

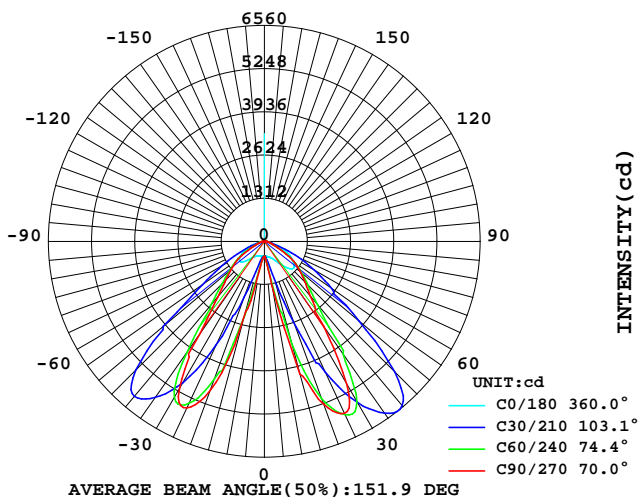
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

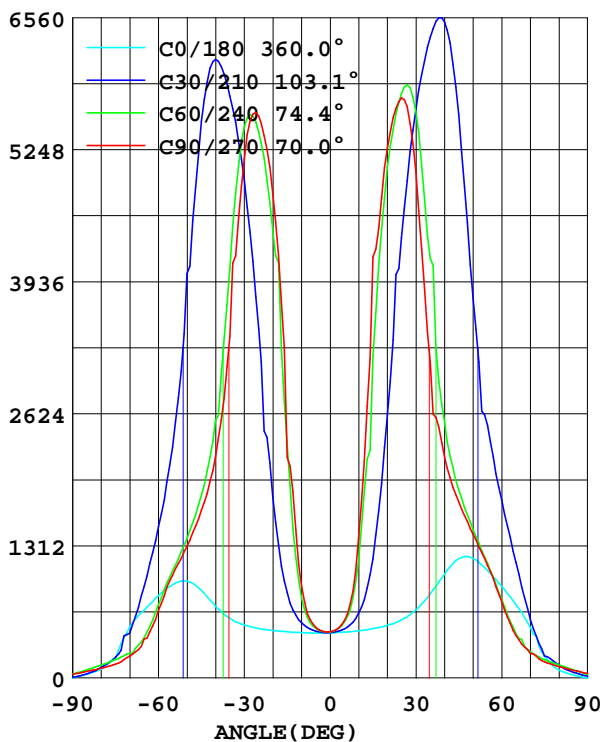
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	6560	S/MH(C0/180)	2.38
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	2.30
NOMINAL POWER(W)	60	TOTAL FLUX(lm)	9823.6	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	165.1	Current(A)	0.287
NOMINAL FLUX(lm)	9823.6	h up(%)	0.1	Power(W)	59.49
LAMPS QUANTITY	1	h down(%)	99.9	Power Factor(PF)	0.946
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	9152.1	EEI	0.089

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



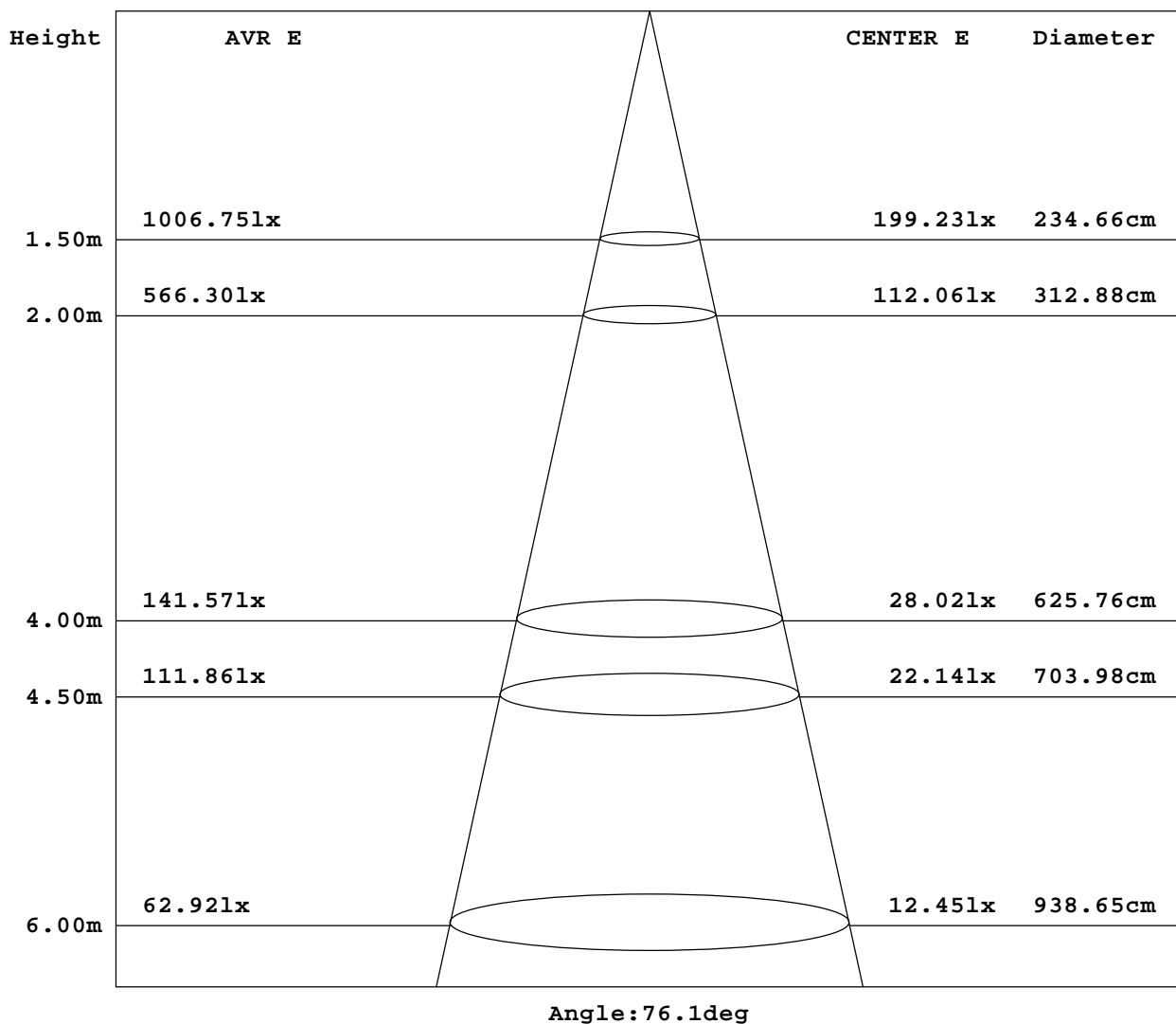
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System: HOPOO HPG1800
 Temperature: 25.3DEG
 Operators:
 Test Date: 2019年08月01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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	447.5	479.4	503.4	463.9	455.7	524.1	570.8	511.8	0- 5	11.31	11.31
10.0	451.1	669.0	911.3	555.9	467.4	902.4	1387	744.2	5- 10	42.95	54.27
15.0	459.5	1583	2194	1000	490.1	2193	4184	1501	10- 15	138.3	192.6
20.0	471.6	3123	4811	2123	523.3	3842	5262	2805	15- 20	384.1	576.7
25.0	491.4	4447	5581	3267	575.5	5089	5763	3906	20- 25	714.9	1292
30.0	526.6	5212	5152	4186	676.4	5634	5034	4919	25- 30	1041	2333
35.0	592.9	4926	3394	5049	839.0	5268	3136	5221	30- 35	1243	3576
40.0	711.1	4355	2195	4845	1031	4524	2191	5042	35- 40	1281	4857
45.0	868.4	3674	1667	3815	1185	3733	1752	4307	40- 45	1234	6091
50.0	962.3	2700	1310	3030	1187	2619	1428	3584	45- 50	1100	7191
55.0	928.2	1681	1021	2161	1069	1824	1118	2495	50- 55	884.0	8075
60.0	819.0	1117	672.5	1482	911.8	1277	762.4	1634	55- 60	659.2	8734
65.0	672.3	653.9	385.9	948.1	726.4	792.1	422.1	1056	60- 65	465.5	9200
70.0	508.1	343.8	216.7	513.4	500.1	420.3	243.1	584.0	65- 70	299.0	9499
75.0	195.7	195.0	138.6	225.7	215.8	199.3	160.3	256.6	70- 75	165.9	9665
80.0	88.76	116.6	96.26	116.8	77.75	130.7	114.4	135.2	75- 80	82.57	9747
85.0	37.94	60.99	63.96	57.91	30.56	68.98	76.30	71.40	80- 85	46.81	9794
90.0	2.371	23.97	36.37	12.29	0	25.90	45.08	21.18	85- 90	21.74	9816
95.0	0	4.755	7.574	0	0	1.403	16.52	0.823	90- 95	5.930	9822
100.0	0	0	0	0	0	0	7.332	0	95-100	0.696	9822
105.0	0	0	0	0	0	0	2.129	0	100-105	0.212	9823
110.0	0	0	0	0	0	0.883	0	0.944	105-110	0.086	9823
115.0	0	0	0	0	0.920	2.153	0	2.008	110-115	0.257	9823
120.0	1.161	0.762	0	0.944	4.549	3.158	0	4.065	115-120	0.589	9824
125.0	0	0	0	0	0	0	0	0	120-125	0.093	9824
130.0	0	0	0	0	0	0	0	0	125-130	0	9824
135.0	0	0	0	0	0	0	0	0	130-135	0	9824
140.0	0	0	0	0	0	0	0	0	135-140	0	9824
145.0	0	0	0	0	0	0	0	0	140-145	0	9824
150.0	0	0	0	0	0	0	0	0	145-150	0	9824
155.0	0	0	0	0	0	0	0	0	150-155	0	9824
160.0	0	0	0	0	0	0	0	0	155-160	0	9824
165.0	0	0	0	0	0	0	0	0	160-165	0	9824
170.0	0	0	0	0	0	0	0	0	165-170	0	9824
175.0	0	0	0	0	0	0	0	0	170-175	0	9824
180.0	0	0	0	0	0	0	0	0	175-180	0	9824
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01日

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

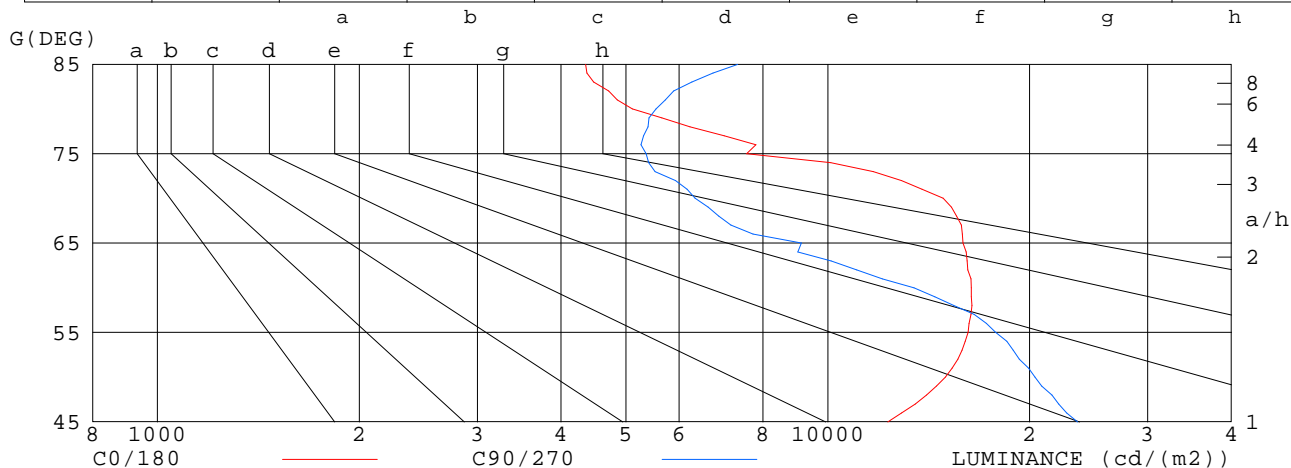
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	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	4354	7339
80	5112	5544
75	7562	5356
70	14857	6338
65	15909	9132
60	16380	13452
55	16184	17806
50	14972	20373
45	12282	23581

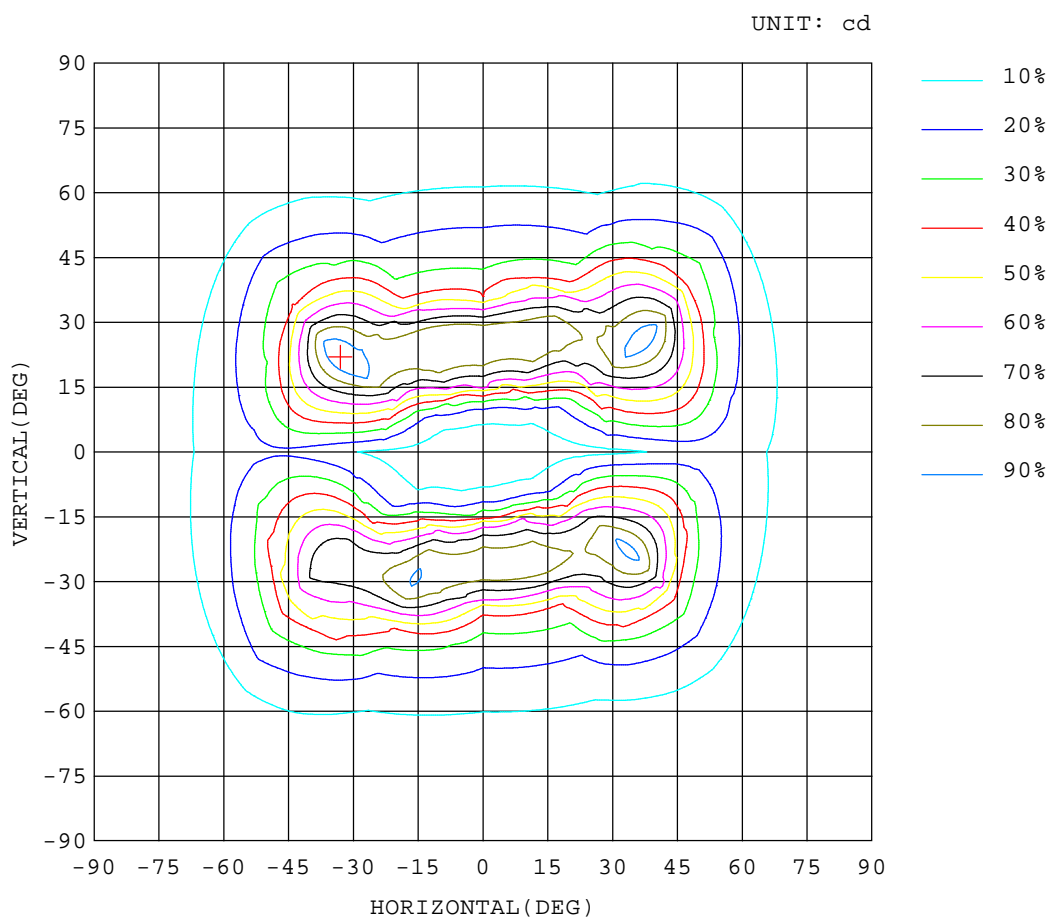
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



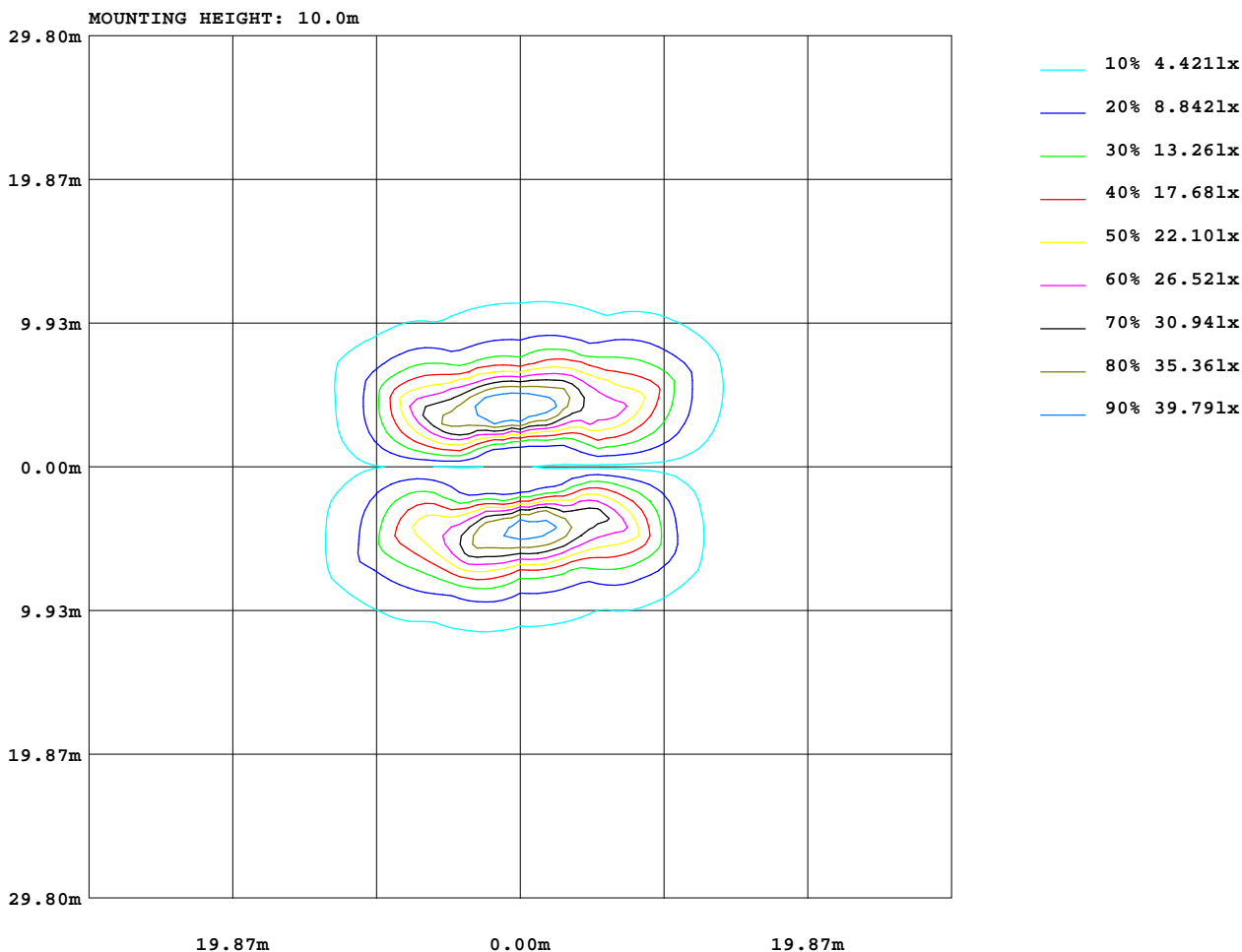
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

VERTICAL (DEG)	90	AREA FLUX DIAGRAM																UNIT:lm				Φ t	Φ a
		0.02	0.14	0.39	0.75	1.21	1.71	2.10	2.28	2.36	2.31	2.15	1.89	1.56	1.21	0.85	0.47	0.18	0.03	21.6	0.00		
	80	0.04	0.28	0.87	1.87	2.99	3.93	4.56	5.03	5.21	5.22	5.05	4.55	4.04	3.14	2.12	1.06	0.36	0.05	50.4	0.00		
	70	0.05	0.46	1.64	3.81	6.89	9.22	9.94	12.2	13.6	13.9	13.1	11.0	11.6	9.33	4.74	1.84	0.56	0.07	124	13.1		
	60	0.07	0.68	2.80	9.11	17.8	23.6	25.2	30.1	33.3	34.2	32.3	28.7	29.7	24.5	13.5	3.43	0.78	0.09	310	286		
	50	0.09	0.95	5.02	17.3	34.3	46.3	48.1	49.7	53.8	57.3	57.0	58.8	63.6	45.8	24.0	6.67	1.04	0.11	570	559		
	40	0.10	1.26	7.60	23.7	53.7	90.0	94.4	93.3	103	113	120	111	115	79.3	30.3	9.71	1.41	0.13	1048	1039		
	30	0.11	1.64	9.43	26.7	69.1	141	150	161	170	166	159	141	143	93.0	33.5	11.1	1.84	0.14	1477	1469		
	20	0.12	1.96	10.1	25.8	64.5	116	136	120	111	97.7	87.1	94.6	100	72.5	31.1	11.0	2.13	0.14	1082	1075		
	10	0.12	2.11	9.84	21.6	40.3	53.5	54.3	33.8	22.5	20.0	21.6	34.2	41.9	37.4	22.0	9.70	2.21	0.15	428	387		
	0	0.12	2.15	10.0	22.7	38.4	40.9	26.5	17.3	16.1	18.0	25.3	43.4	45.5	34.6	19.1	9.00	2.15	0.14	372	316		
	-10	0.12	2.05	10.8	29.0	62.4	86.6	69.1	68.5	73.4	89.4	98.9	118	106	61.0	23.3	9.06	1.96	0.14	910	901		
	-20	0.11	1.76	10.4	30.1	75.0	121	131	154	160	163	154	140	135	68.2	23.5	8.31	1.63	0.13	1377	1368		
	-30	0.10	1.33	8.86	26.9	65.1	95.6	115	138	123	109	93.2	91.9	89.5	51.2	20.1	6.68	1.23	0.12	1036	1026		
	-40	0.09	0.92	6.11	20.9	39.9	56.0	59.6	63.1	58.7	51.6	47.4	46.2	43.8	29.6	14.0	4.54	0.92	0.10	544	530		
	-50	0.07	0.64	3.26	11.8	21.5	27.7	29.4	32.4	32.3	30.5	27.9	23.3	20.5	14.4	7.58	2.53	0.65	0.08	287	253		
	-60	0.05	0.43	1.51	4.47	8.54	10.6	10.7	12.4	12.4	11.7	10.8	8.97	8.07	6.11	3.31	1.41	0.43	0.06	112	5.44		
	-70	0.03	0.25	0.80	1.69	2.77	3.84	4.36	4.62	4.56	4.57	4.67	4.46	3.78	2.68	1.55	0.71	0.25	0.04	45.6	0.00		
	-80	0.01	0.08	0.25	0.55	0.94	1.37	1.71	1.90	1.97	2.05	2.11	2.05	1.66	1.06	0.55	0.25	0.10	0.02	18.6	0.00		
	-90																						
		-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)				20	30	40	50	60	70	80	90		
Φ t		1.41	19.1	99.9	279	606	929	972	1000	998	990	962	964	965	636	276	97.6	19.8	1.73	9824			
Φ a		0.00	0.00	61.2	254	579	898	934	949	940	933	912	924	932	608	249	56.2	0.00	0.00		9152		

Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

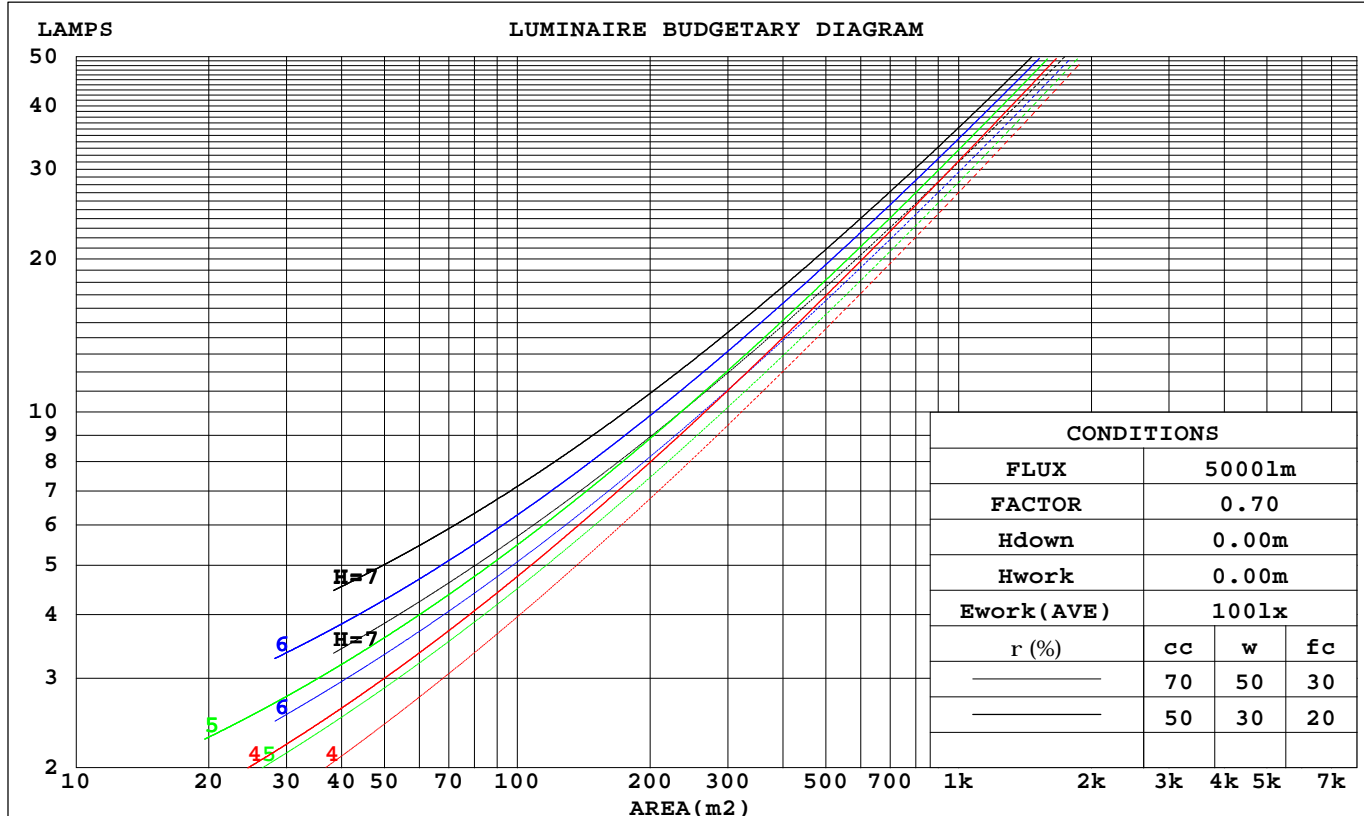
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

rcc	80%			70%			50%			30%			10%			0														
r w	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	1.06	1.02	.99	1.04	1.00	.97	.99	.97	.94	.96	.93	.91	.92	.90	.88	.86														
2.0	.93	.87	.82	.91	.86	.81	.88	.83	.79	.85	.81	.77	.82	.78	.75	.73														
3.0	.82	.75	.68	.81	.74	.68	.78	.72	.67	.75	.70	.66	.73	.68	.64	.62														
4.0	.73	.64	.58	.71	.64	.58	.69	.62	.57	.67	.61	.56	.65	.59	.55	.53														
5.0	.65	.56	.50	.64	.55	.49	.61	.54	.49	.60	.53	.48	.58	.52	.48	.46														
6.0	.58	.49	.43	.57	.49	.42	.55	.48	.42	.53	.47	.42	.52	.46	.41	.39														
7.0	.52	.43	.37	.51	.43	.37	.50	.42	.37	.48	.41	.36	.47	.41	.36	.34														
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30														
9.0	.42	.34	.29	.42	.34	.28	.41	.33	.28	.40	.33	.28	.39	.32	.28	.26														
10.0	.39	.31	.25	.38	.30	.25	.37	.30	.25	.36	.30	.25	.35	.29	.25	.23														



Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01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:						TYPE:			WEIGHT:		
SPECIFICATION:						DIMENSION: 1438*65mm			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															

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	.178	.157	.138	.153	.135	.119	.104	.093	.082	.060	.054	.048	.019	.017	.015	
2.0	.169	.133	.102	.145	.114	.088	.099	.079	.061	.057	.046	.036	.018	.015	.012	
3.0	.162	.115	.078	.138	.099	.067	.095	.069	.047	.055	.040	.028	.018	.013	.009	
4.0	.154	.101	.061	.133	.088	.053	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.148	.091	.049	.127	.079	.043	.087	.055	.030	.051	.032	.018	.016	.011	.006	
6.0	.141	.083	.040	.122	.072	.035	.084	.050	.025	.049	.029	.015	.016	.010	.005	
7.0	.135	.076	.034	.116	.066	.030	.080	.046	.021	.047	.027	.013	.015	.009	.004	
8.0	.129	.070	.029	.111	.061	.026	.077	.043	.018	.045	.025	.011	.015	.008	.004	
9.0	.124	.065	.026	.107	.057	.022	.074	.040	.016	.043	.024	.010	.014	.008	.003	
10.0	.119	.061	.023	.102	.053	.020	.071	.037	.014	.041	.022	.008	.013	.007	.003	

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01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:					TYPE:			WEIGHT:			
SPECIFICATION:					DIMENSION: 1438*65mm			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	25.3	26.8	25.6	27.0	27.2	22.5	23.9	22.7	24.1	24.4
	3H	25.7	27.0	26.0	27.2	27.5	22.5	23.9	22.8	24.1	24.4
	4H	25.7	27.0	26.0	27.2	27.5	22.6	23.8	22.9	24.1	24.3
	6H	25.6	26.8	26.0	27.1	27.4	22.6	23.8	22.9	24.0	24.3
	8H	25.6	26.8	25.9	27.0	27.3	22.6	23.7	22.9	24.0	24.3
	12H	25.6	26.7	25.9	27.0	27.3	22.6	23.7	22.9	24.0	24.3
4H	2H	25.3	26.6	25.6	26.9	27.1	23.0	24.2	23.3	24.5	24.7
	3H	25.8	26.9	26.2	27.2	27.5	23.1	24.2	23.5	24.5	24.8
	4H	25.9	26.9	26.3	27.2	27.5	23.2	24.2	23.6	24.5	24.8
	6H	25.9	26.8	26.3	27.1	27.5	23.3	24.1	23.7	24.5	24.9
	8H	25.9	26.7	26.3	27.0	27.4	23.3	24.1	23.7	24.5	24.9
	12H	25.8	26.6	26.3	27.0	27.4	23.4	24.1	23.8	24.5	24.9
8H	4H	25.8	26.6	26.2	27.0	27.4	23.2	24.0	23.6	24.4	24.8
	6H	25.8	26.5	26.3	26.9	27.3	23.4	24.1	23.9	24.5	24.9
	8H	25.8	26.4	26.3	26.9	27.3	23.5	24.1	24.0	24.5	25.0
	12H	25.8	26.3	26.3	26.8	27.3	23.7	24.2	24.1	24.6	25.1
12H	4H	25.8	26.5	26.2	26.9	27.3	23.2	23.9	23.6	24.3	24.7
	6H	25.8	26.4	26.3	26.8	27.3	23.4	24.0	23.9	24.4	24.9
	8H	25.8	26.3	26.3	26.8	27.3	23.6	24.1	24.0	24.5	25.0
Variations with the observer position at spacings:											
S = 1.0H	+ 2.4 / - 1.7					+ 1.0 / - 1.4					
1.5H	+ 1.5 / - 4.3					+ 1.9 / - 0.8					
2.0H	+ 2.9 / - 4.1					+ 1.5 / - 2.1					

CIE Pub.117 Corrected 9824 lm Total Lamp Luminous Flux.(8log(F/F0) = 7.9)

Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	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) $k(RI) \times RCR = 5$									
$k = 0.60$	59	48	41	59	48	41	58	47	41	35
0.80	70	59	52	69	59	52	68	58	52	45
1.00	80	69	63	78	69	62	76	70	62	55
1.25	87	77	71	86	77	71	83	75	70	63
1.50	92	83	77	90	82	76	87	80	75	68
2.00	98	91	85	97	90	84	93	88	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	103	97	93	99	94	91	83
4.00	108	103	99	106	101	98	102	98	95	86
5.00	110	106	102	108	104	101	103	100	98	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

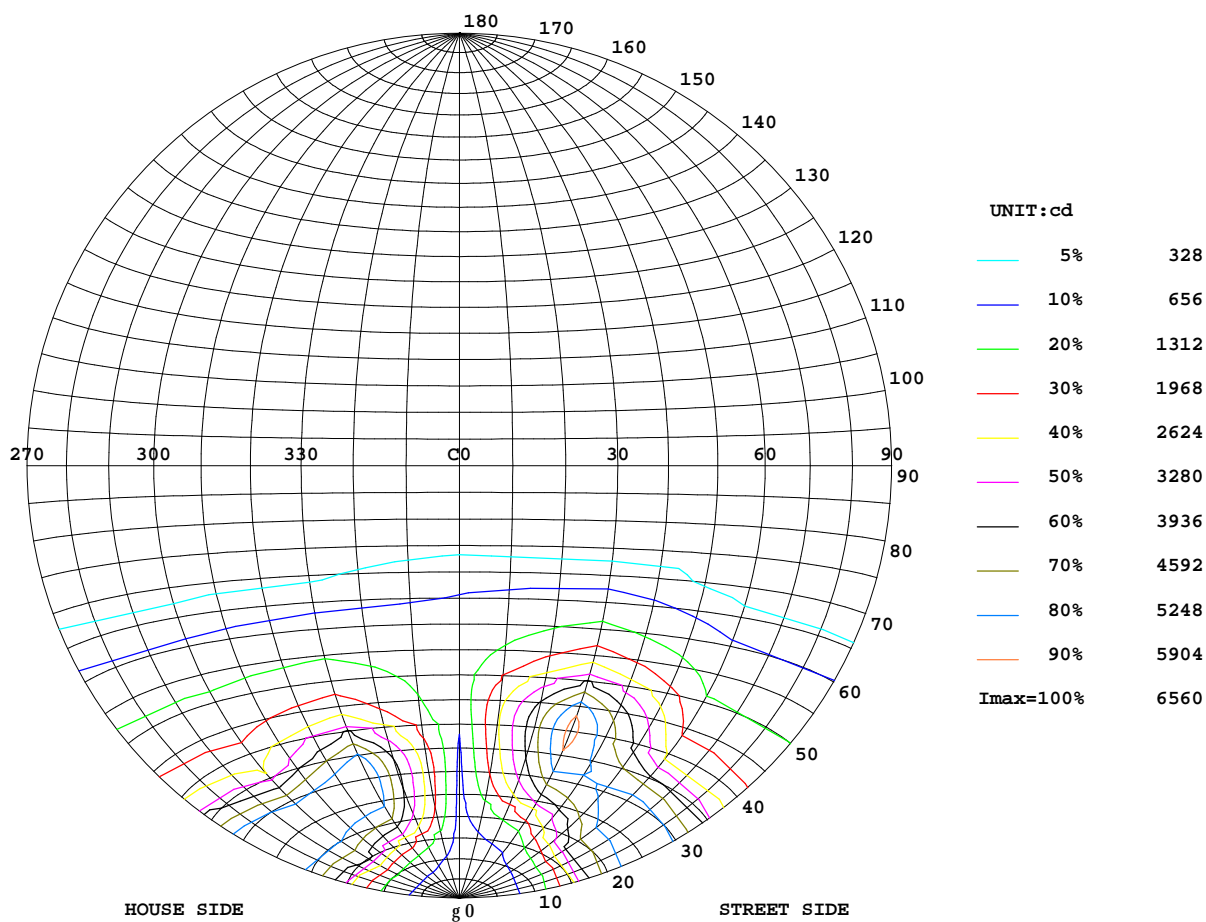
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

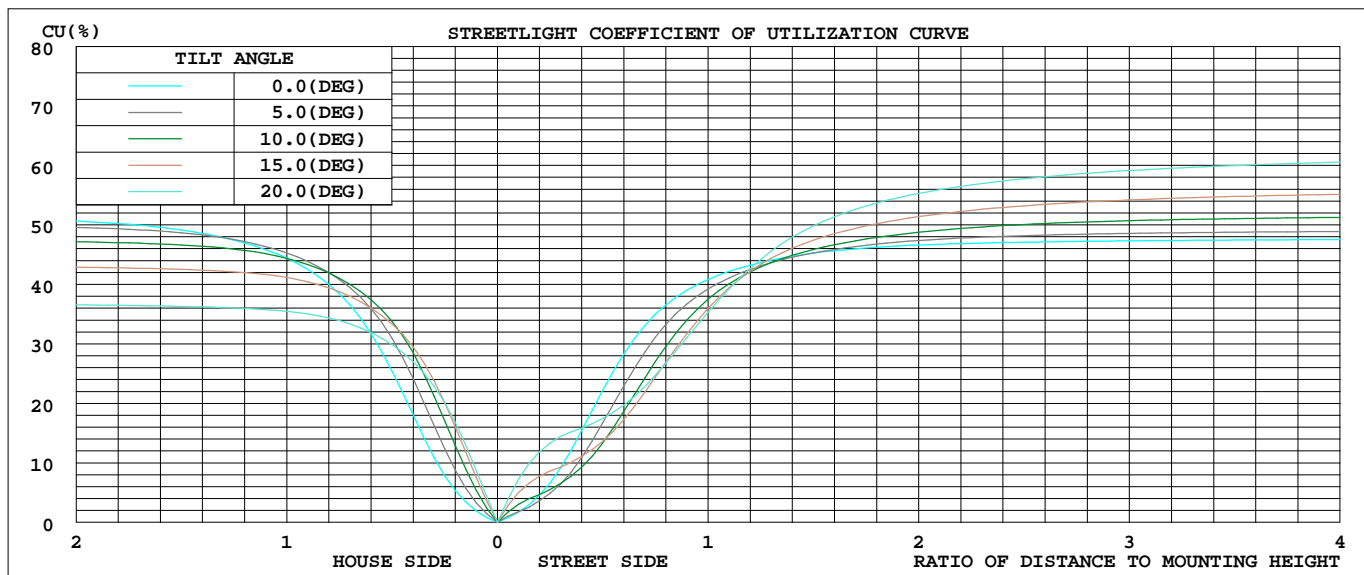
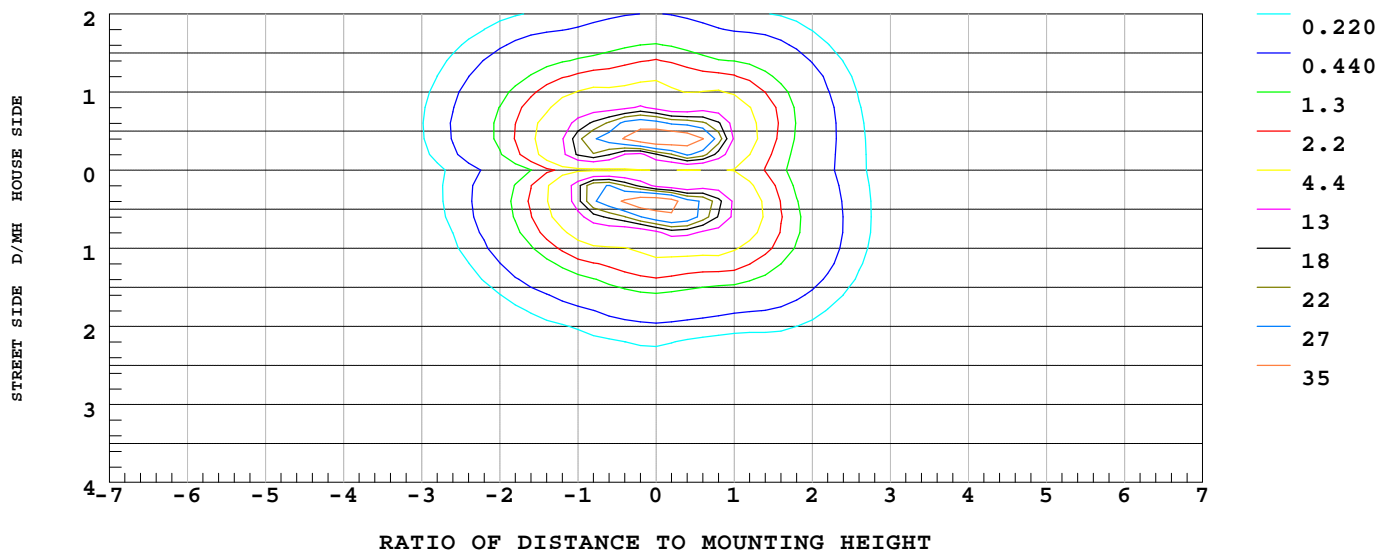
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

ILLUMINANCE AT MH=10 m,Enadir = 4.48 lx



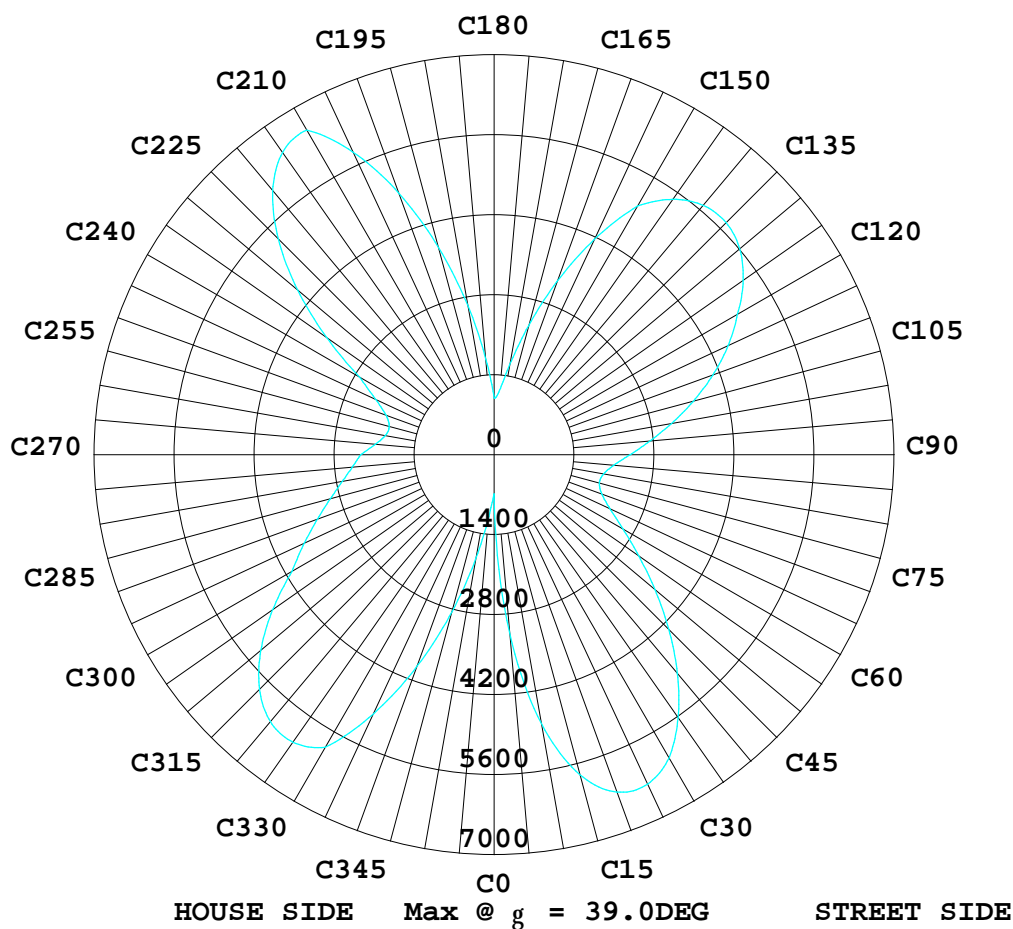
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:



Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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