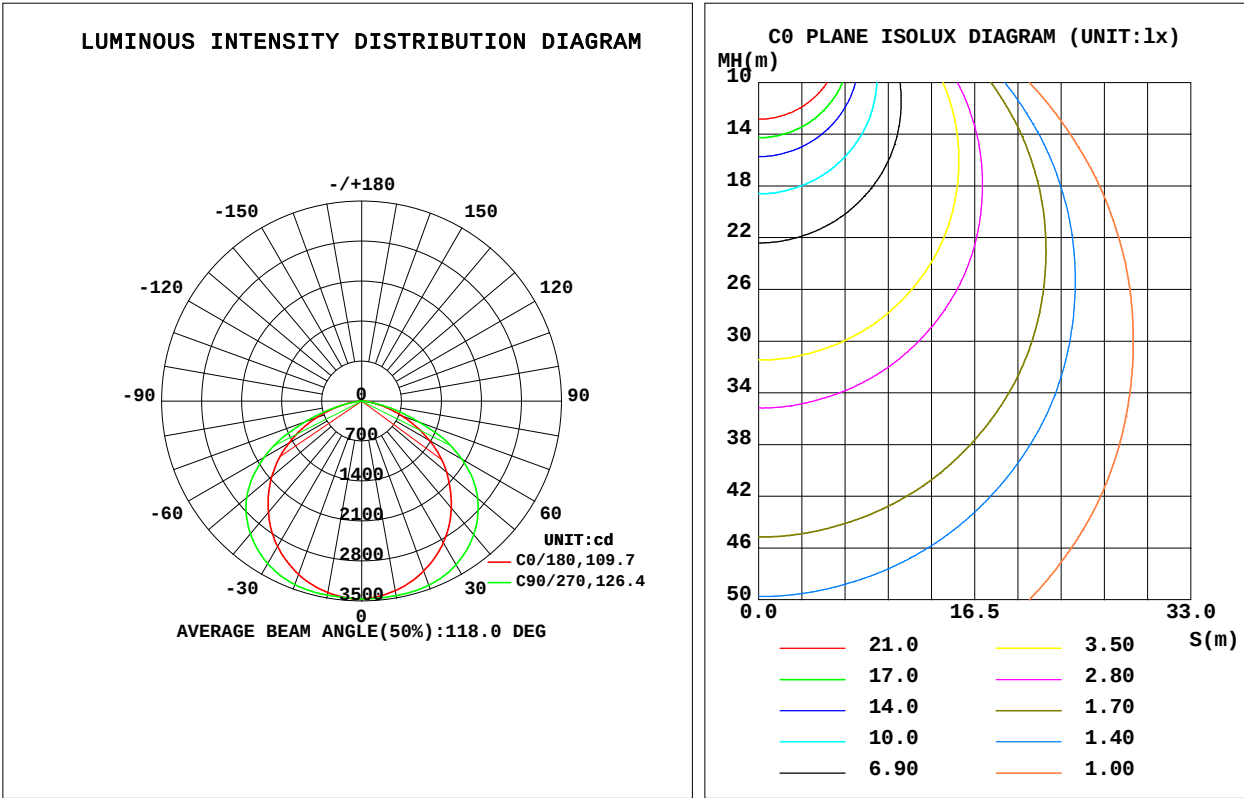


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 127.70 lm/W			
MODEL		I _{max} (cd)	3465	S/MH(C0/180)	1.24
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.42
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	10701	η UP, DN(C0-180)	0.0,50.2
NOMINAL FLUX(lm)	10701.1	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,49.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220	η down(%)	100.0	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [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	3402	3434	3449	3397	3370	3411	3457	3434	0- 10	328.2	328.2	3.07, 3.07
20	3228	3358	3419	3287	3167	3316	3432	3353	10- 20	955.7	1284	12, 12
30	2945	3194	3287	3092	2864	3134	3306	3181	20- 30	1493	2777	25.9, 25.9
40	2542	2921	3031	2801	2440	2845	3051	2902	30- 40	1869	4645	43.4, 43.4
50	2057	2520	2632	2392	1945	2421	2652	2495	40- 50	2019	6664	62.3, 62.3
60	1474	1951	1970	1823	1362	1821	2018	1923	50- 60	1885	8550	79.9, 79.9
70	831.7	1181	1031	1053	742.9	1056	1065	1171	60- 70	1399	9949	93, 93
80	247.8	366.6	205.2	302.2	208.7	274.6	237.8	358.8	70- 80	660.5	10609	99.1, 99.1
90	6.732	5.520	4.146	6.837	3.595	7.573	4.343	6.367	80- 90	92.11	10701	100, 100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 5652 lm

%lum = 52.8%
%lamp = 52.8%

Conical surface Flux(120deg): 8549.7 lm

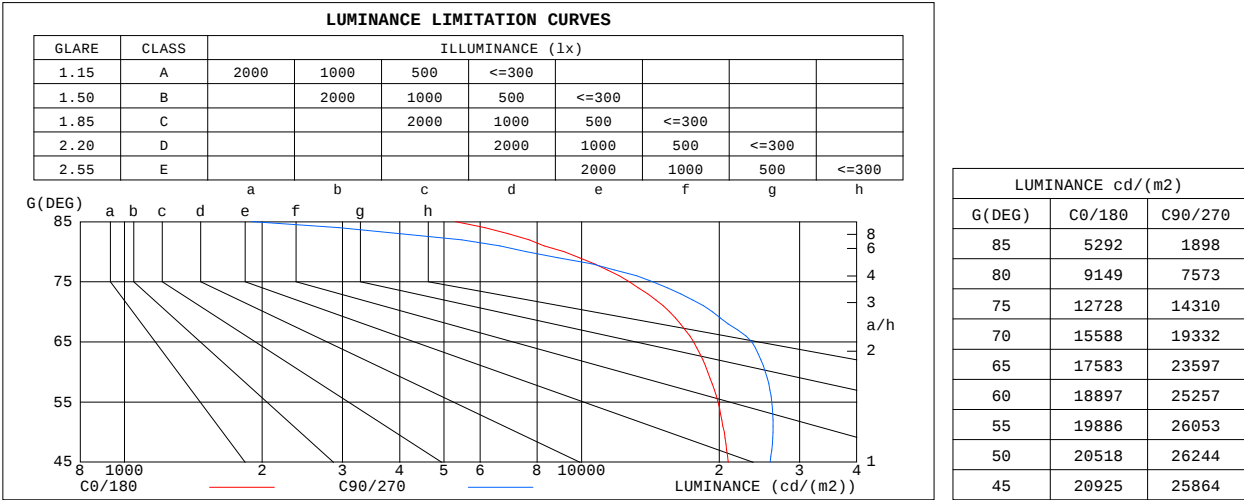
%lum = 79.9%
%lamp = 79.9%

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.526m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



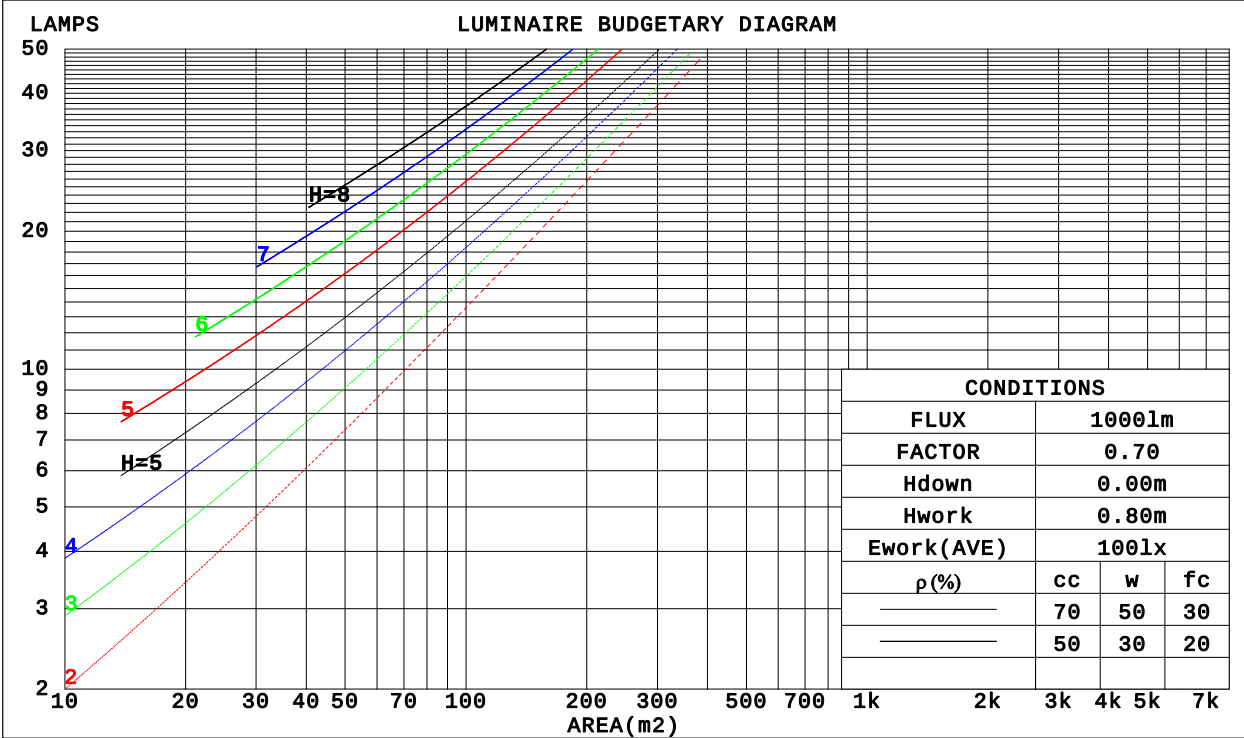
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1.0	1.04	1.00	.96	1.02	.98	.95	.98	.95	.92	.94	.91	.89	.90	.88	.86	.84
2.0	.91	.84	.78	.89	.83	.77	.85	.80	.76	.82	.78	.74	.79	.75	.72	.70
3.0	.80	.71	.65	.78	.70	.64	.75	.68	.63	.72	.67	.62	.70	.65	.61	.59
4.0	.70	.61	.55	.69	.61	.54	.66	.59	.53	.64	.58	.53	.62	.56	.52	.50
5.0	.63	.53	.47	.61	.53	.47	.59	.52	.46	.57	.51	.45	.55	.50	.45	.43
6.0	.56	.47	.41	.55	.47	.40	.53	.46	.40	.52	.45	.40	.50	.44	.39	.37
7.0	.51	.42	.36	.50	.42	.36	.48	.41	.35	.47	.40	.35	.46	.39	.35	.33
8.0	.46	.38	.32	.45	.37	.32	.44	.37	.31	.43	.36	.31	.42	.36	.31	.29
9.0	.42	.34	.28	.42	.34	.28	.41	.33	.28	.39	.33	.28	.38	.32	.28	.26
10.0	.39	.31	.26	.38	.31	.26	.37	.30	.25	.36	.30	.25	.36	.30	.25	.23



C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm					
NAME: UNF-20210015-TDC 单上 2700K			TYPE:		WEIGHT:
SPEC.:			DIM.:		SERIAL No.:
MFR.:			SUR.:		Shielding Angle:

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						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.299	.170	.054	.292	.167	.053	.279	.160	.051	.267	.154	.049	.256	.148	.048		
2.0	.288	.158	.048	.281	.155	.048	.270	.150	.047	.259	.145	.045	.249	.141	.044		
3.0	.269	.143	.043	.263	.141	.042	.253	.137	.042	.243	.133	.041	.234	.130	.040		
4.0	.249	.130	.038	.244	.128	.038	.235	.125	.037	.227	.122	.037	.219	.119	.036		
5.0	.231	.118	.034	.227	.116	.034	.219	.114	.034	.211	.111	.033	.204	.109	.033		
6.0	.215	.108	.031	.211	.106	.031	.204	.104	.030	.197	.102	.030	.190	.100	.030		
7.0	.200	.099	.028	.197	.098	.028	.190	.096	.028	.184	.094	.027	.178	.093	.027		
8.0	.187	.091	.026	.184	.091	.026	.178	.089	.025	.173	.087	.025	.167	.086	.025		
9.0	.175	.085	.024	.172	.084	.024	.167	.083	.023	.162	.081	.023	.158	.080	.023		
10.0	.165	.079	.022	.162	.078	.022	.158	.077	.022	.153	.076	.022	.149	.075	.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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.180	.156	.135	.154	.134	.116	.105	.092	.080	.060	.053	.047	.019	.017	.015		
2.0	.172	.132	.099	.147	.114	.085	.101	.079	.059	.058	.046	.035	.019	.015	.011		
3.0	.164	.114	.074	.141	.099	.065	.097	.068	.045	.056	.040	.027	.018	.013	.009		
4.0	.157	.101	.058	.135	.087	.051	.093	.061	.036	.054	.036	.021	.017	.012	.007		
5.0	.150	.091	.047	.129	.078	.041	.089	.055	.029	.051	.032	.017	.017	.010	.006		
6.0	.143	.082	.039	.123	.071	.034	.085	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.136	.075	.033	.117	.065	.029	.081	.046	.020	.047	.027	.012	.015	.009	.004		
8.0	.129	.070	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.015	.008	.003		
9.0	.123	.065	.025	.106	.056	.022	.074	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.118	.060	.022	.101	.052	.019	.070	.037	.014	.041	.022	.008	.013	.007	.003		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.526m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm											
NAME: UNF-20210015-TDC 单上 2700K					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	23.6	25.2	23.9	25.4	25.6	24.7	26.2	24.9	26.4	26.6	
	3H	24.9	26.3	25.2	26.5	26.8	26.0	27.4	26.3	27.6	27.9
	4H	25.3	26.6	25.6	26.9	27.1	26.3	27.7	26.6	27.9	28.2
	6H	25.5	26.7	25.8	27.0	27.3	26.4	27.7	26.7	28.0	28.2
	8H	25.5	26.7	25.8	27.0	27.3	26.4	27.6	26.7	27.9	28.2
	12H	25.4	26.6	25.8	26.9	27.2	26.3	27.5	26.7	27.8	28.1
4H	2H	24.5	25.8	24.8	26.1	26.3	25.2	26.6	25.6	26.8	27.1
	3H	25.9	27.1	26.3	27.4	27.7	26.8	27.9	27.1	28.2	28.5
	4H	26.4	27.5	26.8	27.8	28.1	27.2	28.3	27.6	28.6	28.9
	6H	26.7	27.6	27.1	28.0	28.3	27.4	28.3	27.8	28.7	29.0
	8H	26.7	27.6	27.1	27.9	28.3	27.4	28.2	27.8	28.6	29.0
	12H	26.7	27.5	27.1	27.9	28.3	27.3	28.1	27.8	28.5	28.9
8H	4H	26.7	27.6	27.1	27.9	28.3	27.4	28.3	27.8	28.6	29.0
	6H	27.0	27.8	27.5	28.2	28.6	27.6	28.4	28.1	28.8	29.2
	8H	27.1	27.8	27.6	28.2	28.6	27.7	28.3	28.1	28.7	29.2
	12H	27.1	27.7	27.6	28.1	28.6	27.7	28.2	28.1	28.7	29.1
12H	4H	26.7	27.5	27.1	27.9	28.3	27.4	28.2	27.8	28.6	29.0
	6H	27.1	27.7	27.5	28.1	28.6	27.7	28.3	28.1	28.7	29.2
	8H	27.2	27.7	27.6	28.2	28.6	27.7	28.2	28.2	28.7	29.2
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.2					
1.5H	+ 0.3 / - 0.5					+ 0.3 / - 0.4					
2.0H	+ 0.3 / - 0.7					+ 0.2 / - 0.5					

CIE Pub.117 Corrected 10701 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.2)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

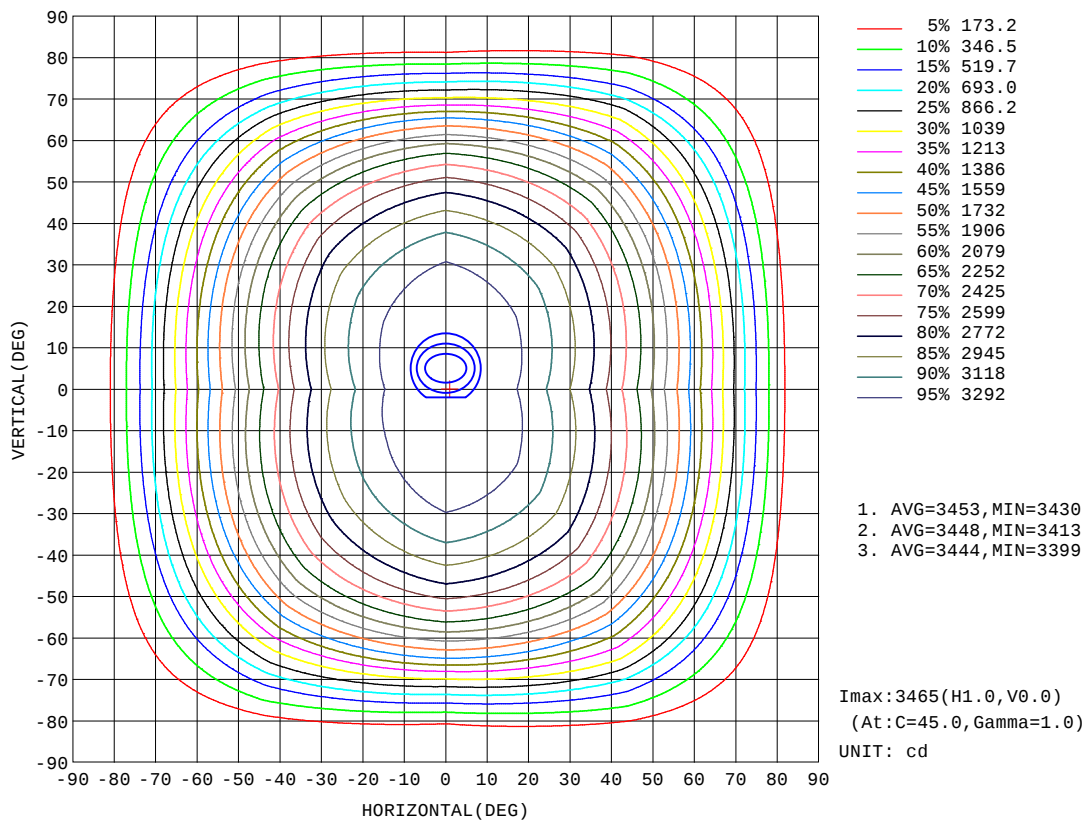
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	59	46	38	58	45	37	55	44	37	29
0.80	70	56	48	68	56	47	64	54	46	38
1.00	77	65	56	75	64	56	72	62	55	46
1.25	84	73	65	82	72	64	78	69	62	54
1.50	90	79	71	87	78	70	83	75	69	59
2.00	97	88	81	94	86	80	90	83	78	68
2.50	101	93	87	98	91	86	94	88	83	73
3.00	104	97	91	101	95	90	96	91	87	77
4.00	107	102	97	105	100	96	100	96	92	82
5.00	110	105	101	107	103	99	102	99	96	86
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Ceiling Mounted					SHRNOM = 1.00		

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.526m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

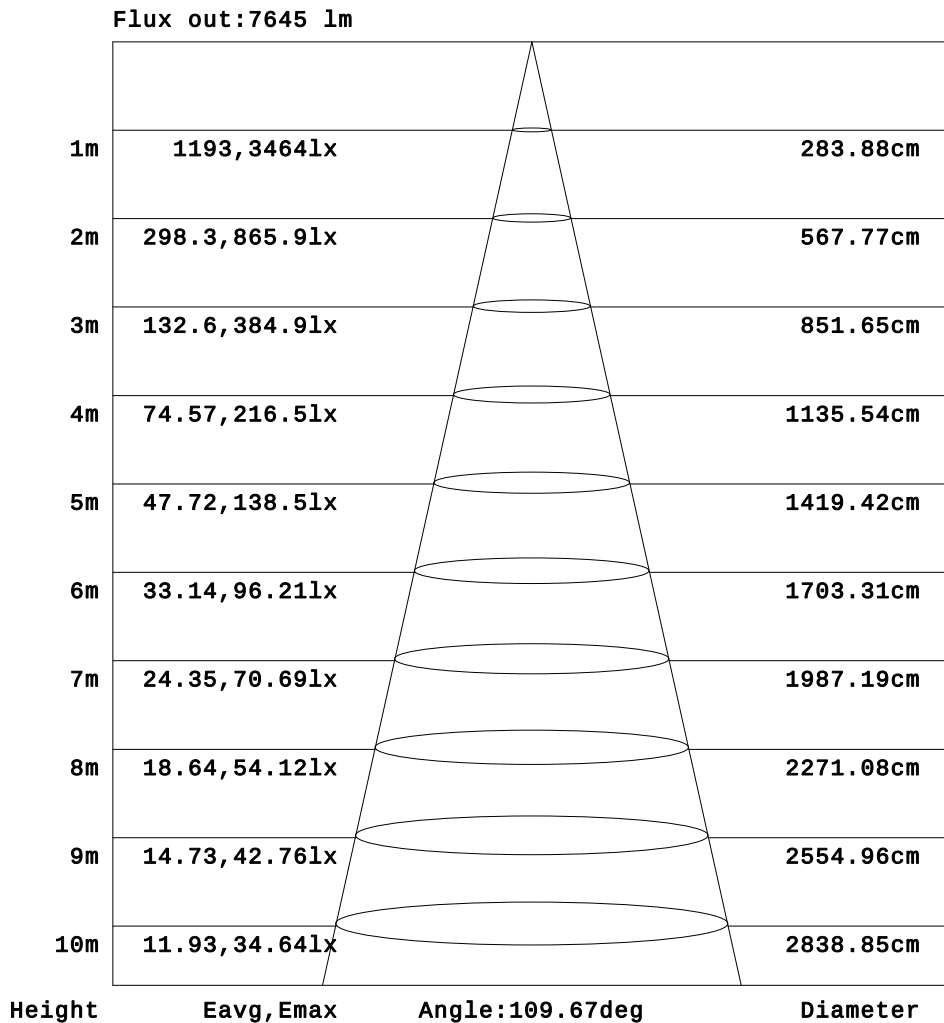


C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2024-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.526m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



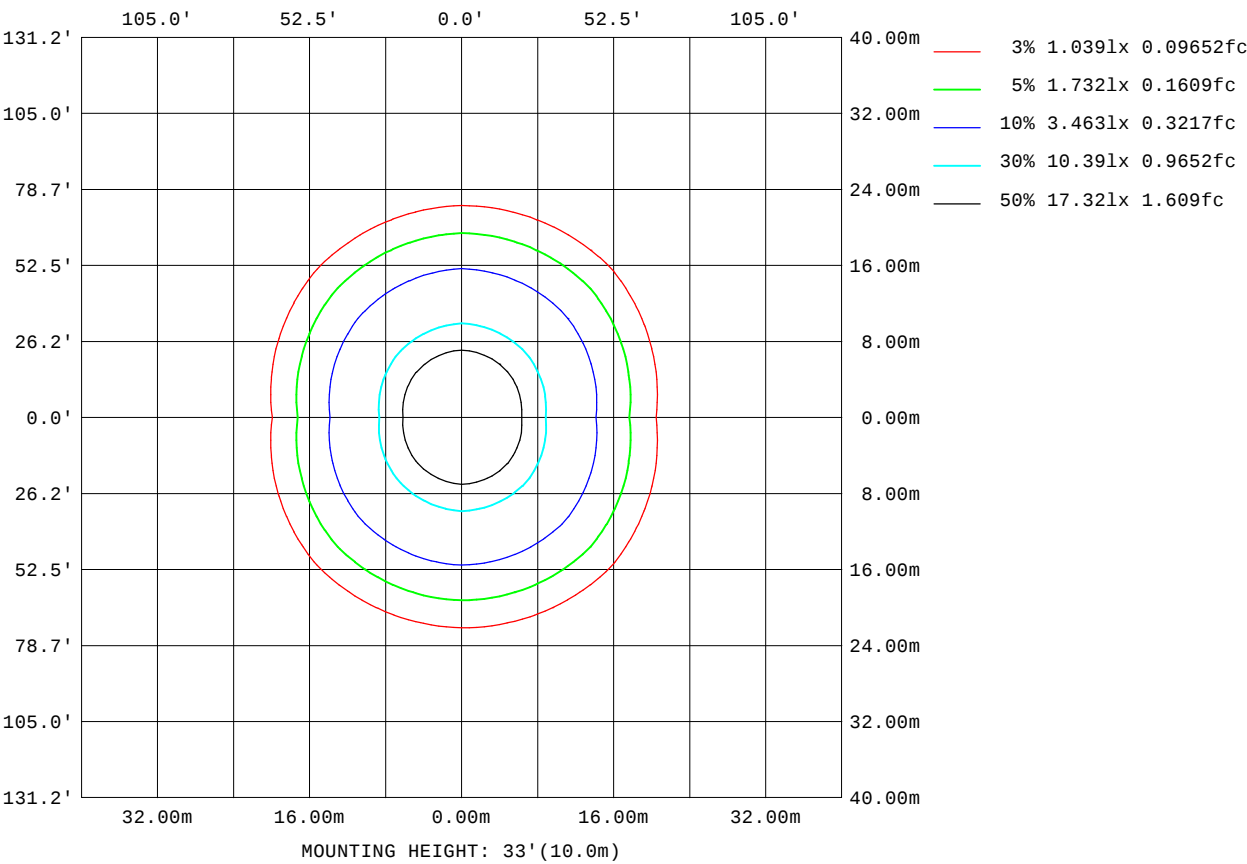
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-12-12

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:220.8V I:0.3850A P:83.80W PF:0.9840 Lamp Flux:10701.1x1 lm		
NAME: UNF-20210015-TDC 单上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

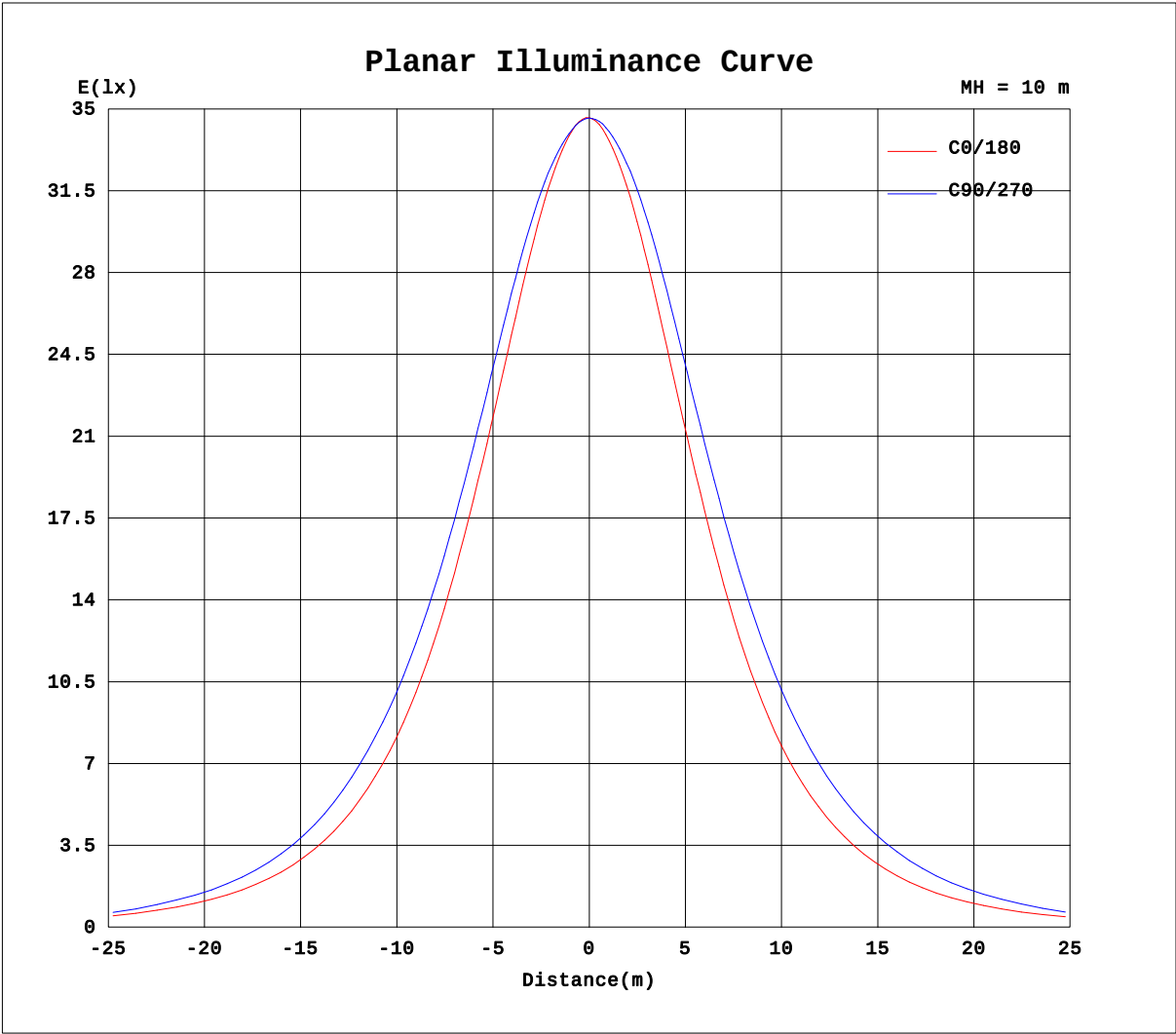
AvgL	cd/m2
L_0~180(65)av	16731
L_0~180(75)av	11891
L_0~180(85)av	4438
L_90~270(65)av	23944
L_90~270(75)av	14781
L_90~270(85)av	2158
L_45(65)av	22882
L_45(75)av	17092
L_45(85)av	4467

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2024-12-12

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.526m [K=1.0000]
Remarks: