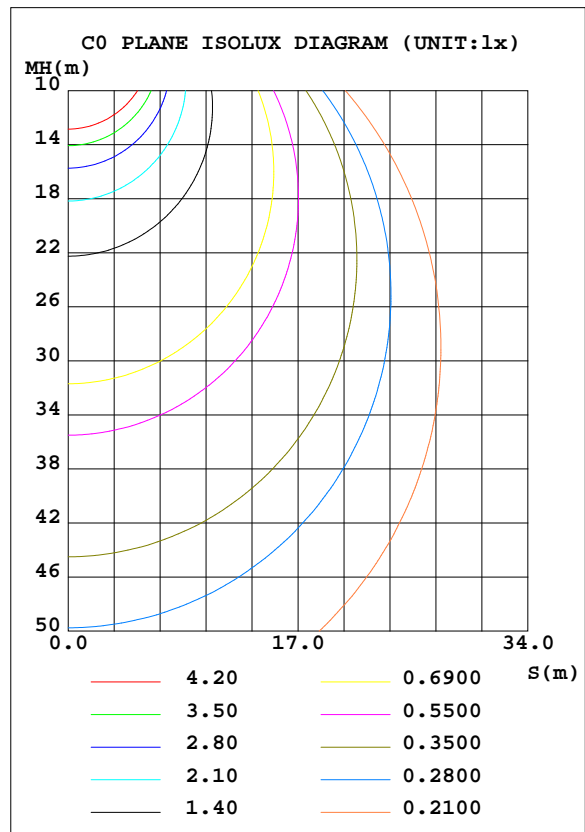
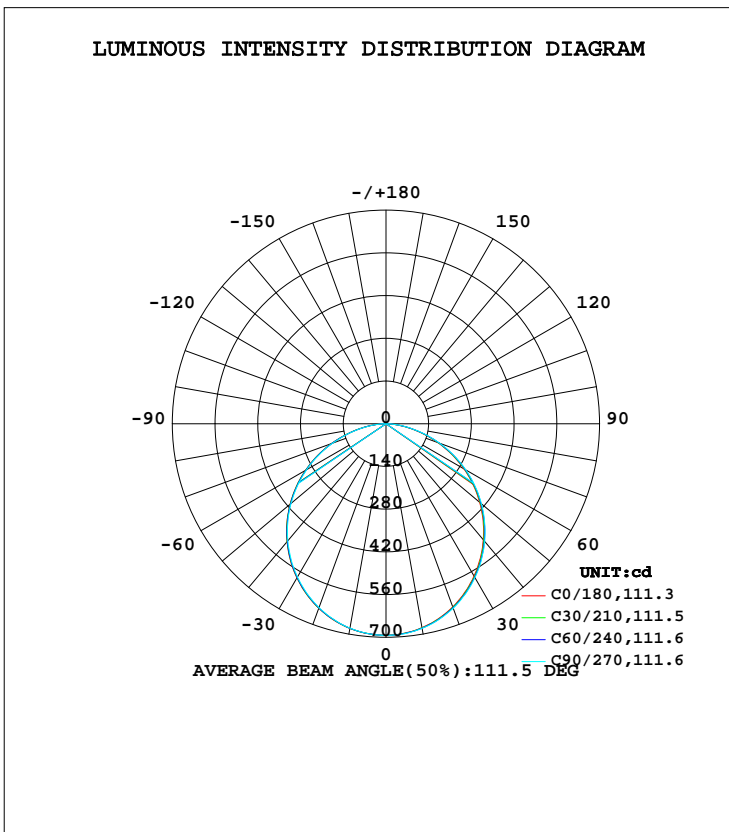


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 70.73 lm/W			
MODEL	ASD-MPR-12D24CC_3000K	I <sub>max</sub> (cd)	693.7	S/MH(C0/180)	1.25
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1680	η UP, DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	1680	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1,49.9
LAMPS INSIDE	1	η up(%)	0.1	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	99.9	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	678.7	679.4	680.8	681.4	681.1	680.7	680.2	678.8	0- 10	65.56	65.56	3.35,3.35
20	639.0	640.8	643.4	644.0	643.8	642.3	641.4	639.2	10- 20	187.4	252.9	12.9,12.9
30	576.6	579.4	582.7	583.5	583.9	582.4	580.3	577.8	20- 30	282.9	535.8	27.3,27.3
40	496.2	500.0	503.3	504.1	504.7	503.5	500.8	497.3	30- 40	339.8	875.6	44.7,44.7
50	400.9	404.7	408.5	409.2	410.4	409.0	406.1	402.5	40- 50	351.3	1227	62.6,62.6
60	294.1	298.2	301.6	302.4	304.3	302.8	300.0	296.1	50- 60	316.7	1544	78.8,78.8
70	180.5	184.3	187.6	188.6	189.9	189.0	186.0	182.2	60- 70	240.8	1784	91,91
80	72.54	75.51	78.33	78.36	79.93	79.56	77.17	73.86	70- 80	137.2	1922	98,98
90	0.1829	0.1270	0.1337	3.403	0.3276	0.1902	0.1353	0.1328	80- 90	36.42	1958	99.9,99.9
100	0.1118	0.1100	0.1083	0.1067	0.2073	0.2113	0.2132	0.2151	90-100	0.1659	1958	99.9,99.9
110	0.1733	0.1723	0.1700	0.1672	0.2628	0.2657	0.2678	0.2694	100-110	0.2030	1958	99.9,99.9
120	0.2578	0.2566	0.2553	0.2511	0.2868	0.2894	0.2897	0.2921	110-120	0.2427	1959	99.9,99.9
130	0.3468	0.3451	0.3421	0.3388	0.3542	0.3579	0.3557	0.3618	120-130	0.2765	1959	99.9,99.9
140	0.3977	0.3974	0.3948	0.3915	0.4489	0.4477	0.4522	0.4530	130-140	0.3010	1959	100,100
150	0.4272	0.4268	0.4263	0.4240	0.5551	0.5553	0.5525	0.5573	140-150	0.2861	1959	100,100
160	0.4971	0.4951	0.4922	0.4958	0.6257	0.6268	0.6201	0.6270	150-160	0.2429	1960	100,100
170	0.5419	0.5465	0.5462	0.5472	0.6259	0.6256	0.6184	0.6216	160-170	0.1628	1960	100,100
180	0.5964	0.5921	0.5938	0.5938	0.5984	0.5945	0.5928	0.5957	170-180	0.0564	1960	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1052.7 lm

%lum = 53.7%

%lamp = 53.7%

Conical surface Flux(120deg): 1543.5 lm

%lum = 78.8%

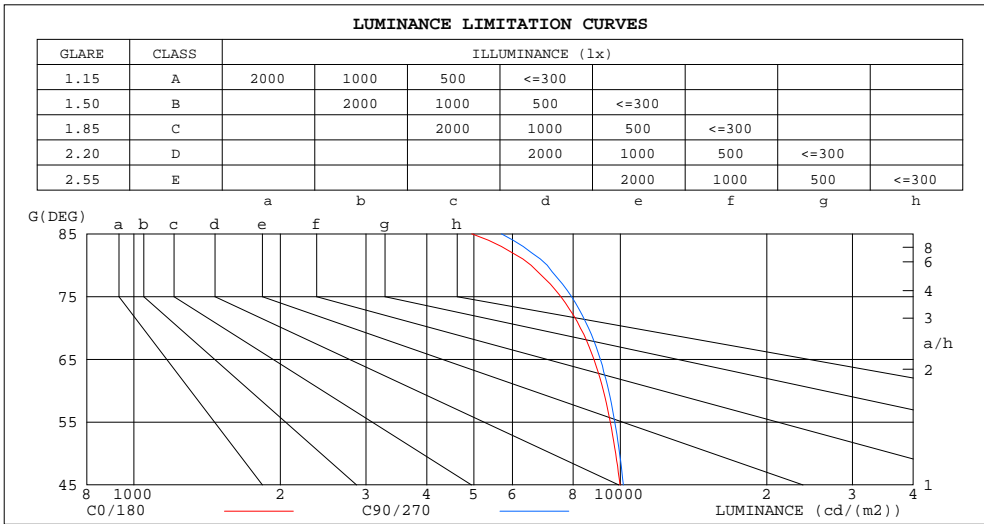
%lamp = 78.8%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	4950	5697
80	6552	7074
75	7544	7935
70	8275	8601
65	8828	9094
60	9226	9459
55	9537	9742
50	9781	9966
45	9984	10146

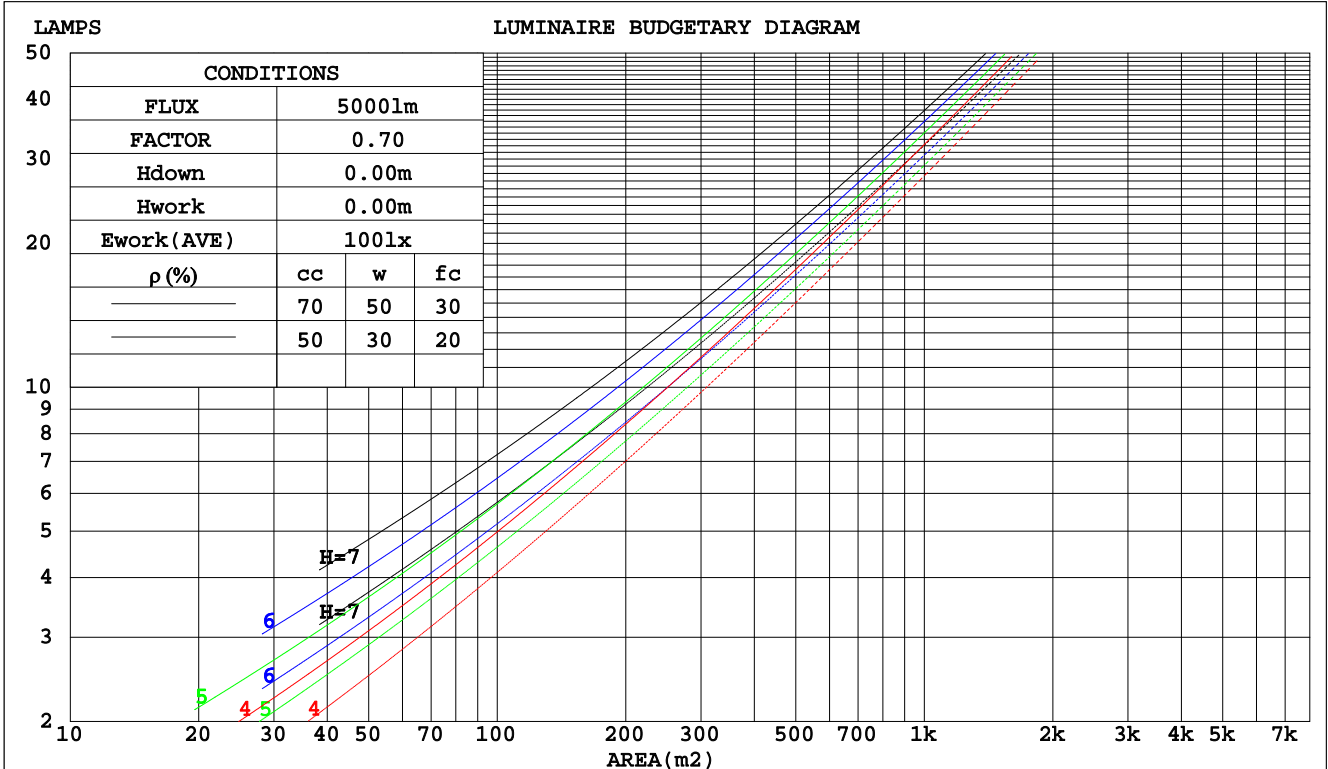
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pw																
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.04	.00	.96	1.02	.98	.94	.97	.94	.91	.93	.91	.88	.90	.88	.86	.84
2.0	.90	.84	.78	.89	.82	.77	.85	.80	.75	.82	.77	.73	.79	.75	.72	.69
3.0	.79	.71	.65	.78	.70	.64	.75	.68	.63	.72	.66	.62	.69	.65	.61	.58
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.54	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.59	.52	.46	.57	.51	.46	.56	.50	.45	.43
6.0	.56	.48	.41	.56	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

WEC AND CCEC

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	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	.309	.176	.056	.302	.172	.055	.289	.166	.053	.277	.160	.051	.265	.154	.050	
2.0	.291	.160	.049	.285	.157	.048	.273	.152	.047	.262	.147	.046	.252	.143	.045	
3.0	.270	.144	.043	.264	.141	.043	.254	.138	.042	.244	.134	.041	.235	.130	.040	
4.0	.249	.129	.038	.244	.128	.038	.235	.125	.037	.226	.122	.037	.218	.119	.036	
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.108	.033	
6.0	.213	.107	.031	.210	.106	.030	.202	.104	.030	.196	.102	.030	.189	.100	.030	
7.0	.199	.098	.028	.195	.097	.028	.189	.095	.027	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.025	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023	
10.0	.164	.078	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.021	

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	.191	.191	.191	.163	.163	.163	.112	.112	.112	.064	.064	.064	.020	.020	.020	
1.0	.181	.157	.135	.155	.135	.116	.106	.093	.080	.061	.054	.047	.020	.017	.015	
2.0	.173	.133	.099	.148	.114	.085	.102	.079	.060	.059	.046	.035	.019	.015	.011	
3.0	.165	.115	.075	.142	.099	.065	.097	.069	.046	.056	.040	.027	.018	.013	.009	
4.0	.158	.102	.059	.135	.088	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007	
5.0	.150	.091	.048	.129	.079	.042	.089	.055	.029	.051	.032	.017	.017	.011	.006	
6.0	.143	.083	.040	.123	.072	.035	.085	.050	.025	.049	.030	.015	.016	.010	.005	
7.0	.136	.076	.034	.117	.066	.030	.081	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.130	.070	.029	.112	.061	.026	.077	.043	.018	.045	.025	.011	.015	.008	.004	
9.0	.124	.065	.026	.106	.057	.023	.074	.040	.016	.043	.024	.010	.014	.008	.003	
10.0	.118	.061	.023	.102	.053	.020	.071	.037	.014	.041	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm										
NAME:					TYPE:LED			WEIGHT:		
SPEC.:ASD-MPR-12D24CC_3000K					DIM.:			SERIAL No.:		
MFR.: ASD Lighting Corp					SUR.:			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	20.7	22.2	20.9	22.4	22.6	20.8	22.3	21.0	22.5	22.7
3H	22.1	23.6	22.4	23.8	24.0	22.3	23.7	22.6	23.9	24.2
4H	22.7	24.1	23.0	24.3	24.6	22.9	24.2	23.2	24.5	24.7
6H	23.1	24.4	23.4	24.6	24.9	23.3	24.6	23.6	24.8	25.1
8H	23.2	24.4	23.6	24.7	25.0	23.4	24.6	23.8	24.9	25.2
12H	23.3	24.4	23.6	24.7	25.0	23.5	24.7	23.8	25.0	25.3
4H 2H	21.3	22.6	21.6	22.9	23.1	21.4	22.7	21.7	23.0	23.2
3H	22.9	24.1	23.3	24.4	24.7	23.1	24.2	23.4	24.5	24.8
4H	23.6	24.7	24.0	25.0	25.4	23.8	24.8	24.2	25.2	25.5
6H	24.1	25.1	24.5	25.4	25.8	24.3	25.3	24.7	25.6	26.0
8H	24.3	25.2	24.7	25.6	25.9	24.5	25.4	24.9	25.8	26.1
12H	24.4	25.2	24.8	25.6	26.0	24.6	25.4	25.0	25.8	26.2
8H 4H	23.9	24.8	24.3	25.2	25.5	24.0	24.9	24.4	25.3	25.7
6H	24.5	25.3	25.0	25.7	26.1	24.7	25.4	25.2	25.9	26.3
8H	24.8	25.4	25.2	25.9	26.3	25.0	25.6	25.4	26.0	26.5
12H	24.9	25.5	25.4	25.9	26.4	25.1	25.7	25.6	26.2	26.6
12H 4H	23.9	24.7	24.3	25.1	25.5	24.0	24.8	24.5	25.2	25.6
6H	24.6	25.3	25.1	25.7	26.1	24.8	25.4	25.2	25.8	26.3
8H	24.9	25.4	25.3	25.9	26.4	25.1	25.6	25.5	26.1	26.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117, 1960 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 2.3)  
 Area: 0.0637616 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

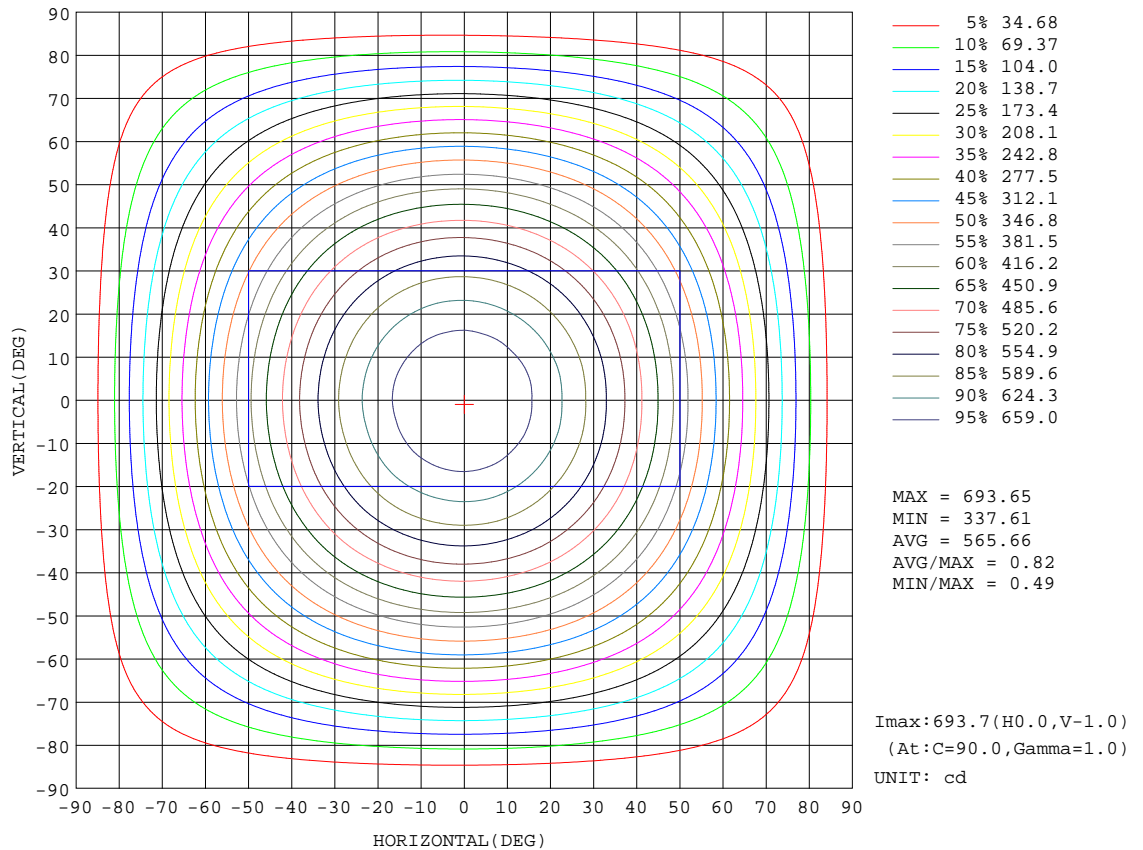
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	58	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	48	65	55	48	41
1.00	76	65	58	75	64	57	73	66	57	50
1.25	83	73	65	82	72	65	79	70	64	57
1.50	88	78	71	86	77	71	83	76	70	62
2.00	95	86	80	93	85	79	90	83	78	70
2.50	99	91	85	97	90	84	93	87	82	74
3.00	102	95	90	100	94	89	96	91	87	78
4.00	106	101	96	104	99	94	100	95	92	83
5.00	109	104	100	106	102	98	102	98	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators:Alan Wang  
 Test Date:24 May 2023

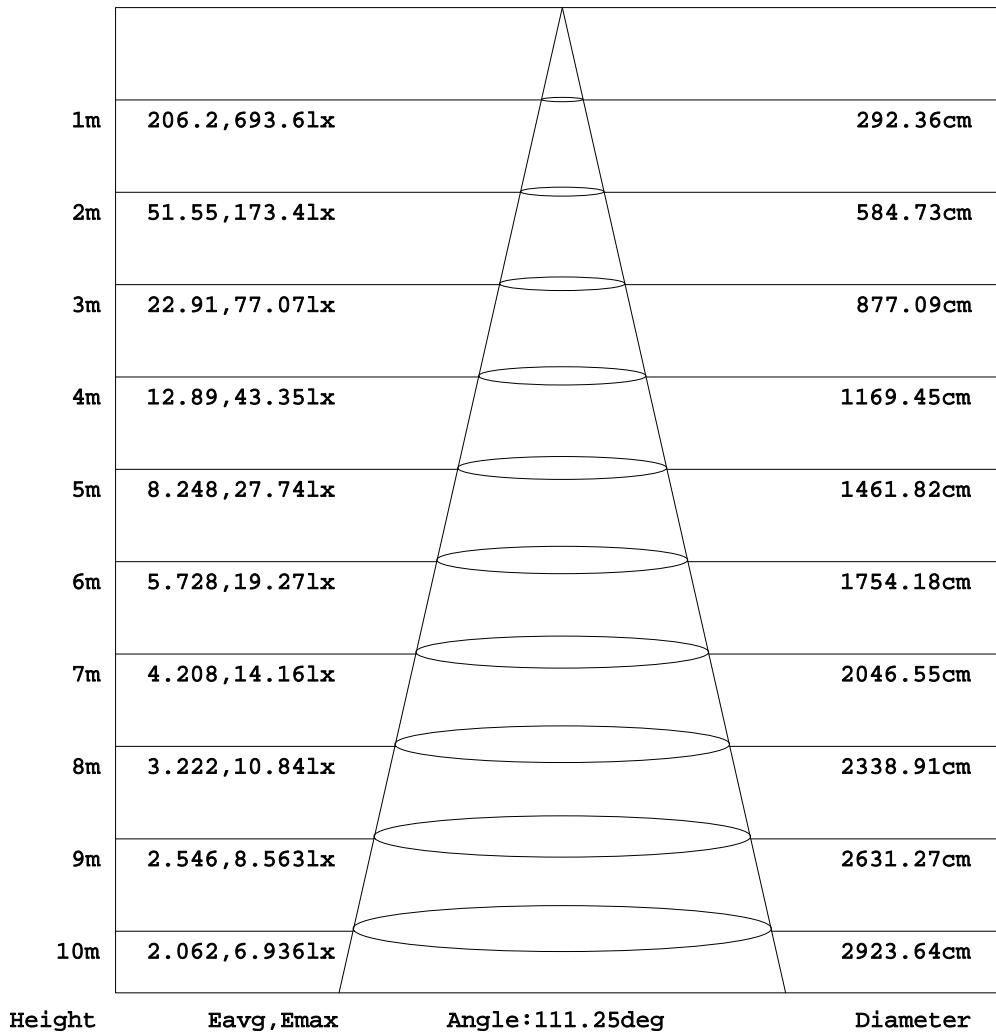
γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance:2.500m [K=1.0391]  
 Remarks:



AAI Figure

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Flux out:1424 lm



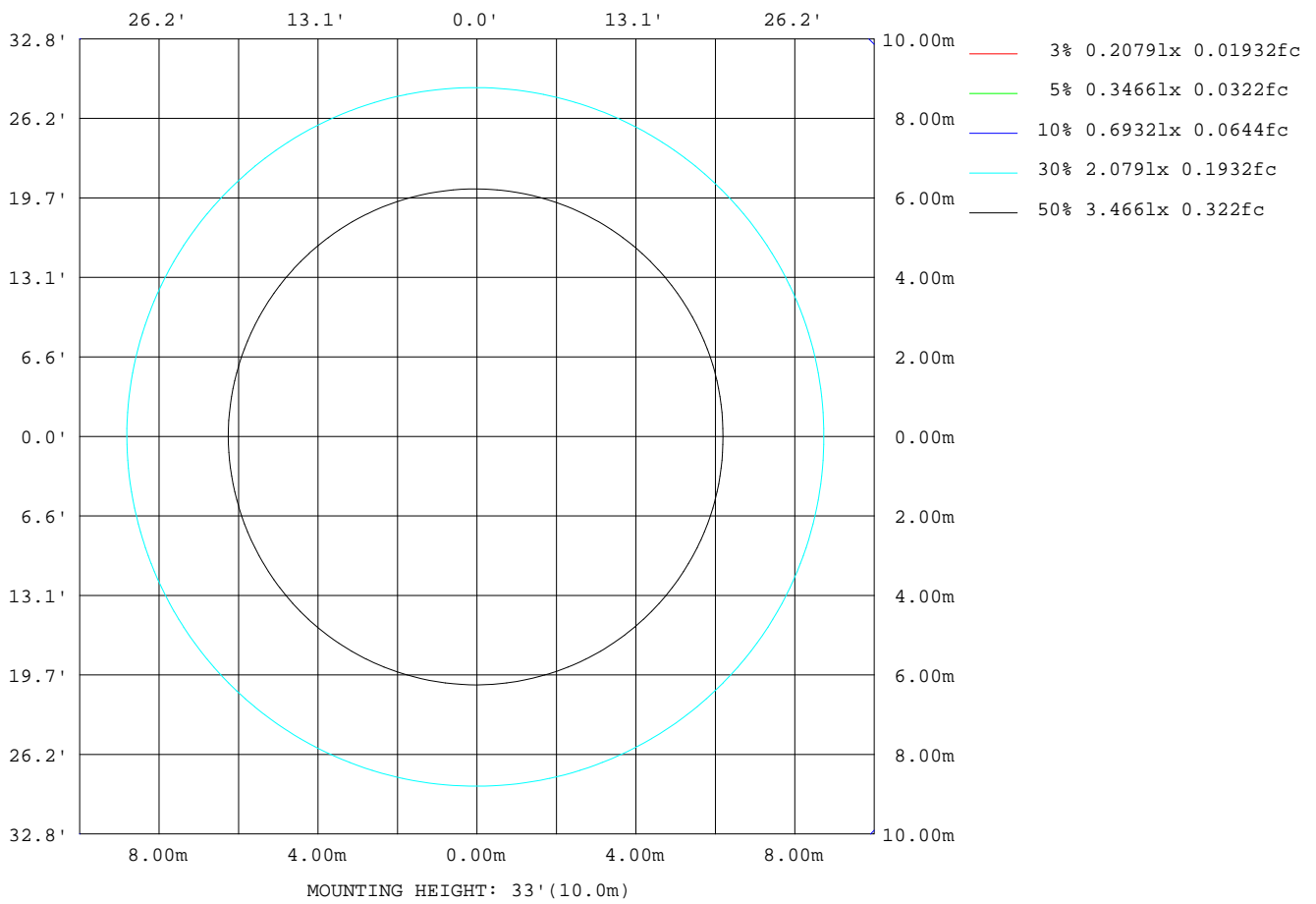
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

## LED Avg.L Report

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

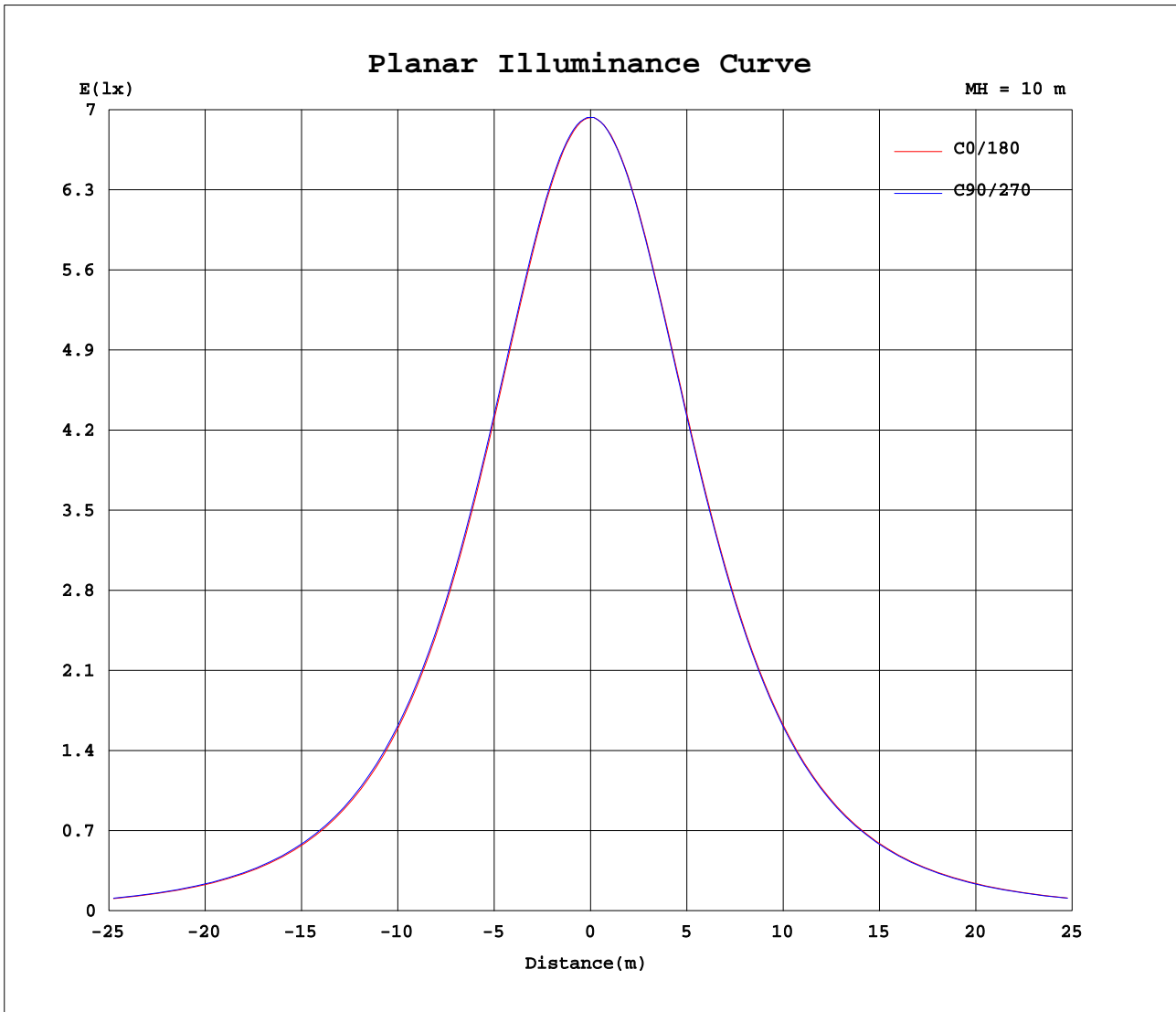
AvgL	cd/m2
L_0~180(65)av	9011
L_0~180(75)av	7799
L_0~180(85)av	5540
L_90~270(65)av	9065
L_90~270(75)av	7895
L_90~270(85)av	5682
L_45(65)av	9036
L_45(75)av	7846
L_45(85)av	5612

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	693	693	693	693	694	693	693	693	693	694	693	693	693	693	693	693	694	693	693
5	689	690	689	690	690	691	691	690	690	691	691	690	690	691	690	690	690	690	690
10	679	680	679	679	680	681	681	681	681	681	681	681	681	681	681	681	681	681	680
15	662	663	663	663	664	665	665	665	665	666	665	665	666	666	665	665	664	664	664
20	639	640	640	641	642	643	643	643	643	644	643	643	644	644	643	642	643	642	641
25	610	612	612	613	614	615	616	616	616	616	615	615	616	616	616	615	615	614	614
30	577	578	579	579	581	582	583	583	583	584	583	583	584	584	583	582	582	581	580
35	539	540	541	542	543	545	545	545	546	546	545	545	546	546	546	545	545	544	542
40	496	498	499	500	502	503	503	504	504	504	503	504	505	504	504	504	503	502	501
45	450	452	453	454	456	457	457	458	458	459	458	458	459	459	459	458	457	456	455
50	401	402	403	405	407	408	408	409	409	409	409	409	410	410	410	409	408	407	406
55	349	350	351	353	354	355	356	357	357	357	357	357	359	359	358	357	356	355	354
60	294	295	297	298	300	301	302	303	303	302	302	303	304	304	304	303	302	301	300
65	238	239	240	242	243	244	245	246	246	246	246	246	248	248	247	247	246	245	243
70	180	182	183	184	185	187	188	188	188	189	188	188	190	190	189	189	188	187	186
75	124	125	126	128	129	130	131	131	132	132	131	131	133	133	133	132	132	131	130
80	72.5	73.3	74.3	75.5	76.5	78.2	78.3	77.8	78.1	78.4	78.4	78.4	79.9	79.8	79.8	79.6	79.0	78.1	77.2
85	27.5	28.1	28.6	29.5	30.2	31.1	31.7	32.0	32.4	32.6	32.7	32.7	34.1	34.0	33.9	33.6	33.0	32.4	31.5
90	0.18	0.20	0.10	0.13	0.12	0.10	0.13	0.19	3.30	3.40	0.30	3.44	0.33	0.32	0.23	0.19	0.16	0.14	0.14
95	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.17	0.17	0.17	0.17	0.17	0.17	0.17
100	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.21	0.21	0.21	0.21	0.21	0.21	0.21
105	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.13	0.13	0.13	0.25	0.25	0.25	0.25	0.25	0.25	0.25
110	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.26	0.26	0.26	0.27	0.27	0.27	0.27
115	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.28	0.28	0.28	0.28	0.28	0.28	0.28
120	0.26	0.26	0.26	0.26	0.26	0.25	0.26	0.25	0.25	0.25	0.25	0.25	0.29	0.29	0.29	0.29	0.29	0.29	0.29
125	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.29	0.31	0.31	0.31	0.32	0.32	0.32	0.31
130	0.35	0.35	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.35	0.36	0.36	0.36	0.36	0.36	0.36
135	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.37	0.37	0.37	0.37	0.40	0.40	0.40	0.40	0.41	0.41	0.40
140	0.40	0.40	0.40	0.40	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.45	0.45	0.45	0.45	0.45	0.45	0.45
145	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.40	0.50	0.50	0.50	0.50	0.50	0.51	0.50
150	0.43	0.42	0.43	0.43	0.43	0.43	0.43	0.42	0.42	0.42	0.42	0.42	0.56	0.56	0.56	0.56	0.56	0.56	0.55
155	0.47	0.46	0.47	0.47	0.47	0.46	0.47	0.46	0.46	0.47	0.46	0.46	0.59	0.59	0.59	0.59	0.59	0.59	0.59
160	0.50	0.49	0.49	0.50	0.50	0.49	0.49	0.49	0.50	0.50	0.49	0.49	0.63	0.63	0.63	0.63	0.63	0.62	0.62
165	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.63	0.63	0.63	0.63	0.63	0.63	0.63
170	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.54	0.63	0.63	0.63	0.63	0.62	0.62	0.62
175	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.62	0.62	0.62	0.62	0.62	0.62	0.62
180	0.60	0.60	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.58	0.60	0.60	0.60	0.59	0.59	0.59	0.59

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.2128A P:23.750W PF:0.9302 Freq:60.00Hz Lamp Flux:1680x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-MPR-12D24CC_3000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	693	693	694	693	693														
5	690	690	689	690	690														
10	679	679	679	679	679														
15	663	663	662	663	663														
20	640	640	639	640	640														
25	612	611	611	611	612														
30	579	578	578	577	578														
35	541	540	540	540	540														
40	499	498	497	497	497														
45	454	452	451	452	451														
50	405	403	402	402	402														
55	353	351	350	350	350														
60	298	297	296	296	296														
65	242	241	240	239	239														
70	184	183	182	182	181														
75	128	127	126	125	125														
80	76.0	74.7	73.9	73.3	73.2														
85	30.6	29.7	29.1	29.4	29.3														
90	0.13	0.13	0.13	0.13	0.13														
95	0.17	0.17	0.17	0.17	0.17														
100	0.21	0.21	0.22	0.21	0.22														
105	0.25	0.25	0.25	0.25	0.25														
110	0.27	0.27	0.27	0.27	0.27														
115	0.28	0.28	0.28	0.28	0.28														
120	0.29	0.29	0.29	0.29	0.29														
125	0.32	0.32	0.32	0.32	0.32														
130	0.36	0.36	0.36	0.36	0.36														
135	0.40	0.41	0.41	0.41	0.41														
140	0.45	0.45	0.45	0.45	0.46														
145	0.51	0.51	0.51	0.51	0.51														
150	0.56	0.56	0.56	0.56	0.56														
155	0.59	0.59	0.59	0.59	0.59														
160	0.62	0.62	0.63	0.63	0.63														
165	0.63	0.63	0.63	0.63	0.64														
170	0.62	0.62	0.62	0.63	0.63														
175	0.62	0.62	0.62	0.62	0.62														
180	0.59	0.60	0.60	0.60	0.60														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 24 May 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 44.9%  
 Test Distance: 2.500m [K=1.0391]  
 Remarks: