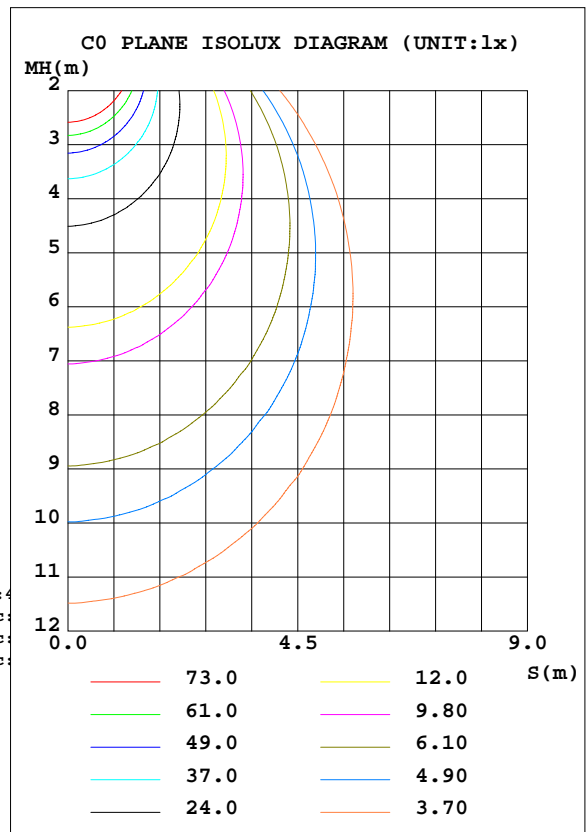
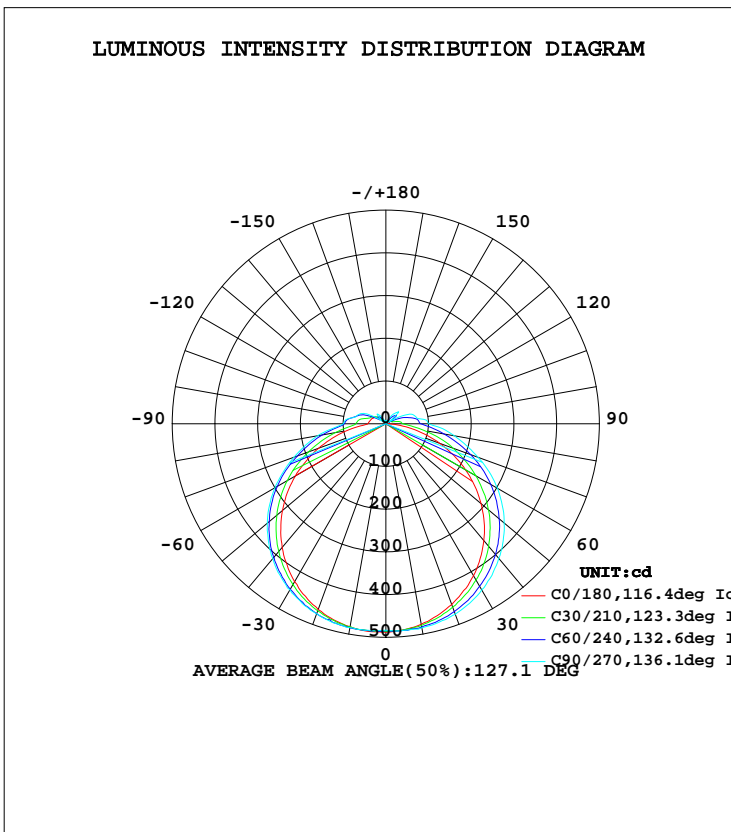


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 95.43 lm/W			
MODEL	ASD-OLWS-23-14D20CC-BZ	I <sub>max</sub> (cd)	488.1	S/MH(C0/180)	1.30
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	1.38
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1909.8	η UP, DN(C0-180)	5.2,44.7
NOMINAL FLUX(lm)	1909.82	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	5.5,44.7
LAMPS INSIDE	1	η up(%)	10.6	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	89.4	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

## ZONAL FLUX DIAGRAM

## ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum,lamp
10	476.6	481.5	485.2	482.2	482.6	484.1	484.6	477.6	0- 10	46.16	46.16	2.42,2.42
20	450.5	463.1	474.4	472.7	462.8	469.6	473.8	457.6	10- 20	134.2	180.4	9.45,9.45
30	410.5	432.0	449.0	447.0	427.1	440.8	449.3	426.3	20- 30	208.4	388.8	20.4,20.4
40	357.0	388.8	411.4	407.7	377.6	399.7	411.8	382.6	30- 40	260.0	648.8	34,34
50	291.0	332.7	361.6	356.6	316.1	346.2	362.8	325.5	40- 50	282.3	931.1	48.8,48.8
60	215.1	265.9	301.7	292.1	244.8	281.3	299.9	259.7	50- 60	272.4	1204	63,63
70	134.3	191.2	229.5	219.6	167.2	208.9	229.0	187.8	60- 70	231.6	1435	75.1,75.1
80	55.19	116.7	163.0	148.4	92.94	136.6	162.3	116.2	70- 80	169.1	1604	84,84
90	6.110	63.86	100.2	91.55	42.57	86.55	99.64	66.49	80- 90	102.4	1707	89.4,89.4
100	6.497	54.25	74.59	80.94	38.34	75.09	80.85	56.65	90-100	71.89	1779	93.1,93.1
110	7.586	23.23	65.32	63.09	35.07	48.82	65.98	19.43	100-110	52.93	1831	95.9,95.9
120	6.417	19.86	18.68	47.69	30.15	28.04	37.92	26.97	110-120	32.94	1864	97.6,97.6
130	6.239	18.94	30.76	18.53	23.83	26.38	9.161	15.11	120-130	16.95	1881	98.5,98.5
140	6.297	7.223	31.62	8.729	15.13	12.86	29.39	10.02	130-140	14.74	1896	99.3,99.3
150	6.443	6.505	10.93	7.088	8.049	6.979	14.75	6.651	140-150	7.805	1904	99.7,99.7
160	6.697	6.740	6.905	6.882	6.829	7.063	7.129	6.840	150-160	3.291	1907	99.9,99.9
170	6.947	6.975	7.105	7.063	7.075	7.206	7.194	6.994	160-170	1.974	1909	100,100
180	7.156	7.194	7.240	7.106	7.179	7.171	7.229	7.113	170-180	0.6778	1910	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

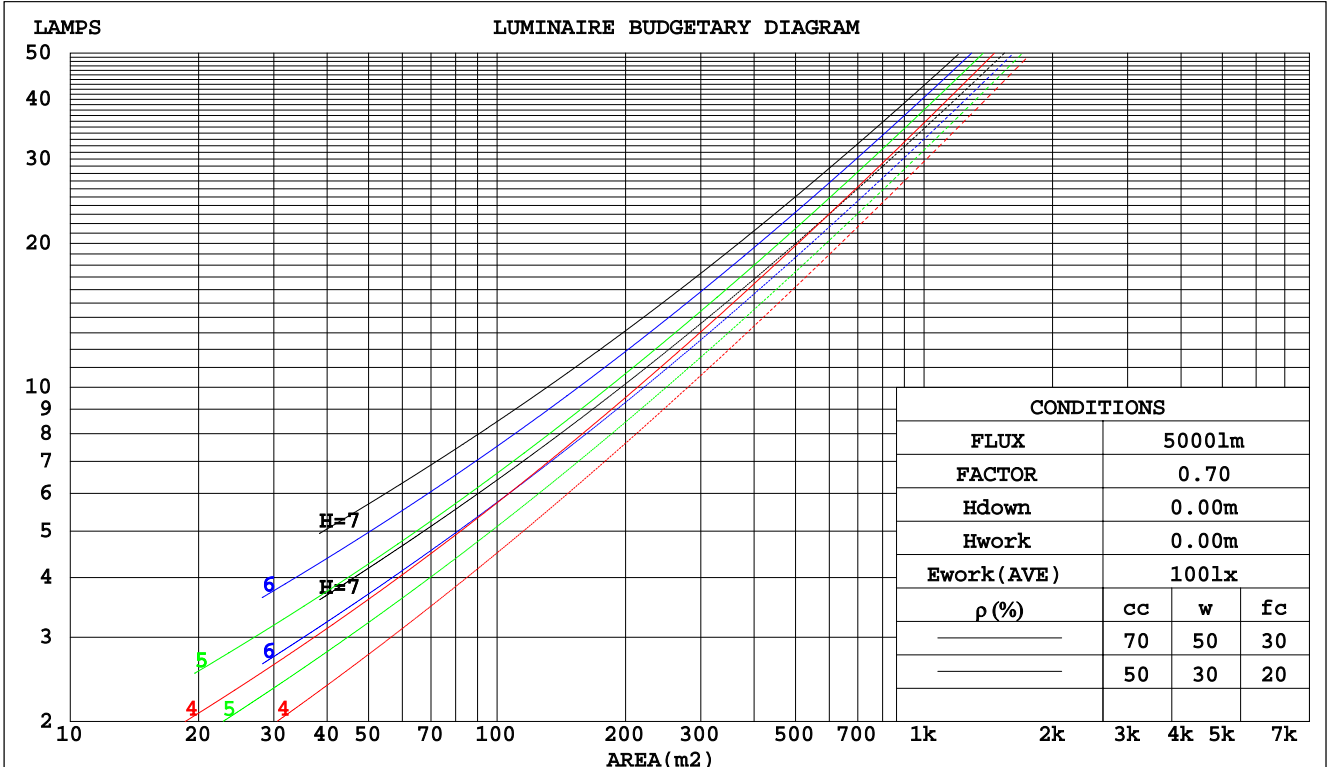
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2022-04-11

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity:65.0%  
Test Distance:7.500m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION 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																0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	1.17	1.17	1.17	1.13	1.13	1.13	1.05	1.05	1.05	.98	.98	.98	.92	.92	.92	.89
1.0	.99	.94	.89	.95	.91	.87	.89	.85	.82	.83	.80	.78	.78	.76	.73	.71
2.0	.85	.77	.71	.82	.75	.69	.77	.71	.66	.72	.67	.63	.67	.63	.60	.57
3.0	.74	.65	.58	.71	.63	.57	.67	.60	.54	.63	.57	.52	.59	.54	.50	.47
4.0	.65	.56	.48	.63	.54	.48	.59	.52	.46	.55	.49	.44	.52	.47	.42	.40
5.0	.58	.48	.41	.56	.47	.41	.53	.45	.39	.49	.43	.38	.46	.41	.36	.34
6.0	.52	.42	.36	.50	.41	.35	.47	.40	.34	.45	.38	.33	.42	.36	.32	.29
7.0	.47	.38	.31	.45	.37	.31	.43	.35	.30	.40	.34	.29	.38	.32	.28	.26
8.0	.42	.34	.28	.41	.33	.27	.39	.32	.26	.37	.30	.26	.35	.29	.25	.23
9.0	.39	.30	.25	.38	.30	.24	.36	.29	.24	.34	.28	.23	.32	.27	.22	.20
10.0	.36	.28	.22	.35	.27	.22	.33	.26	.21	.31	.25	.21	.30	.24	.20	.18



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION 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	.360	.205	.065	.349	.199	.063	.330	.189	.060	.312	.180	.058	.295	.171	.055	
2.0	.321	.176	.054	.311	.171	.053	.294	.163	.051	.278	.156	.049	.263	.149	.047	
3.0	.289	.154	.046	.281	.150	.045	.265	.144	.044	.250	.137	.042	.237	.131	.041	
4.0	.262	.136	.040	.255	.133	.039	.241	.128	.038	.227	.122	.037	.215	.117	.036	
5.0	.240	.122	.035	.233	.120	.035	.220	.115	.034	.208	.110	.033	.197	.105	.032	
6.0	.221	.111	.032	.214	.108	.031	.203	.104	.030	.192	.100	.029	.182	.096	.028	
7.0	.204	.101	.029	.198	.099	.028	.188	.095	.027	.178	.091	.027	.169	.088	.026	
8.0	.190	.093	.026	.185	.091	.026	.175	.087	.025	.166	.084	.024	.157	.081	.024	
9.0	.177	.086	.024	.172	.084	.024	.164	.081	.023	.155	.078	.022	.147	.075	.022	
10.0	.166	.080	.022	.162	.078	.022	.154	.075	.021	.146	.072	.021	.139	.070	.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	.272	.272	.272	.232	.232	.232	.158	.158	.158	.091	.091	.091	.029	.029	.029	
1.0	.266	.237	.212	.227	.204	.183	.155	.140	.126	.089	.081	.073	.029	.026	.024	
2.0	.258	.214	.177	.221	.184	.153	.152	.127	.107	.087	.074	.062	.028	.024	.020	
3.0	.251	.197	.154	.215	.170	.134	.148	.118	.094	.085	.069	.055	.027	.022	.018	
4.0	.243	.184	.139	.209	.159	.121	.144	.111	.085	.083	.065	.050	.027	.021	.017	
5.0	.236	.174	.129	.202	.151	.112	.139	.105	.079	.081	.062	.047	.026	.020	.016	
6.0	.228	.166	.122	.196	.144	.106	.135	.101	.075	.079	.059	.045	.025	.019	.015	
7.0	.221	.160	.116	.190	.138	.101	.131	.097	.072	.076	.057	.043	.025	.019	.014	
8.0	.215	.154	.112	.185	.133	.098	.128	.094	.069	.074	.055	.041	.024	.018	.014	
9.0	.208	.149	.109	.179	.129	.095	.124	.091	.067	.072	.054	.040	.023	.018	.013	
10.0	.203	.145	.106	.175	.126	.093	.121	.088	.066	.071	.052	.039	.023	.017	.013	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm										
NAME: ASD-OLWS-23-14D20CC-BZ 4000K					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: ASD Lighting corp					SUR.:			PROTECTION 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	17.2	18.6	17.6	19.0	19.4	18.6	20.0	19.0	20.4	20.8
3H	18.6	20.0	19.1	20.4	20.8	20.7	22.1	21.2	22.5	22.9
4H	19.2	20.5	19.7	20.9	21.4	21.8	23.1	22.3	23.5	24.0
6H	19.6	20.8	20.1	21.3	21.8	23.0	24.2	23.5	24.6	25.1
8H	19.7	20.9	20.2	21.4	21.9	23.6	24.7	24.1	25.2	25.7
12H	19.8	20.9	20.3	21.4	21.9	24.3	25.4	24.8	25.9	26.4
4H 2H	18.1	19.3	18.5	19.8	20.3	19.1	20.4	19.6	20.8	21.3
3H	19.8	20.9	20.3	21.4	21.9	21.5	22.6	22.0	23.1	23.6
4H	20.5	21.5	21.0	22.0	22.6	22.8	23.8	23.3	24.3	24.8
6H	21.0	21.9	21.6	22.5	23.1	24.1	25.0	24.7	25.6	26.2
8H	21.2	22.0	21.8	22.6	23.2	24.8	25.7	25.4	26.3	26.9
12H	21.3	22.1	21.9	22.6	23.3	25.7	26.5	26.3	27.1	27.7
8H 4H	21.1	22.0	21.7	22.5	23.1	23.0	23.9	23.6	24.4	25.1
6H	21.9	22.6	22.5	23.2	23.9	24.6	25.4	25.2	25.9	26.6
8H	22.2	22.9	22.8	23.5	24.1	25.6	26.2	26.2	26.8	27.5
12H	22.4	23.0	23.0	23.6	24.3	26.7	27.2	27.3	27.8	28.5
12H 4H	21.3	22.1	21.9	22.6	23.3	23.0	23.8	23.6	24.4	25.0
6H	22.2	22.9	22.8	23.5	24.1	24.7	25.4	25.3	26.0	26.6
8H	22.6	23.2	23.3	23.8	24.5	25.7	26.3	26.4	26.9	27.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 1910 lm Total Lamp Luminous Flux.(8log(F/F0) = 2.2)

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

## UTILIZATION FACTORS TABLE

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

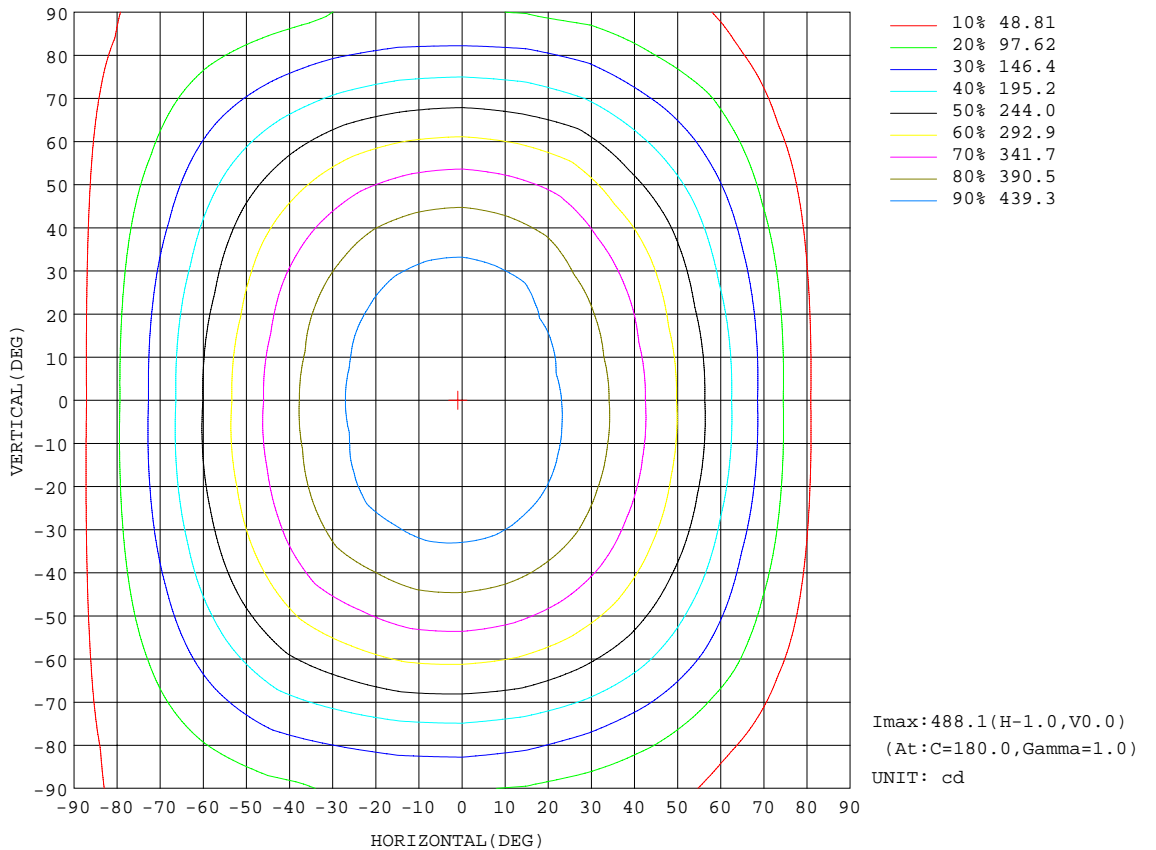
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	51	39	32	50	38	31	48	38	31	24
0.80	61	48	40	59	47	40	57	46	39	32
1.00	69	56	48	67	55	48	64	56	47	39
1.25	76	64	56	74	63	55	70	61	54	45
1.50	81	69	61	78	68	60	74	65	59	49
2.00	88	78	70	85	76	69	81	73	67	56
2.50	92	83	76	89	81	74	84	77	71	61
3.00	96	87	81	93	85	79	87	81	76	64
4.00	100	93	87	97	91	85	91	86	81	69
5.00	103	97	92	100	94	89	94	89	85	72
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:25.3DEG  
 Operators:  
 Test Date:2022-04-11

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

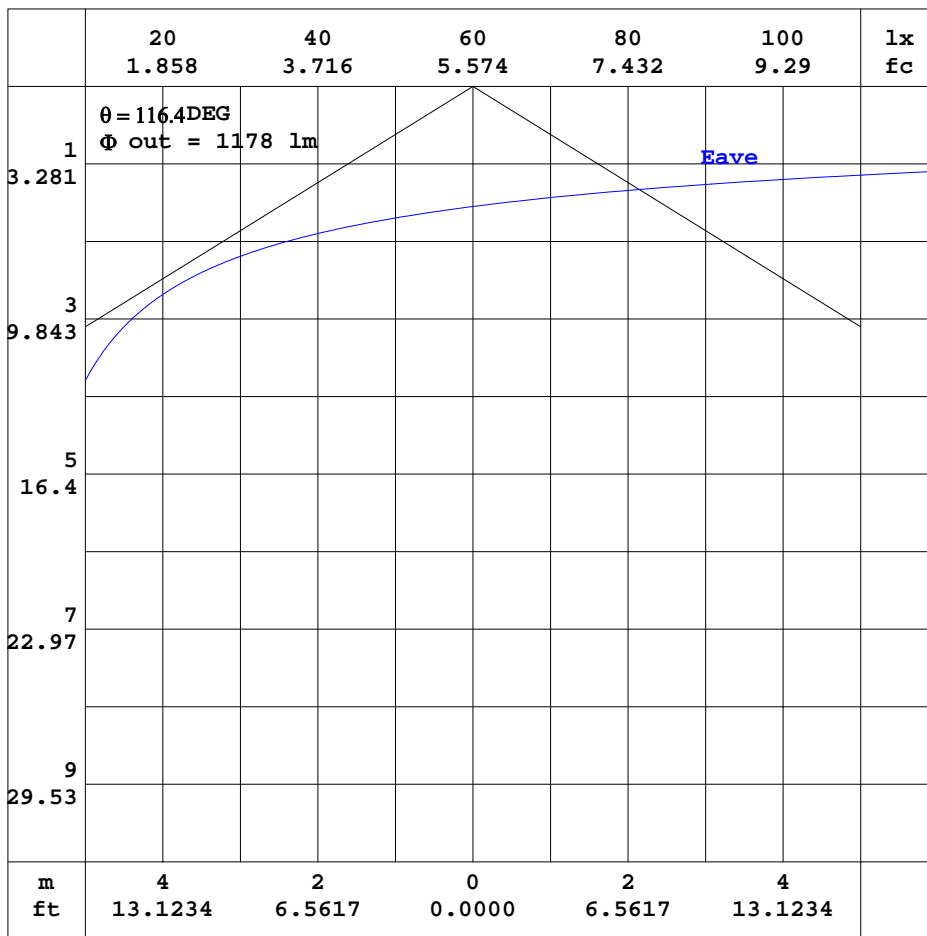


C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

AAI CURVES

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:



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

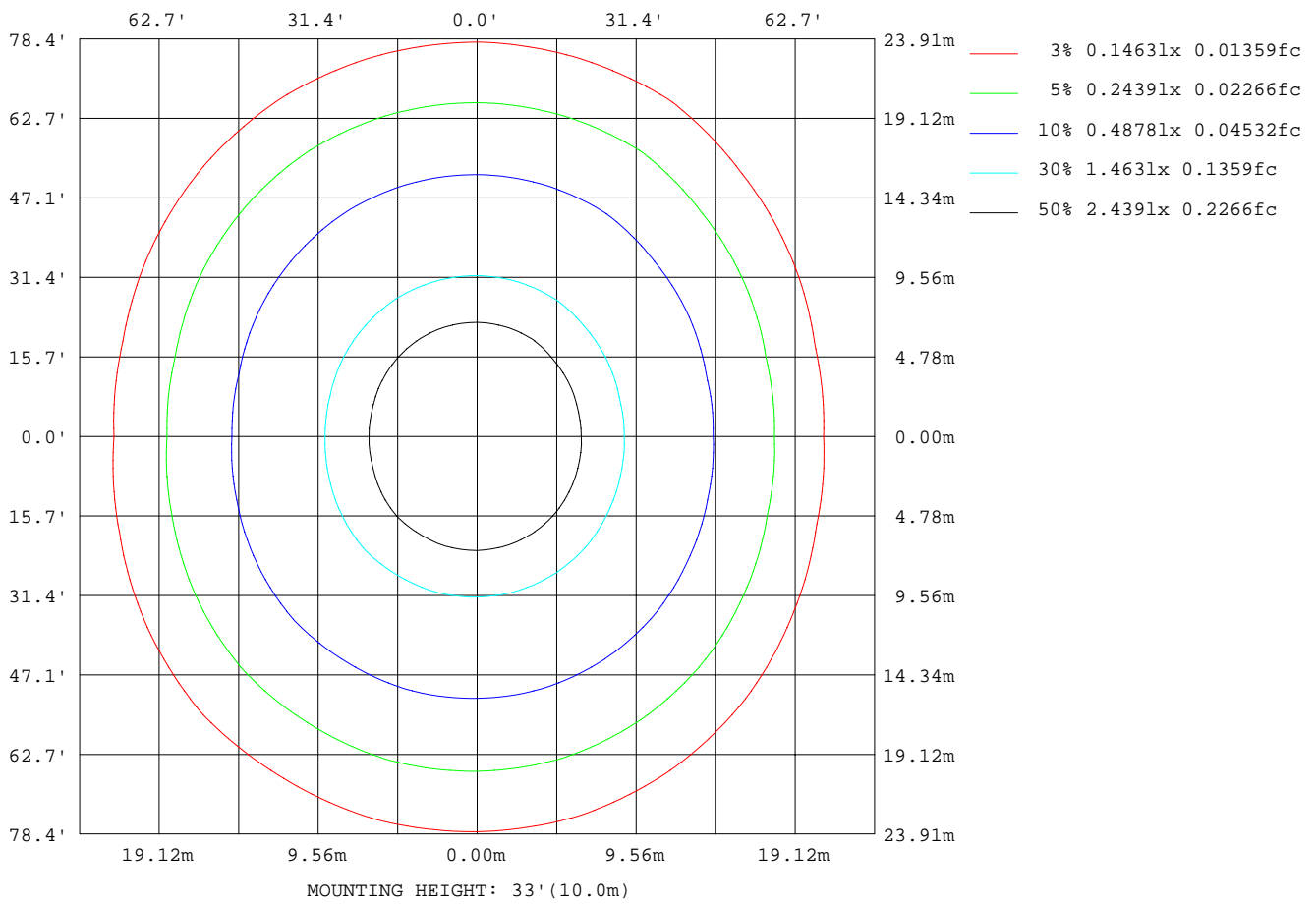
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-11

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:



ISOLUX DIAGRAM

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity: 65.0%  
 Test Distance: 7.500m [K=1.0000]  
 Remarks:

## LED Avg.L Report

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

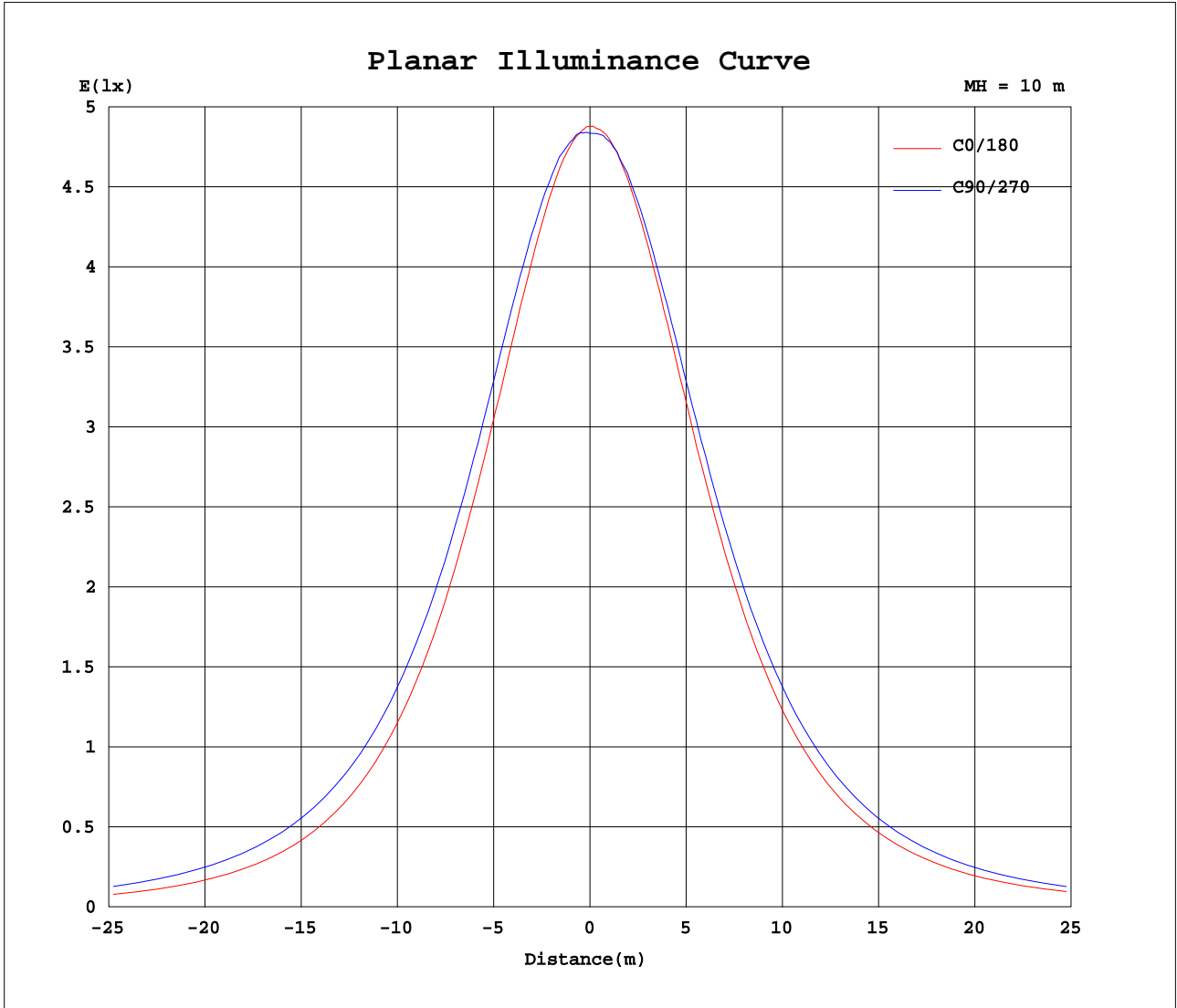
AvgL	cd/m2
L_0~180(65)av	4508
L_0~180(75)av	4302
L_0~180(85)av	4641
L_90~270(65)av	6284
L_90~270(75)av	7527
L_90~270(85)av	14868
L_45(65)av	5654
L_45(75)av	6392
L_45(85)av	11221

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-11

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators:  
Test Date: 2022-04-11

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
Humidity: 65.0%  
Test Distance: 7.500m [K=1.0000]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION 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	488	485	486	485	484	484	484	484	483	483	484	483	488	485	486	485	484	484	484
5	484	484	484	485	485	486	485	485	485	483	481	482	488	485	486	486	486	486	485
10	477	477	479	481	483	485	485	485	484	482	481	478	483	482	482	484	485	486	485
15	465	467	470	474	477	480	481	481	479	479	476	471	475	474	476	478	481	482	482
20	451	453	457	463	468	472	474	473	472	473	466	461	463	462	466	470	473	474	474
25	431	436	441	449	456	461	464	464	462	462	454	447	446	447	452	457	461	463	464
30	411	415	422	432	439	446	449	450	447	447	438	429	427	427	435	441	448	450	449
35	385	391	400	412	421	428	433	434	430	429	419	407	403	406	414	422	429	433	432
40	357	363	374	389	399	408	411	414	409	408	395	383	378	379	390	400	408	411	412
45	326	333	346	362	375	384	389	390	385	384	370	355	348	350	363	374	384	388	389
50	291	299	314	333	347	357	362	363	358	357	341	325	316	319	333	346	357	361	363
55	254	262	279	300	317	327	333	335	329	326	309	292	282	285	301	315	327	332	333
60	215	223	243	266	283	296	302	303	297	292	274	257	245	249	267	281	293	300	300
65	175	183	205	229	248	262	267	269	262	256	239	219	206	212	230	246	259	263	264
70	134	144	168	191	211	224	230	231	225	220	201	182	167	174	193	209	220	227	229
75	93.5	106	130	153	173	188	195	194	189	184	165	144	129	136	156	172	186	193	195
80	55.2	68.6	90.4	117	139	155	163	162	155	148	130	108	92.9	99.8	120	137	152	161	162
85	21.2	33.5	59.1	85.8	107	126	134	132	122	114	96.1	75.7	59.7	67.6	87.9	104	118	126	125
90	6.11	16.1	40.6	63.9	81.9	95.4	100	103	99.9	91.5	75.5	55.9	42.6	51.2	70.6	86.6	97.6	102	99.6
95	6.14	14.3	36.4	58.8	77.1	90.4	95.7	97.2	95.4	87.2	71.5	52.3	40.4	48.2	66.7	82.5	92.8	96.5	95.8
100	6.50	12.5	31.2	54.2	70.5	81.1	84.6	87.8	83.6	80.9	67.0	49.0	38.3	44.3	60.9	75.1	81.2	89.4	80.9
105	7.15	9.86	18.8	43.5	56.1	64.8	70.8	72.3	72.0	71.1	60.1	44.4	36.7	39.6	48.8	63.2	70.7	72.1	71.3
110	7.59	8.30	14.6	23.2	41.7	57.8	65.3	64.1	60.5	63.1	52.9	38.5	35.1	35.6	40.4	48.8	61.3	64.7	66.0
115	6.62	6.54	15.6	11.5	20.0	38.1	47.6	45.1	38.9	56.2	46.3	33.2	33.1	32.1	37.4	34.0	44.3	52.6	57.7
120	6.42	6.43	14.5	19.9	8.34	10.9	18.7	18.2	17.1	47.7	39.0	28.9	30.2	29.0	33.4	28.0	25.0	31.5	37.9
125	6.34	6.36	11.0	23.2	22.8	13.3	9.77	10.8	20.9	34.2	29.3	25.9	27.2	26.1	28.6	29.8	16.5	11.3	13.1
130	6.24	6.51	7.68	18.9	30.6	34.7	30.8	28.9	32.8	18.5	19.6	21.7	23.8	23.0	22.5	26.4	22.2	12.8	9.16
135	6.52	6.89	7.23	14.0	25.5	34.8	38.8	35.6	28.7	11.9	15.3	17.9	19.0	18.4	16.4	20.3	24.2	25.6	25.1
140	6.30	6.30	6.26	7.22	18.5	27.7	31.6	29.0	22.2	8.73	11.7	14.1	15.1	14.6	12.7	12.9	19.8	25.4	29.4
145	6.33	6.32	6.54	6.76	9.26	19.6	23.4	21.1	15.3	8.22	8.54	10.6	11.7	11.0	9.39	7.78	13.1	19.5	23.0
150	6.44	6.41	6.44	6.51	7.08	6.60	10.9	11.5	6.92	7.09	6.57	7.36	8.05	7.67	6.87	6.98	9.06	12.2	14.7
155	6.55	6.53	6.67	6.57	6.63	6.98	8.22	7.19	6.80	6.74	6.66	6.54	6.79	6.81	6.88	7.04	7.10	7.36	8.07
160	6.70	6.67	6.67	6.74	6.79	6.84	6.91	6.96	6.99	6.88	6.75	6.66	6.83	6.85	6.96	7.06	7.14	7.20	7.13
165	6.83	6.81	6.84	6.86	6.91	6.96	7.02	7.11	7.05	6.94	6.86	6.79	6.97	6.97	7.07	7.13	7.21	7.24	7.16
170	6.95	6.93	6.94	6.97	7.02	7.07	7.11	7.12	7.12	7.06	7.02	6.96	7.08	7.07	7.11	7.21	7.25	7.25	7.19
175	7.06	7.06	7.04	7.08	7.12	7.15	7.15	7.15	7.15	7.12	7.09	7.06	7.14	7.10	7.16	7.18	7.23	7.24	7.22
180	7.16	7.13	7.14	7.19	7.20	7.23	7.24	7.21	7.16	7.11	7.06	7.04	7.18	7.14	7.14	7.17	7.22	7.23	7.23

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:0.1700A P:20.01W PF:0.9814 Lamp Flux:1909.82x1 lm		
NAME: ASD-OLWS-23-14D20CC-BZ 4000K	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: ASD Lighting corp	SUR.:	PROTECTION ANGLE:

Table--2

UNIT: cd

C( DEG) γ (DEG)	285	300	315	330	345															
0	484	483	483	484	483															
5	485	483	482	481	480															
10	484	482	478	475	473															
15	479	477	469	467	462															
20	471	467	458	454	449															
25	461	456	444	437	430															
30	446	441	426	418	410															
35	429	422	405	396	386															
40	408	401	383	370	359															
45	384	377	356	341	328															
50	357	350	326	310	294															
55	328	319	293	277	258															
60	295	286	260	241	220															
65	260	252	224	203	182															
70	225	213	188	165	145															
75	191	178	153	129	105															
80	158	144	116	94.9	66.5															
85	123	111	86.7	63.8	36.3															
90	96.6	86.2	66.5	46.0	22.8															
95	92.7	81.6	63.1	42.2	20.4															
100	77.1	72.7	56.6	33.8	17.7															
105	67.9	59.6	35.9	24.9	13.6															
110	62.6	51.9	19.4	24.2	11.8															
115	51.8	35.8	28.0	19.8	8.90															
120	29.8	14.1	27.0	16.7	7.09															
125	7.92	8.89	22.7	12.6	6.53															
130	12.4	20.2	15.1	9.46	6.46															
135	26.3	24.8	12.0	8.04	6.78															
140	28.0	22.1	10.0	6.54	6.54															
145	20.8	13.7	7.36	6.55	6.53															
150	13.7	8.99	6.65	6.56	6.50															
155	6.99	6.84	6.74	6.62	6.60															
160	7.02	6.92	6.84	6.75	6.72															
165	7.07	7.01	6.88	6.86	6.87															
170	7.13	7.07	6.99	6.93	6.97															
175	7.17	7.12	7.06	7.01	7.02															
180	7.19	7.16	7.11	7.06	7.03															

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2022-04-11

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.291  
 Humidity:65.0%  
 Test Distance:7.500m [K=1.0000]  
 Remarks: