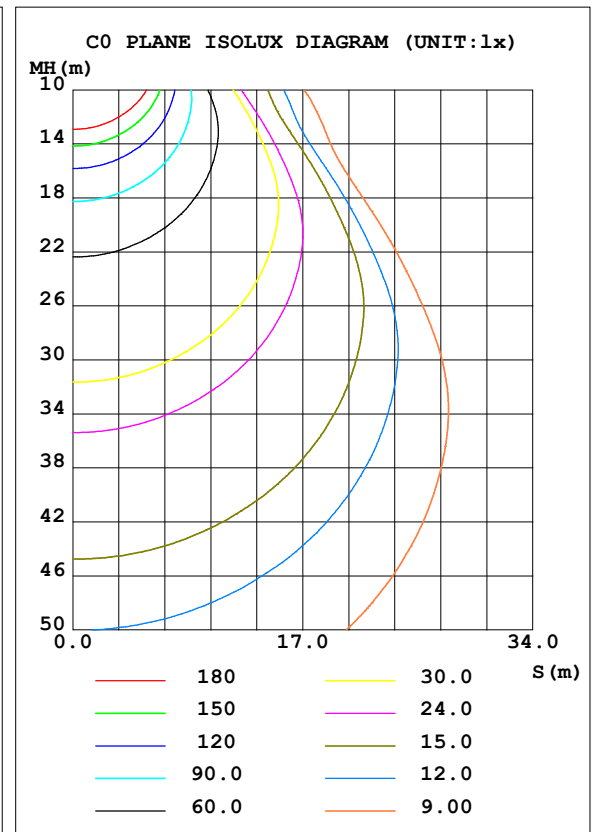
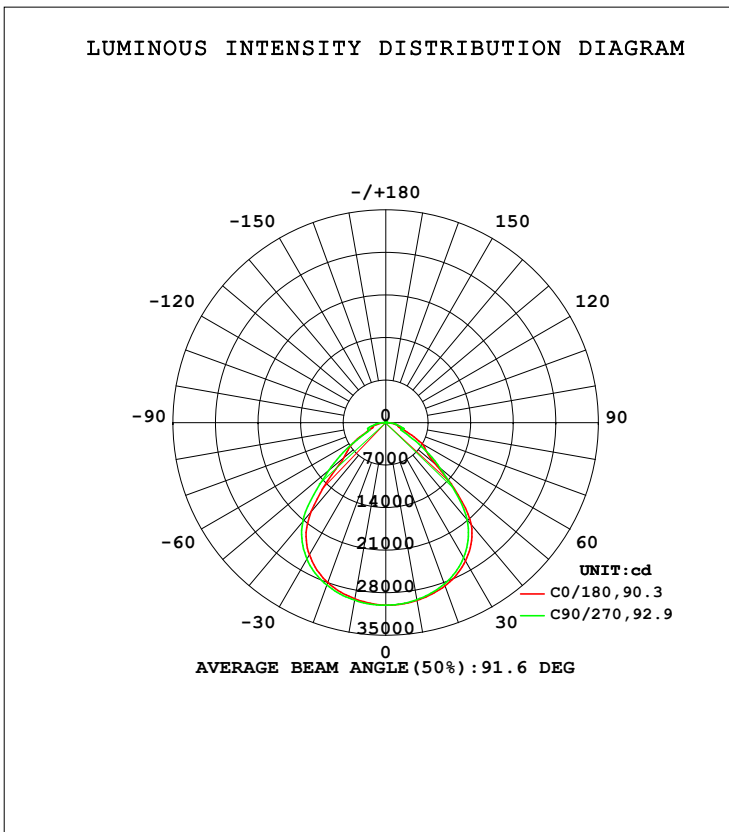


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 143,84 lm/W			
MODEL	ASD-WHB5M-4D50050	I _{max} (cd)	30041	S/MH (C0/180)	1.24
NOMINAL POWER (W)	500	LOR (%)	100.0	S/MH (C90/270)	1.28
RATED VOLTAGE (V)	120-277	TOTAL FLUX (lm)	69000	η UP, DN (C0-180)	0.4, 50.0
NOMINAL FLUX (lm)	69000	CIE CLASS	DIRECT	η UP, DN (C180-360)	0.4, 49.1
LAMPS INSIDE	1	η up (%)	0.9	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	η down (%)	99.1	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 24.2DEG
 Operators: wudashuai
 Test Date: 2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity: 48%
 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	2971	2965	2957	2951	2943	2954	2966	2970	0- 10	2846	2846	4.34,4.34
20	2858	2841	2823	2811	2798	2817	2845	2851	10- 20	8207	11053	16.9,16.9
30	2627	2599	2564	2541	2513	2548	2594	2608	20- 30	12534	23587	36,36
40	2190	2139	2081	2021	1909	2012	2128	2150	30- 40	14752	38339	58.5,58.5
50	1097	1170	1173	1112	900.5	1096	1224	1173	40- 50	12151	50490	77,77
60	681.8	635.1	452.7	575.3	536.3	567.4	488.4	646.9	50- 60	7434	57924	88.3,88.3
70	248.5	339.3	315.7	316.9	231.6	309.4	317.1	339.6	60- 70	3974	61898	94.4,94.4
80	151.6	143.6	172.7	142.3	115.7	145.9	186.6	146.3	70- 80	2368	64265	98,98
90	6.723	3.458	2.437	2.543	2.231	2.308	2.193	2.866	80- 90	743.6	65009	99.1,99.1
100	3.360	3.505	3.930	3.797	3.616	3.530	3.569	3.284	90-100	31.82	65041	99.2,99.2
110	5.360	5.571	6.029	5.978	5.752	5.637	5.478	5.214	100-110	47.91	65089	99.3,99.3
120	7.834	8.031	8.423	8.468	8.232	8.069	7.834	7.618	110-120	67.65	65156	99.4,99.4
130	10.49	10.71	10.98	11.46	10.83	11.01	10.37	10.38	120-130	84.35	65241	99.5,99.5
140	13.05	13.13	13.36	13.62	13.56	13.32	12.88	12.89	130-140	92.90	65334	99.6,99.6
150	15.16	15.49	15.78	15.71	15.83	15.52	15.45	15.37	140-150	90.05	65424	99.8,99.8
160	17.62	17.94	18.18	17.99	18.33	17.98	18.02	17.87	150-160	77.19	65501	99.9,99.9
170	20.19	20.06	20.40	20.17	20.52	20.13	20.28	20.04	160-170	54.01	65555	100,100
180	21.11	21.03	21.41	21.08	21.13	21.05	21.40	21.08	170-180	19.73	65575	100,100
DEG	LUMINOUS INTENSITY: $\times 10\text{cd}$									UNIT:lm		

Conical surface Flux(90deg): 45149 lm

%lum = 68.9%

%lamp = 68.9%

Conical surface Flux(120deg): 57924 lm

%lum = 88.3%

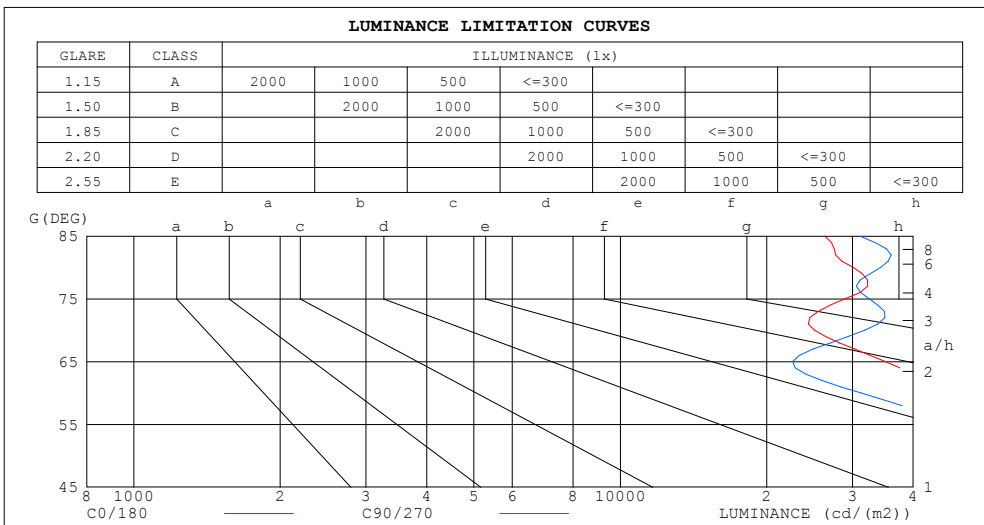
%lamp = 88.3%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.261	.148	.047	.253	.145	.046	.240	.138	.044	.228	.131	.042	.216	.125	.040	
2.0	.248	.136	.042	.242	.133	.041	.230	.128	.040	.220	.123	.039	.210	.119	.037	
3.0	.233	.124	.037	.228	.122	.037	.218	.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	.104	.030	.201	.103	.030	.192	.100	.030	.185	.098	.029	.178	.095	.029	
6.0	.192	.096	.028	.188	.095	.027	.181	.093	.027	.174	.091	.027	.168	.089	.026	
7.0	.181	.089	.025	.177	.088	.025	.171	.086	.025	.165	.085	.025	.159	.083	.024	
8.0	.170	.083	.023	.167	.082	.023	.162	.081	.023	.156	.079	.023	.151	.077	.023	
9.0	.161	.078	.022	.158	.077	.022	.153	.076	.021	.148	.074	.021	.143	.073	.021	
10.0	.152	.073	.020	.150	.072	.020	.145	.071	.020	.141	.070	.020	.136	.069	.020	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.197	.197	.197	.168	.168	.168	.115	.115	.115	.066	.066	.066	.021	.021	.021	
1.0	.184	.163	.145	.157	.140	.125	.107	.096	.086	.062	.056	.050	.020	.018	.016	
2.0	.173	.139	.110	.148	.119	.095	.102	.083	.066	.059	.048	.039	.019	.016	.013	
3.0	.164	.121	.086	.141	.104	.075	.097	.072	.052	.056	.042	.031	.018	.014	.010	
4.0	.156	.107	.070	.134	.092	.060	.092	.064	.043	.053	.038	.025	.017	.012	.008	
5.0	.149	.096	.058	.128	.083	.050	.088	.058	.035	.051	.034	.021	.016	.011	.007	
6.0	.142	.088	.049	.122	.076	.043	.084	.053	.030	.049	.031	.018	.016	.010	.006	
7.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.047	.029	.016	.015	.009	.005	
8.0	.129	.075	.037	.111	.065	.033	.077	.046	.023	.045	.027	.014	.015	.009	.005	
9.0	.124	.070	.034	.107	.061	.029	.074	.043	.021	.043	.025	.012	.014	.008	.004	
10.0	.119	.066	.030	.102	.057	.027	.071	.040	.019	.041	.024	.011	.013	.008	.004	

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm										
NAME: ASD Lighting Corp					TYPE:			WEIGHT:		
SPEC.:ASD-WHB5M-4D50050					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp					SUR.:1.16*0.25m			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	26.2	27.5	26.4	27.7	27.9	25.7	27.0	26.0	27.3	27.5
3H	26.7	27.9	27.0	28.1	28.4	26.3	27.5	26.6	27.7	28.0
4H	26.9	28.1	27.2	28.3	28.6	26.7	27.9	27.0	28.1	28.4
6H	27.2	28.3	27.5	28.6	28.9	27.1	28.2	27.4	28.4	28.7
8H	27.3	28.4	27.7	28.7	29.0	27.2	28.3	27.6	28.6	28.9
12H	27.4	28.4	27.7	28.7	29.0	27.4	28.4	27.7	28.7	29.0
4H 2H	26.4	27.5	26.7	27.8	28.1	26.0	27.1	26.3	27.4	27.7
3H	27.1	28.1	27.4	28.4	28.7	26.8	27.8	27.2	28.1	28.4
4H	27.5	28.4	27.8	28.7	29.0	27.4	28.3	27.7	28.6	29.0
6H	27.9	28.7	28.3	29.1	29.5	27.9	28.7	28.3	29.0	29.4
8H	28.1	28.8	28.5	29.2	29.6	28.1	28.9	28.5	29.3	29.6
12H	28.2	28.9	28.6	29.3	29.7	28.3	29.0	28.7	29.4	29.8
8H 4H	27.6	28.4	28.0	28.7	29.1	27.5	28.3	27.9	28.6	29.0
6H	28.2	28.8	28.6	29.2	29.7	28.2	28.8	28.6	29.2	29.6
8H	28.4	29.0	28.9	29.4	29.9	28.5	29.1	29.0	29.5	30.0
12H	28.6	29.1	29.1	29.6	30.1	28.8	29.3	29.3	29.7	30.2
12H 4H	27.6	28.3	28.0	28.7	29.1	27.5	28.2	27.9	28.6	29.0
6H	28.2	28.8	28.7	29.2	29.7	28.2	28.8	28.7	29.2	29.7
8H	28.5	29.0	29.0	29.5	30.0	28.6	29.1	29.1	29.6	30.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.6 / - 0.7					+ 0.6 / - 0.6				
1.5H	+ 0.4 / - 0.7					+ 0.2 / - 0.4				
2.0H	+ 1.1 / - 0.6					+ 1.2 / - 1.3				

CIE Pub.117, 65575 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 14.5)

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:24.2DEG
Operators:wudashuai
Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
Humidity:48%
Test Distance:6.500m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:

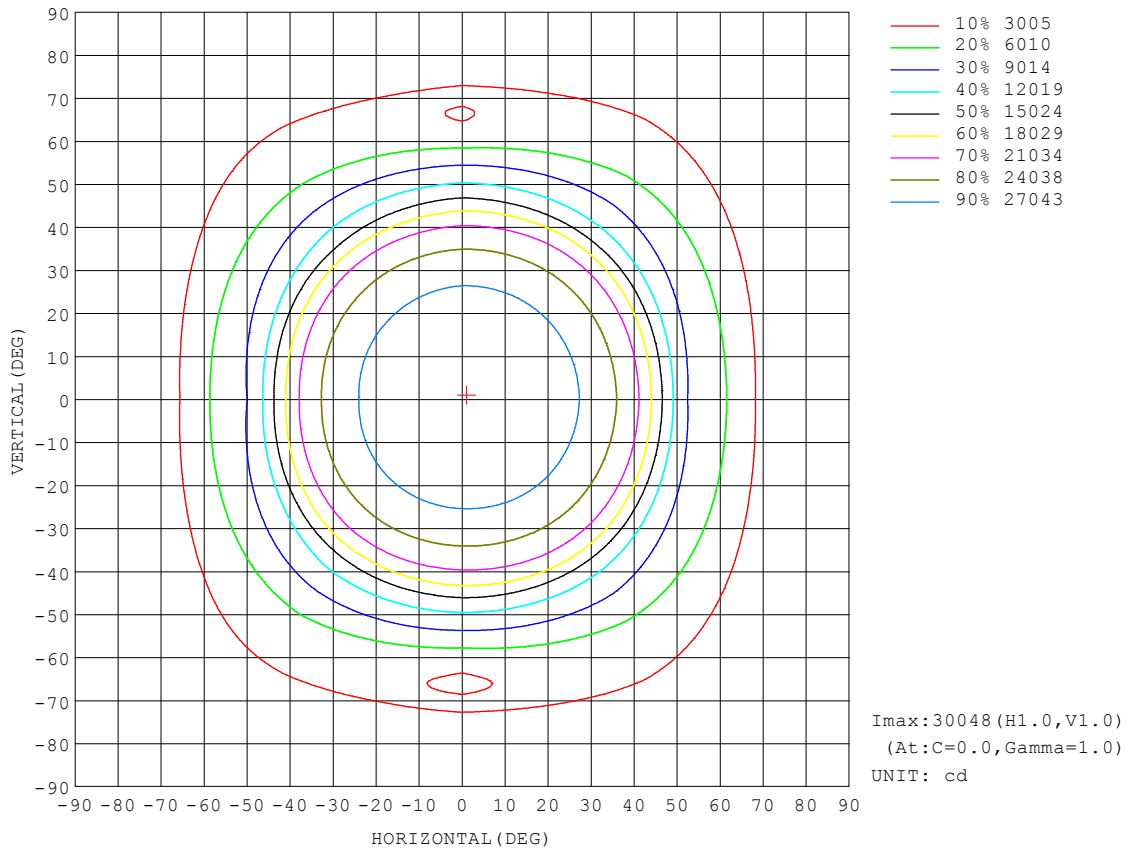
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	66	55	49	65	55	49	64	55	49	43
0.80	75	65	59	74	65	59	73	64	59	53
1.00	83	74	68	82	73	68	80	74	67	61
1.25	90	81	75	88	80	75	86	79	74	67
1.50	94	86	80	92	85	80	90	83	79	72
2.00	100	93	87	98	91	87	95	89	85	78
2.50	103	96	91	101	95	90	97	92	88	81
3.00	105	100	95	103	98	94	99	95	92	84
4.00	109	104	100	106	102	99	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:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:

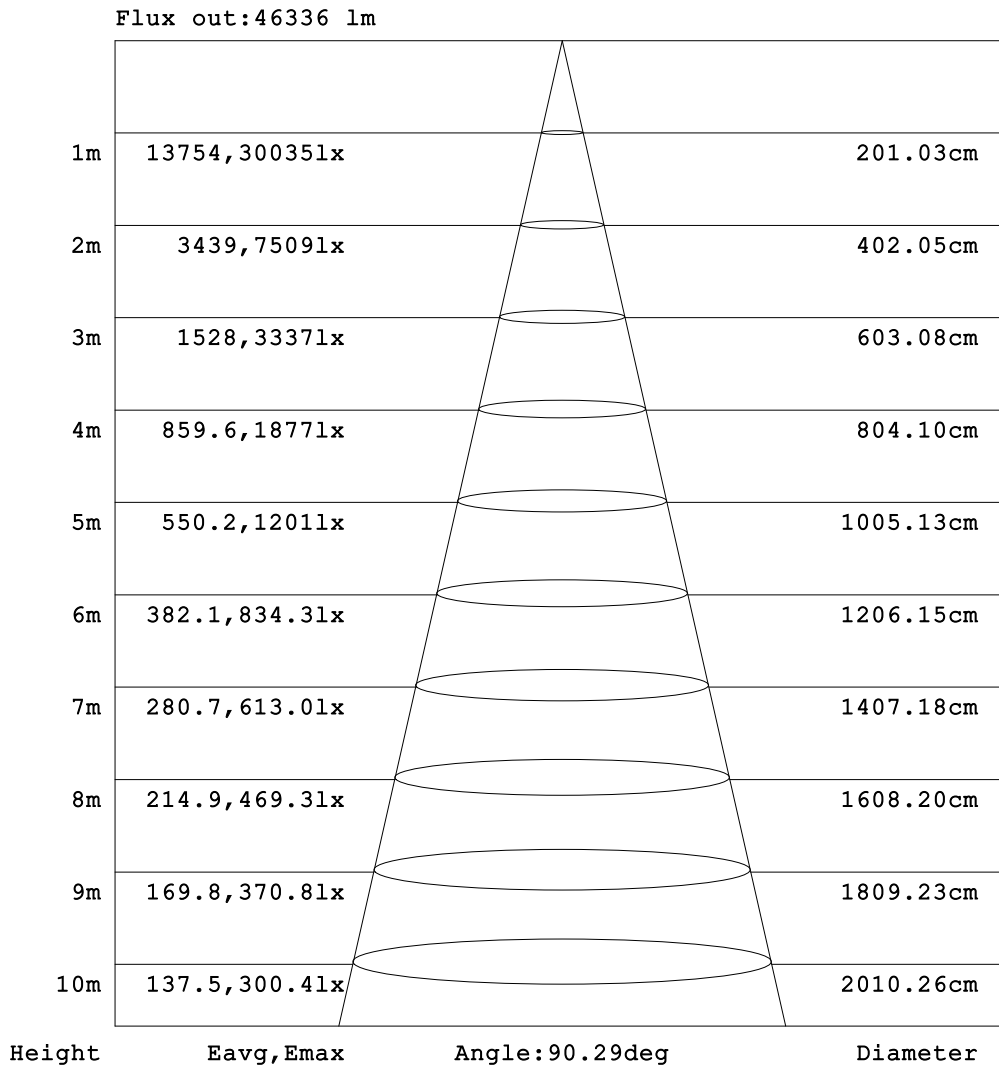


C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks:

AAI Figure

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:

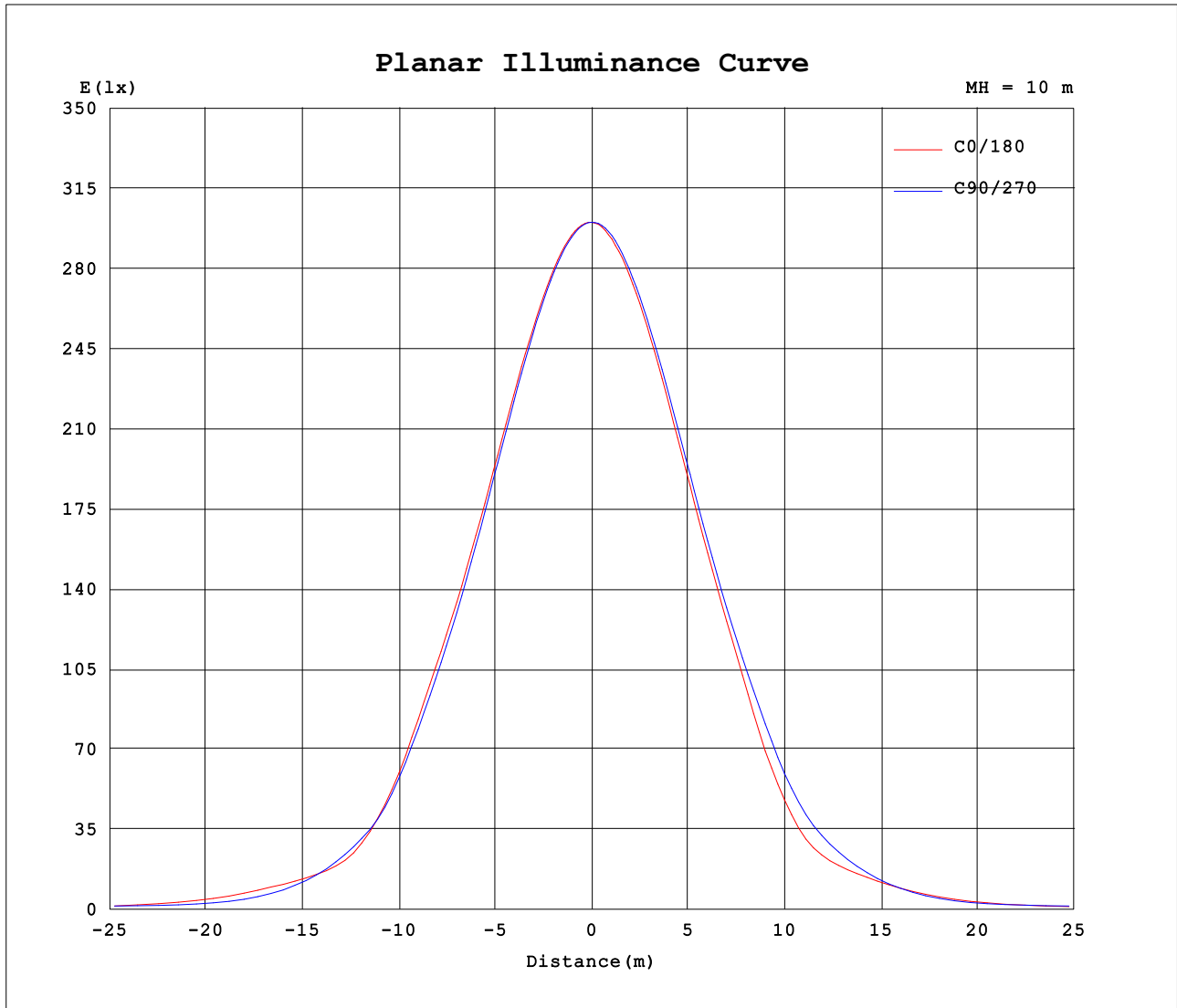


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 24.2DEG
 Operators: wudashuai
 Test Date: 2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity: 48%
 Test Distance: 6.500m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:121.4V I:3.982A P:479.7W PF:0.9926 Freq:59.98Hz Lamp Flux:69000x1 lm		
NAME: ASD Lighting Corp	TYPE:	WEIGHT:
SPEC.:ASD-WHB5M-4D50050	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:1.16*0.25m	Shielding Angle:

Table--1

UNIT: x10cd

C (DEG) \ γ (DEG)	0	45	90	135	180	225	270	315										
0	3003	3003	3003	3003	3003	3003	3003	3003										
5	2998	2995	2991	2986	2982	2987	2997	2996										
10	2971	2965	2957	2951	2943	2954	2966	2970										
15	2925	2913	2903	2893	2884	2895	2919	2919										
20	2858	2841	2823	2811	2798	2817	2845	2851										
25	2760	2740	2715	2697	2678	2702	2740	2748										
30	2627	2599	2564	2541	2513	2548	2594	2608										
35	2445	2407	2362	2331	2292	2335	2399	2419										
40	2190	2139	2081	2021	1909	2012	2128	2150										
45	1688	1642	1626	1481	1356	1457	1682	1650										
50	1097	1170	1173	1112	900	1096	1224	1173										
55	815	890	800	823	746	807	856	892										
60	682	635	453	575	536	567	488	647										
65	430	447	277	422	319	412	295	454										
70	249	339	316	317	232	309	317	340										
75	218	226	244	197	215	197	258	228										
80	152	144	173	142	116	146	187	146										
85	66.5	70.8	78.4	53.5	29.0	52.5	89.8	69.4										
90	6.72	3.46	2.44	2.54	2.23	2.31	2.19	2.87										
95	2.65	2.83	3.06	3.01	2.82	2.84	2.78	2.61										
100	3.36	3.51	3.93	3.80	3.62	3.53	3.57	3.28										
105	4.28	4.48	4.79	4.82	4.61	4.53	4.33	4.18										
110	5.36	5.57	6.03	5.98	5.75	5.64	5.48	5.21										
115	6.56	6.77	7.18	7.21	6.98	6.83	6.68	6.42										
120	7.83	8.03	8.42	8.47	8.23	8.07	7.83	7.62										
125	9.16	9.31	9.71	10.1	9.54	9.64	9.08	8.98										
130	10.5	10.7	11.0	11.5	10.8	11.0	10.4	10.4										
135	11.8	11.9	12.2	12.6	12.3	12.2	11.6	11.6										
140	13.1	13.1	13.4	13.6	13.6	13.3	12.9	12.9										
145	14.1	14.3	14.6	14.7	14.7	14.4	14.2	14.1										
150	15.2	15.5	15.8	15.7	15.8	15.5	15.5	15.4										
155	16.3	16.7	17.0	16.8	17.1	16.7	16.7	16.6										
160	17.6	17.9	18.2	18.0	18.3	18.0	18.0	17.9										
165	19.0	19.1	19.4	19.2	19.5	19.2	19.3	19.0										
170	20.2	20.1	20.4	20.2	20.5	20.1	20.3	20.0										
175	20.9	20.7	21.1	20.8	21.0	20.8	21.0	20.7										
180	21.1	21.0	21.4	21.1	21.1	21.1	21.4	21.1										

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:24.2DEG
 Operators:wudashuai
 Test Date:2021-12-13

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.364
 Humidity:48%
 Test Distance:6.500m [K=1.0000]
 Remarks: