

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

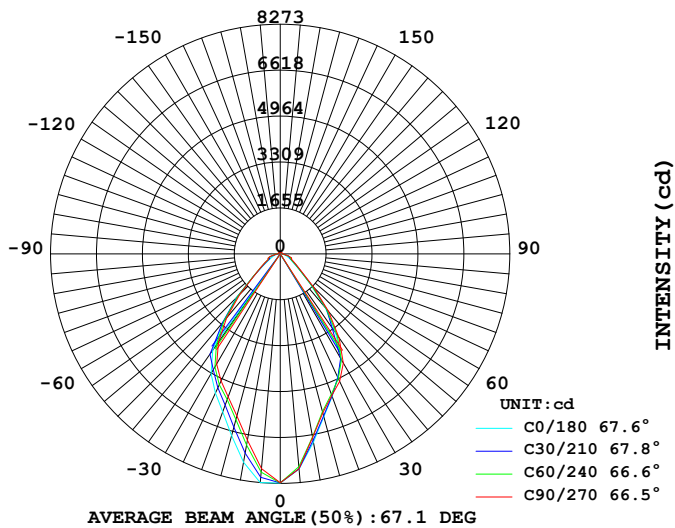
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

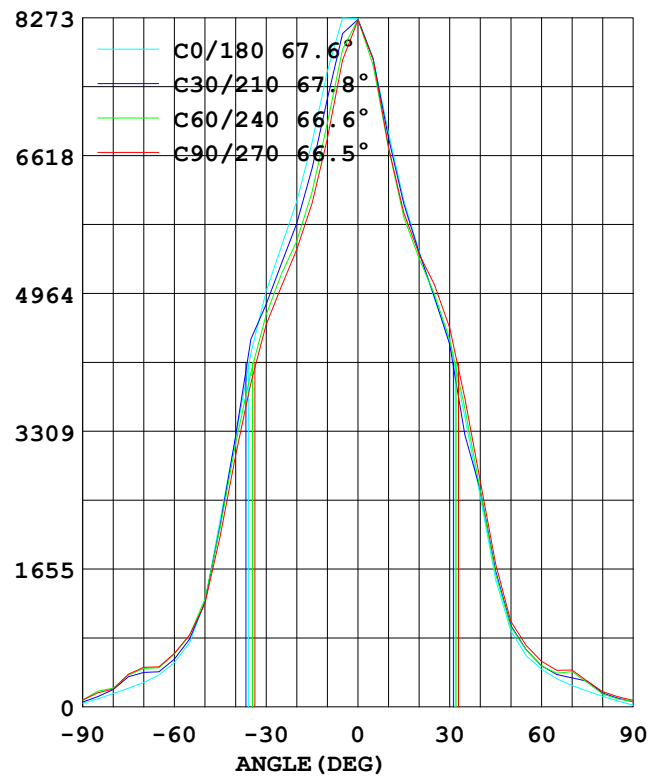
MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	8273	S/MH(C0/180)	0.93
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.84
NOMINAL POWER(W)	66	TOTAL FLUX(lm)	10581	Voltage(V)	219.8
RATED VOLTAGE(V)	220	EFFICIENCY(lm/W)	159.9	Current(A)	0.305
NOMINAL FLUX(lm)	10580.7	η up(%)	3.1	Power(W)	66.19
LAMPS QUANTITY	1	η down(%)	96.9	Power Factor(PF)	0.987
TEST VOLTAGE(V)	219.9	Effective Flux(lm)	9017.9	EEI	0.100

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年09月24日

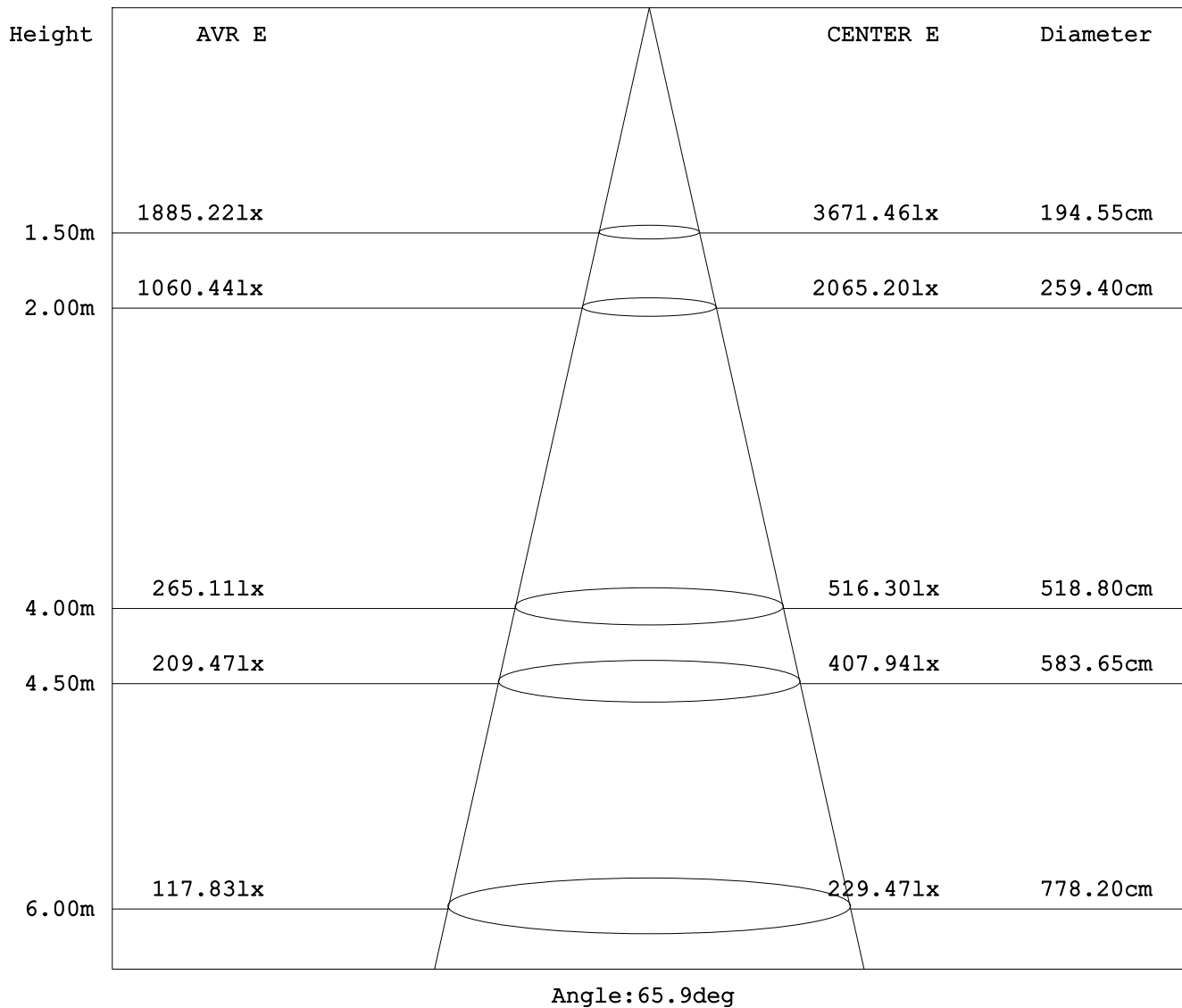
Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators:
 Test Date: 2022年09月24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: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
10.0	7623	7147	6815	6998	6893	6766	6717	7016	0- 10	724.7	724.7
20.0	6066	5695	5489	5523	5473	5418	5435	5631	10- 20	1750	2475
30.0	4987	4768	4587	4470	4388	4381	4550	4672	20- 30	2350	4825
40.0	3229	3200	3013	2955	2525	2602	2710	2843	30- 40	2359	7184
50.0	1261	1275	1241	1173	911.9	968.0	1026	1005	40- 50	1488	8673
60.0	530.4	603.7	642.5	560.7	455.0	492.4	548.2	476.4	50- 60	699.3	9372
70.0	293.6	437.8	474.8	425.6	258.6	386.2	442.8	399.2	60- 70	435.8	9808
80.0	159.4	216.7	215.1	190.3	127.1	160.1	184.2	148.4	70- 80	317.1	10125
90.0	43.31	71.08	80.70	64.37	20.81	63.28	78.64	53.17	80- 90	128.5	10253
100.0	20.57	56.56	76.22	43.07	16.57	58.74	81.55	44.76	90-100	59.33	10313
110.0	20.32	60.31	77.19	44.95	20.20	60.80	80.94	46.34	100-110	54.04	10367
120.0	21.90	60.13	75.62	47.00	25.77	61.46	80.46	46.70	110-120	52.23	10419
130.0	26.86	54.93	69.69	47.25	34.36	57.05	71.99	43.01	120-130	46.64	10466
140.0	33.88	49.85	60.25	45.91	43.56	53.78	62.79	43.55	130-140	38.47	10504
150.0	41.74	46.88	53.72	47.67	52.39	54.02	58.68	48.70	140-150	30.89	10535
160.0	50.21	50.69	53.23	52.03	58.56	57.05	58.44	54.75	150-160	24.03	10559
170.0	57.35	56.80	56.99	57.95	61.46	60.98	62.43	59.22	160-170	15.97	10575
180.0	62.07	61.10	61.10	60.86	62.07	60.98	61.83	60.68	170-180	5.729	10581
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

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

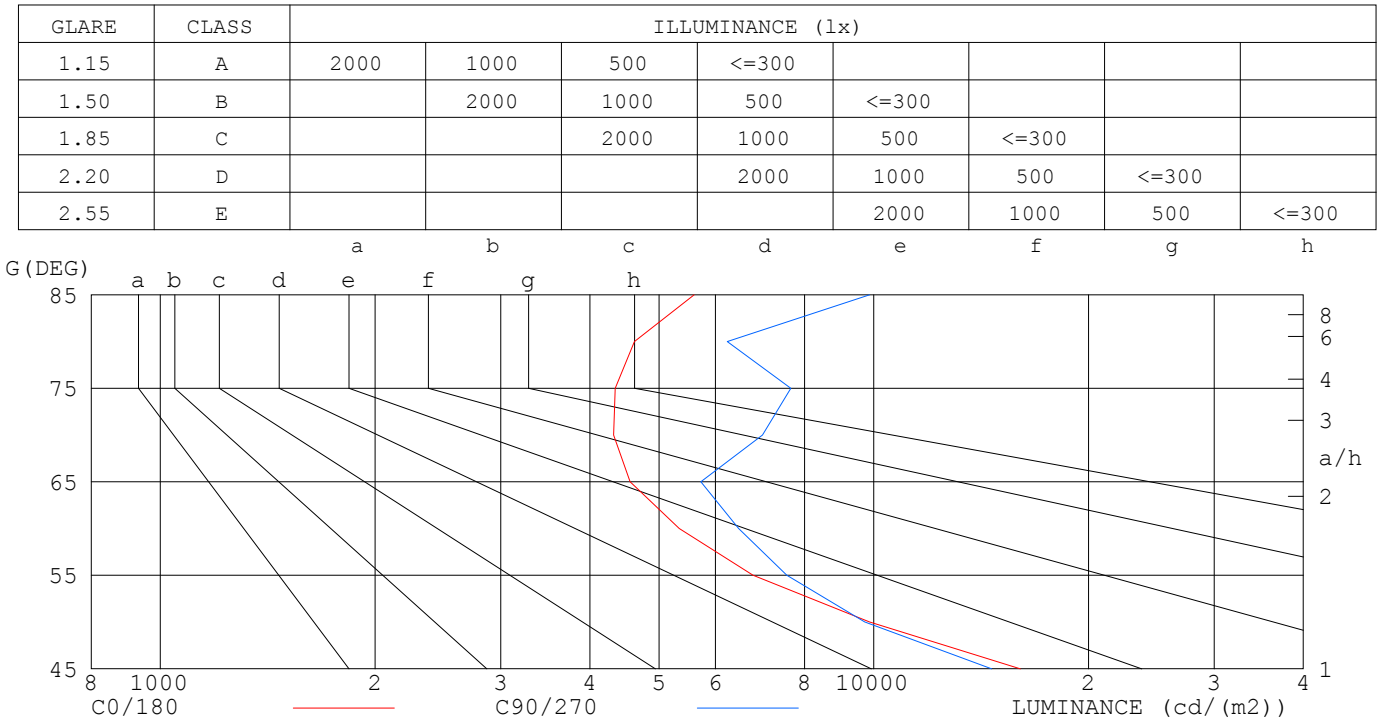
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	5601	9868
80	4620	6232
75	4341	7652
70	4319	6983
65	4554	5722
60	5337	6464
55	6771	7551
50	9866	9712
45	16048	14632

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

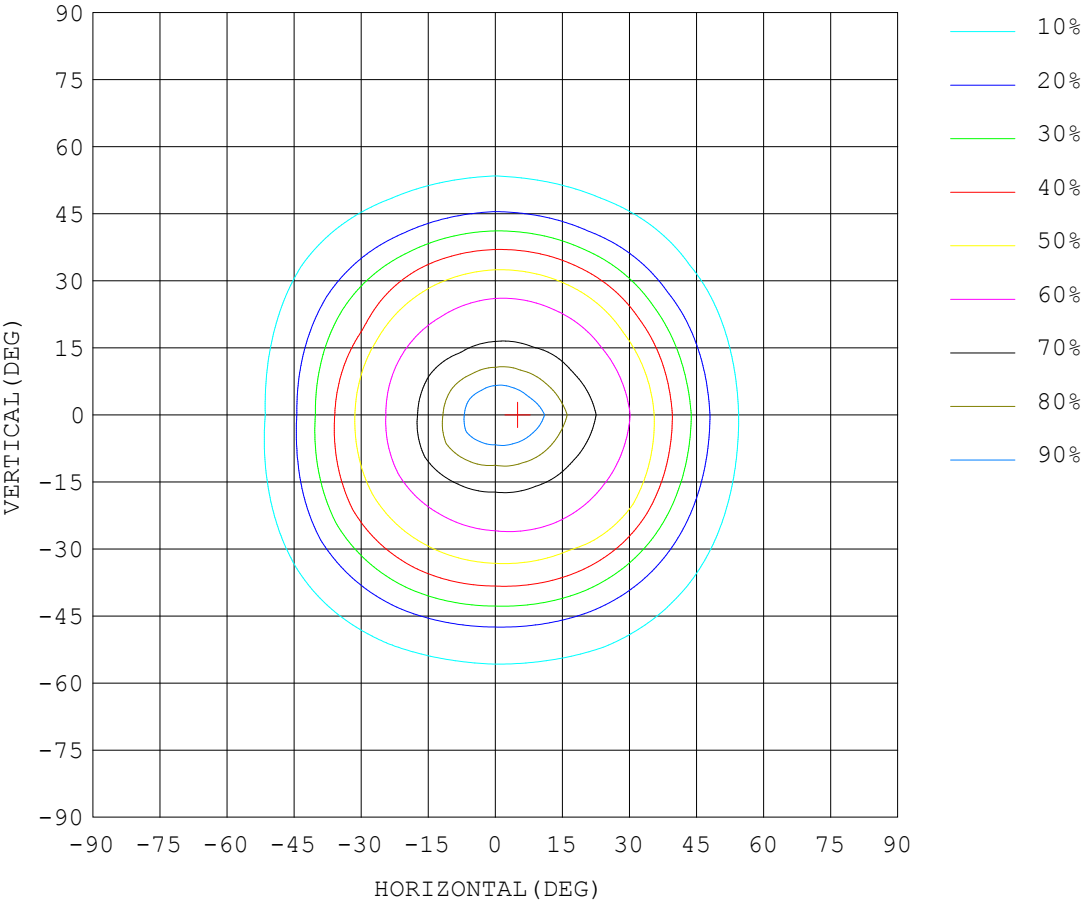
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

UNIT: cd



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

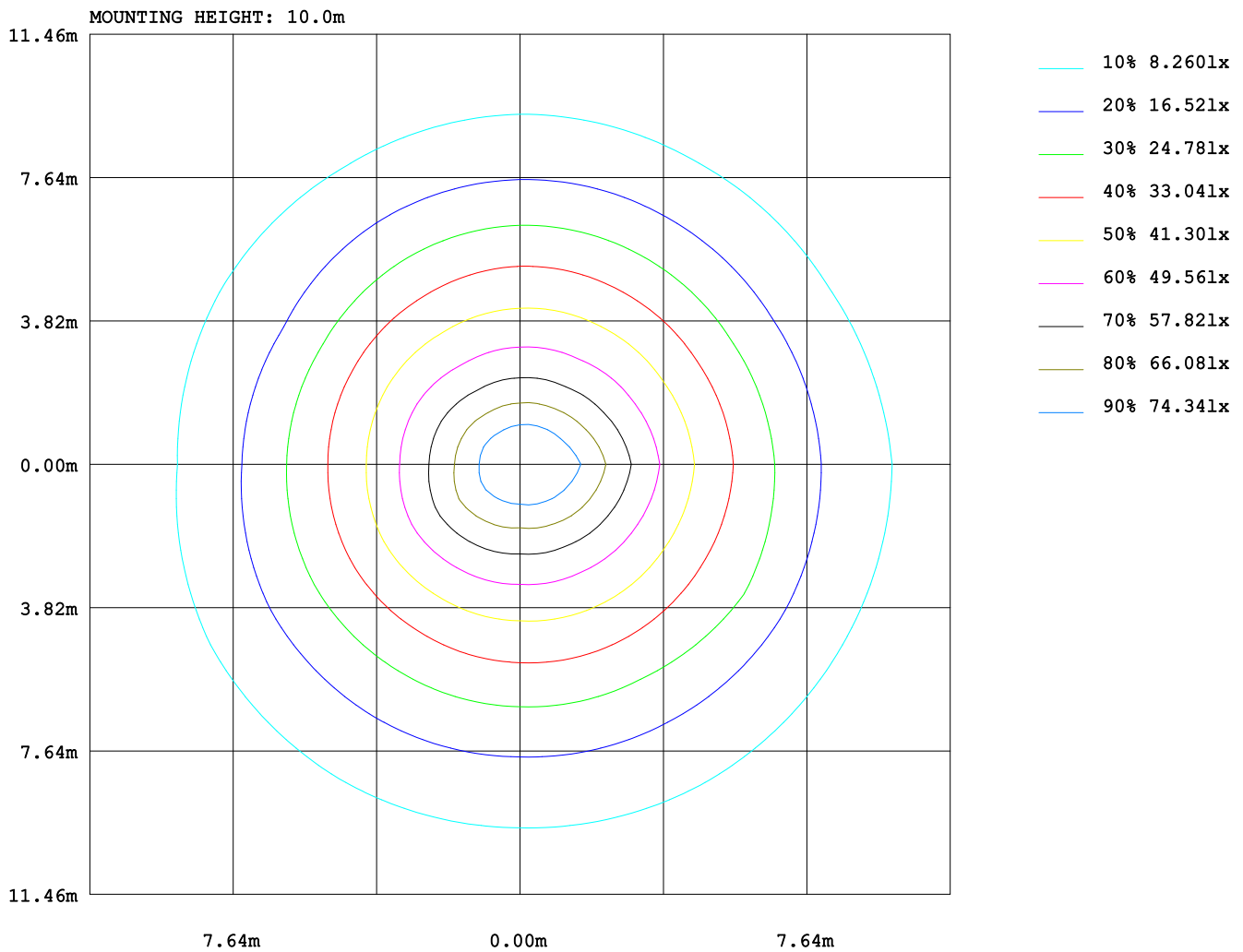
Test Set: 10.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24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: RE-RSL5S3-68N1NR-PC-00										TYPE:					WEIGHT:					
SPECIFICATION:										DIMENSION: 1438*65mm					SERIAL No.:					

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm			Φ t	Φ a
	0.09	0.42	0.95	1.49	1.94	2.34	2.79	3.31	3.71	3.70	3.28	2.74	2.20	1.70	1.20	0.80	0.44	0.13	33.3	0.00			
90																							
80	0.12	0.61	1.47	2.62	4.00	5.51	7.04	8.41	9.25	9.61	9.37	8.33	6.06	3.76	2.24	1.31	0.64	0.16	80.5	0.00			
70	0.15	0.82	2.23	4.76	7.24	9.57	11.4	12.8	13.9	14.1	13.5	12.8	10.5	6.99	3.75	1.96	0.86	0.19	128	0.00			
60	0.17	1.04	3.20	5.95	8.52	11.5	15.3	19.5	22.4	22.4	19.4	15.1	11.2	7.84	4.78	2.64	1.08	0.22	173	22.3			
50	0.19	1.28	3.69	6.62	11.0	18.0	28.3	41.5	52.1	52.7	42.9	29.2	18.0	10.4	5.75	3.22	1.30	0.25	327	248			
40	0.21	1.46	3.98	7.83	15.6	31.9	60.2	89.4	108	109	94.0	65.0	34.2	15.7	7.64	3.73	1.49	0.27	650	600			
30	0.23	1.56	4.24	9.37	22.1	54.4	95.4	131	150	152	138	106	61.5	25.0	9.96	4.25	1.64	0.29	967	929			
	0.23	1.60	4.47	10.7	29.7	72.7	121	156	177	180	163	133	86.3	37.3	12.4	4.76	1.75	0.30	1193	1161			
	0.24	1.58	4.56	11.4	34.7	84.3	134	175	219	226	189	148	101	46.5	14.2	5.10	1.81	0.31	1396	1366			
	0.24	1.56	4.56	11.5	35.6	86.5	135	178	222	228	190	149	103	47.6	14.5	5.21	1.86	0.31	1415	1386			
	0.23	1.54	4.45	11.0	32.2	79.1	125	159	182	183	165	136	93.0	40.5	13.2	5.08	1.89	0.31	1233	1202			
-30	0.23	1.47	4.14	9.74	24.8	62.0	104	134	150	153	141	115	70.1	29.1	11.1	4.81	1.86	0.30	1016	981			
-40	0.21	1.35	3.71	8.08	17.2	38.0	70.5	98.6	114	116	103	75.9	42.0	19.0	8.95	4.57	1.76	0.29	723	678			
-50	0.19	1.19	3.21	6.46	11.9	21.0	35.3	51.2	61.7	62.5	53.3	37.5	22.6	12.9	7.43	4.33	1.57	0.26	395	328			
-60	0.17	1.01	2.67	5.18	8.99	13.2	18.4	23.4	26.7	27.0	24.1	19.3	13.8	9.67	6.95	3.80	1.30	0.24	206	63.9			
-70	0.14	0.80	2.05	4.15	7.82	11.7	14.2	15.1	15.7	15.6	14.6	12.9	10.9	8.55	5.70	2.74	1.03	0.21	144	0.00			
-80	0.12	0.59	1.43	2.69	4.72	7.76	10.4	11.3	11.4	11.1	10.3	9.09	7.32	5.27	3.34	1.81	0.78	0.17	99.9	0.00			
-90	0.09	0.38	0.85	1.50	2.36	3.32	4.09	4.53	4.79	4.88	4.81	4.54	3.83	2.80	1.82	1.07	0.53	0.14	46.3	0.00			
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)					20	30	40	50	60	70	80	90		
Φ t	3.24	20.3	55.9	121	281	614	993	1313	1543	1570	1378	1080	698	331	135	61.2	23.6	4.35	10581				
Φ a	0.00	0.00	0.00	6.84	185	525	906	1229	1460	1487	1294	994	611	241	26.6	0.00	0.00	0.00		9018			

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

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

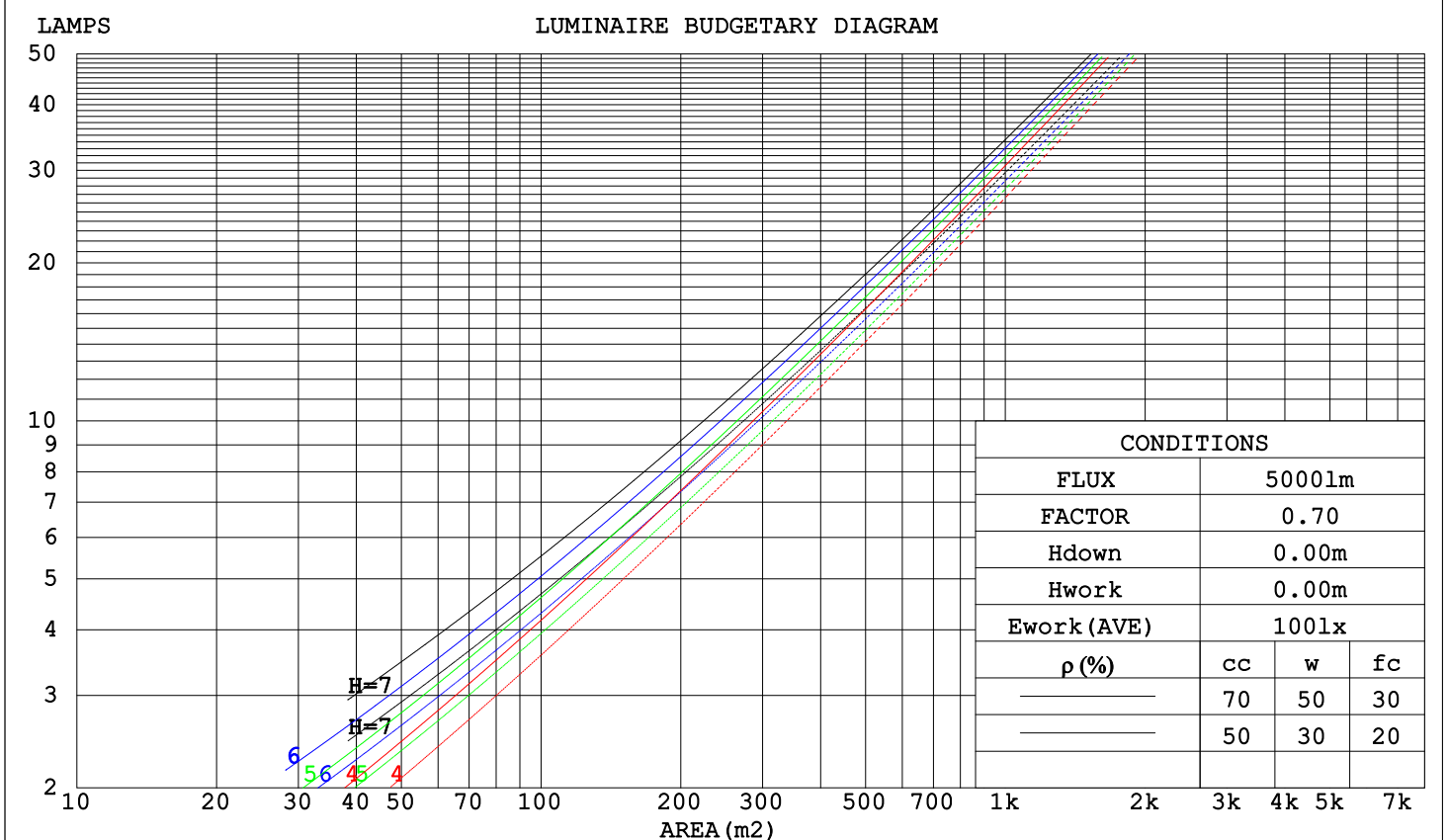
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: RE-RSL5S3-68N1NR-PC-00								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1438*65mm				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09月24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: RE-RSL5S3-68N1NR-PC-00								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1438*65mm				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	.241	.137	.043	.233	.133	.042	.218	.125	.040	.205	.118	.038	.192	.111	.036															
2.0	.227	.124	.038	.220	.121	.037	.207	.115	.036	.196	.110	.034	.185	.104	.033															
3.0	.213	.113	.034	.207	.111	.033	.195	.106	.032	.185	.101	.031	.176	.097	.030															
4.0	.199	.103	.030	.194	.101	.030	.184	.098	.029	.175	.094	.028	.166	.090	.028															
5.0	.187	.095	.028	.182	.094	.027	.174	.090	.027	.165	.087	.026	.158	.084	.025															
6.0	.176	.088	.025	.172	.087	.025	.164	.084	.024	.157	.081	.024	.150	.079	.023															
7.0	.166	.082	.023	.162	.081	.023	.155	.078	.023	.149	.076	.022	.142	.074	.022															
8.0	.157	.077	.022	.154	.076	.021	.147	.074	.021	.141	.072	.021	.136	.070	.020															
9.0	.149	.072	.020	.146	.071	.020	.140	.069	.020	.135	.067	.019	.129	.066	.019															
10.0	.141	.068	.019	.139	.067	.019	.133	.065	.018	.128	.064	.018	.124	.062	.018															

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	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.199	.181	.164	.171	.155	.141	.117	.107	.097	.067	.062	.057	.022	.020	.018	
2.0	.188	.156	.130	.161	.134	.112	.110	.093	.078	.063	.054	.046	.020	.017	.015	
3.0	.177	.138	.106	.152	.119	.092	.104	.083	.065	.060	.048	.038	.019	.016	.013	
4.0	.169	.124	.090	.145	.107	.078	.100	.075	.055	.058	.044	.033	.019	.014	.011	
5.0	.161	.113	.078	.138	.098	.068	.095	.068	.048	.055	.040	.028	.018	.013	.009	
6.0	.154	.104	.069	.132	.090	.060	.091	.063	.042	.053	.037	.025	.017	.012	.008	
7.0	.147	.097	.062	.127	.084	.054	.088	.059	.038	.051	.035	.023	.016	.011	.008	
8.0	.142	.091	.057	.122	.079	.050	.084	.056	.035	.049	.033	.021	.016	.011	.007	
9.0	.136	.086	.053	.117	.075	.046	.081	.053	.033	.047	.031	.019	.015	.010	.006	
10.0	.131	.082	.049	.113	.071	.043	.078	.050	.031	.046	.030	.018	.015	.010	.006	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年09月24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: RE-RSL5S3-68N1NR-PC-00					TYPE:			WEIGHT:		
SPECIFICATION:					DIMENSION: 1438*65mm			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	18.8	20.0	19.1	20.2	20.5	18.8	20.0	19.1	20.2	20.4
3H	19.3	20.4	19.6	20.6	20.9	19.8	20.9	20.1	21.2	21.4
4H	19.6	20.6	19.9	20.9	21.2	20.4	21.4	20.7	21.7	22.0
6H	19.8	20.8	20.2	21.1	21.4	20.7	21.7	21.1	22.0	22.3
8H	19.9	20.8	20.3	21.2	21.5	21.0	21.9	21.4	22.3	22.6
12H	20.0	20.9	20.4	21.2	21.6	21.2	22.1	21.6	22.5	22.8
4H 2H	18.9	19.9	19.2	20.2	20.5	18.9	19.9	19.2	20.2	20.5
3H	19.8	20.7	20.2	21.0	21.4	20.3	21.2	20.7	21.5	21.9
4H	20.3	21.1	20.7	21.4	21.8	21.0	21.8	21.4	22.2	22.6
6H	20.6	21.4	21.1	21.8	22.2	21.5	22.2	21.9	22.6	23.0
8H	20.8	21.5	21.3	21.9	22.3	21.9	22.6	22.4	23.0	23.4
12H	21.0	21.6	21.4	22.0	22.5	22.3	22.9	22.7	23.3	23.8
8H 4H	20.5	21.2	21.0	21.6	22.1	21.2	21.9	21.6	22.3	22.7
6H	21.1	21.6	21.6	22.1	22.6	21.9	22.5	22.4	22.9	23.4
8H	21.4	21.8	21.9	22.3	22.8	22.5	23.0	23.0	23.5	24.0
12H	21.6	22.0	22.1	22.5	23.1	23.0	23.5	23.6	23.9	24.5
12H 4H	20.6	21.2	21.0	21.6	22.1	21.2	21.8	21.7	22.2	22.7
6H	21.2	21.7	21.7	22.2	22.7	22.0	22.5	22.5	23.0	23.5
8H	21.6	22.0	22.1	22.5	23.0	22.7	23.1	23.2	23.6	24.1
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 1.1					+ 0.5 / - 0.7				
1.5H	+ 1.2 / - 0.9					+ 0.7 / - 0.5				
2.0H	+ 2.2 / - 1.0					+ 1.4 / - 1.0				

CIE Pub.117 Corrected 10581 lm Total Lamp Luminous Flux. (8log(F/F0) = 8.2)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年09月24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: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	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) $k(RI) \times RCR = 5$									
$k = 0.60$	72	63	57	71	62	57	70	62	57	52
0.80	81	72	66	80	71	66	78	71	66	60
1.00	87	79	73	86	78	73	84	79	72	67
1.25	93	85	80	91	84	79	89	83	78	72
1.50	97	89	84	95	88	84	92	86	82	76
2.00	101	95	90	99	94	89	96	91	87	80
2.50	104	98	94	102	97	93	98	94	90	83
3.00	106	101	97	104	99	96	100	96	93	85
4.00	109	105	101	107	103	100	102	99	97	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:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2022年09月24日

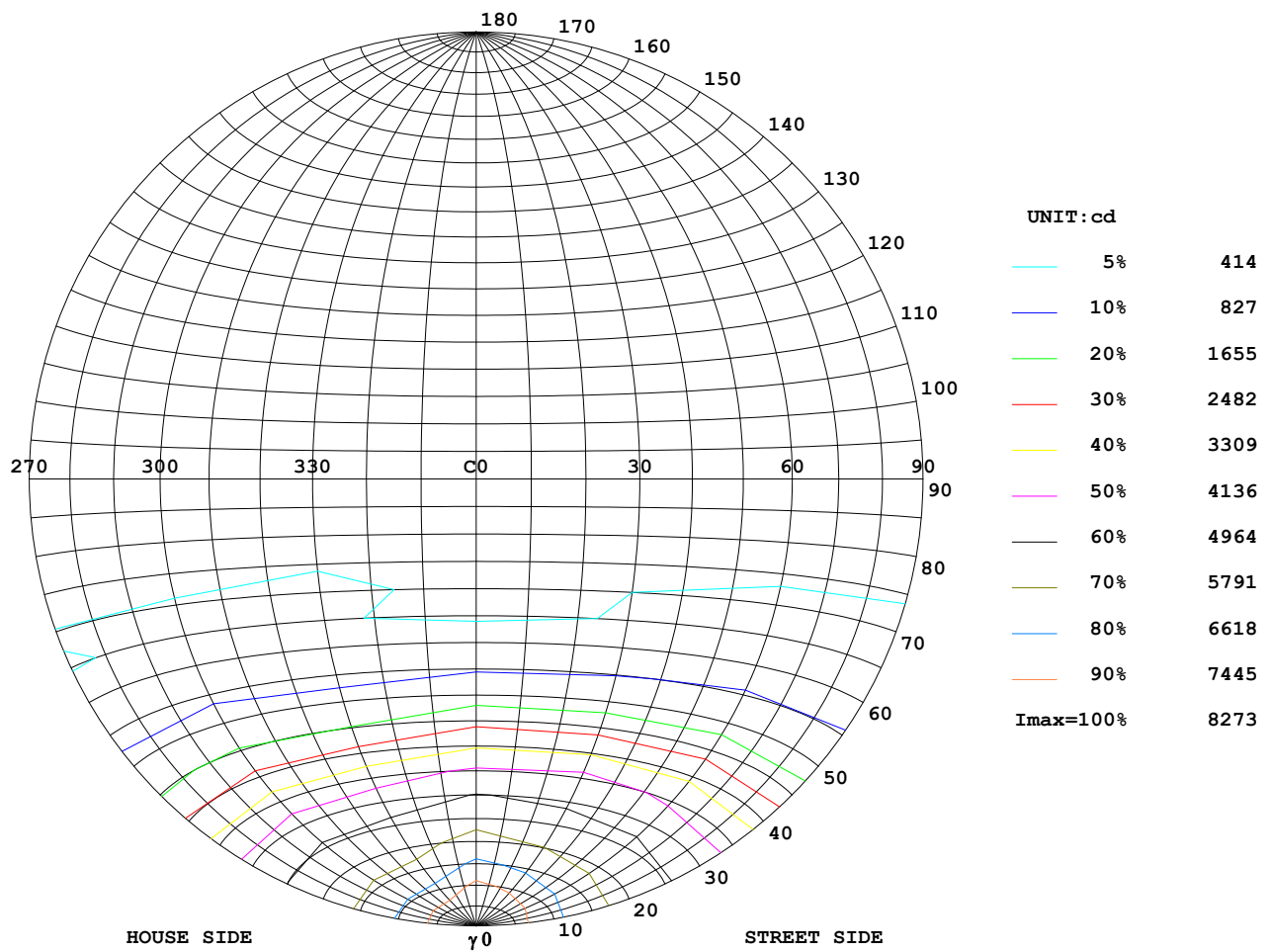
Test Set: 10.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

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

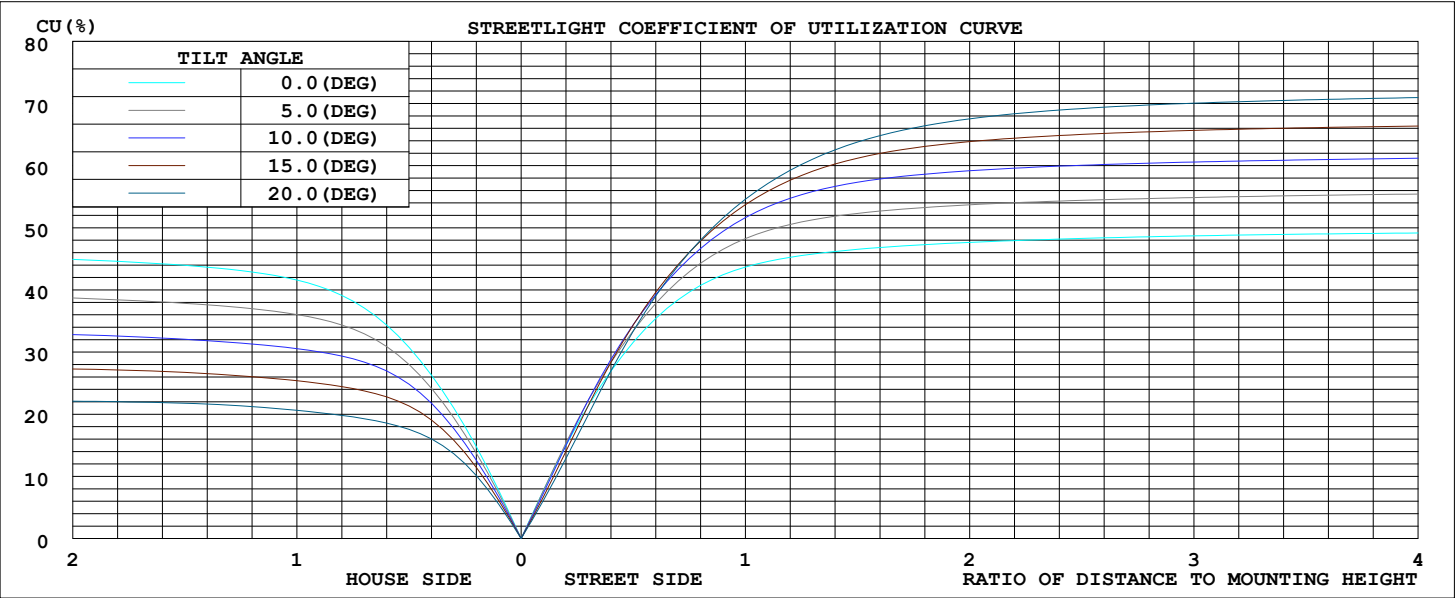
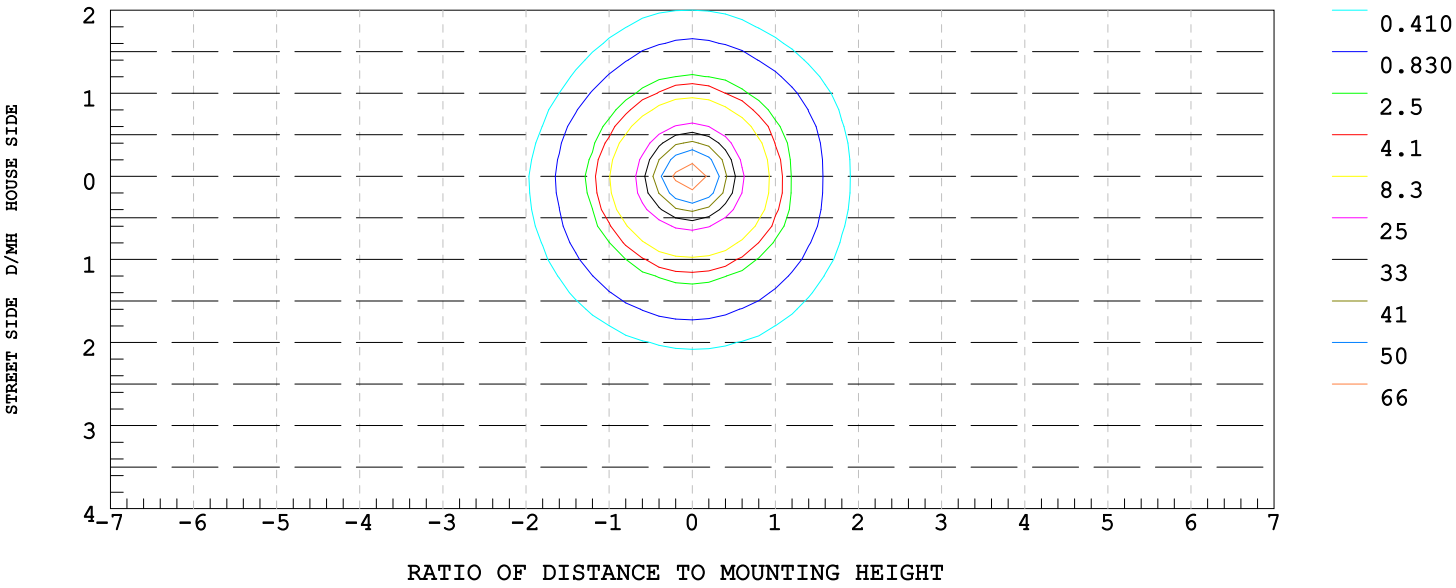
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

ILLUMINANCE AT MH=10 m,Enadir = 82.61 lx



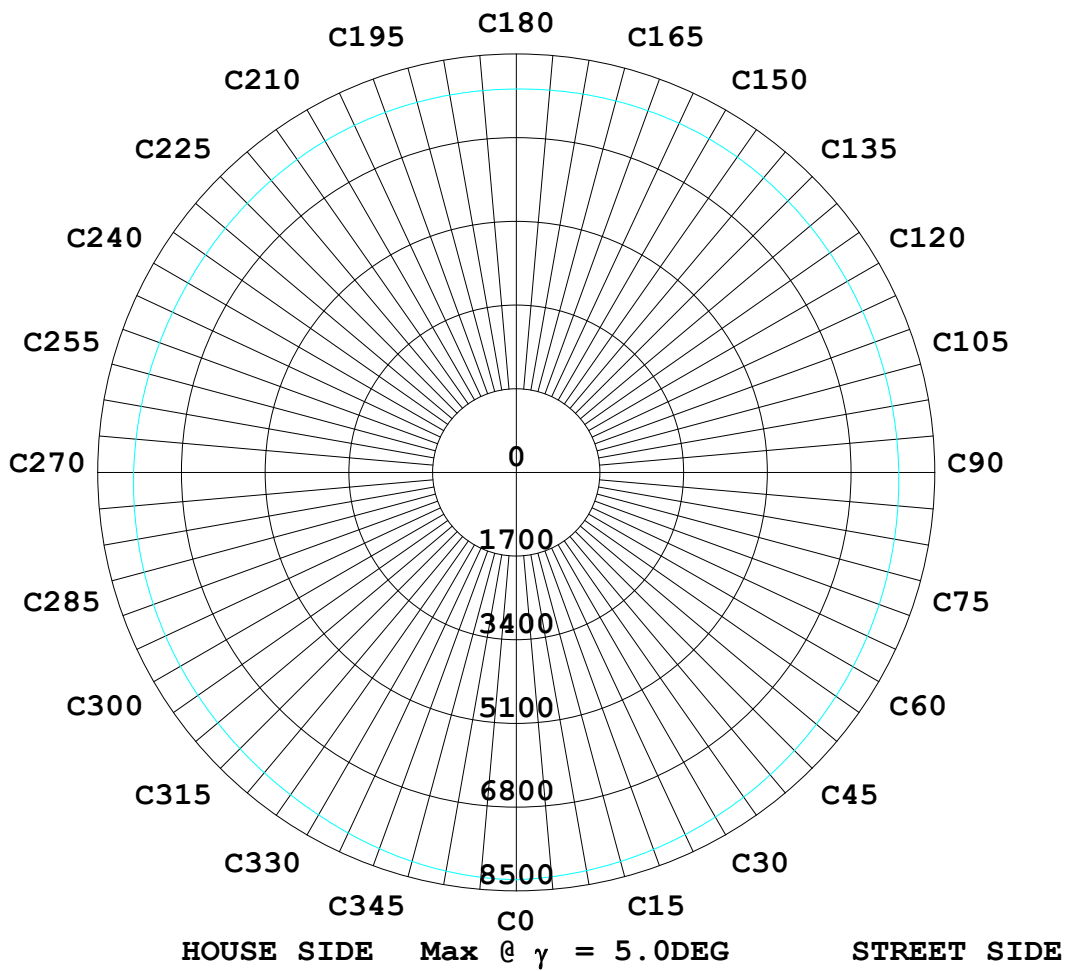
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

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: RE-RSL5S3-68N1NR-PC-00	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2022年09月24日

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