

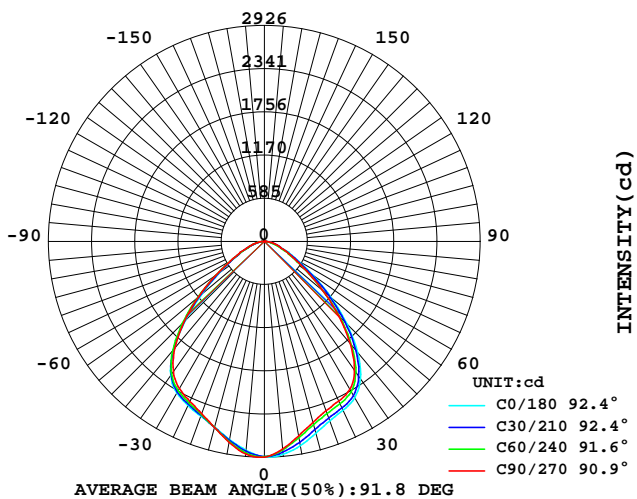
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

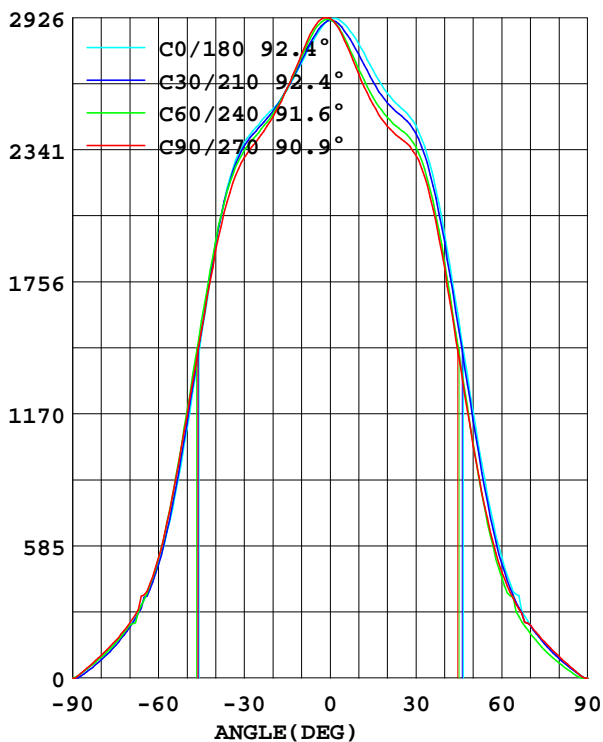
MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*65mm	SERIAL No.:

DATA OF LAMP		I _{max} (cd)	2926	S/MH(C0/180)	1.22
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.19
NOMINAL POWER(W)	40	TOTAL FLUX(lm)	5898.6	Voltage(V)	218.8
RATED VOLTAGE(V)	218	EFFICIENCY(lm/W)	151.1	Current(A)	0.189
NOMINAL FLUX(lm)	5898.7	h up(%)	0.0	Power(W)	39.04
LAMPS QUANTITY	1	h down(%)	100.0	Power Factor(PF)	0.944
TEST VOLTAGE(V)	218.8	Effective Flux(lm)	5613.6	EEI	0.095

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



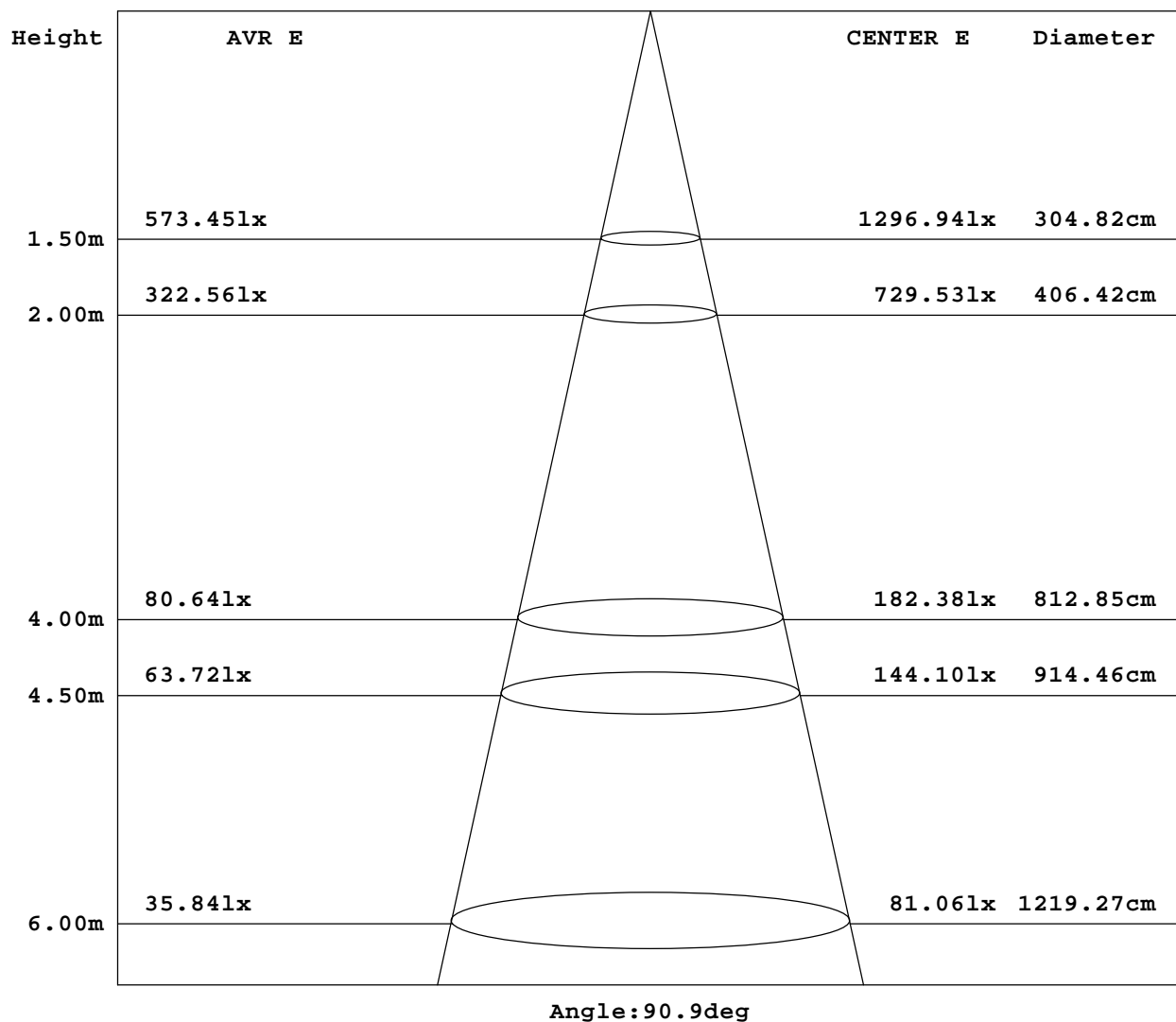
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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	2844	2866	2893	2904	2898	2852	2825	2824	0- 5	69.08	69.08
10.0	2726	2744	2766	2803	2811	2732	2678	2687	5- 10	200.2	269.2
15.0	2607	2612	2613	2664	2694	2608	2542	2566	10- 15	317.0	586.3
20.0	2521	2504	2485	2546	2591	2516	2445	2478	15- 20	421.4	1008
25.0	2452	2427	2392	2469	2524	2459	2388	2418	20- 25	518.8	1527
30.0	2374	2348	2305	2393	2448	2384	2317	2344	25- 30	608.8	2136
35.0	2214	2197	2150	2234	2272	2196	2129	2175	30- 35	674.3	2810
40.0	1908	1929	1892	1945	1965	1887	1819	1864	35- 40	686.7	3497
45.0	1519	1559	1539	1576	1589	1498	1425	1466	40- 45	633.9	4131
50.0	1103	1154	1159	1185	1180	1089	1029	1050	45- 50	532.1	4663
55.0	748.5	788.3	810.6	818.8	806.2	731.8	705.7	706.7	50- 55	406.6	5069
60.0	509.4	517.1	532.3	534.4	537.5	478.1	471.8	470.0	55- 60	288.2	5358
65.0	347.3	352.6	367.6	356.8	371.1	315.3	326.5	317.4	60- 65	201.5	5559
70.0	236.8	229.4	243.5	232.0	232.1	214.2	234.0	217.6	65- 70	140.2	5699
75.0	160.7	149.5	165.4	150.5	154.2	137.5	160.2	140.6	70- 75	97.67	5797
80.0	95.66	85.31	99.89	86.22	91.30	77.27	97.35	79.08	75- 80	62.58	5860
85.0	38.79	33.65	43.51	34.73	35.88	26.51	38.55	27.17	80- 85	32.24	5892
90.0	0	0	0	0	0	0	0	0	85- 90	6.706	5899
95.0	0	0	0	0	0	0	0	0	90- 95	0	5899
100.0	0	0	0	0	0	0	0	0	95-100	0	5899
105.0	0	0	0	0	0	0	0	0	100-105	0	5899
110.0	0	0	0	0	0	0	0	0	105-110	0	5899
115.0	0	0	0	0	0	0	0	0	110-115	0	5899
120.0	0	0	0	0	0	0	0	0	115-120	0	5899
125.0	0	0	0	0	0	0	0	0	120-125	0	5899
130.0	0	0	0	0	0	0	0	0	125-130	0	5899
135.0	0	0	0	0	0	0	0	0	130-135	0	5899
140.0	0	0	0	0	0	0	0	0	135-140	0	5899
145.0	0	0	0	0	0	0	0	0	140-145	0	5899
150.0	0	0	0	0	0	0	0	0	145-150	0	5899
155.0	0	0	0	0	0	0	0	0	150-155	0	5899
160.0	0	0	0	0	0	0	0	0	155-160	0	5899
165.0	0	0	0	0	0	0	0	0	160-165	0	5899
170.0	0	0	0	0	0	0	0	0	165-170	0	5899
175.0	0	0	0	0	0	0	0	0	170-175	0	5899
180.0	0	0	0	0	0	0	0	0	175-180	0	5899
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:

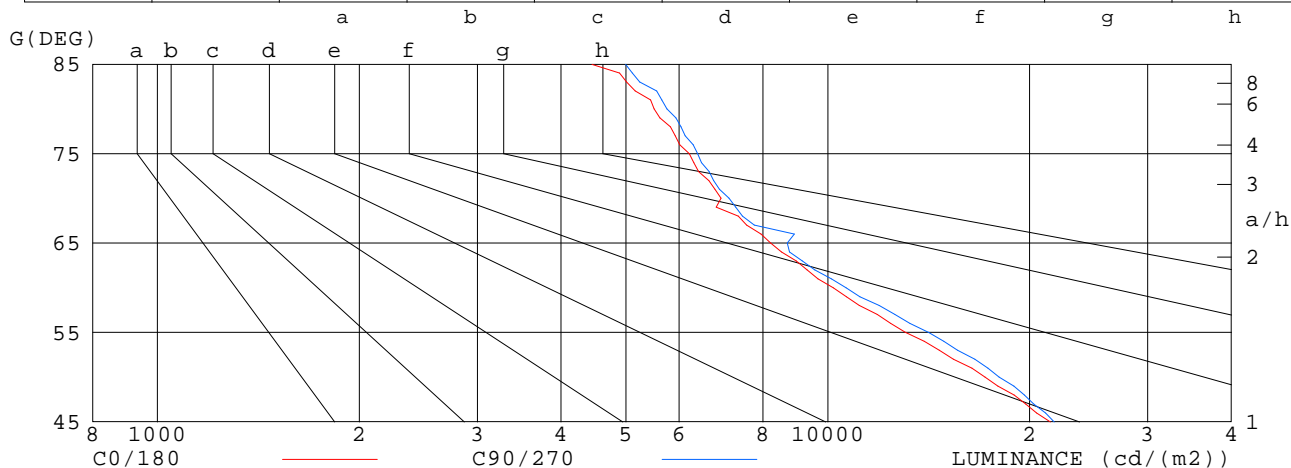
LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:		
Address:		
NAME: 40W	TYPE:	WEIGHT:
SPECIFICATION:	DIMENSION: 1150*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	4451	4992
80	5509	5753
75	6211	6394
70	6926	7120
65	8219	8700
60	10190	10647
55	13051	14133
50	17158	18023
45	21480	21761

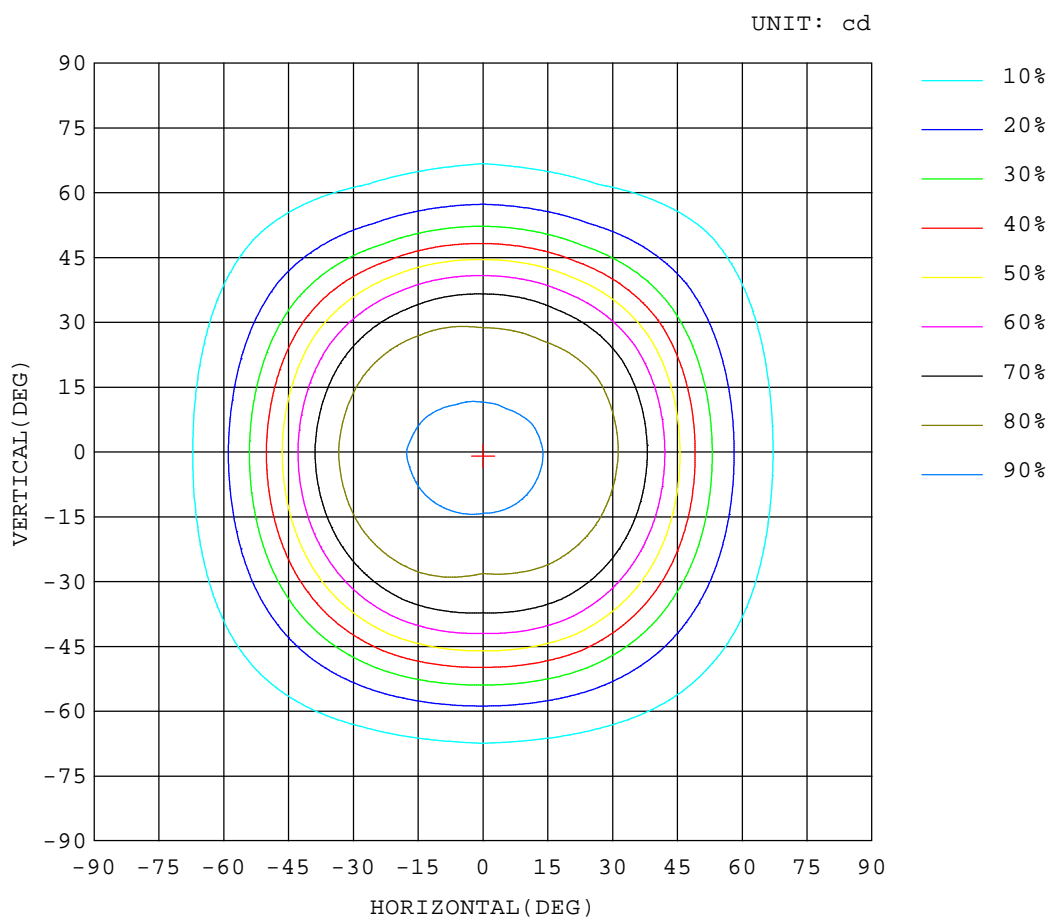
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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.:



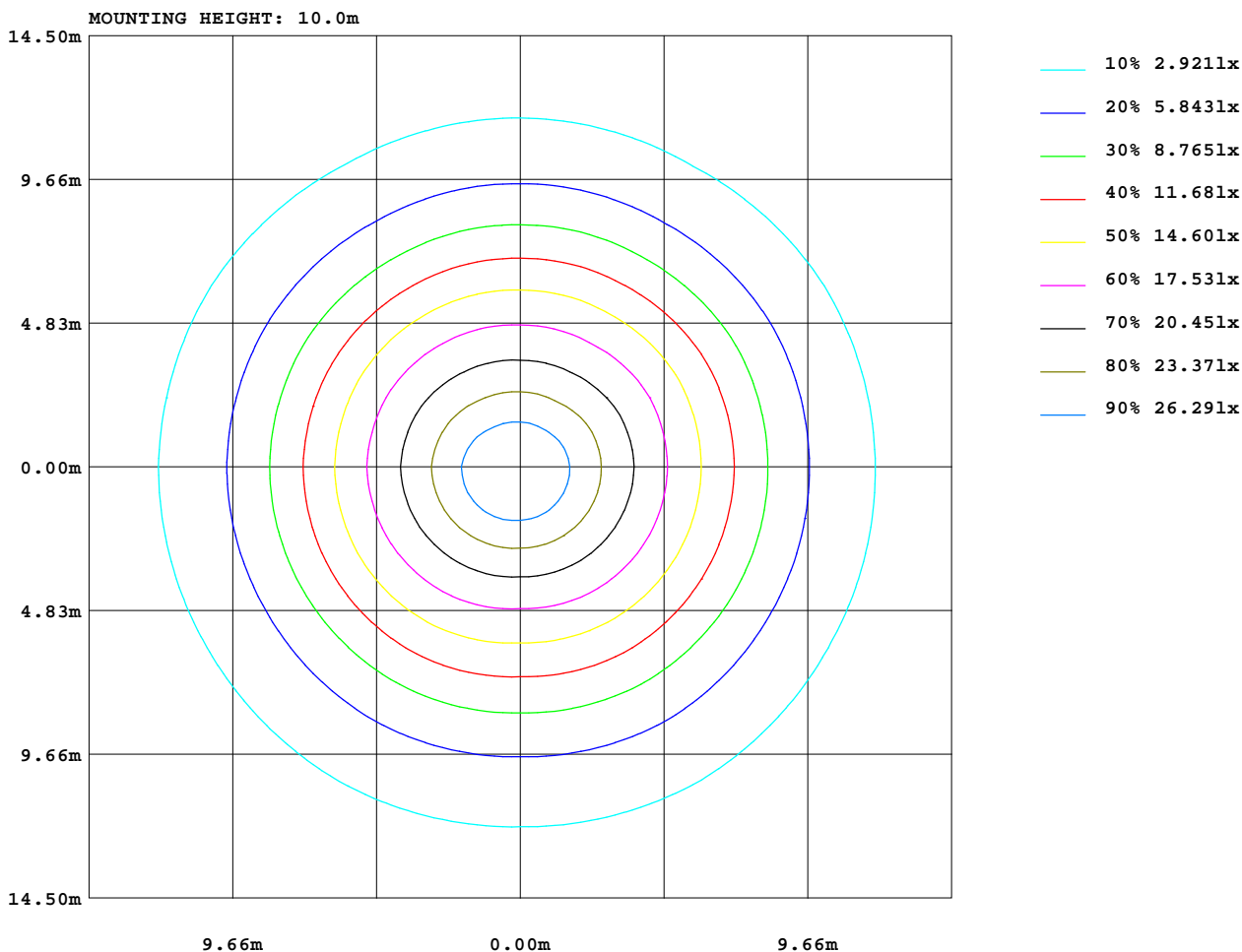
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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.:				

90	AREA FLUX DIAGRAM																		UNIT:lm		Φ t	Φ a
	0.00	0.03	0.13	0.25	0.36	0.45	0.61	0.89	1.13	1.13	0.89	0.62	0.45	0.37	0.25	0.13	0.03	0.00	7.72	0.00		
80	0.01	0.20	0.62	1.19	1.81	2.41	3.11	4.00	4.68	4.68	4.02	3.14	2.45	1.85	1.22	0.64	0.21	0.02	36.3	0.00		
70	0.04	0.40	1.19	2.38	3.78	5.27	7.00	8.75	9.88	9.85	8.67	6.92	5.31	3.85	2.45	1.23	0.42	0.04	77.4	28.9		
60	0.07	0.60	1.81	3.77	6.52	10.2	14.2	18.6	21.3	21.2	18.3	14.0	10.0	6.52	3.84	1.87	0.63	0.07	154	136		
50	0.09	0.79	2.46	5.54	10.9	19.1	28.8	37.6	42.6	42.4	37.0	28.0	18.5	10.7	5.55	2.52	0.83	0.10	294	284		
40	0.11	0.97	3.13	7.89	17.5	31.9	46.9	58.1	63.5	63.3	57.5	46.2	30.9	16.7	7.72	3.14	1.00	0.12	457	450		
30	0.13	1.11	3.84	10.5	24.7	43.9	60.4	69.4	72.5	72.1	68.5	59.7	43.1	23.5	10.0	3.78	1.15	0.13	569	563		
VERTICAL (DEG)	0.14	1.22	4.42	12.8	30.4	51.7	66.7	73.6	77.1	76.5	72.4	65.4	50.9	29.1	12.1	4.30	1.26	0.15	631	626		
	0.14	1.27	4.78	14.3	33.6	55.4	68.9	77.7	84.5	83.4	75.8	67.2	54.1	32.2	13.4	4.60	1.32	0.15	673	669		
	0.14	1.27	4.80	14.4	33.7	55.5	69.0	78.3	86.2	84.8	76.1	67.2	54.1	32.3	13.4	4.61	1.32	0.15	678	673		
	0.14	1.21	4.48	13.1	30.7	52.1	66.8	74.3	79.1	78.4	73.1	65.2	51.0	29.5	12.2	4.30	1.25	0.15	638	633		
-30	0.13	1.10	3.93	10.7	25.3	44.6	61.3	69.9	72.8	72.4	69.0	60.3	43.8	24.1	10.1	3.78	1.13	0.13	575	570		
-40	0.11	0.96	3.20	8.19	18.3	33.6	49.2	60.2	64.6	64.4	59.9	48.8	32.8	17.4	7.75	3.12	0.98	0.11	474	467		
-50	0.09	0.78	2.45	5.88	11.7	21.3	32.5	41.5	46.1	46.1	41.4	32.0	20.6	11.1	5.56	2.44	0.80	0.09	323	313		
-60	0.06	0.59	1.78	3.84	7.09	11.4	16.8	21.8	24.6	24.5	21.6	16.6	11.2	6.83	3.73	1.77	0.60	0.07	175	159		
-70	0.04	0.38	1.15	2.37	4.03	5.92	7.93	9.82	11.0	11.0	9.83	7.95	5.89	3.99	2.32	1.14	0.39	0.04	85.2	42.3		
-80	0.01	0.18	0.58	1.19	2.01	2.90	3.77	4.51	4.97	4.98	4.53	3.80	2.92	1.99	1.15	0.56	0.18	0.01	40.2	0.00		
-90	0.00	0.02	0.10	0.25	0.49	0.76	1.00	1.18	1.30	1.30	1.19	1.00	0.75	0.47	0.23	0.09	0.02	0.00	10.1	0.00		
-90 -80 -70 -60 -50 -40 -30 -20 HORIZONTAL (DEG) 20 30 40 50 60 70 80 90																						
Φ t	1.44	13.1	44.9	119	263	449	605	711	768	763	700	595	439	253	113	44.0	13.5	1.53	5899			
Φ a	0.00	0.00	20.7	101	246	432	589	694	751	746	683	578	423	236	95.3	19.6	0.00	0.00		5614		

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

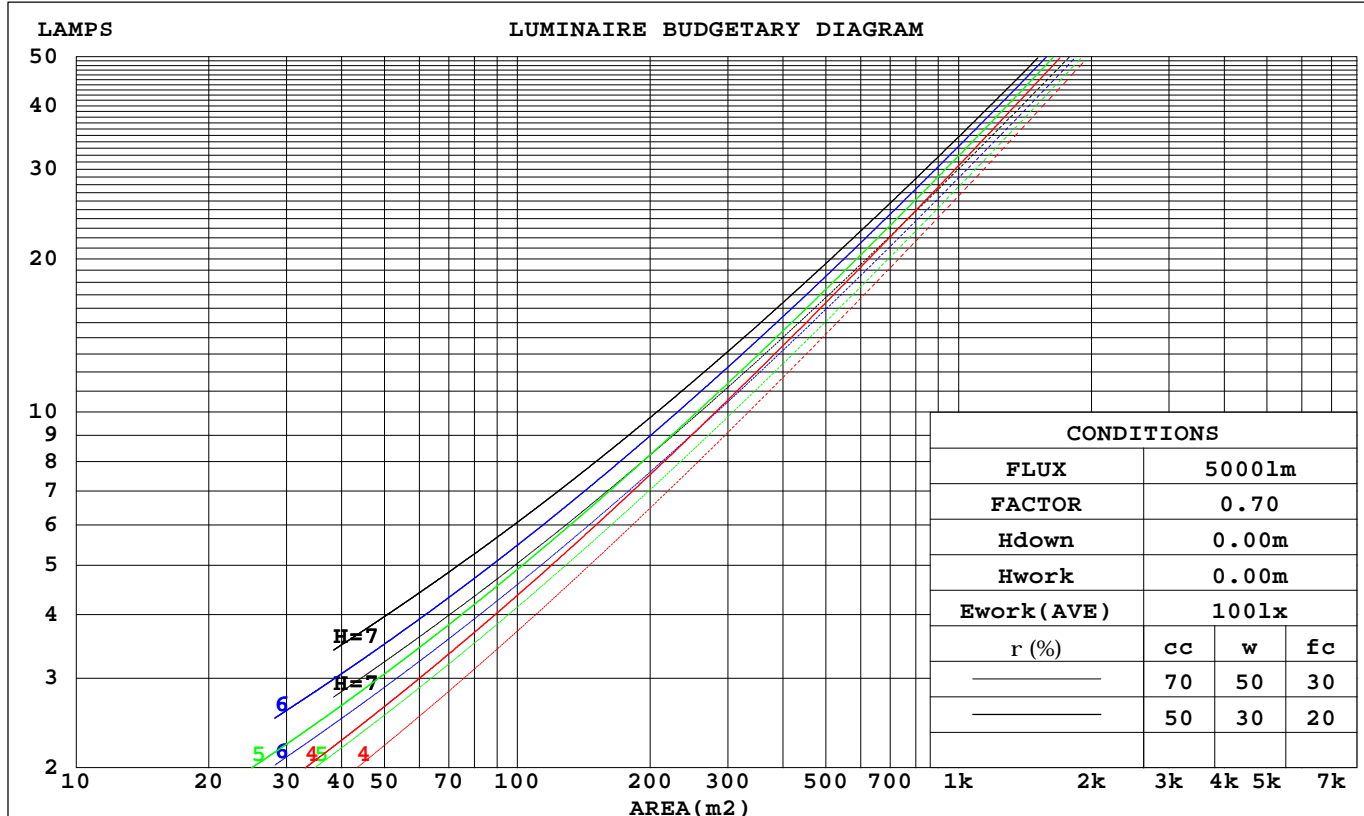
Test Set: 8.0deg/s C-Gamma (TYPE C)
 Humidity:65.0%
 Test Distance:11.000 m
 Remarks:

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	.251	.143	.045	.244	.139	.044	.231	.133	.042	.219	.126	.041	.208	.121	.039															
2.0	.242	.133	.041	.236	.130	.040	.225	.125	.039	.215	.120	.038	.205	.116	.037															
3.0	.229	.122	.037	.224	.120	.036	.214	.116	.035	.205	.112	.034	.197	.109	.034															
4.0	.216	.112	.033	.211	.111	.033	.203	.107	.032	.194	.104	.032	.187	.102	.031															
5.0	.203	.103	.030	.199	.102	.030	.191	.100	.029	.184	.097	.029	.177	.095	.028															
6.0	.191	.096	.027	.187	.095	.027	.180	.092	.027	.174	.090	.027	.168	.088	.026															
7.0	.180	.089	.025	.177	.088	.025	.170	.086	.025	.165	.084	.025	.159	.083	.024															
8.0	.170	.083	.023	.167	.082	.023	.161	.081	.023	.156	.079	.023	.151	.078	.023															
9.0	.160	.078	.022	.158	.077	.022	.153	.076	.021	.148	.074	.021	.144	.073	.021															
10.0	.152	.073	.020	.150	.072	.020	.145	.071	.020	.141	.070	.020	.137	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.176	.157	.139	.151	.134	.120	.103	.092	.083	.059	.054	.048	.019	.017	.016	
2.0	.166	.132	.104	.142	.114	.090	.097	.079	.063	.056	.046	.037	.018	.015	.012	
3.0	.157	.114	.080	.134	.098	.069	.092	.068	.049	.053	.040	.029	.017	.013	.009	
4.0	.149	.100	.063	.128	.087	.055	.088	.060	.039	.051	.035	.023	.016	.012	.008	
5.0	.141	.089	.051	.121	.077	.045	.084	.054	.031	.048	.032	.019	.016	.010	.006	
6.0	.135	.081	.042	.116	.070	.037	.080	.049	.026	.046	.029	.016	.015	.009	.005	
7.0	.128	.074	.036	.110	.064	.031	.076	.045	.022	.044	.026	.013	.014	.009	.004	
8.0	.122	.068	.031	.105	.059	.027	.073	.041	.019	.042	.024	.011	.014	.008	.004	
9.0	.117	.063	.027	.101	.055	.023	.070	.038	.017	.041	.023	.010	.013	.007	.003	
10.0	.112	.059	.024	.096	.051	.021	.067	.036	.015	.039	.021	.009	.013	.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*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	21.4	22.7	21.6	22.9	23.1	21.6	22.9	21.8	23.1	23.3	
	3H	21.8	23.0	22.1	23.3	23.5	22.0	23.2	22.3	23.5	23.7
	4H	22.0	23.1	22.3	23.4	23.6	22.2	23.3	22.5	23.6	23.8
	6H	22.1	23.2	22.4	23.4	23.7	22.3	23.4	22.6	23.7	23.9
	8H	22.1	23.2	22.5	23.4	23.7	22.4	23.4	22.7	23.7	24.0
	12H	22.1	23.1	22.5	23.4	23.7	22.4	23.4	22.7	23.7	23.9
4H	2H	21.5	22.7	21.8	22.9	23.2	21.7	22.9	22.0	23.1	23.4
	3H	22.1	23.1	22.4	23.4	23.7	22.3	23.3	22.6	23.6	23.9
	4H	22.3	23.2	22.7	23.6	23.9	22.5	23.4	22.9	23.8	24.1
	6H	22.5	23.3	22.9	23.7	24.0	22.8	23.6	23.2	23.9	24.3
	8H	22.6	23.4	23.0	23.7	24.1	22.8	23.6	23.3	23.9	24.3
	12H	22.7	23.3	23.1	23.7	24.1	22.9	23.6	23.3	24.0	24.4
8H	4H	22.4	23.1	22.8	23.5	23.9	22.6	23.3	23.0	23.7	24.1
	6H	22.7	23.3	23.1	23.7	24.1	22.9	23.5	23.3	23.9	24.3
	8H	22.8	23.3	23.2	23.7	24.2	23.0	23.6	23.5	24.0	24.4
	12H	22.9	23.3	23.3	23.8	24.2	23.1	23.6	23.6	24.0	24.5
12H	4H	22.4	23.0	22.8	23.4	23.8	22.5	23.2	23.0	23.6	24.0
	6H	22.7	23.2	23.1	23.6	24.1	22.9	23.4	23.3	23.8	24.3
	8H	22.8	23.3	23.3	23.7	24.2	23.0	23.5	23.5	23.9	24.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.8 / - 0.9					+ 0.7 / - 0.8					
1.5H	+ 0.4 / - 0.6					+ 0.4 / - 0.4					
2.0H	+ 1.7 / - 1.6					+ 1.6 / - 1.5					

CIE Pub.117 Corrected 5899 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) $k(RI) \times RCR = 5$									
$k = 0.60$	66	56	50	65	55	49	64	55	49	44
0.80	76	66	60	75	66	60	73	65	59	53
1.00	84	75	69	83	74	68	81	75	68	62
1.25	91	82	76	89	81	76	87	80	75	69
1.50	95	87	81	93	86	81	91	84	80	73
2.00	101	94	89	99	93	88	96	90	86	80
2.50	103	97	93	102	96	92	98	93	90	82
3.00	106	101	96	104	99	95	100	96	93	85
4.00	109	105	101	107	103	100	103	100	97	89
5.00	111	107	104	109	105	102	104	102	99	91
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

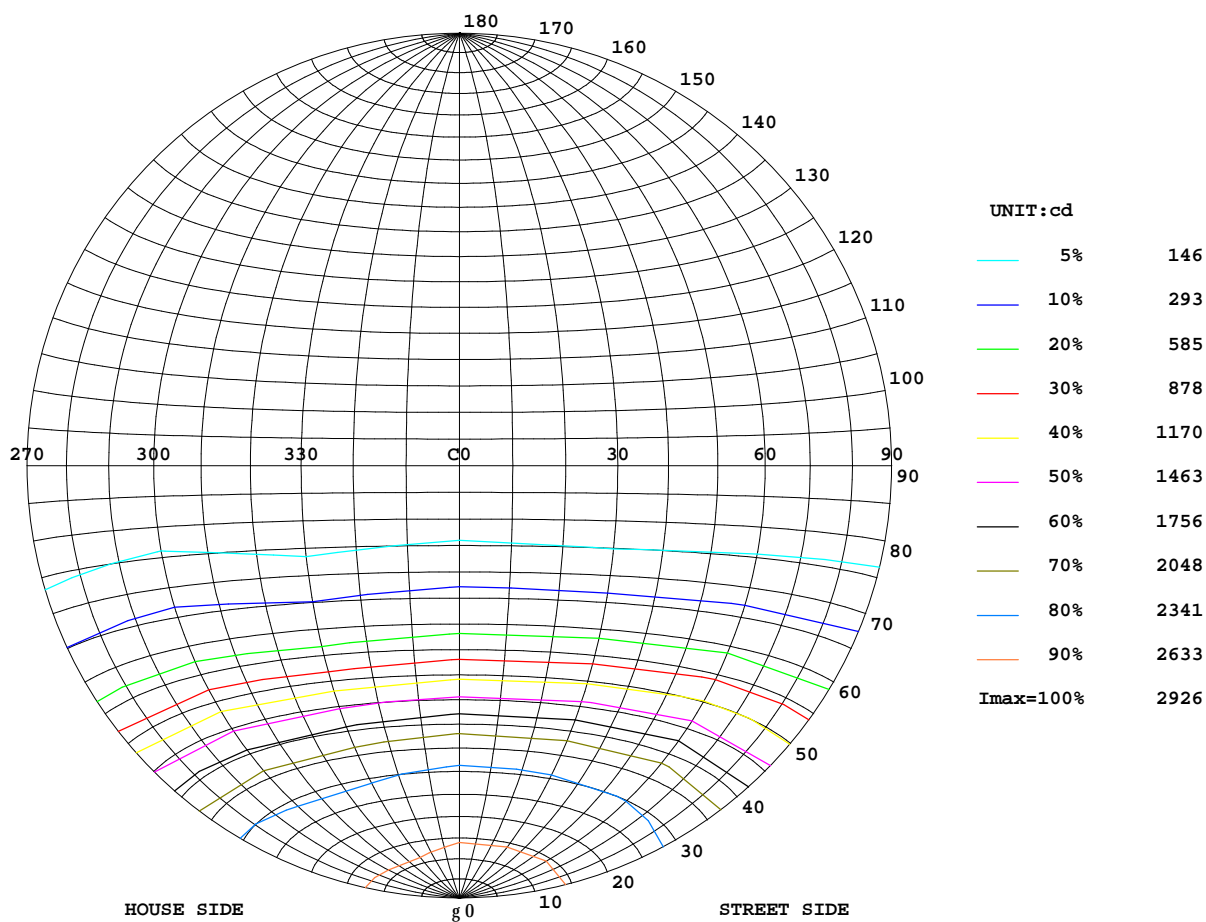
Test System:HOPOO HPG1800
 Temperature:25.3DEG
 Operators:
 Test Date:2019年08月07日

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

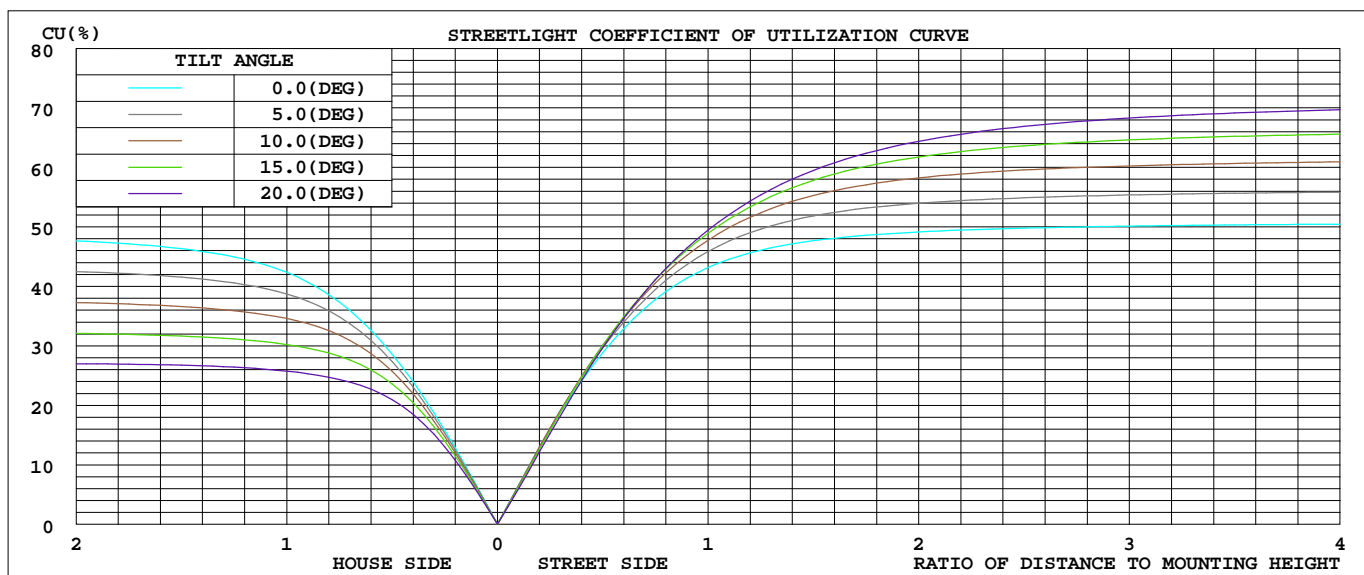
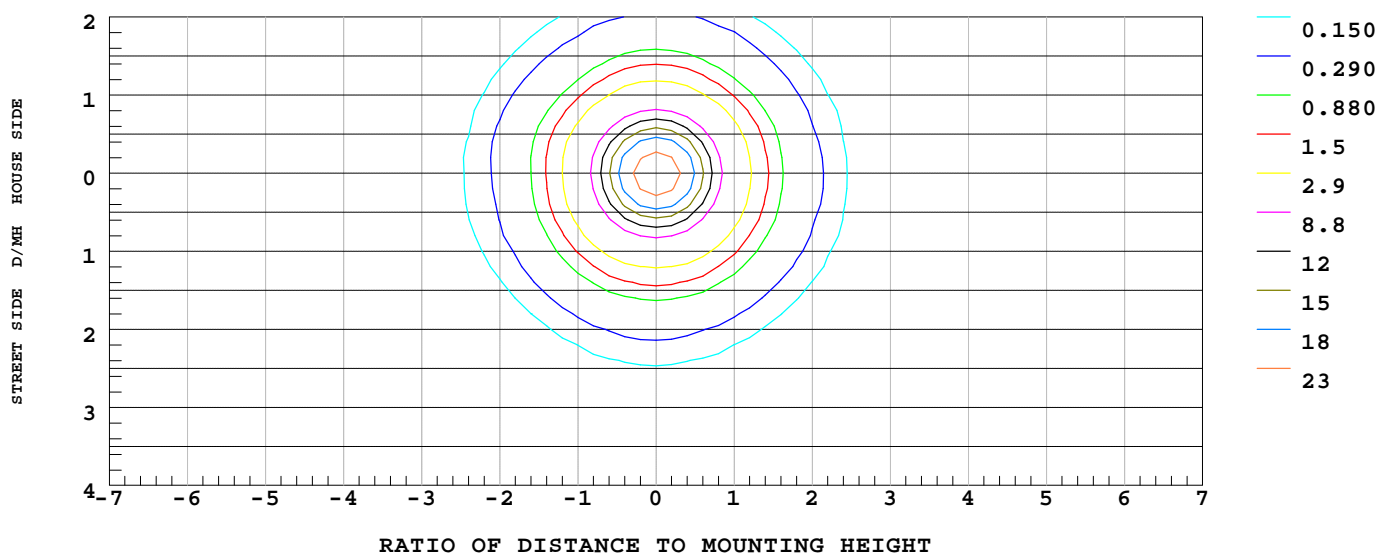
Test Set: 8.0deg/s C-Gamma (TYPE C)
Humidity:65.0%
Test Distance:11.000 m
Remarks:

ISOLUX DIAGRAM

Report number:

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

ILLUMINANCE AT MH=10 m, Enadir = 29.18 lx



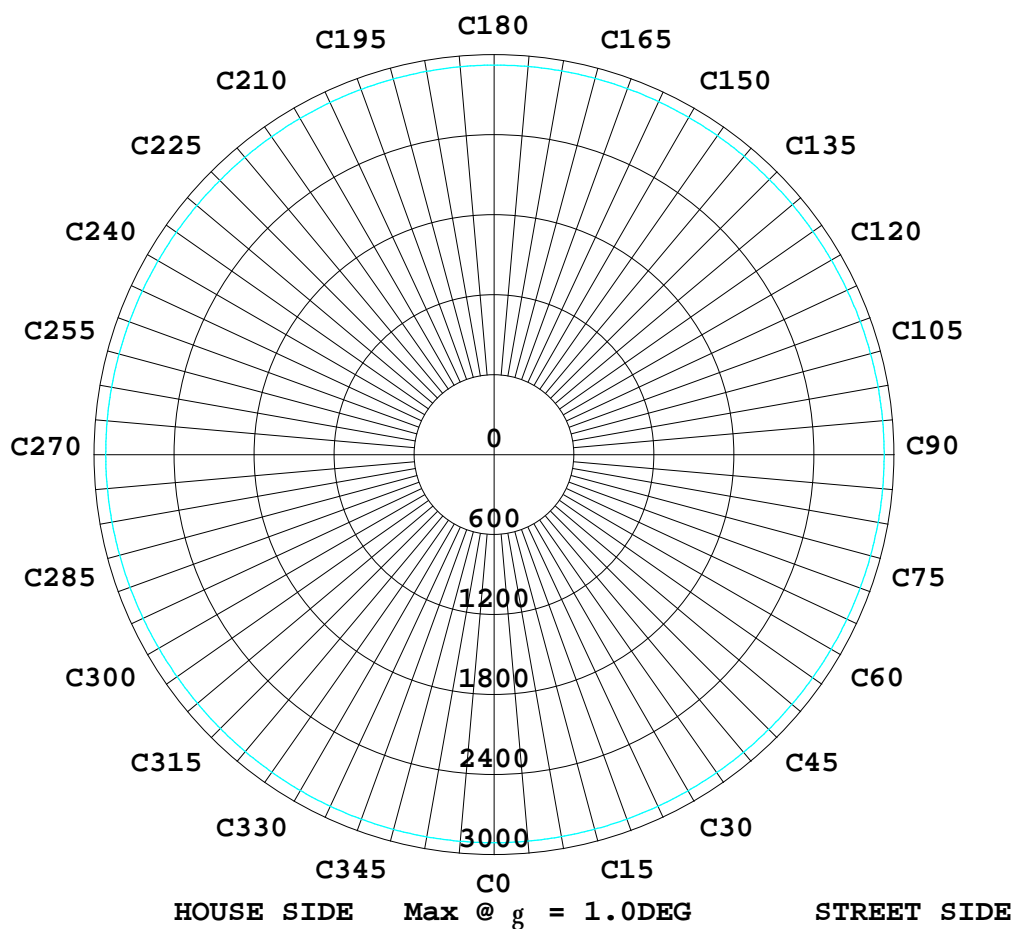
Test System:HOPOO HPG1800
Temperature:25.3DEG
Operators:
Test Date:2019年08月07日

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: