

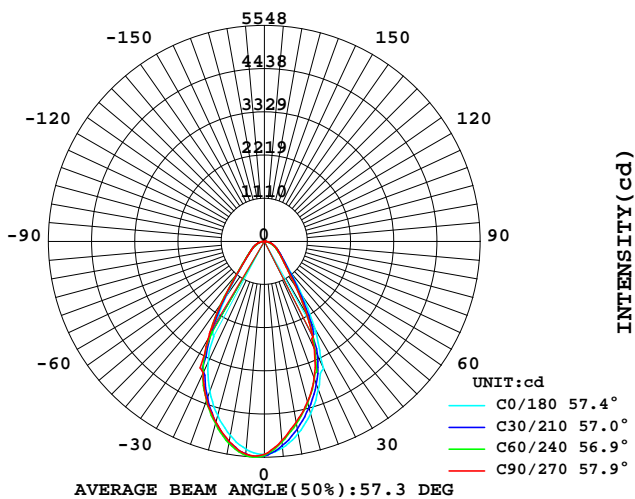
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

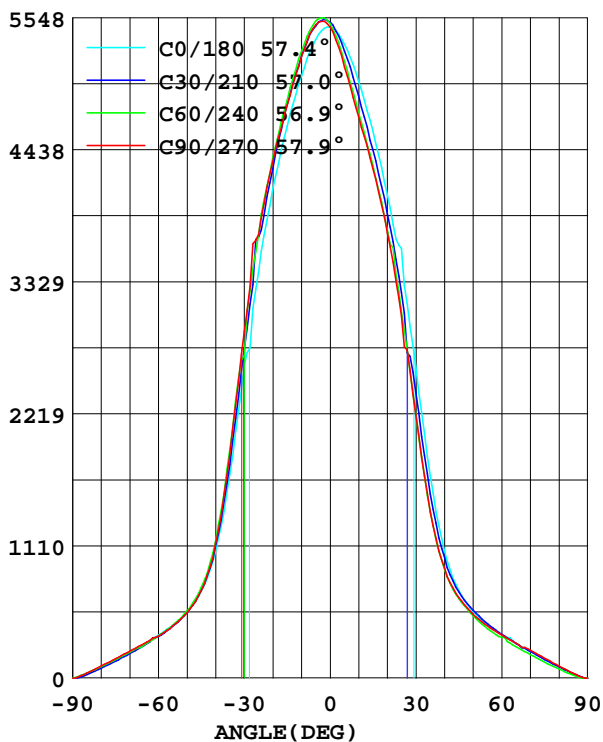
MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

DATA OF LAMP		Imax(cd)	5548	S/MH(C0/180)	0.89
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.92
NOMINAL POWER(W)	40	TOTAL FLUX(lm)	5840.8	Voltage(V)	218.8
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	149.6	Current(A)	0.189
NOMINAL FLUX(lm)	5840.8	h up(%)	0.0	Power(W)	39.04
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.943
TEST VOLTAGE(V)	218.8	Effective Flux(lm)	4958.8	EEI	0.107

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



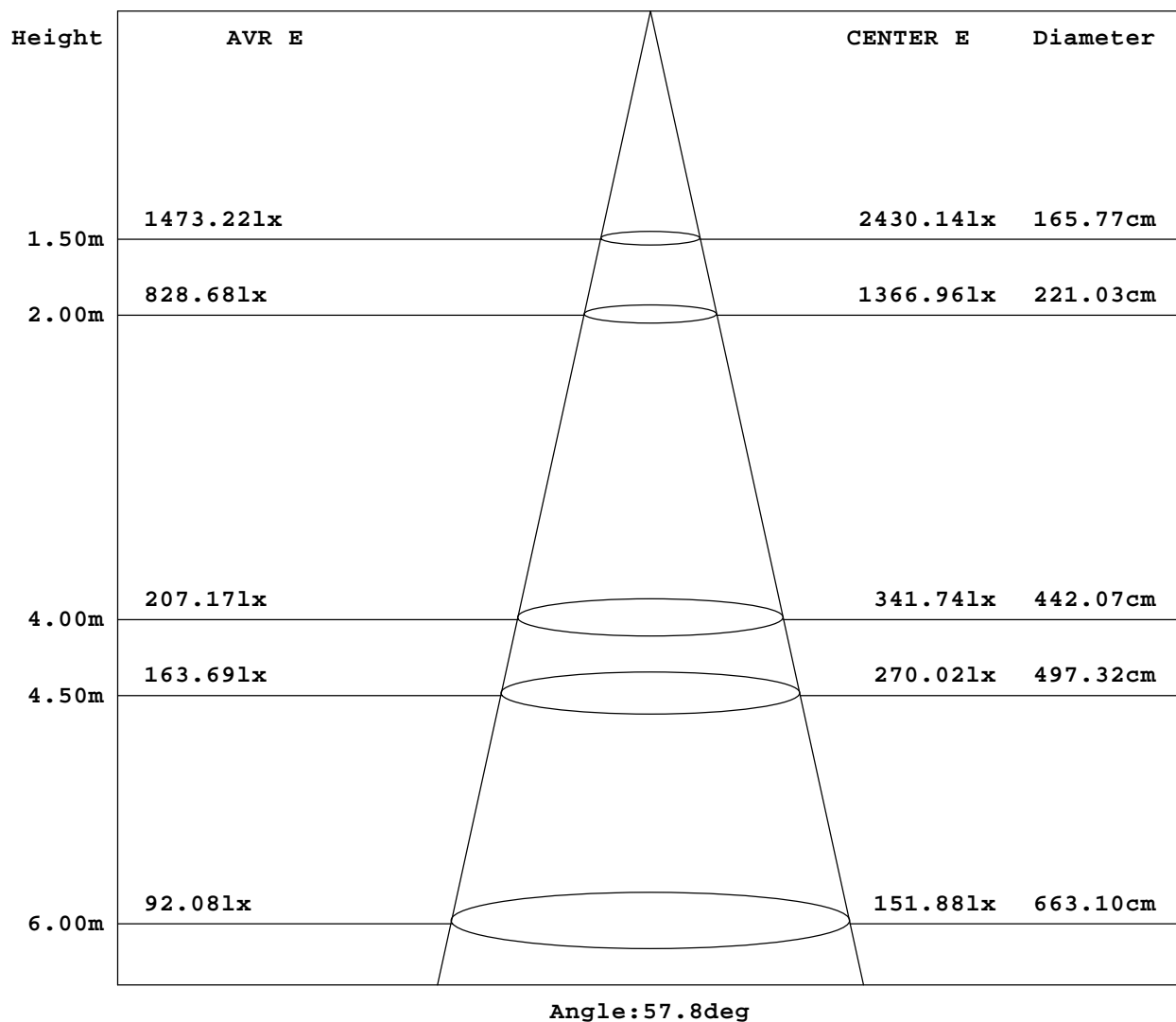
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07日

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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System: HOPOO HPG1800  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2019年08月07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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	5365	5499	5486	5461	5322	5224	5132	5252	0- 5	129.5	129.5
10.0	5060	5249	5224	5196	5011	4820	4719	4862	5- 10	370.4	499.9
15.0	4636	4836	4812	4787	4594	4371	4276	4427	10- 15	569.7	1070
20.0	4107	4325	4338	4273	4059	3831	3738	3892	15- 20	714.3	1784
25.0	3418	3719	3730	3672	3610	3155	3044	3218	20- 25	788.6	2573
30.0	2631	2736	2908	2722	2615	2310	2210	2374	25- 30	757.8	3331
35.0	1713	1860	1880	1835	1702	1473	1394	1516	30- 35	620.1	3951
40.0	1059	1128	1127	1120	1062	957.7	921.1	971.7	35- 40	442.1	4393
45.0	734.9	751.4	737.9	752.8	739.2	696.5	677.5	697.5	40- 45	319.1	4712
50.0	553.7	555.0	546.3	559.0	557.8	545.8	533.1	541.7	45- 50	254.0	4966
55.0	441.2	436.3	436.1	441.0	445.4	434.8	438.3	428.5	50- 55	213.0	5179
60.0	361.0	350.6	353.0	353.9	364.2	355.5	360.5	350.2	55- 60	181.8	5361
65.0	285.0	275.8	288.0	279.5	292.8	275.7	291.5	271.1	60- 65	154.6	5516
70.0	221.3	210.3	225.6	214.0	221.6	209.1	232.8	206.7	65- 70	124.6	5640
75.0	158.5	148.2	162.2	150.8	157.7	144.7	165.4	142.9	70- 75	95.59	5736
80.0	95.17	88.70	99.89	90.94	94.81	84.89	101.8	83.80	75- 80	64.49	5800
85.0	36.37	34.92	41.69	36.61	35.28	29.83	39.51	29.17	80- 85	33.68	5834
90.0	0	0	0	0	0	0	0	0	85- 90	6.810	5841
95.0	0	0	0	0	0	0	0	0	90- 95	0	5841
100.0	0	0	0	0	0	0	0	0	95-100	0	5841
105.0	0	0	0	0	0	0	0	0	100-105	0	5841
110.0	0	0	0	0	0	0	0	0	105-110	0	5841
115.0	0	0	0	0	0	0	0	0	110-115	0	5841
120.0	0	0	0	0	0	0	0	0	115-120	0	5841
125.0	0	0	0	0	0	0	0	0	120-125	0	5841
130.0	0	0	0	0	0	0	0	0	125-130	0	5841
135.0	0	0	0	0	0	0	0	0	130-135	0	5841
140.0	0	0	0	0	0	0	0	0	135-140	0	5841
145.0	0	0	0	0	0	0	0	0	140-145	0	5841
150.0	0	0	0	0	0	0	0	0	145-150	0	5841
155.0	0	0	0	0	0	0	0	0	150-155	0	5841
160.0	0	0	0	0	0	0	0	0	155-160	0	5841
165.0	0	0	0	0	0	0	0	0	160-165	0	5841
170.0	0	0	0	0	0	0	0	0	165-170	0	5841
175.0	0	0	0	0	0	0	0	0	170-175	0	5841
180.0	0	0	0	0	0	0	0	0	175-180	0	5841
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月07日

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

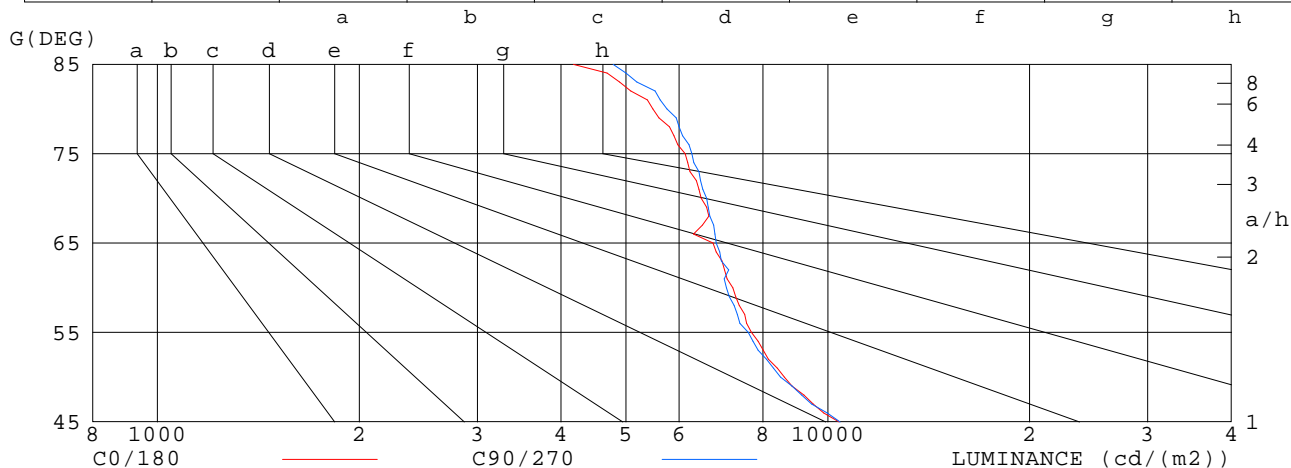
## LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	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	4173	4784
80	5481	5753
75	6127	6267
70	6473	6597
65	6744	6816
60	7220	7061
55	7693	7604
50	8615	8500
45	10393	10436

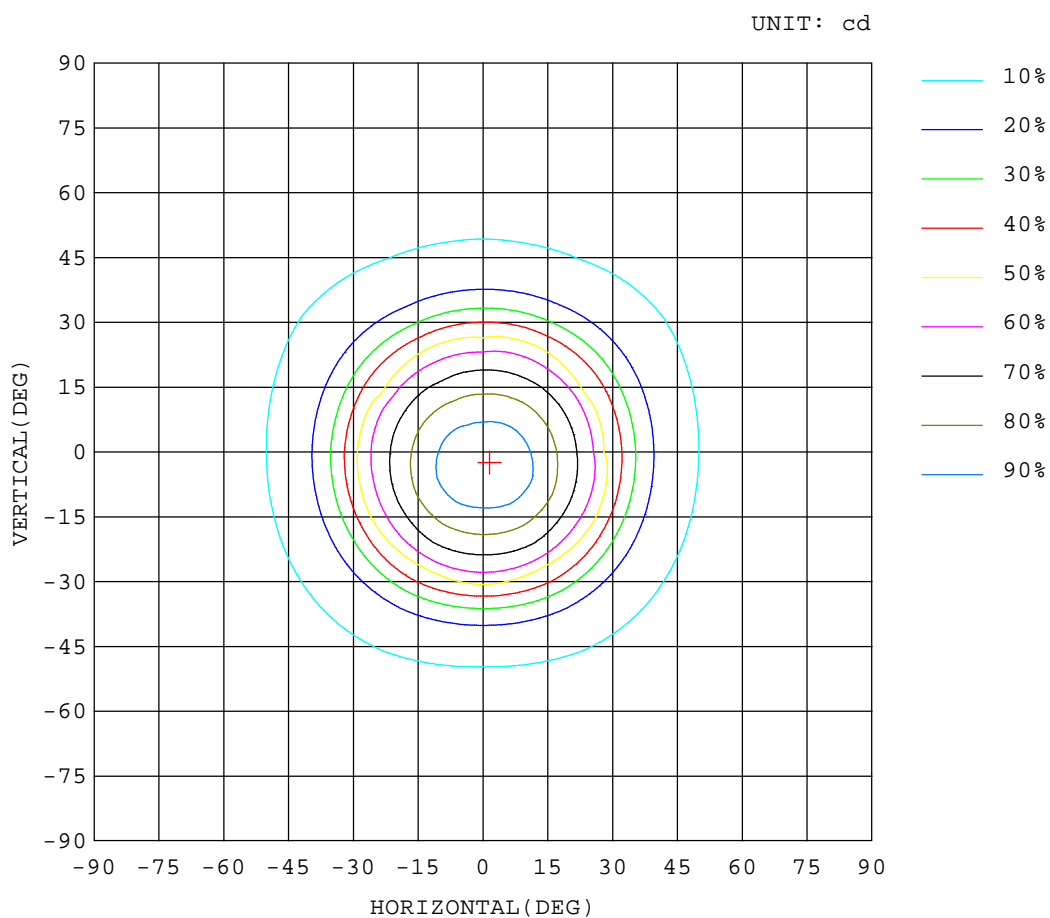
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07日

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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



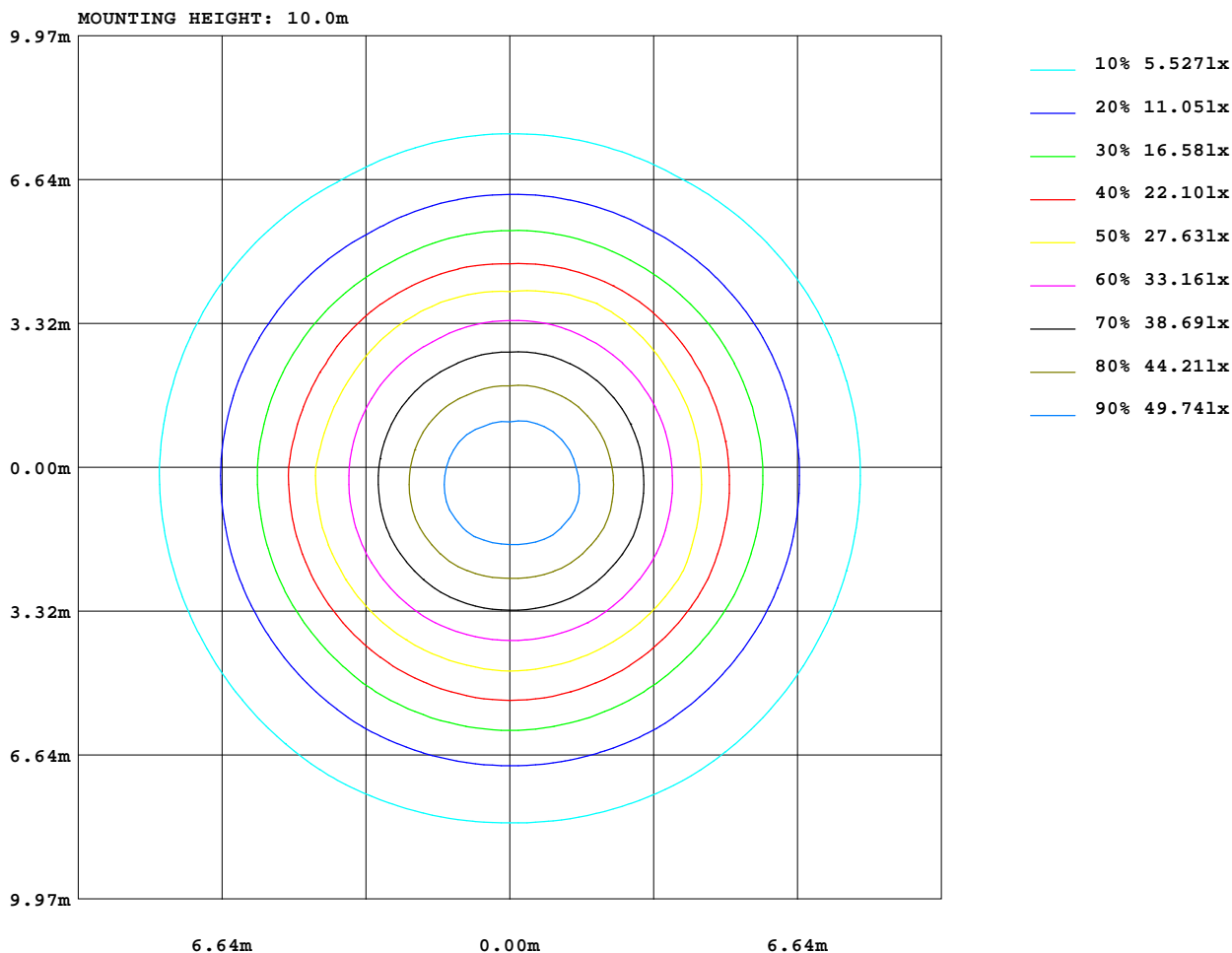
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07日

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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07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: 40W									TYPE:						WEIGHT:		
SPECIFICATION:									DIMENSION: 1150*65						SERIAL No.:		

VERTICAL (DEG)	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a								
	0.00	0.03	0.13	0.28	0.41	0.51	0.69	0.96	1.18	1.18	0.96	0.69	0.51	0.39	0.26	0.13	0.03	0.00	8.33	0.00										
90	0.01	0.20	0.66	1.29	1.97	2.62	3.34	4.20	4.85	4.84	4.19	3.33	2.60	1.95	1.27	0.65	0.20	0.01	38.2	0.00										
80	0.04	0.42	1.26	2.48	3.82	5.14	6.42	7.77	8.67	8.65	7.73	6.37	5.07	3.76	2.43	1.25	0.42	0.04	71.8	0.00										
70	0.06	0.63	1.87	3.68	5.74	7.94	9.95	11.8	13.1	13.0	11.8	9.81	7.78	5.60	3.61	1.85	0.63	0.07	109	0.00										
60	0.09	0.83	2.44	4.82	7.82	11.1	14.5	18.1	20.6	20.6	18.1	14.5	10.9	7.66	4.68	2.41	0.83	0.09	161	77.2										
50	0.11	1.00	2.93	5.92	10.0	15.4	23.0	33.4	42.6	42.9	34.1	23.3	15.3	9.82	5.77	2.88	1.00	0.11	270	226										
40	0.13	1.14	3.35	6.83	12.2	22.1	43.0	70.6	89.0	90.0	72.4	44.1	22.3	12.1	6.70	3.26	1.13	0.13	501	468										
30	0.14	1.23	3.66	7.51	14.4	32.3	70.3	108	127	128	110	71.4	32.8	14.3	7.41	3.55	1.23	0.14	732	704										
20	0.15	1.28	3.81	7.89	16.1	41.5	89.7	129	152	153	130	89.4	41.9	16.0	7.81	3.70	1.28	0.15	885	859										
10	0.15	1.28	3.80	7.85	16.2	42.8	93.2	134	160	162	136	93.2	43.1	16.1	7.78	3.69	1.28	0.15	923	897										
0	0.14	1.22	3.63	7.42	14.5	34.9	79.6	121	143	143	122	81.0	35.2	14.4	7.34	3.53	1.22	0.14	814	785										
-10	0.13	1.12	3.30	6.70	12.1	23.8	52.1	87.9	109	110	88.7	52.7	23.9	11.9	6.61	3.22	1.11	0.13	595	562										
-20	0.11	0.98	2.86	5.78	9.73	15.9	27.0	43.7	56.4	56.6	44.0	27.1	15.8	9.60	5.68	2.81	0.98	0.11	326	282										
-30	0.09	0.81	2.35	4.67	7.68	11.2	15.6	20.0	22.9	22.9	20.0	15.6	11.1	7.60	4.58	2.31	0.80	0.09	171	98.7										
-40	0.06	0.61	1.79	3.52	5.71	8.10	10.4	12.2	13.2	13.2	12.2	10.3	8.04	5.63	3.43	1.75	0.60	0.06	111	0.00										
-50	0.04	0.40	1.19	2.37	3.87	5.43	6.85	8.01	8.67	8.67	8.00	6.83	5.38	3.80	2.30	1.15	0.39	0.04	73.4	0.00										
-60	0.01	0.18	0.60	1.24	2.09	2.99	3.82	4.46	4.85	4.84	4.45	3.80	2.96	2.04	1.19	0.57	0.18	0.01	40.3	0.00										
-70	0.00	0.02	0.10	0.26	0.51	0.80	1.05	1.20	1.29	1.29	1.20	1.04	0.79	0.49	0.24	0.08	0.02	0.00	10.4	0.00										
-80																														
-90																														
HORIZONTAL (DEG)																					20	30	40	50	60	70	80	90		
Φ t	1.44	13.4	39.8	80.5	145	285	551	816	979	985	826	555	286	144	79.1	38.8	13.3	1.47	5841											
Φ a	0.00	0.00	0.00	0.00	72.9	224	493	758	921	927	769	497	226	70.5	0.00	0.00	0.00	0.00		4959										

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月07日

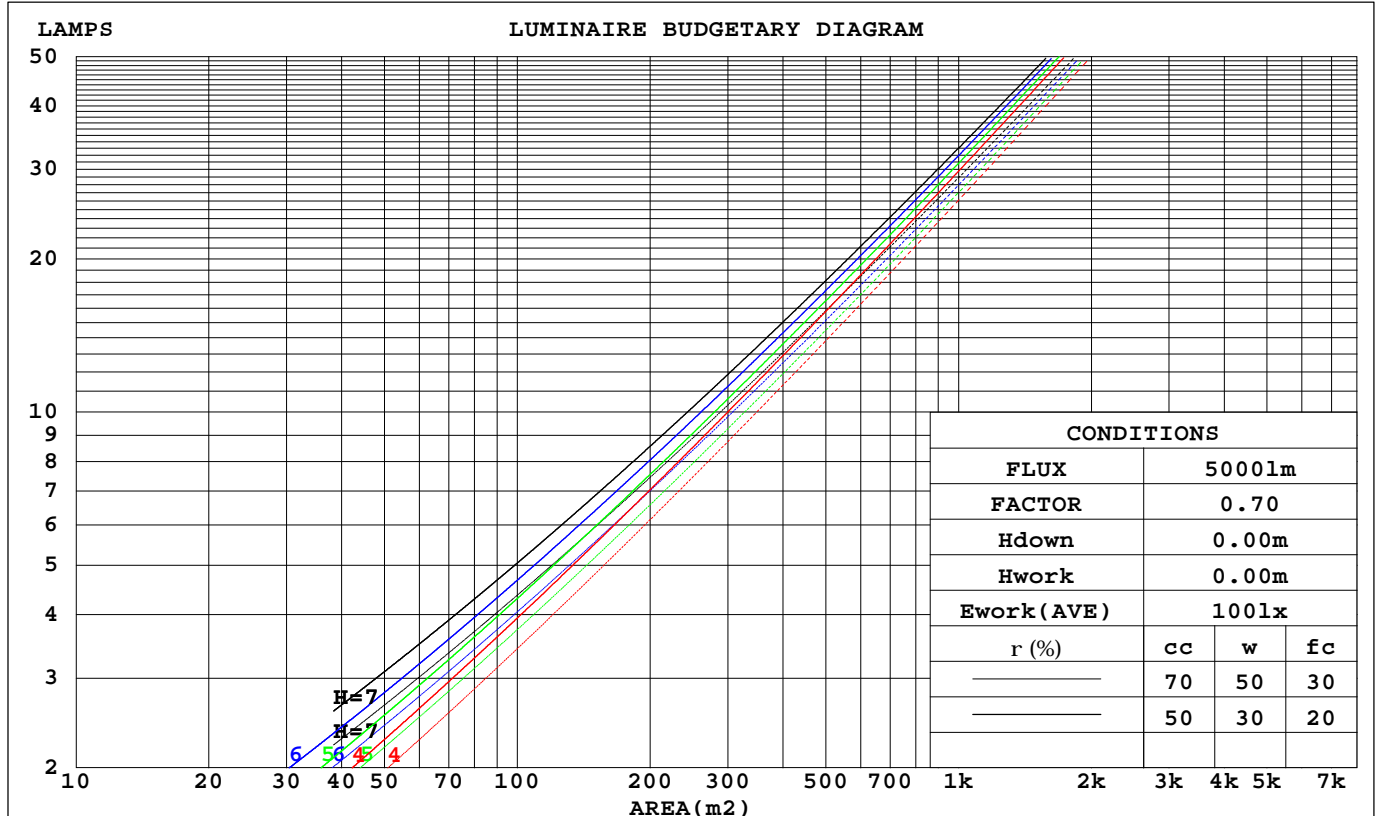
Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:11.000 m  
 Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 40W								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1150*65				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07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: 40W						TYPE:			WEIGHT:		
SPECIFICATION:						DIMENSION: 1150*65			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	.225	.128	.041	.218	.124	.040	.205	.118	.038	.193	.112	.036	.183	.106	.034															
2.0	.214	.117	.036	.208	.114	.035	.197	.109	.034	.187	.105	.033	.177	.100	.032															
3.0	.201	.107	.032	.195	.105	.032	.186	.101	.031	.177	.097	.030	.169	.094	.029															
4.0	.188	.098	.029	.184	.096	.028	.175	.093	.028	.168	.090	.027	.160	.087	.027															
5.0	.177	.090	.026	.173	.089	.026	.165	.086	.025	.159	.084	.025	.152	.081	.024															
6.0	.166	.083	.024	.163	.082	.024	.156	.080	.023	.150	.078	.023	.145	.076	.023															
7.0	.157	.078	.022	.154	.077	.022	.148	.075	.022	.143	.073	.021	.138	.072	.021															
8.0	.149	.073	.020	.146	.072	.020	.141	.070	.020	.136	.069	.020	.131	.067	.020															
9.0	.141	.068	.019	.139	.068	.019	.134	.066	.019	.130	.065	.019	.126	.064	.018															
10.0	.134	.064	.018	.132	.064	.018	.128	.063	.018	.124	.061	.017	.120	.060	.017															

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.174	.157	.141	.149	.135	.121	.102	.093	.084	.059	.054	.049	.019	.017	.016	
2.0	.162	.132	.107	.139	.114	.093	.095	.079	.065	.055	.046	.038	.018	.015	.012	
3.0	.151	.114	.084	.130	.098	.073	.089	.068	.051	.051	.040	.030	.017	.013	.010	
4.0	.142	.100	.067	.122	.086	.059	.084	.060	.041	.048	.035	.024	.016	.011	.008	
5.0	.134	.088	.055	.115	.077	.048	.079	.053	.034	.046	.031	.020	.015	.010	.007	
6.0	.126	.079	.046	.108	.069	.040	.075	.048	.028	.043	.028	.017	.014	.009	.006	
7.0	.120	.072	.039	.103	.063	.034	.071	.044	.024	.041	.026	.014	.013	.008	.005	
8.0	.114	.066	.033	.098	.057	.029	.068	.040	.021	.039	.024	.012	.013	.008	.004	
9.0	.108	.061	.029	.093	.053	.025	.065	.037	.018	.038	.022	.011	.012	.007	.004	
10.0	.103	.057	.026	.089	.049	.022	.062	.035	.016	.036	.020	.009	.012	.007	.003	

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月07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: 40W					TYPE:			WEIGHT:			
SPECIFICATION:					DIMENSION: 1150*65			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	18.1	19.2	18.3	19.4	19.6	18.2	19.4	18.5	19.6	19.7	
	3H	19.1	20.1	19.3	20.3	20.5	19.2	20.3	19.5	20.5	20.7
	4H	19.5	20.5	19.8	20.8	21.0	19.7	20.7	20.0	20.9	21.2
	6H	19.9	20.8	20.2	21.1	21.3	20.1	21.0	20.4	21.3	21.5
	8H	20.0	20.9	20.3	21.1	21.4	20.2	21.1	20.5	21.4	21.6
	12H	20.0	20.9	20.4	21.2	21.5	20.3	21.1	20.6	21.4	21.7
4H	2H	18.4	19.4	18.7	19.6	19.9	18.5	19.5	18.8	19.8	20.0
	3H	19.6	20.5	19.9	20.8	21.0	19.8	20.6	20.1	20.9	21.2
	4H	20.2	21.0	20.5	21.3	21.6	20.4	21.2	20.7	21.5	21.8
	6H	20.6	21.3	21.0	21.7	22.0	20.9	21.6	21.3	21.9	22.3
	8H	20.8	21.4	21.2	21.8	22.2	21.1	21.7	21.5	22.1	22.4
	12H	20.9	21.5	21.3	21.9	22.2	21.2	21.8	21.6	22.1	22.5
8H	4H	20.4	21.0	20.8	21.4	21.7	20.5	21.2	20.9	21.6	21.9
	6H	20.9	21.5	21.4	21.9	22.3	21.2	21.7	21.6	22.1	22.5
	8H	21.1	21.6	21.6	22.0	22.5	21.4	21.9	21.9	22.3	22.8
	12H	21.3	21.7	21.8	22.1	22.6	21.6	22.0	22.1	22.5	22.9
12H	4H	20.4	21.0	20.8	21.3	21.7	20.5	21.1	21.0	21.5	21.9
	6H	21.0	21.5	21.4	21.9	22.3	21.2	21.7	21.7	22.1	22.6
	8H	21.2	21.6	21.7	22.1	22.5	21.5	21.9	22.0	22.4	22.8
Variations with the observer position at spacings:											
S = 1.0H	+ 0.4 / - 0.5					+ 0.4 / - 0.5					
1.5H	+ 0.6 / - 0.4					+ 0.8 / - 0.4					
2.0H	+ 0.5 / - 0.3					+ 0.5 / - 0.4					

CIE Pub.117 Corrected 5841 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.1)

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月07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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	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) $k(RI) \times RCR = 5$									
$k = 0.60$	76	68	63	76	68	63	75	67	63	58
0.80	85	77	72	84	76	71	82	76	71	66
1.00	91	83	78	90	83	78	88	83	77	72
1.25	96	89	84	95	88	83	92	87	83	77
1.50	99	93	88	98	92	88	95	90	86	81
2.00	104	98	93	102	97	93	99	95	91	85
2.50	106	101	97	104	100	96	101	97	94	87
3.00	108	104	100	106	102	99	103	99	97	89
4.00	111	107	104	109	106	103	105	102	100	92
5.00	113	109	107	110	108	105	106	104	102	94
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

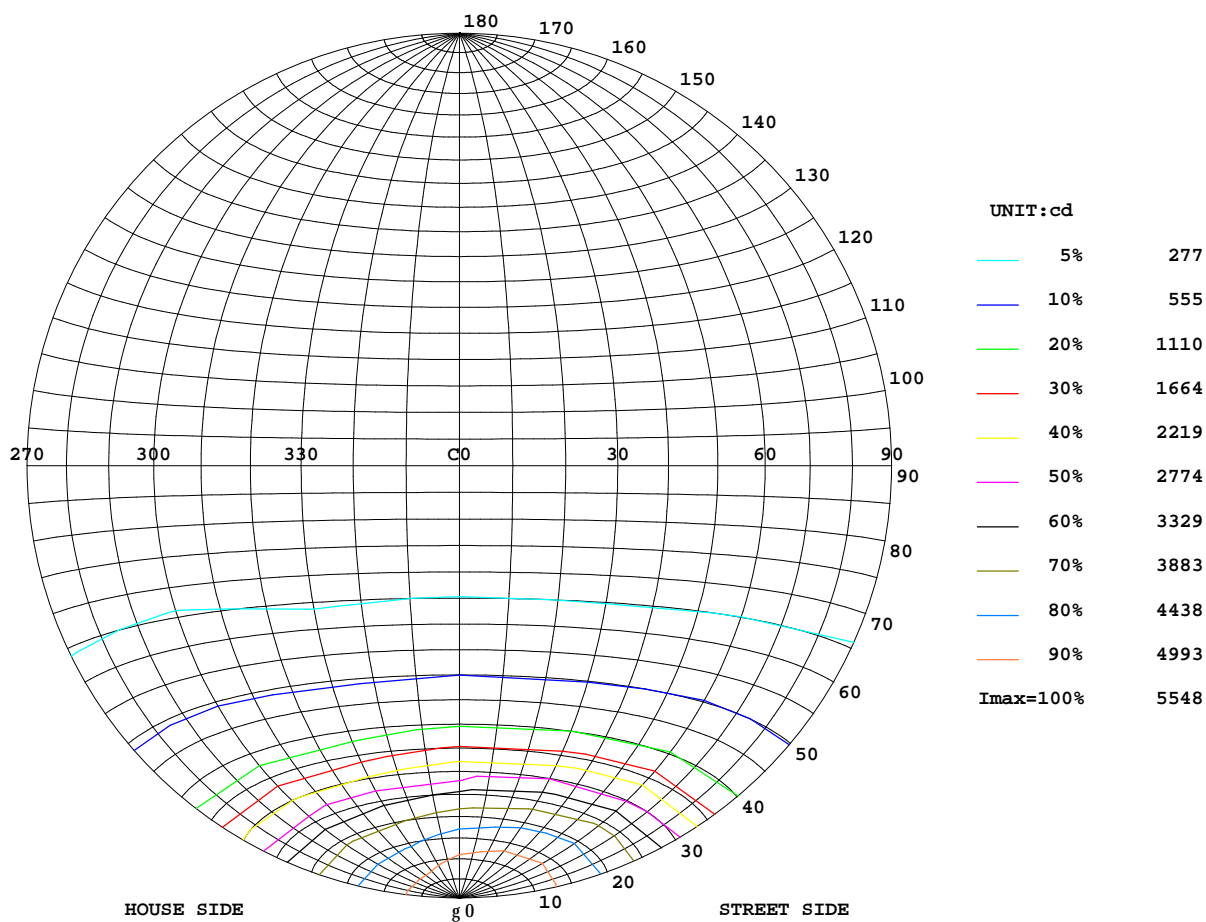
Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2019年08月07日

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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07日

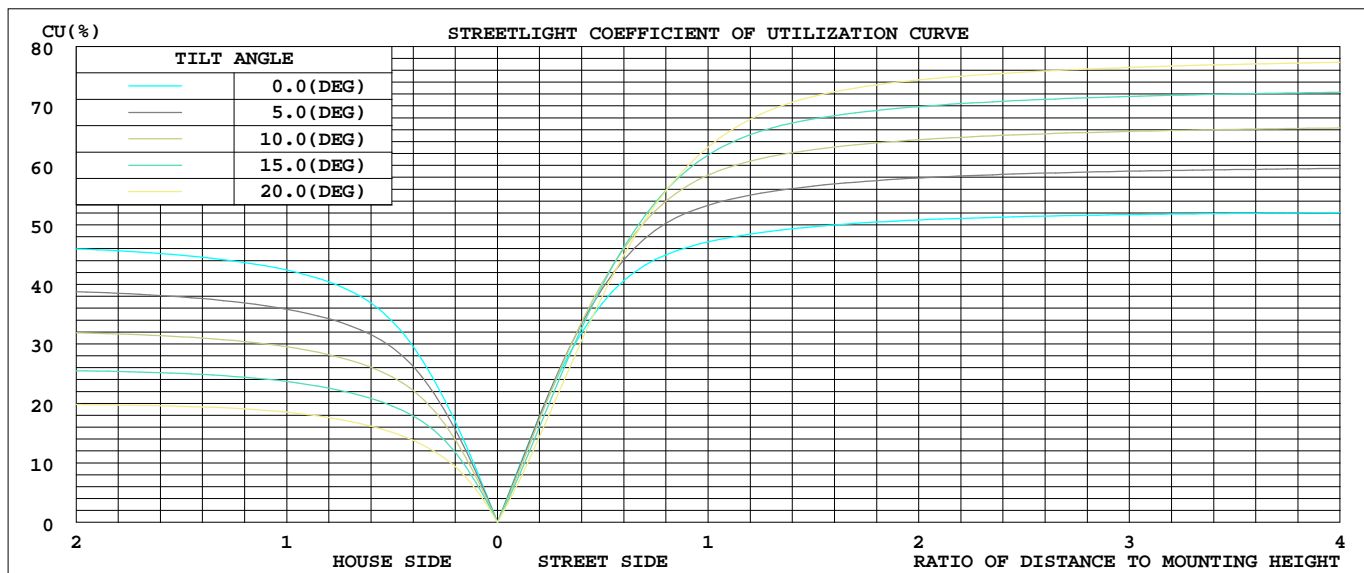
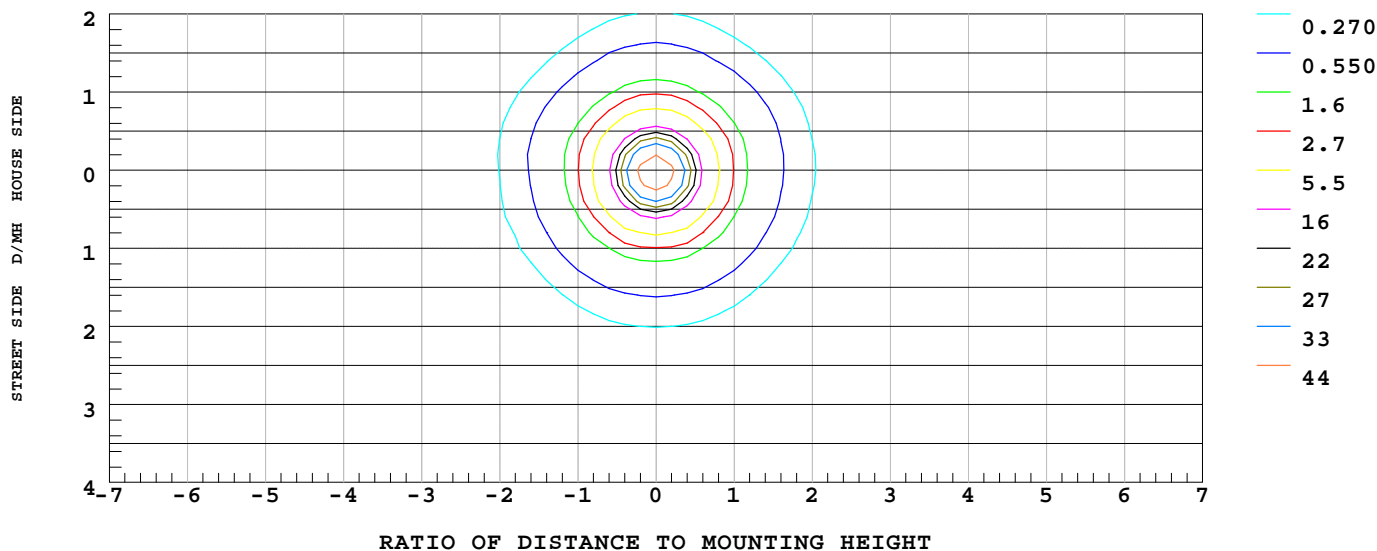
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:11.000 m  
Remarks:

ISOLUX DIAGRAM

Report number:

MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:

ILLUMINANCE AT MH=10 m, Enadir = 54.68 lx



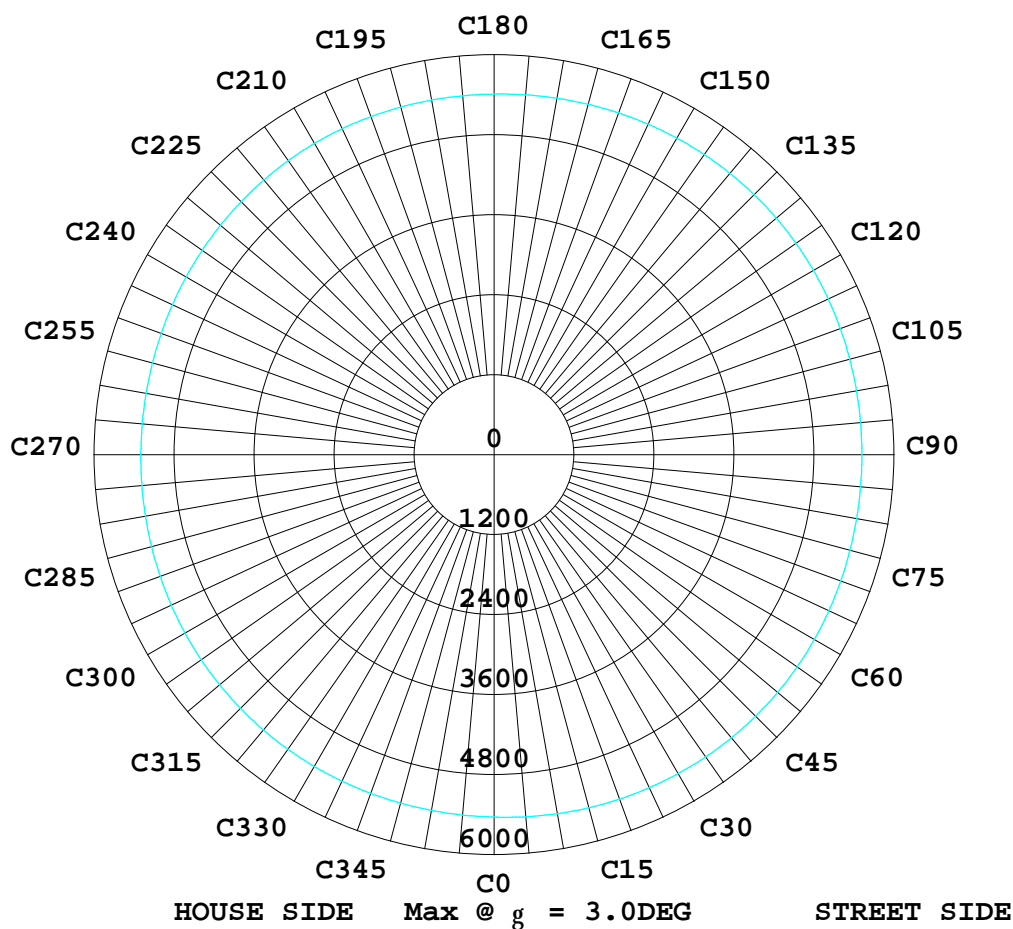
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07日

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: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65	SERIAL No.:



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2019年08月07日

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