

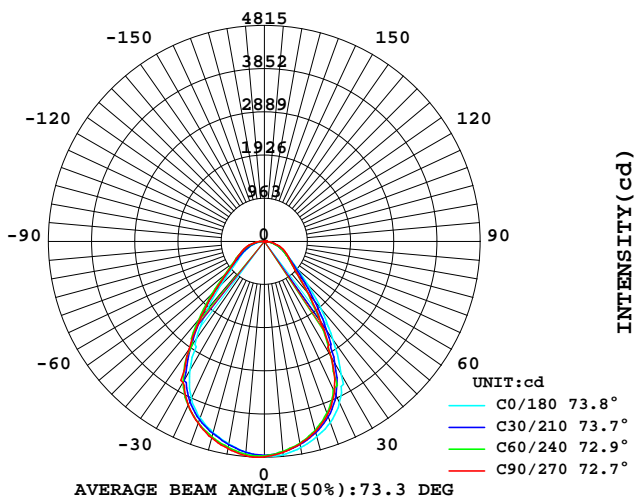
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

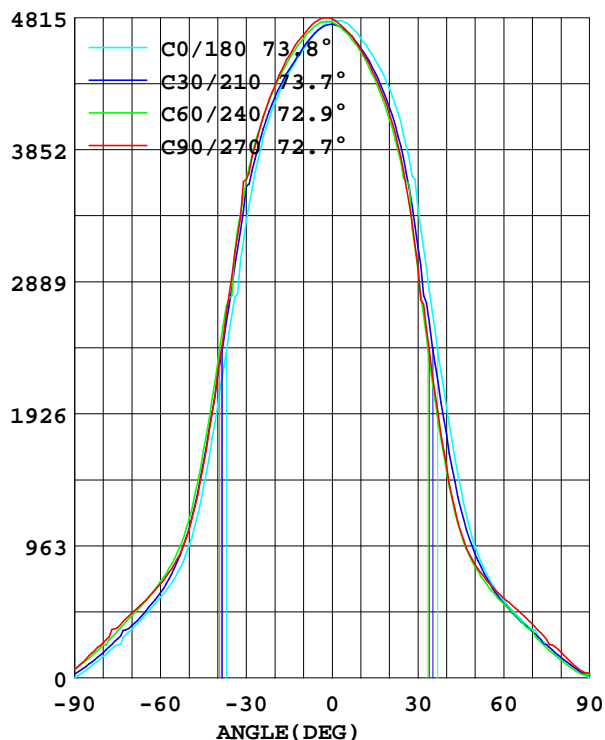
MANUFACTURER:		
Address:		
NAME: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I <sub>max</sub> (cd)	4815	S/MH(C0/180)	1.07
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.11
NOMINAL POWER(W)	58	TOTAL FLUX(lm)	7789.0	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	136.4	Current(A)	0.270
NOMINAL FLUX(lm)	7789.1	h up(%)	0.7	Power(W)	57.11
LAMPS QUANTITY	1	h down(%)	99.3	Power Factor(PF)	0.966
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	7138.5	EEI	0.109

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



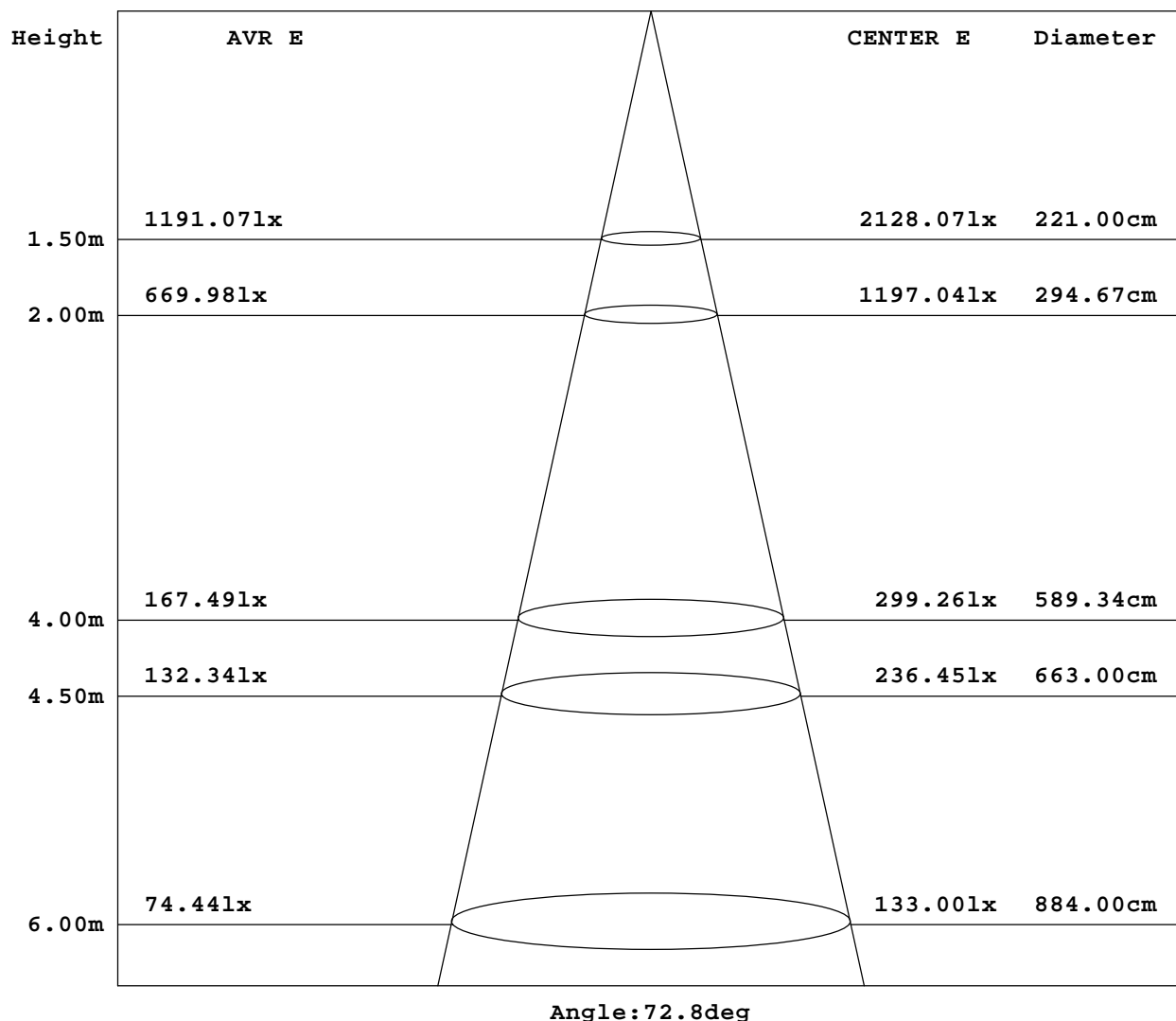
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14日

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: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System: HOPOO HPG1800  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2019年08月14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: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	4716	4743	4793	4765	4776	4709	4721	4707	0- 5	113.8	113.8
10.0	4585	4632	4689	4654	4668	4580	4585	4574	5- 10	334.5	448.4
15.0	4416	4475	4536	4492	4511	4391	4389	4399	10- 15	537.5	985.9
20.0	4192	4269	4315	4270	4300	4116	4113	4164	15- 20	714.0	1700
25.0	3854	3982	4030	3959	3960	3718	3704	3823	20- 25	850.1	2550
30.0	3331	3607	3634	3552	3433	3065	3007	3276	25- 30	919.3	3470
35.0	2647	2818	2931	2752	2673	2294	2213	2543	30- 35	876.5	4346
40.0	1977	2239	2209	2075	1966	1636	1545	1848	35- 40	757.3	5103
45.0	1391	1614	1552	1475	1386	1147	1068	1285	40- 45	606.4	5710
50.0	962.2	1120	1080	1035	957.1	856.1	824.4	927.5	45- 50	465.6	6176
55.0	724.4	838.3	834.8	785.8	714.3	672.8	687.8	722.9	50- 55	371.3	6547
60.0	588.7	663.8	687.7	619.6	566.9	543.7	581.9	576.8	55- 60	310.3	6857
65.0	465.9	527.6	569.2	493.6	450.1	435.6	493.7	465.4	60- 65	263.8	7121
70.0	354.2	416.7	472.8	383.5	353.8	345.5	392.1	356.6	65- 70	218.2	7339
75.0	240.3	315.1	367.3	283.6	244.4	231.6	281.3	247.5	70- 75	171.4	7511
80.0	157.2	211.2	255.0	186.2	150.9	141.7	189.4	163.2	75- 80	121.2	7632
85.0	71.22	122.9	161.7	100.2	68.07	61.90	85.61	77.87	80- 85	73.63	7706
90.0	3.097	45.68	60.93	29.95	1.282	22.33	37.09	21.30	85- 90	30.97	7737
95.0	0	16.34	23.54	16.83	0	22.27	37.46	19.37	90- 95	10.96	7748
100.0	0	17.61	26.08	17.07	0	22.03	36.13	18.82	95-100	9.660	7757
105.0	0	15.86	20.27	16.04	0	21.30	28.14	18.82	100-105	9.200	7767
110.0	0	13.74	17.85	13.98	0	18.58	27.05	15.86	105-110	7.815	7774
115.0	0	13.50	17.01	13.32	0	18.64	26.45	17.31	110-115	7.152	7782
120.0	0	12.41	17.25	13.32	0.920	18.46	27.78	17.92	115-120	6.865	7788
125.0	0	0	0	0	0	0	0	0	120-125	0.670	7789
130.0	0	0	0	0	0	0	0	0	125-130	0	7789
135.0	0	0	0	0	0	0	0	0	130-135	0	7789
140.0	0	0	0	0	0	0	0	0	135-140	0	7789
145.0	0	0	0	0	0	0	0	0	140-145	0	7789
150.0	0	0	0	0	0	0	0	0	145-150	0	7789
155.0	0	0	0	0	0	0	0	0	150-155	0	7789
160.0	0	0	0	0	0	0	0	0	155-160	0	7789
165.0	0	0	0	0	0	0	0	0	160-165	0	7789
170.0	0	0	0	0	0	0	0	0	165-170	0	7789
175.0	0	0	0	0	0	0	0	0	170-175	0	7789
180.0	0	0	0	0	0	0	0	0	175-180	0	7789
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月14日

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

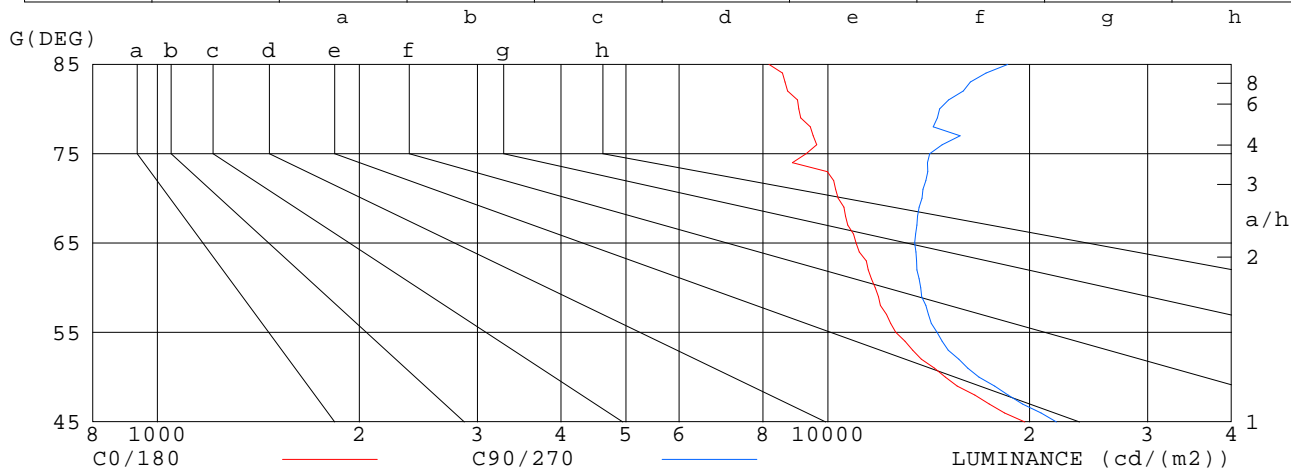
## LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 90°+60°+90°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	8172	18556
80	9056	14686
75	9288	14192
70	10357	13824
65	11025	13470
60	11775	13754
55	12631	14555
50	14970	16807
45	19668	21944

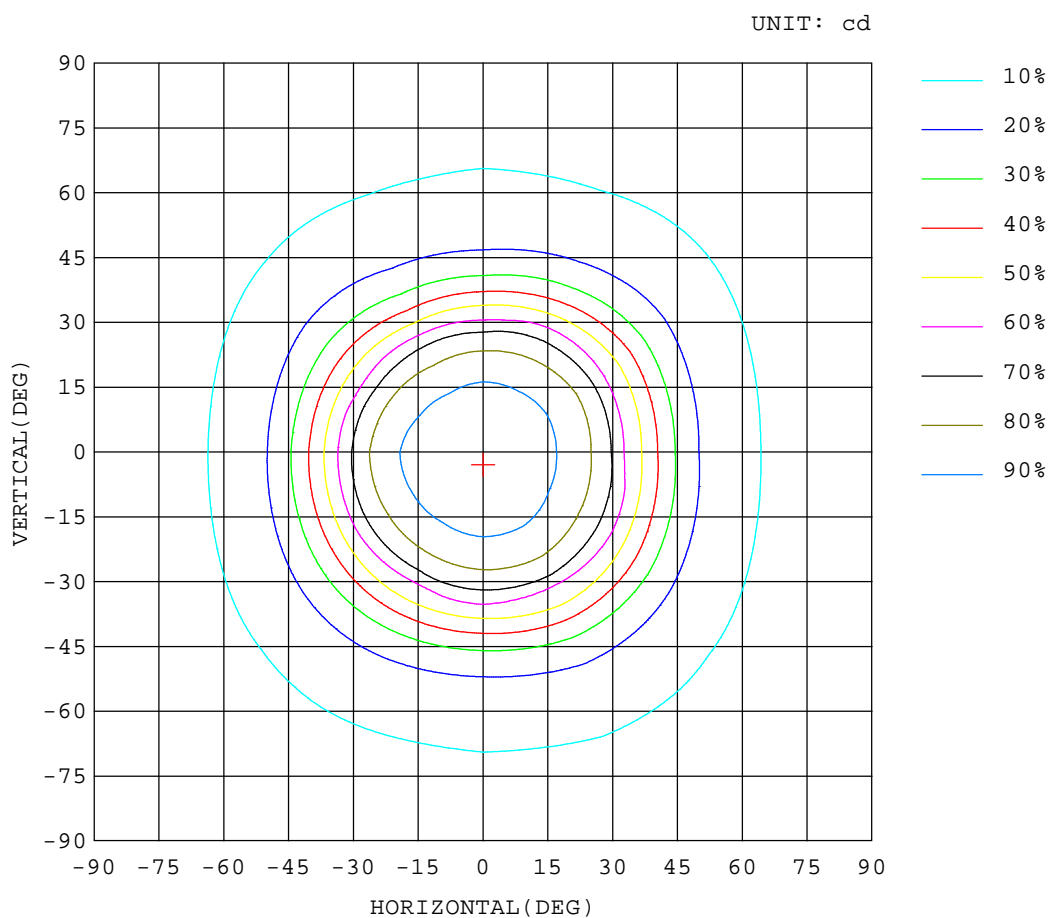
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14日

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: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



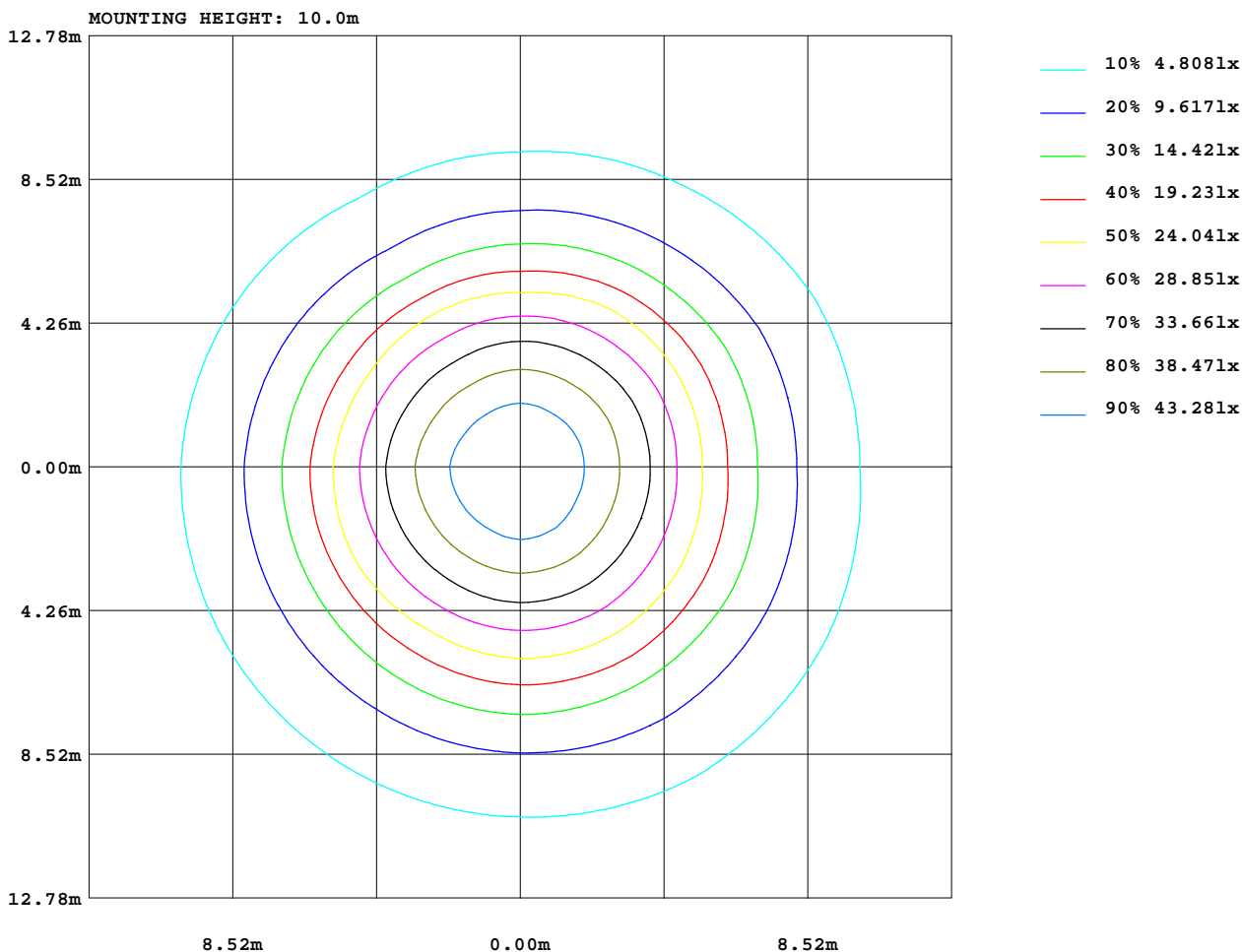
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14日

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: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14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: 90°+60°+90°57W										TYPE:					WEIGHT:					
SPECIFICATION:										DIMENSION: 576*188mm					SERIAL No.:					

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm			Φ t	Φ a
	0.03	0.17	0.44	0.75	1.02	1.26	1.63	2.18	2.66	2.74	2.43	2.00	1.62	1.28	0.93	0.54	0.21	0.03	21.9	0.00			
90																							
80																							
70																							
60																							
50																							
40																							
30																							

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月14日

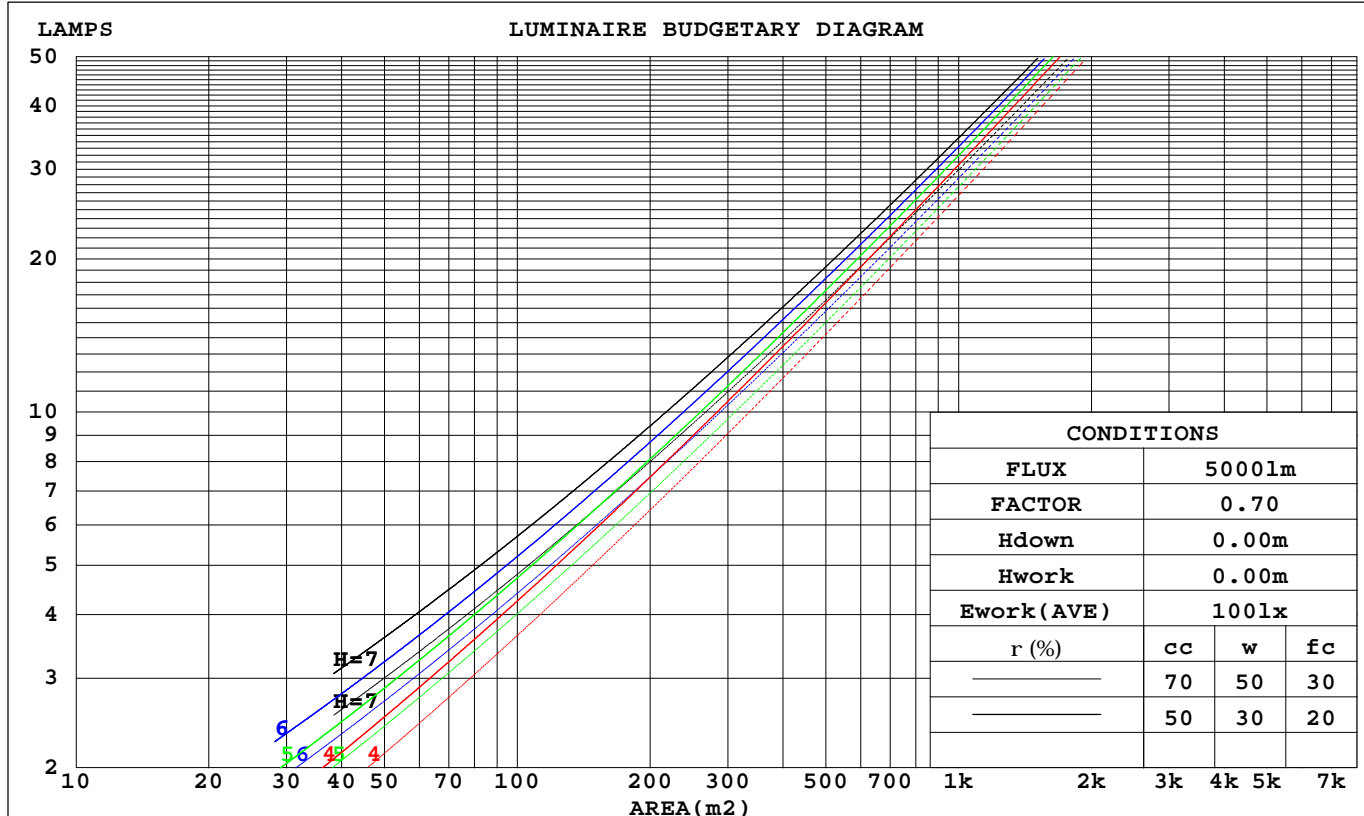
Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 90°+60°+90°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14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: 90°+60°+90°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	.253	.144	.046	.246	.140	.045	.233	.134	.043	.221	.127	.041	.209	.121	.039															
2.0	.239	.131	.040	.233	.128	.039	.221	.123	.038	.211	.118	.037	.201	.113	.036															
3.0	.223	.119	.036	.218	.117	.035	.208	.113	.034	.198	.109	.033	.190	.105	.033															
4.0	.208	.108	.032	.204	.107	.032	.195	.103	.031	.187	.100	.030	.179	.097	.030															
5.0	.195	.099	.029	.191	.098	.029	.183	.095	.028	.176	.093	.028	.169	.090	.027															
6.0	.183	.092	.026	.179	.091	.026	.172	.088	.026	.166	.086	.025	.160	.084	.025															
7.0	.172	.085	.024	.169	.084	.024	.162	.082	.024	.157	.080	.023	.151	.079	.023															
8.0	.162	.079	.022	.159	.078	.022	.154	.077	.022	.148	.075	.022	.143	.074	.021															
9.0	.153	.074	.021	.151	.073	.021	.146	.072	.020	.141	.071	.020	.136	.069	.020															
10.0	.145	.070	.019	.143	.069	.019	.138	.068	.019	.134	.067	.019	.130	.065	.019															

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	.196	.196	.196	.167	.167	.167	.114	.114	.114	.066	.066	.066	.021	.021	.021	
1.0	.182	.162	.144	.155	.139	.124	.106	.096	.086	.061	.055	.050	.020	.018	.016	
2.0	.170	.137	.110	.146	.118	.095	.100	.082	.066	.058	.048	.039	.019	.015	.013	
3.0	.161	.119	.086	.138	.103	.075	.095	.071	.052	.055	.042	.031	.018	.014	.010	
4.0	.152	.105	.070	.130	.091	.060	.090	.063	.043	.052	.037	.025	.017	.012	.008	
5.0	.144	.094	.058	.124	.082	.050	.085	.057	.035	.049	.034	.021	.016	.011	.007	
6.0	.137	.086	.049	.118	.074	.043	.081	.052	.030	.047	.031	.018	.015	.010	.006	
7.0	.131	.079	.042	.112	.068	.037	.078	.048	.026	.045	.028	.015	.015	.009	.005	
8.0	.125	.073	.037	.107	.063	.032	.074	.044	.023	.043	.026	.014	.014	.009	.005	
9.0	.119	.068	.033	.103	.059	.029	.071	.041	.020	.041	.024	.012	.013	.008	.004	
10.0	.114	.063	.030	.098	.055	.026	.068	.039	.018	.040	.023	.011	.013	.008	.004	

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月14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: 90°+60°+90°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	21.0	22.2	21.2	22.4	22.6	21.6	22.9	21.9	23.1	23.3	
	3H	21.9	23.0	22.2	23.3	23.5	22.8	24.0	23.1	24.2	24.4
	4H	22.3	23.4	22.6	23.6	23.9	23.4	24.5	23.7	24.8	25.0
	6H	22.6	23.7	23.0	23.9	24.2	24.0	25.1	24.3	25.3	25.6
	8H	22.7	23.7	23.1	24.0	24.3	24.3	25.3	24.6	25.6	25.9
	12H	22.8	23.8	23.2	24.1	24.4	24.5	25.5	24.9	25.8	26.1
4H	2H	21.4	22.5	21.7	22.7	23.0	21.9	23.0	22.2	23.3	23.5
	3H	22.5	23.5	22.9	23.8	24.1	23.4	24.3	23.7	24.6	24.9
	4H	23.1	24.0	23.5	24.3	24.6	24.2	25.0	24.5	25.4	25.7
	6H	23.6	24.4	24.0	24.7	25.1	24.9	25.7	25.3	26.1	26.4
	8H	23.8	24.5	24.2	24.9	25.2	25.3	26.0	25.7	26.4	26.8
	12H	23.9	24.5	24.3	24.9	25.4	25.6	26.3	26.1	26.7	27.1
8H	4H	23.4	24.2	23.8	24.5	24.9	24.4	25.1	24.8	25.5	25.9
	6H	24.1	24.7	24.5	25.1	25.5	25.3	25.9	25.8	26.3	26.8
	8H	24.3	24.9	24.8	25.3	25.8	25.8	26.3	26.3	26.8	27.2
	12H	24.6	25.0	25.0	25.5	26.0	26.3	26.8	26.8	27.2	27.7
12H	4H	23.5	24.1	23.9	24.5	24.9	24.4	25.0	24.8	25.4	25.8
	6H	24.2	24.7	24.7	25.2	25.6	25.4	25.9	25.8	26.3	26.8
	8H	24.5	25.0	25.0	25.4	25.9	25.9	26.4	26.4	26.8	27.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.5 / - 0.6					+ 0.3 / - 0.4					
1.5H	+ 0.5 / - 0.4					+ 0.4 / - 0.3					
2.0H	+ 0.7 / - 0.5					+ 0.5 / - 0.3					

CIE Pub.117 Corrected 7789 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.1)

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月14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: 90°+60°+90°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) $k(RI) \times RCR = 5$									
$k = 0.60$	70	61	55	70	61	55	69	60	55	50
0.80	79	70	64	78	70	64	77	69	64	58
1.00	86	77	72	85	77	71	83	78	71	65
1.25	92	84	78	91	83	78	88	82	77	71
1.50	96	88	83	94	87	82	92	86	81	75
2.00	101	94	89	99	93	88	96	91	87	80
2.50	104	98	93	102	96	92	98	94	90	83
3.00	106	101	97	104	99	95	100	96	93	85
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	107	104	109	105	103	104	102	99	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

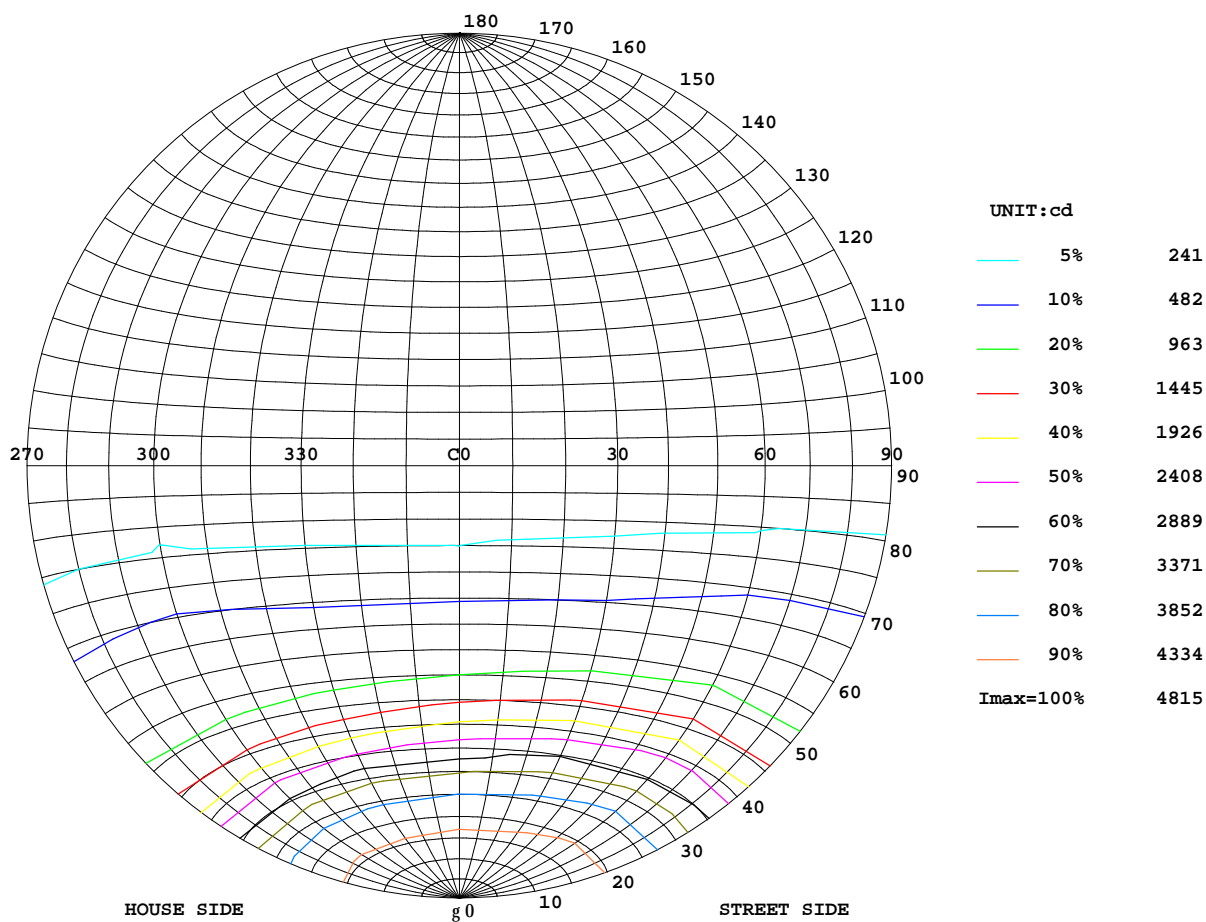
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 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月14日

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: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14日

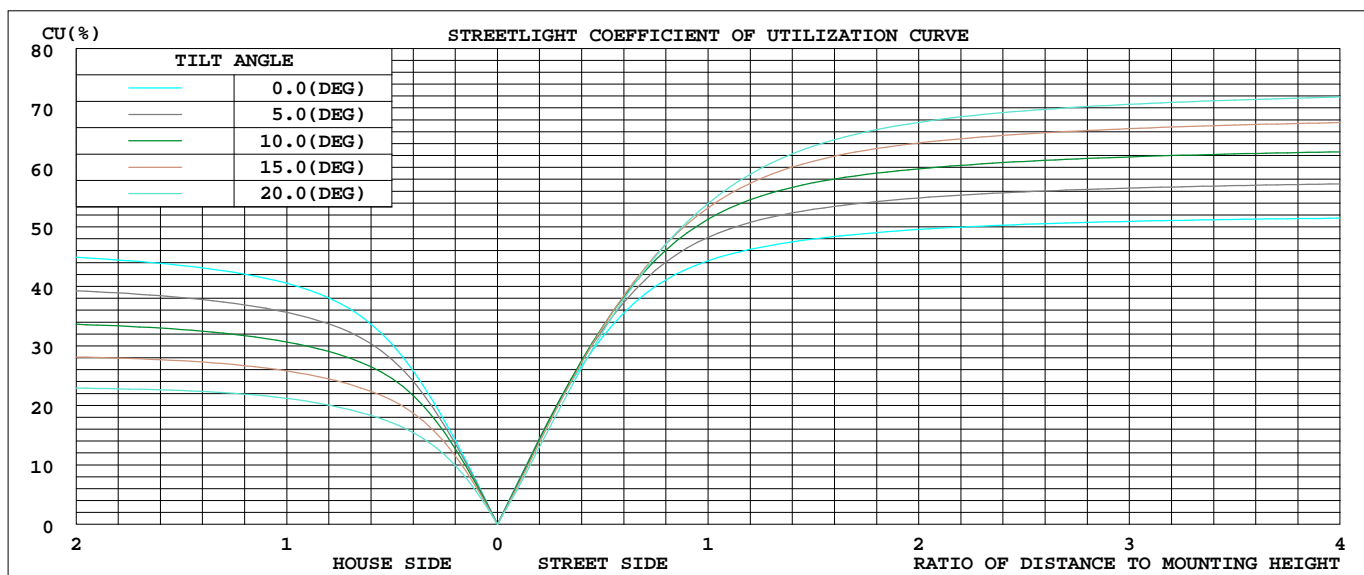
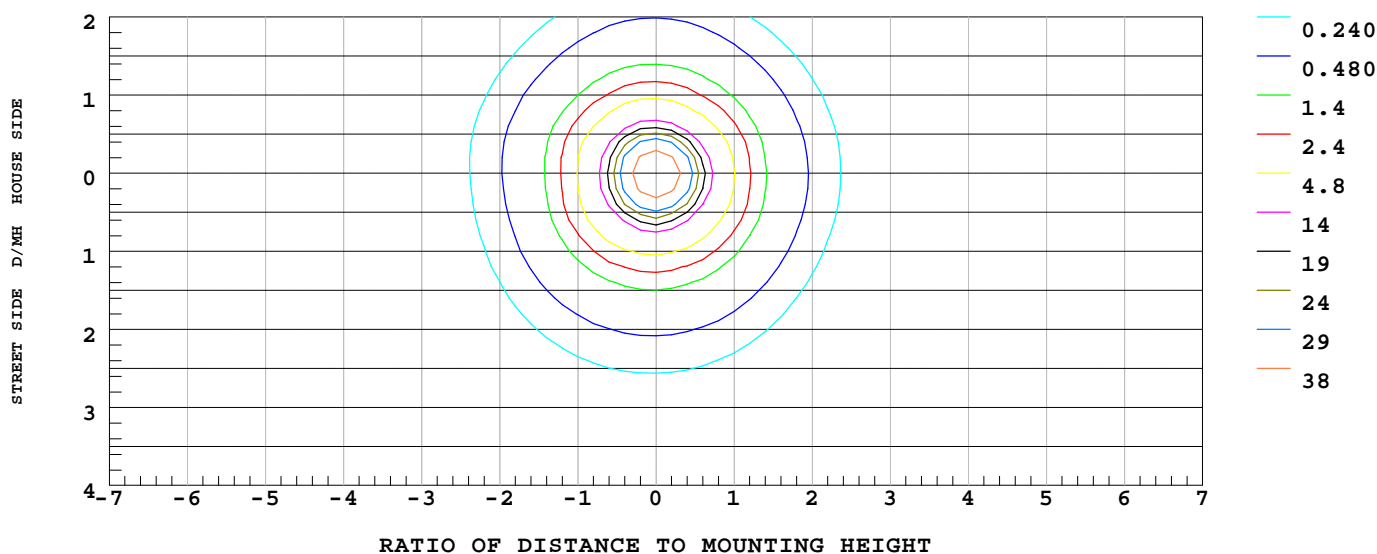
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 47.88 lx



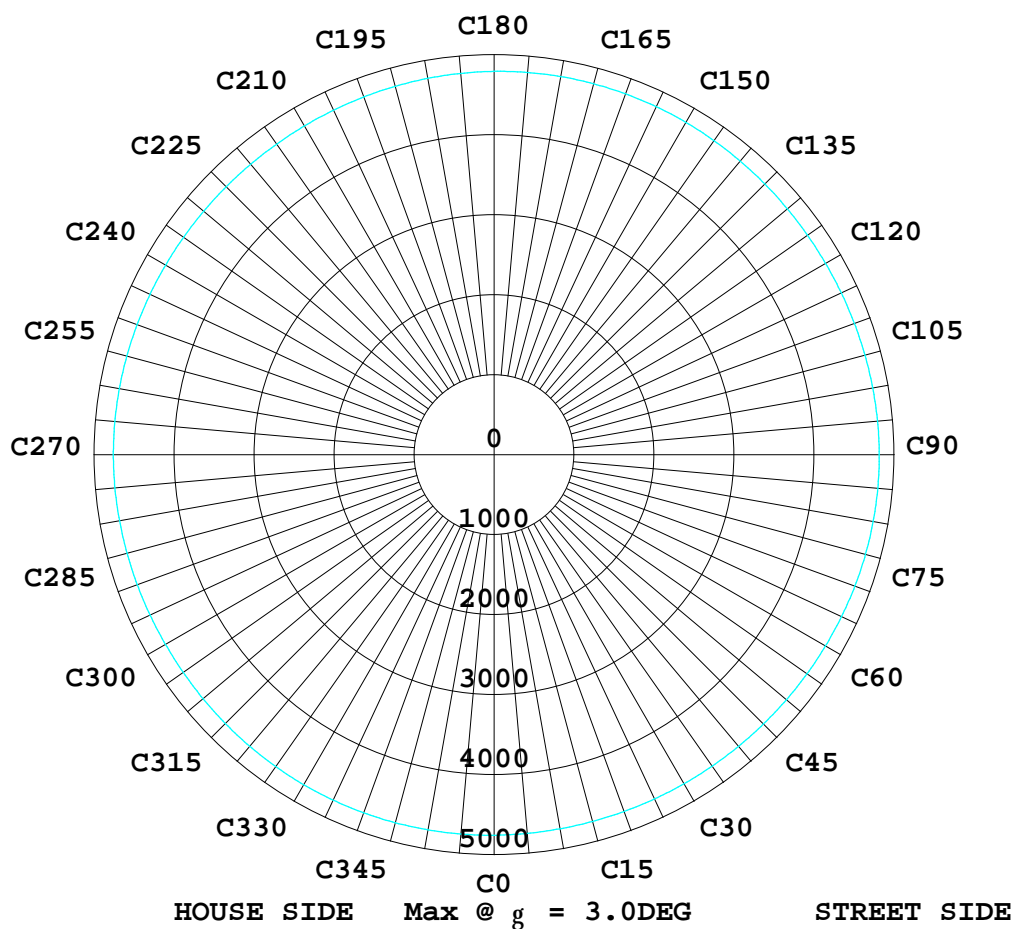
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14日

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: 90°+60°+90°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月14日

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