

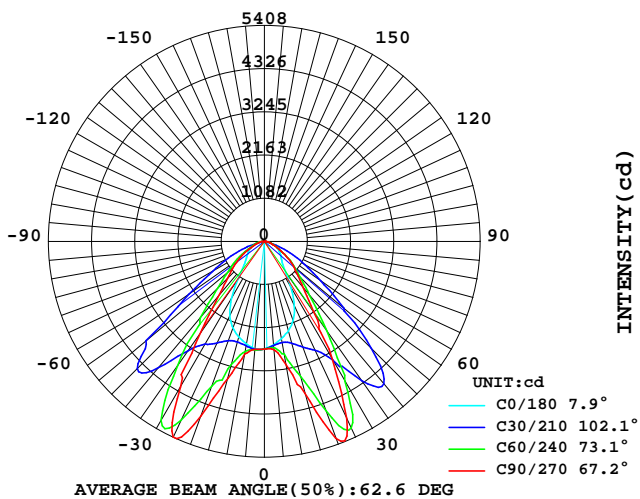
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

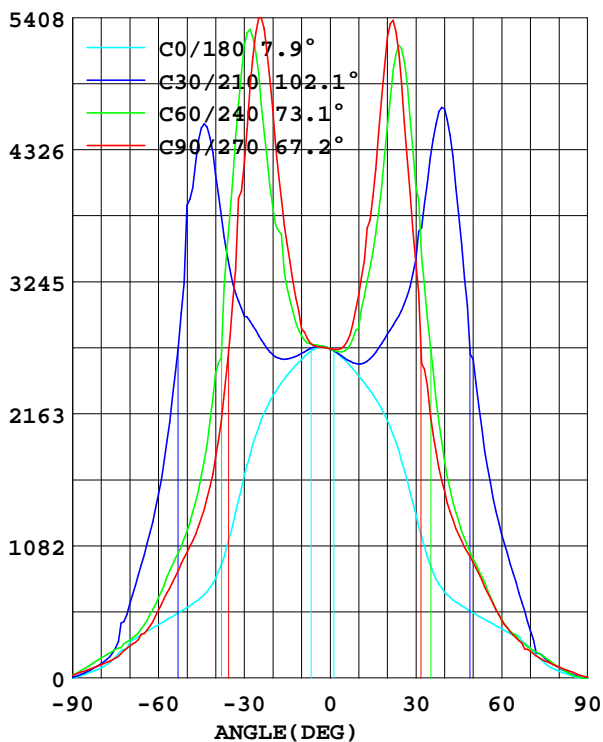
MANUFACTURER:		
Address:		
NAME: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	5408	S/MH(C0/180)	0.98
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.26
NOMINAL POWER(W)	58	TOTAL FLUX(lm)	8233.2	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	144.0	Current(A)	0.270
NOMINAL FLUX(lm)	8233.2	h up(%)	0.0	Power(W)	57.16
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.966
TEST VOLTAGE(V)	218.6	Effective Flux(lm)	7650.2	EEI	0.102

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



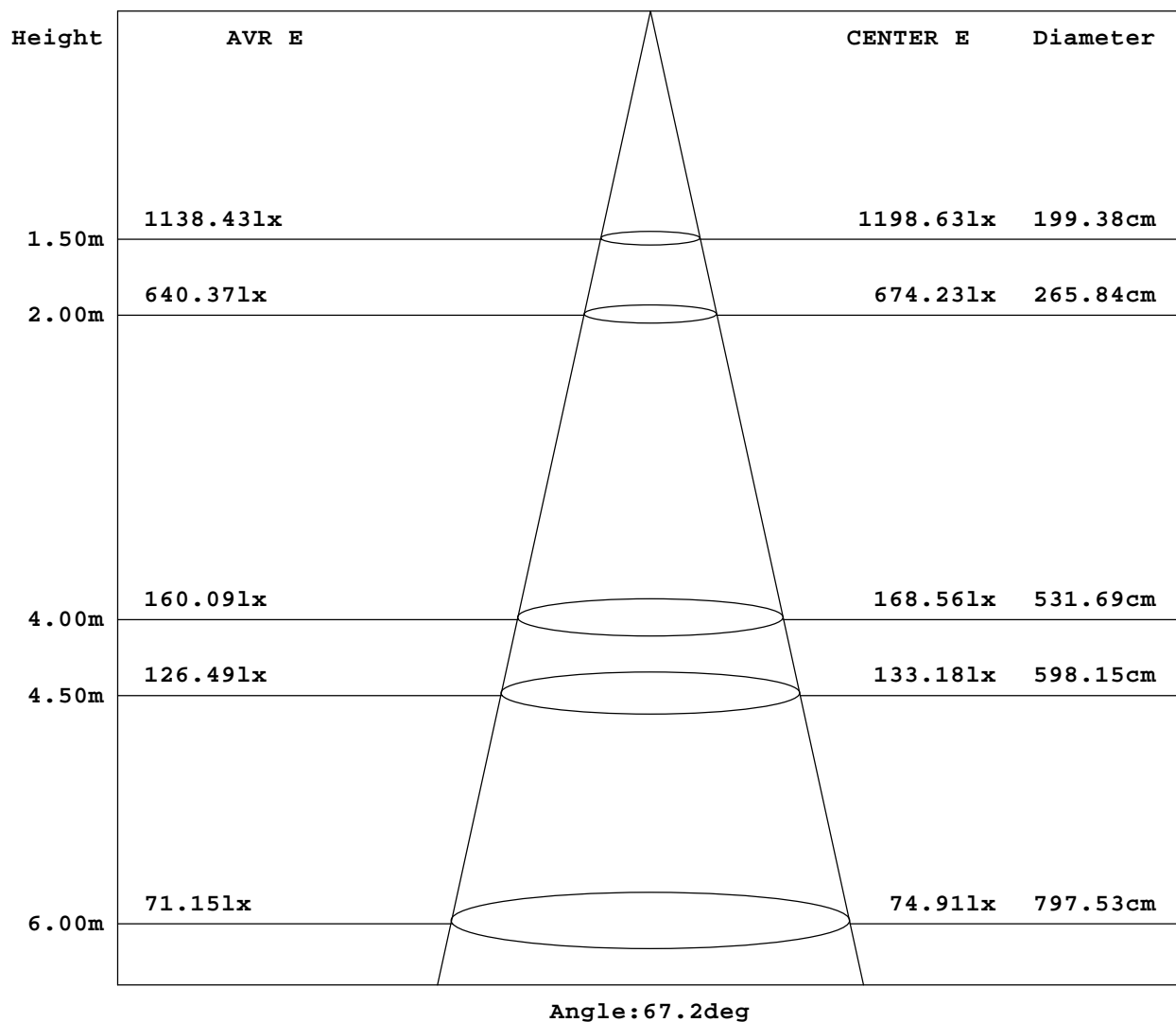
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators:
 Test Date: 2019年08月14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: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	2698	2720	2717	2650	2606	2649	2721	2710	0- 5	64.28	64.28
10.0	2607	2730	2857	2653	2474	2716	3129	2782	5- 10	193.5	257.8
15.0	2480	2902	3551	2863	2322	3064	3943	3117	10- 15	341.4	599.2
20.0	2308	3254	4654	3286	2108	3663	5245	3700	15- 20	538.3	1138
25.0	2049	3877	5404	3928	1778	4081	4884	4236	20- 25	783.9	1922
30.0	1657	4070	4212	3972	1344	3726	3402	3970	25- 30	942.3	2864
35.0	1165	3571	2784	3579	923.3	3494	2161	3606	30- 35	948.8	3813
40.0	813.7	3310	1805	3376	702.1	3213	1529	3362	35- 40	922.2	4735
45.0	663.1	3082	1311	2799	609.1	2537	1172	2816	40- 45	894.7	5630
50.0	575.7	2536	1028	1952	533.4	1793	944.7	2037	45- 50	768.9	6399
55.0	503.1	1619	786.3	1346	466.5	1221	699.6	1457	50- 55	595.6	6994
60.0	437.0	1082	556.9	891.1	404.6	829.4	472.8	940.3	55- 60	437.9	7432
65.0	367.7	718.2	362.9	617.1	343.7	570.4	329.7	673.3	60- 65	318.7	7751
70.0	290.3	457.0	262.0	371.9	241.2	312.1	220.1	400.5	65- 70	222.8	7974
75.0	175.5	242.0	163.6	188.3	124.7	167.2	141.2	194.2	70- 75	130.9	8105
80.0	83.56	140.5	109.3	112.3	56.21	86.58	90.70	114.1	75- 80	75.14	8180
85.0	35.64	69.58	64.20	46.47	13.38	23.72	44.60	46.89	80- 85	39.65	8220
90.0	0	14.59	19.67	7.175	0	0	7.211	5.336	85- 90	12.37	8232
95.0	0	0.520	0	0	0	0	0	0	90- 95	1.185	8233
100.0	0	0	0	0	0	0	0	0	95-100	0.005	8233
105.0	0	0	0	0	0	0	0	0	100-105	0	8233
110.0	0	0	0	0	0	0	0	0	105-110	0	8233
115.0	0	0	0	0	0	0	0	0	110-115	0	8233
120.0	0	0	0	0	0	0	0	0	115-120	0	8233
125.0	0	0	0	0	0	0	0	0	120-125	0	8233
130.0	0	0	0	0	0	0	0	0	125-130	0	8233
135.0	0	0	0	0	0	0	0	0	130-135	0	8233
140.0	0	0	0	0	0	0	0	0	135-140	0	8233
145.0	0	0	0	0	0	0	0	0	140-145	0	8233
150.0	0	0	0	0	0	0	0	0	145-150	0	8233
155.0	0	0	0	0	0	0	0	0	150-155	0	8233
160.0	0	0	0	0	0	0	0	0	155-160	0	8233
165.0	0	0	0	0	0	0	0	0	160-165	0	8233
170.0	0	0	0	0	0	0	0	0	165-170	0	8233
175.0	0	0	0	0	0	0	0	0	170-175	0	8233
180.0	0	0	0	0	0	0	0	0	175-180	0	8233
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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

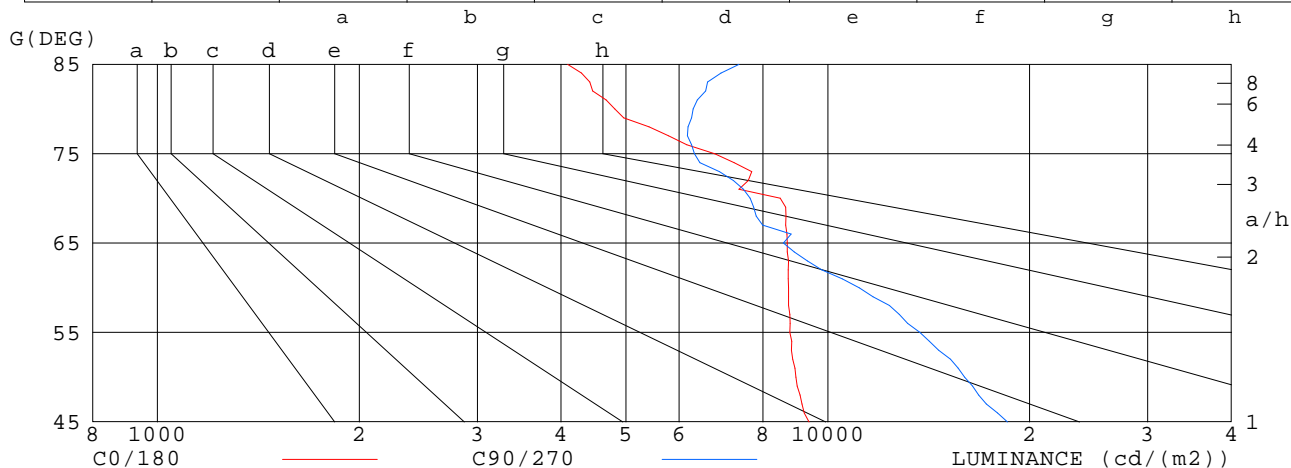
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+60°+25°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	4090	7366
80	4812	6296
75	6782	6324
70	8489	7661
65	8703	8588
60	8740	11138
55	8773	13709
50	8958	15990
45	9378	18542

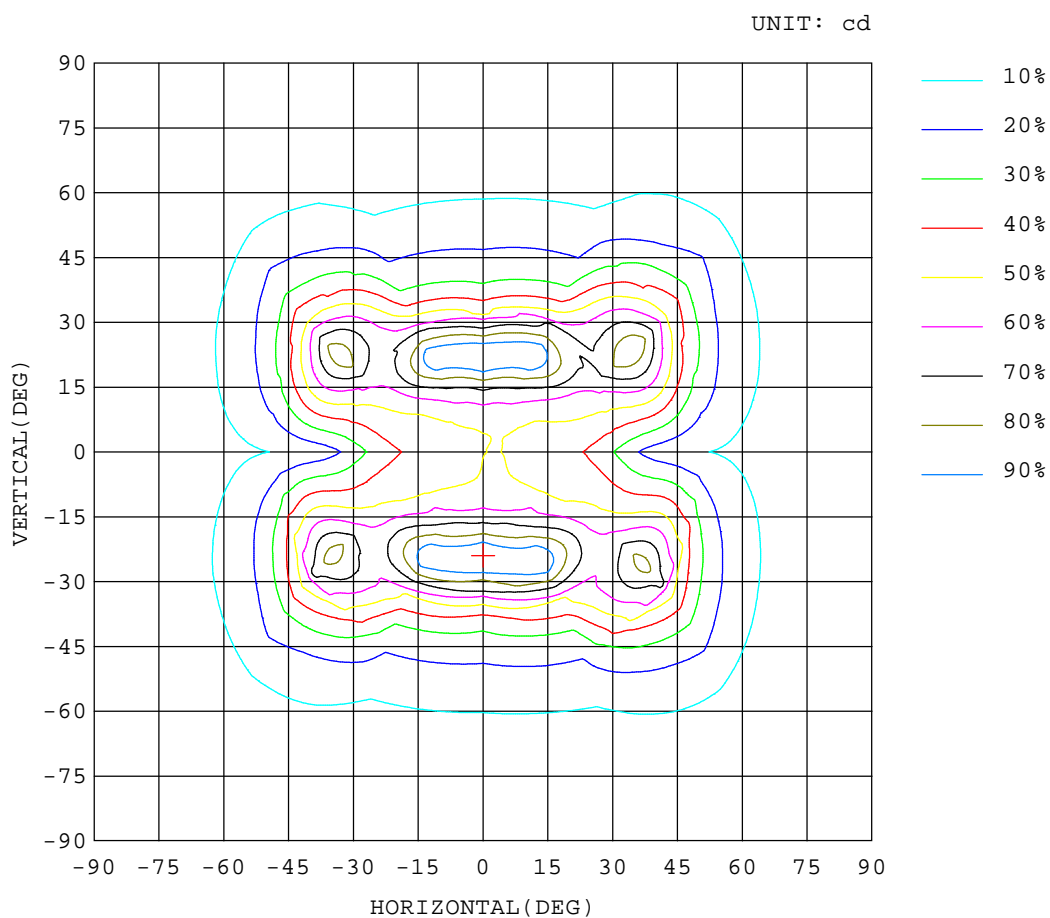
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



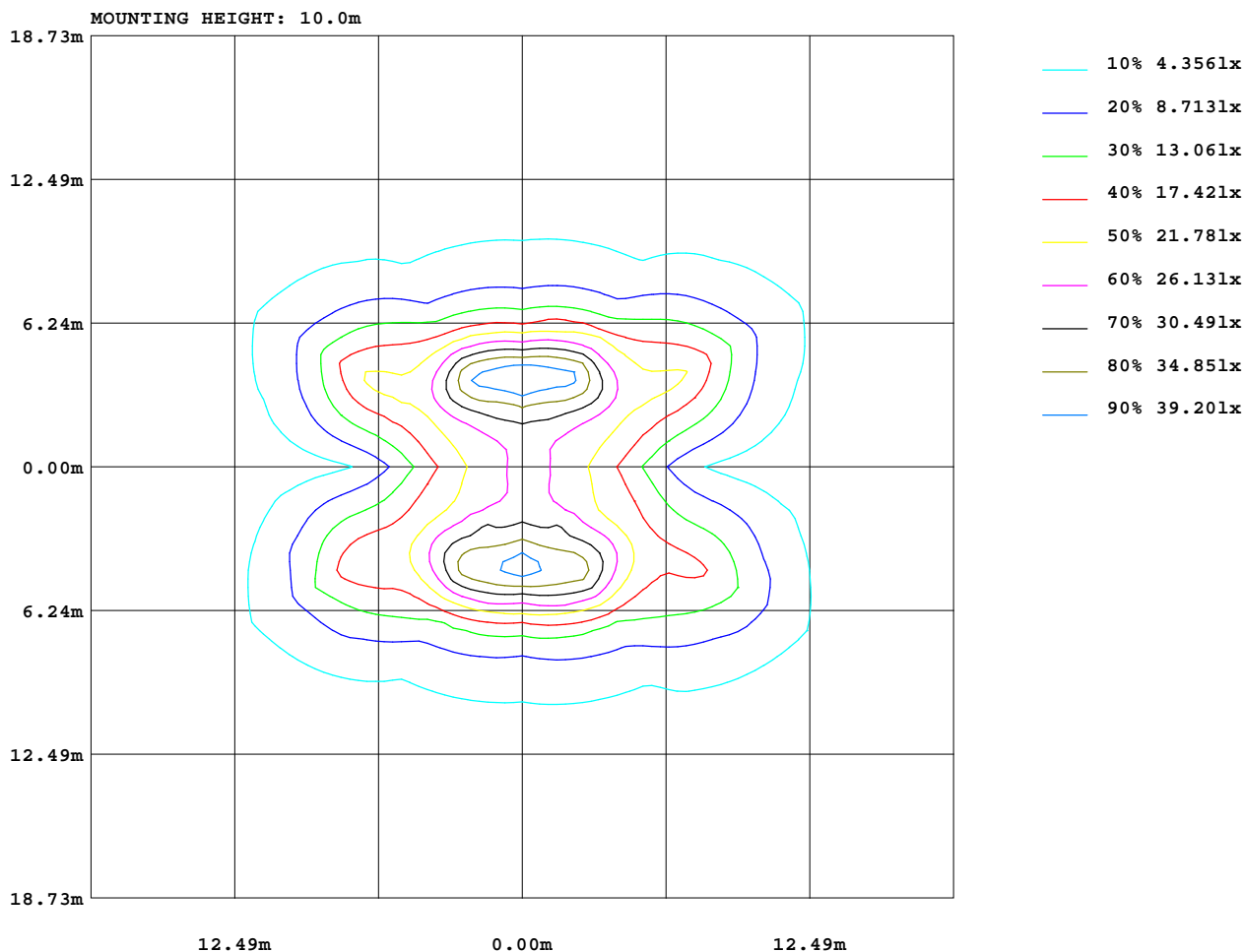
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14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: 25°+60°+25°57W										TYPE:					WEIGHT:				
SPECIFICATION:										DIMENSION: 576*188mm					SERIAL No.:				

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a				
	0.00	0.01	0.08	0.20	0.34	0.50	0.74	1.03	1.26	1.35	1.29	1.13	0.94	0.73	0.53	0.29	0.10	0.01	10.5	0.00						
90	0.00	0.10	0.49	1.17	2.05	3.08	3.92	4.37	4.49	4.58	4.62	4.32	3.62	2.67	1.69	0.83	0.27	0.03	42.3	0.00						
80	0.01	0.27	1.08	2.59	4.93	7.20	8.03	9.28	10.0	10.1	9.69	8.61	8.57	6.42	3.41	1.52	0.46	0.05	92.3	0.00						
70	0.03	0.45	1.79	5.85	12.3	15.7	15.9	19.0	21.1	21.5	20.1	17.6	18.0	15.3	8.28	2.43	0.67	0.08	197	150						
60	0.04	0.62	2.95	11.5	22.9	31.5	32.2	33.5	36.4	37.0	34.9	35.1	36.6	26.7	14.5	4.11	0.89	0.10	362	351						
50	0.06	0.80	4.46	15.1	37.2	61.1	65.8	63.5	70.3	72.9	68.7	70.6	69.6	44.4	17.6	5.80	1.11	0.11	670	660						
40	0.07	0.96	5.37	16.3	46.1	98.1	100	121	141	143	129	104	105	53.8	19.0	6.54	1.33	0.13	1091	1082						
30	0.07	1.07	5.43	15.0	41.5	81.3	90.1	109	119	120	111	93.5	84.0	46.8	17.3	6.30	1.45	0.13	944	933						
-30	0.08	1.12	4.81	10.9	24.3	42.6	60.6	74.3	82.2	83.9	77.8	66.7	47.0	26.9	12.1	5.38	1.48	0.14	623	606						
	0.08	1.13	4.86	11.1	25.2	40.3	58.5	72.1	80.6	82.6	75.2	63.0	42.4	27.4	12.7	5.44	1.50	0.14	605	588						
	0.07	1.09	5.59	15.5	44.7	76.5	83.7	101	108	107	99.6	82.3	71.2	50.3	18.6	6.46	1.52	0.13	873	863						
	0.07	0.97	5.64	16.8	50.5	101	101	133	150	150	138	98.8	99.6	61.4	20.6	6.73	1.42	0.13	1135	1126						
	0.05	0.80	4.74	15.6	39.6	67.9	73.1	77.9	89.3	92.5	85.1	76.5	79.0	49.8	19.0	6.14	1.16	0.11	779	770						
-40	0.04	0.62	3.15	12.4	24.0	34.4	36.5	38.4	41.4	42.6	41.1	41.1	41.6	29.6	15.1	4.67	0.90	0.10	408	397						
-50	0.03	0.44	1.81	6.45	13.5	17.3	18.7	22.1	23.9	24.4	23.5	21.0	20.5	16.3	9.38	2.79	0.67	0.08	223	198						
-60	0.01	0.26	1.07	2.70	5.56	8.22	9.21	10.6	11.5	11.7	11.4	10.2	9.90	7.74	4.03	1.52	0.46	0.05	106	2.85						
-70	0.00	0.10	0.48	1.28	2.56	4.06	5.13	5.43	5.41	5.53	5.76	5.61	4.75	3.23	1.81	0.82	0.26	0.03	52.3	0.00						
-80	0.00	0.01	0.07	0.29	0.72	1.27	1.72	1.91	1.97	2.07	2.21	2.19	1.77	1.13	0.60	0.26	0.09	0.01	18.3	0.00						
-90																										
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)										20	30	40	50	60	70	80	90
Φ t	0.70	10.8	53.9	161	399	693	765	898	998	1013	939	803	745	471	197	68.0	15.7	1.55	8233							
Φ a	0.00	0.00	7.58	134	375	662	728	860	960	977	902	766	715	448	173	20.2	0.00	0.00		7650						

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

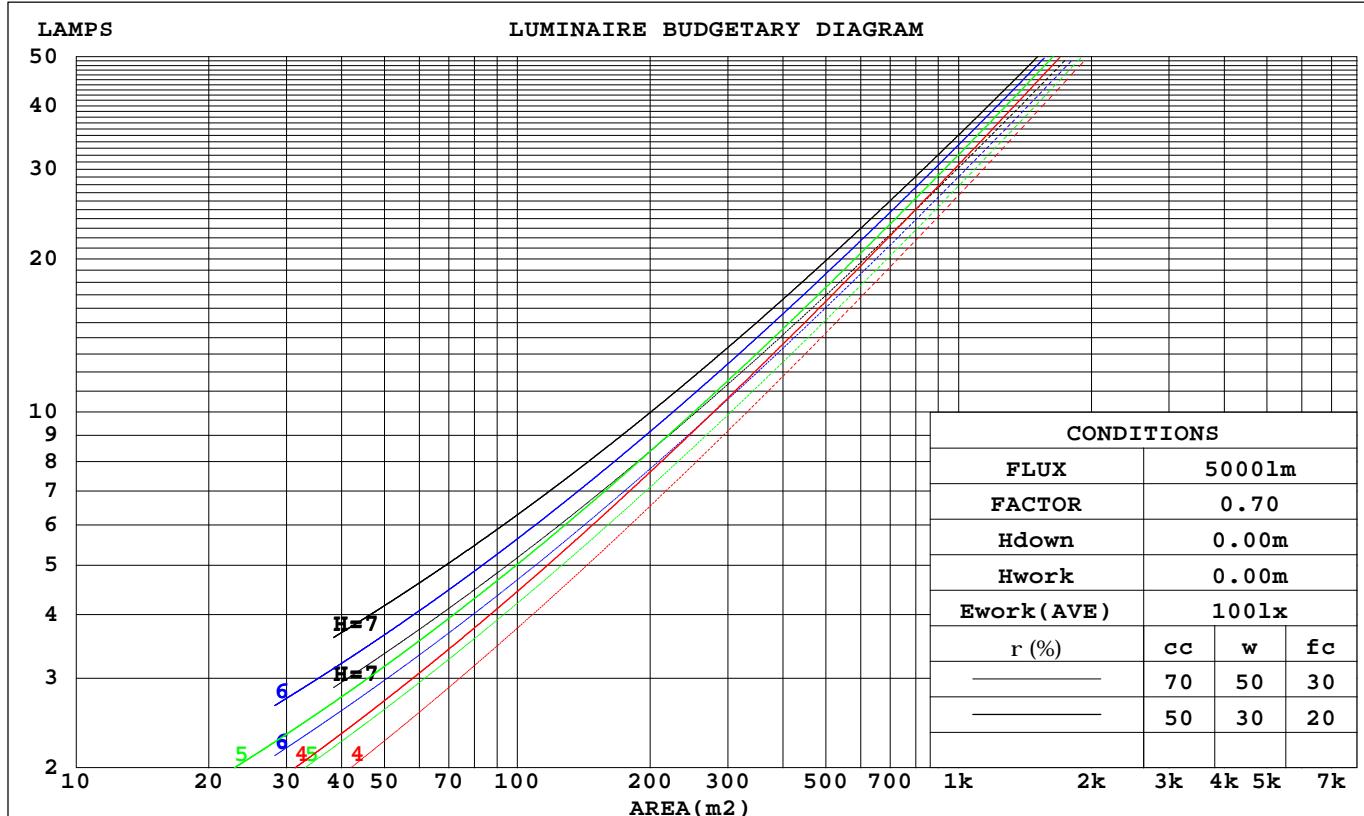
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 25°+60°+25°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14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: 25°+60°+25°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	.255	.145	.046	.248	.141	.045	.235	.135	.043	.223	.129	.041	.212	.123	.040															
2.0	.247	.135	.041	.241	.133	.041	.230	.128	.040	.219	.123	.038	.209	.118	.037															
3.0	.234	.125	.037	.229	.122	.037	.219	.119	.036	.210	.115	.035	.201	.111	.034															
4.0	.220	.115	.034	.216	.113	.033	.207	.110	.033	.199	.107	.032	.191	.104	.032															
5.0	.207	.106	.031	.203	.104	.030	.195	.102	.030	.188	.099	.030	.181	.097	.029															
6.0	.195	.098	.028	.191	.097	.028	.184	.094	.027	.178	.092	.027	.172	.090	.027															
7.0	.184	.091	.026	.180	.090	.026	.174	.088	.025	.168	.086	.025	.163	.085	.025															
8.0	.173	.085	.024	.170	.084	.024	.165	.082	.023	.159	.081	.023	.155	.079	.023															
9.0	.164	.079	.022	.161	.079	.022	.156	.077	.022	.151	.076	.022	.147	.075	.022															
10.0	.155	.074	.021	.153	.074	.021	.148	.073	.020	.144	.071	.020	.140	.070	.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	.191	.191	.191	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.177	.157	.139	.151	.135	.119	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.098	.079	.062	.056	.046	.037	.018	.015	.012	
3.0	.158	.114	.080	.135	.098	.069	.093	.068	.048	.054	.040	.028	.017	.013	.009	
4.0	.150	.100	.063	.129	.087	.054	.088	.060	.038	.051	.035	.023	.016	.012	.007	
5.0	.143	.090	.051	.123	.078	.044	.084	.054	.031	.049	.032	.018	.016	.010	.006	
6.0	.136	.081	.042	.117	.070	.037	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.035	.112	.064	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.124	.068	.030	.107	.059	.027	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.064	.027	.102	.055	.023	.071	.039	.016	.041	.023	.010	.013	.008	.003	
10.0	.113	.059	.023	.098	.052	.020	.068	.036	.015	.040	.021	.009	.013	.007	.003	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14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: 25°+60°+25°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	2H	24.8	26.2	25.1	26.4	26.6	22.1	23.5	22.4	23.7	23.9
	3H	25.2	26.4	25.4	26.6	26.9	22.4	23.7	22.7	23.9	24.1
	4H	25.2	26.4	25.5	26.6	26.9	22.6	23.7	22.9	24.0	24.2
	6H	25.2	26.3	25.5	26.5	26.8	22.7	23.8	23.0	24.0	24.3
	8H	25.1	26.2	25.5	26.5	26.8	22.7	23.8	23.0	24.0	24.3
	12H	25.1	26.1	25.4	26.4	26.7	22.7	23.8	23.1	24.0	24.3
4H	2H	25.1	26.2	25.4	26.5	26.7	22.9	24.1	23.2	24.3	24.6
	3H	25.6	26.7	26.0	27.0	27.2	23.3	24.3	23.7	24.6	24.9
	4H	25.7	26.7	26.1	27.0	27.3	23.5	24.4	23.9	24.7	25.1
	6H	25.7	26.6	26.1	26.9	27.3	23.7	24.5	24.1	24.9	25.2
	8H	25.7	26.5	26.1	26.9	27.2	23.8	24.5	24.2	24.9	25.3
	12H	25.7	26.4	26.1	26.8	27.2	23.9	24.5	24.3	24.9	25.3
8H	4H	25.7	26.5	26.1	26.8	27.2	23.7	24.4	24.1	24.8	25.2
	6H	25.8	26.4	26.2	26.8	27.2	24.0	24.6	24.4	25.0	25.4
	8H	25.8	26.3	26.3	26.8	27.2	24.2	24.7	24.6	25.1	25.6
	12H	25.8	26.3	26.3	26.7	27.2	24.3	24.8	24.8	25.2	25.7
12H	4H	25.7	26.4	26.1	26.8	27.2	23.7	24.3	24.1	24.7	25.1
	6H	25.8	26.3	26.2	26.8	27.2	24.0	24.6	24.5	25.0	25.4
	8H	25.8	26.3	26.3	26.7	27.2	24.2	24.7	24.7	25.1	25.6
Variations with the observer position at spacings:											
S = 1.0H	+ 1.8 / - 1.0					+ 0.9 / - 1.2					
1.5H	+ 1.8 / - 3.9					+ 1.5 / - 0.9					
2.0H	+ 2.9 / - 5.0					+ 1.6 / - 1.4					

CIE Pub.117 Corrected 8233 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.3)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14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: 25°+60°+25°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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	54	48	64	54	48	63	54	48	42
0.80	75	65	58	74	64	58	72	64	58	52
1.00	83	74	68	82	73	67	80	74	67	61
1.25	90	81	75	89	80	75	86	79	74	68
1.50	94	86	80	93	85	80	90	84	79	72
2.00	100	93	88	98	92	87	95	90	86	79
2.50	103	97	92	101	96	91	98	93	89	82
3.00	106	100	96	104	99	95	100	96	93	85
4.00	109	104	101	107	103	99	103	99	97	88
5.00	111	107	104	109	105	102	104	102	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

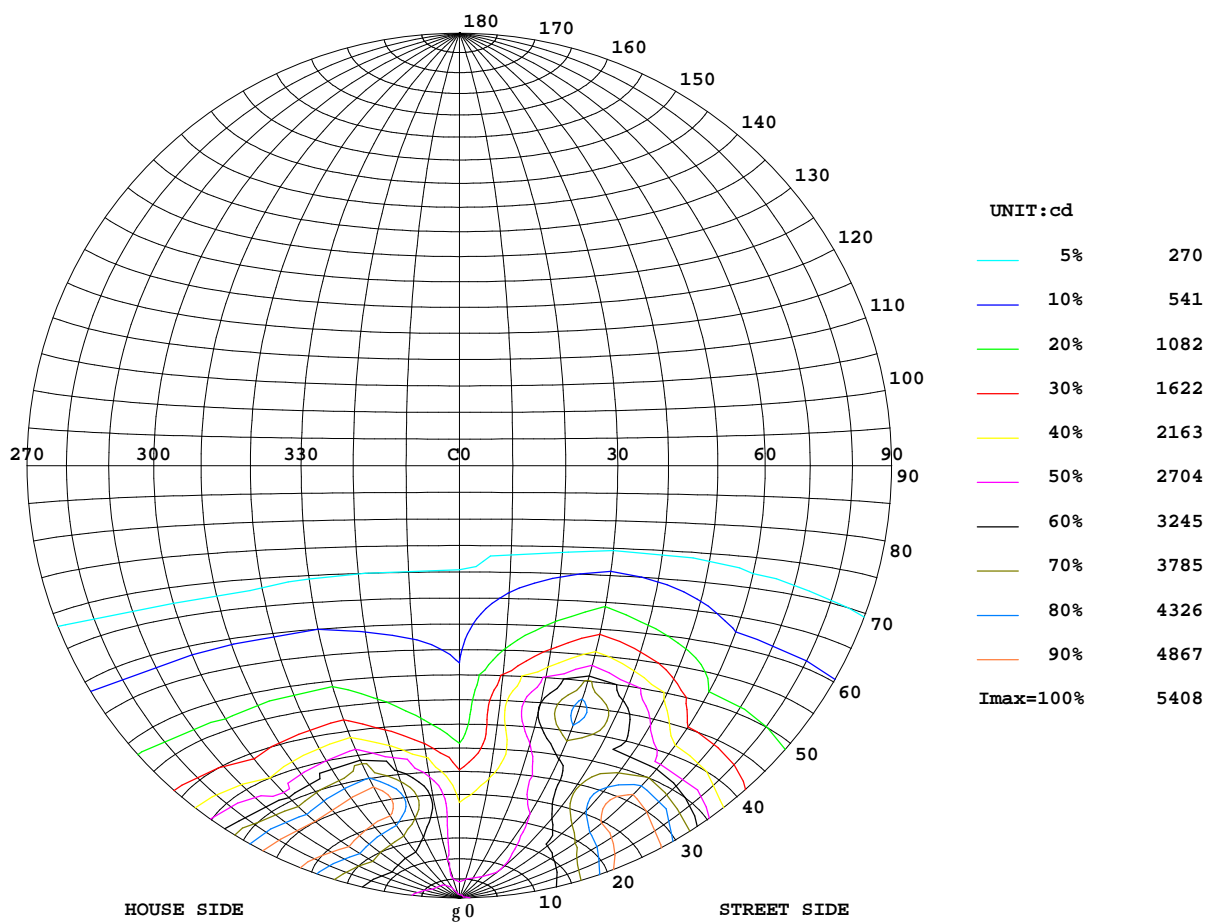
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

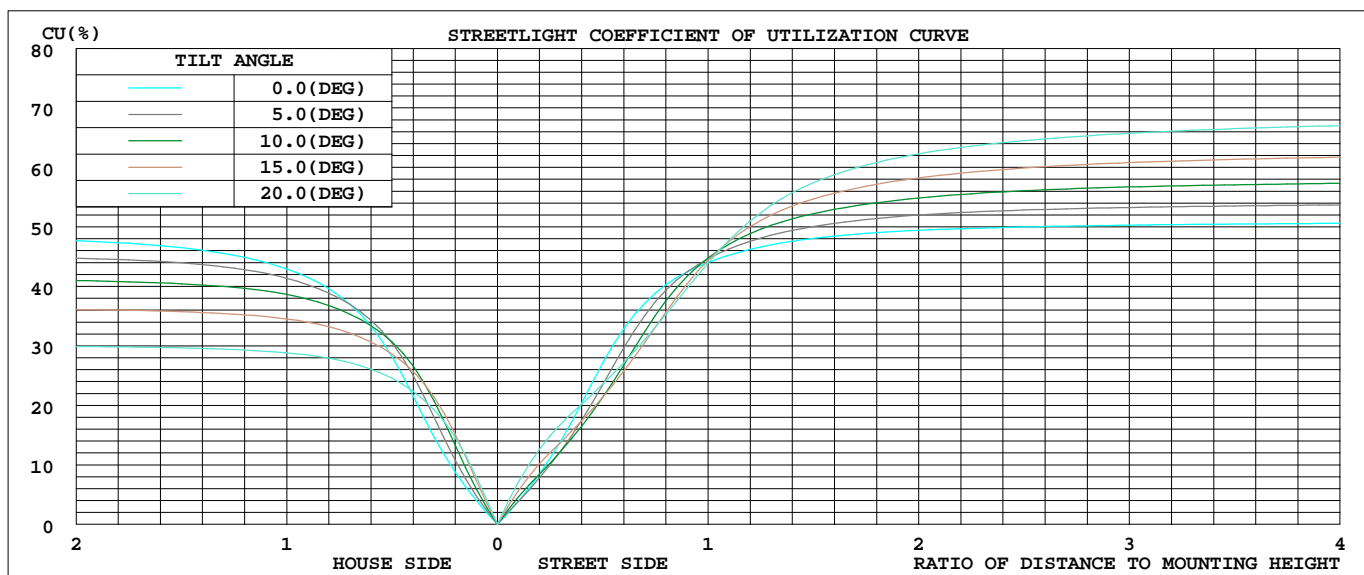
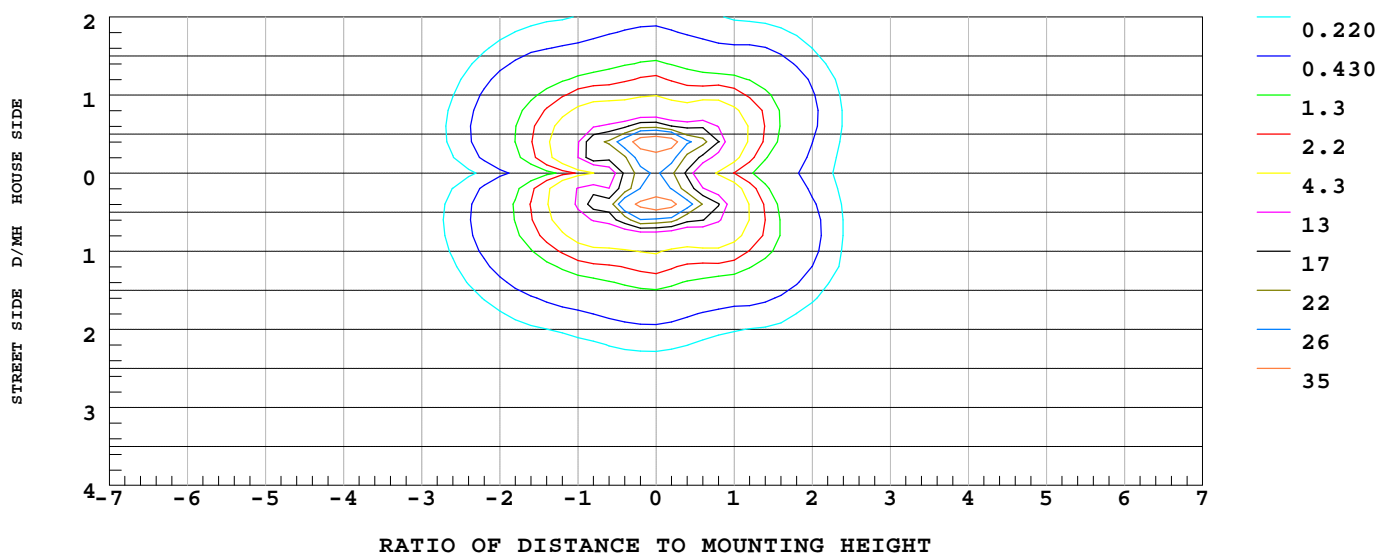
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 26.97 lx



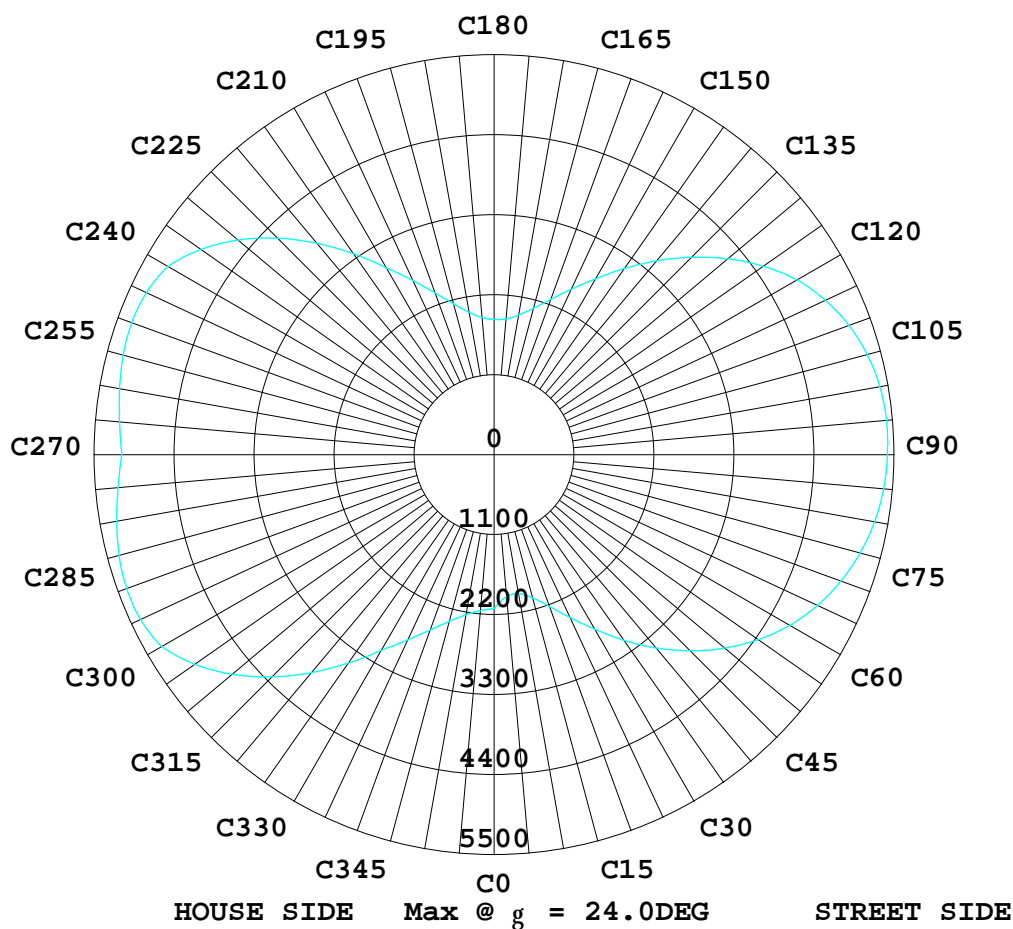
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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: 25°+60°+25°57W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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