

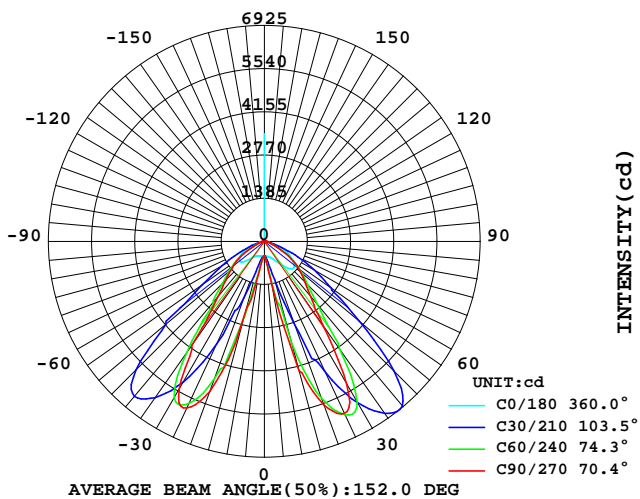
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

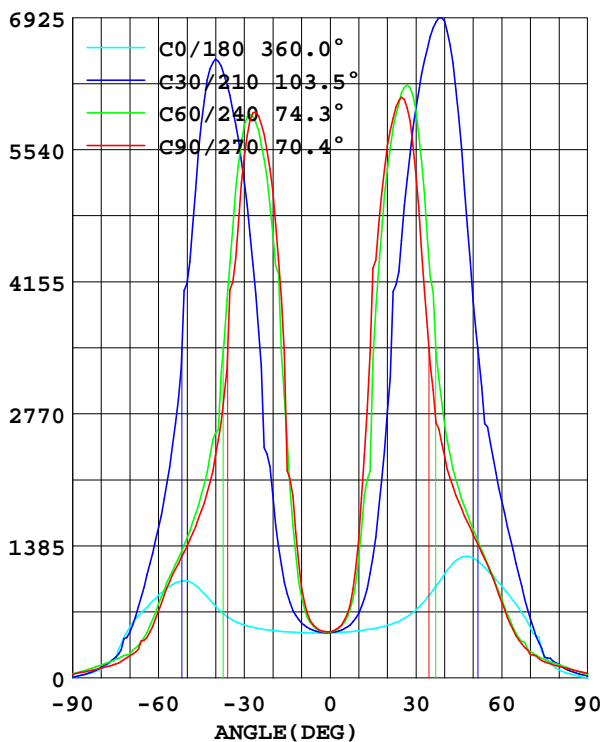
MANUFACTURER:		
Address:		
NAME:	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1438*65mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	6925	S/MH(C0/180)	2.38
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	2.30
NOMINAL POWER(W)	64	TOTAL FLUX(lm)	10370	Voltage(V)	218.6
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	164.0	Current(A)	0.304
NOMINAL FLUX(lm)	10369.8	h up(%)	0.1	Power(W)	63.23
LAMPS QUANTITY	1	h down(%)	99.9	Power Factor(PF)	0.950
TEST VOLTAGE(V)	218.7	Effective Flux(lm)	9659.3	EEI	0.089

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



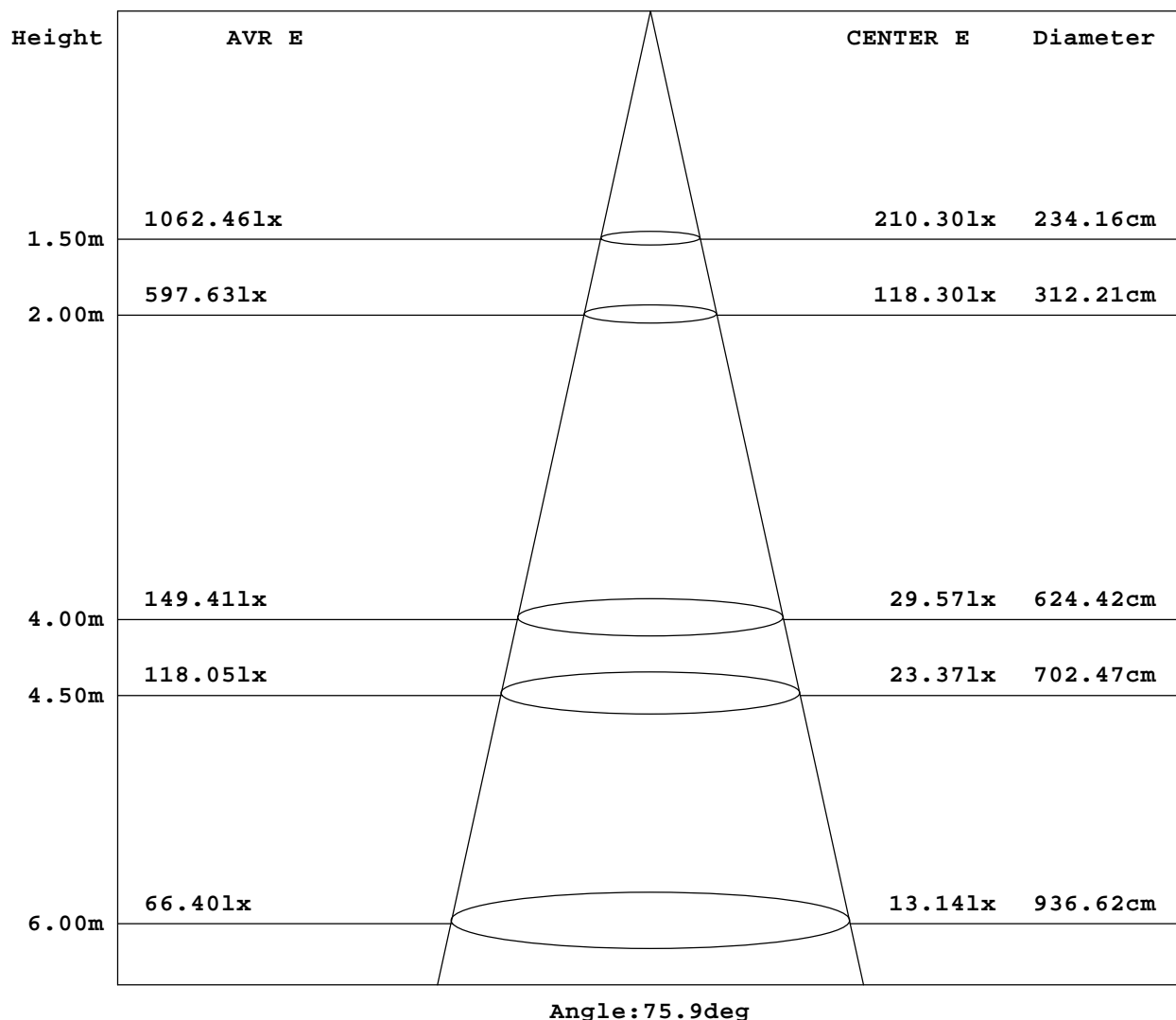
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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	471.2	505.7	533.6	490.0	480.5	551.5	609.5	539.7	0- 5	11.95	11.95
10.0	475.8	711.6	943.8	589.4	494.7	961.8	1434	792.2	5- 10	45.35	57.31
15.0	484.4	1687	2175	1066	516.0	2303	4300	1527	10- 15	144.3	201.6
20.0	497.5	3295	5115	2493	551.7	4060	5580	2946	15- 20	405.9	607.5
25.0	519.2	4683	5890	3439	609.6	5362	6089	4100	20- 25	754.1	1362
30.0	555.2	5500	5470	4349	711.1	5965	5290	5103	25- 30	1096	2457
35.0	624.5	5227	4071	5328	881.9	5469	3286	5532	30- 35	1310	3767
40.0	754.0	4530	2336	5080	1094	4773	2325	5224	35- 40	1350	5118
45.0	915.4	3874	1754	4130	1251	3934	1844	4556	40- 45	1303	6420
50.0	1017	2802	1378	3185	1256	2756	1502	3779	45- 50	1161	7581
55.0	980.0	1783	1086	2284	1127	1915	1188	2659	50- 55	935.1	8516
60.0	868.7	1178	703.4	1562	967.4	1346	798.9	1726	55- 60	697.0	9213
65.0	714.9	688.9	395.1	1000	772.4	834.1	442.2	1116	60- 65	492.2	9705
70.0	532.8	361.9	231.9	549.7	524.2	448.2	243.6	626.9	65- 70	317.4	10023
75.0	197.0	206.2	147.0	237.5	233.2	204.9	168.9	270.9	70- 75	175.4	10198
80.0	96.38	123.9	102.3	124.4	84.53	140.4	122.2	145.5	75- 80	88.11	10287
85.0	39.88	65.41	69.64	62.26	32.74	73.76	82.35	76.90	80- 85	50.11	10337
90.0	4.307	26.51	38.91	14.41	0	28.14	48.10	23.42	85- 90	23.56	10360
95.0	0	5.844	8.663	0.641	0	2.371	18.82	1.427	90- 95	6.688	10367
100.0	0	0	0	0	0	0	9.026	0	95-100	0.881	10368
105.0	0	0	0	0	0	0.157	3.702	0.399	100-105	0.292	10368
110.0	0	0	0	0	0	1.669	0	1.427	105-110	0.212	10368
115.0	0.073	0	0	0	2.371	2.819	0	3.158	110-115	0.405	10369
120.0	2.250	1.185	0	1.887	6.243	4.489	1.282	5.638	115-120	0.955	10370
125.0	0	0	0	0	0	0	0	0	120-125	0.142	10370
130.0	0	0	0	0	0	0	0	0	125-130	0	10370
135.0	0	0	0	0	0	0	0	0	130-135	0	10370
140.0	0	0	0	0	0	0	0	0	135-140	0	10370
145.0	0	0	0	0	0	0	0	0	140-145	0	10370
150.0	0	0	0	0	0	0	0	0	145-150	0	10370
155.0	0	0	0	0	0	0	0	0	150-155	0	10370
160.0	0	0	0	0	0	0	0	0	155-160	0	10370
165.0	0	0	0	0	0	0	0	0	160-165	0	10370
170.0	0	0	0	0	0	0	0	0	165-170	0	10370
175.0	0	0	0	0	0	0	0	0	170-175	0	10370
180.0	0	0	0	0	0	0	0	0	175-180	0	10370
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:

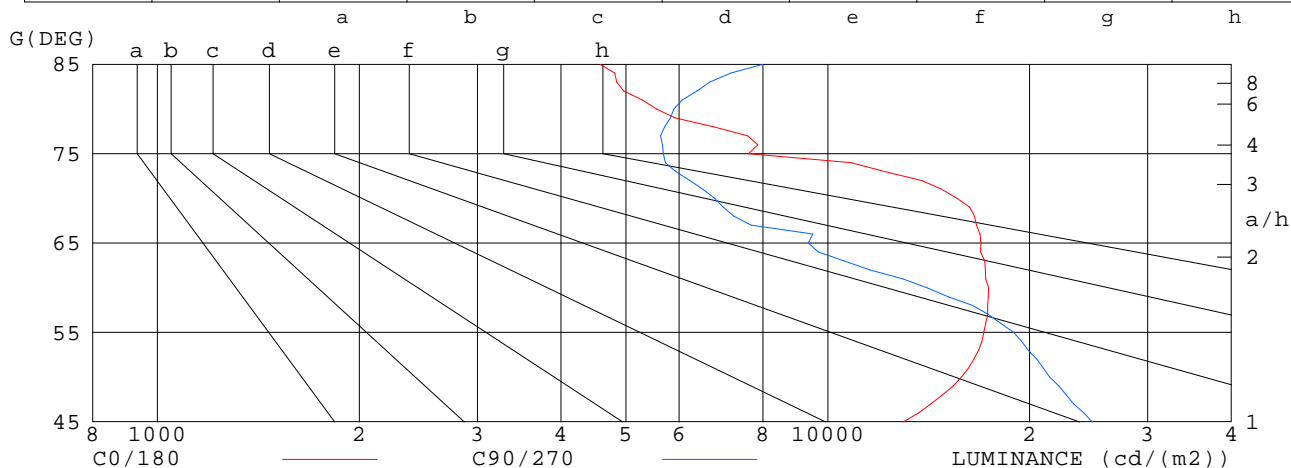
LUMINANCE LIMITATION CURVES

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	4576	7991
80	5551	5892
75	7614	5683
70	15579	6781
65	16917	9350
60	17375	14069
55	17087	18926
50	15825	21436
45	12946	24805

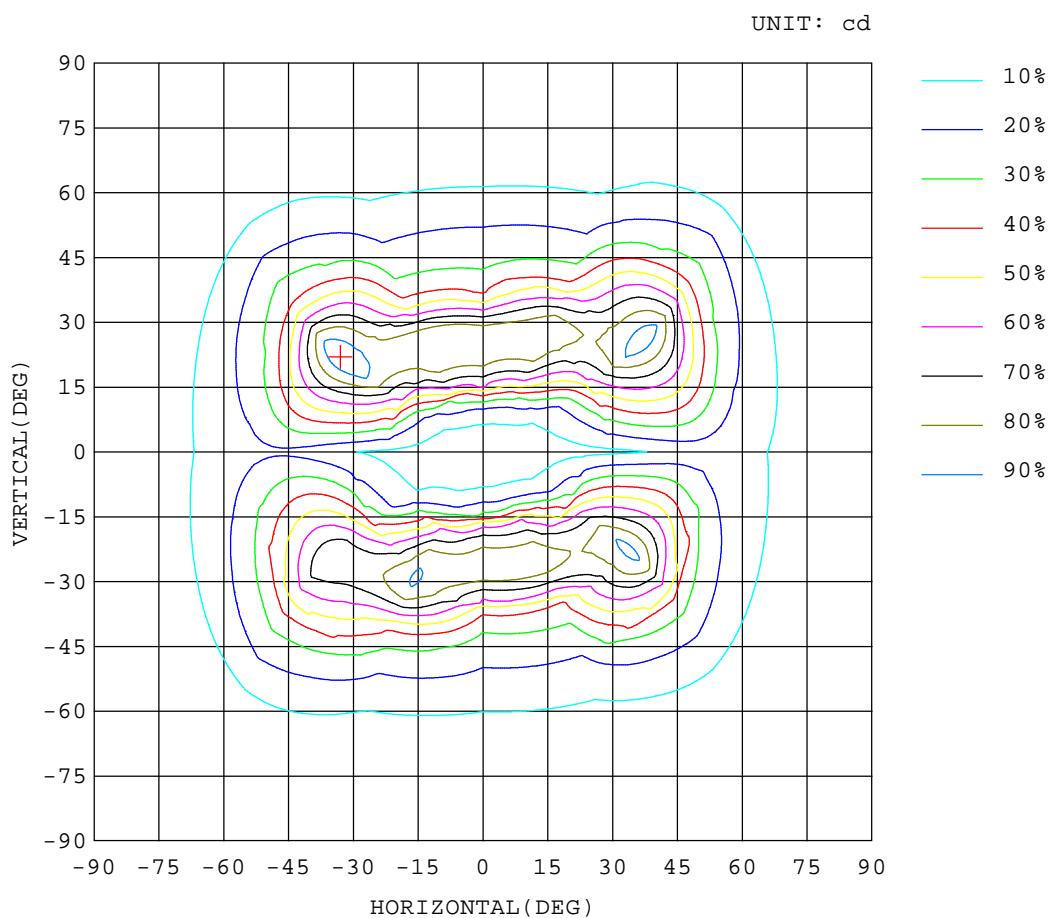
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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.:



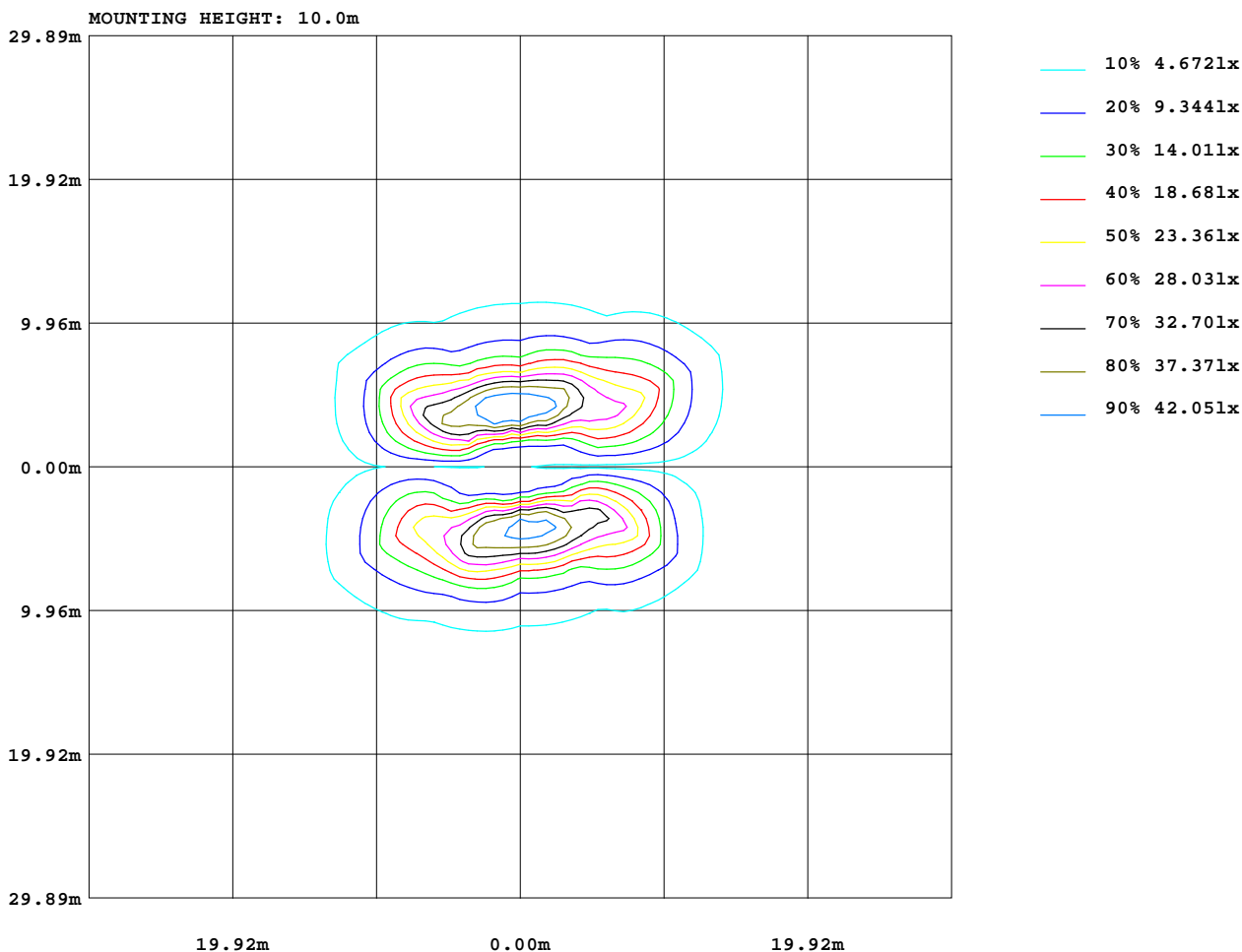
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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.:					

90	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	0.02	0.15	0.42	0.82	1.30	1.83	2.25	2.45	2.53	2.48	2.31	2.03	1.68	1.31	0.92	0.51	0.20	0.03	23.2	0.00		
80	0.04	0.31	0.93	2.00	3.17	4.17	4.86	5.33	5.48	5.49	5.35	4.85	4.36	3.39	2.26	1.13	0.39	0.06	53.6	0.00		
70	0.06	0.49	1.75	3.98	7.30	9.84	10.6	12.9	14.3	14.7	14.0	11.9	12.4	10.0	5.23	1.98	0.60	0.08	132	14.5		
60	0.08	0.73	2.96	9.66	18.8	24.9	26.7	31.9	35.2	36.1	34.2	30.5	31.5	26.0	14.4	3.75	0.84	0.10	329	304		
50	0.10	1.01	5.38	18.3	36.2	49.0	50.9	52.5	56.8	60.5	60.5	62.3	67.5	48.7	25.4	7.13	1.13	0.12	604	592		
40	0.11	1.35	8.10	25.0	56.9	95.1	99.6	97.4	109	119	127	117	121	84.1	32.1	10.3	1.52	0.14	1106	1097		
30	0.12	1.82	9.98	28.1	73.1	148	157	170	179	176	167	149	151	98.2	35.6	11.8	1.96	0.15	1559	1550		
VERTICAL (DEG)	0.13	2.16	10.7	27.4	68.0	123	144	128	116	104	91.8	98.2	105	76.5	33.0	11.7	2.26	0.16	1141	1133		
	0.13	2.33	10.4	22.9	42.5	56.5	57.7	35.9	23.6	21.1	22.8	35.5	44.0	39.5	23.3	10.2	2.34	0.16	451	408		
	0.13	2.36	10.6	23.9	40.5	42.8	27.4	18.2	17.0	19.0	26.5	45.3	48.0	36.5	20.3	9.52	2.27	0.16	391	332		
	0.13	2.24	11.4	30.3	65.4	90.4	71.1	72.7	77.9	93.6	103	124	112	64.7	24.7	9.58	2.07	0.15	956	947		
	0.12	1.93	11.0	31.6	78.1	127	138	162	169	172	163	147	142	72.6	24.8	8.77	1.71	0.14	1452	1442		
	0.11	1.42	9.39	28.4	67.6	100	122	146	131	115	98.1	96.7	95.0	54.5	21.2	7.02	1.30	0.12	1095	1084		
	0.09	0.99	6.45	22.0	42.0	58.6	63.1	67.4	62.3	54.5	50.1	48.9	46.6	31.2	14.7	4.72	0.98	0.11	575	561		
	0.07	0.69	3.42	12.3	22.7	29.3	31.2	34.3	34.1	32.2	29.5	24.7	21.7	15.2	7.85	2.66	0.69	0.09	303	268		
	0.05	0.47	1.61	4.63	8.87	11.2	11.4	13.2	13.2	12.6	11.5	9.55	8.53	6.36	3.49	1.50	0.46	0.07	119	5.97		
	0.03	0.27	0.85	1.80	2.95	4.08	4.63	4.89	4.84	4.85	4.95	4.74	4.02	2.85	1.64	0.76	0.28	0.05	48.5	0.00		
-30	0.01	0.09	0.27	0.59	1.01	1.47	1.84	2.04	2.12	2.19	2.26	2.20	1.79	1.15	0.60	0.28	0.12	0.02	20.1	0.00		
-40																						
-50																						
-60																						
-70																						
-80																						
-90																						
	-90	-80	-70	-60	-50	-40	-30	-20	HORIZONTAL (DEG)				20	30	40	50	60	70	80	90		
Φ t	1.54	20.8	106	294	637	978	1024	1059	1054	1046	1015	1015	1019	673	292	104	21.1	1.89	10370			
Φ a	0.00	0.00	64.8	267	609	945	984	1004	992	985	961	972	985	644	265	60.3	0.00	0.00		9659		

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

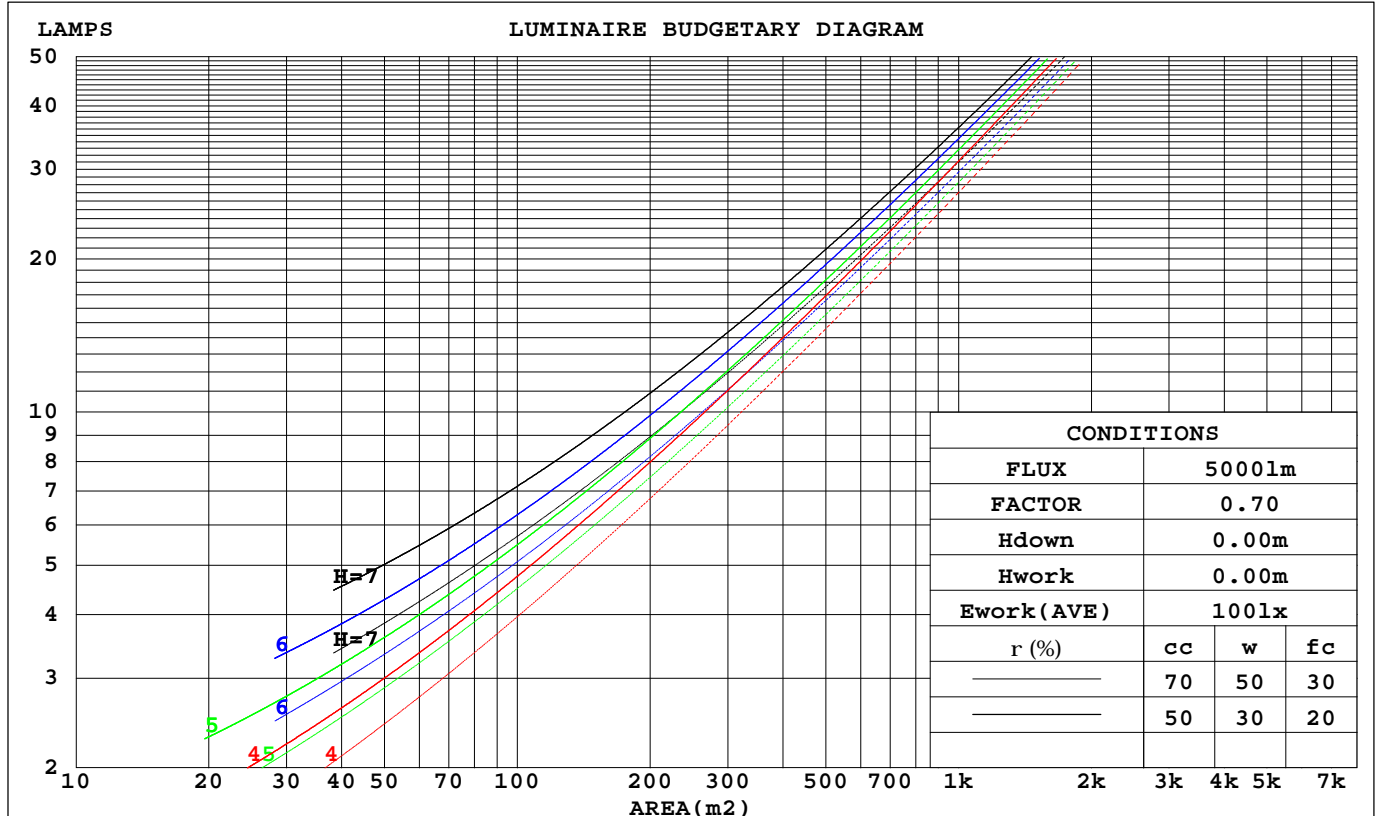
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

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 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	.272	.155	.049	.265	.151	.048	.252	.144	.046	.240	.138	.044	.229	.133	.043															
2.0	.265	.145	.045	.259	.142	.044	.247	.137	.043	.237	.133	.042	.227	.128	.040															
3.0	.252	.134	.040	.246	.132	.040	.236	.128	.039	.227	.124	.038	.218	.121	.037															
4.0	.237	.123	.036	.232	.122	.036	.223	.118	.035	.215	.115	.035	.207	.112	.034															
5.0	.223	.114	.033	.219	.112	.033	.210	.110	.032	.203	.107	.032	.196	.105	.031															
6.0	.209	.105	.030	.206	.104	.030	.198	.102	.030	.192	.100	.029	.185	.098	.029															
7.0	.197	.097	.028	.193	.096	.027	.187	.095	.027	.181	.093	.027	.175	.091	.027															
8.0	.185	.091	.025	.182	.090	.025	.176	.088	.025	.171	.087	.025	.166	.085	.025															
9.0	.175	.085	.024	.172	.084	.024	.167	.083	.023	.162	.081	.023	.157	.080	.023															
10.0	.165	.079	.022	.163	.079	.022	.158	.077	.022	.154	.076	.022	.149	.075	.022															

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	.112	.112	.112	.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	.139	.099	.067	.095	.069	.047	.055	.040	.028	.018	.013	.009	
4.0	.155	.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	.142	.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	.130	.070	.029	.112	.061	.026	.077	.043	.018	.045	.025	.011	.015	.008	.004	
9.0	.124	.065	.026	.107	.057	.023	.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	25.5	26.9	25.7	27.1	27.3	22.6	24.1	22.9	24.3	24.5
	3H	25.8	27.2	26.1	27.4	27.6	22.7	24.1	23.0	24.3	24.6
	4H	25.8	27.1	26.1	27.4	27.6	22.8	24.0	23.1	24.3	24.5
	6H	25.8	27.0	26.1	27.3	27.5	22.8	24.0	23.1	24.2	24.5
	8H	25.8	26.9	26.1	27.2	27.5	22.8	23.9	23.1	24.2	24.5
	12H	25.7	26.8	26.1	27.1	27.4	22.8	23.9	23.2	24.2	24.5
4H	2H	25.5	26.8	25.8	27.0	27.3	23.1	24.4	23.5	24.7	24.9
	3H	26.0	27.1	26.3	27.4	27.7	23.3	24.4	23.7	24.7	25.0
	4H	26.0	27.0	26.4	27.3	27.7	23.4	24.4	23.8	24.7	25.0
	6H	26.0	26.9	26.4	27.3	27.6	23.5	24.4	23.9	24.7	25.1
	8H	26.0	26.8	26.4	27.2	27.6	23.5	24.3	23.9	24.7	25.1
	12H	26.0	26.7	26.4	27.1	27.5	23.6	24.3	24.0	24.7	25.1
8H	4H	26.0	26.8	26.4	27.1	27.5	23.4	24.2	23.8	24.6	25.0
	6H	26.0	26.7	26.4	27.1	27.5	23.6	24.3	24.1	24.7	25.1
	8H	26.0	26.6	26.5	27.0	27.5	23.7	24.3	24.2	24.7	25.2
	12H	26.0	26.5	26.5	26.9	27.4	23.9	24.4	24.3	24.8	25.3
12H	4H	25.9	26.7	26.4	27.1	27.5	23.4	24.1	23.8	24.5	24.9
	6H	26.0	26.6	26.4	27.0	27.4	23.6	24.2	24.1	24.6	25.1
	8H	26.0	26.5	26.5	26.9	27.4	23.8	24.3	24.2	24.7	25.2
Variations with the observer position at spacings:											
S = 1.0H	+ 2.4 / - 1.6					+ 1.0 / - 1.4					
1.5H	+ 1.5 / - 4.3					+ 1.8 / - 0.8					
2.0H	+ 3.1 / - 4.1					+ 1.5 / - 2.2					

CIE Pub.117 Corrected 10370 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.1)

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	85	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	87	83	76
2.50	102	95	90	100	93	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	97	89
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

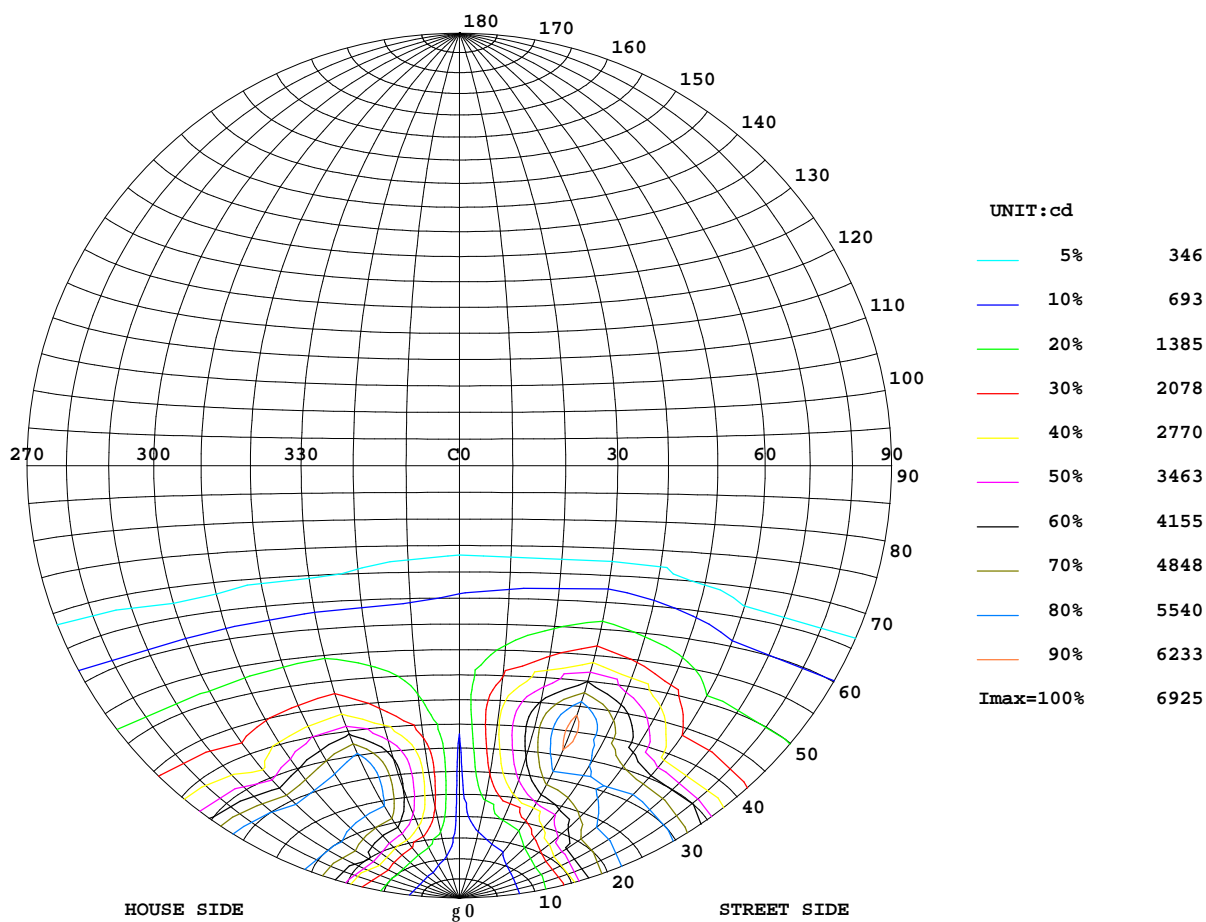
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 Temperature:25.3DEG
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ISOCANDELA DIAGRAM

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

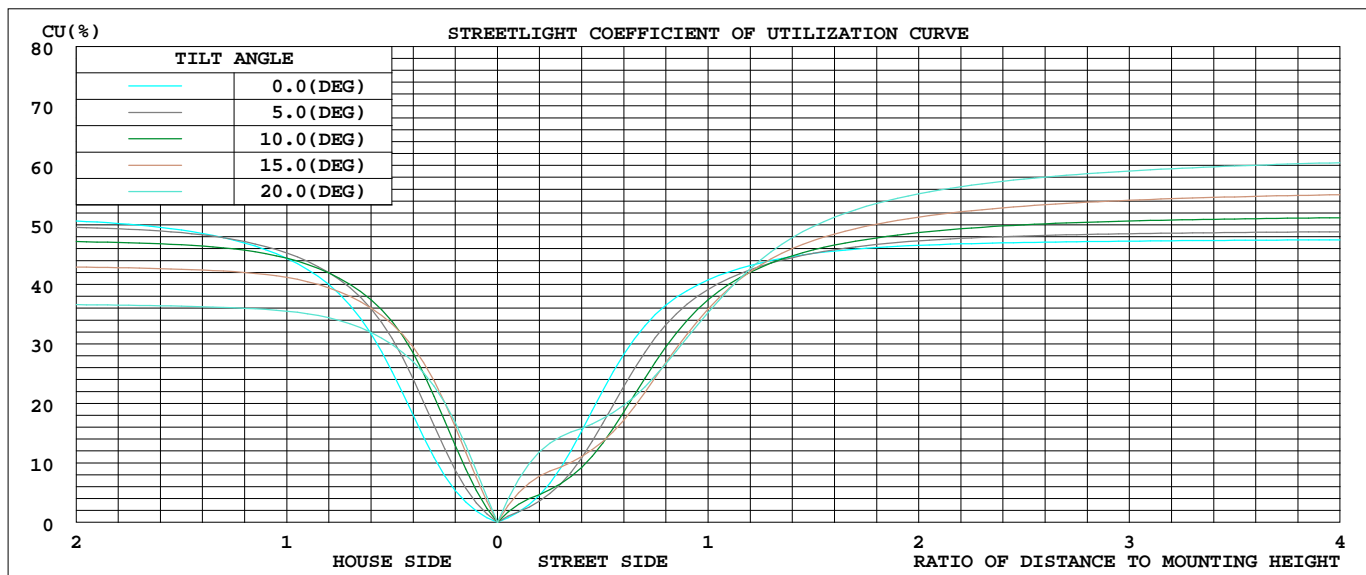
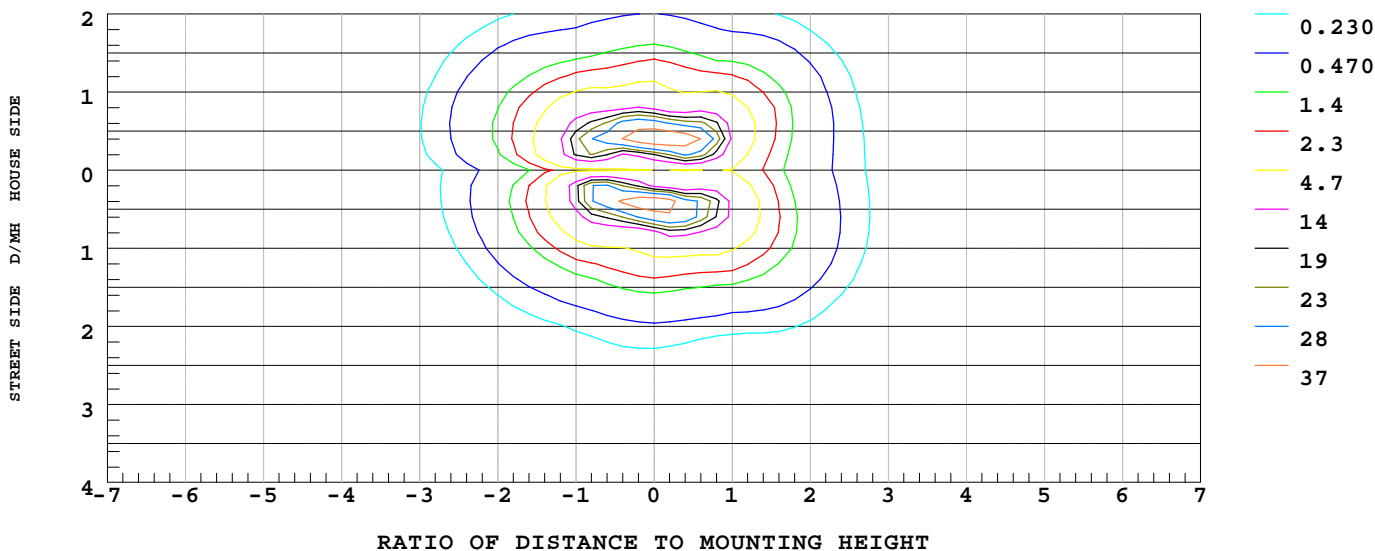
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m,Enadir = 4.73 lx



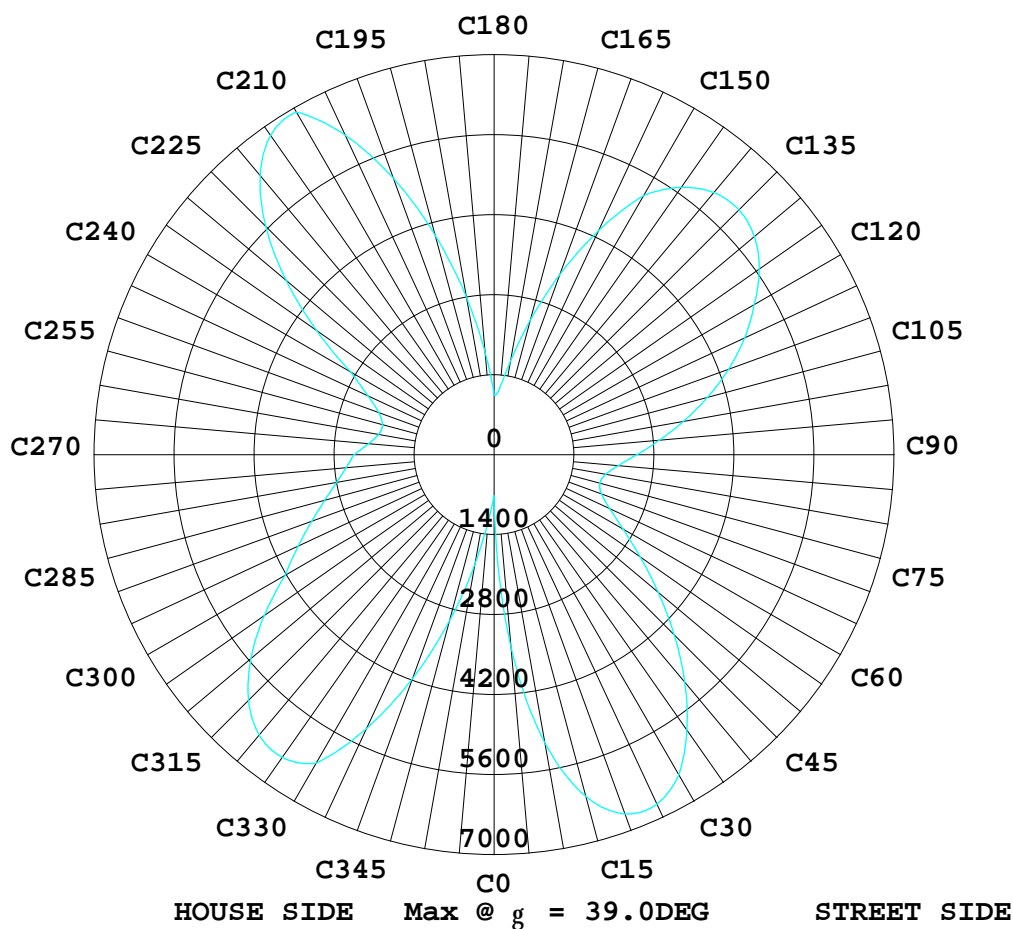
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月01日

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
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