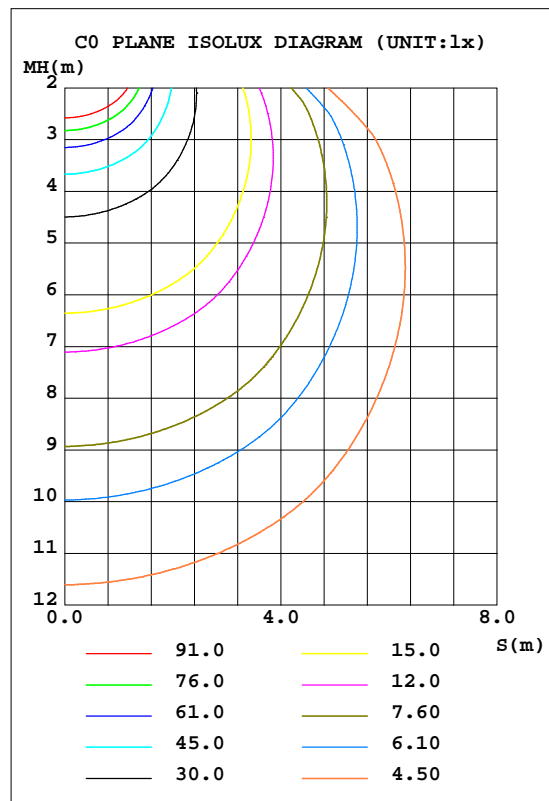
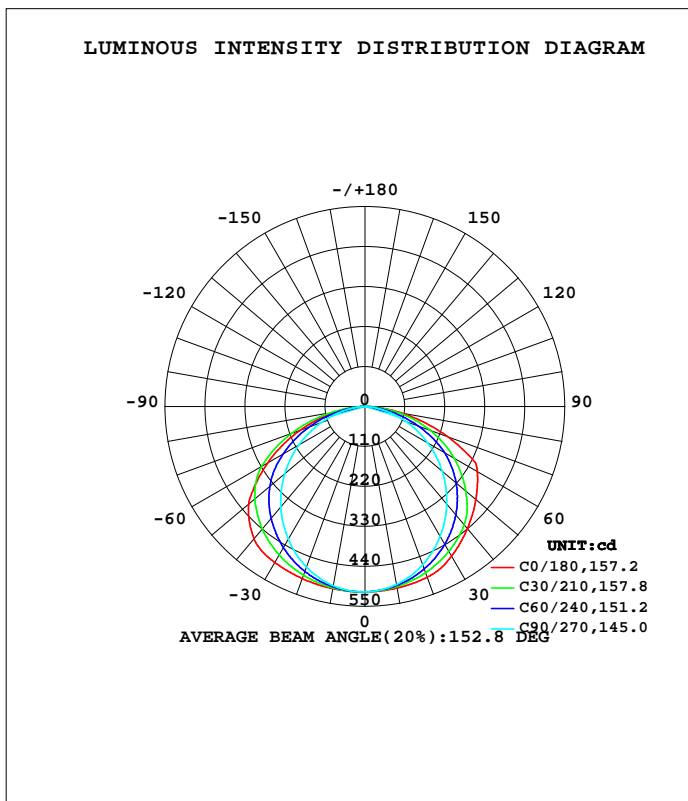


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm		
NAME: ASD-UCL-48D24CC-3000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 84.15 lm/W			
MODELASD-UCL-48D24CC-3000K		Imax(cd)	510.8	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)	1650.7	h UP, DN(C0-180)	0.3,49.1
NOMINAL FLUX(lm)	1650.69	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 GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:3.010m [K=1.3787]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	507.4	501.9	497.1	502.3	509.3	505.9	500.8	505.1	0- 10	48.39	48.39	2.93,2.93
20	500.3	482.0	463.7	481.4	504.2	488.9	470.3	486.7	10- 20	140.0	188.4	11.4,11.4
30	476.5	450.3	413.5	448.6	496.0	459.6	421.9	456.1	20- 30	216.9	405.3	24.6,24.6
40	438.7	408.8	350.4	405.6	475.1	418.5	360.7	413.4	30- 40	270.6	676.0	41,41
50	398.6	353.5	277.9	348.7	418.1	364.6	288.5	358.3	40- 50	294.2	970.2	58.8,58.8
60	357.2	274.5	198.9	276.5	308.4	293.1	209.0	284.7	50- 60	280.8	1251	75.8,75.8
70	241.0	176.9	118.7	180.1	188.2	196.8	126.2	180.8	60- 70	225.3	1476	89.4,89.4
80	100.1	72.11	43.31	71.40	73.89	81.63	49.05	73.48	70- 80	131.7	1608	97.4,97.4
90	1.427	1.412	0.4874	1.448	0.5821	1.279	0.5213	1.435	80- 90	32.68	1641	99.4,99.4
100	0.9820	1.178	0.9769	1.338	0.9126	1.055	0.6889	0.9603	90-100	0.9754	1642	99.5,99.5
110	1.312	1.777	1.602	1.953	1.352	1.490	1.085	1.311	100-110	1.315	1643	99.5,99.5
120	1.661	2.200	2.030	2.359	1.543	1.843	1.391	1.604	110-120	1.645	1645	99.6,99.6
130	1.791	2.411	2.301	2.427	1.467	1.975	1.659	1.873	120-130	1.709	1646	99.7,99.7
140	1.775	2.558	2.374	2.505	1.353	2.016	1.892	1.978	130-140	1.550	1648	99.8,99.8
150	1.736	2.699	2.459	2.566	1.203	1.646	2.038	1.814	140-150	1.265	1649	99.9,99.9
160	1.704	2.410	2.428	2.117	1.069	1.617	1.577	1.717	150-160	0.8919	1650	100,100
170	1.638	2.348	1.882	1.918	1.320	1.810	1.666	1.834	160-170	0.5068	1651	100,100
180	1.585	2.135	1.854	1.978	1.586	2.135	1.849	1.976	170-180	0.1729	1651	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 GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:3.010m [K=1.3787]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm										
NAME: ASD-UCL-48D24CC-3000K					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	14.4	16.0	14.7	16.2	16.4	12.0	13.6	12.3	13.8	14.0
3H	16.7	18.1	17.0	18.4	18.6	13.3	14.8	13.7	15.0	15.3
4H	17.6	19.0	18.0	19.3	19.5	13.8	15.2	14.1	15.5	15.7
6H	18.3	19.6	18.7	19.9	20.2	14.1	15.4	14.5	15.7	16.0
8H	18.5	19.8	18.9	20.1	20.4	14.2	15.4	14.5	15.7	16.0
12H	18.6	19.8	19.0	20.2	20.5	14.2	15.4	14.5	15.7	16.0
4H 2H	14.7	16.1	15.0	16.4	16.6	12.9	14.3	13.2	14.5	14.8
3H	17.1	18.3	17.5	18.6	18.9	14.4	15.6	14.8	15.9	16.2
4H	18.2	19.3	18.6	19.7	20.0	15.0	16.1	15.4	16.4	16.8
6H	19.1	20.1	19.5	20.5	20.9	15.4	16.3	15.8	16.7	17.1
8H	19.4	20.3	19.8	20.7	21.1	15.4	16.4	15.9	16.7	17.1
12H	19.6	20.4	20.0	20.8	21.3	15.5	16.3	15.9	16.7	17.1
8H 4H	18.3	19.2	18.8	19.6	20.0	15.4	16.3	15.8	16.7	17.1
6H	19.4	20.1	19.8	20.5	21.0	15.9	16.7	16.4	17.1	17.6
8H	19.7	20.4	20.2	20.9	21.3	16.1	16.8	16.6	17.2	17.7
12H	20.0	20.6	20.5	21.1	21.6	16.2	16.7	16.6	17.2	17.7
12H 4H	18.3	19.1	18.7	19.5	20.0	15.5	16.3	15.9	16.7	17.2
6H	19.4	20.0	19.8	20.5	20.9	16.1	16.7	16.5	17.2	17.6
8H	19.8	20.4	20.3	20.8	21.3	16.2	16.8	16.7	17.3	17.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.4				
2.0H	+ 0.5 / - 0.4					+ 0.2 / - 0.4				

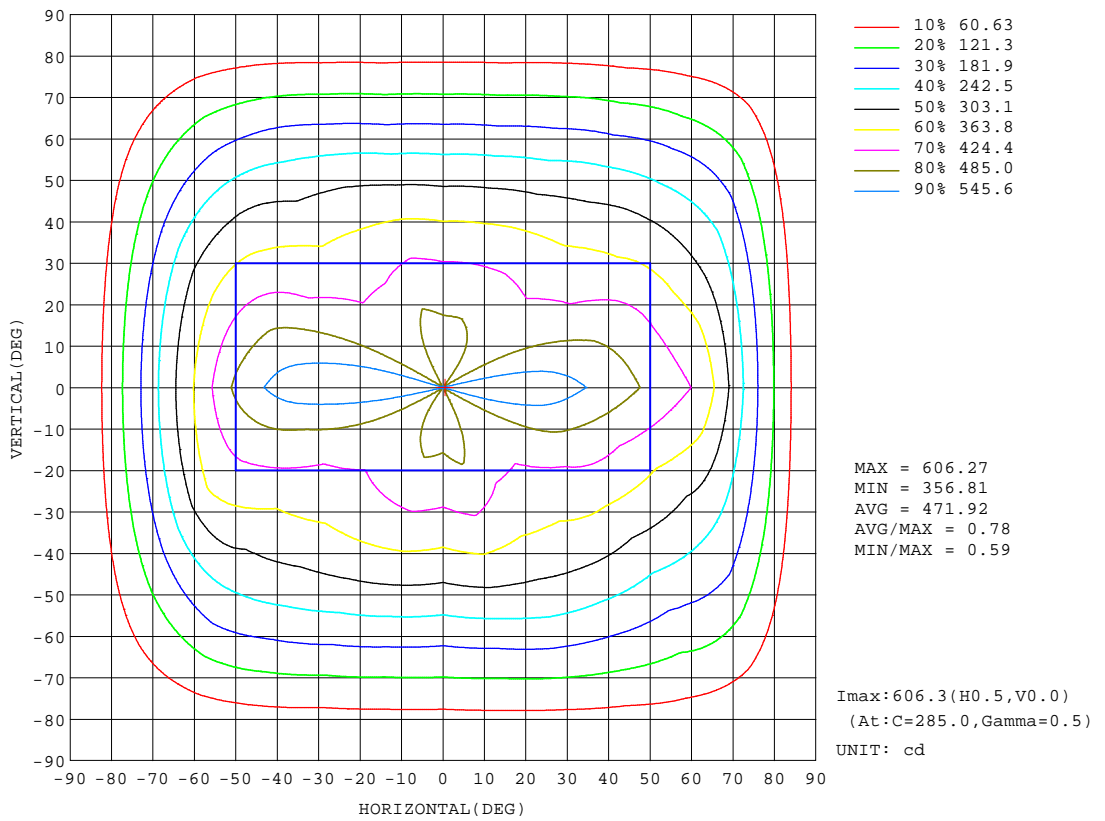
CIE Pub.117, 1651 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.7)

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=1.3787]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm		
NAME: ASD-UCL-48D24CC-3000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



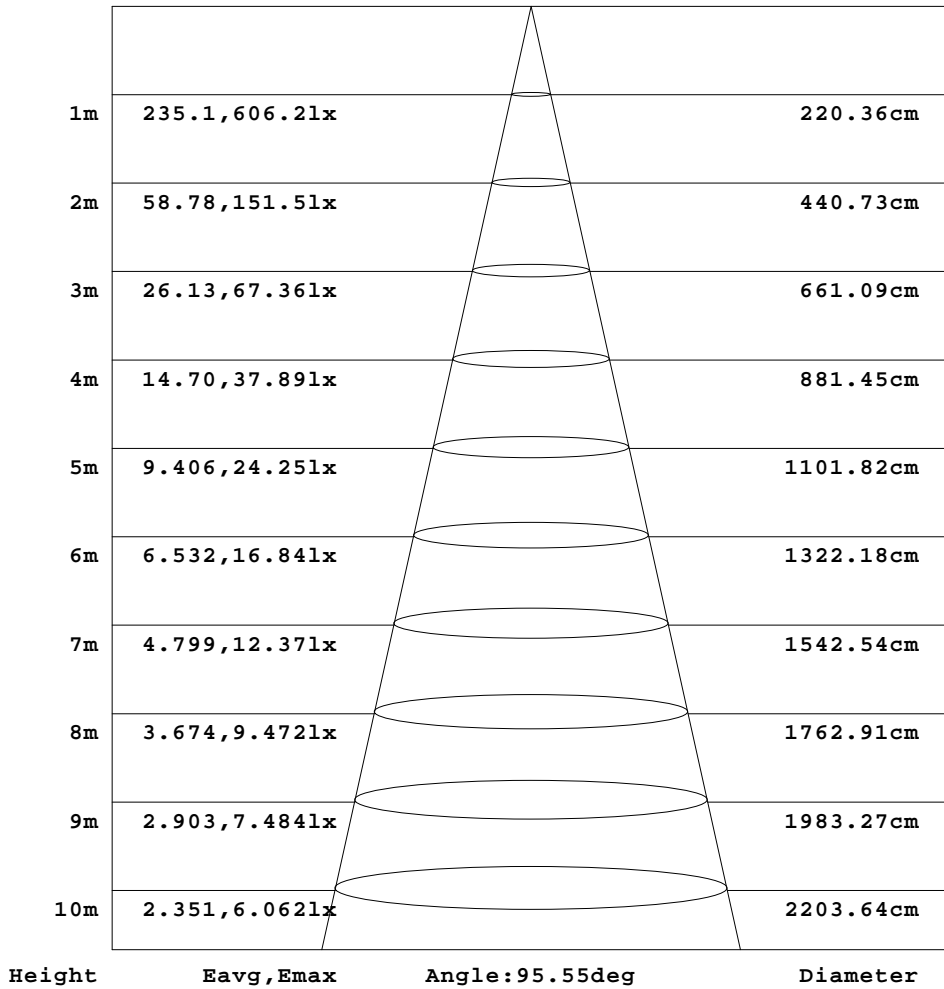
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:  
 Test Date:11 March 2021

g Range: 0 - 180DEG  
 g Interval: 0.5DEG  
 Test System:EVERFINE GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:3.010m [K=1.3787]  
 Remarks:

**AAI Figure**

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm		
NAME: ASD-UCL-48D24CC-3000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Flux out:911.2 lm



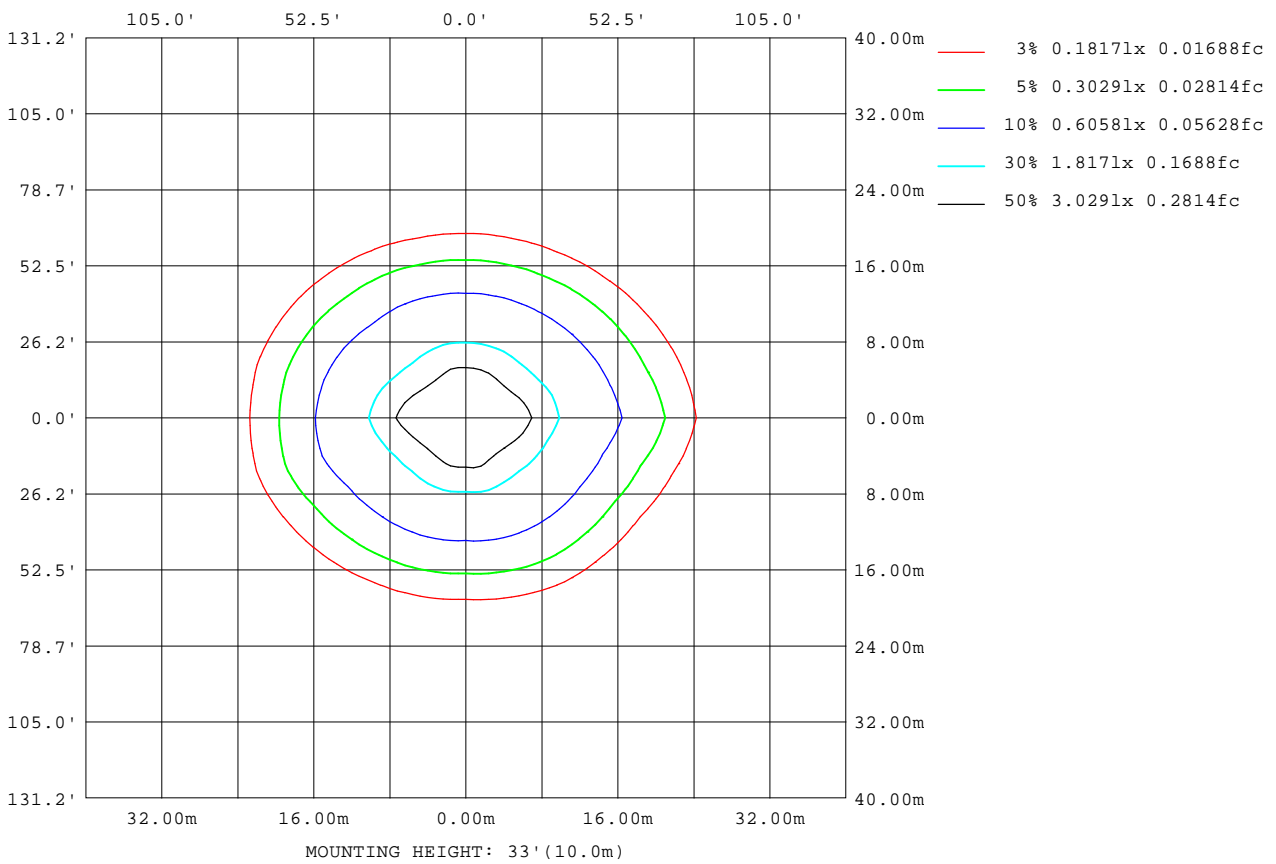
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: 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=1.3787]  
 Remarks:

**ISOLUX DIAGRAM**

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm		
NAME: ASD-UCL-48D24CC-3000K	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 GO-SPEX500\_V1 SYSTEM V2.0.402**  
**Humidity:65.0%**  
**Test Distance:3.010m [K=1.3787]**  
**Remarks:**

LED Avg.L Report

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm		
NAME: ASD-UCL-48D24CC-3000K	TYPE:	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

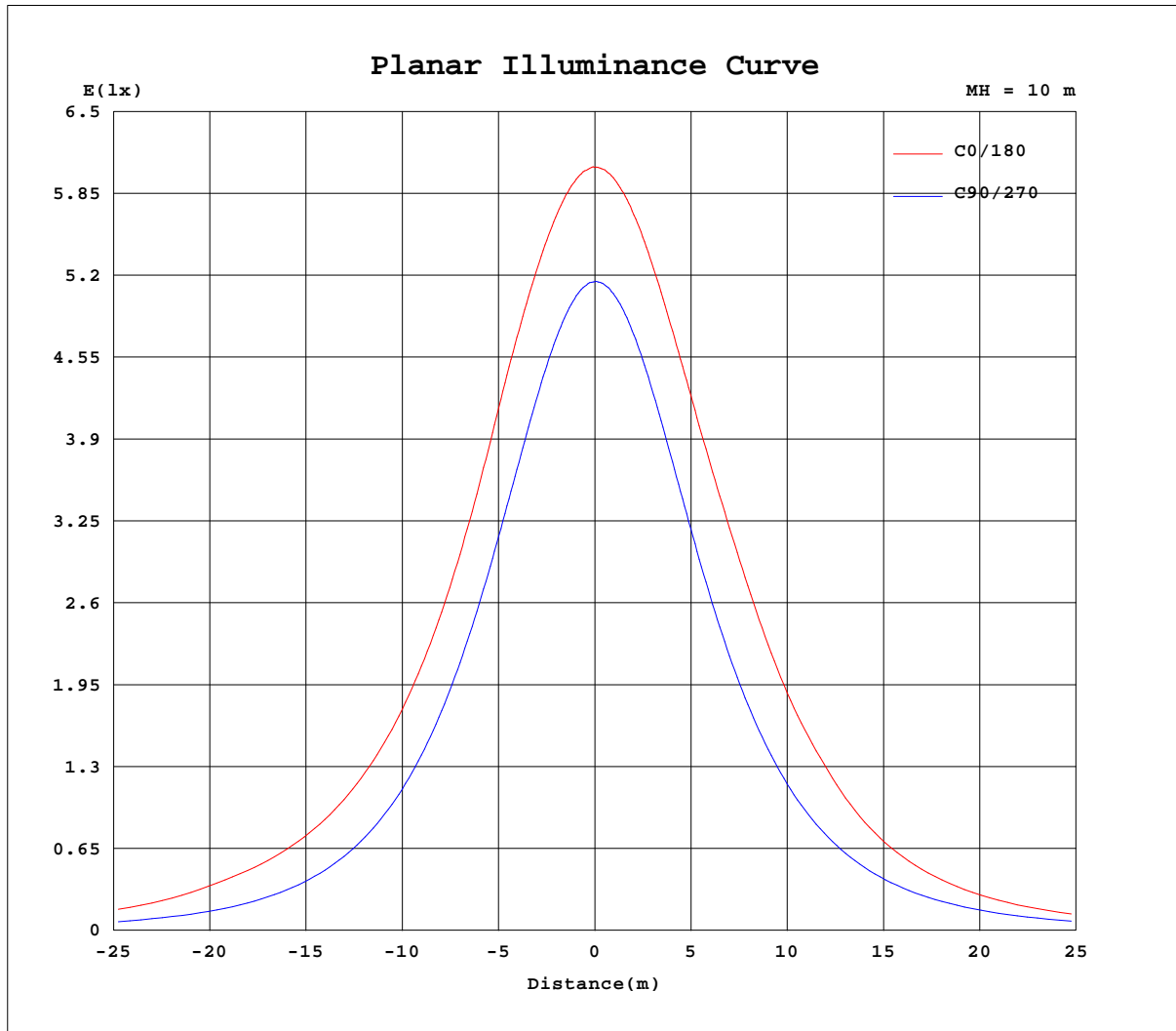
AvgL	cd/m2
L_0~180(65)av	1330
L_0~180(75)av	1147
L_0~180(85)av	800
L_90~270(65)av	772
L_90~270(75)av	639
L_90~270(85)av	351
L_45(65)av	1116
L_45(75)av	998
L_45(85)av	622

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 GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity:65.0%  
 Test Distance:3.010m [K=1.3787]  
 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 GO-SPEX500\_V1 SYSTEM V2.0.402  
 Humidity: 65.0%  
 Test Distance: 3.010m [K=1.3787]  
 Remarks:



LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.98V I:0.1763A P:19.617W PF:0.9272 Freq:59.98Hz Lamp Flux:1650.69x1 lm		
NAME: ASD-UCL-48D24CC-3000K	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	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510	510
5	509	508	508	508	507	507	507	508	507	508	508	508	510	511	510	510	509	508	508
10	507	505	503	502	500	500	497	501	500	502	503	505	509	509	507	506	504	501	501
15	505	499	496	494	490	488	483	488	490	493	496	500	507	506	502	499	495	489	488
20	500	492	487	482	476	471	464	471	475	481	486	493	504	501	494	489	483	472	470
25	492	481	475	467	459	449	441	450	458	467	474	484	500	494	484	475	468	450	448
30	476	464	461	450	439	424	413	425	437	449	459	472	496	486	472	460	449	425	422
35	458	441	444	431	415	395	383	395	413	428	442	460	490	476	457	441	427	397	393
40	439	416	425	409	389	364	350	364	384	406	422	445	475	463	440	418	402	366	361
45	419	389	398	383	360	328	315	328	352	379	399	428	450	440	419	393	374	331	326
50	399	360	362	354	328	290	278	290	316	349	373	407	418	405	396	365	341	294	288
55	378	330	324	319	292	250	239	250	277	315	342	383	365	365	367	331	304	255	249
60	357	297	283	274	252	209	199	208	235	276	307	347	308	321	327	293	259	213	209
65	313	260	238	227	205	167	159	166	191	232	264	281	249	269	273	249	211	170	168
70	241	219	190	177	155	125	119	124	145	180	215	212	188	204	214	197	162	129	126
75	168	173	141	125	105	84.0	79.4	83.0	96.8	126	152	144	129	139	152	139	111	87.6	85.9
80	100	108	88.3	72.1	58.9	46.8	43.3	45.7	53.5	71.4	85.8	82.6	73.9	80.1	91.1	81.6	63.7	49.6	49.1
85	40.9	44.4	35.0	26.1	18.5	14.2	12.6	13.5	16.1	23.3	29.5	31.7	28.9	30.5	35.8	30.3	23.7	17.7	18.0
90	1.43	1.45	1.65	1.41	0.94	0.49	0.49	0.76	1.08	1.45	1.62	1.25	0.58	1.39	1.37	1.28	1.04	0.71	0.52
95	0.90	0.82	0.89	0.86	0.79	0.68	0.69	0.70	0.81	0.98	1.16	1.18	0.74	0.85	0.95	0.85	0.71	0.62	0.56
100	0.98	0.99	1.16	1.18	1.10	0.96	0.98	0.99	1.13	1.34	1.48	1.39	0.91	1.02	1.12	1.06	0.87	0.77	0.69
105	1.11	1.19	1.43	1.50	1.44	1.28	1.30	1.32	1.48	1.67	1.77	1.61	1.14	1.22	1.35	1.29	1.10	0.92	0.87
110	1.31	1.41	1.68	1.78	1.73	1.56	1.60	1.62	1.76	1.95	2.03	1.83	1.35	1.39	1.55	1.49	1.35	1.13	1.09
115	1.49	1.62	1.90	2.02	1.96	1.78	1.83	1.84	2.00	2.20	2.20	2.00	1.46	1.52	1.75	1.65	1.46	1.26	1.25
120	1.66	1.84	2.11	2.20	2.16	1.96	2.03	2.02	2.18	2.36	2.31	2.14	1.54	1.64	1.90	1.84	1.58	1.38	1.39
125	1.75	1.94	2.23	2.32	2.27	2.11	2.20	2.16	2.27	2.40	2.34	2.15	1.55	1.64	1.94	1.95	1.69	1.46	1.52
130	1.79	1.99	2.35	2.41	2.34	2.22	2.30	2.22	2.30	2.43	2.40	2.10	1.47	1.59	2.00	1.98	1.79	1.61	1.66
135	1.81	1.98	2.39	2.51	2.42	2.26	2.35	2.24	2.34	2.45	2.42	1.97	1.45	1.55	1.83	1.99	1.88	1.71	1.78
140	1.77	1.99	2.44	2.56	2.49	2.27	2.37	2.21	2.34	2.51	2.42	1.88	1.35	1.48	1.74	2.02	1.85	1.73	1.89
145	1.77	2.02	2.42	2.68	2.56	2.32	2.39	2.24	2.40	2.58	2.36	1.87	1.29	1.44	1.68	1.83	1.99	1.79	1.93
150	1.74	2.02	2.34	2.70	2.68	2.43	2.46	2.29	2.47	2.57	2.22	1.81	1.20	1.34	1.59	1.65	1.83	1.87	2.04
155	1.73	2.02	2.30	2.59	2.64	2.53	2.60	2.41	2.39	2.39	2.06	1.78	1.12	1.28	1.57	1.63	1.57	1.59	1.82
160	1.70	1.99	2.26	2.41	2.52	2.34	2.43	2.23	2.22	2.12	1.94	1.75	1.07	1.22	1.43	1.62	1.58	1.49	1.58
165	1.63	1.90	2.22	2.33	2.30	2.08	2.08	1.99	1.97	1.96	1.84	1.63	1.10	1.28	1.47	1.69	1.70	1.52	1.55
170	1.64	1.92	2.29	2.35	2.21	1.98	1.88	1.86	1.88	1.92	1.89	1.69	1.32	1.44	1.67	1.81	1.76	1.55	1.67
175	1.62	1.88	2.20	2.23	2.11	1.91	1.91	1.77	1.92	1.96	1.84	1.68	1.41	1.58	1.80	1.93	1.83	1.56	1.72
180	1.58	1.80	2.04	2.14	1.94	1.73	1.85	1.66	1.78	1.98	1.94	1.77	1.59	1.80	2.04	2.13	1.94	1.74	1.85

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=1.3787]

Remarks:

