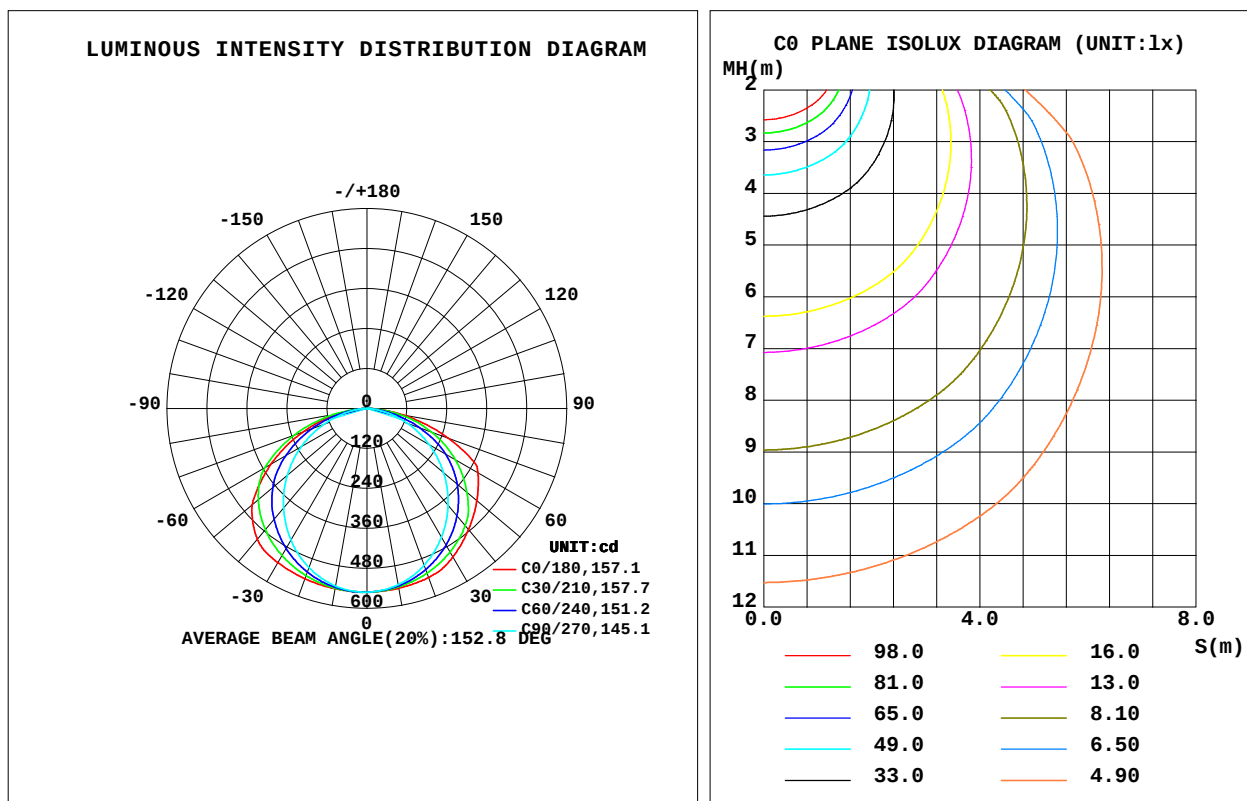


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.74 lm/W			
MODELASD-UCL-48D24CC-4000K		I _{max} (cd)	551.9	S/MH(C0/180)	1.47
NOMINAL POWER(W)	24	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1781.9	h UP, DN(C0-180)	0.3,49.1
NOMINAL FLUX(lm)	1781.87	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.3,50.3
LAMPS INSIDE	1	h up(%)	0.6	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	h down(%)	99.4	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:11 March 2021

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.3953]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum, lamp
10	547.9	542.2	537.4	542.7	549.6	546.0	541.2	545.3	0- 10	52.28	52.28	2.93, 2.93
20	539.8	520.1	501.2	519.8	543.5	527.9	508.4	526.0	10- 20	151.3	203.6	11.4, 11.4
30	515.1	485.9	446.9	484.0	534.4	495.9	456.6	492.6	20- 30	234.4	438.0	24.6, 24.6
40	474.5	439.7	378.8	436.0	512.5	451.7	389.5	446.6	30- 40	292.3	730.3	41, 41
50	430.8	380.8	300.3	375.2	450.0	393.4	312.5	386.6	40- 50	317.7	1048	58.8, 58.8
60	384.8	296.3	215.0	297.2	331.6	316.0	226.5	307.5	50- 60	303.1	1351	75.8, 75.8
70	259.0	190.6	128.1	193.1	202.4	212.4	136.8	195.6	60- 70	242.9	1594	89.5, 89.5
80	107.6	77.57	46.53	76.37	79.27	88.24	53.55	79.70	70- 80	141.9	1736	97.4, 97.4
90	1.534	1.528	0.5279	1.566	0.6401	1.384	0.5627	1.574	80- 90	35.19	1771	99.4, 99.4
100	1.054	1.273	1.057	1.436	0.9743	1.128	0.7336	1.036	90-100	1.050	1772	99.5, 99.5
110	1.414	1.914	1.729	2.095	1.445	1.593	1.170	1.408	100-110	1.416	1774	99.5, 99.5
120	1.786	2.361	2.192	2.535	1.660	1.975	1.490	1.731	110-120	1.770	1775	99.6, 99.6
130	1.935	2.590	2.483	2.612	1.581	2.117	1.784	2.015	120-130	1.841	1777	99.7, 99.7
140	1.906	2.749	2.558	2.698	1.465	2.170	2.039	2.128	130-140	1.669	1779	99.8, 99.8
150	1.870	2.895	2.641	2.751	1.295	1.772	2.197	1.948	140-150	1.362	1780	99.9, 99.9
160	1.835	2.578	2.617	2.274	1.148	1.742	1.695	1.849	150-160	0.9601	1781	100, 100
170	1.764	2.506	2.025	2.059	1.414	1.950	1.794	1.978	160-170	0.5453	1782	100, 100
180	1.701	2.290	1.995	2.120	1.703	2.288	1.992	2.117	170-180	0.1859	1782	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:11 March 2021

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.3953]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm											
NAME: ASD-UCL-48D24CC-4000K					TYPE:			WEIGHT:			
SPEC.:24W					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	14.6	16.2	14.9	16.4	16.6	12.3	13.8	12.6	14.1	14.3	
	3H	16.9	18.3	17.2	18.6	18.9	13.6	15.0	13.9	15.3	15.6
	4H	17.9	19.2	18.2	19.5	19.8	14.1	15.5	14.4	15.7	16.0
	6H	18.5	19.8	18.9	20.1	20.4	14.4	15.7	14.7	15.9	16.2
	8H	18.7	20.0	19.1	20.3	20.6	14.4	15.7	14.8	16.0	16.3
	12H	18.9	20.1	19.2	20.4	20.7	14.4	15.6	14.8	15.9	16.3
4H	2H	15.0	16.3	15.3	16.6	16.9	13.2	14.5	13.5	14.8	15.1
	3H	17.4	18.6	17.7	18.9	19.2	14.7	15.9	15.0	16.2	16.5
	4H	18.5	19.6	18.9	19.9	20.2	15.2	16.3	15.6	16.7	17.0
	6H	19.4	20.3	19.8	20.7	21.1	15.6	16.6	16.0	17.0	17.3
	8H	19.6	20.6	20.1	20.9	21.3	15.7	16.6	16.1	17.0	17.4
	12H	19.8	20.7	20.3	21.1	21.5	15.7	16.6	16.2	17.0	17.4
8H	4H	18.6	19.5	19.0	19.9	20.3	15.7	16.6	16.1	17.0	17.4
	6H	19.6	20.3	20.0	20.8	21.2	16.2	17.0	16.7	17.4	17.8
	8H	20.0	20.6	20.4	21.1	21.5	16.3	17.0	16.8	17.5	17.9
	12H	20.3	20.8	20.7	21.3	21.8	16.4	17.0	16.9	17.4	17.9
12H	4H	18.5	19.4	19.0	19.8	20.2	15.8	16.6	16.2	17.0	17.4
	6H	19.6	20.3	20.1	20.7	21.2	16.3	17.0	16.8	17.4	17.9
	8H	20.0	20.6	20.5	21.0	21.5	16.5	17.1	17.0	17.5	18.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2					
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.4					
2.0H	+ 0.5 / - 0.4					+ 0.2 / - 0.4					

CIE Pub.117, 1782 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 2.0$)

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: MEDIUM

Temperature:25.3DEG

Operators:

Test Date:11 March 2021

g Range: 0 - 180DEG

g Interval: 0.5DEG

Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402

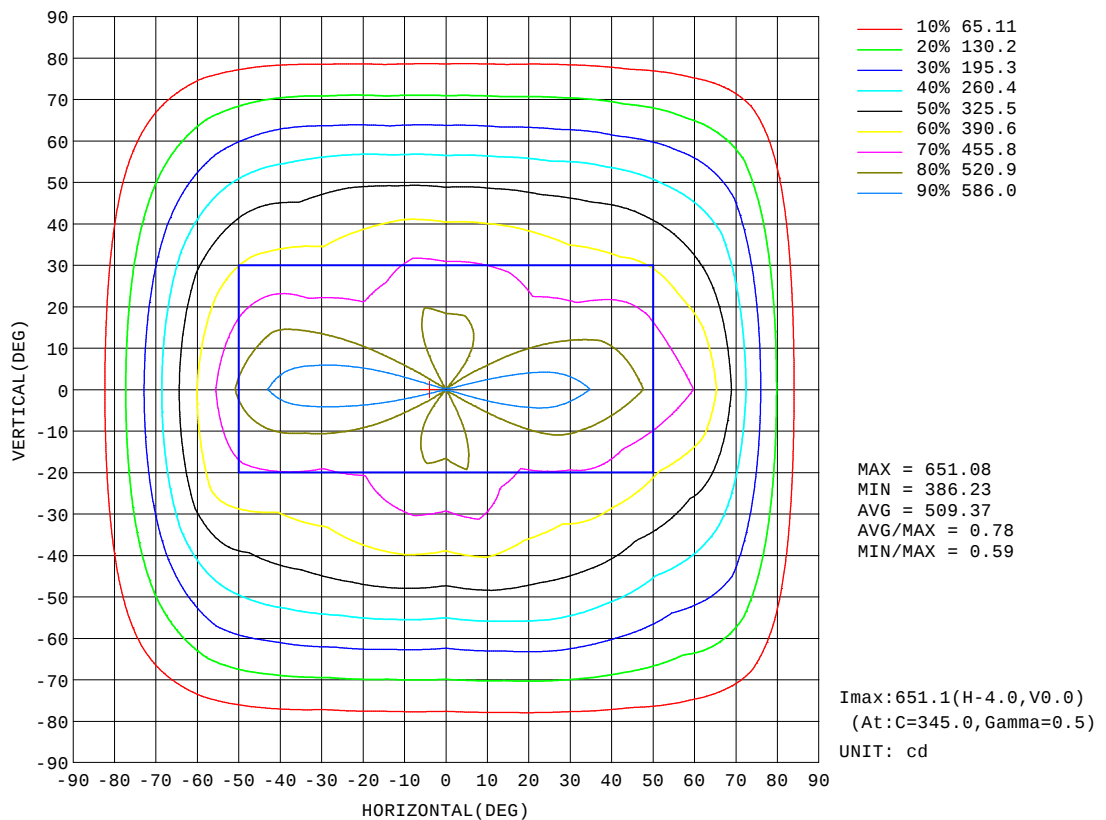
Humidity:65.0%

Test Distance:3.010m [K=1.3953]

Remarks:

ISOCANDELA DIAGRAM

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

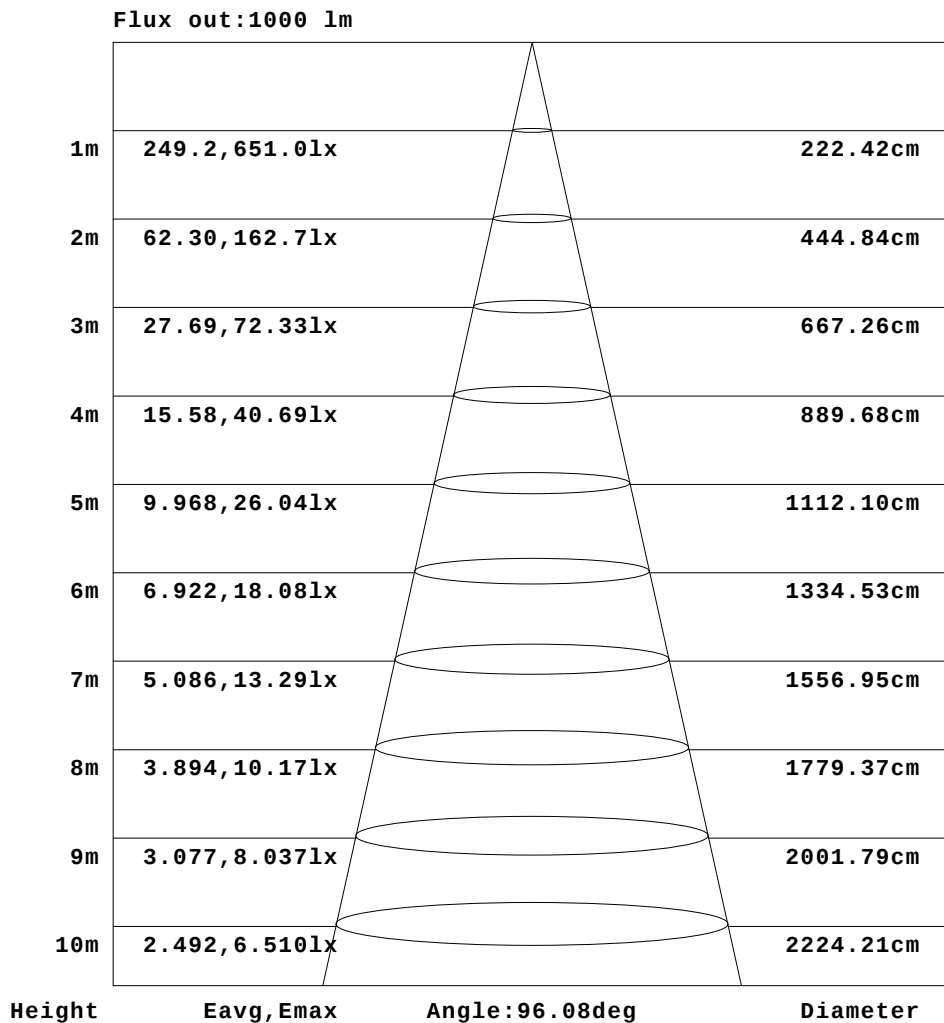


C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:11 March 2021

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.3953]
Remarks:

AAI Figure

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



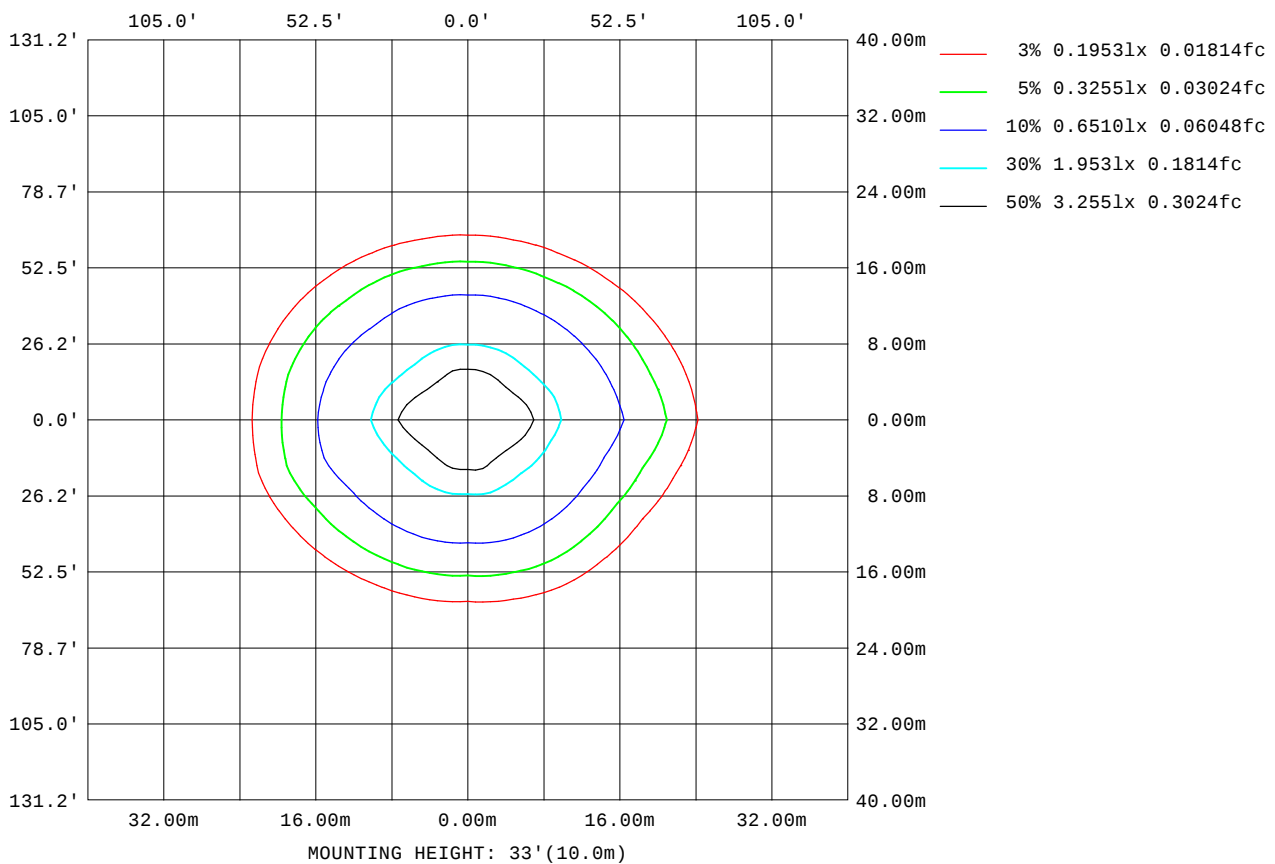
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:11 March 2021

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
 Humidity:65.0%
 Test Distance:3.010m [K=1.3953]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:11 March 2021

g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.3953]
Remarks:

LED Avg.L Report

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

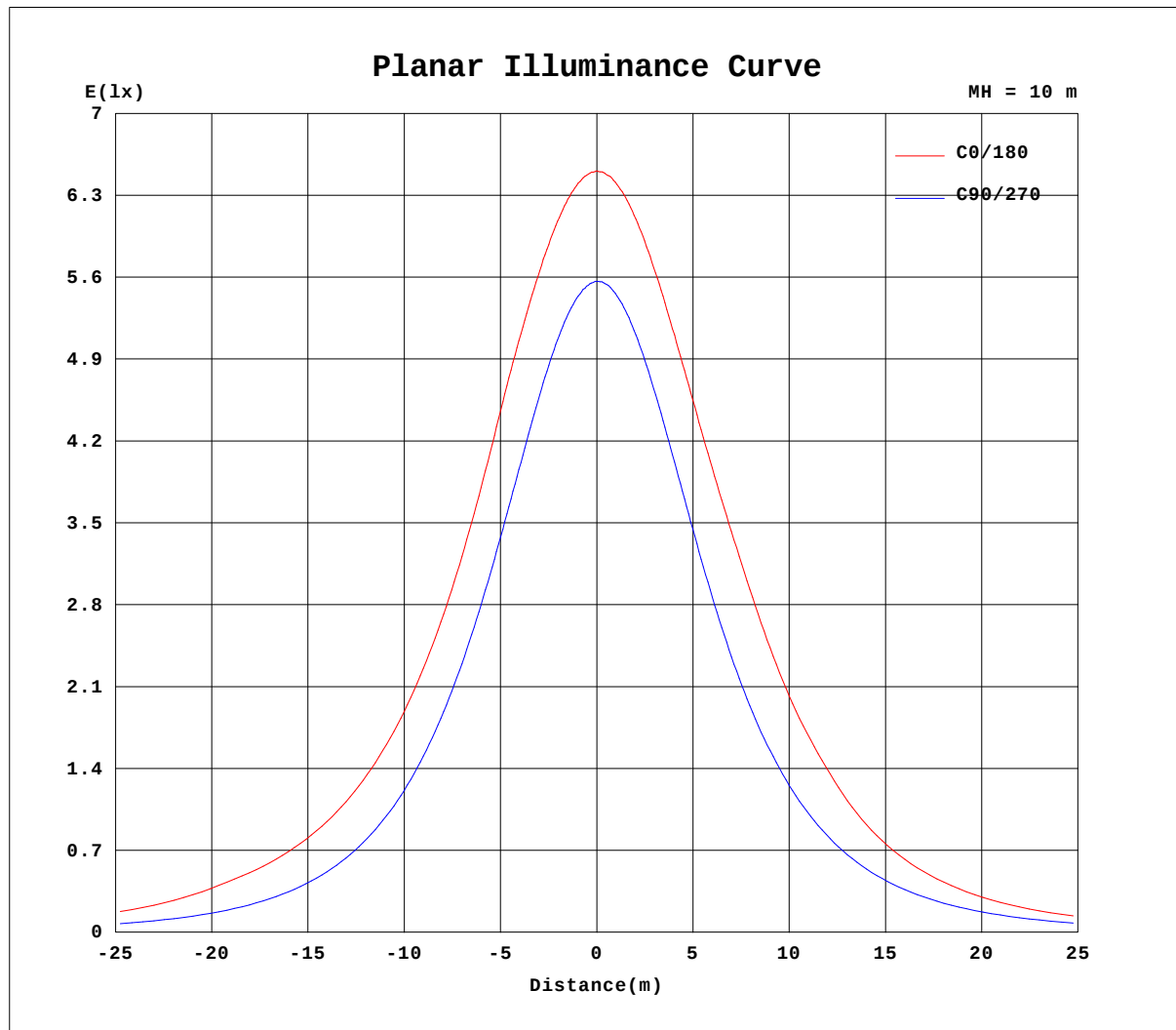
AvgL	cd/m2
L_0~180(65)av	1428
L_0~180(75)av	1233
L_0~180(85)av	860
L_90~270(65)av	834
L_90~270(75)av	691
L_90~270(85)av	382
L_45(65)av	1202
L_45(75)av	1075
L_45(85)av	672

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:11 March 2021

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
 Humidity:65.0%
 Test Distance:3.010m [K=1.3953]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 11 March 2021

g Range: 0 - 180DEG
 g Interval: 0.5DEG
 Test System: EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
 Humidity: 65.0%
 Test Distance: 3.010m [K=1.3953]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--1
UNIT: cd

C(DEG) g (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
5	550	549	549	549	548	549	547	549	548	549	549	550	551	551	551	550	550	549	549
10	548	545	544	542	541	540	537	541	541	543	544	546	550	550	548	546	545	541	541
15	545	539	536	533	530	527	522	527	530	532	536	540	547	546	542	538	536	528	528
20	540	531	526	520	515	509	501	509	514	520	525	532	544	541	534	528	523	511	508
25	532	521	513	504	496	486	476	486	495	504	512	522	540	534	523	513	506	487	485
30	515	503	498	486	474	459	447	458	472	484	495	510	534	524	510	496	485	460	457
35	495	477	480	464	449	427	414	427	446	462	477	496	528	513	494	476	462	430	425
40	474	450	459	440	421	392	379	392	415	436	455	480	513	499	475	452	434	396	390
45	453	421	431	412	389	354	341	354	380	408	430	461	485	475	452	425	404	359	353
50	431	390	392	381	354	313	300	313	341	375	402	439	450	437	426	393	369	319	313
55	408	357	351	344	315	270	258	270	299	339	368	412	393	394	395	358	329	276	270
60	385	321	306	296	272	226	215	225	253	297	330	371	332	346	353	316	280	231	227
65	336	281	257	245	222	180	171	179	205	250	284	301	268	290	294	269	228	185	182
70	259	236	205	191	167	135	128	134	156	193	230	227	202	219	230	212	175	140	137
75	181	186	152	135	113	90.6	85.5	89.4	104	135	163	155	138	151	164	150	120	95.2	93.4
80	108	116	95.2	77.6	63.5	50.4	46.5	49.1	57.3	76.4	91.6	88.4	79.3	86.3	98.2	88.2	69.1	54.1	53.5
85	44.1	47.8	37.6	27.9	19.9	15.2	13.5	14.5	17.3	24.7	31.4	33.8	30.9	32.8	38.6	33.1	25.9	19.4	19.7
90	1.53	1.58	1.79	1.53	1.02	0.54	0.53	0.83	1.16	1.57	1.74	1.34	0.64	1.50	1.47	1.38	1.12	0.77	0.56
95	0.96	0.88	0.96	0.93	0.85	0.73	0.74	0.75	0.88	1.05	1.24	1.26	0.79	0.91	1.00	0.91	0.76	0.66	0.61
100	1.05	1.07	1.26	1.27	1.19	1.04	1.06	1.08	1.22	1.44	1.59	1.49	0.97	1.09	1.20	1.13	0.93	0.83	0.73
105	1.20	1.29	1.53	1.61	1.56	1.38	1.41	1.43	1.59	1.80	1.91	1.73	1.23	1.31	1.44	1.38	1.19	0.99	0.93
110	1.41	1.52	1.80	1.91	1.86	1.68	1.73	1.74	1.90	2.10	2.18	1.97	1.44	1.50	1.65	1.59	1.44	1.22	1.17
115	1.60	1.75	2.05	2.17	2.12	1.92	1.99	1.98	2.14	2.36	2.37	2.15	1.57	1.64	1.88	1.77	1.57	1.35	1.35
120	1.79	1.98	2.26	2.36	2.33	2.12	2.19	2.17	2.35	2.53	2.48	2.30	1.66	1.77	2.03	1.98	1.70	1.48	1.49
125	1.89	2.09	2.39	2.50	2.44	2.28	2.37	2.32	2.44	2.58	2.52	2.32	1.67	1.78	2.08	2.09	1.81	1.57	1.64
130	1.93	2.14	2.53	2.59	2.53	2.40	2.48	2.40	2.48	2.61	2.59	2.26	1.58	1.72	2.14	2.12	1.92	1.73	1.78
135	1.95	2.13	2.58	2.70	2.61	2.44	2.55	2.41	2.51	2.64	2.61	2.13	1.57	1.67	1.98	2.14	2.02	1.83	1.92
140	1.91	2.15	2.62	2.75	2.68	2.44	2.56	2.39	2.53	2.70	2.61	2.04	1.46	1.59	1.87	2.17	2.00	1.87	2.04
145	1.91	2.18	2.61	2.87	2.75	2.52	2.57	2.41	2.58	2.77	2.54	2.02	1.39	1.55	1.80	1.97	2.15	1.93	2.08
150	1.87	2.18	2.52	2.90	2.88	2.62	2.64	2.47	2.66	2.75	2.40	1.95	1.30	1.45	1.72	1.77	1.98	2.02	2.20
155	1.86	2.17	2.47	2.78	2.83	2.72	2.81	2.59	2.56	2.56	2.23	1.91	1.21	1.38	1.70	1.76	1.69	1.70	1.95
160	1.84	2.14	2.42	2.58	2.71	2.51	2.62	2.40	2.39	2.27	2.10	1.88	1.15	1.31	1.54	1.74	1.70	1.61	1.70
165	1.76	2.04	2.39	2.49	2.46	2.23	2.24	2.13	2.12	2.11	1.98	1.76	1.18	1.38	1.58	1.81	1.83	1.64	1.67
170	1.76	2.07	2.46	2.51	2.38	2.13	2.03	2.01	2.03	2.06	2.03	1.83	1.41	1.55	1.79	1.95	1.90	1.66	1.79
175	1.73	2.02	2.37	2.39	2.27	2.06	2.06	1.91	2.07	2.10	1.98	1.81	1.51	1.70	1.94	2.07	1.96	1.69	1.85
180	1.70	1.93	2.20	2.29	2.09	1.86	2.00	1.78	1.93	2.12	2.09	1.90	1.70	1.93	2.20	2.29	2.08	1.86	1.99

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:11 March 2021
g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.3953]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.98V I:0.1786A P:19.857W PF:0.9268 Freq:59.98Hz Lamp Flux:1781.87x1 lm		
NAME: ASD-UCL-48D24CC-4000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2
UNIT: cd

C(DEG) g (DEG)	285	300	315	330	345														
0	551	551	551	551	551														
5	549	550	550	551	551														
10	540	544	545	547	549														
15	527	534	538	540	544														
20	508	520	526	532	538														
25	485	503	511	520	529														
30	458	480	493	505	519														
35	428	453	471	488	506														
40	394	420	447	467	491														
45	357	384	418	444	471														
50	317	345	387	417	441														
55	275	303	350	385	403														
60	231	258	308	346	362														
65	185	211	253	294	316														
70	140	162	196	236	265														
75	95.8	113	137	169	202														
80	55.0	66.0	79.7	99.4	121														
85	20.2	25.9	31.4	41.5	49.8														
90	0.76	1.17	1.57	1.79	1.91														
95	0.75	1.01	0.97	1.07	0.75														
100	0.68	0.94	1.04	1.02	0.87														
105	0.94	1.07	1.20	1.20	1.07														
110	1.17	1.25	1.41	1.39	1.28														
115	1.34	1.42	1.59	1.61	1.49														
120	1.48	1.56	1.73	1.80	1.69														
125	1.61	1.64	1.89	1.90	1.77														
130	1.78	1.82	2.02	2.04	1.82														
135	1.91	1.97	2.03	2.05	1.82														
140	2.00	1.96	2.13	1.97	1.83														
145	2.06	2.09	2.14	1.95	1.80														
150	2.18	2.09	1.95	1.91	1.74														
155	1.87	1.83	1.89	1.91	1.71														
160	1.70	1.82	1.85	1.87	1.70														
165	1.75	1.86	1.93	1.86	1.65														
170	1.84	1.87	1.98	1.99	1.78														
175	1.76	1.81	1.96	2.06	1.90														
180	1.79	1.92	2.12	2.09	1.90														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:11 March 2021
g Range: 0 - 180DEG
g Interval: 0.5DEG
Test System:EVERFINE G0-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.3953]
Remarks: