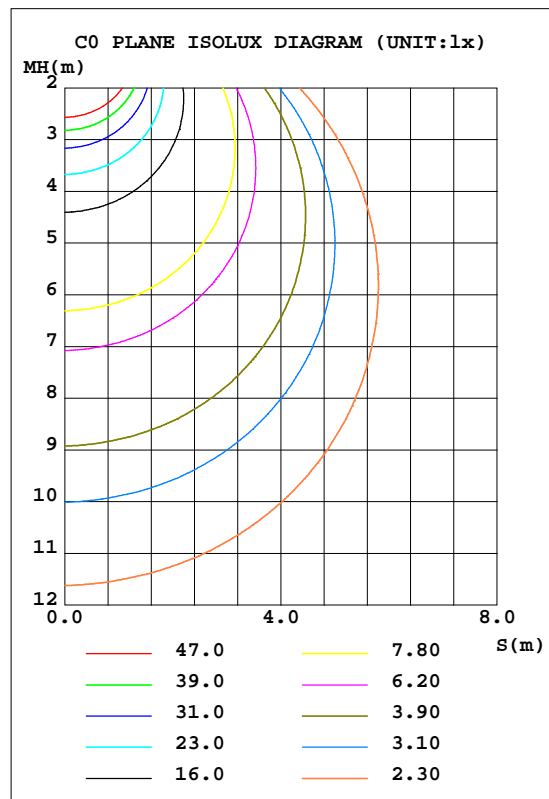
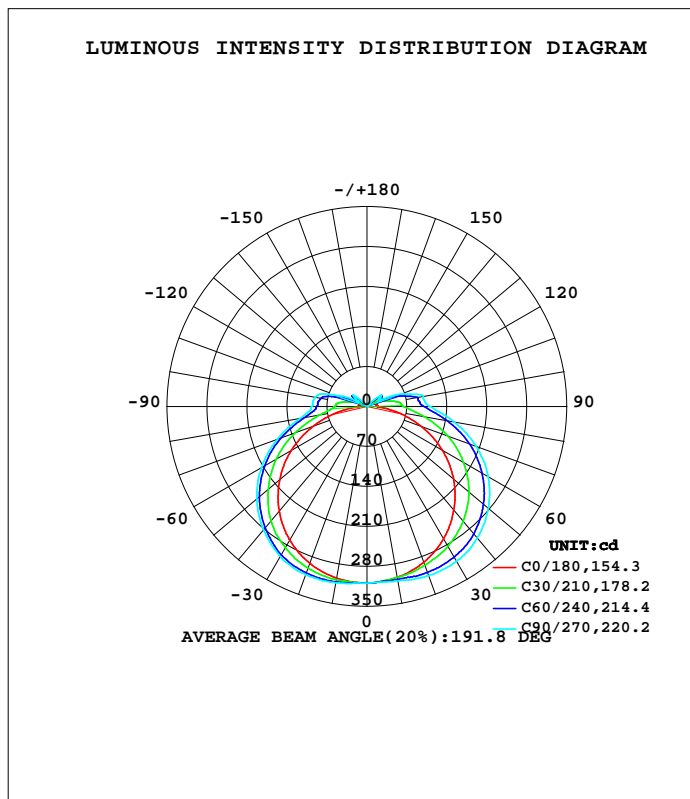


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm		
NAME: LVA-24-MCT5-BN	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 69.11 lm/W
MODEL	LVA-24-MCT5-BN	I _{max} (cd)	315.5	S/MH(C0/180)	1.30	
NOMINAL POWER(W)	20	LOR(%)	100.0	S/MH(C90/270)	1.45	
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1406.0	h UP, DN(C0-180)	6.7,45.1	
NOMINAL FLUX(lm)	1406.05	CIE CLASS	SEMI-D.	h UP, DN(C180-360)	6.2,42.0	
LAMPS INSIDE	1	h up(%)	12.9	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	120	h down(%)	87.1	CIBSE SHR MAX	1.55	



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:14 December 2020

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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	303.7	306.1	309.7	307.3	305.3	310.2	313.4	308.5	0- 10	29.43	29.43	2.09,2.09
20	290.4	303.3	315.3	304.8	292.2	306.1	313.6	304.3	10- 20	86.71	116.1	8.26,8.26
30	267.8	295.5	313.0	295.8	269.9	294.1	303.3	291.5	20- 30	137.8	254.0	18.1,18.1
40	236.6	279.2	300.4	278.7	239.4	270.2	281.9	268.7	30- 40	176.4	430.4	30.6,30.6
50	198.1	252.9	277.6	250.5	199.4	237.2	251.8	236.0	40- 50	197.0	627.4	44.6,44.6
60	152.0	217.7	244.9	213.9	152.6	195.6	213.0	195.2	50- 60	196.6	824.0	58.6,58.6
70	100.5	176.0	203.2	170.7	99.31	147.4	167.1	148.4	60- 70	174.8	998.8	71,71
80	49.49	126.1	154.6	119.7	45.74	97.91	118.3	98.84	70- 80	134.6	1133	80.6,80.6
90	18.04	86.49	110.7	81.38	15.62	75.81	97.08	74.18	80- 90	91.60	1225	87.1,87.1
100	16.95	75.12	100.4	69.35	14.55	68.17	92.18	68.14	90-100	73.17	1298	92.3,92.3
110	15.35	36.23	64.59	32.06	12.97	32.08	58.20	33.57	100-110	54.01	1352	96.2,96.2
120	12.84	32.21	25.91	26.76	10.75	30.42	17.02	32.03	110-120	26.46	1379	98.1,98.1
130	9.719	10.30	28.04	10.59	7.623	8.805	31.04	10.12	120-130	17.21	1396	99.3,99.3
140	6.368	5.242	6.825	5.640	4.995	3.402	5.210	3.970	130-140	6.944	1403	99.8,99.8
150	3.053	1.764	3.424	1.220	2.501	1.086	1.755	1.124	140-150	2.244	1405	99.9,99.9
160	0.9942	1.050	1.114	0.9493	0.8763	0.8777	0.9526	0.9630	150-160	0.6752	1406	100,100
170	0.8598	0.8973	0.8604	0.8026	0.7662	0.7237	0.8055	0.8078	160-170	0.2508	1406	100,100
180	0.8162	0.8639	0.8843	0.8752	0.8165	0.8661	0.8824	0.8733	170-180	0.0775	1406	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:14 December 2020

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:

UGR(Unified Glare Rating) Table

Test:U:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm										
NAME: LVA-24-MCT5-BN					TYPE:			WEIGHT:		
SPEC.:20W					DIM.:			SERIAL No.:		
MFR.: LiBo					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	10.6	12.0	11.0	12.5	12.9	12.4	13.9	12.9	14.3	14.8
3H	12.3	13.6	12.7	14.1	14.6	14.9	16.3	15.4	16.7	17.2
4H	13.0	14.3	13.5	14.7	15.3	16.2	17.5	16.7	18.0	18.5
6H	13.6	14.8	14.1	15.3	15.8	17.6	18.8	18.1	19.3	19.9
8H	13.8	15.0	14.3	15.5	16.0	18.3	19.5	18.9	20.0	20.6
12H	14.0	15.1	14.5	15.6	16.2	19.1	20.2	19.7	20.8	21.4
4H 2H	11.8	13.0	12.3	13.5	14.0	13.1	14.3	13.6	14.8	15.4
3H	13.7	14.8	14.3	15.4	15.9	15.8	16.9	16.3	17.4	18.0
4H	14.6	15.6	15.2	16.2	16.8	17.3	18.3	17.9	18.9	19.5
6H	15.4	16.3	16.0	16.9	17.5	18.9	19.8	19.5	20.4	21.0
8H	15.7	16.6	16.3	17.1	17.8	19.7	20.6	20.3	21.2	21.8
12H	16.0	16.8	16.6	17.4	18.0	20.6	21.4	21.3	22.0	22.7
8H 4H	15.5	16.4	16.1	17.0	17.6	17.7	18.5	18.3	19.1	19.8
6H	16.6	17.4	17.3	18.0	18.7	19.5	20.2	20.2	20.9	21.6
8H	17.2	17.8	17.8	18.4	19.2	20.6	21.2	21.2	21.9	22.6
12H	17.6	18.2	18.3	18.8	19.6	21.8	22.3	22.4	23.0	23.7
12H 4H	15.8	16.6	16.4	17.2	17.9	17.7	18.5	18.3	19.1	19.8
6H	17.1	17.7	17.7	18.4	19.1	19.7	20.3	20.3	20.9	21.7
8H	17.7	18.3	18.4	19.0	19.7	20.8	21.4	21.5	22.0	22.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.5					+ 0.2 / - 0.4				

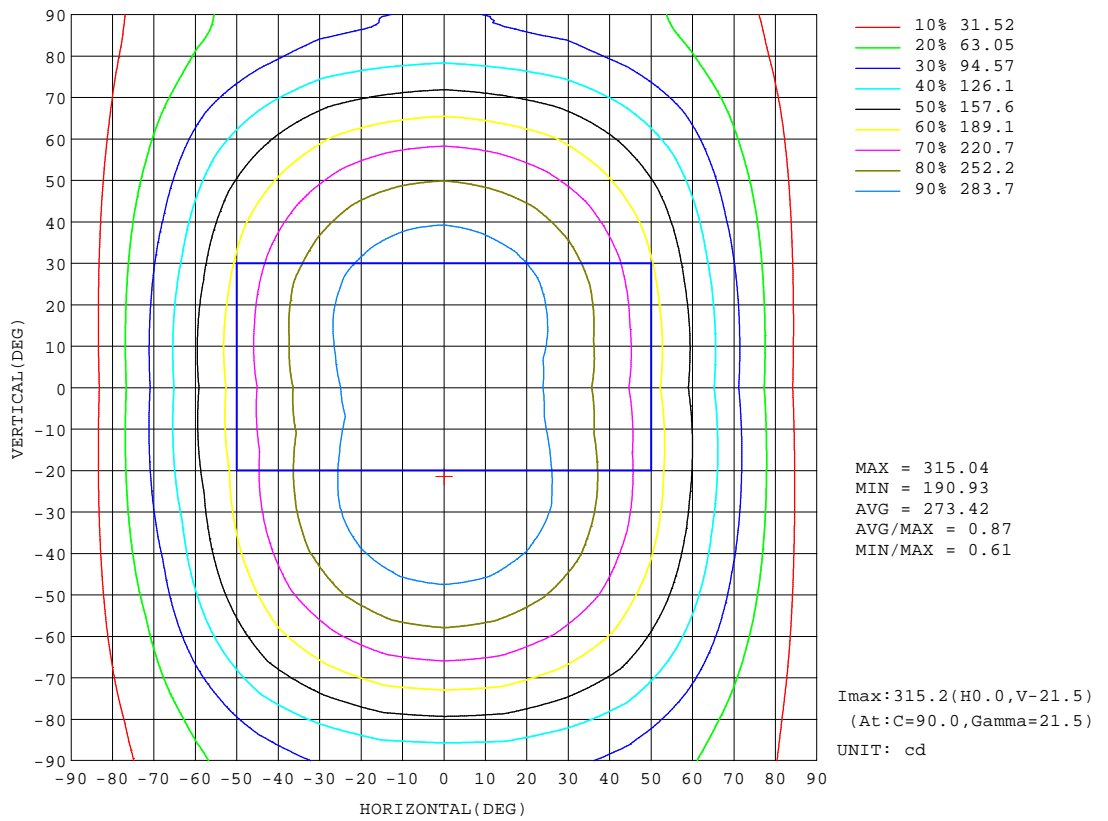
CIE Pub.117, 1406 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 1.2)

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:14 December 2020

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:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm		
NAME: LVA-24-MCT5-BN	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:



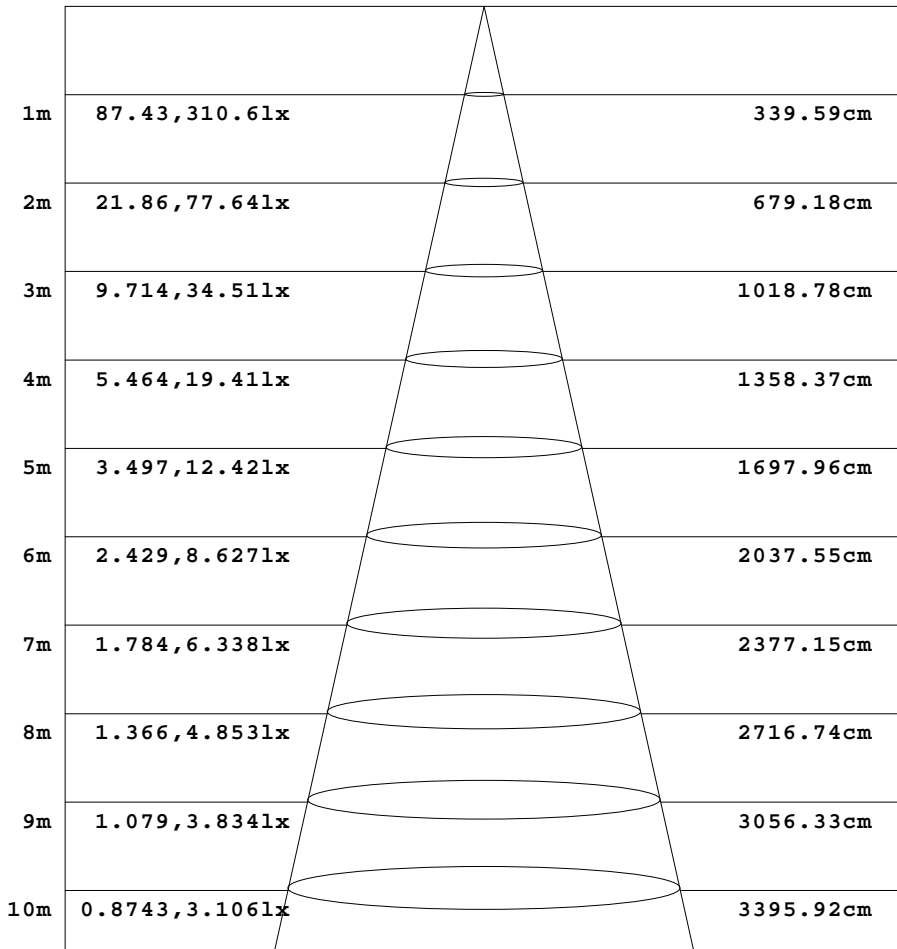
C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 14 December 2020

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:

AAI Figure

Test:U:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm		
NAME: LVA-24-MCT5-BN	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

Flux out:824.0 lm



Height Eavg, Emax Angle:119.01deg Diameter

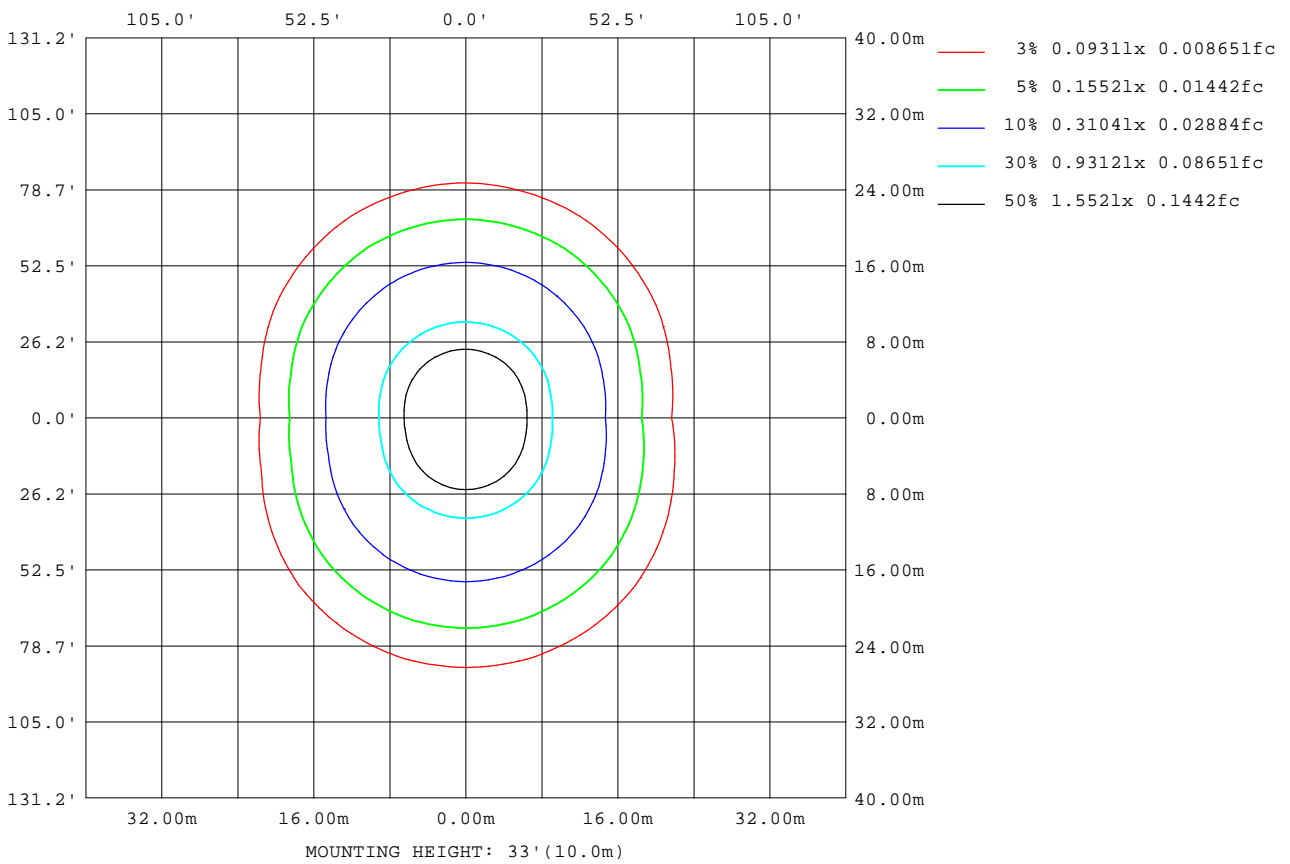
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:14 December 2020

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:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm		
NAME: LVA-24-MCT5-BN	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:14 December 2020

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:

LED Avg.L Report

Test:U:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm		
NAME: LVA-24-MCT5-BN	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

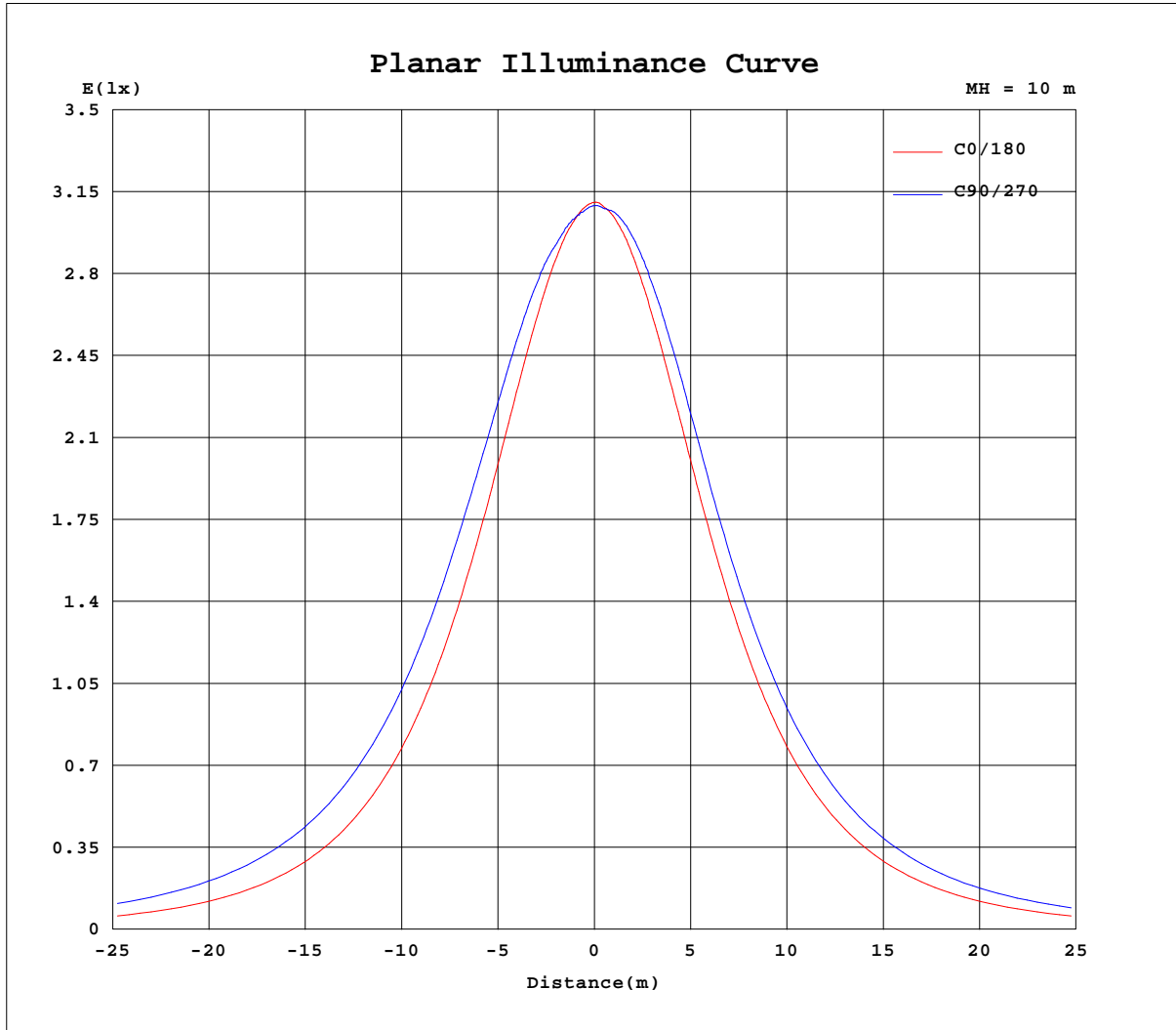
AvgL	cd/m2
L_0~180(65)av	599
L_0~180(75)av	566
L_0~180(85)av	609
L_90~270(65)av	986
L_90~270(75)av	1242
L_90~270(85)av	2664
L_45(65)av	871
L_45(75)av	1045
L_45(85)av	2088

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:14 December 2020

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:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature: 25.3DEG
 Operators:
 Test Date: 14 December 2020

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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.01V I:0.1808A P:20.344W PF:0.9378 Freq:59.98Hz Lamp Flux:1406.05x1 lm		
NAME: LVA-24-MCT5-BN	TYPE:	WEIGHT:
SPEC.:20W	DIM.:	SERIAL No.:
MFR.: LiBo	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	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309
5	307	307	307	307	308	308	309	308	308	308	307	308	308	308	308	309	310	310	311
10	304	304	304	306	308	309	310	309	308	307	306	304	305	306	308	310	312	313	313
15	298	298	301	304	309	311	313	312	309	306	303	299	300	301	306	309	312	314	314
20	290	292	296	303	309	313	315	314	310	305	296	293	292	295	301	306	310	312	314
25	280	283	290	300	308	313	315	314	309	301	291	284	282	287	295	301	307	309	310
30	268	272	283	295	305	311	313	312	305	296	283	272	270	276	286	294	300	303	303
35	254	259	273	288	299	306	309	307	299	288	273	259	256	263	275	284	290	292	294
40	237	245	262	279	291	298	300	298	291	279	261	243	239	248	261	270	277	281	282
45	218	229	249	267	280	288	290	288	279	266	246	226	220	231	245	255	263	266	268
50	198	211	233	253	266	275	278	275	266	250	230	208	199	211	226	237	246	250	252
55	176	192	215	236	251	259	262	260	250	233	211	187	177	189	205	217	227	232	233
60	152	170	195	218	233	242	245	242	231	214	190	164	153	165	183	196	206	210	213
65	127	147	174	197	213	223	225	222	210	193	167	139	126	139	159	173	184	188	191
70	100	123	150	176	191	201	203	200	188	171	143	114	99.3	112	133	147	160	164	167
75	74.7	97.7	126	152	167	178	180	177	164	145	117	87.3	71.8	85.4	107	121	134	139	142
80	49.5	73.1	101	126	142	153	155	152	138	120	91.9	62.5	45.7	61.4	82.9	97.9	111	115	118
85	28.5	51.3	79.2	103	118	128	130	127	114	96.9	70.9	41.5	24.6	41.8	64.8	82.3	94.2	99.1	102
90	18.0	38.9	64.8	86.5	100	109	111	109	97.0	81.4	58.3	31.5	15.6	33.8	57.3	75.8	88.6	94.1	97.1
95	17.4	35.3	59.6	80.2	93.0	101	102	101	90.8	75.9	54.4	28.8	15.1	30.8	54.0	73.2	86.4	92.3	95.4
100	16.9	30.8	51.5	75.1	90.7	98.8	100	98.4	87.6	69.3	44.9	23.4	14.6	26.1	45.1	68.2	82.3	88.7	92.2
105	16.3	23.5	36.8	58.3	71.3	81.9	83.8	80.3	68.2	52.1	32.4	17.6	13.8	19.6	31.2	50.0	69.6	79.5	84.9
110	15.4	18.7	32.0	36.2	51.7	61.9	64.6	60.8	46.8	32.1	27.5	14.8	13.0	15.1	27.5	32.1	47.9	54.6	58.2
115	14.2	15.9	25.5	32.6	26.8	32.4	35.5	30.2	29.3	30.8	18.6	12.7	11.9	12.3	23.3	28.9	23.5	33.4	37.1
120	12.8	13.8	16.3	32.2	27.6	25.8	25.9	27.8	30.2	26.8	14.6	10.6	10.8	10.1	14.3	30.4	27.2	19.8	17.0
125	11.4	11.4	12.6	18.1	32.6	28.6	28.2	30.8	29.2	14.6	11.5	9.22	9.30	8.52	10.4	18.5	31.8	27.0	24.6
130	9.72	9.59	9.85	10.3	16.4	25.8	28.0	24.6	13.3	10.6	8.81	7.81	7.62	7.15	7.66	8.80	19.7	28.1	31.0
135	8.13	7.81	7.54	7.45	6.93	10.5	11.5	9.91	8.14	7.67	6.42	6.41	6.30	5.78	5.10	5.73	6.97	12.3	15.2
140	6.37	6.04	5.35	5.24	4.81	6.34	6.82	6.38	5.71	5.64	4.27	5.03	5.00	4.51	3.69	3.40	3.96	4.39	5.21
145	4.65	4.33	3.39	3.87	3.22	4.63	5.14	4.65	4.20	3.57	3.02	3.68	3.72	3.31	2.60	1.65	2.45	2.95	3.41
150	3.05	2.80	2.02	1.76	3.09	3.39	3.42	3.54	3.37	1.22	1.79	2.38	2.50	2.18	1.69	1.09	1.25	1.61	1.76
155	1.59	1.36	1.10	1.17	1.32	2.43	2.52	2.34	1.14	1.10	1.03	1.24	1.40	1.16	0.98	1.01	1.01	1.10	1.17
160	0.99	0.99	1.00	1.05	1.11	1.12	1.11	1.10	1.05	0.95	0.91	0.92	0.88	0.85	0.85	0.88	0.93	0.93	0.95
165	0.91	0.92	0.91	0.93	0.97	0.98	0.96	0.94	0.92	0.84	0.84	0.84	0.78	0.77	0.74	0.78	0.81	0.82	0.84
170	0.86	0.89	0.92	0.90	0.88	0.88	0.86	0.83	0.81	0.80	0.79	0.80	0.77	0.74	0.72	0.72	0.74	0.76	0.81
175	0.82	0.85	0.87	0.87	0.87	0.88	0.85	0.84	0.84	0.81	0.78	0.77	0.75	0.73	0.72	0.75	0.77	0.77	0.78
180	0.82	0.82	0.84	0.86	0.85	0.86	0.88	0.86	0.85	0.88	0.84	0.81	0.82	0.82	0.84	0.87	0.85	0.86	0.88

C Range: 0 - 360DEG
 C Interval: 15.0DEG
 Test Speed: MEDIUM
 Temperature:25.3DEG
 Operators:
 Test Date:14 December 2020

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:

