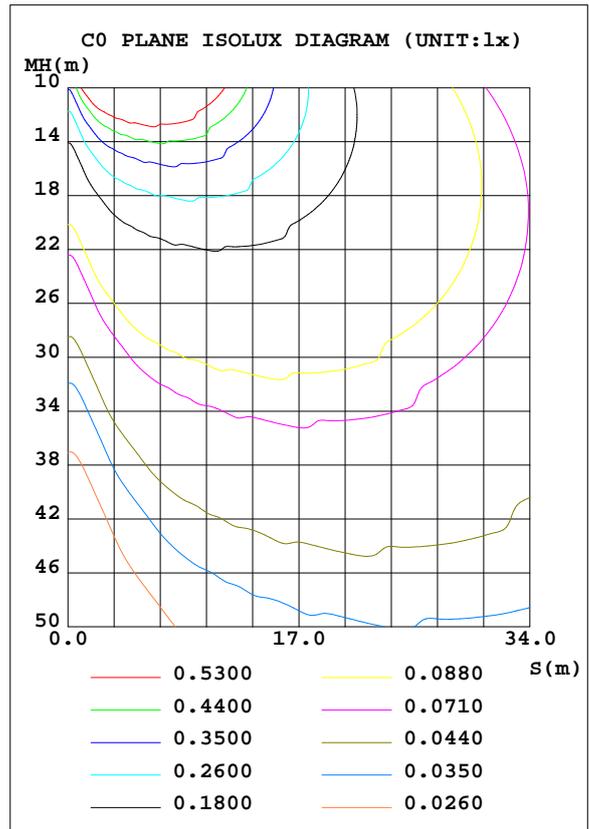
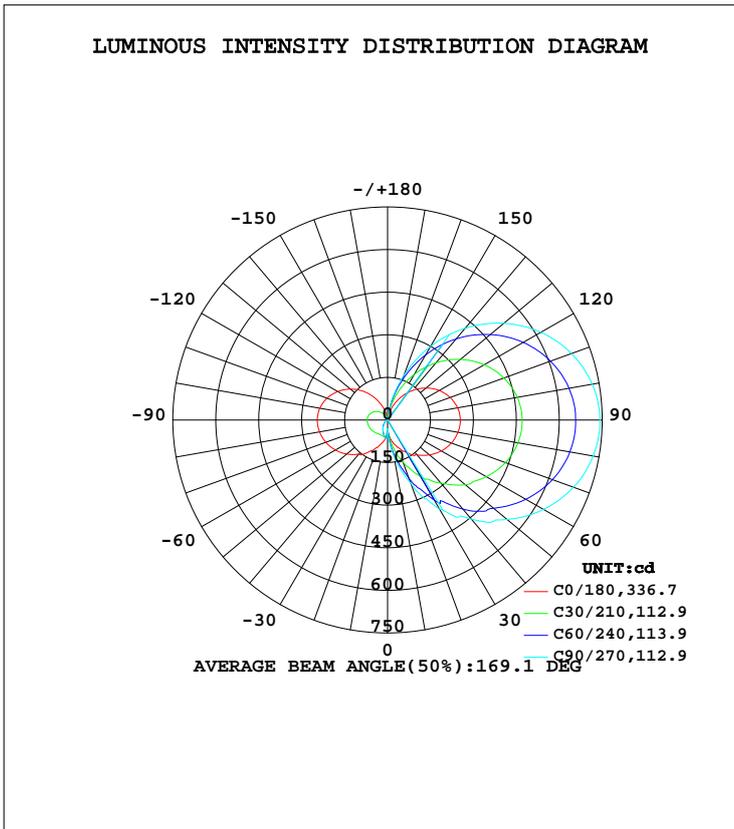


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 111.37 lm/W			
MODEL	ASD-OLWS-21-MV-24D23CC-NK	I _{max} (cd)	741.9	S/MH(C0/180)	3.93
NOMINAL POWER(W)	23	LOR(%)	100.0	S/MH(C90/270)	1.25
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	2905.5	η UP, DN(C0-180)	43.5,45.5
NOMINAL FLUX(lm)	2905.53	CIE CLASS	DIFFUSE	η UP, DN(C180-360)	4.8,6.3
LAMPS INSIDE	1	η up(%)	48.2	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	η down(%)	51.8	CIBSE SHR MAX	1.20



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	71.27	101.7	128.3	102.8	74.36	59.83	60.10	60.53	0- 10	6.443	6.443	0.22,0.22
20	101.9	191.2	236.9	185.7	101.3	48.34	44.72	48.63	10- 20	29.03	35.48	1.22,1.22
30	131.6	281.0	362.2	274.3	129.3	39.07	31.54	38.73	20- 30	65.55	101.0	3.48,3.48
40	160.0	353.0	455.8	345.5	156.7	32.10	21.23	31.38	30- 40	112.4	213.4	7.34,7.34
50	191.2	426.8	544.9	419.0	186.3	26.88	13.67	25.95	40- 50	165.9	379.3	13.1,13.1
60	217.4	484.5	629.2	475.0	211.1	23.18	7.433	22.01	50- 60	219.8	599.1	20.6,20.6
70	237.3	532.7	691.3	521.8	229.7	20.85	3.757	19.37	60- 70	269.9	869.0	29.9,29.9
80	249.8	561.5	729.0	550.4	241.3	19.25	1.378	17.74	70- 80	307.6	1177	40.5,40.5
90	254.2	571.2	741.9	559.4	245.6	19.42	1.090	17.88	80- 90	327.8	1504	51.8,51.8
100	248.5	558.7	726.2	548.0	240.3	18.83	1.037	17.41	90-100	327.1	1832	63,63
110	232.7	526.0	683.9	516.1	225.3	17.25	0.9091	16.12	100-110	304.5	2136	73.5,73.5
120	208.0	474.3	618.0	465.9	201.0	14.78	0.7367	13.97	110-120	263.2	2399	82.6,82.6
130	175.5	405.4	529.8	398.9	169.8	11.70	0.6057	11.24	120-130	209.0	2608	89.8,89.8
140	136.4	322.3	422.2	317.9	132.3	8.446	0.5017	8.078	130-140	149.1	2757	94.9,94.9
150	92.55	227.5	298.6	225.4	90.50	6.185	0.4095	4.149	140-150	91.25	2849	98,98
160	48.83	127.3	167.5	127.6	48.46	5.434	0.3263	0.9451	150-160	43.45	2892	99.5,99.5
170	12.75	37.28	49.52	38.91	13.09	2.435	0.2243	0.5288	160-170	12.57	2905	100,100
180	0.1399	0.0347	0	0	0.1402	0.1369	0.1458	0.1755	170-180	0.9150	2906	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 289.49 lm

%lum = 10.0%

%lamp = 10.0%

Conical surface Flux(120deg): 599.09 lm

%lum = 20.6%

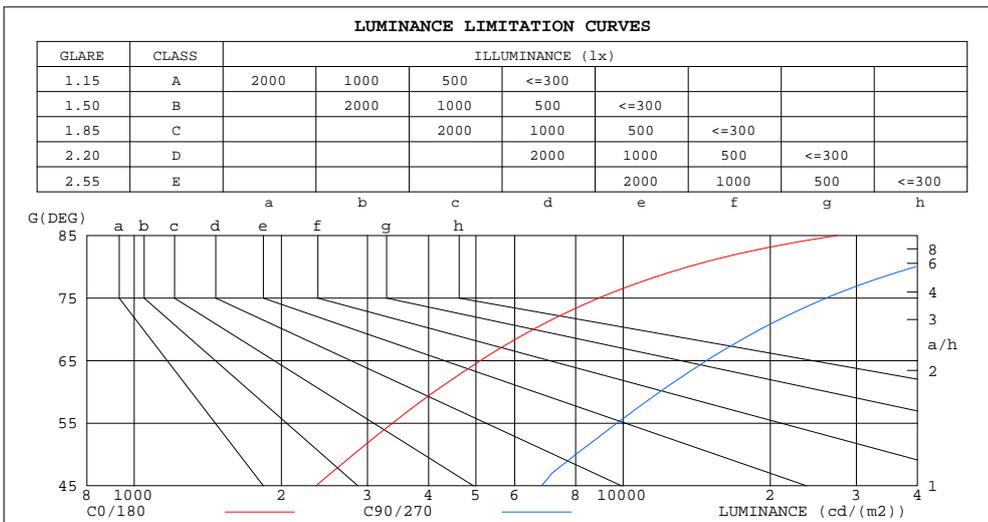
%lamp = 20.6%

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	27414	80067
80	13588	39652
75	8925	26044
70	6554	19092
65	5106	14817
60	4106	11885
55	3375	9712
50	2809	8006
45	2354	6805

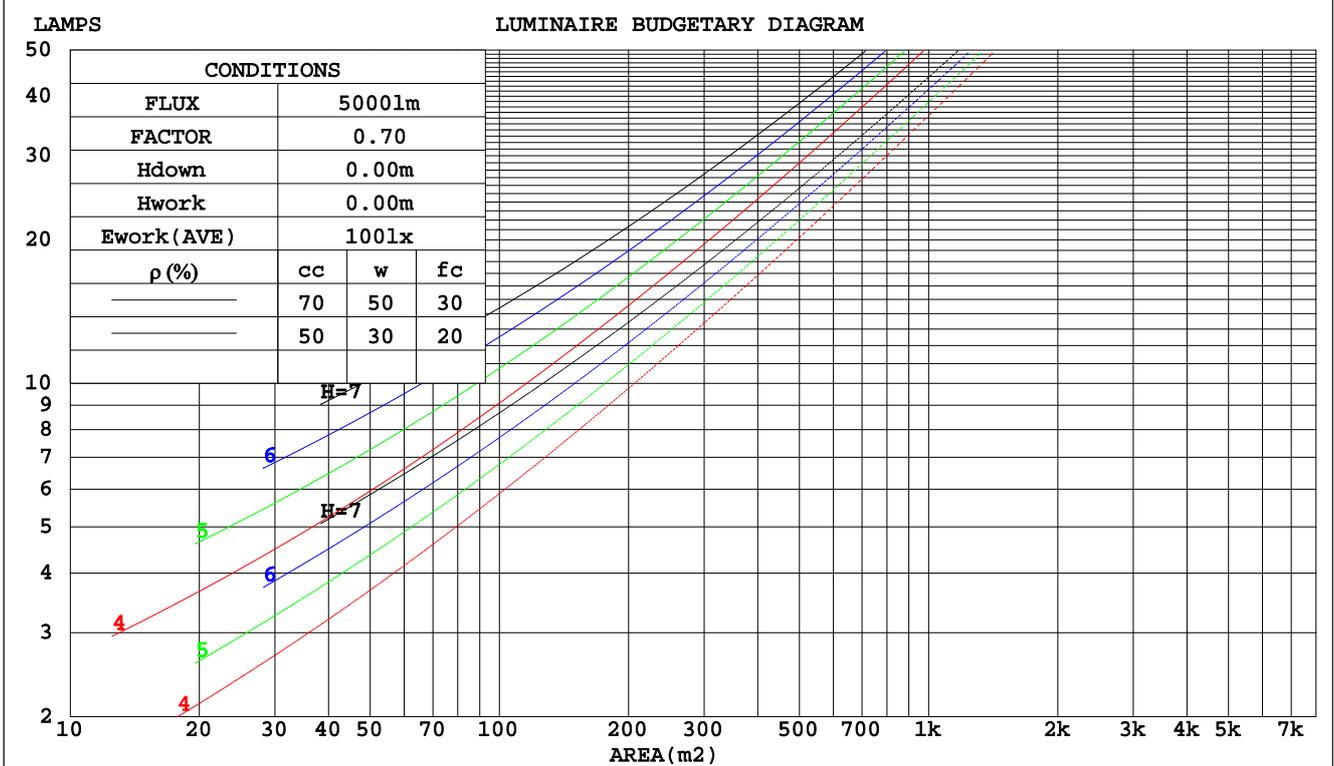
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρw																0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.08	1.08	1.08	.99	.99	.99	.84	.84	.84	.70	.70	.70	.58	.58	.58	.52
1.0	.86	.80	.74	.79	.73	.68	.65	.61	.57	.53	.50	.47	.42	.40	.37	.32
2.0	.72	.63	.56	.66	.58	.52	.54	.48	.43	.43	.39	.35	.34	.30	.27	.22
3.0	.61	.52	.44	.56	.47	.41	.46	.39	.34	.37	.31	.27	.28	.24	.21	.16
4.0	.53	.43	.36	.48	.40	.33	.40	.33	.27	.32	.26	.22	.24	.20	.16	.12
5.0	.46	.37	.30	.42	.34	.27	.35	.28	.22	.28	.22	.18	.21	.17	.13	.10
6.0	.41	.32	.25	.38	.29	.23	.31	.24	.19	.25	.19	.15	.19	.14	.11	.08
7.0	.37	.28	.21	.34	.25	.19	.28	.21	.16	.22	.17	.13	.17	.13	.09	.07
8.0	.33	.24	.18	.30	.22	.17	.25	.18	.14	.20	.15	.11	.15	.11	.08	.06
9.0	.30	.22	.16	.27	.20	.15	.23	.16	.12	.18	.13	.10	.14	.10	.07	.05
10.0	.27	.19	.14	.25	.18	.13	.21	.15	.11	.17	.12	.08	.13	.09	.06	.04



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

WEC AND CCEC

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	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	.438	.249	.079	.416	.237	.075	.375	.215	.069	.337	.194	.062	.302	.175	.056	
2.0	.360	.198	.061	.340	.187	.058	.303	.168	.052	.268	.150	.047	.236	.133	.042	
3.0	.312	.166	.050	.293	.157	.047	.259	.140	.043	.227	.124	.038	.197	.109	.034	
4.0	.276	.143	.042	.259	.136	.040	.227	.121	.036	.198	.106	.032	.171	.093	.028	
5.0	.248	.126	.037	.232	.119	.035	.203	.106	.031	.176	.093	.028	.151	.081	.024	
6.0	.225	.113	.032	.211	.106	.031	.184	.094	.027	.159	.083	.024	.135	.071	.021	
7.0	.206	.102	.029	.193	.096	.027	.168	.085	.024	.145	.074	.022	.123	.064	.019	
8.0	.190	.093	.026	.178	.088	.025	.155	.077	.022	.133	.068	.019	.113	.058	.017	
9.0	.176	.085	.024	.165	.080	.023	.144	.071	.020	.123	.062	.018	.104	.053	.015	
10.0	.164	.079	.022	.154	.074	.021	.134	.066	.018	.115	.057	.016	.097	.049	.014	

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	.558	.558	.558	.477	.477	.477	.325	.325	.325	.187	.187	.187	.060	.060	.060	
1.0	.560	.525	.495	.479	.451	.426	.328	.310	.294	.189	.180	.171	.060	.058	.055	
2.0	.554	.504	.463	.475	.434	.400	.325	.300	.279	.188	.175	.164	.060	.057	.053	
3.0	.547	.490	.443	.469	.422	.384	.322	.293	.270	.186	.171	.159	.060	.056	.052	
4.0	.540	.478	.431	.463	.413	.374	.319	.288	.264	.184	.169	.156	.059	.055	.051	
5.0	.532	.469	.423	.457	.406	.368	.315	.284	.260	.182	.167	.154	.059	.054	.051	
6.0	.525	.462	.417	.451	.400	.363	.311	.280	.257	.181	.165	.153	.058	.054	.050	
7.0	.518	.456	.412	.446	.395	.359	.308	.277	.255	.179	.163	.152	.058	.053	.050	
8.0	.511	.451	.409	.440	.391	.357	.305	.274	.253	.177	.162	.151	.057	.053	.050	
9.0	.505	.446	.406	.435	.387	.354	.302	.272	.252	.176	.161	.150	.057	.053	.050	
10.0	.499	.442	.404	.430	.384	.353	.299	.270	.251	.174	.160	.150	.056	.052	.050	

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	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	16.5	17.7	17.4	18.6	19.7	20.6	21.7	21.4	22.6	23.7
3H	19.5	20.6	20.4	21.5	22.7	24.4	25.5	25.3	26.4	27.5
4H	21.2	22.2	22.1	23.1	24.3	26.5	27.5	27.4	28.4	29.6
6H	23.0	24.0	23.9	24.9	26.1	28.8	29.7	29.7	30.7	31.9
8H	24.0	24.9	24.9	25.9	27.1	30.0	30.9	31.0	31.9	33.1
12H	25.2	26.0	26.1	27.0	28.2	31.4	32.3	32.4	33.3	34.5
4H 2H	18.9	19.9	19.8	20.8	22.0	21.3	22.3	22.2	23.2	24.4
3H	21.9	22.7	22.8	23.7	24.9	25.3	26.2	26.2	27.1	28.3
4H	23.6	24.4	24.5	25.3	26.6	27.6	28.4	28.5	29.3	30.6
6H	25.4	26.1	26.3	27.1	28.3	30.1	30.8	31.0	31.8	33.0
8H	26.4	27.1	27.3	28.0	29.3	31.4	32.1	32.4	33.1	34.4
12H	27.5	28.1	28.5	29.1	30.4	33.0	33.6	33.9	34.6	35.9
8H 4H	25.2	25.9	26.2	26.9	28.1	28.1	28.7	29.0	29.7	31.0
6H	27.3	27.9	28.3	28.9	30.2	30.8	31.4	31.8	32.4	33.7
8H	28.5	29.0	29.5	30.0	31.3	32.4	32.9	33.4	33.9	35.3
12H	29.7	30.2	30.7	31.2	32.5	34.2	34.7	35.2	35.7	37.0
12H 4H	25.8	26.4	26.7	27.4	28.7	28.1	28.8	29.1	29.7	31.0
6H	28.1	28.6	29.0	29.6	30.9	31.0	31.5	32.0	32.6	33.9
8H	29.4	29.8	30.4	30.8	32.2	32.7	33.2	33.7	34.2	35.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 2906 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.7)
 Area: 0.105875 m2

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

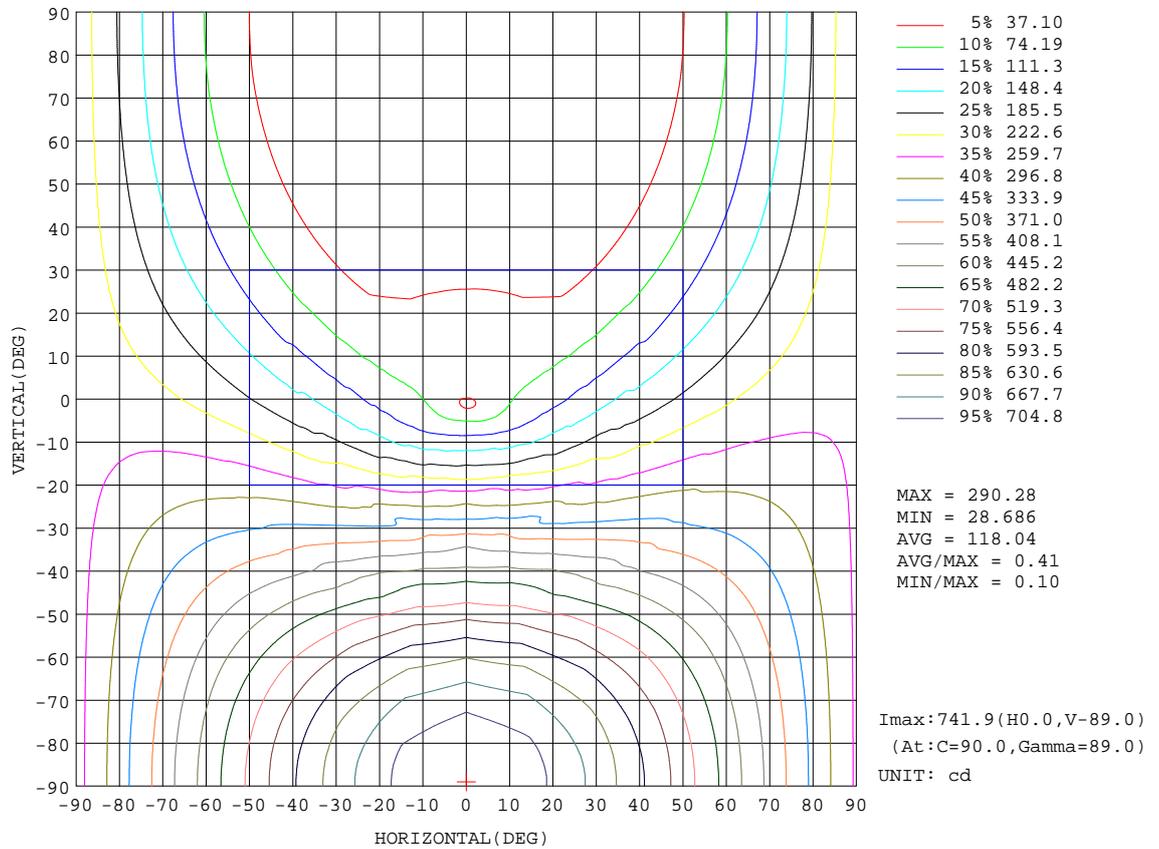
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	34	21	14	33	20	13	29	19	12	5
0.80	43	28	20	40	27	19	35	24	17	8
1.00	50	35	26	47	33	24	41	31	22	11
1.25	57	42	32	53	39	30	46	35	27	13
1.50	62	47	37	58	44	35	49	39	31	16
2.00	70	56	46	65	53	43	55	45	38	20
2.50	75	63	53	70	58	49	59	50	43	23
3.00	79	68	58	73	63	54	62	54	47	26
4.00	85	75	66	78	69	62	66	59	53	30
5.00	88	80	72	82	74	67	69	63	57	32
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: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

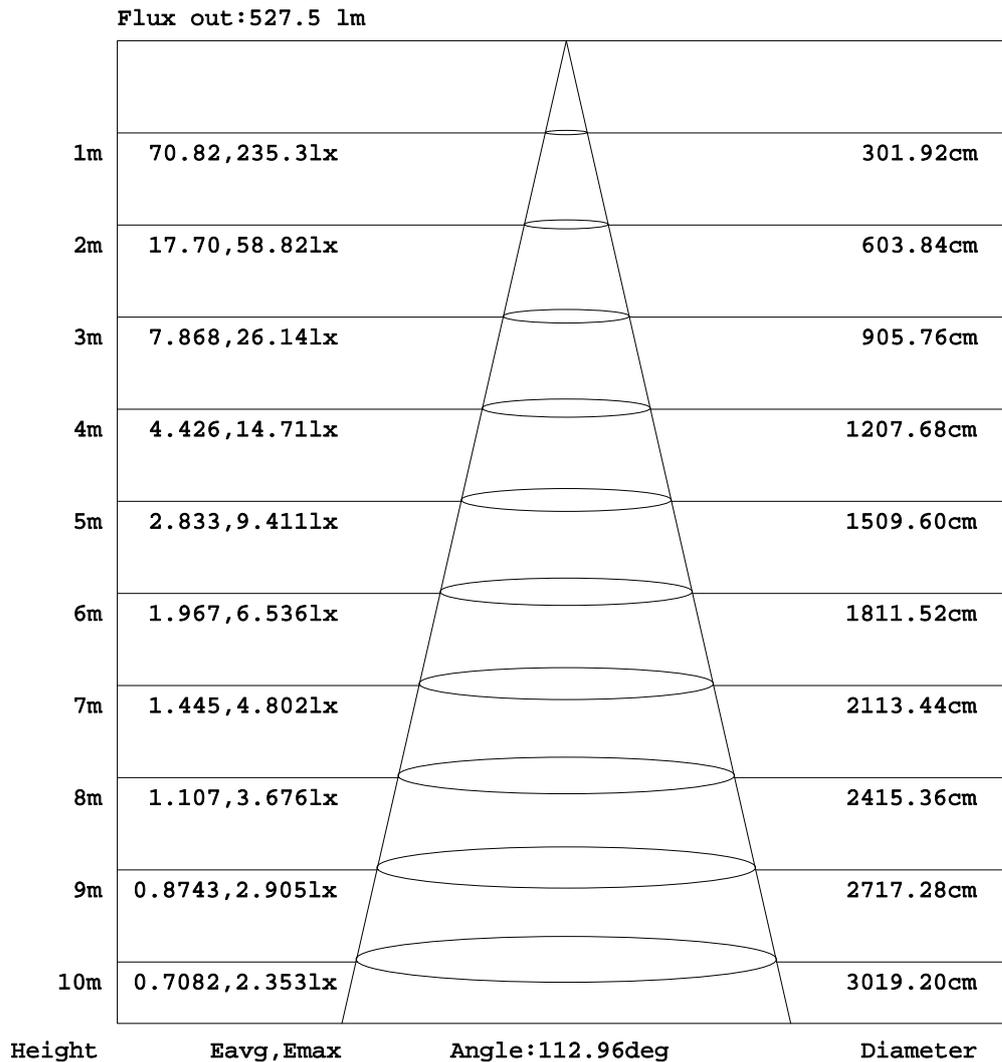


C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

AAI Figure

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:



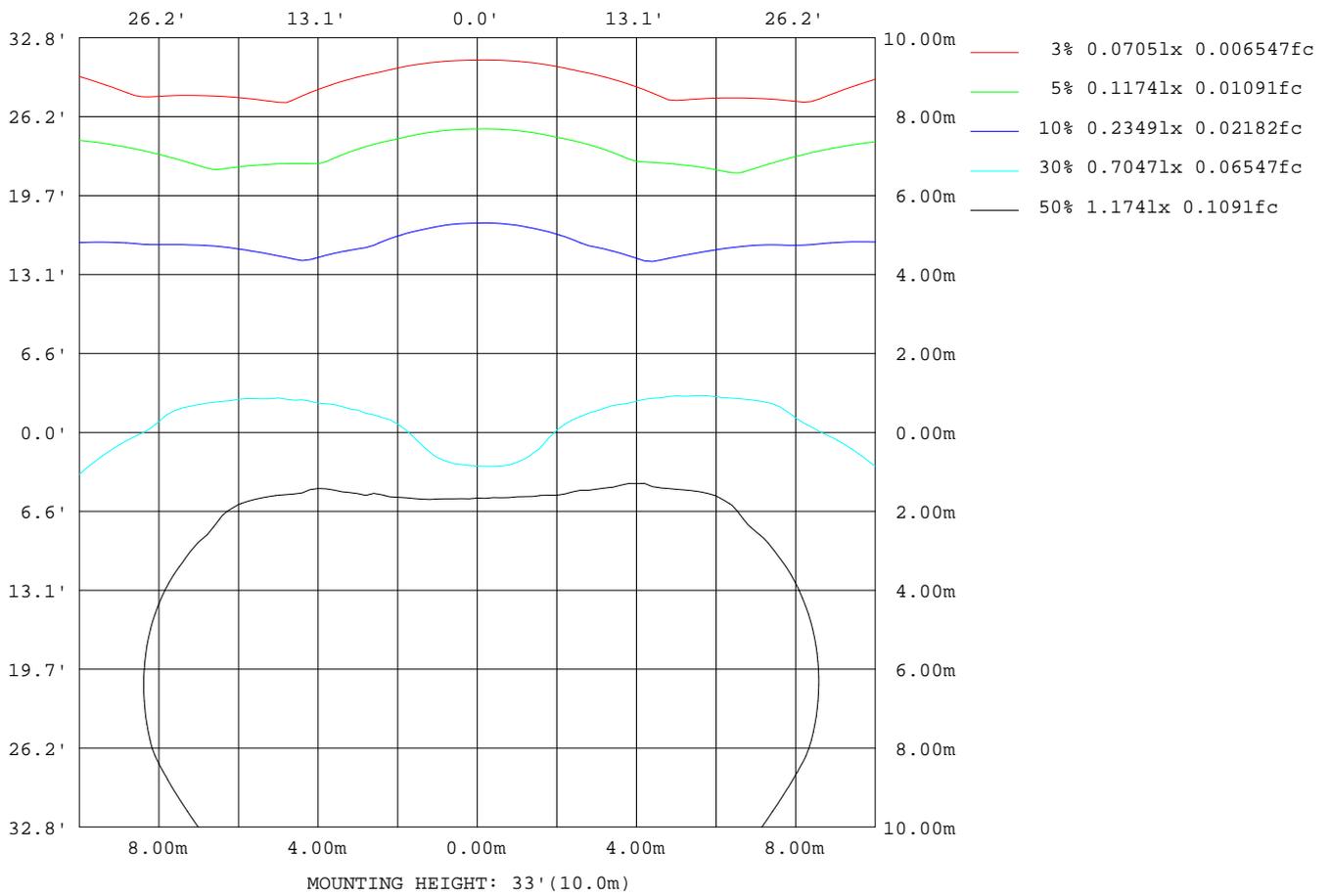
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	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: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

LED Avg.L Report

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

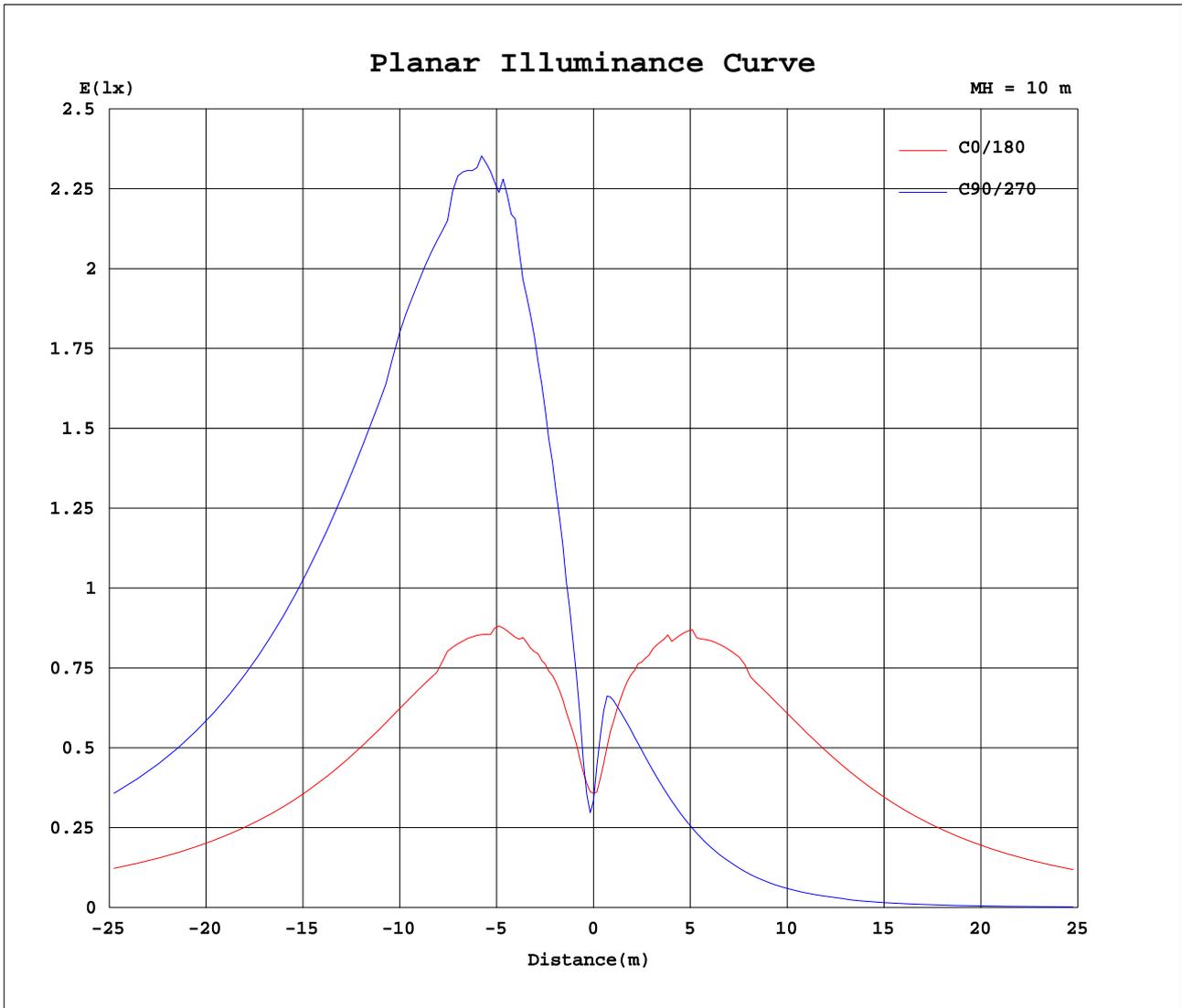
AvgL	cd/m2
L_0~180(65)av	5023
L_0~180(75)av	8777
L_0~180(85)av	26959
L_90~270(65)av	7469
L_90~270(75)av	13064
L_90~270(85)av	40093
L_45(65)av	5887
L_45(75)av	10277
L_45(85)av	31536

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: HIGH
Temperature: 25.0DEG
Operators: Alan Wang
Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
Humidity: 42.1%
Test Distance: 2.500m [K=1.0403]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	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	35.8	35.6	35.2	34.8	34.4	34.0	33.5	33.2	32.9	32.7	32.7	32.7	35.8	35.6	35.2	34.8	34.4	34.0	33.5
5	51.6	52.1	53.9	58.5	65.4	70.8	73.3	72.5	68.8	64.4	60.9	58.4	55.8	55.4	55.0	59.1	64.0	66.3	66.7
10	71.3	77.2	88.0	102	116	126	128	124	116	103	89.8	81.3	74.4	67.5	60.3	59.8	60.0	60.0	60.1
15	85.8	103	122	143	165	176	182	173	161	140	119	103	86.6	73.9	59.3	54.1	52.7	52.4	52.3
20	102	126	156	191	218	237	237	236	214	186	152	122	101	79.3	58.1	48.3	45.5	44.8	44.7
25	118	151	191	236	268	290	306	288	263	228	185	147	116	84.4	57.5	43.4	38.8	37.9	37.8
30	132	181	230	281	325	352	362	349	320	274	224	174	129	92.8	58.1	39.1	32.7	31.7	31.5
35	150	202	258	313	357	393	417	390	352	306	251	197	147	99.1	59.4	35.3	27.3	26.2	26.3
40	160	226	289	353	410	445	456	442	404	346	282	219	157	108	60.6	32.1	22.4	21.4	21.2
45	176	249	323	395	454	496	509	492	447	386	315	242	172	112	62.0	29.3	17.9	17.0	17.0
50	191	272	355	427	484	528	545	526	478	419	345	265	186	119	63.7	26.9	14.0	13.2	13.7
55	205	294	374	454	523	572	590	569	516	446	366	285	200	126	65.3	24.9	10.7	10.0	9.93
60	217	308	399	484	558	610	629	607	551	475	390	301	211	132	66.8	23.2	7.92	7.46	7.43
65	228	324	420	511	588	643	663	640	580	501	411	317	221	137	68.1	21.9	5.63	5.42	5.44
70	237	337	438	533	613	671	691	667	605	522	428	330	230	141	69.2	20.8	3.80	3.71	3.76
75	245	349	452	549	633	692	714	688	624	539	442	340	236	145	70.1	20.0	2.23	2.21	2.29
80	250	356	463	562	647	707	729	703	638	550	452	347	241	147	70.6	19.2	1.21	1.30	1.38
85	253	361	469	569	655	717	739	713	646	558	457	352	245	149	71.5	19.3	1.00	1.07	1.10
90	254	362	471	571	657	719	742	715	649	559	459	354	246	150	71.8	19.4	0.99	1.06	1.09
95	253	360	468	568	654	715	738	711	645	556	457	352	244	149	71.2	19.2	0.97	1.04	1.07
100	249	354	460	559	644	705	726	700	635	548	450	346	240	146	70.0	18.8	0.94	1.01	1.04
105	242	345	449	545	628	687	708	683	619	535	439	337	234	142	67.9	18.2	0.90	0.96	0.99
110	233	333	433	526	606	663	684	660	598	516	423	325	225	137	65.0	17.2	0.84	0.88	0.91
115	222	317	413	502	579	634	654	630	572	493	404	311	214	130	61.3	16.1	0.76	0.79	0.82
120	208	299	389	474	547	599	618	596	541	466	382	293	201	122	57.1	14.8	0.68	0.70	0.74
125	193	277	363	442	510	559	576	556	504	434	355	272	186	112	52.2	13.3	0.61	0.63	0.67
130	176	254	332	405	468	513	530	511	463	399	326	249	170	101	46.9	11.7	0.55	0.57	0.61
135	157	228	299	366	423	463	478	461	418	360	294	224	152	90.1	41.1	10.0	0.50	0.51	0.56
140	136	199	263	322	373	409	422	407	369	318	259	197	132	78.1	35.3	8.45	0.45	0.46	0.50
145	115	170	225	276	320	351	362	349	317	273	222	168	112	66.4	29.8	7.12	0.40	0.40	0.45
150	92.5	138	184	227	264	289	299	288	262	225	183	138	90.5	55.3	24.9	6.19	0.37	0.36	0.41
155	70.3	106	143	177	206	226	233	225	205	176	143	107	69.2	45.7	21.1	5.78	0.37	0.31	0.37
160	48.8	74.9	102	127	148	162	168	162	148	128	103	76.7	48.5	36.2	17.4	5.43	0.51	0.27	0.33
165	29.1	45.6	63.0	79.6	92.9	102	105	102	93.6	80.8	64.8	48.0	29.2	25.1	12.5	4.37	0.68	0.22	0.27
170	12.7	20.7	29.3	37.3	43.7	47.9	49.5	48.4	44.7	38.9	31.3	23.1	13.1	12.4	6.32	2.44	0.50	0.18	0.22
175	2.32	4.12	6.39	8.84	9.80	10.8	11.3	11.3	10.6	9.92	7.95	5.58	2.78	2.80	1.39	0.50	0.16	0.16	0.20
180	0.14	0.13	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.14	0.14	0.14	0.14	0.14	0.14	0.15

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.2200A P:26.090W PF:0.9881 Freq:60.00Hz Lamp Flux:2905.53x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-24D23CC-NK_5000K	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C(DEG) γ (DEG)	285	300	315	330	345														
0	33.2	32.9	32.7	32.7	32.7														
5	66.5	63.9	59.1	54.7	52.1														
10	60.3	60.5	60.5	60.3	65.4														
15	52.7	53.1	54.6	60.1	73.0														
20	45.2	46.0	48.6	58.9	79.1														
25	38.3	39.4	43.4	58.4	85.6														
30	32.1	33.2	38.7	58.9	94.6														
35	26.5	27.7	34.8	59.4	101														
40	21.6	22.8	31.4	60.8	109														
45	17.2	18.2	28.4	61.8	113														
50	13.4	14.4	25.9	63.5	121														
55	10.2	10.9	23.8	65.2	128														
60	7.53	8.10	22.0	66.8	134														
65	5.46	5.74	20.6	68.4	140														
70	3.74	3.87	19.4	69.6	145														
75	2.25	2.30	18.4	70.7	148														
80	1.31	1.25	17.7	71.3	151														
85	1.07	1.00	17.8	72.3	153														
90	1.06	0.99	17.9	72.7	154														
95	1.04	0.97	17.7	72.2	153														
100	1.01	0.95	17.4	71.1	151														
105	0.96	0.92	16.9	69.1	147														
110	0.89	0.86	16.1	66.3	141														
115	0.81	0.80	15.1	62.7	134														
120	0.73	0.74	14.0	58.6	126														
125	0.67	0.70	12.7	53.8	117														
130	0.62	0.66	11.2	48.4	106														
135	0.58	0.63	9.73	42.6	93.9														
140	0.53	0.60	8.08	36.1	80.8														
145	0.50	0.57	6.20	29.0	66.4														
150	0.46	0.54	4.15	21.4	50.8														
155	0.43	0.51	2.14	13.4	34.4														
160	0.40	0.48	0.95	6.87	19.9														
165	0.35	0.45	0.63	2.98	9.38														
170	0.30	0.40	0.53	1.35	3.75														
175	0.25	0.34	0.45	0.59	1.13														
180	0.16	0.17	0.18	0.19	0.23														

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: HIGH
 Temperature: 25.0DEG
 Operators: Alan Wang
 Test Date: 21 July 2023

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.00.416
 Humidity: 42.1%
 Test Distance: 2.500m [K=1.0403]
 Remarks: