

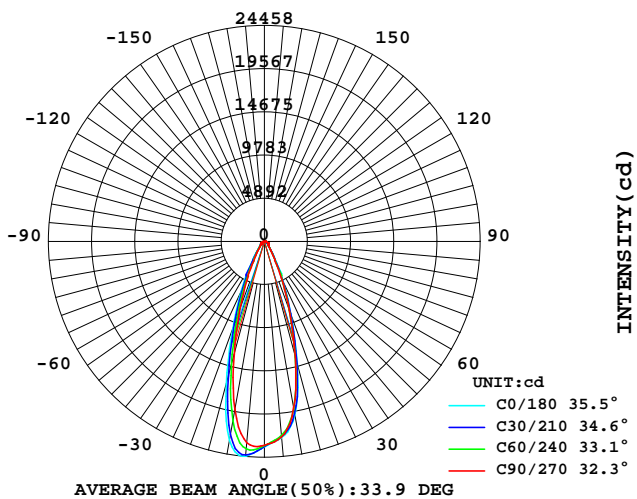
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

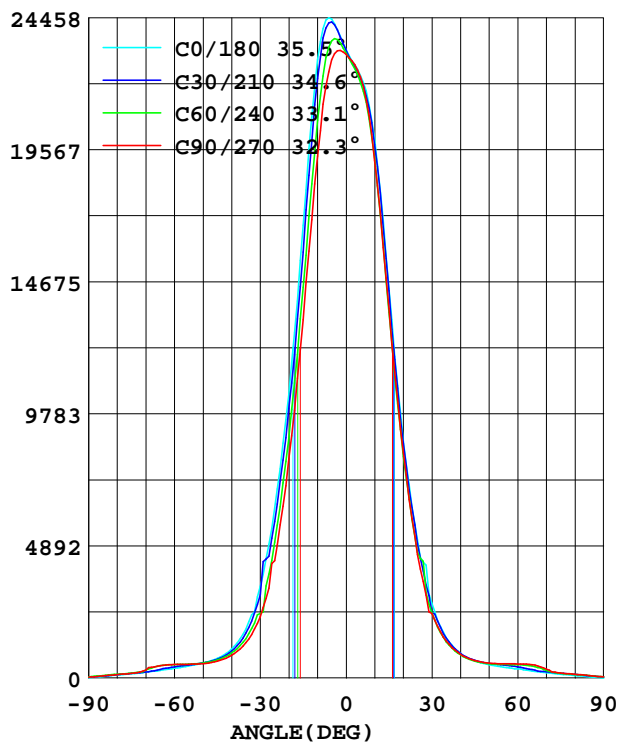
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	24458	S/MH(C0/180)	0.61
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.55
NOMINAL POWER(W)	70	TOTAL FLUX(lm)	11025	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	156.9	Current(A)	0.336
NOMINAL FLUX(lm)	11024.9	h up(%)	0.3	Power(W)	70.26
LAMPS QUANTITY	1	h down(%)	99.7	Power Factor(PF)	0.956
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	8481.6	EEI	0.113

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



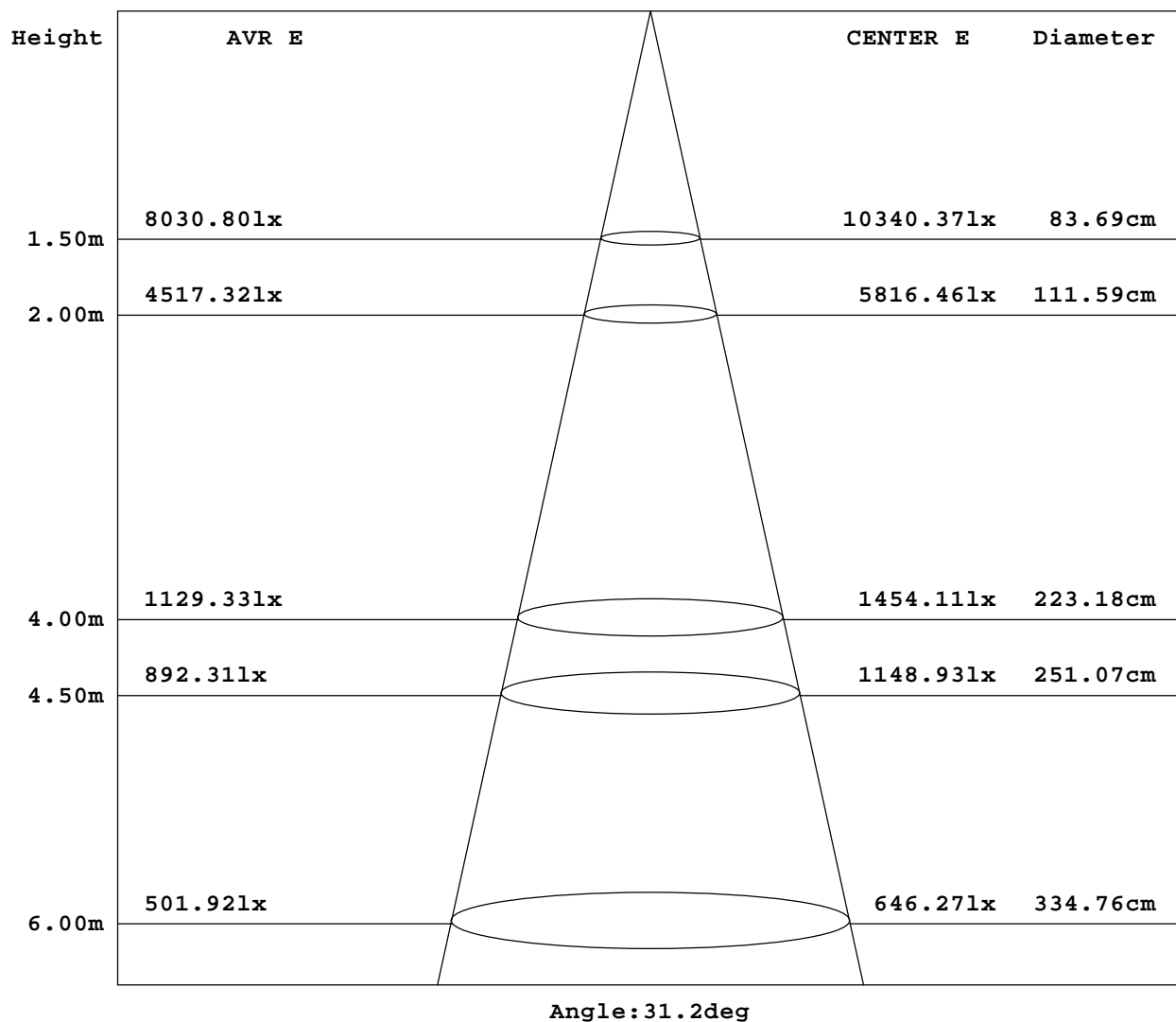
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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	2441	2394	2290	2243	2231	2212	2226	2316	0- 5	551.6	551.6
10.0	2291	2143	1933	1952	1999	1953	1917	2096	5- 10	1560	2112
15.0	1677	1512	1328	1355	1443	1395	1369	1512	10- 15	2060	4172
20.0	1048	941.7	810.4	820.4	875.3	844.3	833.8	936.7	15- 20	1881	6053
25.0	630.2	540.6	435.0	463.0	511.1	480.9	456.4	538.5	20- 25	1424	7476
30.0	339.5	273.6	227.3	245.0	276.3	242.4	239.1	285.9	25- 30	958.9	8435
35.0	181.2	156.3	131.0	136.5	148.7	140.7	137.2	155.6	30- 35	587.0	9022
40.0	107.6	96.02	84.13	86.11	90.86	88.04	87.39	95.75	35- 40	387.1	9409
45.0	72.86	68.28	62.22	62.31	62.96	64.01	64.96	67.96	40- 45	284.7	9694
50.0	55.42	55.58	53.12	51.69	49.01	53.41	55.20	54.95	45- 50	237.8	9932
55.0	44.37	49.54	50.92	46.81	40.10	48.98	52.59	48.96	50- 55	219.9	10152
60.0	35.58	45.54	50.11	42.43	33.71	45.18	52.15	44.50	55- 60	212.3	10364
65.0	28.10	38.30	45.76	34.51	25.94	37.57	49.68	37.60	60- 65	199.1	10563
70.0	21.43	25.76	28.59	22.06	19.51	25.25	32.44	25.48	65- 70	159.2	10723
75.0	15.47	17.93	16.94	17.23	13.92	17.51	18.42	17.77	70- 75	106.4	10829
80.0	10.41	13.00	12.50	12.36	9.106	13.04	13.88	13.10	75- 80	78.72	10908
85.0	5.488	8.307	7.763	7.775	4.387	8.428	9.142	8.301	80- 85	55.10	10963
90.0	0.455	3.528	2.935	2.971	0	3.637	3.963	3.455	85- 90	28.54	10991
95.0	0	2.082	2.499	1.271	0	1.483	2.766	1.513	90- 95	10.85	11002
100.0	0	1.477	2.233	0.929	0	1.120	2.548	1.017	95-100	6.704	11009
105.0	0	1.138	1.955	0.814	0	0.885	2.112	0.764	100-105	5.592	11015
110.0	0	0.915	1.471	0.603	0	0.739	1.568	0.546	105-110	4.343	11019
115.0	0	0.636	1.096	0.476	0	0.630	1.277	0.455	110-115	3.210	11022
120.0	0	0.469	0.818	0.355	0	0.727	0.987	0.443	115-120	2.498	11025
125.0	0	0	0	0	0	0	0	0	120-125	0.228	11025
130.0	0	0	0	0	0	0	0	0	125-130	0	11025
135.0	0	0	0	0	0	0	0	0	130-135	0	11025
140.0	0	0	0	0	0	0	0	0	135-140	0	11025
145.0	0	0	0	0	0	0	0	0	140-145	0	11025
150.0	0	0	0	0	0	0	0	0	145-150	0	11025
155.0	0	0	0	0	0	0	0	0	150-155	0	11025
160.0	0	0	0	0	0	0	0	0	155-160	0	11025
165.0	0	0	0	0	0	0	0	0	160-165	0	11025
170.0	0	0	0	0	0	0	0	0	165-170	0	11025
175.0	0	0	0	0	0	0	0	0	170-175	0	11025
180.0	0	0	0	0	0	0	0	0	175-180	0	11025
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:

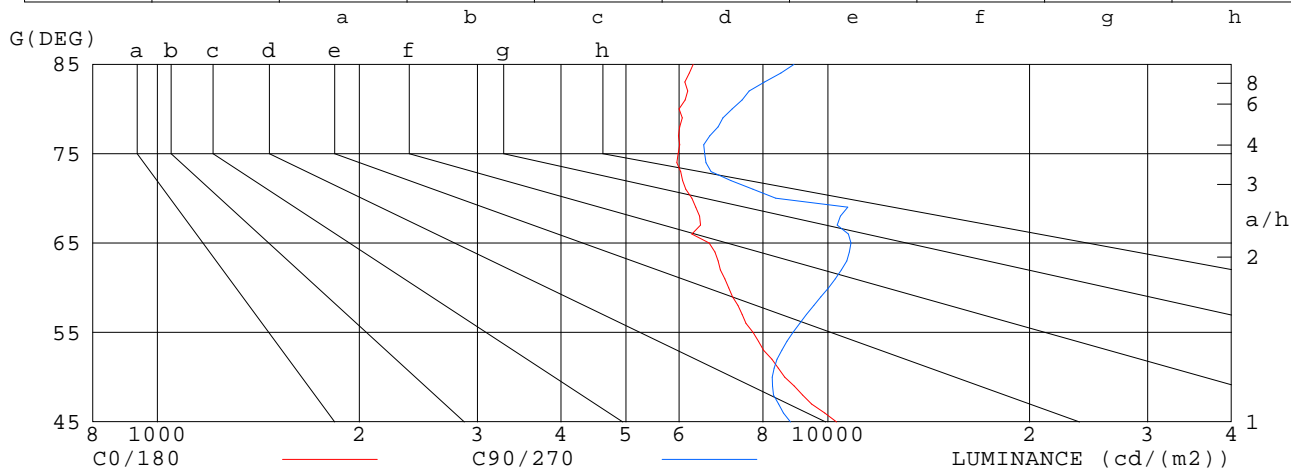
LUMINANCE LIMITATION CURVES

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	6297	8907
80	5997	7202
75	5978	6548
70	6268	8362
65	6650	10830
60	7116	10023
55	7737	8878
50	8623	8265
45	10304	8800

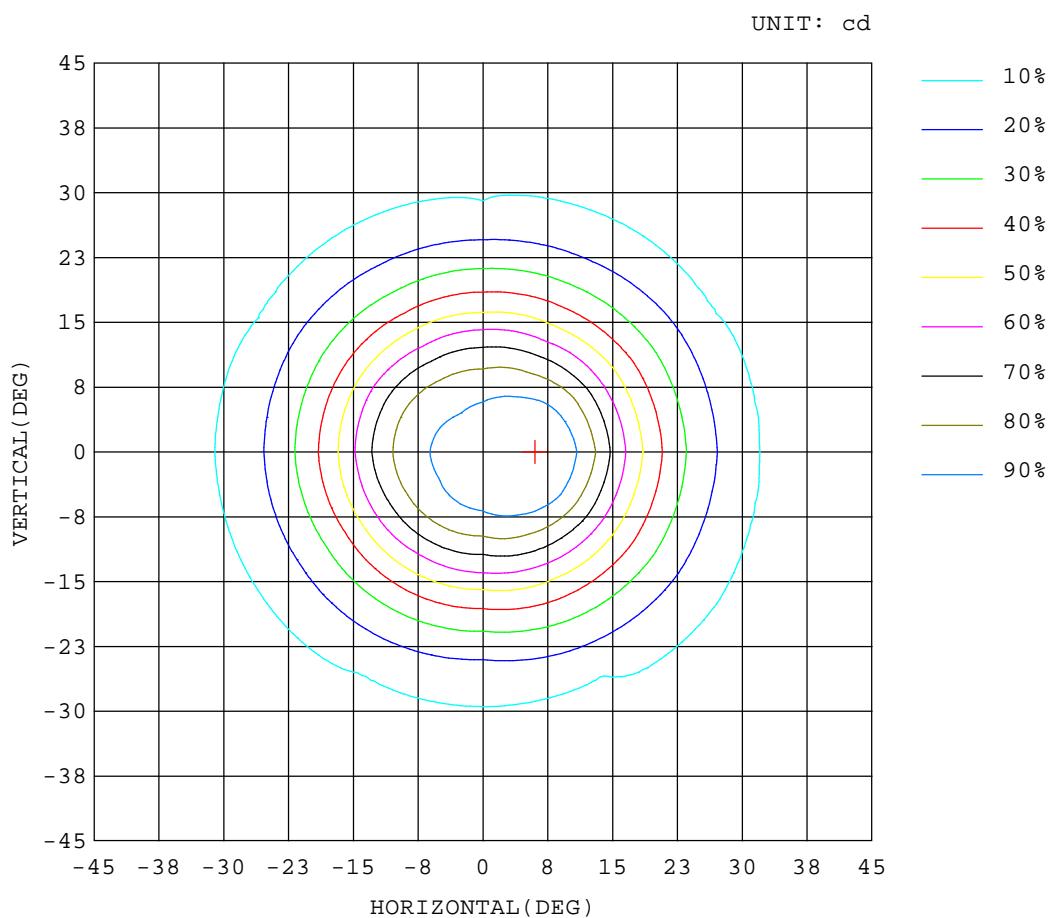
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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.:



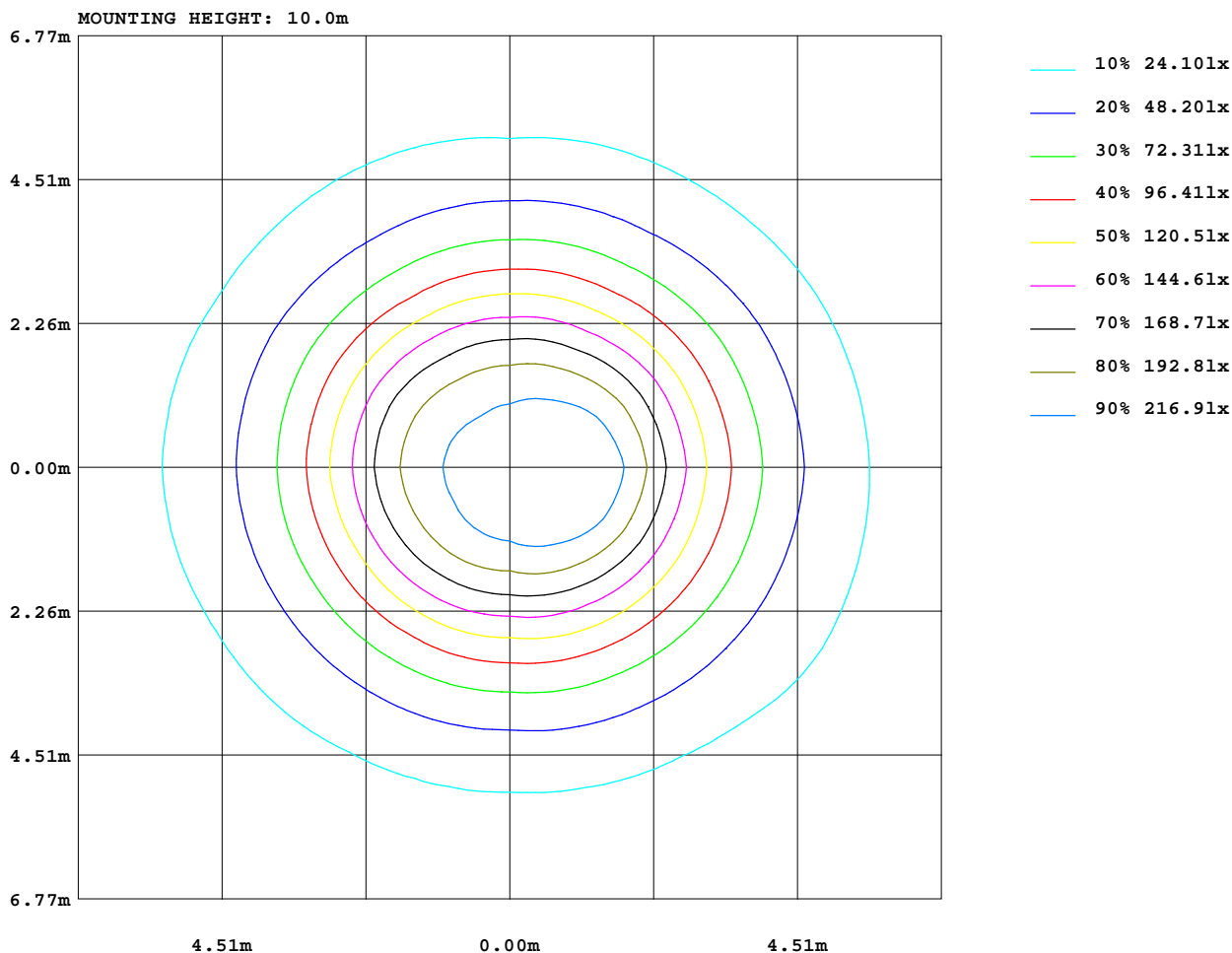
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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
	2.59	2.98	3.32	3.68	4.07	4.52	5.00	5.39	5.64	5.67	5.48	5.13	4.67	4.20	3.78	3.38	2.99	2.57	75.1	0.00		
45																						
40	2.74	3.17	3.65	4.26	5.00	5.89	6.87	7.71	8.24	8.31	7.91	7.13	6.18	5.28	4.48	3.81	3.25	2.75	96.7	0.00		
35																						
30	2.90	3.47	4.23	5.32	6.79	8.58	10.6	12.5	13.7	13.8	12.9	11.2	9.16	7.32	5.74	4.53	3.65	2.98	140	0.00		
25	3.09	3.91	5.16	7.13	10.0	13.7	18.3	23.1	25.2	25.4	23.7	19.4	14.8	10.9	7.86	5.66	4.22	3.26	225	112		
20	3.31	4.49	6.52	9.97	15.2	23.9	33.9	41.6	47.2	48.0	43.5	35.6	25.9	16.9	11.2	7.31	4.96	3.59	384	308		
15	3.58	5.19	8.25	13.8	23.5	37.7	53.6	69.6	80.4	81.8	73.3	58.4	42.0	26.9	15.6	9.45	5.87	3.97	613	550		
	3.85	5.93	10.1	18.3	33.2	54.3	80.8	107	123	125	113	88.7	61.8	38.6	21.3	11.8	6.84	4.35	908	857		
	4.07	6.58	11.9	23.2	41.6	70.6	109	142	157	161	152	121	81.1	49.3	27.1	13.9	7.73	4.68	1185	1139		
	4.20	6.97	13.0	26.3	46.9	81.2	126	159	171	176	175	143	94.6	56.5	30.9	15.6	8.32	4.89	1340	1298		
	4.18	6.92	12.9	26.2	46.4	80.4	125	158	172	181	178	144	94.5	56.5	31.2	15.6	8.31	4.88	1347	1304		
	4.01	6.46	11.6	23.1	40.4	68.3	106	141	159	165	155	122	80.9	49.2	27.9	14.0	7.69	4.66	1187	1142		
-15	3.76	5.76	9.79	17.9	32.3	51.9	78.5	105	122	125	114	88.9	61.6	38.7	22.8	11.8	6.78	4.33	902	852		
-20	3.46	4.98	7.85	13.1	22.8	35.9	52.2	68.2	78.6	80.6	73.3	58.7	41.8	28.2	16.0	9.34	5.79	3.94	605	548		
-25	3.16	4.28	6.18	9.48	14.7	22.3	31.5	40.2	45.3	46.3	42.9	34.8	25.4	17.3	11.1	7.19	4.90	3.57	371	300		
-30	2.90	3.71	4.95	6.88	9.74	13.5	17.5	21.7	24.5	24.9	22.5	18.4	14.8	11.0	7.83	5.61	4.18	3.25	218	94.1		
-35	2.69	3.29	4.09	5.21	6.71	8.54	10.5	12.1	13.1	13.2	12.7	11.2	9.30	7.40	5.77	4.53	3.64	2.98	137	0.00		
-40	2.53	3.00	3.53	4.19	5.00	5.91	6.79	7.51	7.90	8.00	7.77	7.15	6.30	5.39	4.55	3.84	3.27	2.77	95.4	0.00		
-45	2.38	2.82	3.22	3.63	4.07	4.53	4.95	5.28	5.45	5.50	5.41	5.14	4.75	4.31	3.86	3.43	3.02	2.60	74.4	0.00		
	-45	-40	-35	-30	-25	-20	-15	-10	HORIZONTAL (DEG)													
Φ t	59.4	83.9	131	222	369	592	878	1127	1260	1296	1219	980	680	435	260	151	95.4	66.0	11025			
Φ a	0.00	0.00	6.67	125	290	523	814	1067	1198	1237	1158	916	615	361	170	23.3	0.00	0.00			8482	

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

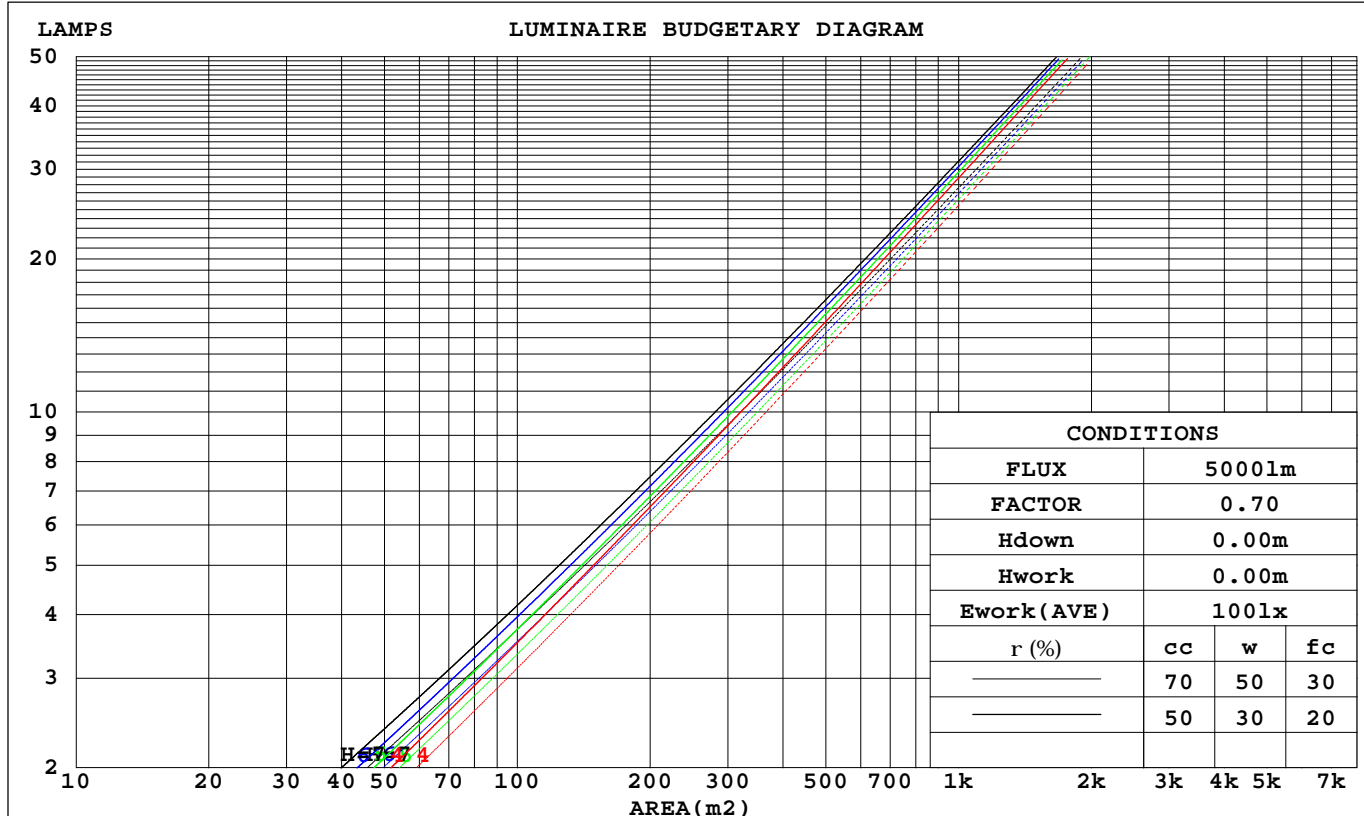
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

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	.091	.029	.148	.086	.028															
2.0	.177	.097	.030	.171	.094	.029	.160	.089	.028	.150	.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	.127	.069	.021															
5.0	.144	.074	.021	.141	.072	.021	.134	.070	.020	.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	.125	.062	.018	.120	.061	.017	.115	.059	.017	.110	.057	.017															
8.0	.121	.059	.017	.119	.059	.017	.114	.057	.016	.110	.056	.016	.106	.054	.016															
9.0	.115	.056	.016	.113	.055	.015	.109	.054	.015	.105	.053	.015	.101	.051	.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	.160	.146	.149	.137	.126	.102	.094	.087	.059	.055	.051	.019	.018	.016	
2.0	.159	.135	.114	.136	.116	.099	.093	.080	.069	.054	.047	.040	.017	.015	.013	
3.0	.147	.116	.092	.126	.100	.079	.086	.069	.056	.050	.041	.033	.016	.013	.011	
4.0	.136	.101	.075	.116	.087	.065	.080	.061	.046	.046	.036	.027	.015	.012	.009	
5.0	.126	.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	.062	.040	.024	.036	.024	.014	.012	.008	.005	
9.0	.099	.061	.035	.086	.053	.030	.059	.037	.021	.035	.022	.013	.011	.007	.004	
10.0	.094	.056	.031	.081	.049	.027	.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	16.1	17.0	16.4	17.2	17.4	16.7	17.7	17.0	17.8	18.0
	3H	17.1	17.9	17.4	18.2	18.4	19.3	18.7	19.5	19.7
	4H	17.6	18.4	17.8	18.6	18.8	19.6	19.1	19.8	20.0
	6H	18.0	18.7	18.3	19.0	19.2	19.9	19.5	20.2	20.4
	8H	18.2	18.9	18.5	19.1	19.4	19.3	20.1	19.7	20.3
	12H	18.3	19.0	18.6	19.3	19.6	19.5	20.2	19.9	20.5
4H	2H	16.8	17.6	17.1	17.9	18.1	17.4	18.2	17.6	18.4
	3H	17.9	18.6	18.3	18.9	19.2	19.1	19.8	19.4	20.1
	4H	18.5	19.2	18.9	19.5	19.8	19.6	20.2	19.9	20.5
	6H	19.1	19.6	19.4	20.0	20.3	20.1	20.7	20.5	21.0
	8H	19.3	19.8	19.7	20.2	20.6	20.4	20.9	20.8	21.3
	12H	19.5	20.0	19.9	20.4	20.8	20.6	21.1	21.1	21.5
8H	4H	18.8	19.3	19.2	19.7	20.1	19.8	20.3	20.2	20.7
	6H	19.6	20.0	20.0	20.4	20.8	20.5	20.9	20.9	21.3
	8H	19.9	20.3	20.4	20.7	21.2	20.9	21.3	21.3	21.7
	12H	20.2	20.5	20.7	21.0	21.5	21.3	21.6	21.8	22.1
12H	4H	18.8	19.3	19.3	19.7	20.1	19.8	20.3	20.2	20.6
	6H	19.7	20.1	20.1	20.5	20.9	20.5	20.9	21.0	21.4
	8H	20.1	20.4	20.6	20.9	21.3	21.0	21.4	21.5	21.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.4 / - 0.4					+ 0.1 / - 0.1				
1.5H	+ 0.5 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.2 / - 0.4					+ 0.7 / - 0.6				

CIE Pub.117 Corrected 11025 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.3)

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	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	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		

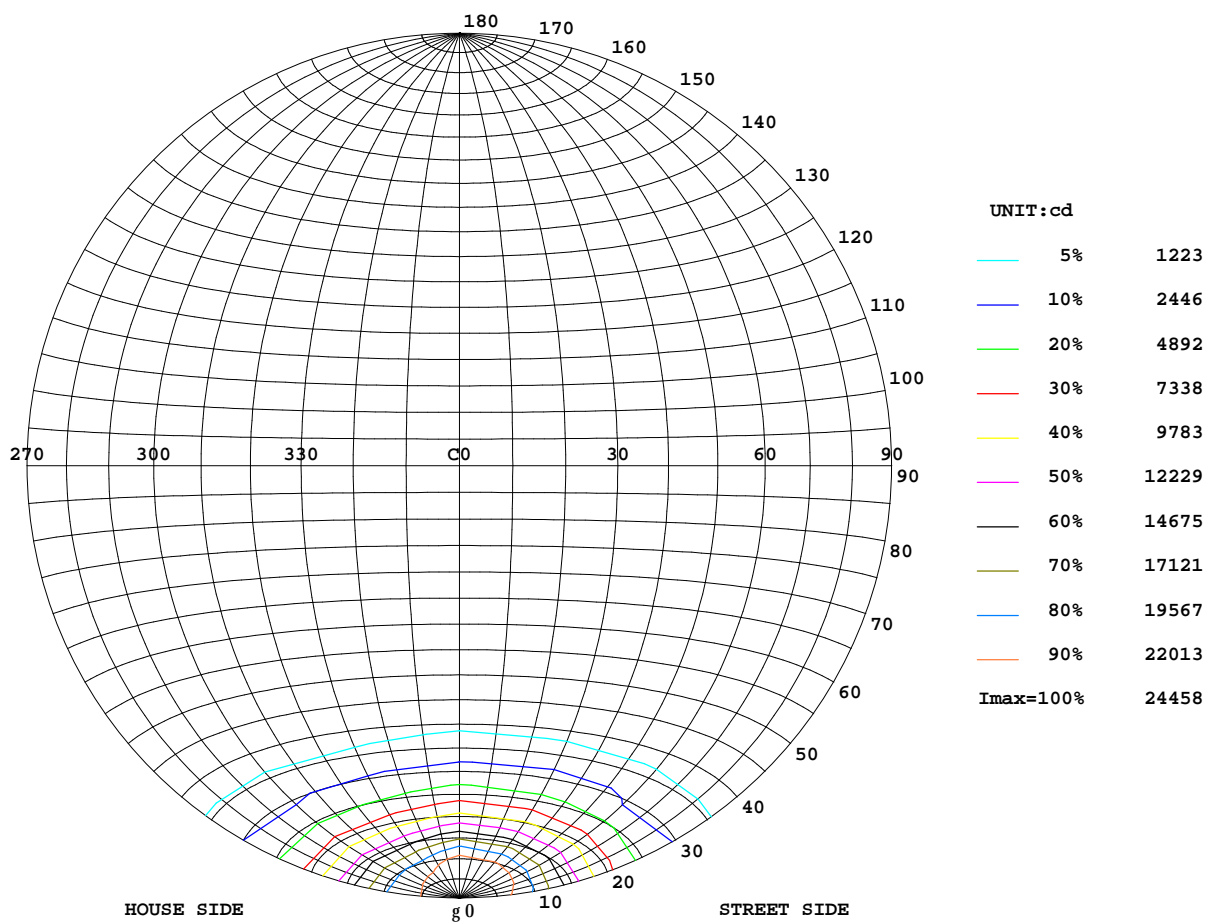
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年07月31日

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

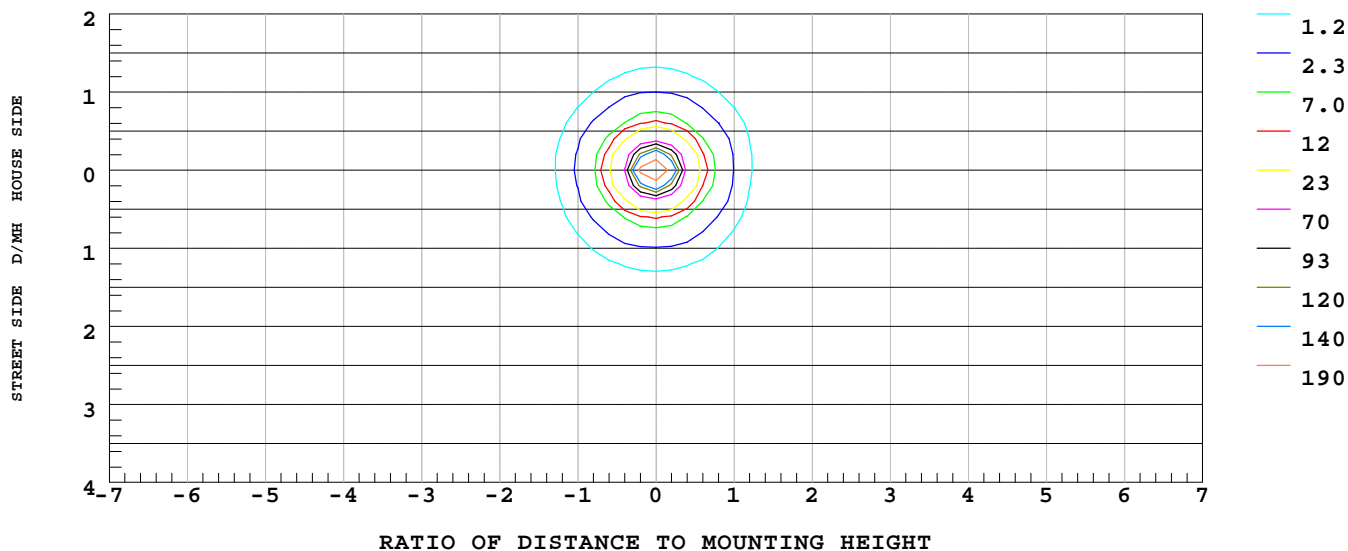
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m,Enadir = 232.66 lx



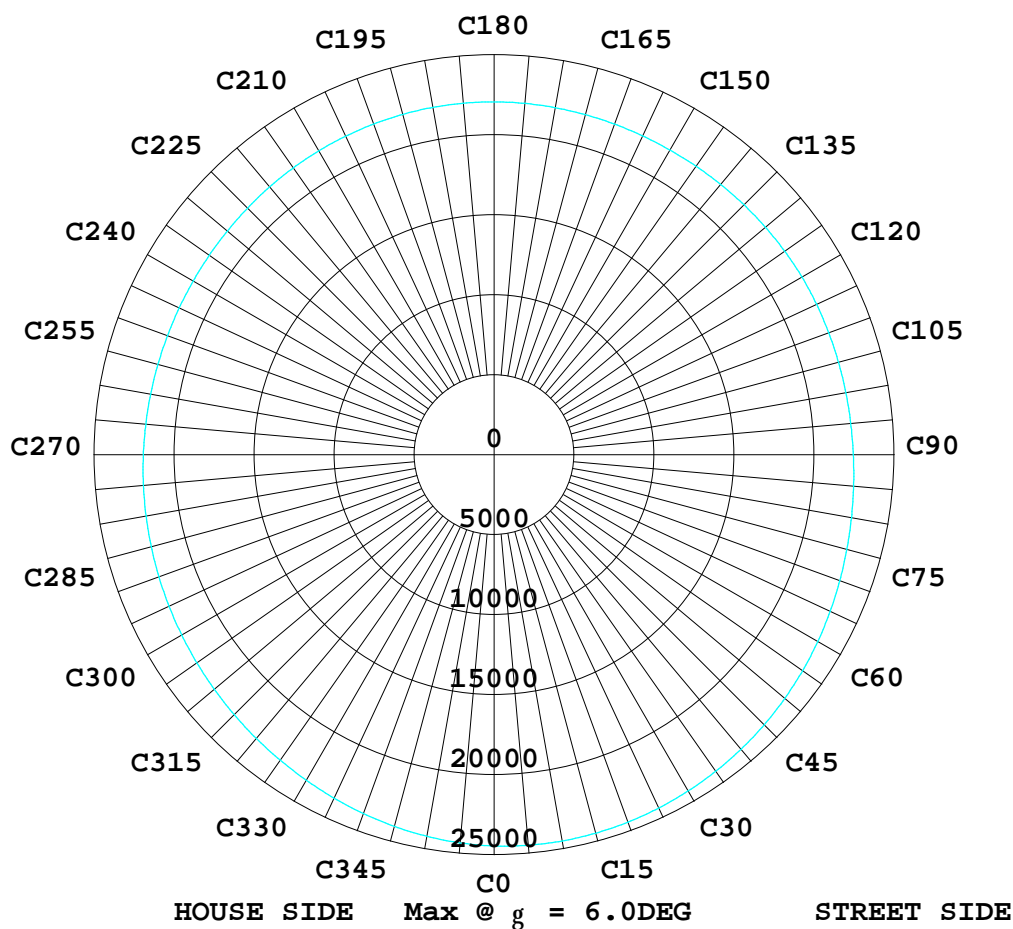
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年07月31日

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: