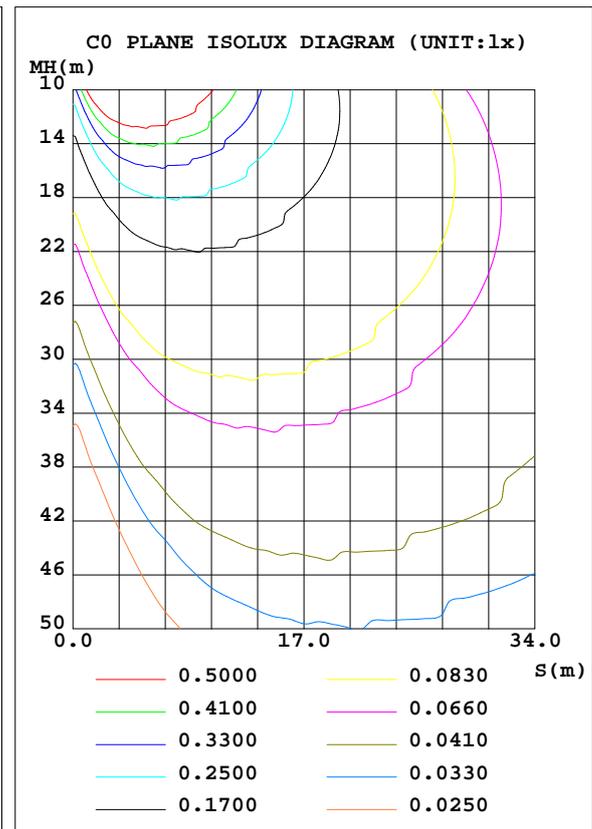
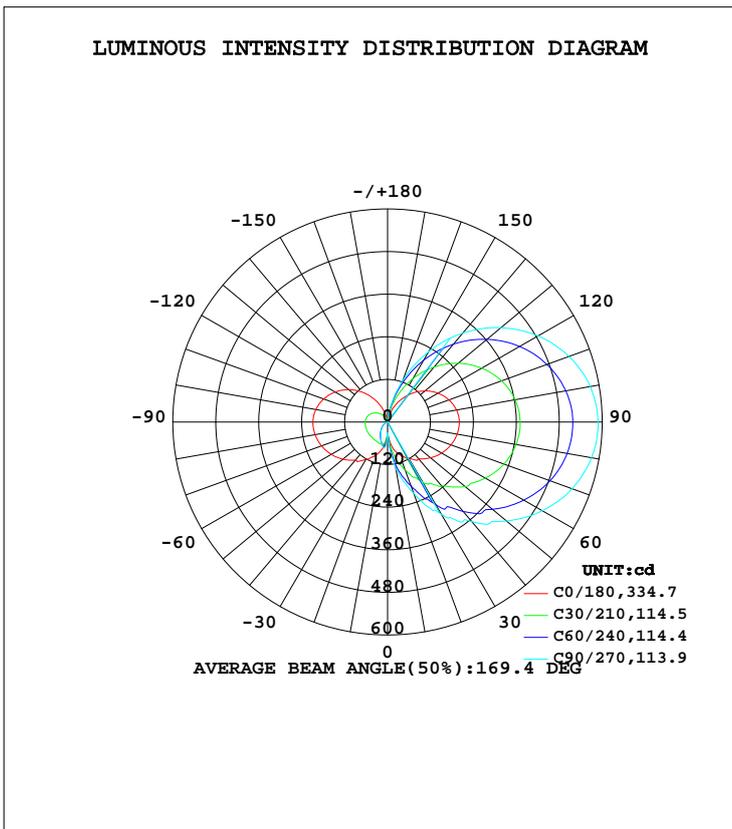


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:ASD-OLWS-21-MV-18D20CC-NK	TYPE:LED	WEIGHT:
SPEC.:5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 110.52 lm/W			
MODEL	ASD-OLWS-21-MV-18D20CC-NK	I <sub>max</sub> (cd)	588.4	S/MH(C0/180)	3.95
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	1.45
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	2359.7	η UP, DN(C0-180)	42.4,45.5
NOMINAL FLUX(lm)	2359.7	CIE CLASS	DIFFUSE	η UP, DN(C180-360)	4.9,7.3
LAMPS INSIDE	1	η up(%)	47.3	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	120	η down(%)	52.7	CIBSE SHR MAX	1.10



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	69.29	101.6	131.0	107.1	72.79	64.35	71.02	65.63	0- 10	6.543	6.543	0.28,0.28
20	97.33	166.3	213.6	169.5	99.37	57.07	54.27	57.82	10- 20	29.25	35.79	1.52,1.52
30	116.9	232.6	299.5	237.5	120.7	45.98	39.06	45.99	20- 30	60.57	96.36	4.08,4.08
40	135.5	284.0	366.5	290.4	140.1	36.76	26.99	36.38	30- 40	97.65	194.0	8.22,8.22
50	156.7	334.6	433.9	342.1	163.0	29.47	17.72	28.77	40- 50	138.4	332.5	14.1,14.1
60	174.9	382.4	499.5	391.1	182.3	23.95	10.31	22.90	50- 60	180.2	512.7	21.7,21.7
70	188.7	419.4	549.2	428.6	196.7	20.06	5.391	18.65	60- 70	219.3	732.0	31,31
80	197.5	442.5	578.9	451.8	205.8	17.16	1.523	15.65	70- 80	248.6	980.6	41.6,41.6
90	200.6	449.0	588.3	459.1	208.9	16.63	0.8608	15.22	80- 90	264.0	1245	52.7,52.7
100	195.9	439.0	574.7	448.5	203.6	16.01	0.8086	14.79	90-100	263.0	1508	63.9,63.9
110	182.7	411.8	539.8	420.9	190.2	14.60	0.7020	13.65	100-110	244.0	1752	74.2,74.2
120	162.8	369.3	485.4	377.8	169.3	12.37	0.5613	11.74	110-120	210.0	1962	83.1,83.1
130	136.5	314.1	413.4	321.3	142.1	9.616	0.4568	9.336	120-130	165.9	2128	90.2,90.2
140	105.3	247.6	327.0	254.3	109.9	6.734	0.3801	6.580	130-140	117.5	2245	95.1,95.1
150	70.89	173.0	228.6	178.1	74.23	4.787	0.3186	3.294	140-150	71.27	2316	98.2,98.2
160	36.76	94.96	125.4	98.34	38.35	4.113	0.2591	0.6177	150-160	33.41	2350	99.6,99.6
170	9.177	26.21	34.22	27.33	9.133	1.523	0.1888	0.3933	160-170	9.325	2359	100,100
180	0.1304	0.1068	0.0727	0.1309	0.1300	0.1271	0.1349	0.1592	170-180	0.6034	2360	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 258.08 lm

%lum = 10.9%

%lamp = 10.9%

Conical surface Flux(120deg): 512.69 lm

%lum = 21.7%

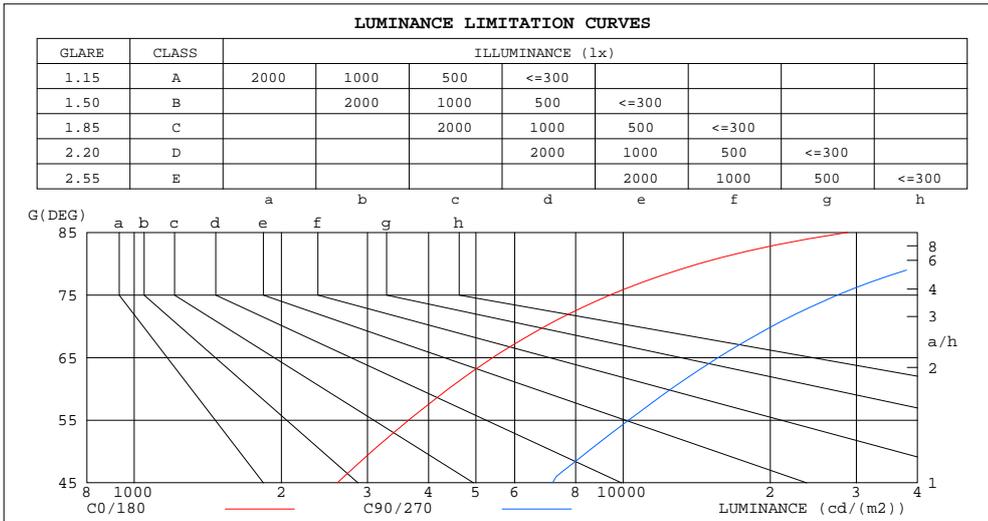
%lamp = 21.7%

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	28790	84472
80	14286	41868
75	9407	27466
70	6930	20166
65	5414	15647
60	4392	12547
55	3642	10262
50	3062	8477
45	2604	7169

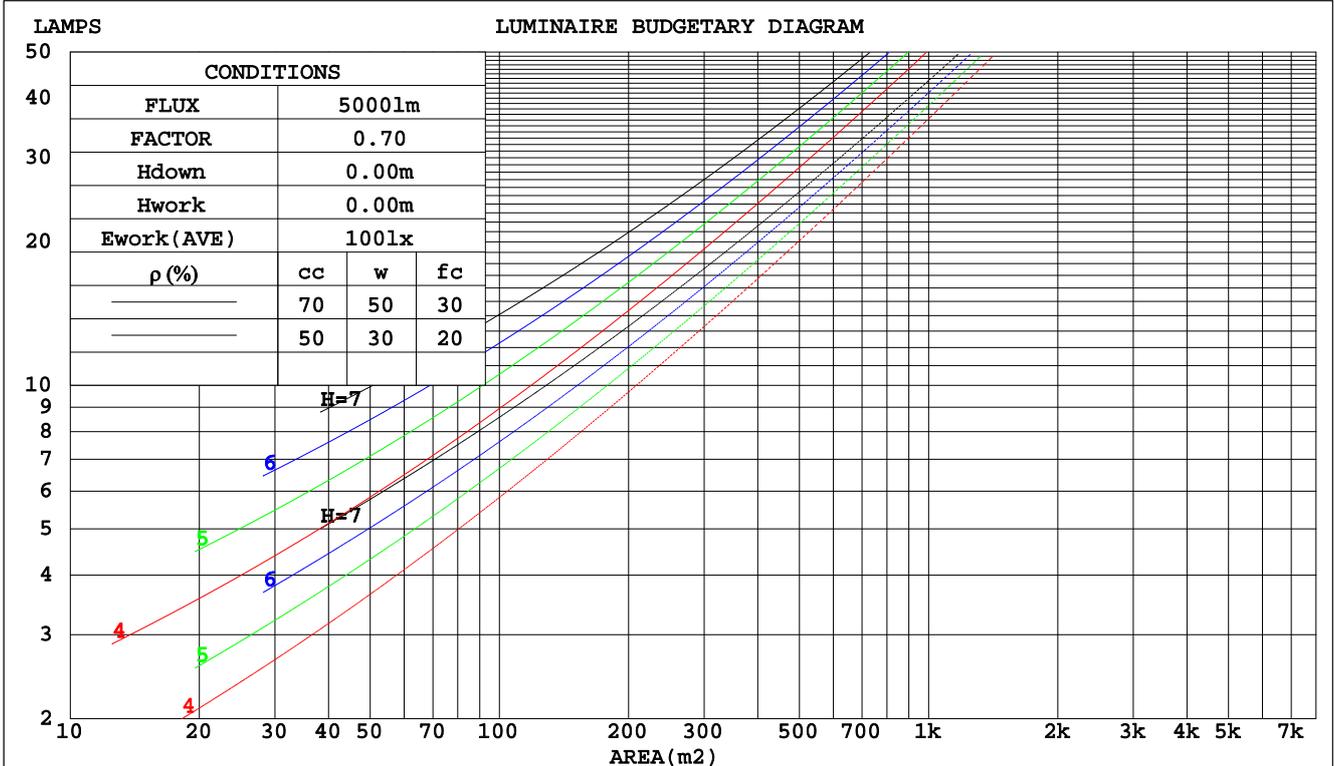
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-NK_5000K	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																0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.08	1.08	1.08	.00	.00	.00	.85	.85	.85	.71	.71	.71	.59	.59	.59	.53
1.0	.86	.80	.74	.79	.74	.69	.66	.62	.58	.54	.51	.48	.43	.40	.38	.33
2.0	.72	.64	.56	.66	.58	.52	.55	.49	.44	.44	.40	.36	.35	.31	.28	.23
3.0	.62	.52	.44	.56	.48	.41	.46	.40	.34	.37	.32	.28	.29	.25	.22	.17
4.0	.53	.44	.36	.49	.40	.33	.40	.33	.28	.32	.27	.22	.25	.21	.17	.13
5.0	.47	.37	.30	.43	.34	.28	.35	.28	.23	.28	.23	.18	.22	.18	.14	.11
6.0	.41	.32	.25	.38	.29	.23	.31	.24	.19	.25	.20	.16	.19	.15	.12	.09
7.0	.37	.28	.22	.34	.26	.20	.28	.21	.17	.23	.17	.13	.18	.13	.10	.07
8.0	.33	.25	.19	.31	.23	.17	.25	.19	.14	.21	.15	.11	.16	.12	.09	.06
9.0	.30	.22	.16	.28	.20	.15	.23	.17	.12	.19	.14	.10	.15	.11	.08	.05
10.0	.28	.20	.14	.25	.18	.13	.21	.15	.11	.17	.12	.09	.13	.09	.07	.05



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

WEC AND CCEC

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-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	.436	.248	.079	.414	.236	.075	.374	.214	.068	.336	.194	.062	.302	.175	.056	
2.0	.359	.197	.060	.339	.187	.058	.302	.168	.052	.268	.150	.047	.236	.134	.042	
3.0	.311	.165	.050	.293	.157	.047	.259	.140	.043	.227	.125	.038	.198	.110	.034	
4.0	.275	.143	.042	.259	.135	.040	.227	.121	.036	.199	.107	.032	.172	.093	.028	
5.0	.247	.126	.036	.232	.119	.035	.203	.106	.031	.177	.093	.028	.152	.081	.024	
6.0	.225	.113	.032	.211	.106	.031	.184	.094	.027	.160	.083	.024	.136	.072	.021	
7.0	.206	.102	.029	.193	.096	.027	.168	.085	.025	.146	.075	.022	.124	.064	.019	
8.0	.190	.093	.026	.178	.088	.025	.155	.078	.022	.134	.068	.020	.114	.058	.017	
9.0	.176	.085	.024	.165	.080	.023	.144	.071	.020	.124	.062	.018	.105	.053	.015	
10.0	.164	.079	.022	.154	.074	.021	.134	.066	.019	.116	.057	.016	.098	.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	.551	.551	.551	.471	.471	.471	.321	.321	.321	.184	.184	.184	.059	.059	.059	
1.0	.552	.518	.487	.472	.445	.419	.323	.306	.290	.186	.177	.169	.060	.057	.055	
2.0	.547	.497	.455	.468	.428	.394	.321	.296	.275	.185	.172	.161	.059	.056	.052	
3.0	.540	.482	.436	.463	.416	.378	.318	.289	.265	.183	.169	.156	.059	.055	.051	
4.0	.532	.471	.423	.457	.407	.368	.314	.283	.259	.182	.166	.153	.058	.054	.050	
5.0	.525	.462	.415	.451	.399	.361	.310	.279	.255	.180	.164	.151	.058	.053	.050	
6.0	.517	.454	.409	.445	.393	.356	.307	.275	.252	.178	.162	.150	.057	.053	.049	
7.0	.510	.448	.405	.439	.388	.353	.303	.272	.250	.176	.160	.149	.057	.053	.049	
8.0	.504	.443	.401	.434	.384	.350	.300	.270	.248	.175	.159	.148	.056	.052	.049	
9.0	.497	.439	.399	.429	.381	.348	.297	.268	.247	.173	.158	.147	.056	.052	.049	
10.0	.492	.435	.397	.424	.377	.346	.294	.266	.246	.171	.157	.147	.056	.052	.049	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm										
NAME:					TYPE:LED			WEIGHT:		
SPEC.:ASD-OLWS-21-MV-18D20CC-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	16.7	17.8	17.5	18.7	19.8	20.7	21.8	21.5	22.7	23.8
3H	19.7	20.7	20.5	21.6	22.8	24.5	25.6	25.4	26.5	27.6
4H	21.3	22.3	22.2	23.2	24.4	26.6	27.6	27.5	28.5	29.7
6H	23.1	24.1	24.0	25.0	26.2	28.9	29.8	29.8	30.8	31.9
8H	24.1	25.0	25.0	26.0	27.2	30.2	31.1	31.1	32.0	33.2
12H	25.3	26.1	26.2	27.1	28.3	31.6	32.4	32.5	33.4	34.6
4H 2H	19.0	20.0	19.9	20.9	22.0	21.4	22.4	22.3	23.3	24.4
3H	22.0	22.8	22.9	23.8	25.0	25.4	26.3	26.3	27.2	28.4
4H	23.7	24.5	24.6	25.4	26.6	27.7	28.5	28.6	29.4	30.7
6H	25.5	26.2	26.4	27.2	28.4	30.2	30.9	31.1	31.9	33.1
8H	26.5	27.2	27.4	28.1	29.4	31.5	32.2	32.5	33.2	34.4
12H	27.6	28.2	28.6	29.2	30.5	33.1	33.7	34.0	34.7	35.9
8H 4H	25.3	26.0	26.3	26.9	28.2	28.2	28.8	29.1	29.8	31.1
6H	27.4	28.0	28.4	29.0	30.3	30.9	31.5	31.9	32.5	33.8
8H	28.6	29.1	29.6	30.1	31.4	32.5	33.0	33.5	34.0	35.3
12H	29.8	30.3	30.8	31.3	32.6	34.3	34.8	35.3	35.8	37.1
12H 4H	25.8	26.5	26.8	27.4	28.7	28.2	28.9	29.2	29.8	31.1
6H	28.1	28.7	29.1	29.7	31.0	31.1	31.6	32.1	32.7	34.0
8H	29.5	29.9	30.4	30.9	32.2	32.8	33.3	33.8	34.3	35.6
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, 2360 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 3.0)  
 Area: 0.079625 m2

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

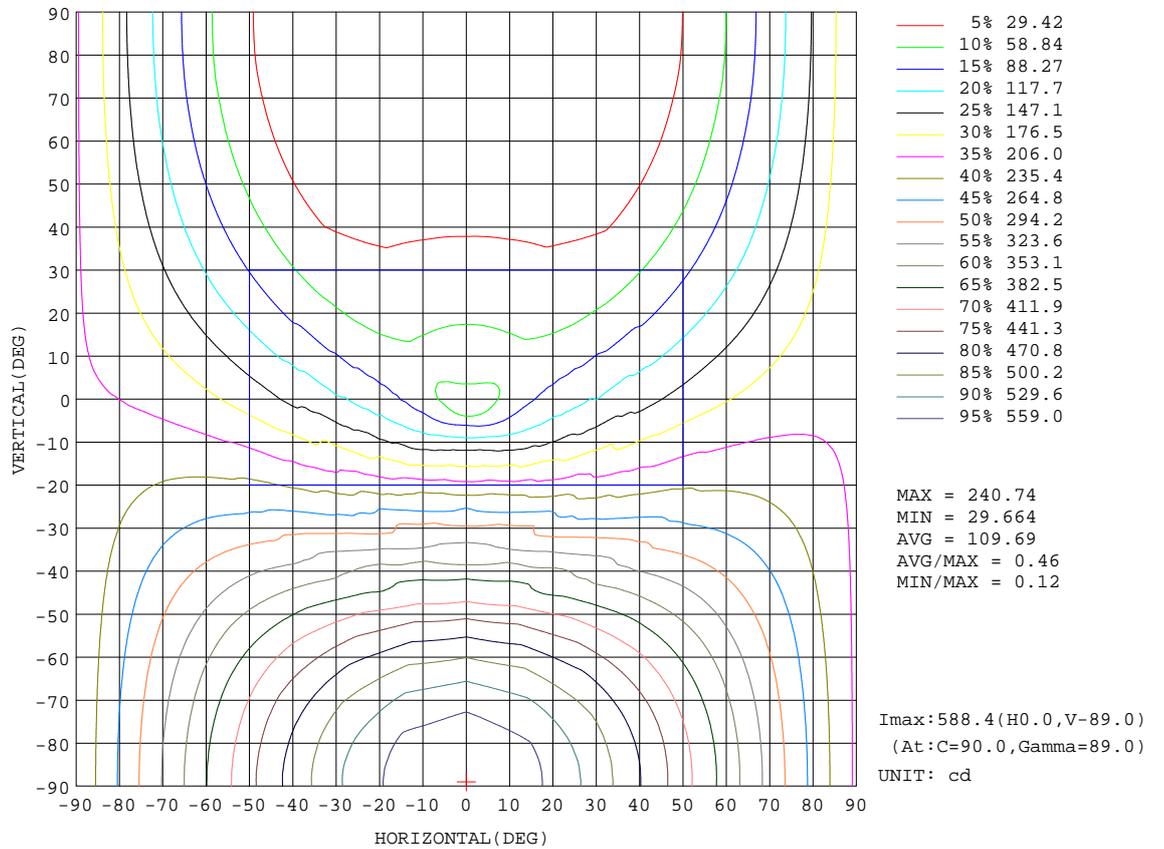
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	35	22	15	33	21	14	30	19	13	6
0.80	43	29	20	41	28	19	36	25	18	8
1.00	50	36	26	47	34	25	41	32	23	11
1.25	57	42	33	53	40	31	46	35	28	14
1.50	63	48	38	58	45	36	50	40	32	17
2.00	70	57	47	65	53	44	56	46	39	21
2.50	76	63	53	70	59	50	60	51	44	24
3.00	80	68	59	74	63	55	63	55	48	27
4.00	85	75	67	79	70	62	67	60	54	31
5.00	89	80	72	82	74	67	70	63	58	33
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: 20 July 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-NK_5000K	DIM.:	SERIAL No.:
MFR.:ASD Lighting Corp	SUR.:	Shielding Angle:

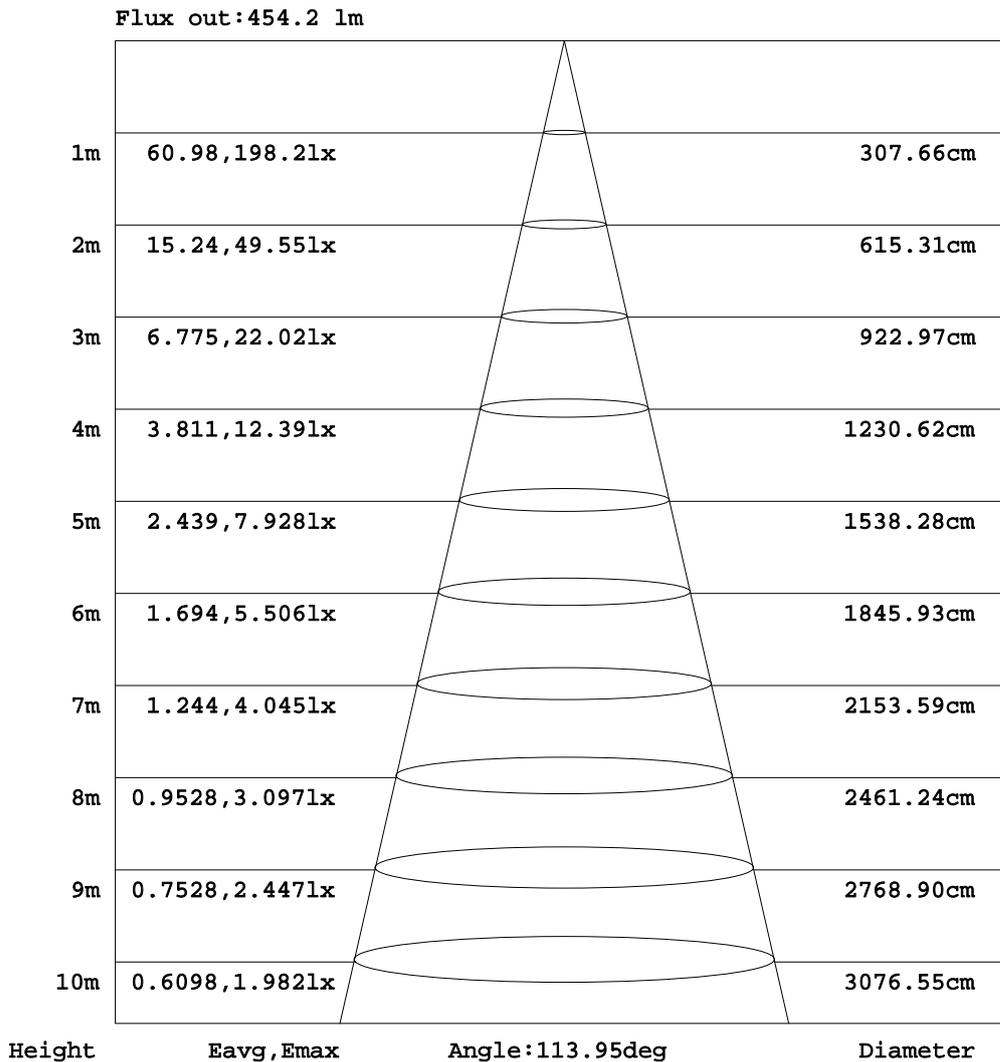


C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

AAI Figure

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



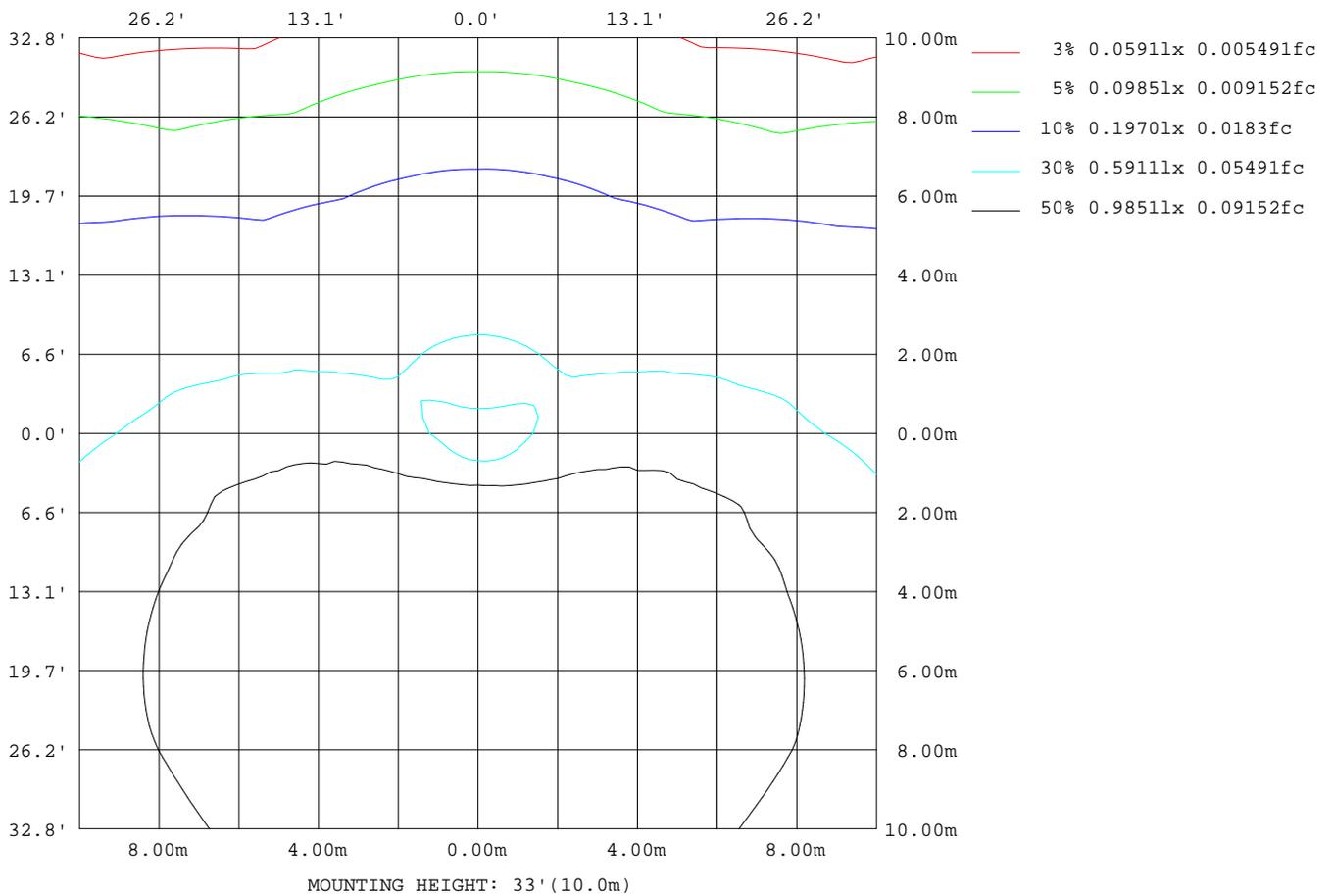
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators:Alan Wang  
 Test Date:20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance:2.500m [K=1.0403]  
 Remarks:

ISOLUX DIAGRAM

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-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: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

## LED Avg.L Report

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-NK_5000K	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

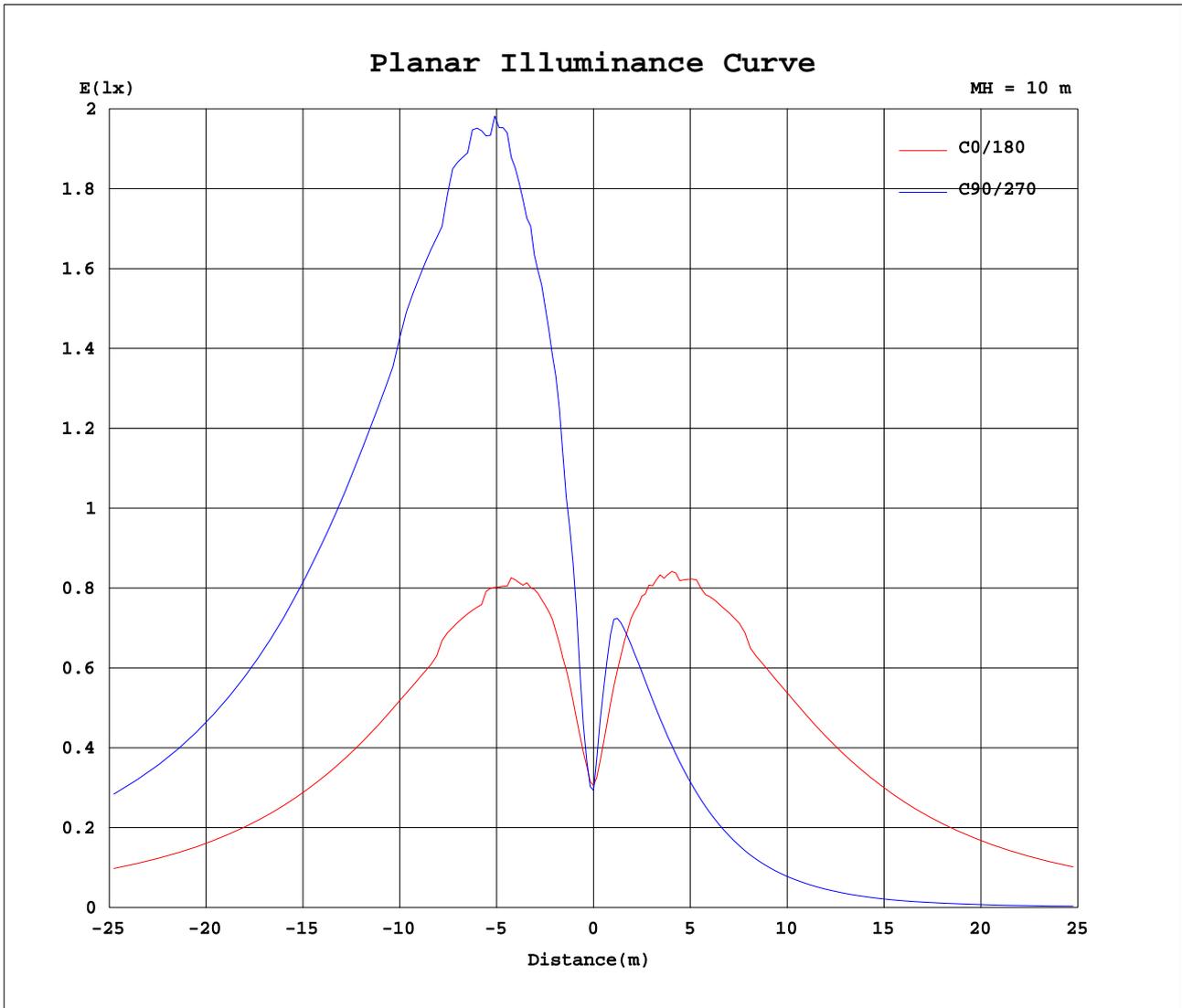
AvgL	cd/m2
L_0~180(65)av	5530
L_0~180(75)av	9601
L_0~180(85)av	29397
L_90~270(65)av	7937
L_90~270(75)av	13813
L_90~270(85)av	42298
L_45(65)av	6365
L_45(75)av	11051
L_45(85)av	33765

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 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: 20 July 2023

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:ASD-OLWS-21-MV-18D20CC-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	30.6	30.4	30.1	29.9	29.6	29.5	29.4	29.2	29.1	29.0	29.1	29.1	30.6	30.4	30.1	29.9	29.6	29.5	29.4
5	47.8	50.4	54.4	59.9	66.3	72.6	75.2	73.9	70.7	66.4	62.2	57.9	51.6	50.5	52.7	57.0	62.8	67.3	69.1
10	69.3	79.3	88.2	102	117	127	131	128	119	107	94.1	84.7	72.8	65.6	62.1	64.4	69.1	70.6	71.0
15	85.6	102	118	139	158	167	173	168	159	140	122	104	87.2	76.6	65.5	63.0	62.9	62.9	63.0
20	97.3	121	143	166	191	213	214	213	193	170	147	126	99.4	82.0	64.9	57.1	55.1	54.5	54.3
25	108	140	172	199	232	259	262	260	235	203	173	144	110	87.4	63.3	51.3	47.6	46.6	46.2
30	117	155	196	233	268	295	300	298	272	237	202	160	121	91.3	62.6	46.0	40.6	39.5	39.1
35	130	176	211	258	291	319	340	321	295	264	218	177	134	95.6	62.2	41.1	34.1	33.0	32.7
40	135	185	236	284	329	362	367	365	334	290	241	192	140	102	61.6	36.8	28.4	27.2	27.0
45	147	201	259	316	366	393	404	396	371	323	267	209	152	103	61.6	32.9	23.1	22.2	22.0
50	157	219	283	335	383	419	434	422	389	342	291	227	163	108	61.8	29.5	18.4	17.7	17.7
55	166	234	297	359	413	452	469	456	420	367	306	242	173	113	62.1	26.5	14.3	13.7	13.6
60	175	245	316	382	440	482	500	486	447	391	325	255	182	117	62.3	23.9	10.8	10.3	10.3
65	182	257	332	403	464	508	527	512	471	412	342	267	190	121	62.6	21.8	7.81	7.64	7.65
70	189	267	346	419	483	529	549	534	490	429	356	278	197	124	62.7	20.1	5.41	5.36	5.39
75	194	275	357	433	499	547	566	551	506	442	367	286	202	126	62.7	18.5	3.34	3.28	3.28
80	198	281	365	442	510	559	579	563	517	452	375	293	206	128	62.8	17.2	1.47	1.47	1.52
85	200	285	370	448	516	566	586	570	524	458	380	296	208	129	62.9	16.6	0.79	0.84	0.87
90	201	286	371	449	518	567	588	572	525	459	382	297	209	129	63.1	16.6	0.78	0.84	0.86
95	199	284	368	446	515	564	584	569	522	456	379	295	207	129	62.5	16.4	0.76	0.82	0.84
100	196	279	362	439	506	554	575	559	513	449	373	290	204	126	61.2	16.0	0.74	0.79	0.81
105	190	271	352	427	492	540	560	545	500	436	363	282	198	122	59.3	15.4	0.71	0.75	0.77
110	183	261	339	412	474	520	540	525	482	421	349	271	190	118	56.7	14.6	0.65	0.68	0.70
115	174	248	323	392	452	496	514	501	460	401	333	258	181	111	53.4	13.6	0.59	0.61	0.63
120	163	233	304	369	426	468	485	472	433	378	313	243	169	104	49.5	12.4	0.53	0.54	0.56
125	150	216	282	343	396	435	451	439	403	351	291	225	156	95.5	45.2	11.0	0.48	0.48	0.50
130	137	197	258	314	363	399	413	402	369	321	265	205	142	86.2	40.4	9.62	0.43	0.43	0.46
135	122	176	231	282	326	359	372	361	332	289	239	184	127	76.2	35.2	8.13	0.39	0.39	0.42
140	105	154	202	248	286	315	327	318	292	254	209	161	110	65.8	29.9	6.73	0.35	0.35	0.38
145	88.3	130	172	211	244	269	279	271	250	217	179	137	92.3	55.5	25.0	5.59	0.32	0.31	0.35
150	70.9	106	141	173	200	220	229	223	205	178	146	111	74.2	45.8	20.6	4.79	0.29	0.28	0.32
155	53.4	80.3	108	134	155	170	177	172	159	138	113	85.3	55.9	37.1	17.1	4.44	0.27	0.24	0.29
160	36.8	56.1	76.1	95.0	110	121	125	122	113	98.3	80.0	59.9	38.3	28.7	13.7	4.11	0.29	0.22	0.26
165	21.5	33.6	46.3	58.1	67.6	73.8	76.4	74.8	69.1	60.1	48.8	36.3	22.3	19.0	9.43	3.14	0.35	0.18	0.22
170	9.18	14.6	20.6	26.2	30.6	33.3	34.2	33.7	31.2	27.3	22.0	16.0	9.13	8.61	4.27	1.52	0.29	0.15	0.19
175	1.39	2.41	3.56	5.42	6.42	6.56	6.72	6.60	6.55	5.71	3.93	2.87	1.36	1.37	0.64	0.23	0.14	0.14	0.17
180	0.13	0.13	0.12	0.11	0.09	0.07	0.07	0.08	0.10	0.13	0.15	0.00	0.13	0.13	0.13	0.13	0.13	0.13	0.13

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.00V I:0.1804A P:21.350W PF:0.9864 Freq:60.00Hz Lamp Flux:2359.7x1 lm		
NAME:	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C( DEG) γ (DEG)	285	300	315	330	345														
0	29.2	29.1	29.0	29.1	29.1														
5	67.8	63.8	58.1	52.7	48.1														
10	71.0	70.0	65.6	62.4	63.8														
15	63.1	63.5	64.1	66.0	76.0														
20	54.6	55.5	57.8	65.4	81.8														
25	46.8	47.9	51.6	63.5	86.6														
30	39.6	40.9	46.0	61.9	90.7														
35	33.1	34.4	40.9	61.2	93.5														
40	27.4	28.6	36.4	60.1	98.8														
45	22.3	23.4	32.4	59.6	99.9														
50	17.9	18.6	28.8	59.4	104														
55	13.9	14.5	25.6	59.2	109														
60	10.5	10.9	22.9	59.1	112														
65	7.72	7.99	20.6	59.1	116														
70	5.44	5.54	18.7	59.1	118														
75	3.30	3.40	17.1	59.1	121														
80	1.46	1.44	15.6	58.8	122														
85	0.85	0.80	15.2	58.7	123														
90	0.84	0.79	15.2	58.8	123														
95	0.82	0.77	15.1	58.4	122														
100	0.79	0.75	14.8	57.3	120														
105	0.75	0.71	14.3	55.5	116														
110	0.69	0.66	13.6	53.2	111														
115	0.62	0.61	12.8	50.3	105														
120	0.56	0.56	11.7	46.9	98.1														
125	0.51	0.52	10.6	42.8	90.3														
130	0.47	0.49	9.34	38.4	81.8														
135	0.44	0.47	8.02	33.6	72.4														
140	0.40	0.44	6.58	28.4	62.2														
145	0.38	0.42	4.99	22.6	51.0														
150	0.36	0.41	3.29	16.5	38.8														
155	0.34	0.39	1.62	10.2	26.0														
160	0.32	0.38	0.62	5.06	14.7														
165	0.28	0.36	0.44	2.03	6.59														
170	0.26	0.34	0.39	0.79	2.38														
175	0.23	0.31	0.37	0.41	0.67														
180	0.14	0.15	0.16	0.17	0.21														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.0DEG  
 Operators: Alan Wang  
 Test Date: 20 July 2023

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.00.416  
 Humidity: 42.5%  
 Test Distance: 2.500m [K=1.0403]  
 Remarks: