

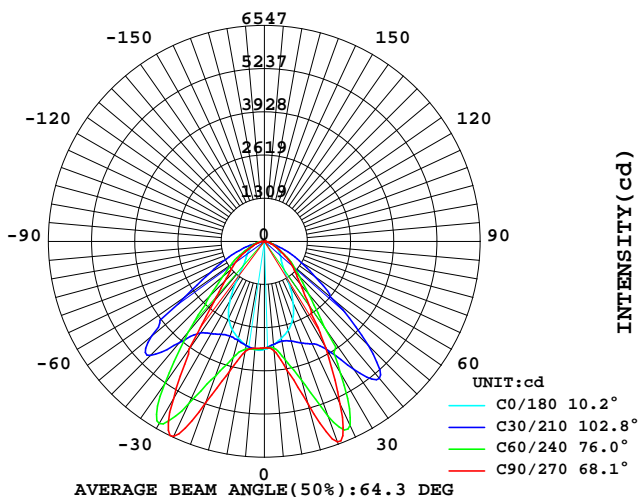
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

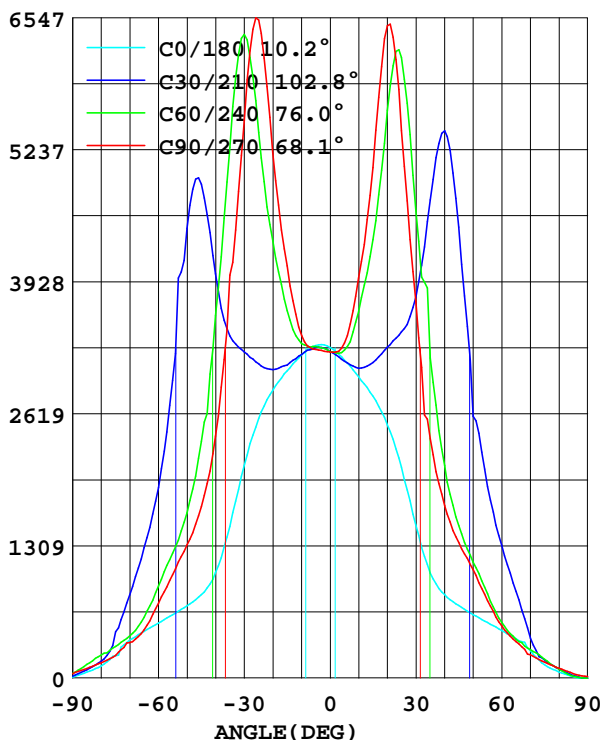
MANUFACTURER:		
Address:		
NAME: 25°+60°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	6547	S/MH(C0/180)	0.99
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.29
NOMINAL POWER(W)	70	TOTAL FLUX(lm)	9818.7	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	139.5	Current(A)	0.330
NOMINAL FLUX(lm)	9818.8	h up(%)	0.0	Power(W)	70.41
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.975
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	9109.7	EEI	0.105

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



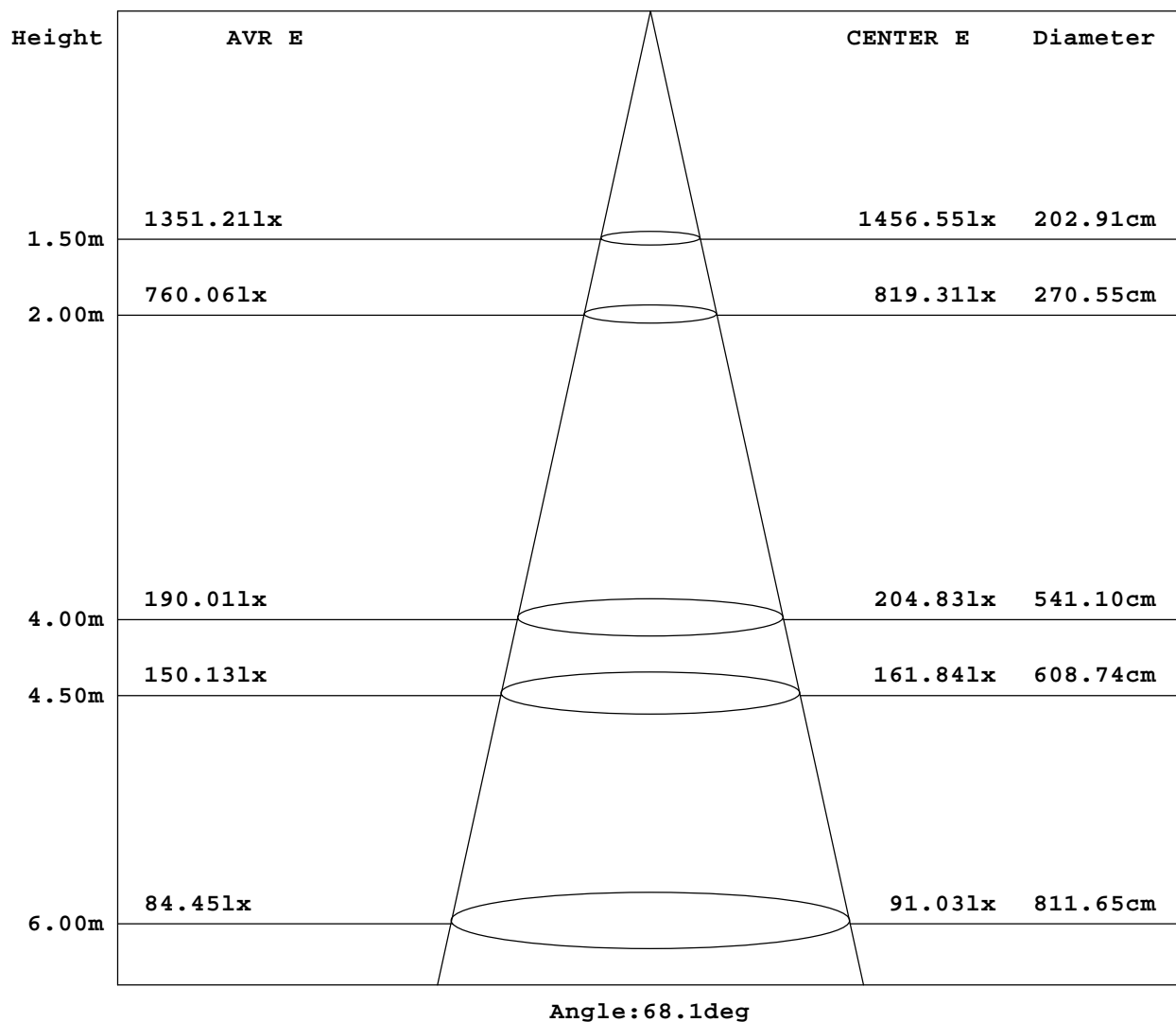
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	3296	3280	3259	3197	3151	3195	3320	3259	0- 5	77.48	77.48
10.0	3204	3262	3398	3179	2988	3349	3965	3483	5- 10	234.7	312.2
15.0	3046	3371	4085	3409	2793	3736	5059	3975	10- 15	414.2	726.5
20.0	2850	3697	5202	3939	2509	4453	6467	4850	15- 20	652.0	1379
25.0	2573	4261	6522	4756	2088	4792	5426	5202	20- 25	933.8	2312
30.0	2110	4806	5528	5015	1515	4204	3732	4729	25- 30	1118	3430
35.0	1503	4325	3995	4555	1040	3954	2373	4386	30- 35	1151	4582
40.0	1046	3798	2396	4132	825.4	3765	1708	3780	35- 40	1113	5694
45.0	825.7	3622	1698	3408	717.8	2991	1343	2879	40- 45	1041	6736
50.0	714.3	3046	1317	2616	626.4	1870	1073	2110	45- 50	896.4	7632
55.0	628.0	2094	1024	1691	549.8	1366	766.7	1433	50- 55	706.4	8339
60.0	544.9	1400	741.0	1098	472.3	936.3	519.1	970.9	55- 60	516.2	8855
65.0	460.4	946.4	478.8	764.5	388.1	620.3	361.1	661.0	60- 65	377.0	9232
70.0	375.8	621.3	350.4	435.3	269.7	337.8	231.5	369.1	65- 70	260.2	9493
75.0	220.8	386.1	224.7	239.7	130.8	183.0	157.8	205.8	70- 75	160.1	9653
80.0	118.0	197.1	151.0	153.5	59.72	88.34	96.50	115.5	75- 80	93.06	9746
85.0	58.15	107.7	94.57	75.69	13.14	21.30	44.35	45.50	80- 85	50.10	9796
90.0	9.389	31.47	43.75	18.52	0	0	13.38	7.332	85- 90	18.91	9815
95.0	0	3.968	7.332	2.637	0	0	0	0	90- 95	3.525	9818
100.0	0	0	0	0	0	0	0	0	95-100	0.288	9819
105.0	0	0	0	0	0	0	0	0	100-105	0	9819
110.0	0	0	0	0	0	0	0	0	105-110	0	9819
115.0	0	0	0	0	0	0.278	0	0.278	110-115	0.008	9819
120.0	0	0	0	0	2.129	3.037	0	1.585	115-120	0.208	9819
125.0	0	0	0	0	0	0	0	0	120-125	0.045	9819
130.0	0	0	0	0	0	0	0	0	125-130	0	9819
135.0	0	0	0	0	0	0	0	0	130-135	0	9819
140.0	0	0	0	0	0	0	0	0	135-140	0	9819
145.0	0	0	0	0	0	0	0	0	140-145	0	9819
150.0	0	0	0	0	0	0	0	0	145-150	0	9819
155.0	0	0	0	0	0	0	0	0	150-155	0	9819
160.0	0	0	0	0	0	0	0	0	155-160	0	9819
165.0	0	0	0	0	0	0	0	0	160-165	0	9819
170.0	0	0	0	0	0	0	0	0	165-170	0	9819
175.0	0	0	0	0	0	0	0	0	170-175	0	9819
180.0	0	0	0	0	0	0	0	0	175-180	0	9819
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:

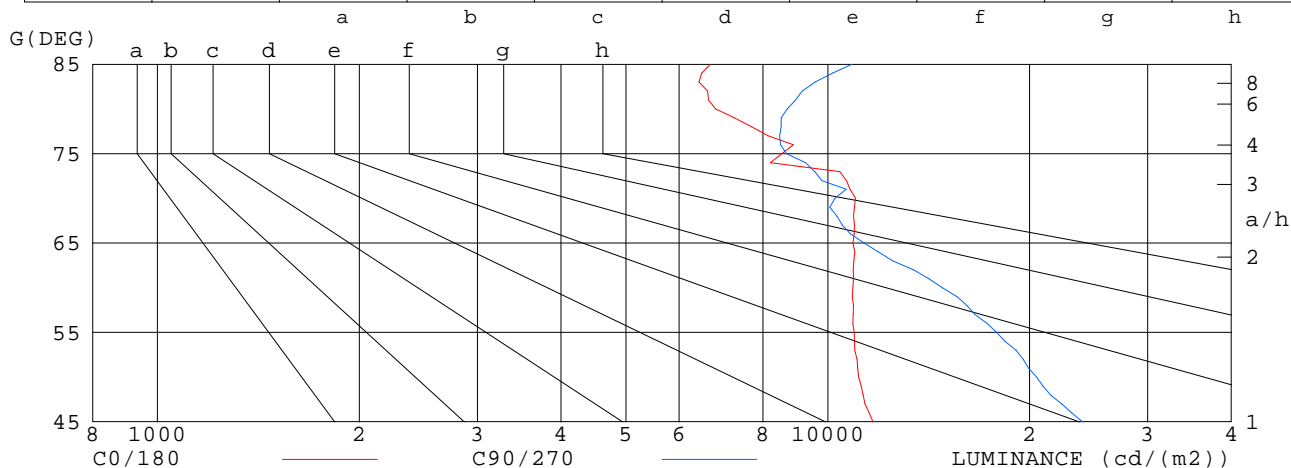
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+60°+25°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	6672	10851
80	6798	8700
75	8535	8684
70	10991	10248
65	10896	11331
60	10899	14822
55	10950	17848
50	11113	20495
45	11678	24011

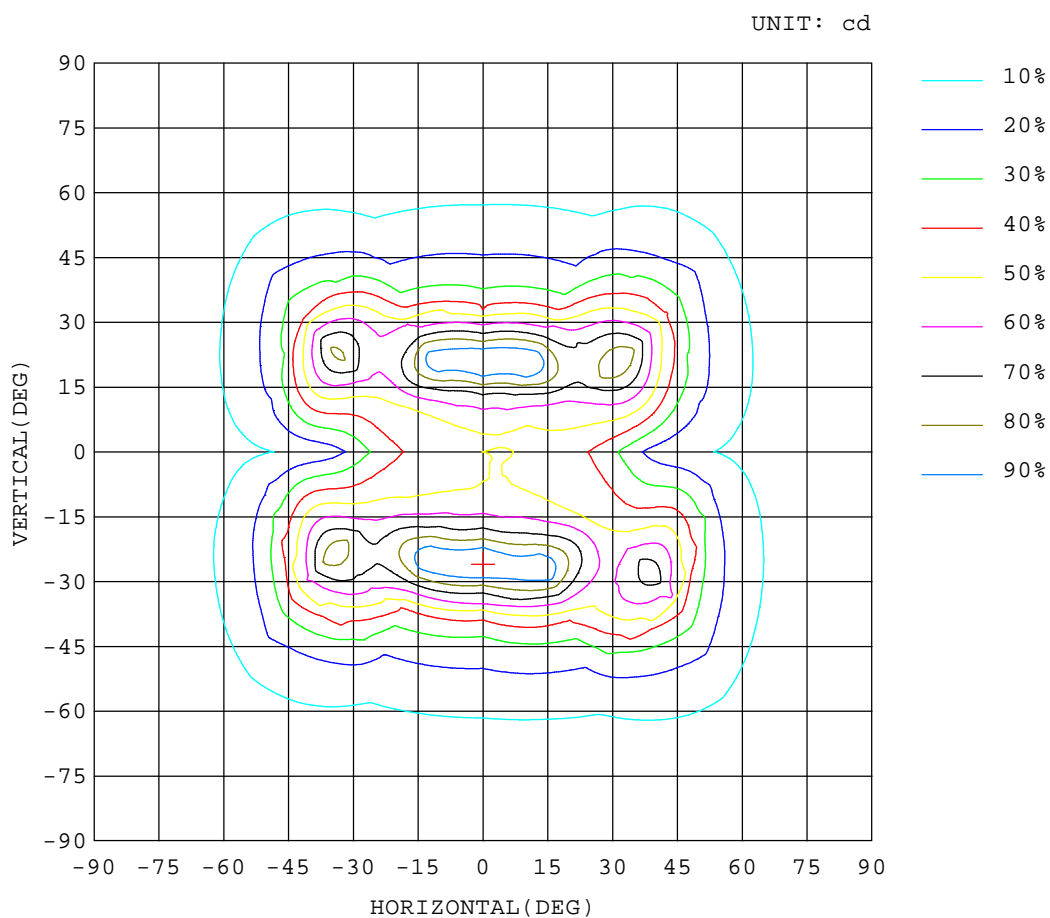
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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



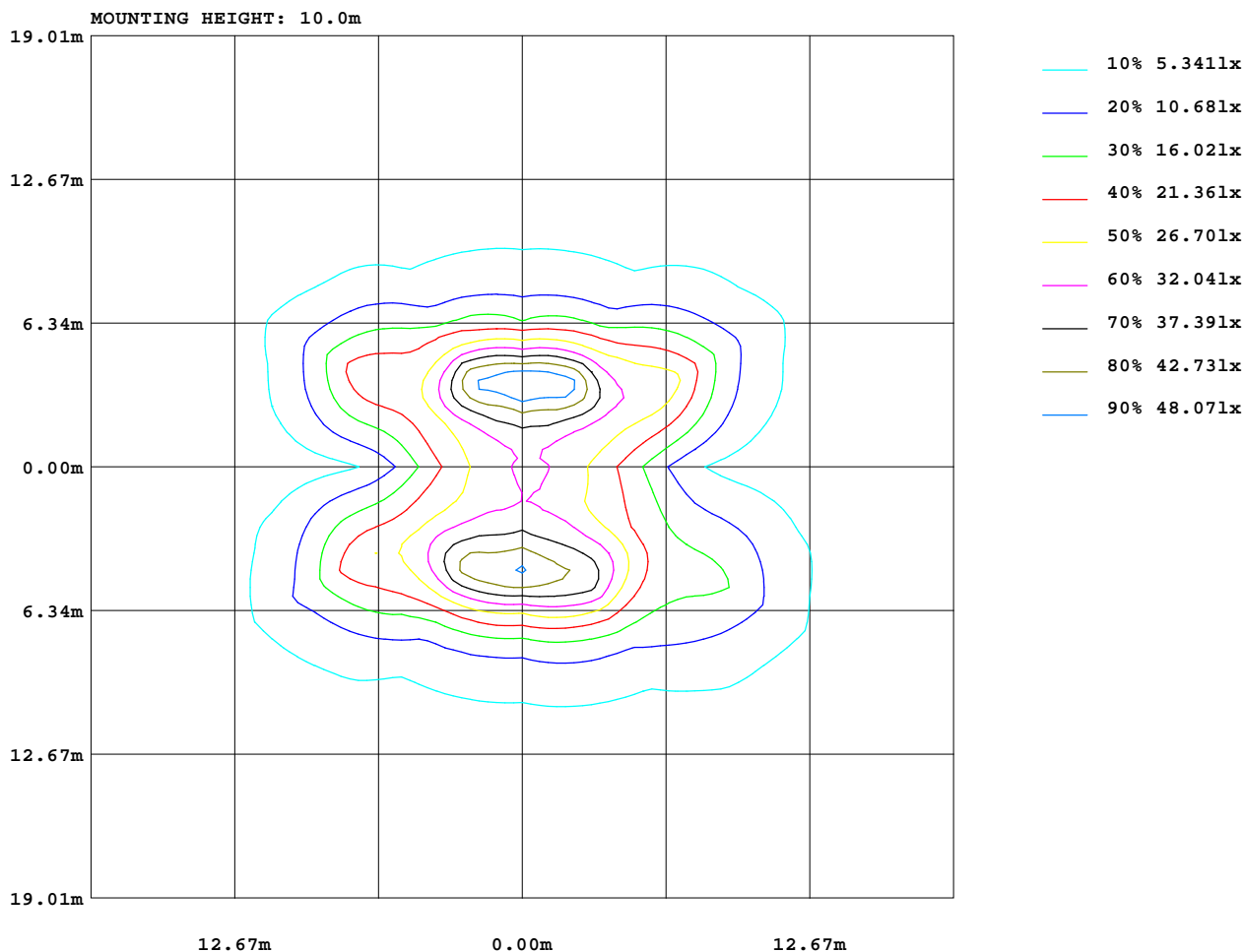
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	0.00	0.01	0.06	0.17	0.31	0.45	0.70	1.05	1.34	1.44	1.34	1.14	0.92	0.72	0.51	0.32	0.15	0.04	10.6	0.00		
90	0.00	0.01	0.06	0.17	0.31	0.45	0.70	1.05	1.34	1.44	1.34	1.14	0.92	0.72	0.51	0.32	0.15	0.04	10.6	0.00		
80	0.00	0.09	0.50	1.22	2.14	3.26	4.27	4.82	4.93	4.97	4.94	4.54	3.75	2.74	1.69	0.87	0.34	0.06	45.1	0.00		
70	0.01	0.27	1.15	2.82	5.46	8.17	9.19	10.4	11.0	11.0	10.4	9.21	8.51	6.15	3.51	1.66	0.56	0.09	99.8	0.00		
60	0.02	0.47	1.94	6.34	13.6	17.6	18.2	21.5	23.6	23.6	21.8	18.7	18.4	14.6	7.35	2.66	0.82	0.12	212	134		
50	0.04	0.67	3.20	12.6	25.5	35.1	37.2	39.1	41.8	41.6	38.6	37.6	36.9	26.7	13.8	4.15	1.11	0.14	396	381		
40	0.06	0.86	4.90	16.8	40.8	69.9	77.2	74.8	79.5	78.3	71.9	75.9	70.6	43.5	18.0	5.88	1.37	0.16	731	718		
30	0.07	1.03	5.98	18.3	51.5	115	114	141	163	164	144	127	115	54.2	19.6	6.97	1.65	0.18	1242	1230		
	0.08	1.16	6.13	16.9	47.9	92.9	101	130	150	154	142	125	105	48.9	18.4	7.10	1.86	0.20	1149	1135		
	0.08	1.21	5.51	12.5	28.4	48.2	69.6	88.4	100	103	97.1	86.0	61.4	30.4	13.9	6.47	1.97	0.20	755	734		
	0.08	1.24	5.67	13.3	30.3	49.2	70.9	87.2	96.7	99.2	90.3	74.9	49.0	31.7	16.1	6.87	2.05	0.20	726	706		
	0.08	1.24	6.60	19.0	54.3	96.2	107	121	124	122	112	90.8	72.9	57.7	24.0	8.22	2.10	0.20	1018	1006		
-30	0.07	1.14	6.72	20.6	62.6	124	129	165	182	178	166	116	104	75.3	26.1	8.71	1.98	0.19	1366	1355		
-40	0.06	0.96	5.76	18.9	49.9	83.5	90.6	99.7	117	125	120	95.3	94.7	64.7	24.0	8.15	1.69	0.18	1001	990		
-50	0.05	0.78	4.00	15.0	29.5	43.3	45.5	48.4	53.4	56.6	56.2	54.7	54.6	37.8	19.4	6.55	1.31	0.16	528	515		
-60	0.03	0.57	2.43	8.32	16.6	21.7	23.9	28.3	30.9	32.1	31.4	28.5	27.1	21.3	12.8	4.21	0.97	0.13	292	266		
-70	0.02	0.36	1.49	3.75	7.28	10.3	11.7	13.8	15.1	15.7	15.5	13.9	13.4	10.9	6.17	2.21	0.70	0.10	143	19.8		
-80	0.01	0.18	0.75	1.88	3.48	5.21	6.50	7.11	7.34	7.60	7.85	7.62	6.60	4.58	2.62	1.25	0.46	0.07	71.1	0.00		
-90	0.01	0.06	0.23	0.62	1.25	2.04	2.65	2.88	2.95	3.09	3.30	3.28	2.71	1.81	1.06	0.54	0.22	0.04	28.7	0.00		
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)													
									20	30	40	50	60	70	80	90						
Φ t	0.77	12.3	63.0	190	471	826	919	1084	1205	1222	1134	971	846	534	230	82.8	21.3	2.47	9819			
Φ a	0.00	0.00	5.69	153	442	789	874	1039	1160	1177	1089	926	808	504	198	22.3	0.00	0.00		9110		

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

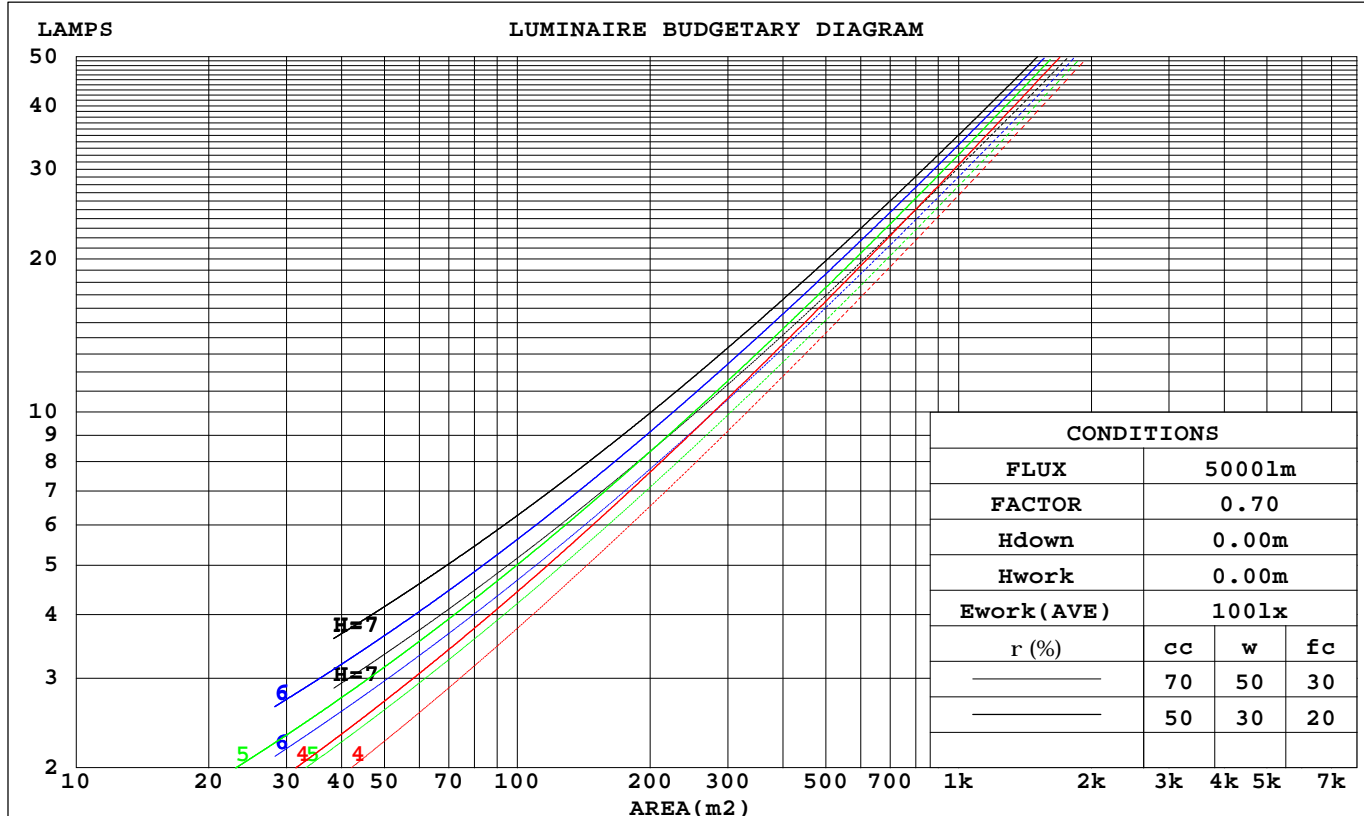
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 25°+60°+25°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°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	.255	.145	.046	.248	.142	.045	.235	.135	.043	.223	.129	.041	.212	.123	.040															
2.0	.247	.135	.041	.241	.133	.041	.229	.128	.040	.219	.123	.038	.209	.118	.037															
3.0	.234	.124	.037	.228	.122	.037	.219	.118	.036	.209	.115	.035	.201	.111	.034															
4.0	.220	.114	.034	.215	.113	.033	.207	.110	.033	.198	.107	.032	.191	.104	.032															
5.0	.207	.105	.031	.203	.104	.030	.195	.102	.030	.188	.099	.029	.181	.097	.029															
6.0	.195	.098	.028	.191	.096	.028	.184	.094	.027	.177	.092	.027	.171	.090	.027															
7.0	.183	.091	.026	.180	.090	.026	.174	.088	.025	.168	.086	.025	.162	.084	.025															
8.0	.173	.084	.024	.170	.084	.024	.164	.082	.023	.159	.081	.023	.154	.079	.023															
9.0	.163	.079	.022	.161	.078	.022	.156	.077	.022	.151	.076	.022	.147	.074	.022															
10.0	.155	.074	.021	.152	.074	.021	.148	.072	.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	.120	.104	.093	.083	.060	.054	.048	.019	.017	.016	
2.0	.167	.132	.104	.143	.114	.090	.098	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.158	.114	.080	.135	.099	.069	.093	.069	.048	.054	.040	.029	.017	.013	.009	
4.0	.150	.101	.063	.129	.087	.055	.089	.061	.039	.051	.036	.023	.016	.012	.007	
5.0	.143	.090	.051	.123	.078	.044	.084	.054	.031	.049	.032	.019	.016	.010	.006	
6.0	.136	.081	.042	.117	.071	.037	.081	.049	.026	.047	.029	.015	.015	.009	.005	
7.0	.130	.074	.036	.112	.065	.031	.077	.045	.022	.045	.027	.013	.014	.009	.004	
8.0	.124	.069	.031	.107	.060	.027	.074	.042	.019	.043	.025	.011	.014	.008	.004	
9.0	.118	.064	.027	.102	.055	.023	.071	.039	.017	.041	.023	.010	.013	.008	.003	
10.0	.113	.060	.024	.098	.052	.021	.068	.036	.015	.040	.022	.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°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	25.8	27.2	26.0	27.4	27.5	23.4	24.8	23.7	25.0	25.2
3H	26.2	27.4	26.4	27.6	27.9	23.7	25.0	24.0	25.2	25.4
4H	26.2	27.4	26.5	27.7	27.9	23.9	25.1	24.2	25.3	25.5
6H	26.2	27.3	26.5	27.6	27.9	24.0	25.1	24.3	25.4	25.6
8H	26.2	27.3	26.5	27.5	27.8	24.0	25.1	24.4	25.4	25.7
12H	26.2	27.2	26.5	27.5	27.8	24.1	25.1	24.4	25.4	25.7
4H 2H	26.0	27.2	26.3	27.5	27.7	24.2	25.4	24.5	25.7	25.9
3H	26.7	27.7	27.0	28.0	28.3	24.6	25.7	25.0	26.0	26.3
4H	26.9	27.8	27.2	28.1	28.4	24.9	25.8	25.2	26.1	26.4
6H	26.9	27.7	27.3	28.1	28.4	25.1	25.9	25.5	26.2	26.6
8H	26.9	27.6	27.3	28.0	28.4	25.2	25.9	25.6	26.3	26.7
12H	26.9	27.6	27.3	28.0	28.4	25.3	26.0	25.7	26.3	26.7
8H 4H	26.9	27.6	27.3	28.0	28.4	25.1	25.8	25.5	26.2	26.6
6H	27.0	27.6	27.4	28.0	28.4	25.4	26.0	25.9	26.4	26.9
8H	27.0	27.6	27.5	28.0	28.4	25.6	26.2	26.1	26.6	27.0
12H	27.0	27.5	27.5	27.9	28.4	25.8	26.3	26.3	26.7	27.2
12H 4H	26.9	27.5	27.3	27.9	28.3	25.0	25.7	25.5	26.1	26.5
6H	27.0	27.5	27.4	27.9	28.4	25.4	26.0	25.9	26.4	26.9
8H	27.0	27.5	27.5	27.9	28.4	25.7	26.1	26.2	26.6	27.1
Variations with the observer position at spacings:										
S = 1.0H	+ 1.1 / - 0.8					+ 0.9 / - 1.1				
1.5H	+ 1.8 / - 3.2					+ 1.0 / - 0.9				
2.0H	+ 2.7 / - 4.6					+ 1.5 / - 1.2				

CIE Pub.117 Corrected 9819 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.9)

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°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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	64	55	48	63	54	48	43
0.80	75	65	59	74	65	59	73	64	58	52
1.00	83	74	68	82	73	68	80	74	67	61
1.25	90	81	75	89	81	75	86	79	74	68
1.50	94	86	81	93	85	80	90	84	79	73
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		

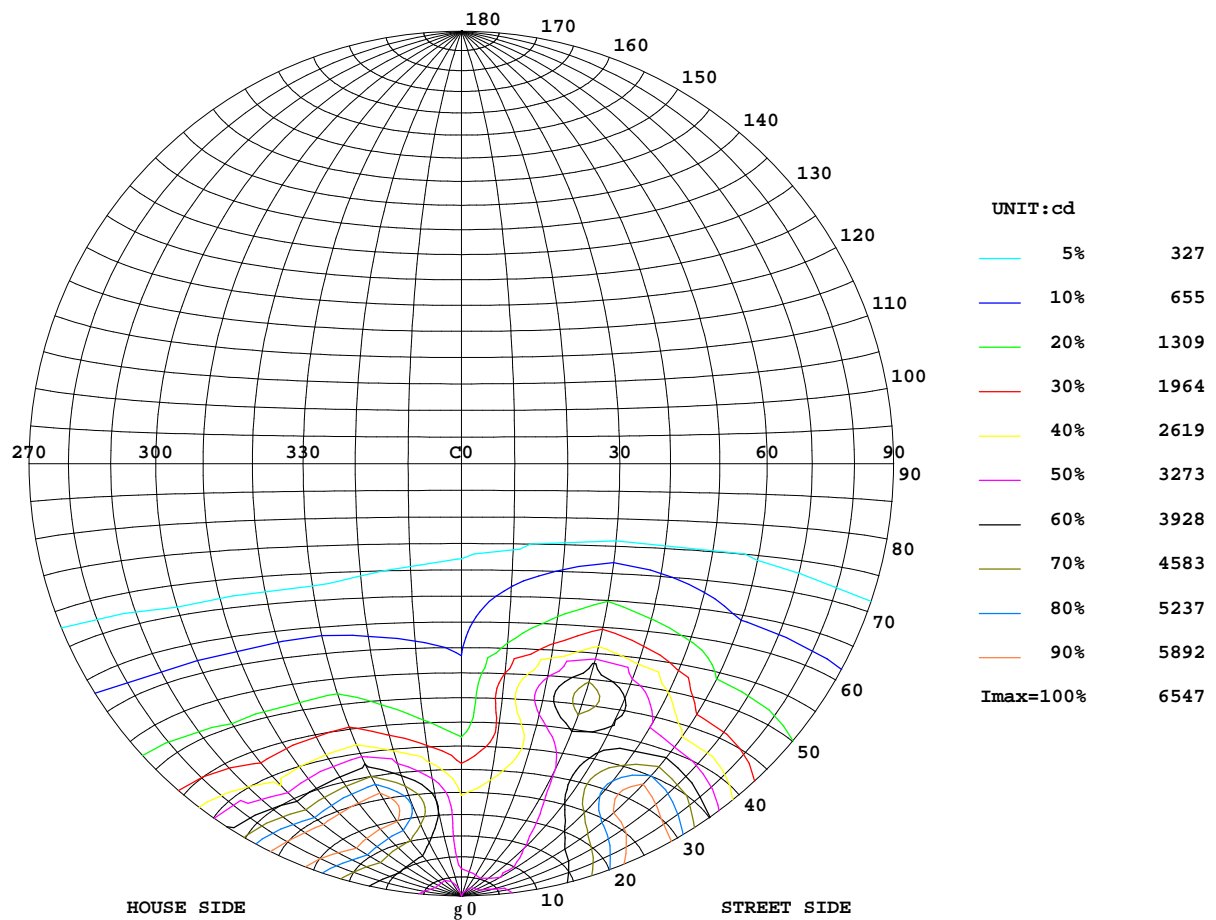
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月14日

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



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

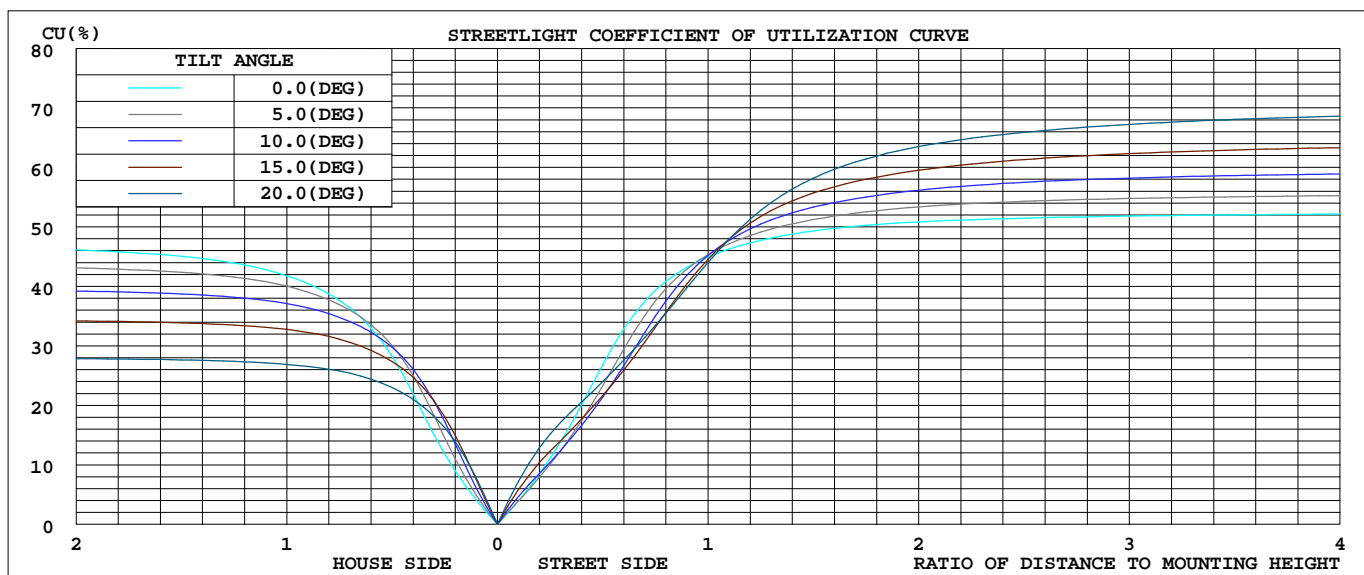
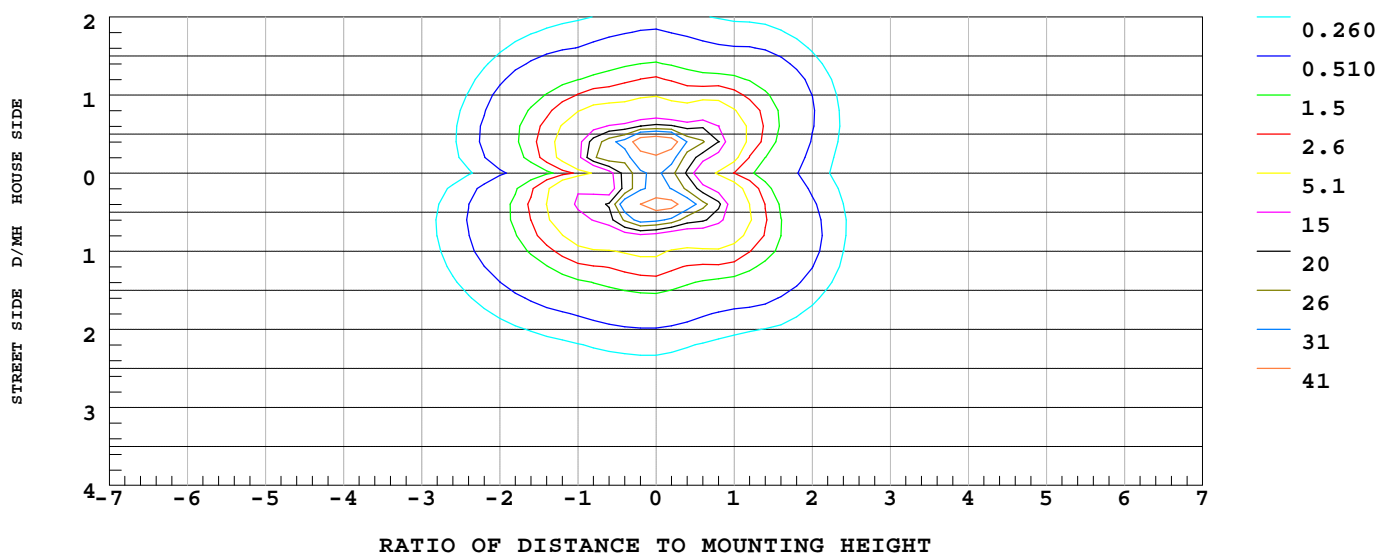
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 25°+60°+25°70W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 576*188mm	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 32.77 lx



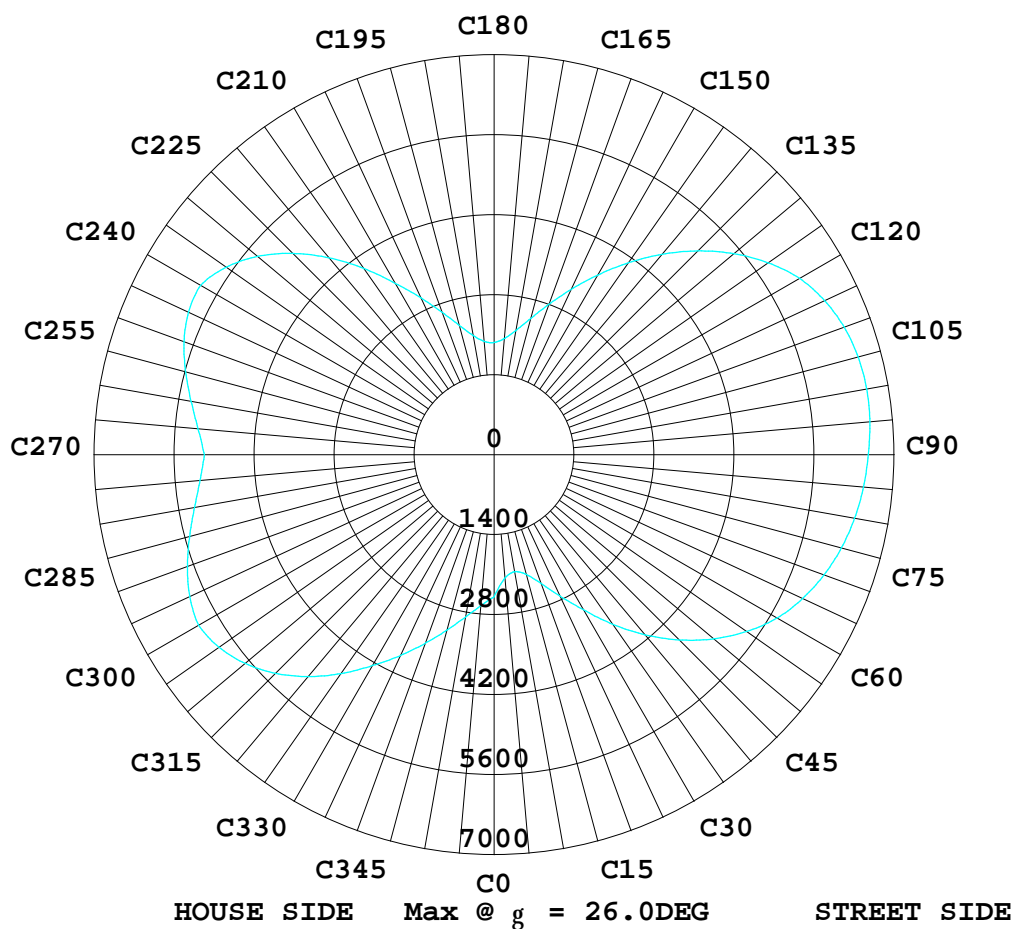
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月14日

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°70W	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: