

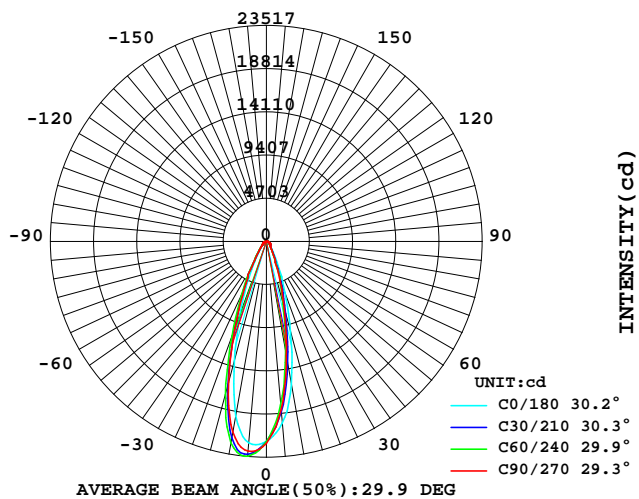
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

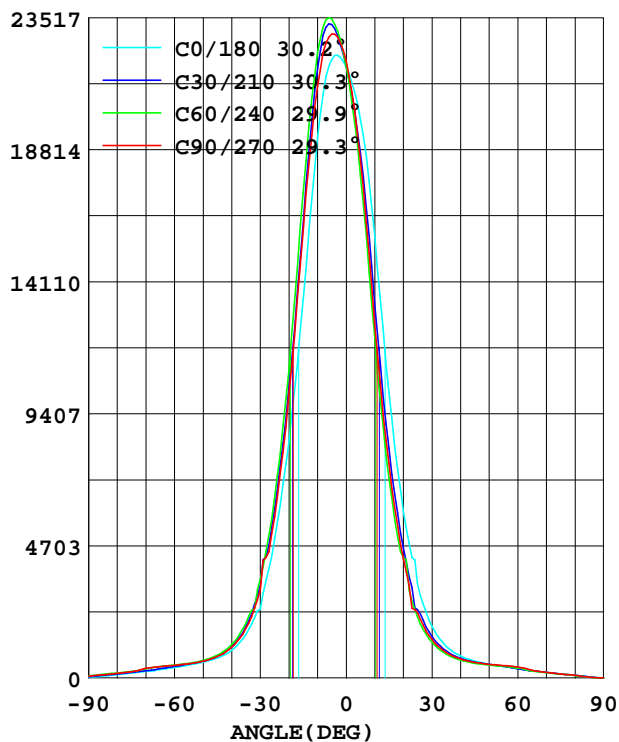
MANUFACTURER:		
Address:		
NAME: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	23517	S/MH(C0/180)	0.57
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.61
NOMINAL POWER(W)	70	TOTAL FLUX(lm)	9485.1	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	136.0	Current(A)	0.327
NOMINAL FLUX(lm)	9485.2	h up(%)	0.1	Power(W)	69.75
LAMPS QUANTITY	1	h down(%)	99.9	Power Factor(PF)	0.975
TEST VOLTAGE(V)	218.6	Effective Flux(lm)	7058.8	EEI	0.135

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



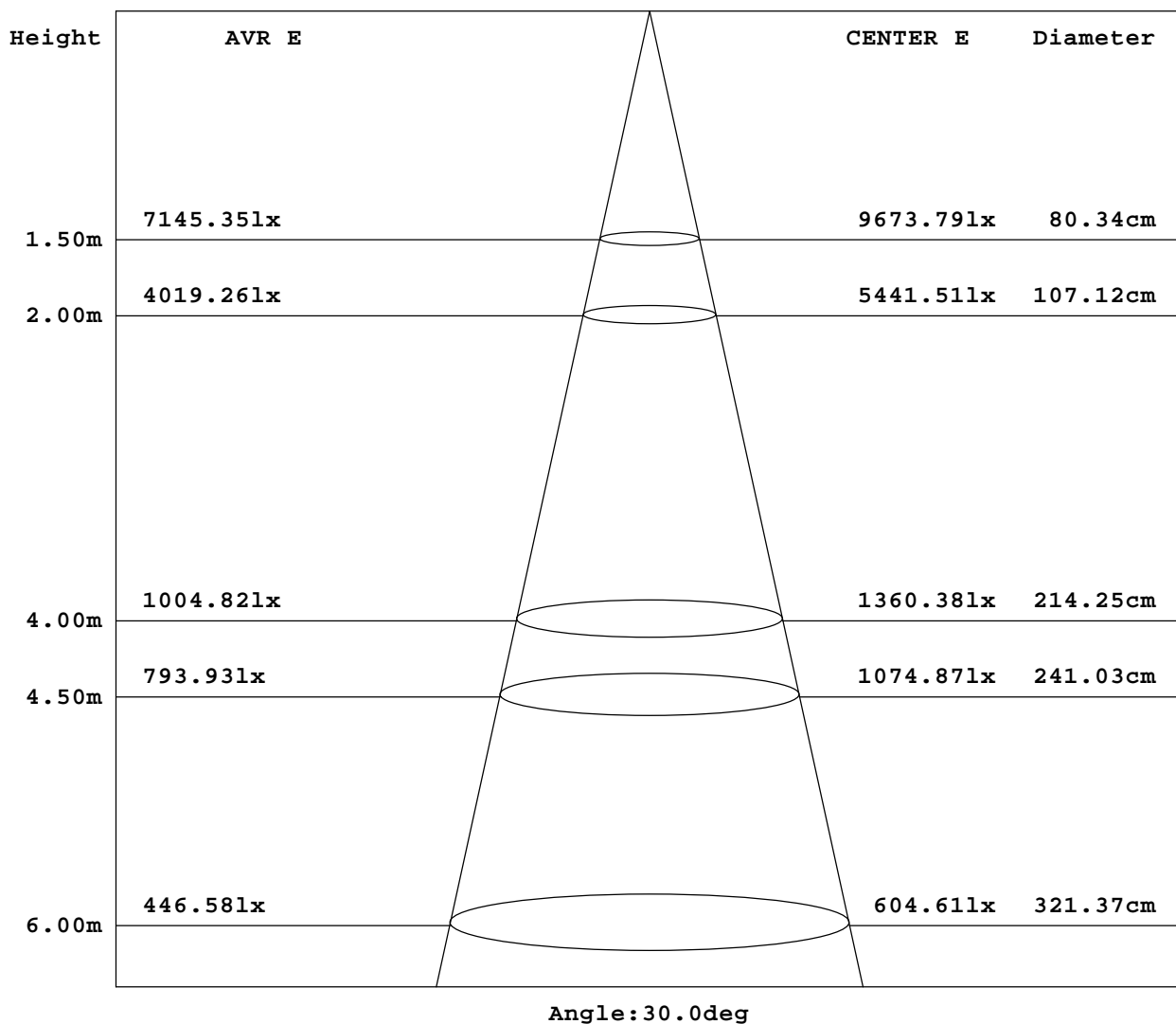
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10日

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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators:
 Test Date: 2019年08月10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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	2202	2337	2293	2176	1988	1828	1842	2070	0- 5	513.7	513.7
10.0	1927	2199	2107	1873	1581	1279	1264	1635	5- 10	1374	1887
15.0	1348	1673	1591	1307	1016	765.1	762.9	1067	10- 15	1723	3610
20.0	836.0	1062	1006	780.1	593.8	446.4	425.4	629.8	15- 20	1544	5154
25.0	495.9	623.9	574.3	458.5	335.6	230.8	232.6	355.8	20- 25	1157	6311
30.0	244.0	340.8	312.5	229.3	185.7	138.3	138.2	200.1	25- 30	785.8	7097
35.0	154.1	189.3	177.1	140.3	112.5	90.30	90.76	119.5	30- 35	514.1	7611
40.0	99.08	115.0	108.6	91.90	78.45	66.85	67.48	81.18	35- 40	361.9	7973
45.0	71.40	79.64	76.69	67.68	59.99	54.51	55.55	62.15	40- 45	280.9	8254
50.0	56.33	61.29	59.91	54.29	49.16	47.16	48.70	51.18	45- 50	238.8	8493
55.0	46.08	50.89	50.62	45.93	40.95	41.40	44.30	43.79	50- 55	214.4	8707
60.0	37.54	43.61	45.17	39.55	33.87	33.84	38.87	36.94	55- 60	194.1	8902
65.0	29.99	37.14	40.45	32.79	26.77	25.14	27.97	28.45	60- 65	170.0	9072
70.0	23.36	29.06	34.93	25.03	20.44	19.11	19.76	21.38	65- 70	137.8	9209
75.0	17.46	21.70	22.41	18.94	14.70	14.01	14.73	16.09	70- 75	107.1	9317
80.0	12.01	16.21	16.46	13.75	9.372	8.773	9.287	11.11	75- 80	79.52	9396
85.0	6.843	11.35	11.30	8.870	4.218	3.225	3.165	5.772	80- 85	52.46	9449
90.0	1.616	6.160	5.815	3.528	0	0.346	0.842	1.180	85- 90	25.18	9474
95.0	0	1.477	1.011	0.863	0	0.040	0.552	0.273	90- 95	7.307	9481
100.0	0	0.764	0.770	0.530	0	0	0.394	0	95-100	2.258	9483
105.0	0	0.379	0.261	0.342	0	0	0	0	100-105	1.228	9485
110.0	0	0.185	0.152	0.034	0	0	0	0	105-110	0.501	9485
115.0	0	0.076	0	0	0	0	0	0	110-115	0.118	9485
120.0	0	0	0	0	0	0	0	0	115-120	0.016	9485
125.0	0	0	0	0	0	0	0	0	120-125	0	9485
130.0	0	0	0	0	0	0	0	0	125-130	0	9485
135.0	0	0	0	0	0	0	0	0	130-135	0	9485
140.0	0	0	0	0	0	0	0	0	135-140	0	9485
145.0	0	0	0	0	0	0	0	0	140-145	0	9485
150.0	0	0	0	0	0	0	0	0	145-150	0	9485
155.0	0	0	0	0	0	0	0	0	150-155	0	9485
160.0	0	0	0	0	0	0	0	0	155-160	0	9485
165.0	0	0	0	0	0	0	0	0	160-165	0	9485
170.0	0	0	0	0	0	0	0	0	165-170	0	9485
175.0	0	0	0	0	0	0	0	0	170-175	0	9485
180.0	0	0	0	0	0	0	0	0	175-180	0	9485
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月10日

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

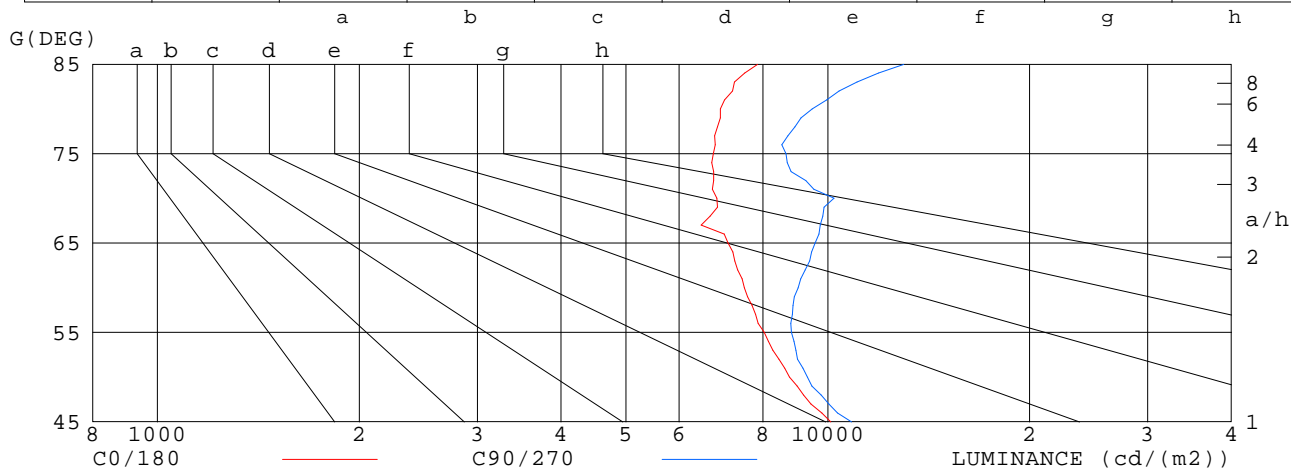
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	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	7852	12975
80	6917	9481
75	6749	8661
70	6830	10216
65	7096	9573
60	7508	9035
55	8035	8826
50	8764	9321
45	10099	10847

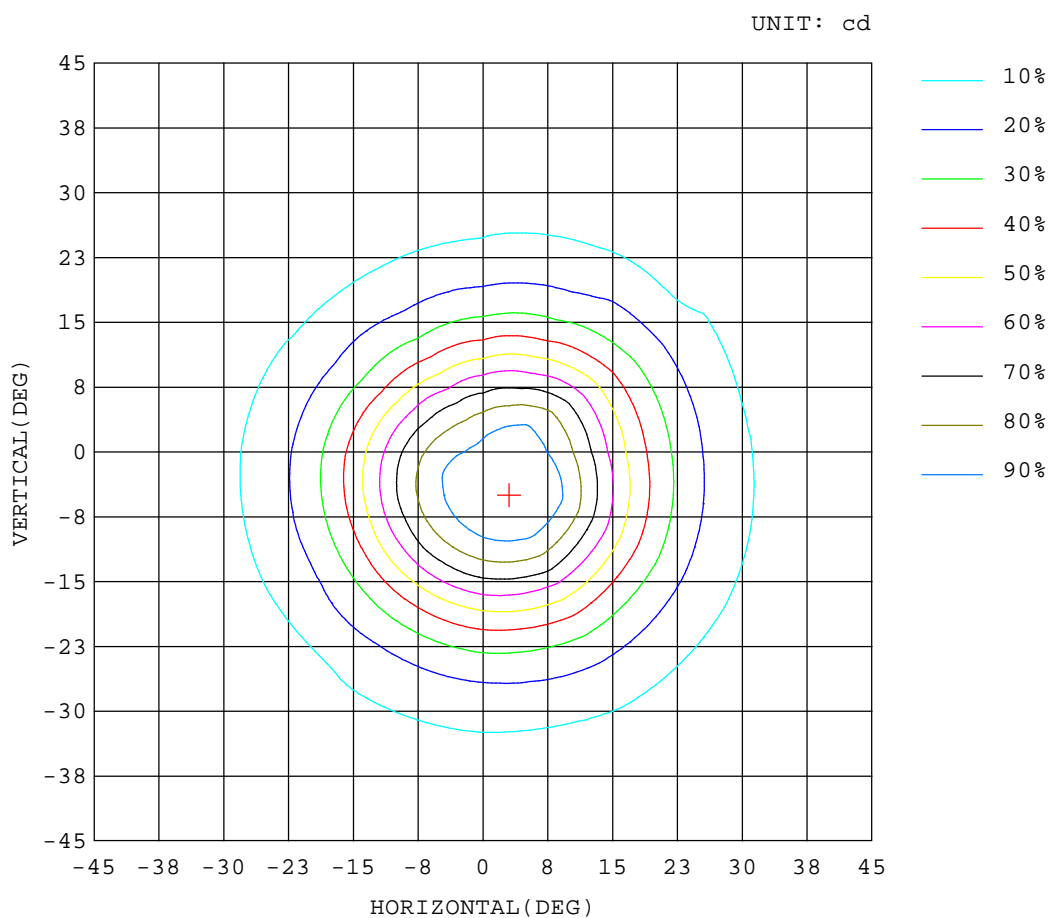
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10日

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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



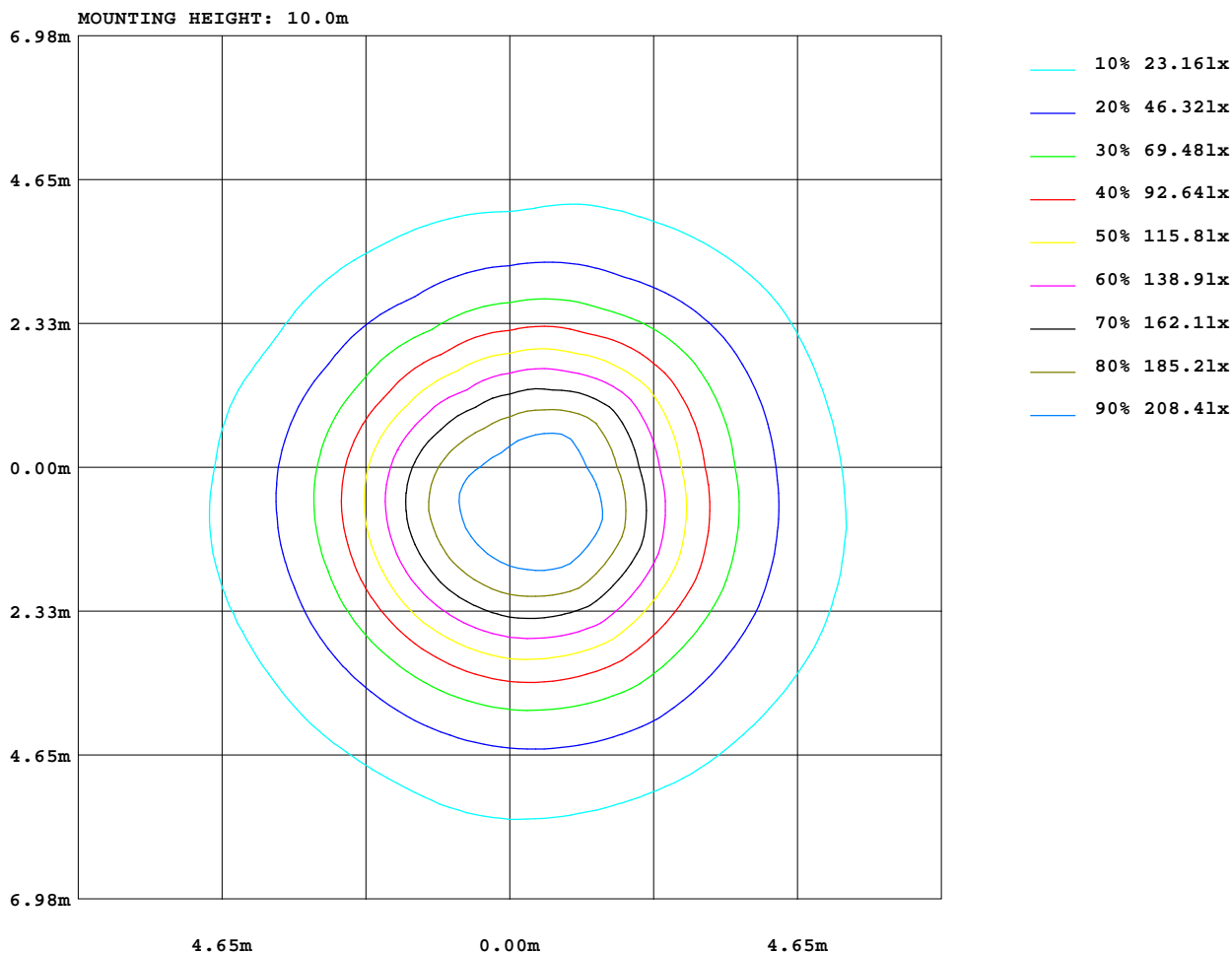
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10日

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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10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: 30°70W										TYPE:					WEIGHT:					
SPECIFICATION:										DIMENSION: 576*188mm					SERIAL No.:					

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	2.13	2.55	2.90	3.21	3.49	3.81	4.14	4.41	4.59	4.65	4.59	4.40	4.11	3.78	3.46	3.11	2.73	2.32	64.4	0.00		
45																						
40	2.38	2.80	3.20	3.61	4.03	4.50	5.04	5.51	5.84	5.98	5.89	5.56	5.06	4.56	4.06	3.55	3.06	2.58	77.2	0.00		
35	2.59	3.07	3.59	4.20	4.90	5.68	6.68	7.63	8.30	8.62	8.48	7.79	6.82	5.90	4.98	4.16	3.46	2.85	99.7	0.00		
30	2.79	3.38	4.11	5.08	6.35	7.86	9.71	11.8	13.3	14.0	13.7	12.1	10.2	8.30	6.47	5.03	3.97	3.15	142	0.00		
25	3.00	3.75	4.81	6.39	8.70	11.7	15.3	19.7	22.8	24.5	24.6	21.1	16.3	12.3	8.85	6.28	4.58	3.47	219	113		
20	3.22	4.20	5.74	8.24	12.3	17.9	27.2	35.6	42.2	45.5	43.4	37.3	28.2	18.1	12.3	7.87	5.29	3.80	359	282		
15	3.44	4.70	6.87	10.7	16.9	28.2	42.8	57.8	72.0	78.7	74.2	61.3	44.1	27.7	15.8	9.73	6.07	4.14	566	507		
	3.64	5.18	8.05	13.6	23.9	40.7	64.0	90.8	112	123	117	92.3	61.4	37.1	20.1	11.5	6.80	4.43	837	785		
	3.78	5.54	9.01	16.1	30.3	53.1	87.2	124	148	160	151	116	74.4	44.1	23.8	12.7	7.31	4.63	1071	1024		
	3.84	5.69	9.41	17.4	33.2	59.0	99.1	141	166	174	165	127	81.2	47.3	25.5	13.3	7.53	4.71	1182	1135		
	3.80	5.57	9.11	16.6	31.7	55.5	93.5	135	162	172	161	123	78.8	45.8	24.9	13.1	7.38	4.65	1144	1098		
-15	3.67	5.25	8.26	14.3	27.4	45.6	75.0	110	135	144	132	99.5	65.5	39.3	22.1	11.7	6.88	4.46	950	900		
-20	3.47	4.80	7.15	11.5	20.1	34.4	52.7	74.6	92.5	98.5	90.1	70.0	47.6	30.3	17.2	9.96	6.16	4.16	676	621		
-25	3.24	4.31	6.04	9.12	14.1	22.1	33.8	45.9	55.6	58.8	54.5	44.5	31.8	20.3	12.7	8.08	5.37	3.83	435	367		
-30	3.00	3.85	5.12	7.11	10.2	14.5	19.7	26.7	32.4	34.2	31.6	25.9	19.1	13.5	9.29	6.44	4.64	3.49	271	186		
-35	2.77	3.45	4.36	5.62	7.40	9.75	12.5	15.3	17.4	18.0	16.9	14.9	12.2	9.26	6.90	5.21	4.02	3.17	169	31.2		
-40	2.55	3.11	3.77	4.58	5.61	6.83	8.13	9.36	10.2	10.5	10.1	9.28	8.05	6.63	5.35	4.33	3.53	2.88	115	0.00		
-45	2.34	2.81	3.32	3.88	4.50	5.15	5.82	6.40	6.81	6.94	6.78	6.36	5.78	5.09	4.36	3.72	3.14	2.62	85.9	0.00		
	-45	-40	-35	-30	-25	-20	-15	-10	HORIZONTAL (DEG)				10	15	20	25	30	35	40	45		
Φ t	55.7	74.1	105	162	266	427	663	922	1107	1183	1111	879	601	380	229	140	92.0	65.4	9485			
Φ a	0.00	0.00	0.00	40.4	176	350	597	860	1047	1123	1053	818	535	303	137	9.70	0.00	0.00		7059		

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月10日

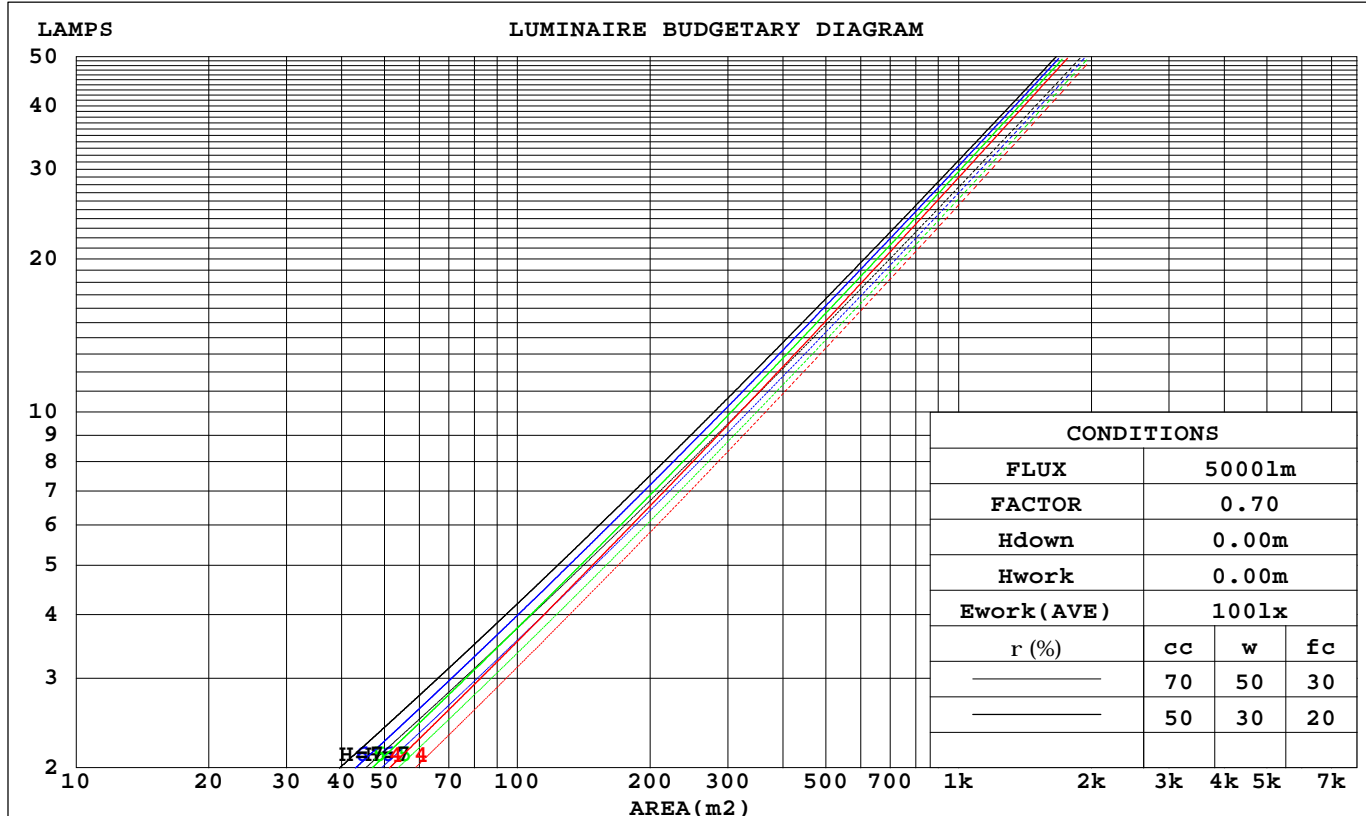
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 30°70W								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 576*188mm				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10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: 30°70W						TYPE:			WEIGHT:		
SPECIFICATION:						DIMENSION: 576*188mm			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	.193	.110	.035	.186	.106	.034	.174	.100	.032	.162	.093	.030	.151	.088	.028															
2.0	.180	.099	.030	.174	.096	.030	.163	.091	.028	.153	.086	.027	.144	.082	.026															
3.0	.167	.089	.027	.162	.087	.026	.153	.083	.025	.145	.079	.024	.137	.076	.023															
4.0	.156	.081	.024	.152	.079	.023	.144	.076	.023	.137	.073	.022	.130	.070	.021															
5.0	.146	.074	.022	.142	.073	.021	.136	.071	.021	.129	.068	.020	.123	.066	.020															
6.0	.137	.069	.020	.134	.068	.019	.128	.066	.019	.123	.064	.019	.117	.062	.018															
7.0	.130	.064	.018	.127	.063	.018	.121	.061	.018	.117	.060	.017	.112	.058	.017															
8.0	.123	.060	.017	.120	.059	.017	.115	.058	.016	.111	.056	.016	.107	.055	.016															
9.0	.116	.056	.016	.114	.056	.016	.110	.054	.015	.106	.053	.015	.102	.052	.015															
10.0	.111	.053	.015	.109	.053	.015	.105	.052	.015	.102	.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	.191	.191	.191	.164	.164	.164	.112	.112	.112	.064	.064	.064	.021	.021	.021	
1.0	.173	.158	.145	.148	.136	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.158	.133	.112	.136	.115	.097	.093	.079	.068	.054	.046	.040	.017	.015	.013	
3.0	.146	.115	.090	.125	.099	.078	.086	.069	.055	.049	.040	.032	.016	.013	.011	
4.0	.135	.100	.073	.116	.086	.064	.080	.060	.045	.046	.035	.026	.015	.011	.009	
5.0	.125	.088	.061	.108	.076	.053	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.079	.051	.101	.068	.044	.070	.048	.031	.040	.028	.019	.013	.009	.006	
7.0	.110	.071	.044	.095	.062	.038	.065	.043	.027	.038	.025	.016	.012	.008	.005	
8.0	.104	.065	.038	.089	.056	.033	.062	.039	.023	.036	.023	.014	.012	.008	.005	
9.0	.098	.059	.033	.085	.051	.029	.059	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.055	.029	.080	.048	.025	.056	.033	.018	.033	.020	.011	.011	.006	.004	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月10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: 30°70W					TYPE:			WEIGHT:		
SPECIFICATION:					DIMENSION: 576*188mm			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	16.8	17.8	17.1	17.9	18.1	17.5	18.4	17.7	18.6	18.8
3H	17.9	18.8	18.2	19.0	19.2	19.2	20.0	19.4	20.2	20.4
4H	18.5	19.3	18.8	19.5	19.7	19.8	20.6	20.1	20.8	21.0
6H	19.0	19.8	19.3	20.0	20.2	20.4	21.1	20.7	21.4	21.6
8H	19.2	19.9	19.5	20.2	20.5	20.7	21.4	21.0	21.7	21.9
12H	19.4	20.1	19.7	20.4	20.7	21.0	21.7	21.3	22.0	22.2
4H 2H	17.4	18.3	17.7	18.5	18.7	18.0	18.8	18.3	19.1	19.3
3H	18.8	19.5	19.1	19.8	20.0	19.9	20.6	20.2	20.9	21.2
4H	19.5	20.1	19.8	20.4	20.7	20.6	21.3	21.0	21.6	21.9
6H	20.1	20.7	20.5	21.0	21.4	21.4	22.0	21.8	22.3	22.7
8H	20.4	20.9	20.8	21.3	21.7	21.8	22.4	22.2	22.7	23.1
12H	20.7	21.2	21.1	21.5	21.9	22.2	22.7	22.6	23.1	23.5
8H 4H	19.9	20.4	20.3	20.8	21.1	20.9	21.4	21.3	21.8	22.2
6H	20.7	21.2	21.2	21.6	22.0	21.9	22.4	22.3	22.8	23.2
8H	21.1	21.6	21.6	22.0	22.4	22.5	22.9	22.9	23.3	23.7
12H	21.5	21.9	22.0	22.3	22.8	23.1	23.4	23.6	23.9	24.3
12H 4H	19.9	20.4	20.3	20.8	21.2	20.9	21.4	21.3	21.8	22.2
6H	20.9	21.3	21.3	21.7	22.2	22.0	22.4	22.5	22.8	23.3
8H	21.4	21.7	21.9	22.2	22.7	22.7	23.0	23.1	23.4	23.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 9485 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.8)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月10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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	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	74	70	81	74	70	80	74	70	66
0.80	90	83	78	89	82	78	88	82	78	73
1.00	95	88	84	94	87	83	92	88	83	78
1.25	99	93	89	98	92	88	96	91	87	83
1.50	102	96	92	101	96	92	98	94	91	86
2.00	106	100	97	104	99	96	101	97	94	89
2.50	108	103	99	106	102	99	103	99	97	90
3.00	110	105	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	108	111	109	107	107	105	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

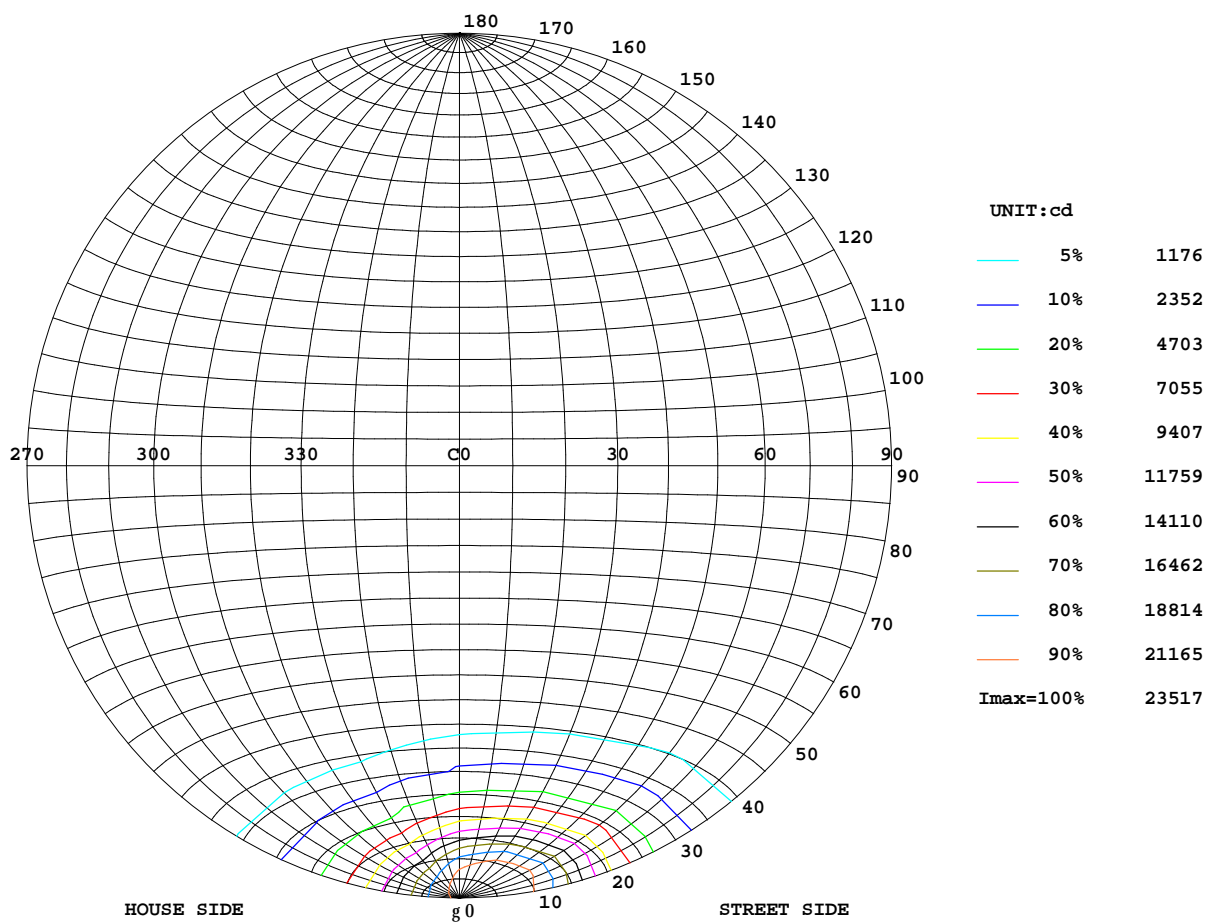
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月10日

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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10日

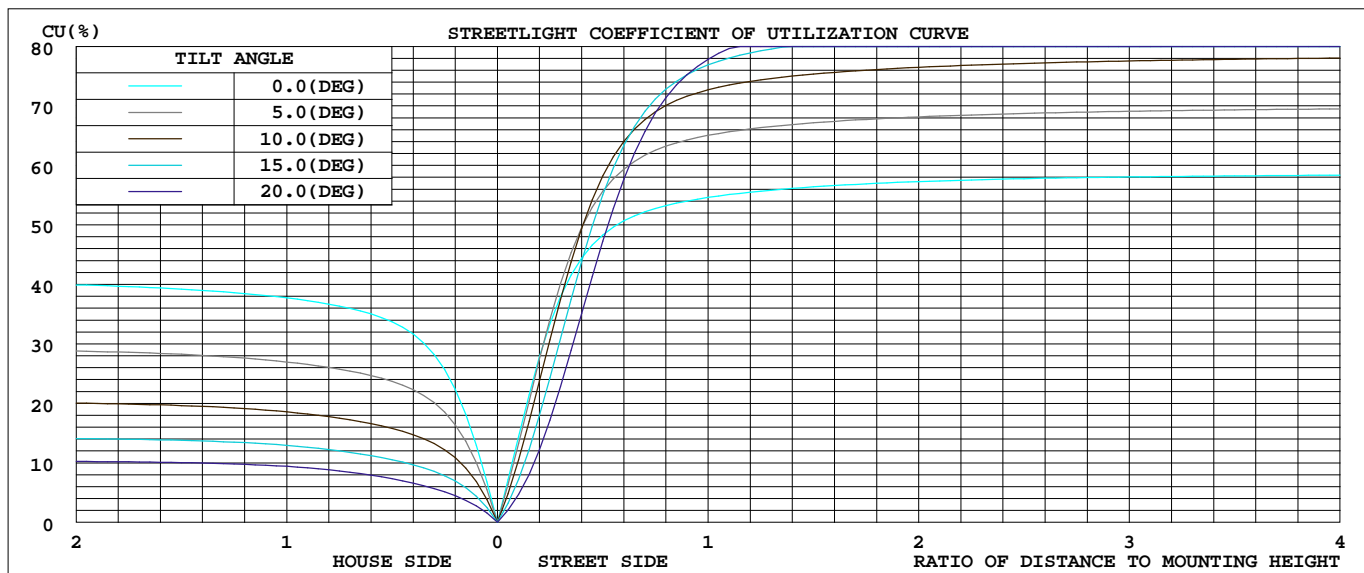
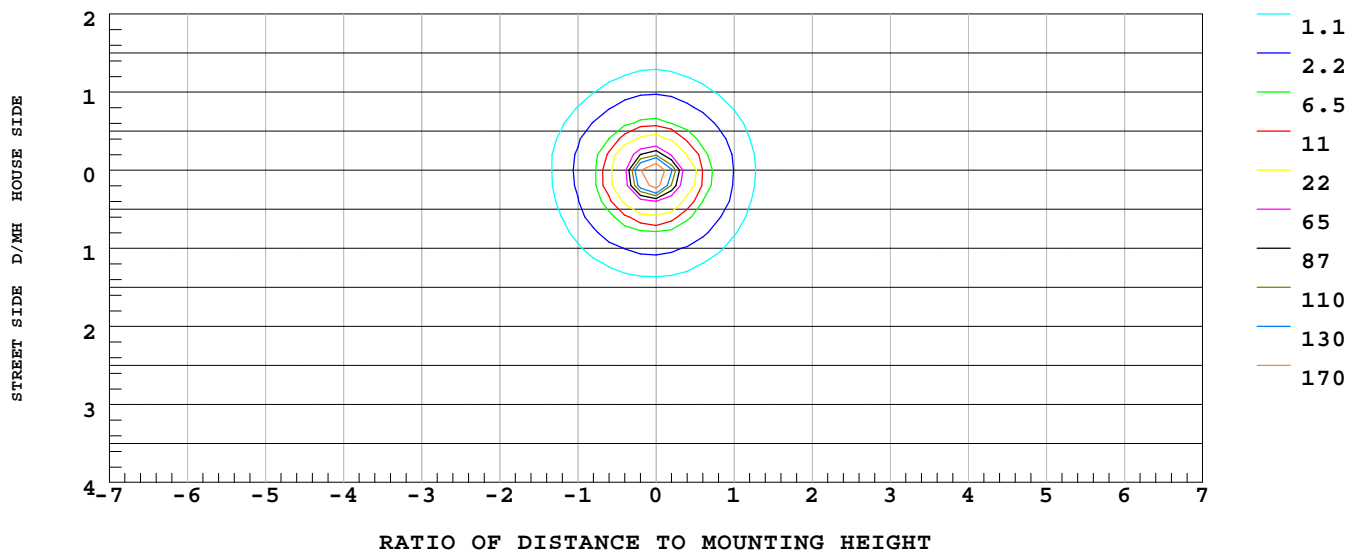
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 217.66 lx



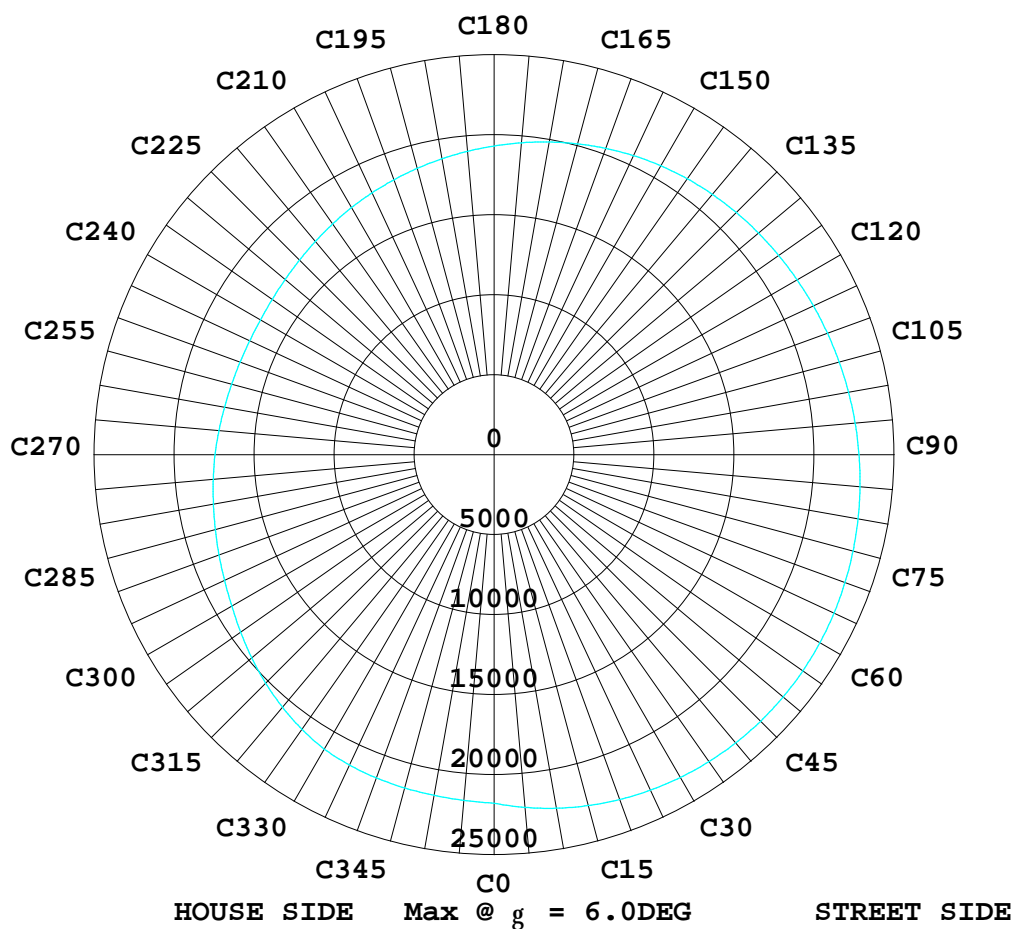
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10日

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: 30°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月10日

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