

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

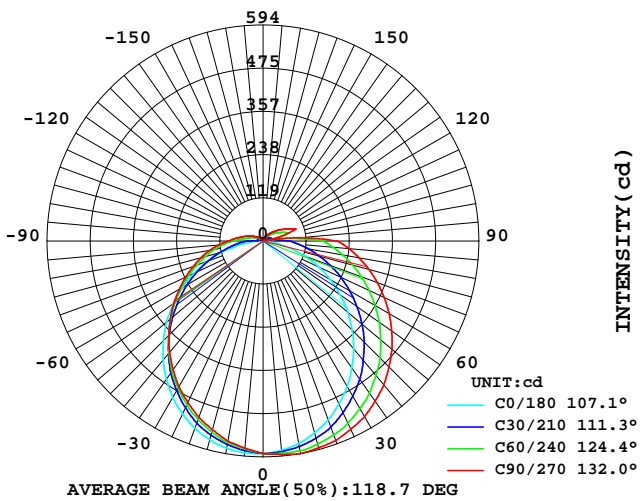
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

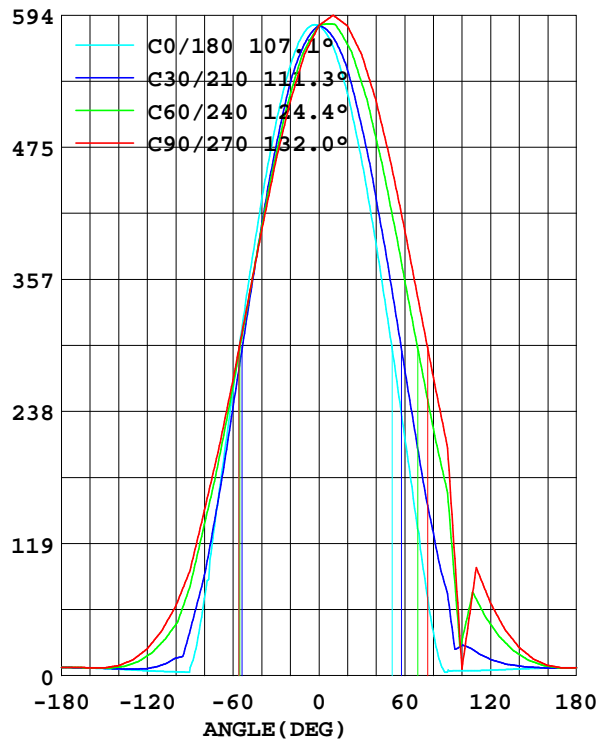
MANUFACTURER: Starligh group		Address:	
NAME:		TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w		DIMENSION:	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	595.2	S/MH(C0/180)	1.26
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.19
NOMINAL POWER(W)	18	TOTAL FLUX(lm)	2037.0	Voltage(V)	219.8
RATED VOLTAGE(V)	220	EFFICIENCY(lm/W)	117.3	Current(A)	0.080
NOMINAL FLUX(lm)	2037.0	η up(%)	7.5	Power(W)	17.36
LAMPS QUANTITY	1	η down(%)	92.5	Power Factor(PF)	0.978
TEST VOLTAGE(V)	219.9	Effective Flux(lm)	0.0	EEI	0.000

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOP00 HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

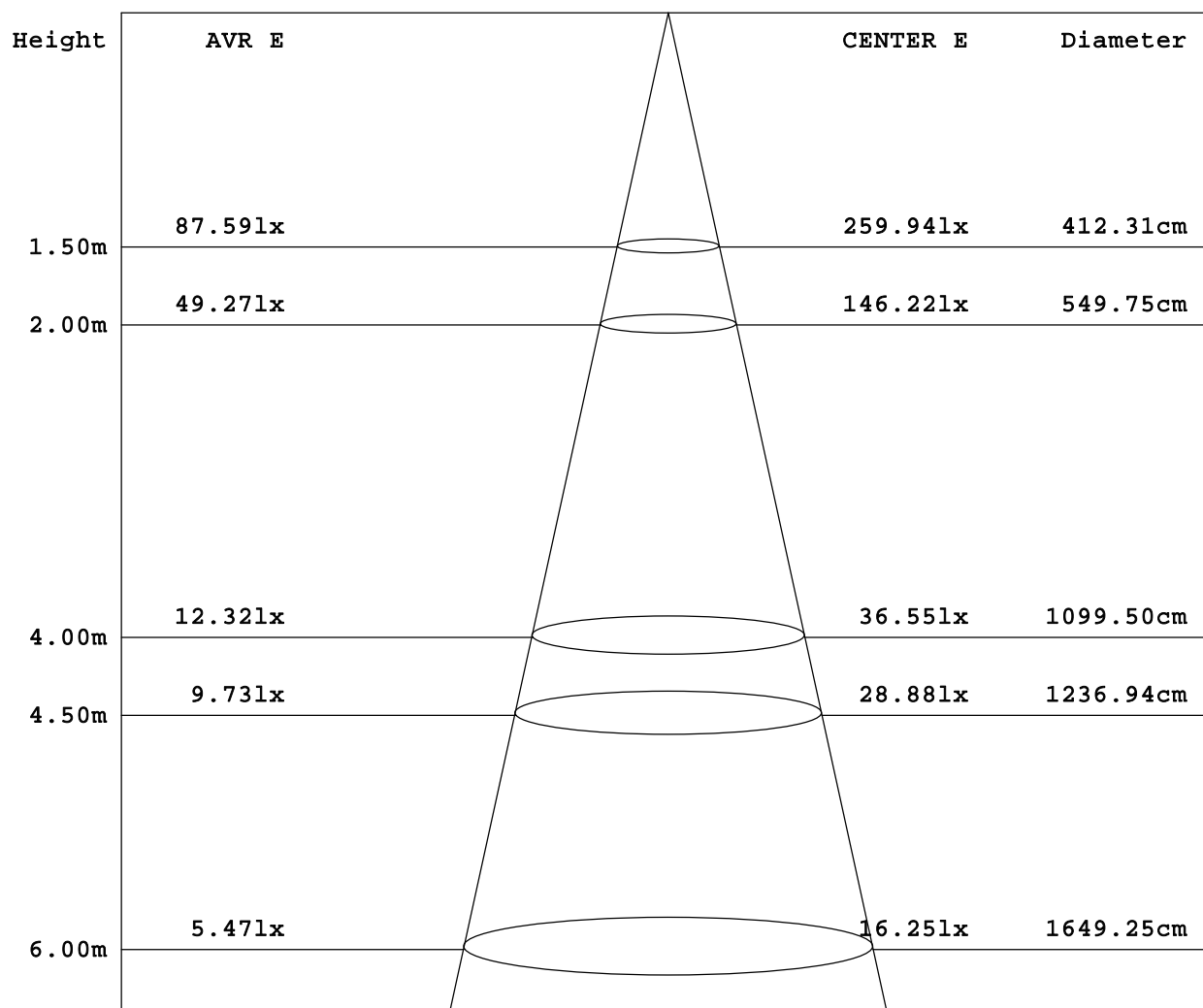
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:



Angle:107.9deg

Test System:HOP00 HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	585.0	576.4	572.0	571.8	578.2	583.9	589.5	588.9	0- 5	13.92	13.92
10.0	578.9	565.1	559.1	556.2	565.8	580.2	594.2	589.9	5- 10	41.27	55.19
15.0	566.4	549.3	537.8	536.2	546.7	572.0	589.3	586.7	10- 15	67.24	122.4
20.0	548.6	526.3	516.6	509.8	523.7	555.7	584.5	574.9	15- 20	90.84	213.2
25.0	524.8	501.3	490.0	481.3	494.5	537.5	571.5	561.0	20- 25	111.4	324.7
30.0	497.2	471.0	463.5	449.4	462.7	514.1	558.5	540.5	25- 30	128.3	453.0
35.0	463.9	438.2	431.9	415.2	426.3	486.5	537.8	516.5	30- 35	141.2	594.2
40.0	427.7	403.5	400.2	380.5	388.1	458.3	517.0	489.5	35- 40	149.6	743.9
45.0	387.9	365.8	366.9	341.6	346.3	423.9	490.1	457.4	40- 45	153.6	897.5
50.0	346.6	327.6	333.6	304.4	304.5	390.8	463.1	424.3	45- 50	153.2	1051
55.0	301.6	288.6	299.9	266.6	259.4	353.7	432.1	387.0	50- 55	148.8	1200
60.0	257.1	250.0	266.2	230.9	214.7	318.4	401.1	349.4	55- 60	140.7	1341
65.0	209.4	213.3	234.9	194.9	170.0	280.4	367.8	312.2	60- 65	129.5	1470
70.0	162.0	178.2	203.6	162.2	127.8	244.8	334.4	274.3	65- 70	115.9	1586
75.0	114.3	145.1	176.2	132.5	78.64	211.6	301.4	236.6	70- 75	100.6	1687
80.0	69.33	116.8	148.7	105.3	39.10	178.5	268.4	202.3	75- 80	84.61	1771
85.0	29.89	88.10	121.7	80.23	11.02	148.9	236.5	170.0	80- 85	68.97	1840
90.0	7.399	62.67	94.86	57.32	3.185	123.3	204.7	139.3	85- 90	54.64	1895
95.0	3.283	43.21	78.74	33.25	4.361	60.51	105.3	46.84	90- 95	36.38	1931
100.0	3.430	31.21	62.62	23.57	4.410	41.58	6.027	28.43	95-100	17.65	1949
105.0	3.626	24.52	51.27	22.83	4.459	54.05	51.57	60.29	100-105	15.17	1964
110.0	3.822	18.99	39.93	17.88	4.557	44.49	97.11	50.01	105-110	17.64	1982
115.0	4.067	14.71	31.99	13.89	4.704	36.39	81.16	40.79	110-115	15.67	1997
120.0	4.410	11.32	24.05	10.76	4.900	29.53	65.21	32.20	115-120	12.26	2010
125.0	4.753	9.337	19.11	9.155	5.145	24.41	53.36	26.38	120-125	9.551	2019
130.0	5.096	7.507	14.16	7.695	5.439	19.44	41.50	20.78	125-130	7.353	2027
135.0	5.439	7.043	11.58	7.027	5.733	16.28	33.41	17.30	130-135	5.676	2032
140.0	5.782	6.563	9.016	6.390	6.027	13.10	25.33	13.78	135-140	4.364	2037
145.0	6.076	6.567	7.987	6.548	6.223	11.27	20.11	11.67	140-145	3.386	2040
150.0	6.370	6.702	6.958	6.798	6.468	9.606	14.89	9.734	145-150	2.626	2043
155.0	6.566	6.829	7.056	6.958	6.664	8.386	12.05	8.394	150-155	2.059	2045
160.0	6.762	7.018	7.154	7.056	6.860	7.717	9.212	7.723	155-160	1.598	2046
165.0	6.958	7.163	7.227	7.150	6.958	7.018	8.085	7.018	160-165	1.206	2048
170.0	7.105	7.221	7.301	7.217	7.056	6.951	6.958	6.937	165-170	0.848	2048
175.0	7.203	7.252	7.301	7.283	7.105	7.052	7.031	7.021	170-175	0.509	2049
180.0	7.301	7.301	7.301	7.301	7.105	7.105	7.105	7.105	175-180	0.171	2049
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPPO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

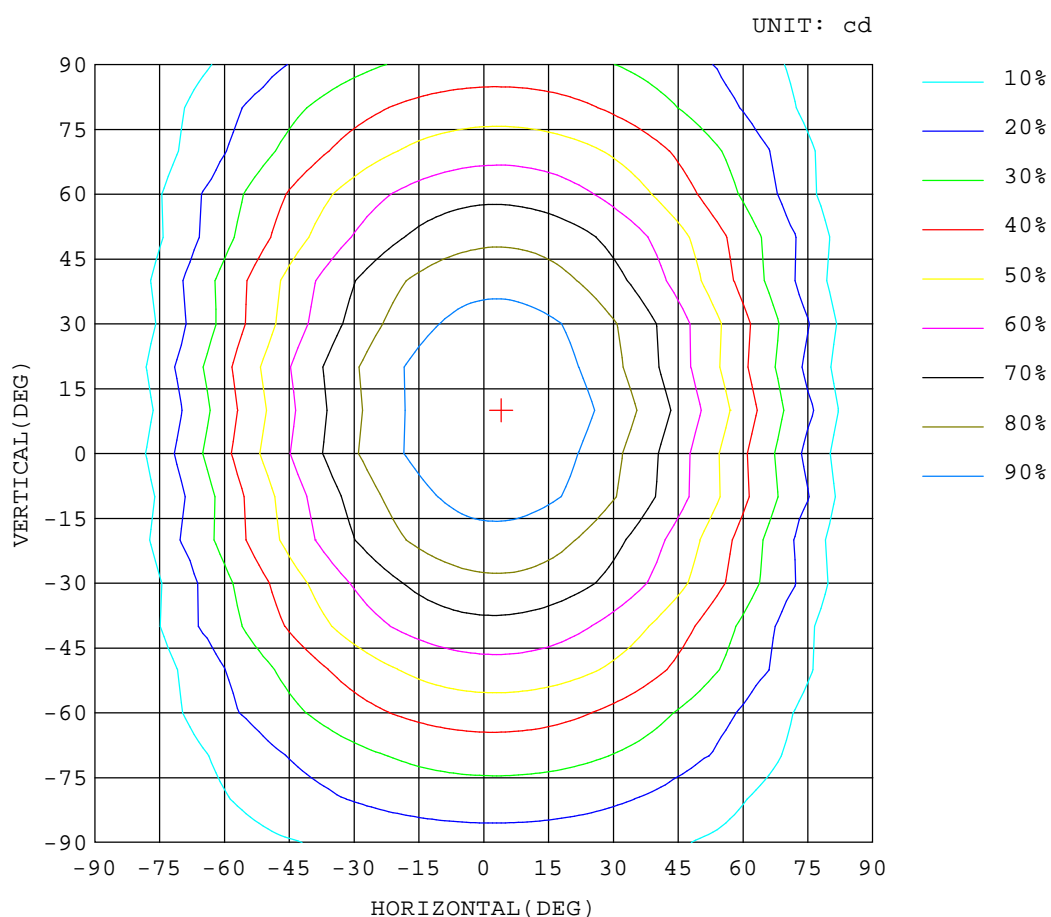
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

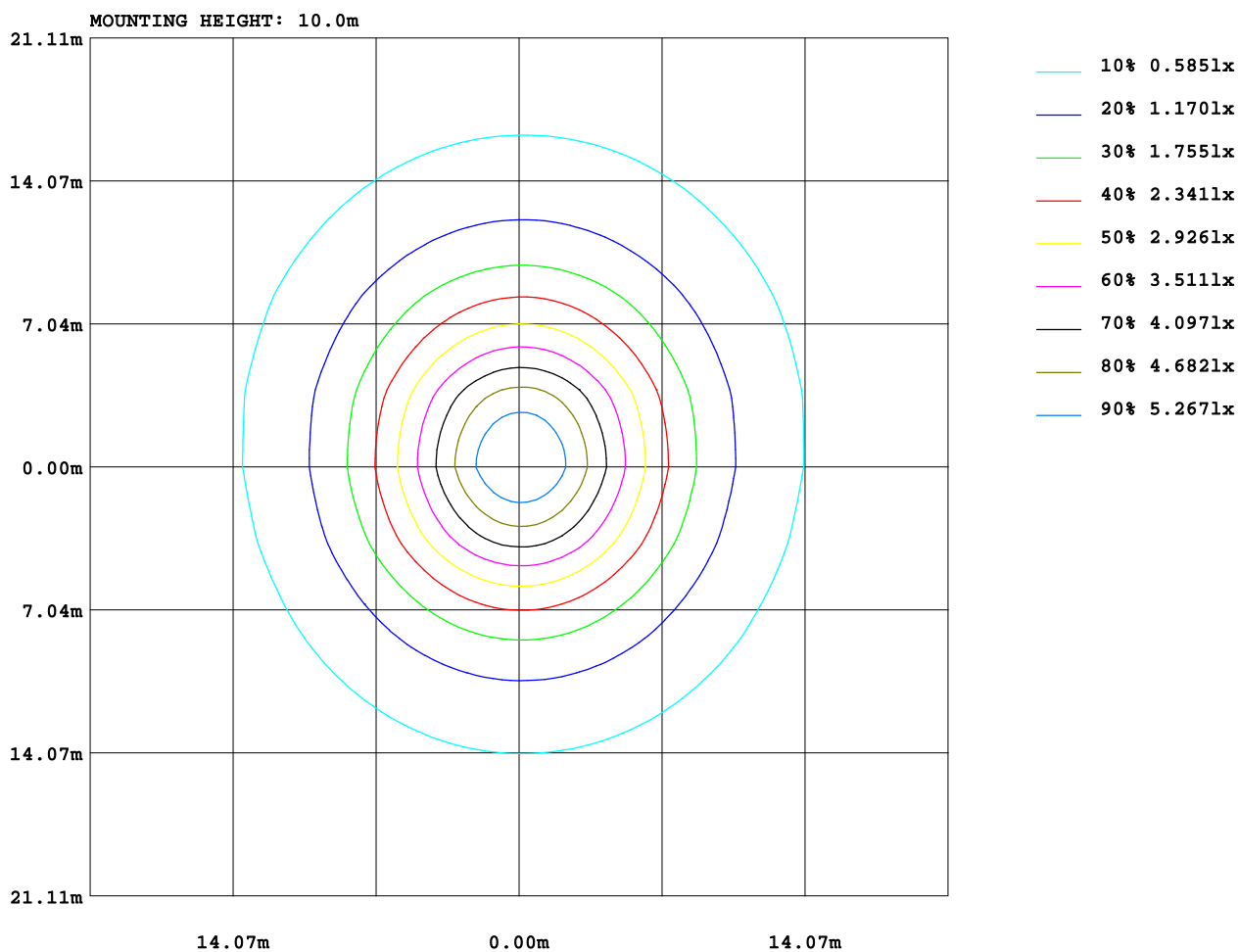
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

AREA LUMINOUS FLUX

Report number:

MANUFACTURER:Starligh group		Address:	
NAME:	TYPE:	WEIGHT:	
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:	

VERTICAL (DEG)	AREA FLUX DIAGRAM																	UNIT:lm		Φ t	Φ a
	0.02	0.24	0.92	2.01	3.53	5.24	6.89	8.25	9.05	9.23	8.76	7.72	6.24	4.49	2.75	1.31	0.42	0.06	77.1	77.1	
90	0.02	0.24	0.92	2.01	3.53	5.24	6.89	8.25	9.05	9.23	8.76	7.72	6.24	4.49	2.75	1.31	0.42	0.06	77.1	77.1	
80	0.03	0.36	1.17	2.44	3.96	5.60	7.12	8.32	9.01	9.08	8.50	7.38	5.88	4.23	2.63	1.31	0.43	0.05	77.5	77.5	
70	0.02	0.34	1.22	2.70	4.53	6.53	8.43	9.98	10.9	11.1	10.5	9.27	7.48	5.46	3.49	1.83	0.64	0.09	94.7	94.7	
60	0.05	0.54	1.75	3.54	5.75	8.10	10.3	12.0	13.0	13.1	12.2	10.6	8.44	6.06	3.78	1.89	0.60	0.07	112	112	
50	0.03	0.45	1.66	3.61	6.05	8.72	11.2	13.3	14.6	14.9	14.1	12.4	10.0	7.34	4.70	2.47	0.90	0.12	127	127	
40	0.07	0.71	2.23	4.47	7.23	10.1	12.9	15.1	16.3	16.4	15.3	13.2	10.5	7.53	4.70	2.35	0.76	0.08	140	140	
30	0.03	0.51	1.96	4.23	7.08	10.1	13.1	15.6	17.2	17.5	16.6	14.6	11.7	8.61	5.53	2.92	1.07	0.15	149	149	
	0.08	0.81	2.47	4.95	7.98	11.2	14.2	16.6	17.9	18.0	16.8	14.5	11.5	8.23	5.14	2.58	0.82	0.09	154	154	
	0.03	0.53	2.04	4.38	7.31	10.5	13.6	16.1	17.7	18.1	17.2	15.1	12.1	8.90	5.72	3.02	1.12	0.15	154	154	
	0.08	0.80	2.42	4.84	7.78	10.9	13.8	16.1	17.4	17.5	16.3	14.0	11.1	7.94	4.94	2.46	0.78	0.08	150	150	
	0.03	0.49	1.86	4.00	6.68	9.62	12.4	14.7	16.2	16.5	15.6	13.7	11.1	8.10	5.19	2.72	1.00	0.13	140	140	
-30	0.07	0.68	2.08	4.14	6.66	9.36	11.8	13.8	14.9	14.9	13.9	12.0	9.50	6.78	4.20	2.08	0.64	0.07	128	128	
-40	0.03	0.39	1.45	3.19	5.35	7.71	9.96	11.8	12.9	13.2	12.5	11.0	8.90	6.49	4.15	2.17	0.80	0.10	112	112	
-50	0.05	0.50	1.56	3.10	4.99	7.00	8.86	10.3	11.1	11.1	10.3	8.94	7.07	5.04	3.11	1.53	0.46	0.05	95.2	95.2	
-60	0.02	0.26	0.98	2.19	3.69	5.32	6.87	8.13	8.93	9.10	8.64	7.61	6.15	4.50	2.87	1.50	0.53	0.07	77.4	77.4	
-70	0.03	0.31	0.97	1.99	3.19	4.46	5.63	6.52	7.01	7.01	6.54	5.66	4.49	3.20	1.97	0.94	0.29	0.03	60.3	60.3	
-80	0.01	0.15	0.56	1.23	2.14	3.09	3.98	4.69	5.13	5.22	4.96	4.38	3.56	2.61	1.66	0.85	0.30	0.04	44.6	44.6	
-90	0.02	0.17	0.51	1.02	1.65	2.34	2.96	3.42	3.66	3.66	3.43	2.98	2.37	1.66	1.01	0.49	0.15	0.02	31.5	31.5	
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)	20	30	40	50	60	70	80	90				
Φ t	0.72	8.24	27.8	58.1	95.6	136	175	205	224	226	213	185	148	107	67.6	34.4	11.7	1.43	2049		
Φ a	0.72	8.24	27.8	58.1	95.6	136	175	205	224	226	213	185	148	107	67.6	34.4	11.7	1.43		2049	

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

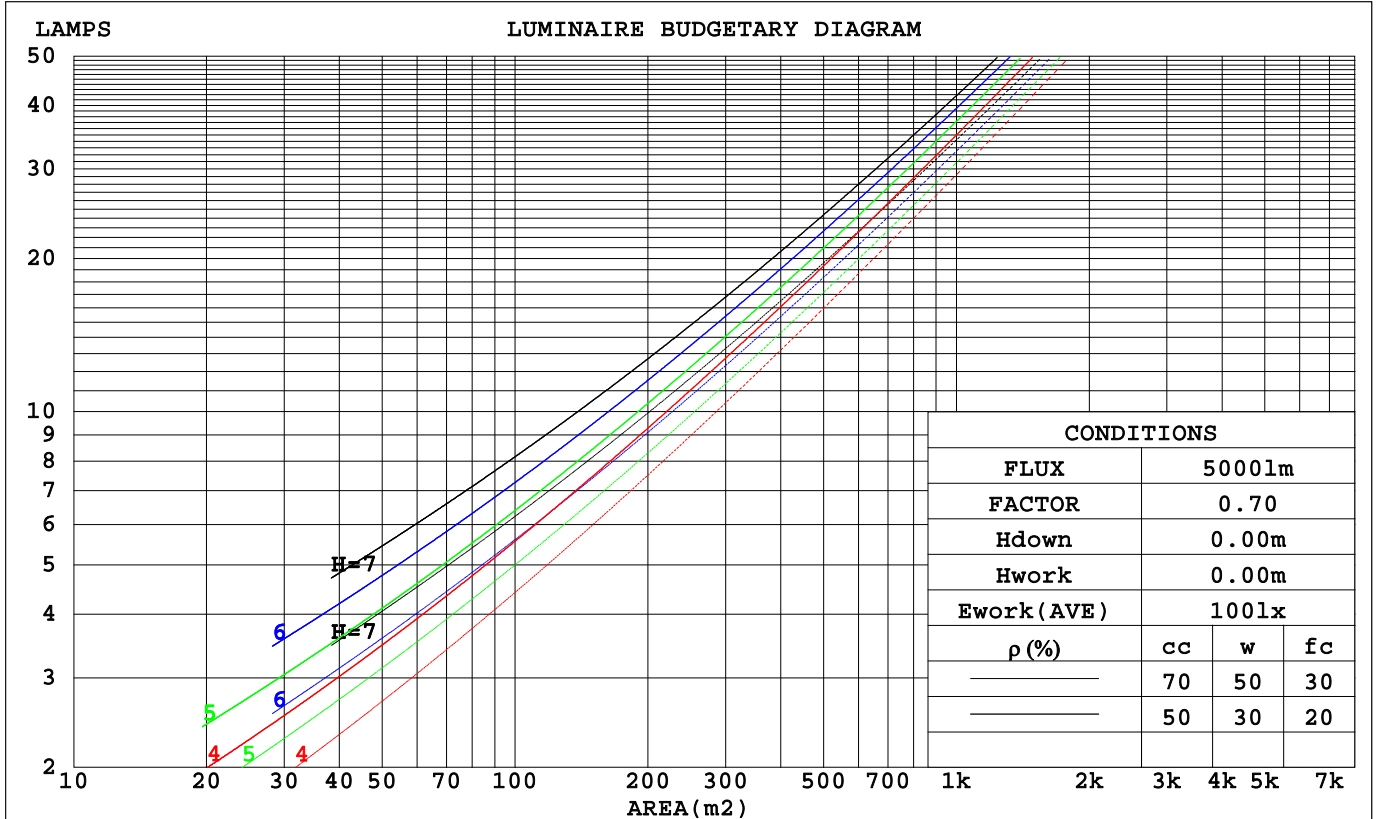
HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER: Starligh group				Address:							
NAME:				TYPE:				WEIGHT:			
SPECIFICATION: T8Tube 1.2m 18w				DIMENSION:				SERIAL No.:			

ρcc	80%			70%			50%			30%			10%			0														
	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%															
ρw	20%			20%			20%			20%			20%			0														
ρfc	20%			20%			20%			20%			20%																	
RCR	RCR:Room Cavity Ratio															Coefficients of Utilization(CU)														
0.0	1.18	1.18	1.18	1.14	1.14	1.14	1.08	1.08	1.08	1.01	1.01	1.01	.96	.96	.96	.93														
1.0	.00	.95	.90	.97	.92	.88	.91	.87	.84	.86	.83	.80	.81	.78	.76	.73														
2.0	.86	.78	.72	.83	.76	.70	.78	.73	.68	.74	.69	.65	.70	.66	.62	.60														
3.0	.75	.66	.59	.73	.64	.58	.69	.62	.56	.65	.59	.54	.61	.56	.52	.49														
4.0	.66	.57	.49	.64	.55	.49	.61	.53	.47	.57	.51	.46	.54	.49	.44	.42														
5.0	.59	.49	.42	.57	.48	.42	.54	.46	.41	.51	.45	.39	.49	.43	.38	.36														
6.0	.53	.43	.37	.51	.43	.36	.49	.41	.35	.46	.40	.34	.44	.38	.33	.31														
7.0	.48	.39	.32	.47	.38	.32	.44	.37	.31	.42	.35	.30	.40	.34	.30	.27														
8.0	.43	.35	.29	.42	.34	.28	.40	.33	.28	.39	.32	.27	.37	.31	.26	.24														
9.0	.40	.31	.26	.39	.31	.25	.37	.30	.25	.36	.29	.24	.34	.28	.24	.22														
10.0	.37	.29	.23	.36	.28	.23	.34	.27	.23	.33	.27	.22	.32	.26	.22	.20														



Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

MANUFACTURER: Starligh group	Address:					
NAME:	TYPE:			WEIGHT:		
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:			SERIAL No.:		

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	.367	.209	.066	.358	.204	.065	.340	.195	.062	.323	.186	.060	.308	.179	.058	
2.0	.325	.178	.055	.316	.174	.054	.300	.167	.052	.285	.160	.050	.272	.154	.048	
3.0	.292	.155	.046	.284	.152	.046	.270	.146	.044	.256	.140	.043	.244	.135	.042	
4.0	.264	.137	.040	.257	.135	.040	.245	.130	.039	.233	.125	.038	.221	.120	.037	
5.0	.241	.123	.036	.235	.121	.035	.224	.116	.034	.213	.112	.033	.203	.108	.033	
6.0	.222	.111	.032	.216	.109	.031	.206	.106	.031	.196	.102	.030	.187	.098	.029	
7.0	.205	.101	.029	.200	.100	.028	.191	.096	.028	.182	.093	.027	.174	.090	.027	
8.0	.191	.093	.026	.186	.092	.026	.178	.089	.025	.170	.086	.025	.162	.083	.024	
9.0	.178	.086	.024	.174	.085	.024	.166	.082	.023	.159	.080	.023	.152	.077	.022	
10.0	.167	.080	.022	.163	.079	.022	.156	.076	.022	.149	.074	.021	.143	.072	.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	.249	.249	.249	.213	.213	.213	.145	.145	.145	.084	.084	.084	.027	.027	.027	
1.0	.243	.215	.189	.208	.184	.163	.142	.127	.112	.082	.073	.065	.026	.024	.021	
2.0	.236	.191	.153	.202	.164	.133	.138	.114	.092	.080	.066	.054	.026	.021	.018	
3.0	.228	.174	.131	.196	.150	.113	.134	.104	.080	.078	.061	.047	.025	.020	.015	
4.0	.220	.161	.116	.189	.139	.101	.130	.097	.071	.075	.057	.042	.024	.018	.014	
5.0	.212	.151	.105	.182	.130	.092	.126	.091	.065	.073	.054	.038	.023	.017	.013	
6.0	.205	.143	.098	.176	.123	.085	.122	.086	.060	.071	.051	.036	.023	.017	.012	
7.0	.198	.136	.092	.170	.118	.080	.118	.083	.057	.068	.049	.034	.022	.016	.011	
8.0	.191	.130	.088	.165	.113	.077	.114	.079	.055	.066	.047	.032	.021	.015	.011	
9.0	.185	.125	.085	.159	.109	.074	.110	.076	.053	.064	.045	.031	.021	.015	.010	
10.0	.179	.121	.082	.154	.105	.072	.107	.074	.051	.062	.044	.030	.020	.014	.010	

Test System:HOPPO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER: Starligh group	Address:		
NAME:	TYPE:	WEIGHT:	
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:	

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	53	41	34	52	40	33	51	40	33	26
0.80	62	50	42	61	49	42	59	48	41	34
1.00	70	58	50	69	57	50	66	59	49	41
1.25	77	66	58	76	65	57	72	63	56	47
1.50	83	71	63	80	70	62	77	68	61	52
2.00	90	80	72	87	78	71	83	75	69	59
2.50	94	85	77	91	83	76	86	79	74	63
3.00	97	89	82	95	87	81	89	83	78	67
4.00	102	95	89	99	92	87	93	88	84	72
5.00	105	99	93	101	96	91	96	91	87	75
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

Test System:HOPPO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

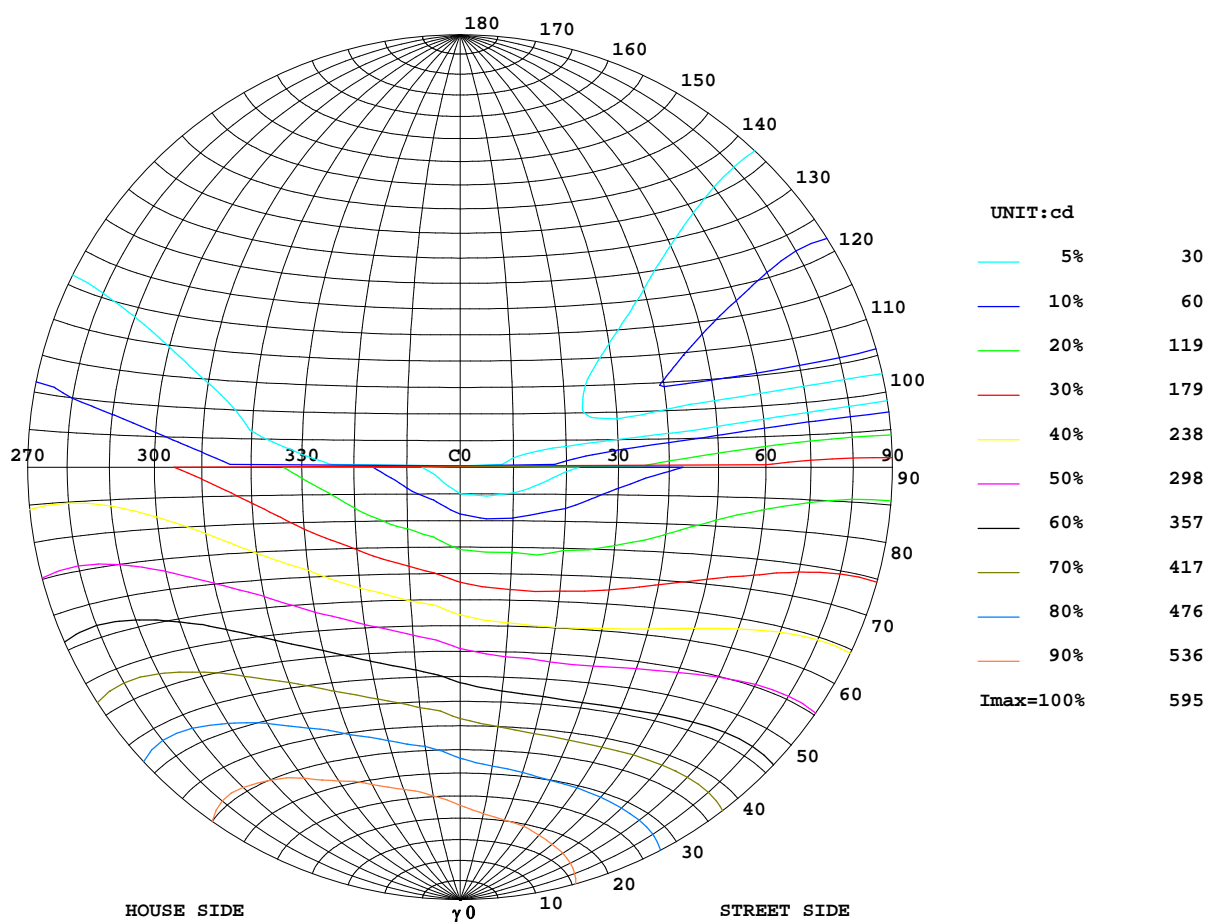
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

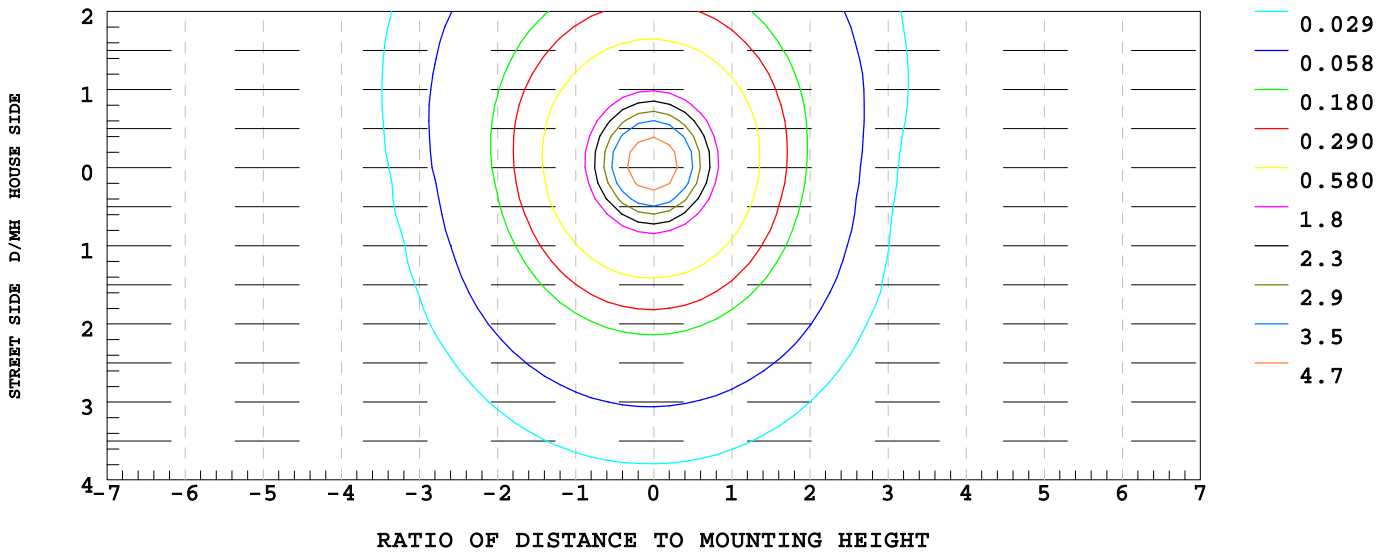
HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 5.85 lx



Test System:HOP00 HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

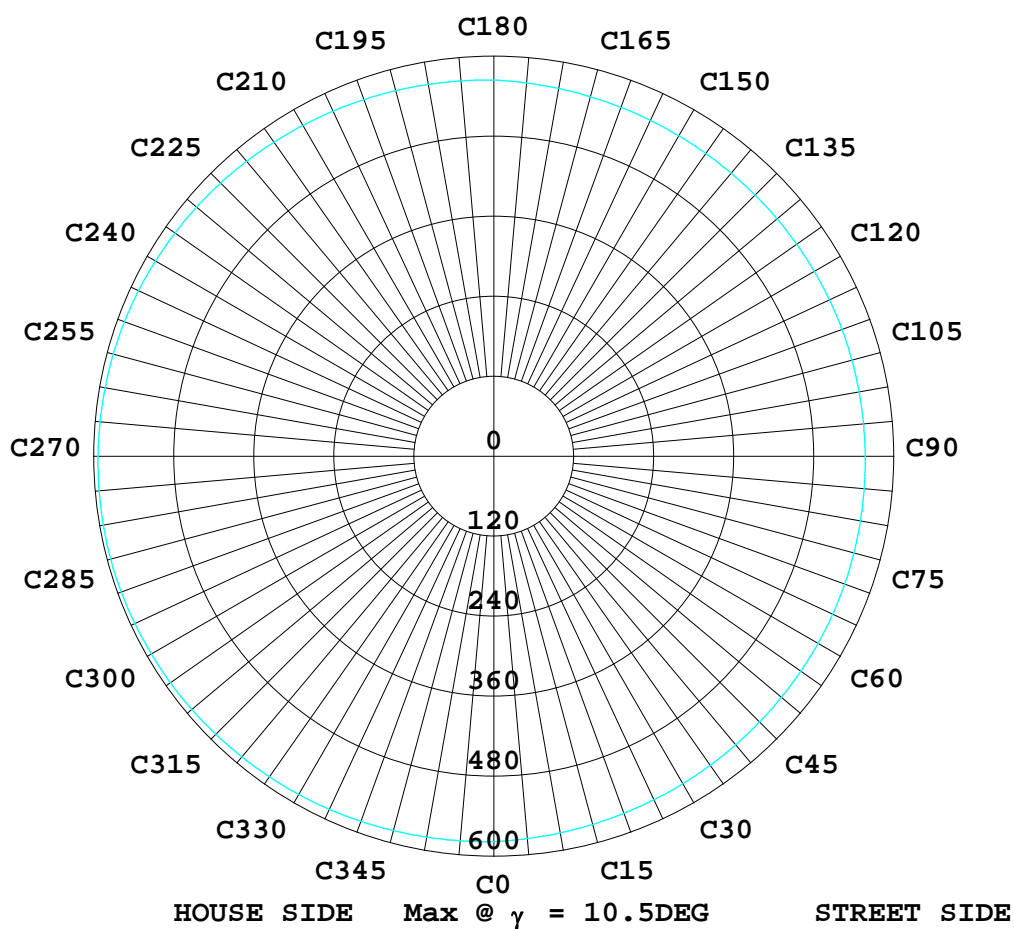
Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:



Test System:HOP00 HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER:Starligh group		Address:	
NAME:		TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w		DIMENSION:	SERIAL No.:

UNIT: cd

γ (DEG)	C(DEG)														
	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
0.0	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
5.0	585	584	583	582	581	580	579	578	577	576	576	575	574	574	573
10.0	579	577	575	573	571	570	568	567	566	565	564	564	563	562	561
15.0	566	563	561	558	556	555	553	552	551	549	548	546	545	543	542
20.0	549	545	541	539	536	535	533	531	528	526	525	524	523	522	521
25.0	525	520	516	513	512	509	506	504	503	501	500	499	497	496	495
30.0	497	491	487	484	481	478	476	474	473	471	470	469	468	468	467
35.0	464	458	453	451	447	444	444	441	439	438	438	438	438	437	436
40.0	428	421	416	412	409	408	405	404	404	404	403	403	403	403	403
45.0	388	381	377	372	370	367	366	366	365	366	367	368	368	369	369
50.0	347	338	333	330	327	325	325	325	326	328	329	331	332	334	335
55.0	302	294	289	286	283	282	283	284	287	289	291	294	296	298	300
60.0	257	248	244	240	239	239	242	244	246	250	254	258	261	263	265
65.0	209	201	197	194	195	197	199	203	208	213	218	222	226	230	232
70.0	162	153	150	150	152	155	160	166	172	178	184	189	194	197	200
75.0	114	108	103	107	115	118	124	133	138	145	151	158	163	168	172
80.0	69.3	62.1	63.2	68.1	75.2	82.3	90.1	99.6	109	117	124	131	136	141	144
85.0	29.8	26.7	30.8	37.3	46.5	55.8	65.2	73.8	81.9	88.1	96.9	103	108	113	117
90.0	7.39	6.07	11.7	18.8	26.6	33.1	40.6	49.4	55.6	62.6	69.3	75.2	80.5	85.2	88.9
95.0	3.28	3.74	4.52	6.61	9.35	12.7	17.4	26.2	35.0	43.2	50.2	56.4	61.8	66.7	70.7
100.0	3.43	4.00	4.15	5.63	7.96	11.5	15.7	20.2	25.5	31.2	36.5	41.4	45.9	50.0	53.7
105.0	3.62	3.82	4.31	4.74	6.50	8.93	12.1	16.1	20.3	24.5	28.7	33.1	37.1	40.7	44.0
110.0	3.82	4.33	4.28	4.53	5.31	7.03	9.45	12.2	15.2	18.9	22.6	26.1	29.4	32.3	34.8
115.0	4.06	4.69	4.22	4.74	5.00	5.89	7.58	9.52	12.0	14.7	17.2	19.7	22.7	25.2	27.5
120.0	4.41	4.89	4.65	4.77	5.16	5.55	6.30	7.90	9.49	11.3	13.6	15.7	17.7	19.5	21.0
125.0	4.75	5.08	5.08	4.89	5.23	5.55	6.05	6.59	7.89	9.33	10.6	11.9	13.5	15.1	16.4
130.0	5.09	5.34	5.51	5.34	5.39	5.62	5.87	6.38	6.91	7.50	8.74	9.90	10.9	11.8	12.6
135.0	5.43	5.62	5.86	5.74	5.64	5.78	5.94	6.08	6.56	7.04	7.52	7.98	8.72	9.56	10.2
140.0	5.78	5.91	6.06	6.07	6.03	6.01	6.11	6.21	6.34	6.56	6.96	7.36	7.75	8.08	8.36
145.0	6.07	6.18	6.30	6.42	6.36	6.33	6.34	6.41	6.48	6.56	6.63	6.70	6.98	7.24	7.49
150.0	6.37	6.43	6.50	6.59	6.63	6.62	6.58	6.59	6.61	6.70	6.74	6.79	6.83	6.88	6.88
155.0	6.56	6.61	6.67	6.74	6.82	6.83	6.81	6.82	6.82	6.82	6.86	6.89	6.93	6.96	7.00
160.0	6.76	6.80	6.84	6.88	6.92	6.98	7.00	7.00	6.99	7.01	7.02	7.04	7.06	7.08	7.12
165.0	6.95	6.97	6.99	7.02	7.05	7.07	7.09	7.13	7.15	7.16	7.17	7.16	7.18	7.19	7.19
170.0	7.10	7.11	7.12	7.13	7.13	7.14	7.16	7.17	7.19	7.22	7.23	7.24	7.24	7.25	7.25
175.0	7.20	7.20	7.21	7.21	7.22	7.23	7.23	7.24	7.25	7.25	7.25	7.25	7.25	7.25	7.25
180.0	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:

UNIT: cd

γ (DEG)	C (DEG)														
	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145
0.0	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
5.0	573	573	572	572	572	572	571	571	571	571	571	572	572	572	573
10.0	561	560	560	559	559	558	558	557	557	557	556	556	556	556	556
15.0	541	540	539	538	537	537	536	536	536	535	535	536	536	537	537
20.0	520	519	518	517	516	515	514	513	512	511	510	510	510	510	511
25.0	494	493	491	490	489	488	487	485	484	483	482	482	481	481	481
30.0	467	466	465	464	462	461	459	457	455	453	452	450	449	449	448
35.0	435	434	433	432	431	429	427	425	423	422	420	417	415	414	413
40.0	403	403	402	400	399	397	394	392	389	386	384	382	381	377	376
45.0	369	369	368	367	365	363	361	358	355	352	348	345	342	340	338
50.0	335	335	335	334	332	330	327	324	320	316	312	308	304	300	298
55.0	301	301	301	300	298	296	293	290	285	281	277	272	267	262	258
60.0	267	267	267	266	265	262	259	255	251	247	241	236	231	225	219
65.0	234	235	236	235	233	231	228	224	219	213	207	201	195	189	183
70.0	202	204	204	204	202	200	197	193	188	183	177	170	162	154	147
75.0	174	176	177	176	175	173	169	165	160	154	148	140	133	125	116
80.0	147	148	149	149	148	146	142	138	133	128	120	113	105	97.3	87.4
85.0	119	121	122	122	121	119	116	112	107	102	94.7	87.8	80.2	72.5	63.6
90.0	91.7	93.7	94.7	94.8	94.1	92.2	89.5	85.8	81.6	76.1	70.2	63.6	57.3	51.5	43.7
95.0	74.0	76.4	78.2	78.7	77.3	75.0	71.8	67.5	62.1	56.5	49.3	41.6	33.2	25.7	18.8
100.0	56.8	59.3	61.9	62.6	60.7	58.0	54.8	50.4	45.1	40.6	34.7	29.0	23.5	19.2	15.9
105.0	46.6	48.8	50.7	51.2	49.9	47.9	45.3	42.0	38.2	34.5	30.4	26.6	22.8	18.7	14.5
110.0	36.8	38.3	39.6	39.9	39.1	37.8	36.1	33.8	31.3	28.3	24.9	21.4	17.8	14.2	11.3
115.0	29.3	30.7	31.7	31.9	31.4	30.2	28.7	26.8	24.5	21.9	19.0	16.3	13.8	11.3	8.87
120.0	22.3	23.2	23.9	24.0	23.6	22.9	21.8	20.5	19.0	17.2	15.1	13.0	10.7	9.07	7.74
125.0	17.5	18.4	18.9	19.1	18.8	18.2	17.2	16.1	14.7	13.1	11.6	10.4	9.15	7.90	6.84
130.0	13.3	13.8	14.1	14.1	14.0	13.7	13.1	12.4	11.6	10.7	9.81	8.76	7.69	7.00	6.33
135.0	10.8	11.2	11.5	11.5	11.4	11.2	10.7	10.2	9.54	8.77	8.07	7.58	7.02	6.44	5.86
140.0	8.64	8.83	8.94	9.01	8.94	8.85	8.67	8.39	8.08	7.72	7.32	6.88	6.39	6.21	6.20
145.0	7.70	7.86	7.94	7.98	7.94	7.85	7.68	7.47	7.21	6.91	6.57	6.54	6.54	6.51	6.54
150.0	6.92	6.96	6.95	6.95	6.96	6.91	6.91	6.89	6.87	6.83	6.81	6.78	6.79	6.79	6.73
155.0	7.03	7.03	7.05	7.05	7.08	7.05	7.04	7.04	7.02	7.03	7.02	7.00	6.95	6.91	6.87
160.0	7.11	7.13	7.15	7.15	7.18	7.18	7.16	7.16	7.15	7.12	7.11	7.08	7.05	7.03	6.99
165.0	7.18	7.20	7.22	7.22	7.22	7.22	7.21	7.21	7.20	7.18	7.17	7.14	7.15	7.13	7.11
170.0	7.25	7.26	7.30	7.30	7.30	7.26	7.25	7.25	7.25	7.25	7.26	7.24	7.21	7.22	7.21
175.0	7.26	7.27	7.29	7.30	7.30	7.30	7.29	7.28	7.27	7.27	7.28	7.28	7.28	7.28	7.28
180.0	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: Starligh Group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:

UNIT: cd

γ (DEG)	C (DEG)														
	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220
0.0	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
5.0	573	574	574	575	576	577	578	579	579	580	580	581	582	582	583
10.0	557	558	559	560	562	564	566	567	568	569	571	572	574	576	578
15.0	537	538	538	540	542	544	547	548	550	552	555	558	562	565	569
20.0	513	513	513	515	517	520	524	526	528	532	536	540	545	548	552
25.0	482	484	485	486	488	490	495	497	501	506	512	517	521	526	532
30.0	449	450	452	453	454	458	463	466	470	476	483	487	494	501	508
35.0	413	413	414	418	419	421	426	430	436	443	449	455	464	471	479
40.0	375	375	375	378	380	383	388	392	399	406	413	421	429	438	448
45.0	336	334	335	336	340	342	346	351	360	366	375	383	394	405	414
50.0	296	294	293	294	297	299	305	310	318	325	334	345	356	367	378
55.0	255	253	251	251	252	256	259	266	274	283	292	305	315	329	341
60.0	214	211	209	207	208	212	215	222	229	239	251	262	276	289	304
65.0	176	170	167	165	163	166	170	176	184	196	208	221	236	252	266
70.0	141	134	127	126	121	123	128	131	140	152	166	182	197	213	229
75.0	107	98.0	88.5	83.4	78.8	76.5	78.6	84.5	88.5	110	127	143	160	178	195
80.0	78.7	69.1	59.6	51.2	44.3	39.7	39.1	45.7	58.2	73.0	90.1	109	128	145	163
85.0	54.5	45.9	36.9	28.2	20.0	13.9	11.0	17.0	29.0	45.2	61.7	78.2	96.1	117	133
90.0	35.7	28.1	21.6	14.4	8.67	4.36	3.18	4.80	12.3	25.7	41.1	55.6	73.5	90.5	107
95.0	11.5	7.83	7.24	5.36	4.34	3.81	4.36	3.76	4.85	9.10	14.0	18.1	23.8	38.3	50.7
100.0	12.8	9.33	6.89	5.08	4.27	3.88	4.41	3.97	5.28	7.90	12.7	19.0	27.2	34.4	39.9
105.0	11.0	8.16	5.75	4.79	4.03	4.43	4.45	4.32	4.96	7.69	11.7	17.8	25.2	33.6	43.5
110.0	8.72	6.43	5.44	4.56	4.28	4.16	4.55	4.12	5.01	6.96	10.4	15.0	21.3	28.4	35.9
115.0	7.20	6.04	5.08	4.36	4.81	4.17	4.70	4.09	5.12	6.19	9.03	12.7	17.6	23.1	29.7
120.0	6.51	5.62	4.77	4.91	4.89	4.55	4.90	4.41	5.11	6.25	7.84	11.0	14.6	19.3	24.2
125.0	6.05	5.28	5.19	5.36	5.00	4.91	5.14	4.79	5.18	6.10	7.52	9.47	12.6	15.8	20.0
130.0	5.67	5.55	5.67	5.55	5.26	5.29	5.43	5.16	5.26	6.09	7.19	8.72	10.6	13.5	16.4
135.0	5.89	5.95	5.96	5.76	5.53	5.69	5.73	5.54	5.38	6.09	6.85	8.11	9.61	11.1	13.7
140.0	6.22	6.27	6.11	5.96	5.91	6.01	6.02	5.85	5.72	6.06	6.74	7.40	8.69	10.0	11.4
145.0	6.51	6.40	6.29	6.16	6.20	6.28	6.22	6.11	6.01	5.99	6.59	7.20	7.82	8.88	10.1
150.0	6.64	6.57	6.48	6.46	6.49	6.55	6.46	6.37	6.29	6.23	6.43	6.96	7.50	8.03	8.59
155.0	6.80	6.74	6.71	6.72	6.74	6.77	6.66	6.60	6.54	6.50	6.47	6.71	7.13	7.55	7.96
160.0	6.95	6.96	6.96	6.96	6.96	6.98	6.86	6.80	6.75	6.72	6.69	6.69	6.72	7.07	7.42
165.0	7.12	7.11	7.10	7.11	7.12	7.14	6.95	6.93	6.91	6.89	6.87	6.86	6.85	6.84	6.84
170.0	7.21	7.21	7.21	7.22	7.23	7.24	7.05	7.03	7.02	7.00	6.98	6.97	6.96	6.96	6.96
175.0	7.28	7.29	7.29	7.29	7.29	7.29	7.10	7.09	7.08	7.08	7.07	7.06	7.06	7.06	7.05
180.0	7.30	7.30	7.30	7.30	7.30	7.30	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: Starligh group		Address:	
NAME:		TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w		DIMENSION:	SERIAL No.:

UNIT: cd

γ (DEG)	C (DEG)														
	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295
0.0	585	585	585	585	585	585	585	585	585	585	585	585	585	585	585
5.0	584	585	585	586	587	588	588	589	589	590	590	590	590	590	590
10.0	580	582	584	586	588	590	591	592	593	594	595	595	595	595	594
15.0	572	574	577	579	581	583	585	587	588	589	590	591	591	590	590
20.0	556	560	564	568	572	575	579	581	583	585	586	586	586	585	584
25.0	538	544	548	553	557	561	564	568	570	572	573	573	573	572	571
30.0	514	520	527	533	539	544	549	553	556	559	560	560	559	558	555
35.0	487	495	503	511	517	522	527	532	536	538	539	540	539	537	535
40.0	458	466	475	483	491	498	505	511	515	517	519	519	517	515	511
45.0	424	435	445	455	463	471	478	483	487	490	492	492	490	488	484
50.0	391	401	412	423	433	442	449	455	460	463	464	464	462	458	453
55.0	354	367	380	390	401	410	417	424	429	432	433	433	431	427	421
60.0	318	331	343	356	367	377	386	393	398	401	402	402	399	394	388
65.0	280	295	309	322	334	344	353	359	365	368	369	368	365	360	353
70.0	245	260	275	288	300	311	320	326	332	334	335	334	331	325	318
75.0	212	228	242	255	267	278	287	293	298	301	302	301	297	292	284
80.0	179	195	209	222	234	245	254	261	265	268	269	268	264	258	251
85.0	149	165	179	193	204	215	223	230	234	237	237	235	232	226	218
90.0	123	138	152	164	176	185	193	199	203	205	205	203	200	194	186
95.0	60.5	68.1	76.4	83.6	90.3	95.1	99.5	103	105	105	105	103	98.7	93.2	85.9
100.0	41.5	39.3	36.1	31.6	26.4	20.1	15.0	11.0	7.99	6.02	5.44	5.99	7.49	9.56	12.1
105.0	54.0	59.8	60.7	60.2	58.8	56.5	54.5	52.9	51.8	51.5	51.7	52.0	52.9	54.4	56.3
110.0	44.4	52.9	61.1	68.9	75.8	82.1	87.5	91.7	94.9	97.1	97.2	94.6	90.9	86.1	80.4
115.0	36.3	42.9	49.5	56.3	62.7	68.1	72.8	76.5	79.4	81.1	81.1	79.0	75.8	71.6	66.6
120.0	29.5	35.3	41.0	46.3	51.1	55.3	58.8	61.7	63.9	65.2	65.1	63.7	61.3	58.1	54.2
125.0	24.4	28.7	32.8	37.1	41.3	45.0	48.0	50.5	52.3	53.3	53.2	52.0	49.9	46.9	43.4
130.0	19.4	23.2	26.8	30.1	33.1	35.7	37.9	39.6	40.9	41.5	41.4	40.6	39.1	37.0	34.5
135.0	16.2	18.7	21.0	23.6	26.2	28.5	30.4	31.9	32.9	33.4	33.3	32.6	31.3	29.5	27.3
140.0	13.1	15.2	17.2	19.1	20.8	22.2	23.5	24.4	25.0	25.3	25.2	24.8	24.0	22.9	21.5
145.0	11.2	12.3	13.4	15.0	16.4	17.6	18.6	19.4	19.8	20.1	20.0	19.6	19.0	18.0	16.8
150.0	9.60	10.5	11.4	12.2	12.9	13.6	14.1	14.5	14.7	14.8	14.8	14.6	14.3	13.8	13.2
155.0	8.38	8.75	9.38	10.0	10.6	11.0	11.5	11.7	11.9	12.0	12.0	11.8	11.5	11.1	10.6
160.0	7.71	7.99	8.26	8.51	8.71	8.87	9.02	9.12	9.19	9.21	9.19	9.12	9.02	8.88	8.71
165.0	7.01	7.21	7.40	7.58	7.72	7.84	7.95	8.03	8.07	8.08	8.07	8.03	7.95	7.86	7.74
170.0	6.95	6.94	6.94	6.93	6.96	6.96	6.96	6.96	6.95	6.95	6.95	6.95	6.96	6.96	6.96
175.0	7.05	7.04	7.04	7.04	7.03	7.03	7.03	7.03	7.03	7.03	7.02	7.01	7.00	7.00	7.01
180.0	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10

Test System:HOPOO HPG1900
 Temperature:25.3DEG
 Operators:
 Test Date:2015年04月01日

Test Set: 7.0deg/s B-Beta (TYPE B)
 Humidity:65.0%
 Test Distance:7.000 m
 Remarks:

HONGPU GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER: Starligh group	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION: T8Tube 1.2m 18w	DIMENSION:	SERIAL No.:

UNIT: cd

C(DEG) γ (DEG)	300	305	310	315	320	325	330	335	340	345	350	355
0.0	585	585	585	585	585	585	585	585	585	585	585	585
5.0	590	590	589	589	589	588	588	587	587	586	586	585
10.0	593	592	591	590	589	587	586	585	583	582	581	580
15.0	589	589	588	587	586	583	580	577	574	572	570	568
20.0	582	580	578	575	573	570	568	564	560	557	553	551
25.0	569	568	565	561	557	552	549	546	542	536	531	527
30.0	552	549	545	541	537	531	525	520	516	511	505	500
35.0	532	528	522	517	510	505	500	492	486	482	474	468
40.0	507	501	495	490	482	474	467	461	452	445	439	432
45.0	479	473	465	457	449	442	432	424	417	408	402	393
50.0	447	440	433	424	414	405	396	385	377	368	360	352
55.0	415	406	397	387	377	367	356	345	335	326	317	309
60.0	380	371	361	349	338	326	316	303	292	282	272	263
65.0	345	335	324	312	299	285	272	261	248	236	227	217
70.0	309	299	287	274	261	247	231	216	204	191	179	169
75.0	274	263	250	237	222	207	192	177	160	146	134	124
80.0	241	230	217	202	187	170	153	136	120	99.2	86.1	76.4
85.0	209	197	184	170	155	138	121	102	83.8	65.5	50.9	38.1
90.0	177	166	153	139	124	107	89.4	72.2	54.7	38.5	23.2	10.2
95.0	77.3	67.2	56.1	46.8	38.1	29.8	22.4	24.3	21.2	12.2	6.68	3.88
100.0	15.3	18.7	22.5	28.4	33.7	35.1	32.0	23.2	16.5	10.6	6.24	4.25
105.0	58.5	61.0	63.4	60.2	50.4	39.9	30.8	22.8	15.0	9.33	5.96	3.94
110.0	73.7	66.3	58.3	50.0	41.4	33.3	25.2	17.7	12.1	8.02	5.37	4.34
115.0	60.7	54.1	47.6	40.7	33.5	26.1	20.0	14.5	10.2	7.14	4.82	4.58
120.0	49.6	44.3	38.5	32.2	26.7	21.5	16.3	12.3	8.92	6.55	5.08	4.75
125.0	39.2	34.7	30.7	26.3	21.7	17.2	13.8	10.5	8.09	5.94	5.34	4.93
130.0	31.6	28.3	24.7	20.7	17.7	14.6	11.4	9.27	7.31	6.09	5.53	5.19
135.0	24.7	22.1	19.8	17.3	14.5	11.8	10.0	8.28	6.76	6.16	5.62	5.44
140.0	19.9	18.0	16.0	13.7	12.0	10.4	8.87	7.39	6.80	6.20	5.83	5.72
145.0	15.4	13.9	12.8	11.6	10.3	9.01	7.84	7.26	6.71	6.18	6.06	5.98
150.0	12.5	11.7	10.7	9.73	8.64	8.05	7.56	7.07	6.57	6.35	6.30	6.25
155.0	10.1	9.37	8.76	8.39	8.01	7.62	7.18	6.78	6.54	6.49	6.46	6.43
160.0	8.51	8.28	8.00	7.72	7.42	7.11	6.77	6.71	6.67	6.65	6.64	6.62
165.0	7.58	7.42	7.23	7.01	6.86	6.84	6.82	6.81	6.80	6.80	6.80	6.80
170.0	6.96	6.96	6.95	6.93	6.94	6.94	6.94	6.93	6.93	6.93	6.94	6.94
175.0	7.01	7.01	7.01	7.02	7.02	7.02	7.01	7.01	7.01	7.00	7.00	7.00
180.0	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10	7.10

Test System:HOPOO HPG1900
 Temperature:25.3DEG
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