

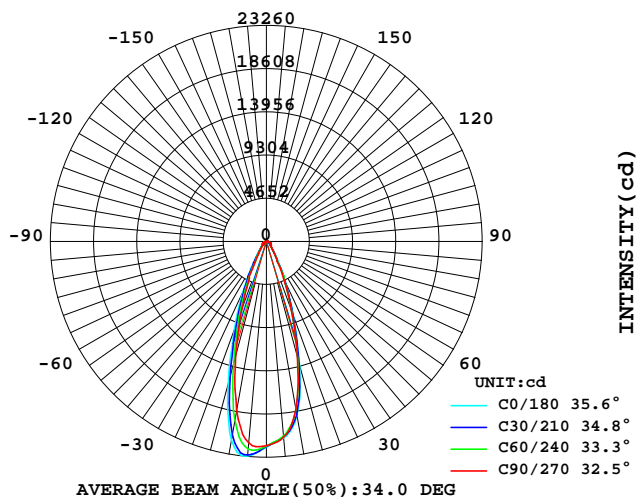
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

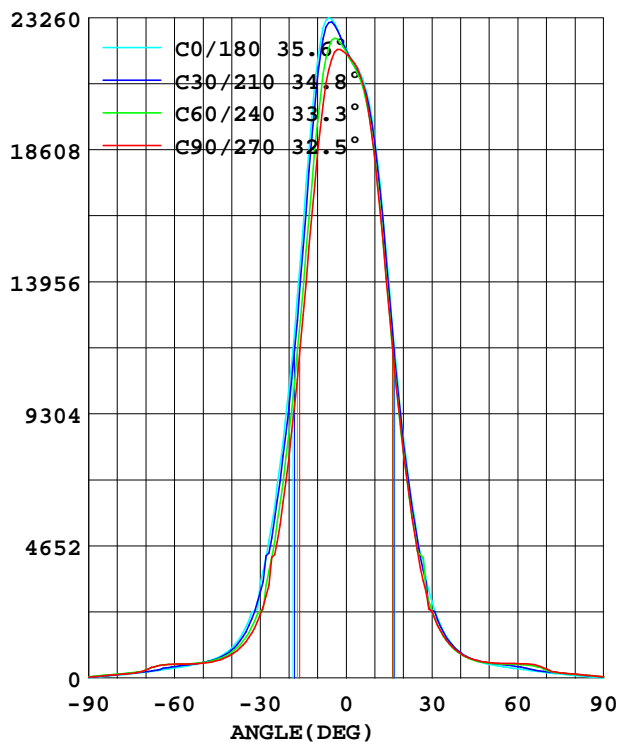
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		I <sub>max</sub> (cd)	23260	S/MH(C0/180)	0.61
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.55
NOMINAL POWER(W)	68	TOTAL FLUX(lm)	10607	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	158.1	Current(A)	0.321
NOMINAL FLUX(lm)	10607.3	h up(%)	0.3	Power(W)	67.08
LAMPS QUANTITY	1	h down(%)	99.7	Power Factor(PF)	0.953
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	8206.4	EEI	0.111

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



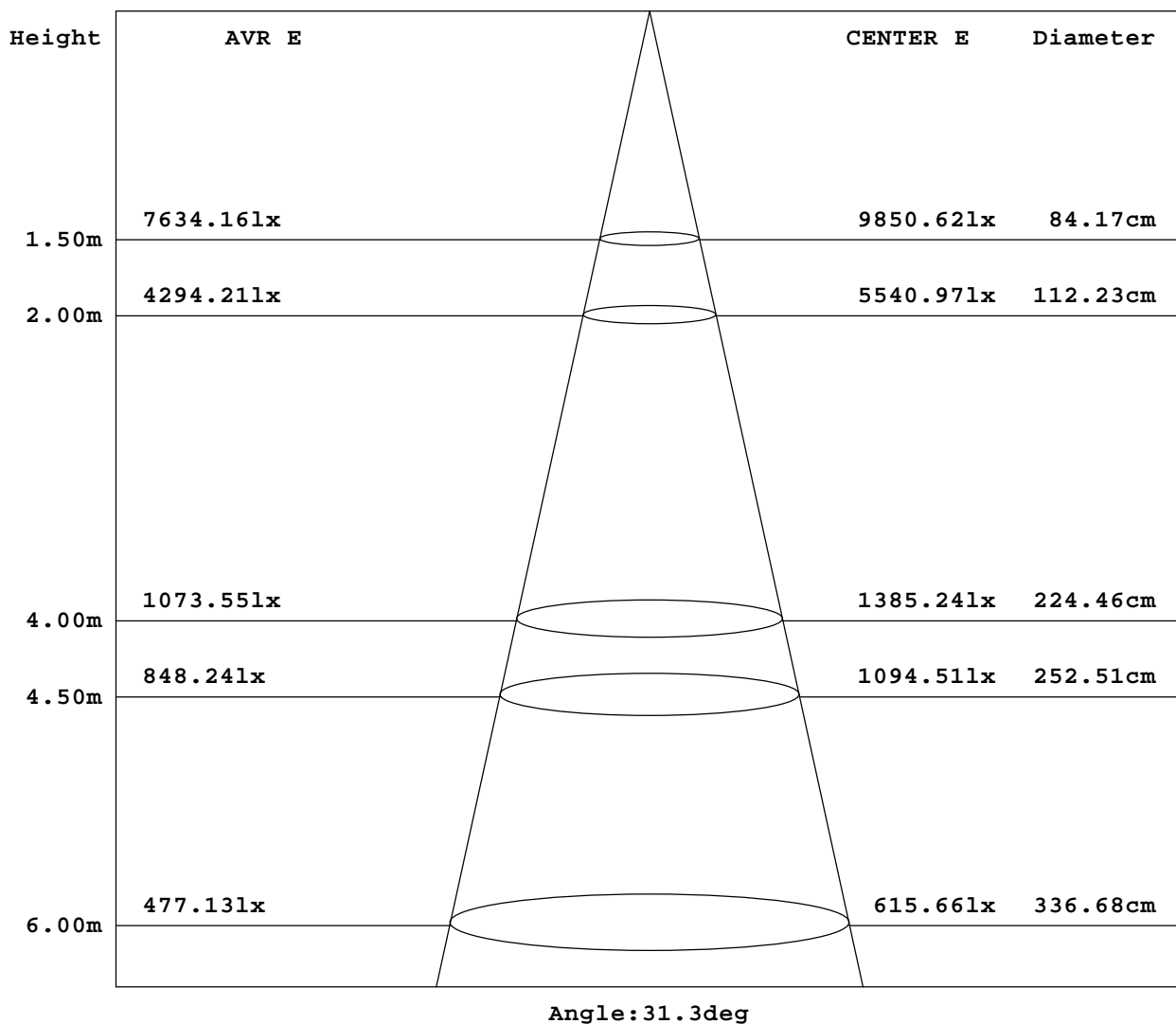
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System: HOPOO HPG1800  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2019年07月31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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	2320	2279	2178	2139	2127	2109	2120	2207	0- 5	525.4	525.4
10.0	2173	2039	1851	1862	1899	1864	1839	1996	5- 10	1487	2012
15.0	1589	1443	1279	1295	1392	1336	1301	1443	10- 15	1966	3978
20.0	1015	901.9	769.4	787.3	849.3	812.7	795.3	897.1	15- 20	1801	5779
25.0	601.5	521.0	435.2	446.4	488.4	465.5	447.8	518.8	20- 25	1373	7152
30.0	334.1	268.9	223.4	240.3	271.9	238.9	236.0	276.5	25- 30	924.3	8076
35.0	179.5	152.5	126.8	133.2	147.1	137.7	133.2	151.6	30- 35	571.3	8648
40.0	104.8	94.29	83.03	84.41	88.39	86.50	86.52	93.82	35- 40	379.8	9028
45.0	72.02	67.28	61.20	61.39	62.12	62.78	63.56	66.63	40- 45	279.7	9307
50.0	54.57	54.41	51.92	50.64	48.16	52.29	53.96	53.79	45- 50	233.3	9541
55.0	43.26	48.35	49.60	45.91	38.99	47.74	51.34	47.97	50- 55	215.1	9756
60.0	34.97	44.16	48.69	41.45	33.50	43.87	50.64	43.50	55- 60	207.1	9963
65.0	27.66	37.19	44.24	33.80	25.47	36.51	48.11	36.83	60- 65	193.9	10157
70.0	20.86	25.00	28.11	21.90	18.96	24.54	32.01	24.79	65- 70	155.3	10312
75.0	15.26	17.54	16.45	16.87	13.74	17.14	17.91	17.41	70- 75	104.4	10417
80.0	10.35	12.68	12.11	12.09	9.009	12.82	13.68	12.93	75- 80	77.08	10494
85.0	5.246	8.077	7.630	7.581	4.205	8.198	9.009	8.138	80- 85	53.89	10548
90.0	0.503	3.467	2.862	3.014	0	3.504	3.734	3.358	85- 90	27.88	10576
95.0	0	1.961	2.354	1.253	0	1.392	2.681	1.477	90- 95	10.45	10586
100.0	0	1.301	2.112	0.893	0	1.011	2.427	0.975	95-100	6.358	10593
105.0	0	1.017	1.870	0.748	0	0.812	1.967	0.739	100-105	5.279	10598
110.0	0	0.776	1.265	0.584	0	0.624	1.580	0.570	105-110	3.988	10602
115.0	0	0.572	1.035	0.445	0	0.582	1.193	0.407	110-115	2.957	10605
120.0	0	0.409	0.745	0.312	0	0.636	0.963	0.382	115-120	2.267	10607
125.0	0	0	0	0	0	0	0	0	120-125	0.204	10607
130.0	0	0	0	0	0	0	0	0	125-130	0	10607
135.0	0	0	0	0	0	0	0	0	130-135	0	10607
140.0	0	0	0	0	0	0	0	0	135-140	0	10607
145.0	0	0	0	0	0	0	0	0	140-145	0	10607
150.0	0	0	0	0	0	0	0	0	145-150	0	10607
155.0	0	0	0	0	0	0	0	0	150-155	0	10607
160.0	0	0	0	0	0	0	0	0	155-160	0	10607
165.0	0	0	0	0	0	0	0	0	160-165	0	10607
170.0	0	0	0	0	0	0	0	0	165-170	0	10607
175.0	0	0	0	0	0	0	0	0	170-175	0	10607
180.0	0	0	0	0	0	0	0	0	175-180	0	10607
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm	

Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

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

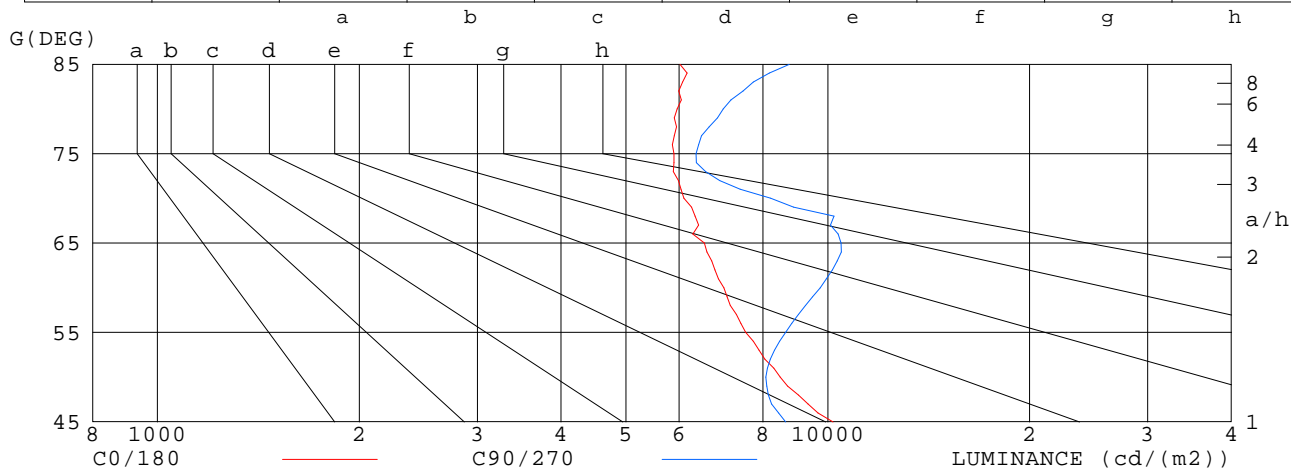
## LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	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	6020	8755
80	5962	6979
75	5898	6356
70	6101	8220
65	6547	10469
60	6995	9740
55	7543	8648
50	8491	8079
45	10186	8656

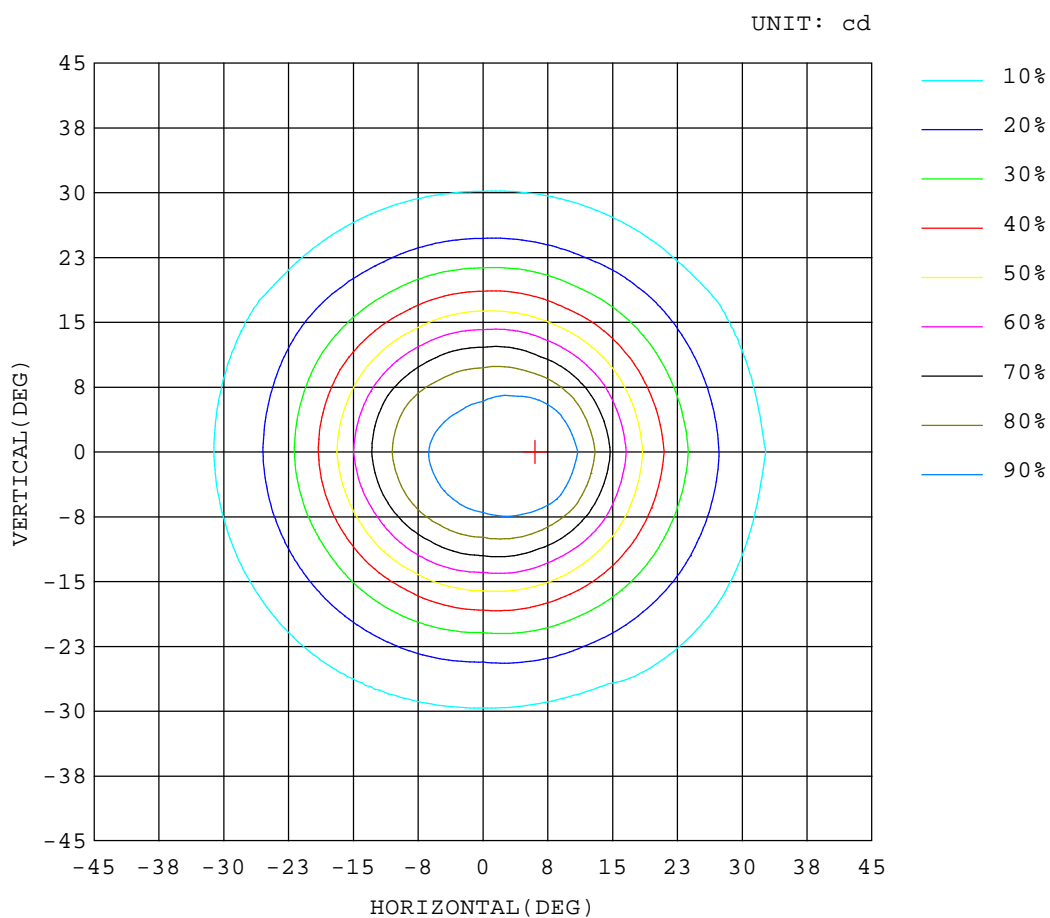
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



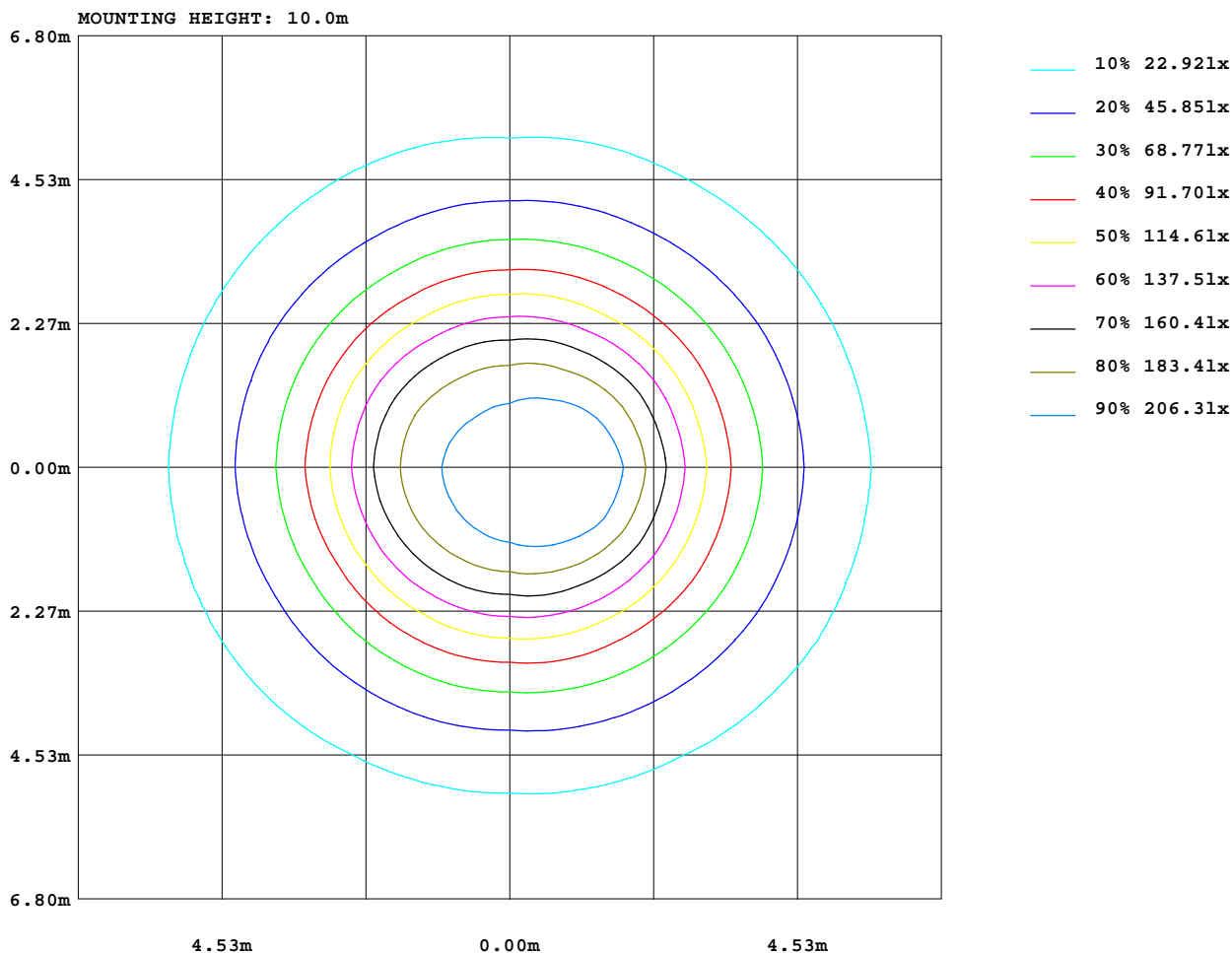
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

45	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a					
	2.52	2.90	3.25	3.60	3.99	4.45	4.91	5.29	5.53	5.56	5.38	5.04	4.59	4.12	3.71	3.31	2.93	2.52	73.7	0.00							
40	2.67	3.10	3.58	4.18	4.92	5.79	6.75	7.57	8.07	8.13	7.76	7.01	6.08	5.19	4.40	3.73	3.18	2.70	94.8	0.00							
35	2.83	3.39	4.15	5.23	6.67	8.44	10.4	12.3	13.4	13.5	12.6	11.0	8.99	7.17	5.63	4.44	3.57	2.92	137	0.00							
30	3.02	3.83	5.06	6.99	9.81	13.4	17.9	22.6	24.5	24.7	23.1	18.9	14.5	10.7	7.67	5.53	4.13	3.19	220	120							
25	3.25	4.40	6.38	9.73	14.7	23.0	32.9	40.3	45.5	46.2	42.0	34.5	25.1	16.5	10.9	7.12	4.86	3.52	371	300							
20	3.51	5.09	8.06	13.4	22.2	36.4	51.7	67.0	77.2	78.5	70.5	56.2	40.4	25.9	15.2	9.19	5.74	3.89	591	535							
15	3.78	5.81	9.95	17.2	32.0	52.2	77.5	102	118	120	108	84.7	59.0	37.0	20.5	11.5	6.70	4.28	870	823							
VERTICAL (DEG)	4.00	6.45	11.6	21.8	40.1	67.7	104	135	150	154	145	115	77.3	47.3	26.1	13.4	7.58	4.60	1132	1089							
	4.13	6.85	12.7	24.8	45.3	78.0	121	151	162	168	166	136	90.2	54.4	30.0	14.6	8.19	4.81	1280	1239							
	4.11	6.81	12.6	24.9	44.9	77.3	120	151	164	172	169	137	90.3	54.5	30.1	14.7	8.19	4.81	1287	1246							
	3.95	6.34	11.4	22.2	39.1	65.7	102	135	152	157	148	116	77.6	47.5	26.6	13.4	7.57	4.59	1136	1093							
	3.70	5.65	9.59	17.3	31.6	50.0	75.2	100	117	120	108	85.1	59.3	37.4	21.1	11.5	6.67	4.26	864	817							
	3.40	4.90	7.68	12.8	22.3	34.9	50.3	65.4	75.4	77.2	70.2	56.5	40.4	26.4	15.5	9.16	5.70	3.88	583	528							
	3.11	4.20	6.06	9.28	14.3	21.7	30.6	39.0	43.8	44.8	41.6	33.8	24.3	16.6	10.9	7.07	4.82	3.51	360	293							
	2.85	3.64	4.86	6.76	9.54	13.2	17.0	21.2	24.1	24.4	22.0	17.9	14.5	10.8	7.70	5.52	4.10	3.18	214	107							
	2.64	3.23	4.02	5.12	6.59	8.39	10.2	11.9	12.8	13.0	12.4	11.0	9.12	7.27	5.67	4.46	3.57	2.91	135	0.00							
	2.48	2.95	3.47	4.12	4.91	5.80	6.67	7.38	7.76	7.85	7.63	7.02	6.19	5.30	4.47	3.77	3.20	2.70	93.7	0.00							
2.34	2.76	3.15	3.56	4.00	4.44	4.86	5.18	5.35	5.40	5.31	5.05	4.67	4.23	3.78	3.35	2.95	2.53	73.0	0.00								
-45	-40	-35	-30	-25	-20	-15	-10	HORIZONTAL (DEG)												10	15	20	25	30	35	40	45
Φ t	58.3	82.3	128	213	357	571	844	1081	1206	1240	1165	939	653	419	251	146	93.7	64.9	10607								
Φ a	0.00	0.00	7.72	124	285	508	786	1025	1153	1185	1109	880	590	349	166	24.0	0.00	0.00		8206							

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年07月31日

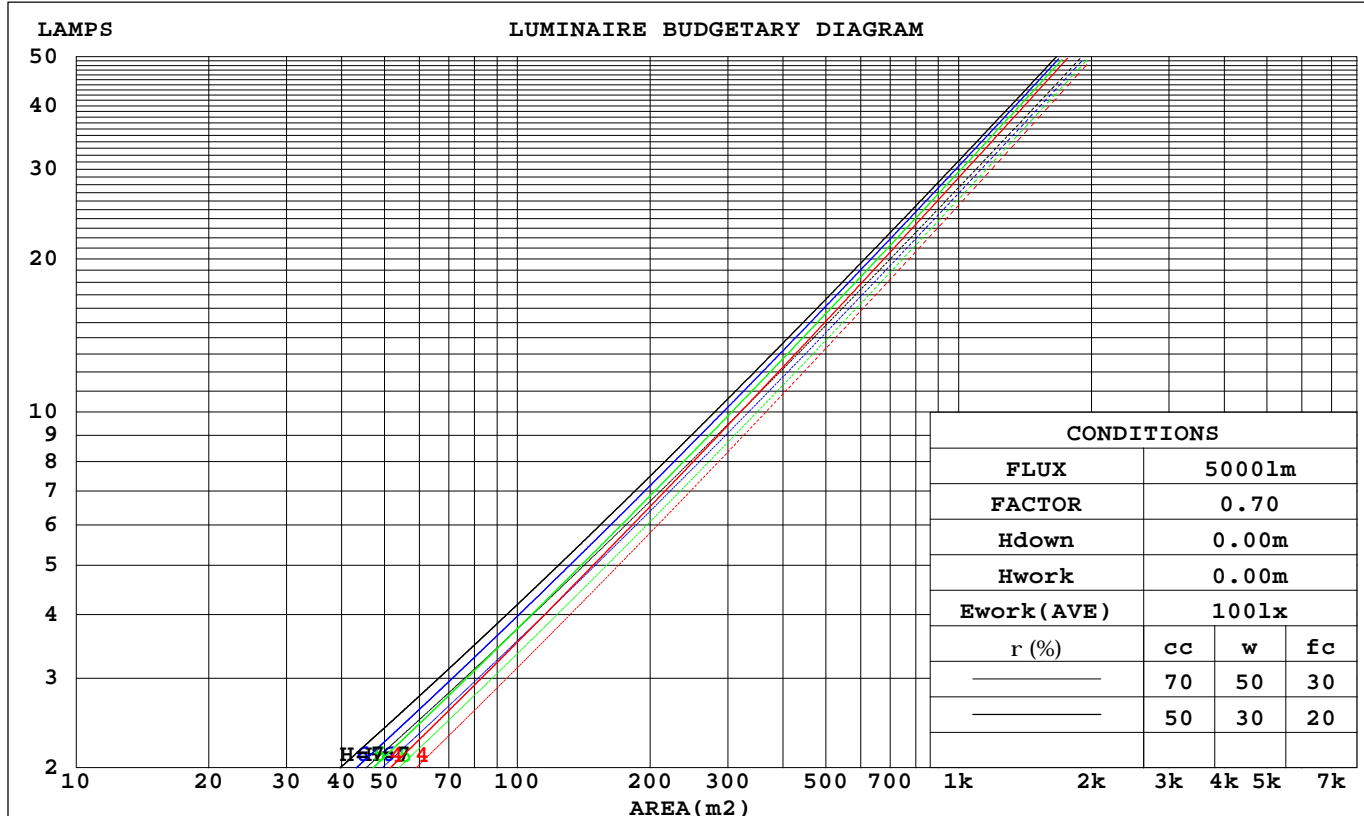
Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME:								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1438*65mm				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/c	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio															



Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年07月31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:						TYPE:			WEIGHT:		
SPECIFICATION:						DIMENSION: 1438*65mm			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	.191	.109	.034	.184	.105	.033	.171	.098	.031	.159	.092	.030	.149	.086	.028															
2.0	.178	.097	.030	.172	.095	.029	.161	.090	.028	.151	.085	.027	.142	.080	.025															
3.0	.166	.088	.026	.161	.086	.026	.151	.082	.025	.143	.078	.024	.135	.075	.023															
4.0	.155	.080	.024	.150	.079	.023	.142	.076	.023	.135	.073	.022	.128	.070	.021															
5.0	.145	.074	.021	.141	.073	.021	.134	.070	.021	.128	.067	.020	.122	.065	.020															
6.0	.136	.068	.020	.133	.067	.019	.127	.065	.019	.121	.063	.019	.116	.061	.018															
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.059	.017	.111	.058	.017															
8.0	.122	.060	.017	.120	.059	.017	.115	.057	.016	.110	.056	.016	.106	.055	.016															
9.0	.116	.056	.016	.114	.055	.016	.110	.054	.015	.106	.053	.015	.102	.052	.015															
10.0	.110	.053	.015	.109	.052	.015	.105	.051	.014	.101	.050	.014	.098	.049	.014															

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	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.174	.159	.146	.149	.137	.126	.102	.094	.087	.059	.054	.051	.019	.018	.016	
2.0	.159	.135	.114	.136	.116	.099	.094	.080	.069	.054	.047	.040	.017	.015	.013	
3.0	.147	.116	.091	.126	.100	.079	.086	.069	.056	.050	.041	.033	.016	.013	.011	
4.0	.136	.101	.075	.117	.087	.065	.080	.061	.046	.046	.036	.027	.015	.012	.009	
5.0	.127	.090	.062	.109	.077	.054	.075	.054	.038	.043	.032	.023	.014	.010	.007	
6.0	.118	.080	.053	.102	.069	.046	.070	.049	.032	.041	.029	.019	.013	.009	.006	
7.0	.111	.072	.045	.096	.063	.039	.066	.044	.028	.038	.026	.017	.012	.008	.005	
8.0	.105	.066	.039	.090	.057	.034	.063	.040	.024	.036	.024	.014	.012	.008	.005	
9.0	.099	.061	.034	.086	.053	.030	.059	.037	.021	.035	.022	.013	.011	.007	.004	
10.0	.095	.056	.031	.081	.049	.027	.057	.034	.019	.033	.020	.011	.011	.007	.004	

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年07月31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:					TYPE:			WEIGHT:			
SPECIFICATION:					DIMENSION: 1438*65mm			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	16.1	17.1	16.4	17.2	17.4	16.7	17.6	16.9	17.8	18.0
	3H	17.1	18.0	17.4	18.2	18.4	18.4	19.2	18.7	19.4	19.7
	4H	17.6	18.4	17.8	18.6	18.8	18.8	19.6	19.0	19.8	20.0
	6H	18.0	18.7	18.3	19.0	19.3	19.1	19.9	19.4	20.1	20.4
	8H	18.2	18.9	18.5	19.2	19.4	19.3	20.1	19.6	20.3	20.6
	12H	18.3	19.0	18.6	19.3	19.6	19.5	20.2	19.8	20.5	20.8
4H	2H	16.8	17.6	17.1	17.8	18.1	17.3	18.1	17.6	18.3	18.6
	3H	17.9	18.6	18.2	18.9	19.2	19.1	19.8	19.4	20.1	20.3
	4H	18.5	19.2	18.9	19.5	19.8	19.6	20.2	19.9	20.5	20.8
	6H	19.1	19.6	19.4	20.0	20.3	20.1	20.7	20.5	21.0	21.4
	8H	19.3	19.8	19.7	20.2	20.6	20.3	20.9	20.7	21.2	21.6
	12H	19.5	20.0	19.9	20.4	20.8	20.6	21.1	21.0	21.5	21.9
8H	4H	18.8	19.3	19.2	19.7	20.1	19.7	20.3	20.1	20.6	21.0
	6H	19.5	20.0	20.0	20.4	20.8	20.4	20.9	20.9	21.3	21.7
	8H	19.9	20.3	20.3	20.7	21.2	20.9	21.3	21.3	21.7	22.1
	12H	20.2	20.5	20.7	21.0	21.5	21.3	21.6	21.7	22.1	22.5
12H	4H	18.8	19.3	19.3	19.7	20.1	19.7	20.2	20.2	20.6	21.0
	6H	19.7	20.1	20.1	20.5	20.9	20.5	20.9	21.0	21.3	21.8
	8H	20.1	20.4	20.5	20.9	21.3	21.0	21.3	21.5	21.8	22.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.2					
1.5H	+ 0.5 / - 0.3					+ 0.3 / - 0.4					
2.0H	+ 0.2 / - 0.4					+ 0.7 / - 0.6					

CIE Pub.117 Corrected 10607 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.2)

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年07月31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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	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) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	82	75	71	81	75	71	67
0.80	90	83	79	89	83	79	88	82	78	74
1.00	95	88	84	94	88	84	92	88	83	79
1.25	99	93	89	98	93	89	96	91	88	83
1.50	102	97	93	101	96	92	99	94	91	86
2.00	106	101	97	104	100	96	101	98	95	89
2.50	108	103	100	106	102	99	103	100	97	91
3.00	110	106	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	95
5.00	114	111	109	112	109	107	107	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

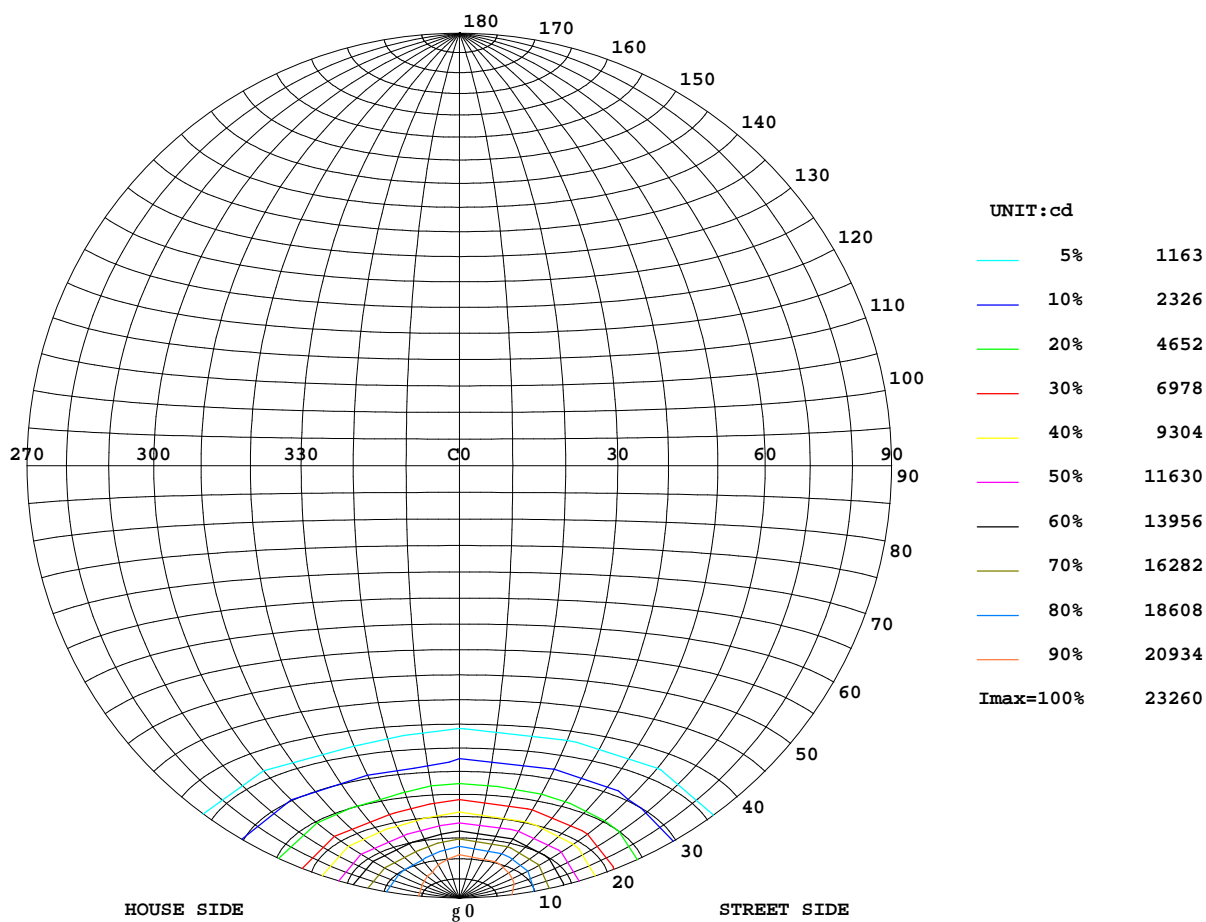
Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年07月31日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

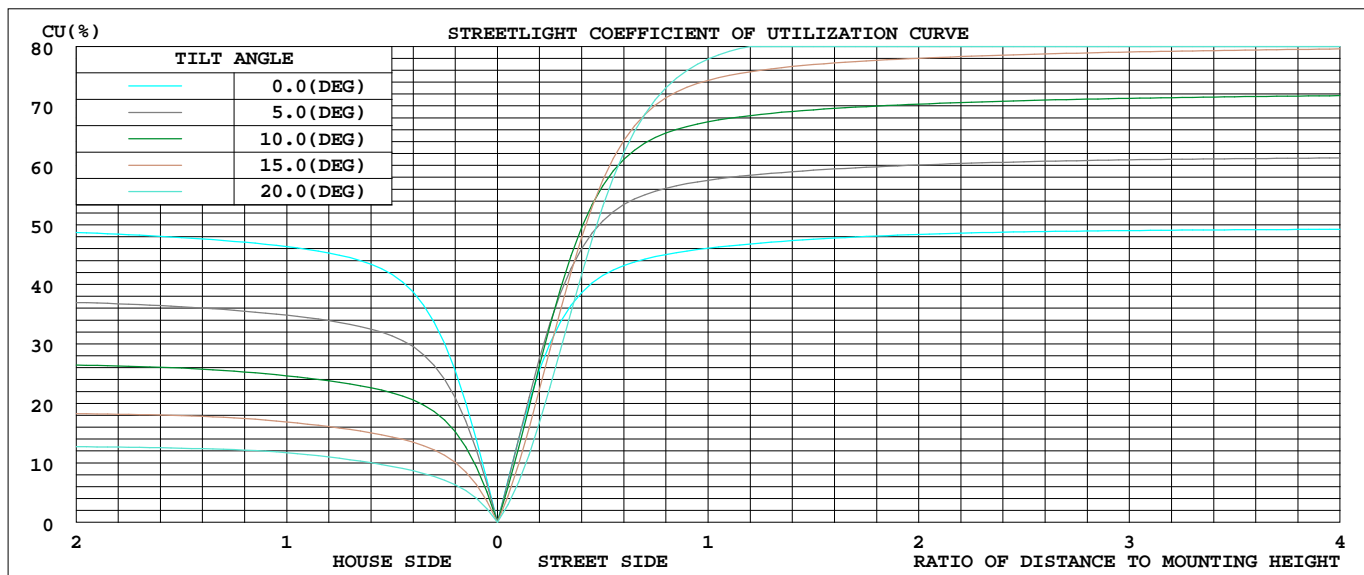
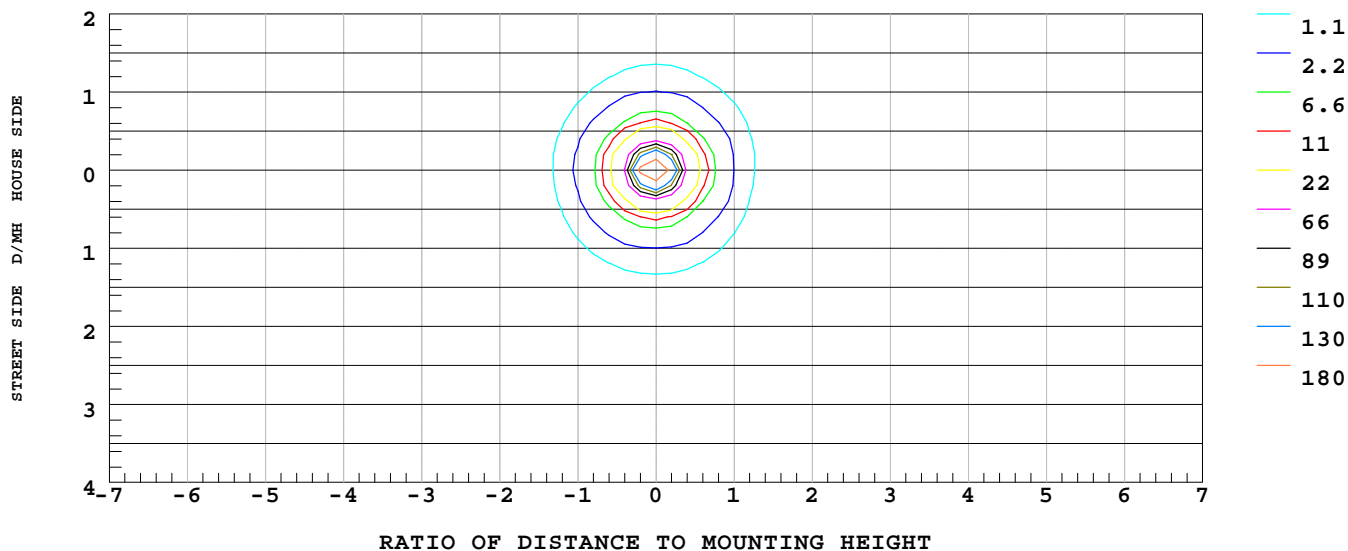
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 221.64 lx



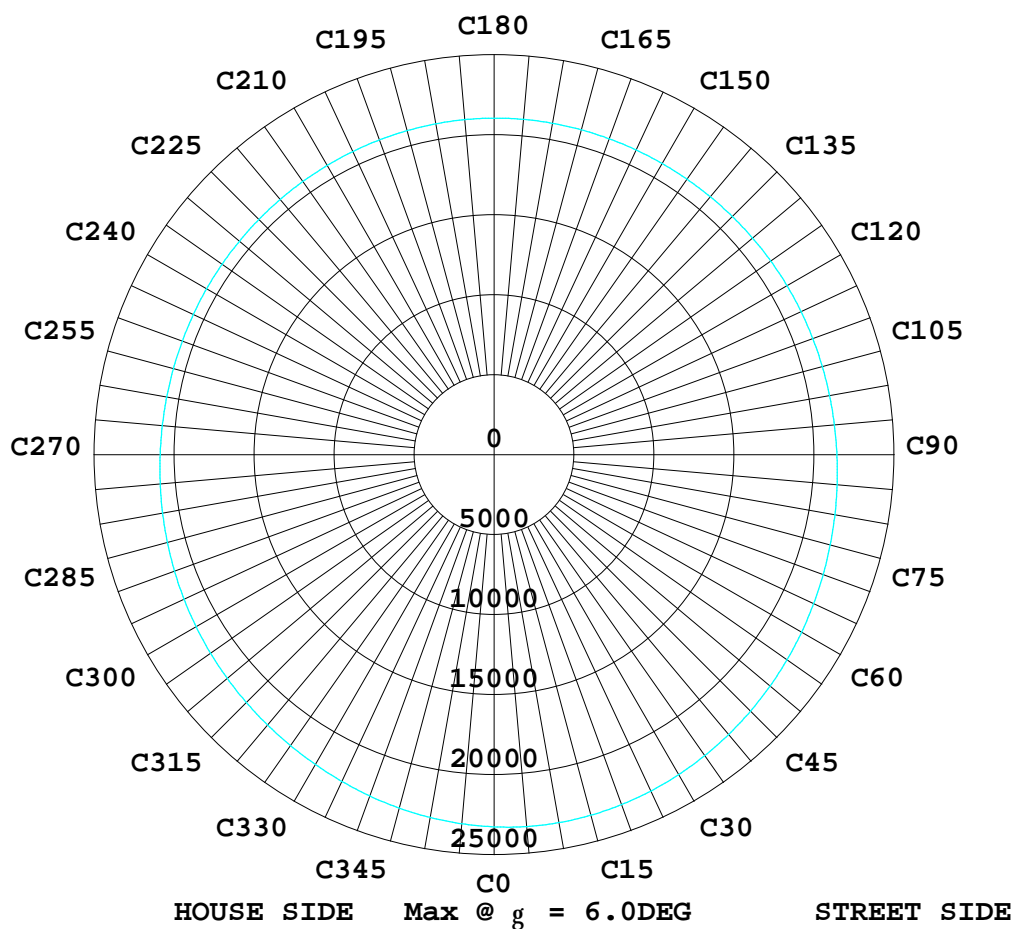
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年07月31日

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