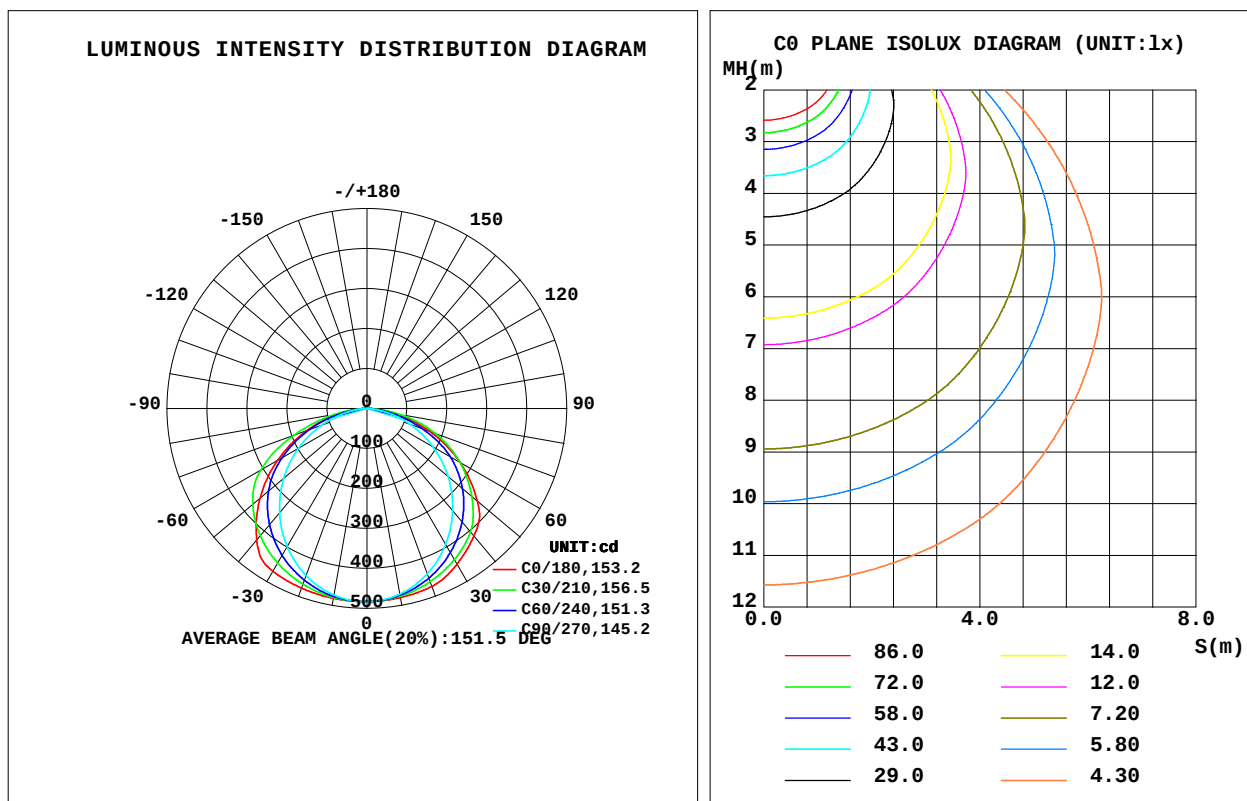


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 79.07 lm/W			
MODELASD-UCL-40D20CC-4000K		I _{max} (cd)	483.5	S/MH(C0/180)	1.45
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	1.23
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1532.5	h UP, DN(C0-180)	0.3,49.1
NOMINAL FLUX(lm)	1532.46	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.2,50.4
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: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=1.1661]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum, lamp
10	480.4	475.8	471.5	475.1	482.0	478.6	474.0	477.3	0- 10	45.82	45.82	2.99, 2.99
20	473.7	457.0	440.2	455.8	478.1	461.8	445.0	459.8	10- 20	132.6	178.4	11.6, 11.6
30	450.3	427.1	393.1	425.2	470.3	434.5	399.2	430.8	20- 30	205.5	383.9	25.1, 25.1
40	416.2	386.9	333.4	383.5	429.4	395.9	340.3	390.5	30- 40	256.2	640.1	41.8, 41.8
50	360.4	334.8	265.0	330.7	349.1	344.4	272.2	338.2	40- 50	276.8	916.9	59.8, 59.8
60	268.1	259.6	190.0	263.3	257.5	277.0	197.3	269.6	50- 60	260.5	1177	76.8, 76.8
70	167.0	167.9	113.2	171.1	158.2	185.4	119.0	171.3	60- 70	203.6	1381	90.1, 90.1
80	68.98	68.67	39.46	67.44	62.25	76.02	45.81	68.98	70- 80	115.5	1497	97.7, 97.7
90	1.254	1.407	0.4531	1.257	0.3554	1.240	0.5790	1.275	80- 90	27.52	1524	99.5, 99.5
100	0.8622	1.041	0.8492	1.041	0.6414	0.7916	0.5980	0.8328	90-100	0.7888	1525	99.5, 99.5
110	1.194	1.554	1.387	1.551	0.9736	1.145	0.9452	1.135	100-110	1.086	1526	99.6, 99.6
120	1.479	1.886	1.741	1.911	1.199	1.454	1.203	1.394	110-120	1.371	1527	99.7, 99.7
130	1.529	2.042	1.982	2.028	1.214	1.600	1.430	1.611	120-130	1.440	1529	99.8, 99.8
140	1.456	2.161	2.020	2.125	1.137	1.713	1.620	1.688	130-140	1.314	1530	99.8, 99.8
150	1.387	2.256	2.085	2.204	1.036	1.435	1.746	1.523	140-150	1.075	1531	99.9, 99.9
160	1.342	1.976	2.059	1.879	0.9470	1.407	1.321	1.428	150-160	0.7588	1532	100, 100
170	1.274	1.900	1.598	1.704	1.033	1.501	1.390	1.530	160-170	0.4260	1532	100, 100
180	1.228	1.736	1.550	1.711	1.227	1.737	1.551	1.714	170-180	0.1431	1532	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=1.1661]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm											
NAME: ASD-UCL-40D20CC-4000K					TYPE:			WEIGHT:			
SPEC.:20W					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	14.0	15.5	14.3	15.8	16.0	12.0	13.5	12.2	13.7	13.9	
	3H	15.8	17.3	16.2	17.5	17.8	13.3	14.7	13.6	15.0	15.2
	4H	16.5	17.9	16.9	18.2	18.4	13.8	15.1	14.1	15.4	15.7
	6H	17.0	18.3	17.4	18.6	18.9	14.0	15.3	14.4	15.6	15.9
	8H	17.2	18.4	17.5	18.7	19.0	14.1	15.3	14.4	15.6	15.9
	12H	17.2	18.4	17.6	18.7	19.1	14.1	15.3	14.4	15.6	15.9
4H	2H	14.4	15.7	14.7	16.0	16.3	12.8	14.2	13.1	14.4	14.7
	3H	16.4	17.6	16.8	17.9	18.3	14.3	15.5	14.7	15.8	16.1
	4H	17.3	18.4	17.7	18.7	19.1	14.9	16.0	15.3	16.3	16.7
	6H	17.9	18.9	18.3	19.3	19.6	15.3	16.3	15.7	16.6	17.0
	8H	18.1	19.0	18.6	19.4	19.8	15.4	16.3	15.8	16.6	17.0
	12H	18.3	19.1	18.7	19.5	19.9	15.4	16.2	15.8	16.6	17.0
8H	4H	17.5	18.4	17.9	18.7	19.1	15.4	16.3	15.8	16.6	17.0
	6H	18.2	19.0	18.7	19.4	19.8	15.9	16.6	16.3	17.0	17.5
	8H	18.5	19.2	19.0	19.6	20.1	16.0	16.7	16.5	17.1	17.6
	12H	18.8	19.3	19.2	19.8	20.3	16.0	16.6	16.5	17.1	17.6
12H	4H	17.4	18.3	17.9	18.7	19.1	15.4	16.2	15.9	16.6	17.1
	6H	18.3	18.9	18.7	19.4	19.8	16.0	16.6	16.4	17.1	17.5
	8H	18.6	19.2	19.1	19.6	20.1	16.1	16.7	16.6	17.2	17.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.1 / - 0.2					+ 0.2 / - 0.4					
2.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.5					

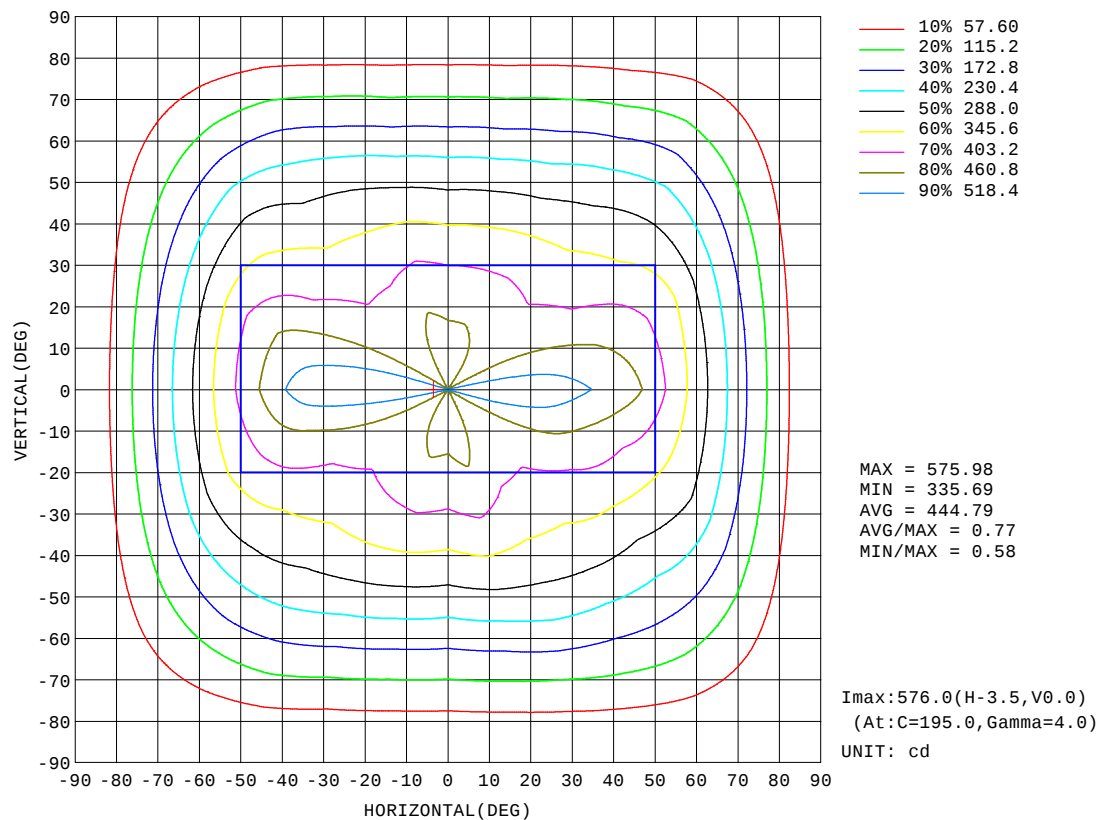
CIE Pub.117, 1532 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 1.5$)

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=1.1661]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:



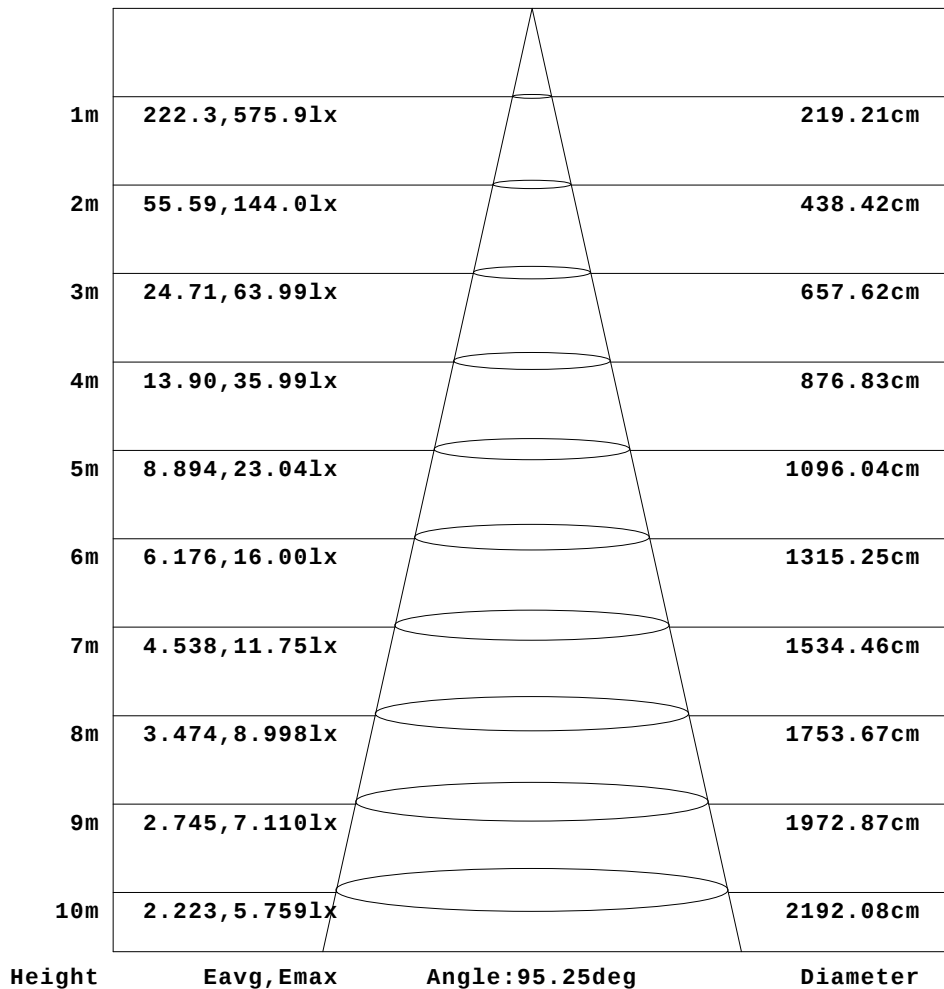
C Range: 0 - 360DEG
C Interval: 15.0DEG
Test Speed: MEDIUM
Temperature: 25.3DEG
Operators:
Test Date: 11 March 2021

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=1.1661]
Remarks:

AAI Figure

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Flux out:861.6 lm



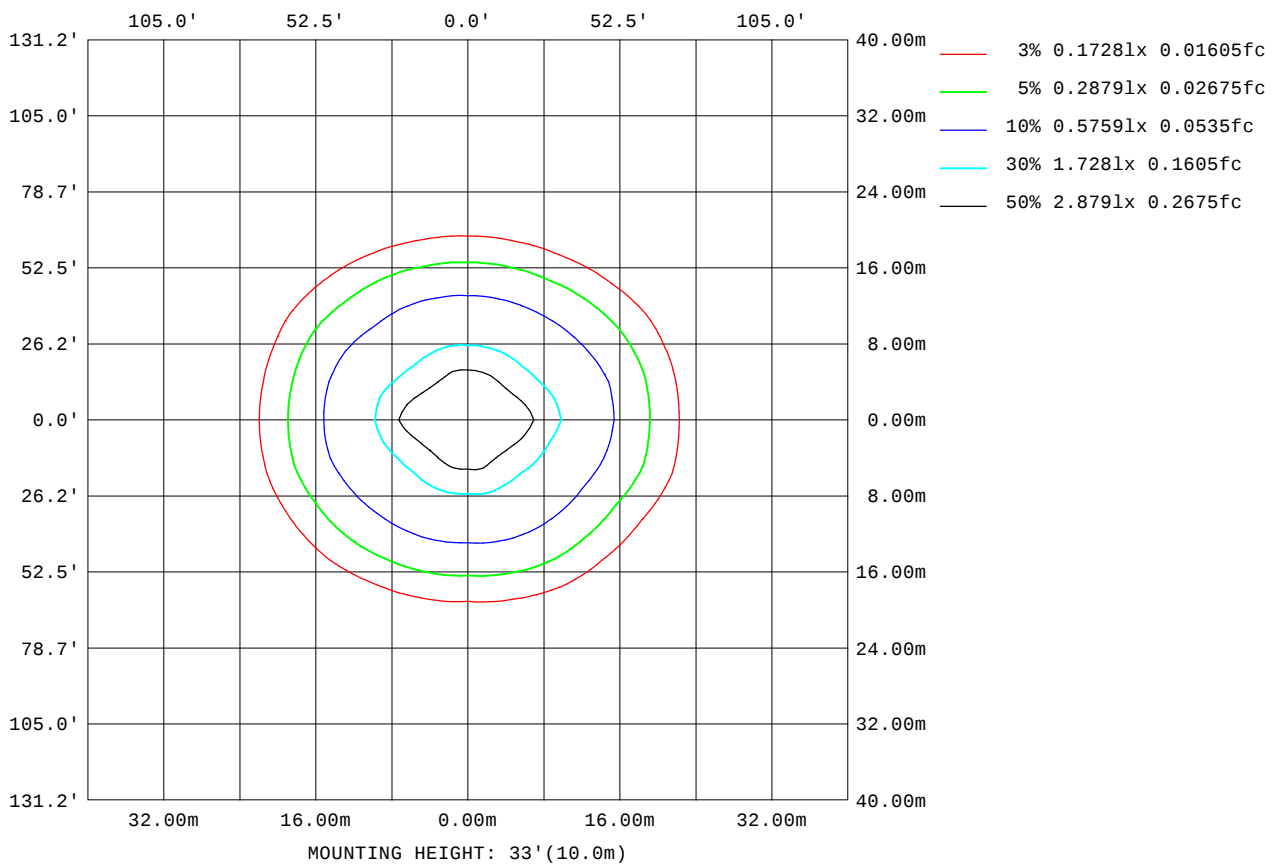
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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=1.1661]
 Remarks:

ISOLUX DIAGRAM

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	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=1.1661]
Remarks:

LED Avg.L Report

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

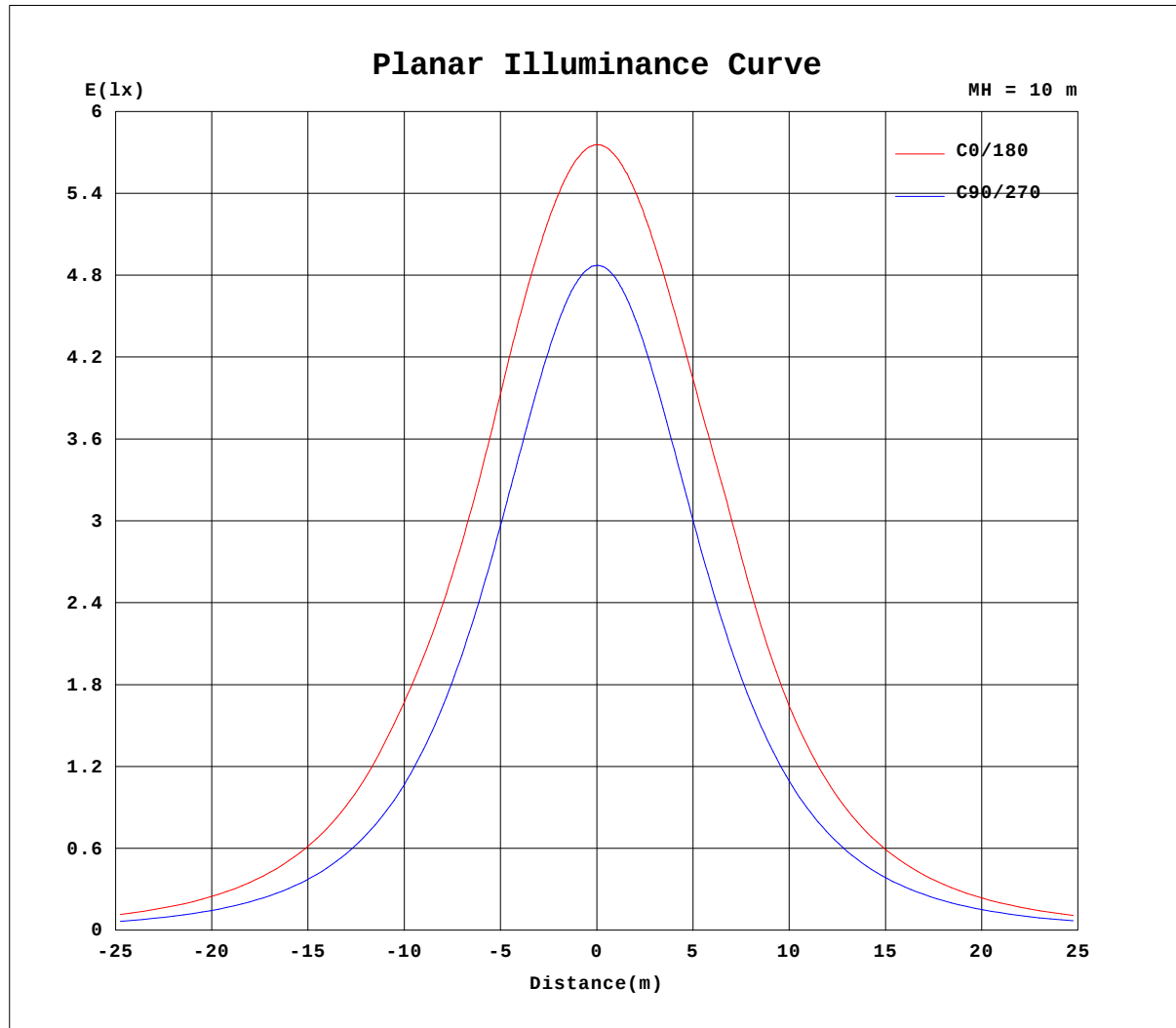
AvgL	cd/m2
L_0~180(65)av	1010
L_0~180(75)av	866
L_0~180(85)av	605
L_90~270(65)av	732
L_90~270(75)av	606
L_90~270(85)av	303
L_45(65)av	1057
L_45(75)av	943
L_45(85)av	561

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=1.1661]
 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=1.1661]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	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	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483	483
5	482	482	481	481	480	481	480	481	480	480	481	481	483	483	483	482	482	481	481
10	480	478	477	476	474	474	472	474	475	475	477	478	482	482	480	479	477	474	474
15	477	473	470	468	465	462	458	463	464	467	470	473	480	479	475	472	469	462	462
20	474	466	461	457	452	447	440	447	451	456	461	467	478	474	468	462	458	446	445
25	465	456	450	443	436	426	419	427	435	442	449	459	475	468	458	450	442	426	424
30	450	438	437	427	417	403	393	403	415	425	436	449	470	459	447	434	425	402	399
35	434	416	421	409	395	375	365	376	392	406	420	437	460	450	432	417	403	375	371
40	416	392	403	387	370	345	333	345	366	384	401	423	429	438	415	396	379	346	340
45	397	367	376	362	343	311	300	311	335	359	380	399	391	413	396	372	352	313	307
50	360	342	342	335	312	275	265	275	301	331	355	368	349	379	373	344	322	278	272
55	316	313	307	301	278	238	228	238	264	299	325	334	305	333	346	313	287	241	235
60	268	282	268	260	240	199	190	198	224	263	284	291	257	281	306	277	244	202	197
65	218	239	227	215	196	159	151	159	182	221	237	235	208	227	255	235	199	161	158
70	167	183	182	168	147	120	113	119	137	171	186	178	158	171	194	185	152	121	119
75	116	128	133	120	101	80.7	75.9	79.5	92.9	120	127	121	108	117	133	130	105	82.4	80.9
80	69.0	75.3	80.0	68.7	55.0	43.0	39.5	41.8	49.4	67.4	72.5	69.8	62.3	67.7	76.3	76.0	59.7	46.4	45.8
85	28.5	31.4	29.5	23.3	16.3	12.1	10.2	11.2	13.2	20.4	24.0	26.6	24.2	25.6	29.6	27.6	21.7	15.9	16.1
90	1.25	1.01	1.52	1.41	0.97	0.43	0.45	0.63	0.96	1.26	1.26	0.85	0.36	1.06	1.16	1.24	1.04	0.75	0.58
95	0.73	0.73	0.78	0.77	0.70	0.59	0.60	0.60	0.68	0.77	0.83	0.81	0.49	0.56	0.64	0.65	0.54	0.52	0.47
100	0.86	0.90	1.02	1.04	0.97	0.84	0.85	0.85	0.94	1.04	1.08	0.99	0.64	0.72	0.79	0.79	0.69	0.64	0.60
105	1.02	1.09	1.25	1.31	1.26	1.12	1.13	1.13	1.23	1.32	1.31	1.19	0.81	0.89	0.97	0.98	0.90	0.78	0.76
110	1.19	1.27	1.45	1.55	1.50	1.36	1.39	1.38	1.47	1.55	1.53	1.38	0.97	1.03	1.14	1.14	1.10	0.95	0.95
115	1.35	1.43	1.63	1.76	1.70	1.54	1.58	1.57	1.66	1.76	1.69	1.54	1.10	1.17	1.30	1.30	1.21	1.07	1.09
120	1.48	1.60	1.80	1.89	1.87	1.69	1.74	1.72	1.83	1.91	1.83	1.68	1.20	1.29	1.44	1.45	1.31	1.17	1.20
125	1.54	1.67	1.90	1.97	1.96	1.82	1.89	1.86	1.93	1.97	1.91	1.74	1.24	1.33	1.52	1.56	1.42	1.25	1.31
130	1.53	1.69	1.99	2.04	2.01	1.91	1.98	1.93	1.98	2.03	1.98	1.75	1.21	1.32	1.59	1.60	1.51	1.38	1.43
135	1.51	1.66	2.02	2.12	2.05	1.93	2.03	1.94	2.01	2.05	2.02	1.69	1.21	1.30	1.52	1.66	1.60	1.46	1.53
140	1.46	1.64	2.05	2.16	2.11	1.91	2.02	1.92	2.01	2.13	2.07	1.64	1.14	1.26	1.48	1.71	1.60	1.49	1.62
145	1.43	1.65	2.02	2.26	2.17	1.97	2.03	1.93	2.06	2.20	2.04	1.63	1.09	1.25	1.44	1.58	1.73	1.54	1.65
150	1.39	1.64	1.92	2.26	2.28	2.07	2.08	1.97	2.12	2.20	1.95	1.59	1.04	1.19	1.39	1.44	1.61	1.63	1.75
155	1.37	1.64	1.87	2.16	2.23	2.16	2.23	2.08	2.08	2.08	1.84	1.58	0.98	1.13	1.39	1.41	1.37	1.36	1.55
160	1.34	1.59	1.82	1.98	2.11	1.99	2.06	1.94	1.95	1.88	1.75	1.57	0.95	1.07	1.27	1.41	1.37	1.28	1.32
165	1.27	1.50	1.78	1.88	1.88	1.75	1.77	1.71	1.76	1.74	1.65	1.46	0.93	1.06	1.25	1.44	1.45	1.29	1.29
170	1.27	1.50	1.83	1.90	1.81	1.66	1.60	1.62	1.68	1.70	1.66	1.45	1.03	1.14	1.35	1.50	1.48	1.29	1.39
175	1.25	1.47	1.75	1.80	1.74	1.60	1.63	1.52	1.65	1.72	1.60	1.42	1.09	1.23	1.43	1.56	1.51	1.30	1.44
180	1.23	1.41	1.63	1.74	1.60	1.44	1.55	1.44	1.51	1.71	1.69	1.47	1.23	1.41	1.62	1.74	1.60	1.44	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=1.1661]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.08V I:0.1735A P:19.382W PF:0.9303 Freq:59.98Hz Lamp Flux:1532.46x1 lm		
NAME: ASD-UCL-40D20CC-4000K	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: ASD Lighting Corp	SUR.:	Shielding Angle:

Table--2
UNIT: cd

C(DEG) g (DEG)	285	300	315	330	345														
0	483	483	483	483	483														
5	480	482	482	482	482														
10	473	477	477	479	480														
15	461	468	470	473	476														
20	444	455	460	465	471														
25	424	440	447	455	463														
30	400	420	431	442	454														
35	373	396	412	427	444														
40	344	367	391	409	431														
45	311	335	366	389	415														
50	277	301	338	366	387														
55	240	264	307	338	354														
60	201	225	270	303	305														
65	161	184	222	258	248														
70	120	141	171	206	190														
75	82.8	98.6	118	143	131														
80	47.1	57.0	69.0	84.8	78.4														
85	16.5	21.8	26.5	35.2	32.4														
90	0.67	1.02	1.28	1.40	1.43														
95	0.51	0.72	0.78	0.83	0.59														
100	0.56	0.71	0.83	0.82	0.71														
105	0.77	0.85	0.96	0.97	0.88														
110	0.95	1.02	1.13	1.12	1.04														
115	1.08	1.15	1.28	1.30	1.19														
120	1.20	1.26	1.39	1.45	1.35														
125	1.29	1.32	1.51	1.52	1.40														
130	1.43	1.46	1.61	1.63	1.44														
135	1.52	1.58	1.62	1.62	1.43														
140	1.59	1.57	1.69	1.54	1.42														
145	1.63	1.67	1.69	1.51	1.39														
150	1.73	1.65	1.52	1.49	1.34														
155	1.46	1.43	1.47	1.50	1.31														
160	1.31	1.41	1.43	1.45	1.29														
165	1.37	1.45	1.50	1.42	1.26														
170	1.44	1.45	1.53	1.53	1.36														
175	1.39	1.41	1.53	1.63	1.45														
180	1.44	1.51	1.71	1.68	1.46														

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=1.1661]
Remarks: