

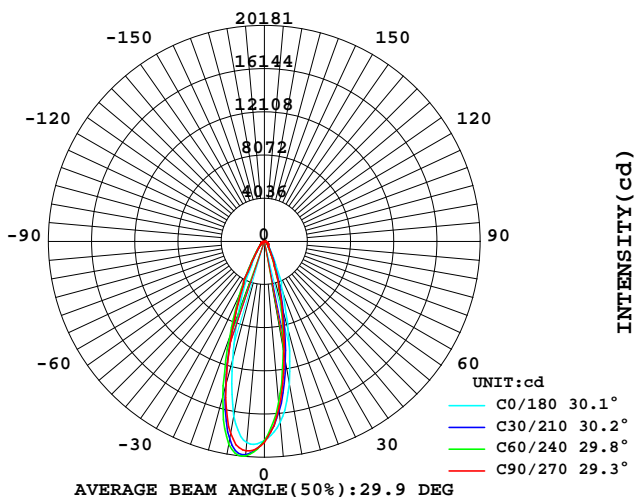
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

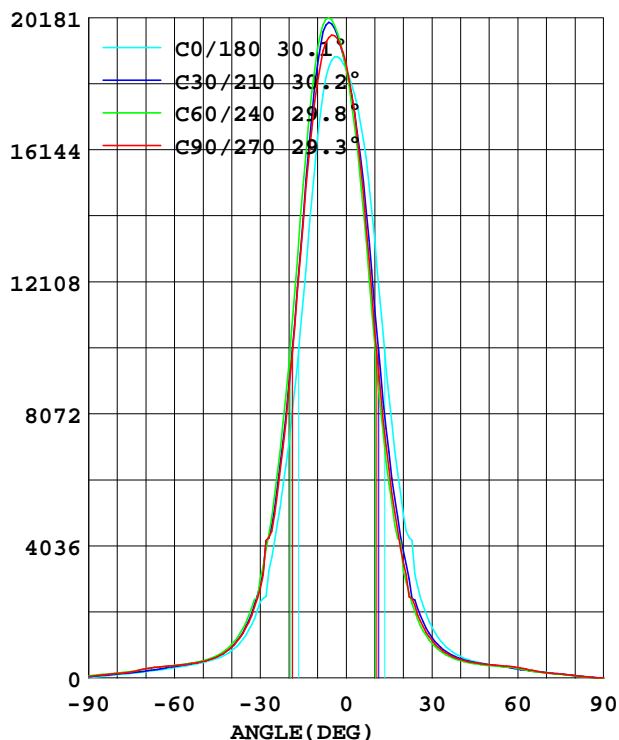
MANUFACTURER:		
Address:		
NAME: 30°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I <sub>max</sub> (cd)	20181	S/MH(C0/180)	0.57
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.61
NOMINAL POWER(W)	58	TOTAL FLUX(lm)	8085.6	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	140.8	Current(A)	0.271
NOMINAL FLUX(lm)	8085.7	h up(%)	0.1	Power(W)	57.43
LAMPS QUANTITY	1	h down(%)	99.9	Power Factor(PF)	0.967
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	6069.4	EEI	0.129

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



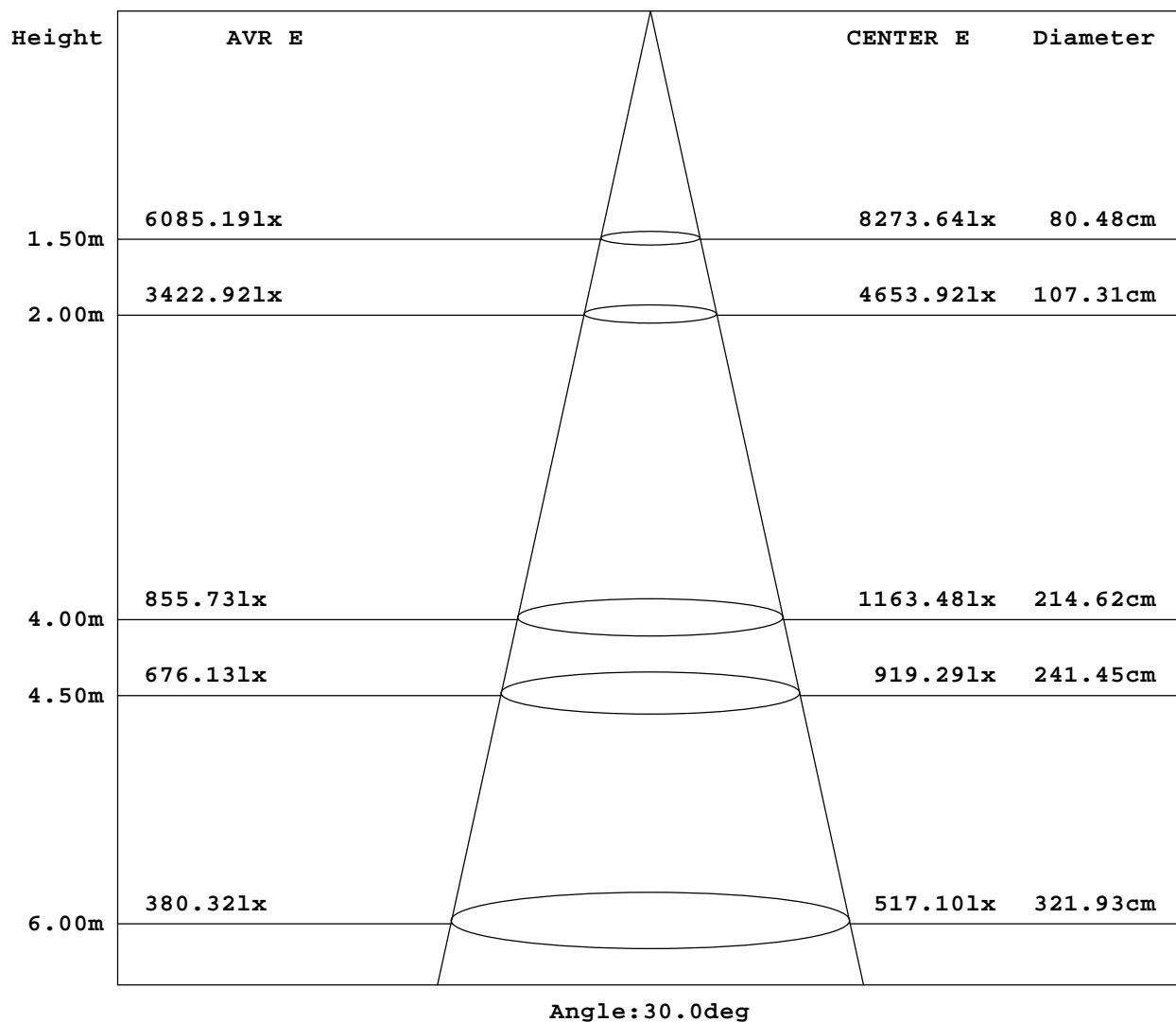
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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°57W	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°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	1887	2005	1965	1861	1696	1555	1567	1768	0- 5	439.0	439.0
10.0	1654	1900	1822	1610	1345	1080	1065	1391	5- 10	1175	1614
15.0	1154	1456	1388	1128	859.9	642.1	640.6	902.9	10- 15	1477	3091
20.0	713.7	923.1	879.8	672.2	499.6	358.3	353.8	530.8	15- 20	1325	4415
25.0	420.0	540.7	500.8	379.5	282.5	197.2	194.3	297.6	20- 25	991.8	5407
30.0	232.2	293.7	273.5	207.0	155.9	115.5	115.4	168.0	25- 30	669.3	6076
35.0	130.4	163.1	153.7	119.9	94.49	75.26	75.78	100.1	30- 35	439.5	6516
40.0	83.65	98.50	93.28	78.14	65.73	55.81	56.27	68.00	35- 40	306.9	6823
45.0	60.15	67.67	65.40	57.22	50.35	45.58	46.68	51.99	40- 45	237.3	7060
50.0	47.30	51.91	50.69	45.69	41.02	39.39	40.78	42.75	45- 50	201.0	7261
55.0	38.71	42.92	42.62	38.61	34.16	34.49	36.93	36.53	50- 55	179.9	7441
60.0	31.49	36.73	37.86	33.35	28.23	28.33	32.20	30.79	55- 60	163.1	7604
65.0	25.39	30.74	34.04	27.64	22.35	20.89	23.59	23.79	60- 65	141.7	7746
70.0	19.51	24.38	28.26	21.26	16.97	15.76	16.33	17.70	65- 70	115.6	7862
75.0	14.51	18.27	18.90	15.82	12.09	11.41	11.96	13.17	70- 75	89.54	7951
80.0	9.856	13.53	13.78	11.39	7.593	6.970	7.339	8.961	75- 80	65.61	8017
85.0	5.464	9.408	9.360	7.261	3.189	2.233	2.124	4.423	80- 85	42.52	8059
90.0	1.035	4.968	4.762	2.729	0	0	0.322	0.618	85- 90	19.53	8079
95.0	0	0.951	0.528	0.578	0	0	0.104	0	90- 95	5.072	8084
100.0	0	0.379	0.310	0.300	0	0	0	0	95-100	1.111	8085
105.0	0	0.161	0	0.113	0	0	0	0	100-105	0.492	8086
110.0	0	0	0	0	0	0	0	0	105-110	0.071	8086
115.0	0	0	0	0	0	0	0	0	110-115	0	8086
120.0	0	0	0	0	0	0	0	0	115-120	0	8086
125.0	0	0	0	0	0	0	0	0	120-125	0	8086
130.0	0	0	0	0	0	0	0	0	125-130	0	8086
135.0	0	0	0	0	0	0	0	0	130-135	0	8086
140.0	0	0	0	0	0	0	0	0	135-140	0	8086
145.0	0	0	0	0	0	0	0	0	140-145	0	8086
150.0	0	0	0	0	0	0	0	0	145-150	0	8086
155.0	0	0	0	0	0	0	0	0	150-155	0	8086
160.0	0	0	0	0	0	0	0	0	155-160	0	8086
165.0	0	0	0	0	0	0	0	0	160-165	0	8086
170.0	0	0	0	0	0	0	0	0	165-170	0	8086
175.0	0	0	0	0	0	0	0	0	170-175	0	8086
180.0	0	0	0	0	0	0	0	0	175-180	0	8086
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:

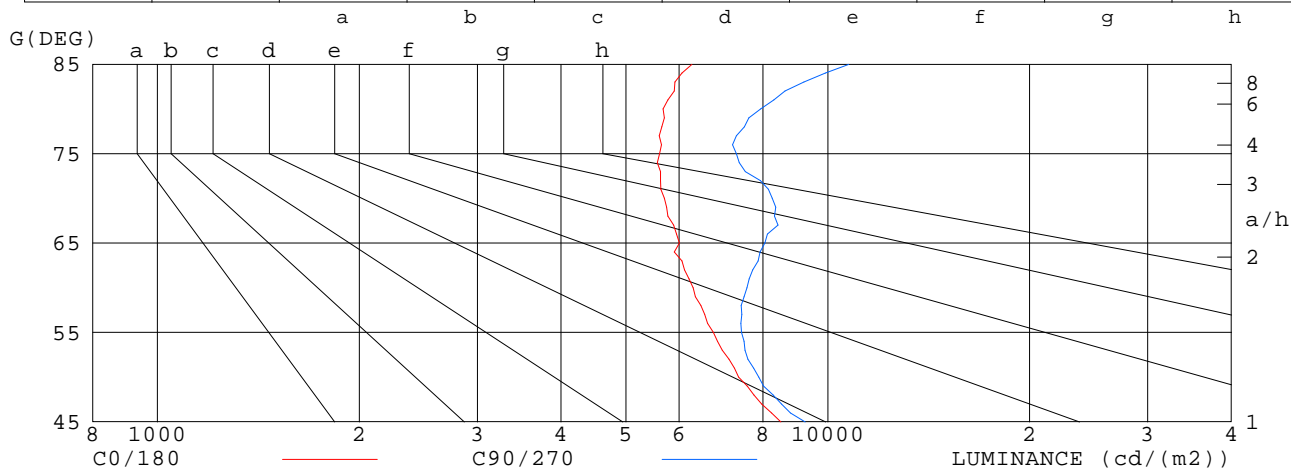
## LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 30°57W	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	6270	10740
80	5676	7941
75	5608	7305
70	5705	8263
65	6009	8056
60	6298	7574
55	6750	7431
50	7360	7887
45	8507	9250

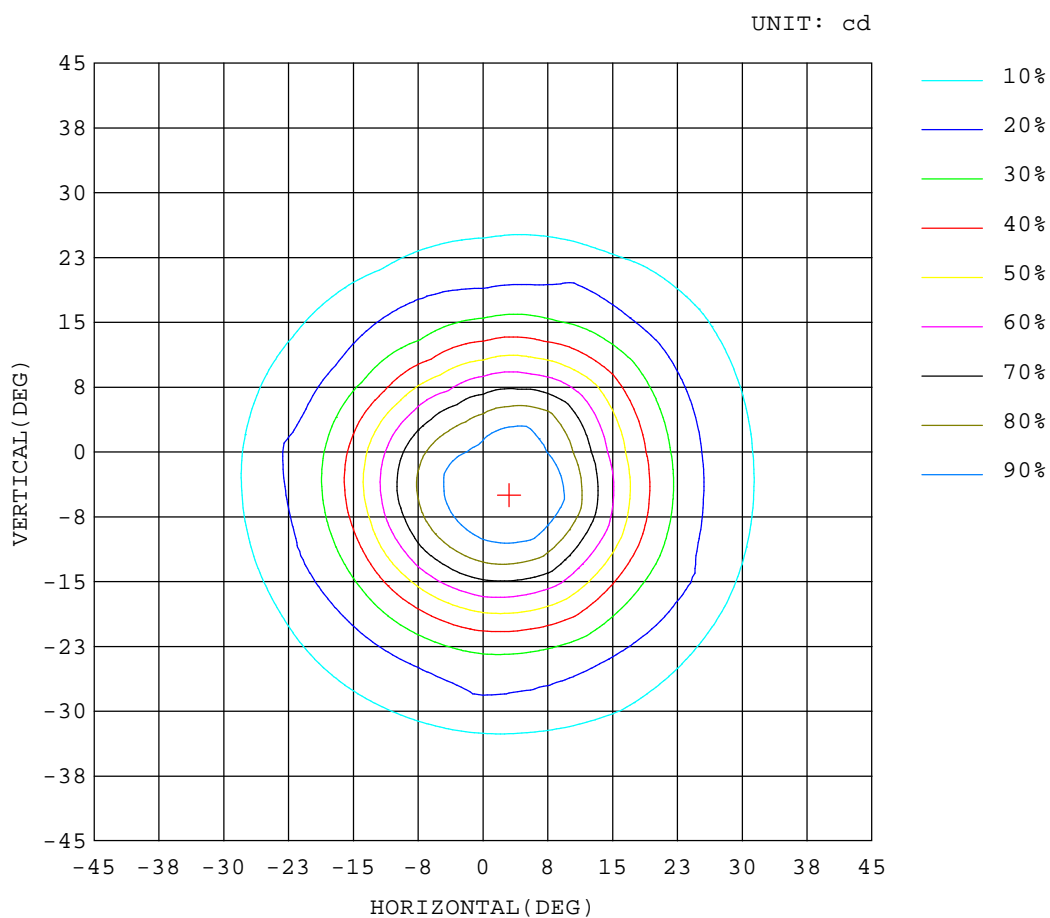
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



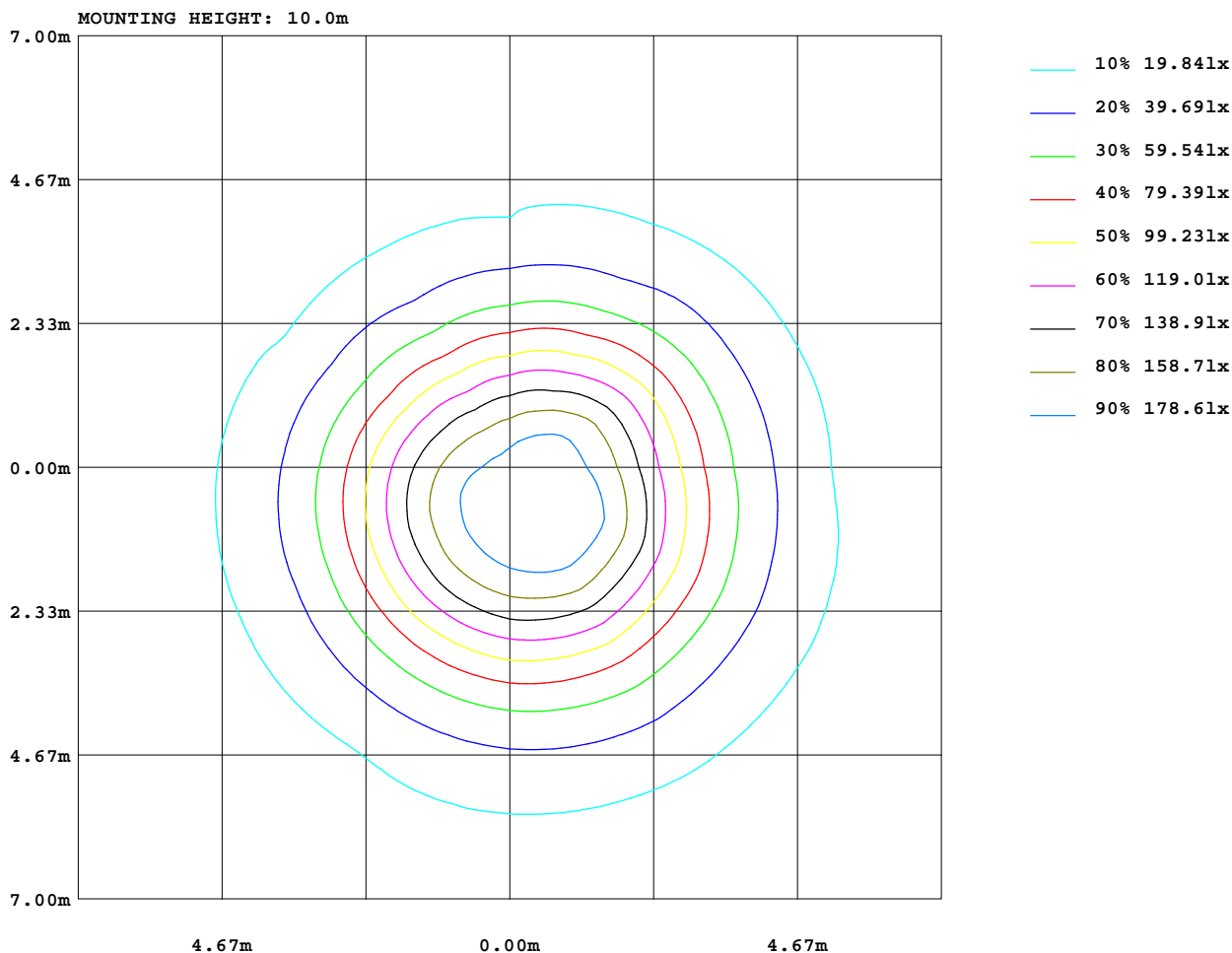
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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°57W	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°57W									TYPE:						WEIGHT:		
SPECIFICATION:									DIMENSION: 576*188mm						SERIAL No.:		

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm				Φ t	Φ a
	1.79	2.14	2.42	2.67	2.90	3.17	3.45	3.68	3.83	3.89	3.84	3.68	3.44	3.17	2.90	2.60	2.27	1.93	53.8	0.00				
45																								
40	2.00	2.35	2.68	3.01	3.35	3.73	4.19	4.59	4.87	5.00	4.93	4.65	4.24	3.82	3.40	2.97	2.55	2.14	64.5	0.00				
35	2.18	2.58	3.01	3.51	4.08	4.72	5.55	6.36	6.93	7.20	7.09	6.53	5.72	4.95	4.17	3.48	2.89	2.38	83.3	0.00				
30	2.35	2.84	3.45	4.25	5.29	6.54	8.07	9.84	11.1	11.7	11.5	10.2	8.60	6.95	5.42	4.21	3.31	2.63	118	0.00				
25	2.52	3.16	4.04	5.35	7.26	9.82	12.8	16.4	19.1	20.9	20.9	17.5	13.9	10.4	7.41	5.25	3.83	2.90	184	94.1				
20	2.70	3.53	4.82	6.90	10.3	15.1	21.8	29.4	35.3	38.2	36.9	32.1	23.4	15.7	10.3	6.60	4.44	3.19	301	240				
15	2.89	3.94	5.77	9.03	14.5	23.3	36.0	48.3	60.4	66.5	62.9	51.8	37.2	23.1	13.7	8.18	5.10	3.48	477	426				
	3.05	4.34	6.75	11.4	20.4	34.2	53.9	76.6	94.8	105	99.7	78.3	51.9	31.2	16.9	9.75	5.73	3.73	708	664				
	3.17	4.65	7.56	13.5	26.1	44.7	73.8	105	126	137	129	98.7	63.5	37.4	19.6	10.9	6.18	3.91	912	872				
	3.22	4.77	7.91	14.5	28.6	50.0	84.4	121	142	149	142	109	69.8	40.4	21.2	11.5	6.37	3.98	1011	971				
	3.18	4.68	7.69	13.9	27.0	47.3	80.1	116	139	148	139	107	68.1	39.4	21.2	11.1	6.25	3.93	984	945				
-15	3.07	4.42	6.99	12.1	22.5	39.1	64.7	95.0	117	125	115	86.5	56.8	34.4	18.8	10.0	5.83	3.78	822	780				
-20	2.91	4.03	6.05	9.87	16.8	29.2	45.6	64.9	80.8	86.1	78.7	60.9	41.4	26.5	14.8	8.50	5.22	3.53	586	540				
-25	2.71	3.62	5.10	7.76	12.3	18.8	29.0	39.9	48.5	51.3	47.5	38.7	27.6	17.5	10.9	6.87	4.57	3.24	376	321				
-30	2.51	3.23	4.32	6.04	8.75	12.7	17.3	23.3	28.6	30.2	27.5	22.3	16.7	11.7	7.95	5.48	3.94	2.96	236	166				
-35	2.31	2.90	3.68	4.78	6.32	8.37	10.8	13.2	15.1	15.7	14.8	13.0	10.5	7.95	5.89	4.43	3.41	2.69	146	31.7				
-40	2.13	2.61	3.18	3.89	4.78	5.85	6.98	8.06	8.85	9.12	8.79	7.98	6.90	5.66	4.55	3.67	2.99	2.44	98.5	0.00				
-45	1.97	2.36	2.79	3.28	3.82	4.39	4.96	5.47	5.82	5.94	5.79	5.43	4.91	4.32	3.69	3.14	2.65	2.21	73.0	0.00				
	-45	-40	-35	-30	-25	-20	-15	-10	HORIZONTAL (DEG)				10	15	20	25	30	35	40	45				
Φ t	46.7	62.2	88.2	136	225	362	564	788	949	1017	956	755	515	325	193	119	77.6	55.1	8086					
Φ a	0.00	0.00	0.00	32.1	151	299	508	735	899	968	906	703	461	263	117	9.09	0.00	0.00		6069				

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

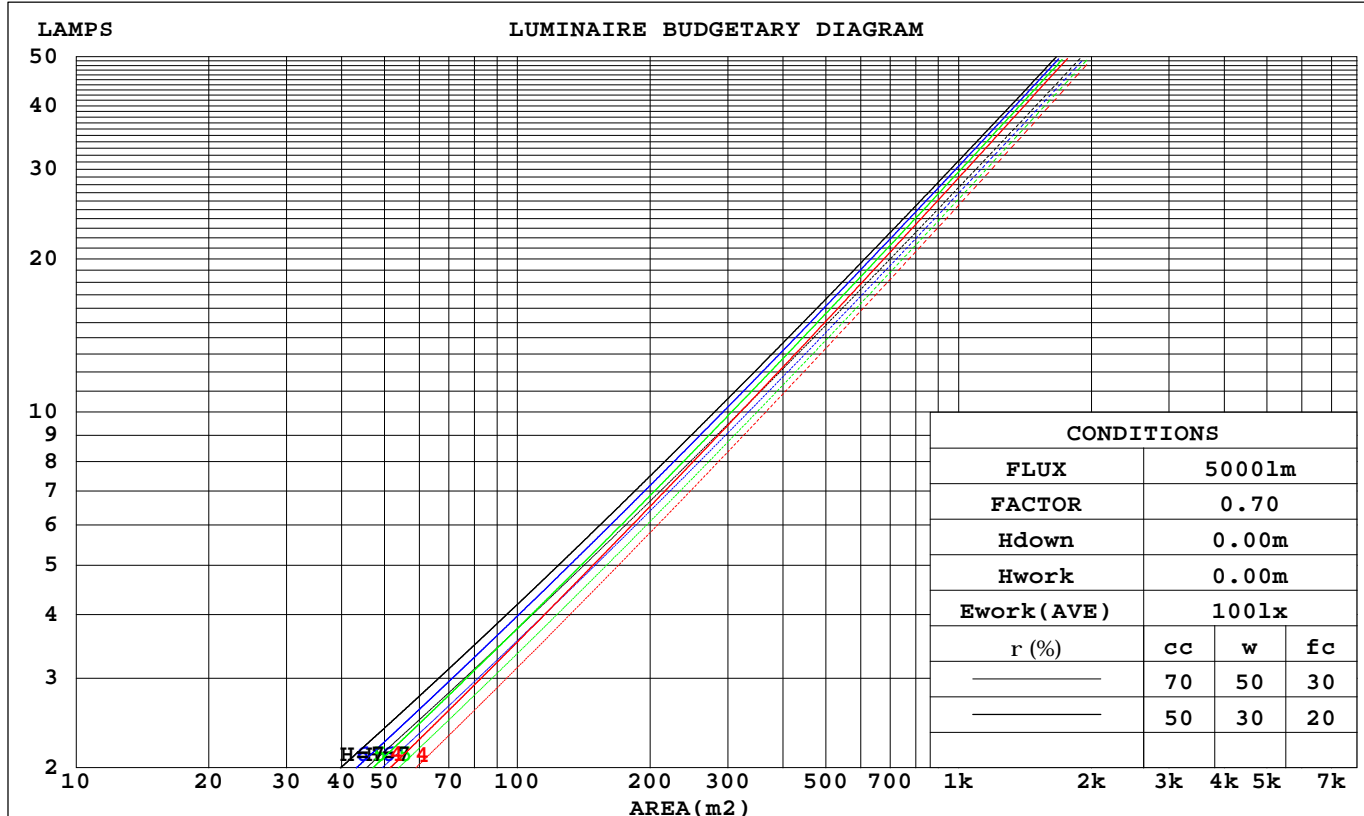
Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 30°57W	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°57W						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	.192	.109	.035	.185	.106	.034	.172	.099	.032	.161	.093	.030	.150	.087	.028															
2.0	.179	.098	.030	.173	.095	.029	.162	.090	.028	.152	.086	.027	.143	.081	.026															
3.0	.166	.089	.027	.161	.086	.026	.152	.083	.025	.144	.079	.024	.136	.075	.023															
4.0	.155	.081	.024	.151	.079	.023	.143	.076	.023	.136	.073	.022	.129	.070	.021															
5.0	.145	.074	.021	.142	.073	.021	.135	.070	.021	.129	.068	.020	.123	.066	.020															
6.0	.137	.069	.020	.134	.067	.019	.128	.065	.019	.122	.063	.019	.117	.062	.018															
7.0	.129	.064	.018	.126	.063	.018	.121	.061	.018	.116	.060	.017	.112	.058	.017															
8.0	.122	.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	.052	.015	.105	.051	.014	.101	.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	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.173	.158	.144	.148	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.158	.133	.112	.135	.115	.097	.093	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.145	.114	.090	.124	.099	.078	.085	.068	.054	.049	.040	.032	.016	.013	.011	
4.0	.134	.100	.073	.115	.086	.063	.079	.060	.045	.046	.035	.026	.015	.011	.009	
5.0	.125	.088	.060	.107	.076	.053	.074	.053	.037	.043	.031	.022	.014	.010	.007	
6.0	.117	.078	.051	.100	.068	.044	.069	.048	.031	.040	.028	.019	.013	.009	.006	
7.0	.110	.071	.043	.094	.061	.038	.065	.043	.027	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.089	.056	.033	.062	.039	.023	.036	.023	.014	.012	.008	.005	
9.0	.098	.059	.033	.084	.051	.029	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.093	.054	.029	.080	.047	.025	.056	.033	.018	.032	.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°57W					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	16.2	17.2	16.5	17.3	17.5	16.9	17.9	17.2	18.0	18.2
3H	17.3	18.2	17.6	18.4	18.6	18.5	19.4	18.8	19.6	19.8
4H	17.9	18.7	18.1	18.9	19.1	19.2	20.0	19.4	20.2	20.4
6H	18.3	19.1	18.6	19.3	19.6	19.7	20.5	20.0	20.8	21.0
8H	18.5	19.3	18.8	19.5	19.8	20.0	20.8	20.3	21.0	21.3
12H	18.7	19.4	19.0	19.7	20.0	20.3	21.1	20.7	21.3	21.6
4H 2H	16.8	17.7	17.1	17.9	18.1	17.4	18.2	17.7	18.5	18.7
3H	18.1	18.9	18.5	19.1	19.4	19.3	20.0	19.6	20.3	20.5
4H	18.8	19.5	19.2	19.8	20.1	20.1	20.7	20.4	21.0	21.3
6H	19.4	20.0	19.8	20.4	20.7	20.8	21.4	21.2	21.7	22.1
8H	19.7	20.3	20.1	20.6	21.0	21.2	21.7	21.6	22.1	22.5
12H	20.0	20.5	20.4	20.8	21.2	21.6	22.1	22.0	22.5	22.9
8H 4H	19.2	19.8	19.6	20.1	20.5	20.3	20.8	20.7	21.2	21.6
6H	20.1	20.5	20.5	20.9	21.3	21.3	21.7	21.7	22.1	22.6
8H	20.5	20.9	20.9	21.3	21.7	21.8	22.2	22.3	22.7	23.1
12H	20.8	21.2	21.3	21.6	22.1	22.4	22.8	22.9	23.2	23.7
12H 4H	19.3	19.8	19.7	20.2	20.6	20.3	20.8	20.7	21.2	21.6
6H	20.2	20.6	20.7	21.0	21.5	21.4	21.8	21.8	22.2	22.6
8H	20.7	21.1	21.2	21.5	22.0	22.0	22.4	22.5	22.8	23.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.3 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.3 / - 0.3					+ 0.3 / - 0.2				
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.2				

CIE Pub.117 Corrected 8086 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.3)

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°57W	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	75	70	81	75	70	81	74	70	66
0.80	90	83	78	89	82	78	88	82	78	74
1.00	95	88	84	94	88	83	92	88	83	78
1.25	99	93	89	98	92	88	96	91	88	83
1.50	102	97	92	101	96	92	99	94	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	90
3.00	110	106	102	108	104	101	104	101	99	92
4.00	112	109	106	110	107	105	106	104	102	94
5.00	114	111	109	111	109	107	107	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

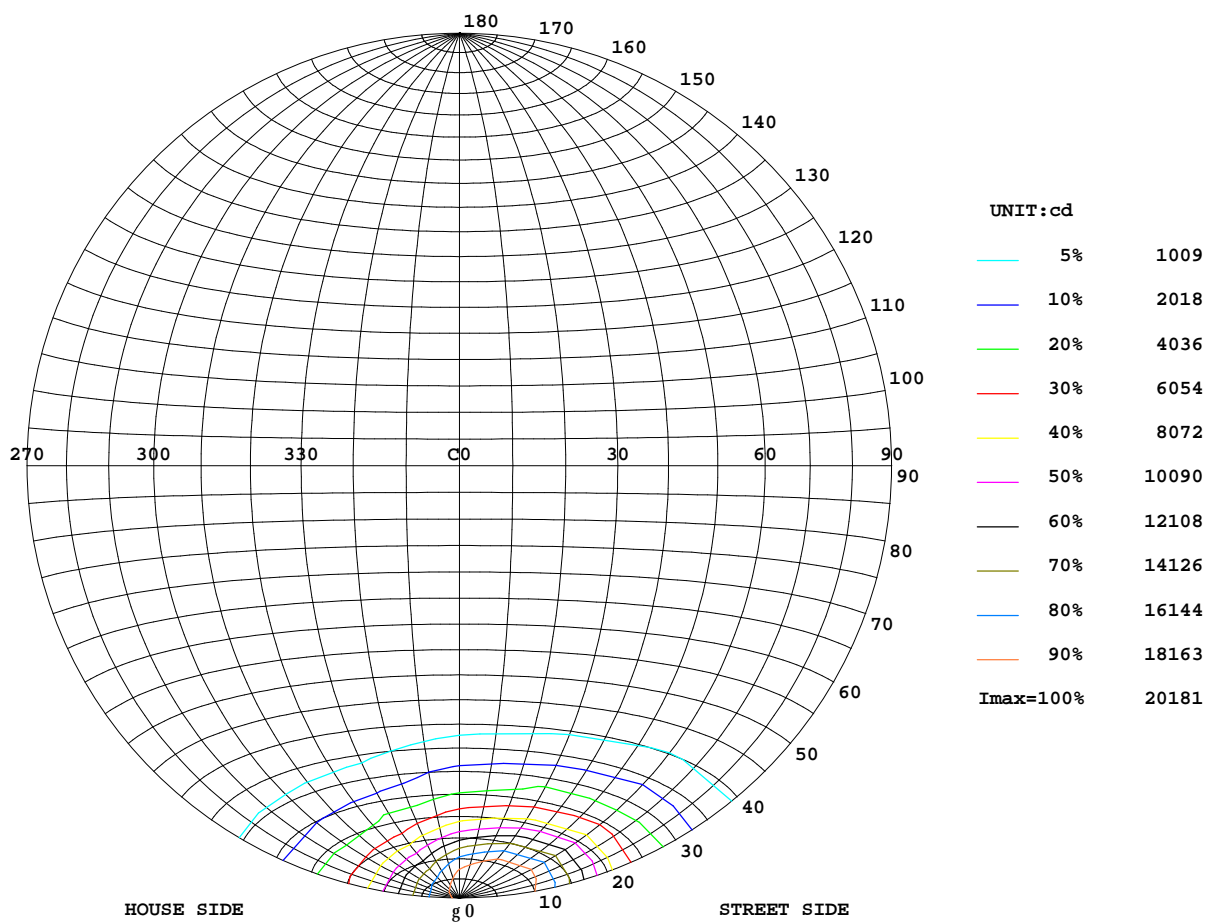
Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月10日

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°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



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

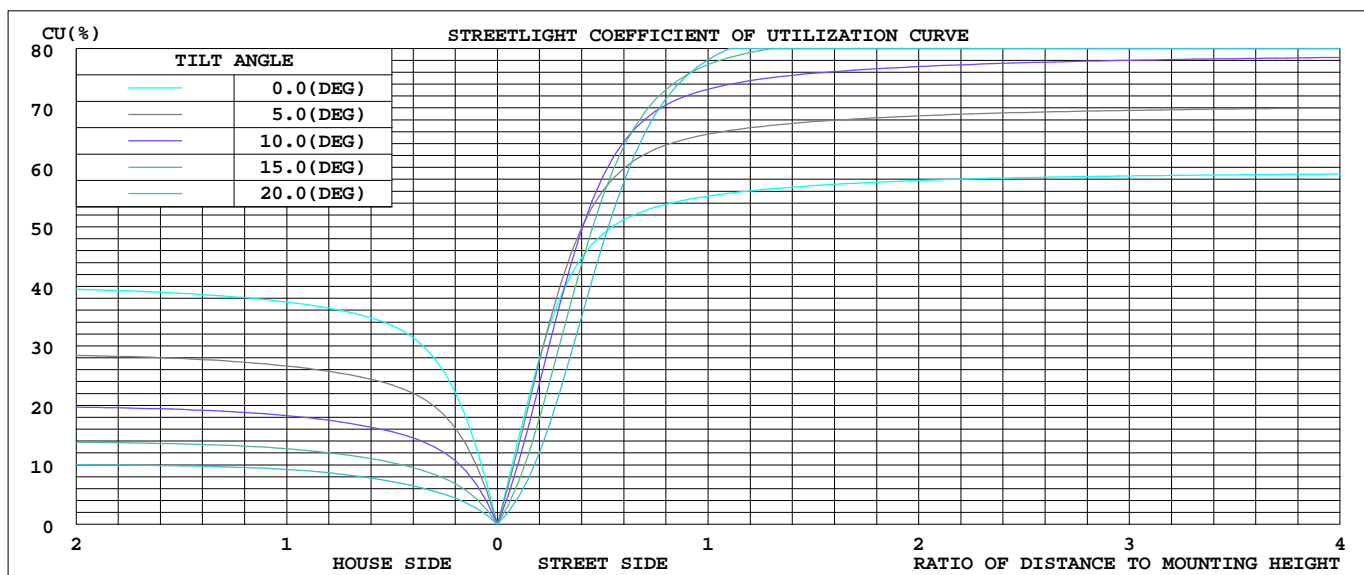
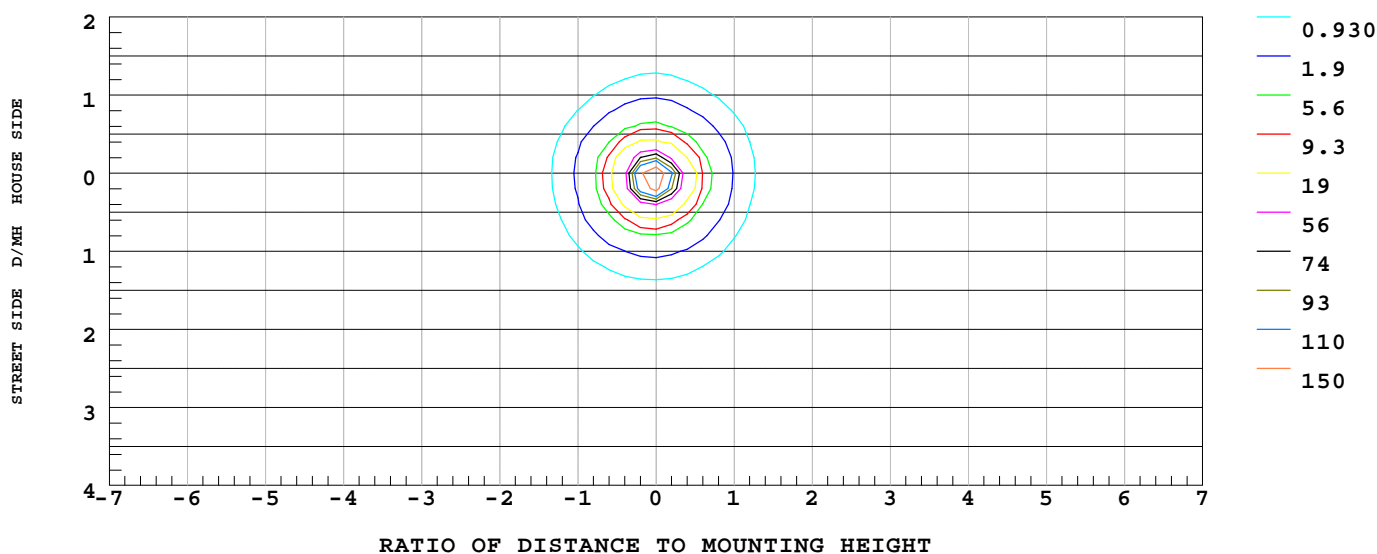
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 30°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 186.16 lx



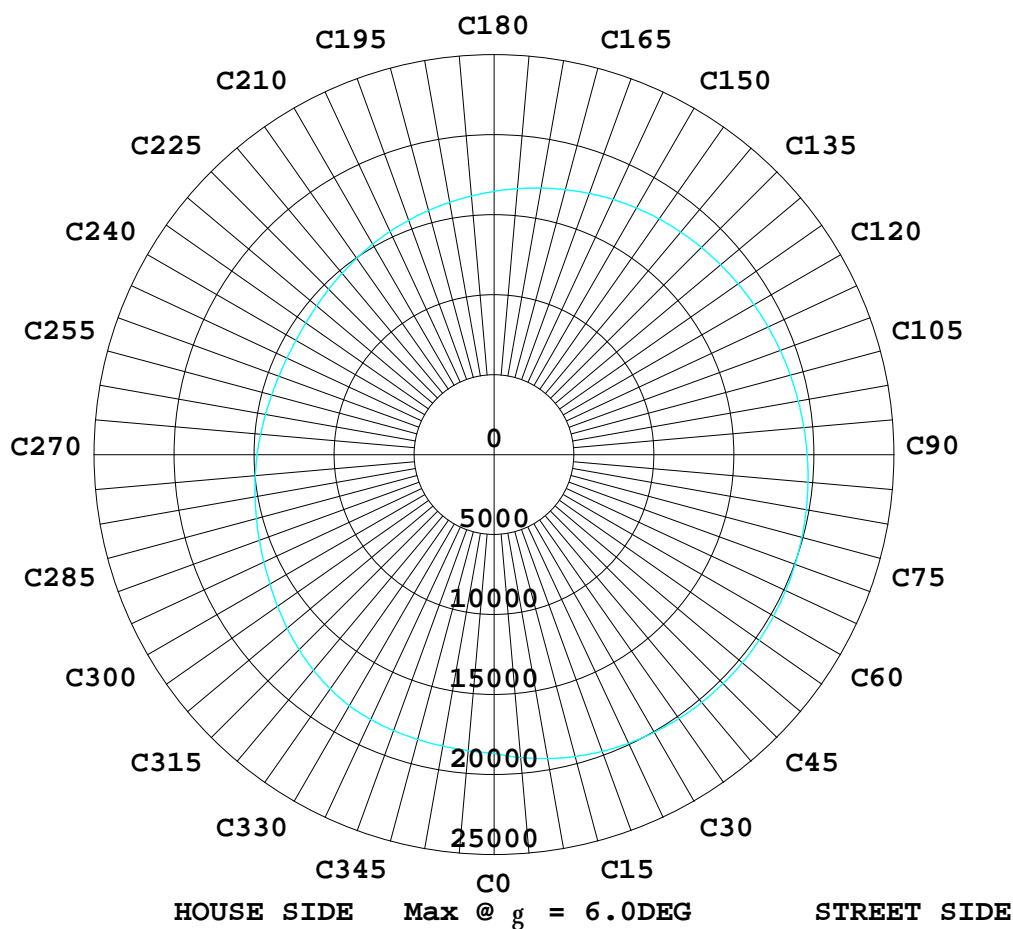
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月10日

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°57W	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: