

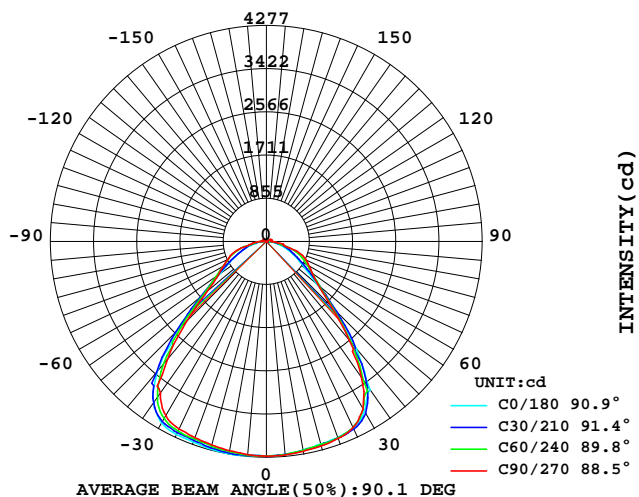
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

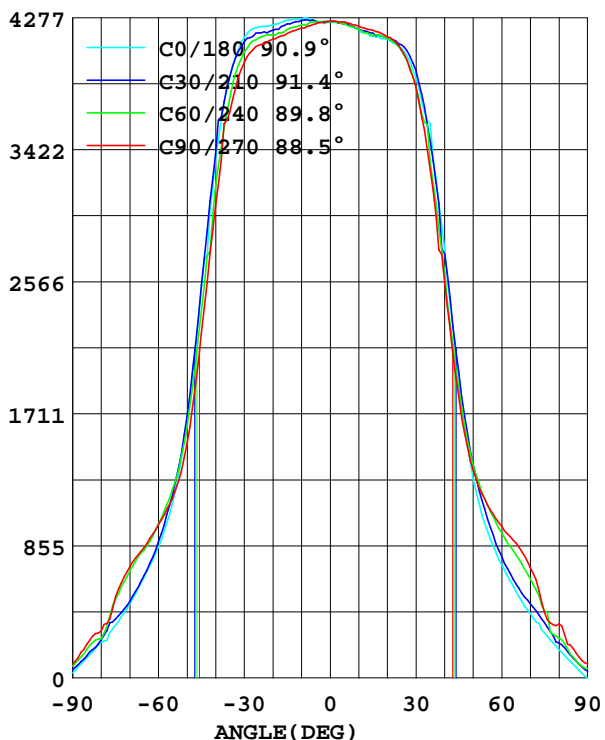
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	4277	S/MH(C0/180)	1.32
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.30
NOMINAL POWER(W)	64	TOTAL FLUX(lm)	9900.8	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	154.4	Current(A)	0.308
NOMINAL FLUX(lm)	9900.8	h up(%)	1.6	Power(W)	64.12
LAMPS QUANTITY	1	h down(%)	98.4	Power Factor(PF)	0.950
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	9378.0	EEI	0.093

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



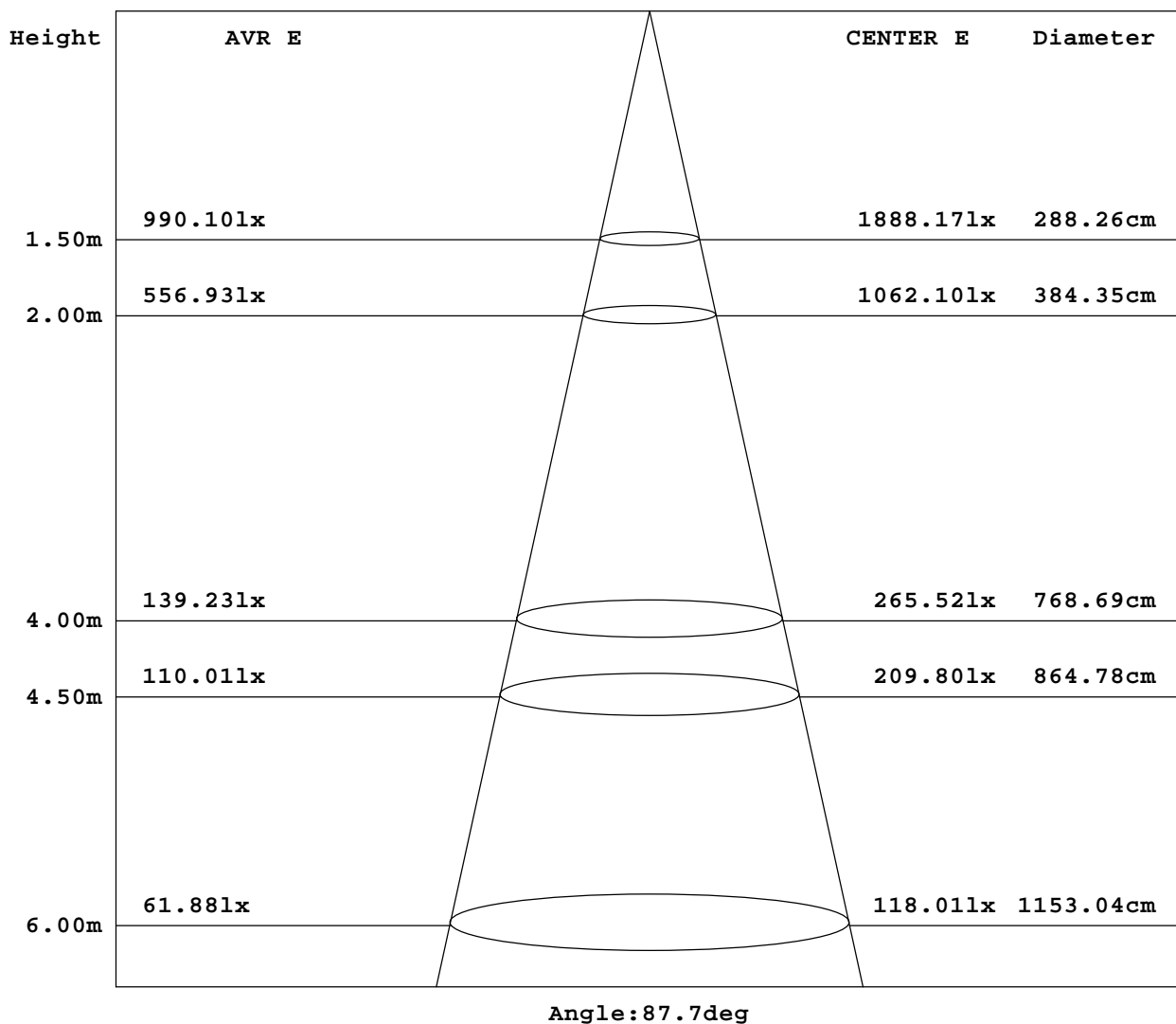
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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	4256	4251	4238	4221	4235	4235	4248	4248	0- 5	101.4	101.4
10.0	4270	4244	4210	4183	4201	4202	4222	4243	5- 10	302.7	404.2
15.0	4260	4219	4174	4144	4158	4168	4196	4228	10- 15	498.9	903.1
20.0	4228	4179	4137	4119	4135	4143	4152	4207	15- 20	688.4	1592
25.0	4219	4162	4098	4079	4080	4083	4067	4159	20- 25	868.9	2461
30.0	4150	4086	3986	3975	3890	3884	3830	3982	25- 30	1027	3488
35.0	3892	3828	3667	3649	3589	3406	3292	3637	30- 35	1122	4610
40.0	3363	3285	3055	3056	2776	2686	2562	2851	35- 40	1101	5711
45.0	2527	2463	2239	2265	1925	1927	1824	2039	40- 45	942.8	6654
50.0	1654	1656	1516	1557	1289	1380	1346	1434	45- 50	725.1	7379
55.0	1139	1205	1165	1178	951.3	1076	1119	1114	50- 55	560.5	7940
60.0	849.7	941.2	995.0	933.5	732.3	864.0	982.9	883.4	55- 60	465.3	8405
65.0	652.5	746.2	845.1	739.5	559.5	702.5	873.2	722.2	60- 65	393.5	8799
70.0	481.2	593.5	718.0	606.8	417.2	560.3	711.6	587.8	65- 70	333.1	9132
75.0	343.1	447.1	528.2	466.0	290.9	397.3	424.6	423.2	70- 75	264.3	9396
80.0	231.7	250.6	304.0	255.1	184.2	242.9	349.3	239.6	75- 80	175.0	9571
85.0	132.0	164.5	219.6	172.8	88.64	130.5	188.8	134.3	80- 85	112.3	9684
90.0	32.13	66.74	89.85	71.52	0	52.64	92.39	60.69	85- 90	55.33	9739
95.0	0	55.49	94.45	59.48	0	49.19	107.3	64.26	90- 95	30.15	9769
100.0	0	45.56	83.56	48.65	0	50.52	100.8	64.14	95-100	28.22	9797
105.0	0.073	46.47	79.81	50.04	0	51.31	92.51	65.83	100-105	26.92	9824
110.0	1.282	46.23	72.43	51.61	0.436	52.34	91.42	64.80	105-110	26.10	9850
115.0	3.097	45.87	73.27	50.40	3.581	50.22	89.61	61.66	110-115	24.93	9875
120.0	4.670	42.42	73.64	48.59	7.937	46.89	87.31	55.79	115-120	23.23	9899
125.0	0	0	0	0	0	0	0	0	120-125	2.208	9901
130.0	0	0	0	0	0	0	0	0	125-130	0	9901
135.0	0	0	0	0	0	0	0	0	130-135	0	9901
140.0	0	0	0	0	0	0	0	0	135-140	0	9901
145.0	0	0	0	0	0	0	0	0	140-145	0	9901
150.0	0	0	0	0	0	0	0	0	145-150	0	9901
155.0	0	0	0	0	0	0	0	0	150-155	0	9901
160.0	0	0	0	0	0	0	0	0	155-160	0	9901
165.0	0	0	0	0	0	0	0	0	160-165	0	9901
170.0	0	0	0	0	0	0	0	0	165-170	0	9901
175.0	0	0	0	0	0	0	0	0	170-175	0	9901
180.0	0	0	0	0	0	0	0	0	175-180	0	9901
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:

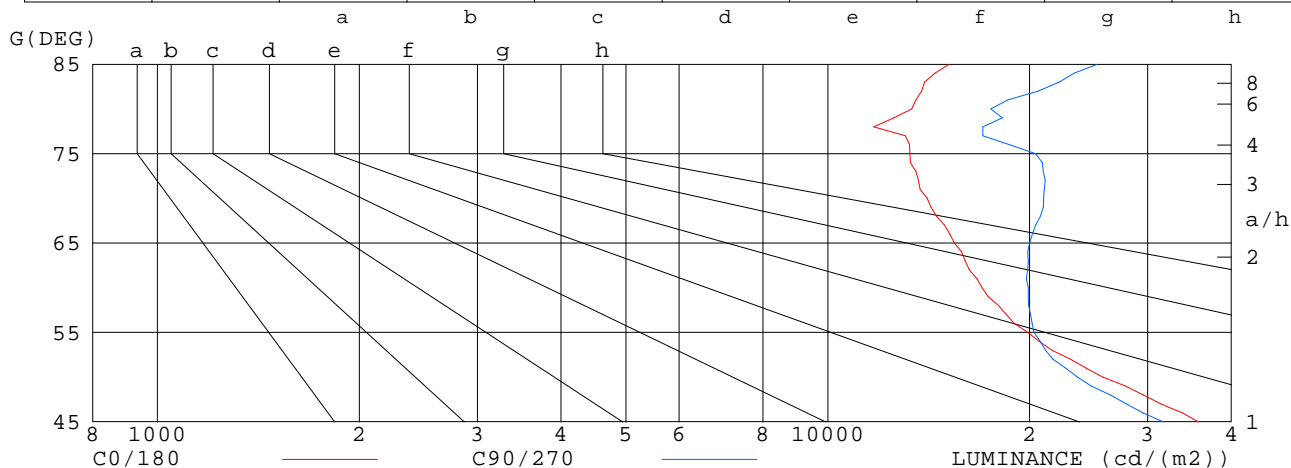
LUMINANCE LIMITATION CURVES

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	15155	25206
80	13348	17508
75	13257	20410
70	14072	20995
65	15440	19998
60	16995	19901
55	19861	20310
50	25724	23580
45	35736	31658

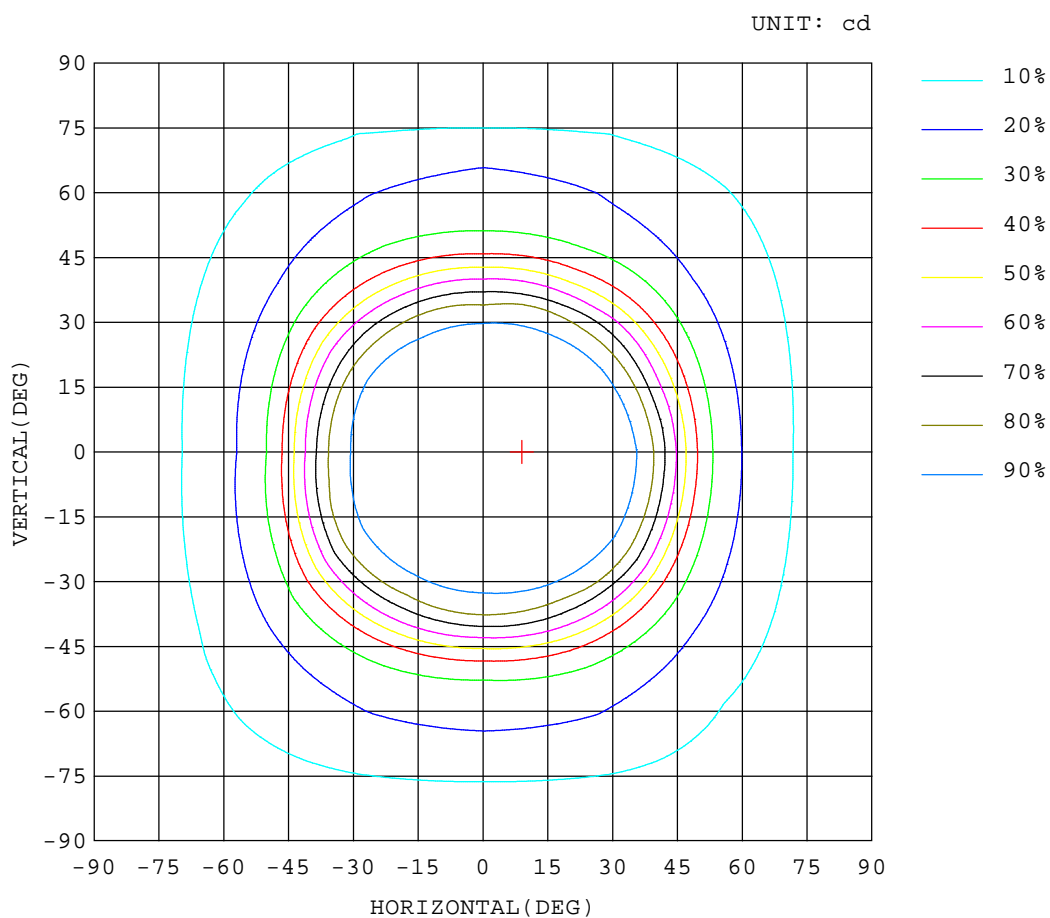
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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.:



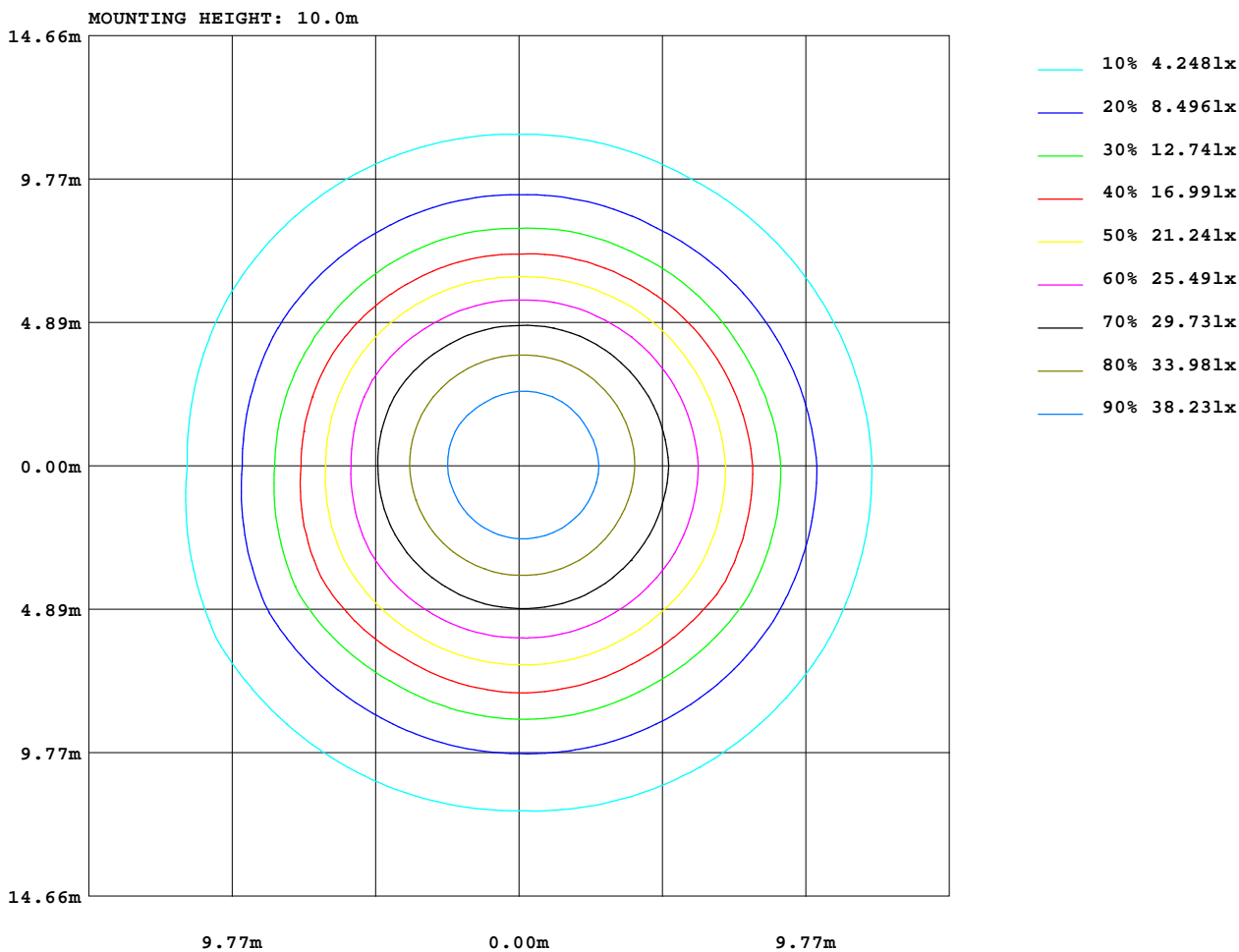
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	0.05	0.33	0.89	1.57	2.26	3.00	3.89	4.86	5.66	5.65	4.85	3.88	3.04	2.35	1.67	1.03	0.50	0.12	45.6	0.00		
90	0.09	0.70	1.91	3.56	5.53	7.98	10.5	12.6	14.0	14.0	12.5	10.3	7.92	5.58	3.65	2.11	0.89	0.18	114	46.1		
80	0.14	1.08	2.92	5.86	10.0	15.0	19.9	23.4	25.6	25.7	23.6	20.3	15.4	10.6	6.41	3.12	1.29	0.23	211	188		
70	0.19	1.42	4.06	8.13	13.7	20.5	27.1	31.6	34.1	34.0	31.5	27.0	20.9	14.2	8.92	4.57	1.63	0.29	284	271		
60	0.23	1.74	5.09	10.0	17.6	27.5	38.6	49.1	55.8	56.0	49.3	38.8	28.5	18.4	10.6	5.76	1.98	0.33	416	407		
50	0.27	2.03	5.92	12.3	23.0	40.4	64.3	86.1	97.4	98.3	88.4	67.2	43.0	24.9	13.3	6.60	2.33	0.37	677	670		
40	0.30	2.25	6.63	14.5	29.9	60.1	93.7	114	122	123	116	98.2	65.8	33.8	16.1	7.41	2.59	0.40	906	900		
30	0.31	2.38	7.15	16.2	37.2	76.7	108	121	126	127	123	112	84.6	44.3	18.7	8.10	2.75	0.42	1018	1012		
-30	0.32	2.43	7.38	17.0	41.9	84.6	112	122	128	129	124	115	93.9	52.1	20.4	8.51	2.81	0.43	1063	1057		
	0.32	2.45	7.44	17.3	42.9	86.0	112	122	128	129	124	116	95.3	53.3	20.6	8.54	2.80	0.43	1067	1062		
	0.32	2.44	7.31	16.9	40.0	81.7	110	121	126	127	123	114	89.9	47.4	19.1	8.17	2.73	0.42	1036	1031		
	0.30	2.36	6.86	15.5	33.2	68.3	100	117	123	124	119	105	75.1	37.1	16.7	7.47	2.57	0.40	955	949		
	0.28	2.17	6.22	13.3	25.8	46.5	74.4	96.6	109	110	100	79.4	50.3	26.8	13.8	6.52	2.34	0.37	764	756		
-40	0.25	1.90	5.47	10.8	19.4	30.3	43.5	57.6	66.7	67.6	59.9	45.9	31.3	19.6	11.0	5.50	2.03	0.34	480	470		
-50	0.21	1.54	4.65	8.88	14.7	21.7	28.6	33.4	36.0	36.2	33.8	28.9	21.9	14.7	8.51	4.51	1.67	0.29	301	287		
-60	0.16	1.17	3.40	7.00	11.2	16.3	20.9	23.9	25.5	25.6	23.9	21.0	16.1	10.8	6.49	3.31	1.31	0.24	219	198		
-70	0.11	0.81	2.19	4.09	6.39	9.07	11.8	13.9	15.2	15.2	14.0	11.8	9.02	6.19	3.87	2.16	0.93	0.18	127	65.5		
-80	0.06	0.42	1.16	2.08	3.04	4.01	4.90	5.64	6.19	6.19	5.62	4.86	3.92	2.89	1.91	1.12	0.53	0.12	54.7	0.00		
-90																						
-90 -80 -70 -60 -50 -40 -30 -20 HORIZONTAL (DEG) 20 30 40 50 60 70 80 90																						
Φ t	3.90	29.6	86.7	186	378	700	984	1156	1244	1253	1178	1020	757	426	202	94.6	33.7	5.60	9901			
Φ a	0.00	0.00	55.7	163	358	682	966	1136	1223	1231	1159	1002	739	406	180	68.0	3.38	0.00		9378		

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

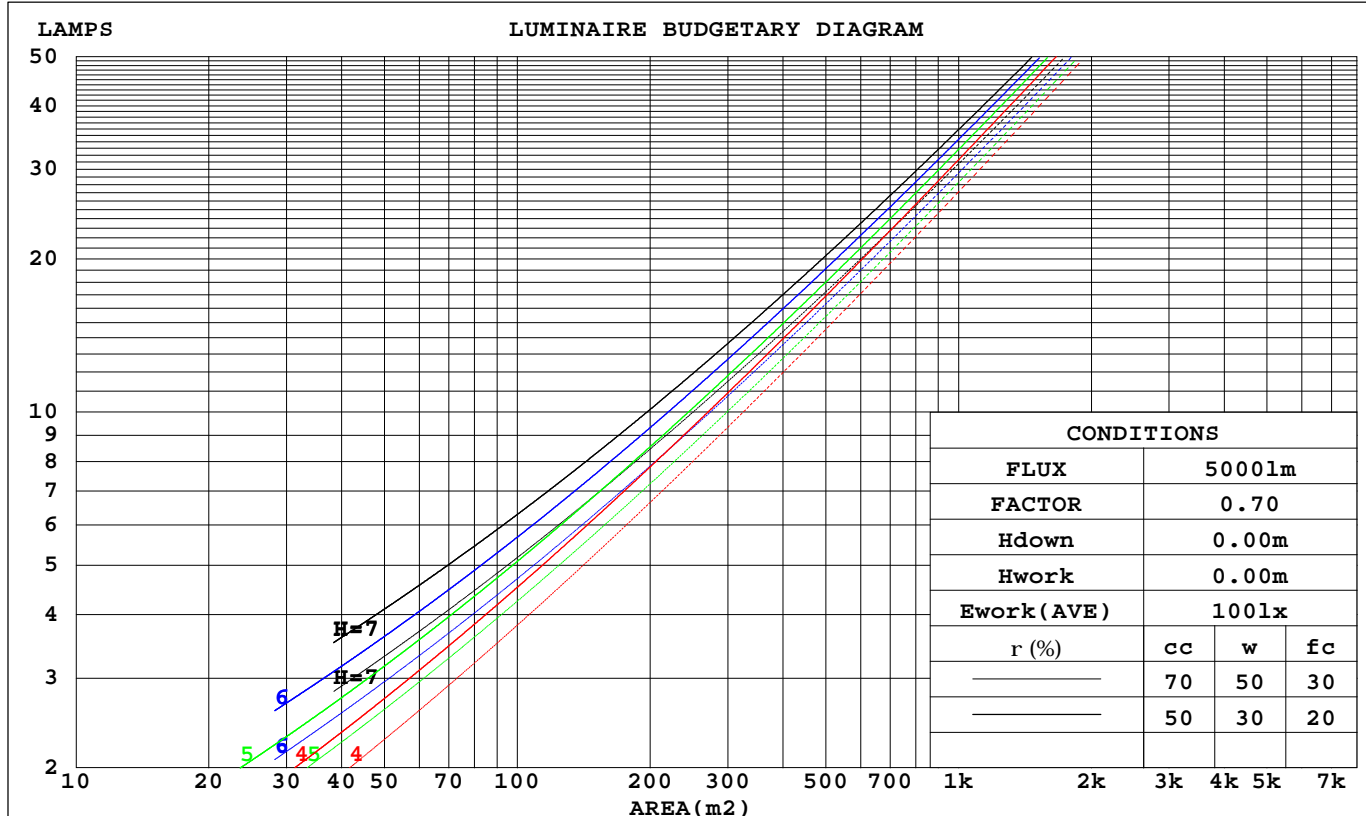
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

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
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r/c	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															Wall Exitance Coefficients(WEC)														
0.0																														
1.0	.273	.155	.049	.265	.151	.048	.251	.144	.046	.239	.138	.044	.227	.131	.042															
2.0	.257	.141	.043	.250	.138	.042	.238	.132	.041	.227	.127	.040	.216	.122	.039															
3.0	.239	.127	.038	.234	.125	.038	.223	.121	.037	.213	.117	.036	.204	.113	.035															
4.0	.223	.116	.034	.218	.114	.034	.208	.111	.033	.200	.107	.032	.191	.104	.032															
5.0	.208	.106	.031	.204	.105	.030	.195	.102	.030	.187	.099	.029	.180	.096	.029															
6.0	.195	.098	.028	.191	.096	.028	.183	.094	.027	.176	.091	.027	.169	.089	.026															
7.0	.183	.090	.026	.179	.089	.025	.172	.087	.025	.166	.085	.025	.160	.083	.024															
8.0	.172	.084	.024	.169	.083	.023	.162	.081	.023	.157	.079	.023	.151	.078	.023															
9.0	.162	.078	.022	.159	.078	.022	.154	.076	.022	.148	.074	.021	.144	.073	.021															
10.0	.153	.074	.020	.151	.073	.020	.146	.071	.020	.141	.070	.020	.136	.069	.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	.203	.203	.203	.173	.173	.173	.118	.118	.118	.068	.068	.068	.022	.022	.022	
1.0	.190	.169	.150	.163	.145	.129	.111	.100	.089	.064	.058	.052	.021	.019	.017	
2.0	.180	.145	.115	.154	.125	.099	.106	.086	.069	.061	.050	.041	.020	.016	.013	
3.0	.171	.127	.091	.147	.109	.079	.101	.076	.056	.058	.044	.033	.019	.014	.011	
4.0	.163	.113	.075	.140	.098	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009	
5.0	.156	.103	.063	.134	.089	.055	.092	.062	.039	.053	.036	.023	.017	.012	.008	
6.0	.149	.094	.055	.128	.081	.048	.088	.057	.034	.051	.034	.020	.017	.011	.007	
7.0	.142	.087	.048	.122	.075	.042	.085	.053	.030	.049	.031	.018	.016	.010	.006	
8.0	.136	.081	.043	.117	.070	.038	.081	.049	.027	.047	.029	.016	.015	.010	.005	
9.0	.131	.076	.040	.112	.066	.034	.078	.046	.024	.045	.027	.015	.015	.009	.005	
10.0	.125	.072	.036	.108	.062	.032	.075	.044	.023	.044	.026	.013	.014	.009	.004	

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	23.0	24.3	23.3	24.6	24.8	23.1	24.4	23.4	24.7	24.9	
	3H	23.7	24.9	24.0	25.2	25.4	24.4	25.7	24.7	25.9	26.2
	4H	24.0	25.2	24.3	25.5	25.7	25.1	26.3	25.4	26.5	26.8
	6H	24.3	25.4	24.6	25.7	26.0	25.4	26.6	25.8	26.8	27.2
	8H	24.4	25.5	24.8	25.8	26.1	25.7	26.7	26.0	27.0	27.4
	12H	24.5	25.6	24.9	25.9	26.2	25.9	26.9	26.3	27.2	27.6
4H	2H	23.3	24.5	23.6	24.7	25.0	23.4	24.6	23.7	24.9	25.1
	3H	24.2	25.2	24.6	25.5	25.9	25.0	26.1	25.4	26.4	26.7
	4H	24.7	25.6	25.1	26.0	26.3	25.8	26.8	26.2	27.1	27.5
	6H	25.1	26.0	25.5	26.3	26.7	26.3	27.2	26.8	27.5	27.9
	8H	25.3	26.1	25.8	26.5	26.9	26.6	27.4	27.1	27.8	28.2
	12H	25.5	26.2	26.0	26.6	27.1	27.0	27.7	27.4	28.1	28.5
8H	4H	25.0	25.8	25.4	26.2	26.6	26.0	26.8	26.5	27.2	27.6
	6H	25.6	26.2	26.0	26.6	27.1	26.6	27.3	27.1	27.7	28.2
	8H	25.9	26.4	26.4	26.9	27.4	27.1	27.6	27.5	28.1	28.6
	12H	26.2	26.6	26.7	27.1	27.6	27.5	28.0	28.0	28.5	29.0
12H	4H	25.0	25.7	25.5	26.1	26.6	26.0	26.7	26.5	27.1	27.6
	6H	25.7	26.2	26.1	26.7	27.2	26.7	27.2	27.2	27.7	28.2
	8H	26.0	26.5	26.5	27.0	27.5	27.2	27.6	27.7	28.1	28.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.6 / - 0.6					+ 0.4 / - 0.4					
1.5H	+ 0.6 / - 0.5					+ 0.3 / - 0.4					
2.0H	+ 1.2 / - 0.6					+ 0.6 / - 0.4					

CIE Pub.117 Corrected 9901 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.0)

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) $k(RI) \times RCR = 5$									
$k = 0.60$	65	55	49	65	55	49	64	54	49	43
0.80	75	65	58	74	64	58	72	64	58	52
1.00	82	73	67	81	72	66	79	73	66	59
1.25	89	80	74	87	79	73	85	77	72	66
1.50	93	85	79	91	84	78	88	82	77	70
2.00	99	91	86	97	90	85	93	88	83	76
2.50	102	95	90	100	94	89	96	91	87	79
3.00	105	99	94	102	97	93	98	94	90	82
4.00	108	103	99	105	101	97	101	98	95	86
5.00	110	106	102	107	104	101	103	100	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

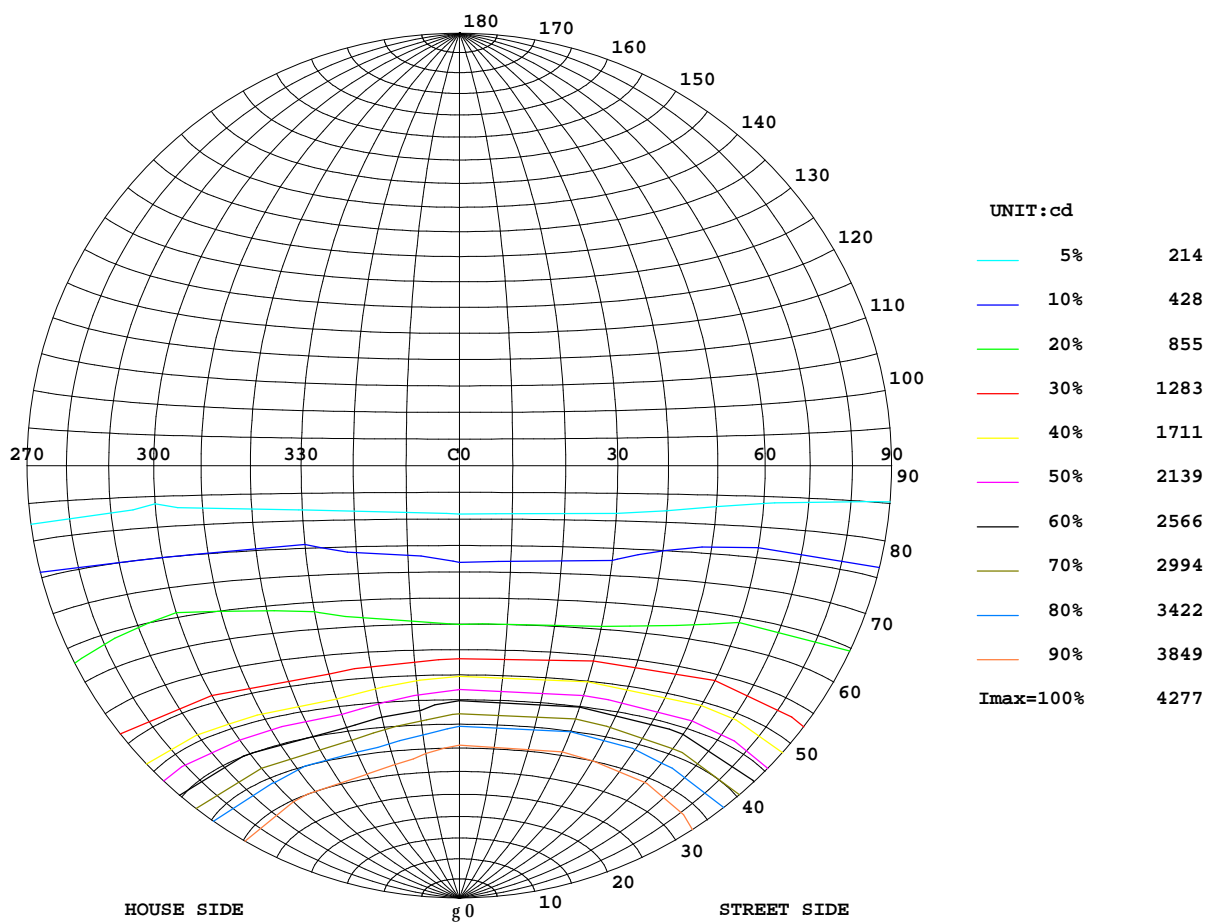
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月01日

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

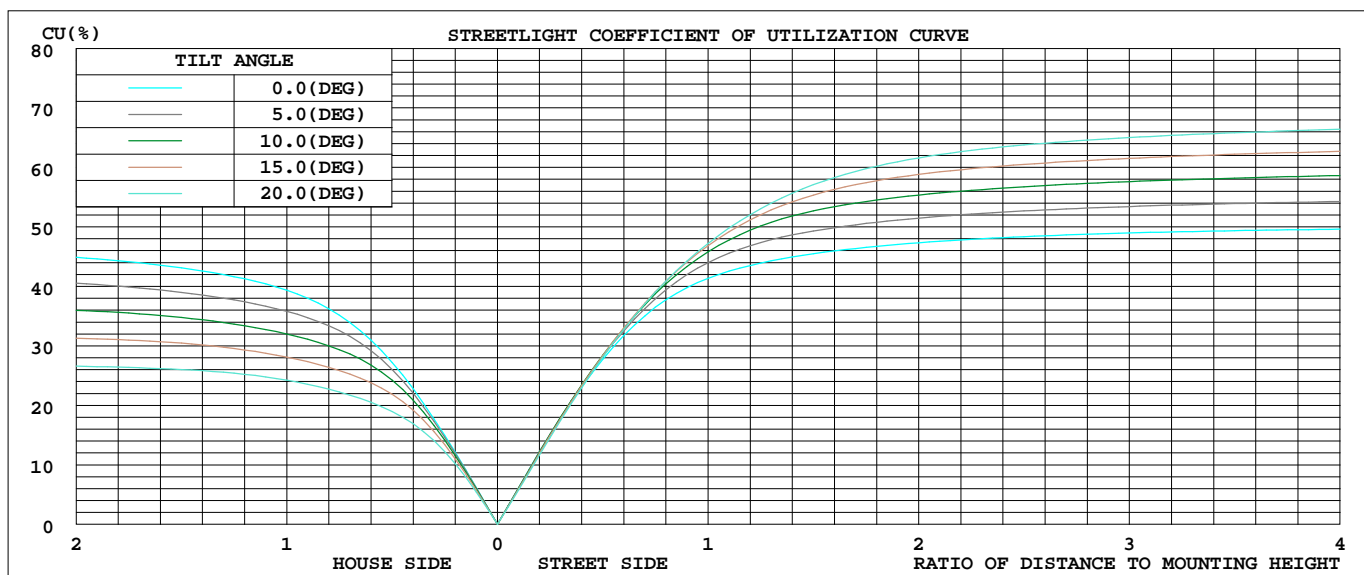
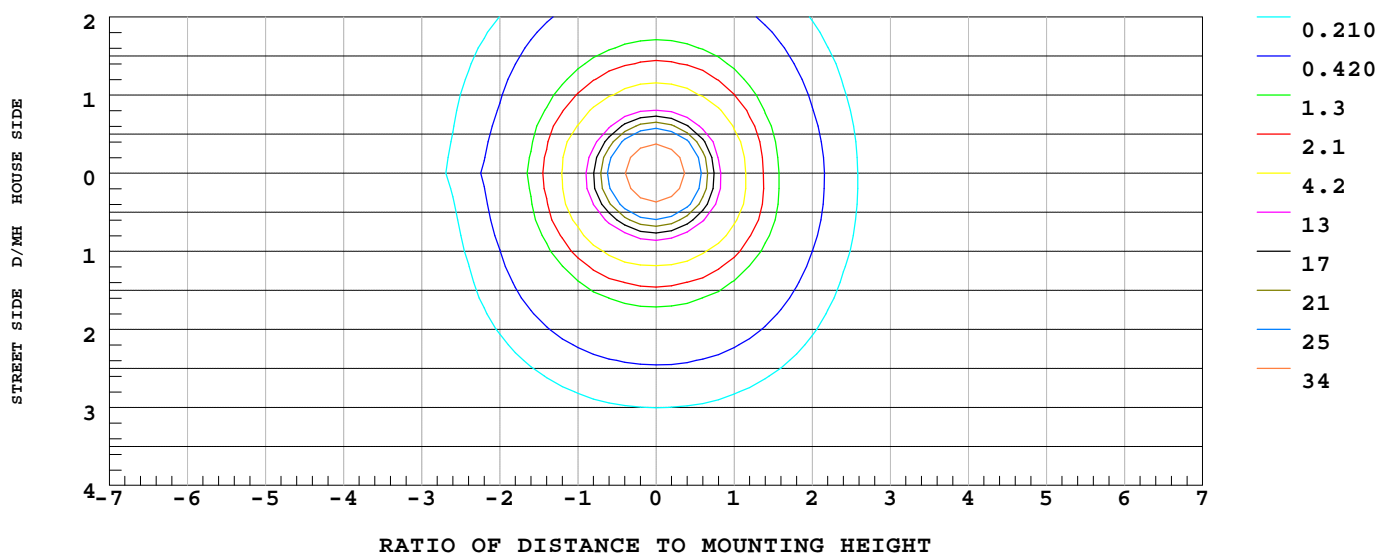
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m, Enadir = 42.48 lx



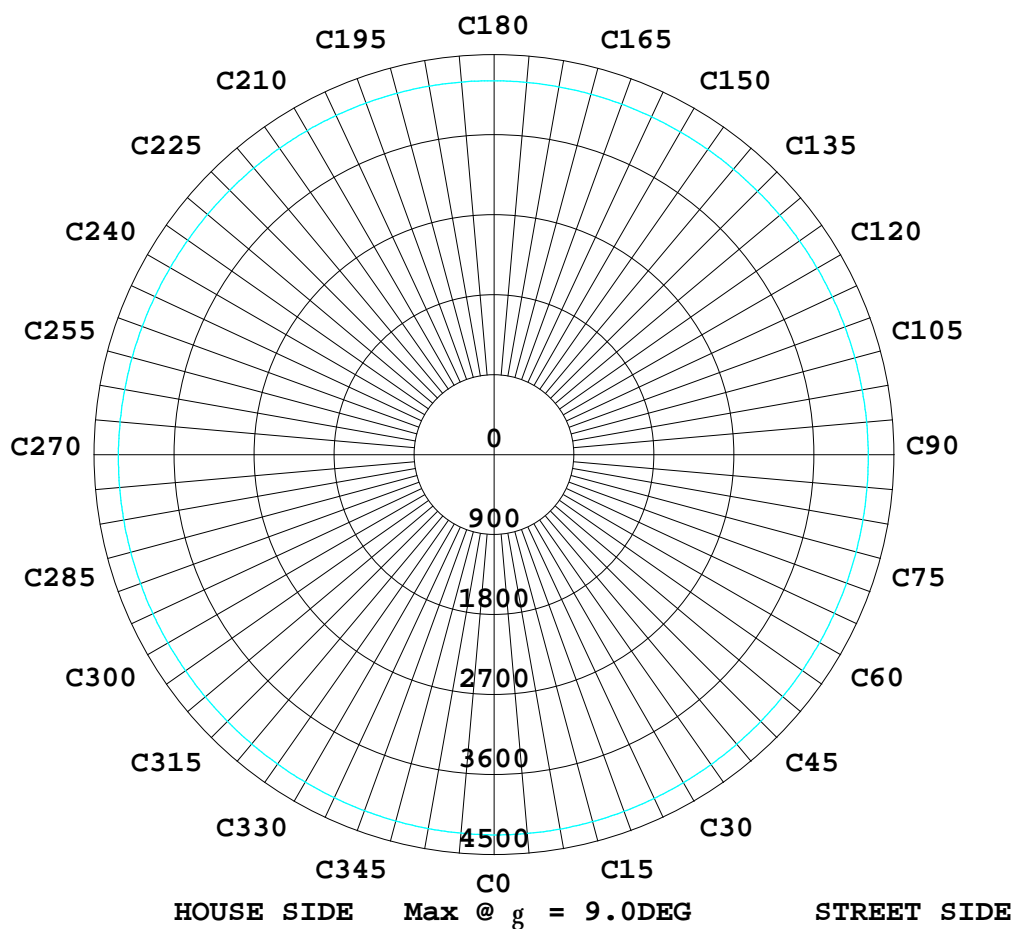
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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: