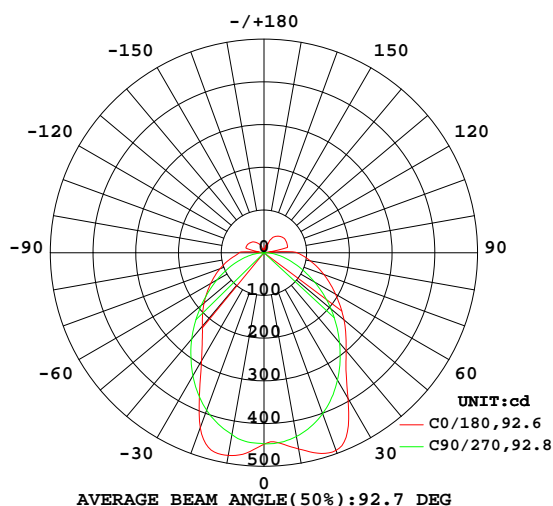


LUMINAIRE PHOTOMETRIC TEST REPORT

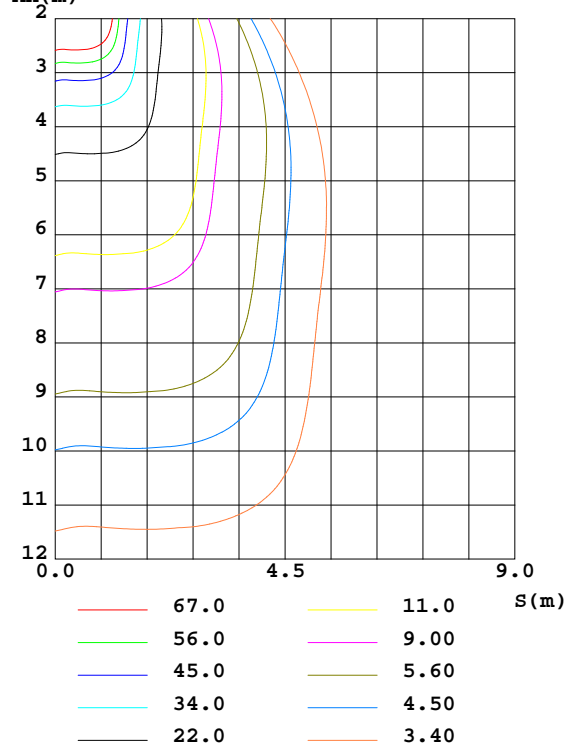
Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm		
NAME:	TYPE:N/A	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: Guangzhou Jiguang Lighting Co., Ltd	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 89.14 lm/W			
MODEL	VAN-TRO-XXXXXX	I _{max} (cd)	493.2	S/MH(C0/180)	1.04
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)	1.12
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	1365.5	η UP,DN(C0-180)	6.1,45.4
NOMINAL FLUX(lm)	1365.54	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	5.5,43.0
LAMPS INSIDE	1	η up(%)	11.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	120	η down(%)	88.5	CIBSE SHR MAX	1.30

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Link Chai
Test Date:2022-03-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.4760]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

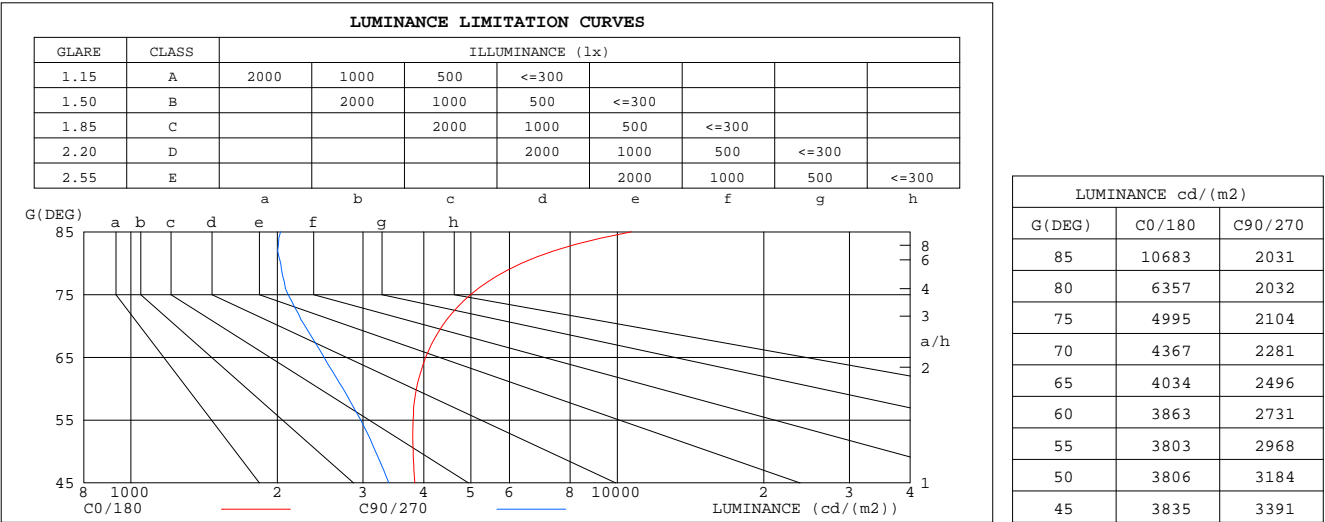
γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	466.3	449.1	436.7	466.4	481.5	465.2	432.3	441.8	0- 10	43.21	43.21	3.16,3.16
20	492.6	458.1	401.1	455.4	436.0	448.3	392.2	447.3	10- 20	128.0	171.2	12.5,12.5
30	393.5	429.0	343.9	363.7	292.6	354.1	332.8	419.4	20- 30	187.8	359.0	26.3,26.3
40	299.3	326.7	275.1	247.5	224.8	240.7	263.4	321.9	30- 40	200.7	559.8	41,41
50	244.6	239.0	204.7	176.8	183.1	174.1	191.7	235.0	40- 50	188.8	748.6	54.8,54.8
60	193.2	181.2	136.5	132.9	144.1	131.4	127.0	176.6	50- 60	163.9	912.5	66.8,66.8
70	149.3	136.8	78.02	98.60	109.8	98.15	73.19	132.9	60- 70	131.3	1044	76.4,76.4
80	110.4	99.09	35.28	69.93	79.06	69.97	29.94	97.24	70- 80	97.64	1141	83.6,83.6
90	77.47	68.67	4.951	49.06	58.37	50.41	2.774	66.74	80- 90	66.38	1208	88.5,88.5
100	20.29	37.22	1.468	35.29	8.585	21.22	2.125	34.74	90-100	22.60	1230	90.1,90.1
110	57.97	45.50	2.530	33.15	44.04	27.27	2.367	40.16	100-110	30.72	1261	92.4,92.4
120	58.64	45.99	2.694	30.81	42.28	27.51	1.959	45.47	110-120	32.09	1293	94.7,94.7
130	56.64	45.34	2.775	28.65	38.53	26.11	1.961	44.54	120-130	28.54	1322	96.8,96.8
140	50.74	40.34	2.204	23.33	32.68	22.09	2.206	39.21	130-140	21.05	1343	98.3,98.3
150	41.64	3.767	1.796	16.50	24.52	18.06	2.530	3.026	140-150	14.33	1357	99.4,99.4
160	6.730	17.04	1.796	8.749	4.569	1.642	2.612	12.47	150-160	5.810	1363	99.8,99.8
170	12.45	7.733	1.714	3.598	6.574	4.993	2.204	4.994	160-170	2.217	1365	100,100
180	1.505	1.725	2.041	1.419	1.501	1.560	2.286	1.582	170-180	0.3574	1366	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Link Chai
 Test Date:2022-03-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.4760]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm		
NAME:	TYPE:N/A	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: Guangzhou Jiguang Lighting Co., Ltd	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Link Chai
Test Date:2022-03-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.4760]
Remarks:

WEC AND CCEC

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm					
NAME:		TYPE:N/A		WEIGHT:N/A	
SPEC.:N/A		DIM.:		SERIAL No.:N/A	
MFR.: Guangzhou Jiguang Lighting Co., Ltd		SUR.:		Shielding Angle:	

pcc	80%			70%			50%			30%			10%			0	
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.334	.190	.060	.324	.185	.059	.304	.174	.056	.285	.165	.053	.268	.156	.050		
2.0	.298	.163	.050	.289	.159	.049	.271	.151	.047	.255	.143	.045	.239	.135	.043		
3.0	.270	.144	.043	.261	.140	.042	.245	.133	.040	.231	.126	.039	.217	.120	.037		
4.0	.246	.128	.038	.239	.125	.037	.224	.119	.036	.211	.113	.034	.198	.108	.033		
5.0	.226	.115	.033	.219	.113	.033	.206	.107	.032	.194	.102	.030	.183	.098	.029		
6.0	.209	.105	.030	.203	.102	.029	.191	.098	.028	.180	.093	.027	.169	.089	.026		
7.0	.194	.096	.027	.188	.094	.027	.178	.090	.026	.167	.086	.025	.158	.082	.024		
8.0	.181	.088	.025	.176	.087	.024	.166	.083	.024	.157	.079	.023	.148	.076	.022		
9.0	.169	.082	.023	.165	.080	.023	.156	.077	.022	.147	.074	.021	.139	.071	.020		
10.0	.159	.076	.021	.155	.075	.021	.147	.072	.020	.139	.069	.020	.131	.066	.019		

pcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.278	.278	.278	.238	.238	.238	.162	.162	.162	.093	.093	.093	.030	.030	.030	
1.0	.271	.245	.221	.232	.210	.190	.158	.144	.132	.091	.084	.077	.029	.027	.025	
2.0	.262	.221	.187	.225	.190	.161	.154	.132	.112	.089	.077	.066	.028	.025	.021	
3.0	.254	.204	.164	.218	.176	.142	.150	.122	.100	.086	.071	.059	.028	.023	.019	
4.0	.246	.191	.149	.211	.165	.129	.145	.115	.091	.084	.067	.054	.027	.022	.018	
5.0	.239	.181	.138	.205	.157	.120	.141	.109	.085	.082	.064	.050	.026	.021	.017	
6.0	.231	.173	.131	.199	.150	.114	.137	.105	.080	.080	.062	.048	.026	.020	.016	
7.0	.225	.166	.125	.193	.144	.109	.133	.101	.077	.078	.059	.046	.025	.019	.015	
8.0	.218	.160	.120	.188	.139	.105	.130	.098	.075	.076	.058	.044	.024	.019	.015	
9.0	.212	.155	.117	.183	.135	.102	.127	.095	.073	.074	.056	.043	.024	.018	.014	
10.0	.207	.151	.114	.178	.131	.100	.124	.092	.071	.072	.055	.042	.023	.018	.014	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Link Chai
 Test Date:2022-03-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.4760]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm											
NAME:					TYPE:N/A			WEIGHT:N/A			
SPEC.:N/A					DIM.:			SERIAL No.:N/A			
MFR.: Guangzhou Jiguang Lighting Co., Ltd					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		17.0	18.3	17.4	18.7	19.1	16.4	17.7	16.8	18.1	18.6
	3H	19.0	20.3	19.5	20.7	21.2	17.7	18.9	18.1	19.3	19.8
	4H	20.2	21.3	20.6	21.8	22.3	18.2	19.3	18.6	19.8	20.3
	6H	21.4	22.5	21.9	22.9	23.5	18.6	19.7	19.1	20.1	20.7
	8H	22.0	23.1	22.5	23.6	24.1	18.7	19.8	19.2	20.3	20.8
	12H	22.8	23.8	23.3	24.3	24.8	18.8	19.9	19.3	20.3	20.9
4H	2H	17.6	18.8	18.1	19.2	19.7	17.1	18.3	17.6	18.8	19.2
	3H	19.9	20.9	20.4	21.4	22.0	18.8	19.8	19.3	20.3	20.8
	4H	21.2	22.1	21.7	22.7	23.2	19.5	20.5	20.1	21.0	21.6
	6H	22.6	23.5	23.2	24.0	24.6	20.2	21.0	20.7	21.5	22.2
	8H	23.4	24.2	24.0	24.7	25.4	20.4	21.2	21.0	21.8	22.4
	12H	24.3	25.0	24.9	25.6	26.2	20.6	21.3	21.2	21.9	22.6
8H	4H	21.6	22.4	22.2	22.9	23.6	20.2	21.0	20.8	21.6	22.2
	6H	23.3	24.0	23.9	24.6	25.2	21.2	21.9	21.8	22.5	23.2
	8H	24.3	24.9	24.9	25.5	26.2	21.7	22.3	22.4	22.9	23.6
	12H	25.4	25.9	26.1	26.6	27.3	22.2	22.7	22.8	23.3	24.0
12H	4H	21.6	22.4	22.2	23.0	23.6	20.4	21.1	21.0	21.7	22.3
	6H	23.5	24.1	24.1	24.7	25.4	21.6	22.2	22.2	22.8	23.5
	8H	24.5	25.1	25.2	25.7	26.4	22.2	22.8	22.9	23.4	24.1
Variations with the observer position at spacings:											
S = 1.0H		+ 0.1 / - 0.1					+ 0.2 / - 0.2				
1.5H		+ 0.2 / - 0.3					+ 0.2 / - 0.4				
2.0H		+ 0.2 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117, 1366 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 1.1$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Link Chai
 Test Date: 2022-03-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity: 60%
 Test Distance: 26.000m [K=1.4760]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm		
NAME:	TYPE:N/A	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: Guangzhou Jiguang Lighting Co., Ltd	SUR.:	Shielding Angle:

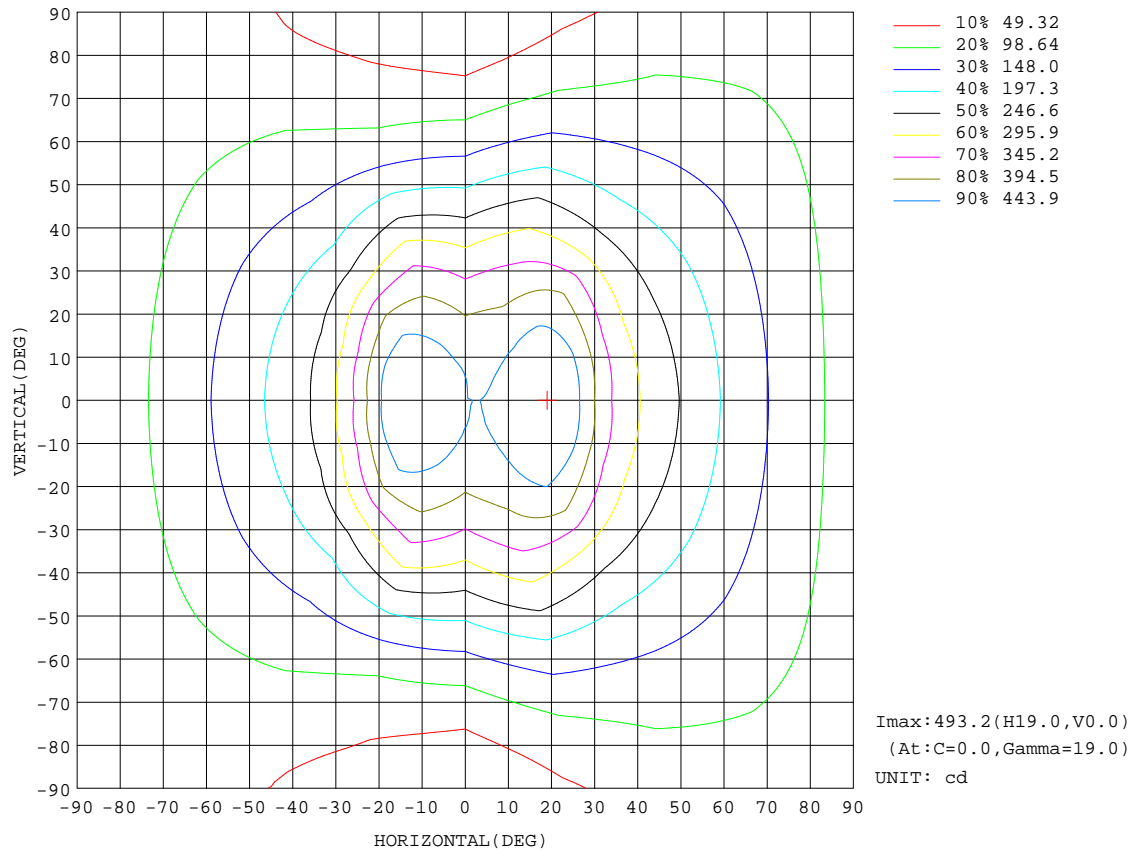
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	55	44	37	54	44	37	53	43	37	30
0.80	65	53	46	63	52	45	61	51	45	37
1.00	72	61	54	71	60	53	67	60	52	44
1.25	79	68	61	77	67	60	73	65	58	50
1.50	84	73	66	81	72	65	77	69	63	54
2.00	90	81	74	88	79	73	83	76	70	60
2.50	94	86	79	91	84	78	86	80	75	64
3.00	98	90	84	95	88	82	89	83	79	67
4.00	102	95	90	98	93	88	92	88	84	71
5.00	104	99	94	101	96	92	94	90	87	74
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Link Chai
 Test Date: 2022-03-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity: 60%
 Test Distance: 26.000m [K=1.4760]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm		
NAME:	TYPE:N/A	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: Guangzhou Jiguang Lighting Co., Ltd	SUR.:	Shielding Angle:

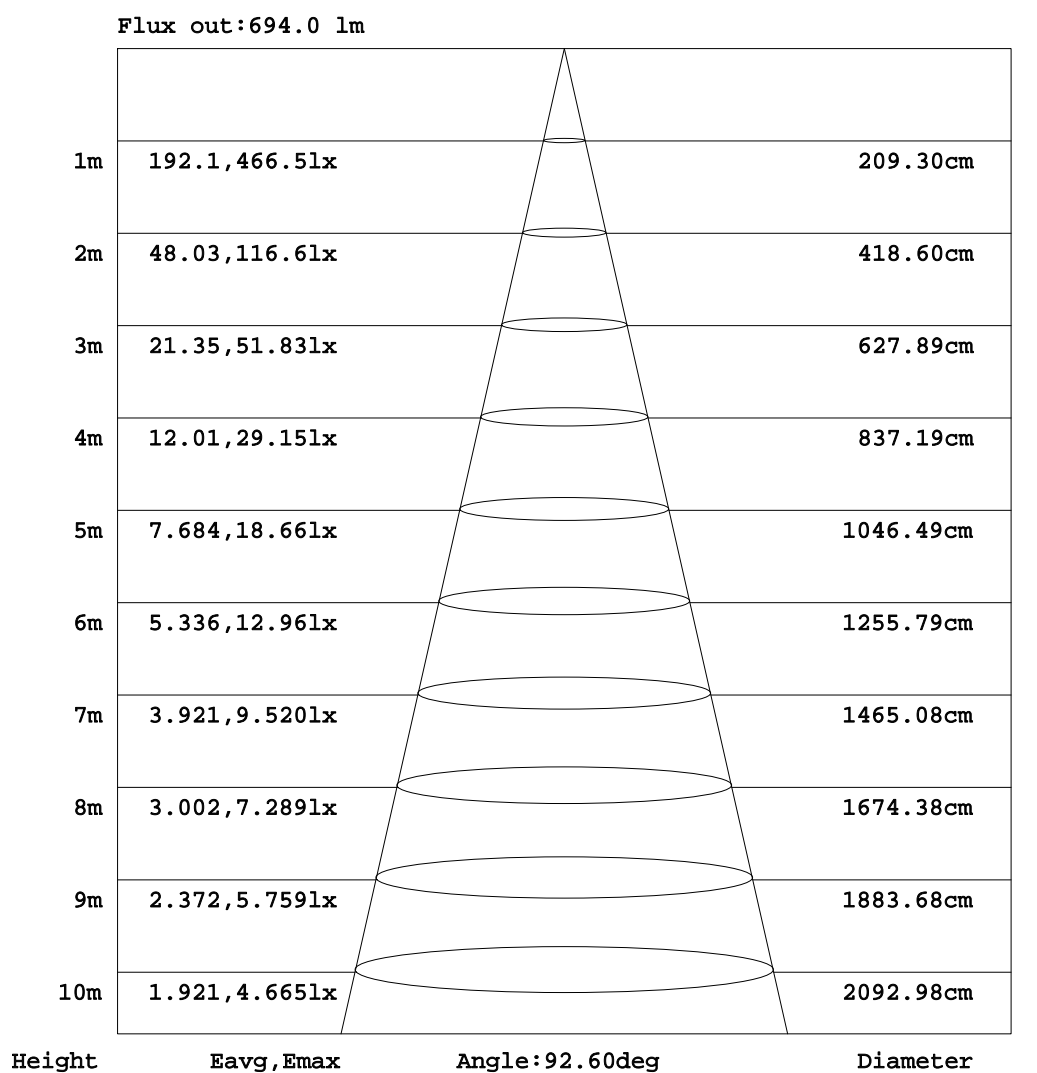


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Link Chai
Test Date:2022-03-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.4760]
Remarks:

AAI Figure

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm		
NAME:	TYPE:N/A	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: Guangzhou Jiguang Lighting Co., Ltd	SUR.:	Shielding Angle:

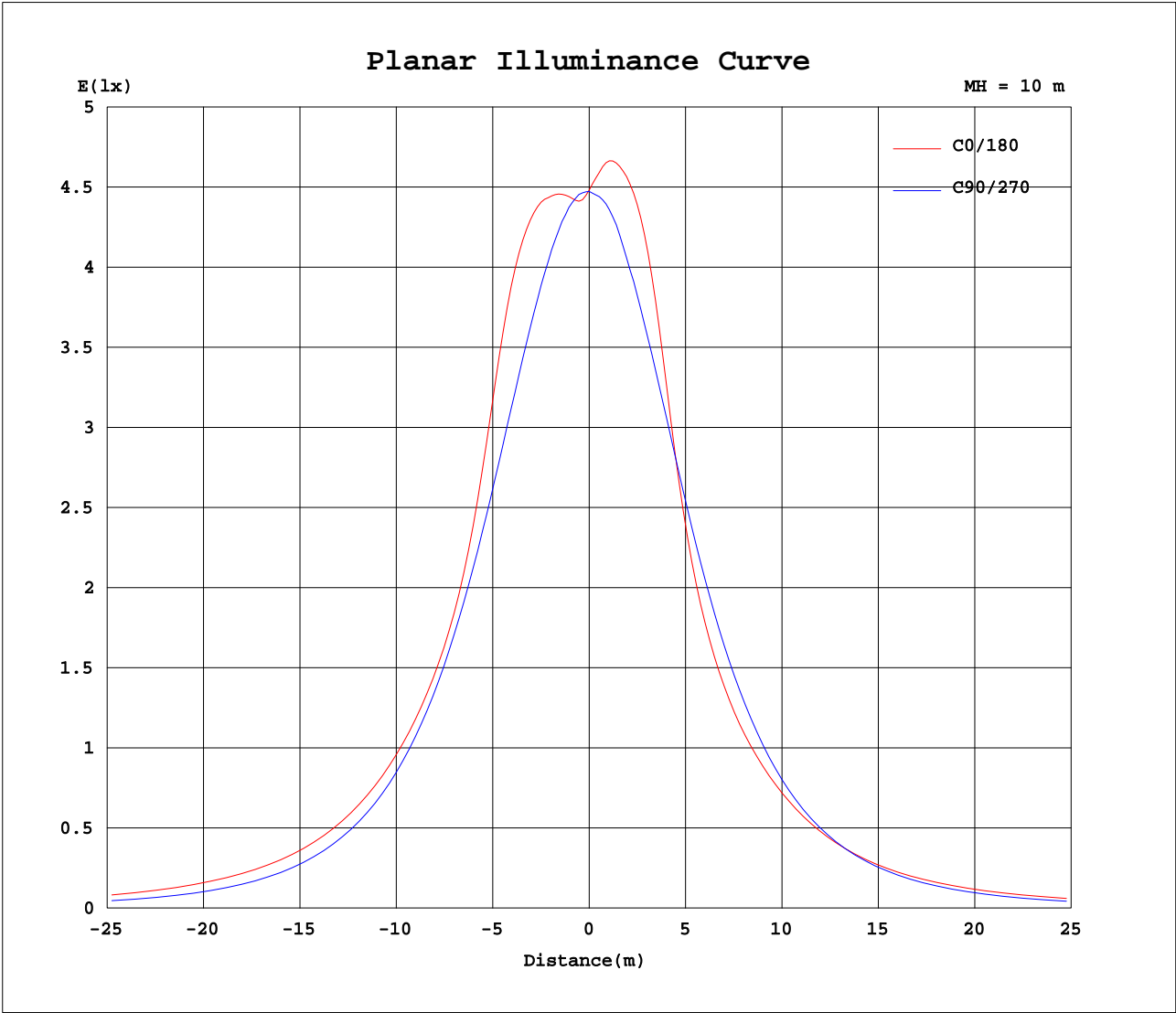


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 24.9DEG
 Operators: Link Chai
 Test Date: 2022-03-22

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity: 60%
 Test Distance: 26.000m [K=1.4760]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Link Chai
Test Date:2022-03-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.4760]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.06V I:0.1299A P:15.319W PF:0.9823 Freq:60.01Hz Lamp Flux:1365.54x1 lm		
NAME:	TYPE:N/A	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.: Guangzhou Jiguang Lighting Co., Ltd	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	448	448	448	447	447	447	446	446	448	448	448	447	447	447	446	446			
5	448	446	442	441	445	453	460	467	471	469	462	454	445	437	437	442			
10	466	461	449	435	437	453	466	478	482	478	465	449	432	431	442	455			
15	486	478	455	429	422	446	466	478	478	478	463	440	415	420	446	471			
20	493	485	458	418	401	430	455	448	436	446	448	423	392	406	447	477			
25	463	467	452	403	375	409	421	378	357	376	412	399	365	388	440	462			
30	393	409	429	382	344	381	364	308	293	306	354	369	333	366	419	408			
35	335	345	384	358	311	346	301	259	252	258	292	331	298	339	376	343			
40	299	300	327	327	275	304	247	225	225	225	241	288	263	309	322	298			
45	271	268	277	292	240	258	207	202	203	202	202	242	227	276	273	266			
50	245	241	239	255	205	212	177	180	183	180	174	199	192	241	235	238			
55	218	215	208	217	170	170	154	160	163	160	151	159	158	206	204	212			
60	193	191	181	182	137	133	133	141	144	141	131	125	127	172	177	188			
65	171	168	158	150	105	102	115	124	126	124	114	98.2	98.7	141	153	166			
70	149	147	137	121	78.0	79.6	98.6	107	110	108	98.1	77.8	73.2	114	133	146			
75	129	127	117	95.3	54.5	62.7	84.0	91.5	93.9	91.9	83.6	61.1	50.2	90.3	114	126			
80	110	109	99.1	74.3	35.3	48.3	69.9	77.0	79.1	77.5	70.0	47.4	29.9	70.1	97.2	108			
85	93.1	92.0	83.3	57.6	17.7	36.2	57.5	64.5	65.9	64.8	57.8	34.9	13.0	53.6	81.1	91.4			
90	77.5	76.8	68.7	43.0	4.95	27.7	49.1	56.3	58.4	57.7	50.4	27.6	2.77	39.2	66.7	76.2			
95	24.6	21.8	4.15	3.90	1.39	3.08	2.85	14.7	24.1	18.8	2.30	5.19	1.55	11.2	3.42	17.5			
100	20.3	21.4	37.2	15.2	1.47	14.3	35.3	16.8	8.58	7.04	21.2	16.5	2.12	19.1	34.7	22.3			
105	57.2	50.7	43.3	19.7	2.03	14.6	36.6	40.0	44.0	35.2	27.2	13.6	2.37	22.3	38.2	49.0			
110	58.0	53.5	45.5	22.3	2.53	11.7	33.1	40.5	44.0	40.1	27.3	12.8	2.37	23.7	40.2	53.8			
115	58.5	55.3	45.9	23.5	2.77	10.3	31.6	40.6	43.5	40.1	27.5	13.0	2.20	24.7	43.4	55.7			
120	58.6	56.2	46.0	23.5	2.69	10.1	30.8	39.9	42.3	38.3	27.5	13.0	1.96	25.5	45.5	56.1			
125	58.4	56.2	46.0	23.5	2.78	10.2	30.3	38.5	40.5	36.7	27.4	12.7	1.96	24.2	45.5	56.1			
130	56.6	54.8	45.3	21.8	2.78	10.2	28.6	36.7	38.5	35.4	26.1	12.3	1.96	18.0	44.5	54.7			
135	54.1	52.4	43.2	3.30	2.37	1.76	26.4	34.1	36.2	33.2	24.3	11.6	2.20	4.22	42.5	52.5			
140	50.7	49.2	40.3	9.61	2.20	1.49	23.3	30.8	32.7	30.3	22.1	1.96	2.21	17.4	39.2	49.1			
145	46.9	45.1	33.8	20.0	1.88	8.43	20.1	26.9	28.7	26.9	19.9	2.05	2.61	15.8	31.5	44.5			
150	41.6	37.7	3.77	16.9	1.80	8.19	16.5	22.8	24.5	23.1	18.1	8.89	2.53	11.6	3.03	35.6			
155	30.6	10.5	18.0	13.2	1.80	6.12	1.50	18.5	20.2	19.3	12.7	8.81	2.61	7.84	18.2	3.68			
160	6.73	20.9	17.0	10.9	1.80	4.06	8.75	1.51	4.57	2.47	1.64	7.58	2.61	5.28	12.5	19.3			
165	19.6	19.5	13.6	7.43	1.71	2.65	6.01	8.53	10.3	9.53	7.22	5.45	2.45	2.56	5.41	12.5			
170	12.4	12.5	7.73	5.71	1.71	1.57	3.60	6.11	6.57	6.55	4.99	2.52	2.20	2.31	4.99	5.43			
175	6.43	5.01	5.18	3.92	1.96	1.57	1.75	2.18	2.00	2.15	1.64	1.63	2.20	2.07	3.23	3.92			
180	1.51	1.41	1.72	2.37	2.04	1.57	1.42	1.51	1.50	1.49	1.56	1.63	2.29	2.07	1.58	1.50			

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Link Chai
Test Date:2022-03-22

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.4760]
Remarks: