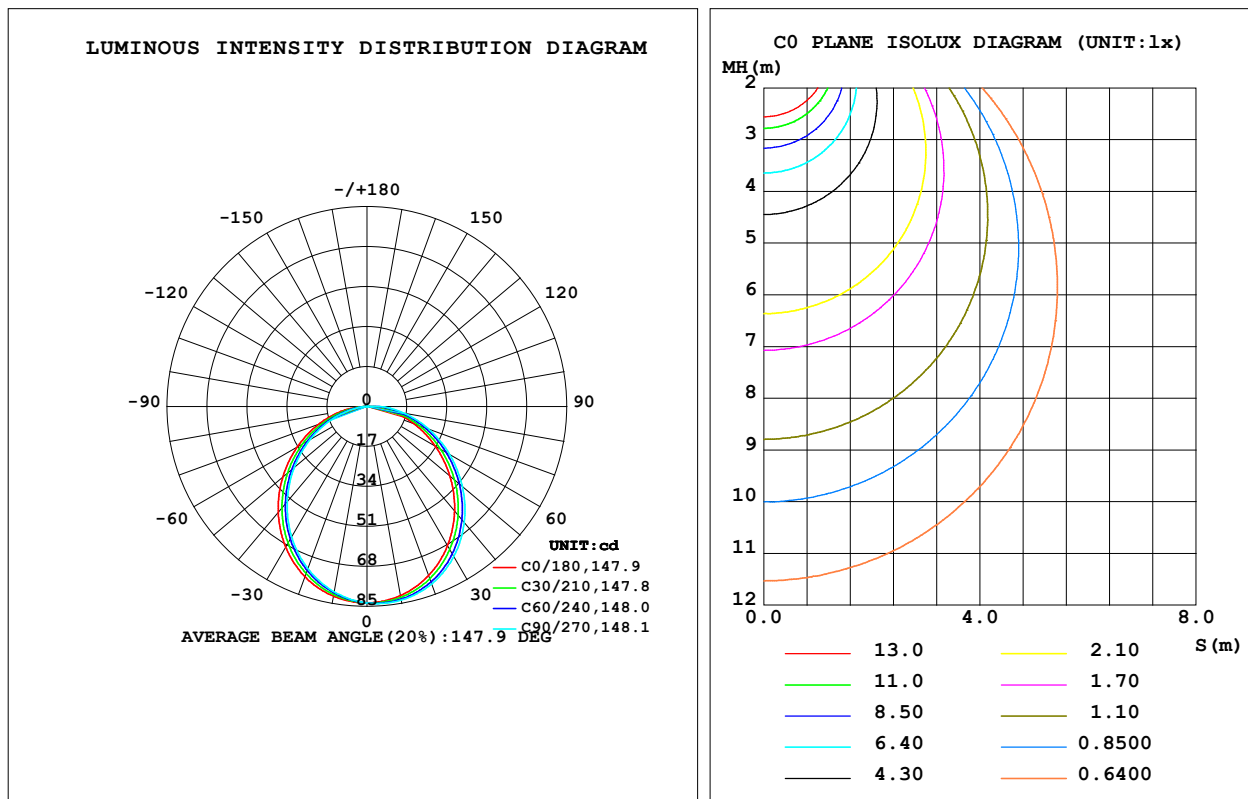


## LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 53.78 lm/W			
MODEL	53832	I <sub>max</sub> (cd)	84.03	S/MH (C0/180)	1.24
NOMINAL POWER (W)	4	LOR (%)	100.0	S/MH (C90/270)	1.15
RATED VOLTAGE (V)	120	TOTAL FLUX (lm)	231.58	h UP,DN (C0-180)	0.3,54.3
NOMINAL FLUX (lm)	231.576	CIE CLASS	DIRECT	h UP,DN (C180-360)	0.2,45.1
LAMPS INSIDE	1	h up (%)	0.5	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120	h down (%)	99.5	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators:  
Test Date: 19 May 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	81.61	82.85	83.58	83.33	81.91	80.81	80.08	80.26	0~ 10	7.891	7.891	3.41,3.41
20	76.51	78.82	80.35	79.76	77.06	74.83	73.45	73.93	10~ 20	22.49	30.38	13.1,13.1
30	68.43	71.48	73.76	72.89	69.10	65.87	64.11	64.77	20~ 30	33.70	64.08	27.7,27.7
40	57.97	61.73	64.37	63.38	58.68	54.88	52.82	53.62	30~ 40	39.94	104.0	44.9,44.9
50	46.04	50.14	53.00	51.94	46.74	42.62	40.46	41.27	40~ 50	40.58	144.6	62.4,62.4
60	33.44	37.61	40.49	39.47	34.17	30.02	27.81	28.57	50~ 60	36.00	180.6	78,78
70	21.03	25.02	27.80	26.83	21.69	17.77	15.76	16.39	60~ 70	27.41	208.0	89.8,89.8
80	9.525	13.18	15.68	14.86	10.29	6.880	5.003	5.633	70~ 80	16.57	224.6	97,97
90	0.0591	2.730	4.999	4.211	0.1878	0.0329	0.0408	0.0386	80~ 90	5.714	230.3	99.5,99.5
100	0.0875	0.0750	0.0609	0.0665	0.0730	0.0891	0.1115	0.1054	90~100	0.2084	230.5	99.5,99.5
110	0.1693	0.1306	0.1177	0.1169	0.1403	0.1534	0.1790	0.1714	100~110	0.1205	230.6	99.6,99.6
120	0.2498	0.1960	0.1832	0.1822	0.2031	0.2055	0.2346	0.2220	110~120	0.1762	230.8	99.7,99.7
130	0.2875	0.2454	0.2344	0.2319	0.2375	0.2443	0.2660	0.2595	120~130	0.2050	231.0	99.8,99.8
140	0.2919	0.2800	0.2675	0.2638	0.2436	0.2476	0.2887	0.2617	130~140	0.2001	231.2	99.8,99.8
150	0.2802	0.2696	0.2998	0.2529	0.2304	0.2182	0.2786	0.2355	140~150	0.1661	231.4	99.9,99.9
160	0.2453	0.2379	0.2470	0.2100	0.1968	0.1797	0.2140	0.1972	150~160	0.1115	231.5	100,100
170	0.2307	0.2283	0.2060	0.2026	0.1918	0.1779	0.1941	0.2006	160~170	0.0592	231.6	100,100
180	0.2198	0.2373	0.2283	0.2351	0.2222	0.2363	0.2296	0.2304	170~180	0.0199	231.6	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:19 May 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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm											
NAME: 53832					TYPE:			WEIGHT:			
SPEC.:4W					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	6.2	7.7	6.5	7.9	8.2	6.9	8.4	7.1	8.6	8.8	
	7.7	9.1	8.0	9.4	9.6	8.7	10.0	9.0	10.3	10.5	
	8.4	9.7	8.7	10.0	10.2	9.5	10.8	9.8	11.1	11.3	
	8.8	10.1	9.2	10.4	10.7	10.2	11.5	10.6	11.8	12.1	
	9.0	10.2	9.4	10.5	10.8	10.6	11.8	10.9	12.1	12.4	
	9.0	10.2	9.4	10.5	10.8	10.9	12.1	11.3	12.4	12.7	
4H	2H	7.0	8.3	7.3	8.5	8.8	7.4	8.8	7.8	9.0	9.3
	3H	8.7	9.8	9.0	10.1	10.5	9.4	10.6	9.8	10.9	11.2
	4H	9.4	10.5	9.8	10.8	11.2	10.4	11.5	10.8	11.8	12.2
	6H	10.1	11.0	10.5	11.4	11.8	11.4	12.3	11.8	12.7	13.1
	8H	10.3	11.2	10.7	11.6	12.0	11.8	12.7	12.2	13.1	13.5
	12H	10.4	11.2	10.8	11.6	12.0	12.2	13.0	12.7	13.4	13.9
8H	4H	9.9	10.8	10.3	11.1	11.5	10.7	11.6	11.1	12.0	12.4
	6H	10.7	11.4	11.2	11.9	12.3	11.9	12.6	12.3	13.0	13.5
	8H	11.1	11.7	11.5	12.2	12.6	12.4	13.1	12.9	13.5	14.0
	12H	11.3	11.8	11.8	12.3	12.8	13.0	13.6	13.5	14.1	14.5
12H	4H	9.9	10.8	10.4	11.2	11.6	10.7	11.6	11.2	12.0	12.4
	6H	10.9	11.5	11.3	12.0	12.4	11.9	12.6	12.4	13.0	13.5
	8H	11.3	11.9	11.8	12.3	12.8	12.6	13.2	13.1	13.6	14.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.4					+ 0.1 / - 0.3					

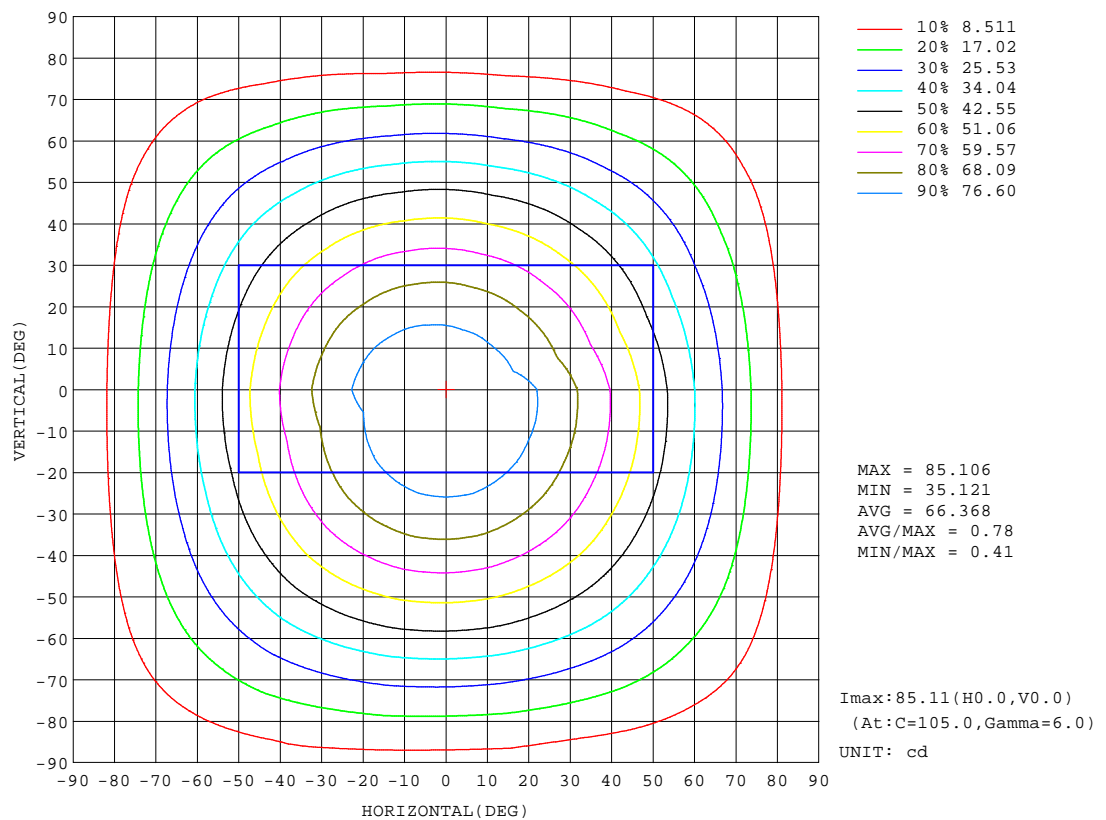
CIE Pub.117, 231.6 lm Total Lamp Luminous Flux Corrected ( $8\log(F/F_0) = -5.1$ )

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: MEDIUM  
 Temperature:25.3DEG  
 Operators:  
 Test Date:19 May 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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:



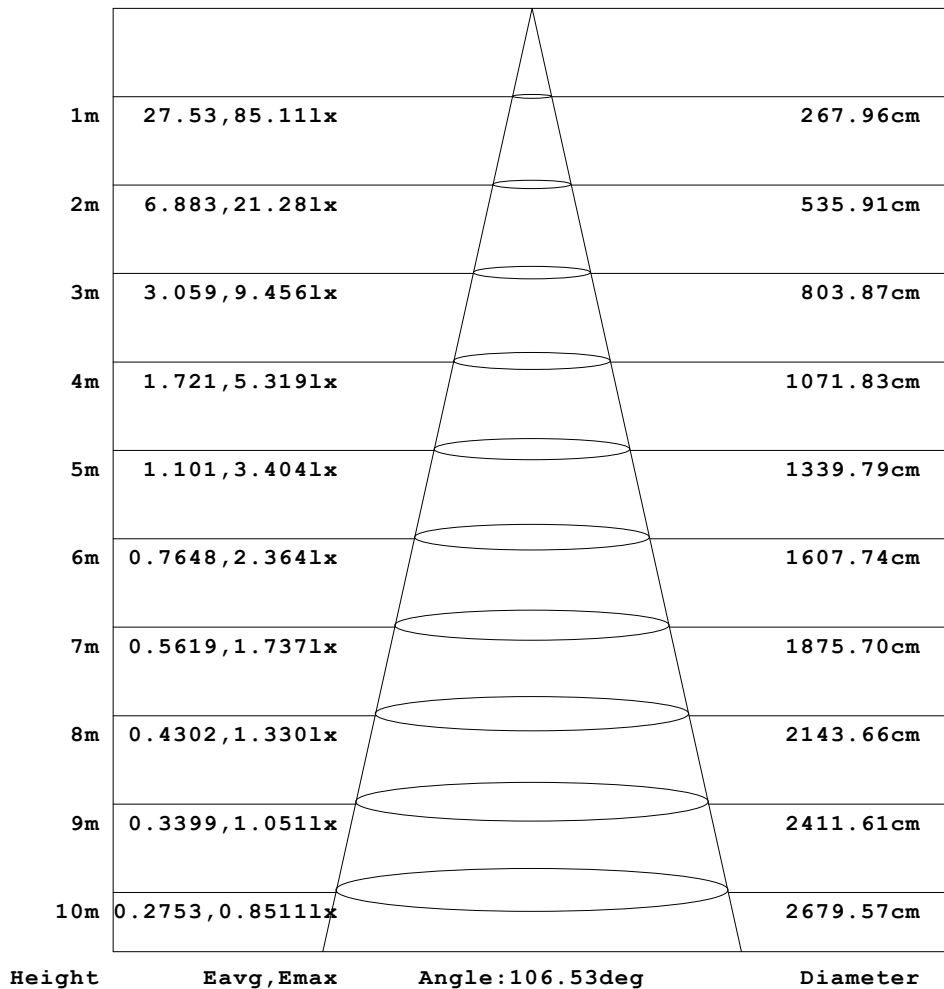
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:19 May 2020

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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

Flux out:158.0 lm



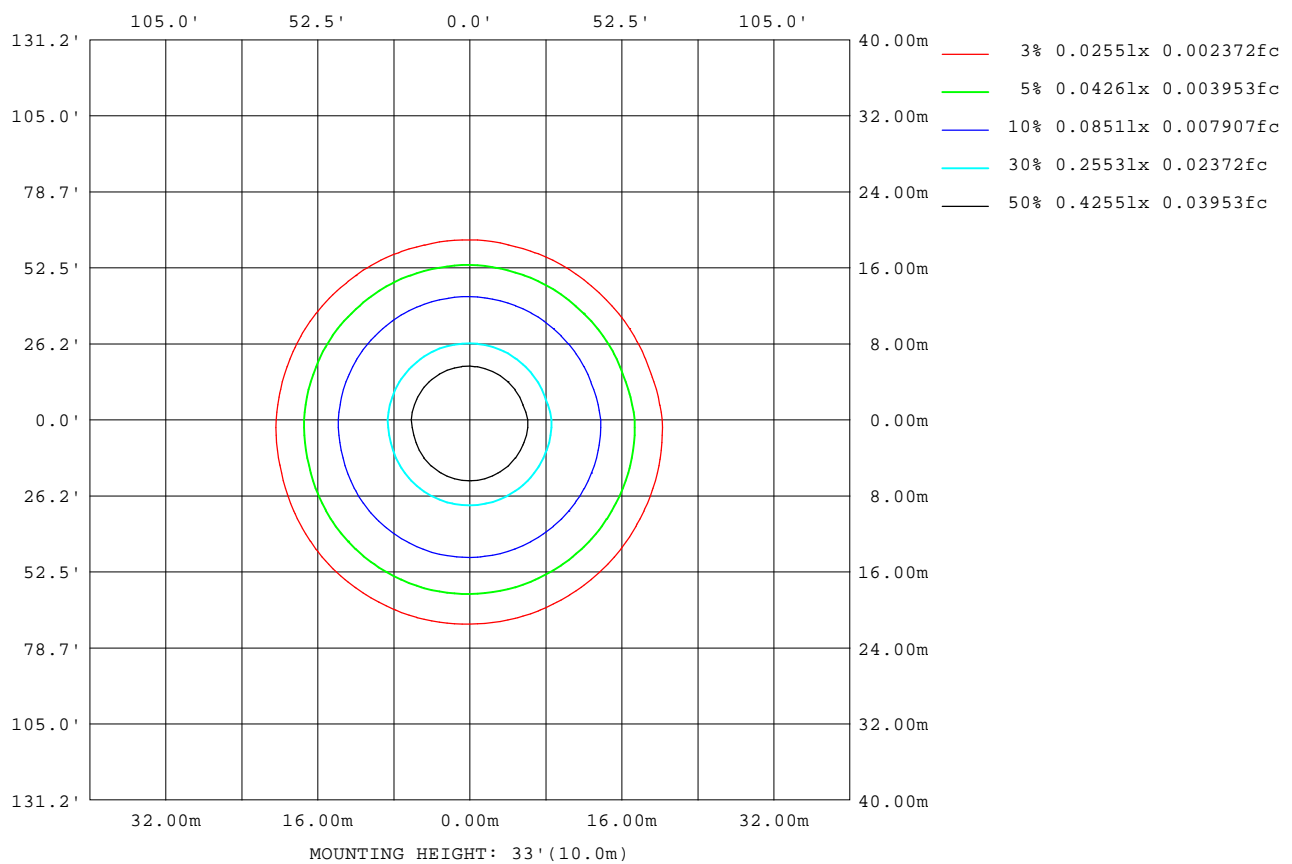
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature: 25.3DEG  
Operators:  
Test Date: 19 May 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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	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:19 May 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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

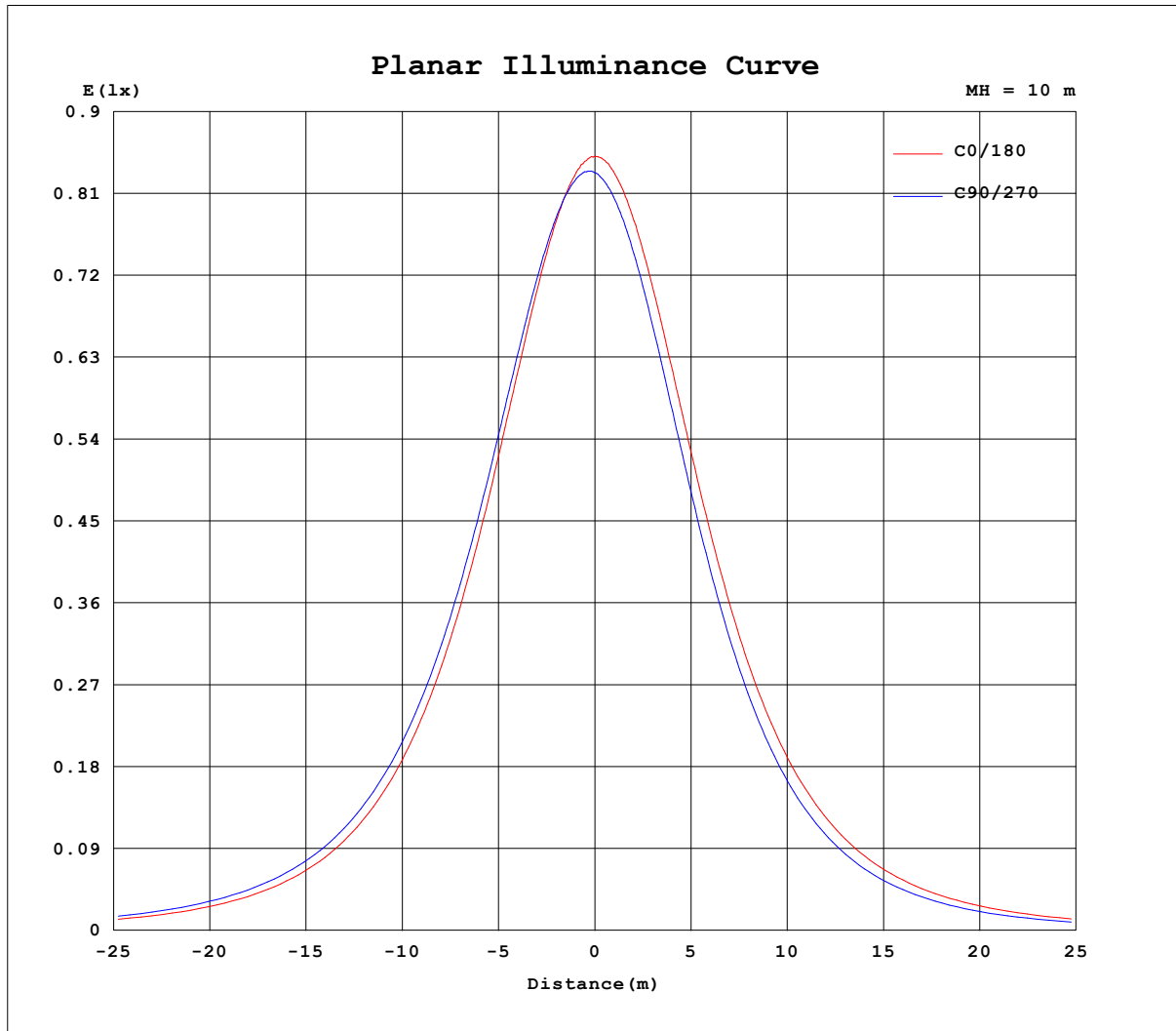
AvgL	cd/m2
L_0~180 (65) av	130
L_0~180 (75) av	120
L_0~180 (85) av	14
L_90~270 (65) av	132
L_90~270 (75) av	123
L_90~270 (85) av	123
L_45 (65) av	131
L_45 (75) av	121
L_45 (85) av	116

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:19 May 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: 19 May 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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	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	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
5	83.1	83.2	83.4	83.6	83.8	84.0	84.0	84.0	84.0	83.8	83.7	83.4	83.1	82.9	82.8	82.5	82.4	82.2	82.2
10	81.6	82.1	82.4	82.9	83.2	83.6	83.6	83.6	83.6	83.3	82.9	82.5	81.9	81.6	81.3	80.8	80.5	80.2	80.1
15	79.5	80.1	80.6	81.3	81.7	82.2	82.4	82.5	82.2	81.9	81.4	80.7	79.9	79.4	78.8	78.2	77.8	77.3	77.1
20	76.5	77.3	78.0	78.8	79.5	80.1	80.4	80.4	80.2	79.8	78.9	78.1	77.1	76.3	75.7	74.8	74.2	73.6	73.4
25	72.9	73.7	74.5	75.5	76.4	77.1	77.4	77.5	77.2	76.7	75.8	74.7	73.4	72.5	71.7	70.7	70.1	69.4	69.1
30	68.4	69.5	70.4	71.5	72.5	73.4	73.8	73.9	73.5	72.9	71.8	70.6	69.1	68.0	67.1	65.9	65.2	64.4	64.1
35	63.4	64.6	65.6	66.9	67.9	69.0	69.4	69.6	69.1	68.4	67.2	65.8	64.2	62.9	61.9	60.6	59.8	58.9	58.7
40	58.0	59.2	60.3	61.7	62.8	63.9	64.4	64.6	64.1	63.4	62.0	60.5	58.7	57.4	56.3	54.9	54.1	53.1	52.8
45	52.1	53.5	54.6	56.0	57.3	58.4	58.9	59.1	58.7	57.9	56.4	54.8	52.9	51.4	50.3	48.9	48.0	47.0	46.7
50	46.0	47.4	48.6	50.1	51.3	52.5	53.0	53.2	52.8	51.9	50.4	48.7	46.7	45.3	44.1	42.6	41.8	40.7	40.5
55	39.8	41.2	42.4	43.9	45.1	46.3	46.8	47.1	46.6	45.8	44.2	42.5	40.5	39.0	37.8	36.3	35.4	34.4	34.1
60	33.4	34.9	36.1	37.6	38.8	40.0	40.5	40.8	40.3	39.5	37.9	36.1	34.2	32.7	31.5	30.0	29.1	28.1	27.8
65	27.2	28.5	29.8	31.3	32.5	33.6	34.1	34.4	33.9	33.1	31.5	29.8	27.8	26.4	25.3	23.8	22.9	21.9	21.6
70	21.0	22.4	23.5	25.0	26.2	27.3	27.8	28.1	27.6	26.8	25.3	23.6	21.7	20.3	19.2	17.8	17.0	16.0	15.8
75	15.1	16.4	17.5	19.0	20.0	21.1	21.6	21.9	21.4	20.7	19.2	17.7	15.9	14.4	13.5	12.0	11.4	10.3	10.1
80	9.53	10.8	11.8	13.2	14.2	15.3	15.7	16.0	15.5	14.9	13.4	12.0	10.3	8.97	8.11	6.88	6.12	5.26	5.00
85	0.66	5.55	6.56	7.77	8.66	9.69	10.1	10.4	9.91	9.34	8.03	6.70	0.56	4.08	3.22	2.15	1.48	0.78	0.59
90	0.06	0.59	1.67	2.73	3.73	4.57	5.00	5.25	4.87	4.21	3.06	1.85	0.19	0.10	0.06	0.03	0.03	0.04	0.04
95	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.05	0.05	0.06	0.06	0.07	0.07
100	0.09	0.09	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.07	0.07	0.08	0.07	0.08	0.08	0.09	0.09	0.10	0.11
105	0.13	0.12	0.11	0.10	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.10	0.11	0.11	0.11	0.13	0.13	0.14	0.15
110	0.17	0.16	0.14	0.13	0.12	0.12	0.12	0.11	0.11	0.12	0.13	0.14	0.14	0.14	0.15	0.15	0.16	0.17	0.18
115	0.21	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.14	0.15	0.16	0.17	0.17	0.17	0.18	0.18	0.19	0.20	0.21
120	0.25	0.23	0.21	0.20	0.19	0.19	0.18	0.18	0.18	0.18	0.19	0.20	0.20	0.20	0.20	0.21	0.21	0.22	0.23
125	0.27	0.25	0.24	0.22	0.21	0.22	0.21	0.21	0.20	0.21	0.21	0.23	0.23	0.22	0.22	0.23	0.23	0.24	0.25
130	0.29	0.27	0.26	0.25	0.24	0.24	0.23	0.23	0.23	0.23	0.23	0.24	0.24	0.23	0.24	0.24	0.25	0.26	0.27
135	0.30	0.27	0.27	0.27	0.25	0.26	0.26	0.25	0.24	0.25	0.25	0.25	0.25	0.24	0.24	0.25	0.26	0.27	0.28
140	0.29	0.29	0.28	0.28	0.27	0.27	0.27	0.26	0.26	0.26	0.25	0.25	0.24	0.24	0.24	0.25	0.26	0.28	0.29
145	0.29	0.28	0.28	0.28	0.29	0.30	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.23	0.23	0.24	0.26	0.27	0.29
150	0.28	0.27	0.27	0.27	0.29	0.30	0.30	0.28	0.27	0.25	0.24	0.24	0.23	0.22	0.22	0.22	0.24	0.27	0.28
155	0.26	0.26	0.26	0.26	0.27	0.29	0.28	0.27	0.25	0.23	0.23	0.23	0.21	0.20	0.21	0.20	0.22	0.24	0.25
160	0.25	0.25	0.24	0.24	0.25	0.26	0.25	0.24	0.23	0.21	0.21	0.23	0.20	0.19	0.18	0.18	0.19	0.21	0.21
165	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.21	0.20	0.20	0.21	0.18	0.18	0.17	0.18	0.19	0.20	0.20
170	0.23	0.23	0.23	0.23	0.22	0.21	0.21	0.20	0.20	0.20	0.21	0.21	0.19	0.19	0.18	0.18	0.18	0.19	0.19
175	0.22	0.23	0.23	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21	0.19	0.19	0.20	0.20	0.20	0.20	0.20
180	0.22	0.23	0.23	0.24	0.23	0.23	0.23	0.23	0.22	0.24	0.23	0.22	0.22	0.22	0.23	0.24	0.23	0.23	0.23

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:19 May 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:119.94V I:0.0362A P:4.3061W PF:0.9908 Freq:59.98Hz Lamp Flux:231.576x1 lm		
NAME: 53832	TYPE:	WEIGHT:
SPEC.:4W	DIM.:	SERIAL No.:
MFR.: LiBo	SUR.:	Shielding Angle:

Table--2

UNIT: cd

C (DEG) g (DEG)	285	300	315	330	345														
0	83.5	83.5	83.5	83.5	83.5														
5	82.1	82.2	82.3	82.5	82.7														
10	80.0	80.1	80.3	80.8	81.1														
15	76.9	77.3	77.6	78.2	78.8														
20	73.2	73.6	73.9	74.8	75.5														
25	68.8	69.2	69.6	70.6	71.6														
30	63.8	64.3	64.8	65.9	67.0														
35	58.3	58.9	59.4	60.7	61.9														
40	52.5	53.1	53.6	54.9	56.3														
45	46.4	47.0	47.5	48.9	50.4														
50	40.1	40.7	41.3	42.7	44.2														
55	33.8	34.3	34.9	36.4	37.9														
60	27.5	28.0	28.6	30.1	31.5														
65	21.3	21.8	22.4	23.8	25.2														
70	15.3	15.9	16.4	17.8	19.2														
75	9.74	10.3	10.7	12.1	13.3														
80	4.73	5.15	5.63	6.77	7.96														
85	0.40	0.63	0.99	1.95	3.03														
90	0.04	0.04	0.04	0.03	0.02														
95	0.07	0.07	0.07	0.06	0.05														
100	0.11	0.10	0.11	0.09	0.08														
105	0.15	0.14	0.14	0.13	0.12														
110	0.18	0.17	0.17	0.16	0.16														
115	0.20	0.20	0.20	0.20	0.19														
120	0.23	0.22	0.22	0.22	0.22														
125	0.24	0.24	0.24	0.24	0.24														
130	0.27	0.26	0.26	0.25	0.25														
135	0.28	0.27	0.26	0.26	0.26														
140	0.29	0.27	0.26	0.26	0.26														
145	0.28	0.27	0.25	0.24	0.25														
150	0.28	0.26	0.24	0.23	0.24														
155	0.25	0.23	0.21	0.22	0.22														
160	0.22	0.21	0.20	0.21	0.21														
165	0.20	0.20	0.20	0.20	0.20														
170	0.20	0.19	0.20	0.21	0.21														
175	0.20	0.19	0.21	0.22	0.21														
180	0.23	0.22	0.23	0.23	0.22														

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: MEDIUM  
Temperature:25.3DEG  
Operators:  
Test Date:19 May 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: