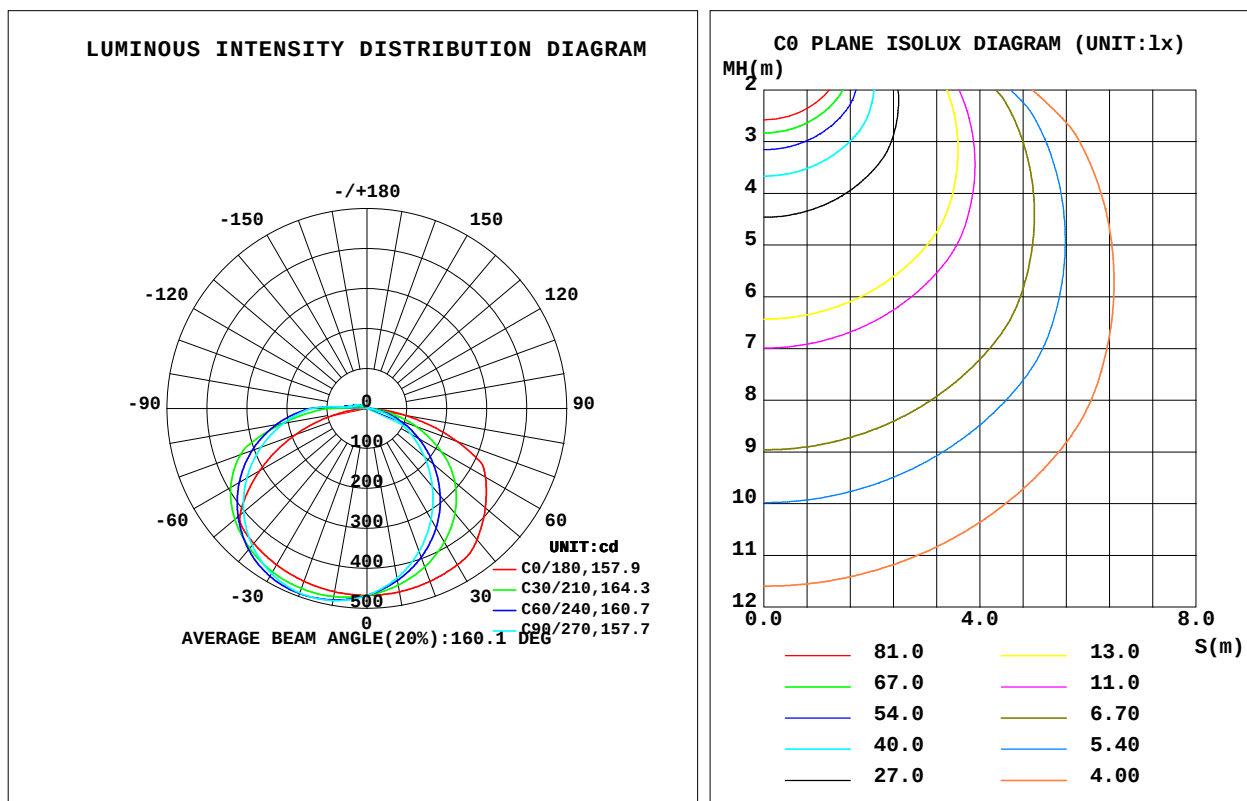


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 77.58 lm/W			
MODEL: ASD-UCB-48D24CC-WH-4000K		I _{max} (cd)	492.6	S/MH(C0/180)	1.47
NOMINAL POWER(W)	24	LOR(%)	100.0	S/MH(C90/270)	1.51
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1758.6	h UP, DN(C0-180)	0.5,36.3
NOMINAL FLUX(lm)	1758.57	CIE CLASS	DIRECT	h UP, DN(C180-360)	3.2,60.1
LAMPS INSIDE	1	h up(%)	3.6	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	h down(%)	96.4	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 21 April 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=1.2193]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum, lamp
10	465.5	442.3	430.9	443.3	465.6	482.3	487.9	481.1	0- 10	44.37	44.37	2.52, 2.52
20	460.3	408.2	381.0	410.1	459.7	487.0	491.2	484.6	10- 20	129.0	173.3	9.86, 9.86
30	451.7	364.4	320.4	367.1	451.8	480.8	477.1	478.3	20- 30	201.6	374.9	21.3, 21.3
40	428.1	312.8	254.5	315.7	440.4	464.8	446.8	461.8	30- 40	255.2	630.1	35.8, 35.8
50	386.7	252.3	188.4	254.7	414.8	437.5	402.7	434.0	40- 50	283.4	913.5	51.9, 51.9
60	342.0	184.9	125.4	186.3	308.7	395.4	346.9	383.0	50- 60	279.9	1193	67.9, 67.9
70	238.9	108.4	71.12	113.6	188.9	324.1	282.1	312.0	60- 70	241.1	1435	81.6, 81.6
80	93.46	39.16	26.84	41.32	69.97	237.7	212.0	227.9	70- 80	170.3	1605	91.3, 91.3
90	1.296	4.658	2.751	2.692	0.8622	138.1	138.6	127.3	80- 90	89.88	1695	96.4, 96.4
100	0.9387	3.073	3.319	3.715	1.309	42.38	35.93	34.42	90-100	28.53	1723	98, 98
110	1.526	3.568	4.232	4.093	2.174	22.51	28.45	20.11	100-110	13.29	1736	98.7, 98.7
120	1.938	3.175	4.087	3.386	2.421	15.21	15.35	14.93	110-120	8.486	1745	99.2, 99.2
130	1.984	2.799	3.580	2.829	2.185	7.775	15.10	7.456	120-130	5.983	1751	99.6, 99.6
140	1.772	2.463	2.413	2.464	1.913	6.136	8.850	5.971	130-140	3.622	1755	99.8, 99.8
150	1.607	2.331	2.381	2.202	1.708	3.384	6.653	3.447	140-150	2.075	1757	99.9, 99.9
160	1.470	1.913	1.957	1.709	1.602	2.972	3.406	3.177	150-160	1.155	1758	100, 100
170	1.527	1.836	1.390	1.648	1.479	2.282	3.009	2.456	160-170	0.5944	1758	100, 100
180	1.611	1.894	1.686	2.072	1.618	1.882	1.686	2.072	170-180	0.1778	1759	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:21 April 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=1.2193]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm											
NAME: ASD-UCB-48D24CC-WH-4000K					TYPE:0			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	13.2	14.7	13.5	15.0	15.3	8.9	10.5	9.2	10.7	11.0	
	3H	15.4	16.9	15.8	17.2	17.5	10.0	11.4	10.3	11.7	12.1
	4H	16.3	17.7	16.7	18.0	18.4	10.4	11.7	10.7	12.1	12.4
	6H	16.9	18.2	17.3	18.6	18.9	10.6	11.9	11.0	12.3	12.6
	8H	17.1	18.4	17.5	18.7	19.1	10.7	11.9	11.1	12.3	12.7
	12H	17.2	18.4	17.6	18.7	19.1	10.7	11.9	11.1	12.3	12.7
4H	2H	13.2	14.6	13.6	14.9	15.3	9.8	11.2	10.2	11.5	11.9
	3H	15.6	16.8	16.0	17.2	17.6	11.0	12.2	11.4	12.6	13.0
	4H	16.6	17.7	17.0	18.1	18.5	11.5	12.6	11.9	13.0	13.4
	6H	17.3	18.3	17.8	18.7	19.2	11.8	12.8	12.2	13.2	13.7
	8H	17.5	18.5	18.0	18.9	19.4	11.9	12.8	12.4	13.3	13.7
	12H	17.7	18.5	18.1	19.0	19.5	12.0	12.8	12.4	13.3	13.8
8H	4H	16.6	17.5	17.0	17.9	18.4	11.9	12.8	12.4	13.3	13.7
	6H	17.4	18.1	17.9	18.6	19.1	12.3	13.1	12.8	13.6	14.1
	8H	17.6	18.3	18.1	18.8	19.4	12.5	13.2	13.0	13.7	14.2
	12H	17.8	18.4	18.3	18.9	19.5	12.6	13.2	13.1	13.7	14.3
12H	4H	16.5	17.4	17.0	17.8	18.3	11.9	12.8	12.4	13.2	13.7
	6H	17.3	18.0	17.9	18.5	19.1	12.4	13.1	12.9	13.6	14.1
	8H	17.6	18.2	18.2	18.8	19.3	12.6	13.2	13.1	13.7	14.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3					
1.5H	+ 0.5 / - 0.5					+ 0.2 / - 0.3					
2.0H	+ 1.1 / - 1.0					+ 0.3 / - 0.5					

CIE Pub.117, 1759 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:21 April 2021

g Range: 0 - 180DEG

g Interval: 0.5DEG

Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402

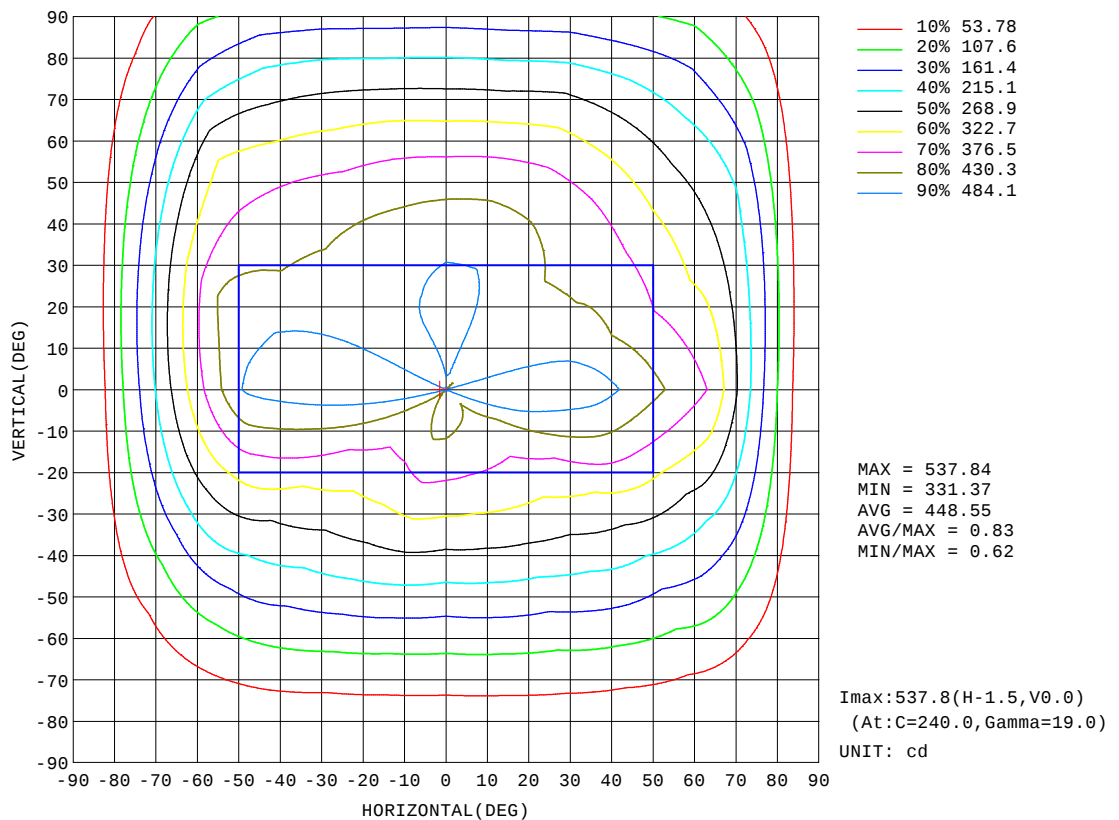
Humidity:65.0%

Test Distance:3.010m [K=1.2193]

Remarks:

ISOCANDELA DIAGRAM

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



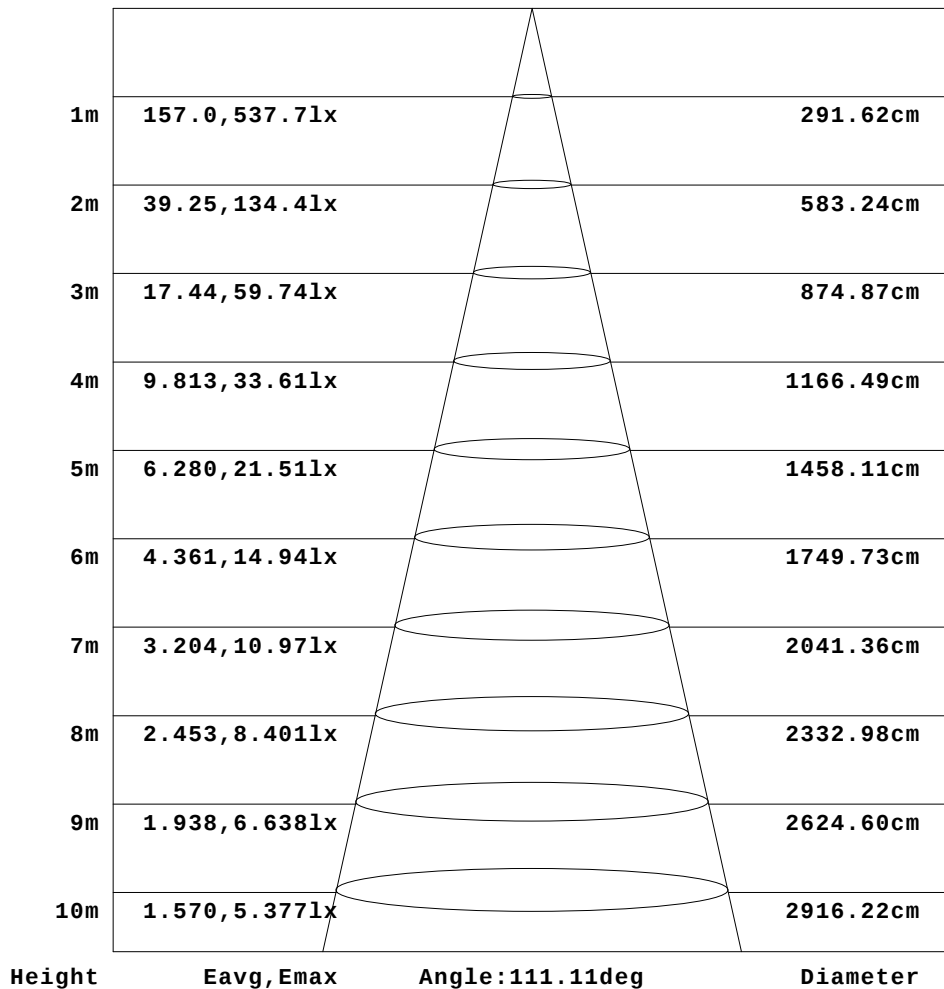
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:21 April 2021

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=1.2193]
Remarks:

AAI Figure

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Flux out:1084 lm



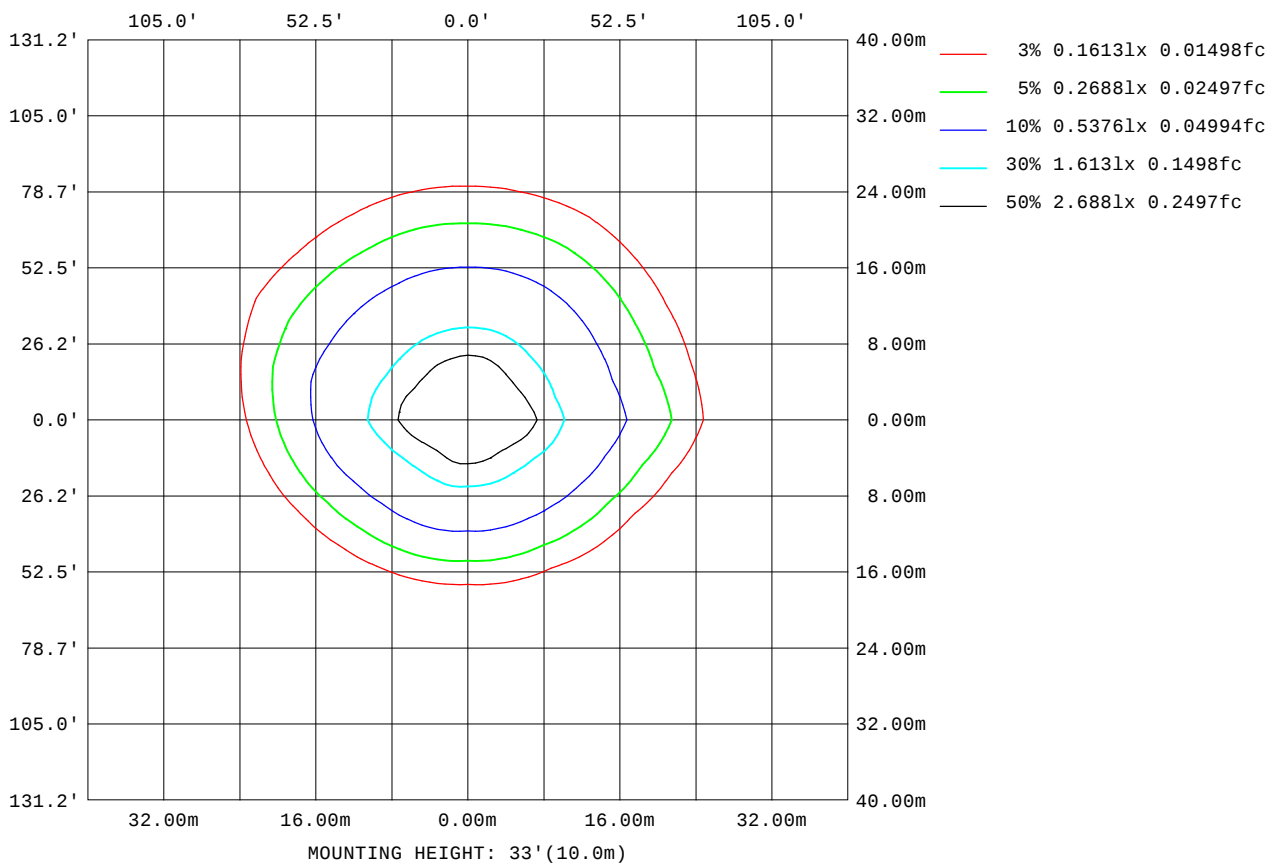
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:21 April 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=1.2193]
 Remarks:

ISOLUX DIAGRAM

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	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:21 April 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=1.2193]
Remarks:

LED Avg.L Report

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

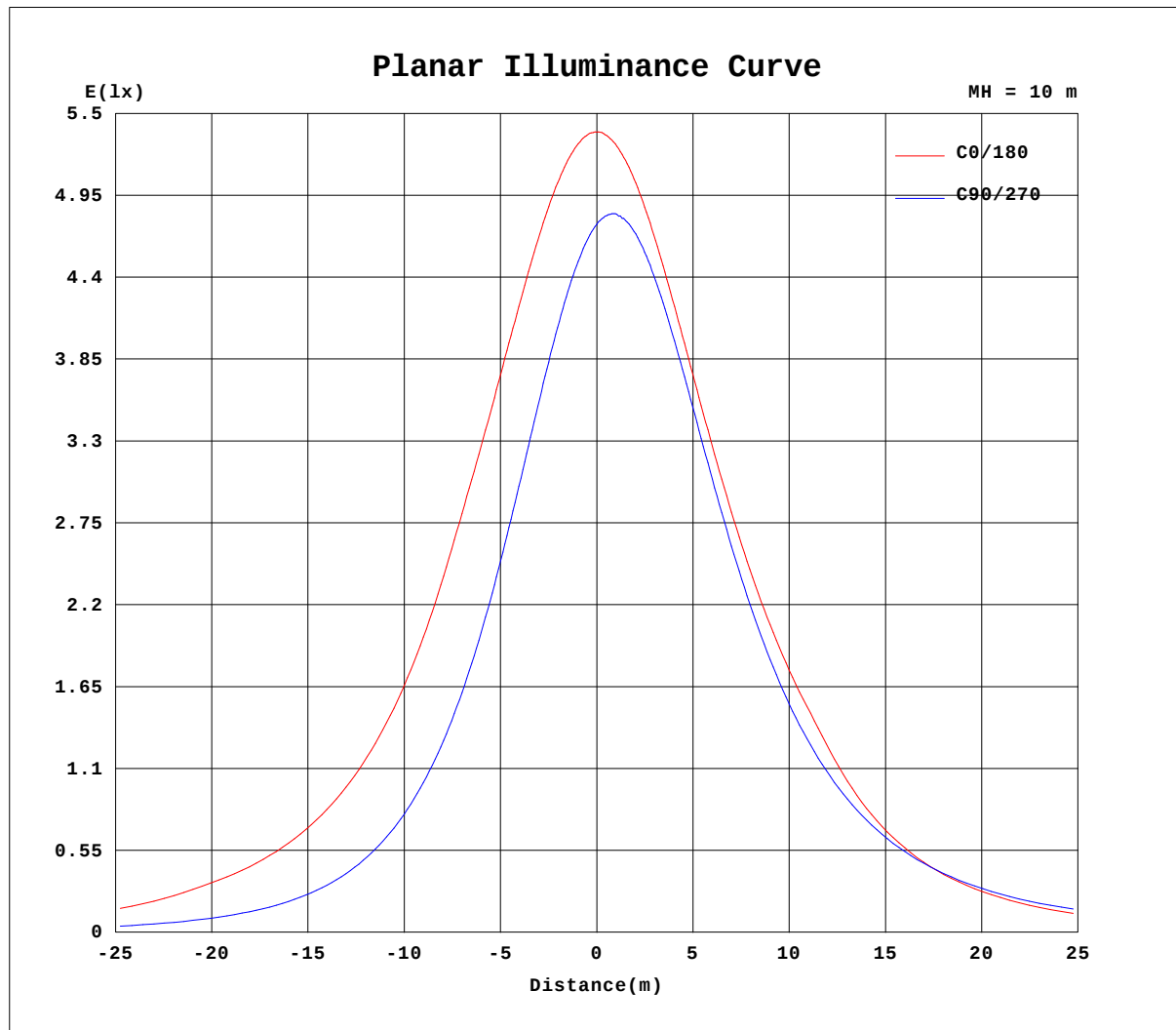
AvgL	cd/m2
L_0~180(65)av	1325
L_0~180(75)av	1131
L_0~180(85)av	643
L_90~270(65)av	977
L_90~270(75)av	1133
L_90~270(85)av	2150
L_45(65)av	1194
L_45(75)av	1352
L_45(85)av	2303

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:21 April 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=1.2193]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 21 April 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=1.2193]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	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	467	467	467	467	467	467	467	467	467	467	467	467	467	467	467	467	467	467	467
5	467	463	459	456	453	452	451	453	454	457	460	464	467	470	474	476	478	479	480
10	466	457	449	442	437	434	431	434	438	443	450	459	466	472	477	482	486	486	488
15	463	448	436	426	418	412	407	412	419	428	438	452	463	471	480	486	491	490	491
20	460	439	422	408	397	387	381	388	398	410	424	445	460	469	479	487	493	490	491
25	456	428	405	388	372	359	352	361	374	390	408	435	456	465	477	485	491	487	486
30	452	415	387	364	346	330	320	331	348	367	390	424	452	461	472	481	485	479	477
35	445	400	366	340	317	299	288	300	320	343	370	411	446	454	466	474	475	467	464
40	428	382	342	313	285	267	255	267	290	316	347	395	440	445	456	465	461	452	447
45	408	356	317	284	252	234	221	233	259	286	321	376	433	435	445	453	442	434	427
50	387	324	287	252	217	201	188	199	226	255	291	351	415	423	431	438	421	412	403
55	365	290	254	219	183	168	156	166	192	221	258	312	365	407	415	419	396	388	376
60	342	254	214	185	149	137	125	133	156	186	222	267	309	372	393	395	369	360	347
65	310	214	172	148	118	106	97.9	103	123	150	179	215	250	313	368	362	339	329	315
70	239	171	131	108	86.6	77.1	71.1	74.6	89.6	114	131	153	189	252	336	324	305	294	282
75	165	123	89.0	70.7	57.9	51.0	47.0	49.1	58.4	75.4	86.2	95.4	128	188	281	282	269	256	246
80	93.5	65.0	47.7	39.2	32.8	29.5	26.8	28.1	32.3	41.3	45.7	46.9	70.0	127	214	238	229	219	212
85	32.4	22.0	17.9	16.4	14.1	13.2	12.2	12.5	13.6	16.4	15.7	14.3	23.7	72.7	152	191	187	179	175
90	1.30	2.26	4.06	4.66	3.67	3.65	2.75	2.95	2.53	2.69	2.00	1.32	0.86	32.7	98.4	138	143	140	139
95	0.75	1.23	1.64	1.88	2.03	2.08	2.06	2.10	2.28	2.30	2.25	1.74	1.05	9.70	37.4	64.1	52.3	45.4	47.4
100	0.94	1.62	2.53	3.07	3.25	3.34	3.32	3.44	3.69	3.72	3.33	2.25	1.31	5.87	25.8	42.4	37.4	35.1	35.9
105	1.32	1.84	2.84	3.41	3.69	4.00	4.06	4.15	4.18	3.96	3.56	2.46	1.93	4.91	16.5	33.3	34.1	32.2	31.7
110	1.53	2.05	2.99	3.57	3.82	4.23	4.23	4.31	4.31	4.09	3.65	2.61	2.17	4.14	13.4	22.5	26.3	27.8	28.5
115	1.73	2.12	3.06	3.63	3.89	4.26	4.25	4.27	4.31	4.10	3.58	2.59	2.32	4.14	11.4	17.8	19.0	18.0	19.0
120	1.94	2.19	3.04	3.17	3.79	4.05	4.09	4.08	4.05	3.39	3.50	2.59	2.42	4.13	8.59	15.2	17.4	15.6	15.3
125	2.05	2.18	2.86	3.05	3.20	3.75	3.75	3.76	3.40	3.17	3.12	2.48	2.43	3.77	7.07	12.4	16.4	15.7	15.4
130	1.98	2.02	2.59	2.80	2.71	3.36	3.58	3.27	2.77	2.83	2.75	2.11	2.18	3.50	6.21	7.77	13.2	15.1	15.1
135	1.87	1.79	2.37	2.62	2.50	2.80	2.75	2.72	2.50	2.63	2.48	1.84	2.04	3.40	4.68	6.87	8.64	12.3	12.5
140	1.77	1.70	2.25	2.46	2.43	2.38	2.41	2.21	2.34	2.46	2.28	1.69	1.91	3.06	3.97	6.14	6.87	5.08	8.85
145	1.70	1.68	2.08	2.55	2.38	2.48	2.43	2.26	2.38	2.71	2.06	1.72	1.81	2.74	3.52	3.92	6.07	7.07	7.26
150	1.61	1.69	2.01	2.33	2.55	2.69	2.38	2.50	2.44	2.20	1.98	1.63	1.71	2.54	3.09	3.38	3.43	4.30	6.65
155	1.54	1.55	1.89	2.07	2.19	2.48	2.42	2.19	2.02	1.96	1.72	1.42	1.68	2.40	3.12	3.16	2.90	3.49	3.57
160	1.47	1.49	1.74	1.91	1.92	1.95	1.96	1.84	1.77	1.71	1.51	1.32	1.60	2.12	2.70	2.97	2.89	3.45	3.41
165	1.38	1.38	1.68	1.83	1.76	1.61	1.53	1.52	1.60	1.60	1.43	1.19	1.40	1.73	2.33	2.58	3.01	3.35	3.15
170	1.53	1.42	1.72	1.84	1.69	1.58	1.39	1.46	1.57	1.65	1.52	1.35	1.48	1.69	2.03	2.28	2.63	2.98	3.01
175	1.60	1.56	1.67	1.69	1.63	1.58	1.50	1.45	1.64	1.73	1.62	1.57	1.51	1.66	1.84	1.95	2.07	2.21	2.26
180	1.61	1.67	1.81	1.89	1.80	1.87	1.69	1.65	1.89	2.07	2.03	1.90	1.62	1.66	1.81	1.88	1.80	1.87	1.69

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:21 April 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=1.2193]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:119.89V I:0.2070A P:22.668W PF:0.9136 Freq:59.98Hz Lamp Flux:1758.57x1 lm		
NAME: ASD-UCB-48D24CC-WH-4000K	TYPE:0	WEIGHT:
SPEC.:24W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2
UNIT: cd

C(DEC) g (DEC)	285	300	315	330	345														
0	467	467	467	467	467														
5	479	478	475	473	470														
10	486	485	481	476	471														
15	490	490	484	477	470														
20	489	491	485	476	469														
25	485	490	483	474	466														
30	477	485	478	468	460														
35	465	478	472	461	444														
40	450	467	462	452	424														
45	430	453	449	439	402														
50	408	435	434	414	379														
55	381	411	414	386	354														
60	352	382	383	356	326														
65	319	350	349	323	297														
70	284	314	312	288	263														
75	247	274	272	248	225														
80	210	230	228	205	171														
85	172	185	178	158	98.4														
90	135	142	127	102	43.3														
95	43.2	48.0	50.4	43.2	13.1														
100	34.4	36.3	34.4	27.6	7.45														
105	31.7	31.8	28.5	18.7	5.91														
110	27.5	23.6	20.1	14.1	5.28														
115	18.1	17.3	17.1	11.7	4.85														
120	15.8	16.3	14.9	8.78	4.62														
125	15.7	15.6	12.0	6.84	4.10														
130	14.7	13.0	7.46	6.06	3.82														
135	11.8	8.28	6.64	4.56	3.62														
140	4.84	6.71	5.97	4.00	3.27														
145	6.64	6.09	3.84	3.64	3.07														
150	4.32	3.38	3.45	3.29	2.90														
155	3.52	3.11	3.32	3.31	2.73														
160	3.50	3.10	3.18	2.87	2.52														
165	3.28	3.10	2.73	2.59	2.22														
170	2.65	2.50	2.46	2.41	2.21														
175	1.90	1.95	2.13	2.30	2.12														
180	1.64	1.90	2.07	2.03	1.90														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:21 April 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=1.2193]
Remarks: