

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

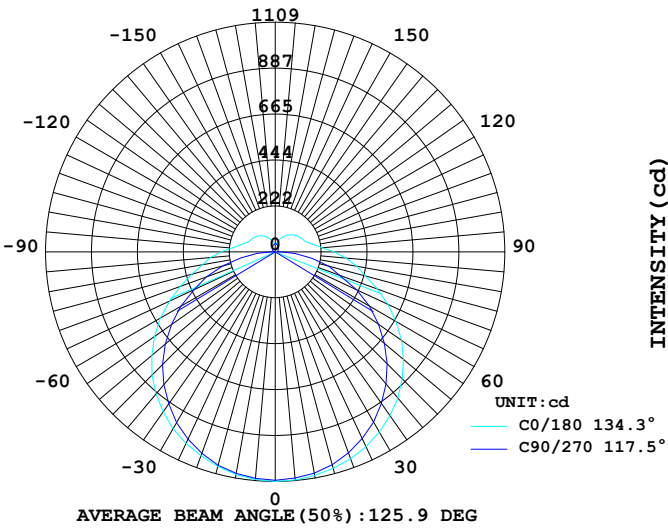
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

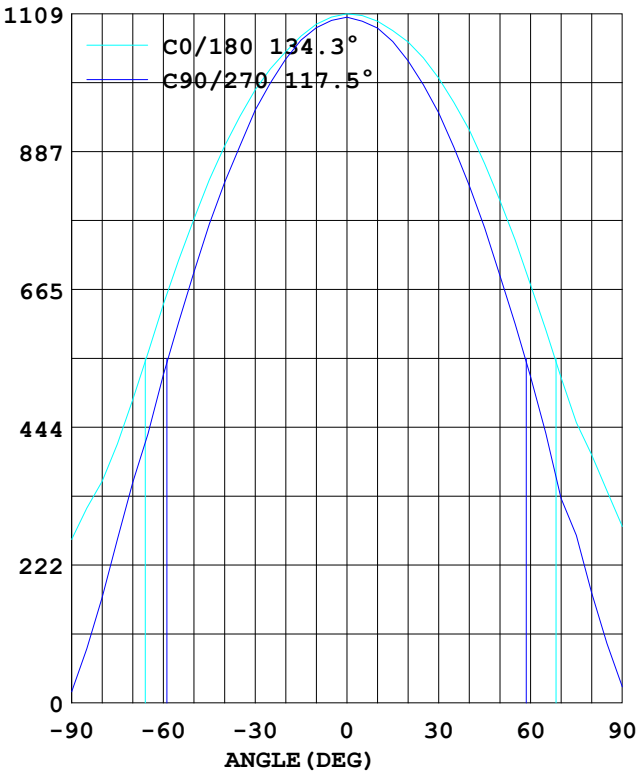
MANUFACTURER:		
Address:		
NAME: 1.2M-35W-5000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	1109	S/MH(C0/180)	1.33
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.28
NOMINAL POWER(W)	35	TOTAL FLUX(lm)	4164.0	Voltage(V)	220.1
RATED VOLTAGE(V)	220	EFFICIENCY(lm/W)	117.0	Current(A)	0.164
NOMINAL FLUX(lm)	4164.0	η up(%)	10.5	Power(W)	35.59
LAMPS QUANTITY	1	η down(%)	89.5	Power Factor(PF)	0.981
TEST VOLTAGE(V)	220.1	Effective Flux(lm)	3924.7	EEI	0.124

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



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

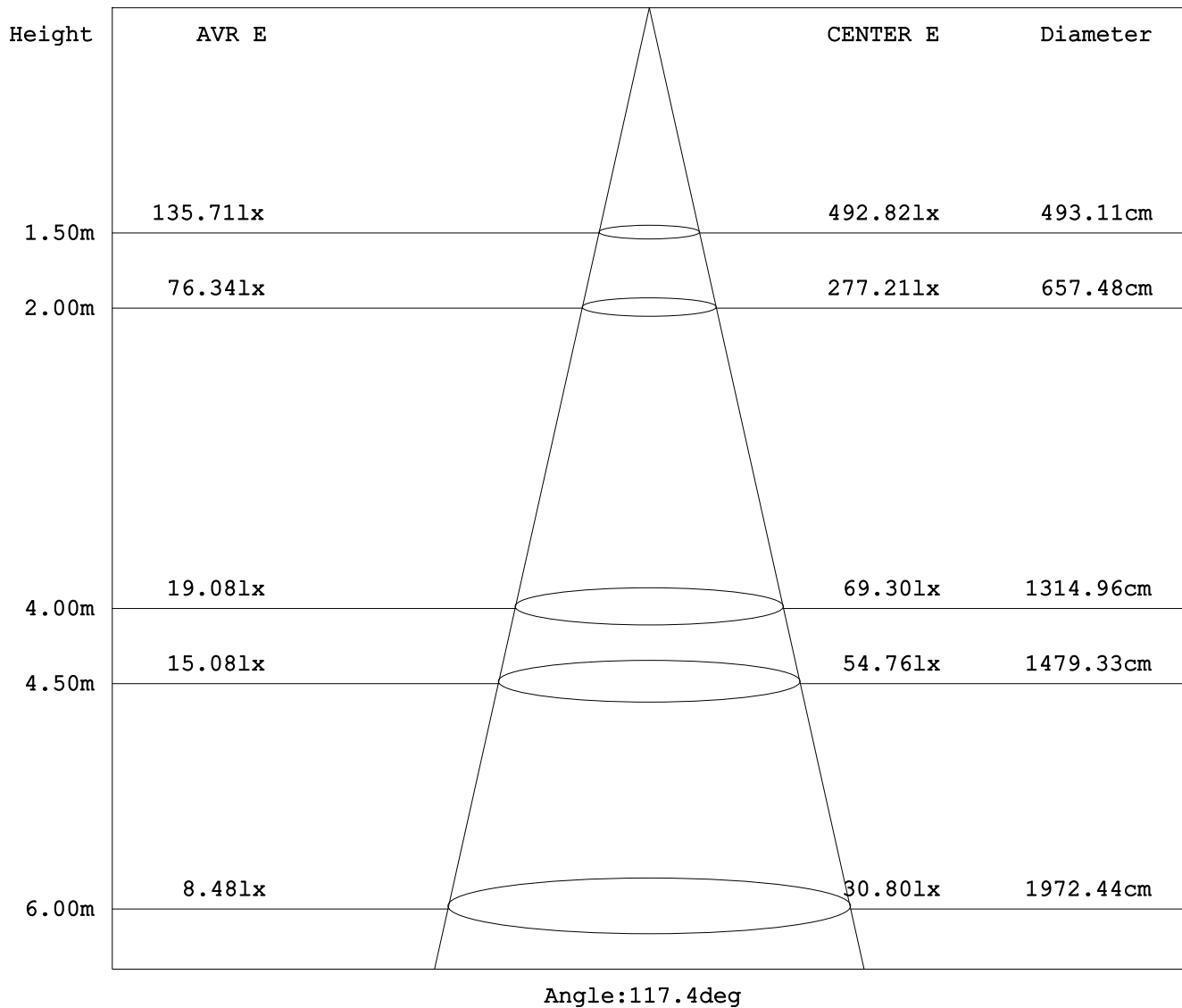
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-5000K	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-5000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
10.0	1092	1089	1086	1090	1097	1090	1086	1083	0- 10	104.6	104.6
20.0	1048	1041	1036	1043	1063	1047	1033	1029	10- 20	301.9	406.5
30.0	986.1	968.3	953.3	966.4	1005	976.5	949.3	944.9	20- 30	465.0	871.5
40.0	895.6	868.5	837.0	858.9	921.8	879.9	832.4	833.0	30- 40	574.9	1447
50.0	778.5	741.6	693.0	722.4	808.7	756.1	688.0	692.4	40- 50	618.7	2065
60.0	641.4	595.8	528.0	567.8	673.3	611.9	525.7	533.9	50- 60	590.2	2656
70.0	487.9	431.1	354.8	394.2	523.9	465.4	329.4	368.0	60- 70	495.0	3151
80.0	356.7	289.0	170.1	229.4	399.5	302.5	177.5	202.3	70- 80	359.6	3510
90.0	263.1	173.1	17.78	89.29	283.8	191.8	25.89	72.66	80- 90	215.5	3726
100.0	178.9	98.37	5.203	41.68	195.0	109.5	11.37	35.69	90-100	112.4	3838
110.0	139.8	88.51	9.196	43.49	151.9	97.82	14.03	38.05	100-110	79.17	3918
120.0	128.7	85.24	13.67	44.28	140.4	89.53	16.21	39.86	110-120	69.08	3987
130.0	116.7	79.37	18.99	39.68	125.8	79.25	20.08	40.83	120-130	59.06	4046
140.0	102.0	70.66	23.83	38.05	107.8	66.12	24.07	40.59	130-140	46.77	4092
150.0	84.33	60.68	28.07	36.60	88.33	53.72	29.40	39.50	140-150	34.05	4126
160.0	64.85	49.18	32.91	34.66	66.18	43.74	34.00	38.35	150-160	22.03	4149
170.0	45.13	40.59	36.66	36.36	44.40	37.99	37.75	38.59	160-170	11.81	4160
180.0	40.77	37.87	38.96	38.78	41.01	37.93	39.44	39.14	170-180	3.685	4164
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

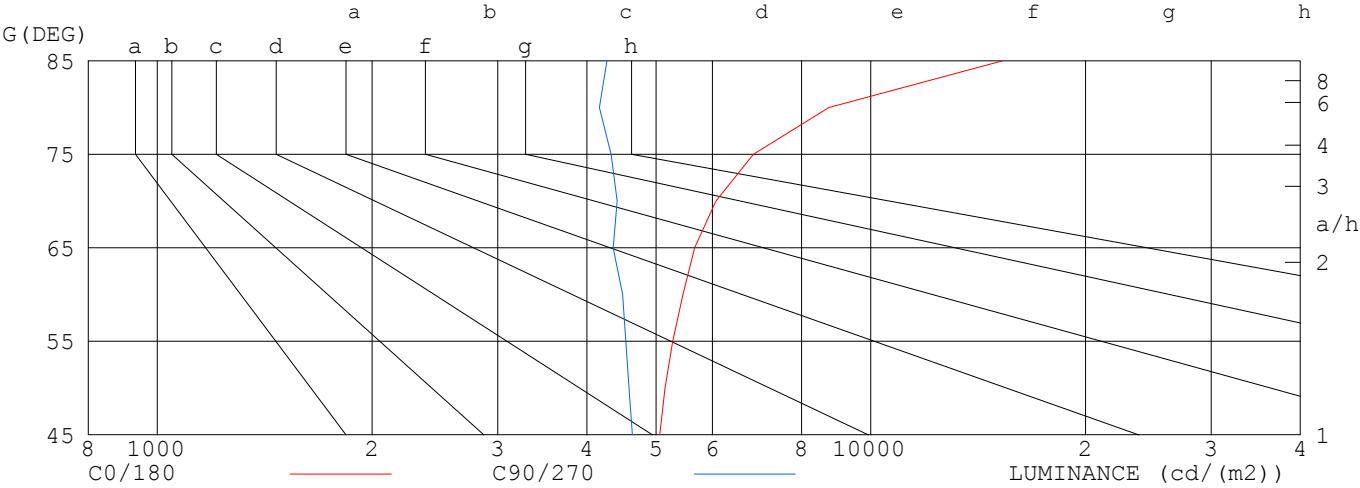
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:					
Address:					
NAME: 1.2M-35W-5000K		TYPE:		WEIGHT:	
SPECIFICATION:		DIMENSION: 1200*152*52mm		SERIAL No.:	

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15299	4267
80	8733	4165
75	6847	4325
70	6066	4411
65	5664	4355
60	5454	4490
55	5278	4536
50	5149	4584
45	5060	4632

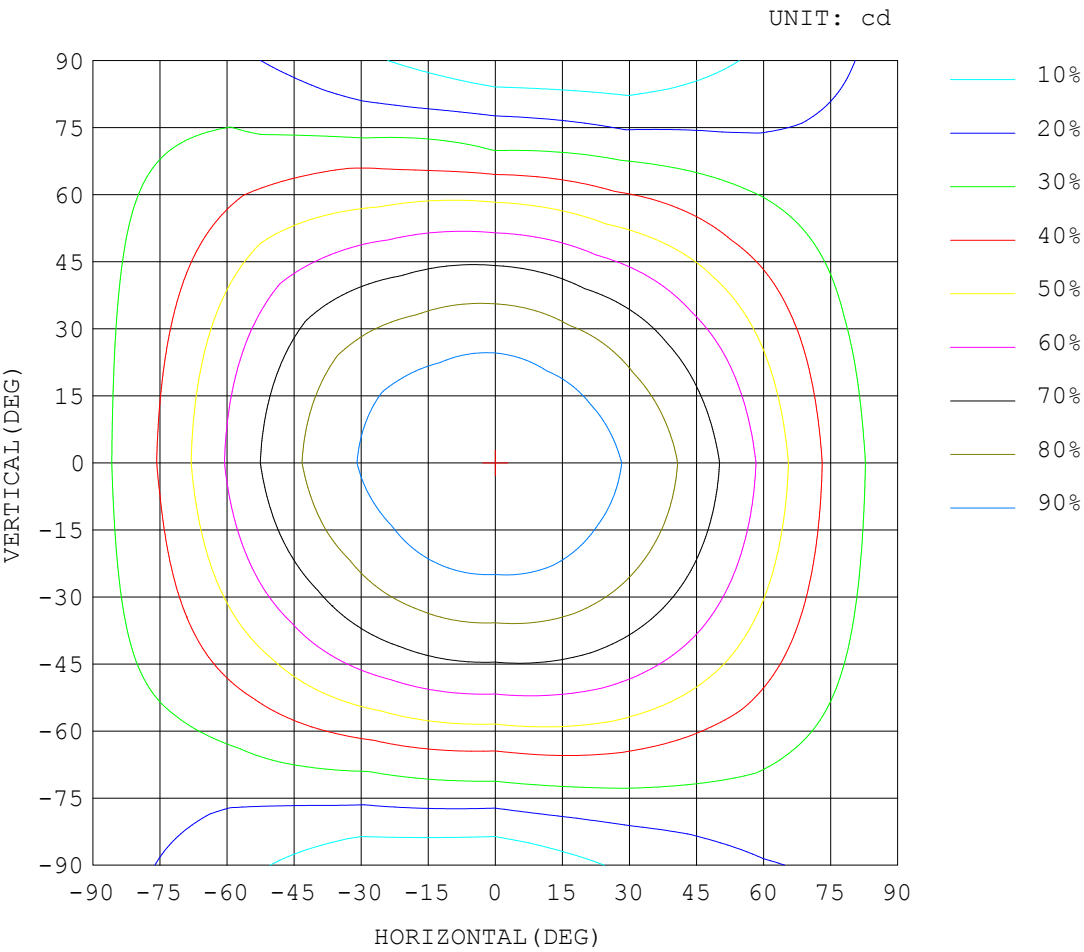
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

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-5000K	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

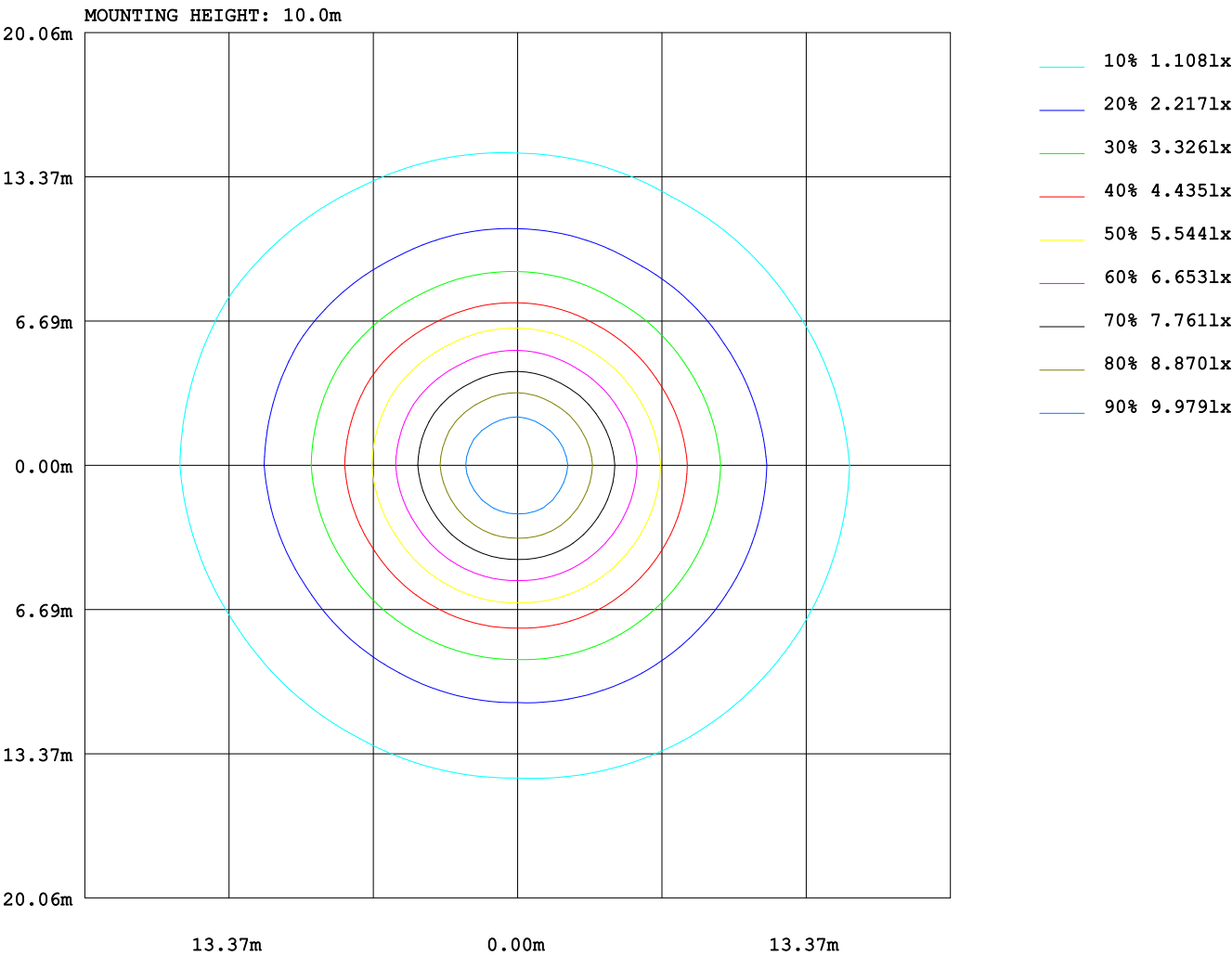
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-5000K	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-5000K										TYPE:					WEIGHT:			
SPECIFICATION:										DIMENSION: 1200*152*52mm					SERIAL No.:			

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm			Φ t	Φ a
	0.75	2.22	3.61	4.60	4.96	4.90	4.59	4.13	3.43	2.90	2.61	2.19	2.19	2.47	2.47	2.23	1.64	0.64	52.6	44.6			
90	0.79	2.46	4.21	5.70	6.80	7.63	8.24	8.53	8.27	7.82	7.23	6.22	5.38	4.64	3.73	2.83	1.86	0.67	93.0	93.0			
80	0.82	2.68	4.78	7.05	9.19	11.1	12.4	13.2	13.3	12.9	12.0	10.6	8.93	7.13	5.28	3.56	2.10	0.70	138	138			
70	0.85	2.89	5.44	8.51	11.5	14.1	16.2	17.9	18.5	18.2	16.9	14.6	12.3	9.55	6.77	4.36	2.34	0.74	182	182			
60	0.88	3.10	6.09	9.86	13.7	17.2	20.0	22.1	23.1	22.8	21.2	18.6	15.4	11.8	8.23	5.10	2.59	0.77	223	223			
50	0.91	3.28	6.68	11.0	15.6	19.8	23.2	25.7	27.0	26.7	24.9	22.0	18.2	13.8	9.62	5.78	2.82	0.80	258	258			
40	0.93	3.44	7.16	11.9	17.0	21.9	25.7	28.4	30.0	29.8	27.8	24.6	20.4	15.6	10.7	6.38	3.03	0.82	286	286			
30	0.94	3.55	7.51	12.5	18.0	23.2	27.5	30.5	32.0	31.8	29.9	26.5	22.0	16.9	11.6	6.86	3.19	0.84	306	306			
	0.95	3.62	7.71	12.9	18.5	23.8	28.3	31.5	33.1	33.0	31.1	27.7	23.1	17.8	12.2	7.19	3.31	0.86	317	317			
	0.95	3.60	7.65	12.8	18.3	23.7	28.2	31.4	33.1	33.1	31.2	27.8	23.3	17.9	12.3	7.25	3.34	0.86	317	317			
	0.93	3.47	7.31	12.2	17.5	22.6	27.0	30.3	32.1	32.1	30.3	27.0	22.5	17.3	11.9	7.03	3.26	0.86	306	306			
-30	0.90	3.30	6.83	11.3	16.2	21.0	25.2	28.4	30.1	30.1	28.5	25.4	21.2	16.3	11.2	6.66	3.15	0.84	287	287			
-40	0.87	3.10	6.22	10.2	14.5	18.9	22.7	25.5	27.0	27.1	25.8	23.1	19.2	14.8	10.3	6.16	2.99	0.82	260	260			
-50	0.84	2.86	5.52	8.81	12.5	16.2	19.4	21.9	23.2	23.3	22.3	20.0	16.8	13.0	9.09	5.59	2.81	0.80	225	225			
-60	0.80	2.59	4.75	7.33	10.1	13.0	15.5	17.5	18.5	18.6	18.0	16.4	13.8	10.8	7.79	4.99	2.61	0.78	184	184			
-70	0.76	2.31	3.93	5.77	7.75	9.54	11.1	12.5	13.2	13.4	13.2	12.2	10.6	8.61	6.51	4.34	2.41	0.75	139	139			
-80	0.73	2.04	3.15	4.15	5.22	6.11	6.91	7.66	8.00	8.28	8.50	8.25	7.53	6.46	5.19	3.73	2.20	0.72	94.8	94.8			
-90	0.69	1.80	2.48	2.81	2.88	2.67	2.61	2.79	2.81	3.23	4.02	4.56	4.73	4.53	4.02	3.14	1.98	0.68	52.5	45.4			
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)					20	30	40	50	60	70	80	90		
Φ t	15.2	52.4	101	160	221	278	326	361	377	376	356	318	268	210	149	93.2	47.7	13.9	4164				
Φ a	15.2	52.4	101	160	220	277	324	359	375	374	354	317	267	209	149	93.2	47.7	13.9		3925			

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:

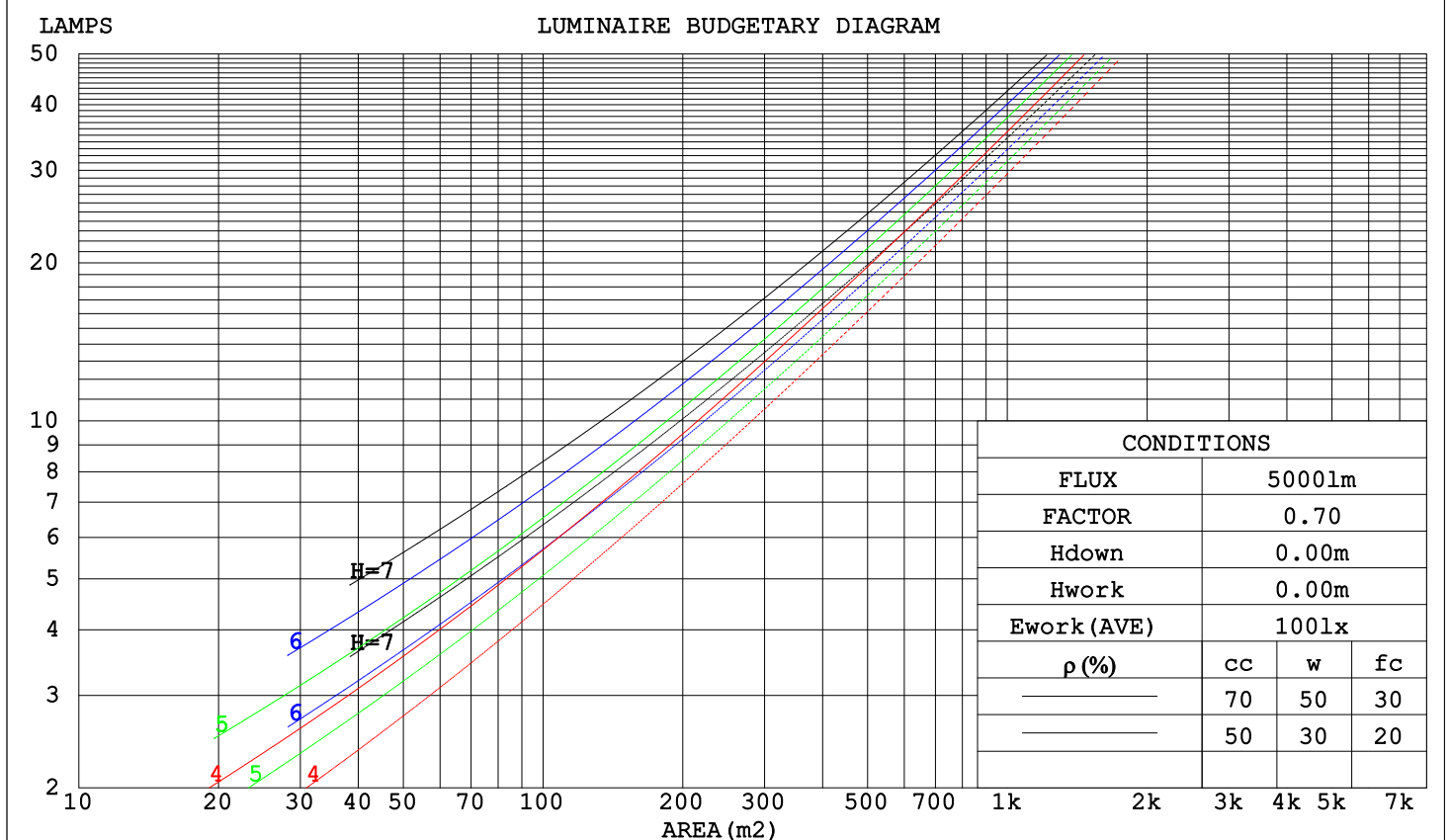
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 1.2M-35W-5000K								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-5000K								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														
pf _c	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients (WEC)														
0.0																														
1.0	.356	.202	.064	.345	.197	.063	.326	.187	.060	.308	.178	.057	.292	.169	.054															
2.0	.318	.174	.053	.308	.170	.052	.291	.162	.050	.275	.154	.048	.260	.147	.046															
3.0	.287	.153	.046	.278	.149	.045	.263	.142	.043	.248	.136	.042	.235	.130	.040															
4.0	.261	.135	.040	.253	.132	.039	.239	.127	.038	.226	.121	.037	.214	.116	.035															
5.0	.238	.121	.035	.232	.119	.035	.219	.114	.034	.207	.109	.032	.196	.105	.031															
6.0	.219	.110	.031	.213	.108	.031	.202	.103	.030	.191	.099	.029	.181	.095	.028															
7.0	.203	.100	.028	.198	.098	.028	.187	.095	.027	.177	.091	.026	.168	.087	.026															
8.0	.189	.092	.026	.184	.090	.026	.174	.087	.025	.165	.084	.024	.157	.080	.023															
9.0	.176	.085	.024	.172	.084	.023	.163	.081	.023	.155	.078	.022	.147	.075	.022															
10.0	.165	.079	.022	.161	.078	.022	.153	.075	.021	.145	.072	.021	.138	.070	.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	.271	.271	.271	.231	.231	.231	.158	.158	.158	.091	.091	.091	.029	.029	.029	
1.0	.264	.237	.212	.226	.203	.182	.155	.140	.126	.089	.081	.073	.029	.026	.024	
2.0	.257	.213	.176	.220	.183	.152	.151	.127	.106	.087	.074	.062	.028	.024	.020	
3.0	.250	.196	.154	.214	.169	.133	.147	.118	.094	.085	.069	.055	.027	.022	.018	
4.0	.242	.183	.139	.208	.158	.121	.143	.110	.085	.083	.065	.050	.027	.021	.017	
5.0	.234	.173	.128	.201	.150	.112	.139	.105	.079	.080	.062	.047	.026	.020	.015	
6.0	.227	.165	.121	.195	.143	.105	.135	.100	.075	.078	.059	.044	.025	.019	.015	
7.0	.220	.159	.116	.189	.137	.101	.131	.096	.071	.076	.057	.042	.025	.019	.014	
8.0	.213	.153	.111	.184	.133	.097	.127	.093	.069	.074	.055	.041	.024	.018	.014	
9.0	.207	.148	.108	.178	.128	.094	.124	.090	.067	.072	.053	.040	.023	.018	.013	
10.0	.201	.144	.106	.174	.125	.092	.120	.088	.065	.070	.052	.039	.023	.017	.013	

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-5000K					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	18.2	19.6	18.6	20.0	20.4	17.5	19.0	17.9	19.4	19.8
3H	20.3	21.6	20.7	22.0	22.5	19.2	20.6	19.7	21.0	21.4
4H	21.4	22.6	21.8	23.1	23.6	20.0	21.2	20.4	21.7	22.2
6H	22.6	23.7	23.0	24.2	24.7	20.5	21.7	21.0	22.2	22.7
8H	23.3	24.4	23.8	24.9	25.4	20.7	21.9	21.2	22.4	22.9
12H	24.1	25.2	24.6	25.7	26.2	20.9	22.0	21.4	22.5	23.0
4H 2H	18.8	20.1	19.3	20.5	21.0	18.3	19.6	18.8	20.0	20.5
3H	21.1	22.2	21.6	22.7	23.2	20.2	21.4	20.7	21.8	22.4
4H	22.4	23.4	22.9	23.9	24.5	21.2	22.2	21.7	22.7	23.2
6H	23.8	24.7	24.3	25.2	25.8	21.9	22.8	22.5	23.3	23.9
8H	24.6	25.4	25.1	26.0	26.6	22.2	23.0	22.8	23.6	24.2
12H	25.5	26.3	26.1	26.9	27.5	22.4	23.2	23.0	23.8	24.4
8H 4H	22.7	23.6	23.3	24.1	24.8	21.7	22.6	22.3	23.1	23.7
6H	24.4	25.1	25.0	25.7	26.3	22.7	23.5	23.3	24.0	24.7
8H	25.4	26.0	26.0	26.6	27.3	23.2	23.8	23.8	24.4	25.1
12H	26.6	27.1	27.2	27.8	28.5	23.6	24.1	24.2	24.8	25.5
12H 4H	22.8	23.6	23.4	24.1	24.8	21.9	22.6	22.4	23.2	23.8
6H	24.5	25.2	25.1	25.8	26.4	23.0	23.6	23.6	24.2	24.9
8H	25.6	26.2	26.3	26.8	27.5	23.6	24.1	24.2	24.8	25.4
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 / - 0.4				

CIE Pub.117 Corrected 4164 lm Total Lamp Luminous Flux. (8log(F/F0) = 5.0)

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-5000K					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) x RCR = 5									
k = 0.60	52	39	32	51	39	32	49	38	32	25
0.80	61	49	41	60	48	41	57	47	40	32
1.00	69	57	49	68	56	49	64	57	48	39
1.25	76	64	56	74	63	56	70	61	54	46
1.50	81	70	62	79	69	61	75	66	60	50
2.00	88	78	71	86	77	70	81	73	67	57
2.50	93	84	76	90	82	75	85	78	72	61
3.00	96	88	81	93	86	80	88	82	76	65
4.00	101	94	88	97	91	86	91	86	82	70
5.00	104	97	92	100	95	90	94	89	86	73
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004										
Suspended										
SHRNOM = 1.25										

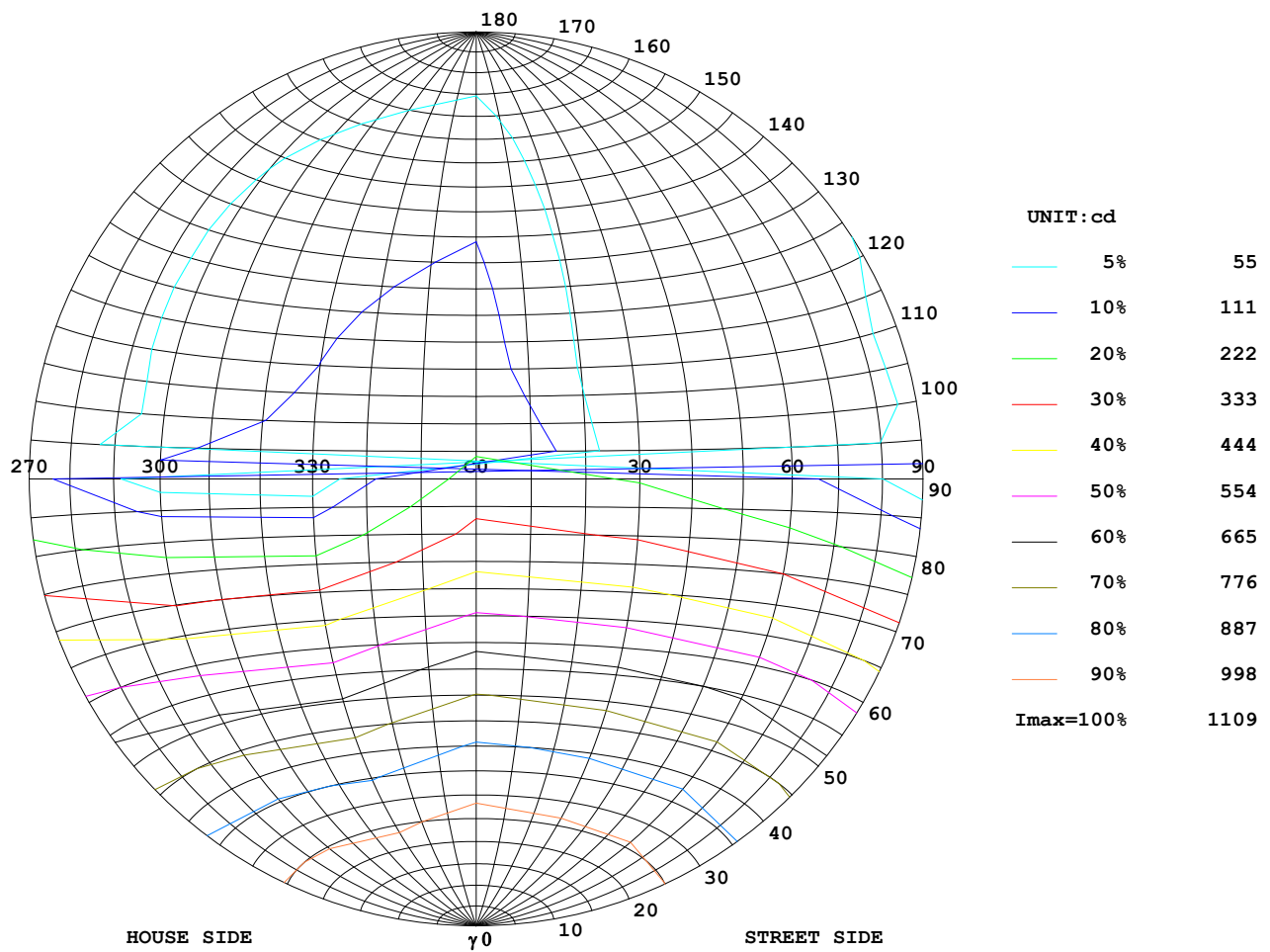
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年12月1日

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-5000K	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:

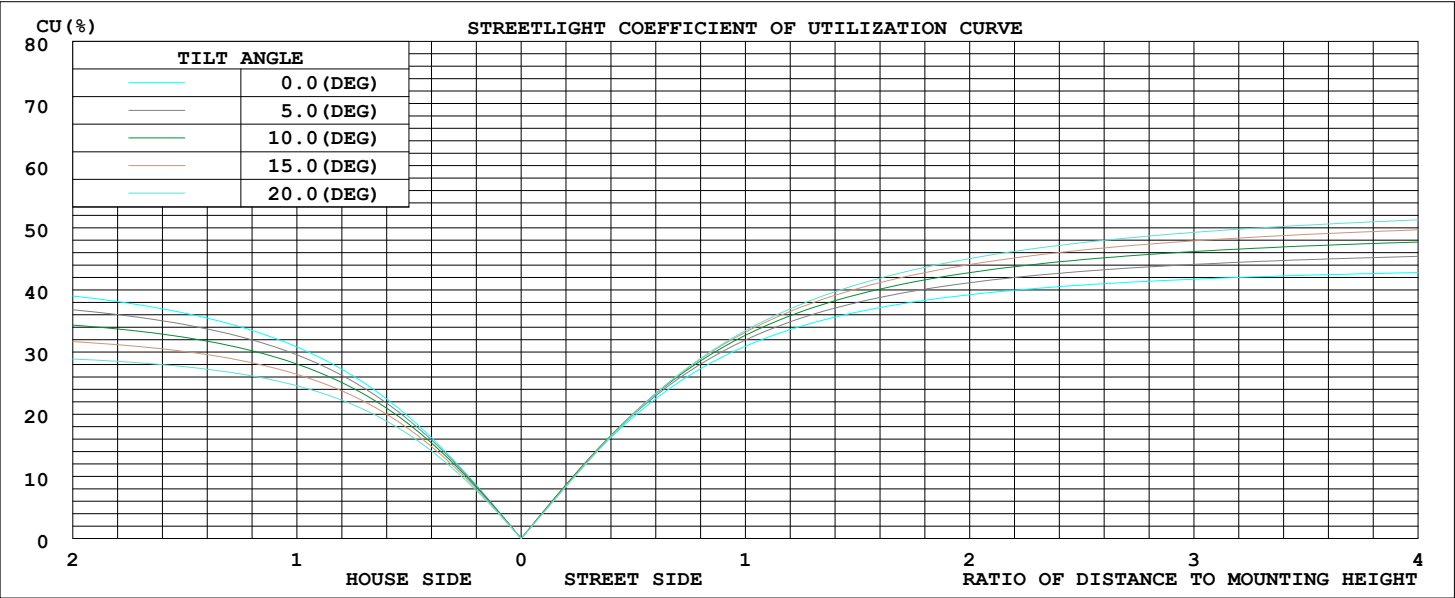
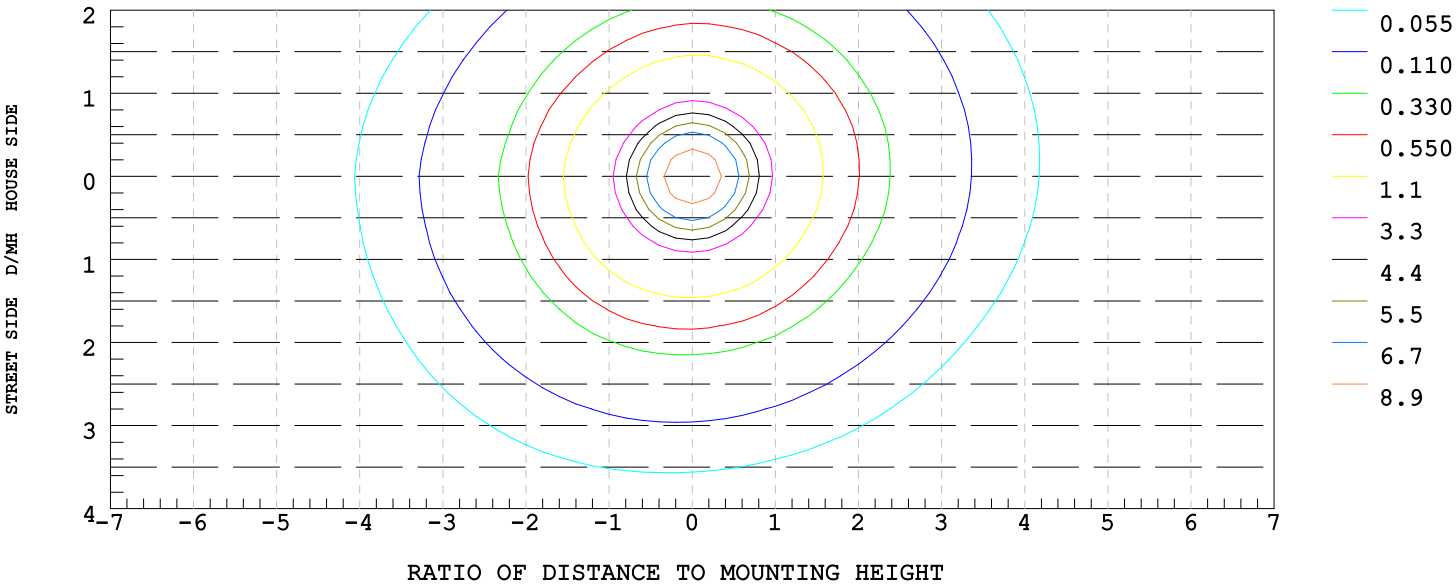
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 1.2M-35W-5000K	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1200*152*52mm	SERIAL No.:

ILLUMINANCE AT MH=10 m,Enadir = 11.09 lx



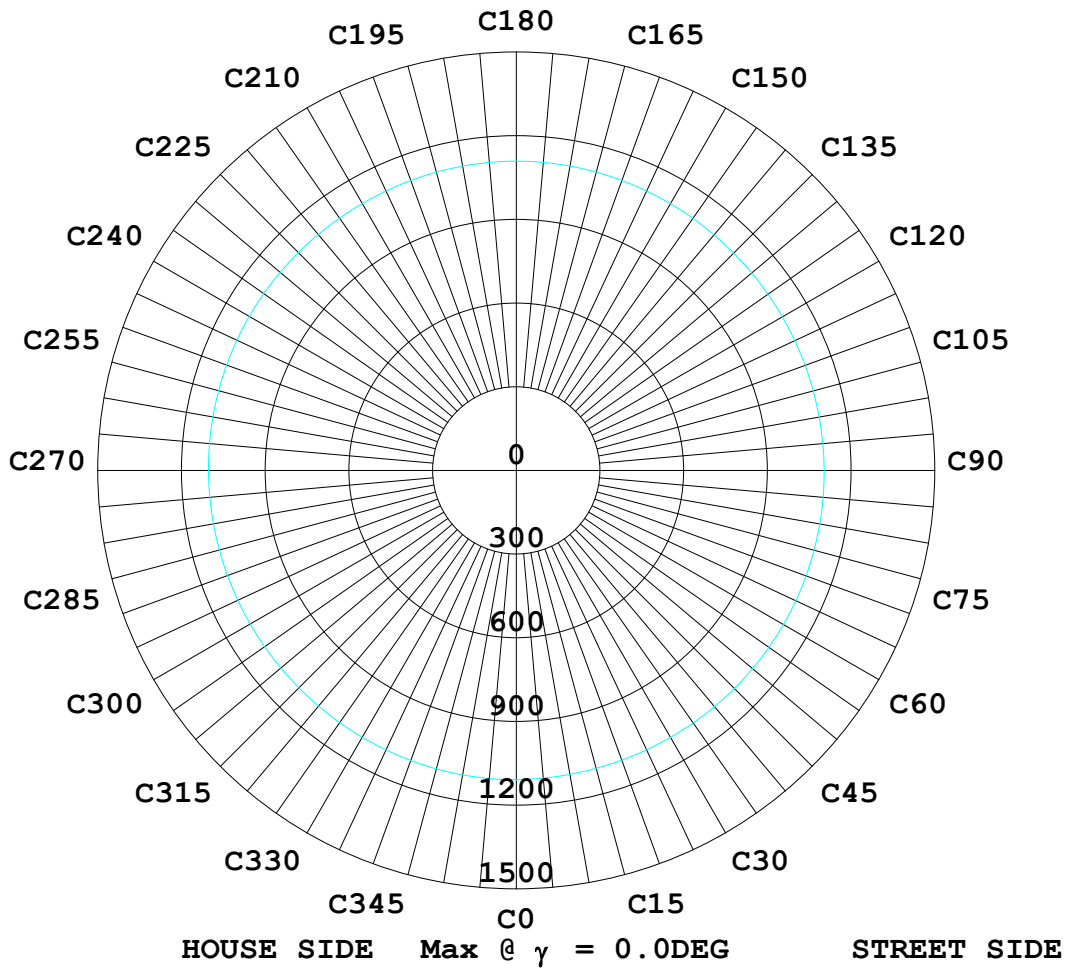
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年12月1日

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-5000K	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: