

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

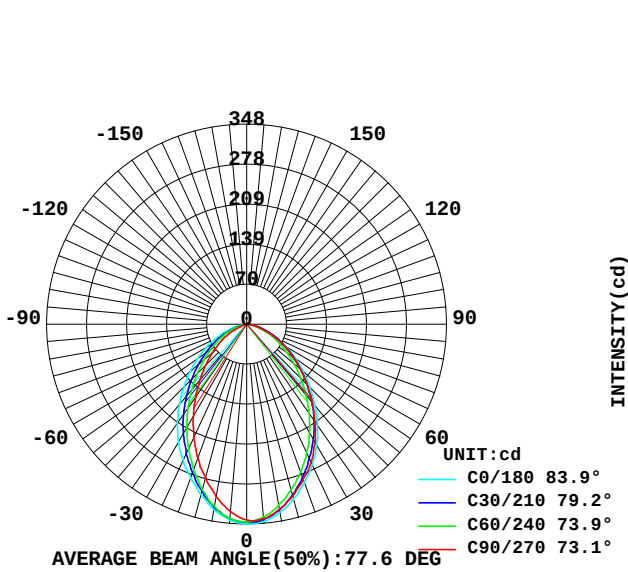
STREETLIGHT PHOTOMETRIC TEST REPORT

Report number:

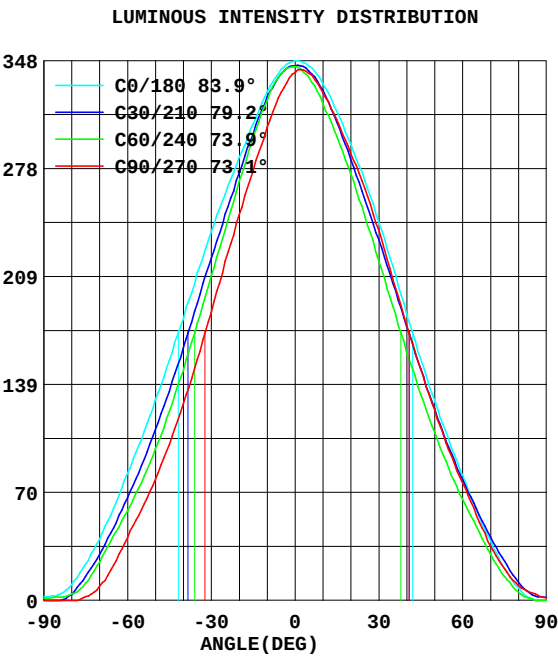
MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

MODEL:		Imax(cd):	348.0	Effictive Flux(lm):	574.3
NOMINAL POWER(W):	12	MAXIMUM(C, γ):	180, 1.0	EEI	0.258
RATED VOLTAGE(V):	120	EFFICIENCY(%):	100.0	Voltage(V)	120.4
NOMINAL FLUX(lm):	601.5	η street_up(%):	0.3	Current(A)	0.107
TEST FLUX(lm):	601.4	η street_down(%):	46.9	Power(W)	12.72
LAMPS QUANTITY:	1	η house_up(%):	0.3	Power Factor	0.983
TOTAL RADIANT(mw):	601.4	η house_down(%):	52.5	EEFICIENCY(lm/W)	47.3

INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

Color Temperature Data List

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

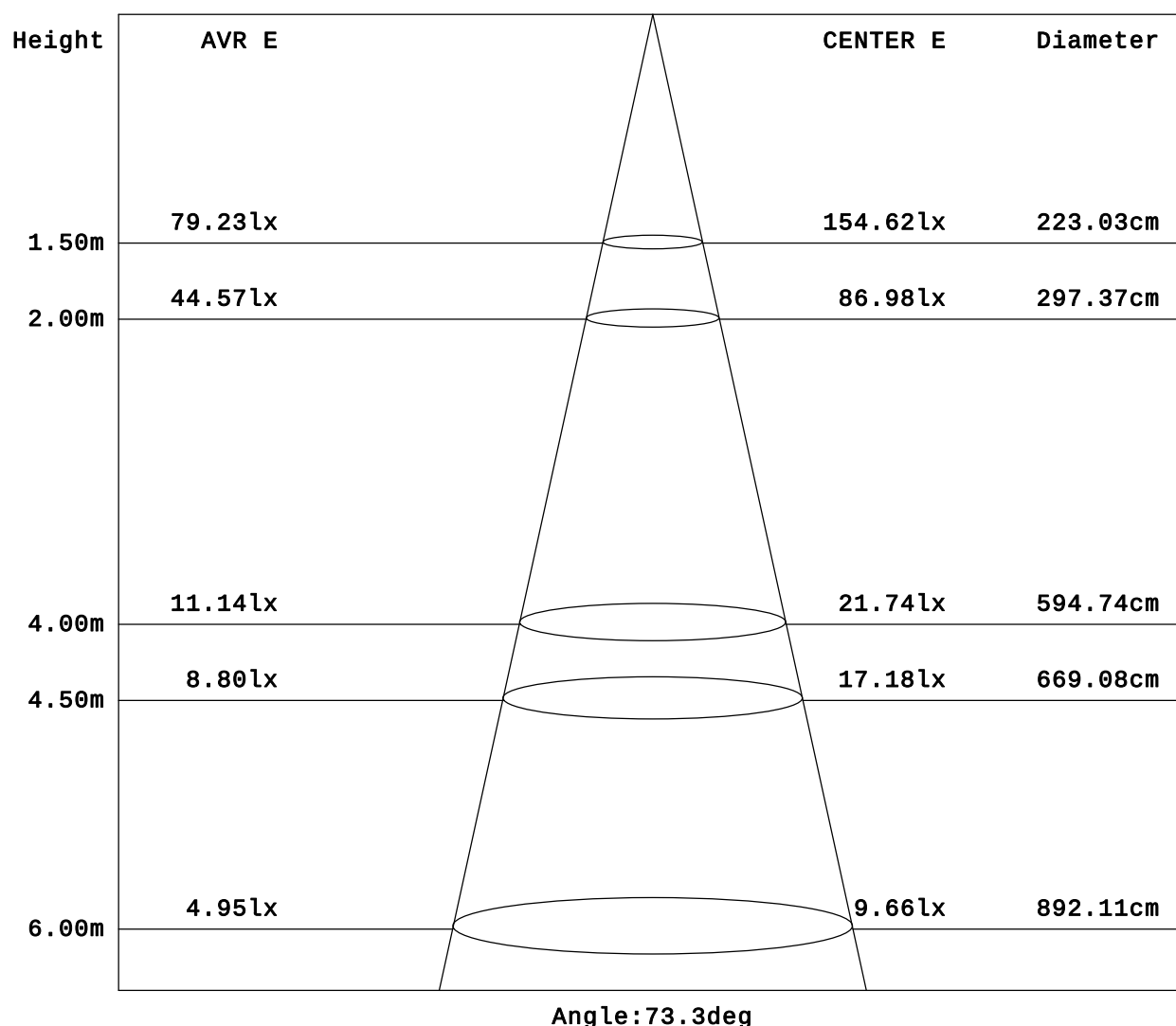
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	342.3	339.7	327.5	332.7	344.3	338.4	339.7	334.9	0- 5	8.119	8.119
10.0	327.3	324.2	304.8	315.2	332.8	323.2	327.0	320.3	5- 10	23.54	31.66
15.0	307.2	300.3	277.0	290.7	315.1	302.1	309.8	299.4	10- 15	36.78	68.44
20.0	285.5	272.2	248.6	263.0	294.1	276.9	287.7	274.0	15- 20	47.23	115.6
25.0	261.6	242.8	218.6	233.5	270.1	250.4	265.3	248.0	20- 25	54.73	170.4
30.0	237.5	213.5	185.5	203.6	243.6	223.3	238.8	221.5	25- 30	59.15	229.5
35.0	211.1	184.8	155.3	175.1	215.5	195.0	206.8	193.4	30- 35	60.43	290.0
40.0	181.6	155.8	127.1	147.1	184.3	167.2	177.6	164.6	35- 40	58.74	348.7
45.0	154.7	128.0	100.3	120.6	155.5	140.0	149.1	137.2	40- 45	54.76	403.5
50.0	129.3	103.3	77.80	96.84	128.6	114.5	122.8	112.1	45- 50	49.15	452.6
55.0	103.7	80.94	58.60	75.44	104.2	90.85	97.19	89.55	50- 55	42.47	495.1
60.0	81.90	61.14	40.20	56.50	80.50	70.30	75.70	69.09	55- 60	35.25	530.4
65.0	59.50	45.00	22.90	40.59	57.90	52.90	54.90	52.55	60- 65	27.68	558.1
70.0	39.39	28.65	9.200	23.85	38.40	36.50	34.90	36.34	65- 70	19.58	577.6
75.0	23.29	13.80	2.400	9.550	20.60	19.79	20.40	20.40	70- 75	11.90	589.5
80.0	10.20	3.850	0	2.300	8.400	8.400	9.700	8.700	75- 80	5.738	595.3
85.0	3.400	1.100	0	1.000	1.200	2.000	4.700	2.150	80- 85	1.912	597.2
90.0	2.300	0.750	0	0.950	0.100	0.850	1.700	0.950	85- 90	0.615	597.8
95.0	1.800	0.600	0	0.550	0	0.700	1.800	0.700	90- 95	0.419	598.2
100.0	1.600	0.550	0	0.550	0.300	0.600	0.900	0.500	95-100	0.343	598.6
105.0	2.000	0.550	0	0.600	0	0.850	1.400	0.650	100-105	0.300	598.9
110.0	1.500	0.450	0	0.450	0.100	0.300	1.200	0.600	105-110	0.275	599.1
115.0	1.400	0.650	0	0.550	0.300	0.650	0.900	0.400	110-115	0.249	599.4
120.0	1.600	0.450	0	0.500	0.400	0.450	0.600	0.400	115-120	0.238	599.6
125.0	1.700	0.350	0	0.250	0.800	0.400	1.100	0.400	120-125	0.224	599.9
130.0	1.500	0.550	0	0.350	0.600	0.400	0.700	0.350	125-130	0.212	600.1
135.0	1.600	0.400	0	0.400	0.900	0.500	0.700	0.450	130-135	0.203	600.3
140.0	1.700	0.500	0	0.300	0.900	0.550	0.600	0.650	135-140	0.183	600.5
145.0	1.400	0.850	0.100	0.350	1.100	0.650	0.900	0.550	140-145	0.188	600.6
150.0	1.300	0.600	0.100	0.400	1.300	0.800	0.700	0.600	145-150	0.177	600.8
155.0	1.700	0.500	0.200	0.600	1.100	0.700	1.000	0.500	150-155	0.158	601.0
160.0	1.500	0.550	0.400	0.450	1.400	0.700	1.100	0.550	155-160	0.153	601.1
165.0	1.500	0.700	0.300	0.650	1.200	0.850	0.800	0.900	160-165	0.121	601.3
170.0	1.700	0.750	0.200	0.650	1.400	0.850	1.100	0.850	165-170	0.094	601.4
175.0	1.500	0.750	1.000	0.650	1.500	0.850	1.300	0.650	170-175	0.058	601.4
180.0	0.800	0.750	0.700	0.650	1.500	1.000	0.900	0.950	175-180	0.020	601.4
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

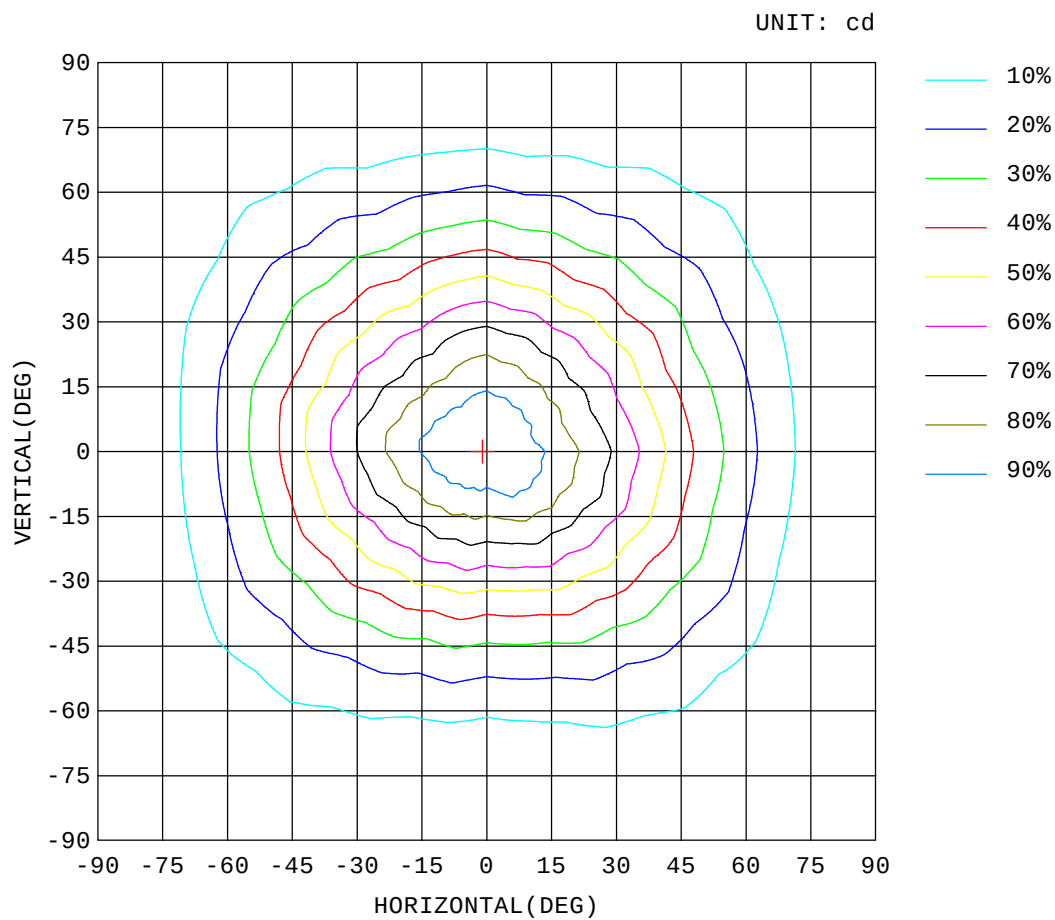
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOP00 HPG1600
Temperature:25.3DEG
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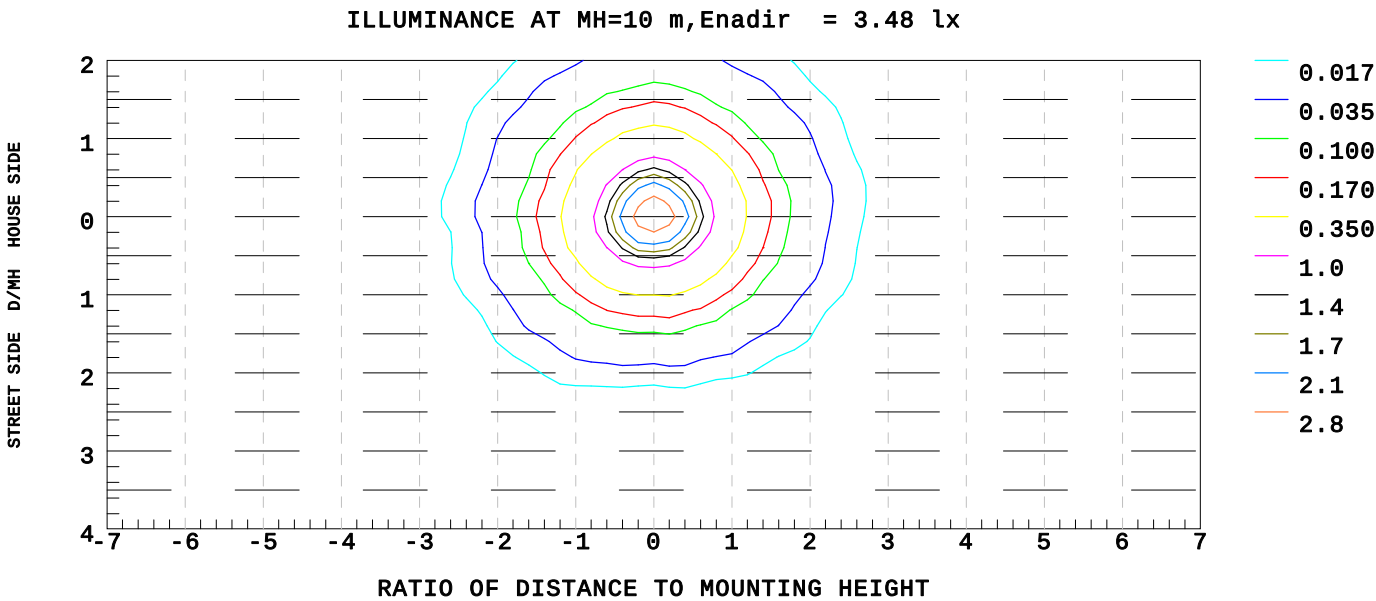
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



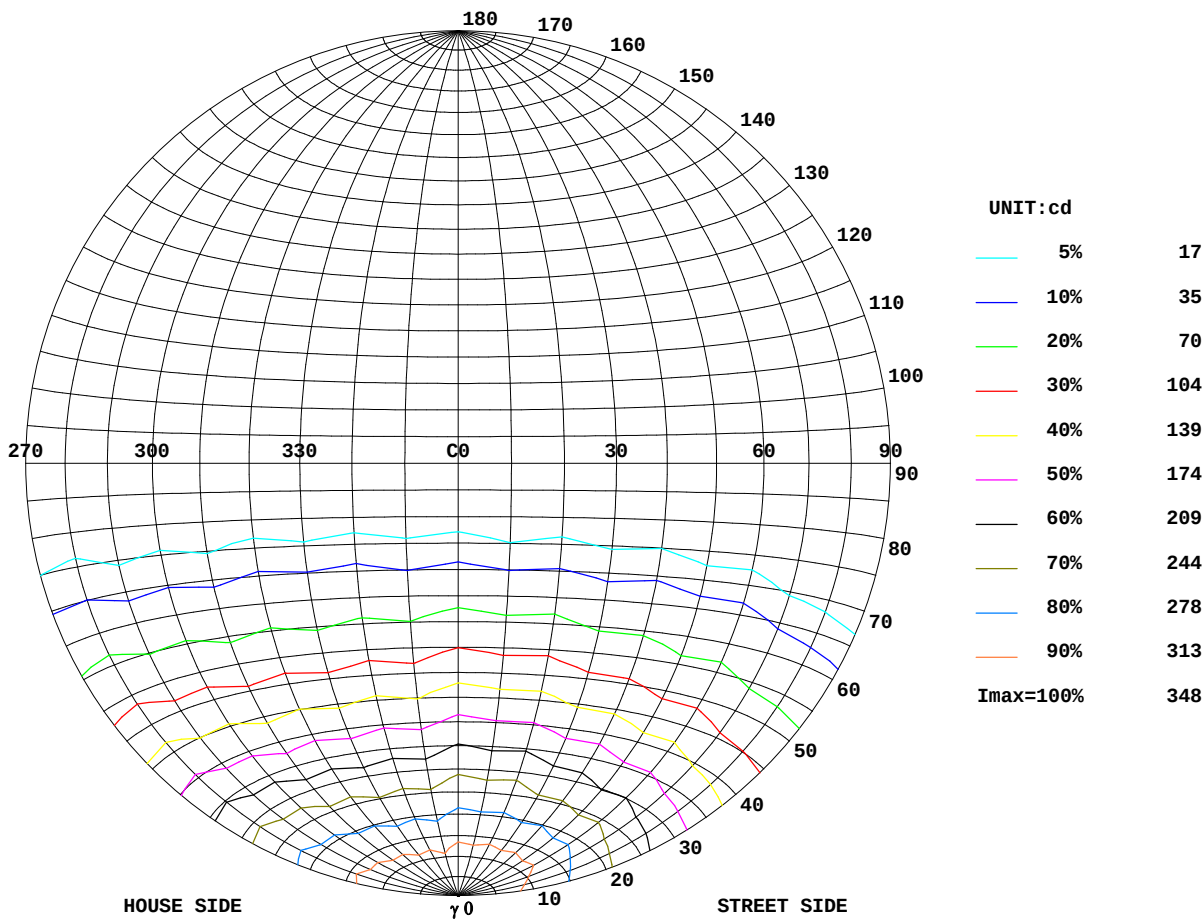
Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

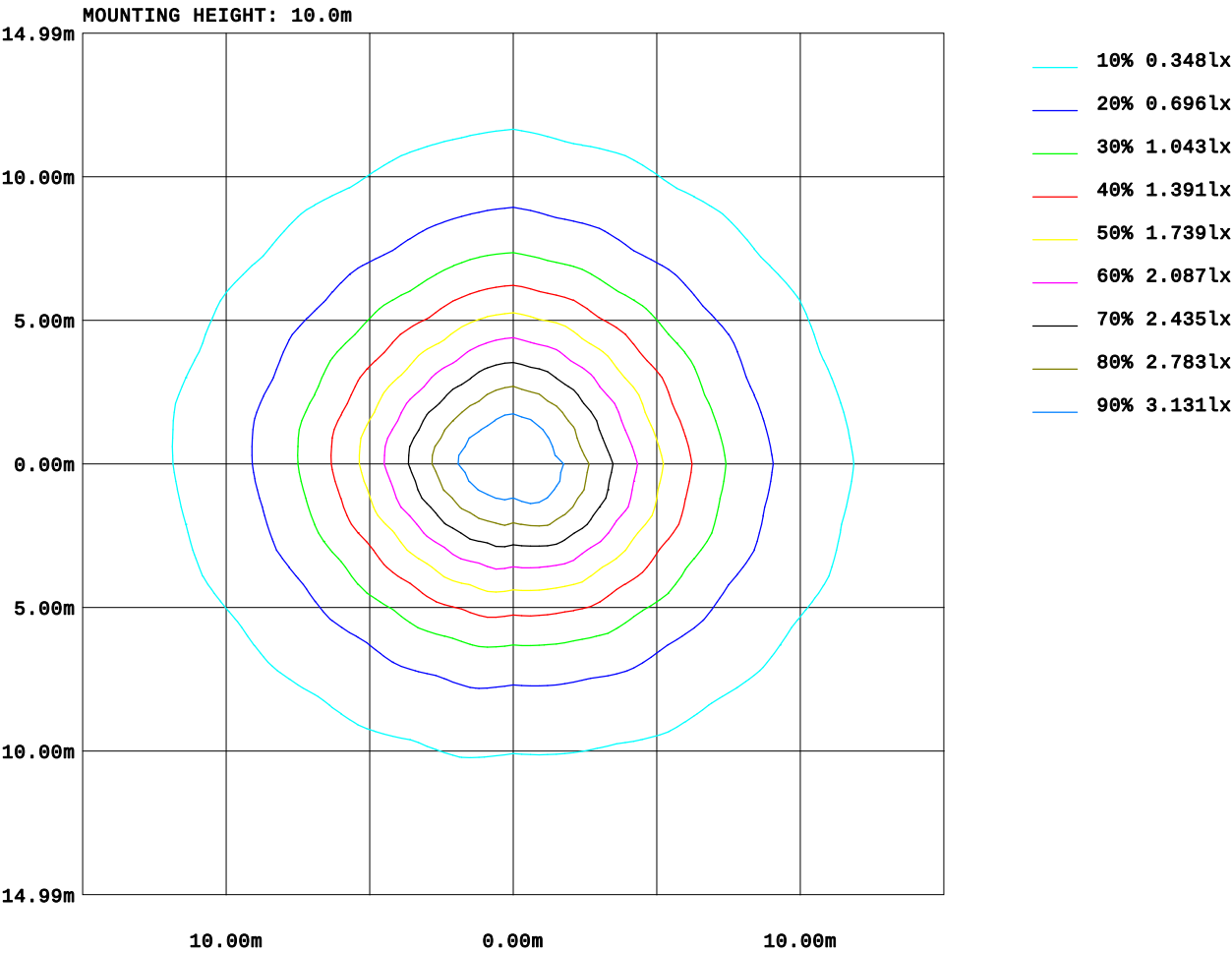
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HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
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NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



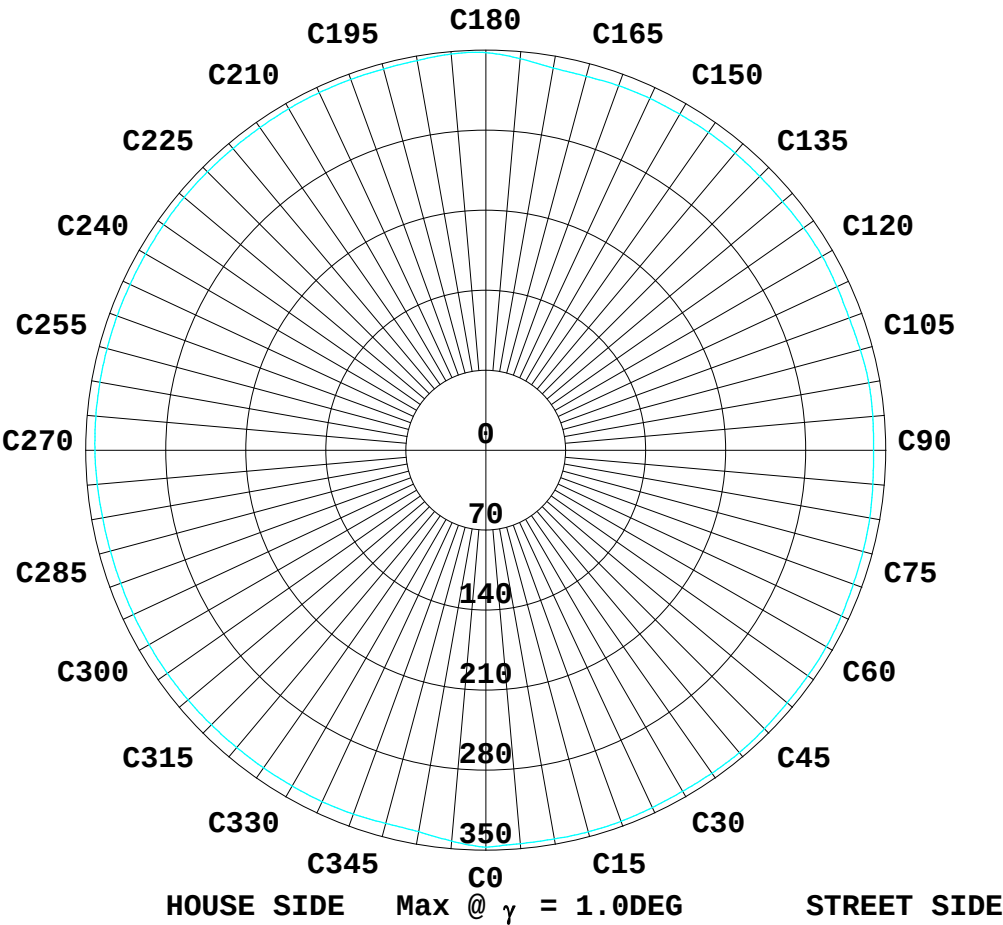
Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AREA LUMINOUS FLUX

Report number:

MANUFACTURER:																				
Address:																				
NAME: 52520SV										TYPE:					WEIGHT:					
SPECIFICATION:										DIMENSION:					SERIAL No.:					

VERTICAL (DEG)	90	AREA FLUX DIAGRAM																UNIT:lm			Φ t	Φ a
	0.00	0.01	0.02	0.02	0.03	0.05	0.06	0.09	0.11	0.10	0.09	0.08	0.06	0.04	0.02	0.01	0.01	0.01	0.82	0.00		
	80	0.00	0.01	0.05	0.13	0.20	0.31	0.39	0.52	0.59	0.55	0.50	0.41	0.33	0.21	0.12	0.04	0.01	0.01	4.38	0.00	
	70	0.00	0.03	0.14	0.36	0.59	0.90	1.10	1.41	1.60	1.54	1.39	1.12	0.91	0.59	0.35	0.12	0.03	0.01	12.2	8.66	
	60	0.01	0.07	0.25	0.65	1.06	1.58	1.99	2.52	2.86	2.79	2.50	2.00	1.58	1.04	0.63	0.24	0.06	0.01	21.8	20.7	
	50	0.01	0.11	0.39	0.94	1.57	2.31	3.04	3.80	4.38	4.28	3.79	3.02	2.27	1.52	0.89	0.35	0.09	0.01	32.8	32.0	
	40	0.01	0.14	0.53	1.20	2.14	3.14	4.26	5.22	6.11	6.01	5.23	4.22	3.05	2.05	1.12	0.48	0.13	0.01	45.1	44.5	
	30	0.01	0.17	0.67	1.48	2.61	4.05	5.42	6.69	7.78	7.73	6.71	5.34	3.91	2.47	1.36	0.60	0.16	0.01	57.2	56.8	
		0.01	0.18	0.75	1.75	3.08	4.74	6.50	7.96	9.08	9.06	7.87	6.28	4.49	2.87	1.61	0.70	0.18	0.01	67.1	66.8	
		0.01	0.18	0.77	1.83	3.36	5.32	7.29	8.98	10.0	9.93	8.63	6.91	5.03	3.23	1.78	0.77	0.20	0.01	74.3	74.0	
		0.01	0.18	0.75	1.77	3.24	5.13	7.09	8.79	9.81	9.97	8.80	7.05	5.09	3.24	1.78	0.76	0.19	0.01	73.7	73.3	
		0.01	0.16	0.68	1.60	2.91	4.52	6.10	7.53	8.39	8.54	7.79	6.32	4.66	2.98	1.61	0.68	0.17	0.01	64.7	64.3	
		0.01	0.14	0.59	1.40	2.43	3.62	4.92	6.00	6.65	6.66	6.25	5.18	3.80	2.54	1.43	0.58	0.14	0.01	52.4	51.9	
	-30	0.00	0.11	0.48	1.11	1.84	2.78	3.62	4.38	4.81	4.76	4.56	3.84	2.96	1.94	1.15	0.48	0.10	0.01	39.0	38.4	
	-40	0.00	0.07	0.36	0.78	1.33	1.91	2.49	2.90	3.18	3.11	2.99	2.66	2.06	1.43	0.81	0.36	0.07	0.01	26.5	25.7	
	-50	0.00	0.04	0.22	0.47	0.87	1.17	1.54	1.72	1.88	1.83	1.78	1.67	1.29	0.95	0.50	0.23	0.04	0.00	16.2	14.6	
	-60	0.00	0.02	0.10	0.20	0.39	0.52	0.68	0.73	0.78	0.77	0.81	0.83	0.66	0.48	0.24	0.11	0.02	0.00	7.34	1.83	
	-70	0.00	0.01	0.02	0.04	0.08	0.09	0.13	0.13	0.13	0.13	0.15	0.19	0.15	0.12	0.06	0.03	0.01	0.00	1.47	0.00	
	-80	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.31	0.00	
	-90																					
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)				20	30	40	50	60	70	80	90		
Φ t	0.08	1.63	6.77	15.7	27.8	42.2	56.6	69.4	78.2	77.8	69.9	57.2	42.3	27.7	15.5	6.55	1.60	0.14	601			
Φ a	0.00	0.10	5.08	14.3	26.4	40.8	55.3	68.0	76.9	76.4	68.4	55.8	41.0	26.3	14.0	4.77	0.09	0.00		574		

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

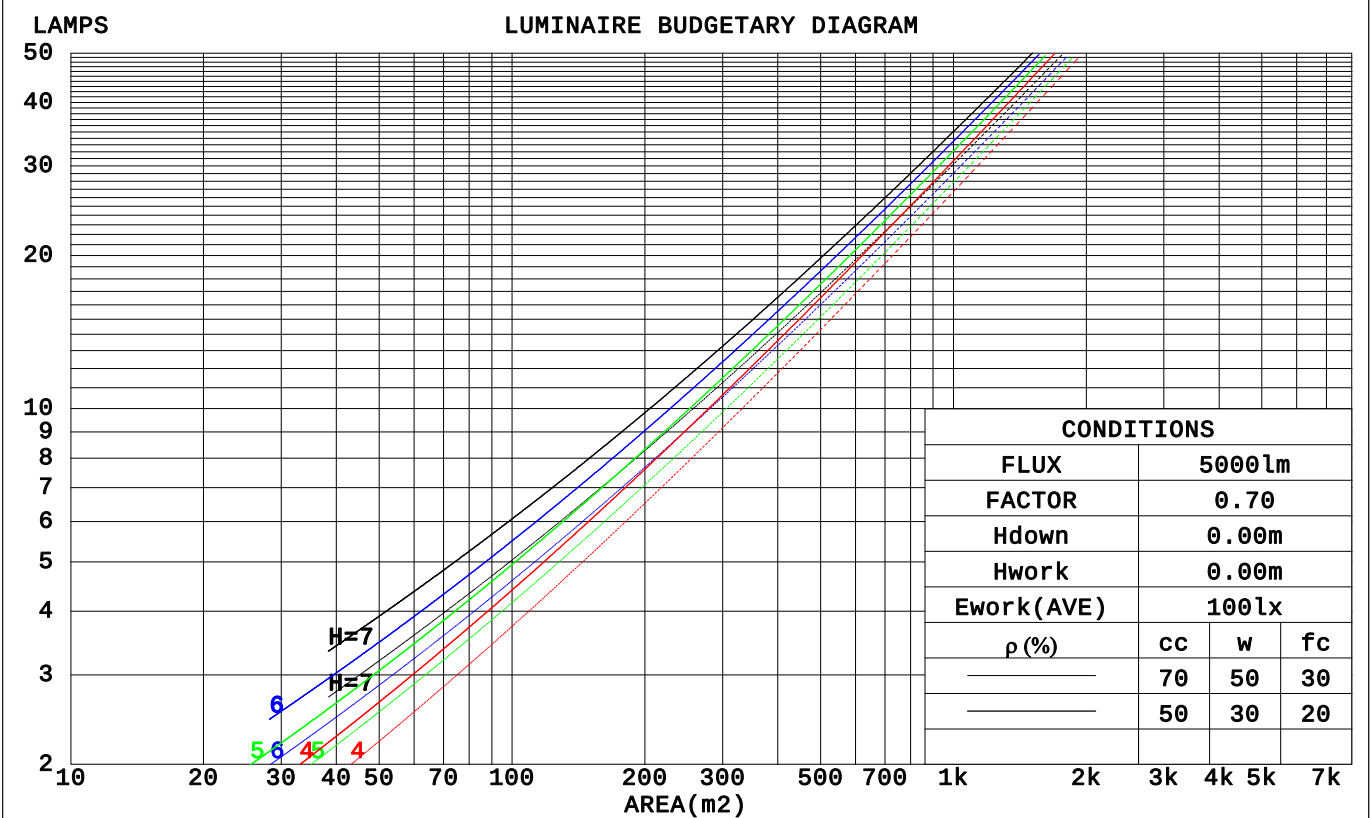
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 52520SV								TYPE:				WEIGHT:			
SPECIFICATION:								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 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	1.01	1.01	1.01	.99
1.0	1.07	1.03	1.00	1.04	1.01	.98	1.00	.98	.95	.96	.94	.92	.93	.91	.89	.87
2.0	.95	.89	.85	.93	.88	.84	.90	.85	.82	.87	.83	.80	.84	.80	.78	.76
3.0	.85	.78	.73	.84	.77	.72	.81	.75	.71	.78	.73	.69	.75	.72	.68	.66
4.0	.77	.69	.63	.75	.68	.63	.73	.67	.62	.71	.65	.61	.69	.64	.60	.58
5.0	.70	.62	.56	.68	.61	.55	.66	.60	.55	.64	.59	.54	.63	.58	.53	.52
6.0	.63	.55	.50	.62	.55	.49	.61	.54	.49	.59	.53	.48	.57	.52	.48	.46
7.0	.58	.50	.44	.57	.50	.44	.56	.49	.44	.54	.48	.44	.53	.47	.43	.41
8.0	.53	.46	.40	.53	.45	.40	.51	.45	.40	.50	.44	.40	.49	.44	.39	.38
9.0	.49	.42	.37	.49	.42	.37	.48	.41	.36	.47	.41	.36	.46	.40	.36	.34
10.0	.46	.39	.34	.45	.38	.34	.44	.38	.33	.43	.38	.33	.43	.37	.33	.32



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

MANUFACTURER:														
Address:														
NAME: 52520SV								TYPE:			WEIGHT:			
SPECIFICATION:								DIMENSION:			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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.253	.144	.046	.246	.140	.045	.232	.133	.043	.220	.127	.041	.209	.121	.039	
2.0	.245	.134	.041	.239	.131	.041	.227	.126	.039	.216	.121	.038	.207	.117	.037	
3.0	.231	.123	.037	.226	.121	.036	.216	.117	.036	.206	.113	.035	.198	.109	.034	
4.0	.217	.113	.033	.212	.111	.033	.203	.108	.032	.195	.105	.032	.187	.102	.031	
5.0	.204	.104	.030	.199	.102	.030	.191	.100	.029	.184	.097	.029	.177	.095	.028	
6.0	.191	.096	.027	.187	.095	.027	.180	.092	.027	.174	.090	.027	.167	.088	.026	
7.0	.180	.089	.025	.176	.088	.025	.170	.086	.025	.164	.084	.024	.158	.082	.024	
8.0	.169	.083	.023	.166	.082	.023	.160	.080	.023	.155	.079	.023	.150	.077	.022	
9.0	.160	.077	.022	.157	.076	.021	.152	.075	.021	.147	.074	.021	.142	.072	.021	
10.0	.151	.072	.020	.148	.072	.020	.144	.070	.020	.139	.069	.020	.135	.068	.020	

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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.195	.195	.195	.167	.167	.167	.114	.114	.114	.065	.065	.065	.021	.021	.021	
1.0	.181	.161	.143	.155	.138	.123	.106	.095	.085	.061	.055	.050	.020	.018	.016	
2.0	.171	.137	.108	.146	.118	.094	.100	.081	.065	.058	.047	.038	.019	.015	.012	
3.0	.162	.119	.084	.139	.102	.073	.095	.071	.051	.055	.042	.030	.018	.013	.010	
4.0	.154	.105	.068	.132	.091	.059	.091	.063	.041	.052	.037	.025	.017	.012	.008	
5.0	.146	.094	.056	.126	.082	.049	.087	.057	.034	.050	.033	.020	.016	.011	.007	
6.0	.139	.086	.047	.120	.074	.041	.083	.052	.029	.048	.031	.017	.015	.010	.006	
7.0	.133	.079	.041	.114	.068	.035	.079	.048	.025	.046	.028	.015	.015	.009	.005	
8.0	.127	.073	.036	.109	.063	.031	.076	.044	.022	.044	.026	.013	.014	.009	.004	
9.0	.121	.068	.032	.104	.059	.028	.072	.041	.020	.042	.024	.012	.014	.008	.004	
10.0	.116	.063	.029	.100	.055	.025	.069	.039	.018	.040	.023	.011	.013	.008	.004	

Test System:HOP00 HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Report number:

MANUFACTURER:										
Address:										
NAME: 52520SV						TYPE:			WEIGHT:	
SPECIFICATION:						DIMENSION:			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	14.3	15.6	14.5	15.8	16.0	12.1	13.4	12.3	13.6	13.8
3H	15.2	16.4	15.5	16.6	16.9	12.3	13.5	12.6	13.7	14.0
4H	15.4	16.5	15.7	16.8	17.0	12.2	13.4	12.5	13.6	13.9
6H	15.4	16.5	15.8	16.8	17.1	12.1	13.2	12.4	13.5	13.8
8H	15.4	16.4	15.7	16.7	17.0	12.1	13.1	12.4	13.4	13.7
12H	15.4	16.4	15.7	16.7	17.0	12.0	13.0	12.4	13.3	13.6
4H 2H	14.5	15.6	14.8	15.9	16.1	12.6	13.8	13.0	14.1	14.3
3H	15.5	16.5	15.8	16.8	17.1	13.0	14.0	13.4	14.3	14.6
4H	15.8	16.7	16.2	17.0	17.4	13.0	13.9	13.4	14.2	14.6
6H	15.9	16.7	16.3	17.1	17.4	12.9	13.7	13.3	14.1	14.4
8H	15.9	16.6	16.3	17.0	17.4	12.9	13.6	13.3	14.0	14.4
12H	15.8	16.5	16.3	16.9	17.3	12.8	13.5	13.3	13.9	14.3
8H 4H	15.7	16.5	16.2	16.9	17.3	13.1	13.8	13.5	14.2	14.6
6H	15.9	16.5	16.3	16.9	17.3	13.0	13.7	13.5	14.1	14.5
8H	15.9	16.4	16.3	16.8	17.3	13.0	13.5	13.5	14.0	14.4
12H	15.9	16.3	16.3	16.8	17.3	13.0	13.4	13.5	13.9	14.4
12H 4H	15.7	16.4	16.1	16.8	17.2	13.1	13.8	13.5	14.1	14.6
6H	15.8	16.4	16.3	16.8	17.3	13.0	13.6	13.5	14.0	14.4
8H	15.8	16.3	16.3	16.8	17.2	13.0	13.4	13.5	13.9	14.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.8 / - 1.0				
1.5H	+ 0.2 / - 0.5					+ 0.2 / - 0.5				
2.0H	+ 0.9 / - 1.3					+ 0.7 / - 1.6				

CIE Pub.117 Corrected 601.4 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.8)

Test System:HOP00 HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:										
Address:										
NAME: 52520SV					TYPE:			WEIGHT:		
SPECIFICATION:					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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	64	55	49	63	54	49	43
0.80	75	65	59	74	65	59	72	64	58	52
1.00	83	74	67	82	73	67	80	74	67	60
1.25	89	81	75	88	80	74	86	79	74	67
1.50	94	86	80	92	85	79	90	83	78	72
2.00	100	93	87	98	92	87	95	89	85	78
2.50	103	97	92	101	95	91	97	93	89	81
3.00	106	100	96	104	99	94	100	96	92	84
4.00	109	104	101	107	103	99	103	99	96	88
5.00	111	107	104	108	105	102	104	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended				SHRNOM = 1.25		

Test System:HOP00 HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:10.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

UNIT: cd

C(DEG) γ (DEG)															
	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
0.0	348	347	346	345	345	344	344	343	342	340	341	340	340	340	340
5.0	342	340	342	340	341	339	340	335	331	328	331	329	333	331	334
10.0	327	325	327	324	326	322	322	315	309	305	310	307	313	312	319
15.0	307	303	307	301	304	297	299	288	282	277	284	280	288	286	295
20.0	286	281	284	275	277	267	270	259	254	249	256	252	261	258	268
25.0	262	258	259	249	248	238	239	229	222	219	226	223	231	229	238
30.0	238	232	233	221	220	207	209	197	191	186	195	191	200	197	210
35.0	211	204	206	191	191	179	179	165	160	155	165	160	171	168	182
40.0	182	176	176	163	162	150	148	137	131	127	135	132	141	141	153
45.0	155	148	149	135	135	122	122	109	105	100	109	105	115	114	127
50.0	129	122	124	110	110	97.2	97.5	86.0	82.4	77.8	86.0	82.0	91.7	90.6	103
55.0	104	97.7	98.4	87.0	85.6	76.2	75.7	65.5	62.0	58.6	65.1	62.5	70.3	70.5	80.2
60.0	81.9	74.5	77.1	65.9	66.2	56.0	57.5	48.2	45.5	40.2	47.7	44.7	52.2	51.4	61.5
65.0	59.5	52.9	55.5	46.7	49.2	40.7	42.0	31.7	26.8	22.9	28.0	26.4	35.2	36.0	45.1
70.0	39.3	34.4	36.2	29.6	31.7	25.5	24.4	15.4	12.6	9.20	13.7	11.7	18.7	19.5	28.2
75.0	23.2	17.6	20.8	15.4	17.2	10.4	11.0	4.40	5.30	2.40	5.00	2.60	7.50	6.10	13.0
80.0	10.2	5.80	8.60	3.70	6.30	1.40	4.20	0.40	2.20	0.00	2.40	0.00	1.90	0.50	4.10
85.0	3.40	0.20	2.50	0.00	2.20	0.00	2.10	0.00	1.50	0.00	1.30	0.00	1.60	0.00	2.00
90.0	2.30	0.00	1.70	0.00	1.50	0.00	1.20	0.00	1.40	0.00	1.40	0.00	1.40	0.00	1.90
95.0	1.80	0.00	1.40	0.00	1.20	0.00	1.20	0.00	1.20	0.00	1.10	0.00	1.00	0.00	1.10
100.0	1.60	0.00	1.10	0.00	1.10	0.00	1.40	0.00	0.70	0.00	1.10	0.00	1.20	0.00	1.10
105.0	2.00	0.00	1.10	0.00	1.10	0.00	0.70	0.00	0.70	0.00	0.80	0.00	0.70	0.00	1.20
110.0	1.50	0.00	1.10	0.00	0.90	0.00	1.00	0.00	0.90	0.00	0.70	0.00	0.40	0.00	0.90
115.0	1.40	0.00	0.80	0.00	1.30	0.00	1.30	0.00	0.90	0.00	0.50	0.00	1.00	0.00	1.10
120.0	1.60	0.00	0.90	0.00	0.90	0.00	0.80	0.00	1.30	0.00	0.70	0.00	0.70	0.00	1.00
125.0	1.70	0.00	1.00	0.00	0.70	0.00	0.60	0.00	1.10	0.00	0.70	0.00	0.40	0.00	0.50
130.0	1.50	0.00	1.20	0.10	1.10	0.00	0.80	0.00	0.90	0.00	0.80	0.00	1.00	0.00	0.70
135.0	1.60	0.40	1.10	0.10	0.80	0.00	0.70	0.00	1.40	0.00	1.00	0.00	0.60	0.00	0.80
140.0	1.70	0.00	1.00	0.10	0.80	0.20	0.60	0.00	1.00	0.00	1.30	0.20	1.10	0.00	0.60
145.0	1.40	0.20	1.00	0.50	1.30	0.40	1.10	0.30	1.00	0.10	1.20	0.50	0.80	0.00	0.70
150.0	1.30	0.90	1.00	0.10	0.90	0.30	1.10	0.00	1.10	0.10	0.40	0.10	0.80	0.10	0.70
155.0	1.70	0.30	1.20	0.60	0.90	0.10	1.00	0.00	0.60	0.20	0.70	0.00	0.70	0.00	1.20
160.0	1.50	0.90	1.10	0.40	0.90	0.20	0.90	0.40	1.20	0.40	0.90	0.30	1.10	0.30	0.60
165.0	1.50	0.00	1.00	0.60	0.90	0.50	1.20	0.60	0.80	0.30	0.90	0.20	1.20	0.70	0.60
170.0	1.70	0.70	0.70	0.60	1.00	0.50	1.10	0.50	1.20	0.20	1.00	0.00	1.00	0.50	0.80
175.0	1.50	1.00	0.70	0.10	1.30	0.20	1.00	0.50	1.10	1.00	1.00	0.50	1.00	0.50	0.80
180.0	0.80	0.70	0.80	0.80	1.30	0.20	1.00	0.70	1.10	0.70	0.70	0.70	1.60	0.30	1.00

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

UNIT: cd

C(DEG) γ (DEG)															
	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
0.0	340	340	339	348	347	346	345	345	344	344	343	342	340	341	340
5.0	334	337	337	344	344	342	341	339	338	337	339	340	340	338	338
10.0	319	325	326	333	334	328	329	323	324	320	325	326	327	324	325
15.0	296	305	306	315	316	308	308	301	303	299	305	308	310	304	306
20.0	269	281	284	294	294	285	284	276	278	275	282	287	288	283	283
25.0	240	255	260	270	271	259	258	249	252	247	257	262	265	257	258
30.0	211	228	233	244	246	233	233	222	225	219	229	234	239	229	230
35.0	184	200	204	216	216	205	204	194	196	190	198	204	207	198	198
40.0	156	170	175	184	187	174	177	166	169	160	168	173	178	167	169
45.0	129	143	146	156	159	147	149	139	141	133	141	144	149	139	141
50.0	104	118	120	129	132	121	123	113	116	108	116	118	123	113	116
55.0	82.4	94.3	97.0	104	107	97.5	99.0	90.1	91.5	85.5	91.0	94.0	97.1	89.5	92.0
60.0	62.4	74.1	74.8	80.5	84.8	75.5	78.0	68.5	72.0	65.2	70.5	71.1	75.7	68.9	71.6
65.0	44.5	53.8	54.0	57.9	62.6	55.6	59.1	51.5	54.2	47.6	52.0	51.7	54.9	48.0	52.8
70.0	28.2	35.7	35.0	38.4	41.8	37.0	40.9	35.7	37.2	30.0	32.5	33.0	34.9	30.3	33.2
75.0	12.7	20.2	18.6	20.6	25.2	20.8	25.2	18.6	21.0	15.2	18.7	17.2	20.4	15.2	19.5
80.0	2.80	8.10	6.50	8.40	11.7	8.60	11.8	7.30	9.50	5.20	9.00	7.30	9.70	5.90	9.30
85.0	0.00	2.60	0.00	1.20	3.80	0.50	3.50	0.60	3.40	0.80	3.30	2.50	4.70	2.00	4.20
90.0	0.00	1.90	0.00	0.10	1.80	0.00	1.90	0.00	1.70	0.00	1.60	0.00	1.70	0.00	1.90
95.0	0.00	1.40	0.00	0.00	1.70	0.00	1.50	0.00	1.40	0.00	0.70	0.00	1.80	0.00	1.80
100.0	0.00	0.90	0.00	0.30	1.30	0.00	1.10	0.00	1.20	0.00	1.20	0.00	0.90	0.00	1.00
105.0	0.00	0.90	0.00	0.00	1.20	0.00	1.30	0.00	1.70	0.00	1.30	0.00	1.40	0.00	1.10
110.0	0.00	0.70	0.00	0.10	1.20	0.00	1.00	0.00	0.60	0.00	1.00	0.00	1.20	0.00	1.10
115.0	0.00	1.20	0.00	0.30	1.20	0.00	1.50	0.00	1.30	0.00	0.60	0.00	0.90	0.00	0.80
120.0	0.00	0.60	0.00	0.40	1.00	0.00	1.10	0.00	0.90	0.00	0.50	0.00	0.60	0.00	0.60
125.0	0.00	1.40	0.00	0.80	1.30	0.10	1.00	0.00	0.80	0.00	1.10	0.00	1.10	0.00	0.40
130.0	0.00	1.00	0.00	0.60	1.40	0.10	0.80	0.00	0.80	0.00	0.60	0.00	0.70	0.00	0.90
135.0	0.00	1.10	0.30	0.90	0.90	0.00	0.70	0.00	1.00	0.00	0.30	0.20	0.70	0.00	0.60
140.0	0.00	1.10	0.20	0.90	1.30	0.20	1.30	0.10	1.00	0.00	1.00	0.00	0.60	0.00	0.70
145.0	0.10	0.90	0.00	1.10	1.40	0.00	1.20	0.20	1.10	0.00	0.90	0.20	0.90	0.00	0.60
150.0	0.30	0.80	0.10	1.30	1.30	0.20	1.30	0.20	1.40	0.40	0.80	0.30	0.70	0.20	0.80
155.0	0.20	0.70	0.40	1.10	1.00	0.30	1.20	0.40	1.00	0.00	0.80	0.10	1.00	0.60	1.00
160.0	0.30	1.00	0.50	1.40	1.30	0.40	1.00	0.40	1.00	0.40	1.20	0.20	1.10	0.10	0.70
165.0	0.30	1.10	0.50	1.20	1.70	0.40	1.60	0.60	1.10	0.80	1.10	0.20	0.80	0.60	0.60
170.0	0.60	0.80	0.70	1.40	1.60	1.00	1.40	0.80	0.90	0.60	1.20	0.30	1.10	0.40	1.00
175.0	0.40	1.00	0.20	1.50	1.00	0.90	1.00	0.70	1.00	0.20	1.30	0.80	1.30	0.50	1.00
180.0	0.60	0.70	0.30	1.50	1.00	0.90	1.30	0.60	1.40	0.50	0.70	0.60	0.90	0.60	0.80

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER:		
Address:		
NAME: 52520SV	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

UNIT: cd

C(DEG) γ (DEG)	300	310	320	330	340	350
0.0	340	340	340	340	340	339
5.0	336	336	334	335	333	333
10.0	320	322	319	321	316	318
15.0	300	302	297	300	295	298
20.0	275	277	271	275	272	276
25.0	249	252	245	250	246	253
30.0	221	224	219	225	221	229
35.0	191	195	192	197	193	201
40.0	159	167	162	170	165	173
45.0	132	139	135	144	138	147
50.0	108	115	110	118	114	122
55.0	86.5	91.2	87.8	93.8	91.1	97.6
60.0	65.6	71.4	66.7	74.0	70.0	76.2
65.0	49.0	54.7	50.3	56.5	51.2	55.9
70.0	30.7	37.2	35.5	39.2	34.2	37.5
75.0	16.3	21.9	18.9	23.7	19.5	22.2
80.0	6.10	10.2	7.20	11.0	7.20	9.90
85.0	1.60	3.50	0.80	3.30	0.70	2.60
90.0	0.00	1.90	0.00	1.90	0.00	1.60
95.0	0.00	1.40	0.00	1.70	0.00	1.50
100.0	0.00	1.00	0.00	1.40	0.00	1.20
105.0	0.00	1.30	0.00	1.00	0.00	0.80
110.0	0.00	1.20	0.00	1.30	0.00	1.10
115.0	0.00	0.70	0.10	1.30	0.00	0.90
120.0	0.00	0.80	0.00	1.40	0.00	1.10
125.0	0.00	0.80	0.00	1.20	0.00	1.00
130.0	0.00	0.70	0.00	1.10	0.00	0.60
135.0	0.00	0.90	0.00	0.80	0.10	1.00
140.0	0.00	1.20	0.10	1.20	0.00	0.60
145.0	0.00	0.90	0.20	1.20	0.20	1.20
150.0	0.20	1.00	0.20	0.80	0.10	0.90
155.0	0.00	0.90	0.10	1.20	0.30	1.20
160.0	0.50	0.70	0.40	1.40	0.10	0.50
165.0	0.40	1.40	0.40	0.80	0.40	0.90
170.0	1.00	1.10	0.60	0.80	0.20	1.10
175.0	0.70	1.20	0.10	0.90	0.50	1.30
180.0	0.60	0.90	1.00	1.10	0.70	1.00

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:2025年08月02日

Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:10.000 m
Remarks: