

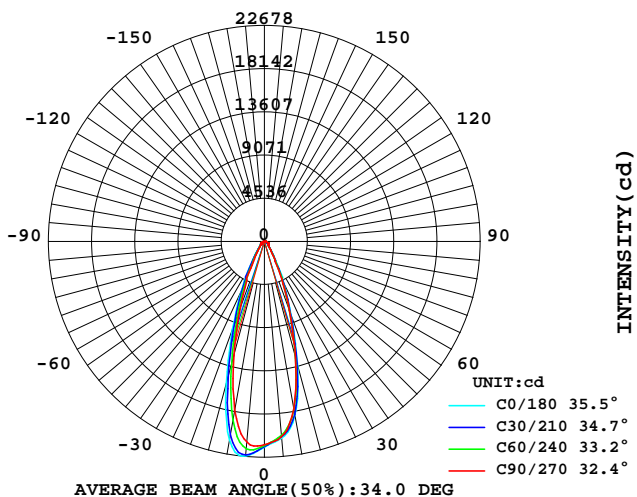
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

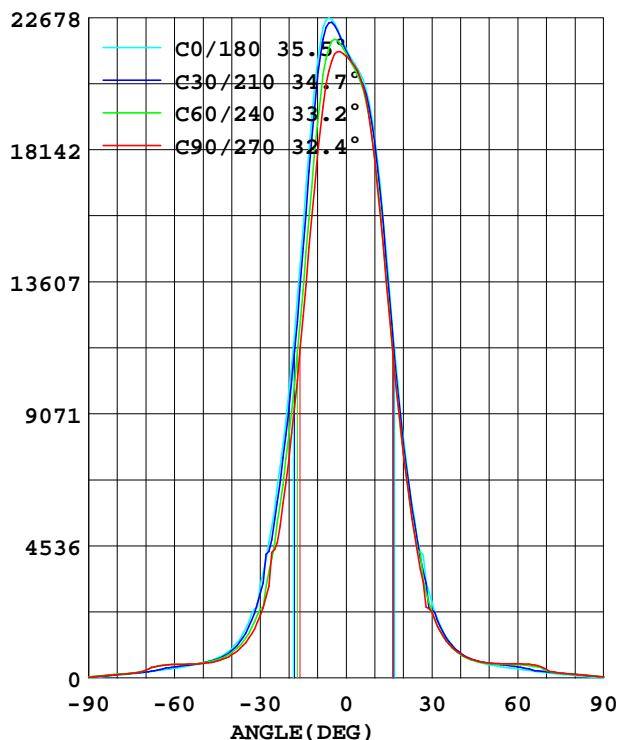
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	22678	S/MH(C0/180)	0.61
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.55
NOMINAL POWER(W)	64	TOTAL FLUX(lm)	10247	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	159.4	Current(A)	0.309
NOMINAL FLUX(lm)	10247.0	h up(%)	0.3	Power(W)	64.29
LAMPS QUANTITY	1	h down(%)	99.7	Power Factor(PF)	0.950
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	7948.0	EEI	0.110

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



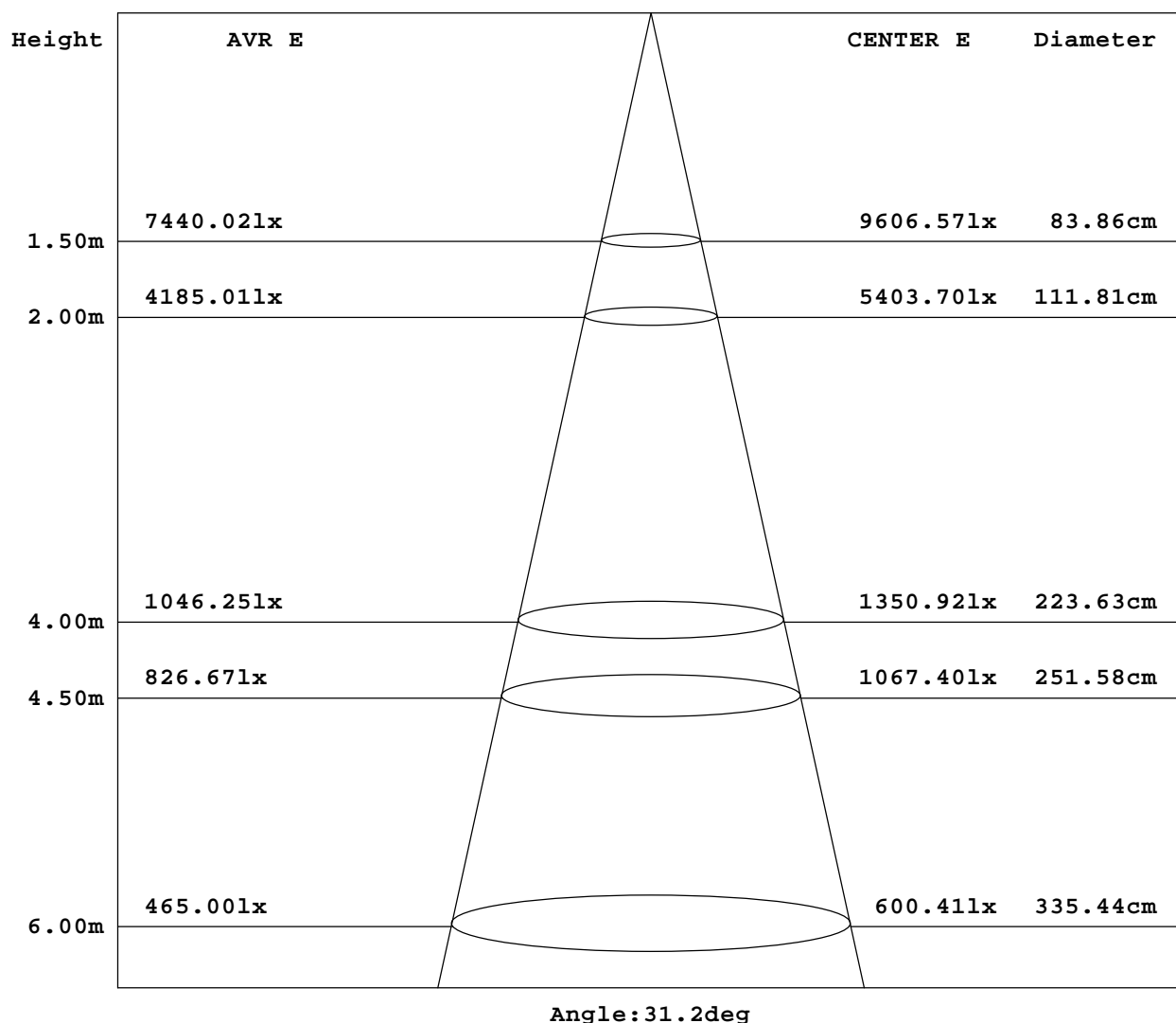
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年07月31日

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	2262	2220	2118	2076	2075	2052	2059	2141	0- 5	510.9	510.9
10.0	2118	1987	1800	1809	1853	1815	1787	1938	5- 10	1446	1957
15.0	1545	1404	1243	1257	1356	1299	1262	1400	10- 15	1912	3869
20.0	982.6	874.8	745.8	762.6	824.7	787.9	769.3	868.4	15- 20	1748	5617
25.0	580.0	503.3	441.5	430.8	472.3	454.9	431.8	500.5	20- 25	1328	6945
30.0	320.2	263.9	214.9	231.3	261.8	232.4	226.7	245.3	25- 30	888.2	7833
35.0	171.3	146.0	121.4	127.7	140.9	131.8	127.4	145.2	30- 35	548.9	8382
40.0	99.83	89.95	79.23	80.58	84.32	82.54	82.58	89.61	35- 40	362.9	8745
45.0	68.55	64.06	58.31	58.52	59.20	59.89	60.59	63.50	40- 45	266.6	9012
50.0	51.96	51.85	49.50	48.20	45.87	49.86	51.51	51.31	45- 50	222.3	9234
55.0	41.17	46.11	47.30	43.66	37.16	45.63	49.12	45.70	50- 55	205.1	9439
60.0	33.24	42.23	46.45	39.90	30.59	41.99	48.50	41.41	55- 60	197.8	9637
65.0	25.58	35.55	42.33	32.21	24.23	34.86	46.07	34.94	60- 65	184.9	9822
70.0	19.79	23.80	26.90	21.23	17.98	23.37	30.53	23.59	65- 70	148.6	9971
75.0	14.46	16.60	15.55	16.01	12.95	16.24	17.00	16.49	70- 75	98.94	10070
80.0	9.784	11.99	11.42	11.42	8.453	12.13	12.96	12.23	75- 80	72.95	10142
85.0	4.944	7.630	7.194	7.097	3.842	7.721	8.501	7.618	80- 85	50.83	10193
90.0	0.370	3.219	2.645	2.741	0	3.274	3.516	3.092	85- 90	26.03	10219
95.0	0	1.798	2.173	1.072	0	1.259	2.439	1.283	90- 95	9.494	10229
100.0	0	1.168	1.919	0.796	0	0.860	2.233	0.836	95-100	5.644	10234
105.0	0	0.915	1.640	0.687	0	0.661	1.822	0.570	100-105	4.628	10239
110.0	0	0.703	1.096	0.512	0	0.485	1.447	0.413	105-110	3.459	10243
115.0	0	0.524	0.878	0.385	0	0.443	1.047	0.273	110-115	2.467	10245
120.0	0	0.355	0.600	0.234	0	0.534	0.794	0.270	115-120	1.857	10247
125.0	0	0	0	0	0	0	0	0	120-125	0.164	10247
130.0	0	0	0	0	0	0	0	0	125-130	0	10247
135.0	0	0	0	0	0	0	0	0	130-135	0	10247
140.0	0	0	0	0	0	0	0	0	135-140	0	10247
145.0	0	0	0	0	0	0	0	0	140-145	0	10247
150.0	0	0	0	0	0	0	0	0	145-150	0	10247
155.0	0	0	0	0	0	0	0	0	150-155	0	10247
160.0	0	0	0	0	0	0	0	0	155-160	0	10247
165.0	0	0	0	0	0	0	0	0	160-165	0	10247
170.0	0	0	0	0	0	0	0	0	165-170	0	10247
175.0	0	0	0	0	0	0	0	0	170-175	0	10247
180.0	0	0	0	0	0	0	0	0	175-180	0	10247
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:

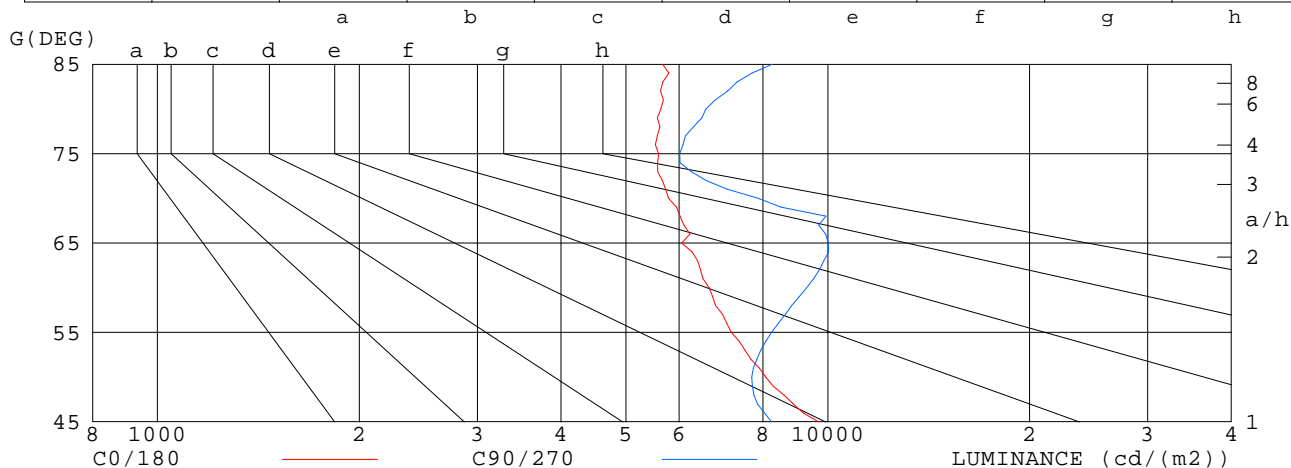
LUMINANCE LIMITATION CURVES

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	5673	8255
80	5634	6582
75	5590	6010
70	5786	7867
65	6054	10017
60	6649	9292
55	7178	8248
50	8084	7702
45	9695	8247

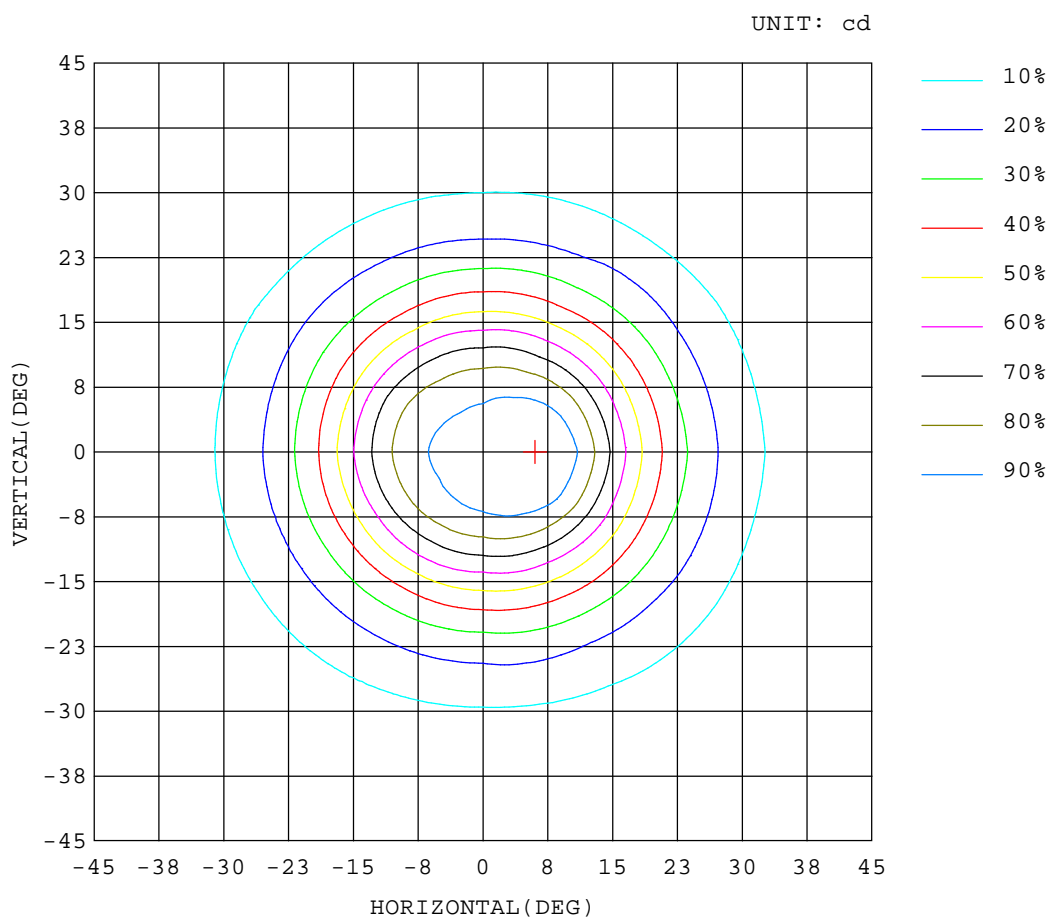
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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.:



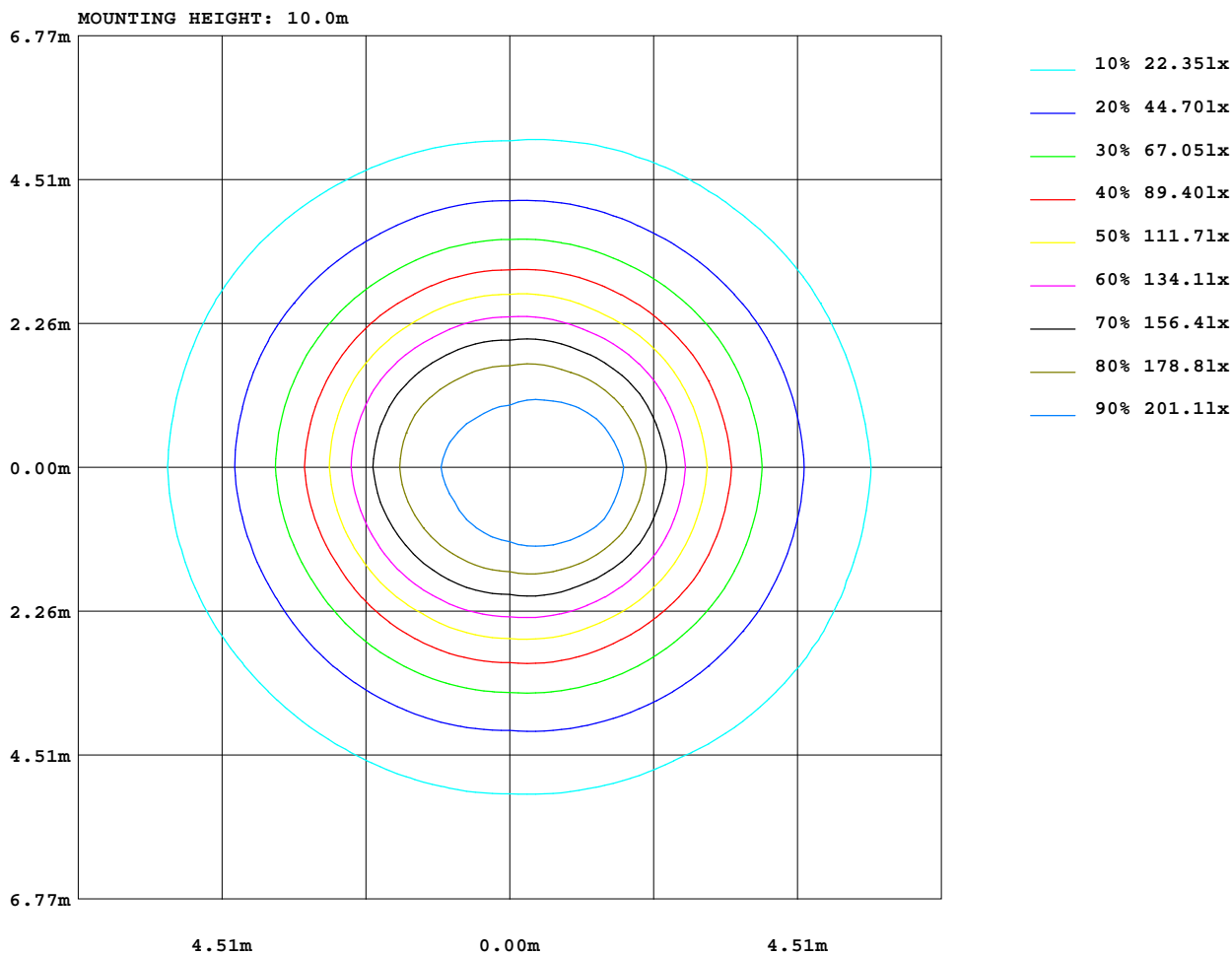
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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.:

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	45	40	35	30	25	20	15	10	5	0	5	10	15	20	25	30	35	40	45			
VERTICAL (DEG)	45	2.41	2.77	3.10	3.44	3.80	4.23	4.68	5.05	5.27	5.31	5.13	4.80	4.37	3.93	3.53	3.16	2.79	2.39	70.2	0.00	
	40	2.55	2.95	3.41	3.98	4.69	5.52	6.44	7.23	7.70	7.77	7.41	6.69	5.80	4.94	4.19	3.56	3.04	2.57	90.5	0.00	
	35	2.71	3.23	3.96	4.99	6.37	8.06	10.0	11.7	12.8	13.0	12.1	10.5	8.59	6.85	5.37	4.23	3.40	2.78	131	0.00	
	30	2.88	3.65	4.83	6.67	9.39	12.9	17.0	20.9	22.9	23.3	22.2	18.2	13.9	10.2	7.34	5.28	3.94	3.04	209	111	
	25	3.10	4.20	6.10	9.33	14.2	21.7	31.2	39.0	44.0	44.6	40.6	33.8	24.4	15.6	10.4	6.81	4.63	3.36	358	289	
	20	3.35	4.85	7.71	12.9	21.3	35.2	50.1	65.0	74.8	76.0	68.3	54.3	39.1	24.7	14.4	8.80	5.48	3.71	571	517	
	15	3.61	5.55	9.53	16.7	31.0	50.6	75.3	99.3	114	116	105	82.1	57.1	35.7	19.3	11.1	6.39	4.07	843	798	
	10	3.82	6.17	11.1	21.2	38.9	65.7	102	132	146	149	141	112	74.9	45.7	24.9	13.0	7.24	4.38	1098	1058	
	5	3.94	6.54	12.2	24.2	43.9	75.8	118	147	158	163	162	133	87.5	52.4	28.8	14.2	7.81	4.58	1243	1205	
	0	3.92	6.51	12.1	24.2	43.5	75.1	117	147	160	167	165	133	87.7	52.5	29.0	14.3	7.80	4.58	1251	1212	
	-5	3.76	6.06	10.9	21.2	37.9	63.7	98.7	131	148	153	144	113	75.3	45.9	25.7	13.0	7.21	4.37	1102	1061	
	-10	3.52	5.40	9.20	16.6	29.9	48.3	72.9	97.5	113	116	105	82.6	57.5	36.3	20.5	11.0	6.35	4.05	837	792	
	-15	3.24	4.67	7.36	12.3	20.8	33.6	48.5	63.3	73.1	75.0	68.2	54.7	39.1	25.7	14.9	8.75	5.43	3.69	563	510	
	-20	2.96	4.00	5.80	8.90	13.8	20.2	29.3	37.8	42.5	43.6	40.4	32.7	23.7	16.1	10.4	6.75	4.58	3.34	347	282	
	-25	2.71	3.47	4.64	6.46	9.14	12.6	16.1	20.2	23.5	24.0	21.5	17.5	14.0	10.3	7.35	5.26	3.90	3.03	206	102	
	-30	2.51	3.07	3.83	4.89	6.30	8.03	9.86	11.4	12.3	12.4	11.9	10.5	8.74	6.94	5.41	4.24	3.40	2.78	129	0.00	
	-35	2.36	2.80	3.30	3.93	4.69	5.54	6.37	7.06	7.42	7.51	7.29	6.71	5.91	5.05	4.25	3.59	3.05	2.58	89.5	0.00	
	-40	2.22	2.62	3.00	3.39	3.81	4.24	4.64	4.94	5.11	5.15	5.06	4.82	4.45	4.03	3.60	3.20	2.81	2.41	69.5	0.00	
-45																						
-45 -40 -35 -30 -25 -20 -15 -10 HORIZONTAL (DEG) 10 15 20 25 30 35 40 45																						
Φ t	55.6	78.6	122	206	344	552	817	1048	1170	1203	1132	912	633	403	240	141	89.3	61.7	10247			
Φ a	0.00	0.00	6.84	120	274	489	760	994	1117	1151	1078	855	572	336	159	25.5	0.00	0.00		7948		

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

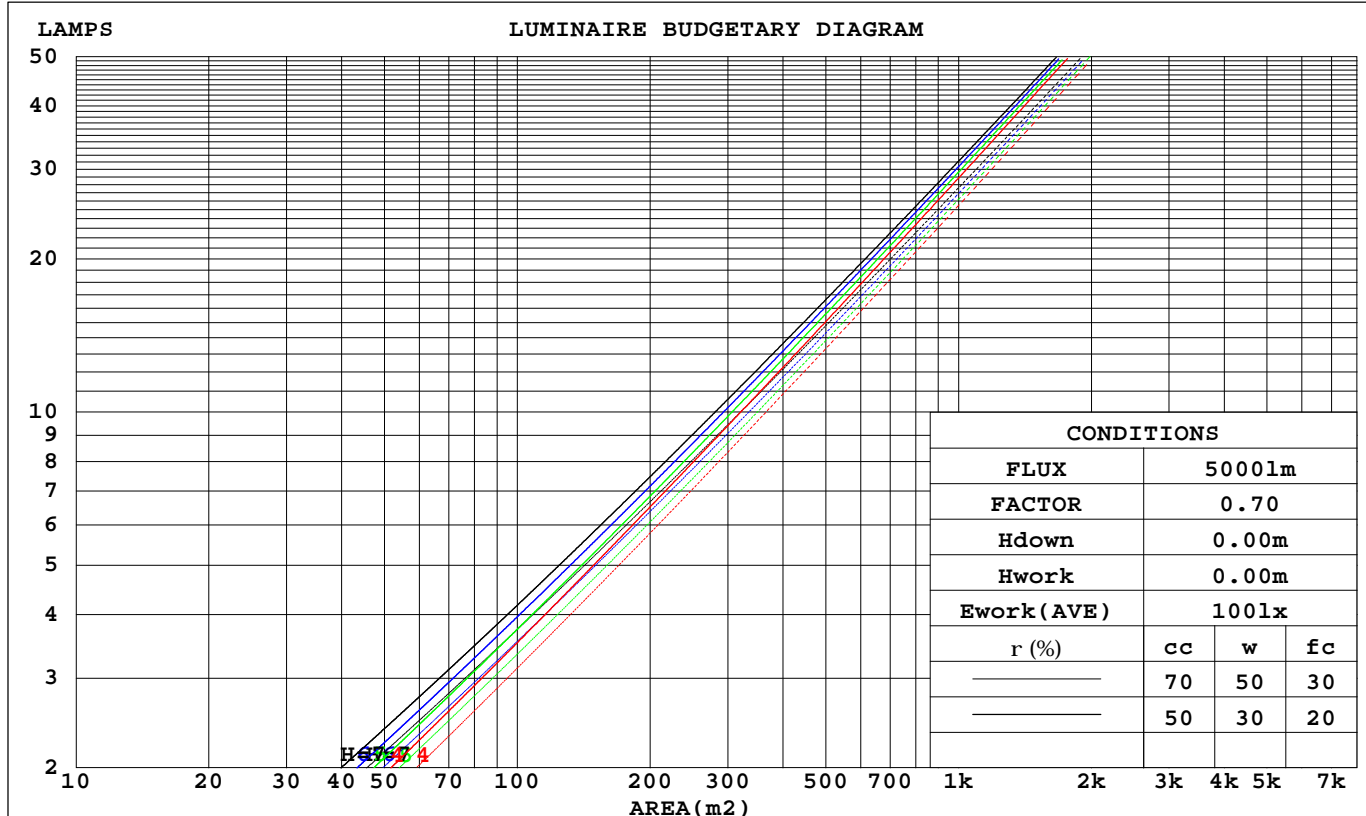
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

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 fc	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	.190	.108	.034	.183	.105	.033	.170	.098	.031	.159	.092	.029	.148	.086	.028															
2.0	.177	.097	.030	.171	.094	.029	.161	.089	.028	.151	.084	.026	.141	.080	.025															
3.0	.165	.088	.026	.160	.086	.026	.151	.082	.025	.142	.078	.024	.134	.074	.023															
4.0	.154	.080	.024	.150	.078	.023	.142	.075	.022	.134	.072	.022	.128	.069	.021															
5.0	.144	.074	.021	.141	.072	.021	.134	.070	.021	.127	.067	.020	.121	.065	.019															
6.0	.136	.068	.019	.133	.067	.019	.127	.065	.019	.121	.063	.018	.116	.061	.018															
7.0	.128	.063	.018	.126	.063	.018	.120	.061	.018	.115	.059	.017	.111	.057	.017															
8.0	.122	.059	.017	.119	.059	.017	.114	.057	.016	.110	.056	.016	.106	.054	.016															
9.0	.116	.056	.016	.113	.055	.016	.109	.054	.015	.105	.053	.015	.101	.052	.015															
10.0	.110	.053	.015	.108	.052	.015	.104	.051	.014	.101	.050	.014	.097	.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	.093	.080	.069	.054	.047	.040	.017	.015	.013	
3.0	.146	.116	.091	.125	.100	.079	.086	.069	.056	.050	.040	.033	.016	.013	.011	
4.0	.135	.101	.075	.116	.087	.065	.080	.061	.046	.046	.036	.027	.015	.012	.009	
5.0	.126	.089	.062	.108	.077	.054	.075	.054	.038	.043	.032	.023	.014	.010	.007	
6.0	.118	.080	.052	.101	.069	.046	.070	.048	.032	.041	.028	.019	.013	.009	.006	
7.0	.111	.072	.045	.095	.063	.039	.066	.044	.028	.038	.026	.017	.012	.008	.005	
8.0	.105	.066	.039	.090	.057	.034	.062	.040	.024	.036	.024	.014	.012	.008	.005	
9.0	.099	.060	.034	.085	.052	.030	.059	.037	.021	.034	.022	.013	.011	.007	.004	
10.0	.094	.056	.030	.081	.048	.026	.056	.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	15.9	16.8	16.1	17.0	17.2	16.5	17.4	16.7	17.6	17.7
3H	16.9	17.7	17.1	17.9	18.1	18.2	19.1	18.5	19.3	19.5
4H	17.3	18.1	17.6	18.4	18.6	18.6	19.4	18.9	19.6	19.8
6H	17.7	18.5	18.1	18.8	19.0	18.9	19.7	19.2	20.0	20.2
8H	17.9	18.7	18.2	18.9	19.2	19.1	19.9	19.4	20.1	20.4
12H	18.0	18.8	18.4	19.0	19.3	19.3	20.0	19.6	20.3	20.6
4H 2H	16.6	17.4	16.9	17.6	17.8	17.1	17.9	17.4	18.1	18.4
3H	17.7	18.4	18.0	18.7	19.0	18.9	19.6	19.2	19.9	20.2
4H	18.3	18.9	18.6	19.2	19.5	19.4	20.0	19.7	20.3	20.6
6H	18.8	19.4	19.2	19.7	20.1	19.9	20.5	20.3	20.8	21.1
8H	19.0	19.6	19.4	19.9	20.3	20.1	20.7	20.5	21.0	21.4
12H	19.2	19.7	19.6	20.1	20.5	20.4	20.9	20.8	21.3	21.7
8H 4H	18.6	19.1	19.0	19.5	19.8	19.5	20.1	19.9	20.4	20.8
6H	19.3	19.7	19.7	20.1	20.6	20.2	20.7	20.7	21.1	21.5
8H	19.6	20.0	20.1	20.5	20.9	20.6	21.0	21.1	21.5	21.9
12H	19.9	20.3	20.4	20.7	21.2	21.1	21.4	21.5	21.8	22.3
12H 4H	18.6	19.1	19.0	19.5	19.9	19.5	20.0	20.0	20.4	20.8
6H	19.4	19.8	19.9	20.2	20.7	20.3	20.7	20.8	21.1	21.6
8H	19.8	20.2	20.3	20.6	21.1	20.8	21.1	21.3	21.6	22.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.4					+ 0.2 / - 0.2				
1.5H	+ 0.5 / - 0.3					+ 0.4 / - 0.4				
2.0H	+ 0.2 / - 0.4					+ 0.7 / - 0.6				

CIE Pub.117 Corrected 10247 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.1)

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) $k(RI) \times RCR = 5$									
$k = 0.60$	83	75	71	82	75	71	81	75	71	67
0.80	90	83	79	90	83	79	88	82	79	74
1.00	95	89	84	94	88	84	92	88	83	79
1.25	100	93	89	98	93	89	96	92	88	83
1.50	103	97	93	101	96	92	99	95	91	86
2.00	106	101	97	104	100	96	102	98	95	89
2.50	108	103	100	106	102	99	103	100	97	91
3.00	110	106	103	108	104	101	104	102	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		

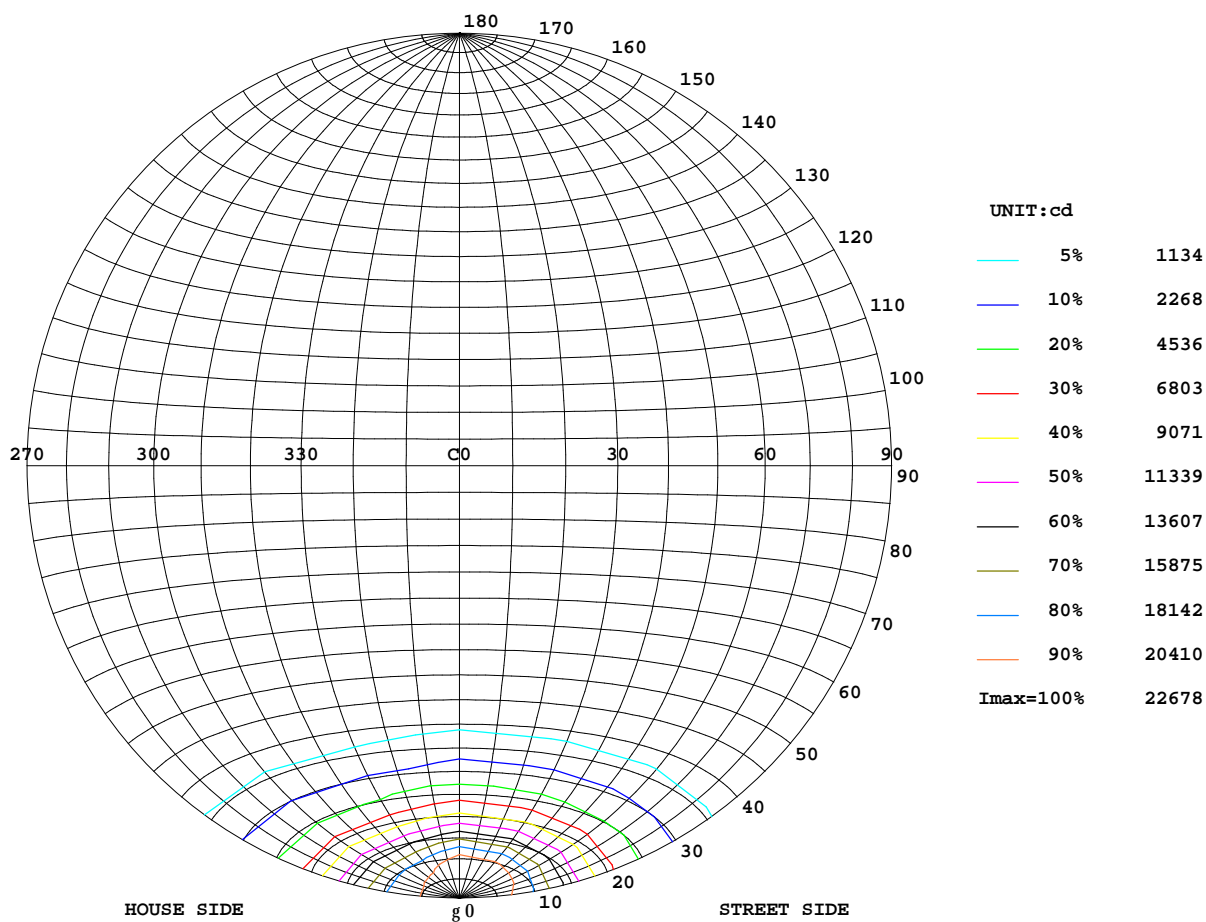
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年07月31日

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

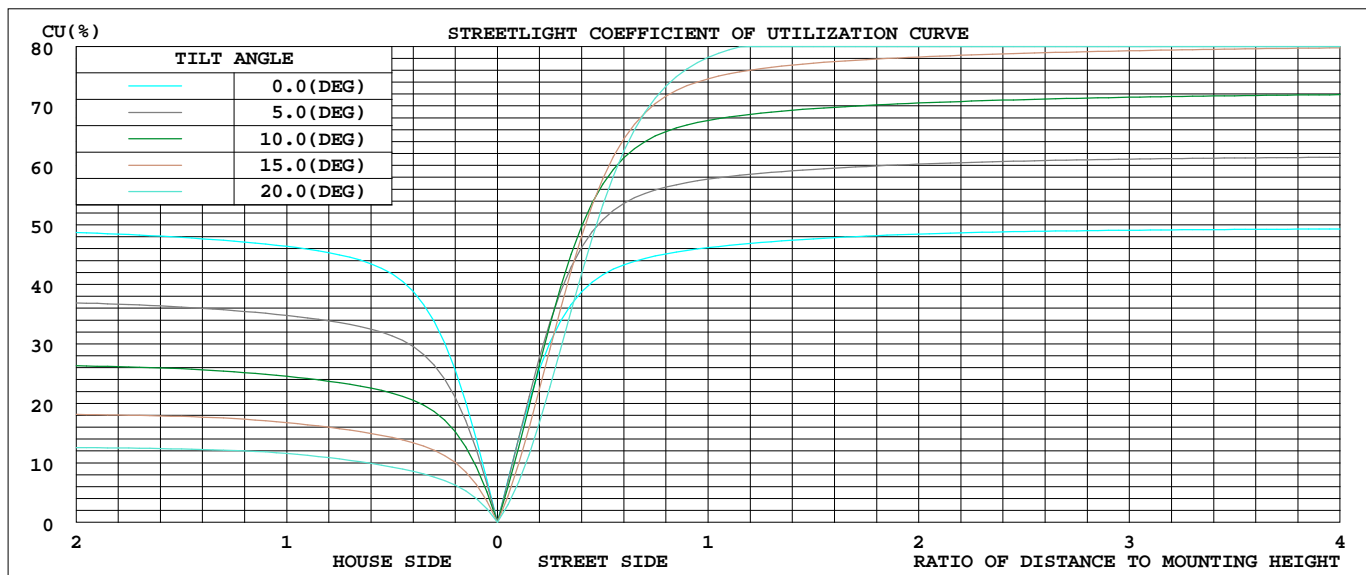
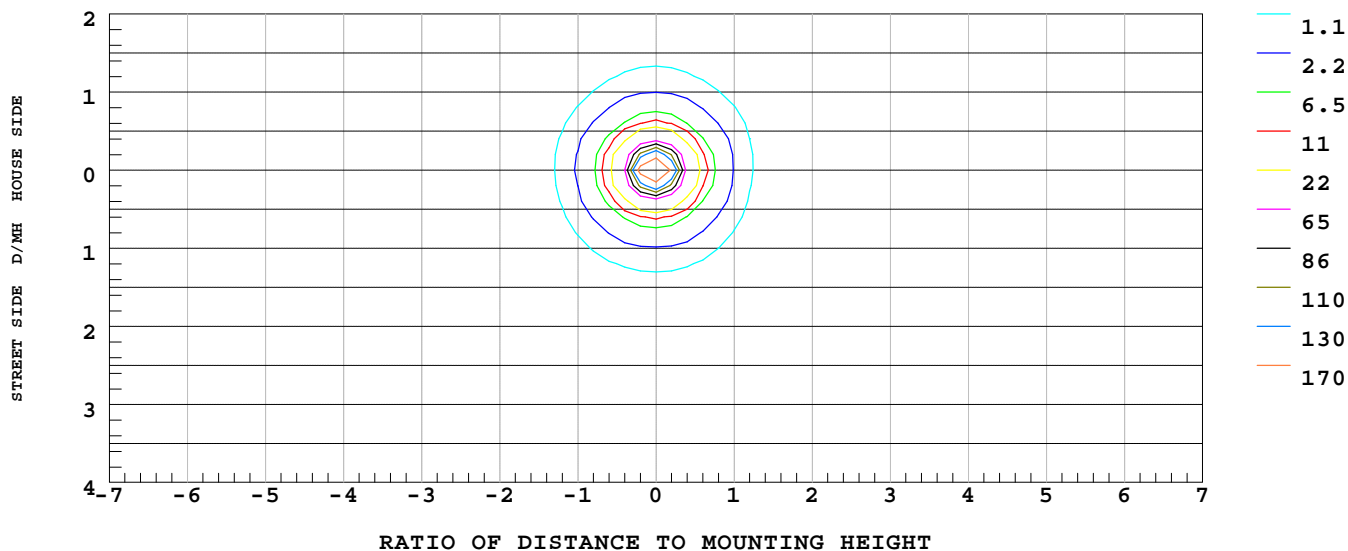
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m,Enadir = 216.15 lx



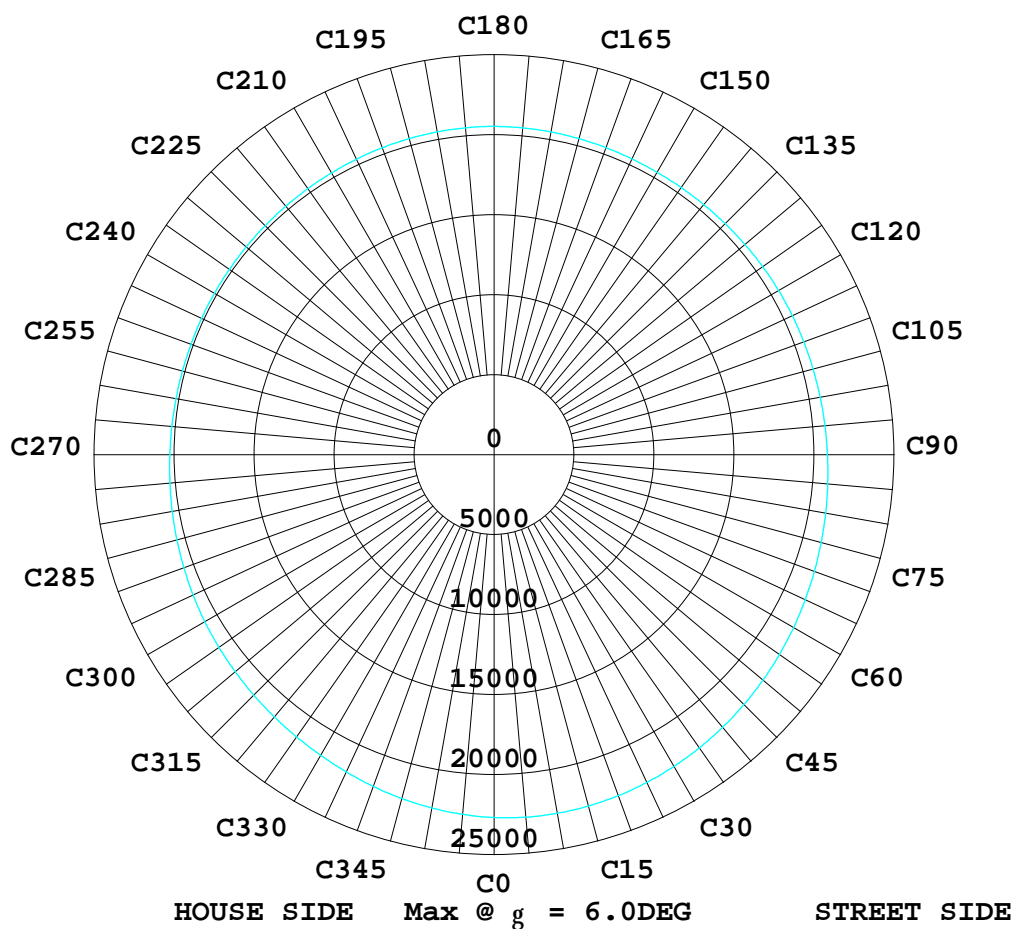
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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: