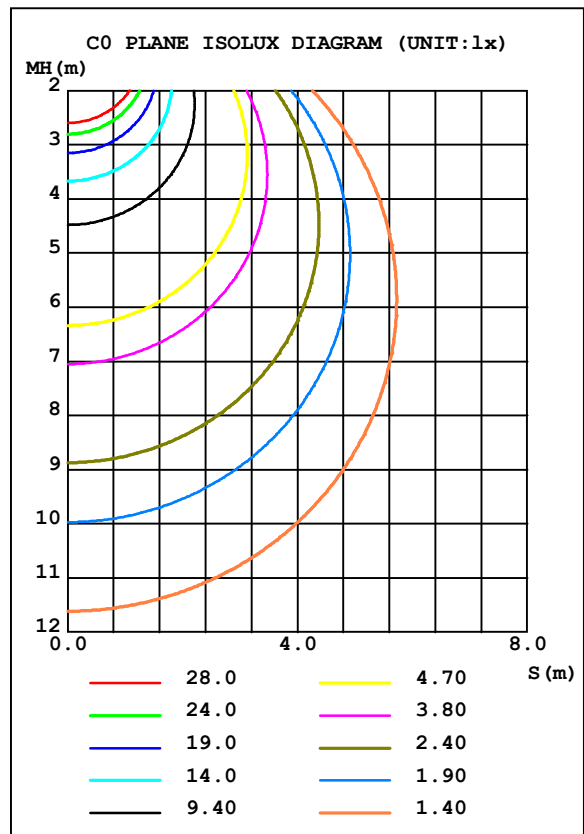
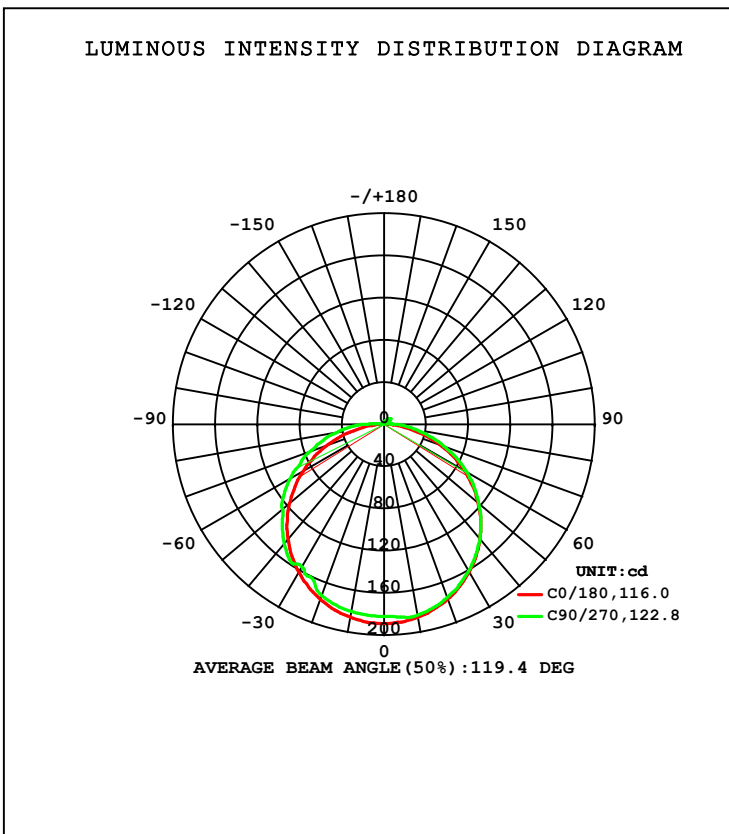


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.15lx1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 84.76 lm/W			
MODEL		I <sub>max</sub> (cd)	188.8	S/MH (C0/180)	1.28
NOMINAL POWER (W)	7.2	LOR (%)	100.0	S/MH (C90/270)	1.34
RATED VOLTAGE (V)	12	TOTAL FLUX (lm)	602.15	η UP, DN (C0-180)	1.8, 47.2
NOMINAL FLUX (lm)	602.151	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.2, 49.7
LAMPS INSIDE	1	η up (%)	3.0	CIBSE SHR NOM	1.25
TEST VOLTAGE (V)	12	η down (%)	97.0	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: CHM  
 Test Date: 2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 9.727m [K=1.0000]  
 Remarks: 2200-2400K

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

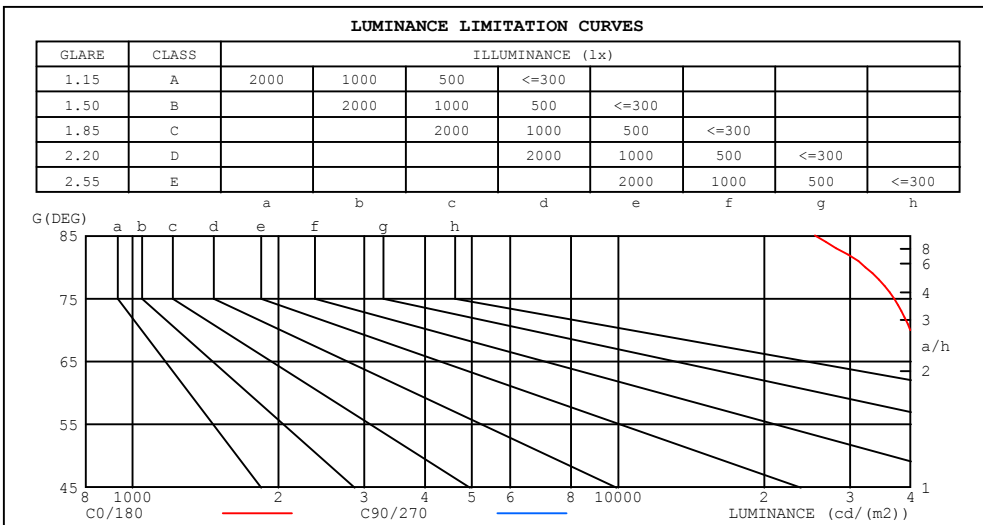
γ	C0	C90	C180	C270					γ	Φ zone	Φ total	%lum, lamp
10	185.7	183.7	185.8	180.3					0- 10	17.65	17.65	2.93,2.93
20	176.5	175.0	176.8	173.0					10- 20	50.92	68.57	11.4,11.4
30	161.7	160.7	162.0	156.1					20- 30	77.48	146.1	24.3,24.3
40	141.6	141.5	142.0	147.4					30- 40	95.64	241.7	40.1,40.1
50	116.9	117.9	117.3	125.5					40- 50	101.6	343.3	57,57
60	88.14	90.48	88.59	103.1					50- 60	95.38	438.7	72.9,72.9
70	55.96	60.36	56.44	73.55					60- 70	76.53	515.2	85.6,85.6
80	23.01	30.90	23.36	45.89					70- 80	48.67	563.9	93.6,93.6
90	0.7989	11.42	0.9095	20.15					80- 90	19.89	583.8	97,97
100	0.6616	5.290	0.6321	3.851					90-100	5.511	589.3	97.9,97.9
110	0.8992	4.444	0.9000	1.896					100-110	2.414	591.7	98.3,98.3
120	1.130	4.655	1.148	1.507					110-120	1.945	593.7	98.6,98.6
130	1.373	7.485	1.398	1.634					120-130	2.214	595.9	99,99
140	1.591	7.566	1.605	1.871					130-140	2.454	598.3	99.4,99.4
150	1.756	4.912	1.798	2.029					140-150	1.834	600.2	99.7,99.7
160	1.908	3.279	1.950	2.138					150-160	1.137	601.3	99.9,99.9
170	2.047	2.454	2.066	2.230					160-170	0.6422	601.9	100,100
180	2.120	2.303	2.114	2.321					170-180	0.2096	602.2	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

LUMINANCE LIMITATION CURVES

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/ (m2)		
G (DEG)	C0/180	C90/270
85	25415	53361
80	32314	43408
75	36974	42498
70	39905	43042
65	41782	43645
60	42994	44137
55	43809	44482
50	44367	44728
45	44781	44916

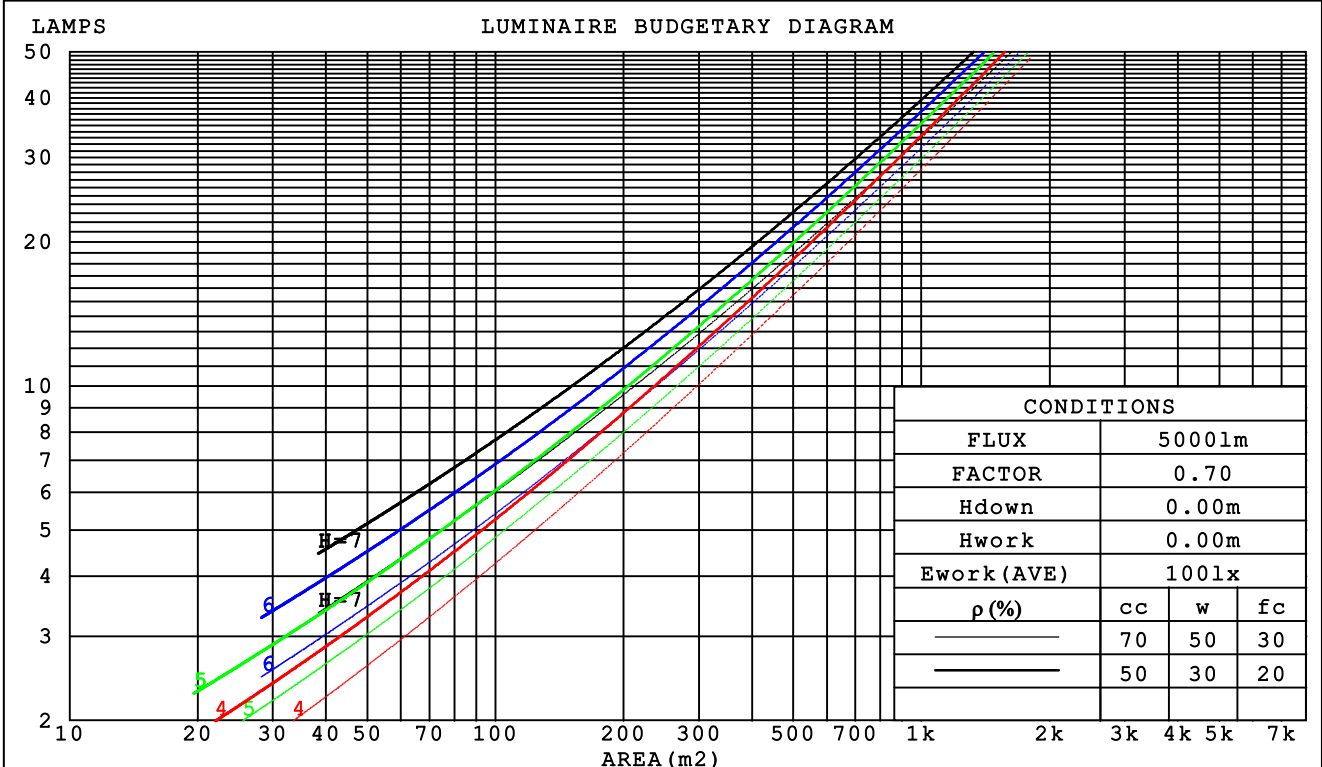
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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						Coefficients of Utilization(CU)									
0.0	1.18	1.18	1.18	1.15	1.15	1.15	1.09	1.09	1.09	1.04	1.04	1.04	.99	.99	.99	.97
1.0	1.02	.97	.93	.99	.95	.91	.94	.91	.88	.90	.87	.85	.86	.84	.82	.79
2.0	.88	.81	.75	.86	.79	.74	.82	.76	.72	.78	.74	.69	.75	.71	.67	.65
3.0	.77	.68	.62	.75	.67	.61	.72	.65	.59	.69	.63	.58	.66	.61	.57	.54
4.0	.68	.59	.52	.66	.58	.51	.63	.56	.50	.61	.54	.49	.58	.53	.48	.46
5.0	.61	.51	.44	.59	.50	.44	.57	.49	.43	.54	.48	.42	.52	.46	.42	.39
6.0	.54	.45	.39	.53	.45	.38	.51	.43	.38	.49	.42	.37	.47	.41	.36	.34
7.0	.49	.40	.34	.48	.40	.34	.46	.39	.33	.45	.38	.33	.43	.37	.32	.30
8.0	.45	.36	.30	.44	.36	.30	.42	.35	.30	.41	.34	.29	.39	.33	.29	.27
9.0	.41	.33	.27	.40	.32	.27	.39	.32	.27	.38	.31	.26	.36	.30	.26	.24
10.0	.38	.30	.24	.37	.29	.24	.36	.29	.24	.35	.28	.24	.34	.28	.24	.22



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

WEC AND CCEC

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.333	.189	.060	.325	.185	.059	.310	.178	.057	.296	.171	.055	.283	.164	.053	
2.0	.306	.168	.052	.299	.165	.051	.286	.159	.049	.273	.153	.048	.262	.148	.047	
3.0	.280	.149	.045	.274	.147	.044	.262	.142	.043	.251	.137	.042	.241	.133	.041	
4.0	.257	.133	.039	.251	.131	.039	.240	.127	.038	.230	.124	.037	.221	.120	.037	
5.0	.236	.120	.035	.231	.119	.035	.222	.115	.034	.213	.112	.033	.204	.109	.033	
6.0	.218	.109	.031	.214	.108	.031	.205	.105	.031	.197	.102	.030	.190	.100	.030	
7.0	.202	.100	.028	.198	.099	.028	.191	.096	.028	.183	.094	.027	.177	.092	.027	
8.0	.189	.092	.026	.185	.091	.026	.178	.089	.025	.171	.087	.025	.165	.085	.025	
9.0	.176	.085	.024	.173	.084	.024	.167	.082	.023	.161	.081	.023	.155	.079	.023	
10.0	.166	.079	.022	.163	.079	.022	.157	.077	.022	.151	.075	.021	.146	.074	.021	

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients (CCEC)									
0.0	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.205	.179	.156	.176	.154	.134	.120	.106	.093	.069	.061	.054	.022	.020	.017	
2.0	.198	.155	.120	.169	.134	.104	.116	.093	.072	.067	.054	.042	.021	.017	.014	
3.0	.190	.138	.097	.163	.119	.084	.112	.083	.059	.065	.048	.035	.021	.016	.011	
4.0	.183	.125	.081	.157	.108	.070	.108	.075	.050	.062	.044	.029	.020	.014	.010	
5.0	.175	.115	.070	.150	.099	.061	.104	.069	.043	.060	.041	.026	.019	.013	.008	
6.0	.168	.106	.062	.144	.092	.054	.099	.065	.038	.058	.038	.023	.019	.012	.008	
7.0	.161	.100	.057	.138	.086	.049	.096	.061	.035	.056	.036	.021	.018	.012	.007	
8.0	.154	.094	.052	.133	.081	.046	.092	.057	.032	.053	.034	.019	.017	.011	.006	
9.0	.148	.089	.049	.128	.077	.043	.088	.054	.030	.051	.032	.018	.017	.011	.006	
10.0	.142	.085	.046	.123	.074	.040	.085	.052	.029	.050	.031	.017	.016	.010	.006	

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

UGR(Unified Glare Rating) Table

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm										
NAME: TF5BSC-AP-IP66					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:			Shielding Angle:		
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	27.5	29.1	27.8	29.3	29.6	27.6	29.1	27.9	29.4	29.7
3H	29.1	30.5	29.5	30.8	31.1	29.3	30.7	29.7	31.0	31.3
4H	29.8	31.1	30.1	31.4	31.7	30.0	31.4	30.4	31.7	32.0
6H	30.2	31.4	30.6	31.8	32.1	30.7	31.9	31.0	32.3	32.6
8H	30.3	31.5	30.7	31.9	32.2	30.9	32.1	31.3	32.5	32.8
12H	30.4	31.5	30.8	31.9	32.3	31.2	32.3	31.6	32.7	33.1
4H 2H	28.2	29.5	28.5	29.8	30.2	28.2	29.6	28.6	29.9	30.2
3H	30.0	31.1	30.4	31.5	31.9	30.1	31.3	30.5	31.6	32.0
4H	30.7	31.8	31.1	32.2	32.6	31.0	32.1	31.4	32.4	32.8
6H	31.3	32.2	31.7	32.6	33.1	31.7	32.7	32.2	33.1	33.5
8H	31.5	32.3	31.9	32.8	33.2	32.1	33.0	32.5	33.4	33.8
12H	31.6	32.4	32.0	32.8	33.3	32.4	33.2	32.9	33.7	34.1
8H 4H	31.0	31.9	31.5	32.3	32.8	31.3	32.2	31.7	32.6	33.0
6H	31.8	32.5	32.2	33.0	33.5	32.2	32.9	32.7	33.4	33.9
8H	32.0	32.7	32.5	33.2	33.7	32.6	33.3	33.1	33.8	34.3
12H	32.2	32.8	32.7	33.3	33.8	33.1	33.7	33.6	34.2	34.7
12H 4H	31.1	31.9	31.5	32.3	32.8	31.3	32.1	31.8	32.5	33.0
6H	31.8	32.5	32.4	33.0	33.5	32.3	32.9	32.8	33.4	33.9
8H	32.2	32.7	32.7	33.2	33.8	32.8	33.3	33.3	33.8	34.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 602.2 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -1.8)

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

**UTILIZATION FACTORS TABLE**

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

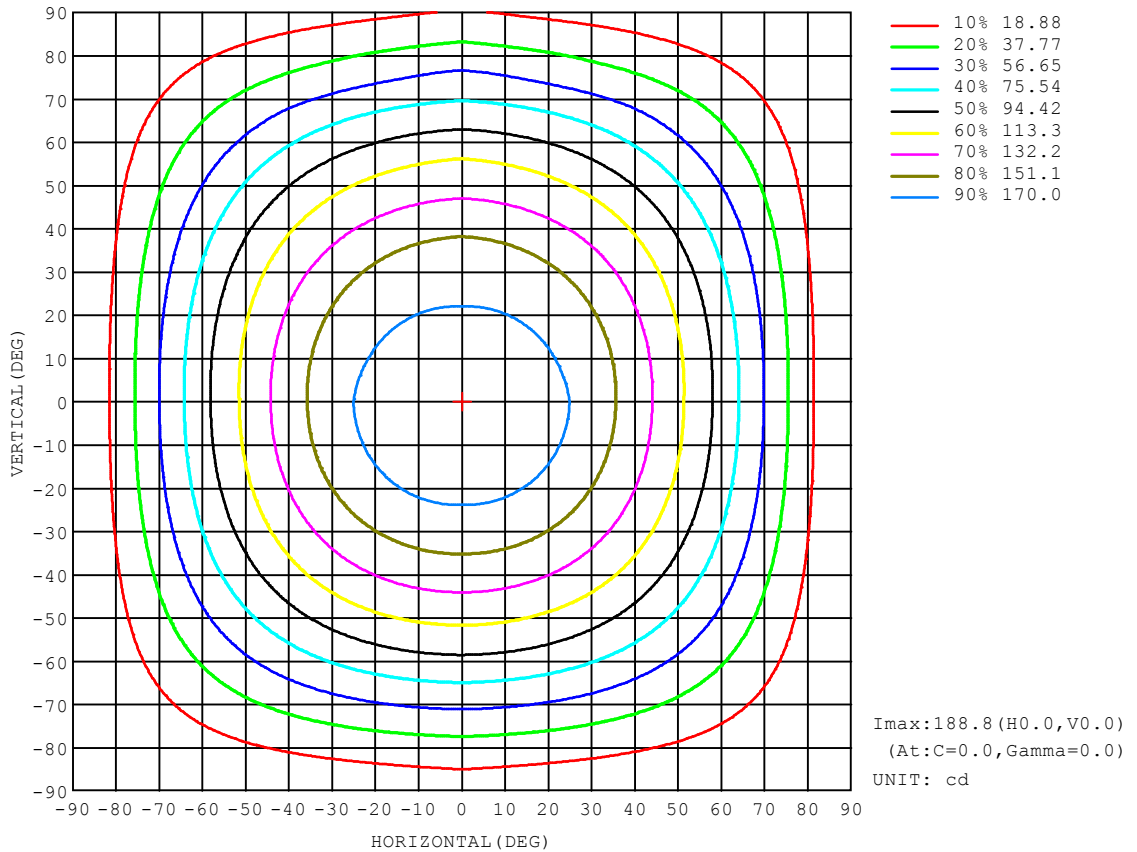
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	36	54	43	36	53	42	35	29
0.80	65	53	45	64	52	45	62	51	44	37
1.00	73	61	54	72	61	53	69	62	53	45
1.25	80	69	62	79	68	61	76	67	60	52
1.50	85	75	67	83	74	67	80	72	65	57
2.00	92	83	76	90	82	75	86	79	74	65
2.50	96	88	81	94	86	80	90	83	78	69
3.00	100	92	86	98	91	85	93	87	83	73
4.00	104	98	93	102	96	91	97	92	88	78
5.00	107	101	97	104	99	95	99	95	92	81
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

ISOCANDELA DIAGRAM

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



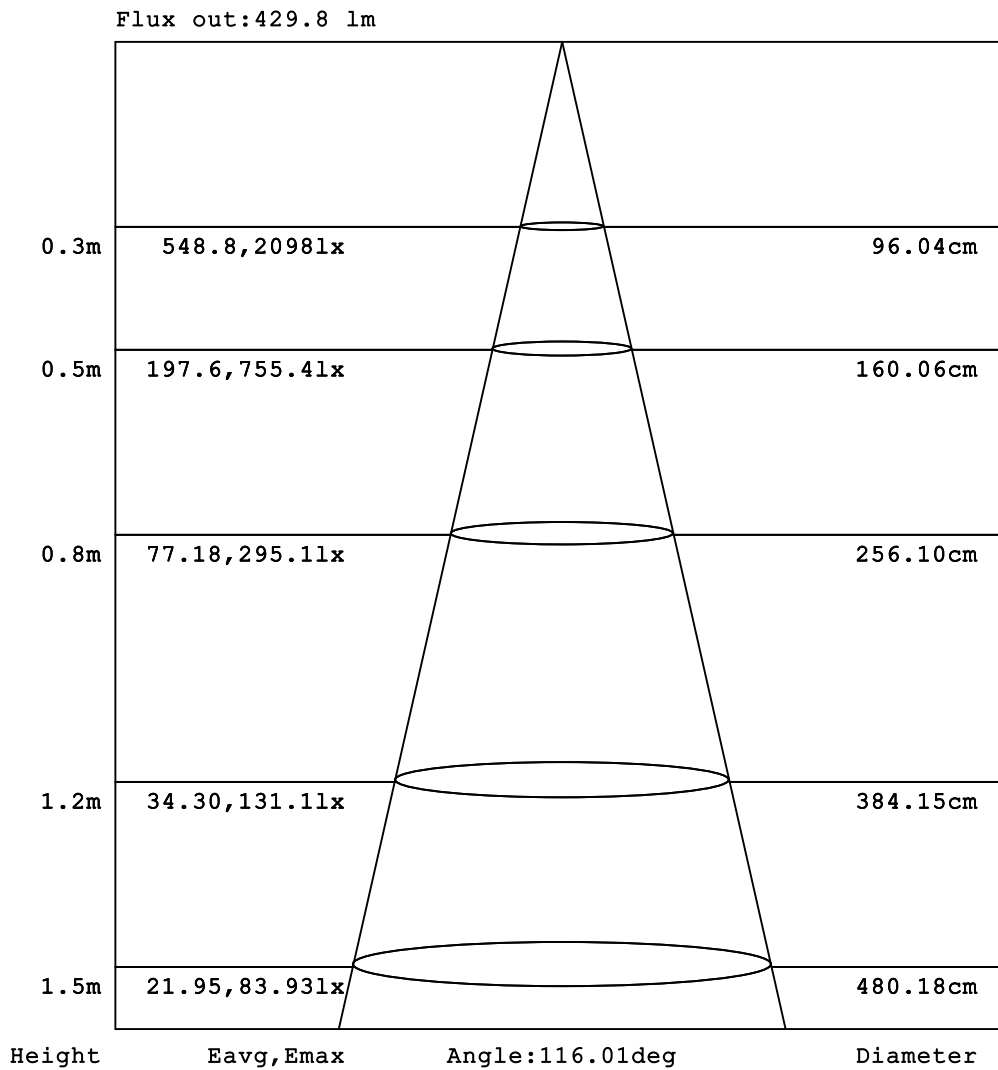
C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K



AAI Figure

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



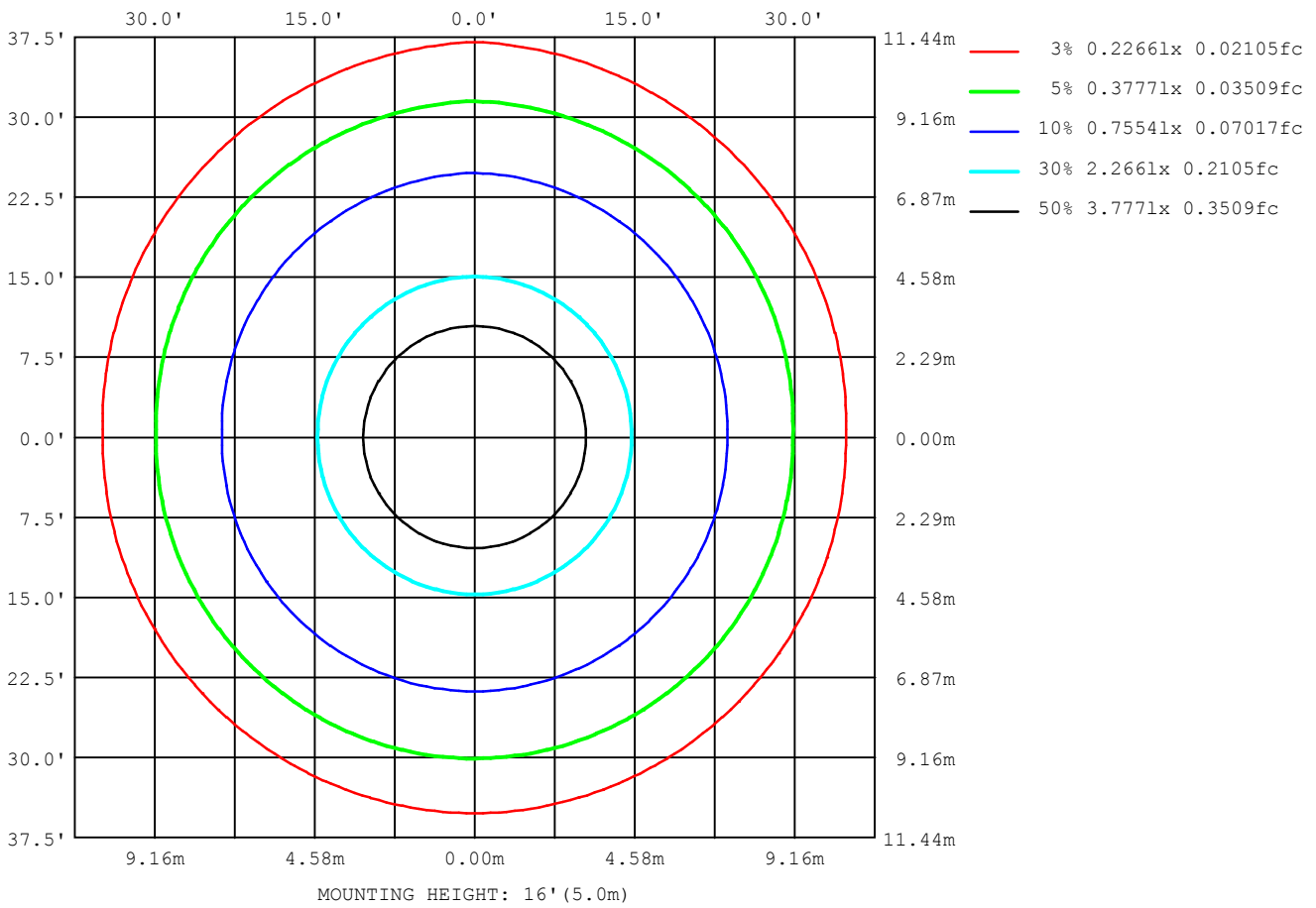
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

ISOLUX DIAGRAM

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: CHM  
 Test Date: 2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 9.727m [K=1.0000]  
 Remarks: 2200-2400K

LED Avg.L Report

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

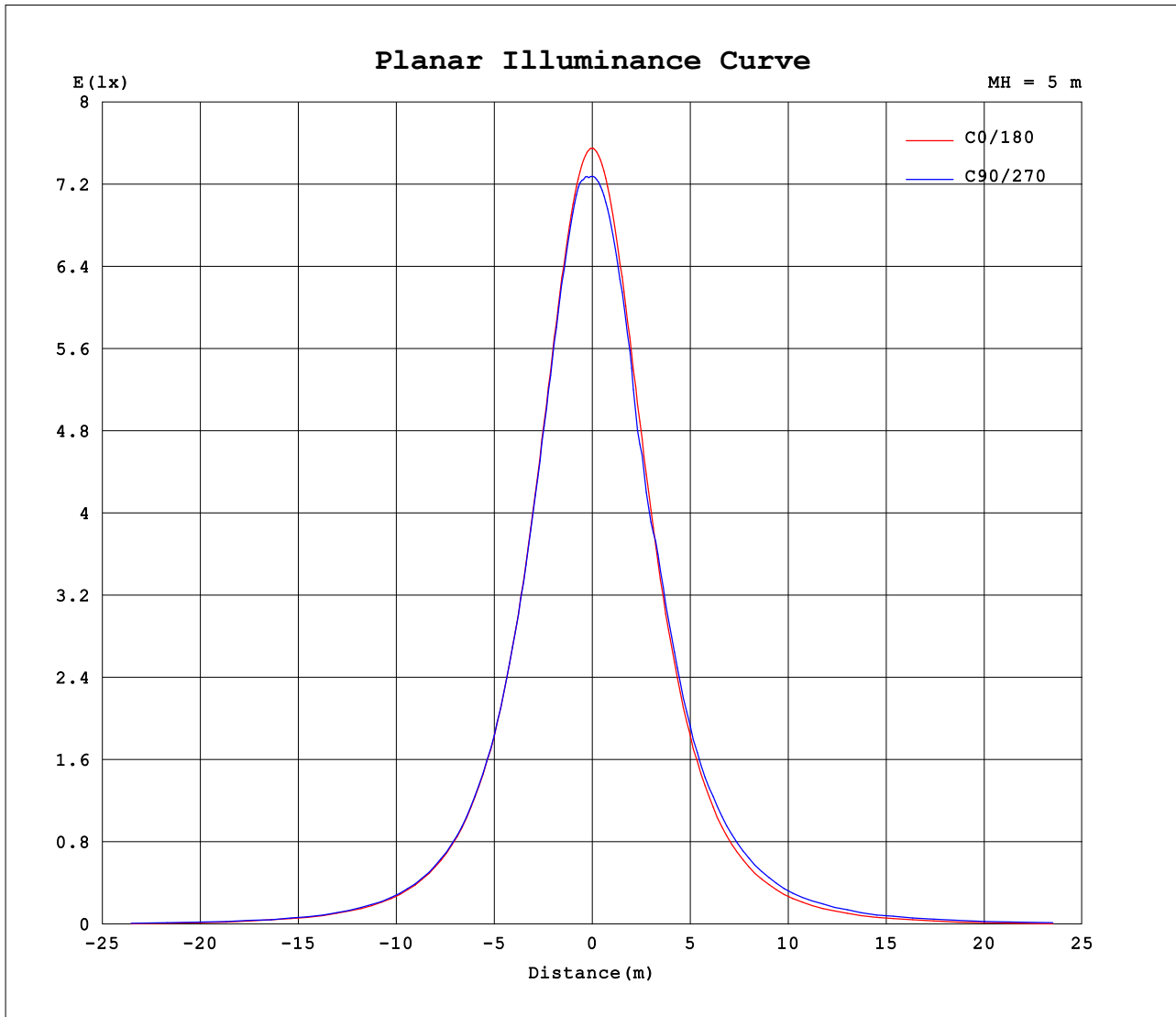
AvgL	cd/m2
L_0~180 (65) av	41932
L_0~180 (75) av	37176
L_0~180 (85) av	25888
L_90~270 (65) av	47046
L_90~270 (75) av	49551
L_90~270 (85) av	72315
L_45 (65) av	45137
L_45 (75) av	44923
L_45 (85) av	54934

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: CHM  
 Test Date: 2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity: 65.0%  
 Test Distance: 9.727m [K=1.0000]  
 Remarks: 2200-2400K

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:11.998V I:0.5921A P:7.1040W PF:1.0000 Freq:59.98Hz Lamp Flux:602.151x1 lm		
NAME: TF5BSC-AP-IP66	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ γ (DEG)	0	90	180	270															
0	189	182	189	182															
5	188	183	188	182															
10	186	184	186	180															
15	182	180	182	177															
20	177	175	177	173															
25	170	168	170	162															
30	162	161	162	156															
35	152	152	153	157															
40	142	141	142	147															
45	130	130	130	137															
50	117	118	117	126															
55	103	105	103	116															
60	88.1	90.5	88.6	103															
65	72.4	75.6	72.9	87.4															
70	56.0	60.4	56.4	73.6															
75	39.2	45.1	39.7	60.1															
80	23.0	30.9	23.4	45.9															
85	9.08	19.1	9.42	32.6															
90	0.80	11.4	0.91	20.1															
95	0.55	8.02	0.52	10.9															
100	0.66	5.29	0.63	3.85															
105	0.78	5.07	0.75	2.43															
110	0.90	4.44	0.90	1.90															
115	1.01	3.82	1.02	1.68															
120	1.13	4.65	1.15	1.51															
125	1.25	5.71	1.27	1.52															
130	1.37	7.49	1.40	1.63															
135	1.51	8.14	1.51	1.76															
140	1.59	7.57	1.60	1.87															
145	1.68	6.31	1.71	1.96															
150	1.76	4.91	1.80	2.03															
155	1.83	3.94	1.87	2.11															
160	1.91	3.28	1.95	2.14															
165	2.01	2.81	2.02	2.19															
170	2.05	2.45	2.07	2.23															
175	2.10	2.31	2.09	2.27															
180	2.12	2.30	2.11	2.32															

C Range: 0 - 360DEG  
 C Interval: 90.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:CHM  
 Test Date:2022-09-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.366  
 Humidity:65.0%  
 Test Distance:9.727m [K=1.0000]  
 Remarks: 2200-2400K