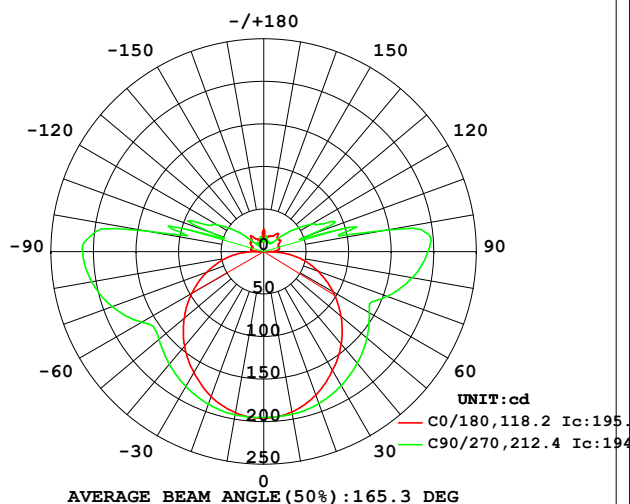


LUMINAIRE PHOTOMETRIC TEST REPORT

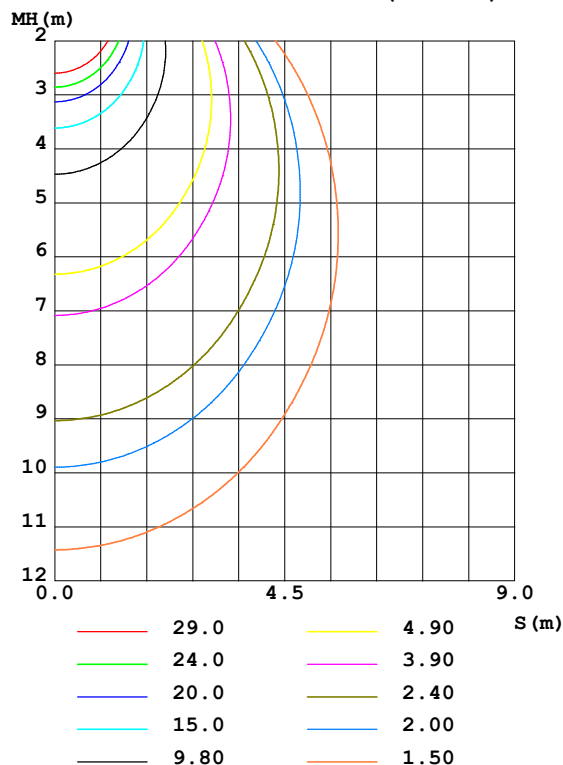
Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 46.44 lm/W
MODEL	--	I _{max} (cd)	213.4	S/MH (C0/180)	1.25	
NOMINAL POWER (W)	--	LOR (%)	100.0	S/MH (C90/270)	1.41	
RATED VOLTAGE (V)	--	TOTAL FLUX (lm)	1161.4	η UP, DN (C0-180)	12.2, 36.3	
NOMINAL FLUX (lm)	1161.35	CIE CLASS	SEMI-D.	η UP, DN (C180-360)	12.4, 39.0	
LAMPS INSIDE	1	η up (%)	24.7	CIBSE SHR NOM	1.50	
TEST VOLTAGE (V)	--	η down (%)	75.3	CIBSE SHR MAX	1.55	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT: lx)



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason Huang
Test Date: 2023-03-30

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity: 65.0%
Test Distance: 13.486m [K=1.0000]
Remarks: ---

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	191.4	192.8	194.0	192.0	192.3	194.0	194.8	192.0	0- 10	18.51	18.51	1.59,1.59
20	179.3	185.2	189.9	185.0	181.2	187.1	190.7	184.6	10- 20	53.59	72.10	6.21,6.21
30	161.6	172.2	182.0	172.7	164.3	174.8	183.1	172.0	20- 30	82.83	154.9	13.3,13.3
40	141.8	155.8	171.2	157.5	144.9	160.1	172.7	157.5	30- 40	103.7	258.7	22.3,22.3
50	118.7	138.6	158.4	140.7	122.2	143.8	160.7	141.3	40- 50	115.4	374.1	32.2,32.2
60	93.96	120.5	143.6	122.6	97.54	126.2	165.9	125.3	50- 60	118.3	492.4	42.4,42.4
70	68.06	105.6	154.1	103.9	71.52	123.2	189.5	132.4	60- 70	119.5	611.9	52.7,52.7
80	41.64	121.2	177.3	110.4	44.98	135.9	205.3	143.3	70- 80	126.7	738.6	63.6,63.6
90	4.542	136.7	193.1	127.0	3.915	145.1	213.1	150.4	80- 90	136.1	874.7	75.3,75.3
100	18.41	87.00	146.2	77.13	15.46	82.58	138.8	90.99	90-100	126.5	1001	86.2,86.2
110	18.52	58.95	55.96	51.29	15.09	52.25	67.36	54.60	100-110	60.63	1062	91.4,91.4
120	21.59	31.41	64.65	25.98	18.09	25.35	63.03	27.14	110-120	42.81	1105	95.1,95.1
130	22.26	16.17	31.16	11.65	19.61	11.68	27.69	14.99	120-130	23.20	1128	97.1,97.1
140	27.06	13.76	12.80	10.98	24.35	11.03	10.29	14.24	130-140	11.89	1140	98.1,98.1
150	21.38	15.41	12.57	11.80	17.40	12.41	12.51	15.75	140-150	9.294	1149	98.9,98.9
160	19.54	15.78	13.72	11.73	16.01	11.82	12.36	15.73	150-160	6.552	1156	99.5,99.5
170	15.52	16.95	18.79	11.08	11.91	11.59	17.10	16.24	160-170	4.166	1160	99.9,99.9
180	26.05	25.49	13.41	24.35	26.03	25.48	13.39	24.37	170-180	1.543	1161	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 315.52 lm

%lum = 27.2%

%lamp = 27.2%

Conical surface Flux(120deg): 492.43 lm

%lum = 42.4%

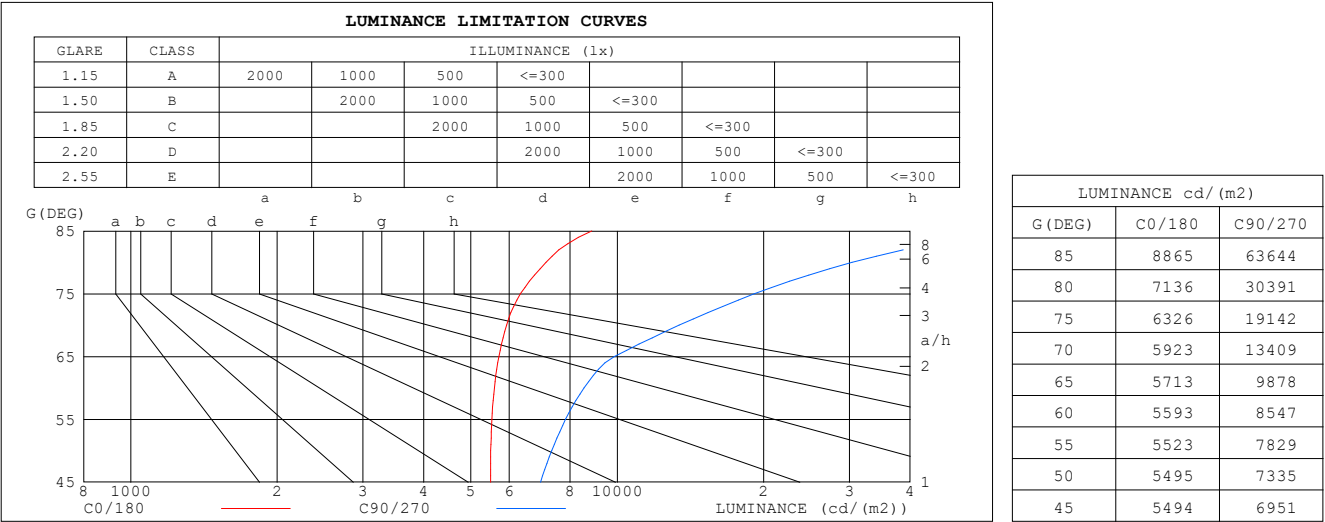
%lamp = 42.4%

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Huang
Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:13.486m [K=1.0000]
Remarks: ---

LUMINANCE LIMITATION CURVES

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Huang
Test Date:2023-03-30

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:13.486m [K=1.0000]
Remarks: ---

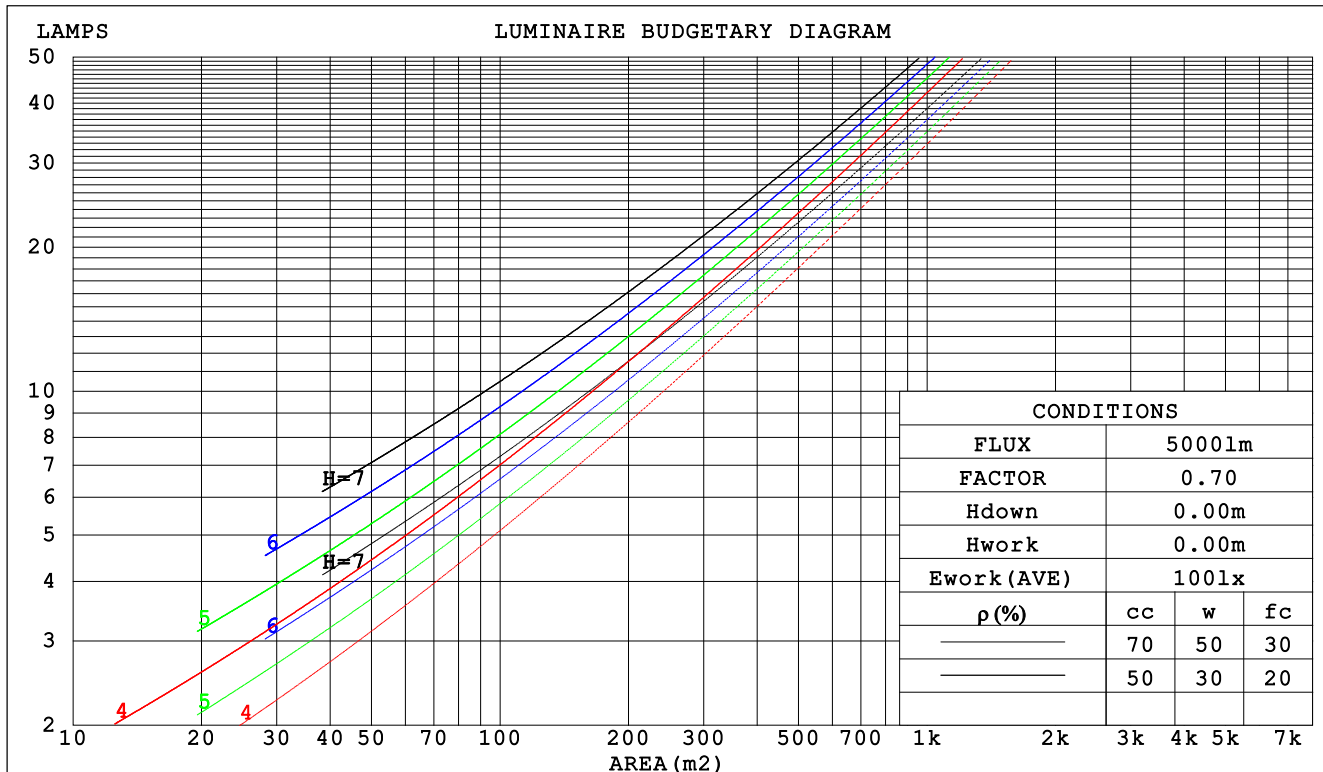
GONIOPHOTOMETERS SYSTEM TEST REPORT

Page 4 Of 11

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	

ρ_{cc}	80%			70%			50%			30%			10%			0
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.13	1.13	1.13	1.08	1.08	1.08	.97	.97	.97	.88	.88	.88	.79	.79	.79	.75
1.0	.91	.85	.80	.87	.81	.76	.78	.73	.69	.69	.66	.63	.62	.59	.57	.53
2.0	.77	.69	.62	.73	.66	.59	.66	.59	.54	.58	.53	.49	.52	.48	.44	.41
3.0	.67	.57	.50	.63	.55	.48	.57	.50	.44	.51	.45	.40	.45	.40	.36	.33
4.0	.59	.49	.41	.55	.46	.40	.50	.42	.36	.44	.38	.33	.39	.34	.30	.27
5.0	.52	.42	.35	.49	.40	.33	.44	.37	.31	.40	.33	.28	.35	.30	.26	.23
6.0	.46	.37	.30	.44	.35	.29	.40	.32	.27	.36	.29	.24	.32	.26	.22	.20
7.0	.42	.33	.26	.40	.31	.25	.36	.29	.23	.32	.26	.21	.29	.24	.20	.17
8.0	.38	.29	.23	.36	.28	.22	.33	.26	.21	.30	.23	.19	.27	.21	.17	.15
9.0	.35	.26	.20	.33	.25	.20	.30	.23	.18	.27	.21	.17	.25	.19	.16	.13
10.0	.32	.24	.18	.30	.23	.18	.28	.21	.16	.25	.19	.15	.23	.18	.14	.12



C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jason Huang
 Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:13.486m [K=1.0000]
 Remarks: ---

GONIOPHOTOMETERS SYSTEM TEST REPORT

Page 5 Of 11

WEC AND CCEC

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm									
NAME:				TYPE:--			SERIAL No.:FTS23033002L-01		
SPEC.:S10424				DIM.: --					
MFR.: Matteo				SUR.:560mm					

pcc	80%			70%			50%			30%			10%			0	
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
pfc	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)										
0.0																	
1.0	.435	.248	.078	.421	.240	.076	.393	.225	.072	.367	.212	.068	.344	.199	.064		
2.0	.360	.197	.060	.346	.191	.059	.321	.178	.055	.298	.167	.052	.276	.156	.049		
3.0	.312	.166	.050	.300	.161	.048	.277	.150	.046	.256	.140	.043	.236	.131	.040		
4.0	.277	.144	.042	.266	.139	.041	.245	.130	.039	.226	.121	.037	.208	.113	.034		
5.0	.249	.127	.037	.239	.123	.036	.220	.115	.034	.202	.107	.032	.186	.099	.030		
6.0	.227	.114	.033	.218	.110	.032	.200	.103	.030	.184	.096	.028	.169	.089	.026		
7.0	.208	.103	.029	.200	.099	.028	.184	.093	.027	.169	.087	.025	.155	.080	.024		
8.0	.192	.094	.026	.185	.091	.026	.170	.085	.024	.156	.079	.023	.143	.073	.021		
9.0	.179	.086	.024	.172	.084	.023	.158	.078	.022	.145	.073	.021	.133	.068	.020		
10.0	.167	.080	.022	.160	.077	.022	.148	.072	.020	.136	.067	.019	.125	.063	.018		

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.379	.379	.379	.323	.323	.323	.221	.221	.221	.127	.127	.127	.041	.041	.041	
1.0	.379	.345	.314	.324	.296	.270	.222	.203	.187	.128	.118	.109	.041	.038	.035	
2.0	.372	.322	.281	.319	.278	.243	.218	.192	.169	.126	.112	.099	.040	.036	.032	
3.0	.364	.306	.260	.312	.264	.226	.215	.184	.158	.124	.107	.093	.040	.035	.031	
4.0	.356	.294	.247	.306	.254	.215	.210	.177	.151	.122	.104	.089	.039	.034	.029	
5.0	.348	.285	.238	.299	.246	.207	.206	.172	.146	.119	.101	.087	.038	.033	.029	
6.0	.341	.277	.231	.293	.240	.201	.202	.168	.142	.117	.099	.085	.038	.032	.028	
7.0	.333	.270	.226	.287	.234	.197	.198	.164	.140	.115	.097	.083	.037	.032	.028	
8.0	.326	.265	.223	.281	.230	.194	.194	.161	.138	.113	.095	.082	.037	.031	.027	
9.0	.320	.260	.220	.276	.226	.192	.191	.159	.136	.111	.094	.081	.036	.031	.027	
10.0	.314	.256	.218	.271	.222	.190	.188	.156	.135	.110	.093	.080	.036	.030	.027	

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Huang
Test Date:2023-03-30

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:13.486m [K=1.0000]
Remarks: ---

GONIOPHOTOMETERS SYSTEM TEST REPORT

Page 6 Of 11

UGR(Unified Glare Rating) Table

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm											
NAME:					TYPE:--			SERIAL No.:FTS23033002L-01			
SPEC.:S10424					DIM.: --						
MFR.: Matteo					SUR.:560mm						
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	16.5	17.9	17.1	18.5	19.2	18.4	19.8	19.0	20.4	21.1
	3H	18.4	19.6	19.0	20.2	21.0	21.8	23.0	22.4	23.6	24.4
	4H	19.2	20.4	19.9	21.1	21.8	24.0	25.1	24.6	25.8	26.6
	6H	20.1	21.2	20.7	21.9	22.7	26.4	27.5	27.1	28.2	29.0
	8H	20.5	21.5	21.1	22.2	23.0	27.8	28.9	28.5	29.6	30.4
	12H	20.8	21.9	21.5	22.6	23.4	29.3	30.4	30.0	31.1	31.9
4H	2H	17.6	18.8	18.3	19.5	20.2	19.0	20.2	19.6	20.8	21.6
	3H	19.7	20.7	20.4	21.4	22.3	22.6	23.7	23.3	24.4	25.2
	4H	20.8	21.7	21.5	22.4	23.3	25.1	26.0	25.8	26.7	27.6
	6H	21.8	22.6	22.5	23.4	24.2	27.8	28.6	28.5	29.4	30.2
	8H	22.2	23.0	23.0	23.8	24.7	29.3	30.1	30.0	30.8	31.7
	12H	22.7	23.4	23.4	24.2	25.1	30.9	31.7	31.7	32.5	33.4
8H	4H	22.3	23.1	23.0	23.8	24.7	25.5	26.3	26.2	27.0	27.9
	6H	23.7	24.4	24.5	25.2	26.1	28.5	29.2	29.3	30.0	31.0
	8H	24.5	25.1	25.2	25.9	26.8	30.3	30.9	31.1	31.7	32.7
	12H	25.1	25.7	25.9	26.5	27.5	32.3	32.8	33.0	33.6	34.6
12H	4H	22.9	23.7	23.7	24.5	25.4	25.5	26.3	26.3	27.0	28.0
	6H	24.7	25.4	25.5	26.1	27.1	28.7	29.3	29.5	30.1	31.1
	8H	25.7	26.2	26.5	27.1	28.0	30.6	31.1	31.4	31.9	32.9
Variations with the observer position at spacings:											
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1					
1.5H	+ 0.2 / - 0.2					+ 0.3 / - 0.3					
2.0H	+ 0.3 / - 0.3					+ 0.3 / - 0.4					

CIE Pub.117, 1161 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.5$)

C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Huang
Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:13.486m [K=1.0000]
Remarks: ---

UTILIZATION FACTORS TABLE

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	

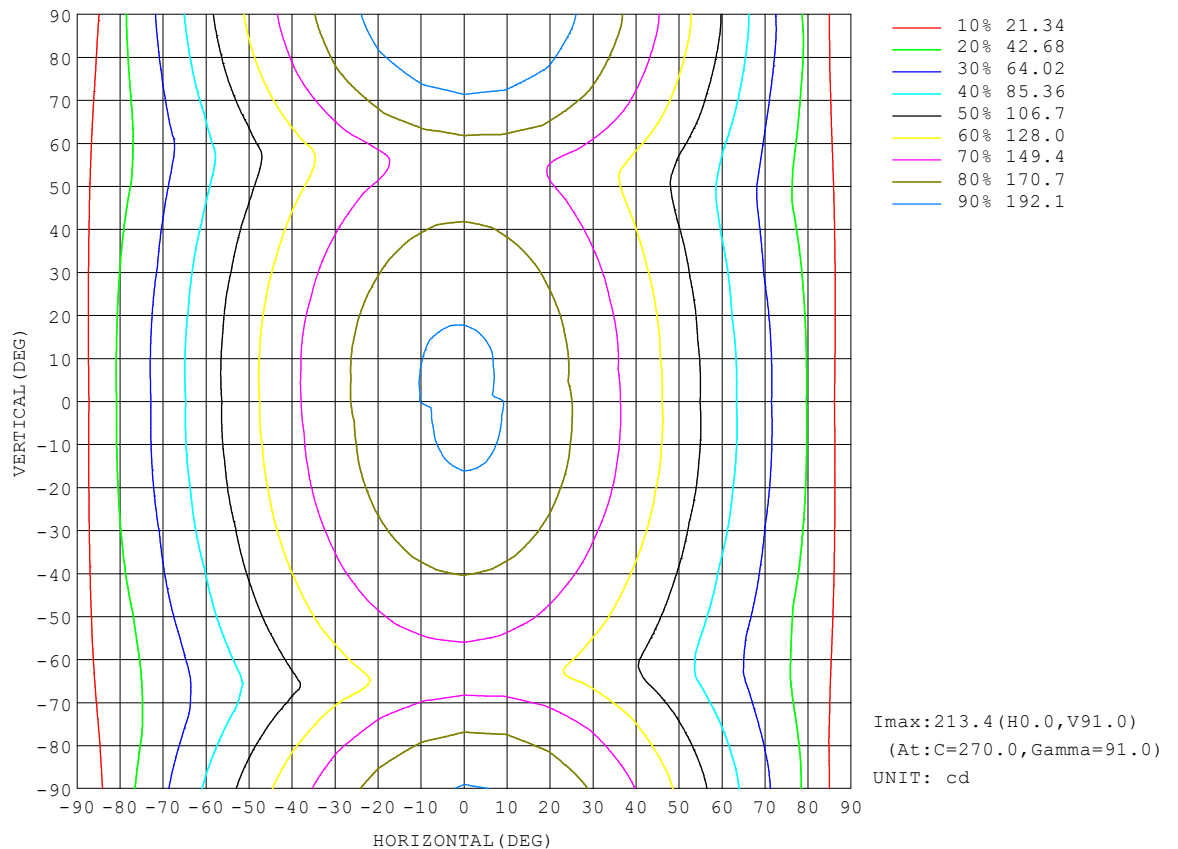
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	44	31	24	43	31	23	41	30	23	16
0.80	52	39	30	51	38	30	48	36	29	21
1.00	60	46	37	58	45	36	54	45	35	26
1.25	66	52	43	64	51	42	59	48	41	30
1.50	71	58	48	68	56	47	63	53	45	34
2.00	79	66	57	75	64	55	69	59	52	39
2.50	83	72	62	80	69	61	73	64	57	43
3.00	87	76	68	83	73	65	76	68	61	46
4.00	92	83	75	88	79	72	80	73	67	51
5.00	95	87	80	91	83	77	82	76	71	54
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jason Huang
 Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:13.486m [K=1.0000]
 Remarks: ---

ISOCANDELA DIAGRAM

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	

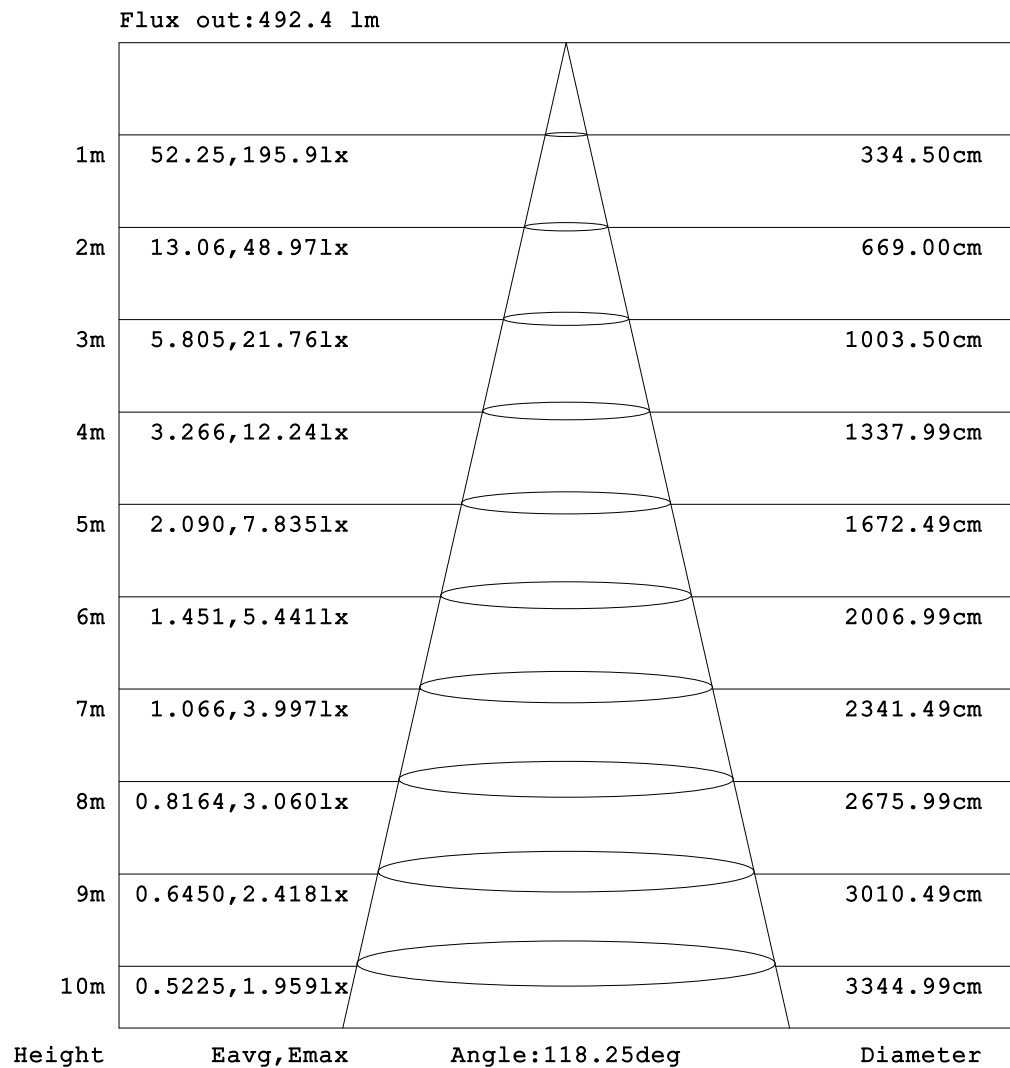


C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Huang
Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:13.486m [K=1.0000]
Remarks: ---

AAI Figure

Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	



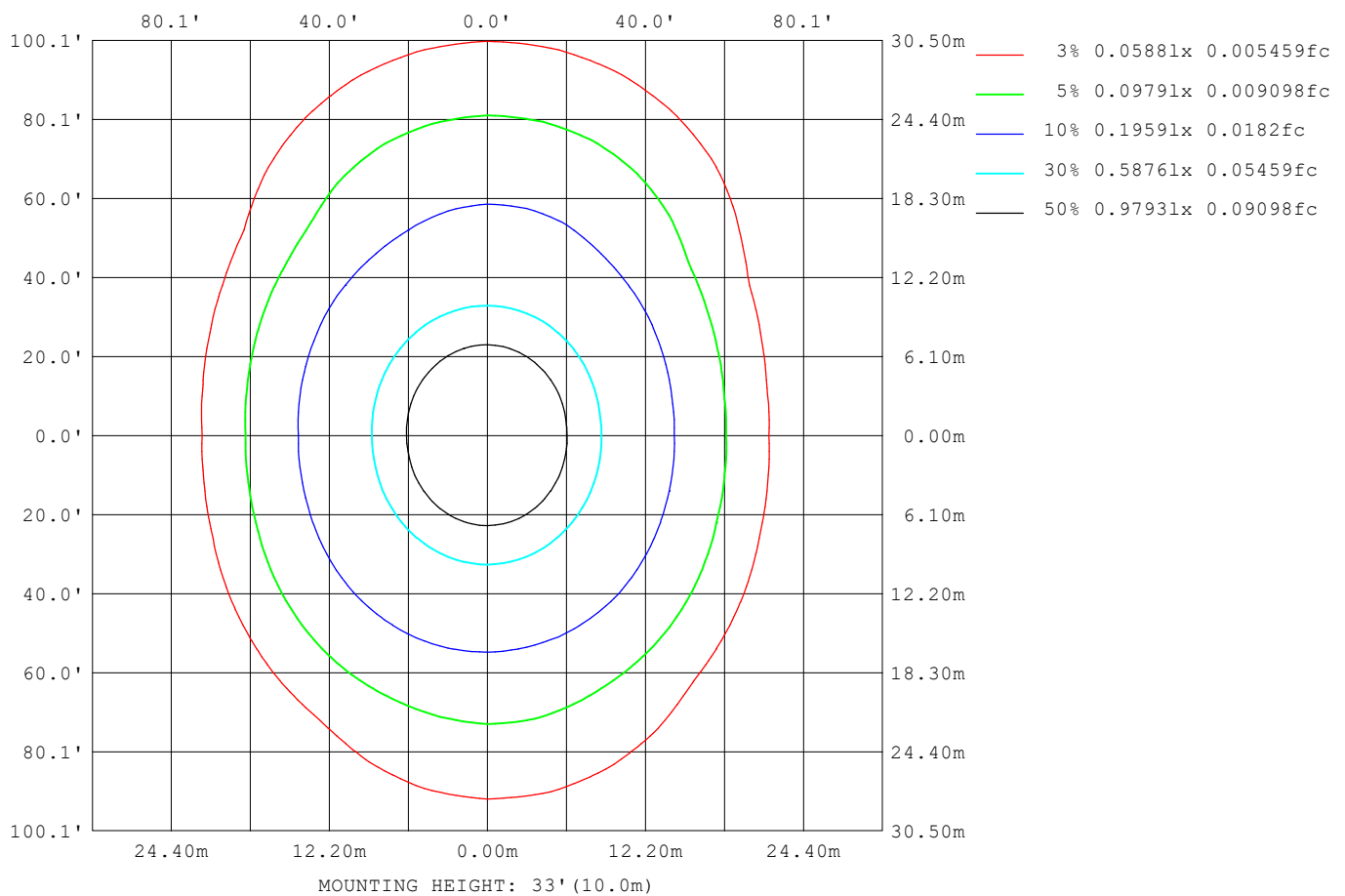
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 10.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Jason Huang
 Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
 Humidity:65.0%
 Test Distance:13.486m [K=1.0000]
 Remarks: ---

ISOLUX DIAGRAM

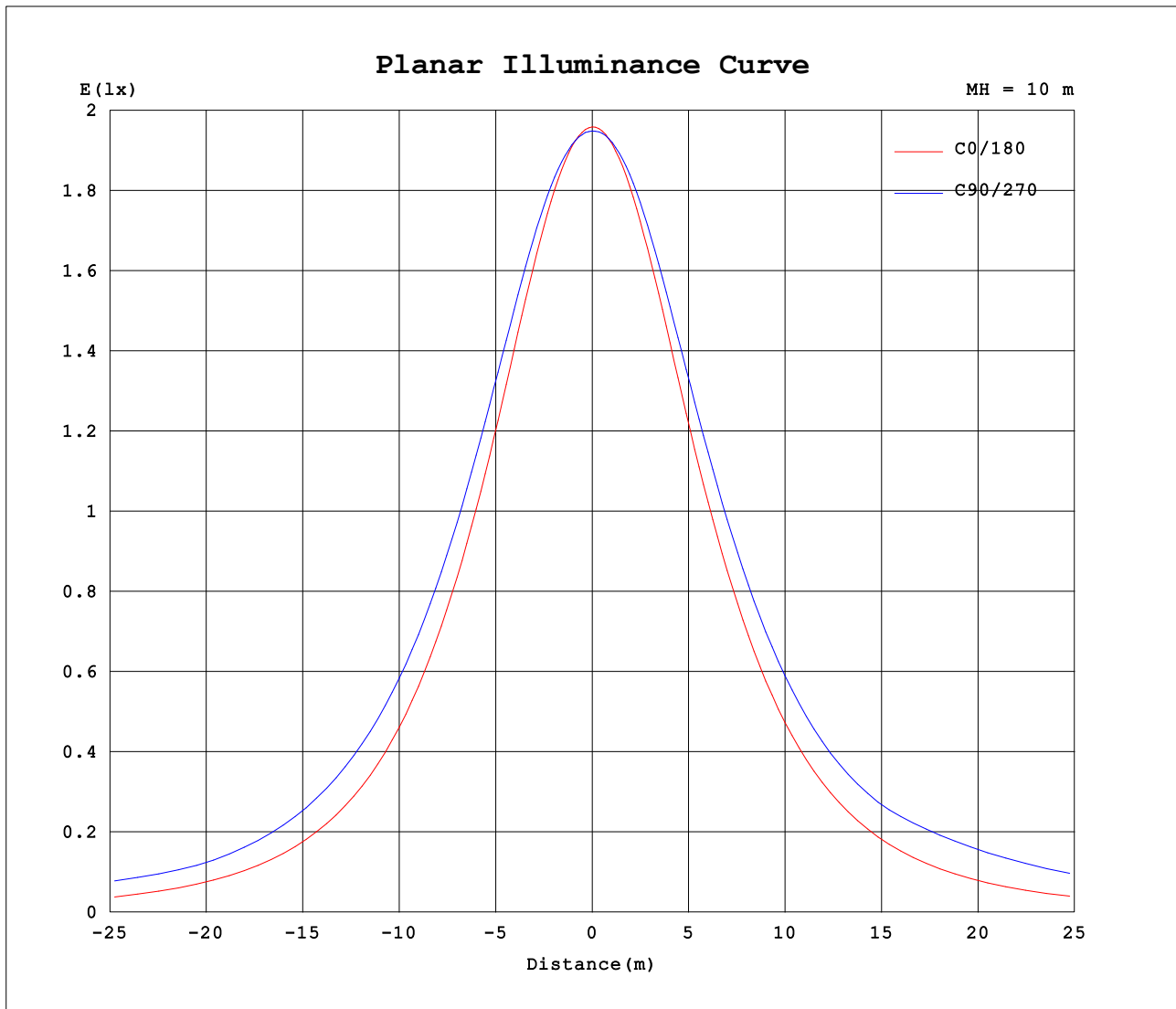
Test:U:120.10V I:0.231A P:25.01W PF:0.9007 Freq:60.00Hz Lamp Flux:1161.35x1 lm		
NAME:	TYPE:--	SERIAL No.:FTS23033002L-01
SPEC.:S10424	DIM.: --	
MFR.: Matteo	SUR.:560mm	



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Jason Huang
Test Date:2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity:65.0%
Test Distance:13.486m [K=1.0000]
Remarks: ---

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 10.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Jason Huang
Test Date: 2023-03-30

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000H_V1 SYSTEM V2.0.404.7
Humidity: 65.0%
Test Distance: 13.486m [K=1.0000]
Remarks: ---