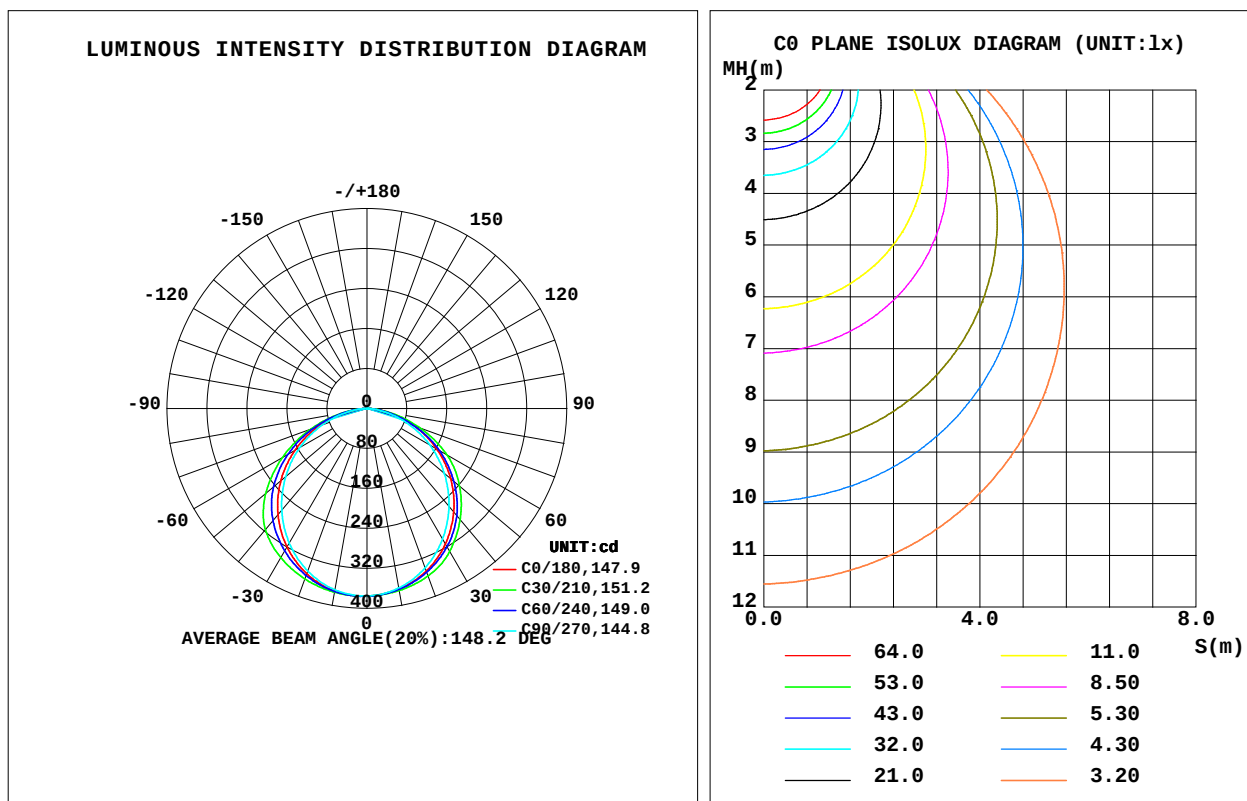


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 66.76 lm/W			
MODELASD-UCL-32D12CC-3000K		I _{max} (cd)	376.5	S/MH(C0/180)	1.27
NOMINAL POWER(W)	16	LOR(%)	100.0	S/MH(C90/270)	1.24
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1104.2	h UP, DN(C0-180)	0.3,48.8
NOMINAL FLUX(lm)	1104.19	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.2,50.7
LAMPS INSIDE	1	h up(%)	0.5	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	h down(%)	99.5	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:10 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=1.0000]
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum, lamp
10	366.8	368.6	364.6	369.1	371.0	371.7	368.4	371.4	0- 10	35.55	35.55	3.22, 3.22
20	346.4	352.2	339.7	352.4	352.1	358.7	346.3	357.3	10- 20	102.3	137.8	12.5, 12.5
30	313.5	327.7	302.2	326.6	320.0	335.9	311.2	333.5	20- 30	156.4	294.2	26.6, 26.6
40	270.2	290.5	255.5	289.7	277.2	304.0	265.5	300.7	30- 40	191.0	485.2	43.9, 43.9
50	218.9	238.7	202.2	239.7	225.1	260.7	212.4	257.6	40- 50	200.4	685.6	62.1, 62.1
60	161.0	180.1	144.3	183.0	166.0	195.2	154.4	191.6	50- 60	181.8	867.4	78.6, 78.6
70	98.98	113.1	84.83	113.4	101.7	118.3	93.49	116.6	60- 70	137.2	1005	91, 91
80	40.63	43.78	30.96	42.60	39.88	46.42	36.65	47.24	70- 80	75.84	1081	97.9, 97.9
90	0.8929	0.8087	0.3001	0.7926	0.2010	0.6915	0.3044	0.7990	80- 90	18.43	1099	99.5, 99.5
100	0.5658	0.6419	0.5389	0.6185	0.3839	0.4567	0.3407	0.5175	90-100	0.4815	1099	99.6, 99.6
110	0.8214	0.9661	0.8739	0.9250	0.6050	0.6657	0.5842	0.7039	100-110	0.6708	1100	99.6, 99.6
120	1.030	1.190	1.095	1.146	0.7716	0.8383	0.7382	0.8746	110-120	0.8539	1101	99.7, 99.7
130	1.084	1.278	1.246	1.230	0.8102	0.9586	0.8723	0.9882	120-130	0.9028	1102	99.8, 99.8
140	1.026	1.335	1.247	1.312	0.7693	1.036	0.9908	1.050	130-140	0.8275	1103	99.9, 99.9
150	0.9582	1.425	1.277	1.373	0.6933	0.9026	1.077	0.9226	140-150	0.6779	1103	99.9, 99.9
160	0.9109	1.213	1.268	1.178	0.6382	0.8722	0.7973	0.8891	150-160	0.4792	1104	100, 100
170	0.8437	1.138	0.9632	1.067	0.7091	0.9019	0.8678	0.9405	160-170	0.2662	1104	100, 100
180	0.8196	1.021	0.9459	1.049	0.8194	1.023	0.9435	1.049	170-180	0.0879	1104	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: 10 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=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm											
NAME: ASD-UCL-32D16CC-3000K						TYPE:			WEIGHT:		
SPEC.:16W						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	12.0	13.5	12.2	13.7	13.9	11.1	12.6	11.3	12.8	13.0	
	3H	13.5	14.9	13.8	15.2	15.4	12.4	13.8	12.7	14.0	14.3
	4H	14.1	15.4	14.4	15.7	16.0	12.9	14.2	13.2	14.5	14.7
	6H	14.5	15.8	14.9	16.1	16.4	13.2	14.4	13.5	14.7	15.0
	8H	14.6	15.9	15.0	16.2	16.5	13.2	14.4	13.6	14.7	15.0
	12H	14.7	15.9	15.1	16.2	16.5	13.2	14.4	13.6	14.7	15.0
4H	2H	12.5	13.8	12.8	14.1	14.3	11.8	13.1	12.1	13.4	13.6
	3H	14.2	15.4	14.6	15.7	16.0	13.3	14.4	13.6	14.8	15.1
	4H	14.9	16.0	15.3	16.3	16.7	13.9	14.9	14.3	15.3	15.6
	6H	15.5	16.4	15.9	16.8	17.2	14.3	15.2	14.7	15.6	16.0
	8H	15.7	16.5	16.1	16.9	17.3	14.4	15.3	14.8	15.6	16.0
	12H	15.8	16.6	16.2	17.0	17.4	14.4	15.2	14.8	15.6	16.0
8H	4H	15.1	16.0	15.5	16.4	16.8	14.2	15.1	14.6	15.4	15.8
	6H	15.8	16.5	16.3	16.9	17.4	14.7	15.4	15.2	15.9	16.3
	8H	16.1	16.7	16.5	17.1	17.6	14.9	15.5	15.3	16.0	16.4
	12H	16.3	16.8	16.7	17.3	17.8	15.0	15.5	15.4	16.0	16.5
12H	4H	15.1	15.9	15.6	16.3	16.7	14.2	15.0	14.6	15.4	15.8
	6H	15.8	16.5	16.3	16.9	17.4	14.8	15.4	15.2	15.9	16.3
	8H	16.1	16.7	16.6	17.1	17.6	15.0	15.5	15.5	16.0	16.5
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.4					

CIE Pub.117, 1104 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.3$)

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: MEDIUM

Temperature:25.3DEG

Operators:

Test Date:10 March 2021

g Range: 0 - 180DEG

g Interval: 0.5DEG

Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402

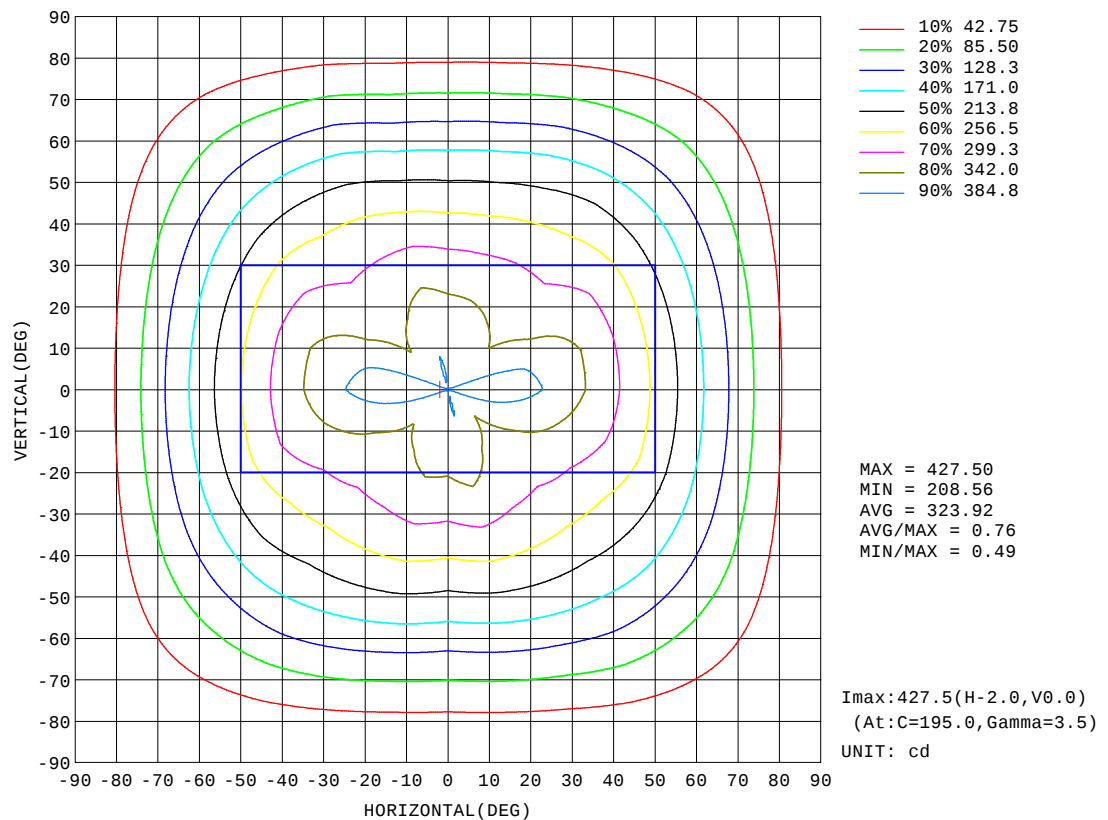
Humidity:65.0%

Test Distance:3.010m [K=1.0000]

Remarks:

ISOCANDELA DIAGRAM

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



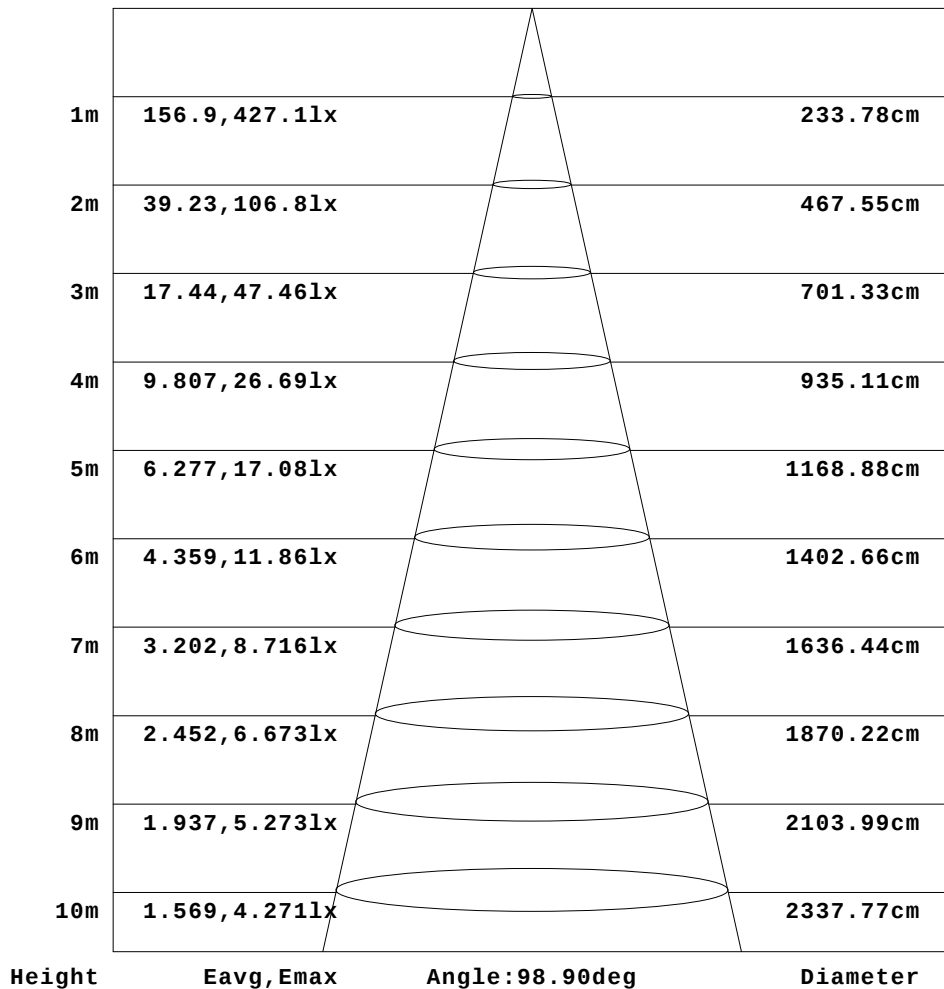
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 10 March 2021

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=1.0000]
Remarks:

AAI Figure

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Flux out:675.8 lm



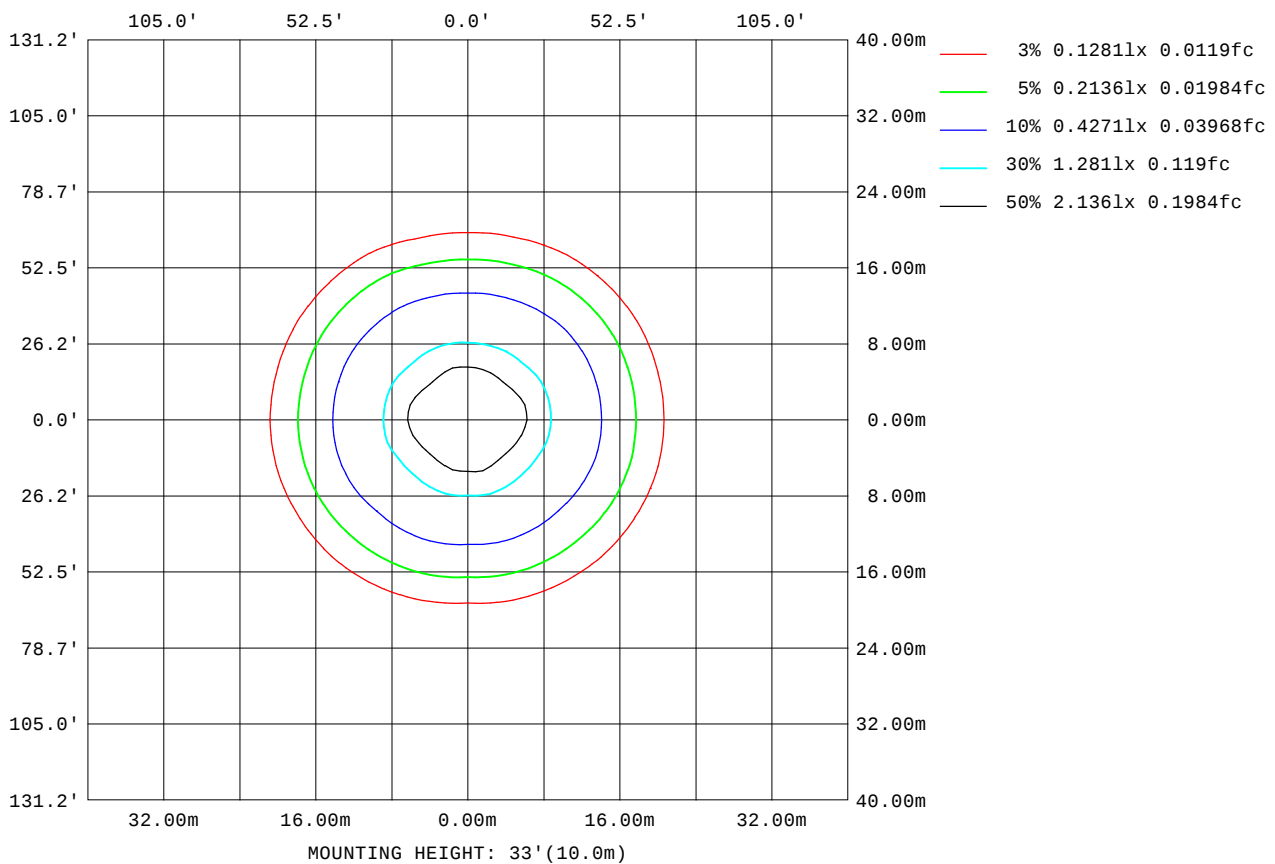
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 10 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=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	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:10 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=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

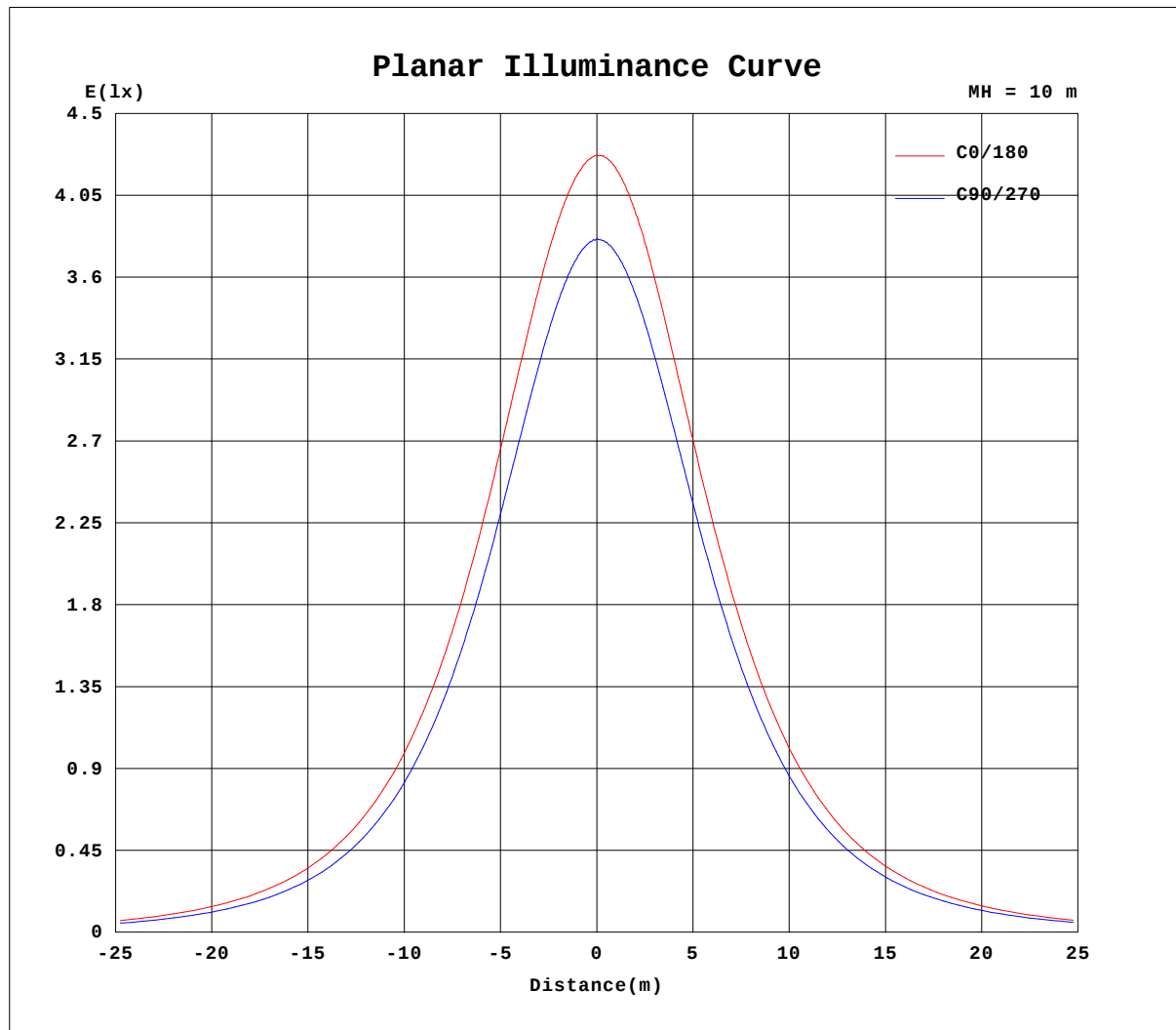
AvgL	cd/m2
L_0~180(65)av	626
L_0~180(75)av	534
L_0~180(85)av	370
L_90~270(65)av	564
L_90~270(75)av	466
L_90~270(85)av	267
L_45(65)av	721
L_45(75)av	609
L_45(85)av	382

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:10 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=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 10 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=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	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	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376	376
5	372	372	374	373	373	373	372	373	373	374	374	373	375	376	375	375	375	374	374
10	367	366	370	369	368	367	365	367	368	369	370	368	371	374	373	372	372	369	368
15	358	357	365	361	359	357	354	358	360	362	364	360	363	370	369	366	365	359	359
20	346	346	357	352	349	343	340	345	349	352	355	350	352	363	363	359	356	346	346
25	331	333	346	341	336	326	322	330	335	341	345	338	337	353	355	349	344	330	330
30	314	318	331	328	320	306	302	311	319	327	330	325	320	339	345	336	329	312	311
35	293	301	312	311	301	284	280	290	301	310	312	310	300	321	332	321	312	290	289
40	270	282	290	290	280	260	256	267	280	290	292	293	277	297	316	304	293	266	266
45	245	261	267	265	255	233	230	242	255	266	270	269	252	270	294	284	270	241	240
50	219	234	242	239	227	206	202	214	228	240	247	240	225	241	265	261	244	213	212
55	190	204	215	211	198	178	174	185	200	212	221	209	196	210	231	230	214	184	184
60	161	172	184	180	167	148	144	154	170	183	187	176	166	177	195	195	182	154	154
65	130	139	148	148	134	118	114	122	138	151	150	142	134	143	157	157	148	123	124
70	99.0	106	112	113	99.4	87.8	84.8	91.0	104	113	112	108	102	108	119	118	112	92.6	93.5
75	68.7	73.3	77.2	77.0	67.3	58.8	56.8	60.8	69.8	76.5	76.3	73.4	69.5	73.8	81.4	81.1	76.5	63.5	63.9
80	40.6	43.1	44.6	43.8	37.3	32.4	31.0	33.1	38.1	42.6	43.0	41.9	39.9	42.4	46.9	46.4	43.9	36.1	36.6
85	16.9	18.0	16.8	15.9	12.5	10.7	9.71	10.7	12.2	14.7	15.3	16.0	15.4	16.0	18.4	17.2	16.5	12.9	13.6
90	0.89	0.54	0.94	0.81	0.58	0.28	0.30	0.32	0.63	0.79	0.70	0.39	0.20	0.72	0.67	0.69	0.49	0.31	0.30
95	0.45	0.45	0.48	0.47	0.43	0.38	0.38	0.38	0.43	0.45	0.47	0.46	0.28	0.31	0.39	0.36	0.33	0.31	0.33
100	0.57	0.58	0.64	0.64	0.60	0.53	0.54	0.54	0.58	0.62	0.62	0.57	0.38	0.41	0.44	0.46	0.40	0.39	0.34
105	0.69	0.72	0.80	0.82	0.78	0.70	0.71	0.71	0.76	0.78	0.76	0.69	0.50	0.52	0.56	0.58	0.51	0.47	0.47
110	0.82	0.85	0.94	0.97	0.93	0.85	0.87	0.87	0.91	0.93	0.90	0.82	0.60	0.62	0.67	0.67	0.64	0.57	0.58
115	0.93	0.96	1.06	1.10	1.06	0.97	1.00	0.99	1.03	1.05	1.01	0.92	0.69	0.71	0.78	0.75	0.70	0.64	0.67
120	1.03	1.08	1.16	1.19	1.17	1.07	1.09	1.09	1.13	1.15	1.11	1.02	0.77	0.79	0.86	0.84	0.78	0.71	0.74
125	1.08	1.13	1.20	1.24	1.22	1.15	1.19	1.16	1.20	1.19	1.16	1.08	0.82	0.84	0.90	0.91	0.83	0.76	0.81
130	1.08	1.15	1.25	1.28	1.25	1.20	1.25	1.21	1.23	1.23	1.22	1.09	0.81	0.85	0.96	0.96	0.91	0.84	0.87
135	1.07	1.12	1.27	1.30	1.28	1.21	1.26	1.22	1.26	1.27	1.24	1.08	0.81	0.85	0.95	0.99	0.97	0.89	0.94
140	1.03	1.08	1.30	1.33	1.29	1.19	1.25	1.20	1.27	1.31	1.26	1.06	0.77	0.82	0.92	1.04	0.96	0.92	0.99
145	0.99	1.08	1.30	1.40	1.31	1.21	1.25	1.22	1.31	1.37	1.25	1.06	0.73	0.82	0.91	1.01	1.05	0.95	1.01
150	0.96	1.07	1.24	1.42	1.39	1.26	1.28	1.25	1.36	1.37	1.19	1.06	0.69	0.78	0.88	0.90	1.02	1.02	1.08
155	0.94	1.05	1.18	1.35	1.38	1.35	1.37	1.32	1.32	1.30	1.15	1.04	0.66	0.76	0.88	0.89	0.84	0.86	0.94
160	0.91	1.03	1.13	1.21	1.29	1.23	1.27	1.22	1.24	1.18	1.09	1.00	0.64	0.75	0.83	0.87	0.84	0.78	0.80
165	0.85	0.95	1.10	1.15	1.14	1.05	1.08	1.06	1.11	1.09	1.04	0.92	0.63	0.72	0.78	0.89	0.88	0.78	0.79
170	0.84	0.93	1.12	1.14	1.08	1.00	0.96	0.99	1.06	1.07	1.02	0.90	0.71	0.72	0.83	0.90	0.88	0.79	0.87
175	0.84	0.90	1.04	1.06	1.03	0.98	0.98	0.95	1.04	1.06	0.97	0.86	0.74	0.76	0.85	0.93	0.89	0.80	0.89
180	0.82	0.86	0.97	1.02	0.94	0.89	0.95	0.87	0.95	1.05	1.00	0.87	0.82	0.86	0.97	1.02	0.93	0.89	0.94

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:10 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=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.02V I:0.1484A P:16.540W PF:0.9289 Freq:59.98Hz Lamp Flux:1104.19x1 lm		
NAME: ASD-UCL-32D16CC-3000K	TYPE:	WEIGHT:
SPEC.:16W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2
UNIT: cd

C(DEG) g (DEG)	285	300	315	330	345														
0	376	376	376	376	376														
5	374	375	375	375	376														
10	368	371	371	372	373														
15	359	364	366	368	369														
20	346	354	357	361	363														
25	331	342	347	352	353														
30	312	327	334	341	338														
35	292	309	318	328	316														
40	269	288	301	313	291														
45	244	264	281	289	265														
50	218	237	258	258	236														
55	189	209	227	224	206														
60	160	178	192	190	174														
65	128	144	154	154	140														
70	96.2	109	117	117	107														
75	66.2	75.0	80.8	81.0	74.1														
80	38.0	43.3	47.2	47.9	43.9														
85	13.9	17.1	18.8	20.3	18.3														
90	0.38	0.59	0.80	0.90	0.91														
95	0.35	0.42	0.48	0.48	0.35														
100	0.40	0.47	0.52	0.49	0.43														
105	0.49	0.57	0.62	0.59	0.55														
110	0.60	0.67	0.70	0.69	0.65														
115	0.68	0.74	0.79	0.79	0.75														
120	0.75	0.82	0.87	0.89	0.85														
125	0.80	0.86	0.94	0.94	0.89														
130	0.89	0.93	0.99	1.00	0.91														
135	0.95	1.00	1.01	0.97	0.89														
140	0.98	1.01	1.05	0.95	0.88														
145	1.01	1.05	1.01	0.94	0.86														
150	1.07	1.02	0.92	0.92	0.83														
155	0.89	0.88	0.91	0.93	0.81														
160	0.82	0.86	0.89	0.88	0.77														
165	0.86	0.90	0.91	0.86	0.79														
170	0.89	0.90	0.94	0.90	0.83														
175	0.87	0.87	0.94	0.96	0.86														
180	0.87	0.95	1.05	1.00	0.87														

C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature:25.3DEG
Operators:
Test Date:10 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=1.0000]
Remarks: