

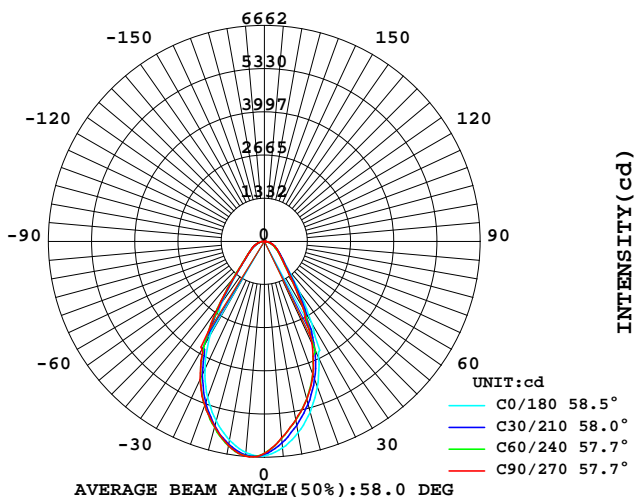
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

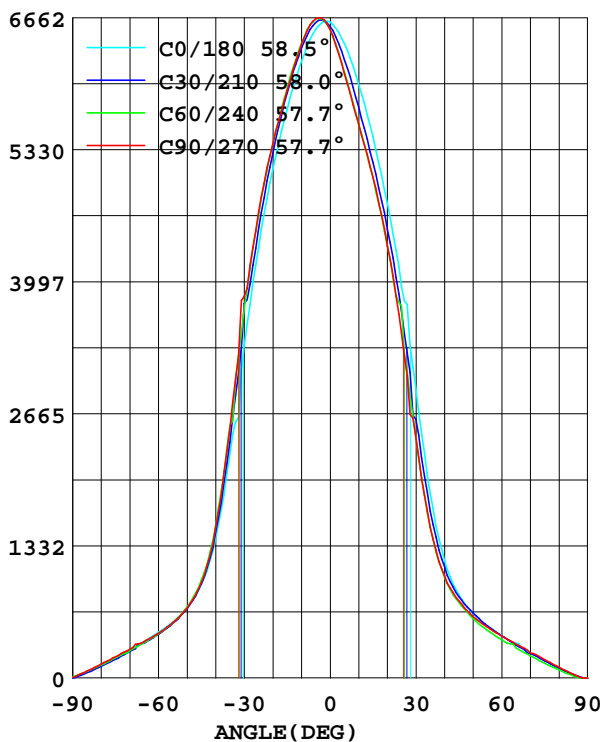
MANUFACTURER:		
Address:		
NAME: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	6662	S/MH(C0/180)	0.88
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.95
NOMINAL POWER(W)	48	TOTAL FLUX(lm)	7054.4	Voltage(V)	218.8
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	148.3	Current(A)	0.227
NOMINAL FLUX(lm)	7054.4	h up(%)	0.0	Power(W)	47.57
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.956
TEST VOLTAGE(V)	218.8	Effective Flux(lm)	5979.8	EEI	0.108

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



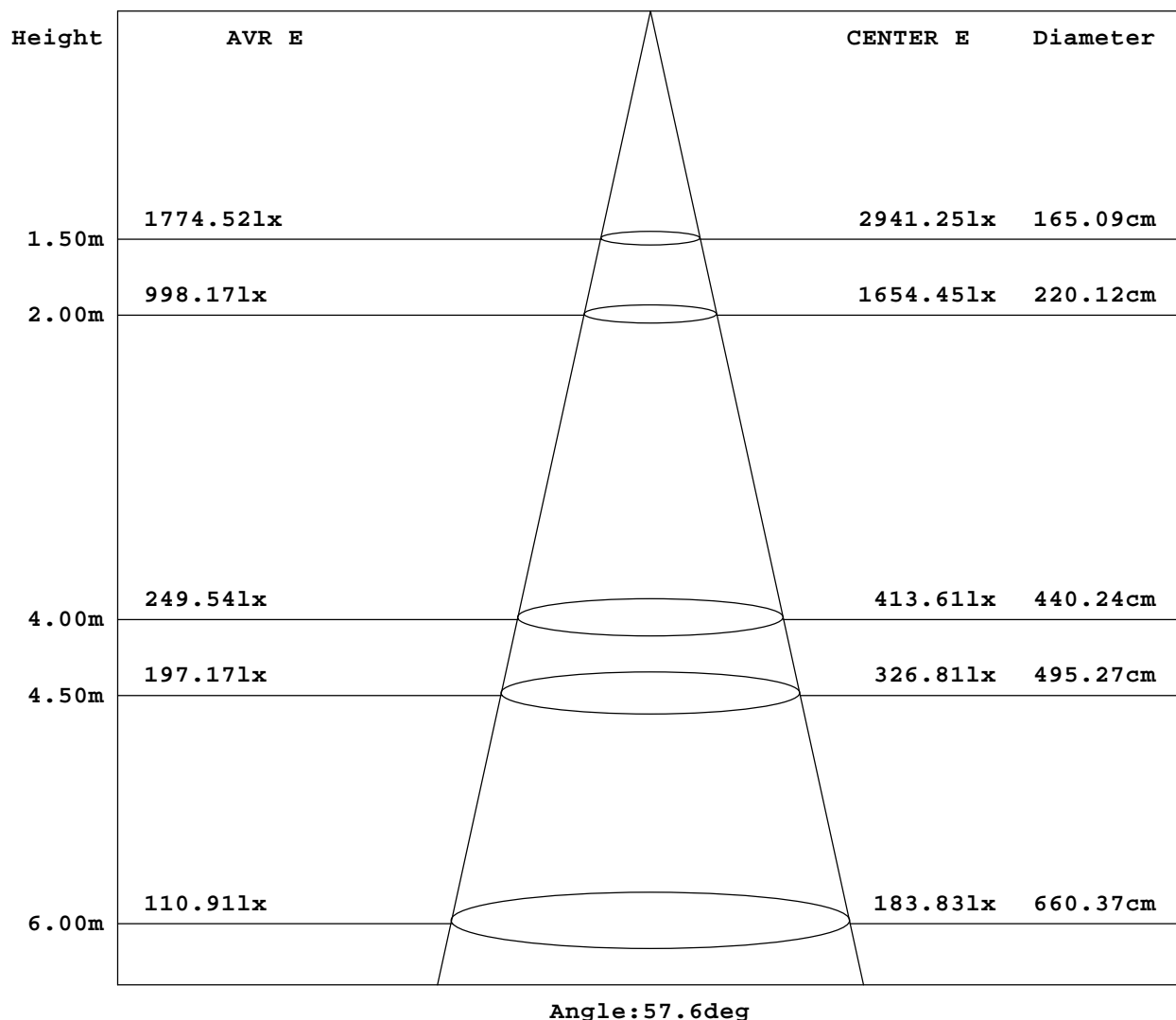
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators:
 Test Date: 2019年08月07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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	6545	6630	6650	6566	6398	6172	6091	6186	0- 5	154.8	154.8
10.0	6224	6382	6396	6300	5991	5677	5596	5706	5- 10	444.0	598.8
15.0	5734	5924	5928	5842	5464	5126	5054	5167	10- 15	684.4	1283
20.0	5131	5338	5384	5260	4786	4444	4362	4498	15- 20	858.4	2142
25.0	4341	4601	4708	4532	3950	3728	3483	3747	20- 25	946.0	3088
30.0	3358	3756	3852	3735	2925	2523	2423	2563	25- 30	911.1	3999
35.0	2259	2464	2511	2422	1863	1601	1516	1636	30- 35	747.9	4747
40.0	1396	1495	1513	1478	1181	1065	1030	1073	35- 40	540.5	5287
45.0	947.5	970.7	964.2	967.8	844.7	793.8	779.5	791.1	40- 45	389.9	5677
50.0	706.5	705.6	701.8	707.6	649.2	626.2	618.7	618.9	45- 50	308.7	5986
55.0	561.0	552.7	557.3	556.0	523.5	502.1	512.9	494.5	50- 55	258.3	6244
60.0	461.8	443.9	451.1	447.2	429.9	406.2	423.4	399.0	55- 60	220.8	6465
65.0	369.9	352.9	366.4	355.6	349.5	316.7	341.1	311.2	60- 65	187.3	6653
70.0	283.8	270.7	290.3	273.7	254.2	234.9	250.0	234.3	65- 70	152.7	6805
75.0	209.1	196.8	214.6	199.1	178.7	161.7	185.4	159.3	70- 75	115.6	6921
80.0	133.2	124.2	139.4	125.9	104.3	91.48	110.3	90.21	75- 80	79.35	7000
85.0	61.66	58.69	69.16	60.51	34.67	28.20	38.06	27.35	80- 85	42.74	7043
90.0	2.008	5.057	5.154	4.876	0	0	0	0	85- 90	11.08	7054
95.0	0	0	0	0	0	0	0	0	90- 95	0.124	7054
100.0	0	0	0	0	0	0	0	0	95-100	0	7054
105.0	0	0	0	0	0	0	0	0	100-105	0	7054
110.0	0	0	0	0	0	0	0	0	105-110	0	7054
115.0	0	0	0	0	0	0	0	0	110-115	0	7054
120.0	0	0	0	0	0	0	0	0	115-120	0	7054
125.0	0	0	0	0	0	0	0	0	120-125	0	7054
130.0	0	0	0	0	0	0	0	0	125-130	0	7054
135.0	0	0	0	0	0	0	0	0	130-135	0	7054
140.0	0	0	0	0	0	0	0	0	135-140	0	7054
145.0	0	0	0	0	0	0	0	0	140-145	0	7054
150.0	0	0	0	0	0	0	0	0	145-150	0	7054
155.0	0	0	0	0	0	0	0	0	150-155	0	7054
160.0	0	0	0	0	0	0	0	0	155-160	0	7054
165.0	0	0	0	0	0	0	0	0	160-165	0	7054
170.0	0	0	0	0	0	0	0	0	165-170	0	7054
175.0	0	0	0	0	0	0	0	0	170-175	0	7054
180.0	0	0	0	0	0	0	0	0	175-180	0	7054
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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

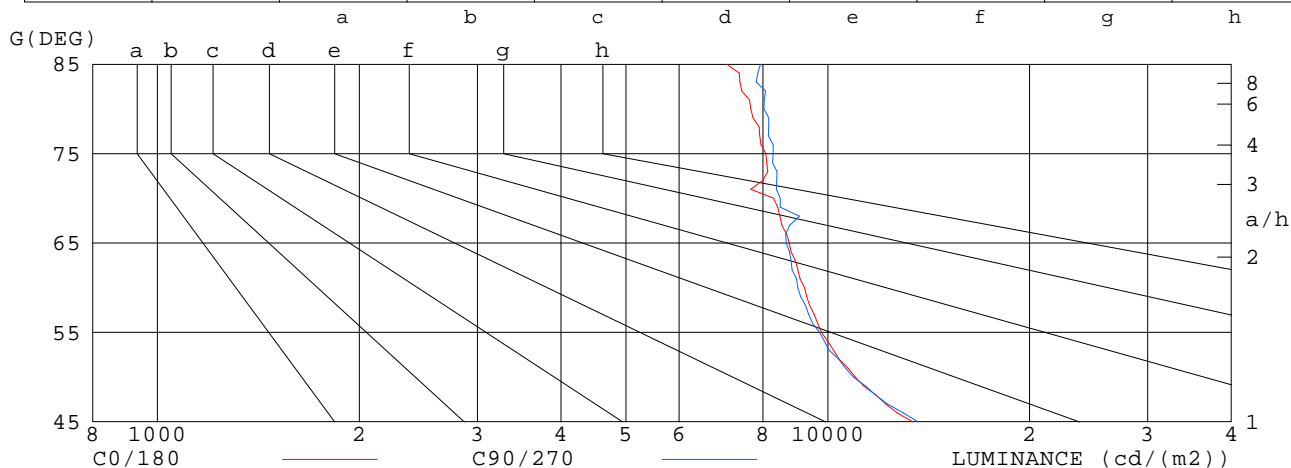
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	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	7075	7936
80	7676	8031
75	8081	8292
70	8298	8489
65	8754	8671
60	9236	9023
55	9781	9718
50	10993	10919
45	13400	13636

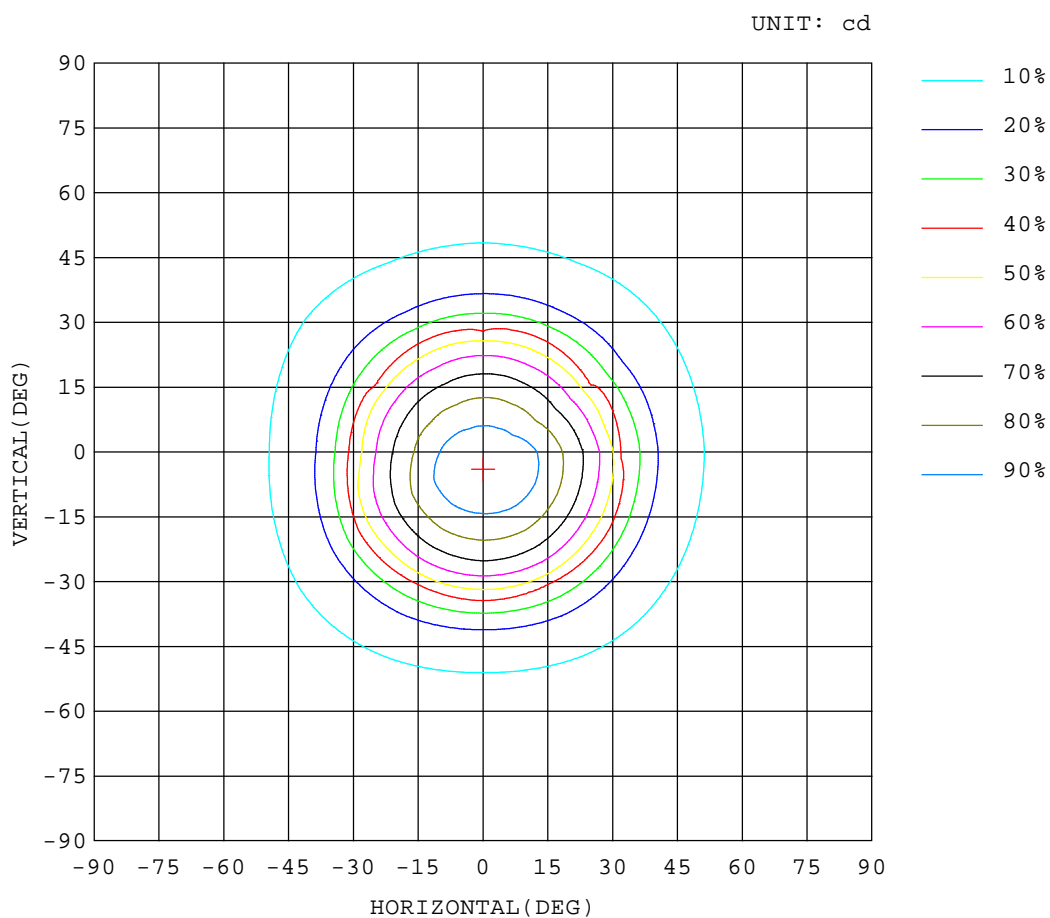
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



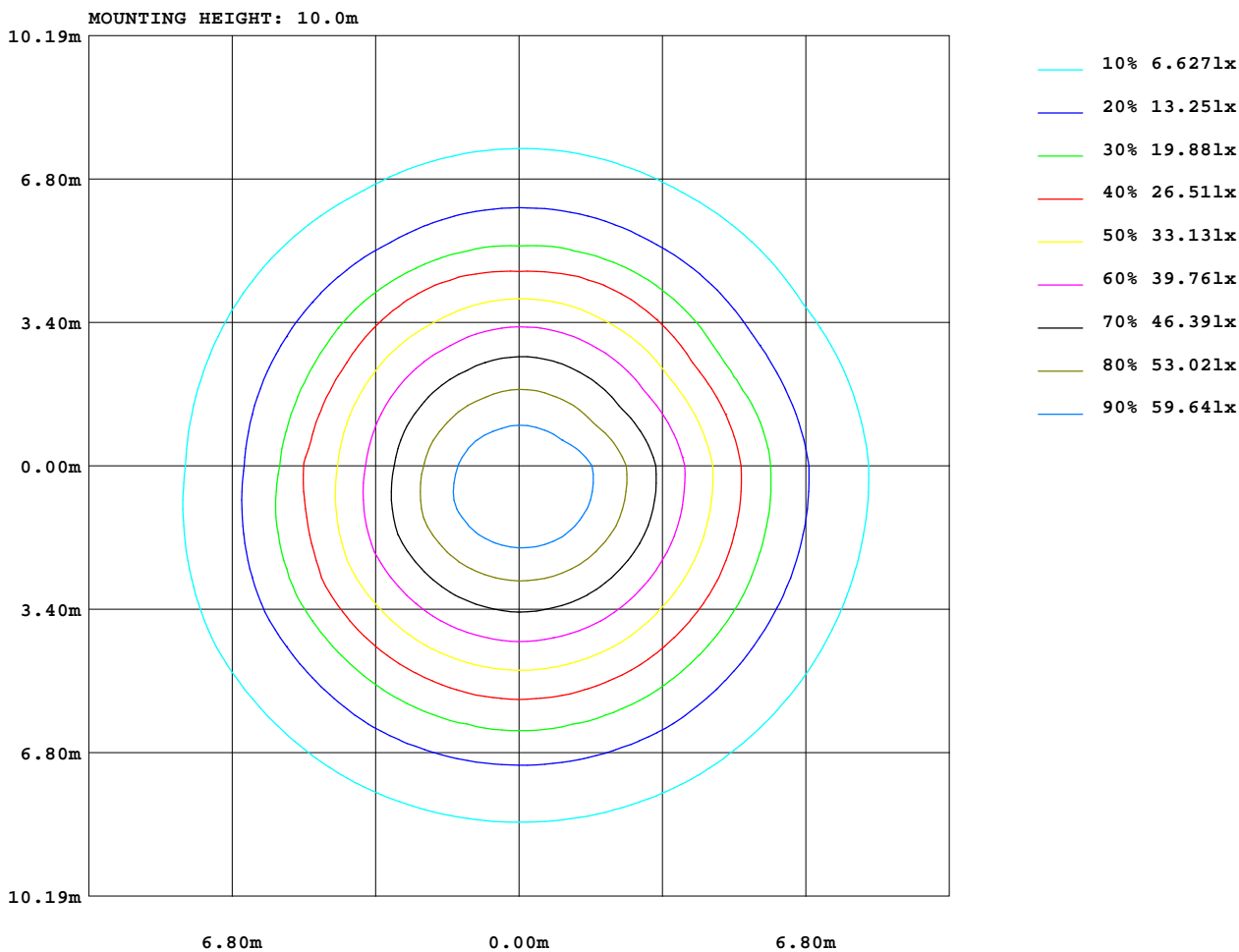
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

VERTICAL (DEG)	AREA FLUX DIAGRAM																	UNIT:lm	Φt	Φa
	0.00	0.02	0.11	0.25	0.38	0.49	0.68	0.96	1.19	1.19	0.96	0.68	0.49	0.37	0.23	0.14	0.07	0.02	8.20	0.00
90	0.01	0.19	0.68	1.37	2.14	2.89	3.71	4.69	5.41	5.40	4.68	3.69	2.86	2.11	1.34	0.72	0.28	0.04	42.2	0.00
80	0.03	0.43	1.38	2.75	4.28	5.83	7.42	9.02	10.1	10.0	8.94	7.30	5.76	4.23	2.71	1.44	0.54	0.08	82.3	0.00
70	0.06	0.68	2.09	4.12	6.59	9.16	11.4	13.7	15.2	15.2	13.7	11.3	8.98	6.45	4.08	2.17	0.80	0.11	126	0.00
60	0.09	0.92	2.74	5.54	9.03	12.8	16.7	20.7	23.5	23.5	20.7	16.6	12.6	8.82	5.48	2.85	1.05	0.14	184	76.1
50	0.11	1.11	3.35	6.86	11.5	17.6	25.8	36.8	46.5	46.9	37.4	26.0	17.5	11.3	6.86	3.48	1.27	0.17	301	245
40	0.13	1.28	3.87	7.95	14.1	24.7	46.9	78.8	101	102	80.3	47.8	24.9	14.2	8.09	4.03	1.45	0.20	562	520
30	0.15	1.39	4.24	8.78	16.5	35.5	78.6	125	148	149	126	80.5	38.0	17.4	9.12	4.48	1.57	0.21	845	810
20	0.15	1.45	4.44	9.24	18.3	45.7	103	152	180	181	156	110	51.9	20.3	9.83	4.75	1.65	0.23	1049	1017
10	0.16	1.46	4.46	9.30	18.8	49.4	111	162	194	196	167	118	55.7	20.9	9.91	4.78	1.66	0.23	1126	1094
0	0.15	1.41	4.32	8.94	17.6	43.7	101	149	175	176	151	103	46.4	18.6	9.33	4.56	1.59	0.22	1013	980
-10	0.14	1.31	4.00	8.17	15.0	31.0	68.4	112	137	138	114	69.3	31.4	15.3	8.38	4.17	1.49	0.20	760	721
-20	0.12	1.16	3.52	7.14	12.2	20.3	35.3	57.5	75.0	75.3	58.1	35.7	20.3	12.1	7.21	3.65	1.32	0.18	427	377
-30	0.10	0.97	2.91	5.96	9.65	14.2	19.8	25.8	30.0	30.0	25.9	19.8	14.1	9.55	5.96	3.01	1.10	0.15	219	141
-40	0.07	0.75	2.27	4.54	7.35	10.2	13.1	15.5	16.9	16.9	15.5	13.1	10.1	7.29	4.48	2.34	0.87	0.12	142	4.12
-50	0.04	0.50	1.58	3.15	5.01	6.97	8.75	10.2	11.1	11.1	10.2	8.73	6.93	4.95	3.09	1.63	0.61	0.09	94.7	0.00
-60	0.01	0.26	0.88	1.80	2.89	4.02	5.07	5.89	6.40	6.40	5.88	5.06	4.00	2.84	1.75	0.91	0.35	0.05	54.5	0.00
-70	0.00	0.06	0.24	0.55	0.93	1.34	1.70	1.95	2.09	2.09	1.94	1.70	1.33	0.91	0.52	0.26	0.11	0.02	17.7	0.00
-80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HORIZONTAL (DEG)																				
Φt	1.51	15.3	47.1	96.5	173	336	659	981	1179	1187	999	679	354	178	98.4	49.4	17.8	2.45	7054	
Φa	0.00	0.00	0.00	0.00	82.3	264	589	911	1109	1116	929	609	281	93.8	2.24	0.00	0.00	0.00		5980

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月07日

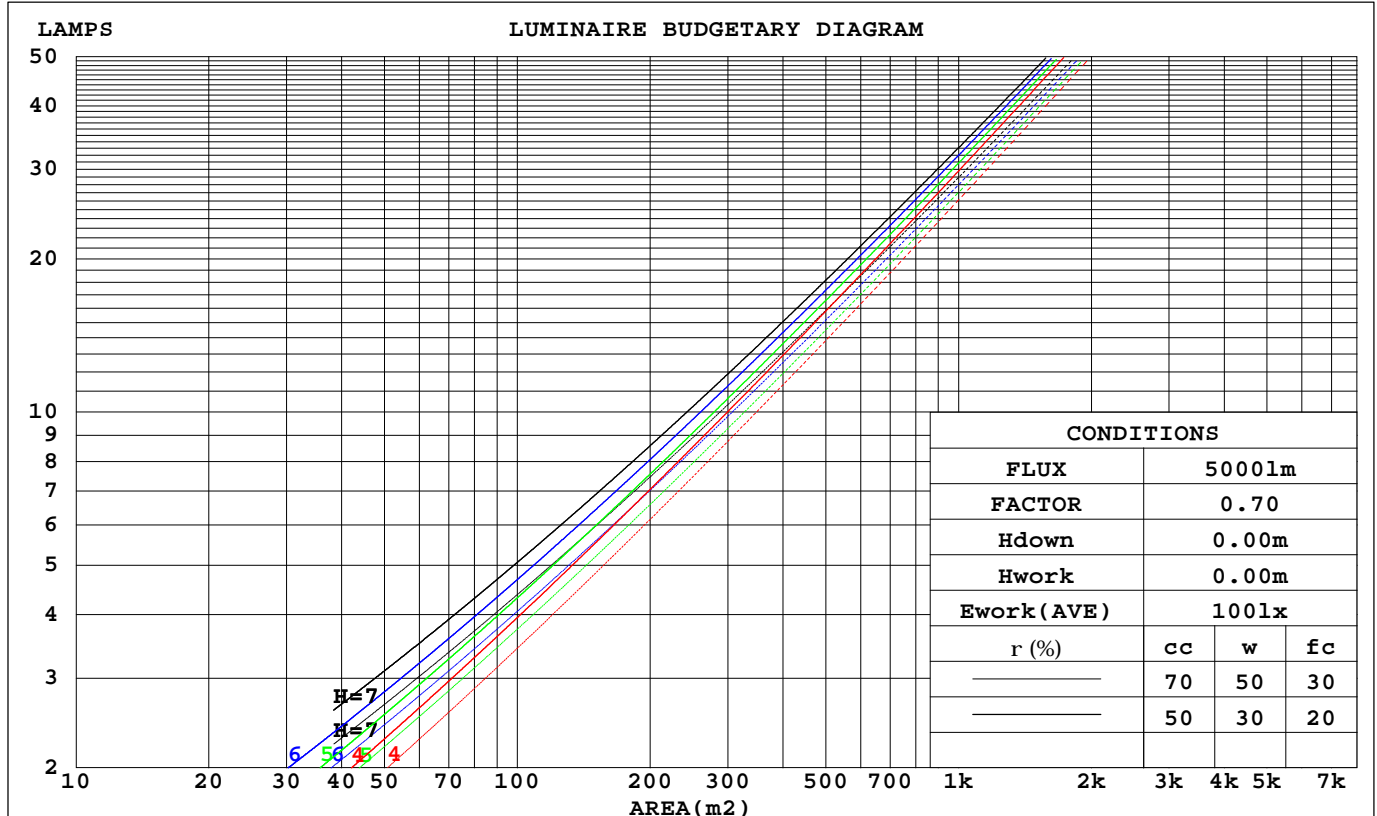
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 48W								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1150*65				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07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: 48W						TYPE:				WEIGHT:	
SPECIFICATION:						DIMENSION: 1150*65				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	.226	.129	.041	.219	.125	.040	.207	.118	.038	.195	.112	.036	.184	.107	.034															
2.0	.214	.118	.036	.209	.115	.035	.198	.110	.034	.187	.105	.033	.178	.101	.032															
3.0	.201	.107	.032	.196	.105	.032	.187	.101	.031	.178	.097	.030	.170	.094	.029															
4.0	.189	.098	.029	.184	.096	.028	.176	.093	.028	.168	.090	.027	.161	.088	.027															
5.0	.177	.090	.026	.173	.089	.026	.166	.086	.025	.159	.084	.025	.153	.082	.025															
6.0	.167	.084	.024	.163	.083	.024	.157	.080	.023	.151	.078	.023	.145	.076	.023															
7.0	.157	.078	.022	.154	.077	.022	.149	.075	.022	.143	.073	.021	.138	.072	.021															
8.0	.149	.073	.020	.146	.072	.020	.141	.071	.020	.136	.069	.020	.132	.068	.020															
9.0	.141	.068	.019	.139	.068	.019	.134	.066	.019	.130	.065	.019	.126	.064	.018															
10.0	.134	.064	.018	.132	.064	.018	.128	.063	.018	.124	.062	.018	.120	.061	.017															

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.141	.149	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.162	.132	.107	.139	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.151	.114	.084	.130	.098	.073	.089	.068	.051	.051	.040	.030	.017	.013	.010	
4.0	.142	.100	.067	.122	.086	.059	.084	.060	.041	.048	.035	.024	.016	.011	.008	
5.0	.134	.088	.055	.115	.077	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.126	.080	.046	.109	.069	.040	.075	.048	.028	.043	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.103	.063	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.114	.066	.033	.098	.057	.029	.068	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.108	.061	.029	.093	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.009	.012	.007	.003	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月07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: 48W					TYPE:			WEIGHT:			
SPECIFICATION:					DIMENSION: 1150*65			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	19.1	20.3	19.4	20.5	20.6	19.3	20.5	19.6	20.7	20.8	
	3H	20.1	21.2	20.4	21.4	21.6	20.3	21.4	20.6	21.6	21.8
	4H	20.6	21.6	20.9	21.9	22.1	20.8	21.8	21.1	22.1	22.3
	6H	21.0	22.0	21.3	22.2	22.5	21.3	22.2	21.6	22.5	22.7
	8H	21.2	22.1	21.5	22.3	22.6	21.4	22.3	21.7	22.6	22.9
	12H	21.3	22.1	21.6	22.4	22.7	21.5	22.4	21.9	22.7	23.0
4H	2H	19.5	20.5	19.8	20.7	20.9	19.6	20.7	19.9	20.9	21.1
	3H	20.7	21.6	21.0	21.8	22.1	20.9	21.8	21.2	22.0	22.3
	4H	21.3	22.1	21.7	22.4	22.7	21.5	22.3	21.9	22.6	22.9
	6H	21.8	22.5	22.2	22.9	23.2	22.1	22.8	22.5	23.1	23.5
	8H	22.0	22.7	22.4	23.1	23.4	22.3	23.0	22.7	23.3	23.7
	12H	22.2	22.8	22.6	23.2	23.6	22.5	23.1	22.9	23.5	23.9
8H	4H	21.5	22.2	21.9	22.5	22.9	21.7	22.4	22.1	22.7	23.1
	6H	22.2	22.7	22.6	23.1	23.5	22.4	23.0	22.9	23.4	23.8
	8H	22.4	22.9	22.9	23.3	23.8	22.7	23.2	23.2	23.6	24.1
	12H	22.7	23.1	23.1	23.5	24.0	23.0	23.4	23.5	23.9	24.3
12H	4H	21.5	22.1	21.9	22.5	22.9	21.7	22.3	22.1	22.7	23.1
	6H	22.2	22.7	22.7	23.1	23.6	22.5	22.9	22.9	23.4	23.8
	8H	22.5	22.9	23.0	23.4	23.9	22.8	23.2	23.3	23.7	24.1
Variations with the observer position at spacings:											
S = 1.0H	+ 0.4 / - 0.5					+ 0.4 / - 0.5					
1.5H	+ 0.7 / - 0.4					+ 0.9 / - 0.4					
2.0H	+ 0.5 / - 0.3					+ 0.5 / - 0.3					

CIE Pub.117 Corrected 7054 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.8)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月07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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	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) $k(RI) \times RCR = 5$									
$k = 0.60$	76	68	63	75	68	63	75	67	63	58
0.80	85	77	71	84	76	71	82	75	71	66
1.00	91	83	78	90	82	78	88	83	77	72
1.25	96	89	84	94	88	83	92	87	82	77
1.50	99	93	88	98	92	87	95	90	86	81
2.00	103	98	93	102	97	93	99	95	91	85
2.50	106	101	97	104	99	96	101	97	94	87
3.00	108	104	100	106	102	99	103	99	96	89
4.00	111	107	104	109	105	103	105	102	100	92
5.00	113	109	107	110	108	105	106	104	102	94
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

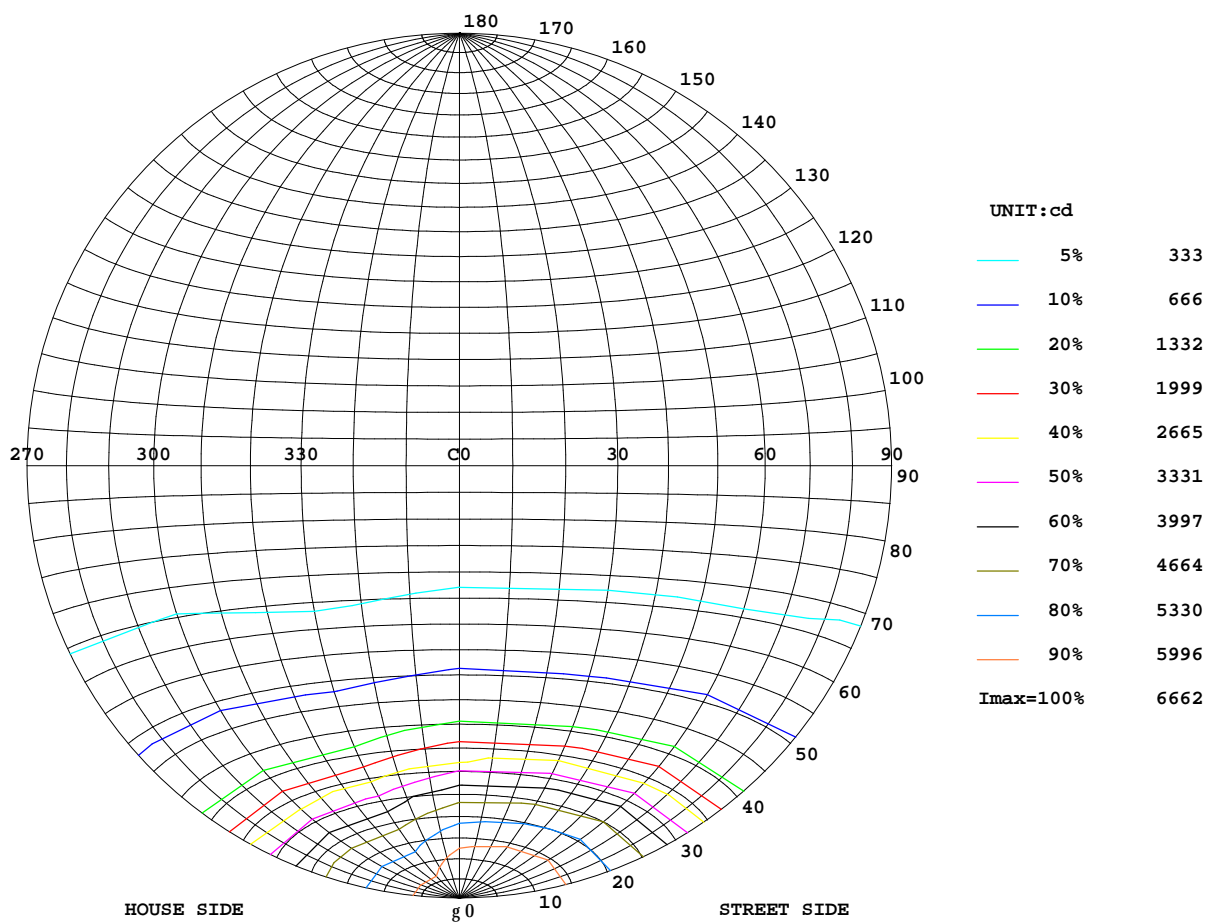
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月07日

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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

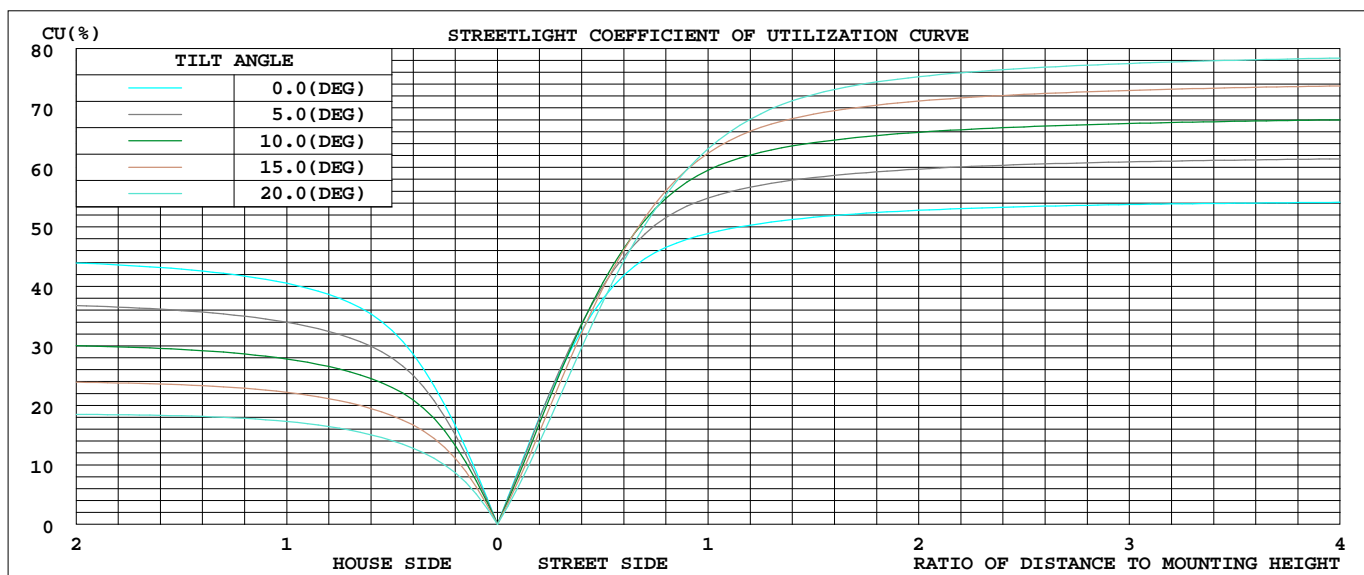
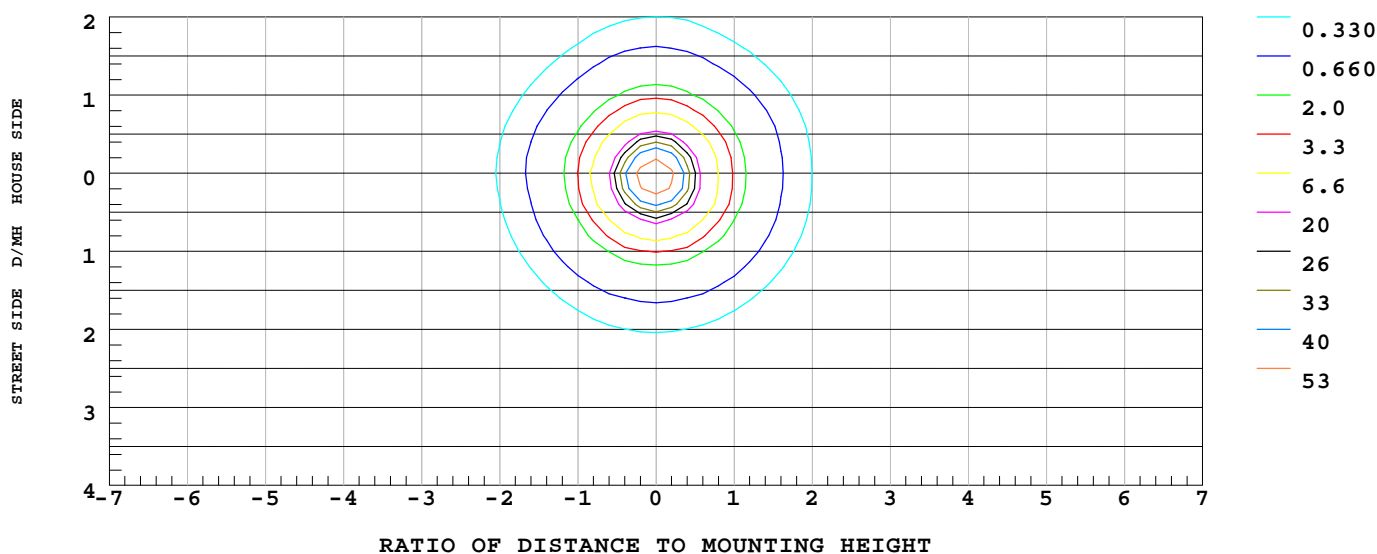
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 66.18 lx



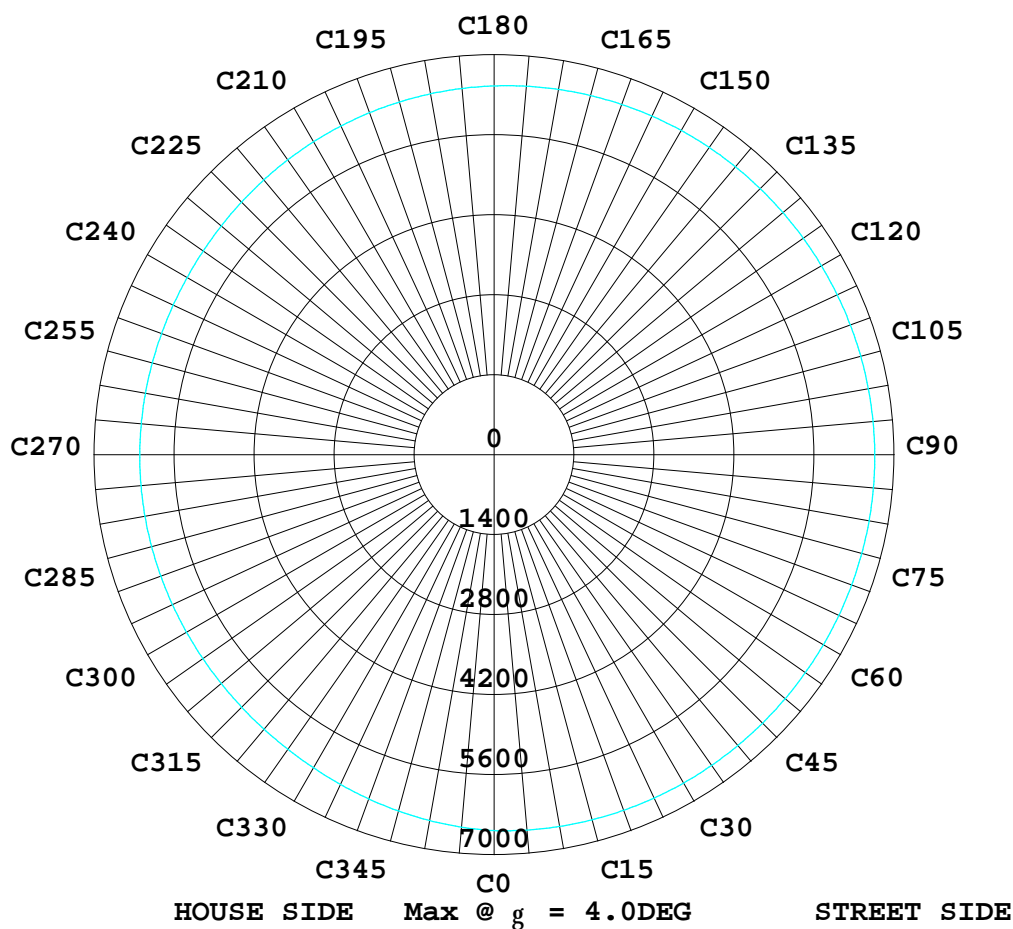
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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: 48W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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