

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

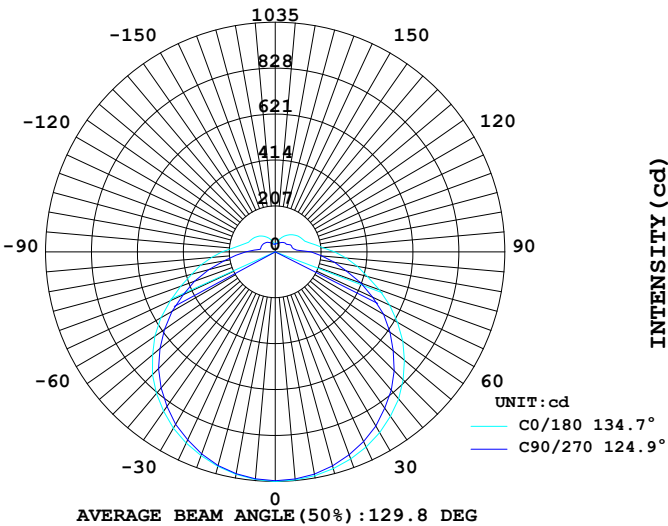
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

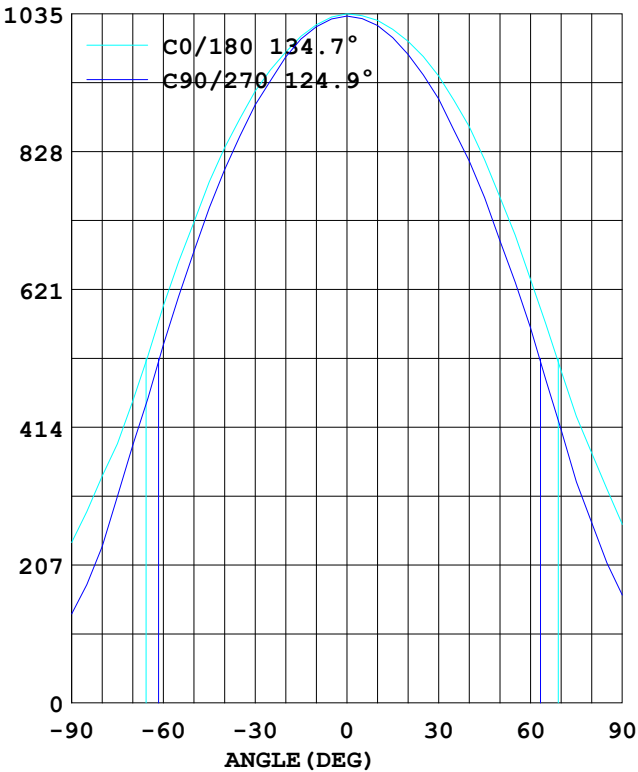
MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	1035	S/MH (C0/180)	1.32
MODEL		EFFICIENCY (%)	100.0	S/MH (C90/270)	1.30
NOMINAL POWER(W)	35	TOTAL FLUX(lm)	3968.2	Voltage(V)	220.0
RATED VOLTAGE (V)	220	EFFICIENCY (lm/W)	112.1	Current(A)	0.164
NOMINAL FLUX(lm)	3968.2	η up (%)	11.3	Power (W)	35.40
LAMPS QUANTITY	1	η down (%)	88.7	Power Factor (PF)	0.981
TEST VOLTAGE (V)	220.0	Effective Flux(lm)	3709.7	EEI	0.130

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

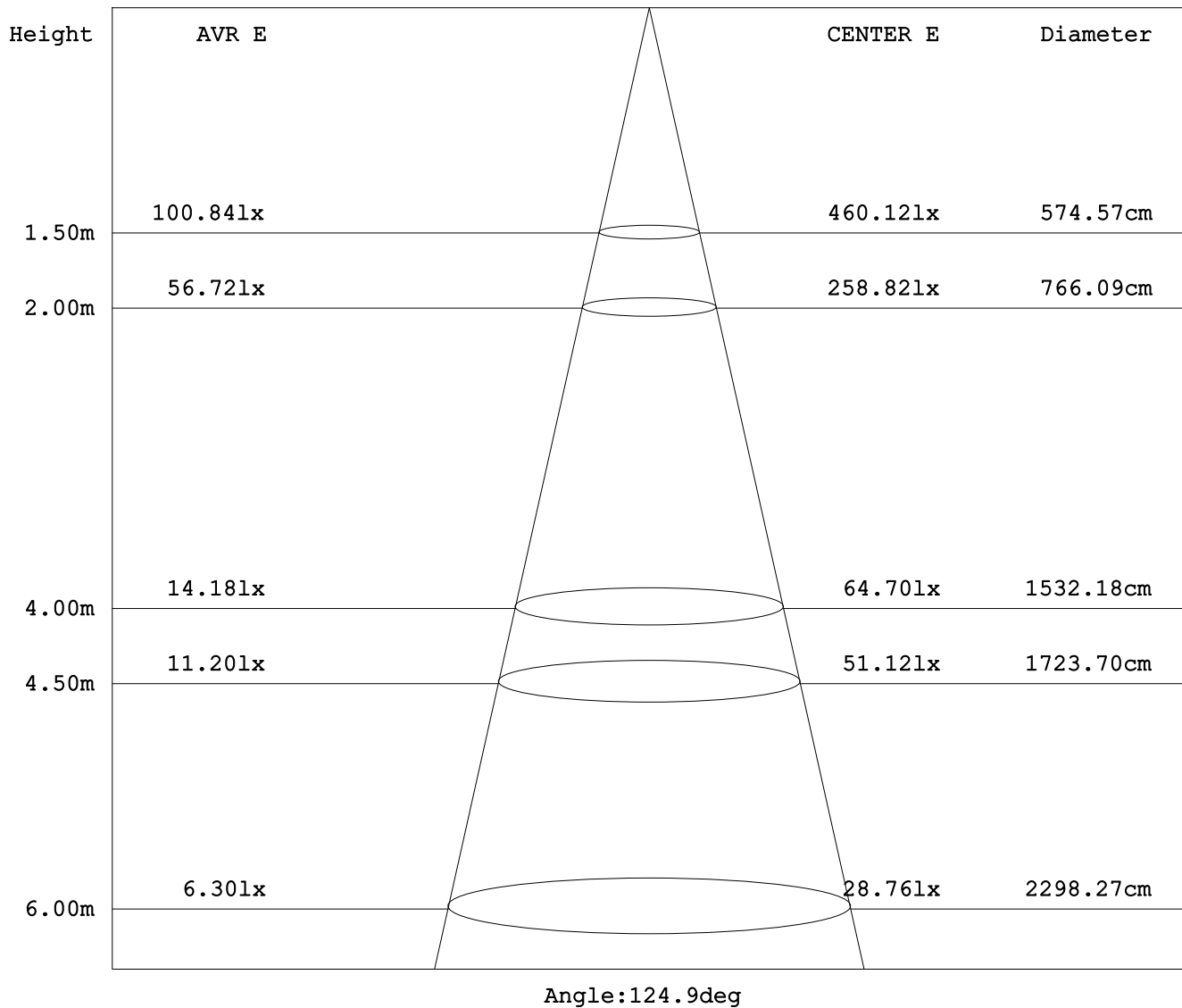
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity: 65.0%
 Test Distance: 11.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Zone	total
10.0	1018	1014	1016	1016	1025	1013	1018	1005	0- 10	97.56	97.56
20.0	977.6	971.2	970.2	972.9	993.8	974.3	974.0	954.0	10- 20	281.5	379.1
30.0	918.7	904.0	898.0	901.5	941.6	909.2	907.2	874.0	20- 30	433.8	813.0
40.0	833.6	810.3	800.7	798.1	865.7	818.9	813.8	765.9	30- 40	537.4	1351
50.0	722.0	693.0	678.4	669.3	760.1	705.9	694.6	633.3	40- 50	580.0	1931
60.0	596.4	555.0	537.8	518.2	636.5	571.4	563.9	485.2	50- 60	555.6	2486
70.0	453.5	404.5	387.2	353.1	499.3	431.9	410.9	326.6	60- 70	469.3	2956
80.0	340.7	270.6	235.1	197.0	375.9	289.2	271.2	176.2	70- 80	346.1	3302
90.0	240.9	164.0	133.5	63.52	268.1	184.2	162.0	54.02	80- 90	216.2	3518
100.0	163.9	94.01	68.97	27.76	184.0	106.1	83.24	25.04	90-100	118.0	3636
110.0	128.6	84.03	68.00	31.15	142.2	93.71	79.01	28.37	100-110	83.04	3719
120.0	119.0	80.82	66.30	32.36	131.1	84.88	67.76	28.85	110-120	71.75	3791
130.0	107.6	74.35	61.83	30.85	117.7	75.32	60.86	30.24	120-130	60.22	3851
140.0	94.01	66.12	56.50	31.52	101.2	62.67	55.66	30.79	130-140	47.24	3898
150.0	77.43	56.44	48.76	31.64	82.76	51.54	49.12	31.94	140-150	33.81	3932
160.0	59.41	45.37	40.17	32.30	62.67	41.98	41.50	32.85	150-160	21.47	3954
170.0	41.50	37.26	35.33	34.12	42.47	35.21	37.38	34.06	160-170	11.19	3965
180.0	35.45	34.72	35.69	35.57	34.96	34.48	36.54	35.39	170-180	3.413	3968
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

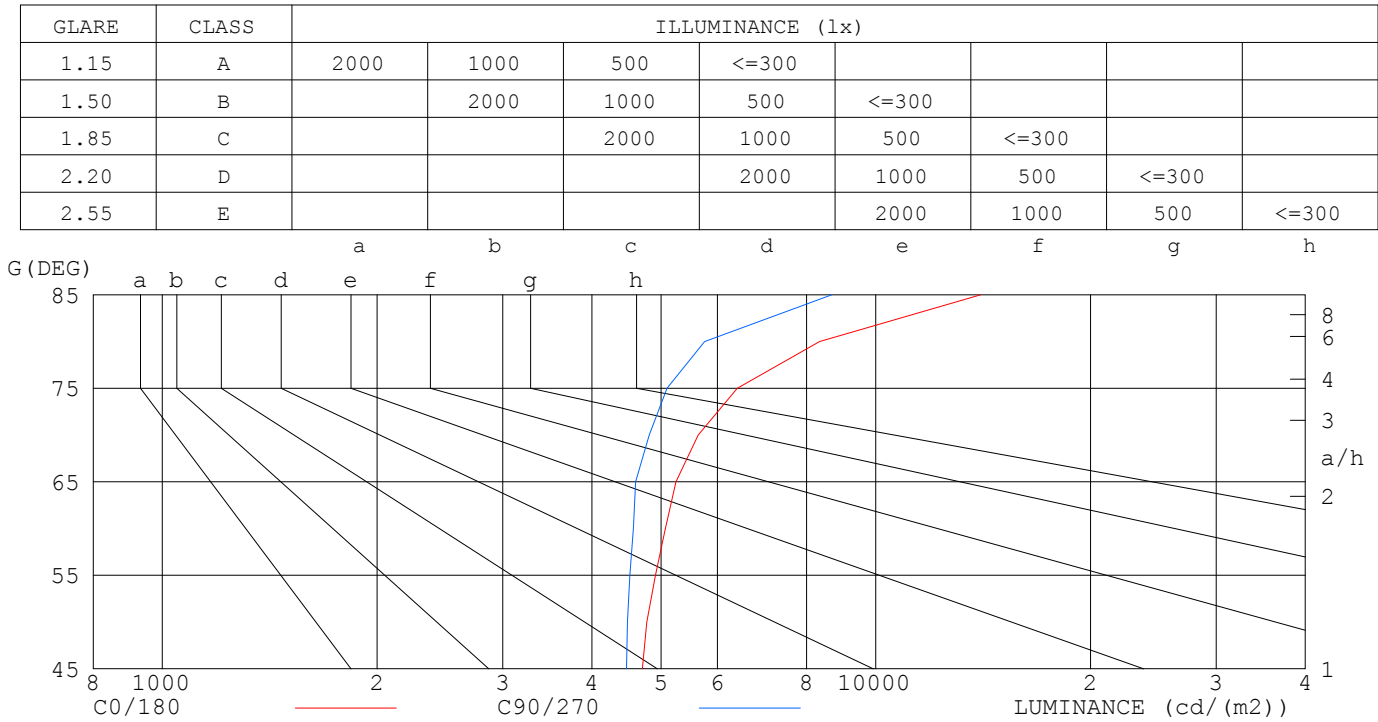
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:					
Address:					
NAME: 1.2M-35W-3000K		TYPE:		WEIGHT:	
SPECIFICATION:		DIMENSION: 1200*152*52mm		SERIAL No.:	

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14024	8676
80	8342	5756
75	6396	5098
70	5637	4813
65	5246	4606
60	5071	4573
55	4910	4523
50	4775	4487
45	4708	4472

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

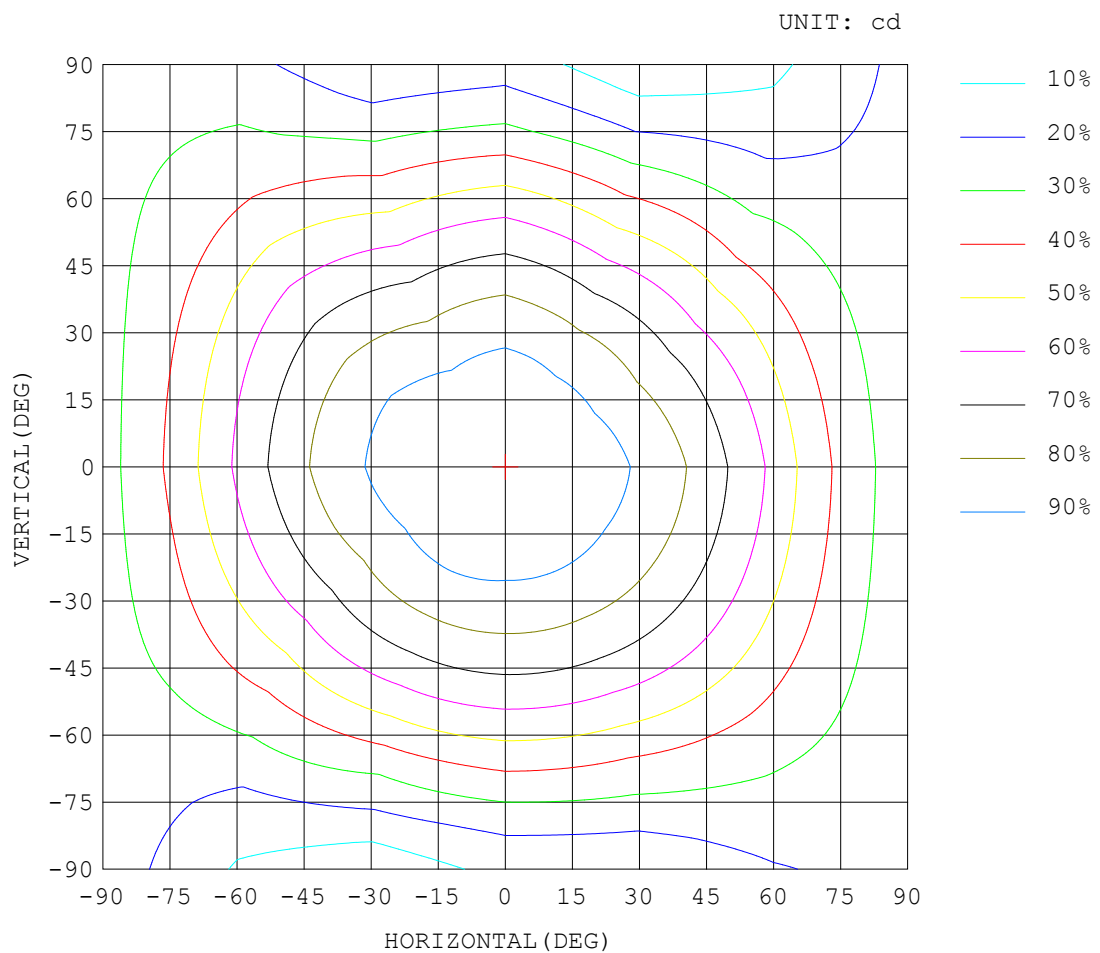
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

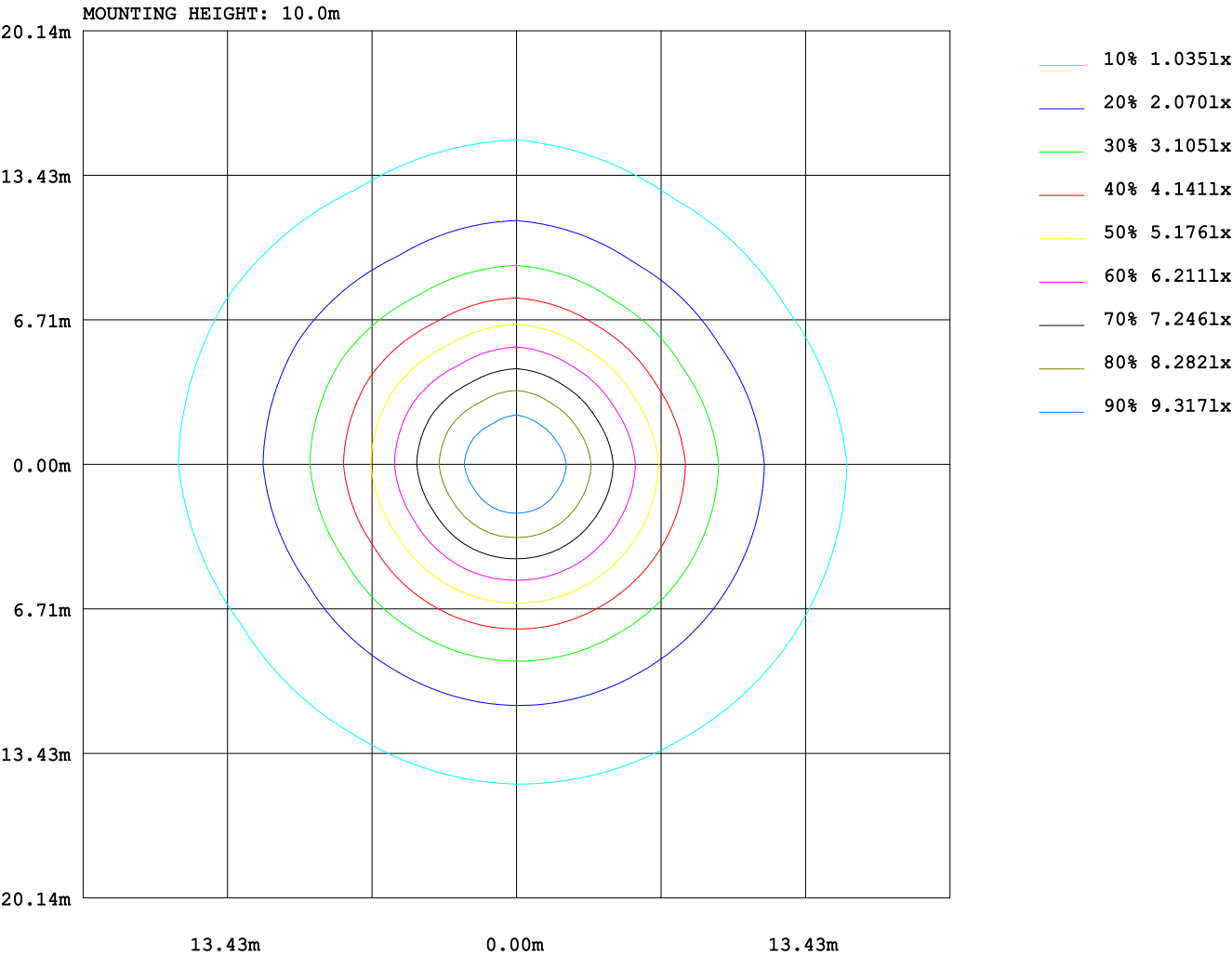
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AREA LUMINOUS FLUX

Report number:

MANUFACTURER:																			
Address:																			
NAME: 1.2M-35W-3000K										TYPE:					WEIGHT:				
SPECIFICATION:										DIMENSION: 1200*152*52mm					SERIAL No.:				

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	90	80	70	60	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60	-70	-80	-90			
	0.71	2.10	3.43	4.38	4.74	4.70	4.97	5.72	6.29	5.83	4.39	2.87	2.11	1.98	1.73	1.61	1.34	0.56	59.5	54.8		
	0.74	2.33	4.00	5.45	6.48	7.22	8.10	9.28	10.0	9.65	8.16	6.33	5.00	4.02	2.96	2.23	1.55	0.59	94.2	94.2		
	0.77	2.54	4.55	6.68	8.61	10.2	11.7	13.4	14.5	14.2	12.4	10.2	8.18	6.27	4.43	3.00	1.80	0.62	134	134		
	0.80	2.74	5.16	8.04	10.7	13.1	15.2	17.4	18.8	18.5	16.5	13.8	11.2	8.43	5.75	3.79	2.08	0.66	173	173		
	0.83	2.94	5.78	9.29	12.8	16.0	18.6	20.9	22.6	22.3	20.2	17.2	14.1	10.5	7.16	4.48	2.34	0.69	209	209		
	0.85	3.11	6.33	10.3	14.6	18.5	21.6	24.0	25.7	25.5	23.3	20.3	16.5	12.4	8.58	5.15	2.58	0.72	241	241		
	0.87	3.26	6.79	11.2	16.0	20.4	24.0	26.4	28.2	28.0	25.9	22.7	18.5	14.1	9.78	5.76	2.78	0.75	266	266		
	0.89	3.38	7.12	11.8	16.9	21.7	25.7	28.4	29.9	29.7	27.7	24.4	20.2	15.5	10.7	6.27	2.95	0.78	284	284		
	0.90	3.45	7.31	12.1	17.4	22.3	26.5	29.4	30.8	30.7	28.9	25.7	21.4	16.4	11.3	6.64	3.09	0.80	296	296		
	0.89	3.41	7.22	12.0	17.2	22.1	26.3	29.3	30.9	30.9	29.1	25.9	21.7	16.6	11.4	6.73	3.12	0.81	296	296		
	0.87	3.26	6.84	11.3	16.2	21.0	25.1	28.3	30.0	30.0	28.2	25.1	21.0	16.1	11.1	6.52	3.06	0.80	285	285		
	0.84	3.07	6.32	10.4	14.9	19.3	23.5	26.6	28.2	28.2	26.6	23.7	19.7	15.1	10.4	6.19	2.95	0.78	267	267		
	0.81	2.84	5.70	9.21	13.1	17.4	21.2	24.0	25.6	25.6	24.2	21.6	18.0	13.8	9.58	5.74	2.81	0.76	243	243		
	0.77	2.58	4.98	7.84	11.2	14.9	18.2	20.8	22.2	22.4	21.1	18.8	15.7	12.1	8.47	5.21	2.64	0.74	211	211		
	0.73	2.30	4.17	6.42	9.13	12.0	14.6	16.9	18.2	18.3	17.3	15.4	12.9	10.1	7.26	4.64	2.45	0.71	174	174		
	0.70	2.02	3.32	4.88	6.86	8.70	10.5	12.4	13.6	13.8	13.1	11.6	9.97	8.06	6.05	4.05	2.24	0.69	133	133		
	0.66	1.74	2.50	3.30	4.48	5.57	6.75	8.10	9.11	9.40	8.95	8.09	7.11	6.05	4.83	3.47	2.03	0.66	92.8	92.8		
	0.62	1.50	1.83	1.98	2.26	2.41	2.99	4.09	5.08	5.47	5.24	4.81	4.51	4.27	3.76	2.92	1.83	0.63	56.2	52.2		
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90			
Φ t	14.2	48.6	93.4	147	204	258	306	346	370	369	342	299	248	192	136	84.4	43.7	12.7	3968			
Φ a	14.2	48.6	93.4	146	203	257	305	346	370	369	342	298	247	191	135	84.3	43.7	12.7		3710		

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

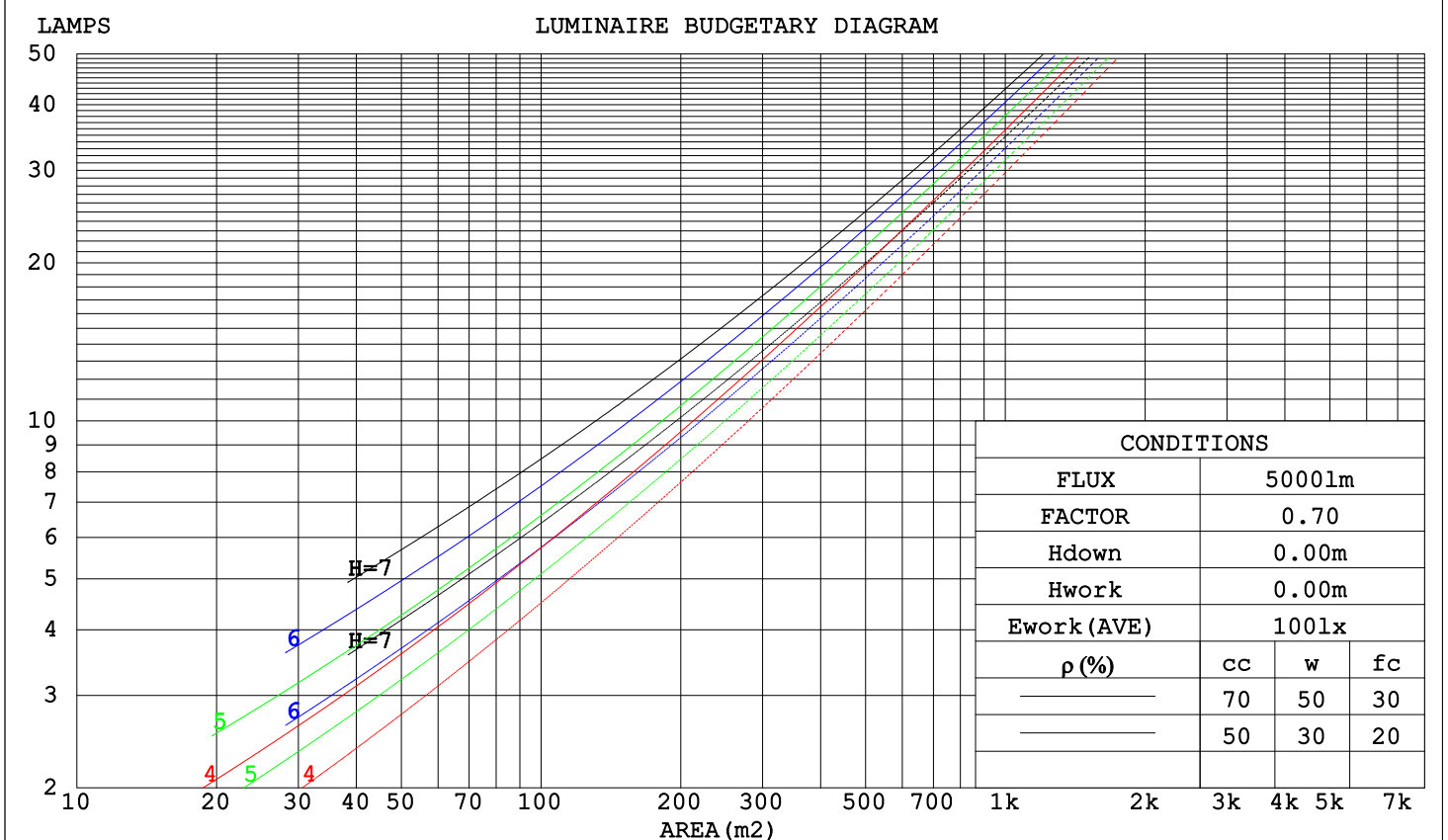
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 1.2M-35W-3000K								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1200*152*52mm				SERIAL No.:			

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

MANUFACTURER:															
Address:															
NAME: 1.2M-35W-3000K								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1200*152*52mm				SERIAL No.:			

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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.359	.204	.065	.349	.199	.063	.329	.189	.060	.310	.179	.057	.293	.170	.055	
2.0	.320	.175	.054	.310	.171	.053	.292	.162	.050	.276	.155	.048	.260	.147	.046	
3.0	.288	.153	.046	.279	.150	.045	.263	.143	.043	.248	.136	.042	.234	.130	.040	
4.0	.261	.136	.040	.254	.133	.039	.239	.127	.038	.226	.121	.037	.213	.116	.035	
5.0	.239	.122	.035	.232	.119	.035	.219	.114	.034	.207	.109	.032	.195	.104	.031	
6.0	.220	.110	.032	.213	.108	.031	.202	.103	.030	.190	.099	.029	.180	.095	.028	
7.0	.203	.101	.028	.198	.098	.028	.187	.094	.027	.177	.091	.026	.167	.087	.026	
8.0	.189	.092	.026	.184	.090	.026	.174	.087	.025	.165	.083	.024	.156	.080	.023	
9.0	.176	.085	.024	.172	.084	.023	.163	.080	.023	.154	.077	.022	.146	.074	.021	
10.0	.165	.079	.022	.161	.078	.022	.153	.075	.021	.145	.072	.020	.137	.069	.020	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.277	.277	.277	.237	.237	.237	.162	.162	.162	.093	.093	.093	.030	.030	.030	
1.0	.271	.243	.218	.232	.208	.187	.159	.143	.130	.091	.083	.075	.029	.027	.024	
2.0	.264	.220	.182	.226	.189	.158	.155	.131	.110	.089	.076	.064	.029	.025	.021	
3.0	.256	.203	.160	.220	.175	.139	.151	.121	.097	.087	.071	.057	.028	.023	.019	
4.0	.248	.190	.145	.213	.164	.126	.147	.114	.089	.085	.067	.053	.027	.022	.017	
5.0	.241	.180	.135	.207	.156	.117	.142	.109	.083	.083	.064	.049	.027	.021	.016	
6.0	.234	.172	.127	.201	.149	.111	.138	.104	.079	.080	.061	.047	.026	.020	.015	
7.0	.227	.165	.122	.195	.143	.106	.135	.100	.075	.078	.059	.045	.025	.019	.015	
8.0	.220	.159	.118	.189	.138	.103	.131	.097	.073	.076	.057	.043	.025	.019	.014	
9.0	.214	.155	.115	.184	.134	.100	.128	.094	.071	.074	.056	.042	.024	.018	.014	
10.0	.208	.150	.112	.179	.131	.098	.124	.092	.069	.072	.054	.041	.024	.018	.014	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Report number:

MANUFACTURER:										
Address:										
NAME: 1.2M-35W-3000K					TYPE:			WEIGHT:		
SPECIFICATION:					DIMENSION: 1200*152*52mm			SERIAL No.:		
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	17.8	19.3	18.3	19.7	20.1	17.4	18.9	17.8	19.3	19.7
3H	19.9	21.2	20.4	21.7	22.1	19.3	20.6	19.8	21.1	21.5
4H	21.0	22.3	21.5	22.7	23.2	20.2	21.5	20.7	21.9	22.4
6H	22.3	23.4	22.8	23.9	24.4	21.0	22.2	21.5	22.7	23.2
8H	22.9	24.1	23.4	24.6	25.1	21.4	22.6	22.0	23.1	23.6
12H	23.7	24.8	24.2	25.3	25.9	21.9	23.0	22.4	23.5	24.1
4H 2H	18.5	19.7	18.9	20.2	20.7	18.1	19.4	18.6	19.8	20.3
3H	20.8	21.9	21.3	22.4	22.9	20.2	21.3	20.7	21.8	22.4
4H	22.0	23.0	22.6	23.6	24.1	21.3	22.3	21.8	22.8	23.4
6H	23.5	24.4	24.0	24.9	25.5	22.3	23.2	22.8	23.7	24.3
8H	24.2	25.1	24.8	25.6	26.3	22.7	23.6	23.3	24.2	24.8
12H	25.2	25.9	25.7	26.5	27.2	23.3	24.1	23.9	24.7	25.3
8H 4H	22.4	23.3	23.0	23.8	24.4	21.7	22.6	22.3	23.1	23.8
6H	24.1	24.8	24.7	25.4	26.1	23.0	23.7	23.6	24.3	24.9
8H	25.1	25.7	25.7	26.3	27.0	23.6	24.2	24.2	24.8	25.5
12H	26.2	26.8	26.9	27.4	28.1	24.4	24.9	25.0	25.5	26.3
12H 4H	22.4	23.2	23.0	23.8	24.4	21.9	22.6	22.5	23.2	23.9
6H	24.2	24.8	24.8	25.5	26.1	23.2	23.8	23.8	24.4	25.1
8H	25.3	25.8	25.9	26.5	27.2	23.9	24.5	24.5	25.1	25.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 3968 lm Total Lamp Luminous Flux. (8log(F/F0) = 4.8)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	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) $k(RI) \times RCR = 5$									
$k = 0.60$	51	39	32	50	39	32	48	38	31	24
0.80	61	48	40	59	47	40	57	46	39	32
1.00	69	56	48	67	55	48	64	56	47	39
1.25	76	64	56	74	63	55	70	60	54	45
1.50	81	69	61	78	68	61	74	65	59	49
2.00	88	78	70	85	76	69	80	73	67	56
2.50	92	83	76	89	81	74	84	77	71	60
3.00	96	87	81	93	85	79	87	81	76	64
4.00	100	93	87	97	91	85	91	86	81	69
5.00	103	97	92	100	94	89	93	89	85	72
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

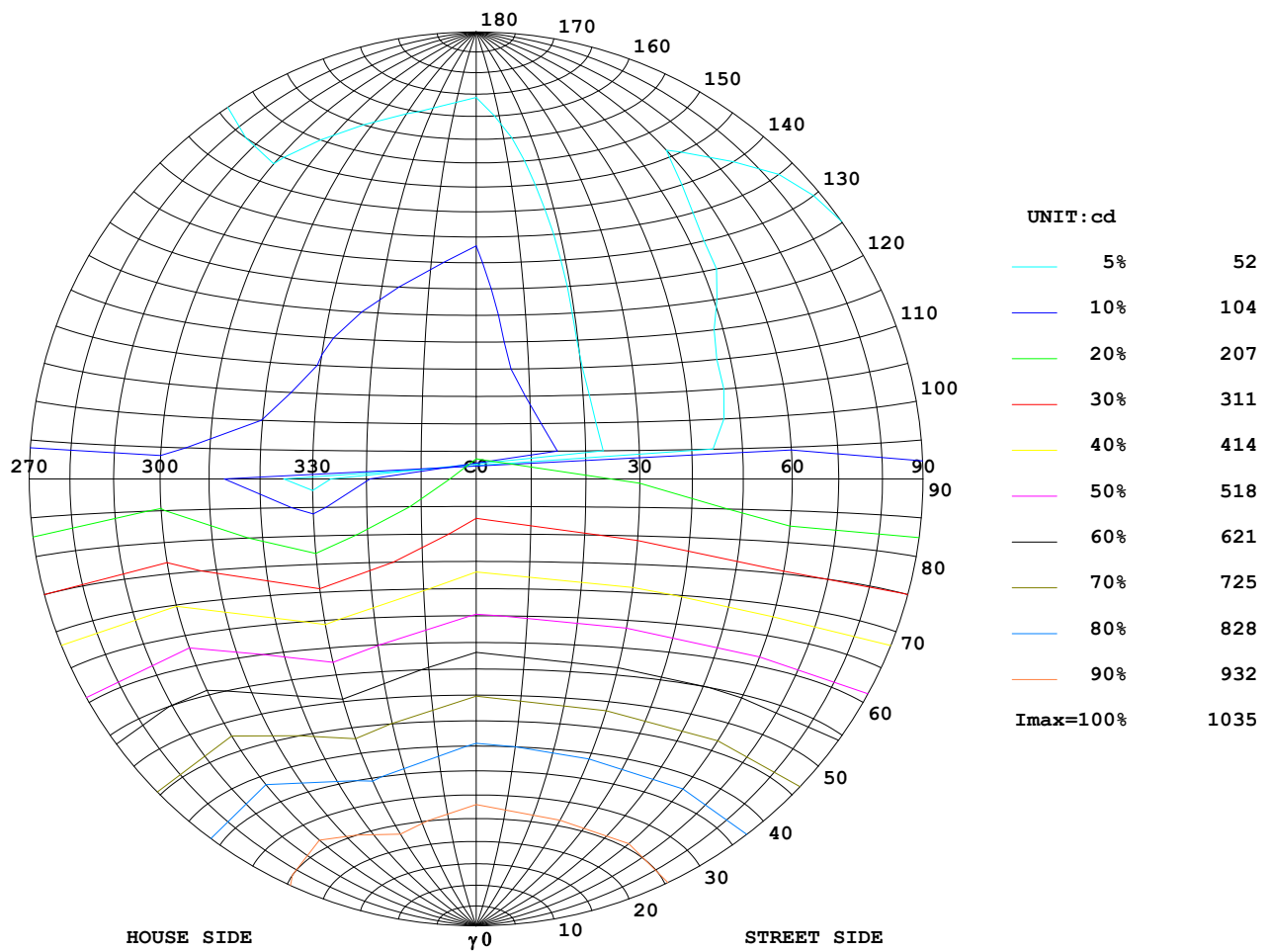
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

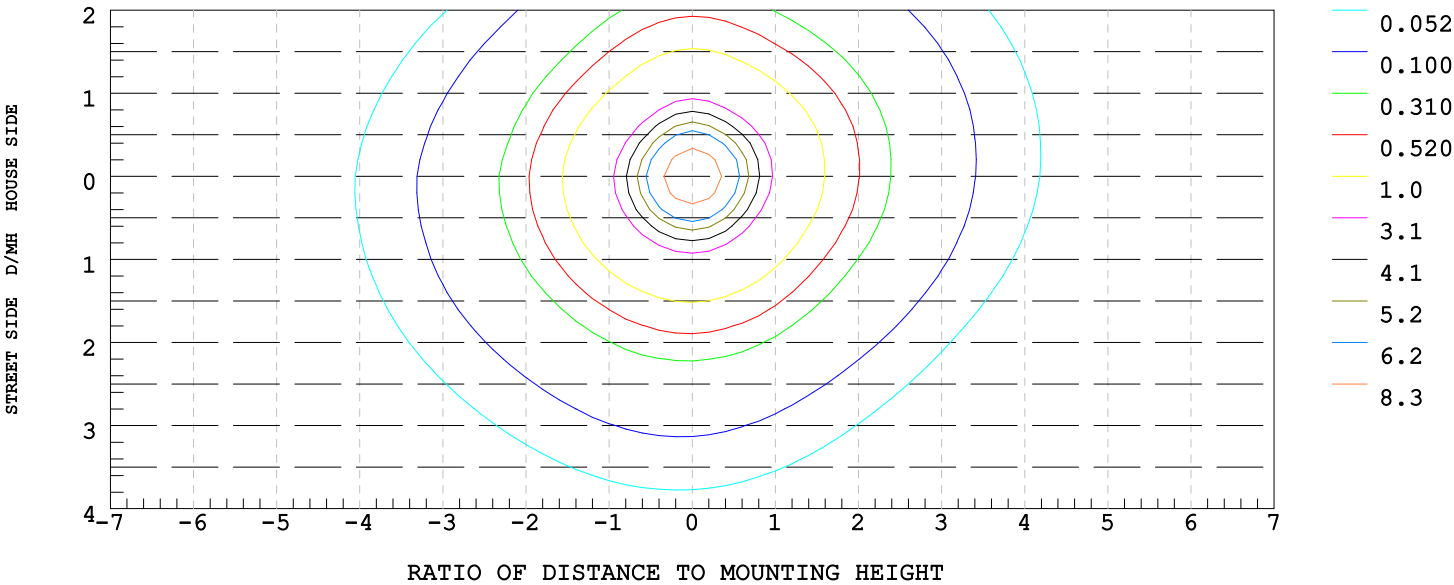
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:

ILLUMINANCE AT MH=10 m,Enadir = 10.35 lx



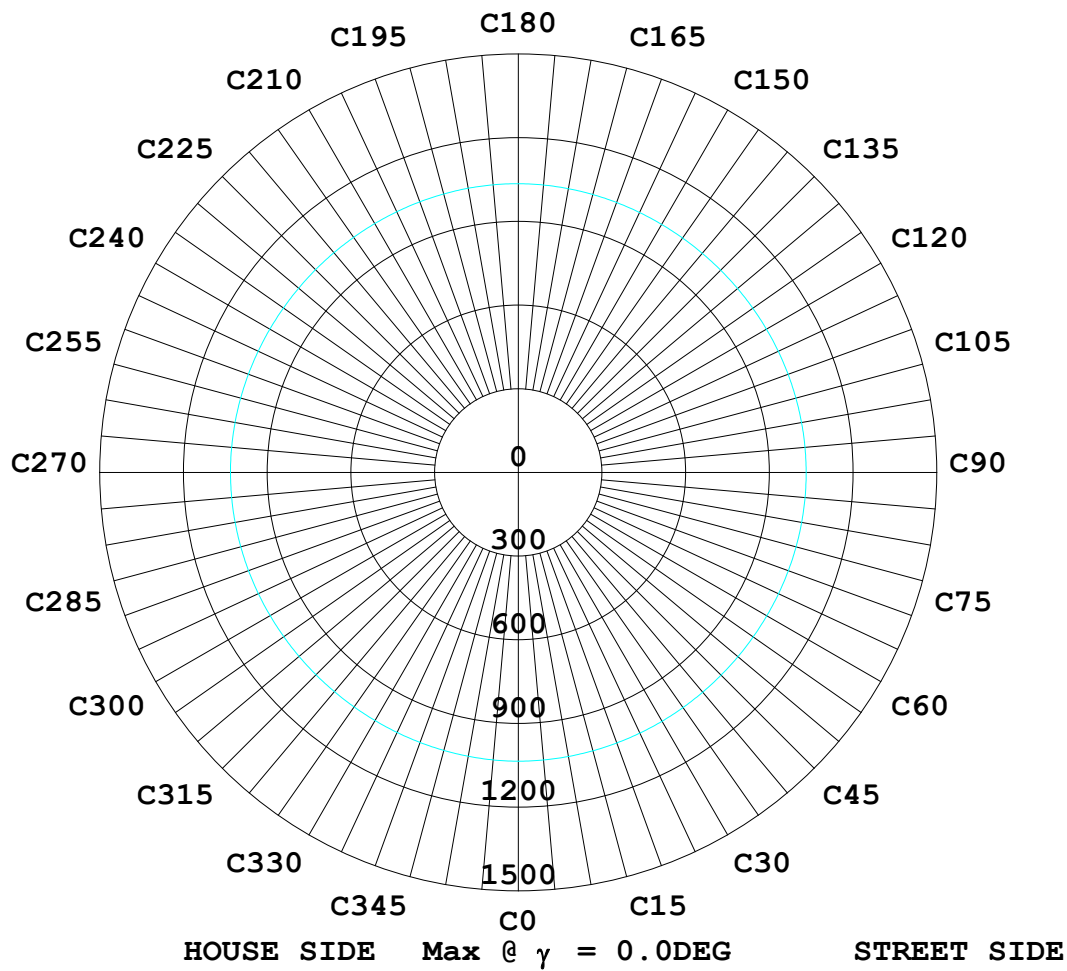
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-3000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks: