

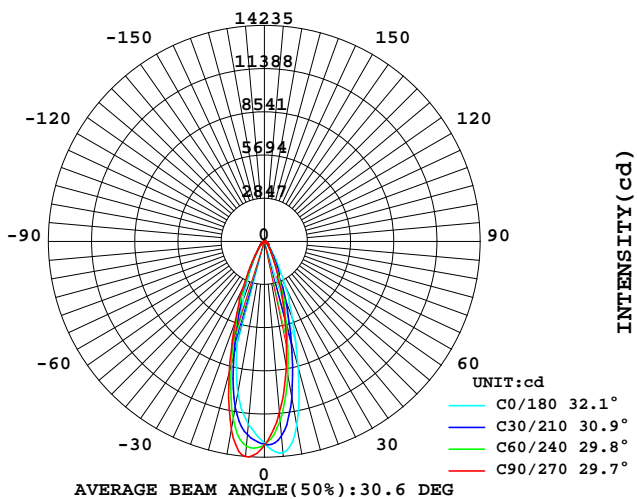
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

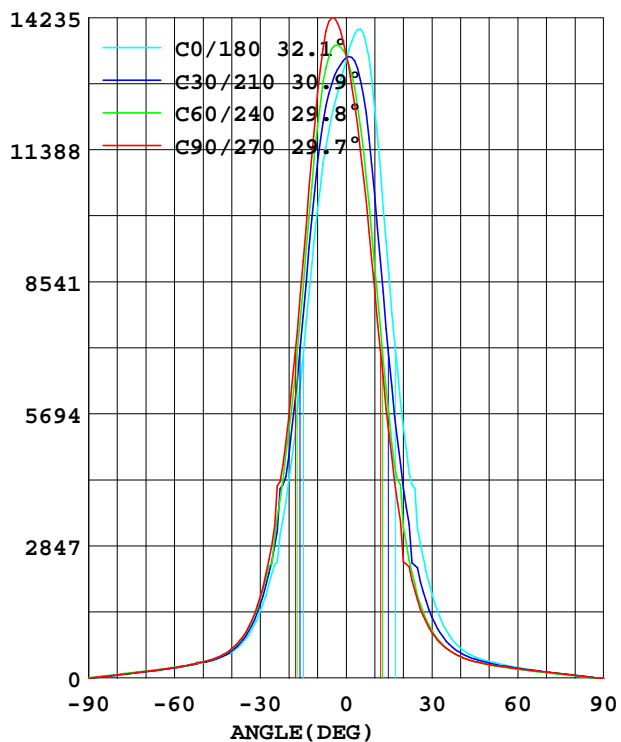
MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65mm	SERIAL No.:

DATA OF LAMP		Imax(cd)	14754	S/MH(C0/180)	0.52
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.59
NOMINAL POWER(W)	38	TOTAL FLUX(lm)	5913.5	Voltage(V)	218.8
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	151.7	Current(A)	0.188
NOMINAL FLUX(lm)	5913.5	h up(%)	0.0	Power(W)	38.99
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.943
TEST VOLTAGE(V)	218.8	Effective Flux(lm)	4484.9	EEI	0.118

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



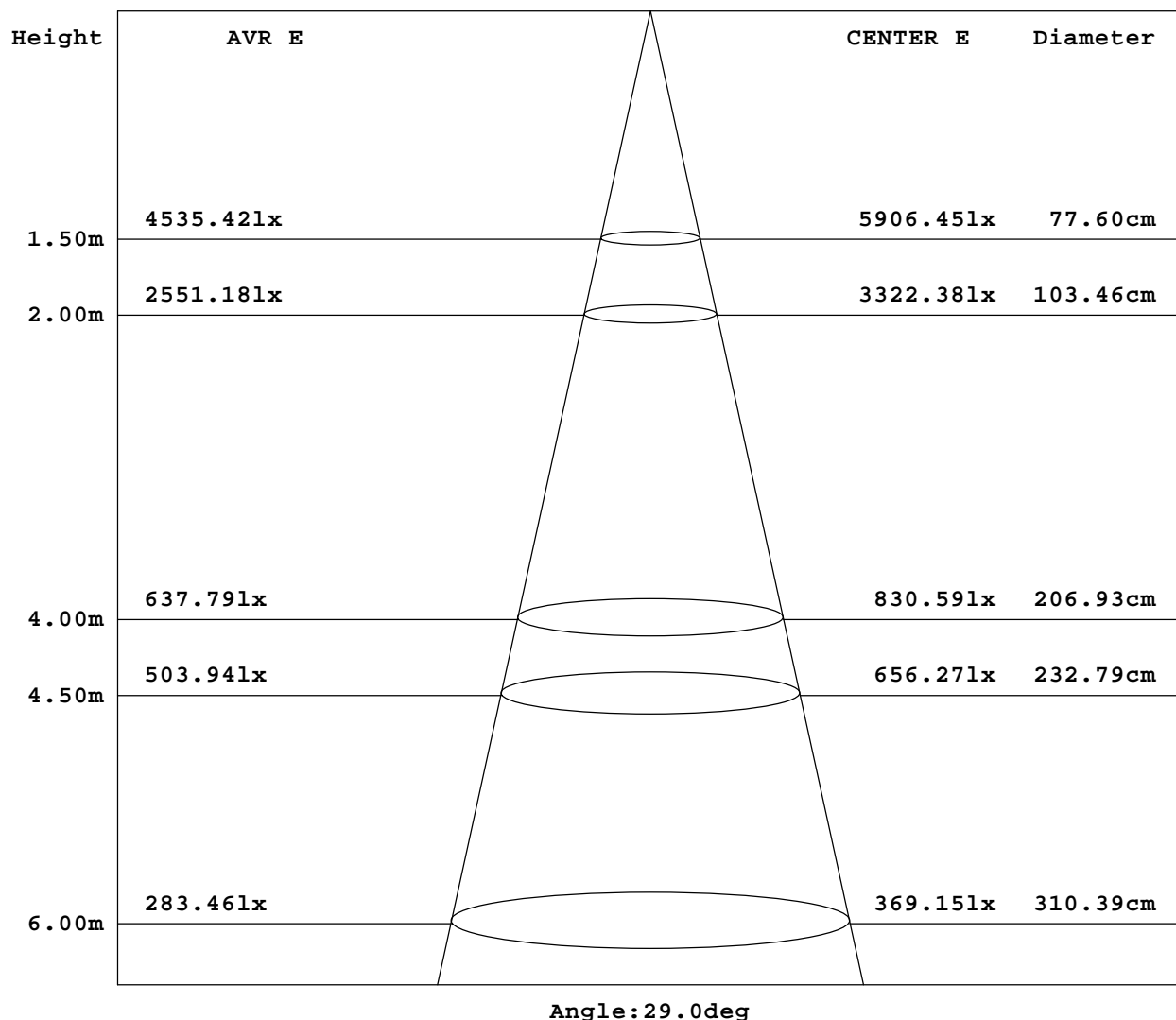
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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*65mm	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*65mm	SERIAL No.:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	Zone	tStal
5.0	1212	1318	1424	1472	1399	1238	1135	1146	0- 5	315.1	315.1
10.0	1011	1151	1263	1347	1229	966.1	840.6	891.6	5- 10	855.0	1170
15.0	693.0	811.3	898.1	963.6	868.5	627.0	526.2	582.5	10- 15	1078	2249
20.0	425.4	503.6	561.6	617.5	541.5	366.9	250.7	339.3	15- 20	971.3	3220
25.0	244.7	294.8	327.9	387.3	321.7	207.3	168.7	194.0	20- 25	740.2	3960
30.0	144.5	165.5	175.6	209.7	183.2	117.4	98.28	111.6	25- 30	507.5	4468
35.0	84.99	94.26	98.62	115.3	102.6	72.11	63.50	69.39	30- 35	338.6	4806
40.0	55.77	60.16	62.91	70.31	63.79	49.95	46.24	48.98	35- 40	235.6	5042
45.0	41.66	43.18	44.35	48.71	45.64	37.91	35.42	37.65	40- 45	180.0	5222
50.0	33.17	34.29	34.39	36.94	35.44	30.37	28.97	30.22	45- 50	149.7	5372
55.0	26.15	27.49	28.01	29.19	28.18	24.50	24.52	24.82	50- 55	129.4	5501
60.0	22.83	22.50	22.40	23.28	22.30	20.00	20.04	20.70	55- 60	111.3	5613
65.0	18.12	17.98	17.78	18.22	17.18	15.87	16.13	16.59	60- 65	94.29	5707
70.0	13.94	14.09	13.93	13.96	12.84	12.19	12.68	12.77	65- 70	77.05	5784
75.0	10.26	10.46	10.24	10.14	9.191	8.695	9.166	9.197	70- 75	59.82	5844
80.0	6.492	6.831	6.650	6.456	5.609	5.167	5.657	5.609	75- 80	41.91	5886
85.0	2.693	3.165	3.044	2.844	1.931	1.562	1.882	1.876	80- 85	22.95	5909
90.0	0	0.022	0	0	0	0	0	0	85- 90	4.705	5914
95.0	0	0	0	0	0	0	0	0	90- 95	0.002	5914
100.0	0	0	0	0	0	0	0	0	95-100	0	5914
105.0	0	0	0	0	0	0	0	0	100-105	0	5914
110.0	0	0	0	0	0	0	0	0	105-110	0	5914
115.0	0	0	0	0	0	0	0	0	110-115	0	5914
120.0	0	0	0	0	0	0	0	0	115-120	0	5914
125.0	0	0	0	0	0	0	0	0	120-125	0	5914
130.0	0	0	0	0	0	0	0	0	125-130	0	5914
135.0	0	0	0	0	0	0	0	0	130-135	0	5914
140.0	0	0	0	0	0	0	0	0	135-140	0	5914
145.0	0	0	0	0	0	0	0	0	140-145	0	5914
150.0	0	0	0	0	0	0	0	0	145-150	0	5914
155.0	0	0	0	0	0	0	0	0	150-155	0	5914
160.0	0	0	0	0	0	0	0	0	155-160	0	5914
165.0	0	0	0	0	0	0	0	0	160-165	0	5914
170.0	0	0	0	0	0	0	0	0	165-170	0	5914
175.0	0	0	0	0	0	0	0	0	170-175	0	5914
180.0	0	0	0	0	0	0	0	0	175-180	0	5914
DEG	LUMINOUS INTENSITY:×10cd									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:

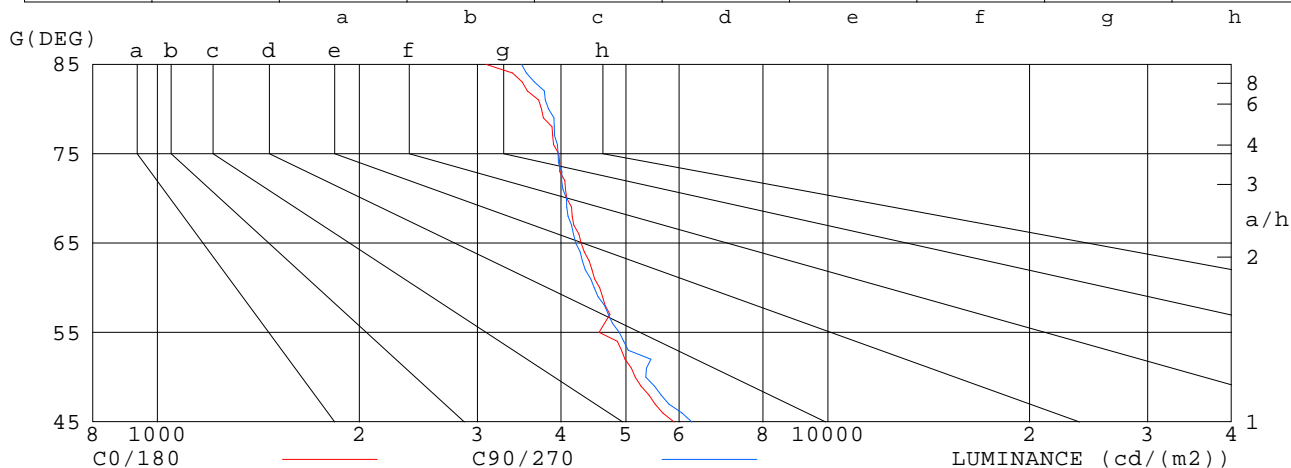
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*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	3090	3493
80	3739	3830
75	3967	3958
70	4078	4074
65	4288	4208
60	4568	4481
55	4560	4885
50	5161	5351
45	5893	6273

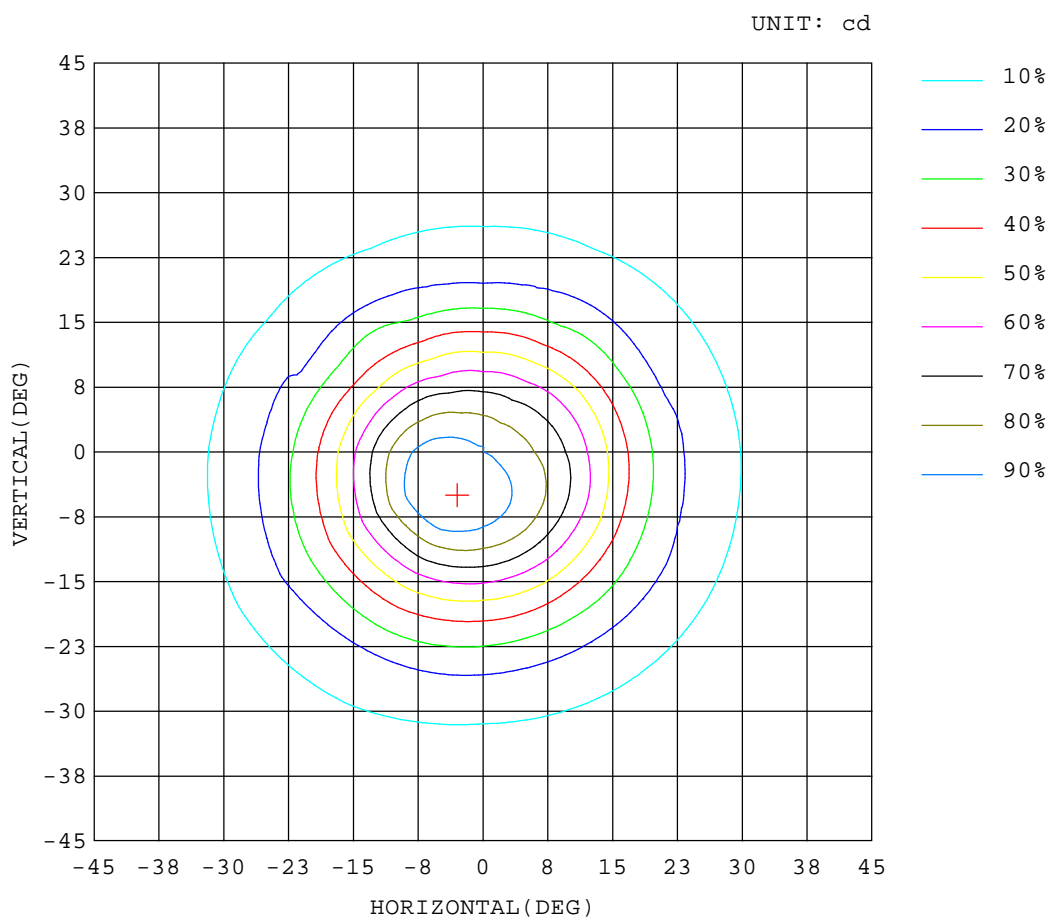
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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*65mm	SERIAL No.:



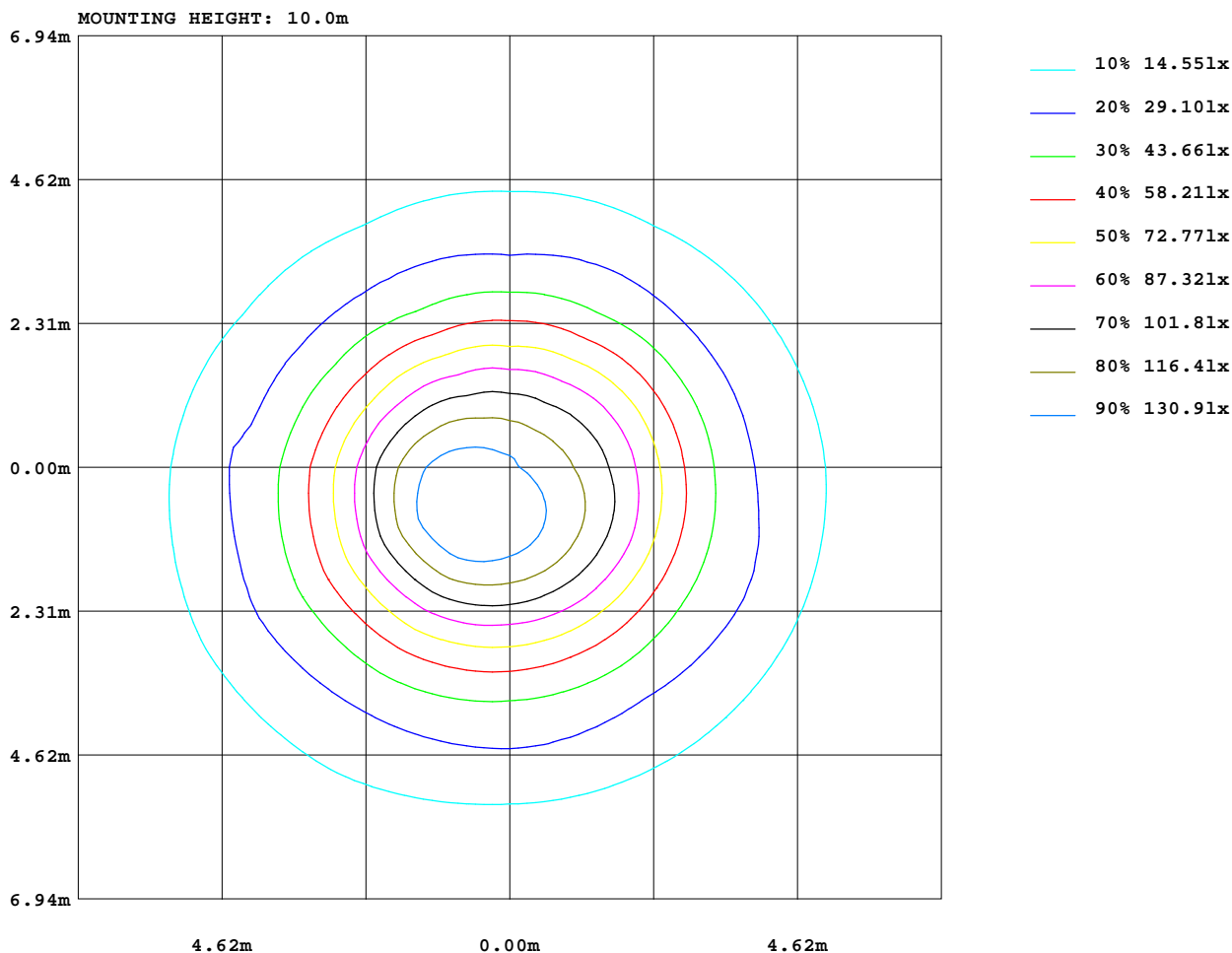
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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*65mm	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*65mm					SERIAL No.:				

45	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	1.31	1.54	1.81	2.06	2.30	2.54	2.76	2.94	3.05	3.05	2.96	2.79	2.57	2.32	2.06	1.81	1.56	1.34	40.8	0.00		
40	1.47	1.81	2.15	2.49	2.82	3.19	3.59	3.92	4.09	4.09	3.92	3.61	3.22	2.83	2.49	2.14	1.80	1.49	51.1	0.00		
35	1.69	2.10	2.54	3.06	3.66	4.29	5.02	5.65	5.99	5.98	5.63	5.00	4.27	3.62	3.02	2.51	2.07	1.68	67.8	0.00		
30	1.91	2.42	3.07	3.93	5.04	6.29	7.67	9.03	9.75	9.73	8.98	7.60	6.17	4.88	3.80	2.97	2.36	1.87	97.5	6.60		
25	2.13	2.81	3.77	5.23	7.33	9.96	12.6	15.5	16.8	16.7	15.3	12.4	9.56	6.96	4.95	3.58	2.68	2.06	151	90.9		
20	2.36	3.27	4.74	7.14	10.9	15.7	22.0	27.9	30.5	30.2	27.4	20.9	14.8	10.1	6.59	4.37	3.05	2.24	245	202		
15	2.60	3.80	5.98	9.85	15.7	24.4	36.4	45.3	51.3	50.5	43.4	33.7	21.7	14.1	8.66	5.30	3.44	2.42	379	344		
VERTICAL (DEG)	2.81	4.33	7.32	13.0	22.1	36.0	53.5	69.3	75.7	73.4	64.0	47.8	30.8	18.0	10.8	6.22	3.82	2.57	542	511		
	2.97	4.76	8.46	15.7	28.4	46.4	71.4	92.0	96.9	91.2	79.8	60.0	37.8	21.5	12.5	6.92	4.09	2.67	684	656		
	3.03	4.93	8.94	16.9	31.1	51.0	79.7	104	109	101	87.1	64.9	40.4	23.2	13.0	7.14	4.16	2.69	753	726		
	2.97	4.79	8.59	16.1	29.5	48.0	73.8	97.5	106	98.9	83.2	60.1	37.6	22.6	12.3	6.79	4.01	2.62	716	688		
	2.83	4.42	7.66	14.0	25.1	39.4	57.3	74.9	82.8	79.0	65.7	47.4	31.8	18.9	10.6	6.04	3.70	2.49	575	545		
	2.62	3.92	6.40	11.0	18.3	28.7	40.1	50.3	55.0	52.9	44.8	33.8	22.8	14.0	8.42	5.09	3.30	2.31	404	370		
	2.39	3.38	5.11	8.02	12.5	18.1	25.0	31.4	34.2	33.0	28.0	21.0	14.9	9.92	6.35	4.16	2.88	2.12	263	223		
	2.15	2.89	4.00	5.73	8.25	11.5	14.8	17.1	18.4	17.9	15.8	12.8	9.60	6.80	4.76	3.40	2.51	1.95	161	106		
	1.95	2.47	3.20	4.20	5.54	7.17	8.70	9.82	10.2	9.95	9.07	7.72	6.21	4.79	3.65	2.81	2.20	1.77	102	11.9		
	1.71	2.14	2.63	3.24	3.97	4.75	5.41	5.89	6.05	5.93	5.58	4.98	4.28	3.55	2.90	2.38	1.97	1.57	69.0	0.00		
-40	1.47	1.84	2.22	2.61	3.04	3.43	3.75	3.96	4.02	3.96	3.81	3.53	3.18	2.79	2.41	2.06	1.70	1.40	51.2	0.00		
-45																						
-45 -40 -35 -30 -25 -20 -15 -10 HORIZONTAL (DEG) 10 15 20 25 30 35 40 45																						
Φ t	40.4	57.7	88.7	145	236	361	524	667	720	688	595	451	302	191	120	75.7	51.3	37.3	5914			
Φ a	0.00	0.00	11.7	89.1	190	320	485	629	684	650	557	410	258	142	53.8	0.00	0.00	0.00		4485		

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

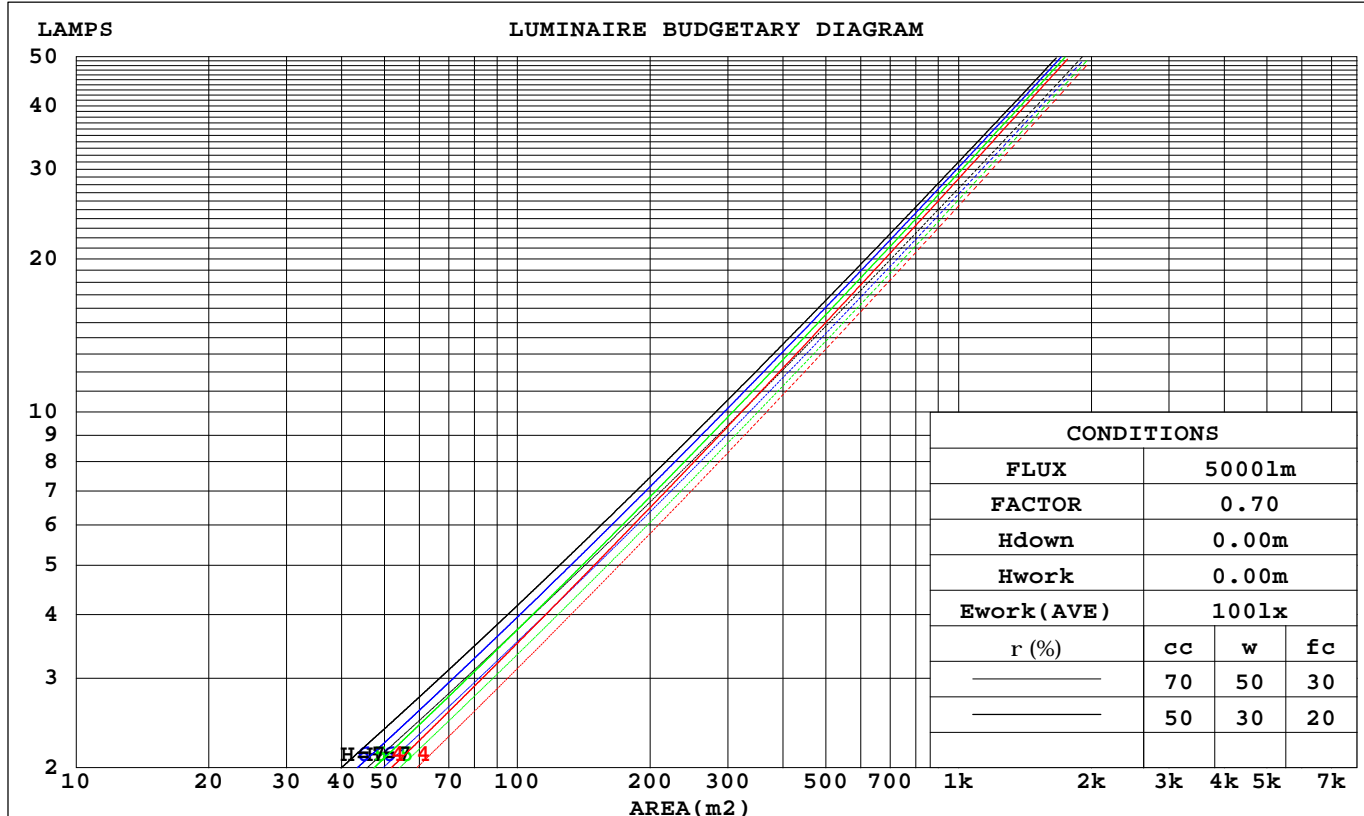
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:															
Address:															
NAME: 40W								TYPE:				WEIGHT:			
SPECIFICATION:								DIMENSION: 1150*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*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	.187	.106	.034	.180	.103	.033	.168	.096	.031	.156	.090	.029	.145	.084	.027															
2.0	.176	.096	.030	.170	.094	.029	.159	.089	.027	.149	.084	.026	.140	.079	.025															
3.0	.164	.087	.026	.159	.085	.026	.150	.081	.025	.142	.078	.024	.134	.074	.023															
4.0	.153	.080	.023	.149	.078	.023	.142	.075	.022	.134	.072	.022	.128	.069	.021															
5.0	.144	.073	.021	.141	.072	.021	.134	.070	.021	.127	.067	.020	.122	.065	.020															
6.0	.136	.068	.019	.133	.067	.019	.127	.065	.019	.121	.063	.019	.116	.061	.018															
7.0	.128	.063	.018	.126	.063	.018	.120	.061	.018	.115	.059	.017	.111	.058	.017															
8.0	.122	.059	.017	.119	.059	.017	.115	.057	.016	.110	.056	.016	.106	.055	.016															
9.0	.116	.056	.016	.113	.055	.016	.109	.054	.015	.105	.053	.015	.102	.052	.015															
10.0	.110	.053	.015	.108	.052	.015	.105	.051	.014	.101	.050	.014	.098	.049	.014															

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	.172	.157	.144	.147	.135	.124	.101	.093	.086	.058	.054	.050	.019	.017	.016	
2.0	.157	.132	.112	.134	.114	.097	.092	.079	.068	.053	.046	.040	.017	.015	.013	
3.0	.144	.114	.089	.124	.098	.077	.085	.068	.054	.049	.040	.032	.016	.013	.010	
4.0	.133	.099	.073	.114	.085	.063	.079	.060	.044	.045	.035	.026	.015	.011	.009	
5.0	.124	.087	.060	.106	.075	.052	.073	.053	.037	.042	.031	.022	.014	.010	.007	
6.0	.116	.078	.050	.100	.067	.044	.069	.047	.031	.040	.028	.018	.013	.009	.006	
7.0	.109	.070	.043	.094	.061	.037	.065	.043	.026	.038	.025	.016	.012	.008	.005	
8.0	.103	.064	.037	.088	.055	.032	.061	.039	.023	.036	.023	.014	.011	.007	.004	
9.0	.097	.058	.032	.084	.051	.028	.058	.036	.020	.034	.021	.012	.011	.007	.004	
10.0	.092	.054	.028	.079	.047	.025	.055	.033	.017	.032	.019	.010	.010	.006	.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*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	14.3	15.2	14.6	15.4	15.6	14.7	15.6	14.9	15.8	15.9	
	3H	15.5	16.4	15.8	16.6	16.8	15.8	16.7	16.1	16.9	17.1
	4H	16.1	16.9	16.4	17.1	17.3	16.4	17.2	16.7	17.4	17.6
	6H	16.5	17.3	16.8	17.5	17.8	16.8	17.6	17.1	17.8	18.1
	8H	16.7	17.4	17.0	17.7	17.9	17.0	17.7	17.3	18.0	18.3
	12H	16.8	17.5	17.1	17.8	18.0	17.1	17.8	17.4	18.1	18.4
4H 2H	14.8	15.6	15.1	15.8	16.1	15.1	15.9	15.4	16.1	16.4	
	3H	16.2	16.9	16.5	17.2	17.5	16.5	17.2	16.8	17.5	17.8
	4H	16.9	17.5	17.2	17.8	18.1	17.2	17.9	17.6	18.2	18.5
	6H	17.5	18.0	17.8	18.4	18.7	17.8	18.4	18.2	18.8	19.1
	8H	17.7	18.2	18.1	18.6	18.9	18.1	18.6	18.5	19.0	19.3
	12H	17.8	18.3	18.2	18.7	19.1	18.2	18.7	18.6	19.1	19.5
8H 4H	17.2	17.7	17.6	18.1	18.4	17.5	18.0	17.9	18.4	18.7	
	6H	17.9	18.3	18.3	18.7	19.1	18.3	18.7	18.7	19.1	19.5
	8H	18.2	18.6	18.6	19.0	19.4	18.6	19.0	19.1	19.4	19.9
	12H	18.4	18.7	18.8	19.1	19.6	18.9	19.2	19.3	19.7	20.1
12H 4H	17.2	17.7	17.6	18.1	18.4	17.5	18.0	17.9	18.3	18.7	
	6H	18.0	18.4	18.4	18.8	19.2	18.3	18.7	18.8	19.1	19.6
	8H	18.3	18.6	18.7	19.1	19.5	18.7	19.1	19.2	19.5	20.0
Variations with the observer position at spacings:											
S = 1.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4					
1.5H	+ 0.3 / - 0.2					+ 0.3 / - 0.2					
2.0H	+ 0.2 / - 0.2					+ 0.3 / - 0.3					

CIE Pub.117 Corrected 5914 lm Total Lamp Luminous Flux.(8log(F/F0) = 6.2)

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*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) $k(RI) \times RCR = 5$									
$k = 0.60$	82	75	71	82	75	71	81	75	71	67
0.80	90	83	79	90	83	79	88	82	79	74
1.00	95	89	84	94	88	84	93	88	84	79
1.25	100	94	90	99	93	89	97	92	88	84
1.50	103	97	93	101	96	93	99	95	92	87
2.00	106	101	97	105	100	97	102	98	95	89
2.50	108	104	100	107	102	99	103	100	97	91
3.00	110	106	103	108	105	102	105	102	100	93
4.00	112	109	107	110	108	105	107	104	102	95
5.00	114	111	109	112	109	107	108	106	104	96
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

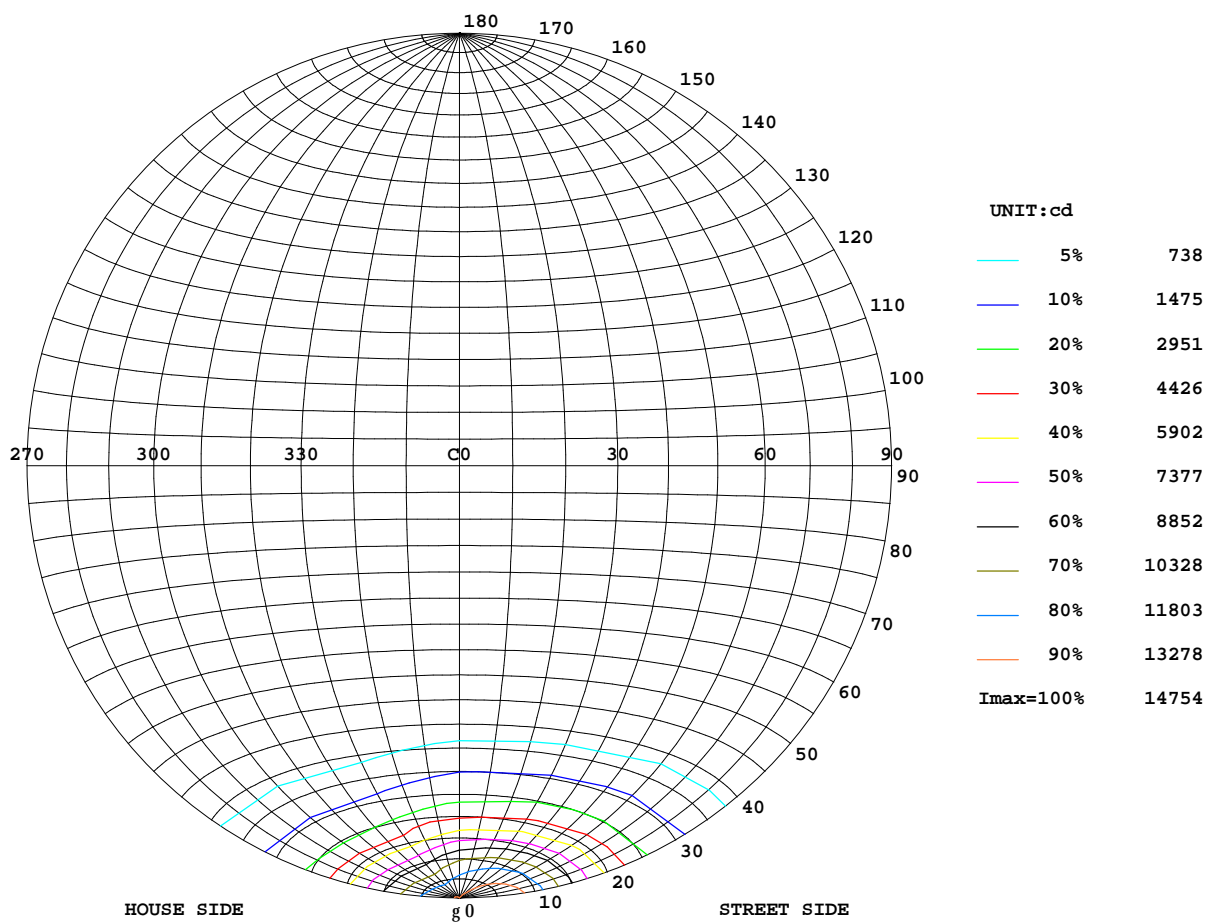
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月07日

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*65mm	SERIAL No.:



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

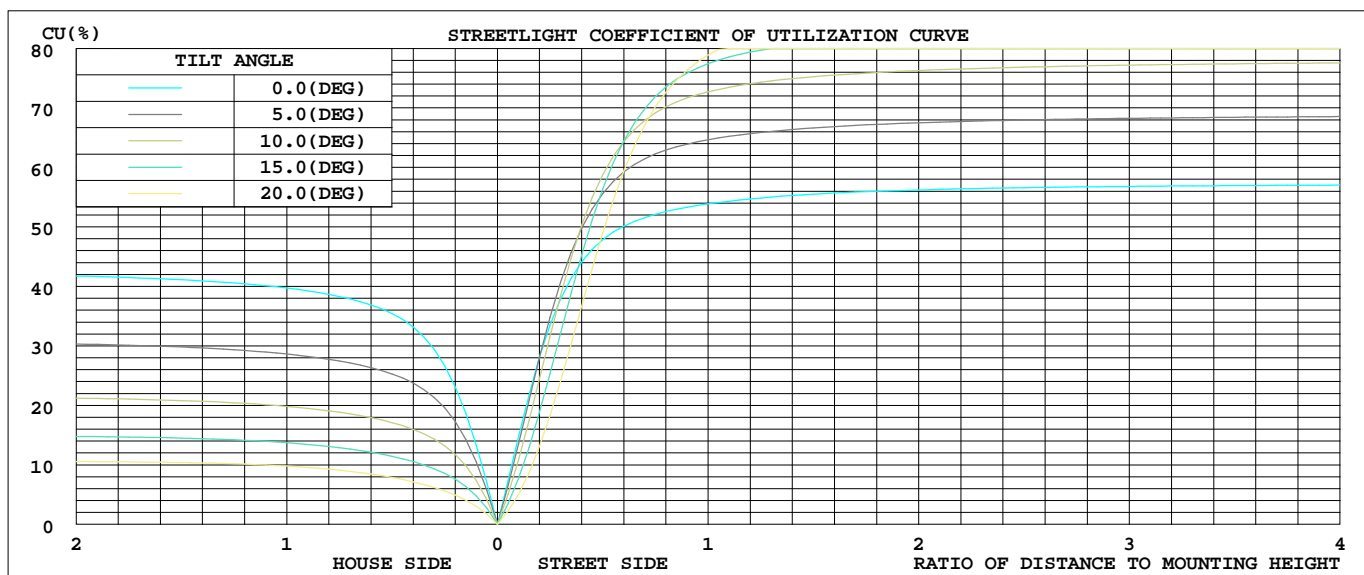
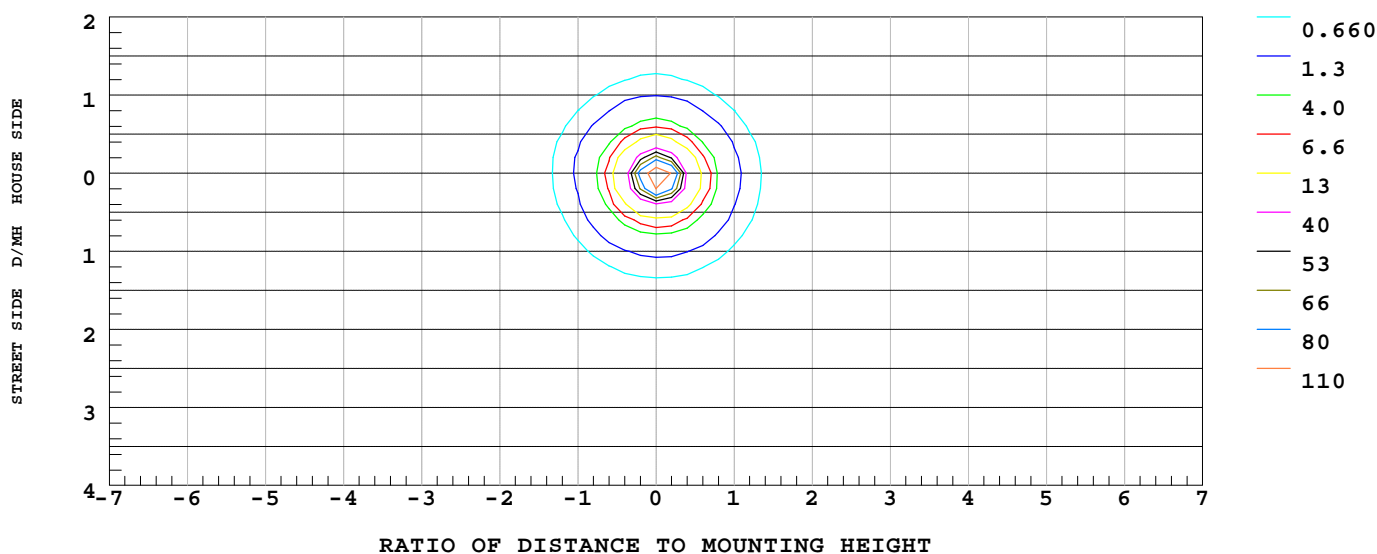
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m, Enadir = 132.90 lx



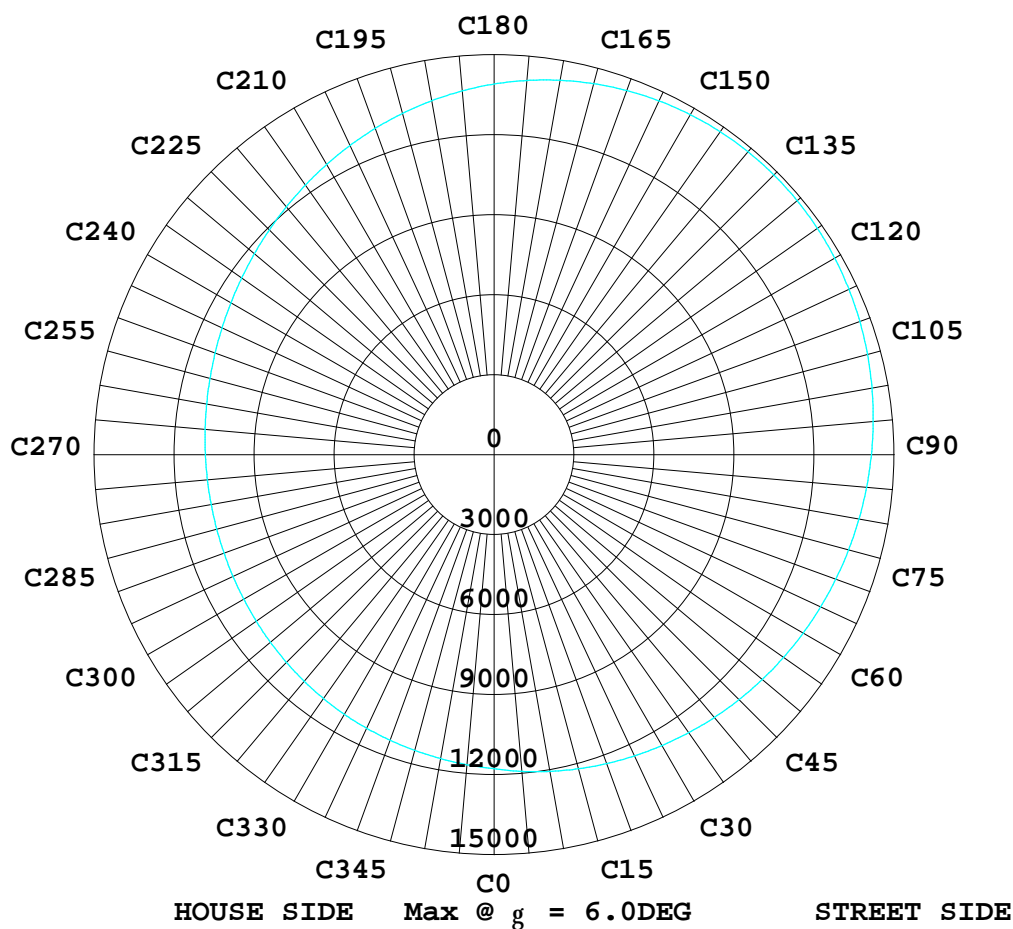
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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*65mm	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: