

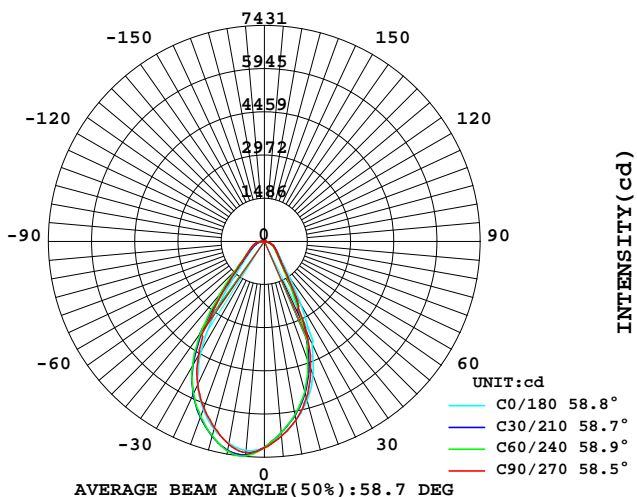
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

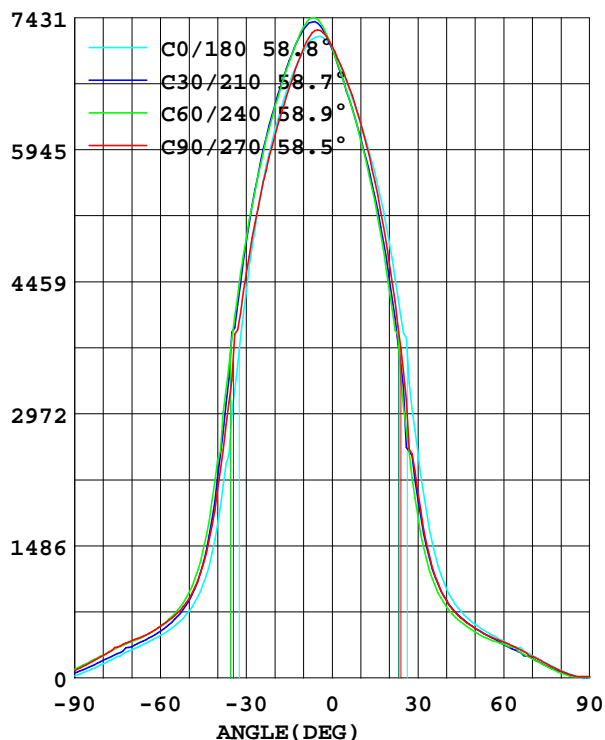
MANUFACTURER:		
Address:		
NAME: 60°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I <sub>max</sub> (cd)	7431	S/MH(C0/180)	0.97
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.00
NOMINAL POWER(W)	58	TOTAL FLUX(lm)	7860.2	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	137.4	Current(A)	0.270
NOMINAL FLUX(lm)	7860.3	h up(%)	0.3	Power(W)	57.20
LAMPS QUANTITY	1	h down(%)	99.7	Power Factor(PF)	0.966
TEST VOLTAGE(V)	218.6	Effective Flux(lm)	6535.5	EEI	0.119

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



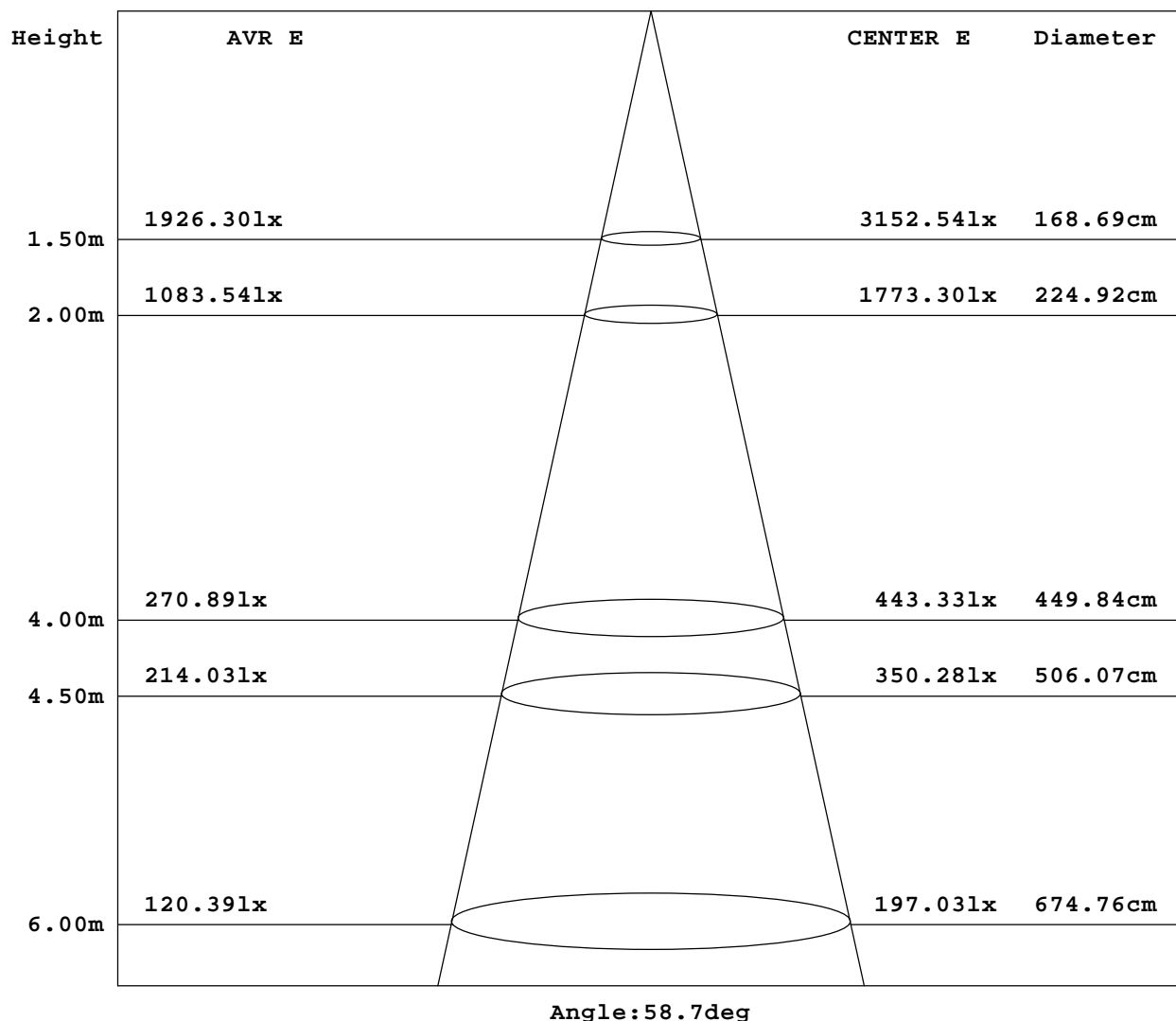
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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: 60°57W	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: 60°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	7218	7390	7293	6989	6715	6605	6727	7027	0- 5	168.6	168.6
10.0	7054	7315	7088	6604	6241	6068	6253	6706	5- 10	488.8	657.5
15.0	6687	6936	6637	6103	5681	5387	5585	6231	10- 15	760.3	1418
20.0	6166	6432	6091	5472	4896	4422	4658	5529	15- 20	957.8	2376
25.0	5429	5798	5443	4622	3882	3159	3451	4555	20- 25	1050	3426
30.0	4344	4927	4556	3491	2548	1920	2096	3271	25- 30	1001	4427
35.0	2970	3857	3351	2265	1524	1172	1244	1986	30- 35	828.2	5255
40.0	1721	2350	2117	1423	1001	835.3	870.1	1195	35- 40	609.9	5865
45.0	1066	1378	1285	967.6	754.2	658.2	676.3	817.4	40- 45	431.5	6297
50.0	751.3	913.6	891.4	731.9	603.9	536.1	559.3	621.6	45- 50	328.1	6625
55.0	584.0	690.4	701.2	589.8	497.5	449.8	470.2	501.0	50- 55	271.7	6897
60.0	479.1	556.4	581.1	488.6	414.7	377.5	404.8	412.3	55- 60	235.1	7132
65.0	393.6	455.3	484.1	408.0	341.1	300.1	329.5	346.5	60- 65	204.3	7336
70.0	316.1	379.7	421.0	341.8	251.2	218.5	244.4	265.4	65- 70	173.0	7509
75.0	242.7	308.8	348.5	265.6	165.9	133.2	159.9	190.1	70- 75	138.5	7648
80.0	159.9	223.4	253.0	176.4	83.44	60.39	77.87	112.8	75- 80	98.65	7747
85.0	83.68	148.3	165.6	95.60	21.00	13.56	21.12	48.89	80- 85	59.01	7806
90.0	24.03	77.39	82.23	34.43	0	7.756	16.16	13.38	85- 90	28.33	7834
95.0	0	24.51	22.45	11.89	0	5.275	14.22	9.087	90- 95	11.11	7845
100.0	0	14.10	15.31	9.050	0	4.186	13.01	6.243	95-100	4.924	7850
105.0	0	9.208	9.752	6.630	0	2.613	9.994	4.973	100-105	3.684	7854
110.0	0	6.727	9.994	3.666	0	2.613	9.510	3.944	105-110	2.545	7856
115.0	0	4.307	9.026	2.456	0	3.218	10.23	2.916	110-115	2.059	7858
120.0	0	2.879	5.396	2.214	0	5.457	11.20	3.581	115-120	1.823	7860
125.0	0	0	0	0	0	0	0	0	120-125	0.177	7860
130.0	0	0	0	0	0	0	0	0	125-130	0	7860
135.0	0	0	0	0	0	0	0	0	130-135	0	7860
140.0	0	0	0	0	0	0	0	0	135-140	0	7860
145.0	0	0	0	0	0	0	0	0	140-145	0	7860
150.0	0	0	0	0	0	0	0	0	145-150	0	7860
155.0	0	0	0	0	0	0	0	0	150-155	0	7860
160.0	0	0	0	0	0	0	0	0	155-160	0	7860
165.0	0	0	0	0	0	0	0	0	160-165	0	7860
170.0	0	0	0	0	0	0	0	0	165-170	0	7860
175.0	0	0	0	0	0	0	0	0	170-175	0	7860
180.0	0	0	0	0	0	0	0	0	175-180	0	7860
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:

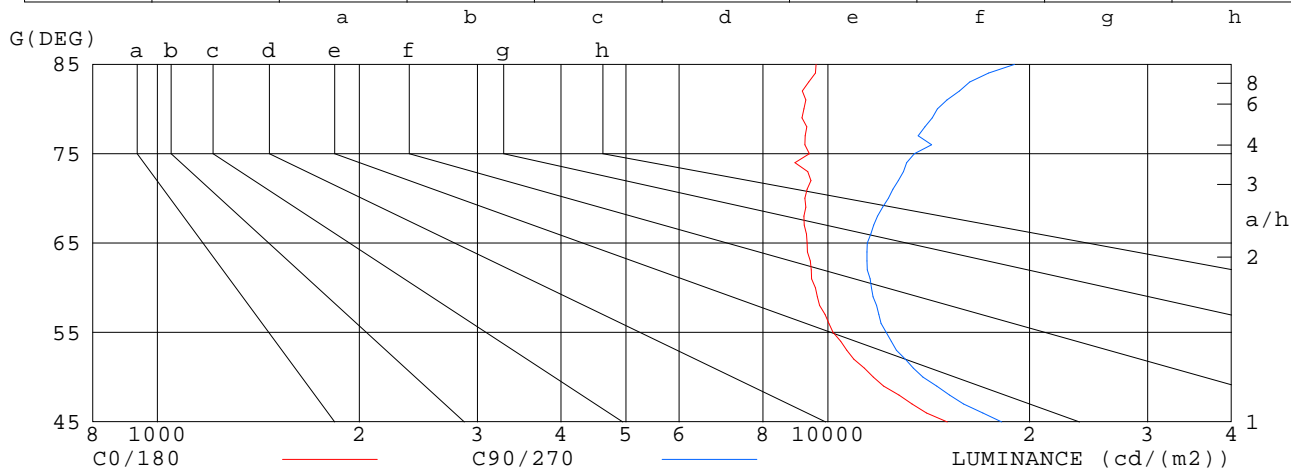
## LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 60°57W	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	9602	19001
80	9209	14575
75	9381	13467
70	9243	12310
65	9315	11457
60	9582	11622
55	10182	12226
50	11689	13869
45	15077	18169

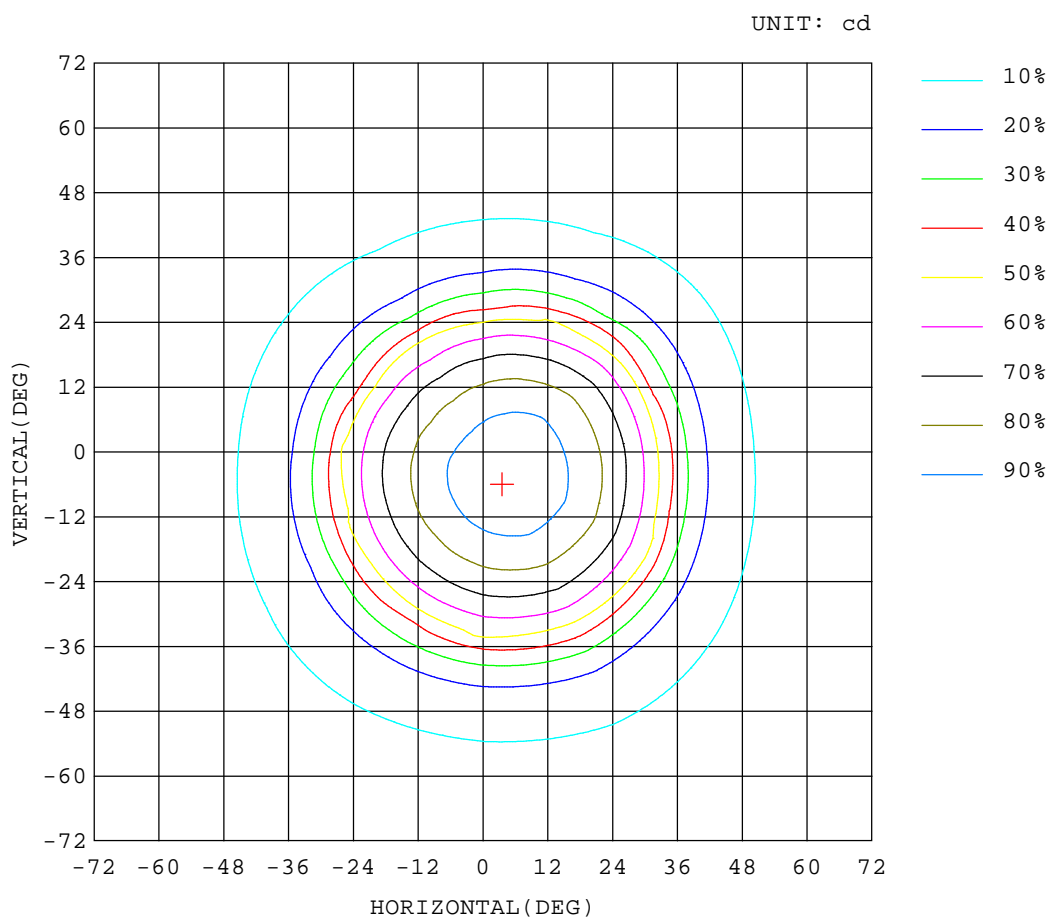
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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: 60°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



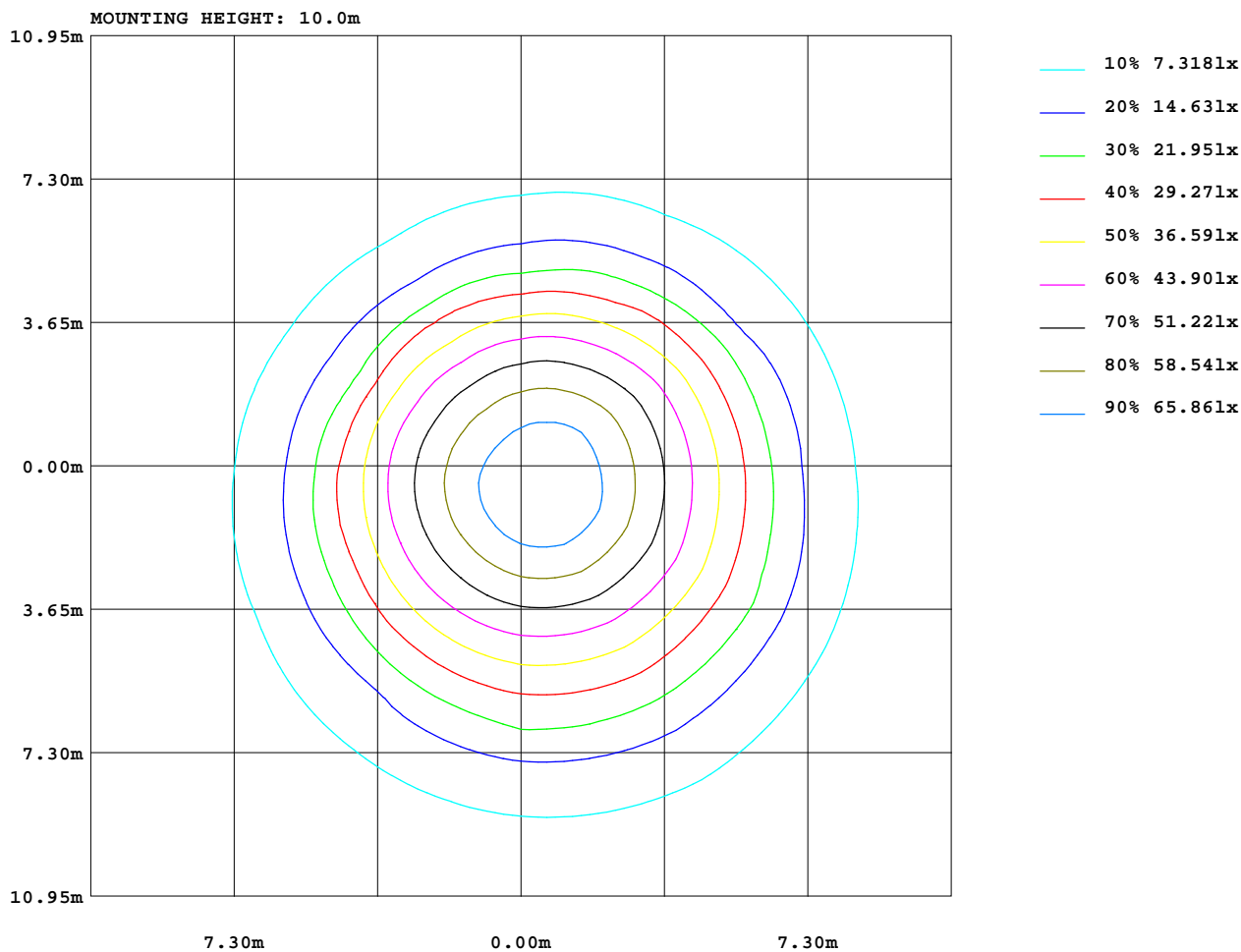
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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: 60°57W	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: 60°57W										TYPE:					WEIGHT:				
SPECIFICATION:										DIMENSION: 576*188mm					SERIAL No.:				

72	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	0.36	0.76	1.31	2.01	2.77	3.52	4.28	4.89	5.29	5.38	5.16	4.72	4.14	3.49	2.80	2.08	1.39	0.81	55.2	0.00		
64	0.62	1.28	2.20	3.28	4.46	5.60	6.56	7.28	7.73	7.75	7.35	6.69	5.90	5.03	3.97	2.91	1.96	1.12	81.7	0.00		
56	0.90	1.85	3.04	4.49	5.91	7.09	8.17	9.24	9.99	10.1	9.62	8.63	7.52	6.41	5.14	3.74	2.47	1.42	106	0.00		
48	1.18	2.39	3.83	5.55	7.26	8.90	10.5	12.3	13.6	14.0	13.3	11.8	10.0	8.17	6.31	4.56	2.97	1.69	139	18.3		
40	1.45	2.87	4.58	6.65	8.94	11.5	14.5	18.4	22.1	23.9	22.6	18.6	14.5	10.7	7.73	5.35	3.44	1.94	200	132		
32	1.68	3.27	5.29	7.78	11.0	15.8	23.7	35.3	47.0	52.8	49.6	37.4	24.6	14.9	9.45	6.14	3.86	2.15	352	306		
24	1.87	3.60	5.88	8.98	13.8	23.8	43.4	68.2	85.8	92.1	87.2	70.3	43.4	22.2	11.6	6.92	4.21	2.32	596	559		
VERTICAL (DEG)	2.02	3.85	6.35	10.1	17.7	36.5	67.3	95.2	112	118	114	96.3	65.0	31.8	14.1	7.62	4.48	2.45	805	773		
	2.11	4.01	6.67	11.0	21.5	49.0	84.6	110	127	135	128	109	78.9	39.9	16.2	8.12	4.66	2.53	939	909		
	2.13	4.06	6.80	11.4	23.3	54.2	89.9	116	134	142	133	113	83.4	43.6	17.2	8.32	4.72	2.56	991	962		
	2.10	4.02	6.72	11.2	22.1	50.1	85.3	111	128	136	128	110	79.9	41.3	16.4	8.18	4.67	2.54	948	919		
	2.00	3.87	6.42	10.3	18.4	39.1	71.6	97.8	114	119	114	96.4	67.9	33.0	14.3	7.69	4.51	2.48	823	792		
-24	1.85	3.64	5.94	9.19	14.7	27.1	49.0	73.8	90.6	96.2	91.0	73.4	45.8	22.7	11.8	7.00	4.25	2.35	631	595		
-32	1.67	3.29	5.34	7.99	11.7	18.0	28.8	43.2	56.5	61.3	55.6	42.2	26.1	15.3	9.64	6.22	3.91	2.19	400	356		
-40	1.45	2.85	4.65	6.86	9.53	12.8	17.1	22.2	26.8	28.5	26.3	21.5	15.8	11.2	7.95	5.45	3.53	1.97	227	169		
-48	1.19	2.38	3.91	5.79	7.77	9.90	12.0	13.9	15.4	15.8	15.1	13.5	11.2	8.81	6.60	4.71	3.11	1.72	153	49.0		
-56	0.91	1.88	3.21	4.84	6.48	7.98	9.24	10.3	11.1	11.2	10.8	9.90	8.60	7.04	5.50	4.00	2.56	1.45	117	0.00		
-64	0.62	1.33	2.41	3.79	5.29	6.70	7.58	8.19	8.58	8.61	8.28	7.69	6.86	5.71	4.43	3.15	2.04	1.15	92.4	0.00		
-72																						
	-72	-64	-56	-48	-40	-32	-24	-16	HORIZONTAL (DEG)				16	24	32	40	48	56	64	72		
Φ t	26.1	51.2	84.6	131	213	388	634	859	1016	1079	1020	852	600	332	171	102	62.8	34.9	7860			
Φ a	0.00	0.00	0.00	34.2	140	322	572	800	959	1024	965	797	543	271	101	8.83	0.00	0.00		6536		

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

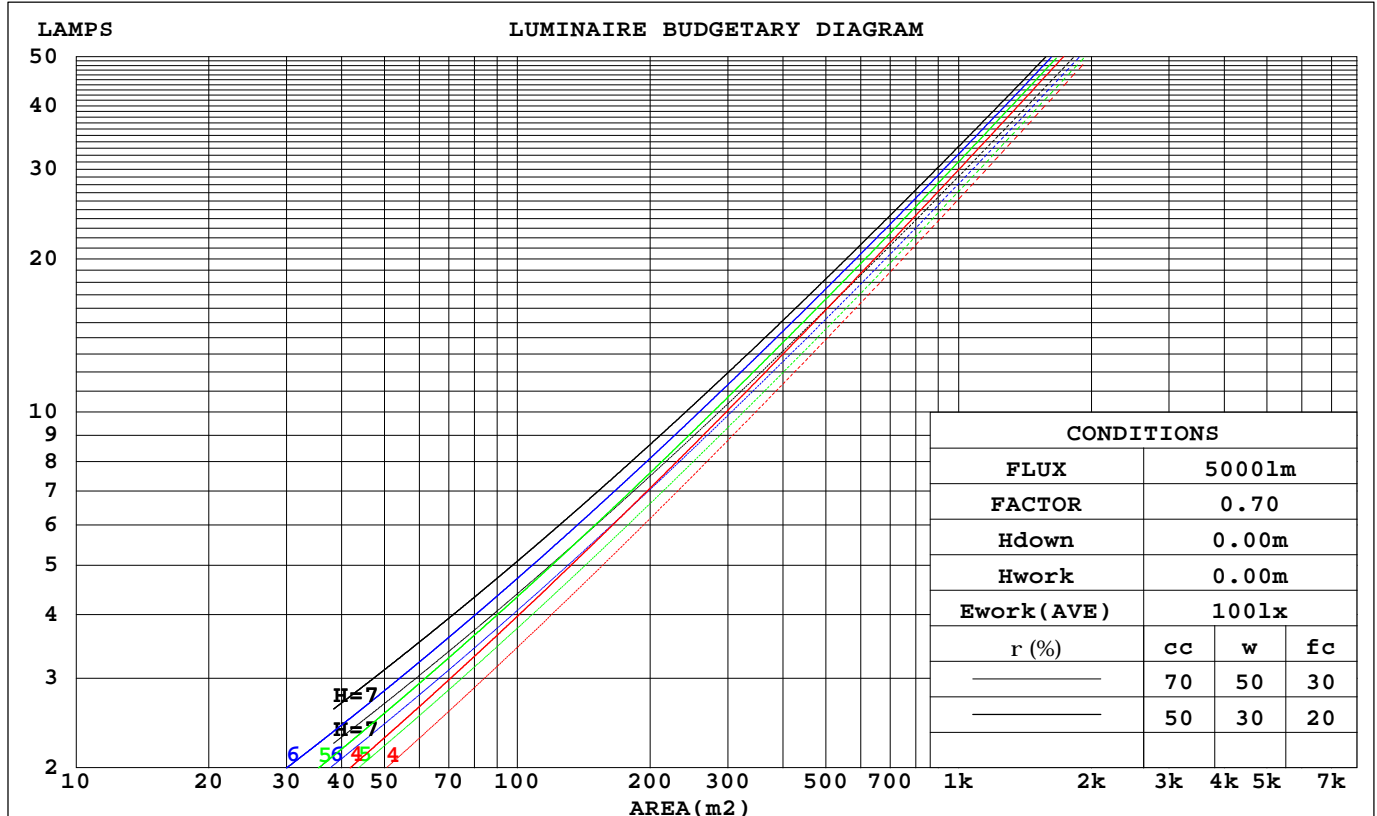
Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 60°57W								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: 60°57W						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	.231	.131	.042	.224	.128	.041	.211	.121	.039	.199	.115	.037	.188	.109	.035															
2.0	.217	.119	.037	.211	.116	.036	.200	.111	.035	.190	.106	.033	.180	.102	.032															
3.0	.203	.108	.032	.198	.106	.032	.188	.102	.031	.179	.098	.030	.171	.095	.029															
4.0	.190	.099	.029	.185	.097	.029	.177	.094	.028	.169	.091	.027	.162	.088	.027															
5.0	.178	.091	.026	.174	.089	.026	.167	.087	.026	.160	.084	.025	.153	.082	.025															
6.0	.167	.084	.024	.164	.083	.024	.157	.081	.023	.151	.079	.023	.145	.077	.023															
7.0	.158	.078	.022	.155	.077	.022	.149	.075	.022	.143	.074	.021	.138	.072	.021															
8.0	.149	.073	.021	.147	.072	.020	.141	.071	.020	.136	.069	.020	.132	.068	.020															
9.0	.142	.068	.019	.139	.068	.019	.134	.066	.019	.130	.065	.019	.126	.064	.018															
10.0	.135	.065	.018	.132	.064	.018	.128	.063	.018	.124	.062	.018	.120	.060	.017															

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	.193	.193	.193	.165	.165	.165	.113	.113	.113	.065	.065	.065	.021	.021	.021	
1.0	.177	.159	.143	.152	.137	.123	.104	.094	.085	.060	.054	.050	.019	.018	.016	
2.0	.165	.135	.110	.141	.116	.095	.097	.080	.066	.056	.047	.039	.018	.015	.013	
3.0	.154	.116	.086	.132	.100	.075	.091	.070	.053	.052	.041	.031	.017	.013	.010	
4.0	.145	.102	.070	.124	.088	.061	.085	.062	.043	.049	.036	.025	.016	.012	.008	
5.0	.137	.091	.058	.117	.079	.050	.081	.055	.035	.047	.032	.021	.015	.011	.007	
6.0	.129	.082	.048	.111	.071	.042	.077	.050	.030	.044	.029	.018	.014	.010	.006	
7.0	.123	.075	.041	.105	.065	.036	.073	.045	.026	.042	.027	.015	.014	.009	.005	
8.0	.117	.069	.036	.100	.060	.031	.069	.042	.022	.040	.025	.013	.013	.008	.004	
9.0	.111	.064	.032	.096	.055	.028	.066	.039	.020	.039	.023	.012	.013	.008	.004	
10.0	.106	.059	.028	.092	.052	.025	.063	.036	.017	.037	.021	.010	.012	.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: 60°57W					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	20.4	21.5	20.6	21.7	21.9	21.1	22.2	21.3	22.4	22.6
	3H	21.2	22.3	21.5	22.5	22.7	22.1	23.2	22.4	23.4
	4H	21.7	22.7	22.0	22.9	23.2	22.8	23.8	23.1	24.1
	6H	22.1	23.1	22.4	23.3	23.6	23.5	24.4	23.8	24.7
	8H	22.3	23.2	22.6	23.5	23.7	23.8	24.7	24.1	25.0
	12H	22.4	23.3	22.7	23.6	23.9	24.1	25.0	24.5	25.3
4H	2H	20.7	21.7	21.0	22.0	22.2	21.3	22.3	21.6	22.5
	3H	21.9	22.8	22.2	23.0	23.3	22.7	23.6	23.0	23.9
	4H	22.5	23.3	22.9	23.6	23.9	23.6	24.4	24.0	24.7
	6H	23.1	23.8	23.5	24.2	24.5	24.5	25.2	24.9	25.5
	8H	23.3	24.0	23.7	24.4	24.7	24.9	25.6	25.3	25.9
	12H	23.5	24.1	24.0	24.5	24.9	25.3	25.9	25.8	26.3
8H	4H	22.9	23.6	23.3	23.9	24.3	23.9	24.5	24.3	24.9
	6H	23.7	24.2	24.1	24.7	25.1	25.0	25.5	25.4	25.9
	8H	24.1	24.6	24.5	25.0	25.4	25.6	26.1	26.0	26.5
	12H	24.4	24.8	24.9	25.3	25.7	26.2	26.6	26.7	27.1
12H	4H	23.0	23.6	23.4	24.0	24.4	23.9	24.5	24.3	24.9
	6H	23.9	24.4	24.3	24.8	25.2	25.1	25.6	25.5	26.0
	8H	24.3	24.7	24.8	25.2	25.7	25.7	26.2	26.2	26.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.6					+ 0.4 / - 0.5				
1.5H	+ 0.8 / - 0.6					+ 0.6 / - 0.4				
2.0H	+ 0.4 / - 0.4					+ 0.3 / - 0.2				

CIE Pub.117 Corrected 7860 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.2)

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: 60°57W	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) $k(RI) \times RCR = 5$									
$k = 0.60$	76	68	63	75	67	62	74	67	62	58
0.80	84	76	71	84	76	71	82	75	71	66
1.00	90	83	77	89	82	77	87	82	77	71
1.25	95	88	83	94	87	83	92	86	82	77
1.50	99	92	87	97	91	87	95	90	86	80
2.00	103	97	93	102	96	92	98	94	90	84
2.50	106	100	96	104	99	95	100	96	93	86
3.00	108	103	99	106	102	98	102	99	96	89
4.00	111	107	103	108	105	102	105	102	99	91
5.00	112	109	106	110	107	105	106	104	102	93
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

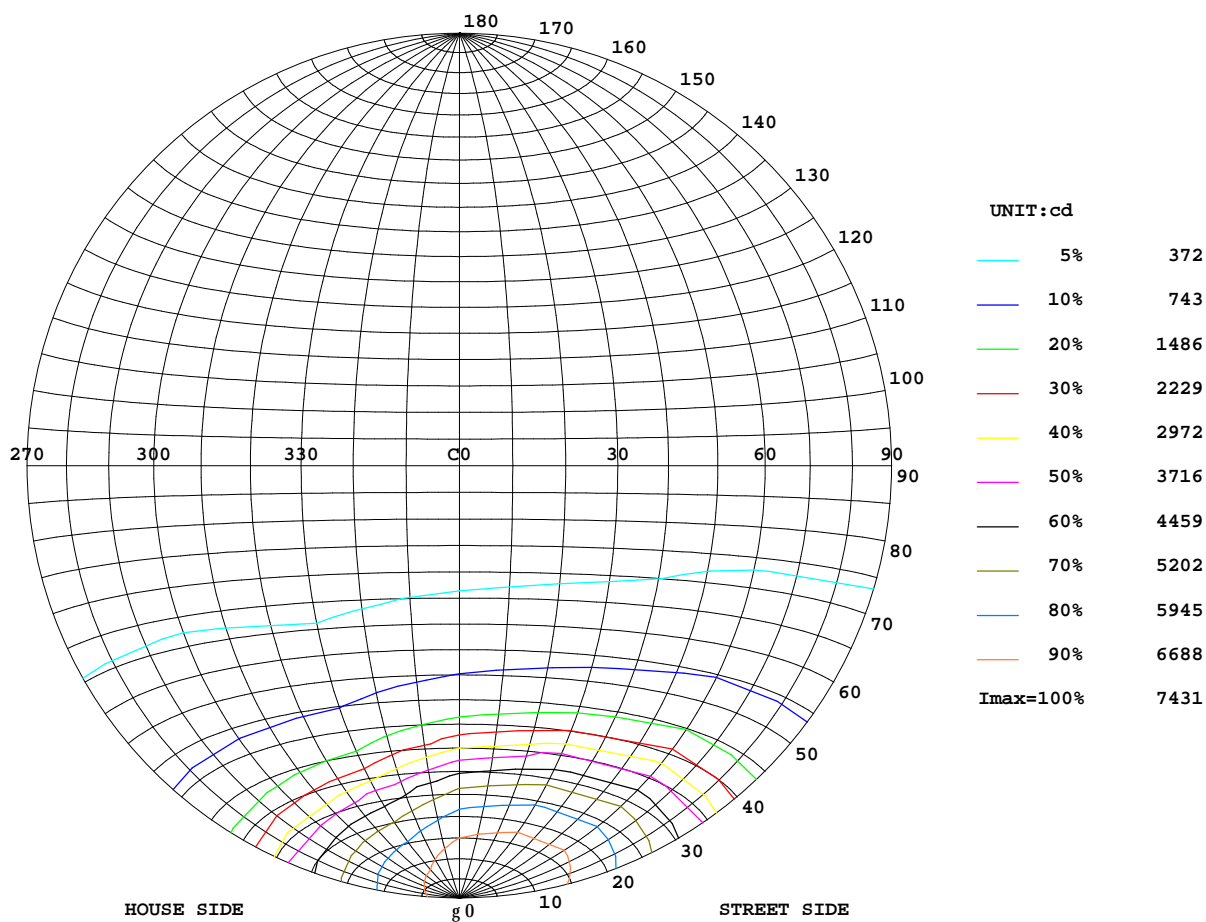
Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月10日

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: 60°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



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

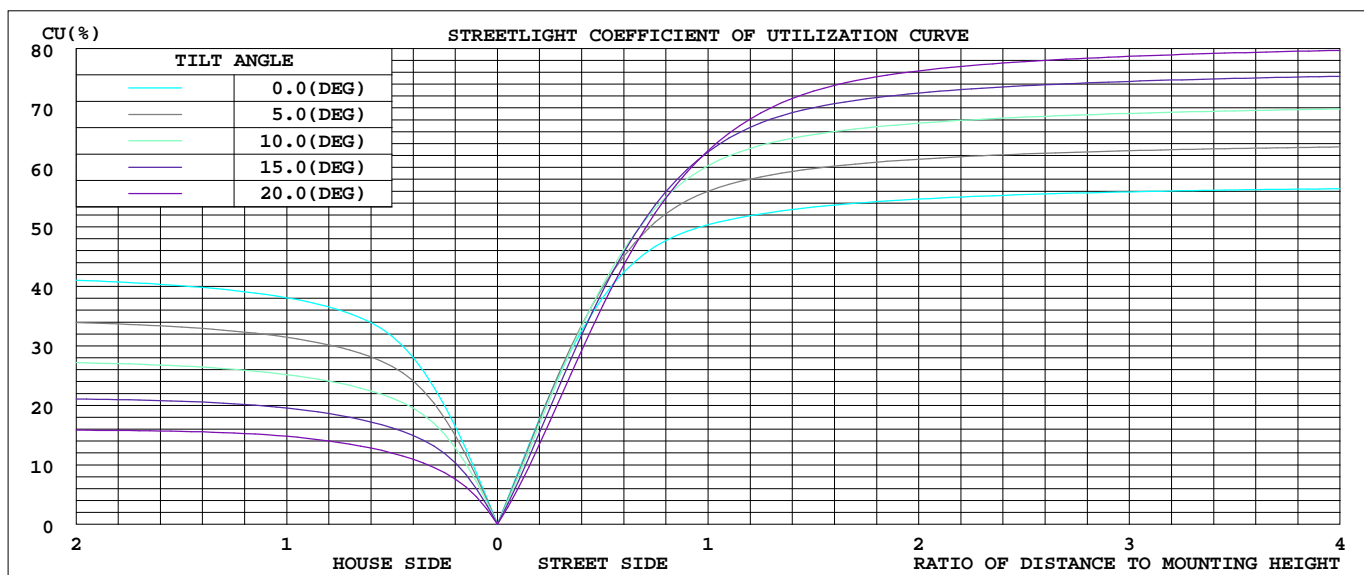
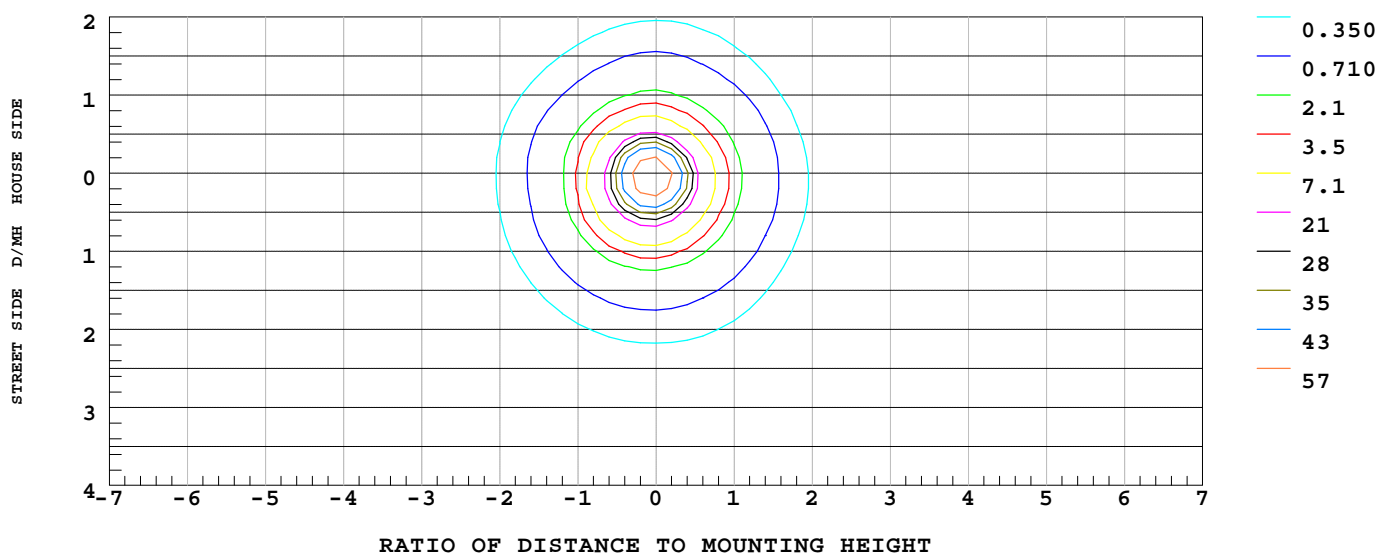
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 60°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 70.93 lx



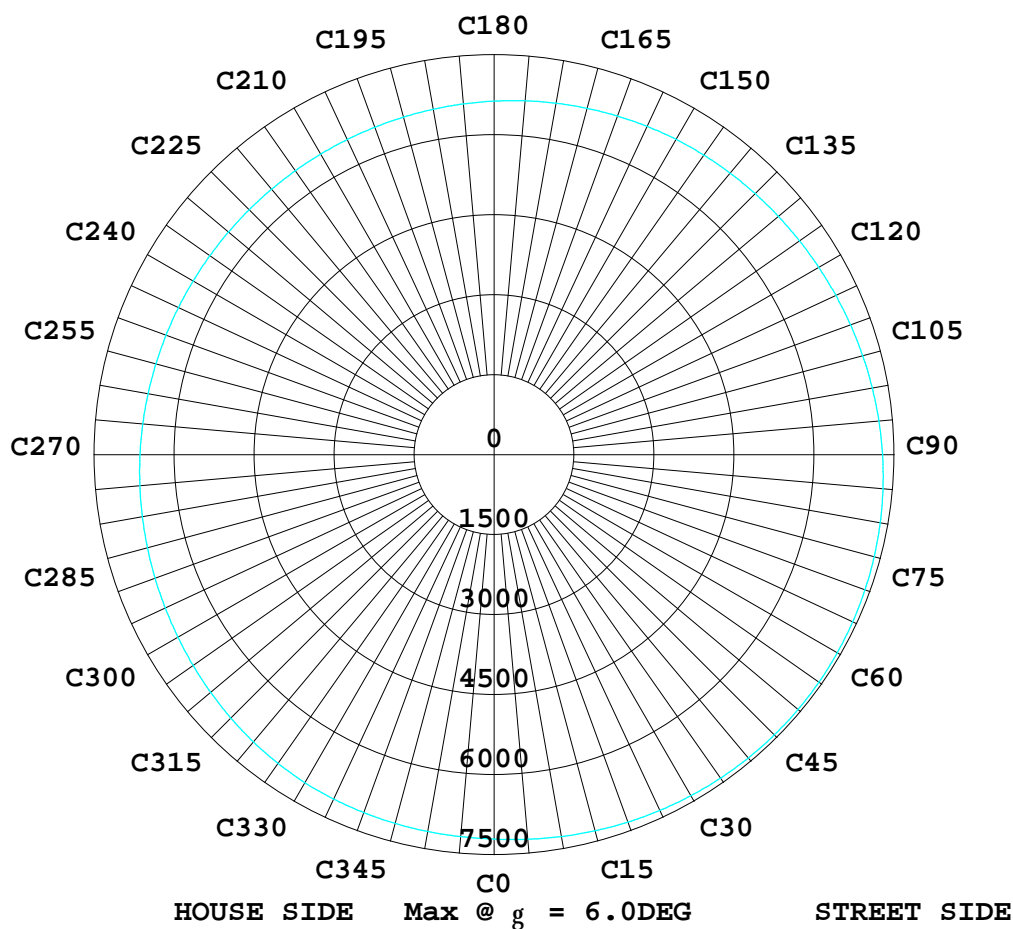
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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: 60°57W	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: