

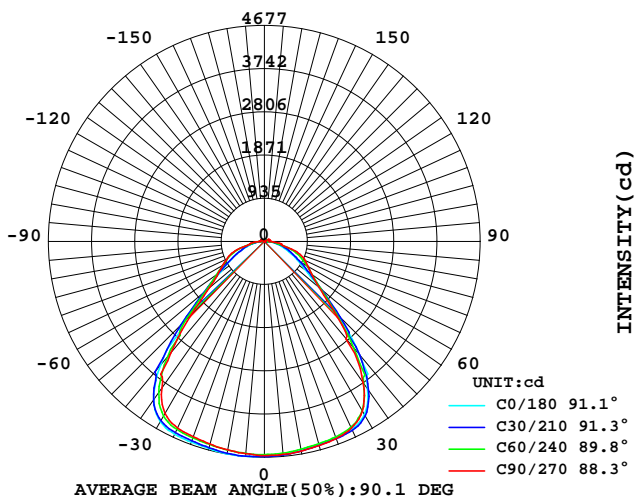
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

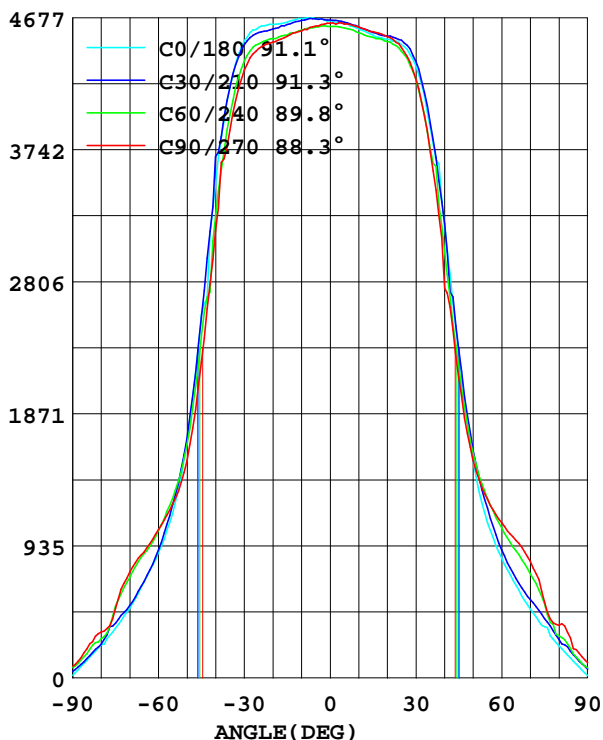
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	4677	S/MH(C0/180)	1.30
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.27
NOMINAL POWER(W)	70	TOTAL FLUX(lm)	10806	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	153.0	Current(A)	0.337
NOMINAL FLUX(lm)	10806.3	h up(%)	1.7	Power(W)	70.62
LAMPS QUANTITY	1	h down(%)	98.3	Power Factor(PF)	0.956
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	10213.5	EEI	0.094

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



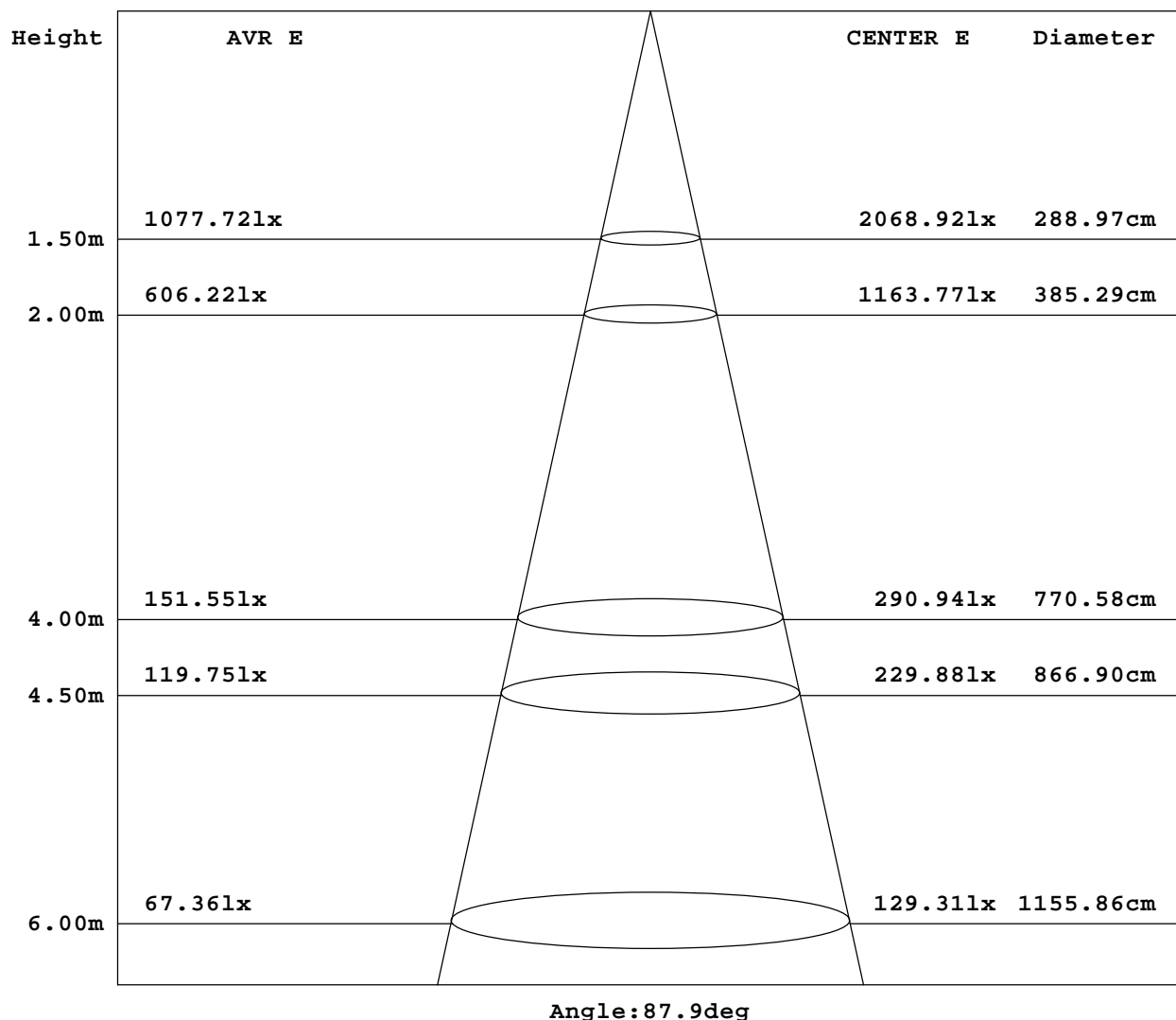
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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08月01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	4669	4639	4617	4594	4633	4624	4631	4630	0- 5	110.7	110.7
10.0	4672	4624	4584	4552	4599	4591	4611	4624	5- 10	330.2	440.9
15.0	4645	4591	4543	4512	4553	4555	4579	4608	10- 15	544.1	985.1
20.0	4628	4563	4503	4479	4525	4527	4543	4587	15- 20	750.9	1736
25.0	4609	4531	4459	4436	4483	4477	4464	4546	20- 25	948.9	2685
30.0	4513	4427	4305	4285	4336	4304	4243	4394	25- 30	1123	3808
35.0	4183	4084	3877	3868	3897	3839	3726	3987	30- 35	1227	5035
40.0	3495	3477	3167	3166	3200	3116	2759	3277	35- 40	1208	6243
45.0	2576	2489	2239	2287	2299	2266	2128	2393	40- 45	1020	7263
50.0	1676	1675	1538	1586	1535	1601	1538	1663	45- 50	785.0	8048
55.0	1165	1249	1232	1228	1098	1234	1266	1276	50- 55	608.5	8656
60.0	890.1	976.7	1051	967.8	850.5	985.9	1100	1008	55- 60	507.2	9164
65.0	680.6	781.9	892.6	778.8	656.4	801.5	974.1	819.4	60- 65	428.9	9593
70.0	493.2	612.6	749.0	631.8	486.7	644.2	823.7	668.8	65- 70	364.3	9957
75.0	354.2	451.1	494.2	469.3	363.1	474.1	539.0	495.8	70- 75	290.8	10248
80.0	234.8	258.4	325.4	266.7	228.6	285.2	372.2	280.9	75- 80	191.0	10439
85.0	123.7	154.7	205.0	164.3	118.5	167.6	207.7	173.0	80- 85	124.9	10564
90.0	20.03	60.27	82.83	63.96	16.16	66.56	107.7	71.52	85- 90	60.60	10624
95.0	1.161	59.60	104.4	63.05	0	59.42	119.0	74.97	90- 95	33.28	10658
100.0	0.557	51.92	91.42	55.30	0	55.79	111.5	71.76	95-100	31.23	10689
105.0	1.887	52.22	88.28	57.66	0	58.51	109.4	74.42	100-105	30.35	10719
110.0	3.460	51.98	80.53	57.97	1.887	59.48	101.4	73.15	105-110	29.60	10749
115.0	6.485	51.31	82.23	57.36	6.122	58.33	101.1	70.31	110-115	28.35	10777
120.0	7.090	47.38	82.11	54.82	9.873	54.28	96.87	64.44	115-120	26.52	10804
125.0	0	0	0	0	0	0	0	0	120-125	2.511	10806
130.0	0	0	0	0	0	0	0	0	125-130	0	10806
135.0	0	0	0	0	0	0	0	0	130-135	0	10806
140.0	0	0	0	0	0	0	0	0	135-140	0	10806
145.0	0	0	0	0	0	0	0	0	140-145	0	10806
150.0	0	0	0	0	0	0	0	0	145-150	0	10806
155.0	0	0	0	0	0	0	0	0	150-155	0	10806
160.0	0	0	0	0	0	0	0	0	155-160	0	10806
165.0	0	0	0	0	0	0	0	0	160-165	0	10806
170.0	0	0	0	0	0	0	0	0	165-170	0	10806
175.0	0	0	0	0	0	0	0	0	170-175	0	10806
180.0	0	0	0	0	0	0	0	0	175-180	0	10806
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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

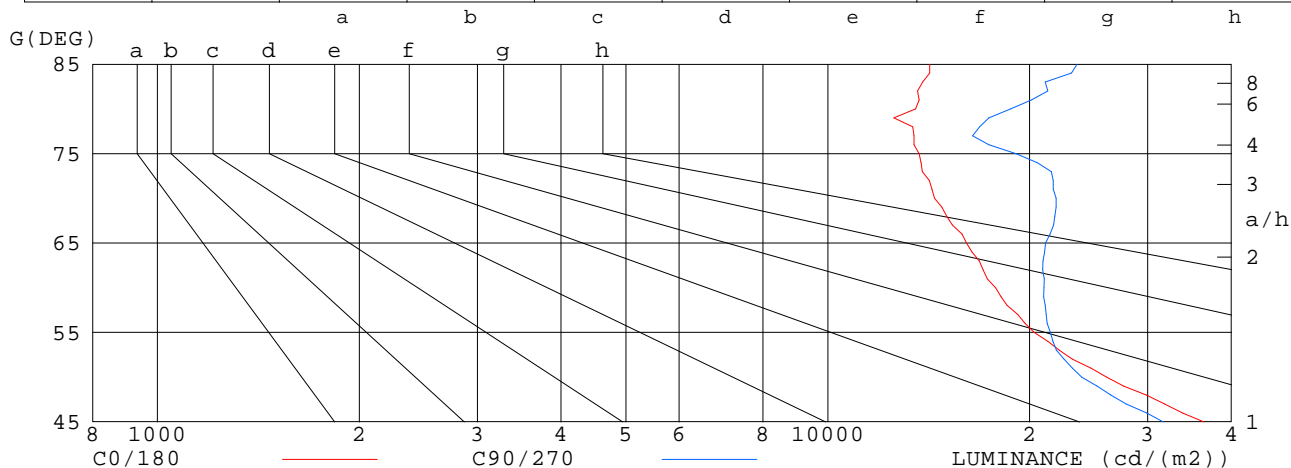
LUMINANCE LIMITATION CURVES

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	14197	23526
80	13522	18741
75	13687	19096
70	14422	21901
65	16107	21123
60	17803	21022
55	20306	21472
50	26069	23925
45	36429	31665

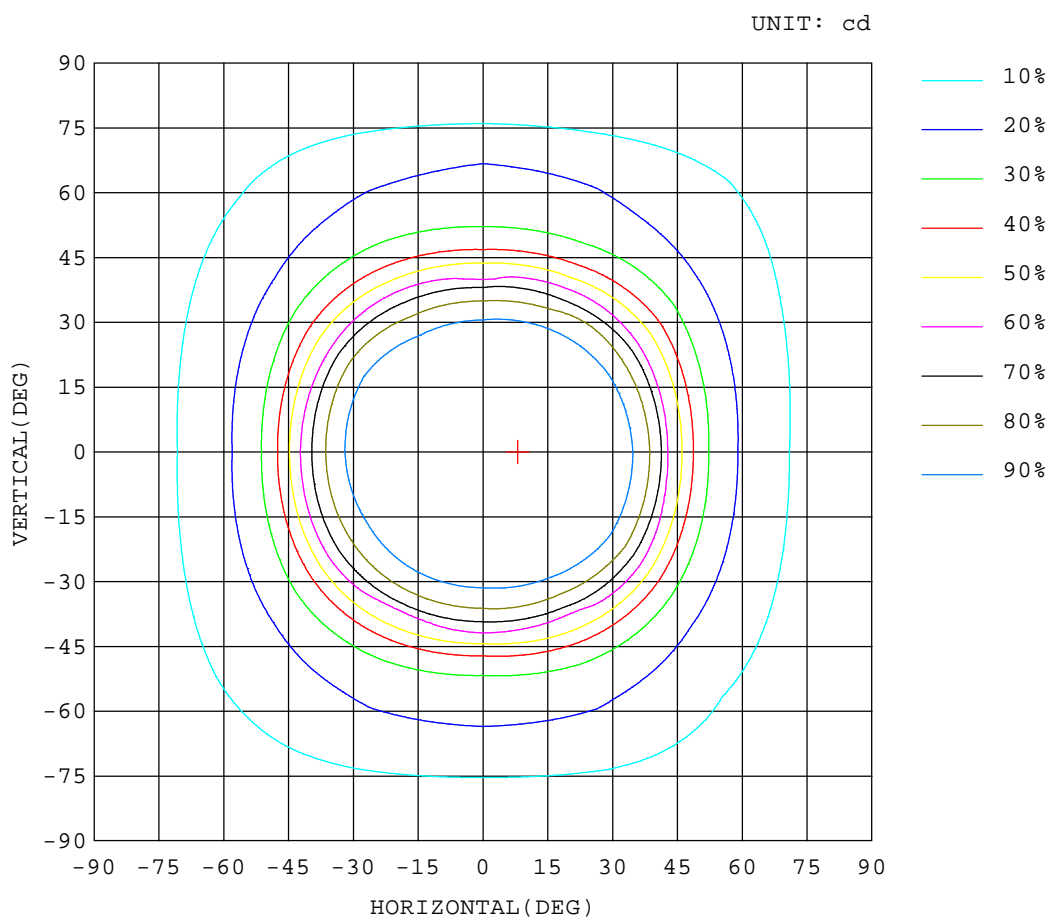
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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.:



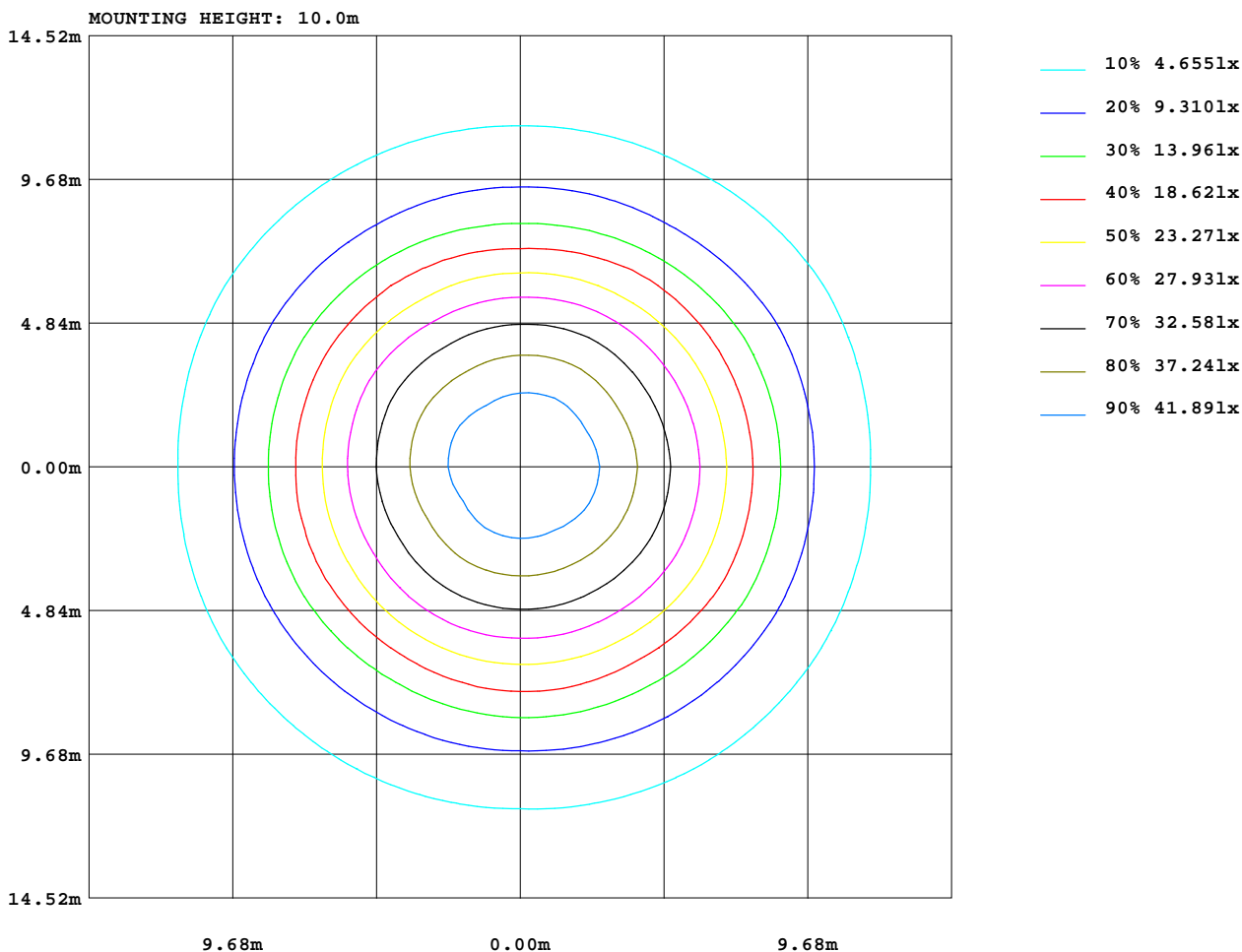
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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08月01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
	0.10	0.52	1.24	2.11	3.00	3.93	5.00	6.17	7.11	7.10	6.13	4.95	3.94	3.08	2.21	1.32	0.55	0.11	58.6	0.00		
90																						
80	0.16	0.95	2.42	4.35	6.69	9.54	12.5	15.0	16.6	16.6	14.9	12.3	9.48	6.80	4.45	2.53	1.00	0.17	137	62.1		
70	0.22	1.37	3.56	7.03	11.7	17.3	22.7	26.5	28.8	28.9	26.8	23.2	17.8	12.4	7.75	3.70	1.43	0.23	242	219		
60	0.27	1.75	4.89	9.44	15.7	23.3	30.6	35.8	38.5	38.5	35.6	30.5	23.7	16.2	10.1	5.32	1.80	0.29	323	310		
50	0.32	2.14	5.98	11.6	20.3	31.6	44.6	57.2	64.7	65.0	57.6	45.0	32.7	21.2	12.0	6.38	2.21	0.34	482	472		
40	0.36	2.48	6.90	14.2	26.7	47.2	74.9	98.3	110	111	101	78.2	50.1	28.6	14.9	7.18	2.56	0.37	776	769		
30	0.39	2.72	7.73	16.8	35.0	70.0	106	125	134	135	129	110	74.9	38.0	17.8	7.98	2.79	0.40	1014	1007		
	0.41	2.87	8.32	18.8	43.8	87.9	120	133	138	139	134	122	93.3	47.6	20.0	8.62	2.91	0.42	1122	1116		
	0.41	2.92	8.59	19.9	49.4	95.7	123	134	140	140	136	126	101	53.8	21.2	8.92	2.93	0.43	1165	1159		
	0.41	2.92	8.57	19.9	49.4	95.5	122	133	139	140	136	126	102	54.0	21.1	8.87	2.90	0.43	1163	1157		
	0.40	2.88	8.27	18.8	43.7	87.8	118	131	137	138	134	124	95.3	47.8	19.7	8.48	2.82	0.42	1119	1112		
-30	0.38	2.73	7.65	16.7	34.7	70.3	106	126	134	135	129	112	77.5	37.4	17.2	7.74	2.65	0.39	1018	1011		
-40	0.35	2.50	6.83	14.1	26.6	47.1	75.8	101	115	116	105	81.2	50.7	27.4	14.3	6.75	2.40	0.36	793	785		
-50	0.31	2.16	5.97	11.4	20.0	31.4	44.5	58.4	67.4	68.4	60.5	46.7	32.2	20.2	11.3	5.69	2.07	0.32	490	479		
-60	0.27	1.71	5.00	9.33	15.3	22.7	30.0	35.0	37.7	37.8	35.4	30.3	22.9	15.3	8.81	4.62	1.67	0.27	315	299		
-70	0.21	1.31	3.54	7.20	11.6	17.0	22.0	25.2	26.9	27.0	25.2	22.0	16.7	11.0	6.57	3.29	1.28	0.21	229	203		
-80	0.15	0.89	2.23	4.07	6.42	9.03	11.7	13.9	15.1	15.1	13.9	11.8	8.92	6.13	3.83	2.10	0.86	0.15	127	53.9		
-90	0.09	0.47	1.10	1.93	2.87	3.86	4.75	5.51	6.06	6.06	5.48	4.70	3.75	2.71	1.76	1.00	0.44	0.09	52.7	0.00		
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)													
Φ t	5.22	35.3	98.8	208	424	772	1076	1261	1356	1366	1285	1112	818	450	216	101	35.3	5.39	10806			
Φ a	0.00	1.39	67.4	183	402	751	1055	1239	1333	1342	1263	1090	797	428	191	70.5	1.75	0.00			10214	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01日

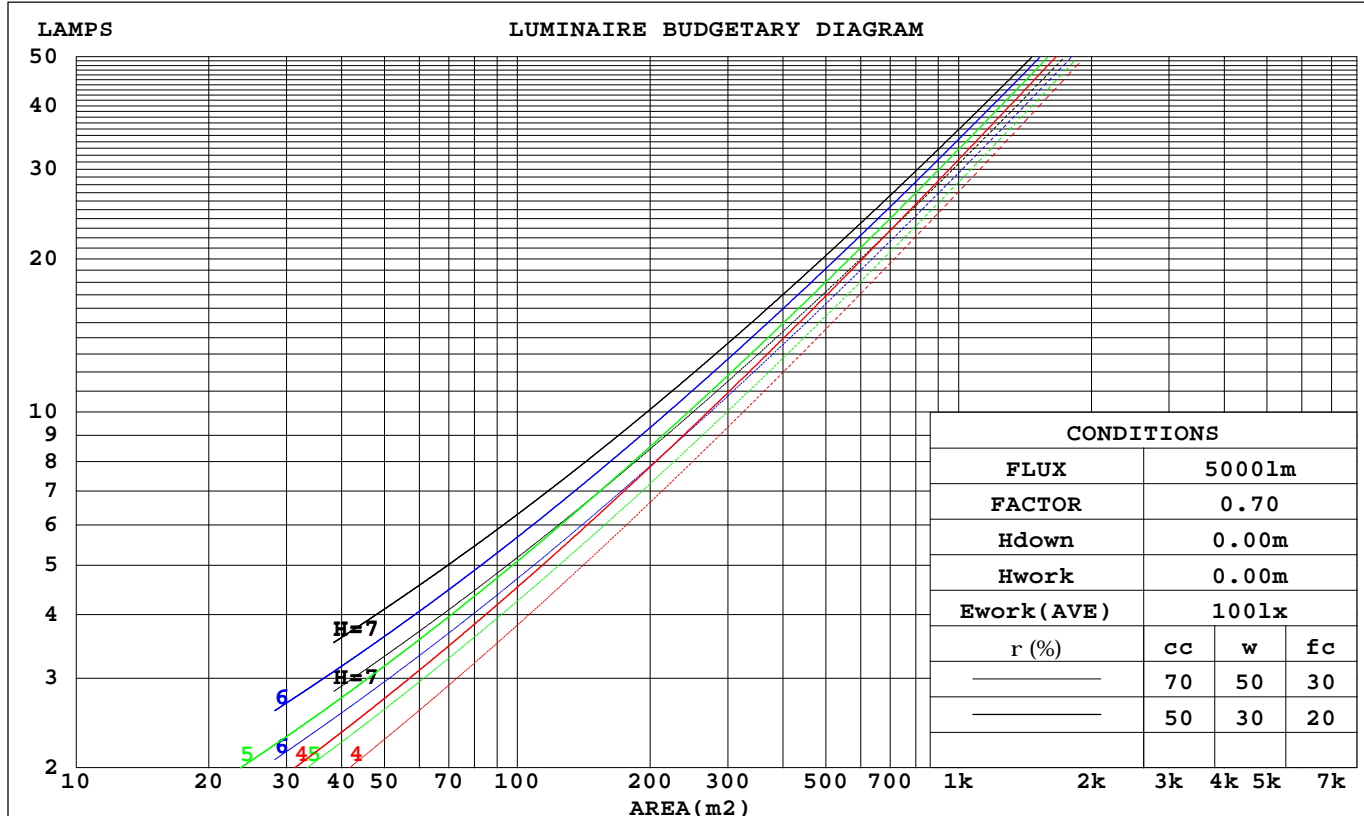
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

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08月01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	.273	.155	.049	.266	.152	.048	.252	.144	.046	.239	.138	.044	.227	.132	.042															
2.0	.257	.141	.043	.250	.138	.042	.238	.132	.041	.227	.127	.040	.216	.122	.039															
3.0	.239	.127	.038	.234	.125	.038	.223	.121	.037	.213	.117	.036	.204	.113	.035															
4.0	.223	.116	.034	.218	.114	.034	.208	.110	.033	.199	.107	.032	.191	.104	.032															
5.0	.208	.106	.031	.204	.104	.030	.195	.102	.030	.187	.099	.029	.180	.096	.029															
6.0	.195	.098	.028	.191	.096	.028	.183	.094	.027	.176	.091	.027	.169	.089	.026															
7.0	.183	.090	.026	.179	.089	.025	.172	.087	.025	.166	.085	.025	.160	.083	.024															
8.0	.172	.084	.024	.169	.083	.023	.162	.081	.023	.157	.079	.023	.151	.078	.023															
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.148	.074	.021	.143	.073	.021															
10.0	.153	.073	.020	.151	.073	.020	.146	.071	.020	.141	.070	.020	.136	.069	.020															

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	.203	.203	.203	.174	.174	.174	.119	.119	.119	.068	.068	.068	.022	.022	.022	
1.0	.191	.169	.150	.163	.145	.129	.112	.100	.089	.064	.058	.052	.021	.019	.017	
2.0	.181	.145	.115	.155	.125	.100	.106	.086	.069	.061	.050	.041	.020	.016	.013	
3.0	.172	.127	.092	.147	.110	.080	.101	.076	.056	.058	.045	.033	.019	.014	.011	
4.0	.164	.114	.075	.140	.098	.065	.097	.068	.046	.056	.040	.027	.018	.013	.009	
5.0	.156	.103	.064	.134	.089	.055	.092	.062	.039	.053	.037	.023	.017	.012	.008	
6.0	.149	.094	.055	.128	.082	.048	.088	.057	.034	.051	.034	.020	.017	.011	.007	
7.0	.143	.087	.049	.123	.076	.042	.085	.053	.030	.049	.031	.018	.016	.010	.006	
8.0	.137	.082	.044	.118	.071	.038	.081	.050	.027	.047	.029	.016	.015	.010	.005	
9.0	.131	.077	.040	.113	.066	.035	.078	.047	.025	.046	.028	.015	.015	.009	.005	
10.0	.126	.072	.037	.108	.063	.032	.075	.044	.023	.044	.026	.014	.014	.009	.005	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01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	22.9	24.2	23.2	24.5	24.7	23.0	24.4	23.3	24.6	24.8	
	3H	23.6	24.8	23.9	25.1	25.3	24.4	25.6	24.7	25.9	26.2
	4H	23.9	25.1	24.3	25.4	25.7	25.0	26.2	25.3	26.4	26.7
	6H	24.2	25.3	24.6	25.6	25.9	25.3	26.4	25.7	26.7	27.0
	8H	24.3	25.4	24.7	25.7	26.0	25.5	26.6	25.9	26.9	27.2
	12H	24.4	25.4	24.8	25.8	26.1	25.7	26.8	26.1	27.1	27.4
4H	2H	23.2	24.4	23.5	24.7	24.9	23.4	24.5	23.7	24.8	25.1
	3H	24.1	25.2	24.5	25.5	25.8	25.0	26.0	25.4	26.3	26.7
	4H	24.6	25.5	25.0	25.9	26.3	25.7	26.7	26.1	27.0	27.4
	6H	25.0	25.9	25.5	26.2	26.6	26.2	27.0	26.6	27.4	27.8
	8H	25.2	26.0	25.6	26.4	26.8	26.5	27.2	26.9	27.6	28.1
	12H	25.4	26.1	25.8	26.5	26.9	26.8	27.5	27.2	27.9	28.3
8H	4H	24.9	25.7	25.3	26.1	26.5	25.9	26.6	26.3	27.0	27.4
	6H	25.4	26.1	25.9	26.5	27.0	26.5	27.1	26.9	27.5	28.0
	8H	25.7	26.3	26.2	26.7	27.2	26.9	27.4	27.4	27.9	28.4
	12H	26.0	26.5	26.5	26.9	27.4	27.3	27.8	27.8	28.3	28.8
12H	4H	24.9	25.6	25.4	26.0	26.5	25.9	26.6	26.3	27.0	27.4
	6H	25.5	26.1	26.0	26.5	27.0	26.5	27.1	27.0	27.5	28.0
	8H	25.8	26.3	26.3	26.8	27.3	27.0	27.5	27.5	27.9	28.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.6 / - 0.6					+ 0.3 / - 0.4					
1.5H	+ 0.6 / - 0.5					+ 0.4 / - 0.4					
2.0H	+ 1.1 / - 0.6					+ 0.6 / - 0.5					

CIE Pub.117 Corrected 10806 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.3)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	65	55	49	64	55	49	43
0.80	75	65	59	74	64	58	72	64	58	52
1.00	82	73	67	81	72	66	79	73	66	59
1.25	89	80	74	87	79	73	85	77	72	66
1.50	93	85	79	91	84	78	88	82	77	70
2.00	99	91	86	97	90	85	93	88	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	102	97	93	98	94	90	82
4.00	108	103	99	105	101	97	101	98	95	86
5.00	110	106	102	107	104	100	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

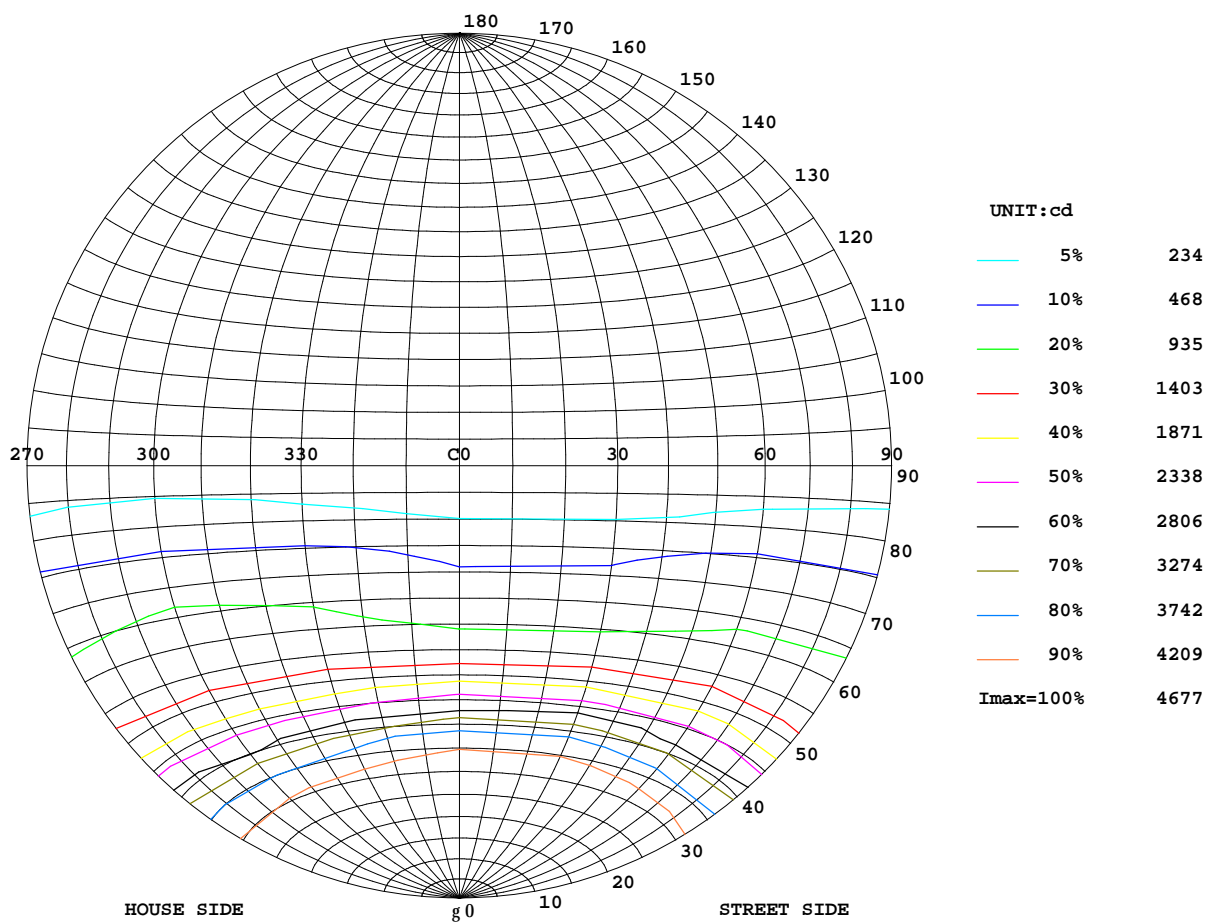
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01日

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08月01日

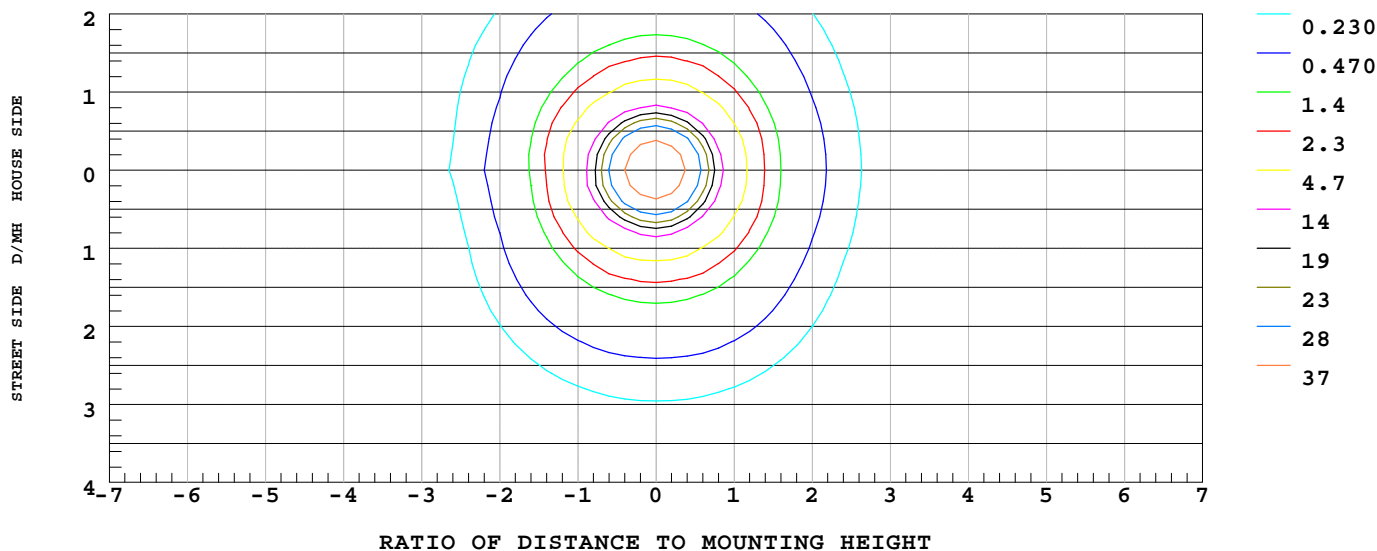
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m, Enadir = 46.55 lx



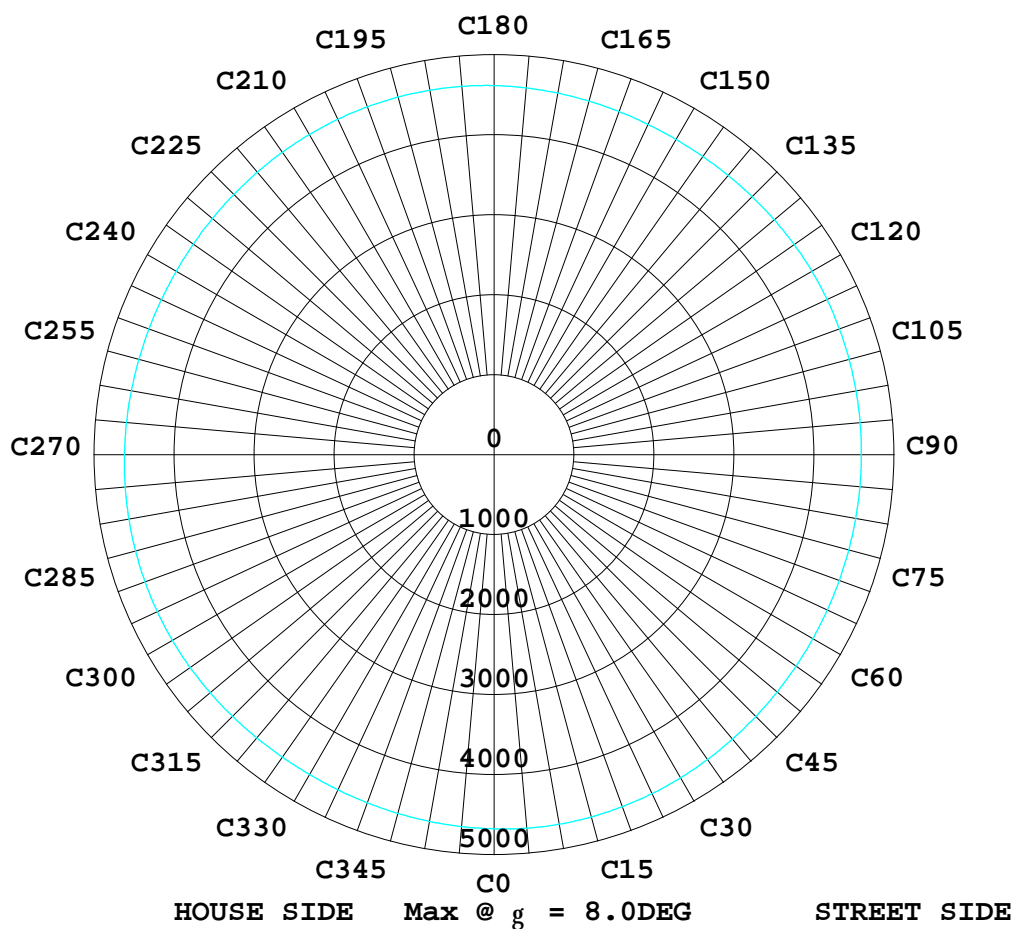
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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08月01日

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