

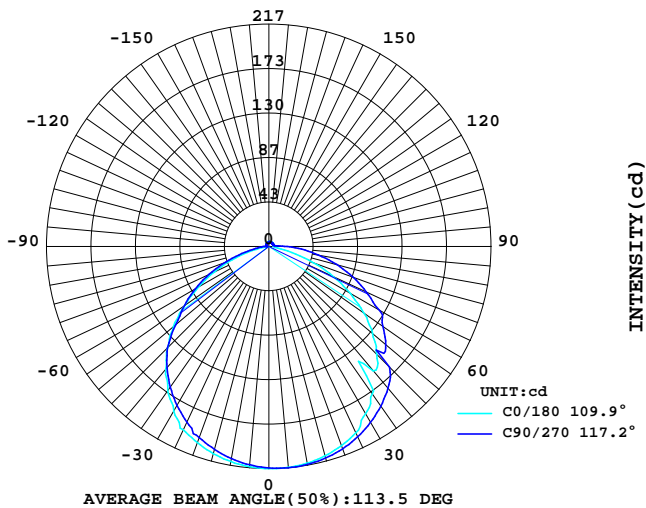
## LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

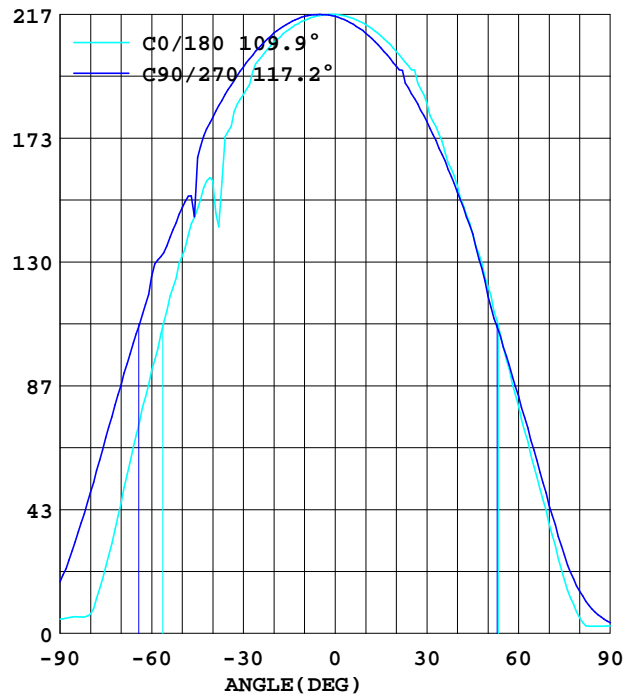
MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

DATA OF LAMP		Imax(cd)	216.5	S/MH(C0/180)	1.30
MODEL	5050	EFFICIENCY(%)	100.0	S/MH(C90/270)	1.36
NOMINAL POWER(W)	10	TOTAL FLUX(lm)	663.68	Voltage(V)	24.00
RATED VOLTAGE(V)	24	EFFICIENCY(lm/W)	63.0	Current(A)	0.438
NOMINAL FLUX(lm)	663.7	h up(%)	3.9	Power(W)	10.53
LAMPS QUANTITY	1	h down(%)	96.1	Power Factor(PF)	1.000
TEST VOLTAGE(V)	24.0	Effective Flux(lm)	626.3	EEI	0.200

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.800 m  
 Remarks:

## Color Temperature Data List

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

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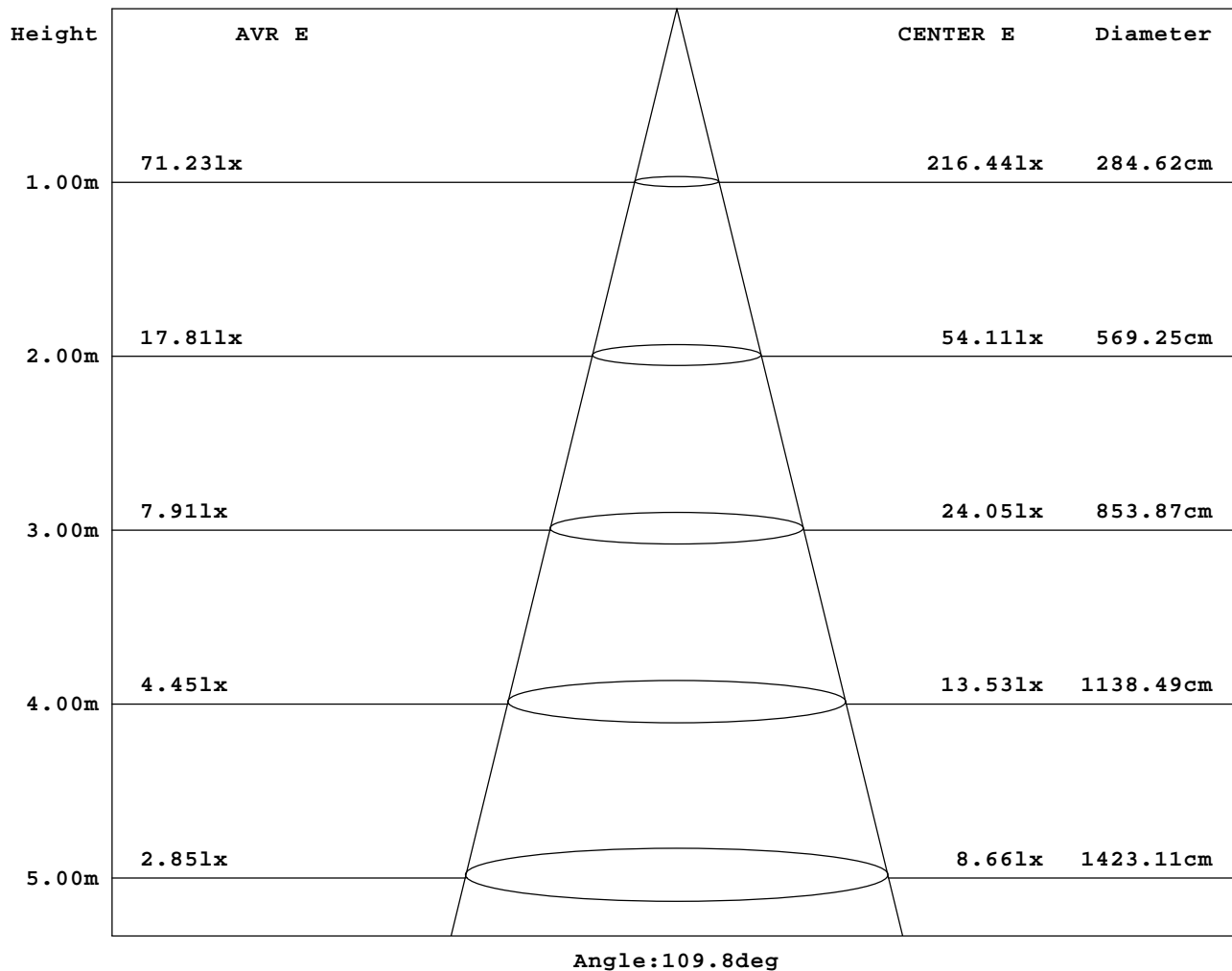
Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:8.800 m  
Remarks:

## AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015



Test System: HOPOO HPG1800  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity: 65.0%  
 Test Distance: 8.800 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

g	C0	C45	C90	C135	C180	C225	C270	C315	g	4one	t5tal
5.0	216.0	216.1	216.4	215.8	215.3	215.2	213.5	214.7	0- 5	5.159	5.159
10.0	214.3	214.3	215.7	214.1	212.8	212.6	209.8	211.9	5- 10	15.33	20.49
15.0	211.1	211.4	213.4	211.3	209.0	208.6	204.7	207.6	10- 15	25.09	45.58
20.0	206.6	206.7	209.9	206.7	203.5	203.2	198.3	202.0	15- 20	34.14	79.73
25.0	200.4	200.7	204.7	200.7	197.1	196.2	188.7	194.6	20- 25	42.23	121.9
30.0	188.3	192.3	198.0	192.4	185.6	187.6	179.0	185.7	25- 30	48.99	170.9
35.0	175.5	183.0	190.1	183.0	171.9	177.8	167.4	175.6	30- 35	53.99	224.9
40.0	158.4	172.1	180.3	172.1	156.5	151.7	154.1	161.6	35- 40	56.41	281.3
45.0	148.5	160.3	166.4	160.3	139.3	154.9	139.7	152.0	40- 45	58.99	340.3
50.0	132.0	146.2	148.8	146.2	121.5	140.9	118.0	137.6	45- 50	58.16	398.5
55.0	112.8	126.3	135.5	123.7	100.2	124.6	100.2	120.9	50- 55	55.51	454.0
60.0	91.84	103.7	124.7	102.8	79.37	102.1	83.01	94.16	55- 60	50.08	504.1
65.0	69.30	88.35	104.7	84.09	58.38	81.54	64.12	74.49	60- 65	42.62	546.7
70.0	45.61	68.84	86.88	64.50	38.41	60.79	44.91	51.57	65- 70	34.29	581.0
75.0	23.38	51.03	68.53	44.21	18.74	43.28	27.49	32.83	70- 75	25.36	606.4
80.0	6.737	33.45	49.32	29.27	5.420	26.01	14.71	18.04	75- 80	16.09	622.5
85.0	5.885	18.81	31.90	16.33	2.555	14.09	7.434	10.76	80- 85	9.745	632.2
90.0	5.033	7.201	18.04	6.350	2.632	7.821	3.794	6.737	85- 90	5.475	637.7
95.0	4.723	2.632	8.750	2.400	2.787	5.730	2.555	5.343	90- 95	2.993	640.7
100.0	4.568	2.478	5.498	2.478	2.942	5.188	2.555	5.033	95-100	2.198	642.9
105.0	4.491	2.555	4.878	2.478	3.097	5.033	2.710	4.878	100-105	2.024	644.9
110.0	4.414	2.710	4.646	2.632	3.252	4.956	2.865	4.801	105-110	1.971	646.9
115.0	4.336	2.787	4.491	2.710	3.407	4.801	3.020	4.723	110-115	1.915	648.8
120.0	4.414	2.942	4.414	2.865	3.484	4.801	3.175	4.646	115-120	1.854	650.6
125.0	4.414	3.097	4.414	2.942	3.639	4.723	3.252	4.646	120-125	1.784	652.4
130.0	4.414	3.252	4.414	3.175	3.794	4.723	3.407	4.646	125-130	1.710	654.1
135.0	4.491	3.407	4.414	3.329	3.949	4.801	3.562	4.646	130-135	1.625	655.8
140.0	4.568	3.484	4.491	3.407	4.104	4.801	3.639	4.723	135-140	1.519	657.3
145.0	4.568	3.639	4.491	3.562	4.181	4.801	3.794	4.723	140-145	1.399	658.7
150.0	4.646	3.717	4.568	3.639	4.336	4.801	3.872	4.723	145-150	1.253	659.9
155.0	4.723	3.872	4.568	3.794	4.414	4.801	3.949	4.723	150-155	1.093	661.0
160.0	4.723	3.949	4.646	3.872	4.491	4.801	4.026	4.723	155-160	0.919	661.9
165.0	4.723	4.026	4.646	3.949	4.568	4.801	4.104	4.723	160-165	0.730	662.7
170.0	4.801	4.104	4.723	4.026	4.646	4.801	4.181	4.723	165-170	0.532	663.2
175.0	4.801	4.181	4.723	4.104	4.723	4.723	4.181	4.646	170-175	0.323	663.5
180.0	4.723	4.259	4.646	4.181	4.956	4.646	4.259	4.568	175-180	0.108	663.6
DEG	LUMINOUS INTENSITY:cd									UNIT:lm	

Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:8.800 m  
Remarks:

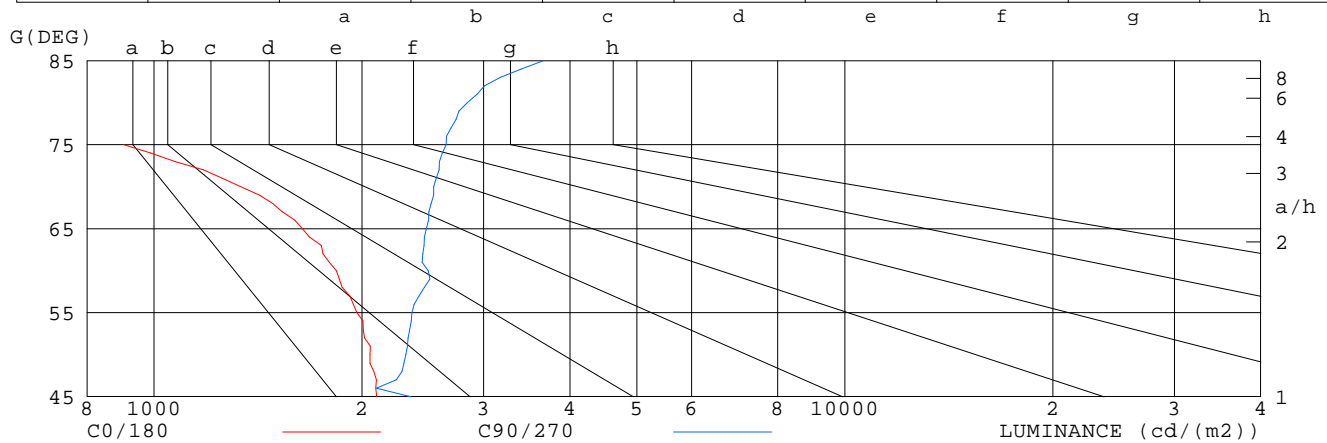
## LUMINANCE LIMITATION CURVES

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

## 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	675	3661
80	388	2841
75	904	2648
70	1334	2540
65	1640	2479
60	1837	2495
55	1967	2363
50	2054	2316
45	2101	2355

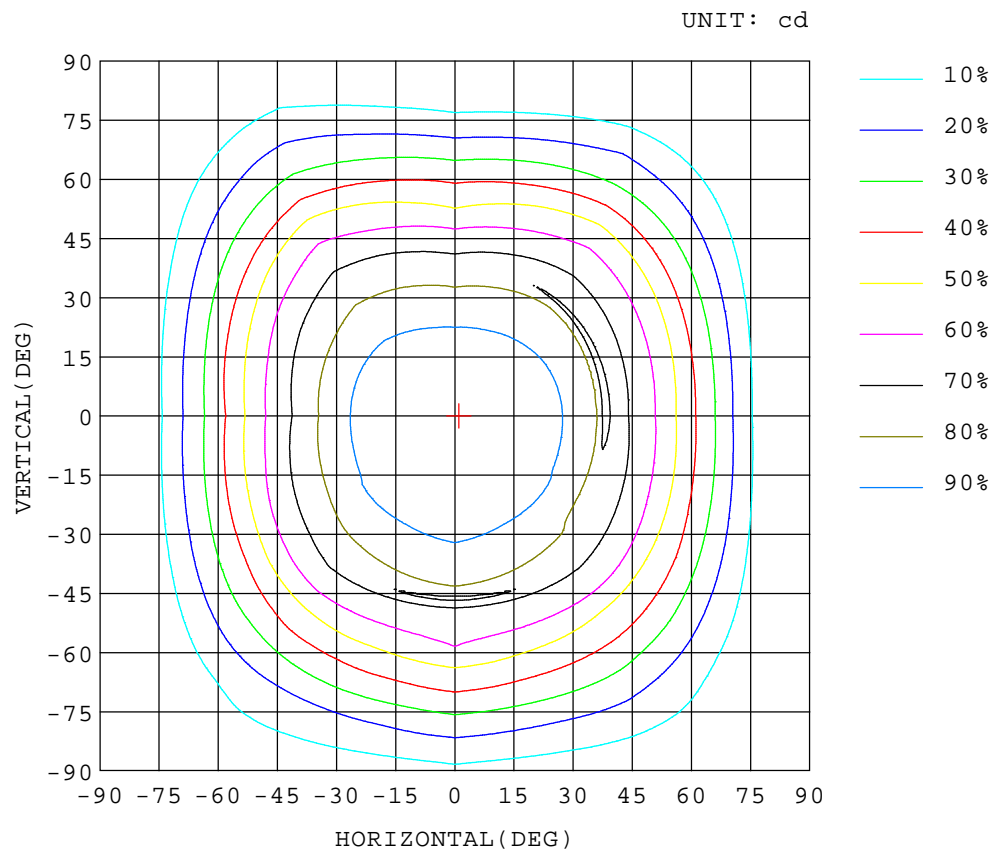
Test System: HOPOO HPG1800  
 Temperature: 25.3 DEG  
 Operators:  
 Test Date: 2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity: 65.0%  
 Test Distance: 8.800 m  
 Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015



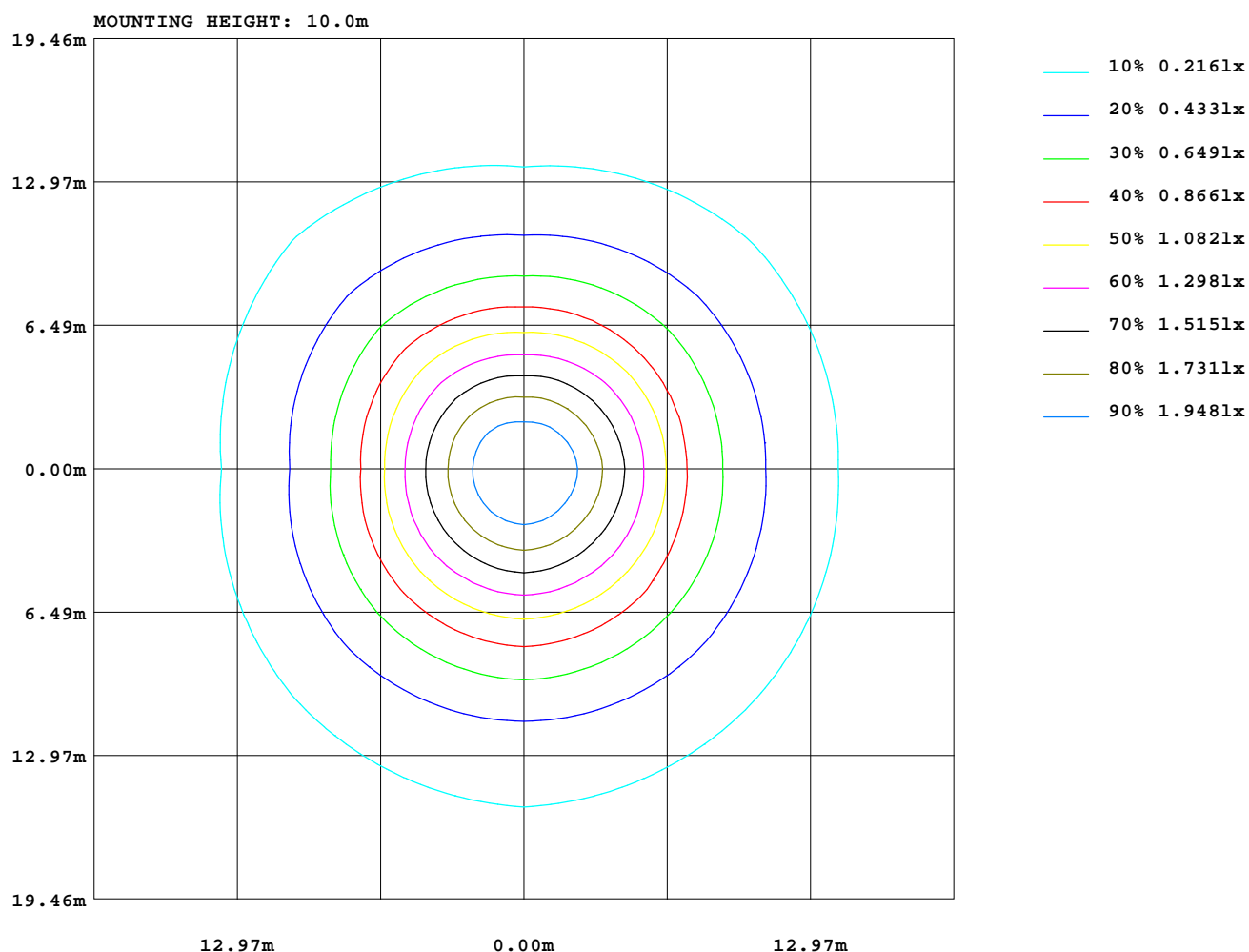
Test System: HOPOO HPG1800  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 8.800 m  
Remarks:

## ISOLUX DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015



Test System: HOPOO HPG1800  
Temperature: 25.3DEG  
Operators:  
Test Date: 2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 8.800 m  
Remarks:

## Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL NO.: 20211015015

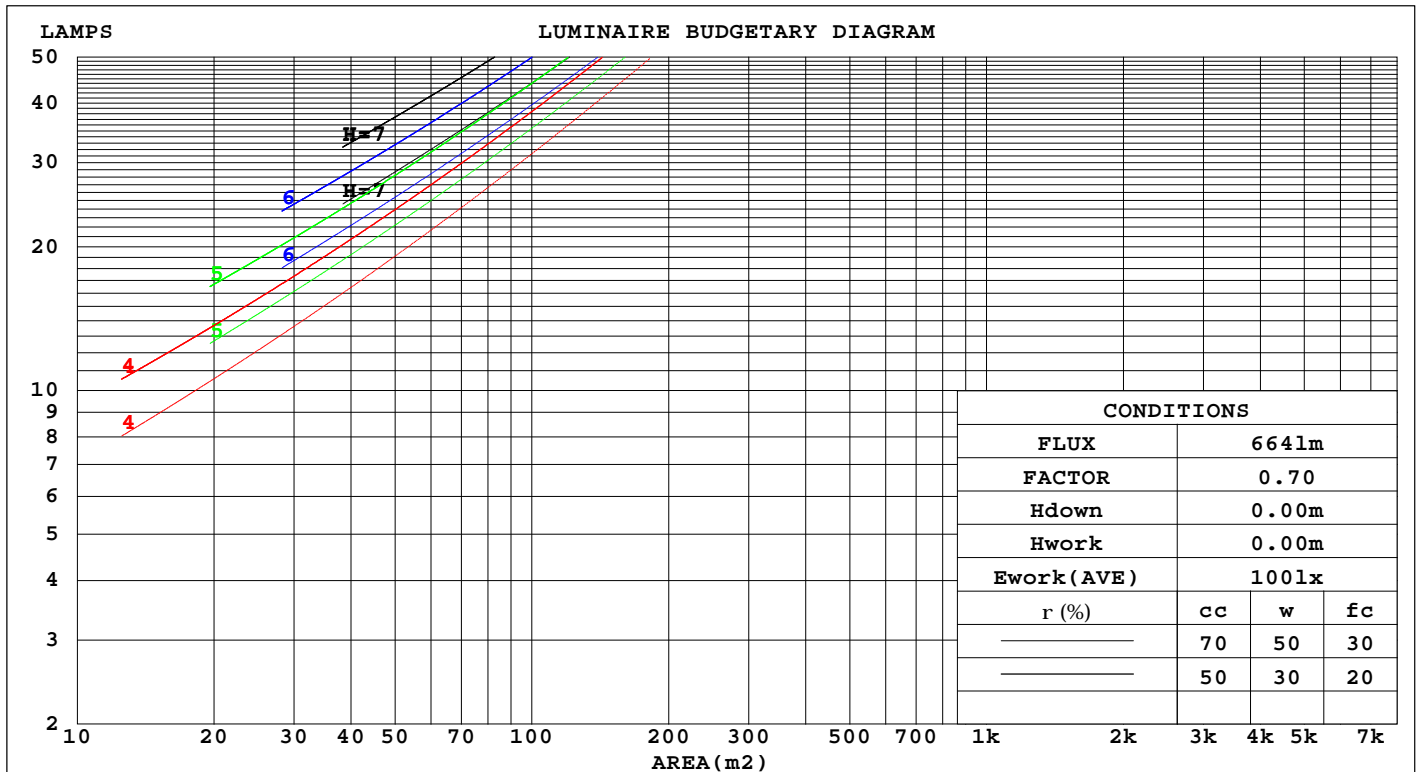
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:8.800 m  
Remarks:

## CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

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						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.03	1.03	1.03	.98	.98	.98	.96
1.0	1.03	.99	.95	1.00	.96	.93	.95	.92	.89	.91	.88	.86	.86	.84	.82	.80
2.0	.90	.83	.77	.87	.81	.76	.83	.78	.73	.79	.75	.71	.76	.72	.69	.67
3.0	.79	.70	.64	.77	.69	.63	.73	.67	.61	.70	.64	.60	.67	.62	.58	.56
4.0	.70	.61	.54	.68	.60	.53	.65	.58	.52	.62	.56	.51	.60	.54	.50	.48
5.0	.62	.53	.46	.61	.52	.46	.58	.51	.45	.56	.49	.44	.54	.48	.43	.41
6.0	.56	.47	.40	.55	.46	.40	.52	.45	.39	.50	.44	.39	.48	.43	.38	.36
7.0	.51	.42	.36	.50	.41	.35	.48	.40	.35	.46	.39	.34	.44	.38	.34	.32
8.0	.46	.38	.32	.45	.37	.31	.44	.36	.31	.42	.35	.31	.41	.35	.30	.28
9.0	.42	.34	.28	.41	.34	.28	.40	.33	.28	.39	.32	.28	.37	.32	.27	.25
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.29	.25	.35	.29	.25	.23



Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.800 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## WEC AND CCEC

Report number:

MANUFACTURER:											
Address:											
NAME: 48-RS-5050-24-96-12-X-Y-3000K						TYPE: LED Strip			WEIGHT:		
SPECIFICATION: 5050/96D			CCT(K): 3000			DIMENSION: 1M*0.012M			SERIAL No.: 20211015015		

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	.311	.177	.056	.302	.172	.055	.287	.165	.053	.273	.157	.050	.260	.150	.048	
2.0	.291	.159	.049	.283	.156	.048	.269	.150	.047	.257	.144	.045	.245	.139	.044	
3.0	.269	.143	.043	.262	.140	.042	.250	.135	.041	.239	.131	.040	.228	.126	.039	
4.0	.248	.129	.038	.242	.127	.037	.231	.123	.037	.221	.119	.036	.212	.115	.035	
5.0	.229	.117	.034	.224	.115	.034	.214	.112	.033	.205	.108	.032	.197	.105	.032	
6.0	.213	.107	.031	.208	.105	.030	.199	.102	.030	.191	.099	.029	.183	.096	.029	
7.0	.198	.098	.028	.194	.097	.028	.186	.094	.027	.178	.091	.027	.171	.089	.026	
8.0	.185	.090	.025	.181	.089	.025	.174	.087	.025	.167	.085	.024	.161	.083	.024	
9.0	.173	.084	.023	.170	.083	.023	.163	.081	.023	.157	.079	.023	.152	.077	.022	
10.0	.163	.078	.022	.160	.077	.022	.154	.075	.021	.148	.074	.021	.143	.072	.021	

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	.220	.220	.220	.188	.188	.188	.128	.128	.128	.074	.074	.074	.024	.024	.024		
1.0	.210	.186	.164	.180	.160	.141	.123	.110	.098	.071	.064	.057	.023	.020	.018		
2.0	.202	.162	.128	.173	.140	.111	.119	.097	.077	.068	.056	.045	.022	.018	.015		
3.0	.195	.145	.105	.167	.125	.091	.115	.087	.064	.066	.051	.038	.021	.016	.012		
4.0	.187	.132	.089	.161	.114	.077	.110	.079	.054	.064	.046	.032	.021	.015	.011		
5.0	.180	.121	.078	.154	.105	.068	.106	.073	.048	.062	.043	.028	.020	.014	.009		
6.0	.173	.113	.070	.148	.098	.061	.102	.068	.043	.059	.040	.026	.019	.013	.008		
7.0	.166	.106	.064	.143	.092	.056	.099	.064	.040	.057	.038	.024	.019	.012	.008		
8.0	.160	.100	.060	.137	.087	.052	.095	.061	.037	.055	.036	.022	.018	.012	.007		
9.0	.153	.095	.056	.132	.083	.049	.092	.058	.035	.053	.034	.021	.017	.011	.007		
10.0	.148	.091	.053	.127	.079	.047	.088	.056	.033	.052	.033	.020	.017	.011	.007		

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.800 m  
 Remarks:

# GONIOPHOTOMETERS SYSTEM TEST REPORT

## UGR Table

Report number:

MANUFACTURER:											
Address:											
NAME: 48-RS-5050-24-96-12-X-Y-3000K					TYPE: LED Strip			WEIGHT:			
SPECIFICATION: 5050/96D		CCT(K): 3000			DIMENSION: 1M*0.012M			SERIAL No.: 20211015015			
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	15.2	16.6	15.5	16.9	17.2	16.1	17.6	16.4	17.9	18.1
	3H	16.3	17.7	16.7	18.0	18.3	18.0	19.4	18.4	19.7	20.0
	4H	16.6	17.9	17.0	18.2	18.5	18.9	20.2	19.3	20.5	20.9
	6H	16.6	17.8	17.0	18.2	18.6	19.7	20.9	20.1	21.3	21.6
	8H	16.6	17.8	17.0	18.1	18.5	20.1	21.2	20.5	21.6	22.0
	12H	16.6	17.7	17.0	18.1	18.5	20.4	21.6	20.8	21.9	22.3
4H	2H	15.9	17.2	16.3	17.5	17.8	16.6	17.9	17.0	18.2	18.6
	3H	17.3	18.4	17.7	18.8	19.1	18.7	19.8	19.1	20.2	20.6
	4H	17.7	18.7	18.1	19.1	19.5	19.7	20.8	20.2	21.2	21.6
	6H	17.8	18.7	18.3	19.2	19.6	20.7	21.6	21.2	22.0	22.5
	8H	17.9	18.7	18.3	19.1	19.6	21.2	22.0	21.6	22.4	22.9
	12H	17.9	18.7	18.4	19.1	19.6	21.6	22.4	22.1	22.9	23.3
8H	4H	18.2	19.0	18.6	19.4	19.9	20.0	20.8	20.4	21.2	21.7
	6H	18.5	19.2	19.0	19.7	20.2	21.1	21.8	21.6	22.3	22.8
	8H	18.6	19.2	19.1	19.7	20.3	21.7	22.3	22.2	22.8	23.3
	12H	18.7	19.3	19.3	19.8	20.3	22.3	22.8	22.8	23.3	23.9
12H	4H	18.2	19.0	18.7	19.5	20.0	19.9	20.7	20.4	21.2	21.7
	6H	18.7	19.3	19.2	19.8	20.3	21.1	21.8	21.7	22.3	22.8
	8H	18.9	19.4	19.4	19.9	20.5	21.8	22.3	22.3	22.8	23.4
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.1					
1.5H	+ 0.3 / - 0.5					+ 0.2 / - 0.3					
2.0H	+ 0.3 / - 0.5					+ 0.2 / - 0.2					

CIE Pub.117 Corrected 663.6 lm Total Lamp Luminous Flux.(8log(F/F0) = -1.4)

Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.800 m  
 Remarks:

## UTILIZATION FACTORS TABLE

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

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) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	43	37	30
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	63	56	73	63	56	71	64	55	47
1.25	82	71	64	80	70	63	77	68	62	54
1.50	87	77	70	85	76	69	81	73	68	59
2.00	94	85	78	91	83	77	88	81	75	67
2.50	98	90	83	95	88	82	91	85	80	71
3.00	101	94	88	98	92	87	94	89	84	75
4.00	105	99	94	102	97	93	97	93	89	79
5.00	107	102	98	105	100	96	99	96	93	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

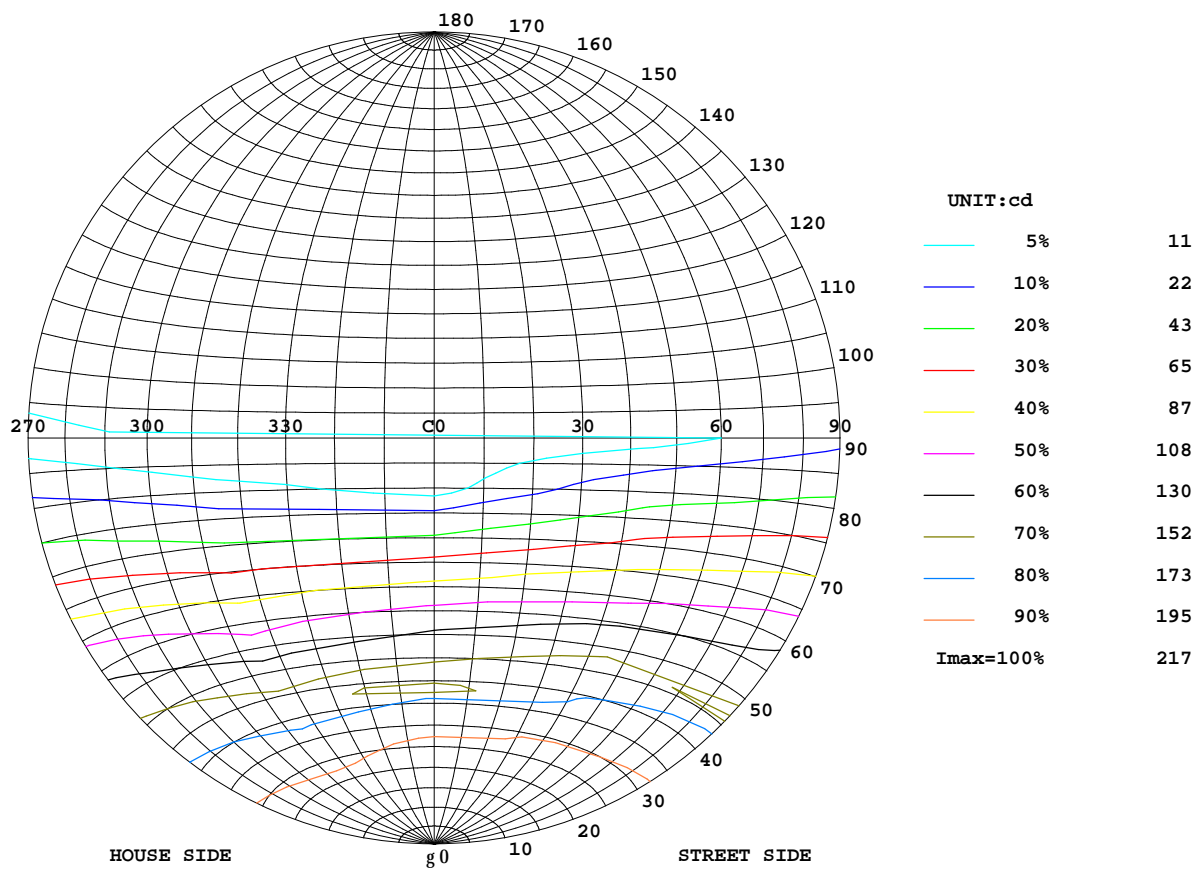
Test System:HOPOO HPG1800  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:8.800 m  
 Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015



Test System:HOPOO HPG1800  
Temperature:25.3DEG  
Operators:  
Test Date:2021年10月15日

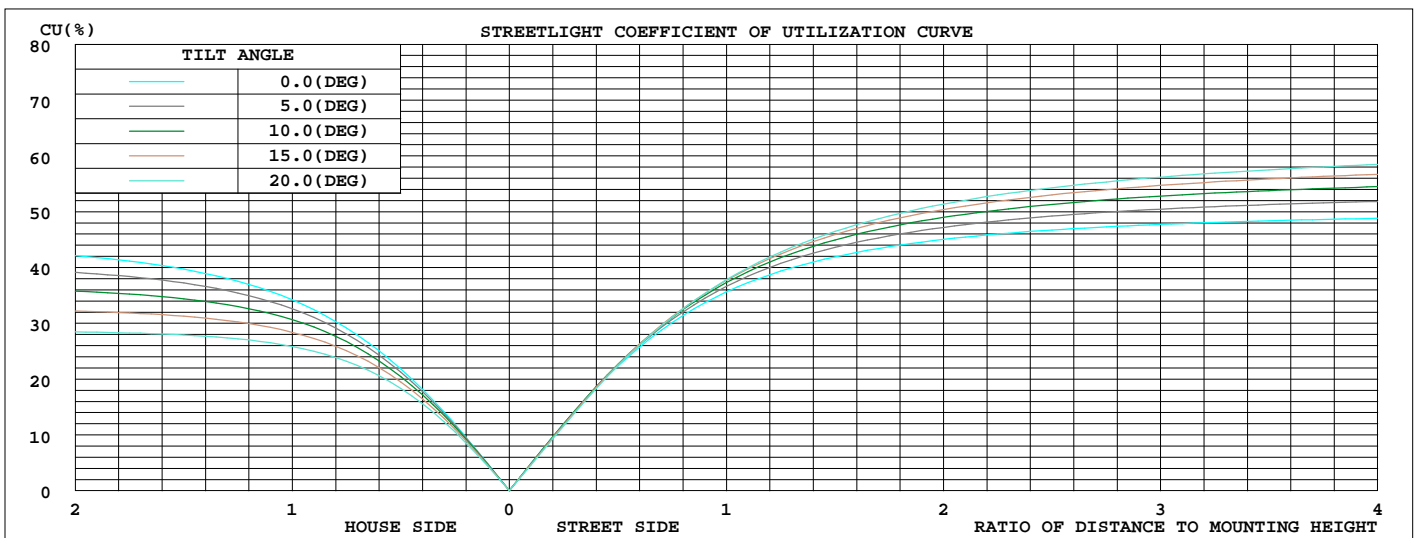
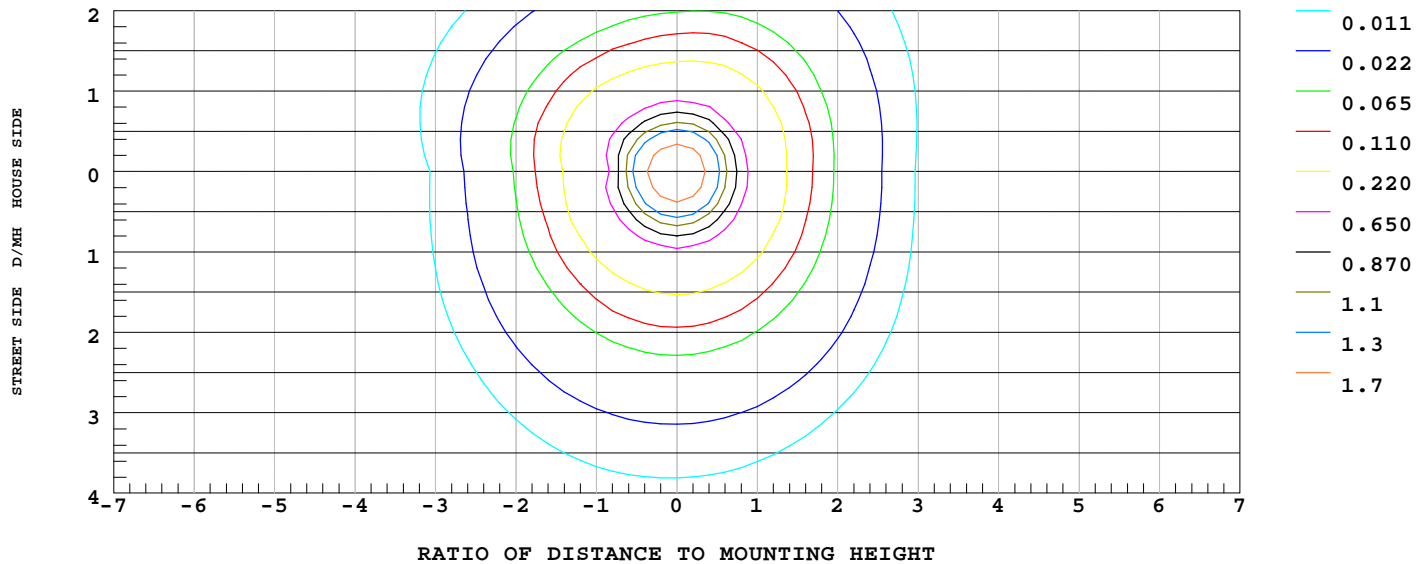
Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:8.800 m  
Remarks:

## ISOLUX DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015

ILLUMINANCE AT MH=10 m, Enadir = 2.16 lx



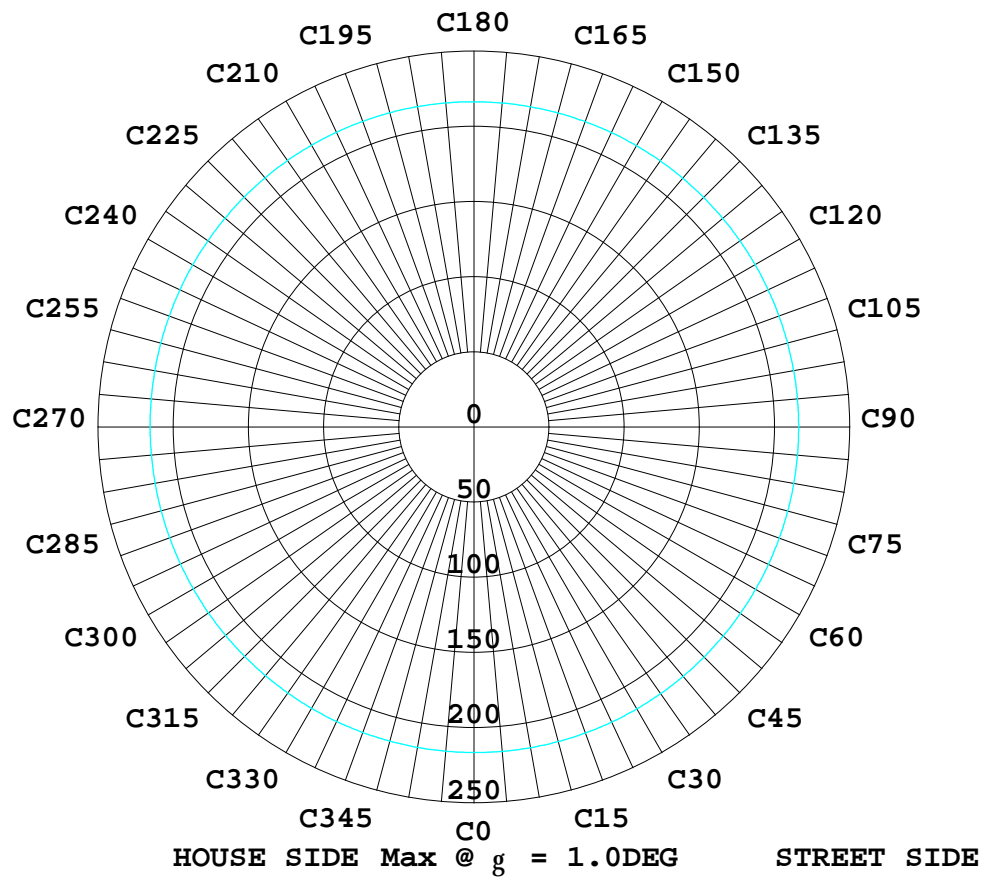
Test System: HOPOO HPG1800  
Temperature: 25.3 DEG  
Operators:  
Test Date: 2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 8.800 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER:			
Address:			
NAME: 48-RS-5050-24-96-12-X-Y-3000K		TYPE: LED Strip	WEIGHT:
SPECIFICATION: 5050/96D	CCT(K): 3000	DIMENSION: 1M*0.012M	SERIAL No.: 20211015015



Test System: HOPOO HPG1800  
Temperature: 25.3DEG  
Operators:  
Test Date: 2021年10月15日

Test Set: 8.0deg/s C-Gamma (TYPE C)  
Humidity: 65.0%  
Test Distance: 8.800 m  
Remarks: