	.088	.025	.170	.086	.025	.164	.084	.024	.158	.082	.024	
8.0	.169	.083	.023	.166	.082	.023	.160	.080	.023	.155	.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	.148	.072	.020	.143	.070	.020	.139	.069	.020	.135	.068	.019	

ρ _{cc}	80%			70%			50%			30%			10%			0
ρ _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ _{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	.145	.157	.140	.125	.108	.097	.086	.062	.056	.050	.020	.018	.016	
2.0	.174	.139	.110	.149	.120	.095	.102	.083	.066	.059	.048	.039	.019	.016	.013	
3.0	.165	.121	.086	.141	.105	.075	.097	.073	.053	.056	.042	.031	.018	.014	.010	
4.0	.156	.107	.070	.134	.093	.061	.092	.065	.043	.053	.038	.025	.017	.012	.008	
5.0	.149	.097	.058	.128	.084	.051	.088	.058	.036	.051	.034	.021	.016	.011	.007	
6.0	.142	.088	.050	.122	.076	.043	.084	.053	.031	.049	.031	.018	.016	.010	.006	
7.0	.135	.081	.043	.116	.070	.037	.080	.049	.027	.047	.029	.016	.015	.010	.005	
8.0	.129	.075	.038	.111	.065	.033	.077	.046	.024	.045	.027	.014	.014	.009	.005	
9.0	.124	.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:22.8DEG
 Operators:wudashuai
 Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:57%
 Test Distance:6.500m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm										
NAME: ASD Lighting Corp					TYPE:			WEIGHT:		
SPEC.:ASD-WLP03-120D50-BZ					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp					SUR.:0.3x0.095			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	31.6	33.0	31.9	33.2	33.4	29.6	30.9	29.9	31.1	31.3
3H	32.6	33.8	32.9	34.0	34.3	30.0	31.2	30.3	31.4	31.7
4H	32.9	34.1	33.2	34.3	34.6	30.0	31.2	30.4	31.5	31.7
6H	33.1	34.2	33.4	34.5	34.8	30.0	31.1	30.4	31.4	31.7
8H	33.2	34.2	33.5	34.5	34.8	30.0	31.1	30.4	31.3	31.6
12H	33.2	34.2	33.5	34.5	34.8	30.0	31.0	30.3	31.3	31.6
4H 2H	31.8	33.0	32.1	33.2	33.5	30.1	31.3	30.4	31.5	31.8
3H	32.9	33.9	33.2	34.2	34.5	30.6	31.7	31.0	32.0	32.3
4H	33.3	34.2	33.7	34.6	34.9	30.8	31.7	31.2	32.0	32.4
6H	33.6	34.4	34.0	34.8	35.1	30.8	31.6	31.2	32.0	32.4
8H	33.7	34.4	34.1	34.8	35.2	30.8	31.6	31.2	31.9	32.3
12H	33.7	34.4	34.2	34.8	35.2	30.8	31.5	31.2	31.9	32.3
8H 4H	33.3	34.0	33.7	34.4	34.8	30.9	31.7	31.3	32.0	32.4
6H	33.6	34.3	34.1	34.7	35.1	31.0	31.6	31.4	32.0	32.5
8H	33.8	34.3	34.2	34.8	35.2	31.0	31.6	31.5	32.0	32.5
12H	33.8	34.3	34.3	34.8	35.3	31.0	31.5	31.5	31.9	32.4
12H 4H	33.2	33.9	33.7	34.3	34.7	30.9	31.6	31.3	32.0	32.4
6H	33.6	34.2	34.1	34.6	35.1	31.0	31.5	31.5	32.0	32.5
8H	33.7	34.2	34.2	34.7	35.2	31.0	31.5	31.5	32.0	32.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.9 / - 1.1				
1.5H	+ 0.2 / - 0.2					+ 0.5 / - 1.2				
2.0H	+ 0.7 / - 0.9					+ 1.0 / - 2.0				

CIE Pub.117, 15459 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 9.5)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:22.8DEG
Operators:wudashuai
Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:57%
Test Distance:6.500m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:

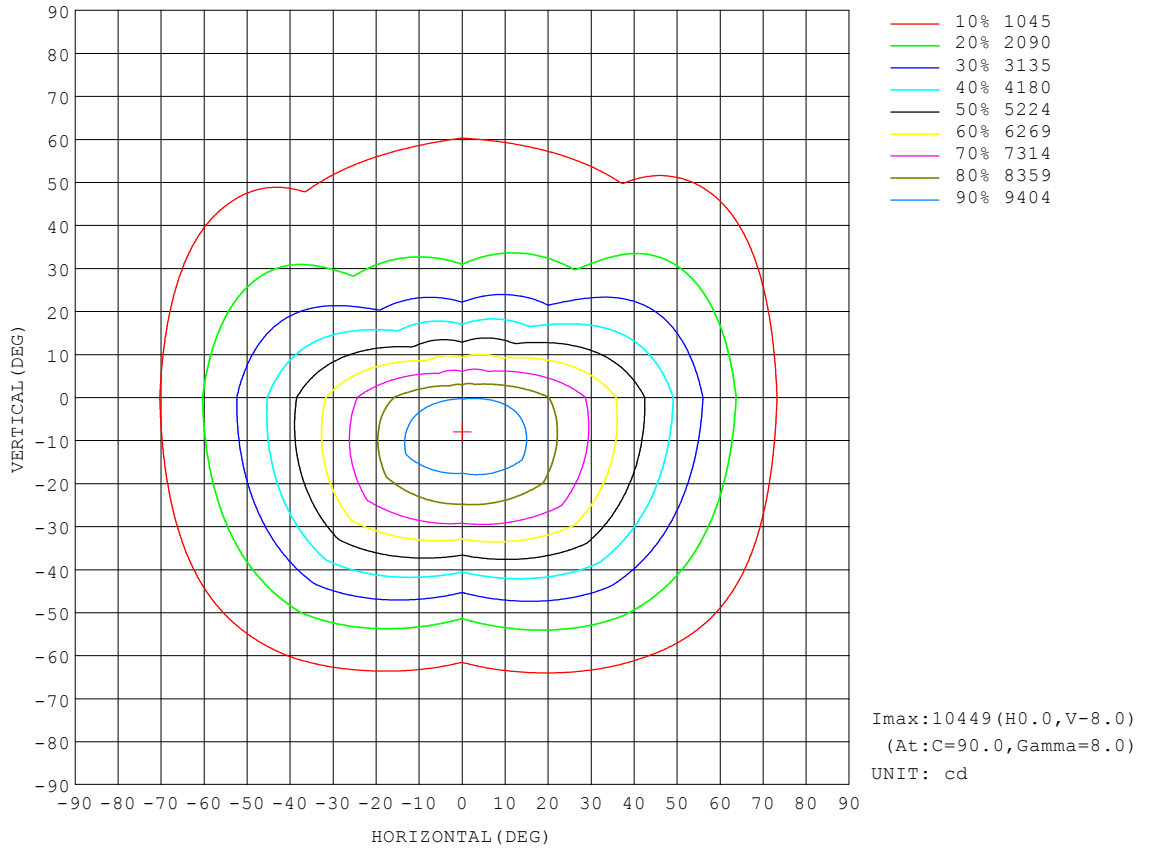
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	65	55	49	65	55	49	63	54	49	43
0.80	75	65	59	74	65	58	72	64	58	52
1.00	83	73	67	82	73	67	79	73	66	60
1.25	89	80	74	88	80	74	85	78	73	66
1.50	93	85	79	92	84	79	89	83	78	71
2.00	99	92	87	97	91	86	94	89	84	77
2.50	102	96	91	100	95	90	97	92	88	80
3.00	105	99	95	103	98	94	99	95	91	83
4.00	108	104	100	106	102	98	102	99	96	87
5.00	110	106	103	108	104	101	104	101	98	89
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:22.8DEG
Operators:wudashuai
Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:57%
Test Distance:6.500m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:

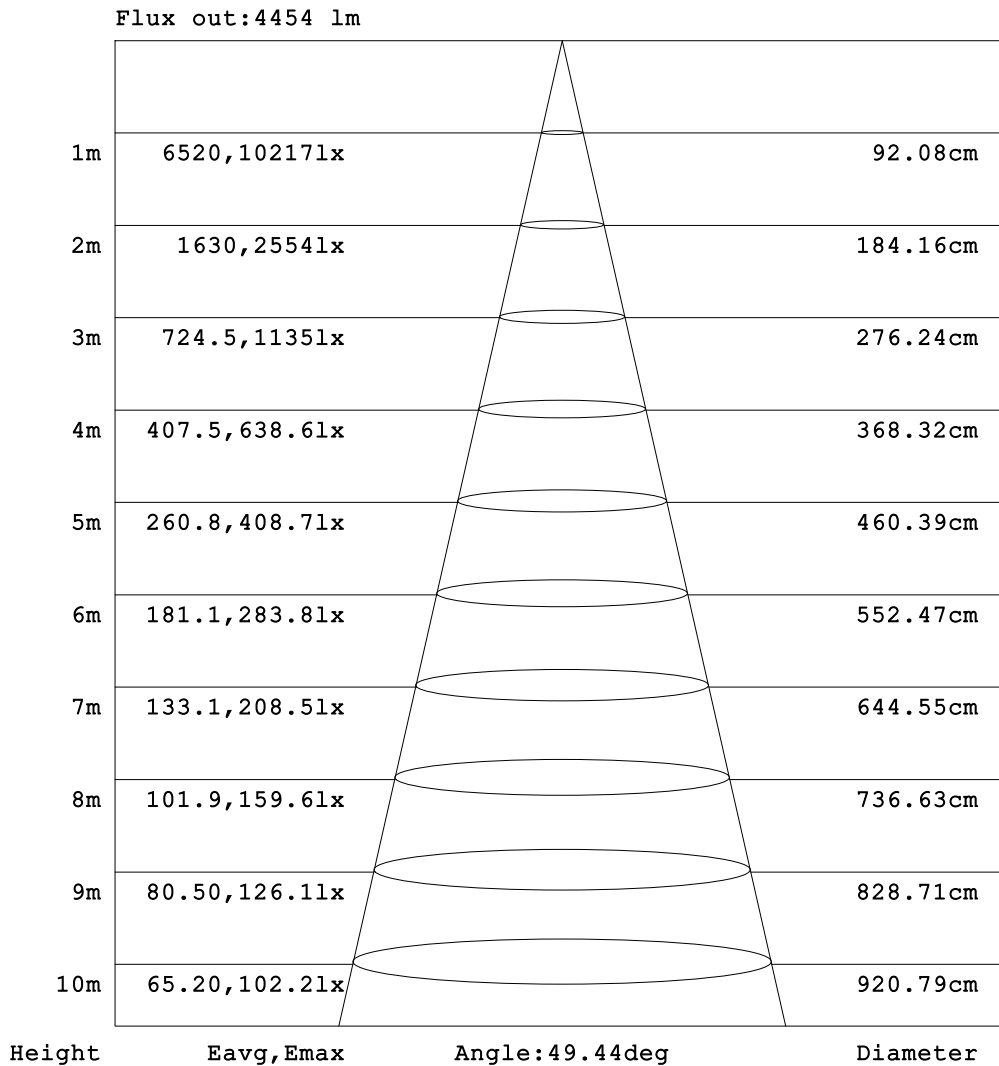


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:22.8DEG
 Operators:wudashuai
 Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:57%
 Test Distance:6.500m [K=1.0000]
 Remarks:

AAI Figure

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:

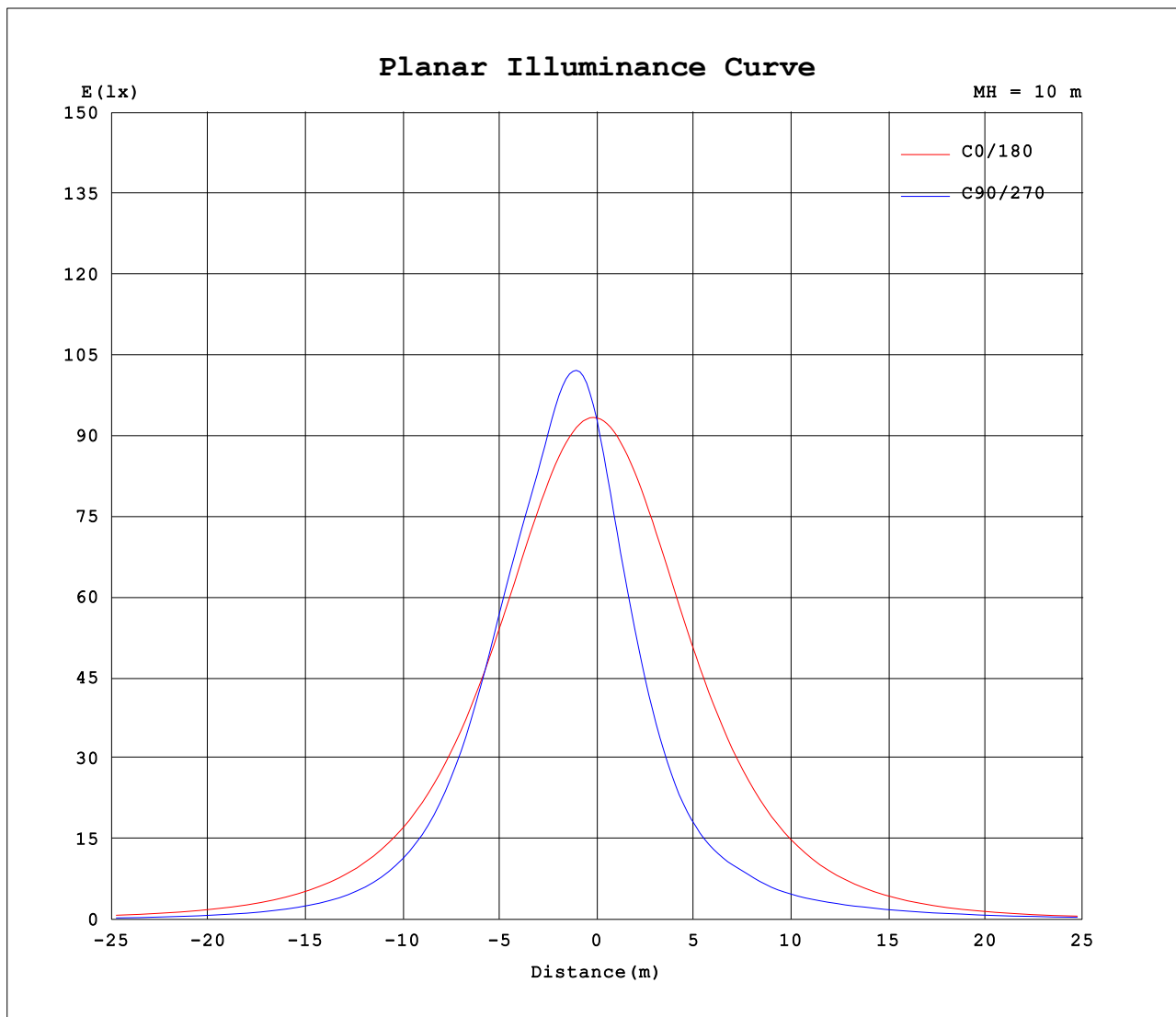


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:22.8DEG
 Operators:wudashuai
 Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:57%
 Test Distance:6.500m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 22.8DEG
 Operators: wudashuai
 Test Date: 2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity: 57%
 Test Distance: 6.500m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:121.5V I:0.9710A P:120W PF:0.9971 Freq:59.97Hz Lamp Flux:16320x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WLP03-120D50-BZ	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:0.3x0.095	Shielding Angle:

Table--1

UNIT: x10cd

C (DEG) \ γ (DEG)	0	45	90	135	180	225	270	315											
0	933	927	929	931	933	927	929	931											
5	932	1011	1031	1004	918	804	765	818											
10	916	1034	1038	1020	888	674	604	694											
15	883	1007	977	987	844	552	464	575											
20	837	941	910	919	787	444	352	467											
25	779	866	833	841	722	353	270	375											
30	713	793	711	765	651	280	216	300											
35	639	706	569	680	575	227	185	242											
40	562	601	433	580	498	188	159	199											
45	482	489	321	474	422	158	135	167											
50	404	384	230	373	348	135	123	143											
55	328	288	164	279	277	114	114	121											
60	257	207	117	199	213	94.0	105	100											
65	193	141	81.5	134	156	76.9	93.3	82.0											
70	137	90.2	54.3	83.5	107	61.2	78.7	65.3											
75	88.4	50.4	29.4	44.2	66.1	45.8	62.9	49.4											
80	48.4	22.0	15.0	17.9	32.9	29.9	44.9	33.8											
85	17.6	6.87	3.17	3.63	8.17	14.9	26.7	17.9											
90	1.00	0.37	0.39	0.40	0.65	2.62	9.91	5.03											
95	0.75	0.44	0.46	0.48	0.80	0.72	0.51	0.70											
100	0.95	0.55	0.54	0.59	1.02	0.96	0.68	0.92											
105	1.20	0.68	0.63	0.73	1.28	1.24	0.92	1.20											
110	1.49	0.84	0.74	0.89	1.58	1.57	1.23	1.53											
115	1.80	1.04	0.87	1.09	1.90	1.94	1.60	1.89											
120	2.14	1.29	1.03	1.33	2.24	2.33	2.03	2.28											
125	2.50	1.58	1.25	1.62	2.60	2.74	2.50	2.69											
130	2.87	1.92	1.52	1.95	2.98	3.17	3.00	3.11											
135	3.25	2.31	1.85	2.31	3.36	3.58	3.51	3.53											
140	3.63	2.73	2.25	2.71	3.74	3.98	4.00	3.93											
145	4.00	3.17	2.71	3.11	4.11	4.35	4.42	4.28											
150	4.35	3.61	3.20	3.50	4.46	4.68	4.76	4.59											
155	4.68	4.04	3.69	3.88	4.78	4.97	5.01	4.85											
160	4.97	4.45	4.16	4.24	5.08	5.22	5.23	5.07											
165	5.23	4.82	4.58	4.59	5.33	5.41	5.41	5.24											
170	5.44	5.14	4.95	4.91	5.51	5.54	5.51	5.34											
175	5.59	5.40	5.26	5.18	5.64	5.60	5.53	5.40											
180	5.68	5.58	5.47	5.38	5.69	5.57	5.48	5.37											

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:22.8DEG
 Operators:wudashuai
 Test Date:2021-12-21

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:57%
 Test Distance:6.500m [K=1.0000]
 Remarks: