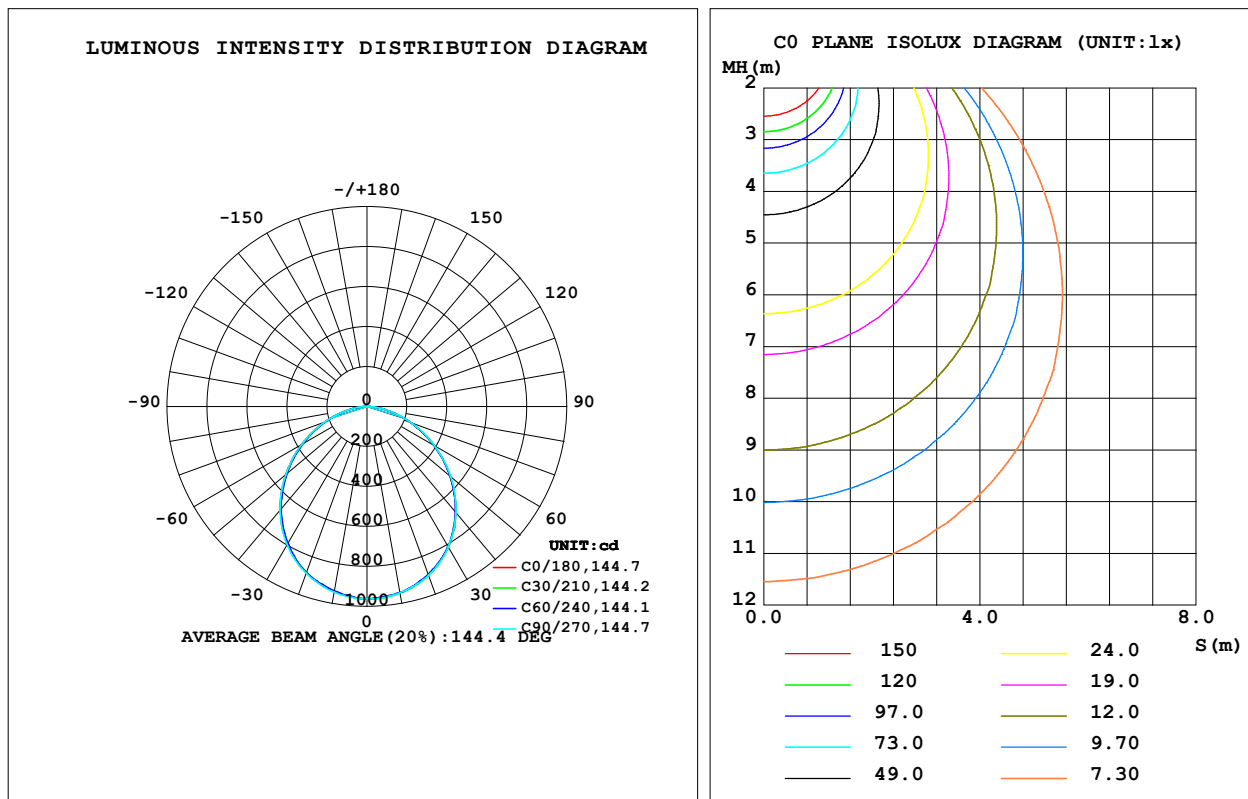


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 74.09 lm/W			
MODEL	57739WTWT	I _{max} (cd)	963.7	S/MH (C0/180)	1.24
NOMINAL POWER (W)	36	LOR (%)	100.0	S/MH (C90/270)	1.24
RATED VOLTAGE (V)	277	TOTAL FLUX (lm)	2598.3	h UP,DN (C0-180)	0.2,50.2
NOMINAL FLUX (lm)	2598.33	CIE CLASS	DIRECT	h UP,DN (C180-360)	0.2,49.4
LAMPS INSIDE	1	h up (%)	0.4	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	120.0	h down (%)	99.6	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jack
 Test Date:13 December 2017

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 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	946.5	948.1	947.1	941.7	941.2	940.1	943.5	944.0	0- 10	90.93	90.93	3.5,3.5
20	895.9	898.4	898.7	889.2	886.5	884.3	887.5	891.2	10- 20	260.1	351.1	13.5,13.5
30	811.4	812.4	812.6	800.3	797.8	792.7	798.7	803.9	20- 30	392.4	743.5	28.6,28.6
40	689.8	691.3	692.1	677.8	674.9	669.1	677.1	682.4	30- 40	466.4	1210	46.6,46.6
50	544.2	544.5	546.7	531.7	530.6	523.2	530.2	535.5	40- 50	470.5	1681	64.7,64.7
60	386.2	385.6	388.9	375.6	375.1	367.2	374.6	377.9	50- 60	408.6	2089	80.4,80.4
70	230.4	229.6	232.8	222.1	222.9	215.5	221.6	223.2	60- 70	297.3	2386	91.8,91.8
80	91.47	89.95	92.77	85.81	87.52	81.15	85.21	85.63	70- 80	161.6	2548	98.1,98.1
90	1.297	1.443	1.657	1.522	1.010	0.7455	0.8082	1.184	80- 90	39.09	2587	99.6,99.6
100	1.107	1.086	1.094	1.118	1.036	1.042	1.042	1.011	90-100	0.9332	2588	99.6,99.6
110	1.666	1.568	1.649	1.606	1.574	1.510	1.591	1.468	100-110	1.402	2589	99.7,99.7
120	2.035	1.983	2.067	2.031	1.929	1.909	2.014	1.873	110-120	1.768	2591	99.7,99.7
130	2.269	2.249	2.313	2.291	2.160	2.142	2.261	2.127	120-130	1.884	2593	99.8,99.8
140	2.346	2.341	2.370	2.374	2.223	2.223	2.299	2.227	130-140	1.762	2595	99.9,99.9
150	2.337	2.338	2.310	2.369	2.244	2.225	2.287	2.216	140-150	1.452	2596	99.9,99.9
160	2.368	2.308	2.299	2.315	2.290	2.255	2.293	2.196	150-160	1.057	2597	100,100
170	2.756	2.698	2.654	2.677	2.692	2.723	2.680	2.622	160-170	0.6836	2598	100,100
180	2.982	2.971	2.899	2.874	2.990	2.972	2.896	2.878	170-180	0.2637	2598	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jack
 Test Date:13 December 2017

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm										
NAME:			TYPE:			WEIGHT:				
SPEC.:15inch			DIM.:			SERIAL No.:				
MFR.: Libo			SUR.:φ0.078m			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	30.6	32.0	30.8	32.3	32.5	30.5	32.0	30.8	32.2	32.4
3H	31.9	33.3	32.2	33.5	33.8	31.9	33.3	32.2	33.5	33.8
4H	32.5	33.8	32.8	34.0	34.3	32.4	33.7	32.7	34.0	34.3
6H	32.8	34.1	33.2	34.3	34.6	32.8	34.0	33.1	34.3	34.6
8H	32.9	34.1	33.3	34.4	34.7	32.9	34.1	33.2	34.4	34.7
12H	33.0	34.1	33.3	34.4	34.7	32.9	34.1	33.3	34.4	34.7
4H 2H	31.1	32.4	31.4	32.7	32.9	31.1	32.4	31.4	32.6	32.9
3H	32.7	33.8	33.0	34.1	34.4	32.6	33.8	33.0	34.1	34.4
4H	33.3	34.4	33.7	34.7	35.0	33.3	34.3	33.7	34.7	35.0
6H	33.8	34.7	34.2	35.1	35.4	33.8	34.7	34.2	35.0	35.4
8H	33.9	34.8	34.4	35.2	35.6	33.9	34.8	34.3	35.1	35.5
12H	34.0	34.8	34.5	35.2	35.6	34.0	34.8	34.4	35.2	35.6
8H 4H	33.5	34.4	34.0	34.8	35.2	33.5	34.4	33.9	34.7	35.1
6H	34.1	34.9	34.6	35.3	35.7	34.1	34.8	34.6	35.2	35.7
8H	34.4	35.0	34.8	35.4	35.9	34.3	35.0	34.8	35.4	35.9
12H	34.5	35.0	35.0	35.5	36.0	34.5	35.0	35.0	35.5	36.0
12H 4H	33.5	34.3	34.0	34.7	35.1	33.5	34.3	33.9	34.7	35.1
6H	34.2	34.8	34.6	35.2	35.7	34.2	34.8	34.6	35.2	35.7
8H	34.4	35.0	34.9	35.4	35.9	34.4	34.9	34.9	35.4	35.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

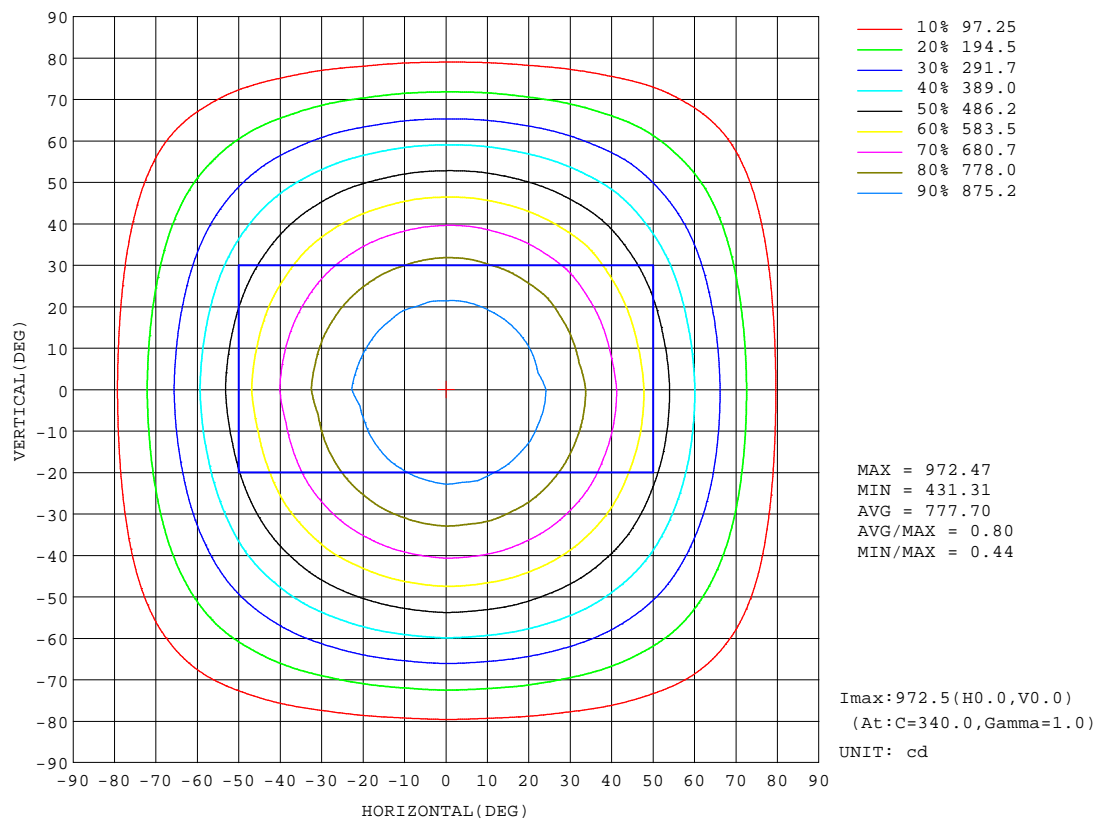
CIE Pub.117, 2598 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 3.3$)

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jack
 Test Date:13 December 2017

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:

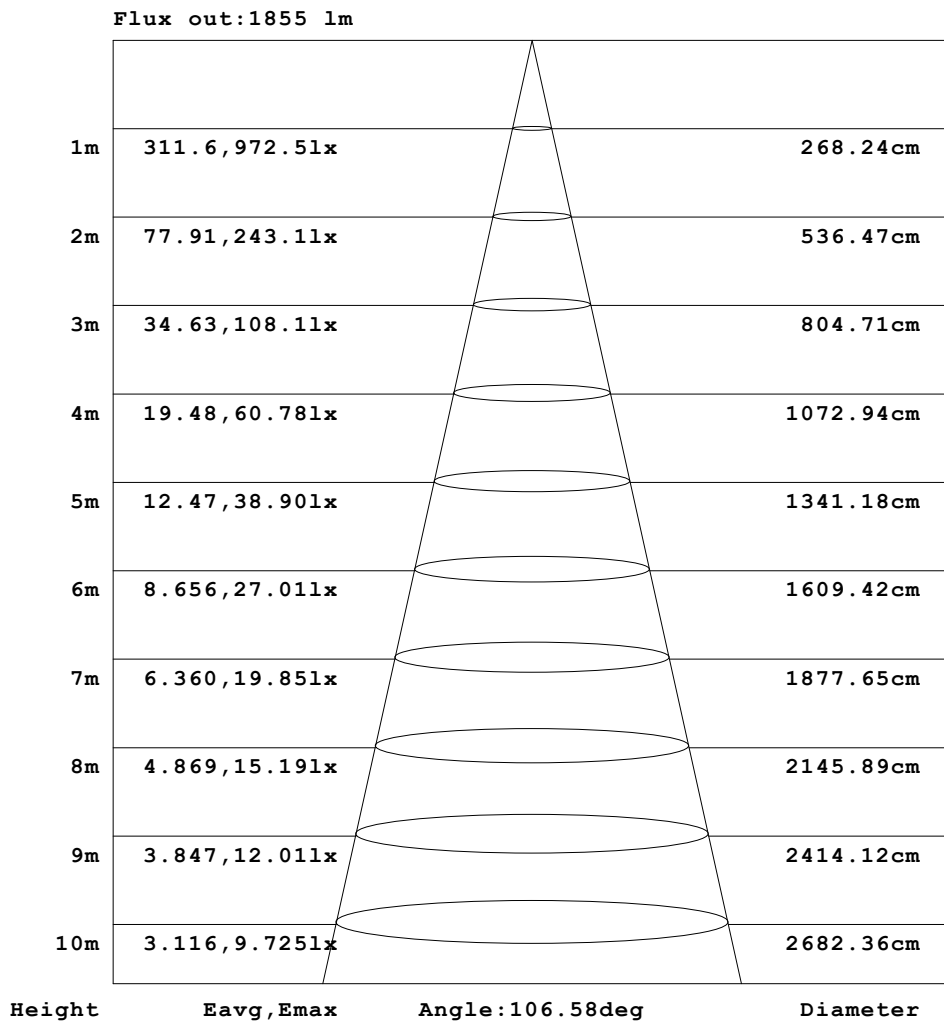


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jack
Test Date:13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:



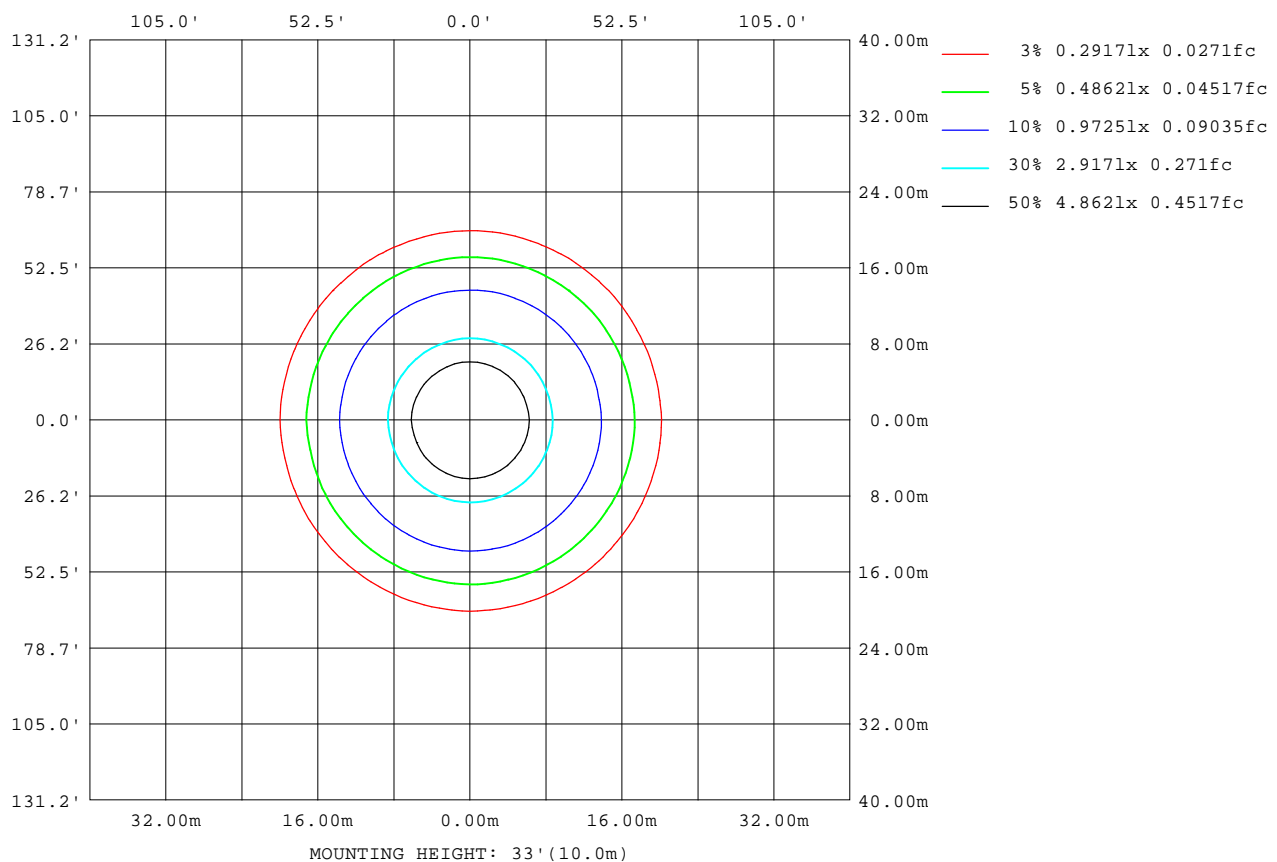
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jack
Test Date:13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jack
Test Date:13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:

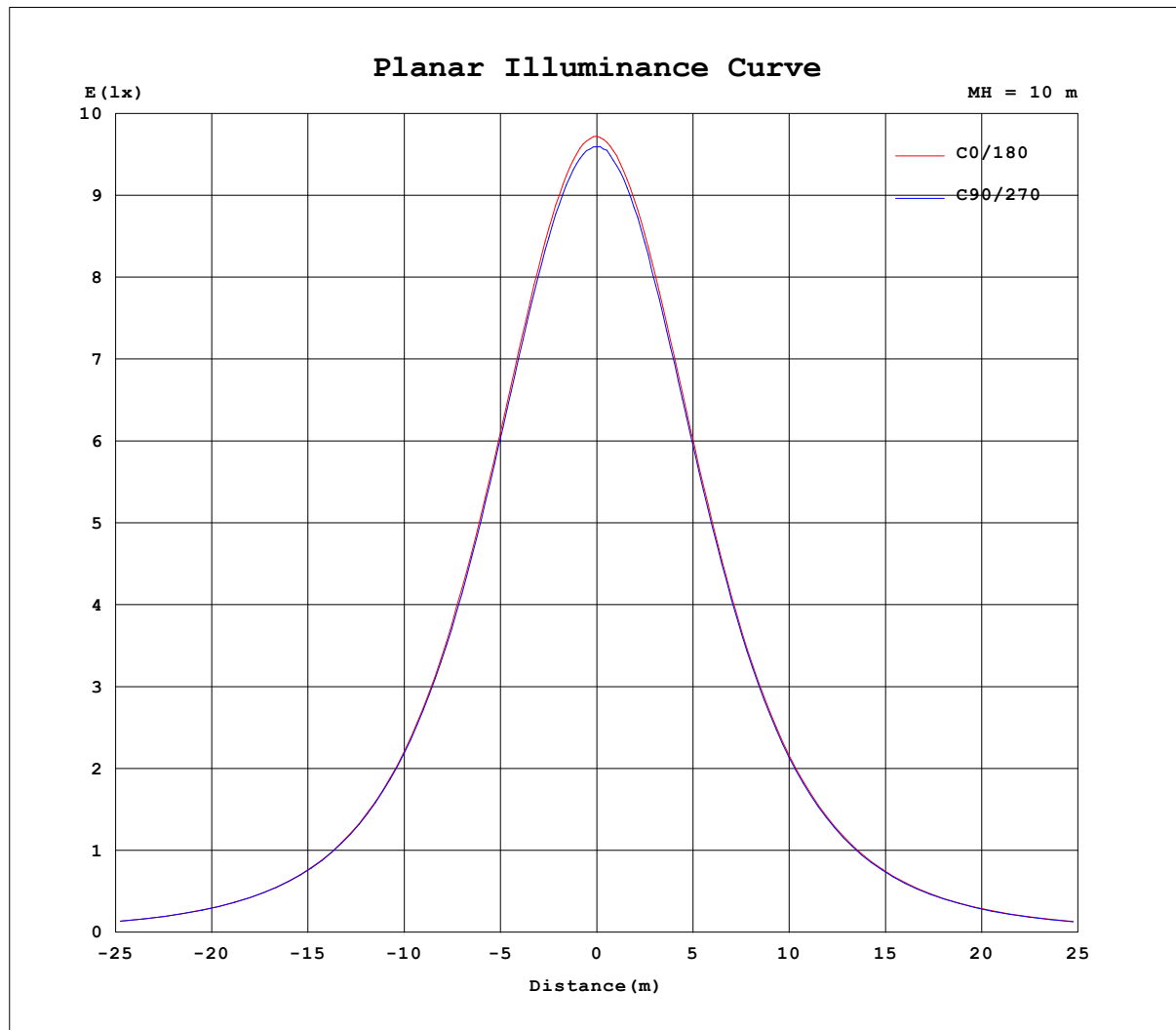
AvgL	cd/m2
L_0~180 (65) av	143145
L_0~180 (75) av	119615
L_0~180 (85) av	77830
L_90~270 (65) av	143566
L_90~270 (75) av	119567
L_90~270 (85) av	76900
L_45 (65) av	141188
L_45 (75) av	116341
L_45 (85) av	69427

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jack
Test Date:13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
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: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jack
Test Date: 13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:

Table--1

UNIT: cd

C (DEG) g (DEG)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
0	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962
5	959	960	959	962	959	959	955	959	959	959	959	956	960	957	957	957	954	957	955
10	946	949	947	948	949	947	944	949	945	947	945	944	943	941	942	943	942	940	941
15	926	929	925	929	927	927	924	929	925	927	924	923	923	921	919	920	917	918	919
20	896	900	898	900	899	897	895	901	897	899	895	893	893	890	888	888	887	886	886
25	859	862	860	861	860	860	857	862	858	861	857	853	854	849	849	849	846	846	847
30	811	814	811	815	812	813	809	814	811	813	808	806	804	802	799	799	798	797	798
35	758	758	755	757	755	756	752	758	754	756	752	750	746	745	741	743	740	739	740
40	690	693	691	693	691	691	689	692	690	692	688	685	682	679	677	678	674	674	675
45	619	622	619	622	620	621	617	622	620	623	617	615	611	610	605	606	603	604	606
50	544	546	543	546	544	545	542	547	545	547	542	539	537	534	530	531	528	528	531
55	465	467	465	466	465	466	465	467	466	468	464	461	459	455	452	453	451	452	454
60	386	388	386	387	385	386	385	388	387	389	385	382	379	377	374	376	373	373	375
65	307	308	306	307	306	307	306	309	308	310	306	304	301	299	297	297	295	296	298
70	230	232	230	231	229	230	229	231	231	233	229	227	224	223	221	222	220	221	223
75	158	159	156	157	156	157	156	158	158	160	156	155	152	152	150	150	149	150	152
80	91.5	92.1	90.2	90.7	89.6	90.3	89.6	91.3	90.8	92.8	90.3	89.2	87.1	86.5	85.1	85.6	85.1	86.1	87.5
85	35.2	35.3	33.6	33.7	32.7	33.3	33.0	34.7	35.0	36.4	34.5	33.4	31.6	31.3	30.3	30.8	30.5	31.7	32.6
90	1.30	1.52	1.46	1.50	1.37	1.51	1.45	1.66	1.58	1.66	1.67	1.83	1.62	1.62	1.43	1.48	1.35	1.23	1.01
95	0.82	0.82	0.83	0.84	0.85	0.84	0.83	0.82	0.81	0.80	0.82	0.83	0.85	0.86	0.87	0.86	0.86	0.85	0.74
100	1.11	1.10	1.09	1.09	1.09	1.08	1.08	1.08	1.08	1.09	1.10	1.10	1.11	1.11	1.12	1.12	1.13	1.14	1.04
105	1.40	1.37	1.35	1.34	1.34	1.34	1.34	1.35	1.37	1.38	1.38	1.37	1.37	1.37	1.38	1.39	1.41	1.43	1.32
110	1.67	1.64	1.61	1.58	1.57	1.57	1.58	1.61	1.63	1.65	1.64	1.63	1.63	1.60	1.61	1.63	1.67	1.70	1.57
115	1.88	1.84	1.81	1.79	1.79	1.79	1.81	1.83	1.86	1.87	1.88	1.86	1.86	1.83	1.83	1.85	1.88	1.90	1.78
120	2.03	2.00	1.97	1.98	1.98	1.98	2.00	2.02	2.05	2.07	2.07	2.05	2.06	2.03	2.03	2.04	2.03	2.07	1.93
125	2.17	2.13	2.10	2.12	2.14	2.14	2.13	2.15	2.19	2.22	2.21	2.19	2.19	2.18	2.19	2.17	2.16	2.20	2.06
130	2.27	2.23	2.21	2.24	2.25	2.25	2.24	2.25	2.30	2.31	2.30	2.29	2.29	2.29	2.30	2.28	2.27	2.31	2.16
135	2.34	2.30	2.30	2.32	2.31	2.32	2.32	2.34	2.37	2.38	2.36	2.35	2.35	2.34	2.35	2.37	2.35	2.38	2.23
140	2.35	2.33	2.34	2.36	2.34	2.34	2.35	2.38	2.38	2.37	2.35	2.35	2.37	2.37	2.38	2.41	2.41	2.40	2.22
145	2.34	2.31	2.33	2.36	2.35	2.34	2.36	2.40	2.39	2.34	2.30	2.32	2.37	2.38	2.39	2.42	2.45	2.43	2.22
150	2.34	2.31	2.30	2.33	2.34	2.33	2.34	2.39	2.39	2.31	2.27	2.28	2.33	2.36	2.38	2.40	2.44	2.44	2.24
155	2.33	2.30	2.28	2.29	2.30	2.30	2.30	2.35	2.37	2.29	2.22	2.24	2.28	2.31	2.34	2.37	2.41	2.44	2.25
160	2.37	2.31	2.29	2.32	2.31	2.30	2.30	2.35	2.36	2.30	2.21	2.23	2.30	2.31	2.32	2.37	2.42	2.44	2.29
165	2.51	2.42	2.41	2.44	2.45	2.43	2.42	2.43	2.45	2.42	2.31	2.32	2.41	2.44	2.44	2.47	2.51	2.53	2.43
170	2.76	2.66	2.63	2.66	2.70	2.70	2.66	2.65	2.67	2.65	2.54	2.52	2.60	2.66	2.69	2.72	2.71	2.74	2.69
175	2.93	2.89	2.84	2.85	2.85	2.83	2.79	2.82	2.81	2.84	2.78	2.74	2.76	2.78	2.78	2.81	2.85	2.85	2.87
180	2.98	3.00	2.92	2.96	2.98	2.96	2.88	2.82	2.88	2.90	2.90	2.82	2.85	2.88	2.87	2.85	2.83	2.90	2.99

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jack
Test Date:13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
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:277.38V I:0.1421A P:35.072W PF:0.8898 Freq:59.98Hz Lamp Flux:2598.33x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:15inch	DIM.:	SERIAL No.:
MFR.: Libo	SUR.:φ0.078m	Shielding Angle:

Table--2

UNIT: cd

C (DEG) g (DEG)	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350		
0	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962	962		
5	956	955	955	955	955	952	955	955	956	955	956	958	957	959	960	960	959		
10	941	939	940	940	940	937	939	941	943	942	941	944	942	946	947	948	948		
15	918	916	916	916	915	915	917	918	920	919	920	922	921	923	925	927	927		
20	886	884	886	885	884	884	886	888	887	890	889	892	890	893	895	895	898		
25	846	843	844	843	842	844	845	846	848	849	848	853	850	857	857	858	858		
30	796	793	794	794	792	790	795	798	799	800	799	802	800	808	808	810	811		
35	739	737	736	735	733	733	738	739	742	743	743	745	744	752	752	752	754		
40	674	672	670	670	668	668	672	674	677	678	677	680	680	685	685	688	691		
45	602	601	598	599	597	598	600	603	606	607	606	609	608	615	613	617	619		
50	527	525	524	524	522	522	527	528	530	531	531	533	533	538	538	540	542		
55	450	448	446	446	445	447	448	451	453	454	453	455	454	460	460	463	464		
60	371	370	368	368	367	369	370	372	375	376	374	376	376	380	380	384	385		
65	294	293	291	291	290	291	292	295	297	297	296	298	297	301	301	305	307		
70	220	219	216	216	215	217	217	220	222	222	220	223	221	225	224	228	230		
75	149	148	145	145	144	146	146	149	150	150	149	150	149	152	153	156	157		
80	84.9	83.7	81.5	81.7	80.6	81.8	82.0	84.2	85.2	85.5	84.2	85.1	84.6	86.7	87.1	89.5	90.8		
85	30.5	29.5	27.6	27.7	27.0	28.0	28.4	30.1	30.7	30.7	29.4	29.9	29.5	30.7	31.2	33.3	34.5		
90	0.98	1.02	0.83	0.77	0.72	0.83	0.91	0.90	0.81	1.01	1.07	1.15	1.09	1.28	1.29	1.51	1.39		
95	0.75	0.76	0.78	0.78	0.78	0.77	0.77	0.75	0.74	0.74	0.76	0.76	0.77	0.76	0.75	0.73	0.71		
100	1.04	1.03	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.03	1.02	1.02	1.02	1.01	1.00	0.99	0.99		
105	1.31	1.30	1.29	1.29	1.30	1.30	1.32	1.32	1.34	1.31	1.29	1.27	1.26	1.25	1.24	1.25	1.26		
110	1.57	1.54	1.52	1.50	1.52	1.54	1.57	1.58	1.59	1.56	1.54	1.50	1.47	1.46	1.46	1.49	1.50		
115	1.76	1.74	1.73	1.71	1.73	1.76	1.79	1.81	1.82	1.79	1.76	1.73	1.69	1.67	1.66	1.66	1.68		
120	1.92	1.89	1.90	1.90	1.92	1.94	1.97	2.00	2.01	1.98	1.94	1.92	1.88	1.86	1.83	1.81	1.83		
125	2.05	2.02	2.02	2.04	2.06	2.07	2.11	2.14	2.16	2.12	2.08	2.05	2.04	2.01	1.95	1.94	1.97		
130	2.16	2.14	2.13	2.13	2.15	2.17	2.22	2.25	2.26	2.24	2.20	2.17	2.14	2.11	2.07	2.05	2.09		
135	2.24	2.22	2.21	2.19	2.20	2.22	2.27	2.31	2.31	2.30	2.28	2.25	2.20	2.18	2.17	2.15	2.17		
140	2.27	2.29	2.27	2.23	2.21	2.24	2.28	2.29	2.30	2.35	2.34	2.30	2.24	2.21	2.20	2.20	2.18		
145	2.31	2.33	2.30	2.24	2.23	2.22	2.25	2.27	2.29	2.38	2.37	2.32	2.24	2.22	2.20	2.17	2.14		
150	2.33	2.34	2.30	2.24	2.21	2.21	2.25	2.25	2.29	2.38	2.36	2.30	2.23	2.20	2.17	2.16	2.14		
155	2.34	2.32	2.27	2.20	2.21	2.22	2.23	2.21	2.27	2.37	2.33	2.26	2.19	2.17	2.15	2.15	2.11		
160	2.36	2.34	2.28	2.25	2.26	2.27	2.24	2.20	2.29	2.38	2.34	2.26	2.20	2.19	2.20	2.15	2.11		
165	2.47	2.46	2.43	2.41	2.45	2.42	2.35	2.31	2.43	2.47	2.43	2.38	2.34	2.36	2.33	2.25	2.22		
170	2.72	2.70	2.71	2.73	2.71	2.64	2.56	2.55	2.68	2.68	2.64	2.63	2.64	2.60	2.54	2.47	2.48		
175	2.88	2.89	2.87	2.87	2.84	2.81	2.77	2.78	2.82	2.78	2.78	2.77	2.76	2.74	2.72	2.70	2.75		
180	3.00	2.92	2.95	2.98	2.96	2.88	2.82	2.88	2.90	2.90	2.82	2.85	2.88	2.88	2.85	2.83	2.90		

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jack
Test Date:13 December 2017

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-SPEX500_V1 SYSTEM V2.0.402
Humidity:65.0%
Test Distance:3.010m [K=1.0000]
Remarks: