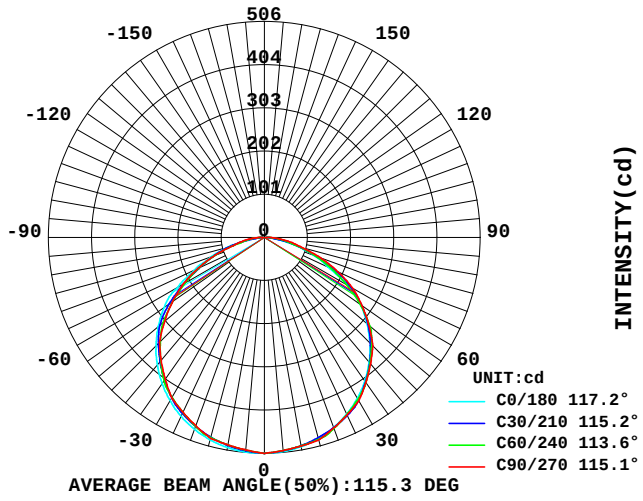
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

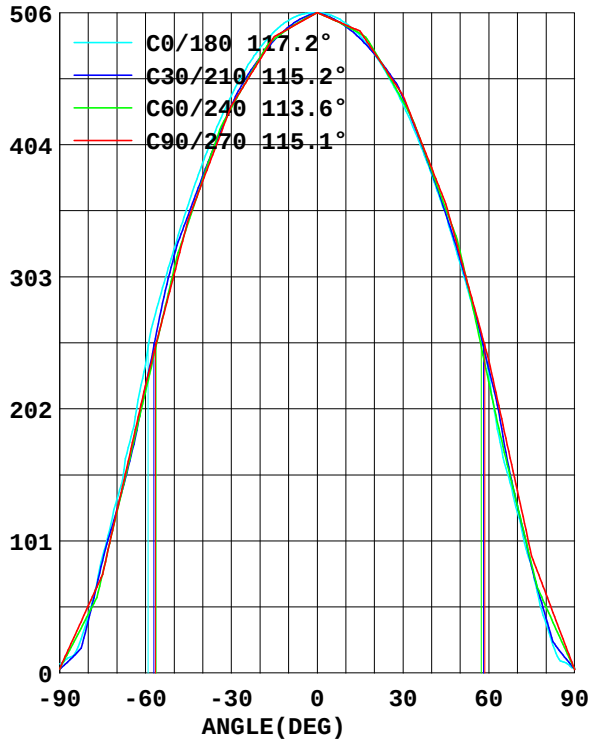
DATA OF LAMP		Imax(cd)	505.5	S/MH(C0/180)	1.30
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.27
NOMINAL POWER(W)		TOTAL FLUX(lm)	1451.6	Voltage(V)	240.0
RATED VOLTAGE(V)	220.0	EFFICIENCY(lm/W)	93.1	Current(A)	0.069
NOMINAL FLUX(lm)	1451.7	h up(%)	0.0	Power(W)	15.60
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.872
TEST VOLTAGE(V)	240.0	Effictive Flux(lm)	1451.7	EEI	0.146

LUMINOUS INTENSITY DISTRIBUTION



AVERAGE BEAM ANGLE(50%):115.3 DEG

LUMINOUS INTENSITY DISTRIBUTION



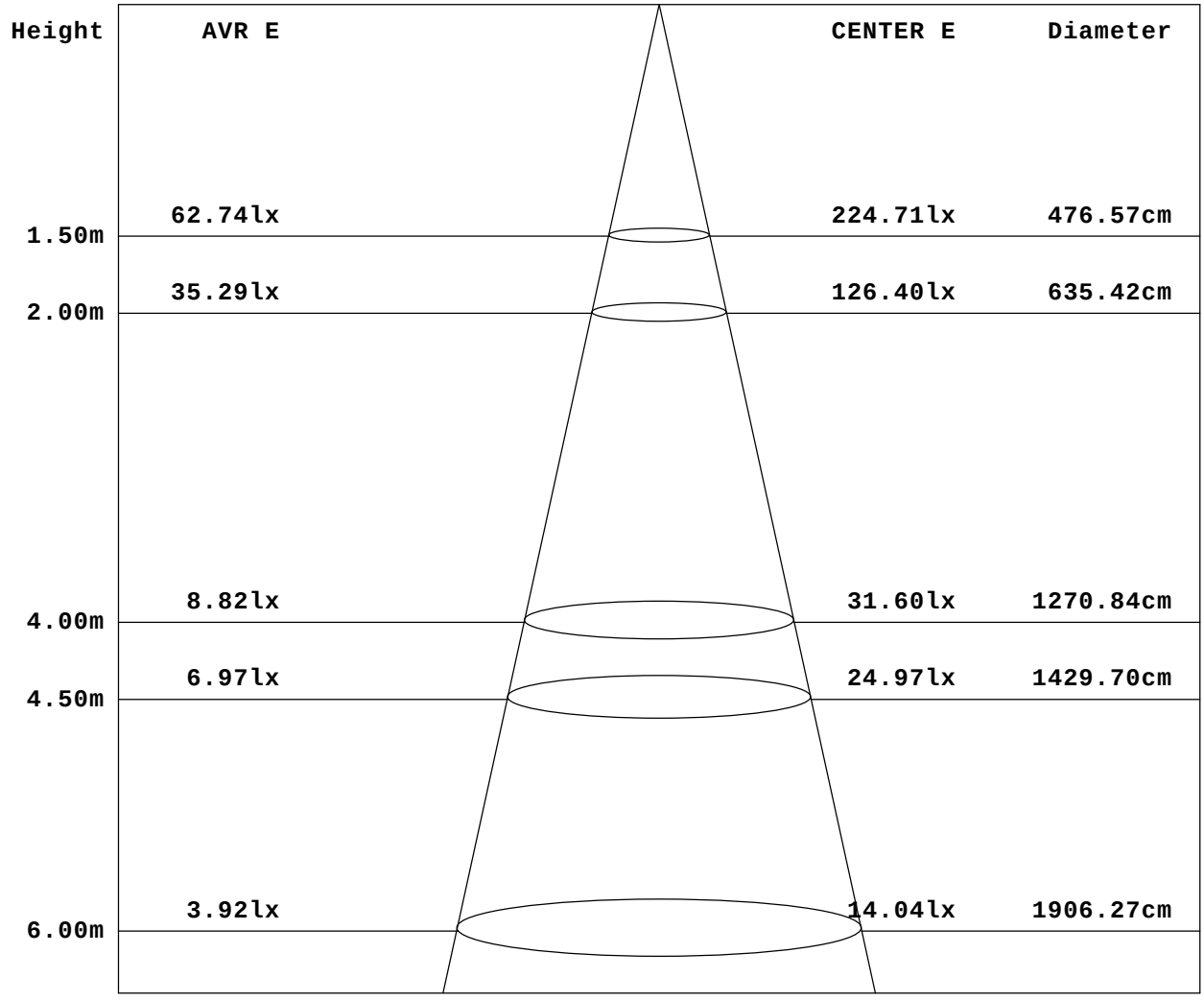
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

AVERAGE AND CENTER E Figure

Report number:

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



Angle:115.6deg

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	zone	total
5.0	504.5	500.5	499.4	500.1	503.4	501.1	500.8	501.6	0- 5	12.02	12.02
10.0	499.5	493.5	493.3	493.1	497.4	495.2	496.1	495.6	5- 10	35.63	47.65
15.0	491.0	484.2	487.1	484.5	487.9	487.4	491.4	487.4	10- 15	58.25	105.9
20.0	478.5	472.9	469.4	474.2	474.1	478.0	475.0	476.9	15- 20	79.18	185.0
25.0	462.1	453.3	451.7	454.3	456.3	459.0	458.6	458.5	20- 25	97.46	282.5
30.0	441.6	431.7	434.0	431.0	435.5	436.4	442.3	437.6	25- 30	112.8	395.4
35.0	418.1	409.1	405.2	406.2	410.5	412.5	414.5	415.8	30- 35	124.8	520.2
40.0	390.2	383.5	376.3	378.8	381.6	385.5	386.8	391.0	35- 40	132.4	652.6
45.0	358.6	347.3	347.4	345.6	352.8	352.1	359.1	355.7	40- 45	135.9	788.6
50.0	324.6	310.4	305.0	312.2	313.7	319.6	319.3	319.6	45- 50	134.9	923.5
55.0	286.7	272.1	262.5	277.5	275.0	285.5	279.5	282.1	50- 55	128.2	1052
60.0	235.7	222.0	220.0	222.6	229.3	231.1	239.7	231.4	55- 60	116.1	1168
65.0	181.0	169.3	171.8	169.8	165.1	176.6	189.6	181.5	60- 65	97.37	1265
70.0	132.4	121.3	123.5	119.2	122.8	124.0	139.6	130.0	65- 70	75.97	1341
75.0	89.69	76.50	75.28	77.81	82.17	81.24	89.56	84.00	70- 75	54.19	1396
80.0	44.34	36.36	51.23	39.16	38.20	42.82	60.58	41.89	75- 80	32.87	1428
85.0	13.52	19.60	27.18	20.81	9.144	22.29	31.60	21.19	80- 85	16.99	1445
90.0	6.889	3.006	3.131	3.257	4.008	2.755	2.630	2.505	85- 90	6.226	1452
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

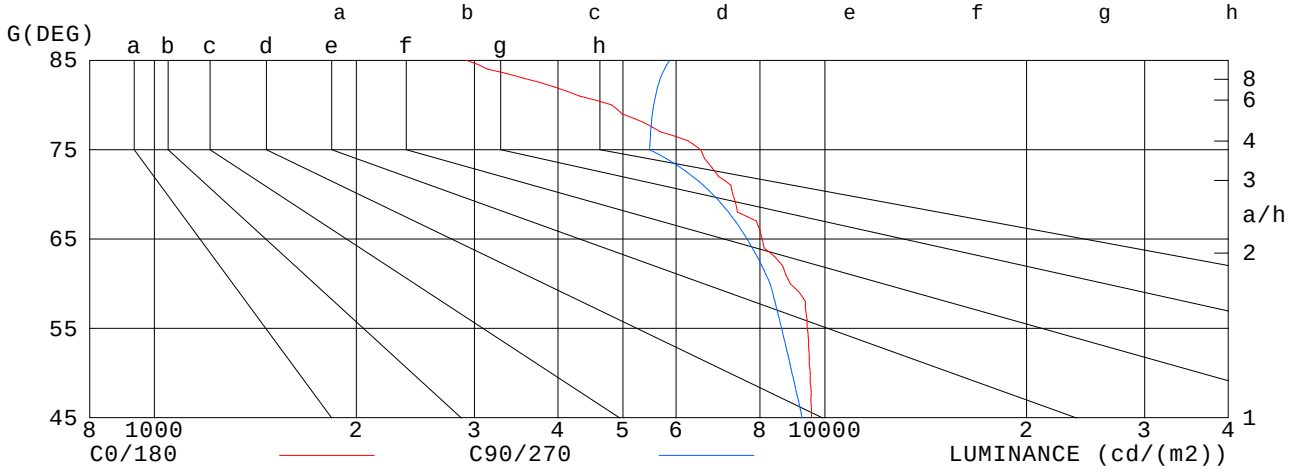
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:	**Address:**	
NAME:	**TYPE:**	**WEIGHT:**
SPECIFICATION:	**DIMENSION:**	**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
		a	b	c	d	e	f	g	h



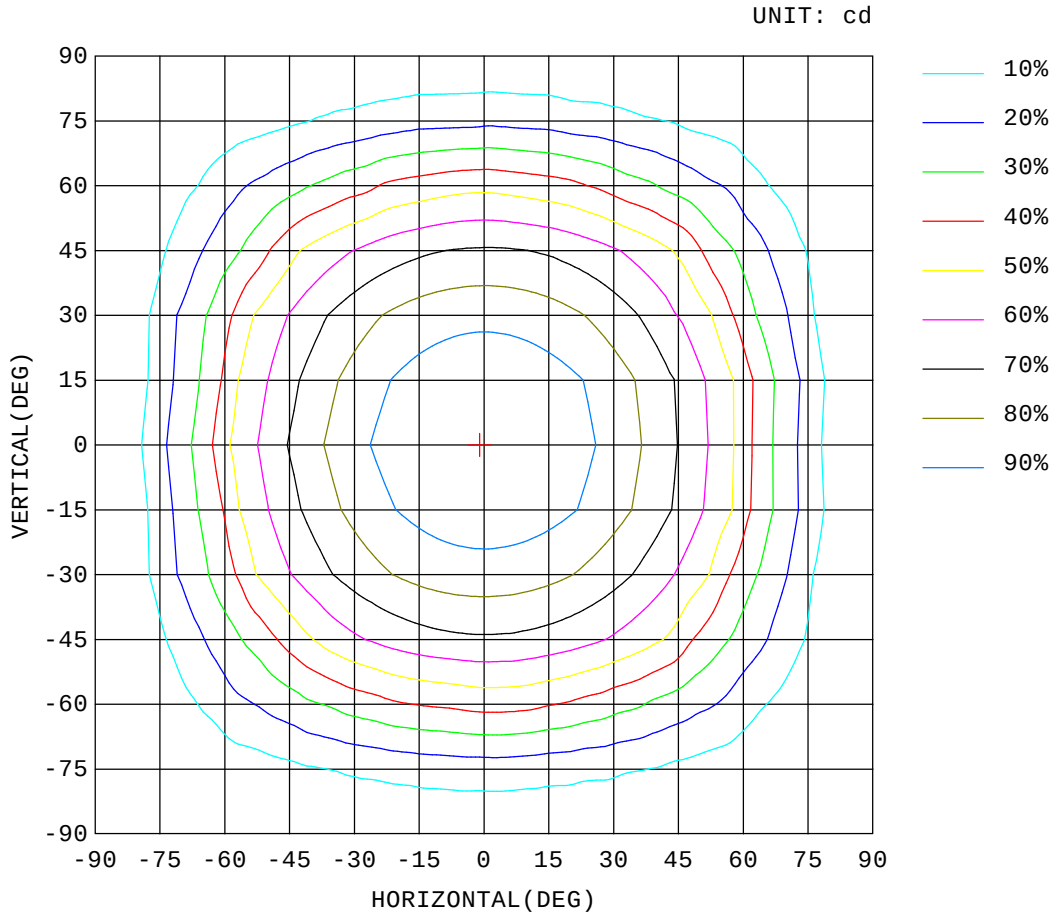
LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2923	5874
80	4809	5557
75	6526	5478
70	7291	6803
65	8066	7657
60	8880	8290
55	9415	8621
50	9513	8937
45	9552	9255

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ISOCANDELA DIAGRAM

Report number:

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



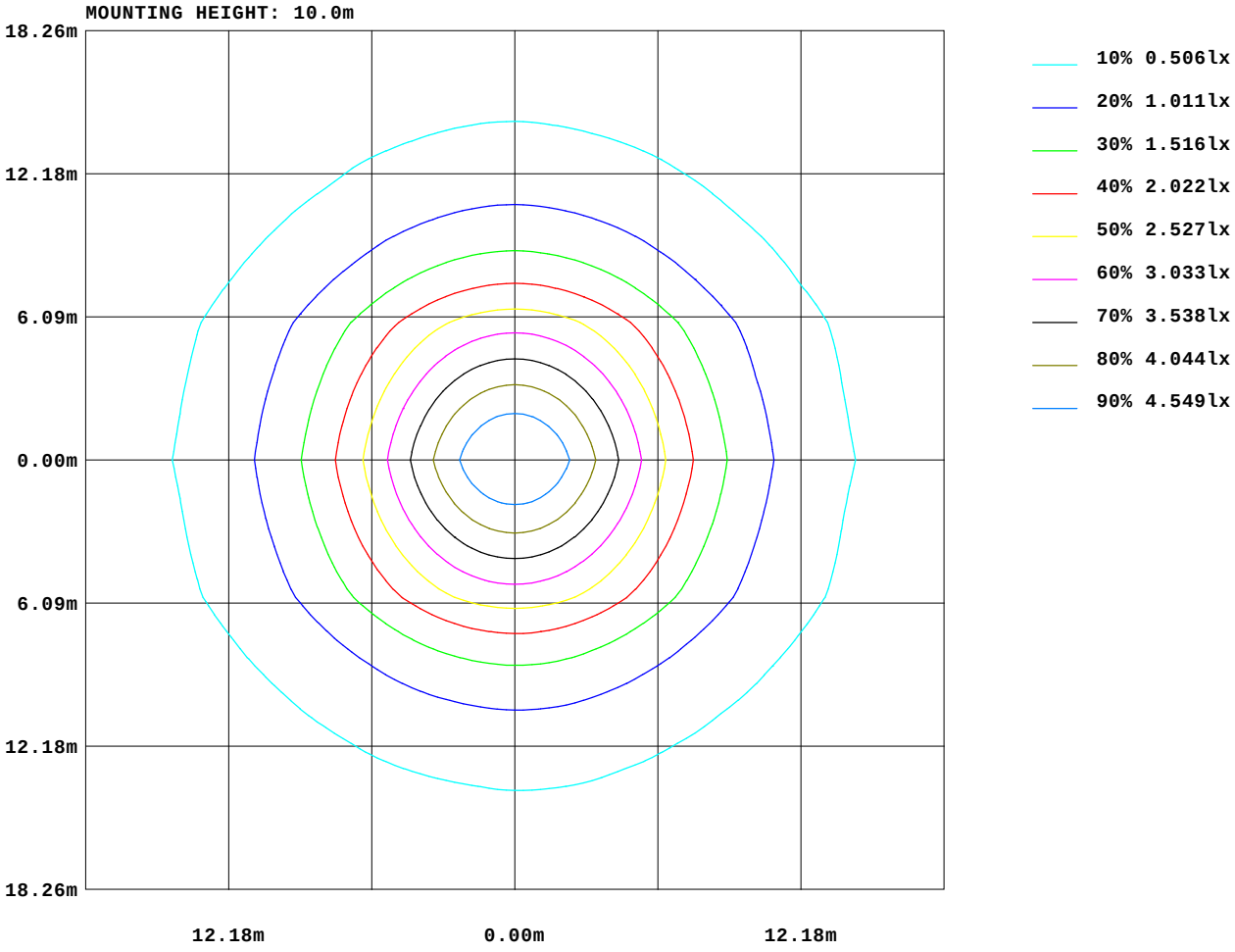
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

AREA LUMINOUS FLUX

Report number:

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

VERTICAL(DEG)	AREA FLUX DIAGRAM																			UNIT:lm	Φ t	Φ a
90																						
80	0.01	0.02	0.04	0.05	0.06	0.07	0.07	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.04	0.03	0.02	0.01		0.88	0.88
70	0.01	0.05	0.13	0.31	0.55	0.86	1.14	1.42	1.53	1.55	1.39	1.13	0.86	0.57	0.32	0.13	0.05	0.01		12.0	12.0
60	0.02	0.10	0.29	0.79	1.48	2.33	3.15	3.93	4.24	4.32	3.87	3.12	2.35	1.55	0.84	0.32	0.10	0.02		32.8	32.8
50	0.02	0.24	0.95	2.16	3.56	5.09	6.67	7.93	8.71	8.63	7.92	6.70	5.07	3.52	2.15	0.89	0.22	0.03		70.5	70.5
40	0.03	0.34	1.33	2.91	4.99	7.04	8.92	10.3	11.2	11.1	10.4	8.99	7.08	5.06	2.96	1.32	0.36	0.03		94.5	94.5
30	0.04	0.47	1.71	3.57	6.51	9.07	11.0	12.4	13.2	13.3	12.6	11.2	9.26	6.83	3.75	1.85	0.54	0.04		118	118
	0.06	0.66	2.09	4.56	7.09	9.56	11.7	13.3	14.1	14.1	13.2	11.6	9.46	6.95	4.39	1.94	0.56	0.04		126	126
	0.06	0.70	2.26	4.97	7.63	10.2	12.6	14.3	15.2	15.2	14.3	12.6	10.2	7.60	4.93	2.25	0.68	0.06		136	136
	0.05	0.65	2.25	5.00	7.78	10.5	12.9	14.8	15.7	15.8	14.9	13.2	10.8	8.09	5.32	2.59	0.81	0.07		142	142
	0.07	0.77	2.45	5.06	7.80	10.5	12.8	14.5	15.4	15.3	14.4	12.7	10.3	7.63	4.87	2.24	0.65	0.05		138	138
	0.06	0.71	2.31	4.88	7.58	10.2	12.5	14.2	15.1	15.1	14.2	12.5	10.1	7.52	4.82	2.23	0.66	0.05		135	135
-30	0.04	0.55	1.90	4.38	6.97	9.49	11.7	13.3	14.2	14.3	13.5	11.9	9.77	7.25	4.68	2.22	0.71	0.06		127	127
-40	0.05	0.57	1.79	3.79	6.22	8.45	10.3	11.8	12.5	12.5	11.7	10.2	8.32	6.09	3.61	1.65	0.46	0.03		110	110
-50	0.04	0.43	1.45	3.02	5.15	7.25	8.97	10.2	10.9	10.8	10.1	8.91	7.19	5.16	2.92	1.36	0.37	0.03		94.5	94.5
-60	0.02	0.20	0.95	1.93	3.62	5.59	7.07	8.14	8.72	8.75	8.20	7.18	5.79	3.98	2.13	1.07	0.30	0.02		73.7	73.7
-70	0.02	0.14	0.53	1.34	2.12	3.01	3.96	4.73	5.20	5.37	4.80	3.89	2.91	2.00	1.28	0.46	0.10	0.02		41.9	41.9
-80	0.01	0.06	0.16	0.53	0.83	1.20	1.67	2.09	2.37	2.49	2.13	1.63	1.13	0.72	0.48	0.11	0.02	0.01		17.6	17.6
-90	0.01	0.01	0.00	0.00	0.02	0.04	0.06	0.09	0.12	0.11	0.08	0.07	0.06	0.02	0.00	0.00	0.01	0.01		0.71	0.71
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL(DEG)	20	30	40	50	60	70	80	90					
Φ t	0.61	6.67	22.6	49.3	80.0	111	138	158	169	169	158	138	111	80.6	49.5	22.7	6.61	0.60		1452		
Φ a	0.61	6.67	22.6	49.3	80.0	111	138	158	169	169	158	138	111	80.6	49.5	22.7	6.61	0.60			1452	

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

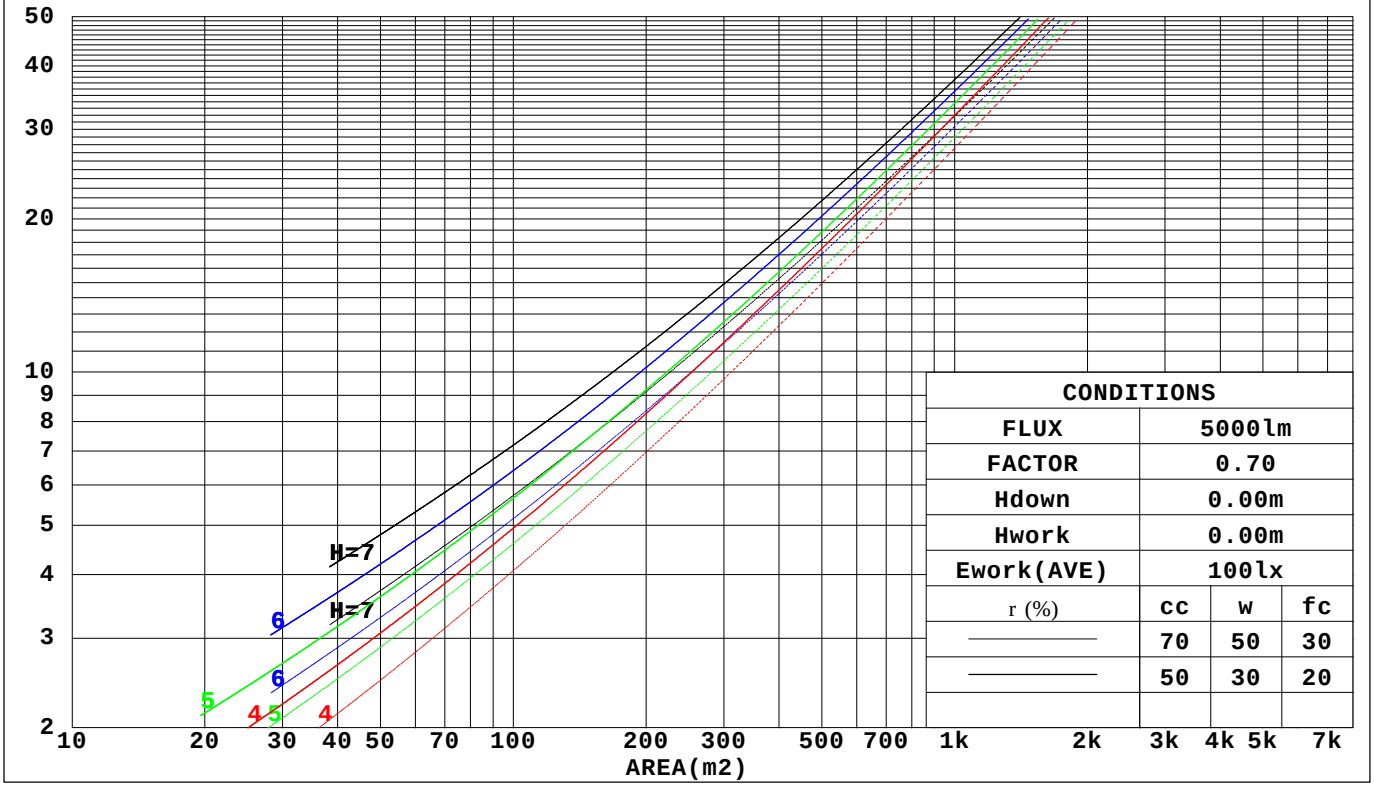
Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	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			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	1.00
1.0	1.04	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.79	.89	.83	.78	.86	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.64	.73	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.65	.58	.53	.62	.57	.53	.51
5.0	.63	.54	.48	.62	.54	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.41	.56	.47	.41	.54	.47	.41	.52	.46	.41	.51	.45	.40	.38
7.0	.51	.43	.37	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.33	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.35	.29	.41	.34	.29	.40	.34	.29	.39	.33	.29	.27
10.0	.40	.32	.26	.39	.32	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



CONDITIONS			
FLUX	5000lm		
FACTOR	0.70		
Hdown	0.00m		
Hwork	0.00m		
Ework(AVE)	100lx		
r (%)	cc	w	fc
———	70	50	30
———	50	30	20

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

WEC AND CCEC

Report number:

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

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.302	.172	.054	.295	.168	.053	.282	.162	.052	.269	.155	.050	.258	.150	.048	
2.0	.286	.157	.048	.280	.154	.048	.268	.149	.046	.258	.145	.045	.248	.140	.044	
3.0	.266	.142	.042	.261	.140	.042	.251	.136	.041	.241	.132	.041	.232	.129	.040	
4.0	.247	.128	.038	.242	.127	.037	.233	.123	.037	.224	.120	.036	.216	.118	.036	
5.0	.229	.117	.034	.224	.115	.034	.216	.113	.033	.209	.110	.033	.202	.108	.032	
6.0	.212	.107	.030	.209	.105	.030	.201	.103	.030	.195	.101	.030	.188	.099	.029	
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.176	.092	.027	
8.0	.185	.090	.025	.182	.090	.025	.176	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023	
10.0	.163	.078	.022	.161	.078	.022	.156	.077	.022	.152	.075	.021	.148	.074	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.140	.099	.065	.096	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

Uncorrected UGR Table

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	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	20.5	22.1	20.8	22.3	22.5	20.3	21.8	20.6	22.0	22.2
3H	21.8	23.2	22.1	23.4	23.7	21.6	23.0	21.9	23.2	23.5
4H	22.3	23.6	22.6	23.8	24.1	22.0	23.3	22.3	23.6	23.8
6H	22.5	23.7	22.8	24.0	24.3	22.3	23.6	22.7	23.8	24.1
8H	22.5	23.7	22.9	24.0	24.3	22.5	23.7	22.8	23.9	24.2
12H	22.5	23.7	22.9	24.0	24.3	22.6	23.7	22.9	24.0	24.3
4H 2H	21.0	22.4	21.4	22.6	22.9	20.9	22.2	21.2	22.5	22.7
3H	22.5	23.6	22.8	23.9	24.2	22.3	23.5	22.7	23.8	24.1
4H	23.0	24.1	23.4	24.4	24.7	22.8	23.8	23.2	24.2	24.5
6H	23.3	24.3	23.7	24.6	25.0	23.2	24.1	23.6	24.5	24.9
8H	23.4	24.3	23.8	24.6	25.0	23.4	24.3	23.8	24.6	25.0
12H	23.4	24.2	23.8	24.6	25.0	23.6	24.4	24.0	24.8	25.2
8H 4H	23.2	24.0	23.6	24.4	24.8	23.0	23.8	23.4	24.2	24.6
6H	23.6	24.3	24.0	24.7	25.1	23.5	24.2	23.9	24.6	25.1
8H	23.7	24.3	24.1	24.7	25.2	23.8	24.4	24.2	24.8	25.3
12H	23.7	24.3	24.2	24.7	25.2	24.0	24.6	24.5	25.0	25.5
12H 4H	23.2	24.0	23.6	24.4	24.8	22.9	23.7	23.4	24.1	24.5
6H	23.6	24.2	24.0	24.7	25.1	23.5	24.2	24.0	24.6	25.0
8H	23.7	24.3	24.2	24.7	25.2	23.8	24.4	24.3	24.8	25.3
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
1.5H	+ 0.3 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.6					+ 0.3 / - 0.2				

CIE Pub.117 Corrected 1452 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.3)

Test System:HOPOO HPG1900 Test Set: 5.0deg/s B-Beta (TYPE B)
Temperature:25.3DEG Humidity:65.0%
Operators: Test Distance:10.800 m
Test Date: Remarks:

UTILIZATION FACTORS TABLE

Report number:

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

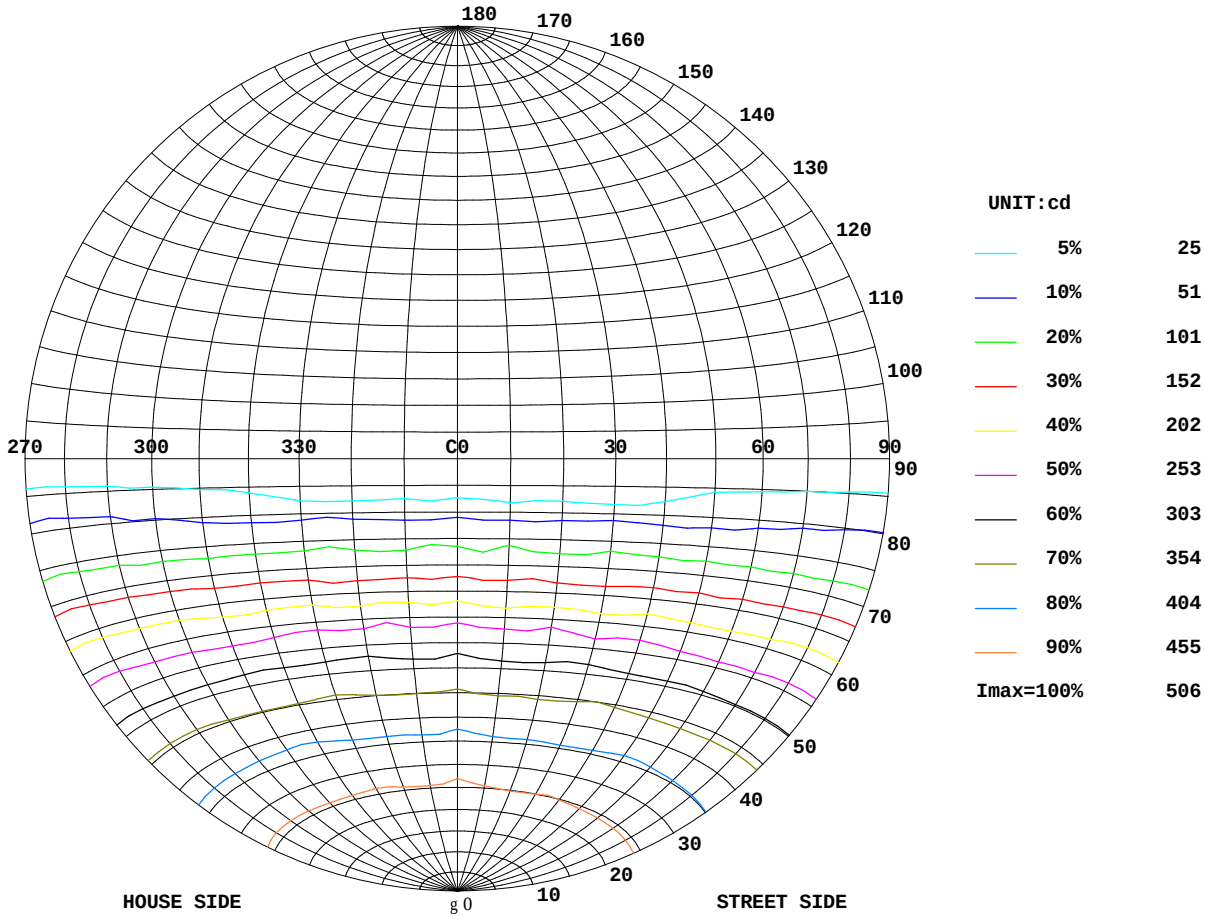
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	57	46	39	57	46	39	56	45	39	32
0.80	68	56	49	67	56	49	65	55	48	41
1.00	76	65	58	75	65	58	73	66	57	50
1.25	84	73	66	82	72	66	79	71	65	58
1.50	89	79	72	87	78	71	84	76	70	63
2.00	95	87	81	94	86	80	90	84	78	71
2.50	99	92	86	97	90	85	93	88	83	75
3.00	103	96	91	100	94	89	96	91	87	79
4.00	107	101	96	104	99	95	100	96	92	84
5.00	109	104	100	106	102	99	102	99	96	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

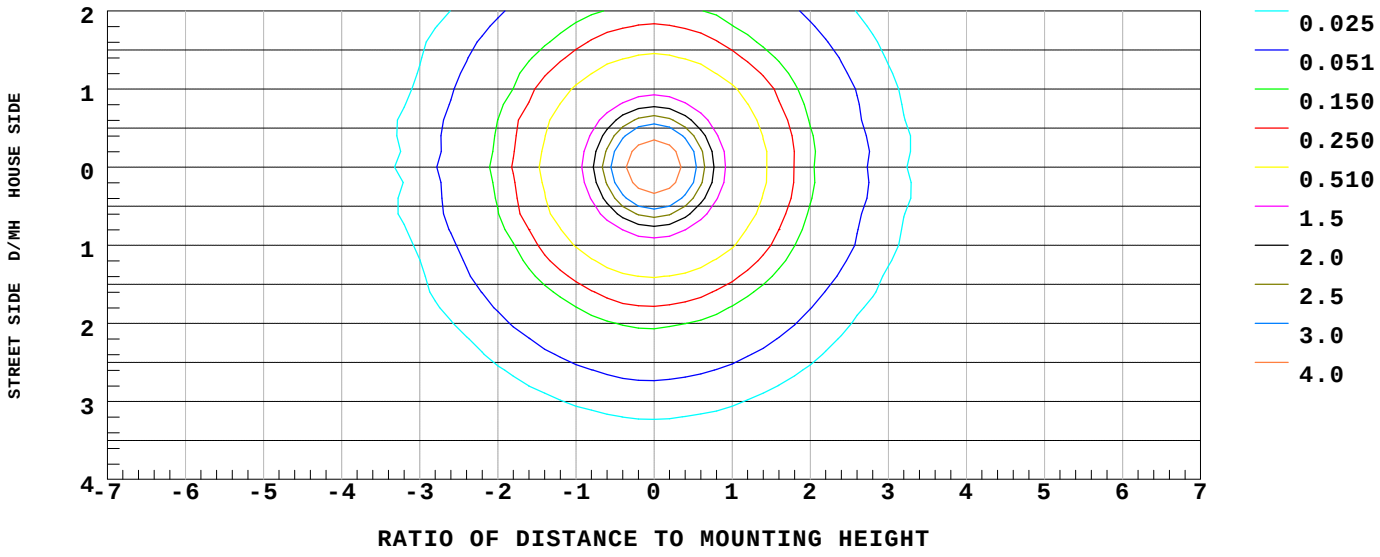
Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

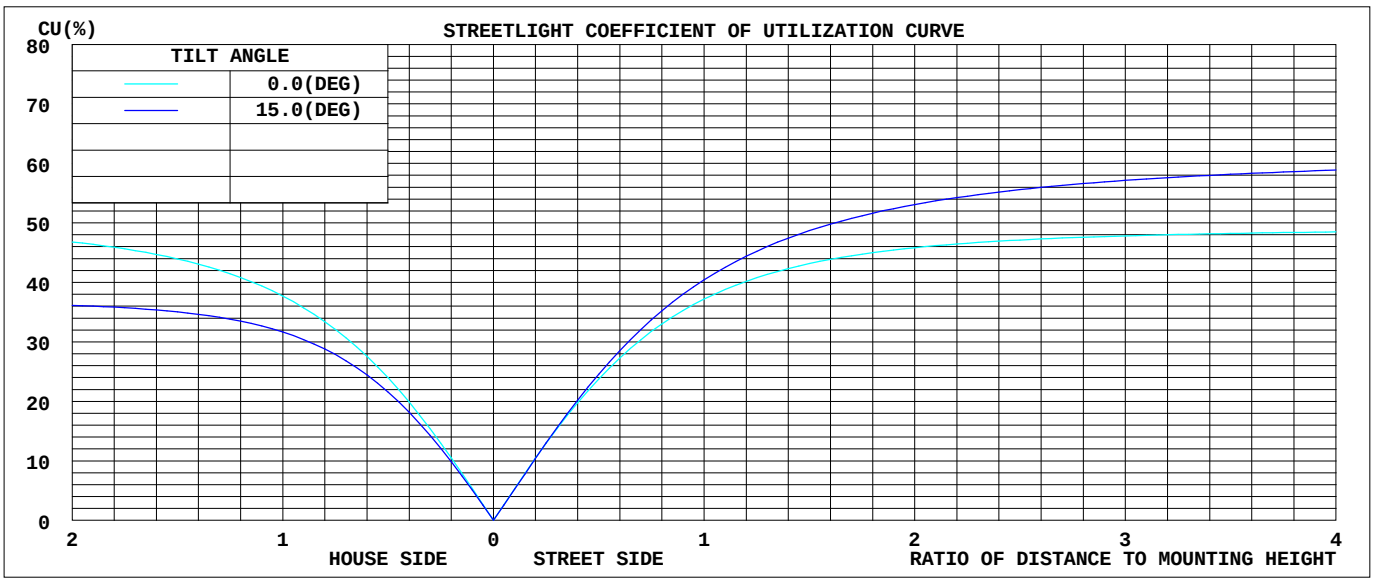
ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

ILLUMINANCE AT MH=10 m,Enadir = 5.06 lx





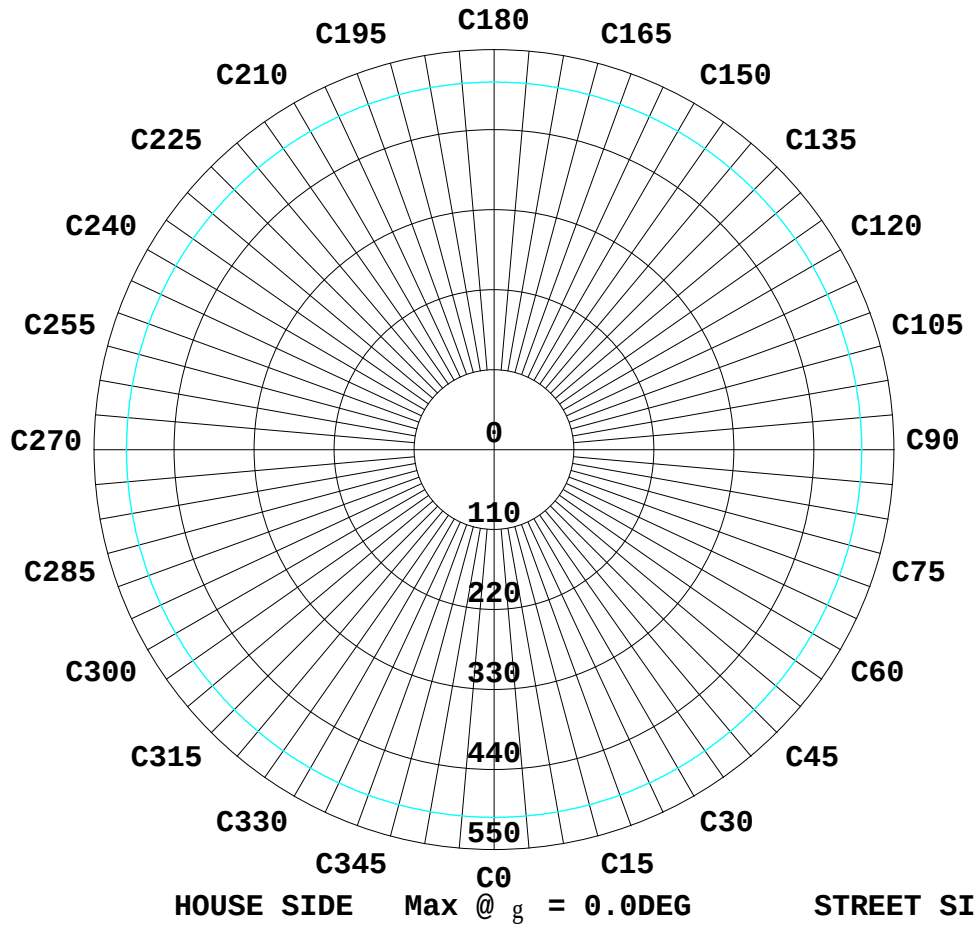
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

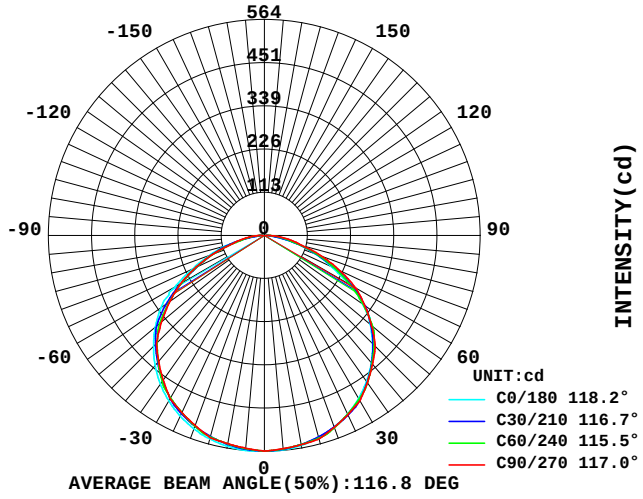
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

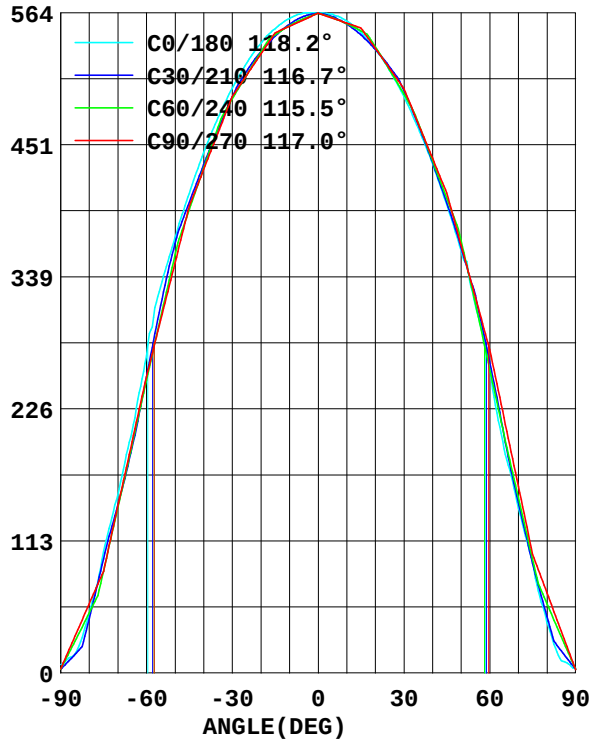
DATA OF LAMP		Imax(cd)	564.2	S/MH(C0/180)	1.32
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.29
NOMINAL POWER(W)		TOTAL FLUX(lm)	1655.0	Voltage(V)	240.0
RATED VOLTAGE(V)	220.0	EFFICIENCY(lm/W)	104.9	Current(A)	0.066
NOMINAL FLUX(lm)	1655.0	h up(%)	0.0	Power(W)	15.77
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.860
TEST VOLTAGE(V)	240.0	Effictive Flux(lm)	1655.0	EEI	0.130

LUMINOUS INTENSITY DISTRIBUTION



AVERAGE BEAM ANGLE(50%):116.8 DEG

LUMINOUS INTENSITY DISTRIBUTION



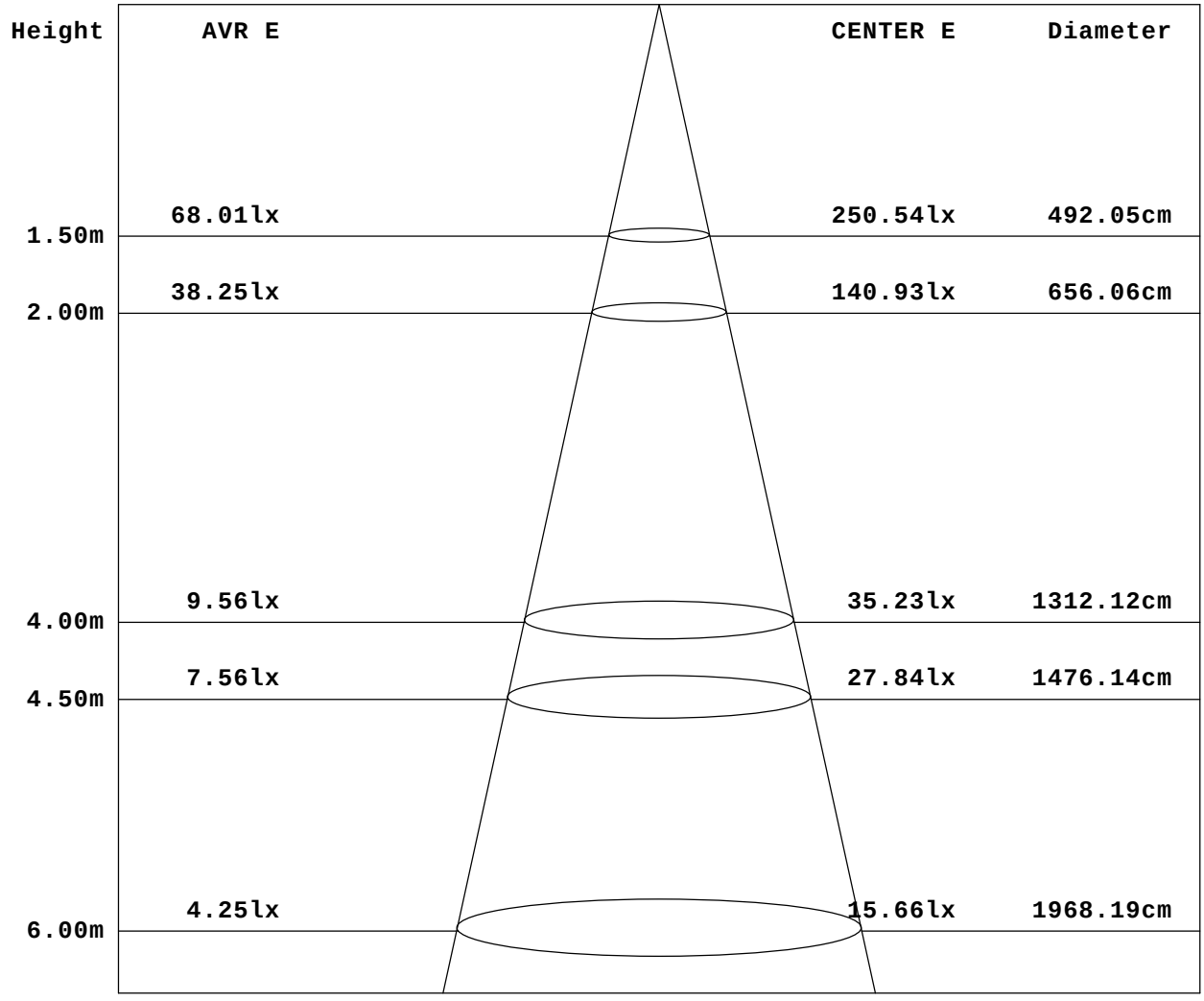
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

AVERAGE AND CENTER E Figure

Report number:

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



Angle:117.3deg

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ZONAL FLUX DIAGRAM

Report number:

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

g	C0	C45	C90	C135	C180	C225	C270	C315	g	zone	total
5.0	563.9	559.9	558.1	559.2	562.8	560.1	559.5	560.7	0- 5	13.42	13.42
10.0	559.2	553.3	552.5	552.8	557.0	554.4	555.2	555.1	5- 10	39.88	53.30
15.0	550.4	544.1	546.9	544.2	547.4	546.6	551.0	546.9	10- 15	65.32	118.6
20.0	537.9	532.6	528.7	533.6	533.3	537.0	533.8	536.2	15- 20	88.97	207.6
25.0	521.0	512.3	510.6	512.7	514.8	517.0	516.5	517.0	20- 25	109.8	317.4
30.0	499.4	489.4	492.4	488.1	492.5	493.1	499.2	494.8	25- 30	127.5	444.9
35.0	474.3	465.4	461.3	461.8	465.7	467.4	469.5	471.7	30- 35	141.4	586.4
40.0	444.2	437.9	430.1	432.5	434.9	438.7	439.7	444.8	35- 40	150.6	737.0
45.0	409.9	398.5	398.9	396.2	400.2	402.9	410.0	406.3	40- 45	155.2	892.3
50.0	372.1	358.0	350.3	358.8	360.7	366.2	365.4	367.2	45- 50	154.6	1047
55.0	329.9	315.4	301.6	319.2	313.4	328.1	320.9	325.2	50- 55	147.4	1194
60.0	270.9	257.0	252.9	251.4	261.8	266.3	276.3	266.9	55- 60	133.5	1328
65.0	206.5	197.4	197.6	193.3	191.5	202.6	217.9	208.5	60- 65	112.1	1440
70.0	151.7	142.3	142.2	138.2	141.0	143.5	159.6	150.1	65- 70	87.65	1528
75.0	104.0	89.80	86.89	89.72	95.09	94.08	101.2	96.27	70- 75	62.55	1590
80.0	49.78	42.70	59.04	45.70	43.20	49.77	68.52	47.61	75- 80	37.96	1628
85.0	15.89	22.73	31.20	24.03	10.42	26.27	35.75	24.51	80- 85	19.63	1648
90.0	7.324	3.227	3.351	3.475	4.220	3.103	2.979	2.482	85- 90	7.117	1655
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

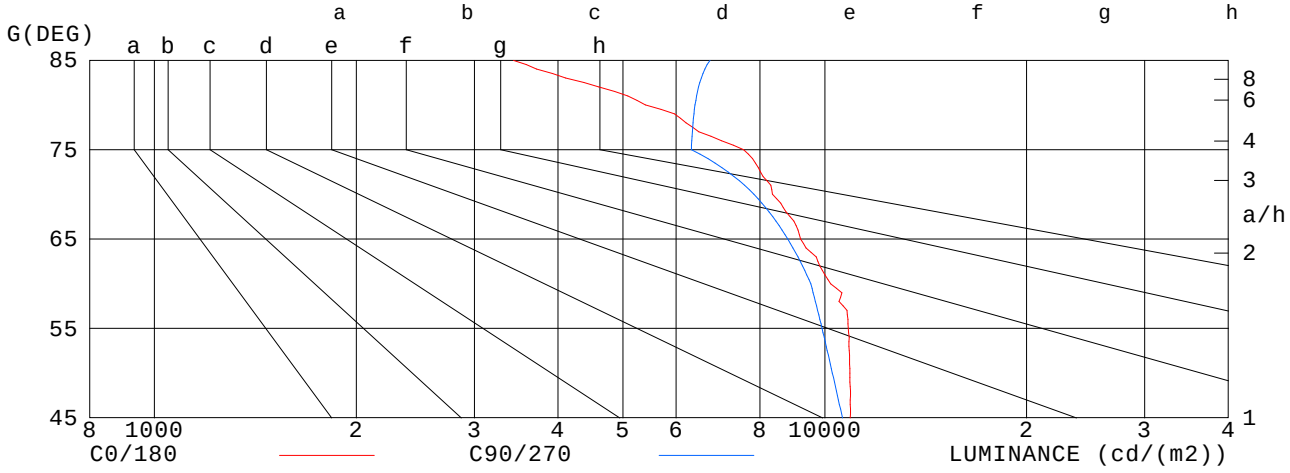
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:	**Address:**	
NAME:	**TYPE:**	**WEIGHT:**
SPECIFICATION:	**DIMENSION:**	**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
		a	b	c	d	e	f	g	h



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3433	6742
80	5399	6404
75	7570	6323
70	8353	7833
65	9205	8807
60	10207	9529
55	10834	9905
50	10904	10264
45	10917	10626

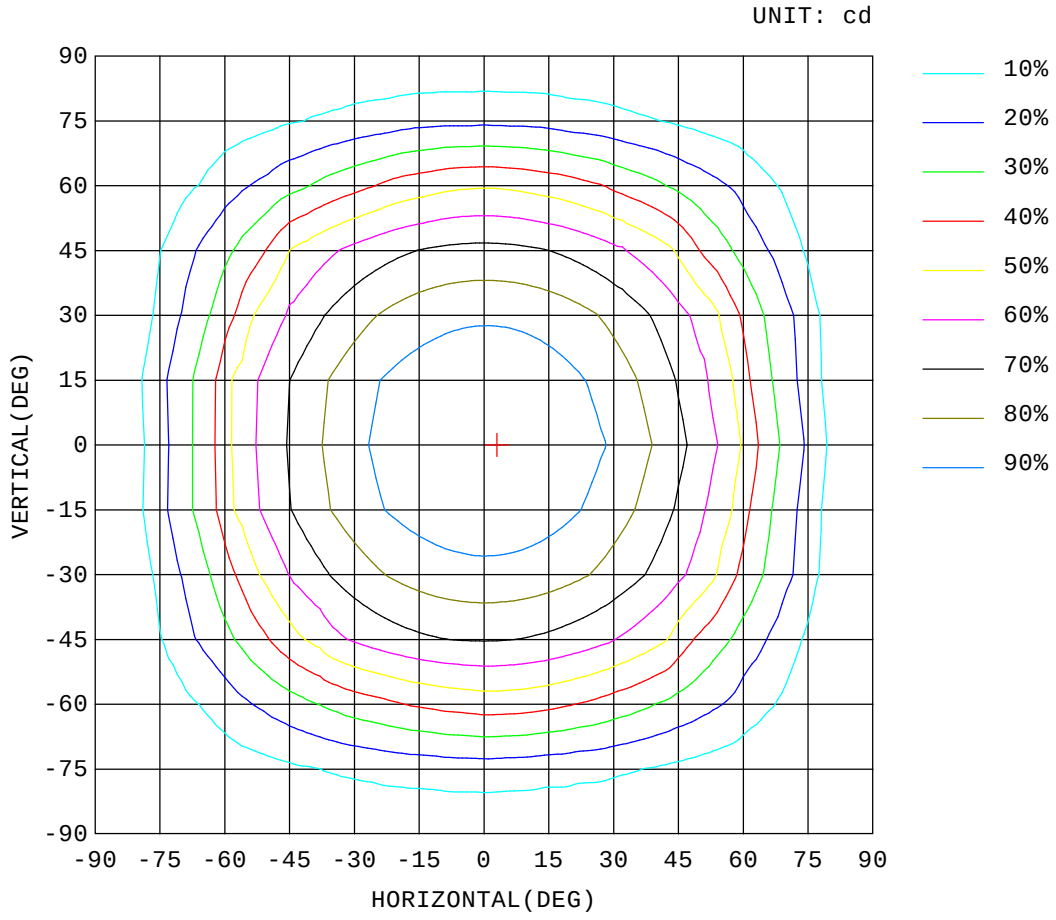
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

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



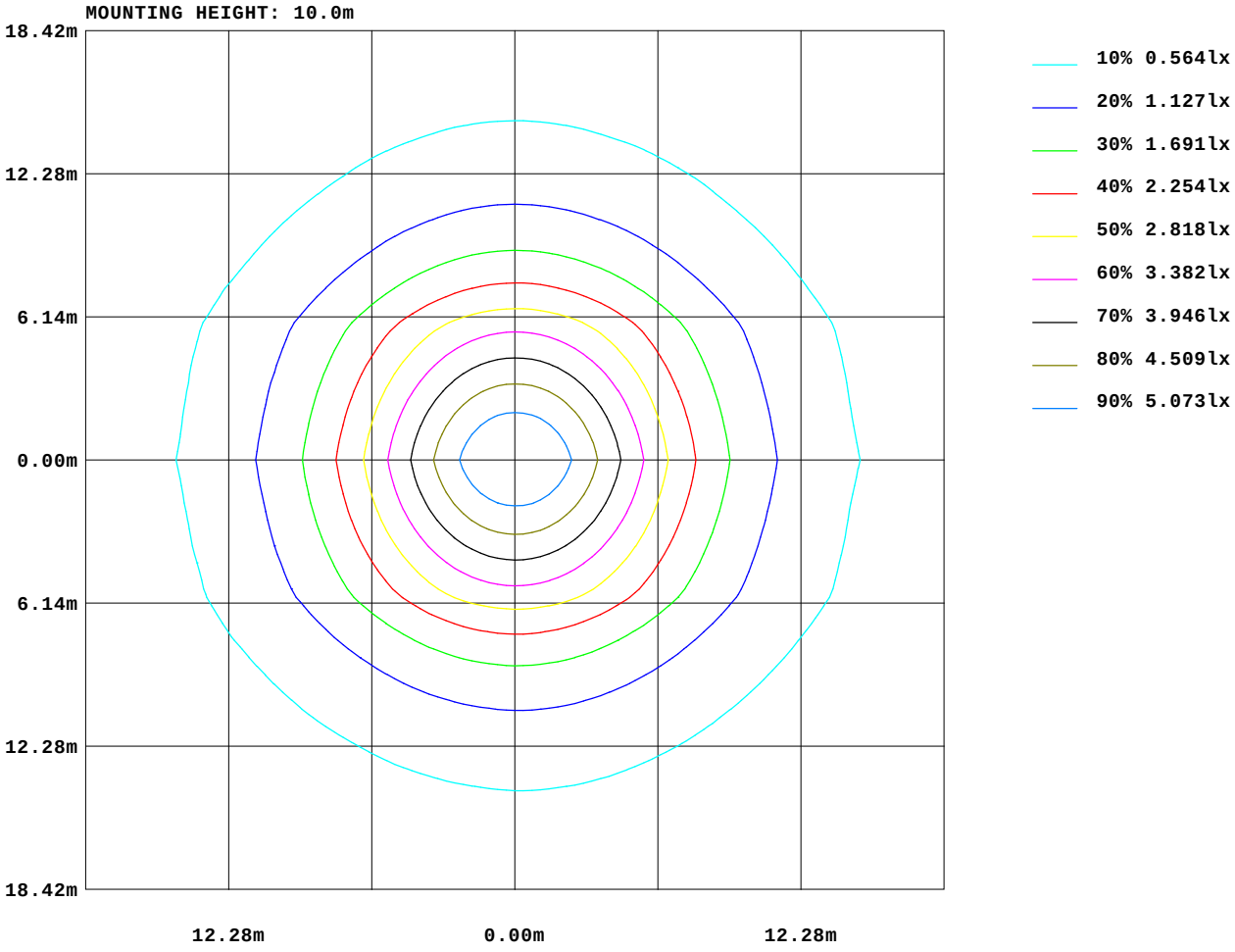
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

AREA LUMINOUS FLUX

Report number:

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

VERTICAL(DEG)	AREA FLUX DIAGRAM																		UNIT:lm	Φ t	Φ a
90	0.01	0.02	0.04	0.05	0.06	0.07	0.08	0.08	0.09	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01		0.95	0.95
80	0.01	0.06	0.16	0.37	0.67	1.00	1.34	1.65	1.79	1.78	1.61	1.30	0.96	0.64	0.34	0.14	0.05	0.01		13.9	13.9
70	0.03	0.12	0.38	0.97	1.80	2.72	3.70	4.59	4.96	4.95	4.48	3.61	2.63	1.72	0.90	0.34	0.11	0.02		38.0	38.0
60	0.02	0.25	1.02	2.36	3.97	5.81	7.60	9.10	10.0	10.0	9.21	7.83	6.02	4.20	2.58	1.12	0.29	0.03		81.5	81.5
50	0.04	0.41	1.53	3.31	5.73	8.12	10.2	11.8	12.8	12.8	11.9	10.3	8.23	5.81	3.41	1.56	0.41	0.04		109	109
40	0.05	0.62	2.15	4.33	7.78	10.6	12.8	14.3	15.0	15.0	14.2	12.6	10.4	7.46	4.09	1.98	0.53	0.04		134	134
30	0.05	0.65	2.19	4.96	7.92	10.6	13.1	14.9	15.9	15.9	15.1	13.3	10.9	8.25	5.30	2.42	0.76	0.06		143	143
	0.06	0.77	2.52	5.59	8.66	11.6	14.1	16.0	17.0	17.1	16.1	14.3	11.7	8.83	5.78	2.63	0.81	0.07		154	154
	0.08	0.92	2.88	6.09	9.20	12.2	14.8	16.7	17.6	17.6	16.6	14.6	11.9	8.88	5.80	2.64	0.77	0.05		160	160
	0.05	0.76	2.56	5.55	8.65	11.6	14.2	16.1	17.1	17.2	16.3	14.5	11.9	8.98	5.87	2.82	0.88	0.08		156	156
	0.06	0.77	2.55	5.48	8.56	11.5	14.0	15.9	16.8	16.9	16.0	14.2	11.6	8.73	5.65	2.67	0.82	0.07		153	153
-30	0.08	0.80	2.53	5.33	8.33	11.1	13.5	15.2	16.1	16.1	15.1	13.3	10.8	8.00	5.04	2.25	0.65	0.04		145	145
-40	0.04	0.54	1.86	4.08	6.91	9.49	11.7	13.3	14.2	14.3	13.5	11.9	9.77	7.27	4.45	2.09	0.64	0.06		126	126
-50	0.03	0.44	1.57	3.35	5.83	8.24	10.2	11.7	12.4	12.5	11.7	10.3	8.41	6.05	3.53	1.68	0.49	0.04		109	109
-60	0.04	0.35	1.32	2.57	4.47	6.69	8.43	9.58	10.1	10.1	9.43	8.20	6.52	4.24	2.18	1.05	0.23	0.01		85.6	85.6
-70	0.01	0.12	0.53	1.39	2.32	3.36	4.38	5.33	5.98	6.15	5.61	4.66	3.52	2.49	1.59	0.65	0.17	0.03		48.3	48.3
-80	0.01	0.03	0.13	0.50	0.88	1.31	1.82	2.33	2.74	2.84	2.50	1.98	1.39	0.96	0.63	0.21	0.06	0.02		20.3	20.3
-90	0.02	0.02	0.00	0.01	0.03	0.06	0.10	0.12	0.14	0.12	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.01		0.82	0.82
HORIZONTAL(DEG)	-90	-80	-70	-60	-50	-40	-30	-20		20	30	40	50	60	70	80	90				
Φ t	0.69	7.64	25.9	56.3	91.8	126	157	179	192	192	180	157	127	92.6	57.2	26.3	7.71	0.69		1655	
Φ a	0.69	7.64	25.9	56.3	91.8	126	157	179	192	192	180	157	127	92.6	57.2	26.3	7.71	0.69			1655

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

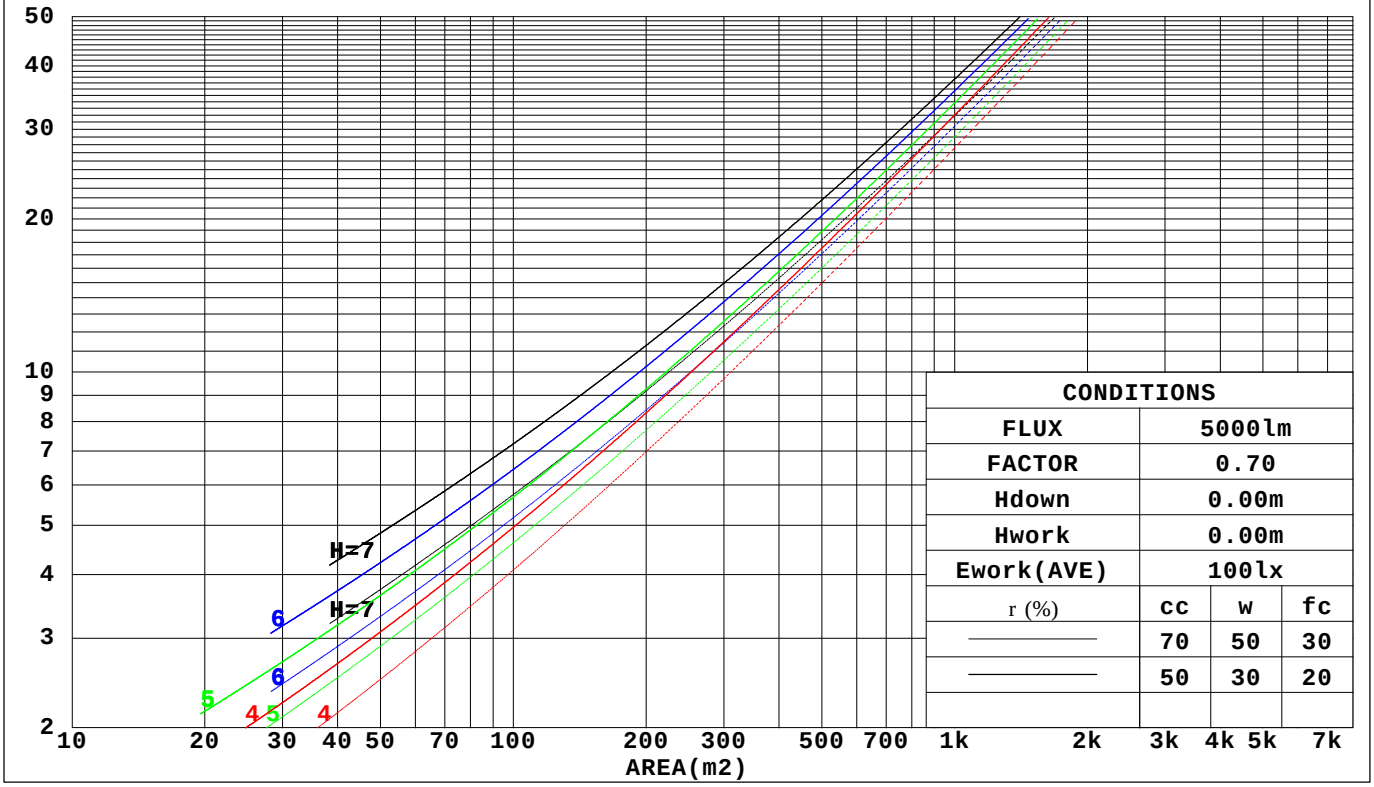
Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	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			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	1.00
1.0	1.04	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.76	.72	.70
3.0	.80	.72	.65	.78	.71	.65	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.71	.62	.55	.69	.61	.55	.67	.60	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.47	.58	.51	.46	.56	.50	.46	.43
6.0	.57	.48	.41	.56	.47	.41	.54	.46	.41	.52	.45	.40	.51	.45	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.41	.36	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.43	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.28	.27
10.0	.39	.32	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



CONDITIONS			
FLUX	5000lm		
FACTOR	0.70		
Hdown	0.00m		
Hwork	0.00m		
Ework(AVE)	100lx		
r (%)	cc	w	fc
———	70	50	30
———	50	30	20

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

WEC AND CCEC

Report number:

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

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.303	.172	.055	.296	.169	.054	.283	.162	.052	.271	.156	.050	.259	.150	.048	
2.0	.287	.158	.048	.281	.155	.048	.270	.150	.047	.259	.145	.045	.249	.141	.044	
3.0	.267	.142	.043	.262	.140	.042	.252	.136	.041	.242	.133	.041	.233	.129	.040	
4.0	.248	.129	.038	.243	.127	.038	.234	.124	.037	.225	.121	.036	.217	.118	.036	
5.0	.229	.117	.034	.225	.116	.034	.217	.113	.033	.209	.111	.033	.202	.108	.032	
6.0	.213	.107	.031	.209	.106	.030	.202	.104	.030	.195	.101	.030	.189	.099	.030	
7.0	.199	.098	.028	.195	.097	.028	.189	.095	.027	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025	
9.0	.174	.084	.024	.171	.084	.023	.166	.082	.023	.161	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.161	.078	.022	.157	.077	.022	.152	.076	.021	.148	.074	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

Uncorrected UGR Table

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	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	21.1	22.6	21.3	22.8	23.0	20.8	22.4	21.1	22.6	22.8
3H	22.3	23.7	22.6	24.0	24.2	22.1	23.5	22.4	23.7	24.0
4H	22.8	24.1	23.1	24.4	24.6	22.5	23.8	22.8	24.1	24.3
6H	23.0	24.3	23.4	24.5	24.8	22.8	24.1	23.2	24.3	24.6
8H	23.1	24.3	23.4	24.6	24.8	23.0	24.2	23.3	24.4	24.7
12H	23.0	24.2	23.4	24.5	24.8	23.1	24.2	23.4	24.5	24.8
4H 2H	21.6	22.9	21.9	23.2	23.4	21.4	22.7	21.7	23.0	23.2
3H	23.0	24.2	23.4	24.5	24.8	22.8	24.0	23.2	24.3	24.6
4H	23.6	24.6	23.9	24.9	25.3	23.3	24.4	23.7	24.7	25.0
6H	23.9	24.8	24.3	25.2	25.5	23.7	24.7	24.1	25.0	25.4
8H	23.9	24.8	24.4	25.2	25.6	23.9	24.8	24.3	25.2	25.5
12H	24.0	24.8	24.4	25.1	25.5	24.1	24.9	24.5	25.3	25.7
8H 4H	23.7	24.6	24.1	25.0	25.3	23.5	24.4	23.9	24.7	25.1
6H	24.1	24.9	24.6	25.3	25.7	24.0	24.7	24.5	25.1	25.6
8H	24.2	24.9	24.7	25.3	25.7	24.3	24.9	24.8	25.4	25.8
12H	24.3	24.8	24.7	25.3	25.7	24.6	25.1	25.0	25.6	26.0
12H 4H	23.7	24.5	24.1	24.9	25.3	23.5	24.3	23.9	24.7	25.1
6H	24.1	24.8	24.6	25.2	25.7	24.0	24.7	24.5	25.1	25.6
8H	24.3	24.8	24.7	25.3	25.7	24.4	24.9	24.8	25.4	25.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.3 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.5					+ 0.2 / - 0.2				

CIE Pub.117 Corrected 1655 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.8)

UTILIZATION FACTORS TABLE

Report number:

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

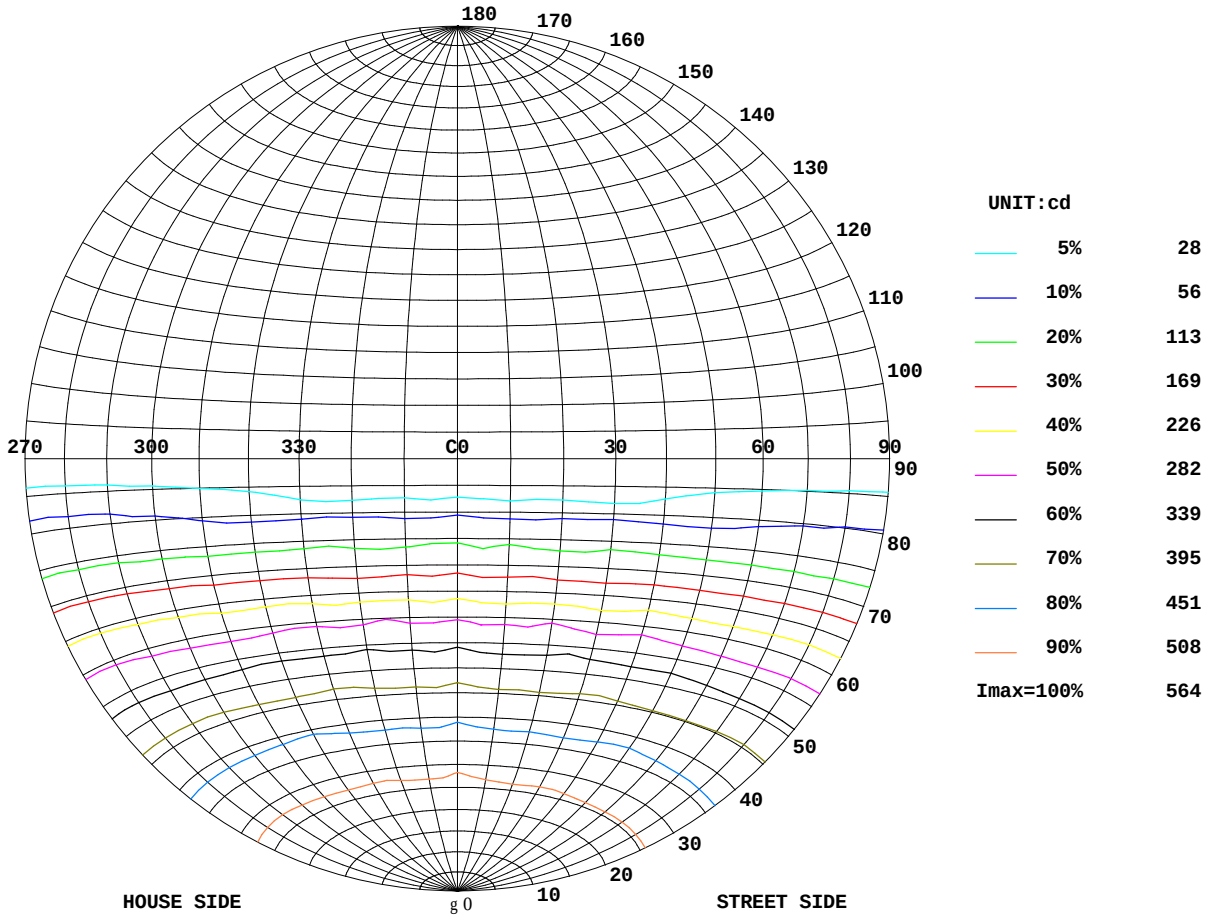
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	57	46	39	56	45	38	55	45	38	32
0.80	68	56	48	66	55	48	65	55	48	41
1.00	76	65	58	75	64	58	73	66	57	50
1.25	83	73	66	82	72	65	79	71	65	57
1.50	88	79	72	87	78	71	84	76	70	63
2.00	95	87	81	93	86	80	90	83	78	70
2.50	99	92	86	97	90	85	93	87	83	75
3.00	103	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	99	102	99	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004	Suspended								SHRNOM = 1.25	

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

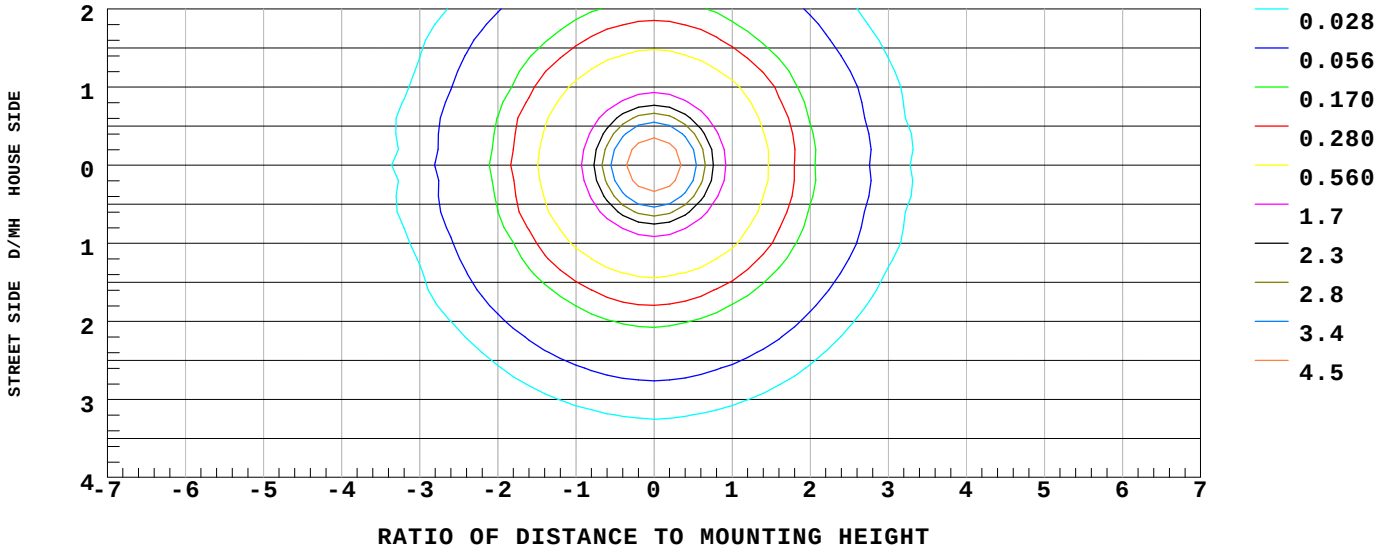
Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

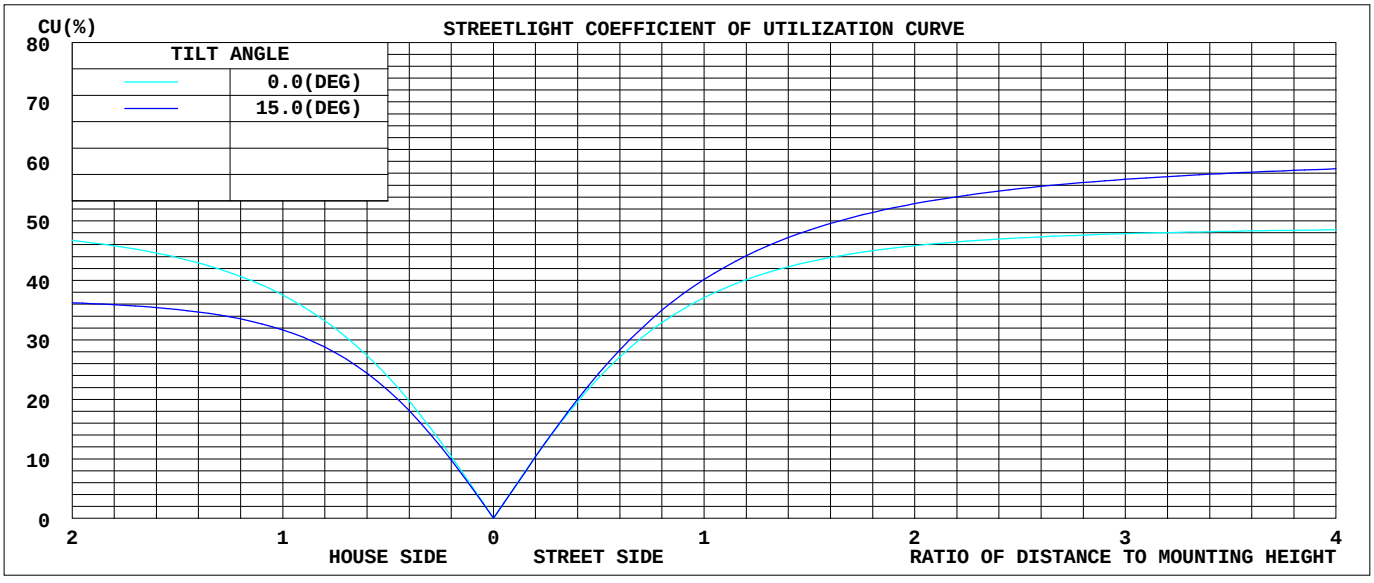
ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

ILLUMINANCE AT MH=10 m,Enadir = 5.64 lx





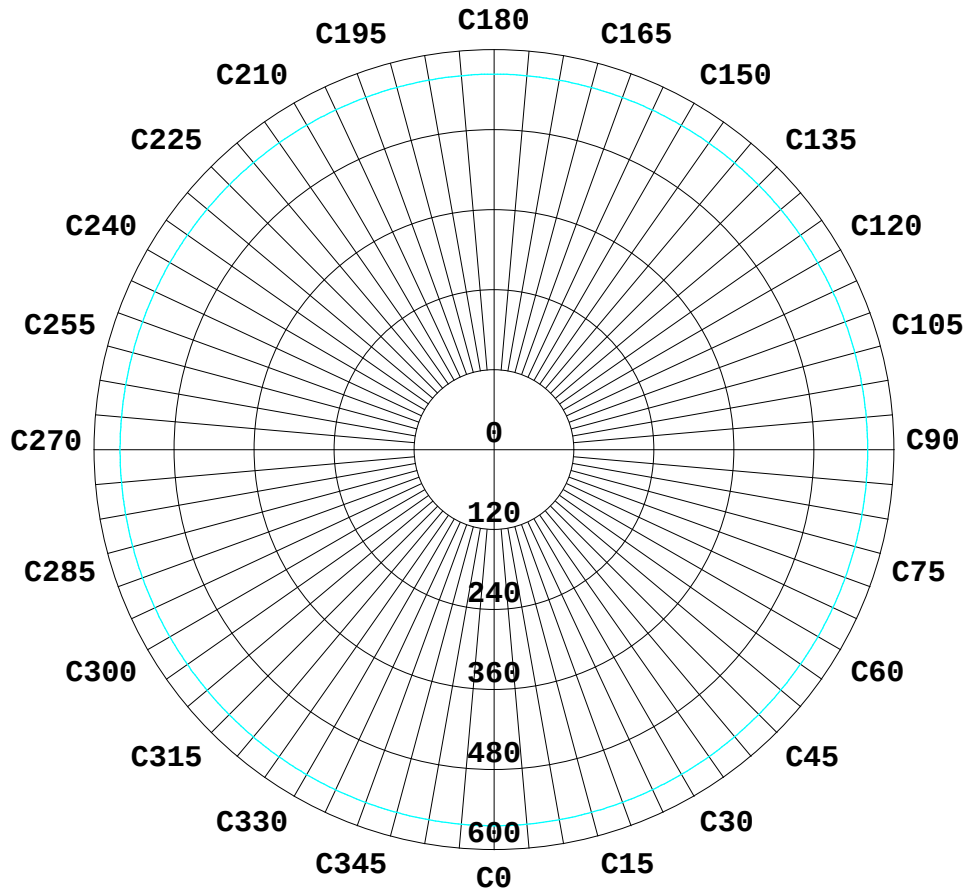
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



HOUSE SIDE Max @ g = 3.0DEG STREET SIDE

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

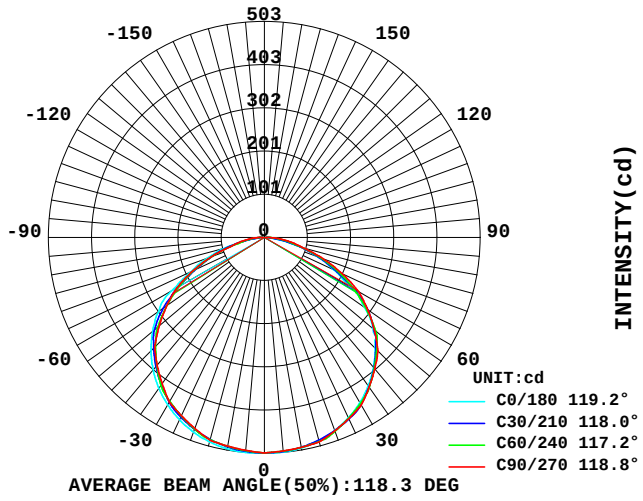
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

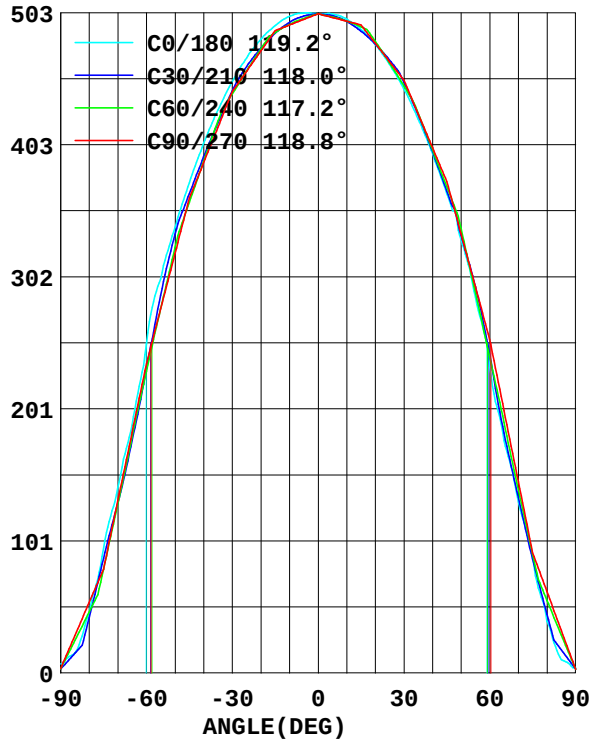
DATA OF LAMP		Imax(cd)	503.4	S/MH(C0/180)	1.33
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.30
NOMINAL POWER(W)		TOTAL FLUX(lm)	1505.6	Voltage(V)	240.0
RATED VOLTAGE(V)	220.0	EFFICIENCY(lm/W)	95.9	Current(A)	0.069
NOMINAL FLUX(lm)	1505.7	h up(%)	0.0	Power(W)	15.70
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.870
TEST VOLTAGE(V)	240.0	Effictive Flux(lm)	0.0	EEI	0.000

LUMINOUS INTENSITY DISTRIBUTION



AVERAGE BEAM ANGLE(50%):118.3 DEG

LUMINOUS INTENSITY DISTRIBUTION



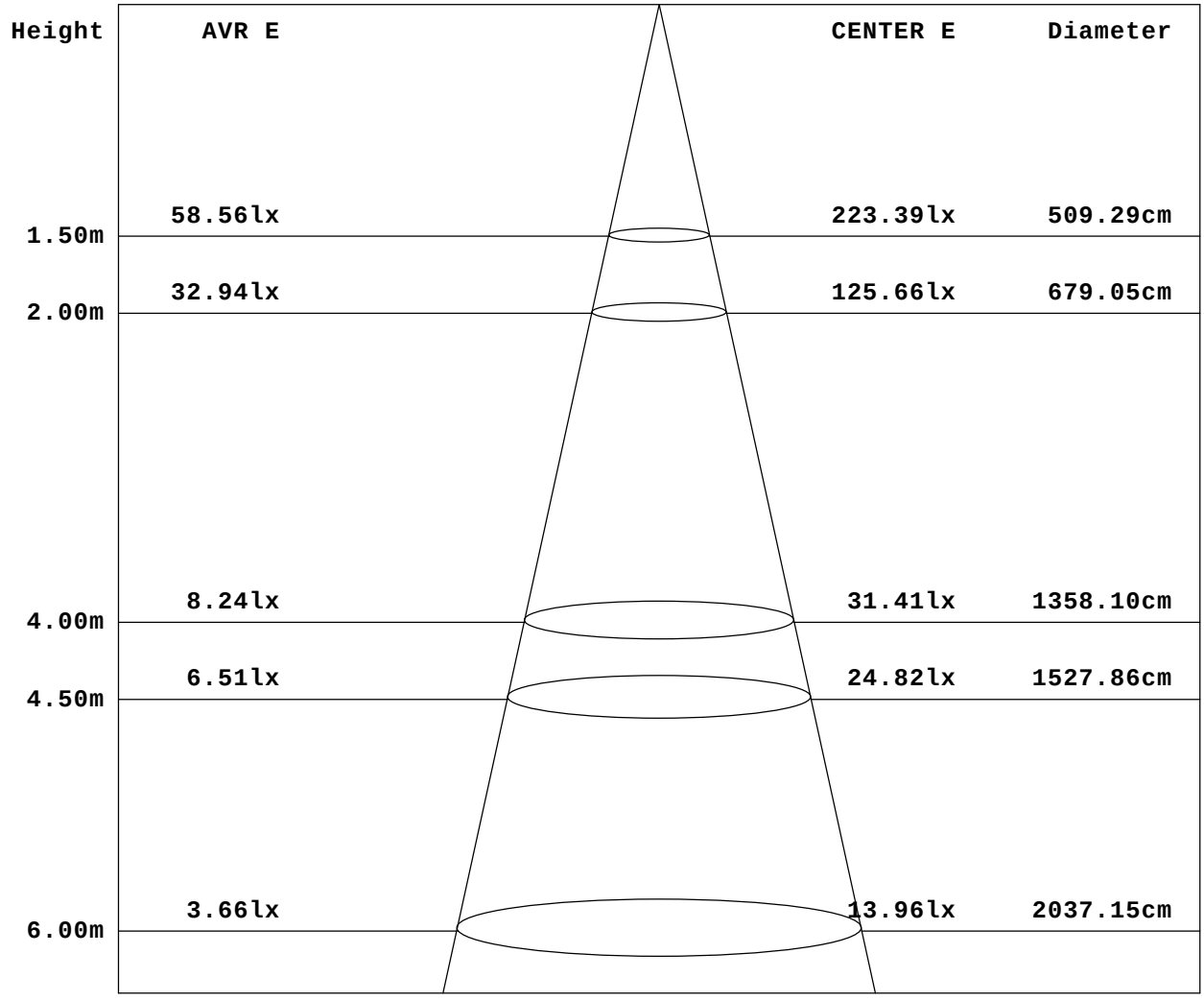
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

AVERAGE AND CENTER E Figure

Report number:

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



Angle:119.0deg

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	zone	total
5.0	503.2	499.9	498.3	499.6	502.4	500.6	499.7	501.0	0- 5	11.98	11.98
10.0	500.6	495.1	494.0	494.7	498.6	496.8	496.9	497.2	5- 10	35.66	47.64
15.0	493.6	487.3	489.7	487.8	490.6	490.8	494.1	490.7	10- 15	58.52	106.1
20.0	483.1	477.5	474.2	479.3	479.1	483.1	480.0	482.1	15- 20	79.86	186.0
25.0	469.0	460.4	458.6	461.4	464.1	466.4	466.0	466.0	20- 25	98.78	284.8
30.0	451.0	441.1	443.1	440.6	445.1	446.3	452.0	447.6	25- 30	115.0	399.8
35.0	429.1	420.5	416.0	417.7	422.1	424.4	426.2	427.9	30- 35	127.9	527.8
40.0	403.7	396.7	389.0	392.6	395.9	400.1	400.5	405.3	35- 40	136.6	664.5
45.0	373.8	361.6	361.9	360.2	365.5	368.2	374.8	371.3	40- 45	141.2	805.8
50.0	339.7	325.3	319.8	326.8	330.0	336.0	334.6	335.8	45- 50	141.2	947.0
55.0	300.3	287.5	277.7	289.8	286.1	301.4	294.4	299.2	50- 55	134.8	1082
60.0	251.0	234.4	235.6	228.0	233.6	246.2	254.2	245.8	55- 60	122.4	1204
65.0	189.0	181.7	183.4	174.7	177.0	186.3	200.0	191.4	60- 65	103.0	1307
70.0	141.3	131.9	131.2	126.0	130.5	132.8	145.8	138.5	65- 70	80.75	1388
75.0	95.32	82.68	79.08	81.77	88.45	87.43	91.70	88.18	70- 75	57.68	1446
80.0	44.85	39.56	53.80	41.83	39.48	46.87	62.09	43.31	75- 80	35.03	1481
85.0	15.24	21.06	28.52	22.14	10.11	24.90	32.48	22.78	80- 85	18.18	1499
90.0	6.871	3.123	3.248	3.373	3.998	2.998	2.873	2.498	85- 90	6.638	1506
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

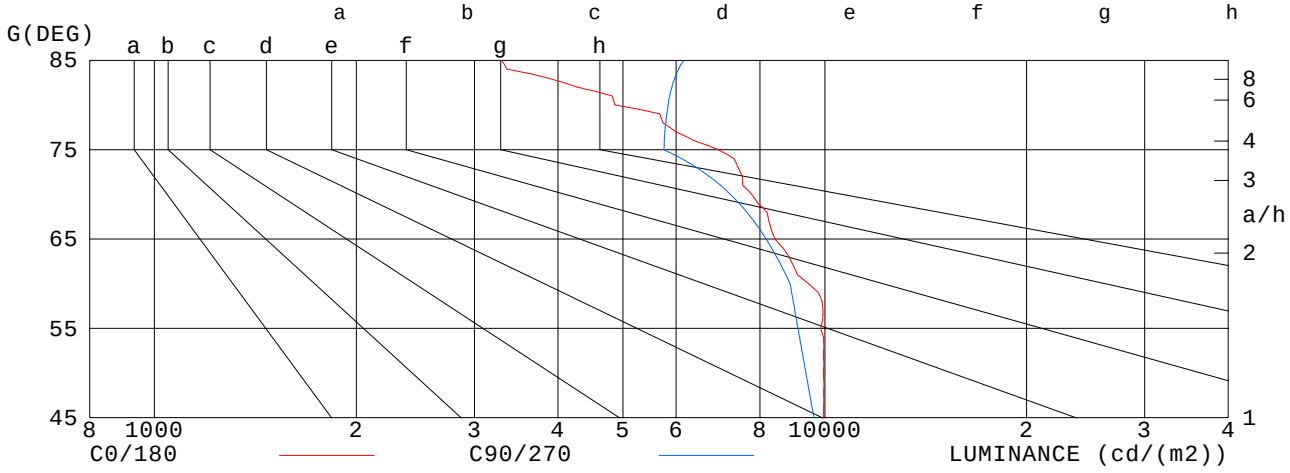
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:	**Address:**	
NAME:	**TYPE:**	**WEIGHT:**
SPECIFICATION:	**DIMENSION:**	**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
		a	b	c	d	e	f	g	h



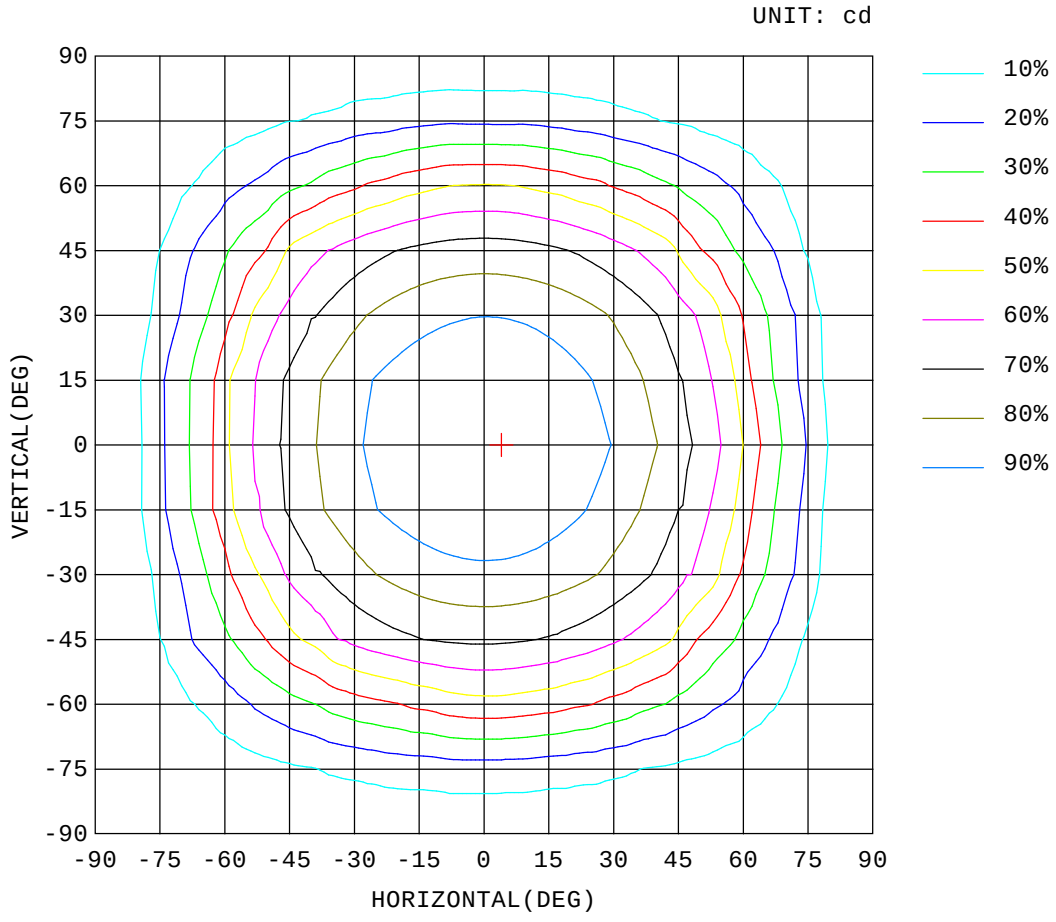
LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3294	6164
80	4864	5835
75	6936	5754
70	7781	7228
65	8423	8175
60	9454	8875
55	9861	9119
50	9953	9371
45	9956	9640

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ISOCANDELA DIAGRAM

Report number:

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



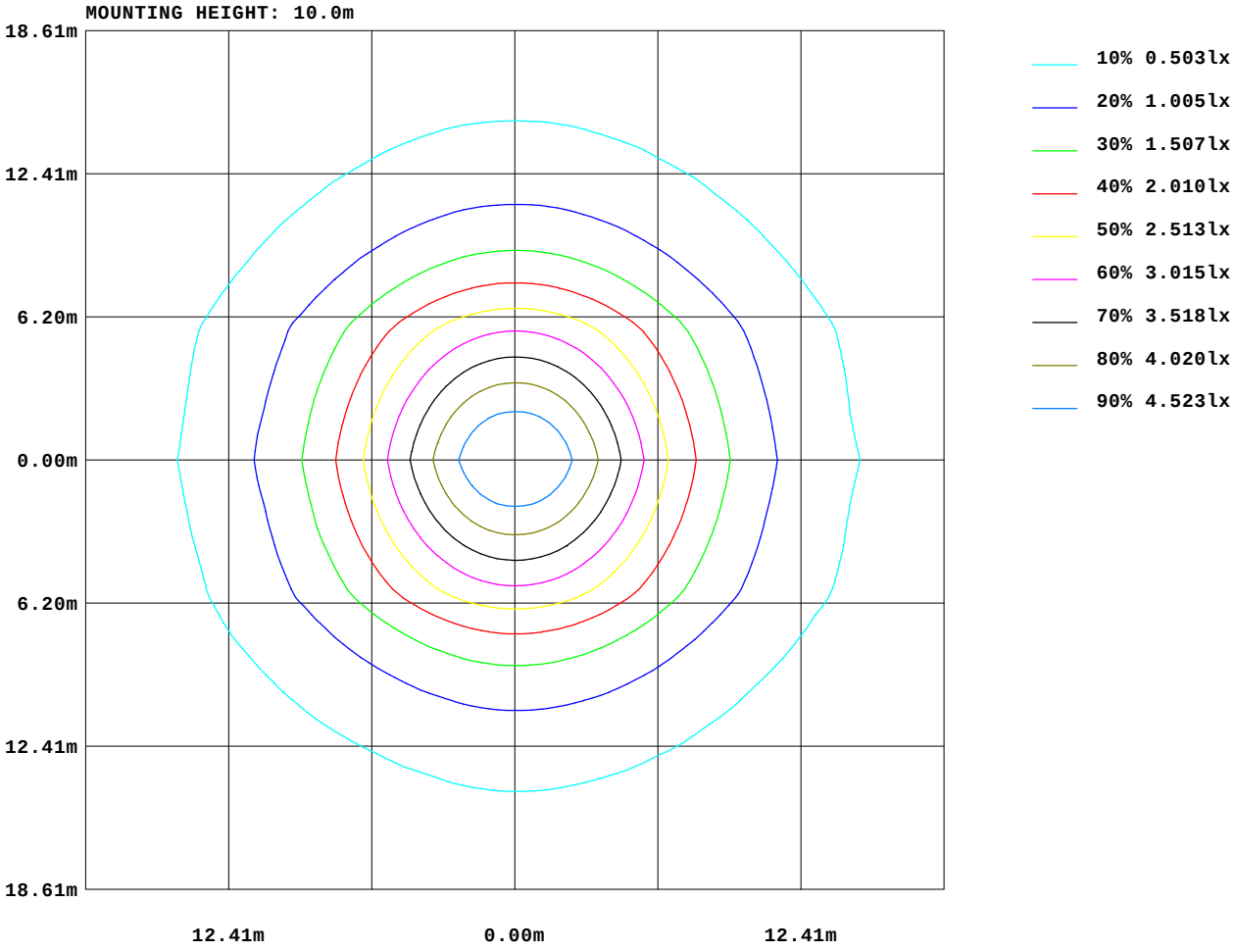
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

AREA LUMINOUS FLUX

Report number:

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

AREA FLUX DIAGRAM — UNIT:lm

VERTICAL(DEG)	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL(DEG) 20	30	40	50	60	70	80	90	Φ t	Φ a
90	0.01	0.02	0.04	0.05	0.06	0.07	0.07	0.08	0.08	0.08	0.07	0.07	0.06	0.05	0.04	0.03	0.02	0.01	0.90	0.90
80	0.01	0.05	0.15	0.35	0.63	0.91	1.23	1.52	1.66	1.64	1.50	1.21	0.88	0.59	0.31	0.13	0.05	0.01	12.8	12.8
70	0.02	0.11	0.37	0.90	1.69	2.49	3.40	4.23	4.61	4.56	4.18	3.36	2.41	1.58	0.81	0.33	0.11	0.02	35.2	35.2
60	0.02	0.24	0.98	2.16	3.66	5.41	7.03	8.42	9.26	9.27	8.46	7.18	5.58	3.87	2.37	1.05	0.27	0.03	75.3	75.3
50	0.03	0.38	1.44	3.03	5.28	7.51	9.43	10.9	11.8	11.8	10.9	9.49	7.58	5.32	3.16	1.46	0.38	0.03	100	100
40	0.05	0.58	1.98	3.96	7.14	9.75	11.7	13.1	13.7	13.7	13.0	11.5	9.54	6.77	3.80	1.85	0.50	0.03	123	123
30	0.04	0.60	2.00	4.53	7.28	9.76	11.9	13.5	14.3	14.4	13.6	12.1	10.0	7.59	4.85	2.23	0.69	0.06	130	130
	0.06	0.72	2.30	5.12	7.94	10.5	12.8	14.4	15.3	15.3	14.5	12.9	10.6	8.11	5.28	2.41	0.74	0.06	140	140
	0.08	0.87	2.64	5.59	8.41	11.1	13.3	15.0	15.7	15.7	14.8	13.1	10.8	8.09	5.30	2.40	0.71	0.05	144	144
	0.05	0.71	2.34	5.05	7.91	10.5	12.8	14.4	15.3	15.3	14.6	13.0	10.8	8.17	5.41	2.59	0.81	0.07	140	140
	0.06	0.72	2.35	4.96	7.83	10.4	12.6	14.2	15.0	15.1	14.3	12.7	10.5	7.94	5.20	2.46	0.76	0.07	138	138
-30	0.07	0.74	2.35	4.81	7.61	10.1	12.2	13.7	14.5	14.4	13.5	12.0	9.81	7.29	4.61	2.08	0.60	0.04	131	131
-40	0.03	0.49	1.72	3.73	6.26	8.68	10.6	12.0	12.8	12.9	12.2	10.8	8.88	6.62	4.10	1.92	0.58	0.05	115	115
-50	0.03	0.40	1.45	3.09	5.29	7.52	9.34	10.6	11.3	11.3	10.6	9.41	7.67	5.54	3.25	1.54	0.44	0.04	99.0	99.0
-60	0.04	0.33	1.22	2.41	4.09	6.04	7.73	8.78	9.30	9.24	8.62	7.46	5.96	3.96	2.02	0.97	0.22	0.01	78.4	78.4
-70	0.01	0.11	0.50	1.26	2.13	3.10	4.00	4.87	5.71	5.80	5.25	4.36	3.27	2.27	1.41	0.60	0.16	0.03	44.8	44.8
-80	0.01	0.03	0.13	0.45	0.81	1.23	1.67	2.15	2.69	2.74	2.39	1.89	1.29	0.86	0.55	0.20	0.06	0.02	19.2	19.2
-90	0.02	0.02	0.00	0.01	0.03	0.06	0.10	0.11	0.11	0.10	0.08	0.06	0.03	0.01	0.00	0.00	0.01	0.01	0.74	0.74
Φ t	0.65	7.14	24.0	51.5	84.1	115	142	162	174	174	163	143	116	84.7	52.5	24.3	7.11	0.65	1506	
Φ a	0.65	7.14	24.0	51.5	84.1	115	142	162	174	174	163	143	116	84.7	52.5	24.3	7.11	0.65		1506

Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

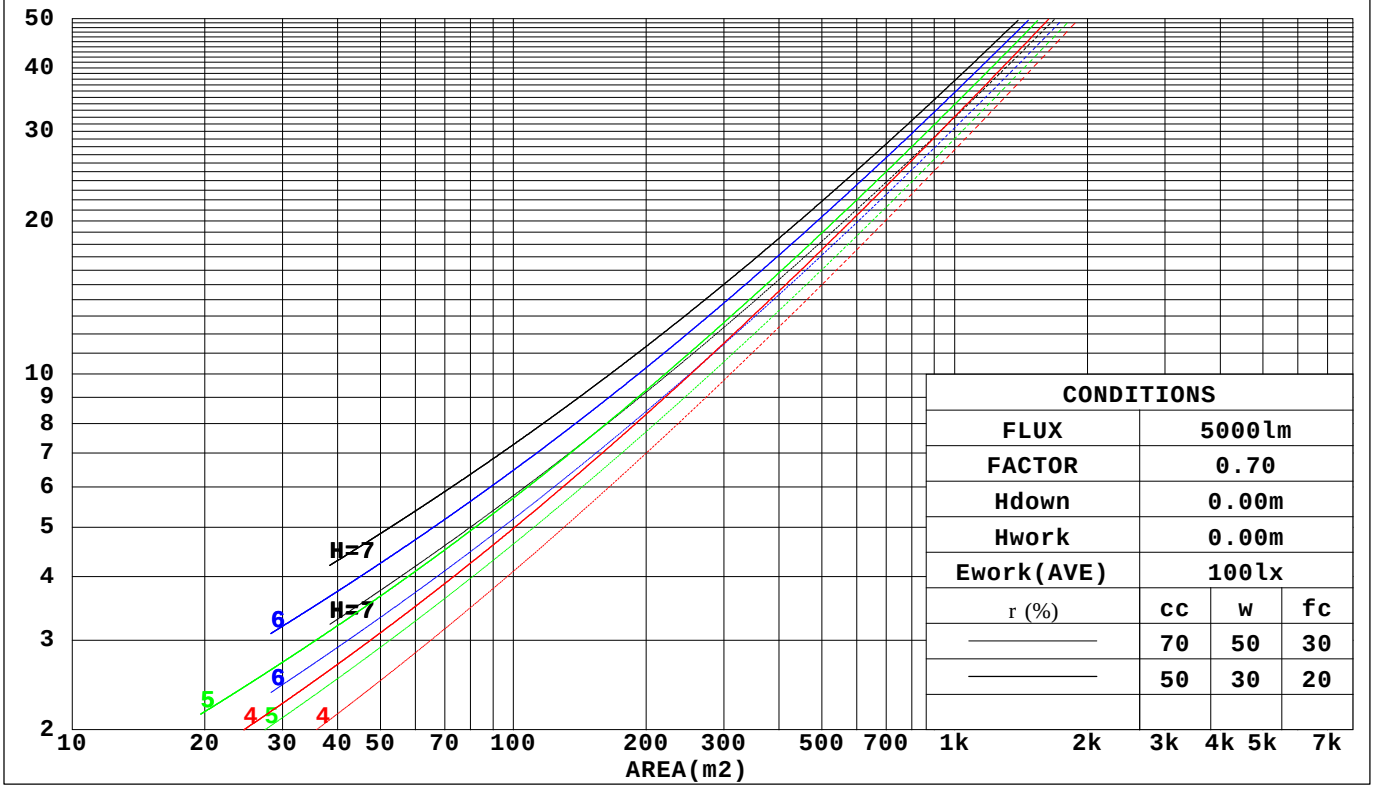
Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	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			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	1.04	.00	.96	1.02	.98	.95	.98	.94	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.75	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.71	.65	.78	.70	.64	.75	.69	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.62	.55	.69	.61	.54	.67	.59	.54	.64	.58	.53	.62	.57	.52	.50
5.0	.63	.54	.47	.62	.53	.47	.60	.52	.46	.58	.51	.46	.56	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.41	.54	.46	.40	.52	.45	.40	.50	.44	.40	.38
7.0	.51	.42	.36	.50	.42	.36	.49	.41	.36	.47	.40	.35	.46	.40	.35	.33
8.0	.47	.38	.32	.46	.38	.32	.44	.37	.32	.43	.36	.32	.42	.36	.31	.29
9.0	.43	.34	.29	.42	.34	.29	.41	.34	.29	.40	.33	.28	.39	.33	.28	.26
10.0	.39	.31	.26	.39	.31	.26	.38	.31	.26	.37	.30	.26	.36	.30	.26	.24

LAMPS

LUMINAIRE BUDGETARY DIAGRAM



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

WEC AND CCEC

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:

r_{cc}	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						Wall Exitance Coeffcients(WEC)									
0.0																
1.0	.305	.173	.055	.298	.170	.054	.284	.163	.052	.272	.157	.050	.261	.151	.049	
2.0	.289	.158	.049	.282	.156	.048	.271	.151	.047	.260	.146	.046	.250	.141	.045	
3.0	.268	.143	.043	.263	.141	.042	.253	.137	.042	.243	.133	.041	.234	.130	.040	
4.0	.248	.129	.038	.244	.127	.038	.234	.124	.037	.226	.121	.037	.218	.118	.036	
5.0	.230	.117	.034	.226	.116	.034	.218	.113	.033	.210	.111	.033	.203	.109	.033	
6.0	.214	.107	.031	.210	.106	.031	.203	.104	.030	.196	.102	.030	.190	.100	.030	
7.0	.199	.098	.028	.196	.098	.028	.189	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.186	.091	.026	.183	.090	.025	.177	.089	.025	.172	.087	.025	.167	.086	.025	
9.0	.175	.084	.024	.172	.084	.023	.167	.082	.023	.162	.081	.023	.157	.080	.023	
10.0	.164	.079	.022	.162	.078	.022	.157	.077	.022	.153	.076	.022	.148	.075	.021	

r_{cc}	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						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.061	.053	.047	.019	.017	.015	
2.0	.172	.132	.098	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011	
3.0	.164	.114	.075	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009	
4.0	.157	.101	.058	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007	
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006	
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005	
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004	
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.003	
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003	
10.0	.117	.060	.022	.101	.052	.020	.070	.037	.014	.041	.022	.008	.013	.007	.003	

Uncorrected UGR Table

Report number:

MANUFACTURER:	**Address:**	
NAME:	**TYPE:**	**WEIGHT:**
SPECIFICATION:	**DIMENSION:**	**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	20.8	22.3	21.1	22.5	22.7	20.6	22.1	20.8	22.3	22.5
3H	22.1	23.5	22.3	23.7	23.9	21.9	23.3	22.2	23.5	23.7
4H	22.5	23.9	22.8	24.1	24.4	22.3	23.6	22.6	23.8	24.1
6H	22.8	24.0	23.1	24.3	24.6	22.6	23.8	22.9	24.1	24.4
8H	22.8	24.0	23.1	24.3	24.6	22.7	23.9	23.0	24.2	24.5
12H	22.8	24.0	23.1	24.2	24.5	22.8	24.0	23.2	24.3	24.6
4H 2H	21.3	22.6	21.6	22.9	23.1	21.1	22.5	21.4	22.7	23.0
3H	22.7	23.9	23.1	24.2	24.5	22.6	23.7	22.9	24.0	24.3
4H	23.3	24.4	23.7	24.7	25.0	23.1	24.1	23.4	24.4	24.8
6H	23.6	24.6	24.0	24.9	25.3	23.5	24.4	23.9	24.8	25.1
8H	23.7	24.6	24.1	24.9	25.3	23.7	24.6	24.1	24.9	25.3
12H	23.7	24.5	24.1	24.9	25.3	23.8	24.7	24.3	25.0	25.4
8H 4H	23.4	24.3	23.9	24.7	25.1	23.2	24.1	23.6	24.5	24.9
6H	23.9	24.6	24.3	25.0	25.4	23.8	24.5	24.2	24.9	25.3
8H	24.0	24.6	24.4	25.0	25.5	24.0	24.7	24.5	25.1	25.6
12H	24.0	24.6	24.5	25.0	25.5	24.3	24.9	24.8	25.3	25.8
12H 4H	23.4	24.2	23.9	24.6	25.0	23.2	24.0	23.6	24.4	24.8
6H	23.9	24.5	24.3	24.9	25.4	23.8	24.4	24.2	24.9	25.3
8H	24.0	24.6	24.5	25.0	25.5	24.1	24.7	24.6	25.1	25.6
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
1.5H	+ 0.3 / - 0.3					+ 0.2 / - 0.4				
2.0H	+ 0.3 / - 0.5					+ 0.2 / - 0.3				

CIE Pub.117 Corrected 1506 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.4)

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

UTILIZATION FACTORS TABLE

Report number:

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

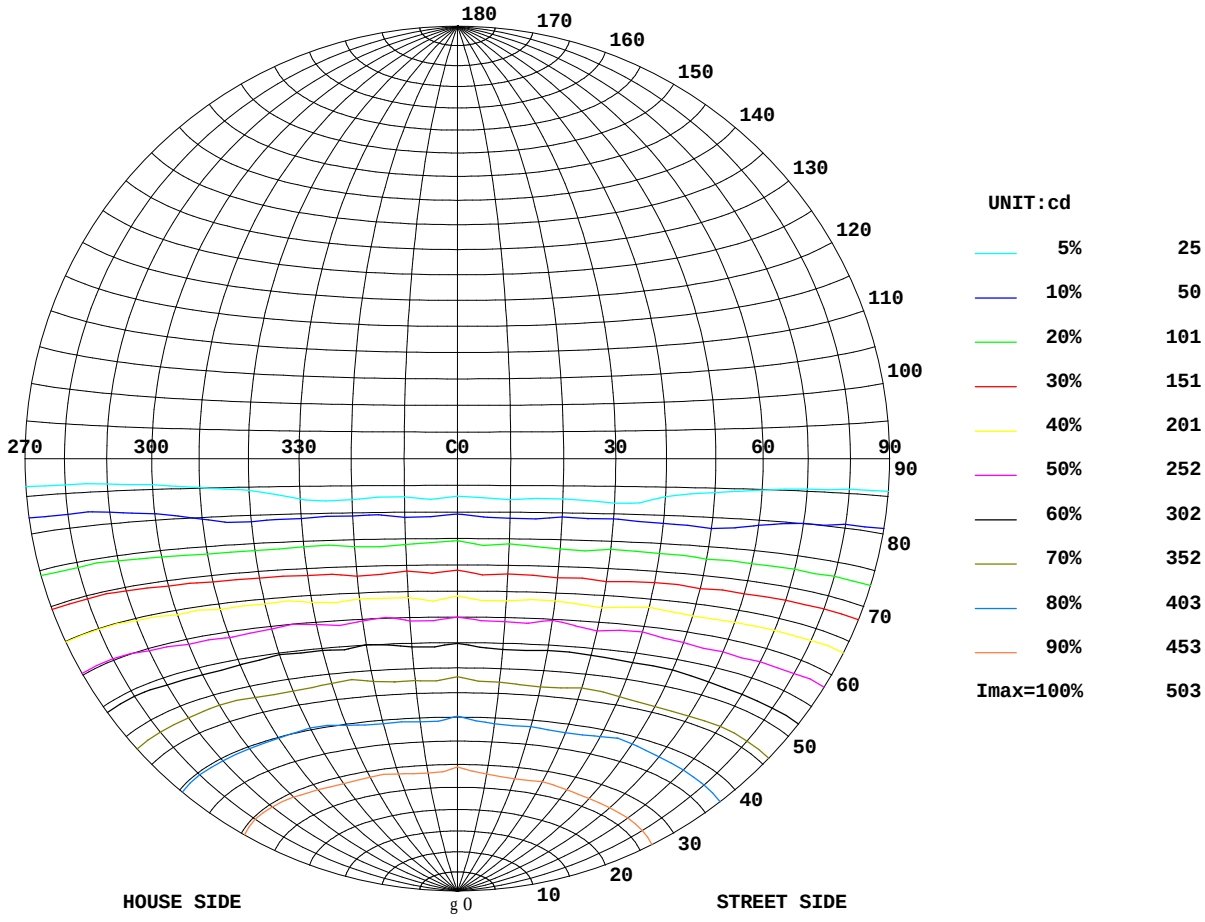
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	57	45	38	56	45	38	55	45	38	31
0.80	67	56	48	66	55	48	64	54	48	41
1.00	76	65	57	75	64	57	72	66	57	50
1.25	83	73	66	82	72	65	79	71	64	57
1.50	88	78	71	87	77	71	84	76	70	62
2.00	95	87	80	93	86	80	90	83	78	70
2.50	99	91	85	97	90	84	93	87	83	74
3.00	102	96	90	100	94	89	96	91	87	79
4.00	106	101	96	104	99	95	100	96	92	83
5.00	109	104	100	106	102	98	102	98	95	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004				Suspended					SHRNOM = 1.25	

Test System:HOPOO HPG1900 **Test Set: 5.0deg/s B-Beta (TYPE B)**
Temperature:25.3DEG **Humidity:65.0%**
Operators: **Test Distance:10.800 m**
Test Date: **Remarks:**

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



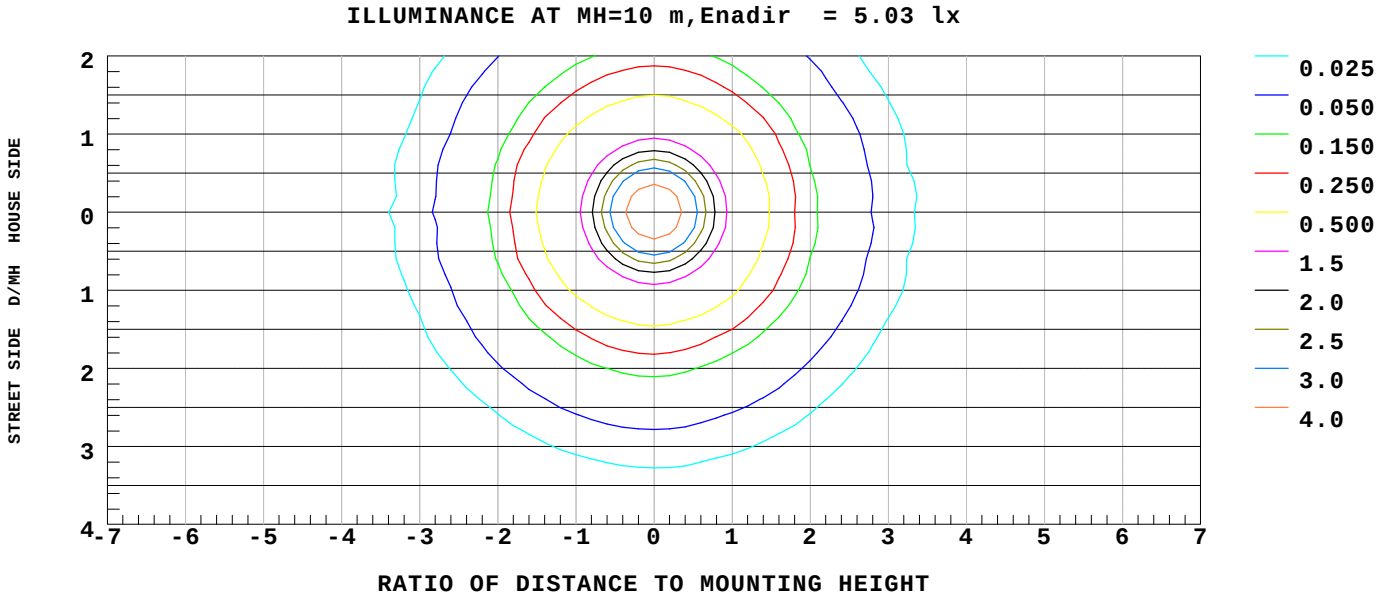
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

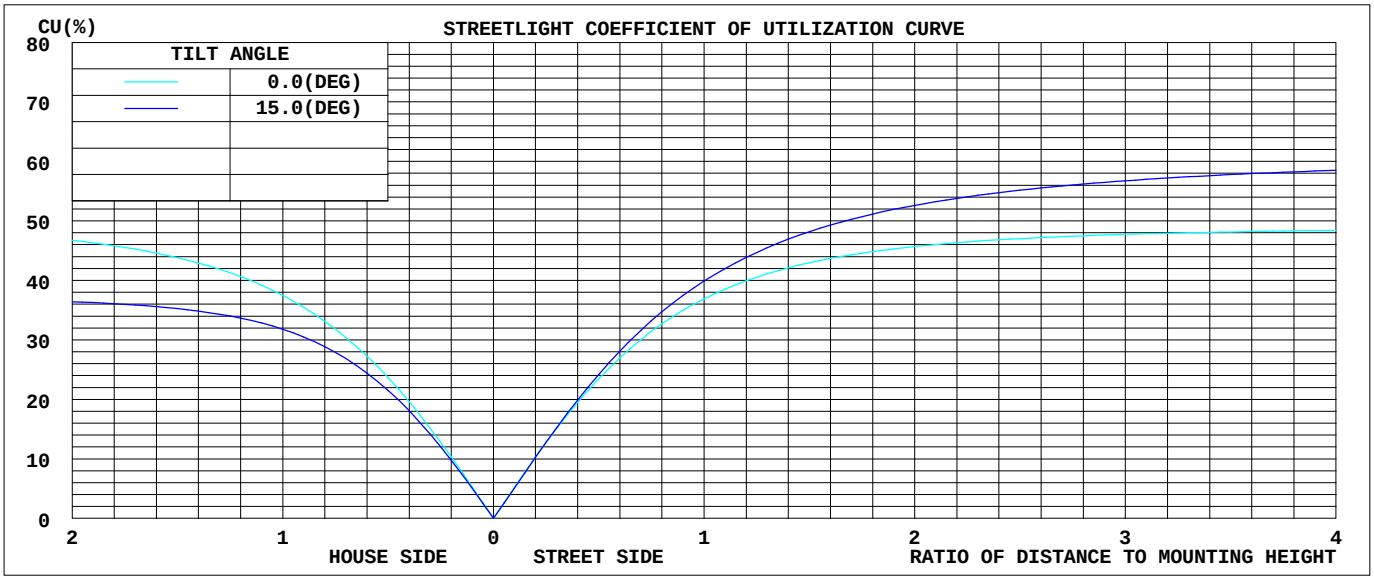
Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:





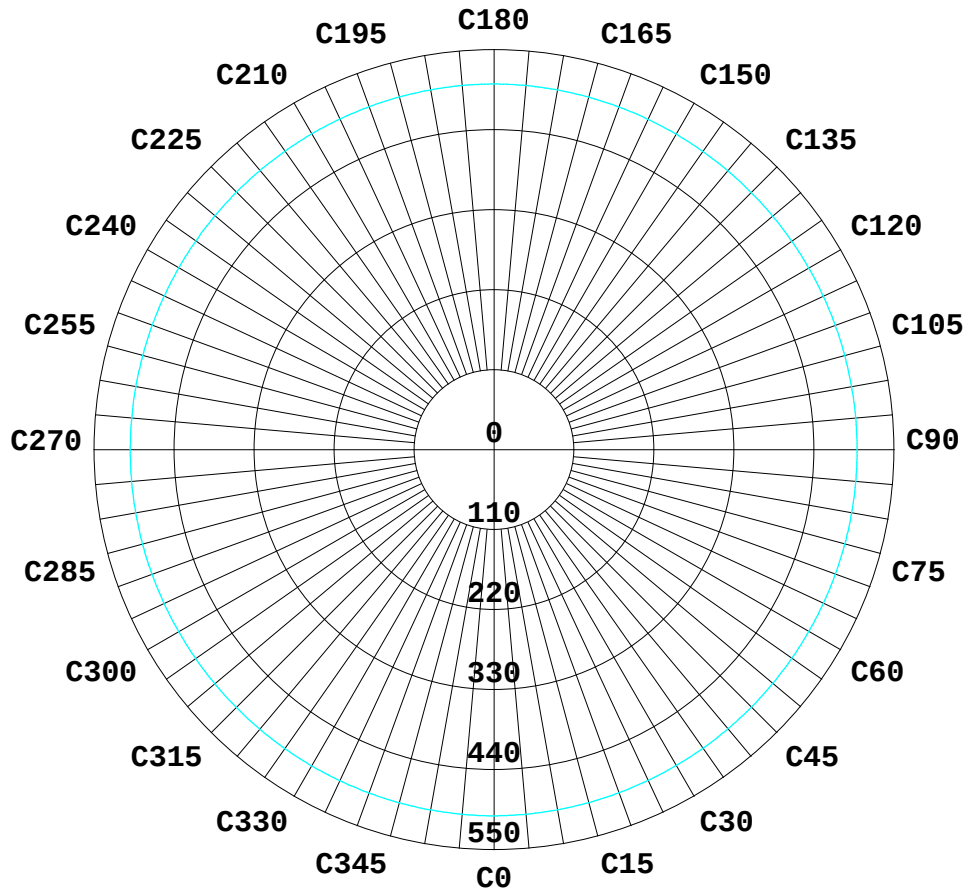
Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:	Address:	
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION:	SERIAL No.:



Test System:HOPOO HPG1900
Temperature:25.3DEG
Operators:
Test Date:

Test Set: 5.0deg/s B-Beta (TYPE B)
Humidity:65.0%
Test Distance:10.800 m
Remarks: