

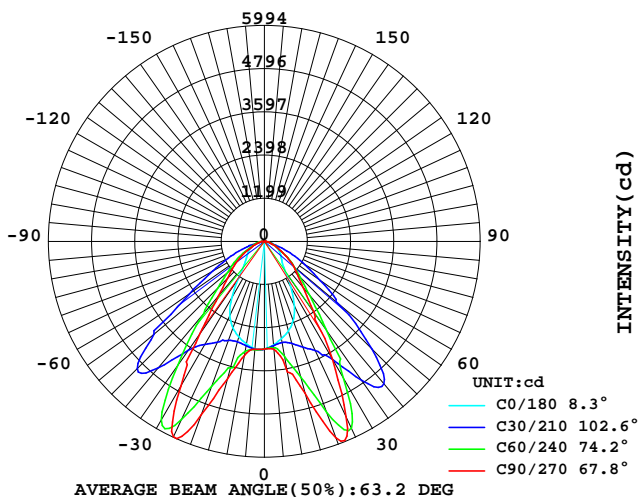
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

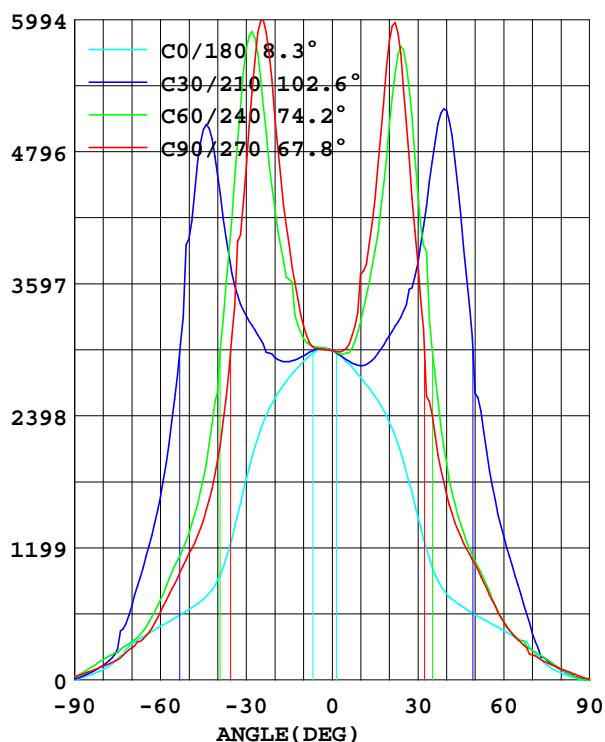
MANUFACTURER:		
Address:		
NAME: 25°+60°+25°64W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	5994	S/MH(C0/180)	0.98
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.26
NOMINAL POWER(W)	64	TOTAL FLUX(lm)	9124.0	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	141.9	Current(A)	0.302
NOMINAL FLUX(lm)	9124.0	h up(%)	0.0	Power(W)	64.32
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.972
TEST VOLTAGE(V)	218.6	Effective Flux(lm)	8474.4	EEI	0.103

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



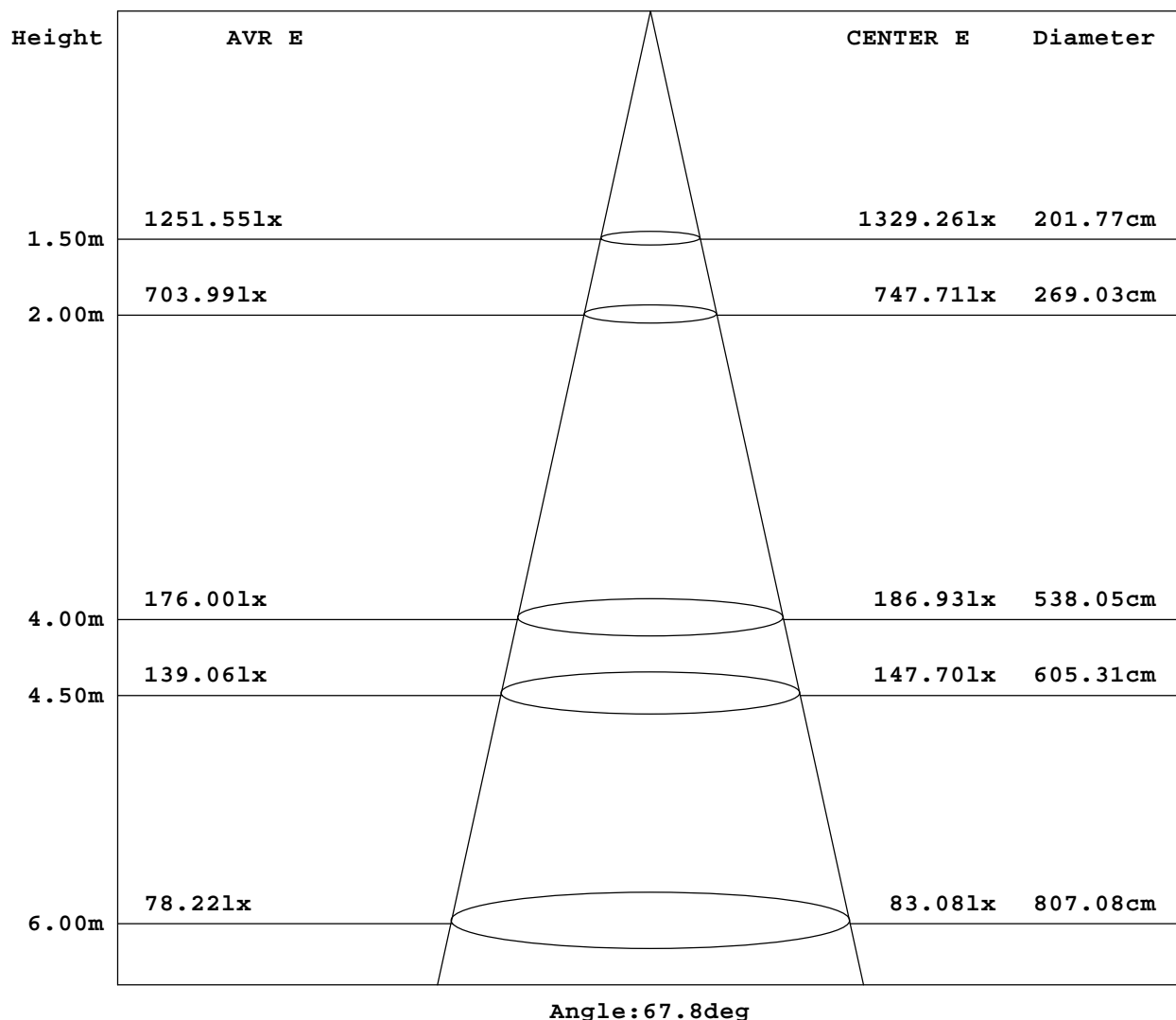
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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°64W	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°64W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	2991	3014	3009	2936	2890	2939	3012	2998	0- 5	71.24	71.24
10.0	2893	3021	3211	2934	2749	3049	3683	3108	5- 10	214.5	285.7
15.0	2746	3263	3950	3222	2575	3410	4359	3462	10- 15	379.4	665.2
20.0	2553	3609	5116	3643	2338	4083	5797	4114	15- 20	595.1	1260
25.0	2276	4272	5984	4332	1983	4535	5369	4704	20- 25	868.8	2129
30.0	1822	4517	4649	4394	1485	4102	3787	4327	25- 30	1043	3172
35.0	1280	3939	3122	3945	1020	3851	2404	3967	30- 35	1050	4222
40.0	907.2	3600	1992	3757	784.0	3568	1680	3732	35- 40	1023	5245
45.0	734.1	3414	1450	3091	675.6	2818	1302	3124	40- 45	991.2	6236
50.0	639.5	2668	1148	2175	592.2	1841	1050	2264	45- 50	849.1	7085
55.0	561.3	1791	870.7	1487	521.2	1349	769.7	1606	50- 55	658.3	7744
60.0	485.8	1196	616.2	983.0	449.5	922.5	527.5	1045	55- 60	485.3	8229
65.0	407.8	802.8	402.7	688.8	374.2	615.7	364.2	740.4	60- 65	353.2	8582
70.0	326.6	506.5	291.9	393.5	272.8	343.9	229.0	440.5	65- 70	247.7	8830
75.0	194.6	267.1	185.9	209.1	138.7	187.2	159.5	209.0	70- 75	148.1	8978
80.0	93.36	158.4	124.7	127.1	63.71	96.26	100.9	126.6	75- 80	84.16	9062
85.0	42.30	79.99	72.91	53.91	17.98	28.93	50.40	54.03	80- 85	45.08	9107
90.0	0.436	18.34	23.78	8.748	0	0	10.35	8.663	85- 90	14.80	9122
95.0	0	1.790	1.403	0.339	0	0	0	0	90- 95	1.816	9124
100.0	0	0	0	0	0	0	0	0	95-100	0.047	9124
105.0	0	0	0	0	0	0	0	0	100-105	0	9124
110.0	0	0	0	0	0	0	0	0	105-110	0	9124
115.0	0	0	0	0	0	0	0	0	110-115	0	9124
120.0	0	0	0	0	0	0.375	0	0.036	115-120	0.007	9124
125.0	0	0	0	0	0	0	0	0	120-125	0.003	9124
130.0	0	0	0	0	0	0	0	0	125-130	0	9124
135.0	0	0	0	0	0	0	0	0	130-135	0	9124
140.0	0	0	0	0	0	0	0	0	135-140	0	9124
145.0	0	0	0	0	0	0	0	0	140-145	0	9124
150.0	0	0	0	0	0	0	0	0	145-150	0	9124
155.0	0	0	0	0	0	0	0	0	150-155	0	9124
160.0	0	0	0	0	0	0	0	0	155-160	0	9124
165.0	0	0	0	0	0	0	0	0	160-165	0	9124
170.0	0	0	0	0	0	0	0	0	165-170	0	9124
175.0	0	0	0	0	0	0	0	0	170-175	0	9124
180.0	0	0	0	0	0	0	0	0	175-180	0	9124
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:

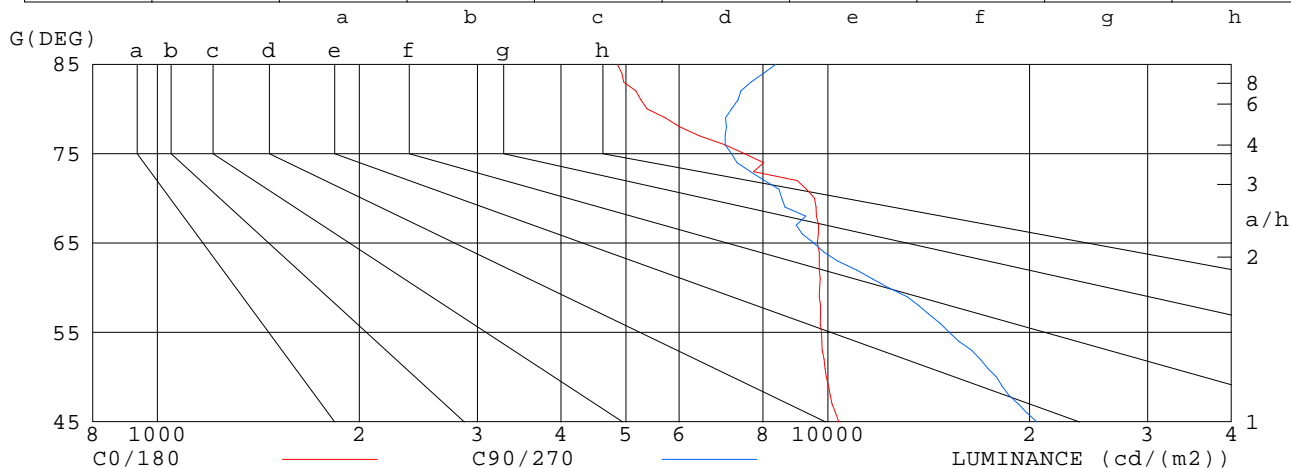
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+60°+25°64W	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	4854	8366
80	5377	7181
75	7520	7184
70	9551	8535
65	9650	9530
60	9718	12324
55	9788	15182
50	9950	17858
45	10383	20501

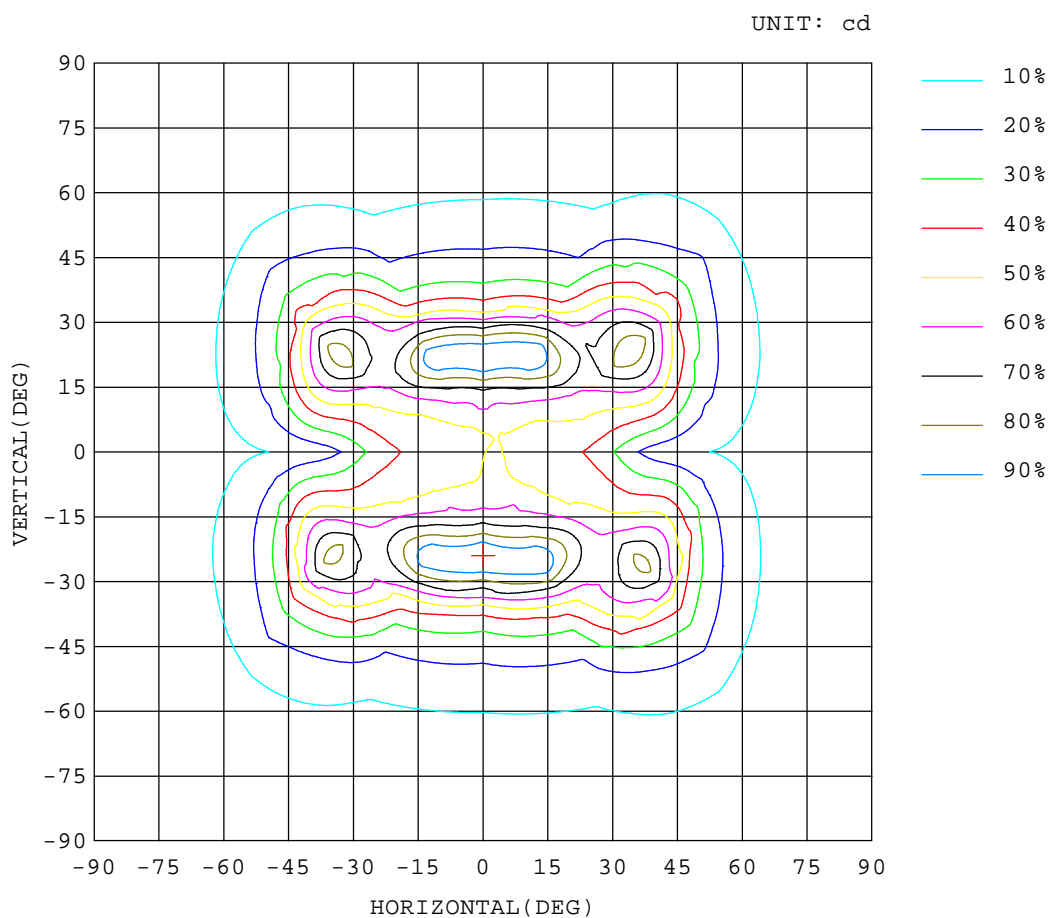
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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°64W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



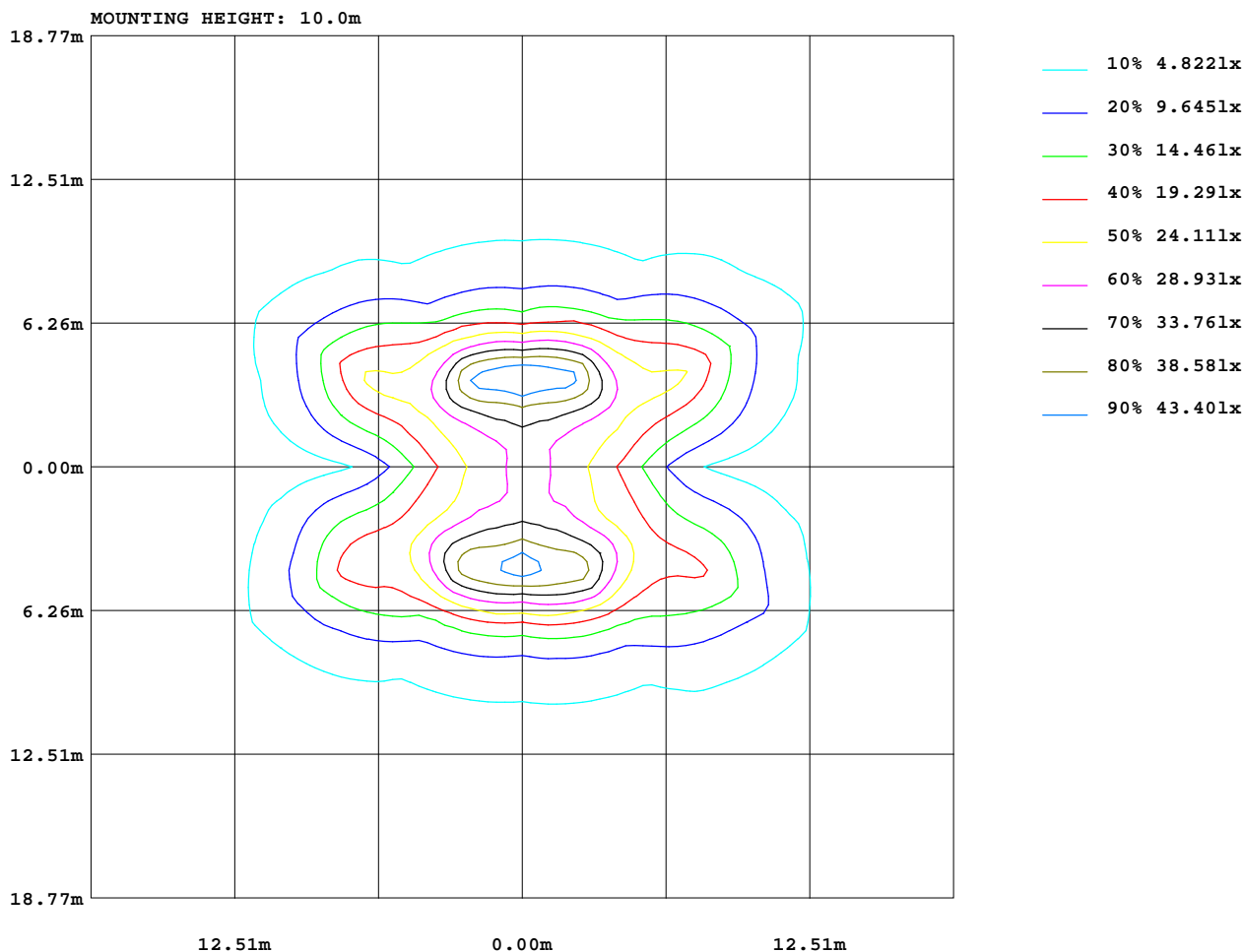
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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°64W	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°64W										TYPE:					WEIGHT:				
SPECIFICATION:										DIMENSION: 576*188mm					SERIAL No.:				

		AREA FLUX DIAGRAM																	UNIT:lm			Φ t	Φ a
		0.00	0.02	0.11	0.25	0.41	0.60	0.87	1.19	1.45	1.55	1.48	1.31	1.08	0.85	0.61	0.35	0.13	0.02	12.2	0.00		
VERTICAL (DEG)	90	0.00	0.13	0.56	1.31	2.30	3.44	4.39	4.88	4.99	5.09	5.16	4.83	4.05	2.98	1.89	0.93	0.31	0.04	47.3	0.00		
	80	0.02	0.31	1.21	2.89	5.54	8.09	8.95	10.3	11.0	11.2	10.7	9.59	9.57	7.20	3.84	1.70	0.53	0.07	103	0.00		
	70	0.03	0.51	2.00	6.58	13.6	17.3	17.6	21.0	23.4	23.8	22.2	19.5	19.9	16.9	9.21	2.73	0.76	0.09	218	165		
	60	0.05	0.70	3.33	12.7	25.3	34.6	35.5	37.0	40.3	41.0	38.6	38.8	40.3	29.6	16.0	4.61	1.00	0.11	400	388		
	50	0.07	0.90	5.00	16.7	40.8	67.6	72.8	70.5	78.0	80.2	75.7	78.1	77.2	48.8	19.5	6.46	1.24	0.13	740	730		
	40	0.08	1.07	5.98	18.1	50.7	109	111	134	156	158	141	114	116	59.4	21.1	7.28	1.48	0.14	1207	1197		
	30	0.09	1.21	6.04	16.6	45.9	90.3	99.9	121	133	133	124	103	93.0	52.0	19.0	7.00	1.64	0.15	1047	1035		
	20	0.09	1.26	5.37	12.0	27.0	47.3	67.3	82.5	91.4	93.1	86.2	73.8	52.0	29.8	13.4	5.98	1.68	0.16	691	672		
	10	0.09	1.27	5.43	12.3	27.9	44.7	64.7	79.9	89.2	91.5	83.3	69.5	46.9	30.3	14.2	6.06	1.71	0.16	670	651		
	0	0.09	1.23	6.23	17.2	49.3	84.8	92.7	111	119	119	110	90.9	78.9	55.7	20.6	7.19	1.72	0.15	965	953		
	-10	0.08	1.09	6.30	18.7	55.8	111	112	147	166	166	153	110	111	67.8	22.8	7.53	1.59	0.14	1257	1247		
	-20	0.07	0.90	5.32	17.3	43.8	74.9	80.5	86.2	98.7	103	95.4	85.2	87.2	55.4	21.1	6.88	1.34	0.13	864	853		
	-30	0.05	0.71	3.59	13.7	26.6	38.1	40.4	42.6	46.0	47.2	45.6	45.5	46.2	32.9	16.8	5.30	1.01	0.11	453	441		
	-40	0.03	0.51	2.04	7.33	14.9	19.2	20.7	24.5	26.6	27.2	26.1	23.4	22.8	18.1	10.5	3.24	0.76	0.09	249	220		
	-50	0.02	0.31	1.22	3.03	6.30	9.19	10.3	11.8	12.7	13.1	12.7	11.4	11.0	8.80	4.70	1.73	0.53	0.07	119	3.49		
	-60	0.00	0.13	0.57	1.47	2.89	4.52	5.68	6.07	6.08	6.22	6.47	6.30	5.34	3.64	2.06	0.95	0.31	0.04	58.8	0.00		
-70	0.00	0.02	0.10	0.36	0.84	1.46	1.96	2.19	2.27	2.39	2.53	2.49	2.02	1.31	0.72	0.33	0.12	0.02	21.1	0.00			
-80																							
-90																							
		-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)				20	30	40	50	60	70	80	90		
Φ t	0.85	12.3	60.4	179	441	767	848	995	1106	1123	1040	889	825	522	219	76.3	17.9	1.81	9124				
Φ a	0.00	0.00	8.05	148	414	733	806	953	1064	1082	998	847	792	496	191	22.6	0.00	0.00		8474			

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

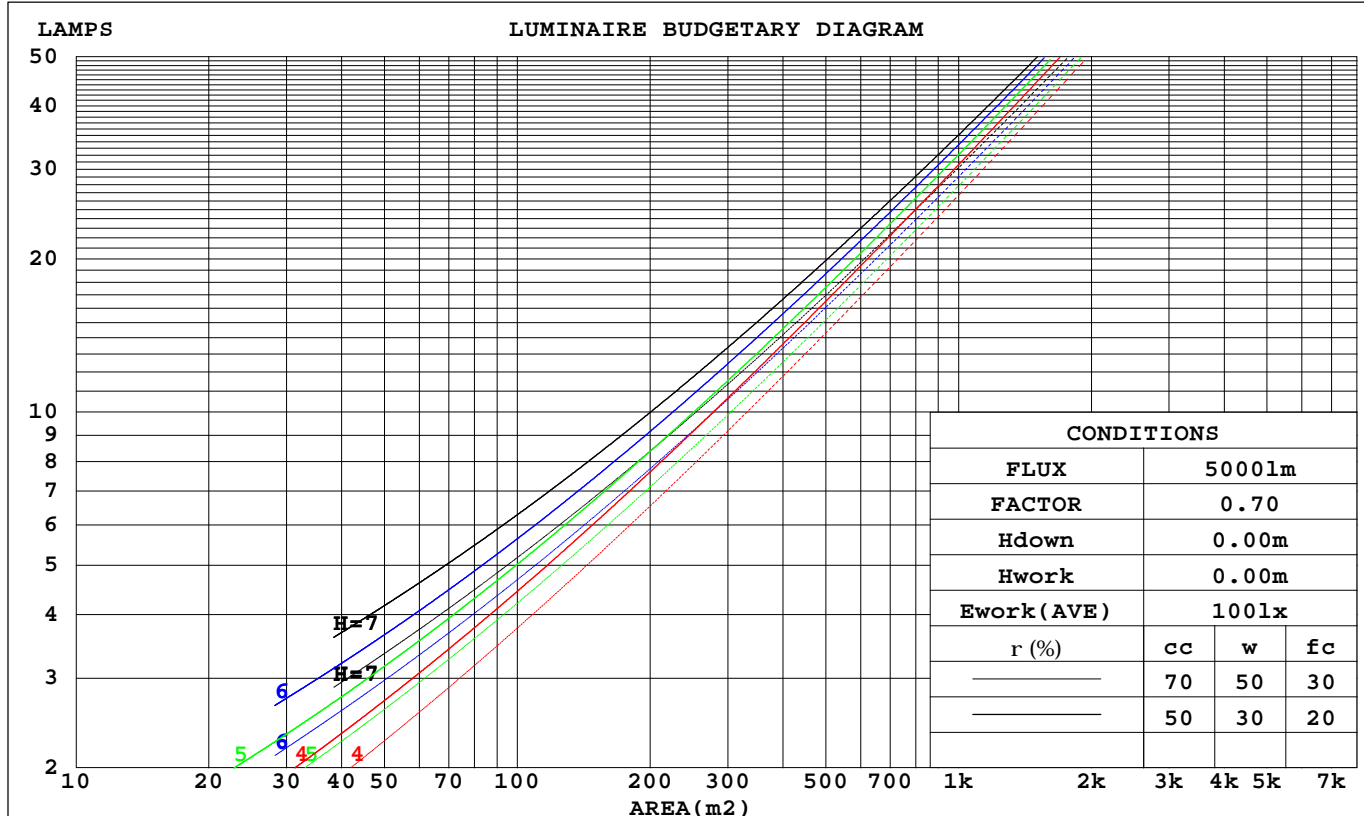
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 25°+60°+25°64W								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															Coefficients of Utilization(CU)														
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00														
1.0	1.07	1.03	.00	1.04	1.01	.98	1.00	.98	.95	.96	.94	.92	.93	.91	.90	.88														
2.0	.95	.89	.84	.93	.88	.83	.90	.85	.81	.87	.83	.80	.84	.81	.78	.76														
3.0	.85	.78	.72	.83	.77	.71	.81	.75	.70	.78	.73	.69	.75	.71	.68	.66														
4.0	.76	.68	.62	.75	.68	.62	.73	.66	.61	.70	.65	.60	.68	.63	.60	.58														
5.0	.69	.61	.55	.68	.60	.54	.66	.59	.54	.64	.58	.53	.62	.57	.53	.51														
6.0	.62	.54	.48	.61	.54	.48	.60	.53	.48	.58	.52	.47	.56	.51	.47	.45														
7.0	.57	.49	.43	.56	.48	.43	.54	.47	.42	.53	.47	.42	.52	.46	.42	.40														
8.0	.52	.44	.38	.51	.44	.38	.50	.43	.38	.49	.42	.38	.48	.42	.38	.36														
9.0	.48	.40	.35	.47	.40	.35	.46	.39	.34	.45	.39	.34	.44	.38	.34	.32														
10.0	.44	.36	.31	.43	.36	.31	.42	.36	.31	.42	.35	.31	.41	.35	.31	.29														



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°64W						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	.142	.045	.235	.135	.043	.223	.129	.041	.212	.123	.040		
2.0	.247	.135	.042	.241	.133	.041	.230	.128	.040	.219	.123	.039	.210	.119	.037		
3.0	.234	.125	.037	.229	.123	.037	.219	.119	.036	.210	.115	.035	.201	.111	.034		
4.0	.221	.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	.095	.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	.024	.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	.060	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.143	.114	.090	.098	.079	.062	.056	.046	.037	.018	.015	.012	
3.0	.158	.114	.080	.135	.099	.069	.093	.068	.048	.054	.040	.029	.017	.013	.009	
4.0	.150	.101	.063	.129	.087	.055	.088	.061	.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	.069	.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	.024	.098	.052	.021	.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°64W						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				
x = 2H y = 2H						25.2	26.6	25.4	26.7	26.9
3H						25.5	26.8	25.8	27.0	27.2
4H						25.6	26.7	25.9	27.0	27.2
6H						25.5	26.6	25.8	26.9	27.2
8H						25.5	26.6	25.8	26.8	27.1
12H						25.5	26.5	25.8	26.8	27.1
4H 2H						25.4	26.6	25.7	26.8	27.1
3H						26.0	27.0	26.3	27.3	27.6
4H						26.1	27.0	26.5	27.3	27.7
6H						26.1	26.9	26.5	27.3	27.6
8H						26.1	26.9	26.5	27.2	27.6
12H						26.1	26.8	26.5	27.2	27.6
8H 4H						26.1	26.9	26.5	27.2	27.6
6H						26.2	26.8	26.6	27.2	27.6
8H						26.2	26.7	26.6	27.1	27.6
12H						26.2	26.7	26.7	27.1	27.6
12H 4H						26.1	26.8	26.5	27.1	27.5
6H						26.2	26.7	26.6	27.1	27.6
8H						26.2	26.7	26.7	27.1	27.6
Variations with the observer position at spacings:										
S = 1.0H		+ 1.7 / - 1.1				+ 1.0 / - 1.2				
1.5H		+ 1.7 / - 3.8				+ 1.4 / - 0.9				
2.0H		+ 2.9 / - 5.0				+ 1.6 / - 1.2				

CIE Pub.117 Corrected 9124 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.7)

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°64W	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	88	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	101	99	90
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

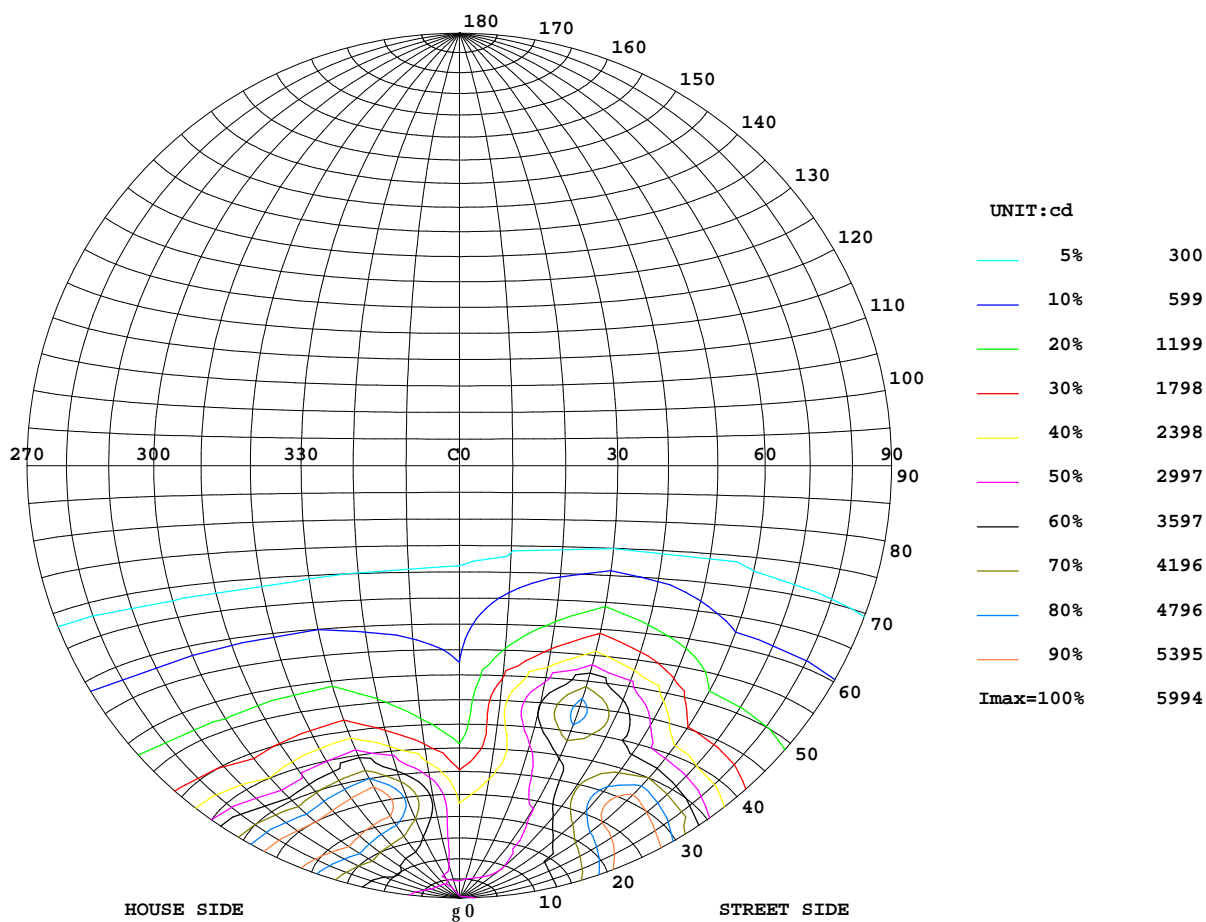
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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°64W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:



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

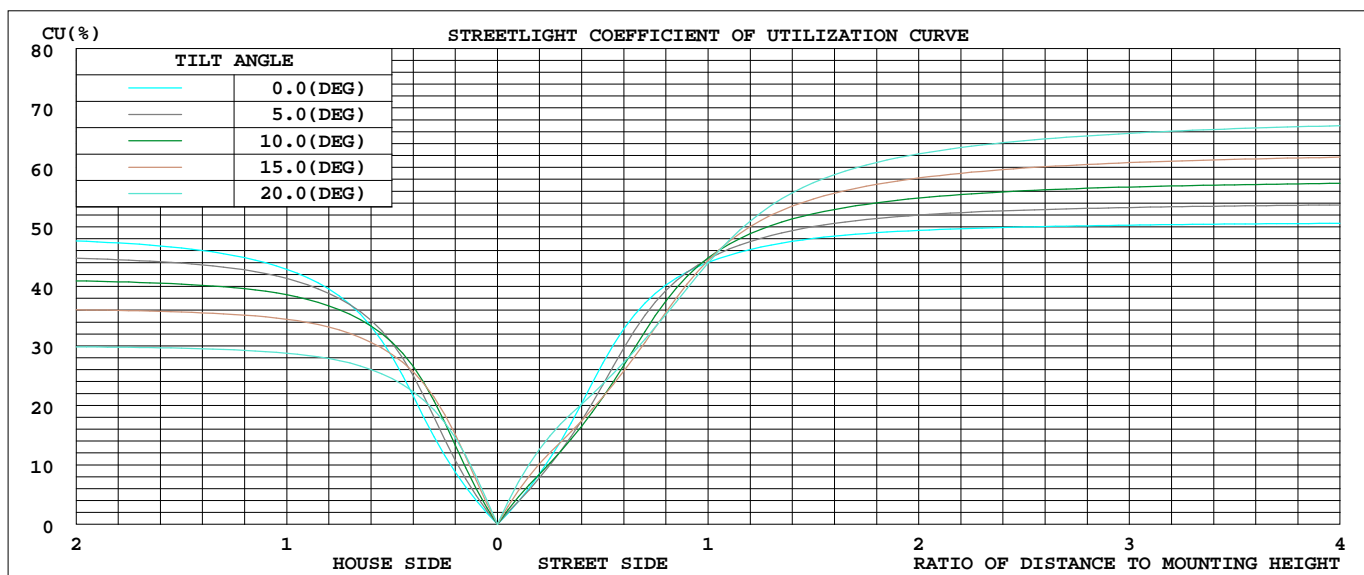
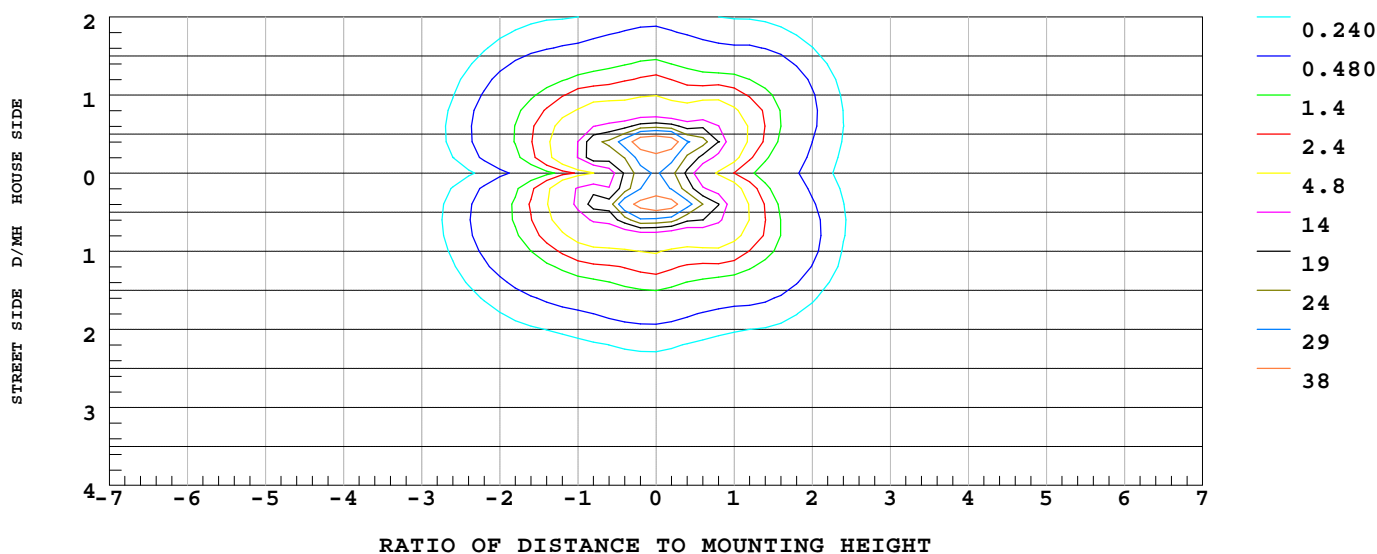
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+60°+25°64W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 29.91 lx



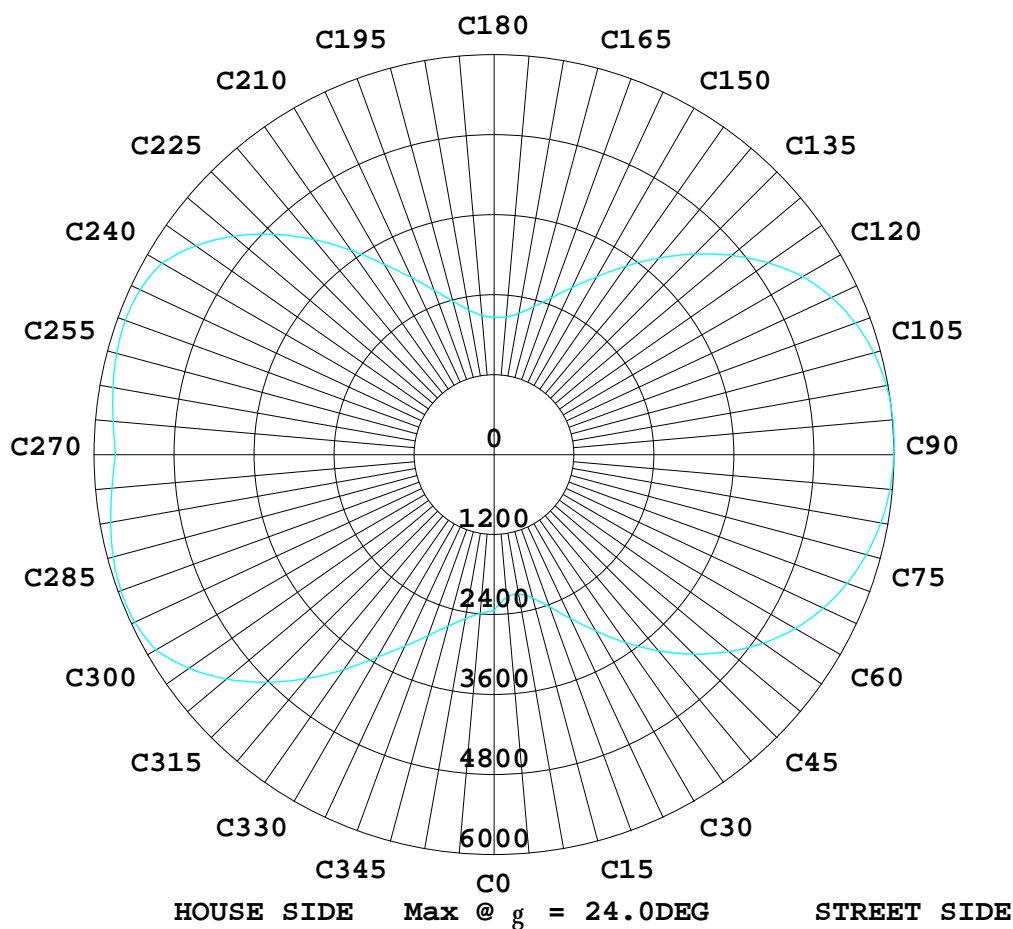
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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°64W	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: