

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

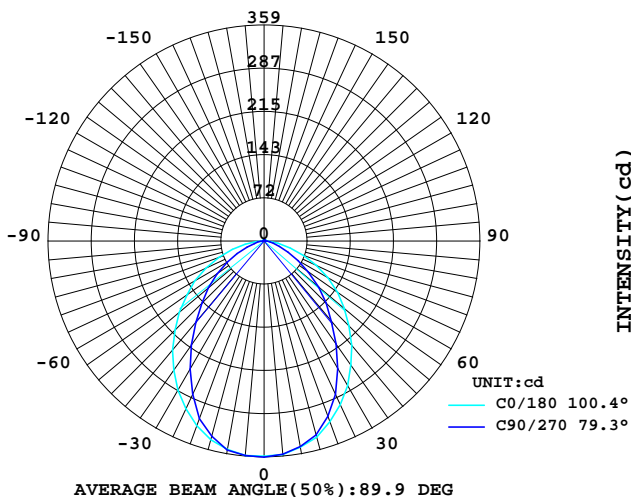
## LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

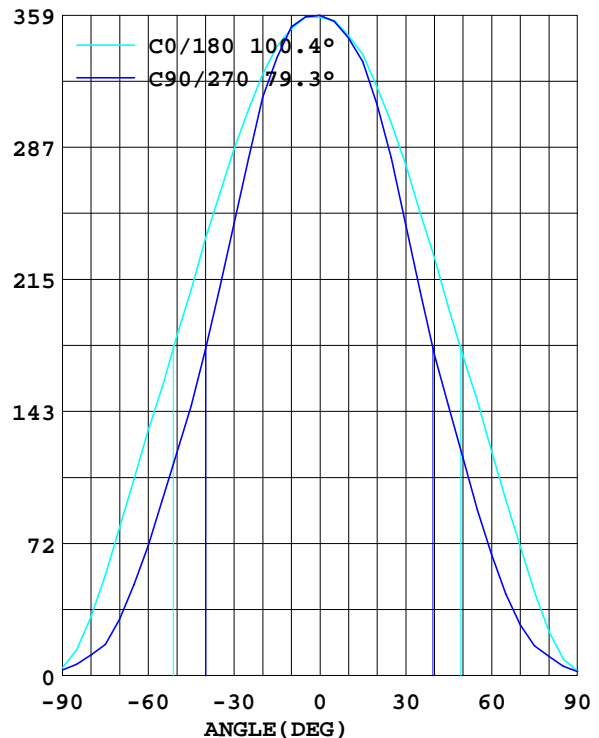
<b>MANUFACTURER:</b>	<b>Address:</b>	
<b>NAME: NOVATRIS</b>	<b>TYPE:9W 4000K</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

DATA OF LAMP		Imax(cd)	359.0	S/MH(C0/180)	1.20
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.06
NOMINAL POWER(W)	8	TOTAL FLUX(lm)	795.36	Voltage(V)	241.6
RATED VOLTAGE(V)	242	EFFICIENCY(lm/W)	93.9	Current(A)	0.038
NOMINAL FLUX(lm)	795.4	$\eta$ up(%)	1.7	Power(W)	8.470
LAMPS QUANTITY	1	$\eta$ down(%)	98.3	Power Factor(PF)	0.907
TEST VOLTAGE(V)	241.7	Effective Flux(lm)	751.2	EEI	0.139

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

Color Temperature Data List

Report number:

MANUFACTURER:	Address:	
NAME: NOVATRIS	TYPE:9W 4000K	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

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Test System:HOPOO HPG1900  
Temperature:25.3DEG  
Operators:  
Test Date:2021年05月26日

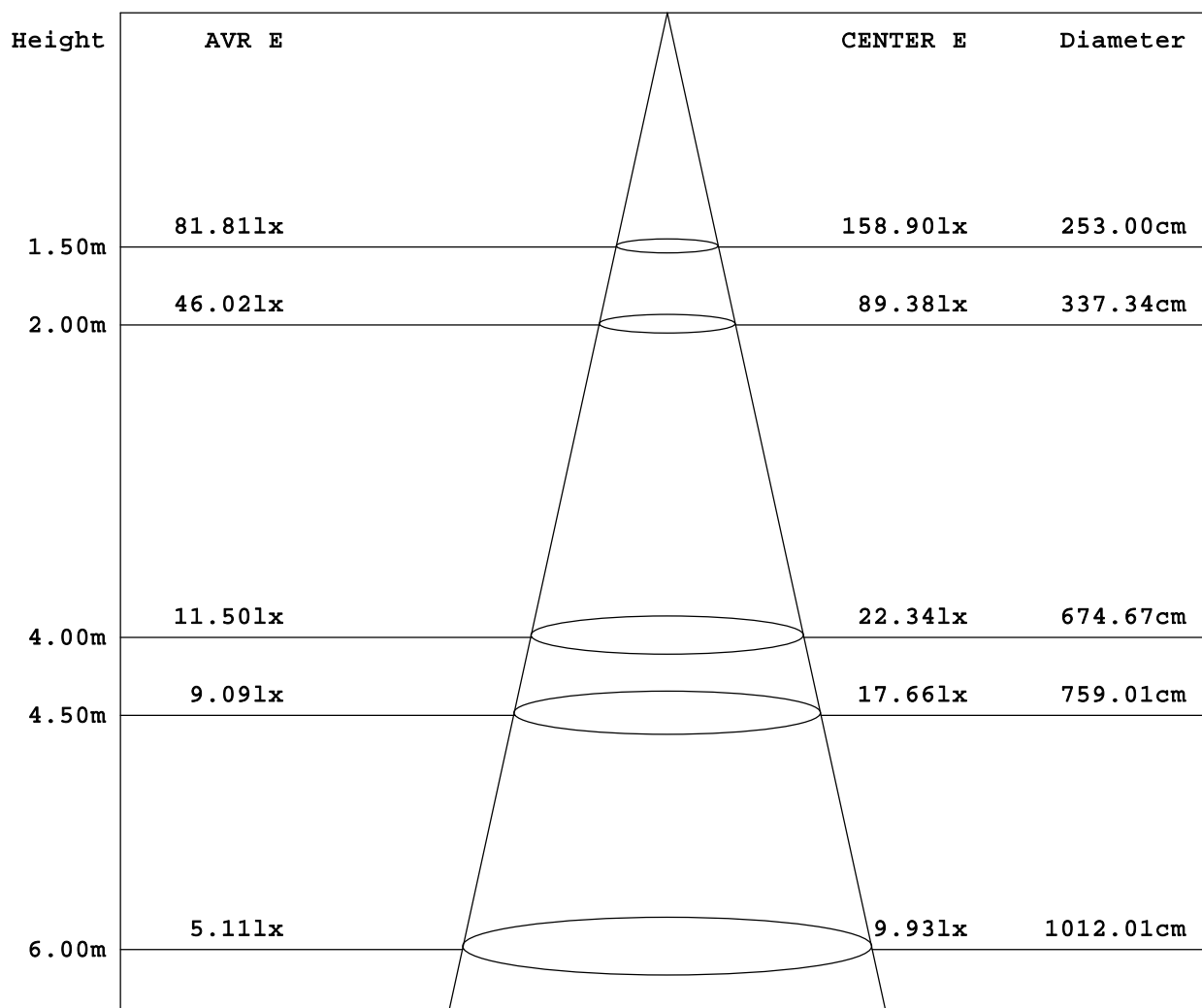
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Humidity:65.0%  
Test Distance:8.200 m  
Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:	Address:	
NAME: NOVATRIS	TYPE:9W 4000K	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Angle:80.3deg

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

Report number:

<b>MANUFACTURER:</b>	<b>Address:</b>	
<b>NAME: NOVATRIS</b>	<b>TYPE:9W 4000K</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	zone	total
10.0	351.2	351.3	352.2	349.9	347.5	347.0	346.4	350.3	0- 10	33.80	33.80
20.0	326.5	321.4	313.8	315.0	319.4	314.8	309.8	319.5	10- 20	94.66	128.4
30.0	286.0	269.7	245.5	263.3	277.4	257.7	244.9	267.2	20- 30	134.4	262.9
40.0	237.0	207.3	176.7	208.8	227.0	193.6	174.0	207.9	30- 40	146.2	409.2
50.0	184.3	150.2	120.8	159.9	173.5	134.8	118.3	152.2	40- 50	135.9	545.1
60.0	133.4	97.63	70.66	106.5	122.1	89.36	65.96	103.8	50- 60	110.8	656.0
70.0	80.15	53.25	30.52	60.24	70.06	46.32	27.50	57.69	60- 70	74.50	730.5
80.0	31.93	22.65	11.16	25.95	24.20	20.57	10.55	25.21	70- 80	38.17	768.6
90.0	4.303	5.715	2.958	4.841	2.353	7.261	2.218	6.992	80- 90	13.18	781.8
100.0	3.025	1.681	1.815	1.479	1.882	2.689	0.807	3.227	90-100	3.455	785.3
110.0	2.689	1.613	1.344	1.277	1.815	2.487	0.538	2.487	100-110	1.999	787.3
120.0	2.756	2.151	1.344	1.748	2.218	2.555	0.807	2.487	110-120	1.857	789.1
130.0	2.689	2.420	1.344	2.084	2.622	2.756	0.941	2.891	120-130	1.900	791.0
140.0	2.286	2.286	1.344	2.151	2.353	2.824	1.008	2.622	130-140	1.694	792.7
150.0	1.882	1.748	1.412	1.748	1.882	2.017	1.210	2.151	140-150	1.223	794.0
160.0	1.748	1.344	1.546	1.344	1.681	1.681	1.344	1.681	150-160	0.754	794.7
170.0	1.681	1.412	1.613	1.412	1.748	1.748	1.479	1.681	160-170	0.446	795.2
180.0	1.815	1.546	1.613	1.546	1.815	1.681	1.546	1.681	170-180	0.155	795.3
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1900  
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Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
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HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

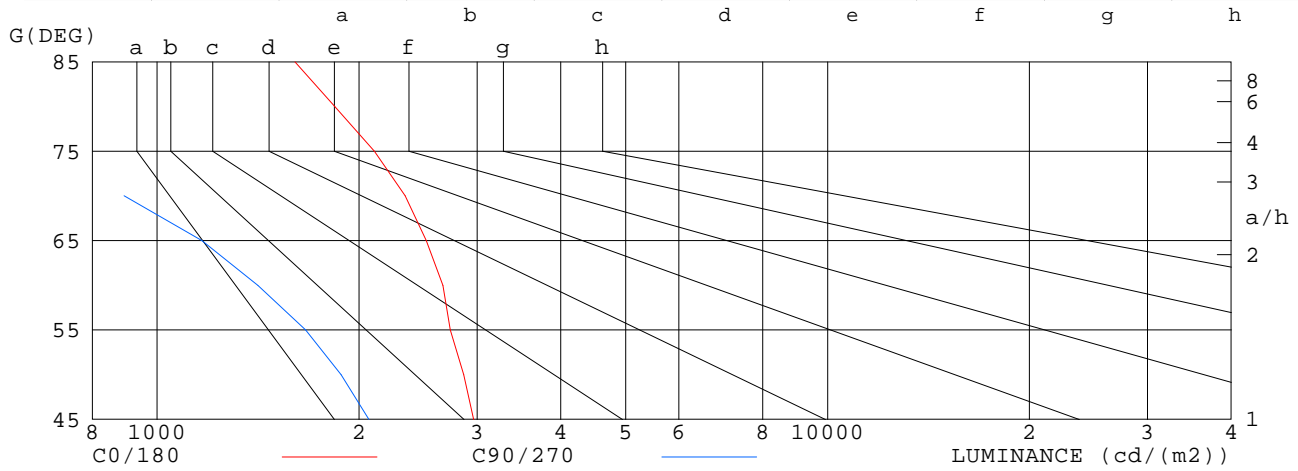
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:	Address:	
NAME: NOVATRIS	TYPE:9W 4000K	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

LUMINANCE LIMITATION CURVES

GLARE	CLASS	ILLUMINANCE (lx)							
		2000	1000	500	<=300				
1.15	A								
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



G (DEG)	LUMINANCE cd/(m2)	
	C0/180	C90/270
85	1605	710
80	1839	643
75	2110	655
70	2343	893
65	2519	1166
60	2668	1413
55	2736	1665
50	2867	1881
45	2964	2070

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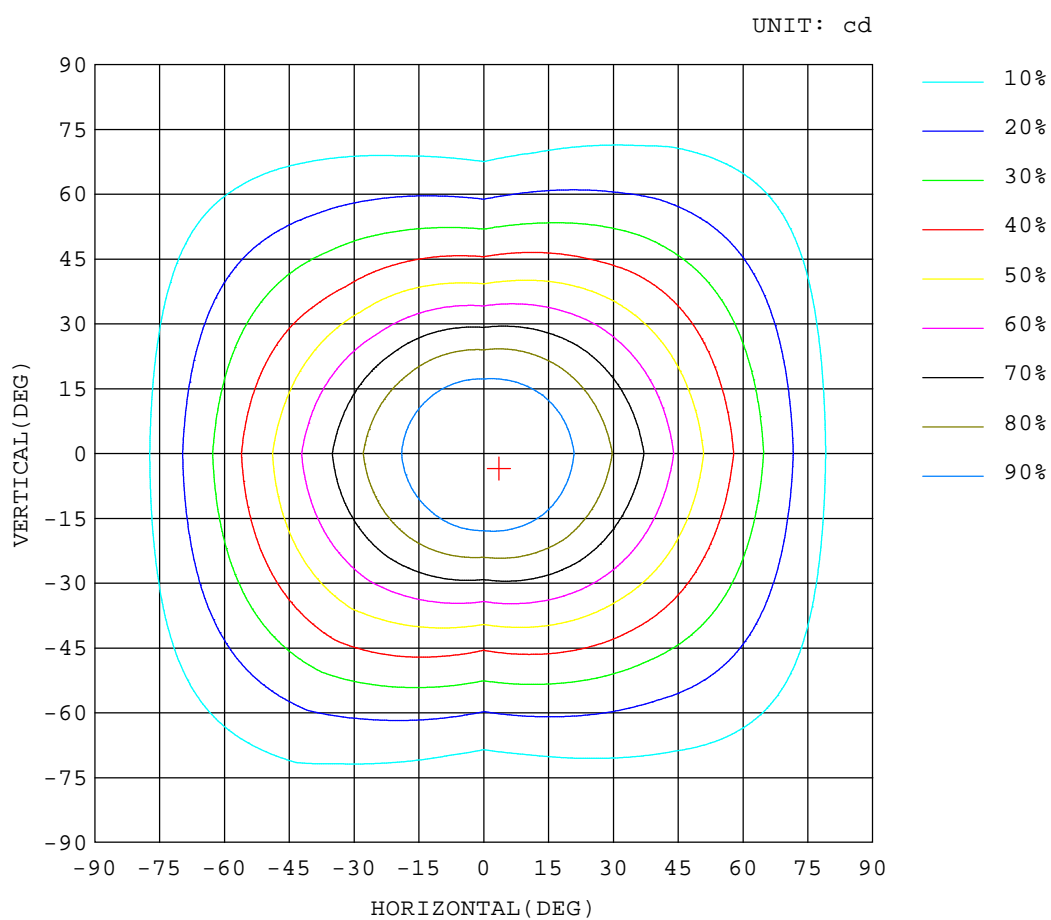
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

Report number:

<b>MANUFACTURER:</b>	<b>Address:</b>	
<b>NAME: NOVATRIS</b>	<b>TYPE:9W 4000K</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

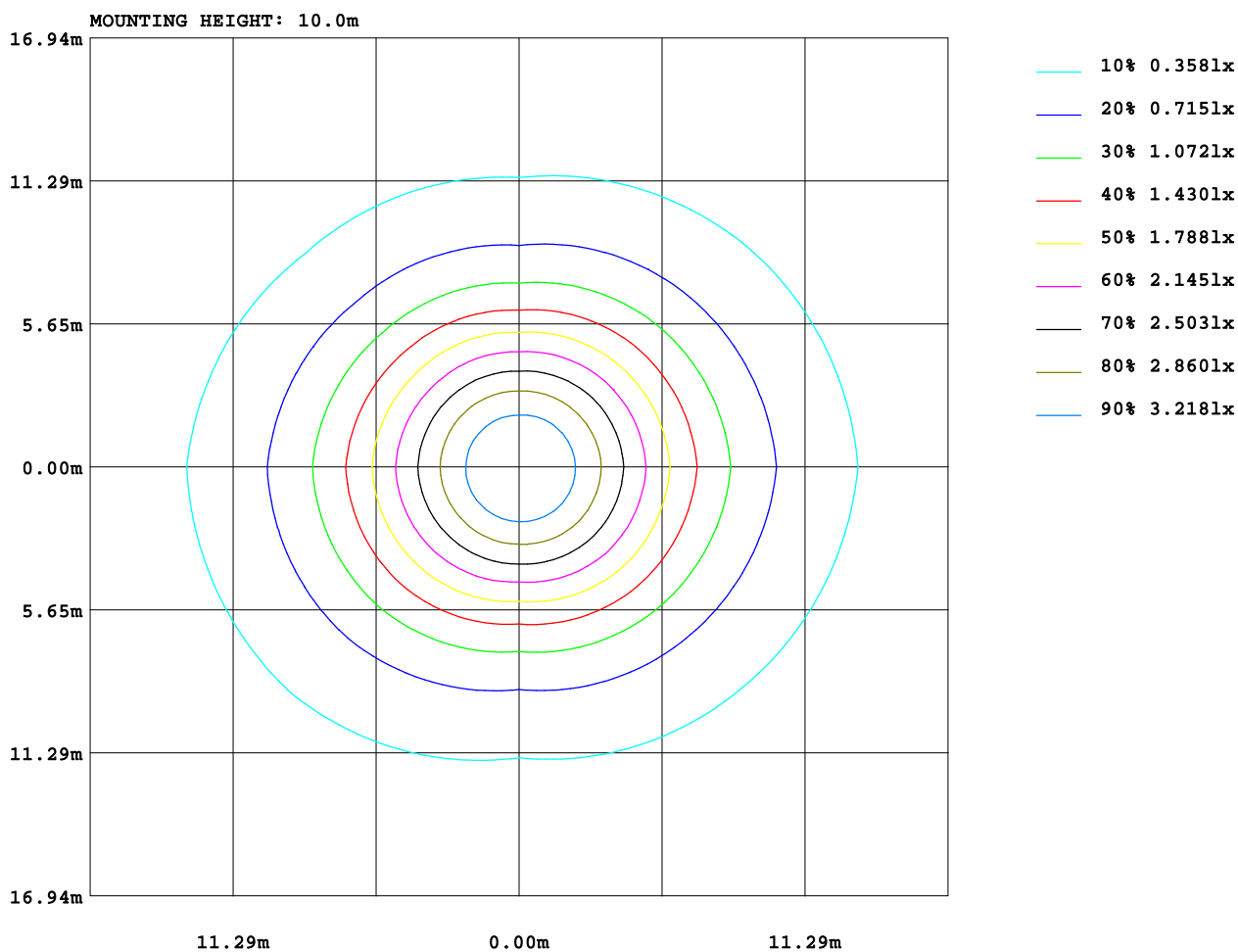
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOLUX DIAGRAM

Report number:

<b>MANUFACTURER:</b>	<b>Address:</b>	
<b>NAME: NOVATRIS</b>	<b>TYPE:9W 4000K</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## AREA LUMINOUS FLUX

Report number:

<b>MANUFACTURER:</b>	<b>Address:</b>	
<b>NAME: NOVATRIS</b>	<b>TYPE:9W 4000K</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

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	
90	0.01	0.05	0.10	0.17	0.24	0.26	0.26	0.24	0.20	0.21	0.26	0.28	0.29	0.26	0.19	0.12	0.06	0.02	3.21	0.00
80	0.01	0.07	0.18	0.33	0.47	0.57	0.62	0.63	0.58	0.61	0.71	0.74	0.70	0.58	0.41	0.23	0.10	0.02	7.57	0.26
70	0.02	0.11	0.31	0.57	0.85	1.12	1.33	1.45	1.44	1.49	1.59	1.54	1.35	1.06	0.71	0.39	0.15	0.03	15.5	13.1
60	0.02	0.16	0.46	0.90	1.41	1.94	2.42	2.73	2.81	2.88	2.91	2.69	2.25	1.68	1.08	0.57	0.21	0.03	27.2	26.5
50	0.03	0.21	0.64	1.29	2.08	2.87	3.60	4.20	4.46	4.54	4.42	3.95	3.25	2.37	1.50	0.77	0.27	0.04	40.5	40.1
40	0.03	0.27	0.83	1.68	2.73	3.78	4.91	5.86	6.34	6.42	6.09	5.28	4.18	3.03	1.90	0.97	0.33	0.04	54.7	54.4
30	0.03	0.31	1.00	2.05	3.31	4.77	6.27	7.63	8.40	8.46	7.83	6.61	5.11	3.60	2.25	1.13	0.38	0.05	69.2	69.0
	0.04	0.35	1.13	2.34	3.83	5.58	7.43	9.02	9.93	9.97	9.18	7.68	5.88	4.09	2.53	1.27	0.42	0.05	80.7	80.6
	0.04	0.38	1.22	2.54	4.19	6.12	8.10	9.73	10.6	10.6	9.86	8.31	6.38	4.43	2.71	1.36	0.45	0.05	87.2	87.0
	0.04	0.38	1.23	2.57	4.24	6.17	8.12	9.74	10.6	10.7	9.90	8.32	6.38	4.42	2.70	1.36	0.45	0.05	87.5	87.3
	0.04	0.36	1.16	2.42	3.98	5.74	7.54	9.07	10.0	10.0	9.25	7.73	5.88	4.07	2.50	1.26	0.42	0.05	81.6	81.4
	0.04	0.33	1.04	2.16	3.56	5.07	6.54	7.76	8.45	8.50	7.89	6.63	5.09	3.57	2.21	1.12	0.38	0.05	70.4	70.2
-30	0.03	0.28	0.89	1.83	3.02	4.27	5.33	6.11	6.45	6.46	6.11	5.25	4.13	2.94	1.85	0.94	0.32	0.04	56.3	56.0
-40	0.03	0.23	0.71	1.45	2.37	3.34	4.08	4.52	4.59	4.56	4.42	3.90	3.12	2.26	1.44	0.75	0.26	0.04	42.1	41.7
-50	0.02	0.17	0.52	1.05	1.70	2.32	2.78	3.04	3.02	2.98	2.92	2.62	2.13	1.58	1.03	0.55	0.20	0.03	28.7	28.1
-60	0.02	0.12	0.35	0.69	1.09	1.41	1.62	1.70	1.61	1.58	1.61	1.50	1.27	0.98	0.67	0.37	0.14	0.03	16.7	15.2
-70	0.01	0.07	0.20	0.38	0.59	0.72	0.78	0.75	0.65	0.63	0.70	0.70	0.64	0.53	0.38	0.22	0.09	0.02	8.07	0.68
-80	0.01	0.04	0.09	0.16	0.24	0.28	0.28	0.27	0.23	0.22	0.26	0.28	0.27	0.24	0.18	0.11	0.06	0.01	3.22	0.00
-90																				
Φ t	0.46	3.88	12.0	24.6	39.9	56.4	72.1	84.5	90.5	91.0	85.9	74.0	58.3	41.7	26.3	13.5	4.69	0.66	795	
Φ a	0.00	2.12	10.5	23.0	38.2	54.6	70.2	82.6	88.6	89.1	84.0	72.2	56.5	40.0	24.7	12.0	3.13	0.00		751

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:



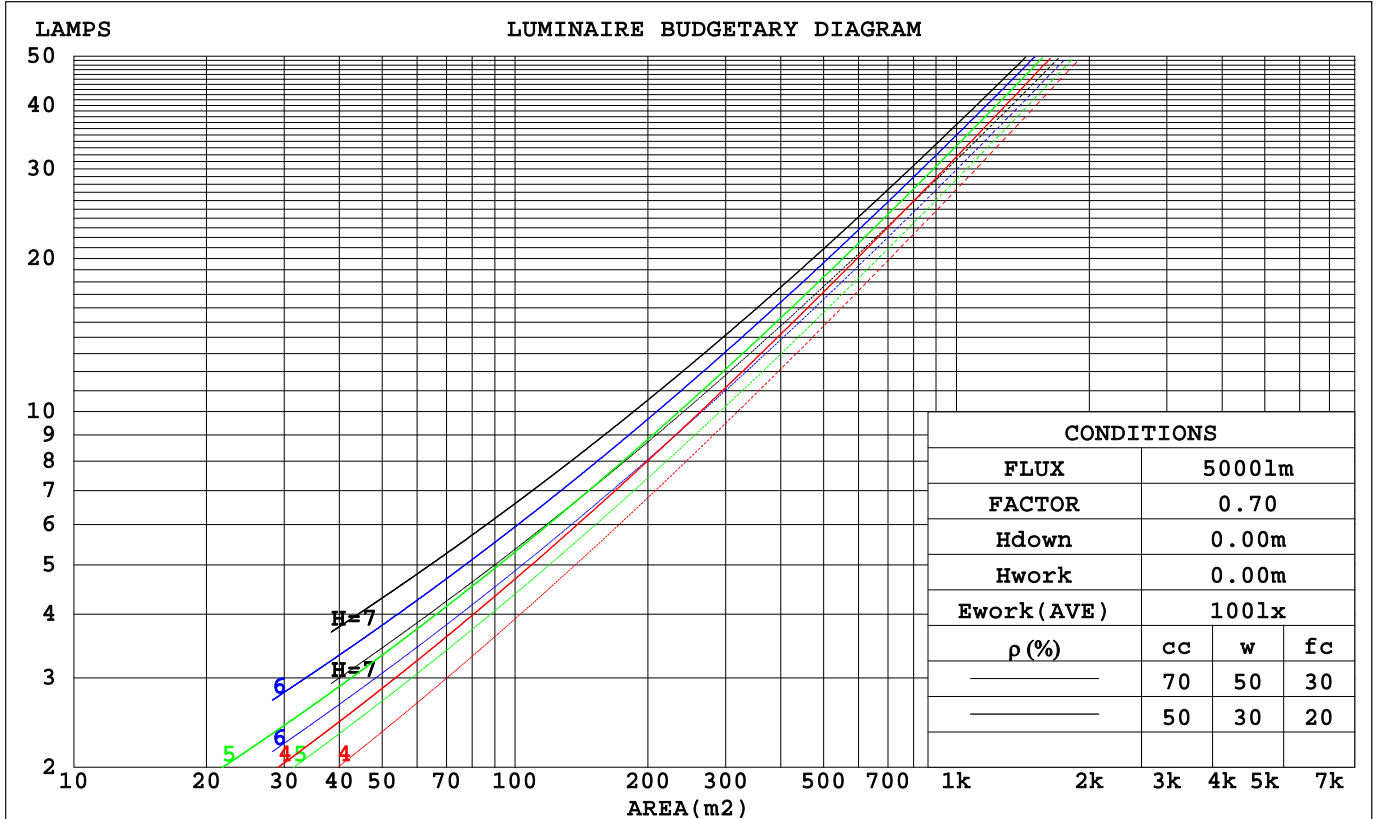
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:				Address:							
NAME: NOVATRIS				TYPE:9W 4000K				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	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	.98														
1.0	1.05	1.01	.97	1.02	.99	.96	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84														
2.0	.93	.86	.81	.91	.85	.80	.87	.82	.78	.83	.79	.76	.80	.77	.74	.72														
3.0	.82	.75	.68	.80	.73	.68	.77	.71	.66	.74	.69	.65	.72	.67	.64	.62														
4.0	.73	.65	.59	.72	.64	.58	.69	.63	.57	.67	.61	.57	.65	.60	.56	.54														
5.0	.66	.58	.51	.65	.57	.51	.63	.56	.50	.61	.55	.50	.59	.53	.49	.47														
6.0	.60	.52	.45	.59	.51	.45	.57	.50	.45	.55	.49	.44	.54	.48	.44	.42														
7.0	.55	.46	.41	.54	.46	.40	.52	.45	.40	.51	.44	.40	.49	.44	.39	.37														
8.0	.50	.42	.37	.49	.42	.36	.48	.41	.36	.47	.40	.36	.45	.40	.35	.34														
9.0	.46	.38	.33	.46	.38	.33	.44	.38	.33	.43	.37	.32	.42	.36	.32	.30														
10.0	.43	.35	.30	.42	.35	.30	.41	.35	.30	.40	.34	.30	.39	.34	.30	.28														



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
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Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

MANUFACTURER:	Address:					
NAME: NOVATRIS	TYPE:9W 4000K			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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.284	.161	.051	.276	.157	.050	.262	.150	.048	.249	.144	.046	.237	.137	.044	
2.0	.268	.147	.045	.261	.144	.044	.249	.138	.043	.237	.133	.042	.227	.128	.040	
3.0	.249	.133	.040	.244	.130	.039	.233	.126	.038	.223	.122	.037	.213	.118	.037	
4.0	.232	.120	.035	.227	.119	.035	.217	.115	.034	.208	.112	.034	.200	.108	.033	
5.0	.216	.110	.032	.211	.108	.032	.202	.105	.031	.194	.103	.030	.187	.100	.030	
6.0	.201	.101	.029	.197	.099	.029	.189	.097	.028	.182	.095	.028	.175	.092	.027	
7.0	.188	.093	.026	.184	.092	.026	.177	.090	.026	.171	.088	.025	.165	.086	.025	
8.0	.176	.086	.024	.173	.085	.024	.167	.083	.024	.161	.081	.024	.155	.080	.023	
9.0	.166	.080	.022	.163	.079	.022	.157	.078	.022	.152	.076	.022	.147	.075	.022	
10.0	.156	.075	.021	.154	.074	.021	.149	.073	.020	.144	.071	.020	.139	.070	.020	

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	.203	.203	.203	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.192	.169	.149	.164	.145	.129	.112	.100	.089	.065	.058	.052	.021	.019	.017	
2.0	.182	.145	.114	.156	.125	.099	.107	.086	.069	.062	.050	.040	.020	.016	.013	
3.0	.174	.127	.090	.149	.110	.078	.102	.076	.055	.059	.045	.032	.019	.014	.011	
4.0	.166	.114	.074	.142	.098	.064	.098	.069	.045	.057	.040	.027	.018	.013	.009	
5.0	.158	.103	.063	.136	.089	.055	.094	.062	.038	.054	.037	.023	.017	.012	.008	
6.0	.151	.095	.054	.130	.082	.047	.090	.057	.033	.052	.034	.020	.017	.011	.007	
7.0	.145	.088	.048	.124	.076	.042	.086	.053	.030	.050	.031	.018	.016	.010	.006	
8.0	.138	.082	.043	.119	.071	.038	.082	.050	.027	.048	.029	.016	.016	.010	.005	
9.0	.133	.077	.040	.114	.067	.035	.079	.047	.025	.046	.028	.015	.015	.009	.005	
10.0	.127	.073	.037	.110	.063	.032	.076	.044	.023	.044	.026	.014	.014	.009	.004	

Test System:HOPOO HPG1900  
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 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Report number:

MANUFACTURER:						Address:				
NAME: NOVATRIS						TYPE:9W 4000K			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	16.1	17.5	16.4	17.7	17.9	14.0	15.4	14.3	15.6	15.8
3H	17.5	18.8	17.8	19.0	19.3	14.6	15.9	14.9	16.1	16.4
4H	18.0	19.3	18.4	19.5	19.8	14.7	16.0	15.1	16.2	16.5
6H	18.4	19.6	18.8	19.9	20.2	14.8	16.0	15.2	16.3	16.6
8H	18.5	19.6	18.8	19.9	20.2	14.9	16.0	15.2	16.3	16.6
12H	18.5	19.6	18.9	19.9	20.3	14.9	15.9	15.3	16.3	16.6
4H 2H	16.3	17.6	16.7	17.8	18.1	14.6	15.9	15.0	16.1	16.4
3H	17.9	19.0	18.3	19.3	19.6	15.4	16.5	15.8	16.8	17.2
4H	18.6	19.5	19.0	19.9	20.3	15.7	16.7	16.1	17.0	17.4
6H	19.1	19.9	19.5	20.3	20.7	15.9	16.8	16.3	17.1	17.5
8H	19.2	20.0	19.6	20.4	20.8	16.0	16.8	16.4	17.2	17.6
12H	19.3	20.0	19.8	20.5	20.9	16.0	16.8	16.5	17.2	17.6
8H 4H	18.6	19.4	19.1	19.8	20.2	16.0	16.8	16.5	17.2	17.6
6H	19.2	19.9	19.7	20.3	20.8	16.4	17.0	16.8	17.5	17.9
8H	19.5	20.0	19.9	20.5	21.0	16.5	17.1	17.0	17.6	18.1
12H	19.6	20.2	20.1	20.6	21.1	16.7	17.2	17.2	17.7	18.2
12H 4H	18.6	19.3	19.1	19.7	20.2	16.1	16.8	16.5	17.2	17.6
6H	19.3	19.8	19.7	20.3	20.8	16.5	17.1	17.0	17.5	18.0
8H	19.5	20.0	20.0	20.5	21.0	16.7	17.2	17.2	17.7	18.2
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.3 / - 0.4				
1.5H	+ 0.1 / - 0.2					+ 0.3 / - 0.4				
2.0H	+ 0.5 / - 0.6					+ 0.4 / - 0.9				

CIE Pub.117 Corrected 795.3 lm Total Lamp Luminous Flux.(8log(F/F0) = -0.8)

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:	Address:		
NAME: NOVATRIS	TYPE:9W 4000K	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	61	51	44	61	50	44	59	50	44	38
0.80	71	61	54	70	60	54	68	59	53	47
1.00	79	69	62	78	68	62	76	70	61	55
1.25	86	76	70	85	76	69	82	74	69	62
1.50	91	82	75	89	81	75	86	79	74	66
2.00	97	89	83	95	88	82	92	86	81	73
2.50	100	93	88	98	92	87	94	89	85	77
3.00	103	97	92	101	96	91	97	92	89	80
4.00	107	102	98	105	100	96	100	96	93	84
5.00	109	105	101	107	103	99	102	99	96	87
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

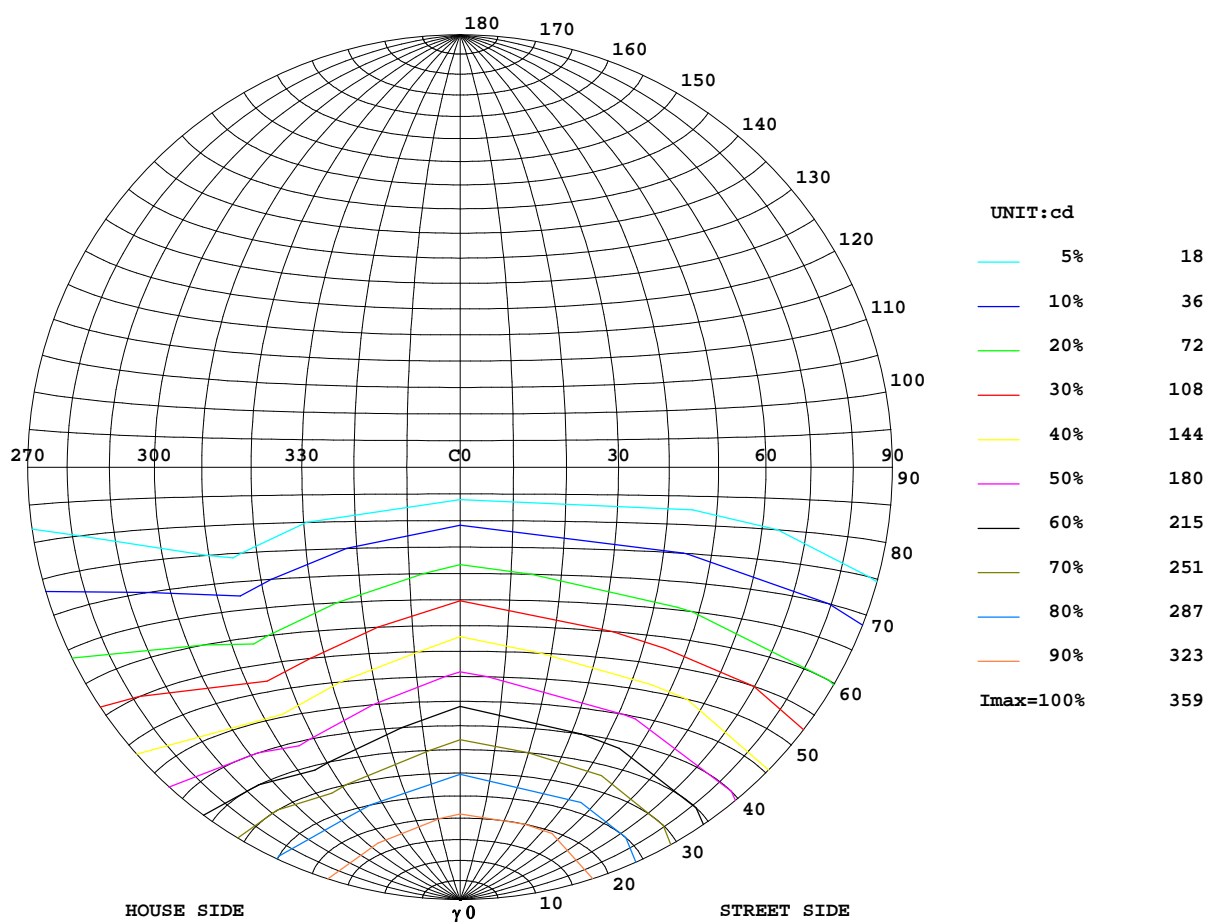
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME: NOVATRIS	TYPE:9W 4000K	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

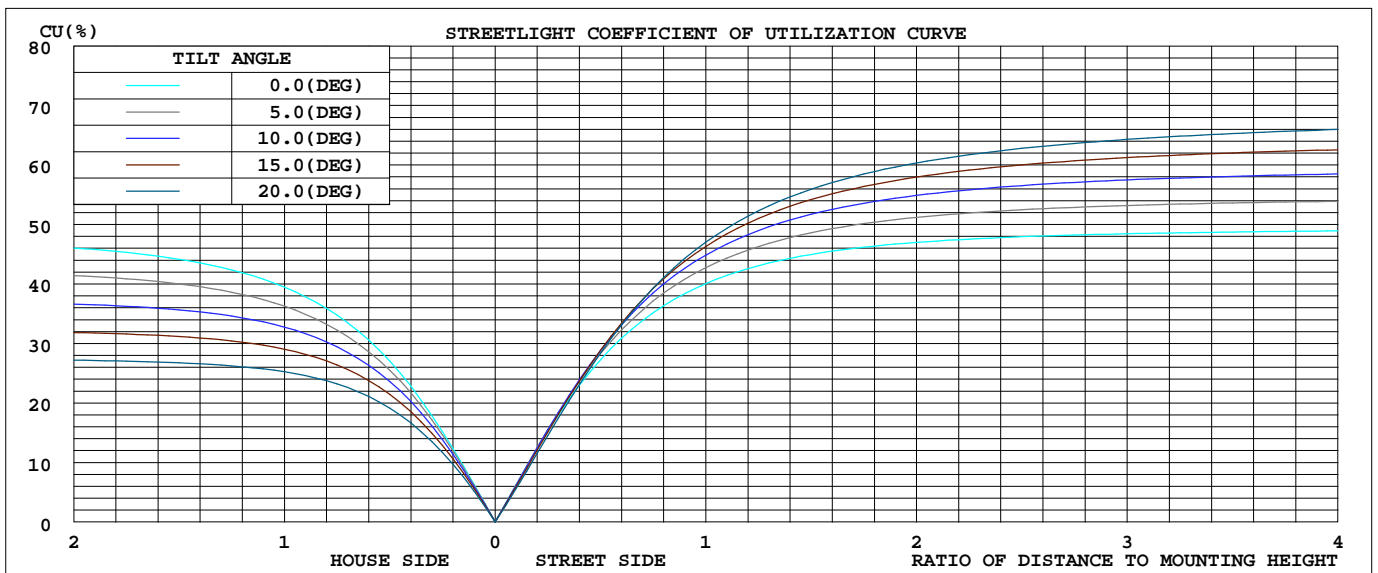
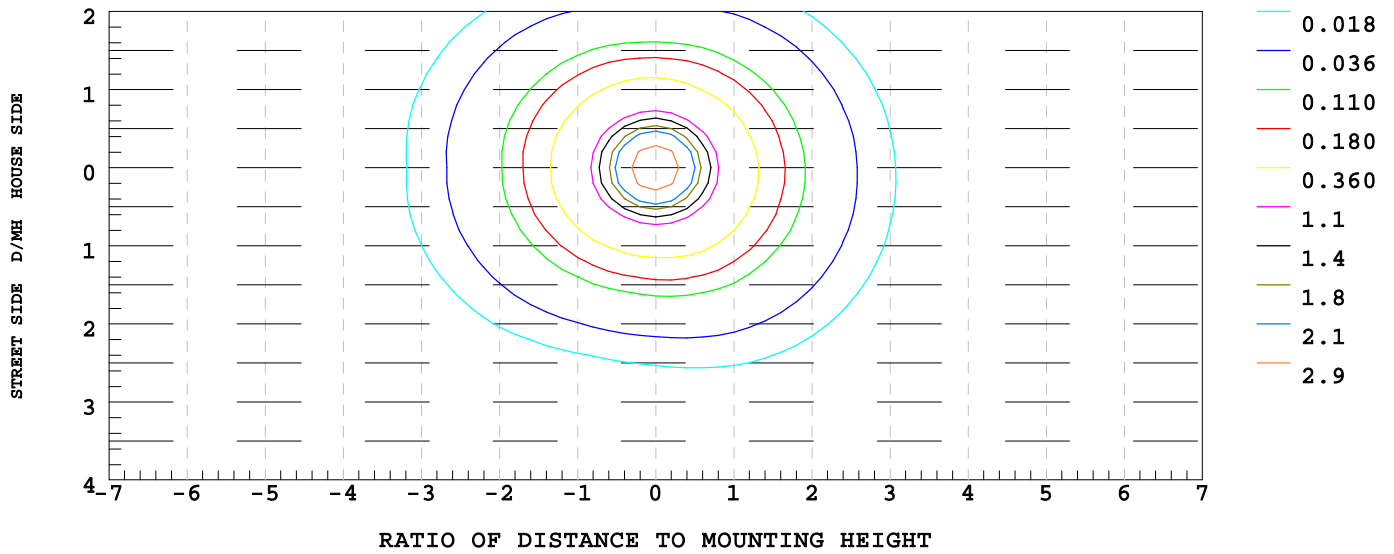
# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME: NOVATRIS	TYPE:9W 4000K	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 3.58 lx



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

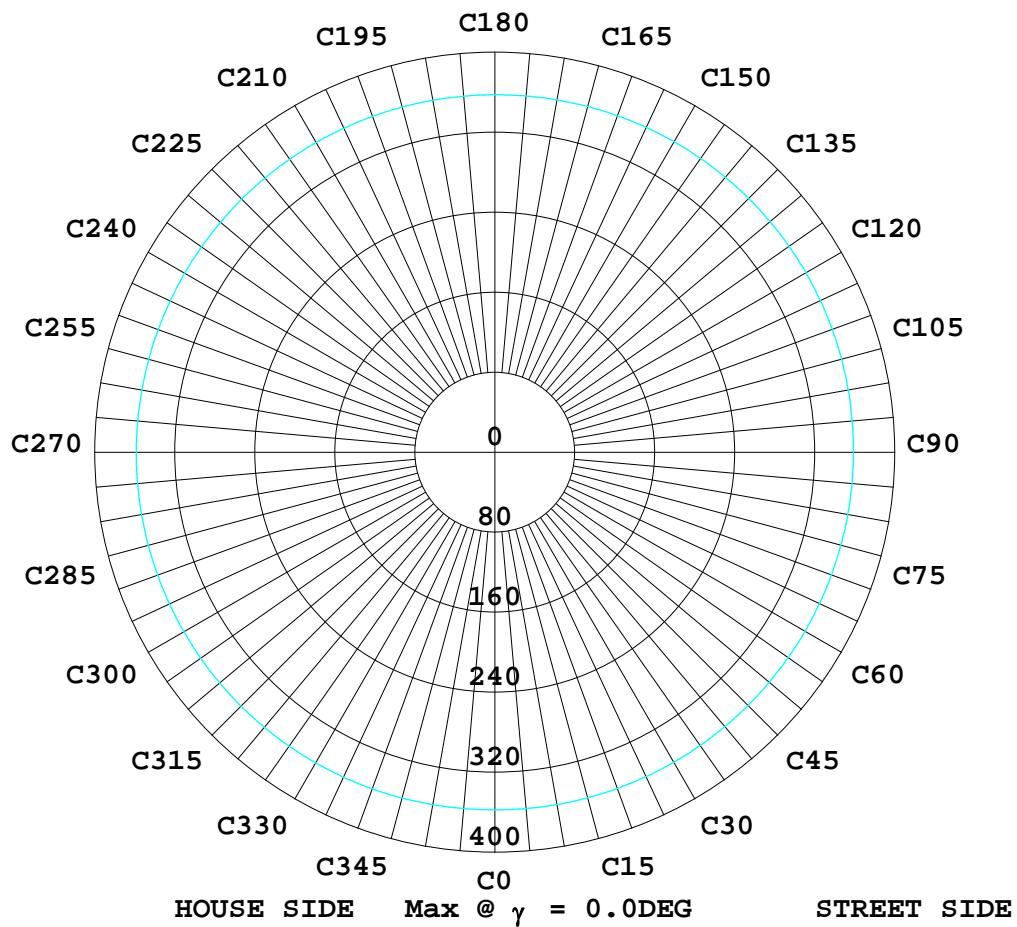
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME: NOVATRIS	TYPE:9W 4000K	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年05月26日

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.200 m  
 Remarks:

# HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

## LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

<b>MANUFACTURER:</b>	<b>Address:</b>	
<b>NAME: NOVATRIS</b>	<b>TYPE:9W 4000K</b>	<b>WEIGHT:</b>
<b>SPECIFICATION:</b>	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: cd

γ (DEG)	C(DEG)							
	0	45	90	135	180	225	270	315
0.0	358	358	359	359	358	358	359	359
5.0	358	359	358	356	356	355	355	357
10.0	351	351	352	350	348	347	346	350
15.0	342	341	336	336	337	334	333	337
20.0	327	321	314	315	319	315	310	320
25.0	307	299	281	292	300	288	281	296
30.0	286	270	246	263	277	258	245	267
35.0	261	238	210	236	251	224	209	238
40.0	237	207	177	209	227	194	174	208
45.0	210	177	146	183	200	163	146	179
50.0	184	150	121	160	174	135	118	152
55.0	157	123	95.4	133	149	114	90.0	130
60.0	133	97.6	70.6	107	122	89.3	65.9	104
65.0	106	73.6	49.2	81.9	95.4	66.2	44.2	79.5
70.0	80.1	53.2	30.5	60.2	70.0	46.3	27.5	57.6
75.0	54.5	35.5	16.9	41.0	45.5	30.5	16.2	39.4
80.0	31.9	22.6	11.1	25.9	24.2	20.5	10.5	25.2
85.0	13.9	13.5	6.18	13.8	9.07	13.1	5.11	14.3
90.0	4.30	5.71	2.95	4.84	2.35	7.26	2.21	6.99
95.0	3.56	3.36	2.28	2.82	2.15	4.16	1.34	4.30
100.0	3.02	1.68	1.81	1.47	1.88	2.68	0.81	3.22
105.0	2.82	1.47	1.61	1.27	1.81	2.42	0.74	2.62
110.0	2.68	1.61	1.34	1.27	1.81	2.48	0.54	2.48
115.0	2.68	1.88	1.14	1.47	1.94	2.55	0.67	2.42
120.0	2.75	2.15	1.34	1.74	2.21	2.55	0.81	2.48
125.0	2.75	2.28	1.34	1.94	2.55	2.62	0.81	2.68
130.0	2.68	2.42	1.34	2.08	2.62	2.75	0.94	2.89
135.0	2.48	2.42	1.34	2.21	2.55	2.89	0.94	2.82
140.0	2.28	2.28	1.34	2.15	2.35	2.82	1.00	2.62
145.0	2.08	2.01	1.41	2.01	2.08	2.48	1.07	2.42
150.0	1.88	1.74	1.41	1.74	1.88	2.01	1.21	2.15
155.0	1.81	1.47	1.47	1.47	1.74	1.68	1.27	1.81
160.0	1.74	1.34	1.54	1.34	1.68	1.68	1.34	1.68
165.0	1.74	1.34	1.61	1.34	1.68	1.74	1.41	1.74
170.0	1.68	1.41	1.61	1.41	1.74	1.74	1.47	1.68
175.0	1.74	1.47	1.68	1.47	1.74	1.74	1.47	1.74
180.0	1.81	1.54	1.61	1.54	1.81	1.68	1.54	1.68

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