

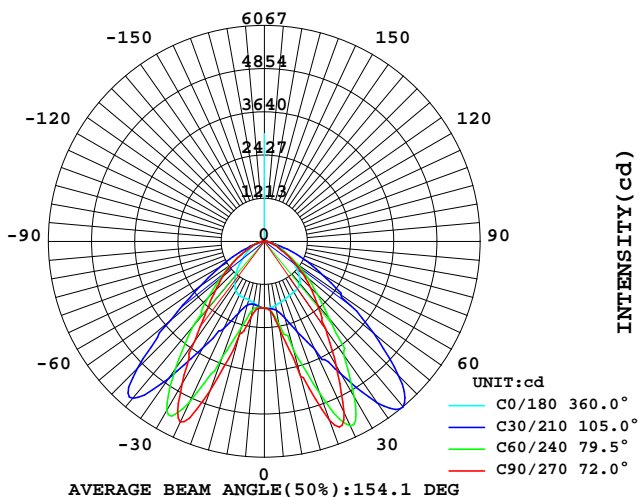
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

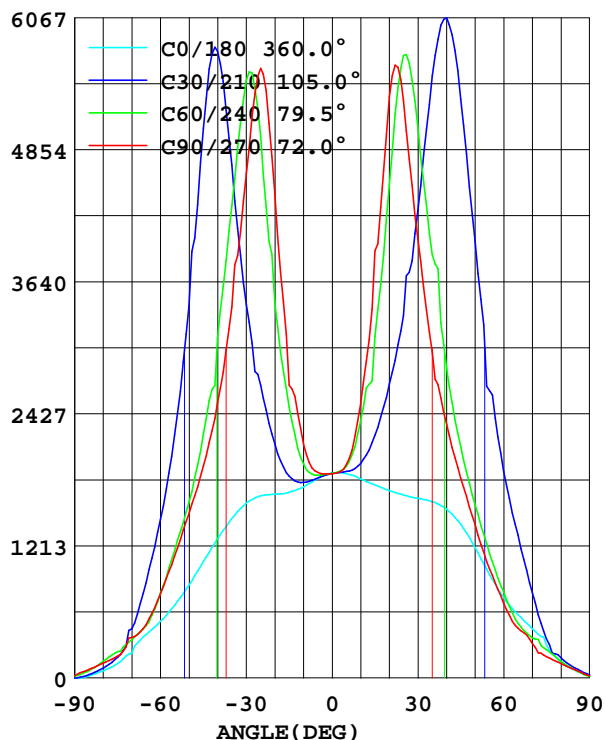
MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I <sub>max</sub> (cd)	6099	S/MH(C0/180)	1.26
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.61
NOMINAL POWER(W)	70	TOTAL FLUX(lm)	9837.4	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	140.3	Current(A)	0.328
NOMINAL FLUX(lm)	9837.5	h up(%)	0.0	Power(W)	70.13
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.975
TEST VOLTAGE(V)	218.6	Effective Flux(lm)	9241.2	EEI	0.103

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



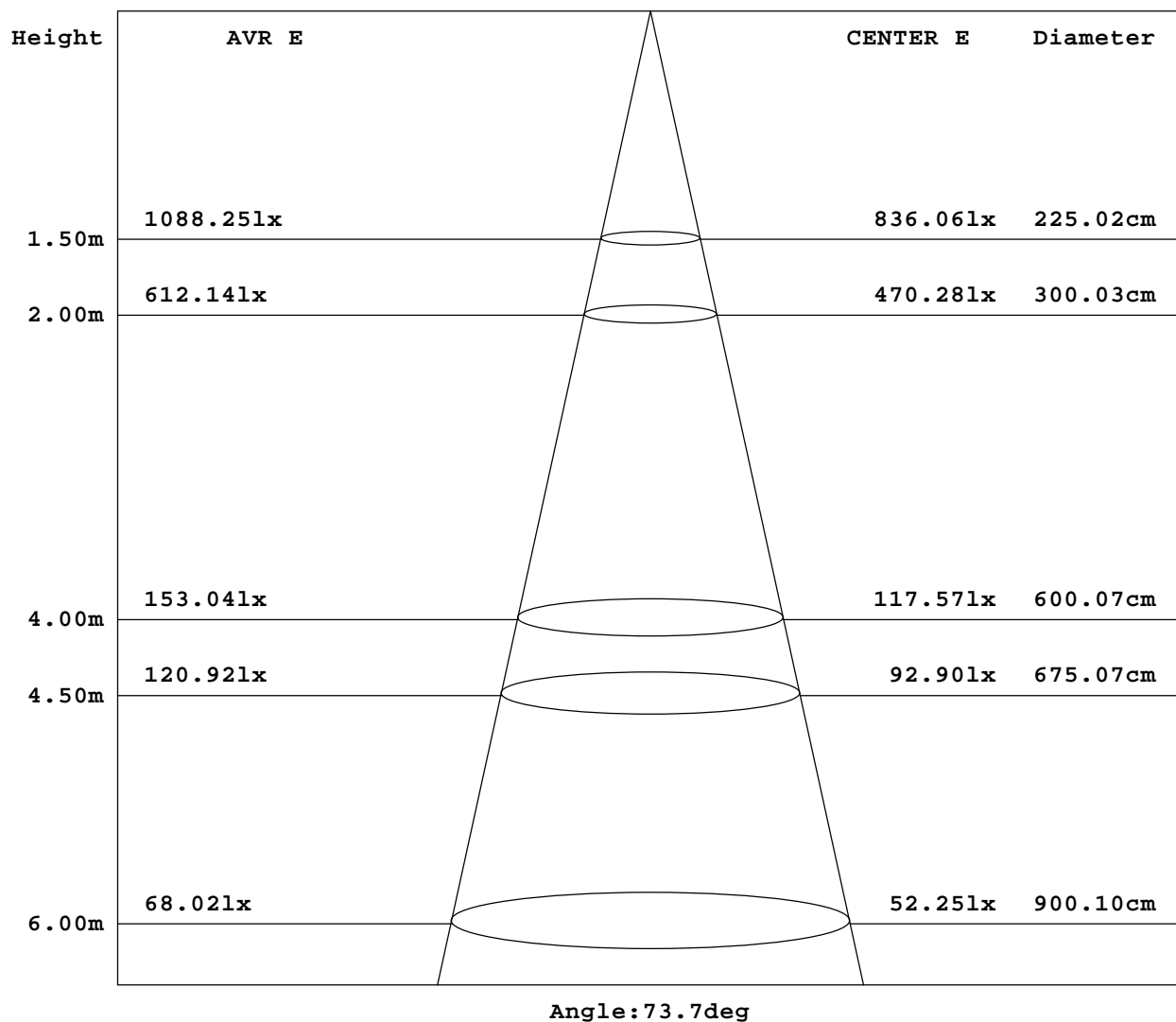
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

### AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System: HOPOO HPG1800  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity: 65.0%  
 Test Distance: 11.000 m  
 Remarks:

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	1831	1850	1888	1874	1878	1922	1963	1877	0- 5	44.90	44.90
10.0	1755	1881	2145	1958	1829	2163	2514	2062	5- 10	139.1	184.0
15.0	1707	2170	2689	2311	1775	2684	3924	2549	10- 15	264.3	448.4
20.0	1689	2802	4456	3095	1722	3616	5338	3444	15- 20	469.2	917.6
25.0	1674	3834	5602	4026	1680	4523	5307	4371	20- 25	769.4	1687
30.0	1607	4461	4626	4490	1651	4681	4036	4509	25- 30	1024	2711
35.0	1465	4526	3409	4472	1618	4710	2995	4709	30- 35	1155	3866
40.0	1277	4439	2528	4476	1550	4456	2331	4298	35- 40	1249	5115
45.0	1073	3647	1949	4083	1414	3722	1833	3282	40- 45	1222	6337
50.0	854.6	2517	1509	3070	1197	2800	1409	2323	45- 50	1043	7380
55.0	666.6	1701	1121	2208	949.6	1891	1003	1517	50- 55	802.6	8183
60.0	521.4	1121	776.0	1471	741.3	1346	685.2	1027	55- 60	593.3	8776
65.0	399.7	677.9	489.1	974.9	579.5	907.4	457.0	642.8	60- 65	418.9	9195
70.0	223.8	401.3	371.1	639.9	450.9	573.1	316.3	363.7	65- 70	285.5	9481
75.0	133.4	216.4	200.6	365.4	301.8	308.9	194.7	207.5	70- 75	177.0	9658
80.0	67.22	121.4	135.9	189.5	143.9	171.1	133.8	108.3	75- 80	100.5	9758
85.0	17.85	48.59	78.23	93.48	69.40	81.02	74.48	41.21	80- 85	53.88	9812
90.0	0	9.595	23.30	30.50	20.27	21.30	19.55	7.211	85- 90	20.73	9833
95.0	0	1.064	1.161	3.363	0	0.702	3.097	0.218	90- 95	3.806	9837
100.0	0	0	0	0	0	0	0	0	95-100	0.164	9837
105.0	0	0	0	0	0	0	0	0.278	100-105	0.003	9837
110.0	0	0	0	0	0	0	0	1.185	105-110	0.052	9837
115.0	0	0	0	0	0	0.278	0	2.032	110-115	0.133	9837
120.0	0	0	0	0	0	1.343	0	3.642	115-120	0.256	9837
125.0	0	0	0	0	0	0	0	0	120-125	0.039	9837
130.0	0	0	0	0	0	0	0	0	125-130	0	9837
135.0	0	0	0	0	0	0	0	0	130-135	0	9837
140.0	0	0	0	0	0	0	0	0	135-140	0	9837
145.0	0	0	0	0	0	0	0	0	140-145	0	9837
150.0	0	0	0	0	0	0	0	0	145-150	0	9837
155.0	0	0	0	0	0	0	0	0	150-155	0	9837
160.0	0	0	0	0	0	0	0	0	155-160	0	9837
165.0	0	0	0	0	0	0	0	0	160-165	0	9837
170.0	0	0	0	0	0	0	0	0	165-170	0	9837
175.0	0	0	0	0	0	0	0	0	170-175	0	9837
180.0	0	0	0	0	0	0	0	0	175-180	0	9837
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

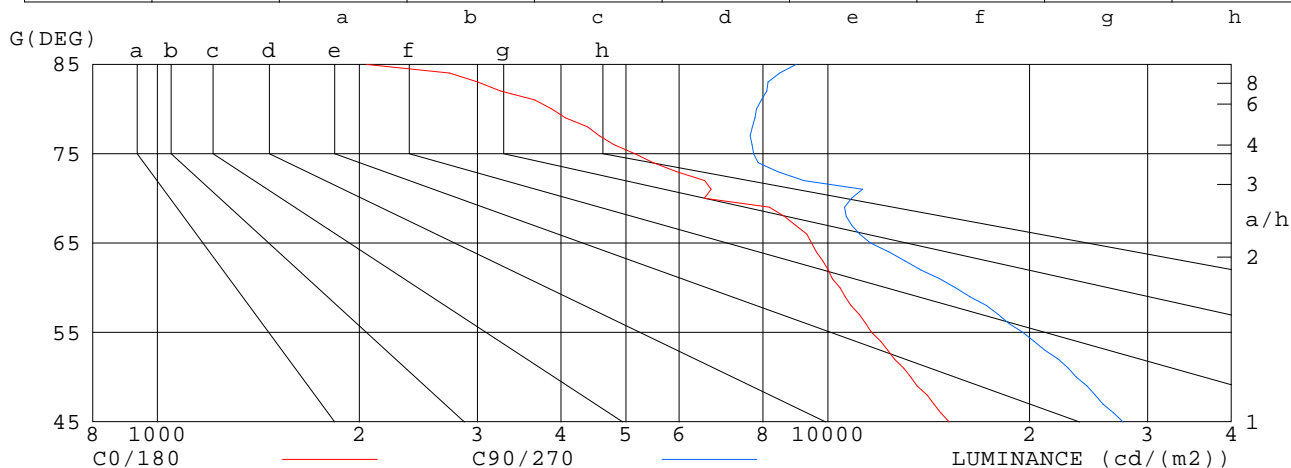
# LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	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	2049	8977
80	3871	7829
75	5155	7754
70	6544	10853
65	9459	11574
60	10429	15521
55	11623	19538
50	13297	23483
45	15171	27558

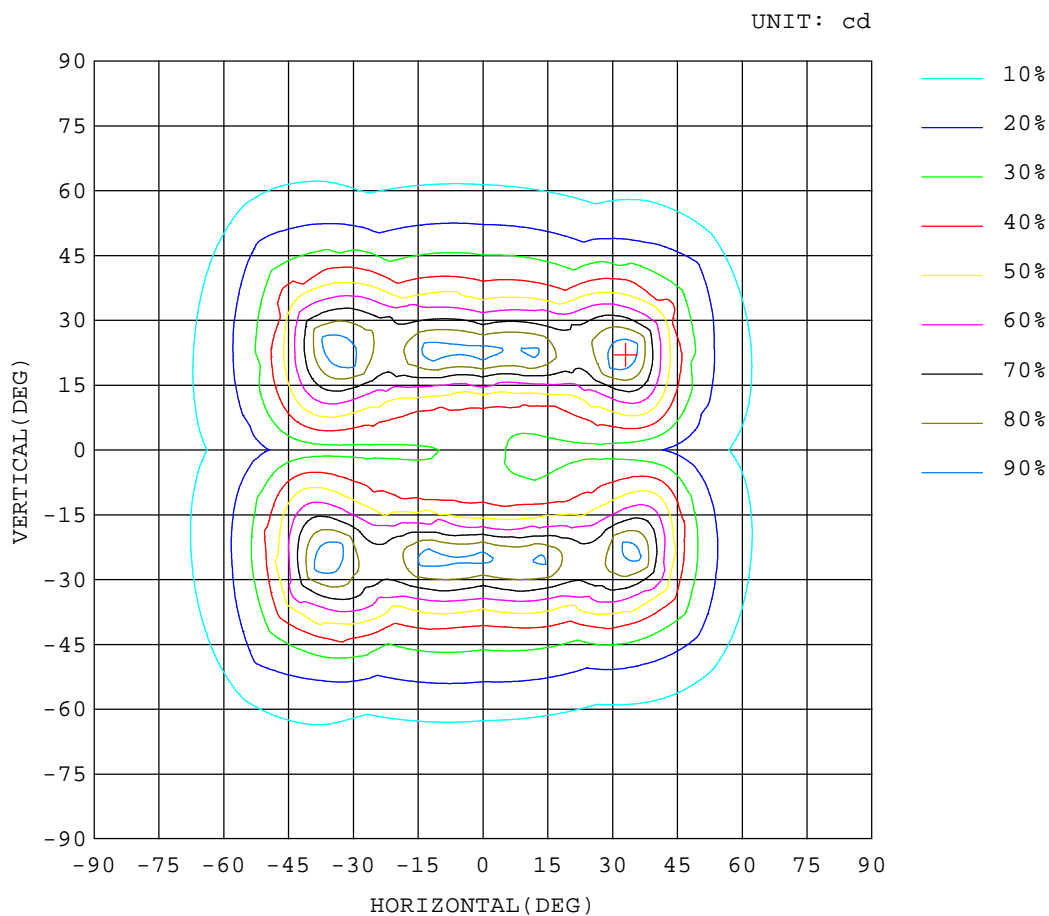
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

# ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



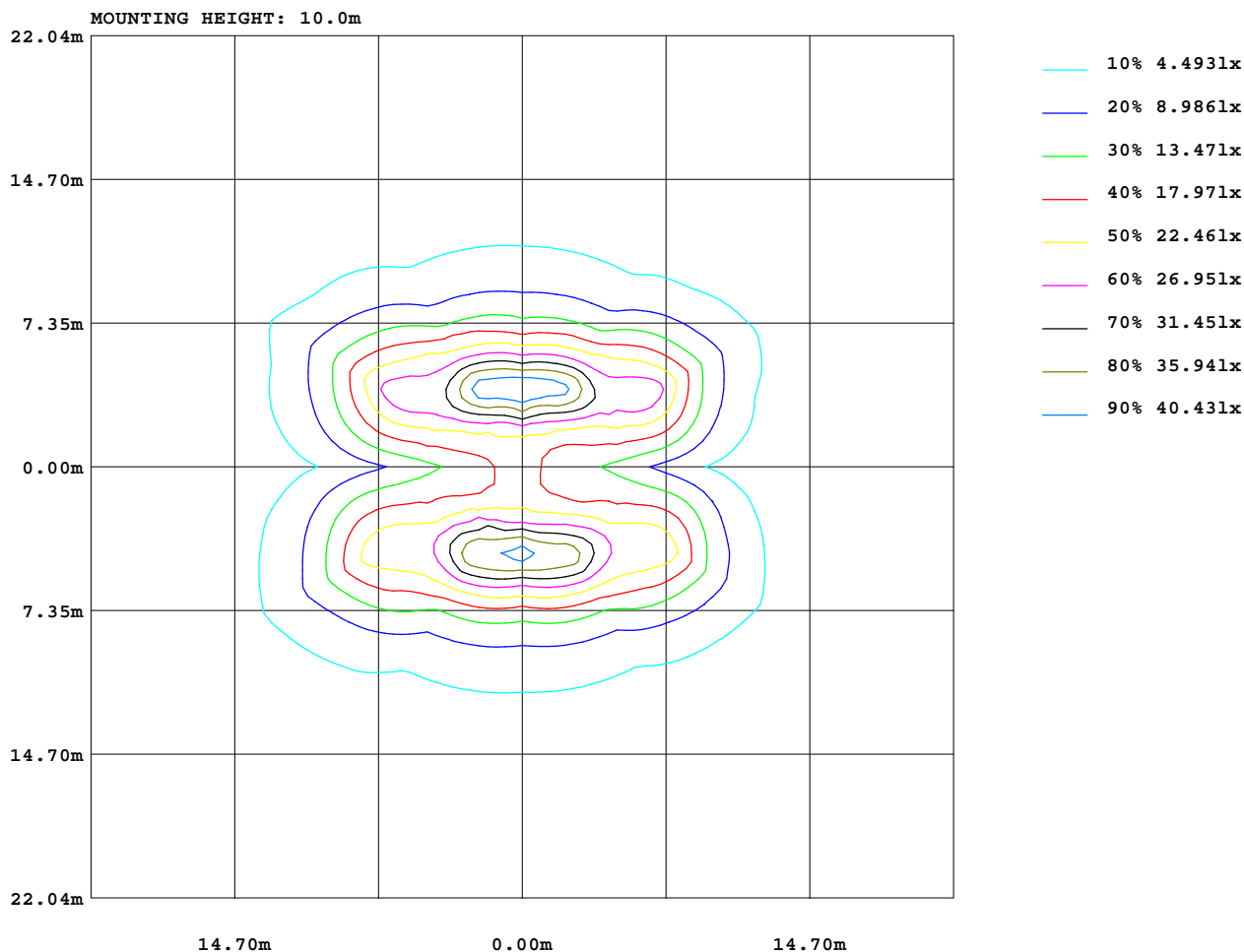
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

### ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

AREA LUMINOUS FLUX

Report number:

MANUFACTURER:																			
Address:																			
NAME: 25°+90°+25°70W										TYPE:					WEIGHT:				
SPECIFICATION:										DIMENSION: 576*188mm					SERIAL No.:				

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	0.00		
	0.07	0.30	0.65	1.03	1.34	1.60	1.86	2.11	2.23	2.10	1.75	1.31	0.94	0.66	0.41	0.20	0.06	0.01	18.6	0.00			
	0.10	0.53	1.39	2.63	3.94	5.28	6.17	6.57	6.41	6.15	5.80	5.04	3.87	2.58	1.46	0.64	0.16	0.01	58.7	0.00			
	0.13	0.80	2.37	5.45	9.77	12.1	12.1	13.8	14.6	14.1	12.6	10.5	8.82	5.85	3.16	1.30	0.34	0.02	128	12.0			
	0.16	1.11	4.03	12.0	20.7	25.3	25.5	29.3	31.3	30.3	26.6	21.3	19.3	13.7	6.18	2.12	0.54	0.04	270	240			
	0.19	1.45	6.49	19.7	37.1	49.5	51.4	54.0	57.3	55.7	49.9	44.4	39.2	27.5	12.4	3.19	0.74	0.06	511	498			
	0.21	1.90	8.50	24.9	58.3	91.8	97.0	95.9	98.1	95.5	88.6	89.3	77.3	44.4	17.8	4.65	0.93	0.07	896	885			
	0.23	2.28	9.47	27.1	71.6	133	133	146	156	154	140	131	126	57.0	19.9	5.85	1.08	0.08	1315	1305			
	0.24	2.50	9.37	25.7	65.3	110	110	111	112	110	107	108	109	54.2	18.9	6.17	1.18	0.09	1061	1051			
	0.25	2.55	8.36	20.5	43.7	62.7	63.9	62.2	62.3	60.4	58.3	62.3	59.9	35.8	14.7	5.64	1.20	0.09	625	613			
	0.25	2.57	8.43	21.3	45.0	58.1	57.5	57.0	58.3	56.9	54.4	56.5	55.3	36.7	15.1	5.67	1.20	0.09	591	578			
	0.24	2.54	9.59	27.9	70.1	101	91.2	95.3	93.2	89.0	89.4	90.7	98.9	57.6	19.8	6.27	1.19	0.09	944	934			
	0.23	2.33	9.87	29.2	80.1	135	124	149	157	154	146	125	127	62.2	20.8	6.08	1.07	0.08	1329	1320			
	0.21	1.95	9.05	26.0	66.7	102	102	104	110	110	104	97.6	85.1	48.5	18.3	5.00	0.91	0.07	992	982			
	0.19	1.48	6.96	20.9	40.0	56.5	56.7	58.5	61.2	60.7	56.6	50.8	44.0	29.0	13.0	3.47	0.71	0.05	561	549			
	0.16	1.10	4.31	13.3	22.5	27.9	29.3	33.1	34.8	34.0	30.8	25.1	21.2	14.6	7.03	2.07	0.51	0.03	302	279			
	0.13	0.79	2.38	5.95	10.7	13.4	13.7	15.5	16.1	15.5	14.0	11.6	9.69	6.44	3.10	1.20	0.31	0.02	141	32.2			
	0.10	0.51	1.33	2.68	4.40	6.15	7.10	7.35	7.12	6.83	6.54	5.87	4.52	2.83	1.40	0.54	0.12	0.00	65.4	0.00			
	0.07	0.28	0.60	1.04	1.62	2.25	2.66	2.69	2.53	2.35	2.16	1.84	1.33	0.77	0.33	0.10	0.02	0.00	22.6	0.00			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90				
Φ t	3.16	27.0	103	288	654	994	986	1044	1081	1059	995	939	891	501	194	60.2	12.2	0.91	9837				
Φ a	0.00	0.00	61.1	264	627	961	946	1004	1042	1019	954	898	857	472	165	8.85	0.00	0.00		9241			

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月10日

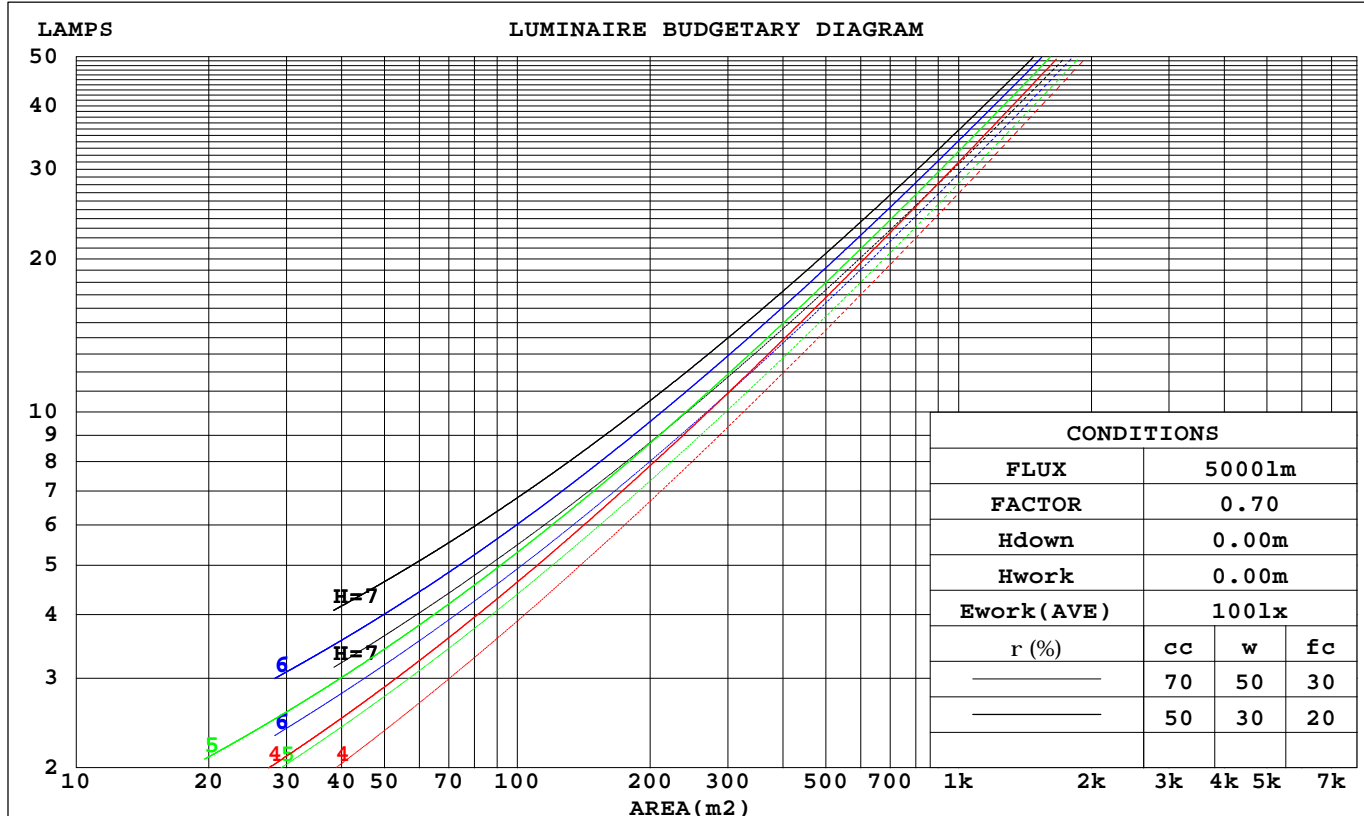
Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 25°+90°+25°70W								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 576*188mm				SERIAL No.:			

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r fc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:



WEC AND CCEC

Report number:

MANUFACTURER:											
Address:											
NAME: 25°+90°+25°70W						TYPE:			WEIGHT:		
SPECIFICATION:						DIMENSION: 576*188mm			SERIAL No.:		

rcc	80%			70%			50%			30%			10%			0														
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0														
rfc	20%			20%			20%			20%			20%			0														
RCR	RCR:Room Cavity Ratio															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.267	.152	.048	.260	.148	.047	.247	.142	.045	.235	.136	.043	.224	.130	.042															
2.0	.259	.142	.044	.253	.139	.043	.241	.134	.042	.231	.129	.041	.221	.125	.039															
3.0	.245	.131	.039	.240	.129	.039	.230	.125	.038	.221	.121	.037	.212	.117	.036															
4.0	.231	.120	.035	.226	.118	.035	.217	.115	.034	.209	.112	.034	.201	.109	.033															
5.0	.217	.111	.032	.213	.109	.032	.205	.107	.031	.197	.104	.031	.190	.102	.031															
6.0	.204	.102	.029	.200	.101	.029	.193	.099	.029	.186	.097	.028	.180	.095	.028															
7.0	.192	.095	.027	.188	.094	.027	.182	.092	.027	.176	.090	.026	.170	.089	.026															
8.0	.181	.088	.025	.178	.087	.025	.172	.086	.025	.167	.084	.024	.161	.083	.024															
9.0	.171	.082	.023	.168	.082	.023	.163	.080	.023	.158	.079	.023	.153	.078	.022															
10.0	.161	.077	.021	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.021															

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio                      Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.178	.157	.138	.152	.135	.119	.104	.093	.082	.060	.054	.048	.019	.017	.015	
2.0	.168	.132	.102	.144	.114	.088	.099	.079	.062	.057	.046	.036	.018	.015	.012	
3.0	.160	.114	.078	.137	.099	.068	.094	.069	.048	.054	.040	.028	.017	.013	.009	
4.0	.153	.101	.061	.131	.087	.053	.090	.061	.038	.052	.036	.022	.017	.012	.007	
5.0	.146	.090	.050	.125	.078	.043	.086	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.139	.082	.041	.120	.071	.036	.083	.050	.025	.048	.029	.015	.015	.010	.005	
7.0	.133	.075	.035	.114	.065	.030	.079	.046	.021	.046	.027	.013	.015	.009	.004	
8.0	.127	.069	.030	.110	.060	.026	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.065	.026	.105	.056	.023	.073	.039	.016	.042	.023	.010	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.070	.037	.014	.041	.022	.009	.013	.007	.003	

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

## Uncorrected UGR Table

Report number:

MANUFACTURER:											
Address:											
NAME: 25°+90°+25°70W					TYPE:			WEIGHT:			
SPECIFICATION:					DIMENSION: 576*188mm			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	2H	24.7	26.1	24.9	26.3	26.5	23.0	24.4	23.2	24.6	24.8
	3H	24.8	26.1	25.1	26.4	26.6	23.3	24.6	23.6	24.8	25.1
	4H	24.8	26.0	25.1	26.3	26.5	23.4	24.6	23.7	24.9	25.1
	6H	24.7	25.9	25.0	26.2	26.4	23.5	24.6	23.8	24.9	25.2
	8H	24.7	25.8	25.0	26.1	26.4	23.5	24.6	23.8	24.9	25.2
	12H	24.6	25.7	25.0	26.0	26.3	23.5	24.6	23.9	24.9	25.2
4H	2H	24.8	26.0	25.1	26.3	26.5	23.4	24.6	23.7	24.9	25.1
	3H	25.1	26.1	25.4	26.4	26.7	23.8	24.9	24.1	25.2	25.5
	4H	25.1	26.1	25.4	26.4	26.7	24.0	24.9	24.3	25.3	25.6
	6H	25.1	25.9	25.4	26.3	26.6	24.1	25.0	24.5	25.3	25.7
	8H	25.0	25.8	25.4	26.2	26.6	24.2	25.0	24.6	25.4	25.7
	12H	25.0	25.7	25.4	26.1	26.5	24.3	25.0	24.7	25.4	25.8
8H	4H	25.0	25.8	25.5	26.2	26.6	24.0	24.8	24.4	25.2	25.5
	6H	25.1	25.7	25.5	26.1	26.5	24.3	24.9	24.7	25.3	25.7
	8H	25.0	25.6	25.5	26.0	26.5	24.4	25.0	24.9	25.4	25.8
	12H	25.0	25.5	25.5	26.0	26.4	24.5	25.0	25.0	25.5	25.9
12H	4H	25.0	25.7	25.4	26.1	26.5	24.0	24.7	24.4	25.1	25.5
	6H	25.1	25.6	25.5	26.0	26.5	24.3	24.8	24.7	25.3	25.7
	8H	25.0	25.5	25.5	26.0	26.5	24.4	24.9	24.9	25.3	25.8
Variations with the observer position at spacings:											
S = 1.0H	+ 2.6 / - 1.8					+ 1.0 / - 1.3					
1.5H	+ 1.8 / - 4.5					+ 1.1 / - 0.7					
2.0H	+ 3.5 / - 4.9					+ 1.1 / - 1.9					

CIE Pub.117 Corrected 9837 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.9)

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	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	50	44	60	50	44	59	50	43	37
0.80	72	61	54	71	61	54	69	60	54	47
1.00	81	71	64	80	70	64	78	71	63	57
1.25	88	79	72	86	78	72	84	77	71	65
1.50	93	84	78	91	83	77	88	81	76	70
2.00	99	92	86	97	90	85	94	88	84	77
2.50	102	95	90	100	94	89	97	92	87	80
3.00	105	99	94	103	98	93	99	95	91	83
4.00	108	103	99	106	102	98	102	98	95	87
5.00	110	106	103	108	104	101	104	101	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

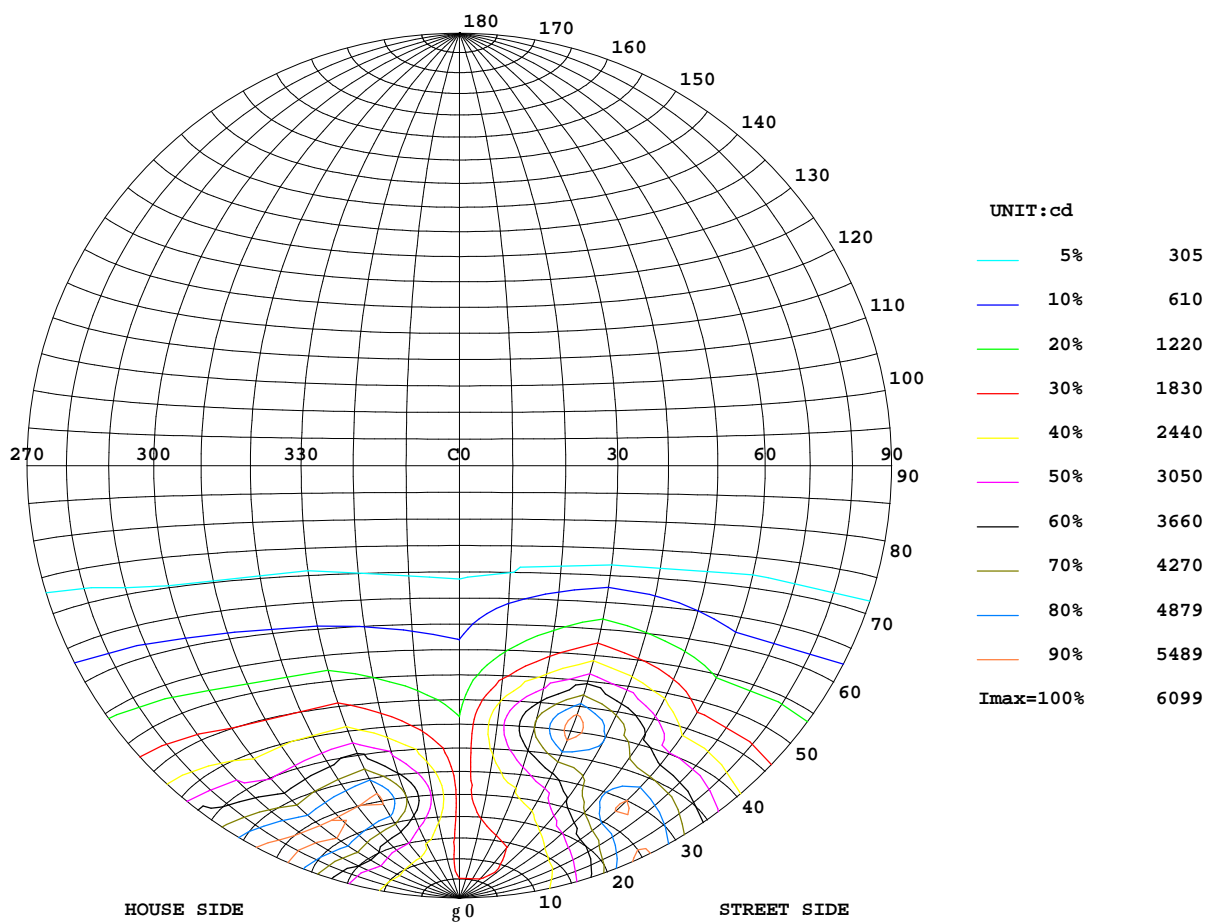
Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

# ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

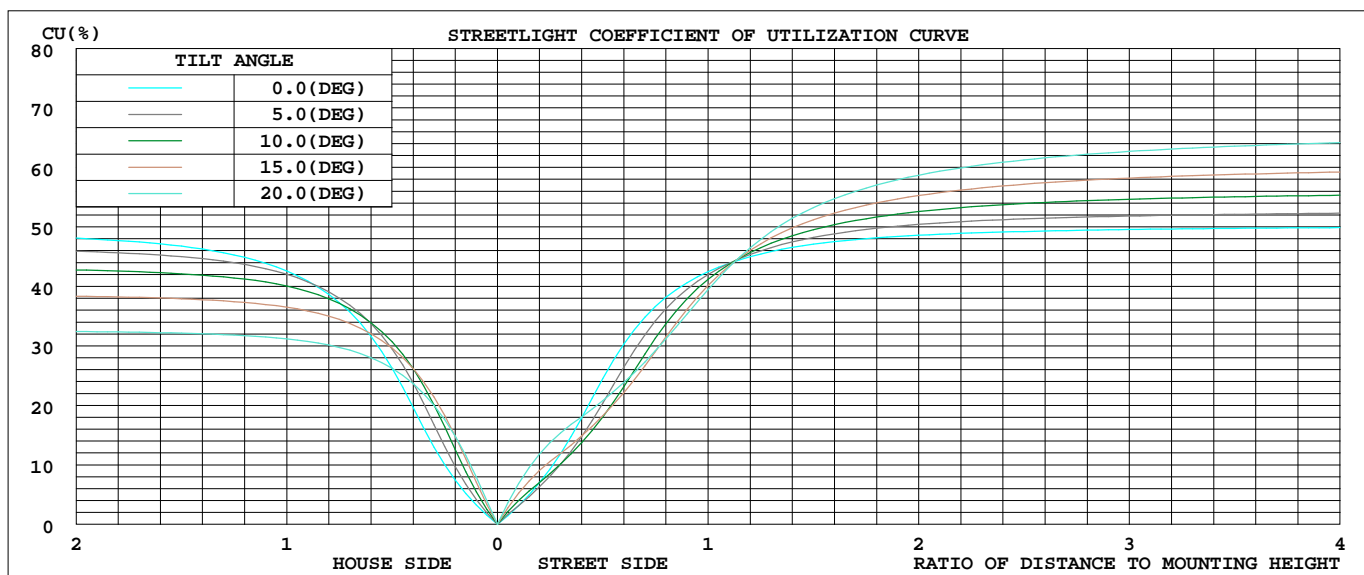
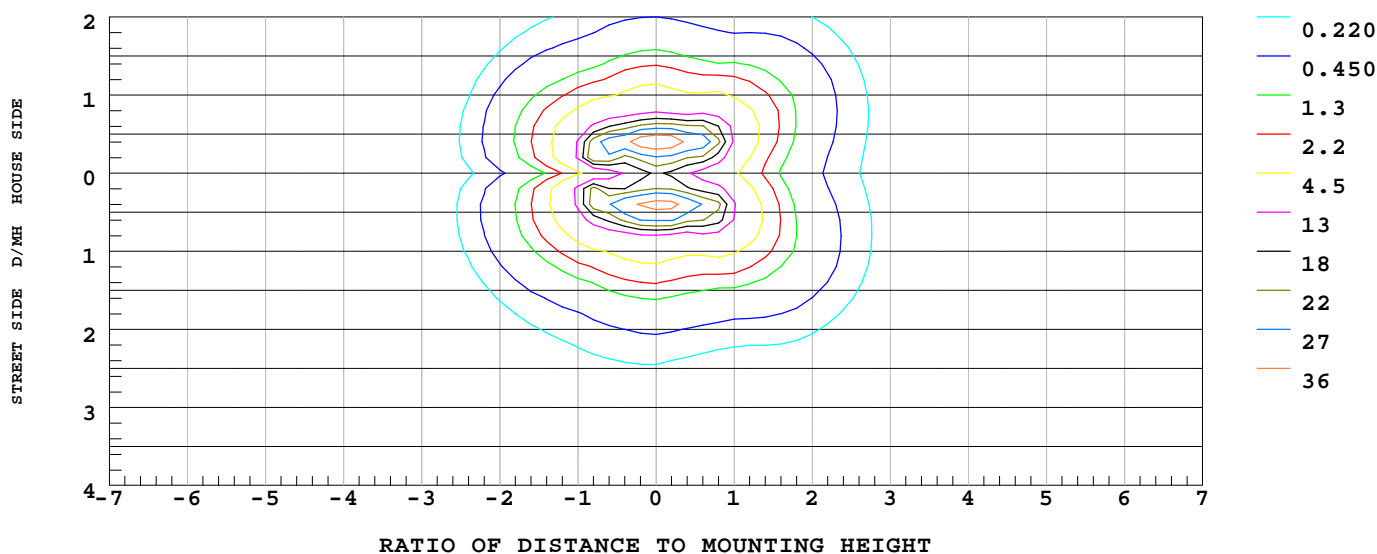
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 18.81 lx



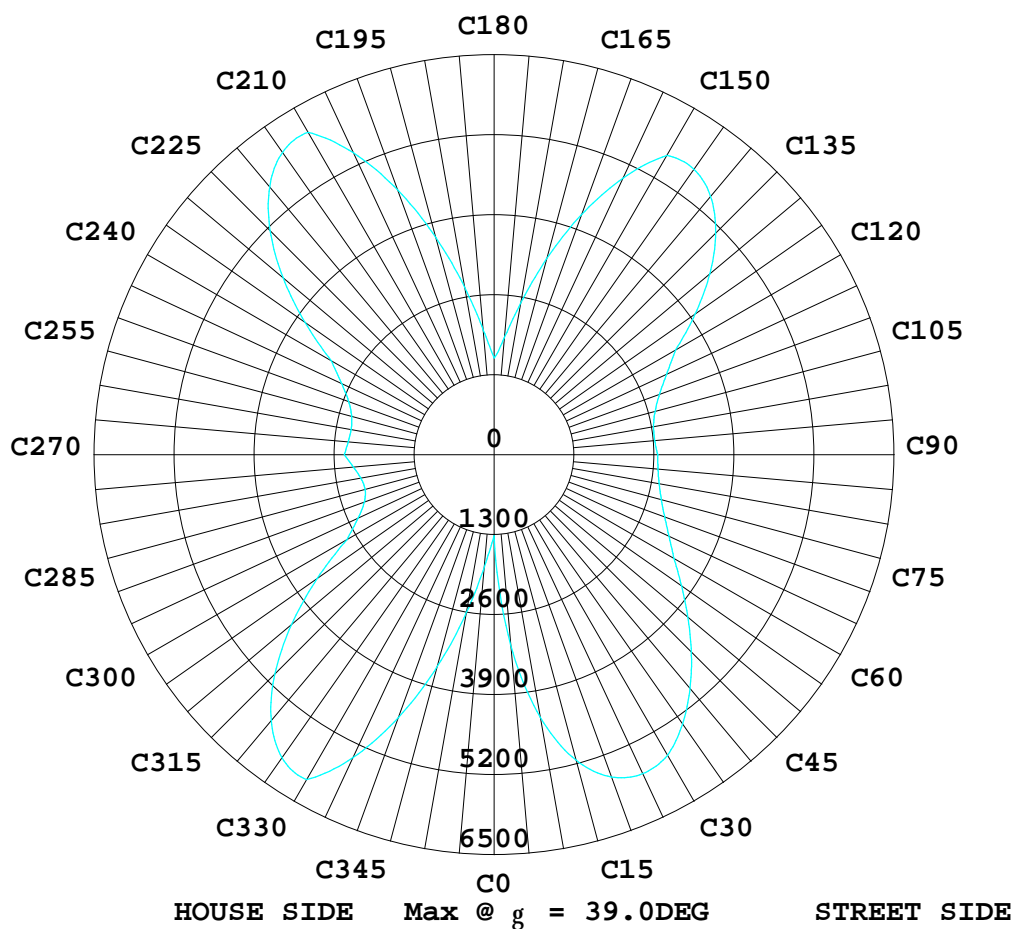
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+90°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks: