

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

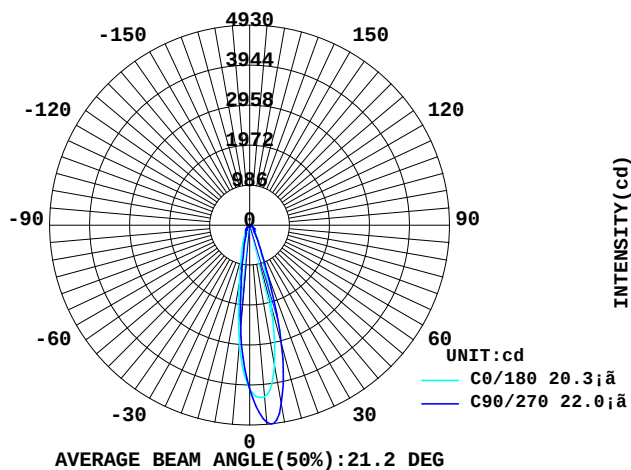
STREETLIGHT PHOTOMETRIC TEST REPORT

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706

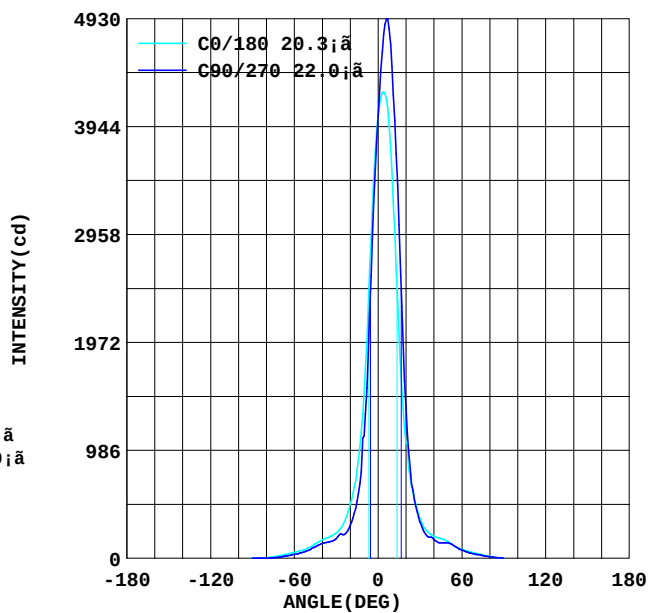
MODEL:	SMD	I _{max} (cd):	4930	Effective Flux(lm):	1350.3
NOMINAL POWER(W):	18	MAXIMUM(C, γ):	270, 6.0	EEI	0.174
RATED VOLTAGE(V):	230	EFFICIENCY(%):	100.0	Voltage(V)	230.6
NOMINAL FLUX(lm):	1350.3	η street_up(%):	0.0	Current(A)	0.143
TEST FLUX(lm):	1350	η street_down(%):	30.7	Power(W)	17.27
LAMPS QUANTITY:	1	η house_up(%):	0.0	Power Factor	0.521
TOTAL RADIANT(mw):	1350	η house_down(%):	69.3	EEFICIENCY(lm/W)	78.2

INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS

LUMINOUS INTENSITY DISTRIBUTION



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:10-07-2020

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:5.150 m
Remarks:

HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

Color Temperature Data List

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:10-07-2020

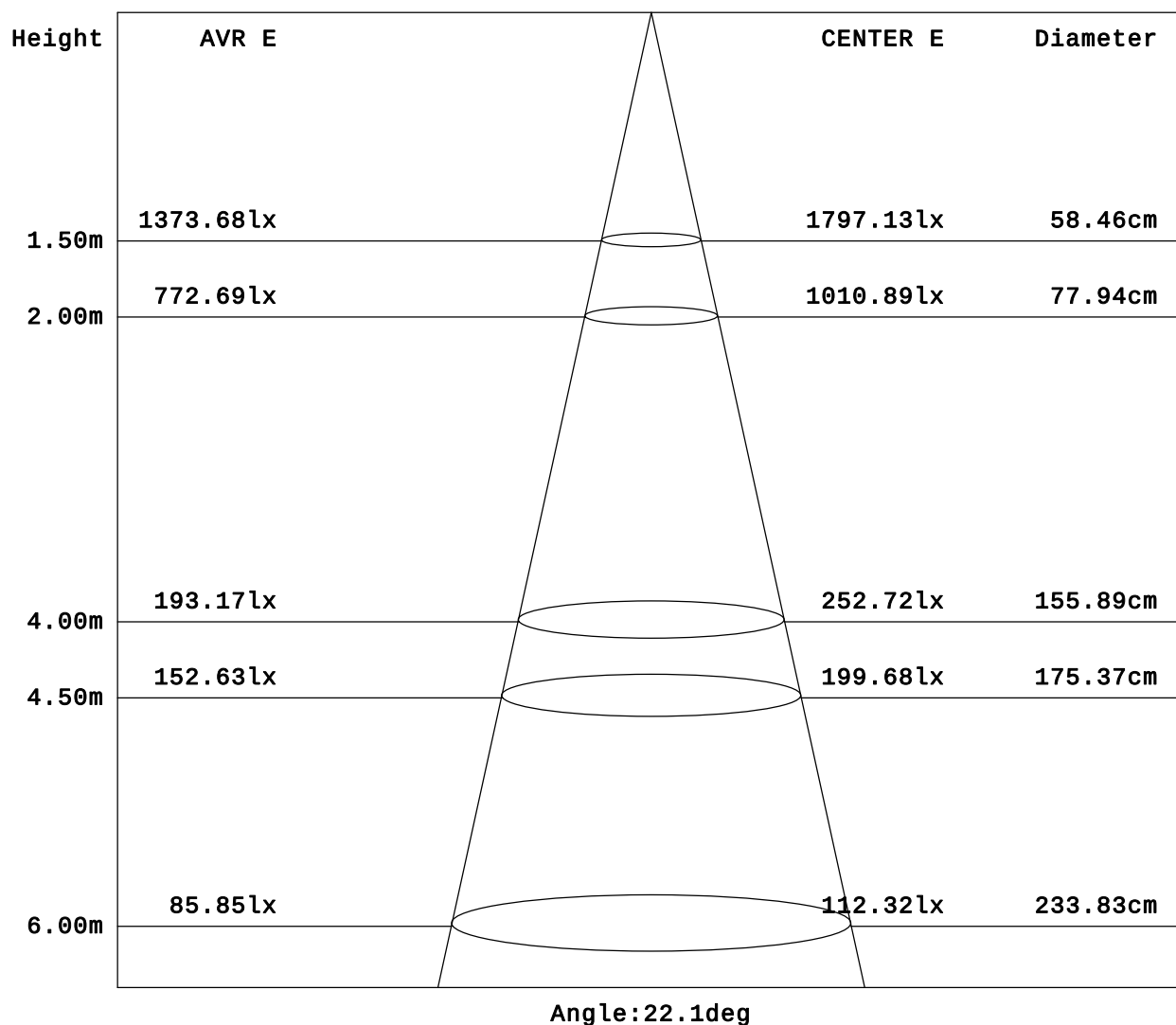
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Humidity:65.0%
Test Distance:5.150 m
Remarks:

HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:10-07-2020

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

HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706

γ	C0	C90	C180	C270					γ	zone	total
5.0	2910	2581	4246	4876					0- 5	92.06	92.06
10.0	1497	1120	3533	4491					5- 10	223.9	315.9
15.0	807.7	521.6	2045	3047					10- 15	248.9	564.9
20.0	486.3	297.1	1055	1372					15- 20	189.3	754.3
25.0	309.3	214.6	602.4	618.4					20- 25	123.4	877.7
30.0	232.2	180.7	365.4	336.1					25- 30	88.49	966.2
35.0	194.4	149.9	249.1	204.9					30- 35	68.34	1035
40.0	168.6	135.4	199.8	171.7					35- 40	61.61	1096
45.0	131.9	104.6	181.2	141.0					40- 45	56.71	1153
50.0	93.73	72.51	152.1	141.2					45- 50	51.51	1204
55.0	70.86	49.96	108.9	110.7					50- 55	43.49	1248
60.0	54.63	35.67	81.21	73.41					55- 60	33.62	1282
65.0	38.85	22.99	61.93	52.16					60- 65	25.51	1307
70.0	24.69	11.90	45.99	37.42					65- 70	18.59	1326
75.0	12.65	4.827	30.58	25.01					70- 75	12.51	1338
80.0	4.588	1.140	17.18	14.48					75- 80	7.249	1345
85.0	1.909	0.637	6.338	6.630					80- 85	3.437	1349
90.0	1.697	0.743	2.121	2.599					85- 90	1.423	1350
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:cd									UNIT: lm	

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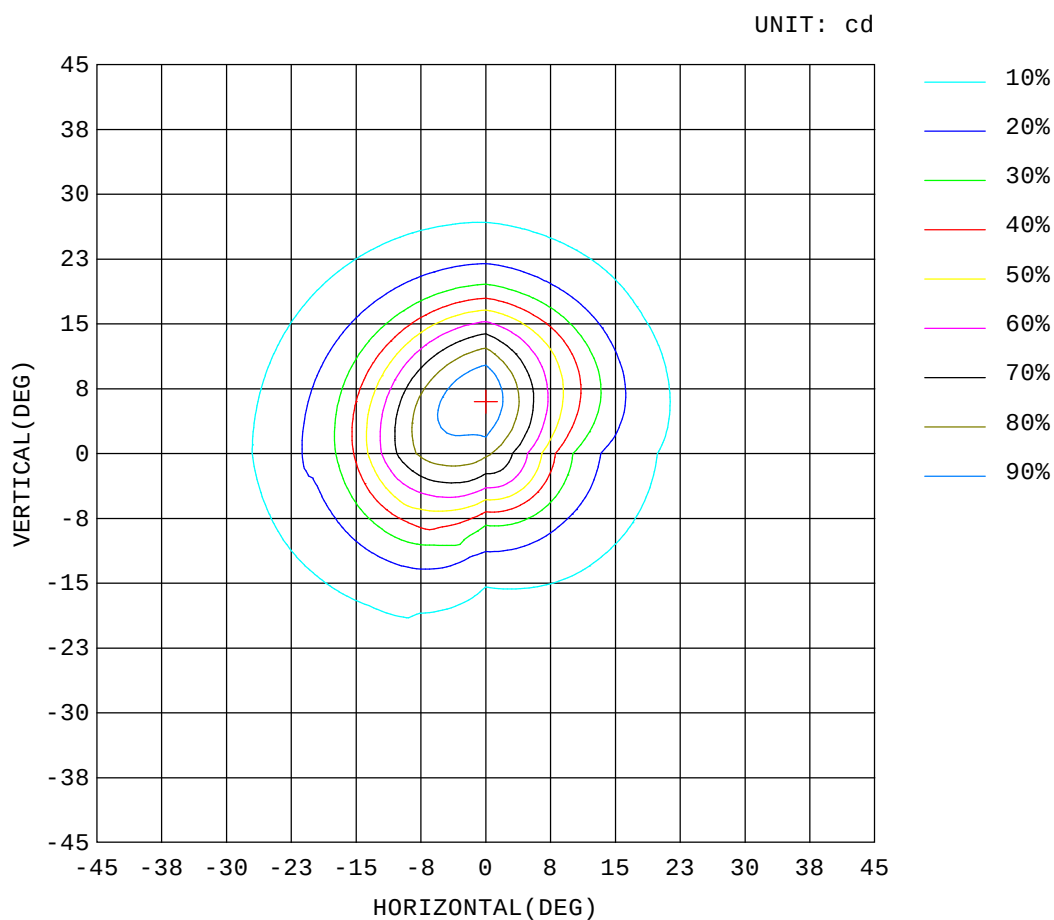
Test Set: 5.0deg/s C-Gamma (TYPE C)
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 Test Distance:5.150 m
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HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:10-07-2020

Test Set: 5.0deg/s C-Gamma (TYPE C)
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Remarks:

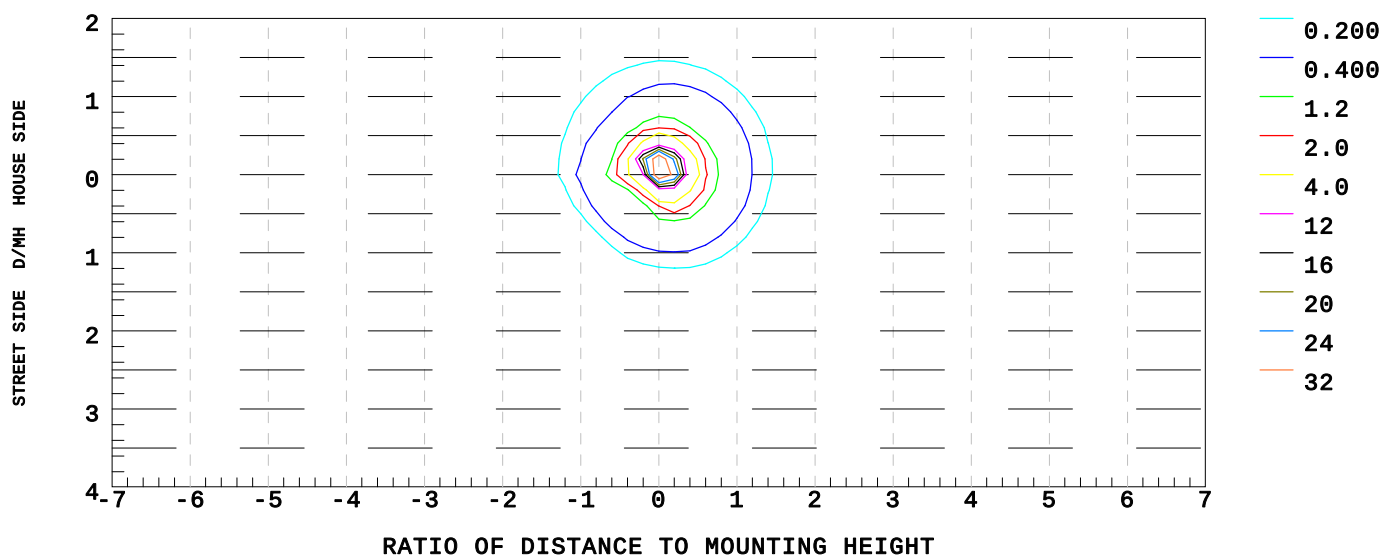
HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706

ILLUMINANCE AT MH=10 m, Enadir = 40.44 lx



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Temperature:25.3DEG
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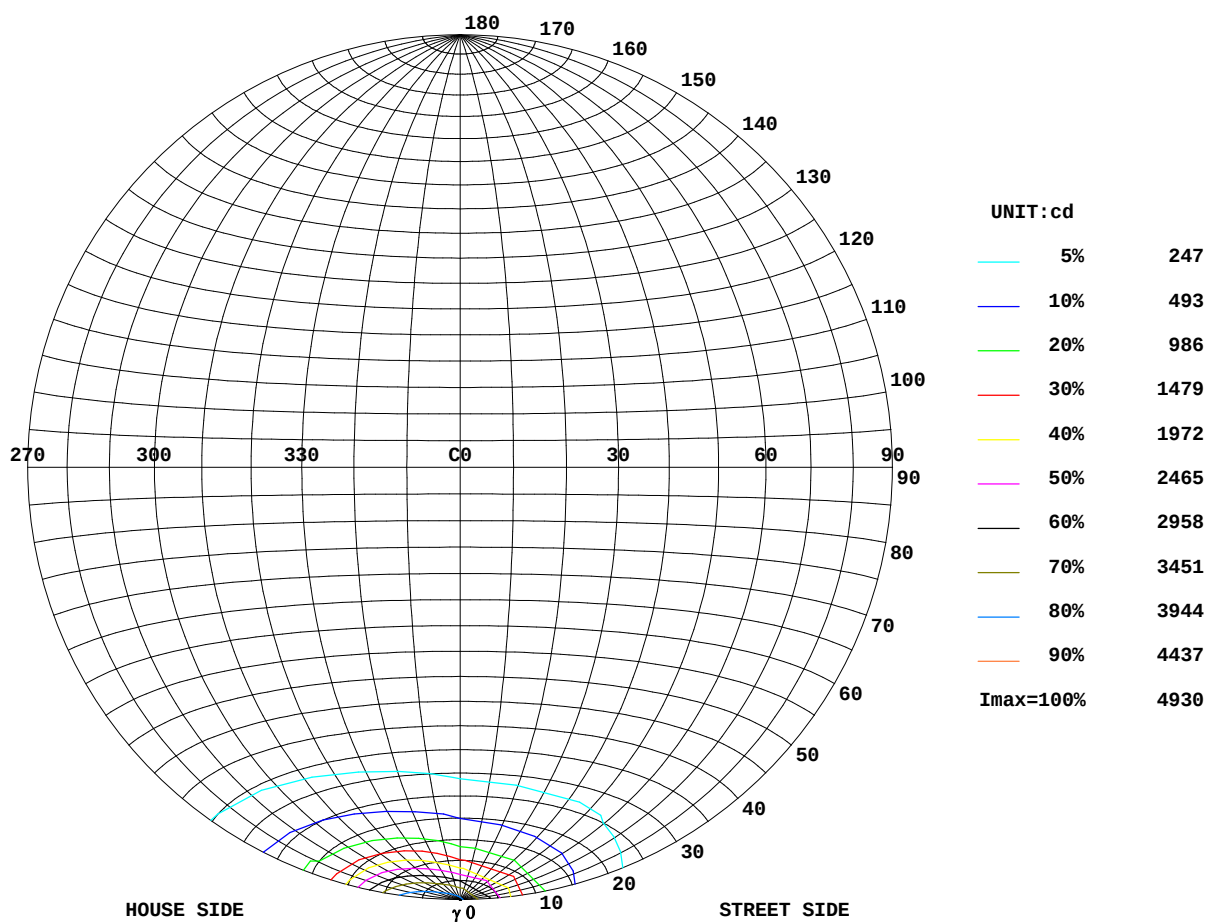
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Test Distance:5.150 m
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HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

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NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706



Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
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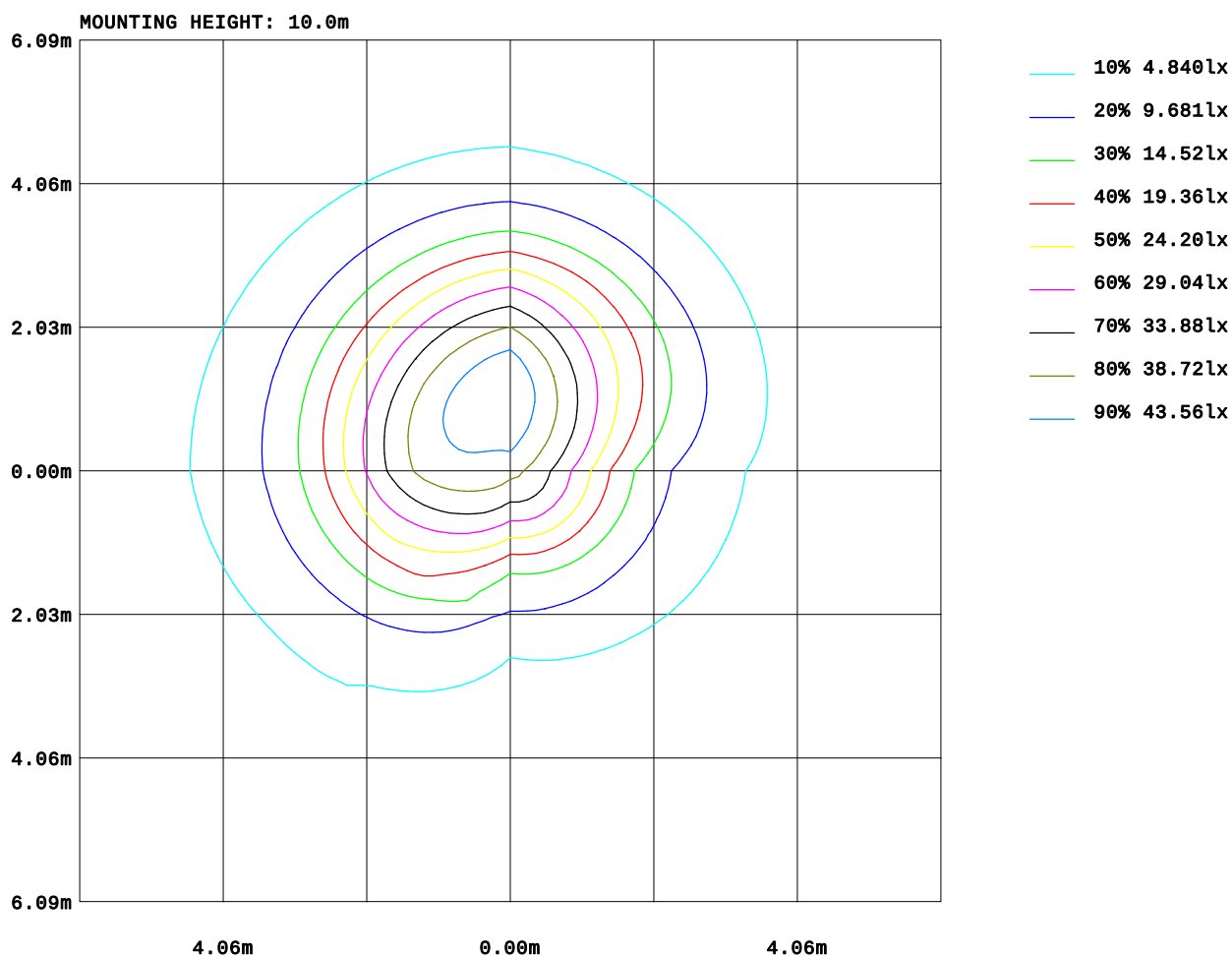
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HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

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Report number:

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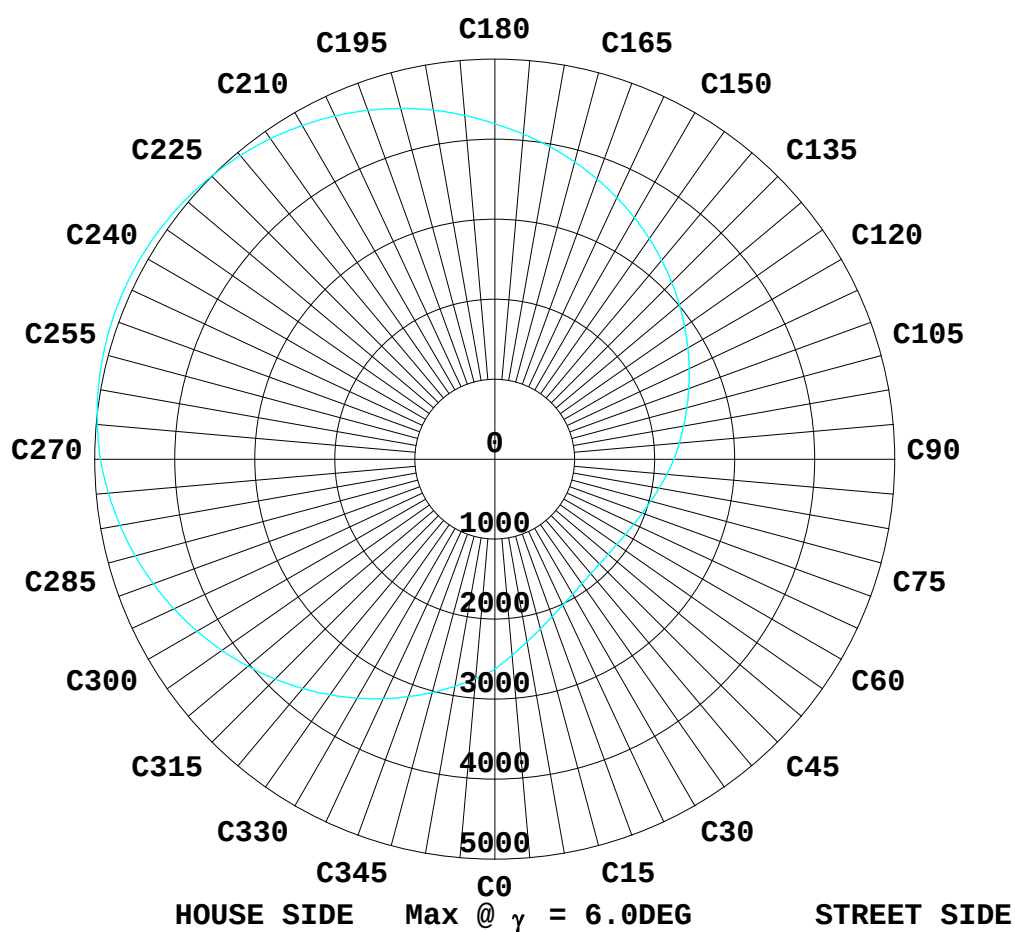
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HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

ISOCANDELA DIAGRAM

Report number:

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NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706



Test System:HOP00 HPG1600
Temperature:25.3DEG
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Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

AREA LUMINOUS FLUX

Report number:

MANUFACTURER:																	
Address:																	
NAME: 18W									TYPE: WALLVASHER						WEIGHT:		
SPECIFICATION:									DIMENSION: 380*35*65						SERIAL No.: LA/YE6L-990706		

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	0.54	0.70	0.88	1.00	1.06	1.10	1.13	1.15	1.16	1.15	1.11	1.06	1.00	0.93	0.83	0.71	0.57	0.43	16.5	16.5		
45																						
40	0.65	0.85	0.99	1.07	1.15	1.26	1.38	1.44	1.46	1.44	1.40	1.32	1.19	1.04	0.92	0.80	0.66	0.50	19.5	19.5		
35	0.77	0.94	1.05	1.18	1.36	1.52	1.68	1.87	1.97	1.94	1.78	1.57	1.41	1.26	1.06	0.89	0.73	0.57	23.6	23.6		
30	0.86	1.00	1.15	1.37	1.61	2.04	2.59	3.10	3.43	3.33	2.87	2.30	1.79	1.43	1.23	1.01	0.81	0.63	32.6	32.6		
25	0.92	1.06	1.29	1.58	2.17	3.10	4.28	5.67	6.78	6.55	5.10	3.61	2.51	1.78	1.36	1.14	0.90	0.68	50.5	50.5		
20	0.97	1.14	1.43	1.97	3.03	4.72	7.68	11.7	15.3	14.8	10.3	6.18	3.56	2.25	1.56	1.22	0.99	0.74	89.7	89.7		
15	1.00	1.22	1.60	2.45	4.03	7.22	13.1	21.3	27.3	25.7	17.8	10.0	5.00	2.71	1.75	1.29	1.05	0.79	146	146		
	1.03	1.28	1.77	2.89	5.04	9.73	18.7	28.7	34.9	31.9	21.4	12.1	5.97	3.03	1.86	1.35	1.08	0.83	184	184		
	1.05	1.33	1.89	3.15	5.70	10.8	21.0	30.7	34.0	30.2	19.5	10.3	5.38	2.94	1.84	1.36	1.10	0.85	183	183		
	1.05	1.32	1.86	3.06	5.39	9.80	18.3	25.9	27.3	23.5	14.6	7.63	4.30	2.63	1.76	1.33	1.09	0.84	152	152		
	1.01	1.25	1.70	2.67	4.30	7.30	12.1	16.5	15.8	12.9	9.33	5.62	3.54	2.30	1.64	1.28	1.05	0.81	101	101		
-15	0.98	1.17	1.51	2.18	3.25	4.88	6.90	8.51	7.62	6.03	5.01	3.74	2.66	1.93	1.48	1.20	1.00	0.76	60.9	60.9		
-20	0.92	1.09	1.33	1.73	2.42	3.15	3.96	4.29	3.66	3.08	2.93	2.47	2.00	1.64	1.32	1.13	0.94	0.69	38.8	38.8		
-25	0.85	1.01	1.19	1.42	1.76	2.22	2.50	2.48	2.15	1.92	1.92	1.83	1.63	1.37	1.19	1.04	0.84	0.61	27.9	27.9		
-30	0.75	0.93	1.06	1.22	1.38	1.56	1.75	1.82	1.70	1.60	1.58	1.46	1.31	1.20	1.09	0.93	0.73	0.52	22.6	22.6		
-35	0.64	0.81	0.96	1.07	1.18	1.27	1.32	1.32	1.26	1.23	1.23	1.21	1.16	1.08	0.96	0.78	0.60	0.44	18.5	18.5		
-40	0.52	0.67	0.81	0.93	1.02	1.09	1.13	1.14	1.11	1.10	1.10	1.08	1.01	0.91	0.78	0.62	0.48	0.37	15.9	15.9		
-45	0.42	0.53	0.64	0.75	0.84	0.90	0.94	0.95	0.94	0.93	0.91	0.87	0.80	0.70	0.59	0.48	0.39	0.31	12.9	12.9		
	-45	-40	-35	-30	-25	-20	-15	-10	HORIZONTAL(DEG)				10	15	20	25	30	35	40	45		
Φ t	14.9	18.3	23.1	31.7	46.8	73.8	121	169	188	170	120	74.6	46.3	31.2	23.2	18.6	15.0	11.3	1350			
Φ a	14.9	18.3	23.1	31.7	46.8	73.8	121	169	188	170	120	74.6	46.3	31.2	23.2	18.6	15.0	11.3		1350		

Test System:HOP00 HPG1600
 Temperature:25.3DEG
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Test Set: 5.0deg/s C-Gamma (TYPE C)
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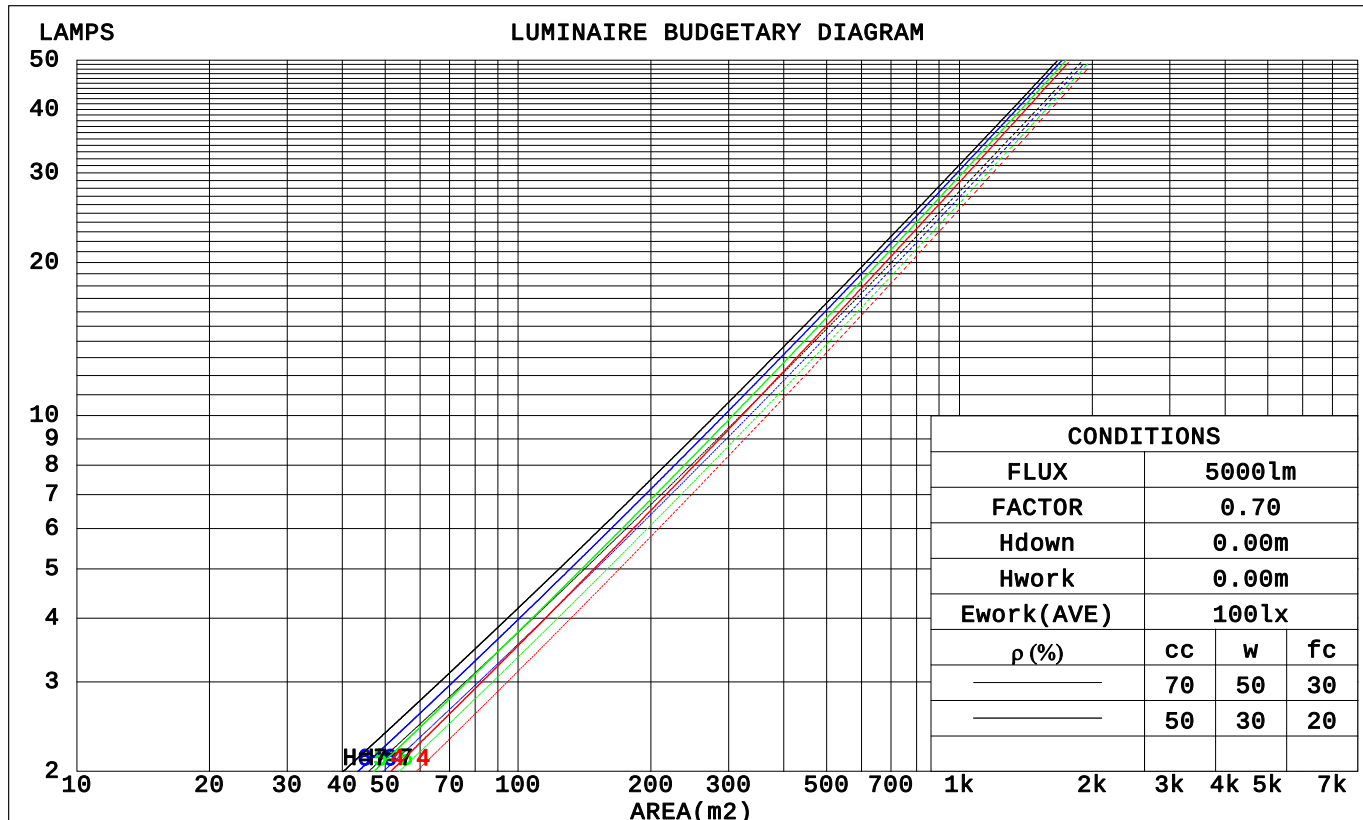
HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 18W								TYPE: WALLVASHER				WEIGHT:			
SPECIFICATION:								DIMENSION: 380*35*65				SERIAL No.: LA/YE6L-990706			

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															



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HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

WEC AND CCEC

Report number:

MANUFACTURER:														
Address:														
NAME: 18W							TYPE: WALLVASHER					WEIGHT:		
SPECIFICATION:							DIMENSION: 380*35*65					SERIAL No.: LA/YE6L-990706		

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	.187	.106	.034	.180	.103	.033	.168	.096	.031	.156	.090	.029	.145	.084	.027															
2.0	.177	.097	.030	.171	.094	.029	.161	.089	.028	.151	.085	.026	.142	.080	.025															
3.0	.166	.088	.026	.161	.086	.026	.152	.082	.025	.143	.079	.024	.136	.075	.023															
4.0	.155	.081	.024	.151	.079	.023	.143	.076	.023	.136	.073	.022	.129	.070	.021															
5.0	.146	.074	.021	.142	.073	.021	.135	.070	.021	.129	.068	.020	.123	.066	.020															
6.0	.137	.069	.020	.134	.068	.019	.128	.066	.019	.122	.064	.019	.117	.062	.018															
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.060	.017	.112	.058	.017															
8.0	.122	.060	.017	.120	.059	.017	.115	.058	.016	.111	.056	.016	.107	.055	.016															
9.0	.116	.056	.016	.114	.055	.016	.110	.054	.015	.106	.053	.015	.102	.052	.015															
10.0	.110	.053	.015	.108	.052	.015	.105	.051	.014	.101	.050	.014	.098	.049	.014															

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.067	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.134	.099	.072	.115	.085	.063	.079	.060	.044	.046	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.107	.075	.052	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.088	.055	.032	.061	.039	.023	.036	.023	.014	.012	.007	.004	
9.0	.097	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.017	.032	.019	.010	.010	.006	.003	

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 Temperature:25.3DEG
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Test Set: 5.0deg/s C-Gamma (TYPE C)
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HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

Uncorrected UGR Table

Report number:

MANUFACTURER:										
Address:										
NAME: 18W						TYPE: WALLVASHER			WEIGHT:	
SPECIFICATION:						DIMENSION: 380*35*65			SERIAL No.: LA/YE6L-990706	
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	9.6	10.5	9.8	10.7	10.9	8.4	9.3	8.6	9.5	9.6
3H	10.3	11.2	10.5	11.3	11.6	8.7	9.6	9.0	9.8	10.0
4H	10.4	11.2	10.7	11.5	11.7	8.7	9.5	9.0	9.7	10.0
6H	10.4	11.2	10.7	11.4	11.7	8.6	9.4	8.9	9.7	9.9
8H	10.4	11.1	10.7	11.4	11.7	8.6	9.3	8.9	9.6	9.9
12H	10.4	11.1	10.7	11.4	11.6	8.6	9.3	8.9	9.5	9.8
4H 2H	9.8	10.6	10.1	10.8	11.1	8.7	9.6	9.0	9.8	10.0
3H	10.6	11.3	10.9	11.6	11.8	9.2	9.9	9.5	10.1	10.4
4H	10.7	11.4	11.1	11.7	12.0	9.2	9.8	9.5	10.1	10.4
6H	10.8	11.3	11.1	11.7	12.0	9.1	9.7	9.5	10.0	10.4
8H	10.7	11.3	11.1	11.6	12.0	9.1	9.6	9.5	10.0	10.3
12H	10.7	11.2	11.1	11.6	12.0	9.0	9.5	9.4	9.9	10.3
8H 4H	10.7	11.2	11.1	11.6	11.9	9.2	9.7	9.6	10.1	10.4
6H	10.7	11.2	11.1	11.6	12.0	9.1	9.6	9.6	10.0	10.4
8H	10.7	11.1	11.1	11.5	11.9	9.1	9.5	9.5	9.9	10.3
12H	10.7	11.0	11.1	11.5	11.9	9.0	9.4	9.5	9.8	10.3
12H 4H	10.6	11.1	11.0	11.5	11.9	9.1	9.6	9.5	10.0	10.4
6H	10.7	11.1	11.1	11.5	11.9	9.1	9.5	9.5	9.9	10.3
8H	10.6	11.0	11.1	11.4	11.9	9.0	9.4	9.5	9.8	10.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.7 / - 0.9					+ 1.1 / - 1.4				
1.5H	+ 0.6 / - 0.6					+ 0.6 / - 0.9				
2.0H	+ 1.7 / - 1.2					+ 1.7 / - 1.7				

CIE Pub.117 Corrected 1350 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.0)

Test System:HOP00 HPG1600
 Temperature:25.3DEG
 Operators:
 Test Date:10-07-2020

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.150 m
 Remarks:

HOP00 GONIOPHOTOMETERS SYSTEM TEST REPORT

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706

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) $k(RI) \times RCR = 5$									
$k = 0.60$	80	72	67	79	72	67	78	71	67	63
0.80	88	81	76	87	80	76	86	80	76	71
1.00	94	87	82	93	86	82	91	86	81	77
1.25	98	92	88	97	91	87	95	90	86	82
1.50	102	96	92	100	95	91	98	93	90	85
2.00	105	100	96	104	99	96	101	97	94	88
2.50	108	103	99	106	102	98	103	99	96	90
3.00	110	105	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	104	106	104	102	94
5.00	114	111	108	111	109	107	107	105	104	96
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:10-07-2020

Test Set: 5.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:5.150 m
 Remarks:

HOPOO GONIOPHOTOMETERS SYSTEM TEST REPORT

LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

MANUFACTURER:		
Address:		
NAME: 18W	TYPE: WALLVASHER	WEIGHT:
SPECIFICATION:	DIMENSION: 380*35*65	SERIAL No.: LA/YE6L-990706

UNIT: cd

γ (DEG)	C (DEG)			
	0	90	180	270
0.0	4044	4047	4044	4047
5.0	2910	2581	4246	4876
10.0	1497	1120	3533	4491
15.0	808	522	2045	3047
20.0	486	297	1055	1372
25.0	309	215	602	618
30.0	232	181	365	336
35.0	194	150	249	205
40.0	169	135	200	172
45.0	132	105	181	141
50.0	93.7	72.5	152	141
55.0	70.8	49.9	109	111
60.0	54.6	35.6	81.2	73.4
65.0	38.8	22.9	61.9	52.1
70.0	24.6	11.9	45.9	37.4
75.0	12.6	4.82	30.5	25.0
80.0	4.58	1.14	17.1	14.4
85.0	1.90	0.64	6.33	6.63
90.0	1.69	0.74	2.12	2.59

Test System:HOP00 HPG1600
Temperature:25.3DEG
Operators:
Test Date:10-07-2020

Test Set: 5.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:5.150 m
Remarks: