

# GONIOPHOTOMETERS SYSTEM TEST REPORT

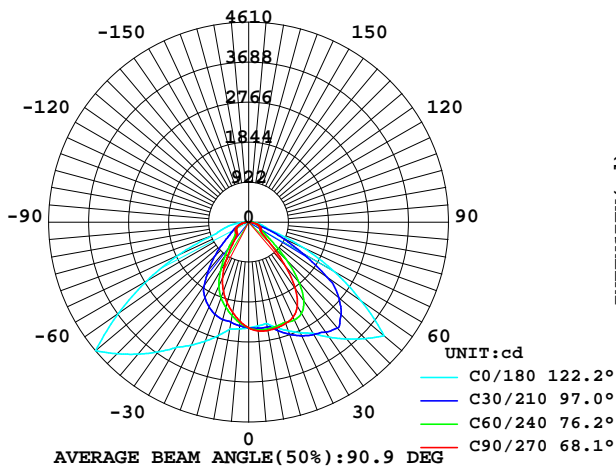
## STREETLIGHT PHOTOMETRIC TEST REPORT

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1

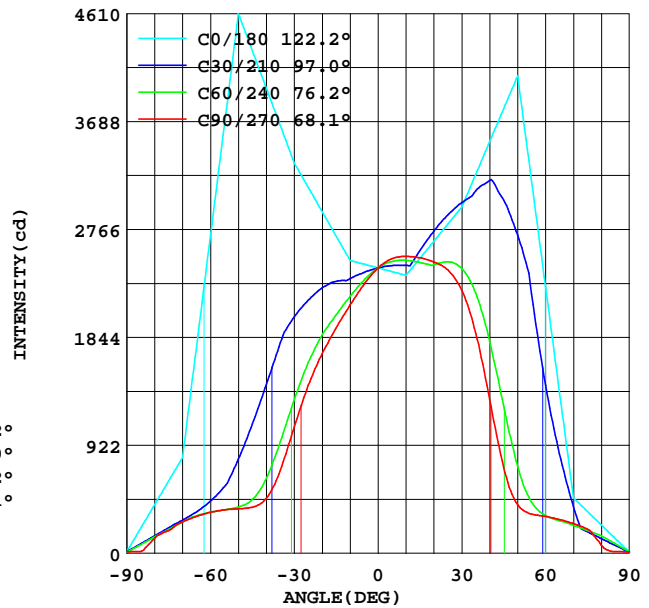
MODEL:	Philips 3030	I <sub>m</sub> max(cd):	5497	Effective Flux(lm):	5851.5
NOMINAL POWER(W):	40	MAXIMUM(C, γ):	350, 50.5	EEI	0.093
RATED VOLTAGE(V):	12	EFFICIENCY(%):	100.0	Voltage(V)	12.00
NOMINAL FLUX(lm):	6668.8	η street_up(%):	0.0	Current(A)	3.000
TEST FLUX(lm):	6669	η street_down(%):	37.7	Power(W)	40.00
LAMPS QUANTITY:	1	η house_up(%):	0.0	Power Factor	0
TOTAL FLUX(lm):	6669	η house_down(%):	62.3	EFFICIENCY(lm/W)	166.7

INTENSITY DISTRIBUTION DIAGRAM  
IN C PLANS



INTENSITY DISTRIBUTION DIAGRAM  
IN C PLANS

LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

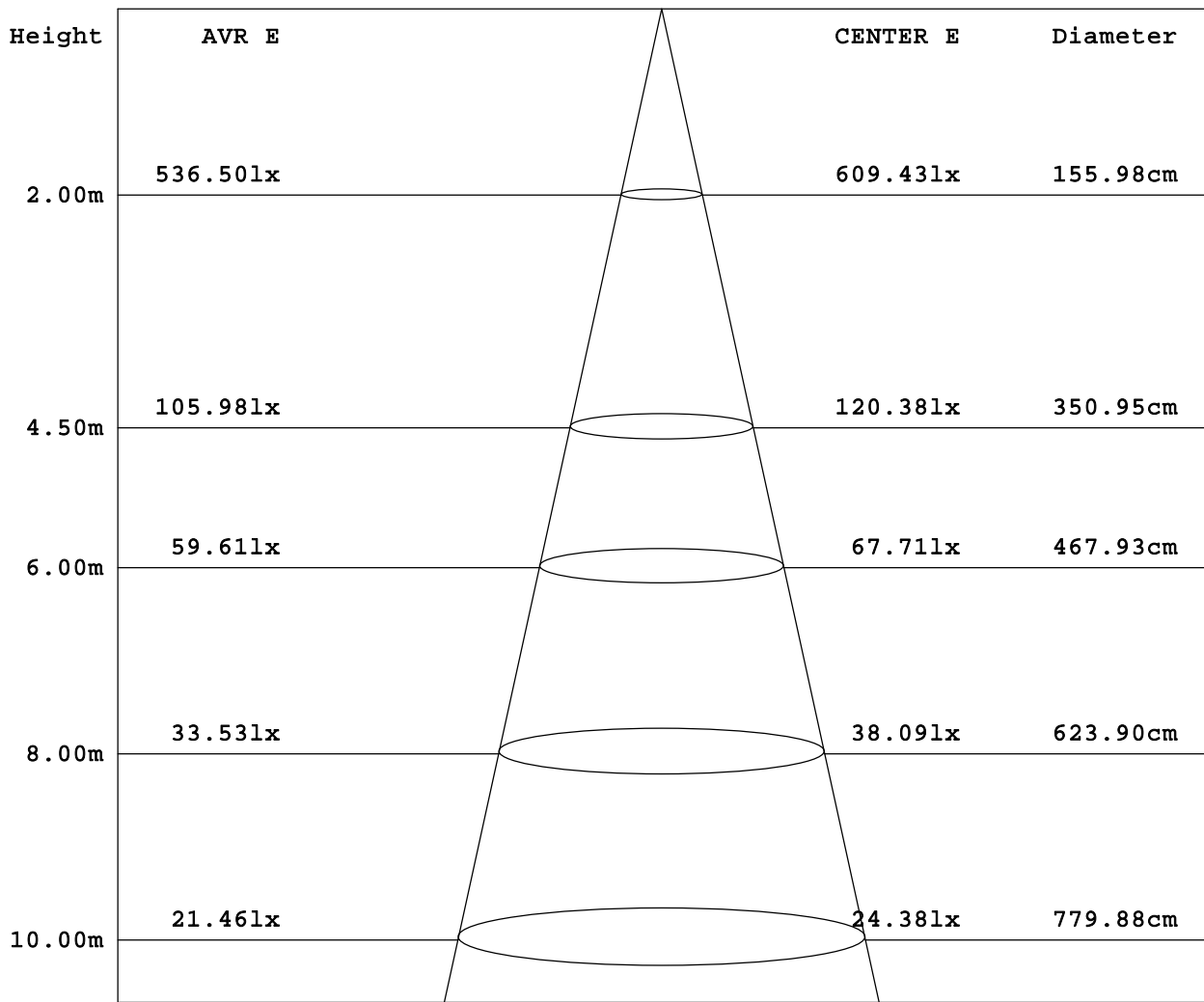
Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1



Angle:42.6deg

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	2470	2365	2298	2324	2406	2477	2516	2523	0- 5	58.09	58.09
10.0	2502	2263	2122	2191	2374	2485	2536	2576	5- 10	171.7	229.8
15.0	2710	2152	1926	2058	2520	2499	2524	2634	10- 15	282.2	512.0
20.0	2918	2017	1704	1907	2666	2613	2488	2773	15- 20	393.0	905.1
25.0	3126	1827	1433	1694	2811	2681	2420	2838	20- 25	497.1	1402
30.0	3334	1580	1079	1435	2957	2699	2245	2824	25- 30	585.1	1987
35.0	3653	1279	707.5	1135	3237	2643	1878	2693	30- 35	648.7	2636
40.0	3972	959.2	470.4	830.1	3518	2448	1318	2397	35- 40	680.8	3317
45.0	4291	668.9	393.7	600.7	3798	1923	731.1	1784	40- 45	678.1	3995
50.0	4610	491.8	380.0	456.8	4078	1324	414.5	1177	45- 50	659.3	4654
55.0	3662	401.3	371.2	384.3	3177	785.1	334.7	700.4	50- 55	603.6	5258
60.0	2715	356.4	350.2	346.3	2276	416.0	315.0	409.5	55- 60	479.6	5738
65.0	1767	311.8	315.3	293.6	1374	308.8	287.8	311.0	60- 65	357.9	6096
70.0	818.9	265.6	269.6	238.0	473.0	235.0	253.5	245.3	65- 70	235.2	6331
75.0	617.4	216.0	193.5	178.9	357.2	188.7	206.9	189.9	70- 75	144.8	6476
80.0	415.9	147.7	129.9	119.4	241.4	129.0	68.19	129.4	75- 80	105.1	6581
85.0	214.4	78.87	15.10	63.93	125.6	69.18	14.50	69.08	80- 85	63.65	6645
90.0	12.90	11.20	13.35	9.099	9.900	10.10	13.15	9.500	85- 90	24.04	6669
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

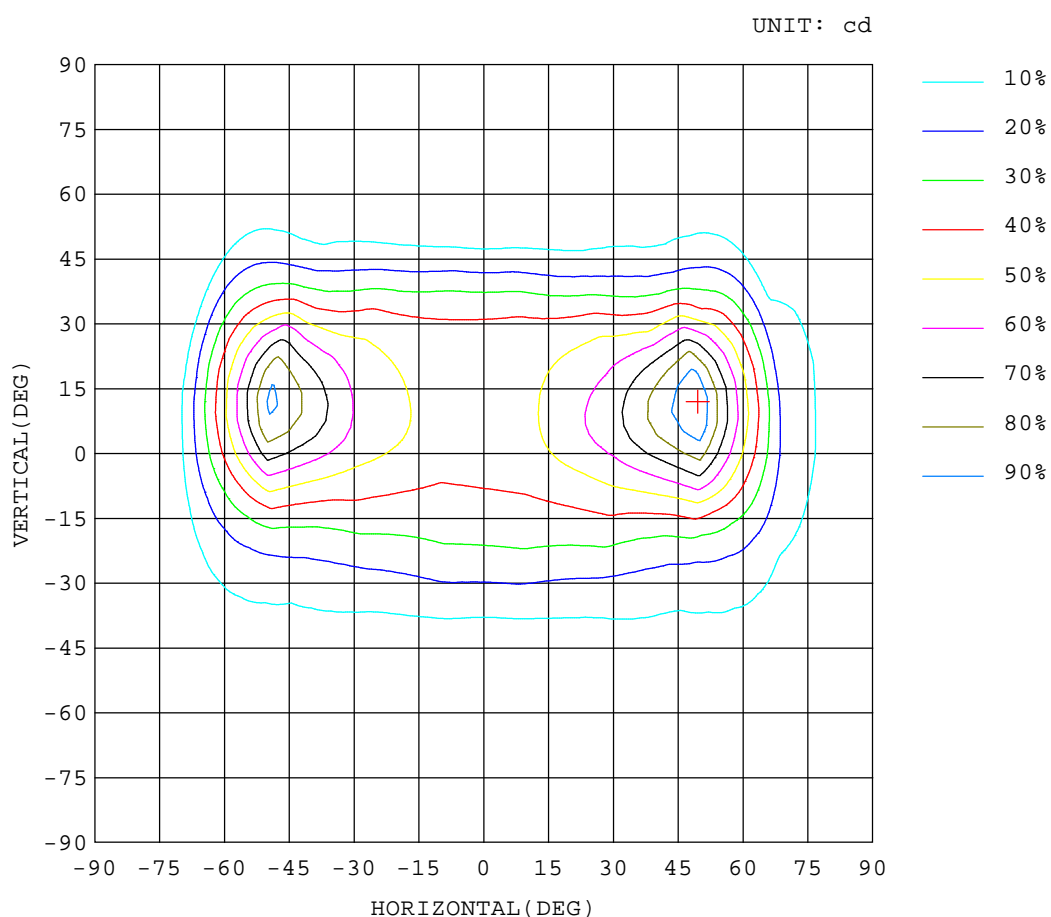
Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1



Test System:HOP00 HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

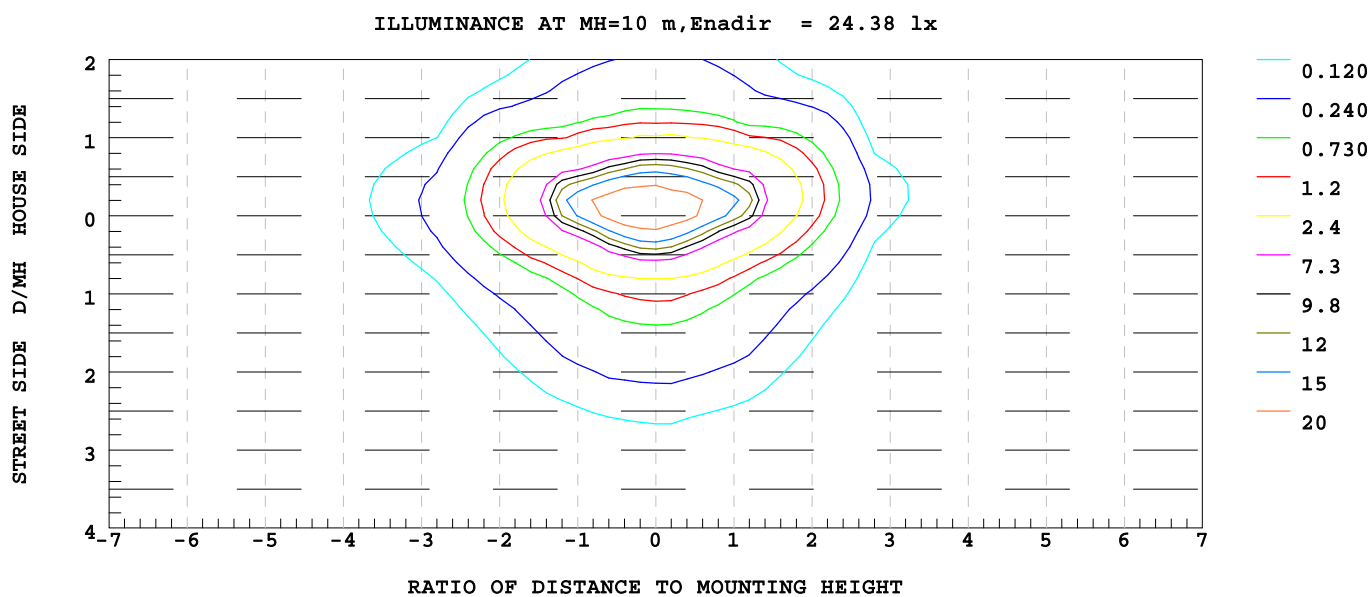
Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOLUX DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1



Test System:HOPPO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

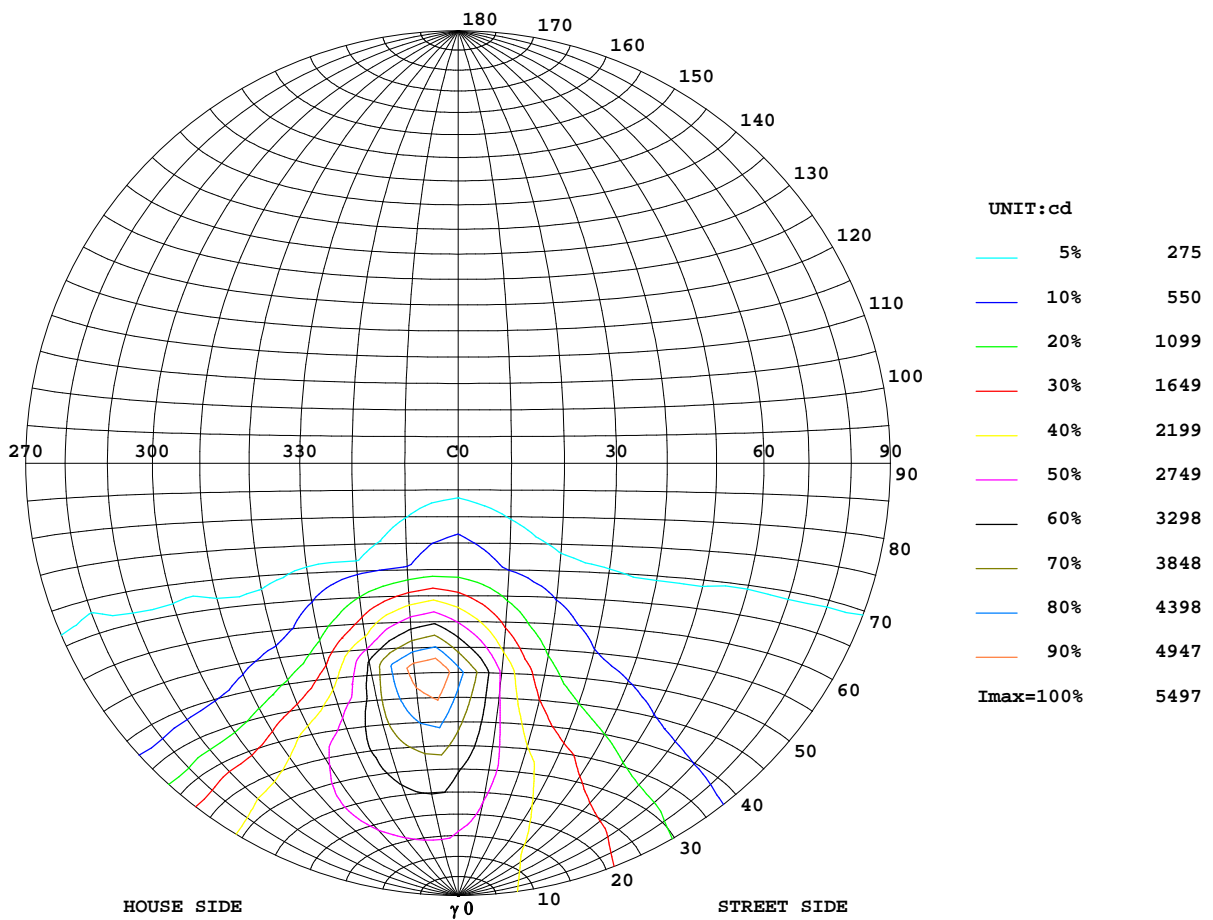
Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1



Test System:HOP00 HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

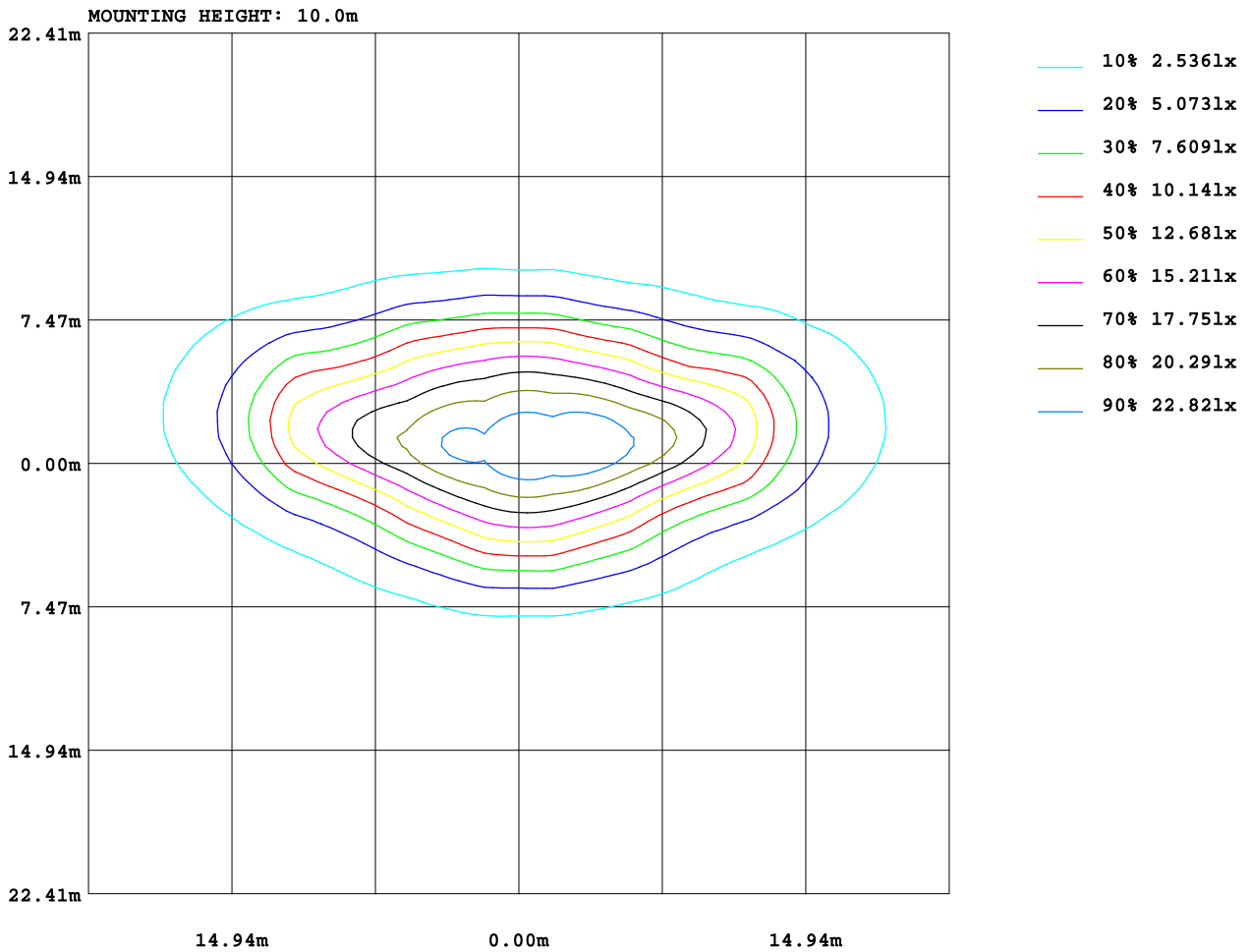
Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

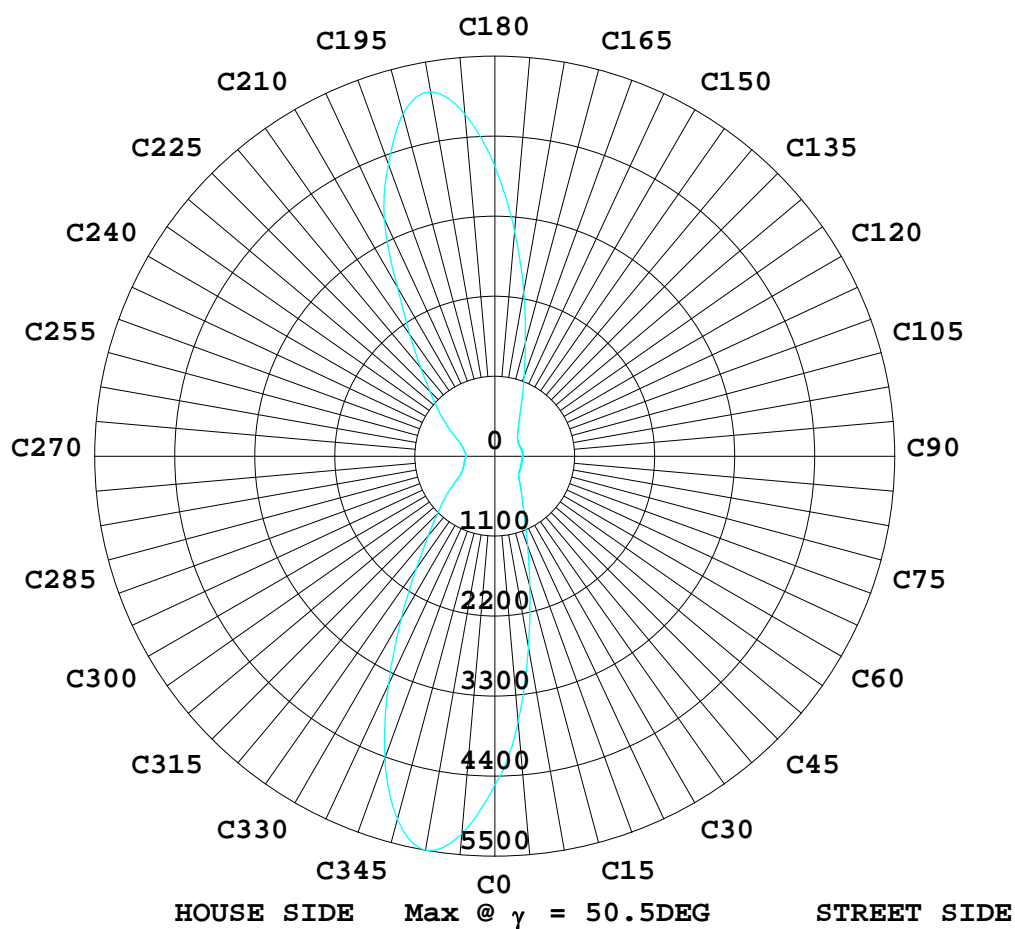
Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1



Test System:HOP00 HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:



GONIOPHOTOMETERS SYSTEM TEST REPORT

AREA LUMINOUS FLUX

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1

VERTICAL (DEG)	AREA FLUX DIAGRAM																	UNIT:lm	Φ t	Φ a
	0.07	0.26	0.46	0.74	1.12	1.59	2.19	2.46	1.70	1.28	2.08	2.04	1.51	1.11	0.78	0.53	0.35	0.09	20.3	0.00
90	0.14	0.63	1.12	1.87	2.91	4.00	5.13	5.99	6.06	5.84	5.83	5.17	3.95	2.94	1.97	1.30	0.87	0.21	55.9	0.00
80	0.22	1.03	1.82	3.01	4.62	5.78	7.21	8.35	8.63	8.80	8.17	7.43	6.06	4.74	3.18	2.18	1.44	0.32	83.0	0.00
70	0.29	1.48	2.61	6.01	8.52	8.45	9.83	10.3	10.3	10.6	10.0	9.44	8.62	8.08	5.98	3.30	2.11	0.44	117	2.61
60	0.36	1.99	4.40	15.7	21.1	21.3	23.9	24.2	24.4	24.0	22.0	20.3	18.9	18.7	15.2	5.60	2.87	0.54	266	227
50	0.41	2.53	9.25	32.1	48.1	48.8	54.1	54.9	56.3	56.4	53.2	50.5	45.6	44.8	32.2	11.1	3.69	0.63	605	595
40	0.44	2.97	15.5	51.7	80.1	75.6	74.6	72.7	72.3	73.5	74.7	76.9	76.8	81.1	54.6	18.4	4.44	0.69	908	901
30	0.45	3.19	19.8	64.8	97.8	90.4	82.3	77.4	75.4	77.3	82.2	89.4	97.9	105	70.7	23.8	4.97	0.73	1064	1058
20	0.44	3.03	19.8	62.5	92.0	88.2	82.0	77.0	74.9	76.9	82.6	90.8	98.4	102	70.4	24.6	5.05	0.74	1052	1047
10	0.42	2.70	15.8	46.3	66.8	68.5	69.1	68.3	68.6	70.3	73.1	76.8	77.8	76.8	54.9	20.8	4.75	0.72	863	858
0	0.38	2.25	10.6	28.2	40.3	46.1	51.8	55.0	57.7	58.9	58.6	57.5	52.2	46.2	33.8	14.8	4.12	0.67	620	613
-10	0.34	1.84	6.62	15.8	22.4	27.9	33.7	38.9	42.7	43.6	41.5	38.0	31.7	25.0	18.6	9.49	3.41	0.60	403	392
-20	0.29	1.50	4.13	9.03	12.1	15.2	17.6	20.5	22.4	22.6	21.5	19.5	17.0	13.3	10.5	6.00	2.71	0.52	217	160
-30	0.24	1.21	2.83	5.61	7.78	9.77	10.7	11.7	12.3	12.2	12.0	11.3	10.2	8.43	6.63	4.05	2.10	0.44	130	0.00
-40	0.19	0.95	2.18	3.96	5.97	8.14	9.48	10.5	11.2	11.1	10.8	9.82	8.42	6.55	4.79	2.96	1.57	0.35	109	0.00
-50	0.15	0.70	1.61	2.90	4.46	6.19	7.83	8.65	9.46	9.41	9.01	8.04	6.67	5.19	3.56	2.11	1.10	0.26	87.3	0.00
-60	0.10	0.45	1.02	1.84	2.74	3.50	4.32	4.96	5.77	5.82	5.22	4.94	4.30	3.36	2.26	1.33	0.69	0.17	52.8	0.00
-70	0.05	0.20	0.42	0.73	1.03	1.23	1.09	0.90	1.17	1.32	1.35	1.67	1.59	1.27	0.91	0.56	0.30	0.08	15.9	0.00
-80	0.05	0.20	0.42	0.73	1.03	1.23	1.09	0.90	1.17	1.32	1.35	1.67	1.59	1.27	0.91	0.56	0.30	0.08	15.9	0.00
-90	0.05	0.20	0.42	0.73	1.03	1.23	1.09	0.90	1.17	1.32	1.35	1.67	1.59	1.27	0.91	0.56	0.30	0.08	15.9	0.00
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90			
Φ t	4.96	28.9	120	353	520	531	547	553	562	570	574	580	568	555	391	153	46.6	8.19	6669	
Φ a	0.00	0.00	90.3	322	477	477	484	483	489	497	503	514	512	509	358	124	17.2	0.00		5852

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

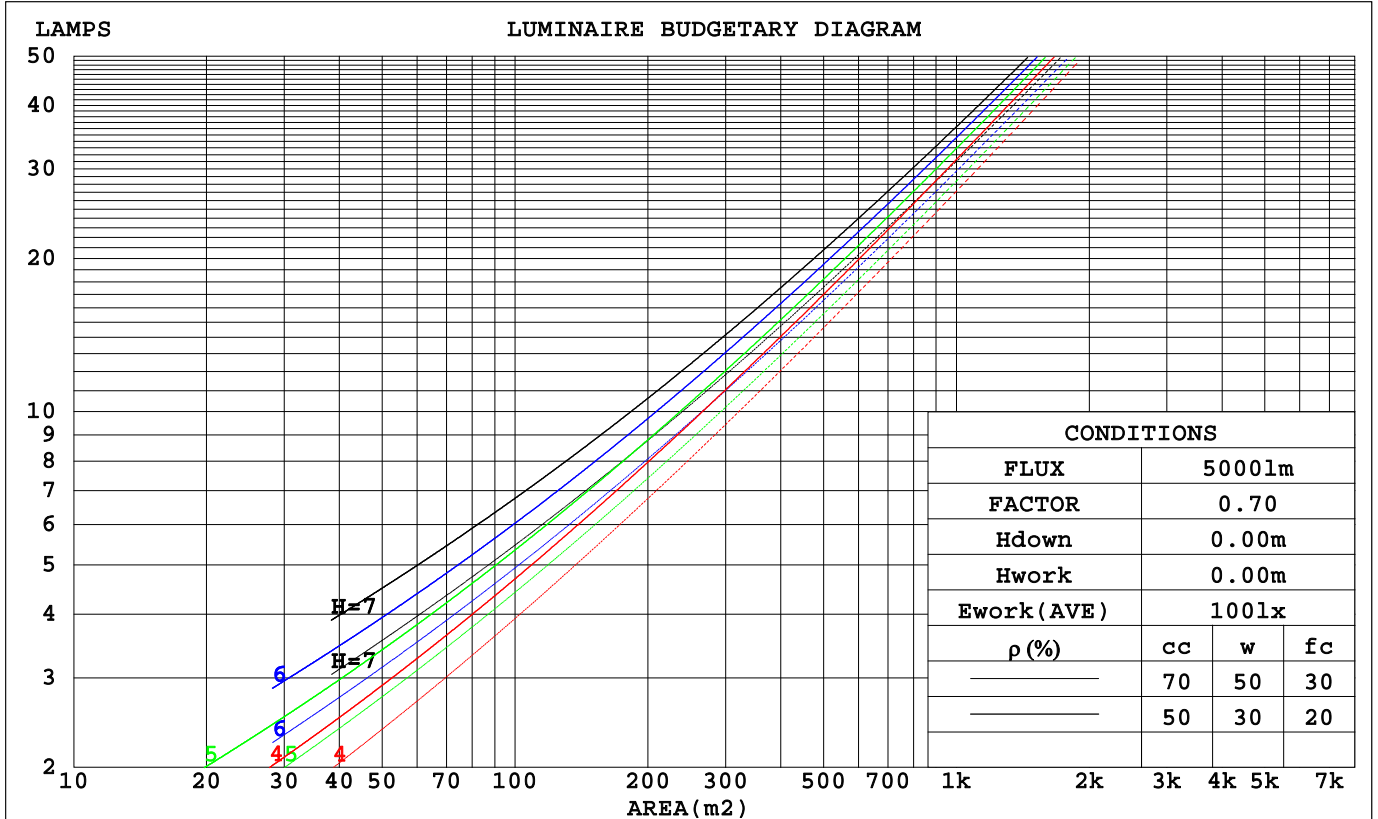
GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting				Address:			
NAME: solar street light				TYPE:solar street light		WEIGHT:	
SPECIFICATION:				DIMENSION:		SERIAL No.:FL-C171016-1	

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															
	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	1.00
1.0	1.05	1.02	.98	1.03	.90	.96	.99	.96	.93	.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	.75	.69	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.65	.62
4.0	.73	.65	.59	.72	.64	.58	.70	.63	.57	.67	.61	.57	.65	.60	.56	.54
5.0	.66	.57	.51	.65	.57	.50	.63	.55	.50	.61	.54	.49	.59	.53	.49	.47
6.0	.59	.51	.44	.58	.50	.44	.57	.49	.44	.55	.48	.43	.53	.48	.43	.41
7.0	.54	.45	.39	.53	.45	.39	.51	.44	.39	.50	.43	.39	.49	.43	.38	.36
8.0	.49	.41	.35	.48	.40	.35	.47	.40	.35	.46	.39	.35	.45	.39	.34	.32
9.0	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10.0	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.38	.32	.28	.26



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1

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	.279	.159	.050	.272	.155	.049	.259	.149	.047	.247	.142	.046	.236	.137	.044	
2.0	.267	.146	.045	.261	.144	.044	.250	.139	.043	.239	.134	.042	.229	.130	.041	
3.0	.251	.134	.040	.246	.131	.040	.235	.128	.039	.226	.124	.038	.217	.120	.037	
4.0	.234	.122	.036	.230	.120	.036	.221	.117	.035	.212	.114	.034	.205	.111	.034	
5.0	.219	.112	.032	.215	.110	.032	.207	.108	.032	.199	.105	.031	.192	.103	.031	
6.0	.205	.103	.029	.201	.101	.029	.194	.099	.029	.187	.097	.029	.181	.095	.028	
7.0	.192	.095	.027	.188	.094	.027	.182	.092	.026	.176	.090	.026	.170	.089	.026	
8.0	.180	.088	.025	.177	.087	.025	.171	.086	.024	.166	.084	.024	.161	.083	.024	
9.0	.169	.082	.023	.167	.081	.023	.162	.080	.023	.157	.079	.022	.152	.077	.022	
10.0	.160	.077	.021	.157	.076	.021	.153	.075	.021	.148	.074	.021	.144	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.178	.156	.137	.152	.134	.118	.104	.092	.081	.060	.053	.047	.019	.017	.015	
2.0	.169	.132	.101	.145	.114	.087	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.161	.114	.077	.138	.098	.067	.095	.068	.047	.055	.040	.028	.018	.013	.009	
4.0	.153	.101	.061	.131	.087	.053	.090	.061	.037	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.049	.125	.078	.043	.086	.054	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.040	.120	.071	.035	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.034	.114	.065	.030	.079	.045	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.029	.109	.060	.026	.075	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.121	.064	.026	.104	.056	.022	.072	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.115	.060	.023	.099	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

**GONIOPHOTOMETERS SYSTEM TEST REPORT**

**Uncorrected UGR Table**

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting					Address:					
NAME: solar street light					TYPE:solar street light			WEIGHT:		
SPECIFICATION:					DIMENSION:			SERIAL No.:FL-C171016-1		
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	25.7	27.1	26.0	27.3	27.5	16.0	17.4	16.2	17.6	17.8
3H	26.7	28.0	26.9	28.2	28.4	18.0	19.3	18.3	19.6	19.8
4H	27.0	28.3	27.3	28.5	28.8	18.8	20.1	19.1	20.3	20.6
6H	27.4	28.6	27.7	28.9	29.1	19.4	20.6	19.8	20.9	21.2
8H	27.6	28.7	27.9	29.0	29.3	19.6	20.8	20.0	21.1	21.3
12H	27.8	28.9	28.1	29.2	29.5	19.6	20.7	20.0	21.0	21.3
4H 2H	25.5	26.7	25.8	27.0	27.2	16.9	18.2	17.2	18.4	18.7
3H	26.5	27.6	26.8	27.9	28.2	19.1	20.1	19.4	20.4	20.7
4H	26.9	27.9	27.3	28.2	28.5	20.0	21.0	20.4	21.3	21.6
6H	27.4	28.3	27.8	28.6	29.0	20.7	21.6	21.1	21.9	22.3
8H	27.7	28.5	28.1	28.8	29.2	20.9	21.7	21.3	22.1	22.4
12H	27.9	28.7	28.4	29.1	29.5	20.9	21.7	21.4	22.1	22.5
8H 4H	26.8	27.7	27.3	28.0	28.4	20.5	21.3	20.9	21.6	22.0
6H	27.4	28.1	27.8	28.5	28.9	21.4	22.0	21.8	22.4	22.9
8H	27.7	28.3	28.2	28.7	29.2	21.7	22.3	22.1	22.7	23.1
12H	28.0	28.6	28.5	29.0	29.5	21.8	22.3	22.3	22.7	23.2
12H 4H	26.8	27.6	27.2	27.9	28.3	20.5	21.3	21.0	21.7	22.1
6H	27.4	28.0	27.9	28.4	28.9	21.5	22.1	22.0	22.5	23.0
8H	27.7	28.2	28.2	28.7	29.2	21.9	22.4	22.4	22.8	23.3
Variations with the observer position at spacings:										
S = 1.0H	+ 1.5 / - 1.3					+ 0.2 / - 0.2				
1.5H	+ 3.6 / - 2.6					+ 0.2 / - 0.2				
2.0H	+ 4.6 / - 4.0					+ 0.2 / - 0.2				

CIE Pub.117 Corrected 6669 lm Total Lamp Luminous Flux. (8log(F/F0) = 6.6)

Test System:HOPPO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## UTILIZATION FACTORS TABLE

Report number: FL-B171016-1

MANUFACTURER: Feilong lighting	Address:	
NAME: solar street light	TYPE:solar street light	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:FL-C171016-1

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	60	49	42	59	48	42	58	48	42	36
0.80	70	59	52	69	59	52	68	58	52	45
1.00	79	69	62	78	68	62	76	69	61	55
1.25	86	77	70	85	76	70	82	75	69	62
1.50	91	82	76	90	81	75	87	80	74	67
2.00	98	90	84	96	89	83	93	87	82	74
2.50	101	94	89	99	93	88	95	90	86	78
3.00	104	98	93	102	96	92	98	94	90	82
4.00	108	102	98	105	101	97	101	97	94	86
5.00	110	105	102	107	103	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

Test System:HOPPO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

**GONIOPHOTOMETERS SYSTEM TEST REPORT**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Report number: FL-B171016-1

<b>MANUFACTURER:</b> Feilong lighting	<b>Address:</b>	
<b>NAME:</b> solar street light	<b>TYPE:</b> solar street light	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b> FL-C171016-1

UNIT: cd

γ (DEG)	C(DEG)														
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
0.0	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438
5.0	2470	2458	2447	2435	2424	2412	2399	2387	2375	2365	2354	2345	2334	2325	2317
10.0	2502	2478	2455	2429	2402	2375	2346	2319	2291	2263	2239	2216	2194	2174	2159
15.0	2710	2656	2595	2522	2460	2392	2324	2261	2204	2152	2105	2068	2037	2008	1982
20.0	2918	2824	2705	2598	2483	2372	2268	2171	2089	2017	1957	1905	1866	1823	1788
25.0	3126	2980	2787	2635	2464	2305	2162	2037	1922	1827	1746	1677	1627	1591	1553
30.0	3334	3120	2878	2639	2409	2202	2020	1853	1708	1580	1471	1381	1312	1257	1225
35.0	3653	3286	2902	2533	2227	1993	1797	1631	1441	1279	1147	1038	953	888	840
40.0	3972	3436	2869	2359	1960	1663	1444	1262	1104	959	821	717	642	586	544
45.0	4291	3586	2785	2142	1659	1334	1106	931	794	669	568	496	460	433	414
50.0	4610	3736	2682	1890	1355	1014	805	668	570	492	439	408	396	389	384
55.0	3662	2950	2099	1463	1029	744	569	476	431	401	381	372	371	376	374
60.0	2715	2156	1529	1067	756	562	446	386	360	356	353	349	351	353	361
65.0	1767	1404	1013	724	531	420	355	322	311	312	313	324	321	315	318
70.0	819	686	541	426	349	308	284	270	268	266	263	268	267	264	260
75.0	617	509	390	300	246	226	218	215	221	216	210	207	203	198	192
80.0	416	342	262	201	165	154	150	148	152	148	146	144	141	131	116
85.0	214	177	137	107	88.1	84.0	81.5	80.4	81.7	78.8	77.5	75.9	73.8	67.1	52.7
90.0	12.9	13.3	13.7	14.0	13.9	14.3	13.9	12.3	11.7	11.2	10.0	9.30	9.20	9.20	9.20

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Report number: FL-B171016-1

<b>MANUFACTURER:</b> Feilong lighting	<b>Address:</b>	
<b>NAME:</b> solar street light	<b>TYPE:</b> solar street light	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b> FL-C171016-1

UNIT: cd

C(DEG) γ (DEG)	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145
0.0	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438
5.0	2311	2305	2301	2298	2296	2295	2296	2298	2302	2306	2312	2318	2324	2331	2338
10.0	2146	2135	2127	2122	2119	2119	2122	2127	2135	2146	2160	2175	2191	2211	2230
15.0	1962	1946	1934	1926	1923	1926	1933	1945	1960	1978	2001	2026	2058	2098	2142
20.0	1756	1731	1713	1704	1702	1708	1721	1740	1762	1792	1818	1857	1907	1964	2031
25.0	1504	1468	1445	1433	1433	1445	1467	1502	1526	1546	1580	1630	1694	1773	1869
30.0	1175	1125	1093	1079	1083	1107	1150	1181	1202	1235	1283	1351	1435	1539	1664
35.0	810	757	721	708	716	747	792	812	850	895	955	1033	1135	1265	1421
40.0	517	492	475	470	477	494	514	534	564	606	660	731	830	960	1103
45.0	402	395	393	394	397	404	404	409	421	438	461	519	601	698	821
50.0	380	378	378	380	383	383	378	375	375	376	388	414	457	518	601
55.0	371	369	369	371	375	372	366	361	358	356	358	367	384	407	441
60.0	356	350	349	350	356	349	345	344	339	340	340	344	346	343	355
65.0	325	313	313	315	323	309	306	304	307	316	318	300	294	287	290
70.0	262	264	264	270	271	252	248	254	263	257	251	240	238	236	231
75.0	185	187	184	194	190	171	177	188	182	180	177	176	179	183	178
80.0	101	109	132	130	121	108	92.8	90.4	94.1	102	111	116	119	126	122
85.0	40.7	32.2	22.7	15.1	20.5	27.0	10.3	27.5	41.8	53.4	59.2	61.9	63.9	67.6	65.1
90.0	9.20	9.30	9.10	13.3	8.60	8.70	8.80	8.90	9.09	9.00	9.09	9.09	9.09	9.20	9.20

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

**GONIOPHOTOMETERS SYSTEM TEST REPORT**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Report number: FL-B171016-1

<b>MANUFACTURER:</b> Feilong lighting	<b>Address:</b>	
<b>NAME:</b> solar street light	<b>TYPE:</b> solar street light	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b> FL-C171016-1

UNIT: cd

γ (DEG)	C(DEG)														
	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220
0.0	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438
5.0	2348	2358	2367	2376	2386	2396	2406	2416	2425	2434	2442	2450	2457	2465	2471
10.0	2250	2273	2293	2314	2335	2355	2374	2394	2409	2424	2437	2449	2460	2469	2477
15.0	2193	2248	2303	2364	2418	2471	2520	2558	2587	2602	2608	2601	2585	2561	2532
20.0	2111	2195	2286	2384	2484	2579	2666	2732	2781	2805	2805	2786	2753	2709	2662
25.0	1978	2103	2234	2378	2529	2677	2811	2915	2981	3007	2994	2951	2890	2824	2752
30.0	1807	1968	2153	2342	2549	2762	2957	3103	3188	3204	3164	3088	2996	2897	2797
35.0	1579	1756	1971	2234	2543	2895	3237	3500	3628	3614	3484	3298	3096	2930	2791
40.0	1271	1473	1732	2069	2505	3006	3518	3917	4102	4056	3826	3498	3184	2845	2614
45.0	980	1189	1477	1868	2420	3098	3798	4346	4585	4466	4098	3568	3018	2548	2194
50.0	724	919	1210	1649	2317	3173	4078	4790	5059	4840	4268	3604	2717	2090	1644
55.0	520	677	915	1262	1768	2434	3177	3785	4055	3943	3527	2899	2212	1546	1062
60.0	401	497	655	887	1233	1705	2276	2727	2895	2762	2420	1938	1438	984	624
65.0	310	357	440	566	748	1020	1374	1654	1731	1622	1401	1129	850	585	394
70.0	236	246	261	279	304	370	473	567	566	514	479	448	398	324	262
75.0	176	175	180	190	214	273	357	419	379	286	218	192	184	179	185
80.0	120	120	123	129	145	184	241	283	254	190	146	130	125	122	127
85.0	64.5	64.4	65.8	69.1	77.0	97.0	126	146	131	98.3	77.1	69.5	67.0	66.0	68.6
90.0	9.30	9.30	9.50	9.60	9.80	9.90	9.90	9.80	9.80	9.70	9.60	9.70	9.70	9.80	9.90

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:



**GONIOPHOTOMETERS SYSTEM TEST REPORT**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Report number: FL-B171016-1

<b>MANUFACTURER:</b> Feilong lighting	<b>Address:</b>	
<b>NAME:</b> solar street light	<b>TYPE:</b> solar street light	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b> FL-C171016-1

UNIT: cd

γ (DEG)	C(DEG)														
	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295
0.0	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438
5.0	2477	2483	2488	2493	2497	2502	2506	2510	2513	2516	2519	2521	2523	2524	2525
10.0	2485	2491	2497	2503	2508	2514	2519	2525	2531	2536	2542	2547	2553	2558	2563
15.0	2499	2473	2478	2484	2490	2496	2502	2509	2516	2524	2532	2541	2550	2560	2569
20.0	2613	2562	2512	2464	2457	2461	2466	2472	2479	2488	2498	2509	2523	2537	2553
25.0	2681	2612	2548	2490	2438	2411	2409	2409	2413	2420	2431	2446	2466	2489	2529
30.0	2699	2606	2514	2432	2364	2306	2276	2256	2245	2245	2258	2284	2322	2357	2409
35.0	2643	2493	2349	2221	2113	2034	1988	1931	1891	1878	1894	1941	2008	2028	2086
40.0	2448	2239	2009	1810	1653	1539	1475	1411	1343	1318	1334	1393	1437	1470	1555
45.0	1923	1710	1503	1260	1082	961	878	838	761	731	748	810	830	881	960
50.0	1324	1096	902	743	615	533	478	449	423	415	426	445	461	489	530
55.0	785	628	522	437	387	361	344	334	331	335	343	344	342	345	353
60.0	416	359	341	323	315	319	315	311	309	315	324	318	313	309	309
65.0	309	270	273	278	281	289	296	290	284	288	297	289	286	284	285
70.0	235	227	231	239	247	251	259	261	251	254	259	251	249	251	257
75.0	189	185	188	195	201	207	212	219	208	207	205	200	208	213	205
80.0	129	131	138	149	154	155	154	146	130	68.1	108	134	145	152	152
85.0	69.1	70.8	75.0	81.1	87.5	91.1	91.6	84.6	54.9	14.5	36.1	58.9	73.0	81.5	83.0
90.0	10.1	10.4	10.9	12.6	14.3	13.0	11.0	9.90	9.80	13.1	7.50	7.60	7.90	7.90	8.29

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

**GONIOPHOTOMETERS SYSTEM TEST REPORT**

**LUMINOUS DISTRIBUTION INTENSITY DATA**

Report number: FL-B171016-1

<b>MANUFACTURER:</b> Feilong lighting	<b>Address:</b>	
<b>NAME:</b> solar street light	<b>TYPE:</b> solar street light	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b> FL-C171016-1

UNIT: cd

γ (DEG)	C(DEG)											
	300	305	310	315	320	325	330	335	340	345	350	355
0.0	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438	2438
5.0	2525	2525	2524	2523	2521	2518	2513	2508	2502	2495	2487	2479
10.0	2568	2571	2574	2576	2576	2575	2572	2566	2560	2549	2535	2519
15.0	2579	2588	2597	2634	2679	2718	2752	2776	2791	2791	2778	2750
20.0	2577	2639	2704	2773	2845	2904	2965	3014	3045	3056	3037	2991
25.0	2589	2662	2747	2838	2935	3040	3137	3220	3285	3317	3303	3238
30.0	2480	2577	2692	2824	2963	3105	3253	3391	3499	3568	3573	3491
35.0	2190	2327	2499	2693	2899	3110	3324	3580	3812	3984	4031	3919
40.0	1690	1884	2139	2397	2613	2885	3278	3709	4124	4413	4513	4363
45.0	1090	1297	1529	1784	2090	2486	2943	3682	4328	4799	4999	4816
50.0	605	756	952	1177	1488	1939	2622	3490	4419	5138	5473	5279
55.0	392	464	562	700	926	1354	2038	2778	3640	4191	4417	4226
60.0	321	342	368	410	558	852	1308	1813	2496	2970	3206	3119
65.0	290	291	293	311	374	524	777	1107	1476	1800	1997	1997
70.0	250	241	238	245	264	311	385	467	559	672	790	863
75.0	197	189	185	190	192	187	196	219	285	404	546	640
80.0	144	134	128	129	132	128	133	148	188	267	365	431
85.0	76.8	71.7	68.7	69.0	71.1	69.0	71.4	78.7	97.9	138	188	222
90.0	8.60	8.80	9.09	9.50	10.0	10.4	11.0	11.5	12.1	12.7	13.0	13.0

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:hu  
 Test Date:2017-10-16

Test Set: 5.0deg/s A-Alpha (TYPE A)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks: