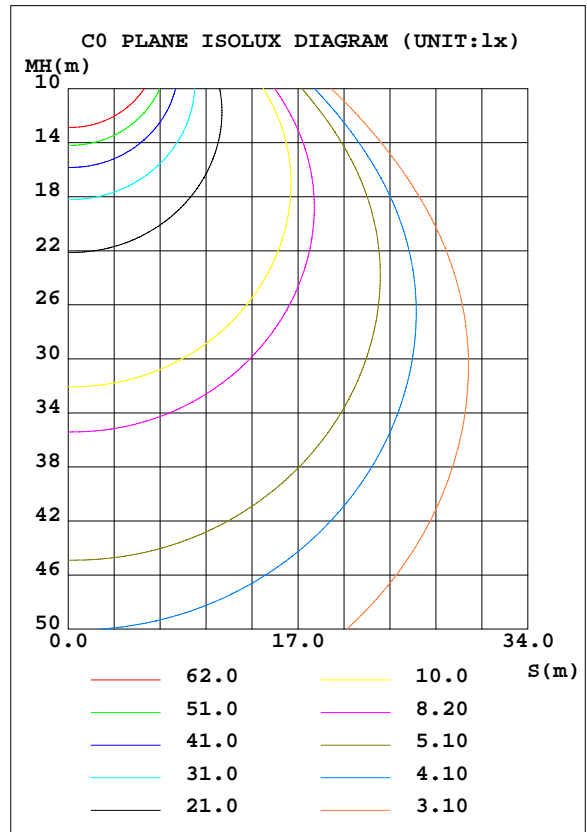
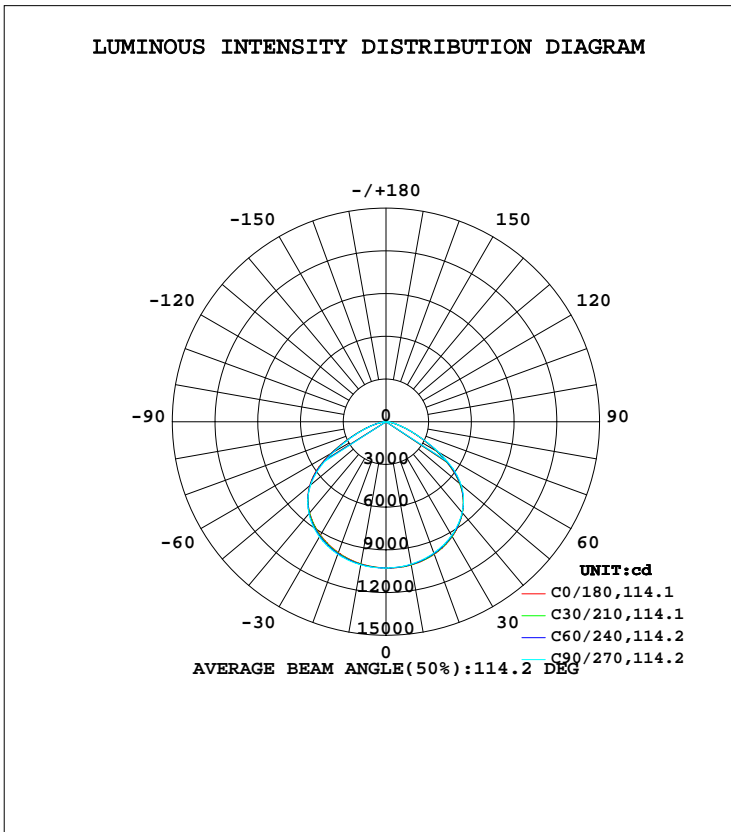


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 143.91 lm/W			
MODEL	HD-IW-W200W-A00E	Imax(cd)	10277	S/MH(C0/180)	1.33
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.35
RATED VOLTAGE(V)	100-277	TOTAL FLUX(lm)	28842	η UP, DN(C0-180)	0.0,49.8
NOMINAL FLUX(lm)	28841.5	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.1,50.1
LAMPS INSIDE	1	η up(%)	0.1	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	120	η down(%)	99.9	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	1022	1019	1016	1013	1013	1016	1021	1023	0- 10	976.0	976.0	3.38,3.38
20	990.8	987.0	981.0	976.8	978.1	983.5	990.8	993.3	10- 20	2839	3815	13.2,13.2
30	931.3	927.8	921.7	917.9	919.8	925.7	934.4	935.1	20- 30	4427	8242	28.6,28.6
40	835.4	834.6	831.8	832.5	834.1	837.1	842.2	840.8	30- 40	5545	13787	47.8,47.8
50	675.0	679.6	689.2	700.5	700.3	695.3	690.5	681.8	40- 50	5942	19729	68.4,68.4
60	403.6	412.8	426.9	435.1	448.6	438.3	422.8	406.3	50- 60	5062	24791	86,86
70	160.7	170.8	166.0	170.4	181.3	179.9	172.4	165.5	60- 70	2818	27609	95.7,95.7
80	36.38	43.91	44.79	44.57	42.37	48.41	49.60	42.91	70- 80	1043	28652	99.3,99.3
90	0.0465	0.0456	0.0543	0.0426	0.1149	0.1598	0.1141	0.1148	80- 90	164.9	28817	99.9,99.9
100	0.0863	0.0858	0.0862	0.0824	0.2183	0.2300	0.2290	0.2342	90-100	1.273	28818	99.9,99.9
110	0.1419	0.1353	0.1438	0.1398	0.2938	0.3120	0.3241	0.3241	100-110	2.068	28820	99.9,99.9
120	0.2486	0.2283	0.2384	0.2367	0.3722	0.3752	0.3824	0.3736	110-120	2.599	28823	99.9,99.9
130	0.3865	0.3669	0.3716	0.3714	0.5258	0.5558	0.5583	0.5258	120-130	3.373	28826	99.9,99.9
140	0.5343	0.5244	0.5140	0.5107	0.6991	0.7593	0.7326	0.7148	130-140	4.202	28830	100,100
150	0.5742	0.5800	0.5910	0.5914	0.8661	0.9080	0.9050	0.8813	140-150	4.284	28835	100,100
160	0.6693	0.7031	0.6195	0.7089	1.025	1.072	0.9774	1.023	150-160	3.675	28838	100,100
170	0.7436	0.8049	0.7699	0.7380	0.9673	1.012	1.010	0.9948	160-170	2.459	28841	100,100
180	0.9145	0.9063	0.8451	0.8477	0.9145	0.9064	0.8467	0.8481	170-180	0.8349	28842	100,100
DEG	LUMINOUS INTENSITY:×10cd Less than 35% Percent = 7.7 %									UNIT:lm		

Conical surface Flux(90deg): 16769 lm

%lum = 58.1%  
%lamp = 58.1%

Conical surface Flux(120deg): 24791 lm

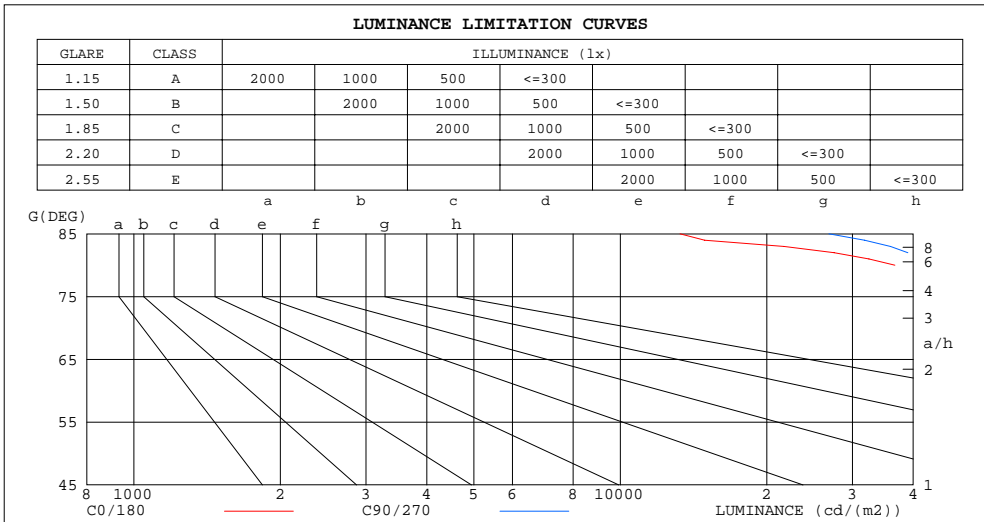
%lum = 86.0%  
%lamp = 86.0%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 24.7DEG  
Operators:Derek Lai  
Test Date:11 October 2019

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
Humidity: 41.0%  
Test Distance:2.500m [K=1.0708]  
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	13264	26841
80	36664	45077
75	58147	62356
70	82216	84818
65	110448	114665
60	141237	149207
55	167833	175155
50	183763	187363
45	189813	190442

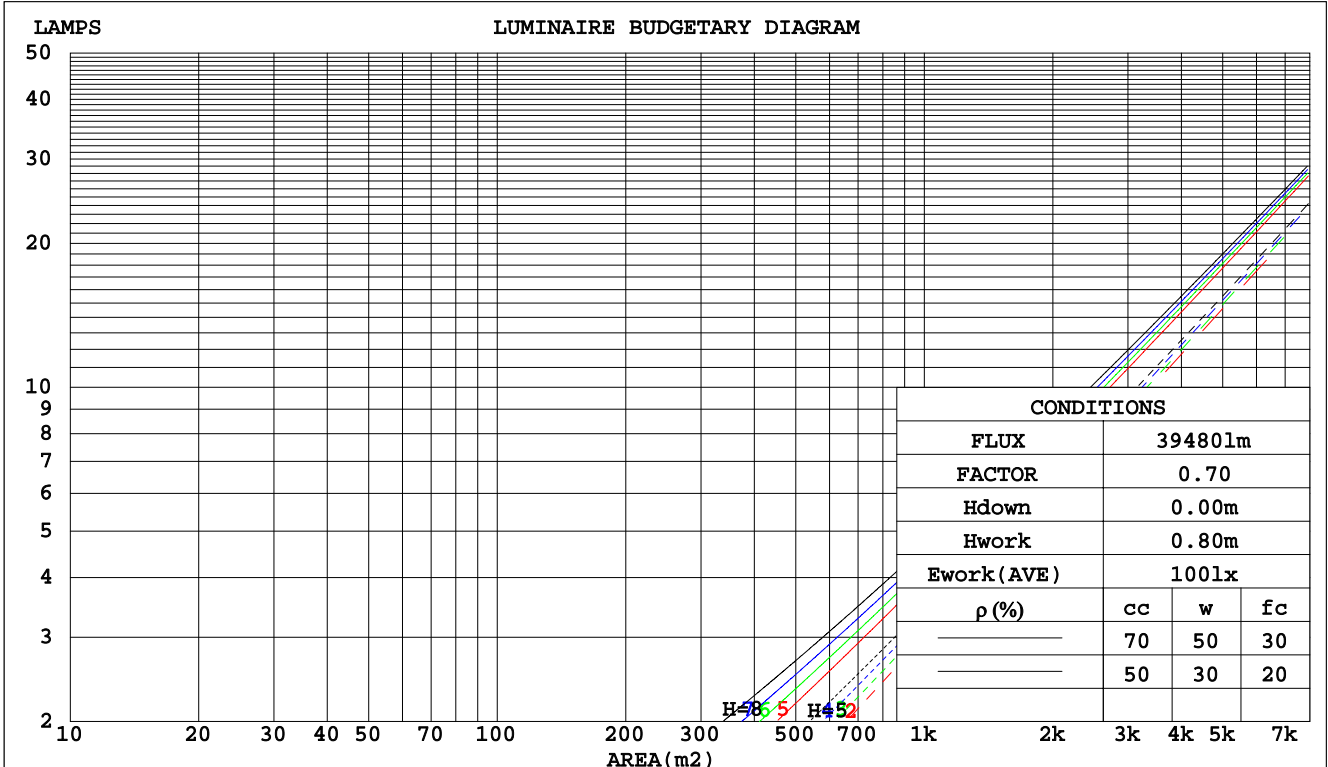
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators: Derek Lai  
 Test Date: 11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance: 2.500m [K=1.0708]  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.06	1.02	.98	1.03	.00	.97	.99	.96	.94	.95	.93	.91	.92	.90	.88	.86
2.0	.93	.87	.81	.91	.85	.80	.88	.83	.79	.84	.80	.77	.81	.78	.75	.73
3.0	.82	.74	.68	.81	.73	.68	.78	.72	.66	.75	.70	.65	.72	.68	.64	.62
4.0	.73	.65	.58	.72	.64	.58	.69	.62	.57	.67	.61	.56	.65	.60	.55	.53
5.0	.65	.57	.50	.64	.56	.50	.62	.55	.49	.60	.54	.49	.58	.53	.48	.46
6.0	.59	.50	.44	.58	.50	.44	.56	.49	.43	.54	.48	.43	.53	.47	.42	.40
7.0	.53	.45	.39	.52	.44	.38	.51	.43	.38	.49	.43	.38	.48	.42	.38	.36
8.0	.48	.40	.34	.48	.40	.34	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32
9.0	.44	.36	.31	.44	.36	.31	.43	.36	.31	.42	.35	.30	.41	.35	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.28	.38	.32	.27	.26



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

WEC AND CCEC

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

ρcc	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	.275	.156	.050	.268	.153	.049	.255	.146	.047	.243	.140	.045	.232	.134	.043	
2.0	.267	.146	.045	.261	.144	.044	.249	.139	.043	.239	.134	.042	.229	.130	.041	
3.0	.252	.134	.040	.247	.132	.040	.237	.128	.039	.227	.125	.038	.218	.121	.037	
4.0	.236	.123	.036	.231	.121	.036	.222	.118	.035	.214	.115	.035	.206	.112	.034	
5.0	.221	.112	.033	.217	.111	.032	.208	.109	.032	.201	.106	.032	.194	.104	.031	
6.0	.206	.103	.030	.203	.102	.029	.195	.100	.029	.189	.098	.029	.183	.096	.029	
7.0	.193	.096	.027	.190	.095	.027	.184	.093	.027	.178	.091	.026	.172	.089	.026	
8.0	.181	.089	.025	.178	.088	.025	.173	.086	.025	.167	.085	.024	.162	.083	.024	
9.0	.171	.083	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.023	
10.0	.161	.077	.021	.158	.077	.021	.154	.075	.021	.149	.074	.021	.145	.073	.021	

ρcc	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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.179	.157	.138	.153	.135	.119	.105	.093	.082	.060	.054	.048	.019	.017	.015	
2.0	.170	.133	.102	.145	.114	.088	.100	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.162	.115	.077	.139	.099	.067	.095	.069	.047	.055	.040	.028	.018	.013	.009	
4.0	.154	.101	.061	.132	.088	.053	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.091	.049	.126	.079	.043	.087	.055	.030	.050	.032	.018	.016	.011	.006	
6.0	.140	.082	.041	.121	.071	.036	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.076	.035	.115	.066	.030	.080	.046	.021	.046	.027	.013	.015	.009	.004	
8.0	.128	.070	.030	.110	.061	.026	.076	.043	.019	.044	.025	.011	.014	.008	.004	
9.0	.122	.065	.026	.105	.056	.023	.073	.040	.016	.042	.023	.010	.014	.008	.003	
10.0	.117	.061	.023	.101	.053	.020	.070	.037	.015	.041	.022	.009	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm										
NAME: LED UFO					TYPE:LED			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.: SHENZHEN HOLDIED OPTO 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	18.9	20.4	19.2	20.6	20.8	19.0	20.5	19.3	20.7	20.9
3H	19.5	20.9	19.8	21.1	21.3	19.6	21.0	19.9	21.2	21.5
4H	19.7	20.9	20.0	21.2	21.4	19.8	21.1	20.1	21.3	21.6
6H	19.7	20.9	20.0	21.1	21.4	19.8	21.0	20.1	21.3	21.5
8H	19.6	20.8	20.0	21.1	21.4	19.8	20.9	20.1	21.2	21.5
12H	19.6	20.7	19.9	21.0	21.3	19.8	20.9	20.1	21.2	21.5
4H 2H	19.2	20.5	19.6	20.8	21.0	19.3	20.6	19.7	20.9	21.1
3H	20.0	21.1	20.4	21.4	21.7	20.1	21.2	20.4	21.5	21.8
4H	20.2	21.2	20.6	21.5	21.8	20.3	21.3	20.7	21.6	21.9
6H	20.3	21.1	20.7	21.5	21.9	20.4	21.3	20.8	21.6	22.0
8H	20.2	21.1	20.7	21.4	21.8	20.4	21.2	20.8	21.6	22.0
12H	20.2	21.0	20.6	21.3	21.7	20.4	21.1	20.8	21.5	21.9
8H 4H	20.2	21.0	20.6	21.4	21.8	20.3	21.1	20.7	21.5	21.9
6H	20.3	21.0	20.8	21.4	21.8	20.5	21.1	20.9	21.5	22.0
8H	20.3	20.9	20.8	21.4	21.8	20.5	21.1	21.0	21.5	22.0
12H	20.3	20.8	20.8	21.3	21.8	20.5	21.0	21.0	21.5	21.9
12H 4H	20.2	20.9	20.6	21.3	21.7	20.3	21.0	20.7	21.4	21.8
6H	20.3	20.9	20.8	21.3	21.8	20.5	21.0	20.9	21.5	21.9
8H	20.3	20.8	20.8	21.3	21.8	20.5	21.0	21.0	21.5	21.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				
1.5H	+ 0.4 / - 0.8					+ 0.4 / - 0.8				
2.0H	+ 0.8 / - 0.9					+ 0.8 / - 0.9				

CIE Pub.117, 28842 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 11.7)

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

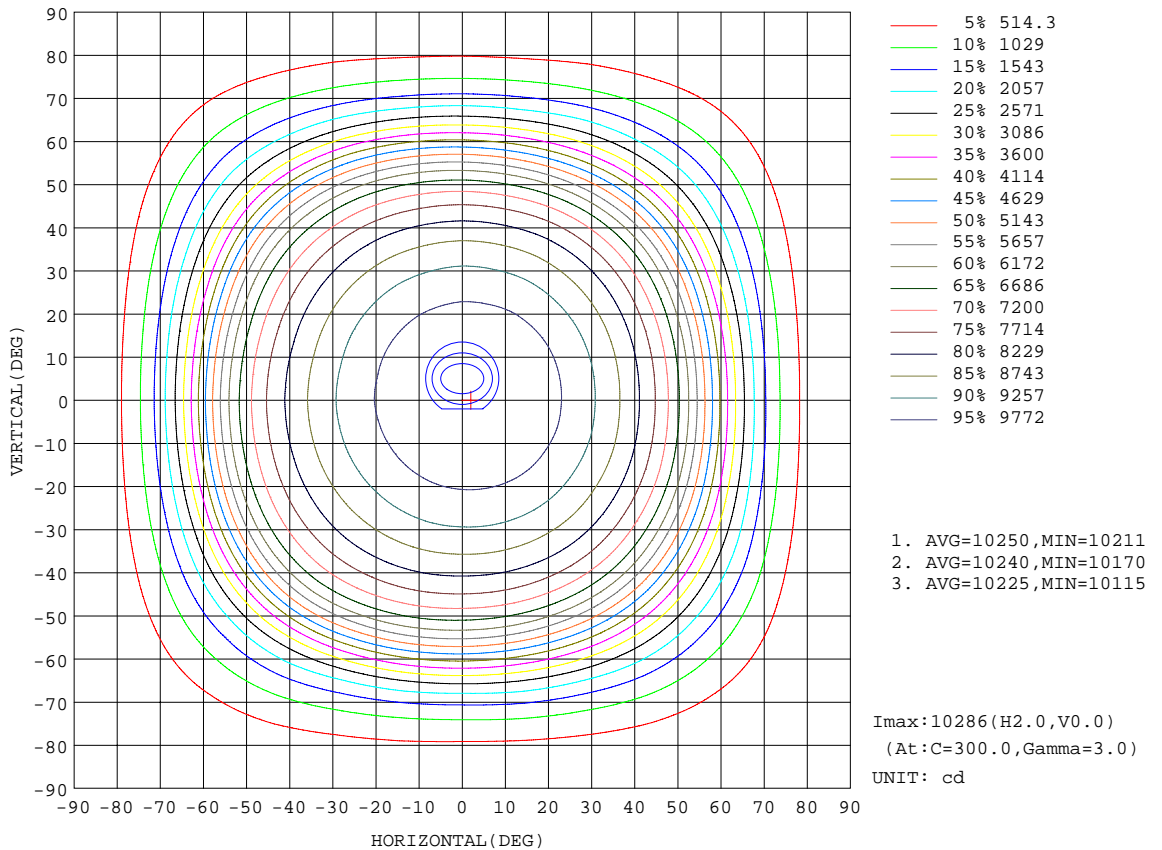
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	47	40	58	47	40	57	47	40	34
0.80	69	58	51	68	58	51	67	57	50	44
1.00	78	68	61	77	67	61	75	69	60	53
1.25	86	76	69	84	75	69	82	74	68	61
1.50	91	81	75	89	81	75	86	79	73	66
2.00	97	90	84	96	88	83	92	86	81	74
2.50	101	94	88	99	93	87	95	90	86	78
3.00	104	98	93	102	96	92	98	93	90	82
4.00	108	103	98	105	101	97	101	97	94	86
5.00	110	105	102	107	104	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:



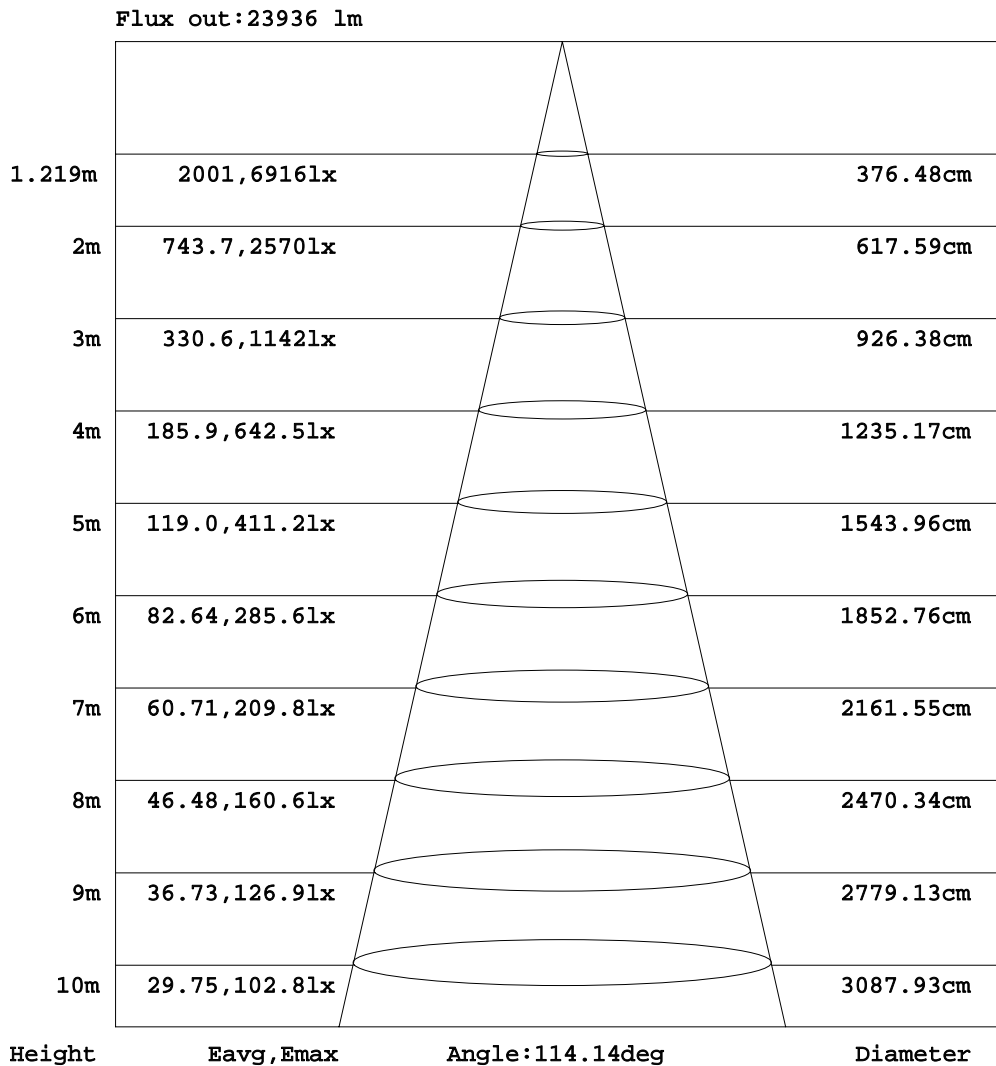
C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:



AAI Figure

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:



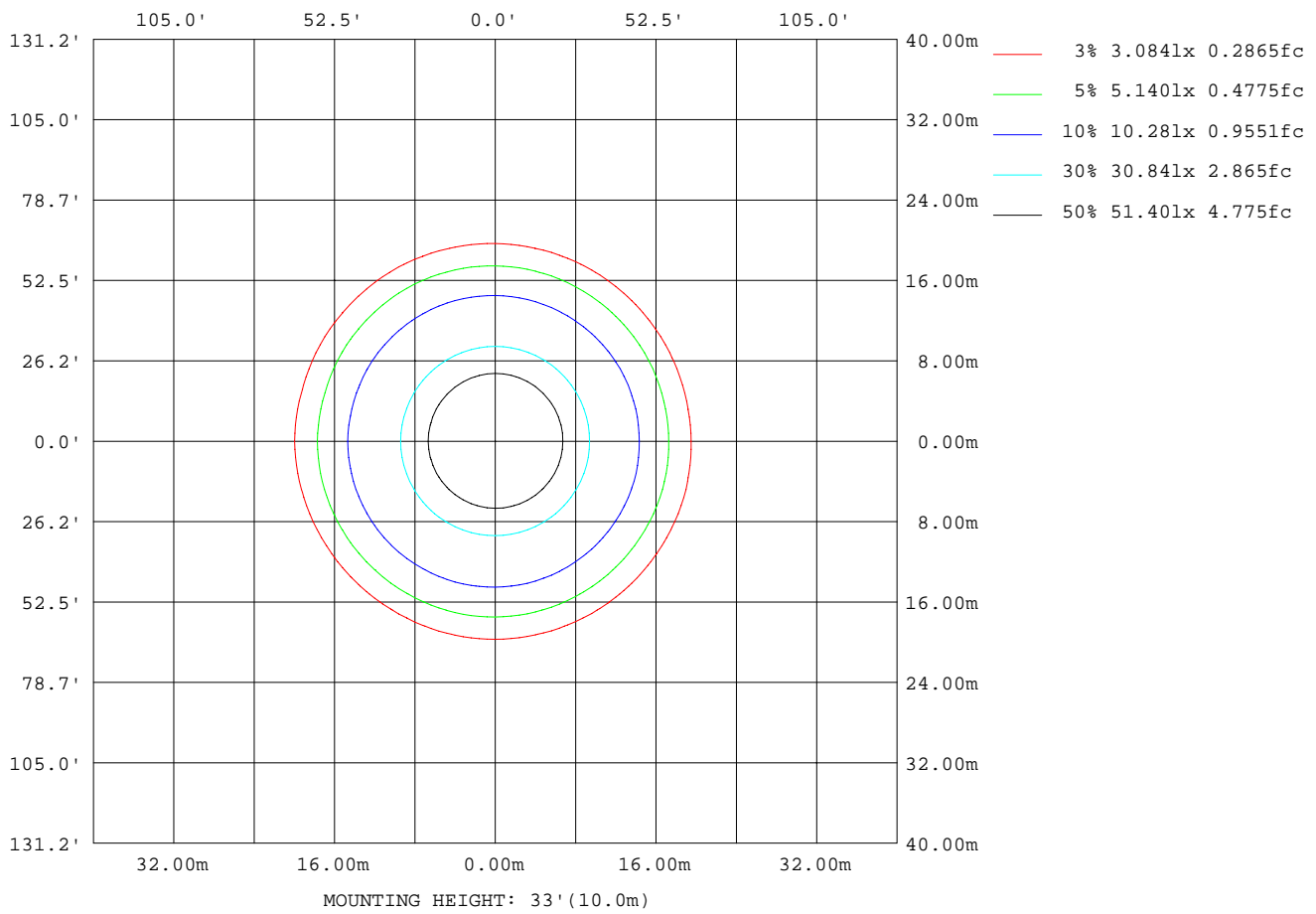
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

ISOLUX DIAGRAM

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

LED Avg.L Report

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

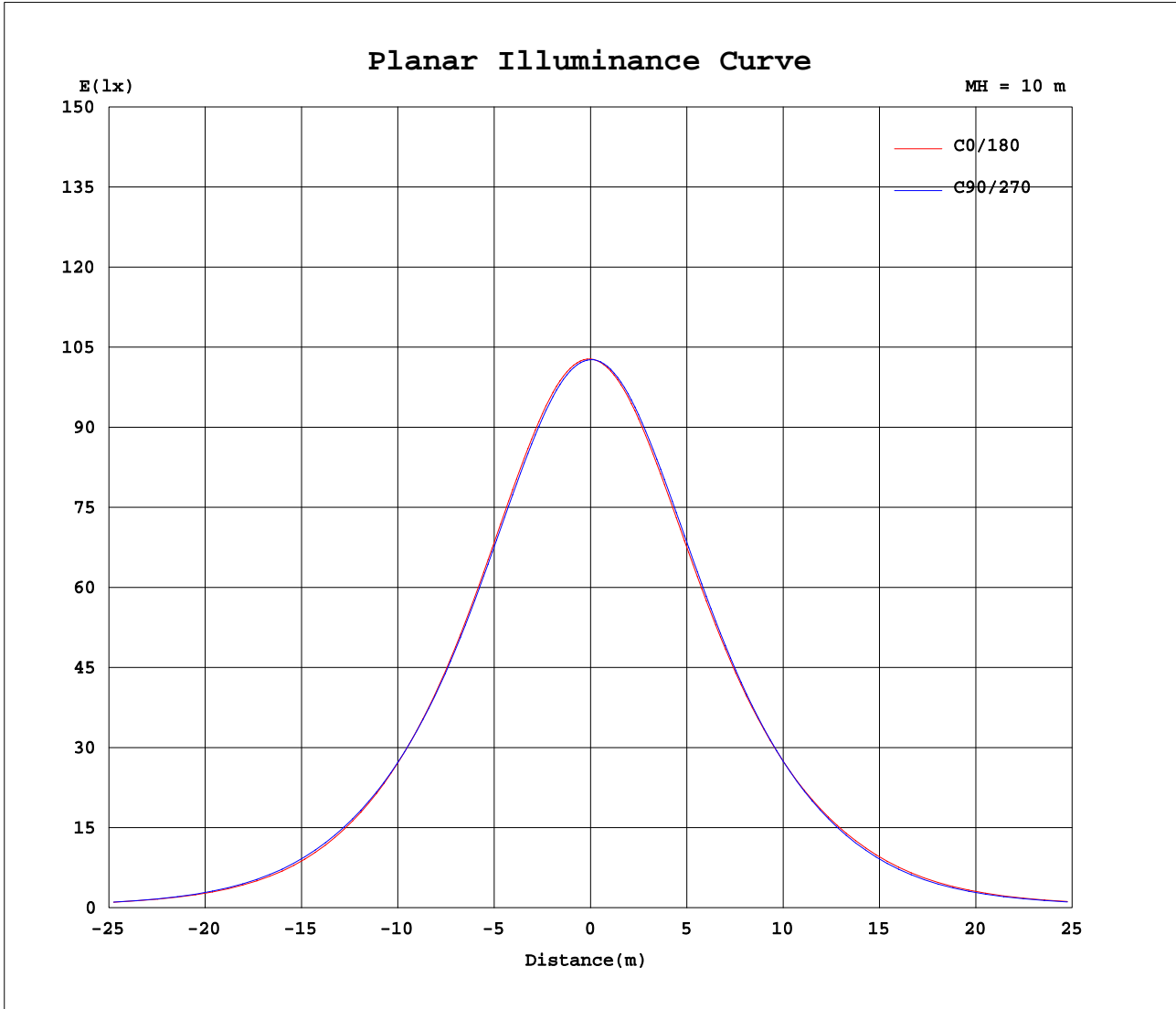
AvgL	cd/m2
L_0~180(65)av	116673
L_0~180(75)av	61995
L_0~180(85)av	16465
L_90~270(65)av	114934
L_90~270(75)av	64332
L_90~270(85)av	29301
L_45(65)av	114951
L_45(75)av	64952
L_45(85)av	20828

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 24.7DEG  
Operators: Derek Lai  
Test Date: 11 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
Humidity: 41.0%  
Test Distance: 2.500m [K=1.0708]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

Table--1

UNIT: x10cd

C(DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027
5	1027	1027	1026	1026	1025	1024	1024	1023	1023	1022	1022	1022	1023	1023	1024	1024	1025	1025	1026
10	1022	1021	1020	1019	1018	1016	1016	1014	1013	1013	1012	1013	1013	1014	1015	1016	1018	1019	1021
15	1010	1009	1008	1006	1004	1003	1001	1000	998	998	997	997	999	999	1001	1003	1005	1006	1009
20	991	990	989	987	985	983	981	979	978	977	976	977	978	979	981	984	986	988	991
25	965	965	963	961	959	957	955	953	951	950	950	951	952	952	955	958	961	963	966
30	931	931	929	928	926	924	922	921	919	918	918	919	920	920	923	926	929	931	934
35	889	890	887	886	884	883	881	881	880	879	879	880	881	880	883	886	889	891	894
40	835	837	835	835	833	833	832	833	832	832	832	833	834	833	835	837	839	840	842
45	767	769	767	768	769	770	771	773	774	775	775	775	776	773	775	776	777	776	777
50	675	679	677	680	682	686	689	694	697	701	700	700	700	696	696	695	695	693	690
55	550	556	555	558	563	569	575	580	584	591	592	593	594	587	588	585	584	579	572
60	404	411	410	413	417	422	427	430	429	435	439	444	449	440	441	438	436	430	423
65	267	274	274	276	277	277	277	277	276	278	281	288	297	293	293	290	288	283	278
70	161	171	169	171	168	170	166	167	166	170	168	174	181	180	184	180	178	174	172
75	86.0	92.0	92.7	94.4	93.7	93.6	92.4	92.5	93.5	94.8	93.8	94.3	97.6	99.3	102	102	101	99.3	98.1
80	36.4	39.1	40.0	43.9	44.7	45.3	44.8	46.1	45.3	44.6	40.9	40.8	42.4	42.0	46.4	48.4	50.9	49.4	49.6
85	6.61	7.80	10.1	9.88	11.5	13.6	13.4	14.4	12.6	11.1	9.34	9.62	9.81	10.1	9.85	11.5	14.1	15.7	15.8
90	0.05	0.04	0.05	0.05	0.08	0.04	0.05	0.04	0.08	0.04	0.04	0.04	0.11	0.12	0.12	0.16	0.11	0.17	0.11
95	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.16	0.16	0.16	0.17	0.17	0.17	0.17
100	0.09	0.08	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.22	0.22	0.22	0.23	0.23	0.23	0.23
105	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.27	0.27	0.28	0.28	0.29	0.29	0.29
110	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.13	0.29	0.30	0.30	0.31	0.32	0.32	0.32
115	0.19	0.18	0.18	0.17	0.19	0.18	0.18	0.18	0.19	0.18	0.18	0.18	0.32	0.32	0.32	0.33	0.34	0.35	0.35
120	0.25	0.24	0.24	0.23	0.24	0.23	0.24	0.24	0.24	0.24	0.24	0.23	0.37	0.37	0.37	0.38	0.38	0.38	0.38
125	0.32	0.31	0.30	0.30	0.31	0.30	0.30	0.30	0.30	0.31	0.30	0.30	0.44	0.44	0.44	0.45	0.46	0.46	0.46
130	0.39	0.38	0.39	0.37	0.39	0.38	0.37	0.37	0.38	0.37	0.38	0.37	0.53	0.54	0.55	0.56	0.56	0.56	0.56
135	0.47	0.47	0.46	0.44	0.45	0.46	0.45	0.45	0.45	0.44	0.45	0.45	0.62	0.64	0.65	0.67	0.66	0.66	0.65
140	0.53	0.55	0.52	0.52	0.52	0.52	0.51	0.51	0.51	0.51	0.49	0.49	0.70	0.71	0.72	0.76	0.76	0.75	0.73
145	0.56	0.60	0.59	0.56	0.58	0.57	0.56	0.56	0.57	0.55	0.54	0.56	0.77	0.81	0.80	0.83	0.84	0.84	0.84
150	0.57	0.60	0.60	0.58	0.58	0.60	0.59	0.60	0.59	0.59	0.60	0.60	0.87	0.88	0.88	0.91	0.91	0.91	0.90
155	0.64	0.68	0.66	0.64	0.61	0.61	0.59	0.61	0.63	0.64	0.67	0.64	0.93	0.95	1.00	0.99	0.98	0.97	0.95
160	0.67	0.69	0.70	0.70	0.65	0.64	0.62	0.64	0.65	0.71	0.71	0.69	1.02	1.04	1.06	1.07	1.02	1.00	0.98
165	0.70	0.73	0.76	0.77	0.72	0.72	0.71	0.70	0.70	0.71	0.72	0.71	1.01	1.04	1.06	1.04	1.02	1.02	1.02
170	0.74	0.77	0.80	0.80	0.75	0.76	0.77	0.72	0.76	0.74	0.73	0.72	0.97	0.98	1.00	1.01	1.03	0.98	1.01
175	0.84	0.85	0.85	0.85	0.82	0.83	0.80	0.79	0.81	0.81	0.82	0.83	0.97	0.98	0.99	0.98	0.98	0.94	0.94
180	0.91	0.93	0.91	0.91	0.87	0.85	0.85	0.80	0.82	0.85	0.86	0.90	0.91	0.93	0.91	0.91	0.87	0.85	0.85

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.0V I:1.673A P:200.4W PF:0.9984 Freq:60.01Hz Lamp Flux:28841.5x1 lm		
NAME: LED UFO	TYPE:LED	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.: SHENZHEN HOLDIED OPTO LTD	SUR.:	Shielding Angle:

Table--2

UNIT: x10cd

C( DEG) γ (DEG)	285	300	315	330	345														
0	1027	1027	1027	1027	1027														
5	1027	1027	1027	1028	1027														
10	1021	1022	1023	1023	1023														
15	1010	1011	1011	1011	1011														
20	991	993	993	993	993														
25	967	968	968	968	967														
30	934	936	935	935	934														
35	893	895	893	893	891														
40	841	843	841	840	838														
45	775	776	773	771	769														
50	687	685	682	680	677														
55	566	560	556	555	551														
60	416	410	406	405	403														
65	274	273	268	266	264														
70	169	170	165	164	161														
75	97.0	95.2	93.4	90.1	87.7														
80	47.7	47.5	42.9	40.7	37.7														
85	14.5	12.6	9.12	8.47	5.24														
90	0.15	0.11	0.11	0.11	0.12														
95	0.17	0.17	0.17	0.17	0.17														
100	0.23	0.23	0.23	0.23	0.23														
105	0.30	0.29	0.29	0.29	0.29														
110	0.33	0.32	0.32	0.32	0.31														
115	0.35	0.35	0.34	0.33	0.33														
120	0.38	0.38	0.37	0.37	0.38														
125	0.45	0.44	0.44	0.43	0.44														
130	0.55	0.53	0.53	0.53	0.53														
135	0.64	0.62	0.62	0.62	0.63														
140	0.71	0.71	0.71	0.70	0.73														
145	0.81	0.80	0.80	0.79	0.82														
150	0.90	0.88	0.88	0.87	0.86														
155	0.95	0.95	0.96	0.98	0.97														
160	0.99	0.99	1.02	1.04	1.00														
165	1.01	1.01	1.02	1.04	1.02														
170	1.01	0.96	0.99	1.01	0.97														
175	0.95	0.90	0.92	0.93	0.94														
180	0.80	0.82	0.85	0.86	0.90														

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:

## Photometric Data Table [cd]

G/C	0.0	15.0	30.0	45.0	60.0	75.0	90.0	105.0	120.0	135.0
0.0	10271	10271	10271	10271	10271	10271	10271	10271	10271	10271
3.0	10275	10274	10271	10266	10262	10257	10257	10252	10247	10246
6.0	10264	10262	10256	10248	10239	10230	10227	10219	10209	10207
9.0	10233	10229	10219	10208	10197	10182	10176	10166	10156	10150
12.0	10177	10171	10159	10144	10131	10114	10102	10089	10078	10072
15.0	10096	10091	10076	10062	10040	10027	10011	9995	9981	9976
18.0	9991	9990	9972	9953	9933	9915	9897	9881	9863	9858
21.0	9864	9860	9842	9825	9800	9780	9761	9744	9727	9719
24.0	9707	9706	9686	9669	9646	9625	9605	9587	9569	9559
27.0	9523	9527	9502	9487	9465	9446	9424	9409	9389	9380
30.0	9313	9314	9291	9278	9255	9237	9217	9206	9188	9179
33.0	9070	9075	9051	9040	9019	9003	8986	8978	8962	8953
36.0	8790	8800	8778	8768	8750	8737	8721	8720	8710	8702
39.0	8472	8482	8465	8458	8447	8435	8426	8434	8427	8425
42.0	8100	8117	8098	8103	8097	8095	8089	8107	8108	8113
45.0	7670	7693	7674	7685	7690	7702	7706	7733	7744	7754
48.0	7152	7183	7166	7186	7201	7232	7251	7290	7310	7334
51.0	6526	6568	6553	6584	6611	6657	6692	6747	6777	6819
54.0	5777	5830	5818	5850	5893	5957	6010	6068	6106	6166
57.0	4926	4988	4980	5010	5056	5124	5181	5232	5258	5330
60.0	4036	4105	4099	4128	4167	4224	4269	4297	4293	4351
63.0	3184	3254	3250	3268	3295	3320	3341	3349	3323	3357
66.0	2428	2510	2503	2515	2519	2526	2510	2513	2500	2522
69.0	1794	1898	1875	1895	1871	1893	1847	1863	1846	1892
72.0	1263	1363	1348	1363	1348	1363	1323	1334	1327	1366
75.0	860.0	920.0	927.5	944.1	936.9	936.2	923.5	924.9	934.7	947.8
78.0	534.7	574.1	584.2	617.9	614.7	621.4	605.5	623.0	616.2	630.7
81.0	290.0	314.0	322.6	358.3	371.9	381.9	377.3	388.7	378.9	369.8
84.0	89.05	116.5	126.3	154.9	171.6	195.2	203.7	203.7	184.8	163.9
87.0	22.67	2.188	50.81	33.66	68.56	56.00	80.32	59.21	75.48	37.60
90.0	0.4654	0.4443	0.4780	0.4557	0.7893	0.4495	0.5427	0.4382	0.7974	0.4261
93.0	0.5664	0.5465	0.5750	0.5604	0.5808	0.5529	0.5690	0.5364	0.5509	0.5228
96.0	0.6856	0.6649	0.6949	0.6988	0.7279	0.6730	0.6778	0.6476	0.6689	0.6461
99.0	0.8156	0.8009	0.8152	0.8161	0.8560	0.8469	0.8156	0.7949	0.8014	0.7800
102.0	0.9614	0.9470	0.9528	0.9513	0.9865	0.9798	0.9654	0.9386	0.9419	0.9217
105.0	1.103	1.091	1.094	1.090	1.135	1.129	1.115	1.097	1.105	1.074
108.0	1.276	1.248	1.257	1.239	1.295	1.302	1.304	1.281	1.293	1.254
111.0	1.494	1.432	1.460	1.421	1.465	1.506	1.510	1.490	1.508	1.471
114.0	1.774	1.690	1.704	1.655	1.737	1.748	1.751	1.741	1.773	1.727
117.0	2.114	2.035	2.007	1.945	2.071	2.029	2.041	2.033	2.082	2.034
120.0	2.486	2.394	2.362	2.283	2.438	2.297	2.384	2.373	2.436	2.367
123.0	2.873	2.817	2.731	2.739	2.844	2.688	2.760	2.730	2.793	2.784
126.0	3.307	3.231	3.140	3.160	3.255	3.173	3.134	3.098	3.158	3.214
129.0	3.712	3.658	3.720	3.530	3.741	3.667	3.555	3.493	3.630	3.582
132.0	4.170	4.195	4.165	3.947	4.090	4.208	4.070	4.014	4.088	3.991
135.0	4.707	4.716	4.623	4.357	4.455	4.614	4.546	4.477	4.472	4.402
138.0	5.135	5.186	4.947	5.020	4.929	4.998	4.931	4.832	4.841	4.810
141.0	5.402	5.571	5.347	5.312	5.306	5.342	5.247	5.203	5.202	5.227
144.0	5.461	5.690	5.767	5.522	5.707	5.578	5.484	5.518	5.608	5.438
147.0	5.785	6.252	5.703	5.641	5.802	5.834	5.761	5.810	5.811	5.676
150.0	5.742	5.999	5.971	5.800	5.761	5.992	5.910	5.961	5.876	5.914
153.0	6.009	6.269	6.536	6.073	5.826	6.042	5.904	6.050	6.072	6.192
156.0	6.565	6.840	6.722	6.467	6.113	6.128	5.891	6.192	6.358	6.501
159.0	6.799	6.885	6.931	6.884	6.432	6.285	6.134	6.388	6.495	6.937
162.0	6.696	6.919	7.194	7.274	6.754	6.634	6.470	6.628	6.584	7.251
165.0	7.016	7.291	7.574	7.675	7.234	7.190	7.084	7.013	6.965	7.057
168.0	7.471	7.737	7.969	7.991	7.573	7.558	7.550	7.388	7.763	7.272
171.0	7.414	7.596	7.729	7.972	7.514	7.621	7.683	7.109	7.498	7.566
174.0	8.035	8.169	8.171	8.244	7.980	8.097	7.910	7.647	7.862	7.862
177.0	8.608	8.867	8.768	8.782	8.374	8.441	8.150	7.921	8.320	8.349
180.0	9.145	9.315	9.130	9.063	8.732	8.517	8.451	7.994	8.183	8.477
G/C	150.0	165.0	180.0	195.0	210.0	225.0	240.0	255.0	270.0	285.0
0.0	10271	10271	10271	10271	10271	10271	10271	10271	10271	10271
3.0	10245	10247	10248	10249	10255	10258	10262	10265	10271	10272
6.0	10206	10205	10210	10212	10223	10229	10237	10245	10258	10260
9.0	10149	10148	10156	10160	10174	10182	10197	10207	10223	10227
12.0	10070	10071	10081	10085	10102	10114	10133	10147	10166	10173
15.0	9972	9975	9985	9991	10011	10027	10049	10065	10087	10096
18.0	9854	9858	9871	9875	9898	9919	9943	9962	9986	9995
21.0	9716	9720	9732	9735	9763	9788	9814	9835	9864	9870
24.0	9560	9564	9576	9579	9609	9635	9665	9690	9716	9721
27.0	9381	9388	9395	9402	9432	9459	9491	9515	9545	9548
30.0	9179	9187	9198	9196	9230	9257	9289	9310	9344	9344

C Range: 0 - 360DEG

C Interval: 15.0DEG

Test Speed: HIGH

Temperature: 24.7DEG

Operators: Derek Lai

Test Date: 11 October 2019

 $\gamma$  Range: 0 - 180DEG $\gamma$  Interval: 1.0DEG

Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.362

Humidity: 41.0%

Test Distance: 2.500m [K=1.0708]

Remarks:

Photometric Data Table [cd]

33.0	8955	8963	8973	8971	9001	9029	9063	9082	9113	9109
36.0	8704	8712	8724	8716	8748	8773	8800	8816	8843	8839
39.0	8425	8432	8443	8431	8458	8479	8502	8514	8537	8529
42.0	8109	8115	8124	8106	8127	8142	8163	8165	8179	8169
45.0	7750	7752	7760	7732	7747	7757	7769	7762	7767	7749
48.0	7328	7326	7334	7297	7304	7299	7308	7292	7282	7252
51.0	6814	6812	6819	6768	6773	6760	6760	6730	6701	6657
54.0	6172	6176	6189	6121	6130	6102	6089	6052	5991	5933
57.0	5355	5374	5396	5312	5333	5298	5275	5221	5152	5080
60.0	4390	4445	4486	4397	4414	4383	4363	4300	4228	4162
63.0	3399	3474	3549	3475	3490	3460	3438	3379	3316	3267
66.0	2552	2608	2710	2676	2689	2650	2622	2579	2541	2503
69.0	1871	1932	2029	2002	2044	1992	1980	1926	1914	1876
72.0	1344	1388	1441	1442	1479	1453	1432	1402	1391	1368
75.0	938.4	943.1	975.6	993.3	1025	1020	1010	993.2	981.2	970.3
78.0	594.9	599.2	615.4	617.0	662.1	671.0	682.8	663.6	668.8	645.3
81.0	327.8	325.0	337.2	335.3	377.5	402.2	431.9	420.3	424.2	403.6
84.0	136.4	127.5	129.9	126.2	158.1	177.1	212.0	220.6	223.3	207.4
87.0	8.085	33.60	34.51	51.62	34.36	69.44	55.24	71.99	65.55	65.13
90.0	0.4457	0.4182	1.149	1.156	1.199	1.598	1.146	1.673	1.141	1.503
93.0	0.5327	0.5059	1.377	1.419	1.424	1.446	1.443	1.456	1.443	1.456
96.0	0.6527	0.6169	1.711	1.754	1.754	1.820	1.778	1.800	1.789	1.811
99.0	0.7789	0.7450	2.065	2.105	2.126	2.187	2.190	2.204	2.165	2.217
102.0	0.9250	0.8867	2.412	2.457	2.459	2.525	2.535	2.573	2.543	2.595
105.0	1.078	1.037	2.714	2.748	2.771	2.845	2.881	2.930	2.909	2.952
108.0	1.268	1.208	2.850	2.904	2.944	3.031	3.084	3.139	3.137	3.166
111.0	1.484	1.418	2.978	3.019	3.064	3.165	3.223	3.287	3.287	3.312
114.0	1.734	1.668	3.126	3.169	3.191	3.296	3.359	3.415	3.418	3.436
117.0	2.046	1.975	3.376	3.413	3.407	3.477	3.559	3.581	3.573	3.586
120.0	2.407	2.327	3.722	3.738	3.695	3.752	3.843	3.828	3.824	3.817
123.0	2.789	2.677	4.035	4.096	4.035	4.144	4.244	4.239	4.183	4.208
126.0	3.168	3.096	4.537	4.595	4.549	4.724	4.738	4.777	4.806	4.701
129.0	3.664	3.559	5.057	5.187	5.218	5.320	5.397	5.365	5.376	5.283
132.0	4.123	4.025	5.629	5.757	5.979	6.028	6.019	6.063	6.016	5.905
135.0	4.454	4.546	6.194	6.450	6.523	6.703	6.627	6.568	6.527	6.352
138.0	4.731	4.894	6.673	6.948	6.960	7.273	7.224	7.103	6.938	6.766
141.0	5.000	4.908	7.066	7.141	7.399	7.750	7.770	7.653	7.527	7.240
144.0	5.305	5.256	7.445	7.688	7.894	8.175	8.297	8.201	8.190	7.847
147.0	5.617	5.784	8.240	8.513	8.372	8.600	8.730	8.741	8.739	8.581
150.0	5.968	6.025	8.661	8.840	8.846	9.080	9.127	9.126	9.050	9.014
153.0	6.438	6.263	9.108	9.345	9.476	9.571	9.544	9.581	9.406	9.394
156.0	6.876	6.539	9.468	9.757	10.20	10.03	9.864	9.759	9.498	9.604
159.0	7.114	6.866	10.15	10.36	10.53	10.57	10.10	9.956	9.708	9.822
162.0	7.178	6.928	10.18	10.34	10.55	10.78	10.17	10.05	9.857	9.872
165.0	7.221	7.127	10.07	10.37	10.58	10.42	10.22	10.17	10.22	10.14
168.0	7.156	7.404	9.975	10.23	10.11	10.18	10.51	10.04	10.21	10.10
171.0	7.151	7.170	9.662	9.834	9.992	10.42	10.19	9.703	9.992	10.02
174.0	7.868	7.980	9.719	9.906	9.971	9.927	9.882	9.545	9.459	9.687
177.0	8.536	8.661	9.396	9.542	9.542	9.512	9.465	9.161	9.171	8.949
180.0	8.576	8.958	9.145	9.313	9.129	9.064	8.749	8.528	8.467	8.004
G/C	300.0	315.0	330.0	345.0						
0.0	10271	10271	10271	10271						
3.0	10277	10276	10277	10276						
6.0	10268	10268	10272	10269						
9.0	10237	10241	10244	10239						
12.0	10186	10188	10192	10187						
15.0	10110	10111	10115	10110						
18.0	10011	10010	10014	10007						
21.0	9887	9887	9890	9880						
24.0	9738	9737	9739	9727						
27.0	9563	9560	9559	9548						
30.0	9358	9351	9348	9335						
33.0	9120	9112	9109	9094						
36.0	8851	8836	8832	8813						
39.0	8541	8524	8514	8499						
42.0	8181	8161	8147	8128						
45.0	7756	7730	7714	7692						
48.0	7247	7216	7200	7171						
51.0	6633	6596	6582	6546						
54.0	5879	5838	5828	5794						
57.0	5013	4966	4961	4923						
60.0	4101	4063	4052	4031						
63.0	3237	3196	3180	3163						
66.0	2498	2448	2423	2406						

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators:Derek Lai  
 Test Date:11 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance:2.500m [K=1.0708]  
 Remarks:



## Photometric Data Table [cd]

69.0	1881	1830	1820	1792
72.0	1361	1332	1319	1286
75.0	951.9	934.1	901.4	876.9
78.0	646.7	609.8	586.1	551.3
81.0	397.5	352.2	328.4	300.3
84.0	191.5	152.0	126.2	98.41
87.0	43.26	9.166	2.655	4.069
90.0	1.133	1.148	1.140	1.159
93.0	1.441	1.458	1.457	1.477
96.0	1.803	1.838	1.831	1.848
99.0	2.186	2.218	2.218	2.222
102.0	2.560	2.594	2.606	2.591
105.0	2.927	2.946	2.917	2.905
108.0	3.134	3.148	3.075	3.041
111.0	3.277	3.279	3.188	3.147
114.0	3.399	3.376	3.301	3.284
117.0	3.554	3.504	3.476	3.520
120.0	3.788	3.736	3.724	3.789
123.0	4.090	4.054	3.982	4.105
126.0	4.526	4.557	4.463	4.538
129.0	5.161	5.074	5.123	5.102
132.0	5.643	5.635	5.729	5.732
135.0	6.176	6.240	6.211	6.272
138.0	6.711	6.853	6.658	6.847
141.0	7.355	7.289	7.191	7.400
144.0	7.888	7.794	7.712	7.856
147.0	8.257	8.292	8.057	8.464
150.0	8.758	8.813	8.674	8.609
153.0	9.186	9.274	9.390	9.057
156.0	9.616	9.745	9.949	9.781
159.0	9.770	10.06	10.35	9.965
162.0	10.07	10.28	10.40	10.01
165.0	10.10	10.23	10.36	10.16
168.0	9.889	10.11	10.29	10.04
171.0	9.508	9.837	9.856	9.585
174.0	9.183	9.358	9.398	9.443
177.0	8.588	8.842	8.855	9.017
180.0	8.193	8.481	8.570	8.960

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature: 24.7DEG  
 Operators: Derek Lai  
 Test Date: 11 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 41.0%  
 Test Distance: 2.500m [K=1.0708]  
 Remarks: