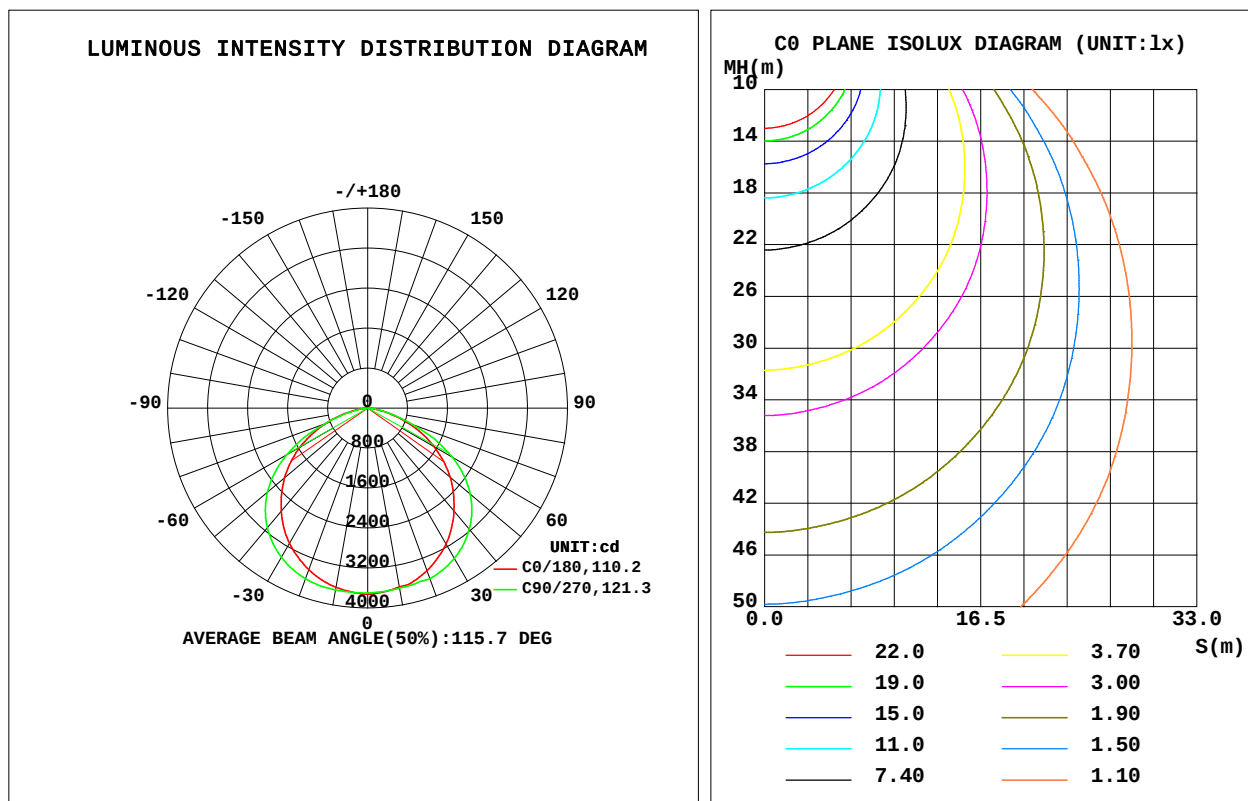


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 135.00 lm/W			
MODEL		I _{max} (cd)	3720	S/MH(C0/180)	1.25
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.40
RATED VOLTAGE(V)	220.0	TOTAL FLUX(lm)	11043	η UP, DN(C0-180)	0.0,50.0
NOMINAL FLUX(lm)	11043.1	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,50.0
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	220.0	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:2023-07-26

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [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	3641	3677	3693	3643	3635	3634	3659	3639	0- 10	350.8	350.8	3.18, 3.18
20	3441	3612	3634	3567	3463	3507	3636	3532	10- 20	1021	1372	12.4, 12.4
30	3130	3399	3451	3347	3140	3291	3471	3331	20- 30	1591	2963	26.8, 26.8
40	2690	3064	3123	3005	2687	2961	3164	3013	30- 40	1976	4939	44.7, 44.7
50	2173	2580	2618	2515	2157	2487	2680	2551	40- 50	2108	7047	63.8, 63.8
60	1572	1911	1872	1834	1529	1831	1944	1911	50- 60	1924	8971	81.2, 81.2
70	883.2	1081	890.8	1015	843.2	1012	945.3	1099	60- 70	1377	10348	93.7, 93.7
80	244.9	310.2	176.8	252.7	223.8	256.1	204.9	309.1	70- 80	612.7	10961	99.3, 99.3
90	3.757	4.587	3.878	5.134	3.809	4.287	3.584	4.483	80- 90	81.88	11043	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): 5994.6 lm

%lum = 54.3%
 %lamp = 54.3%

Conical surface Flux(120deg): 8971.1 lm

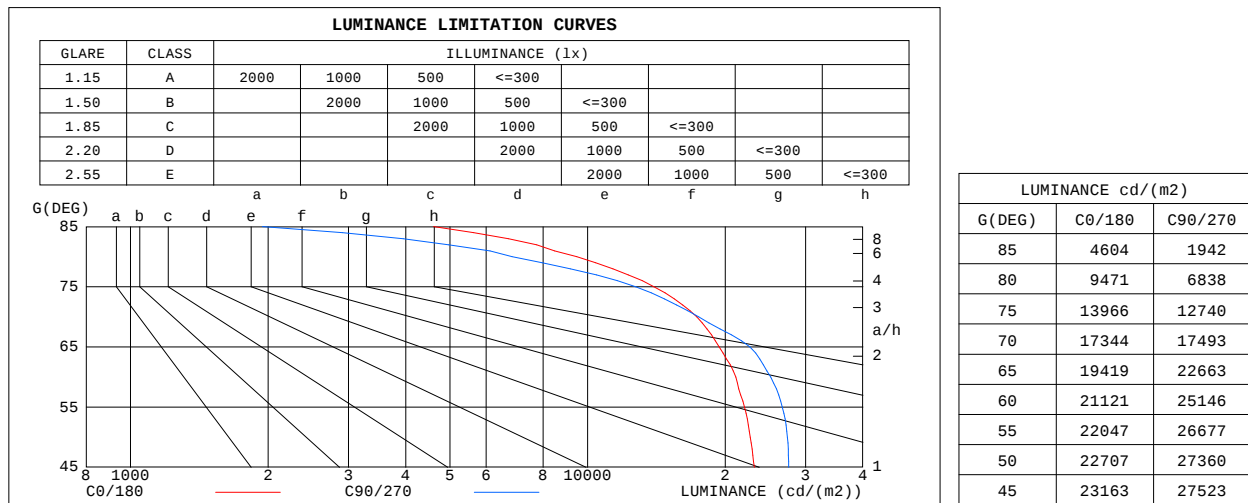
%lum = 81.2%
 %lamp = 81.2%

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.460m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



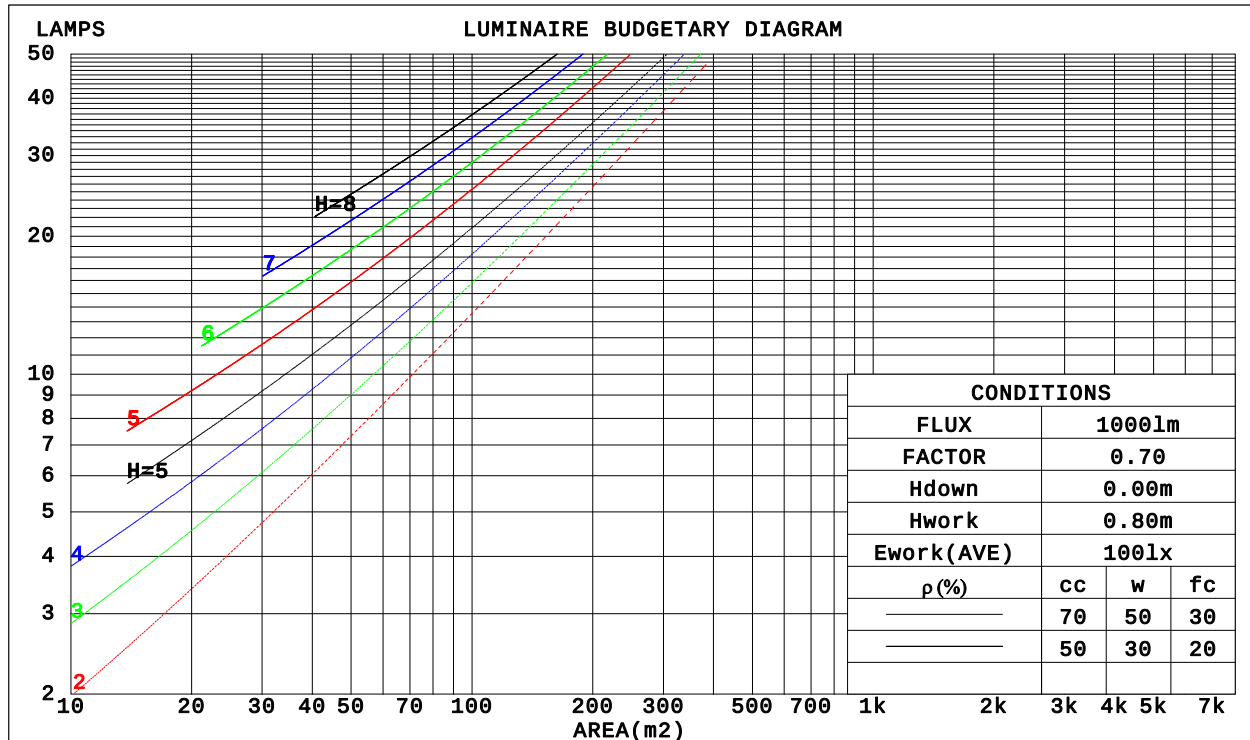
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 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	1.05	1.01	.97	1.02	.99	.95	.98	.95	.92	.94	.92	.90	.91	.89	.87	.85
2.0	.91	.85	.79	.90	.83	.78	.86	.81	.76	.83	.78	.75	.80	.76	.73	.71
3.0	.80	.72	.66	.79	.71	.65	.76	.69	.64	.73	.67	.63	.70	.66	.62	.60
4.0	.71	.62	.56	.70	.61	.55	.67	.60	.54	.65	.59	.54	.63	.57	.53	.51
5.0	.63	.54	.48	.62	.54	.47	.60	.53	.47	.58	.51	.46	.56	.50	.46	.44
6.0	.57	.48	.41	.56	.47	.41	.54	.47	.41	.52	.46	.41	.51	.45	.40	.38
7.0	.51	.43	.36	.51	.42	.36	.49	.42	.36	.48	.41	.36	.46	.40	.36	.34
8.0	.47	.38	.32	.46	.38	.32	.45	.37	.32	.44	.37	.32	.42	.36	.32	.30
9.0	.43	.35	.29	.42	.34	.29	.41	.34	.29	.40	.33	.29	.39	.33	.29	.27
10.0	.40	.32	.26	.39	.31	.26	.38	.31	.26	.37	.31	.26	.36	.30	.26	.24



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm					
NAME: UNF-20210015-TDC 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	.293	.167	.053	.286	.163	.052	.273	.157	.050	.261	.150	.048	.250	.145	.047		
2.0	.282	.155	.047	.276	.152	.047	.265	.147	.046	.254	.142	.045	.244	.138	.043		
3.0	.264	.141	.042	.259	.139	.042	.249	.135	.041	.239	.131	.040	.230	.128	.039		
4.0	.246	.128	.038	.241	.126	.037	.232	.123	.037	.223	.120	.036	.215	.117	.036		
5.0	.228	.116	.034	.224	.115	.034	.216	.112	.033	.208	.110	.033	.201	.108	.032		
6.0	.212	.106	.030	.209	.105	.030	.201	.103	.030	.195	.101	.030	.188	.099	.029		
7.0	.198	.098	.028	.195	.097	.028	.188	.095	.027	.182	.093	.027	.177	.092	.027		
8.0	.185	.091	.025	.182	.090	.025	.177	.088	.025	.171	.087	.025	.166	.085	.025		
9.0	.174	.084	.023	.171	.083	.023	.166	.082	.023	.161	.081	.023	.156	.079	.023		
10.0	.164	.078	.022	.161	.078	.022	.156	.077	.022	.152	.076	.021	.148	.074	.021		

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						Ceiling Cavity Exitance Coefficients(CCEC)										
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020		
1.0	.179	.156	.136	.153	.134	.117	.105	.092	.081	.060	.053	.047	.019	.017	.015		
2.0	.171	.132	.099	.146	.114	.086	.100	.079	.060	.058	.046	.035	.019	.015	.011		
3.0	.163	.114	.075	.140	.099	.065	.096	.068	.046	.056	.040	.027	.018	.013	.009		
4.0	.156	.101	.059	.134	.087	.051	.092	.061	.036	.053	.036	.021	.017	.012	.007		
5.0	.149	.091	.047	.128	.078	.041	.088	.055	.029	.051	.032	.017	.016	.010	.006		
6.0	.142	.082	.039	.122	.071	.034	.084	.050	.024	.049	.029	.014	.016	.010	.005		
7.0	.135	.075	.033	.116	.065	.029	.080	.046	.021	.047	.027	.012	.015	.009	.004		
8.0	.129	.069	.029	.111	.060	.025	.077	.042	.018	.045	.025	.011	.014	.008	.004		
9.0	.123	.065	.025	.106	.056	.022	.073	.039	.016	.043	.023	.009	.014	.008	.003		
10.0	.117	.060	.022	.101	.052	.020	.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: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.460m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm											
NAME: UNF-20210015-TDC 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	23.9	25.4	24.2	25.6	25.8	24.6	26.1	24.9	26.3	26.5	
	3H	25.1	26.5	25.4	26.8	27.0	25.7	27.1	26.0	27.3	27.6
	4H	25.5	26.8	25.8	27.1	27.3	26.0	27.3	26.3	27.6	27.8
	6H	25.7	26.9	26.0	27.2	27.5	26.0	27.3	26.4	27.5	27.8
	8H	25.7	26.9	26.0	27.2	27.4	26.0	27.2	26.3	27.5	27.8
	12H	25.6	26.8	26.0	27.1	27.4	26.0	27.1	26.3	27.4	27.7
4H	2H	24.6	26.0	25.0	26.2	26.5	25.2	26.5	25.5	26.7	27.0
	3H	26.0	27.2	26.4	27.5	27.8	26.4	27.6	26.8	27.9	28.2
	4H	26.5	27.5	26.9	27.9	28.2	26.8	27.8	27.2	28.2	28.5
	6H	26.7	27.6	27.1	28.0	28.4	26.9	27.8	27.3	28.2	28.6
	8H	26.7	27.6	27.1	28.0	28.4	26.9	27.8	27.3	28.1	28.5
	12H	26.7	27.5	27.2	27.9	28.3	26.9	27.7	27.3	28.0	28.5
8H	4H	26.7	27.5	27.1	27.9	28.3	27.0	27.8	27.4	28.2	28.6
	6H	27.0	27.7	27.4	28.1	28.5	27.2	27.9	27.6	28.3	28.7
	8H	27.1	27.7	27.5	28.1	28.6	27.2	27.8	27.6	28.2	28.7
	12H	27.1	27.6	27.5	28.0	28.5	27.2	27.7	27.6	28.1	28.6
12H	4H	26.7	27.5	27.1	27.8	28.2	26.9	27.7	27.4	28.1	28.5
	6H	27.0	27.6	27.5	28.0	28.5	27.2	27.8	27.6	28.2	28.7
	8H	27.1	27.6	27.5	28.1	28.5	27.2	27.7	27.7	28.2	28.6
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
1.5H	+ 0.3 / - 0.6					+ 0.3 / - 0.5					
2.0H	+ 0.3 / - 0.6					+ 0.3 / - 0.5					

CIE Pub.117 Corrected 11043 lm Total Lamp Luminous Flux.(8log(F/F0) = 8.3)

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

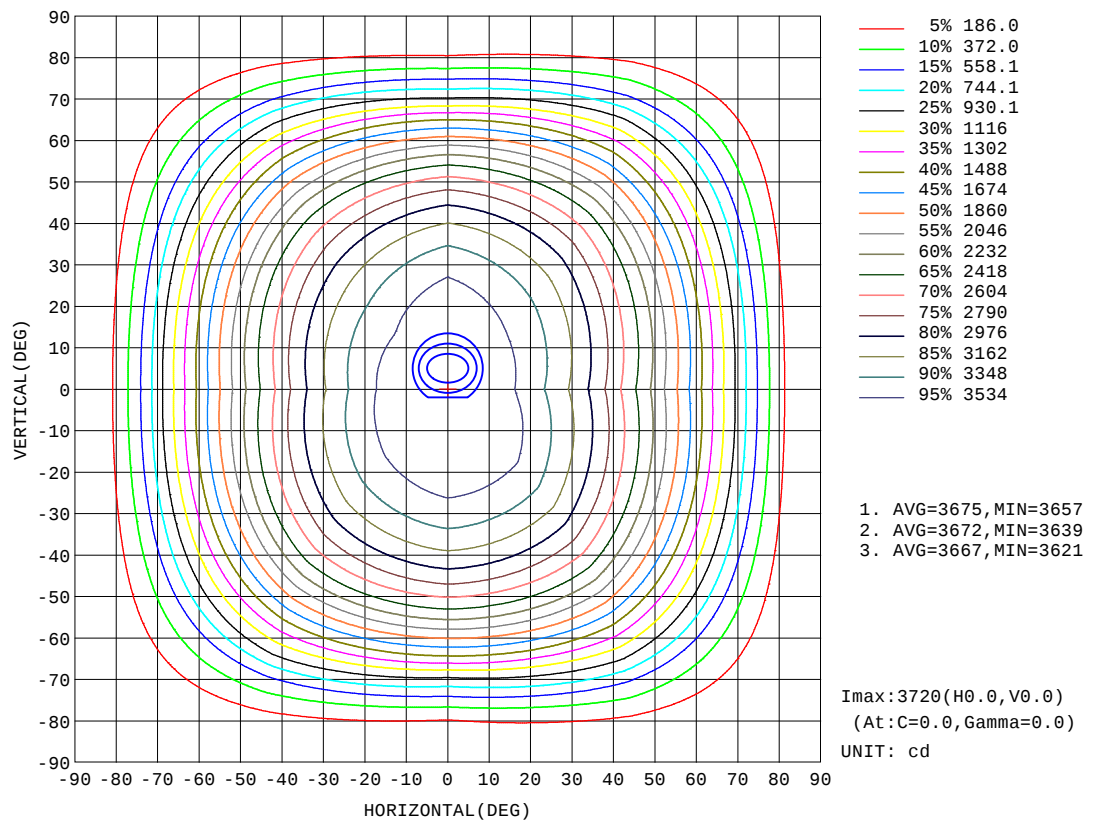
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	60	47	38	59	46	38	56	45	38	30
0.80	70	57	49	68	56	48	65	55	47	39
1.00	78	66	57	76	65	57	72	63	56	47
1.25	85	74	66	83	73	65	79	70	63	55
1.50	90	80	72	88	78	71	84	76	69	60
2.00	97	89	82	95	87	81	90	84	79	69
2.50	101	94	88	99	92	86	94	88	84	74
3.00	104	98	92	101	96	91	97	92	88	78
4.00	108	102	98	105	100	96	100	96	93	83
5.00	110	105	102	107	103	100	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: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.460m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



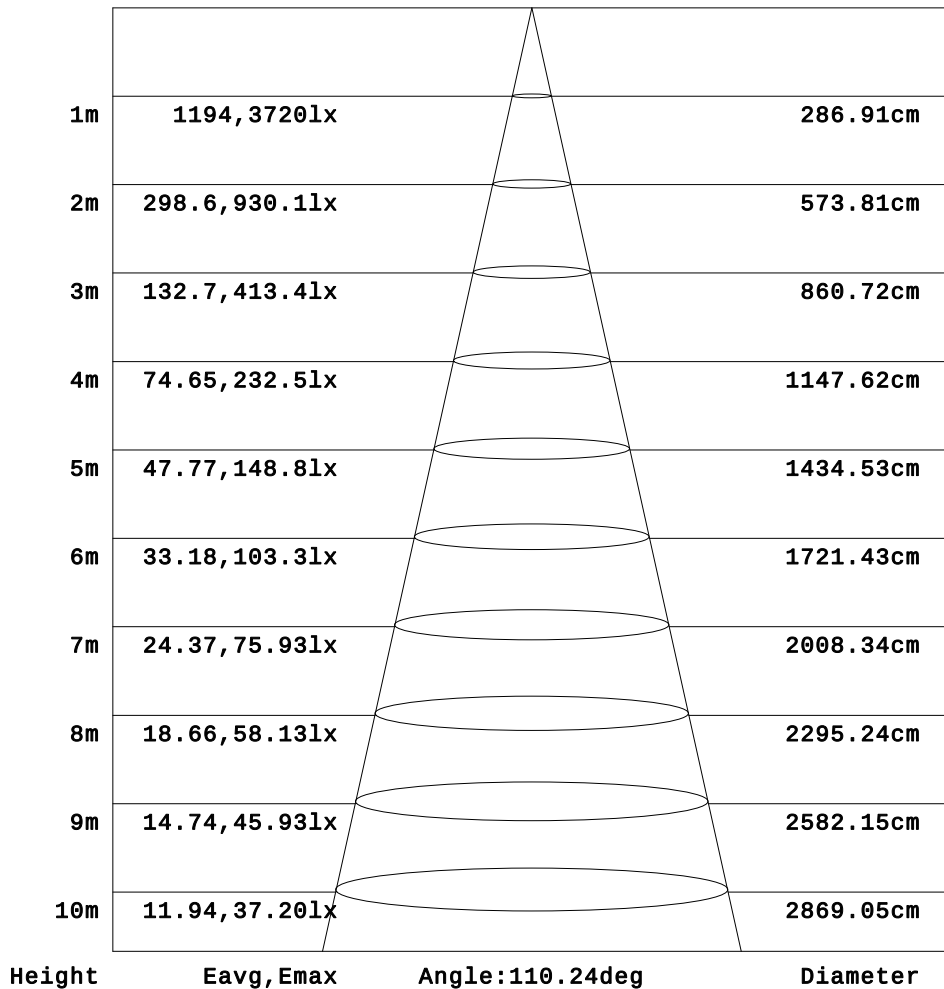
C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators:
Test Date: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity: 65.0%
Test Distance: 9.460m [K=1.0000]
Remarks:

AAI Figure

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:8247 lm



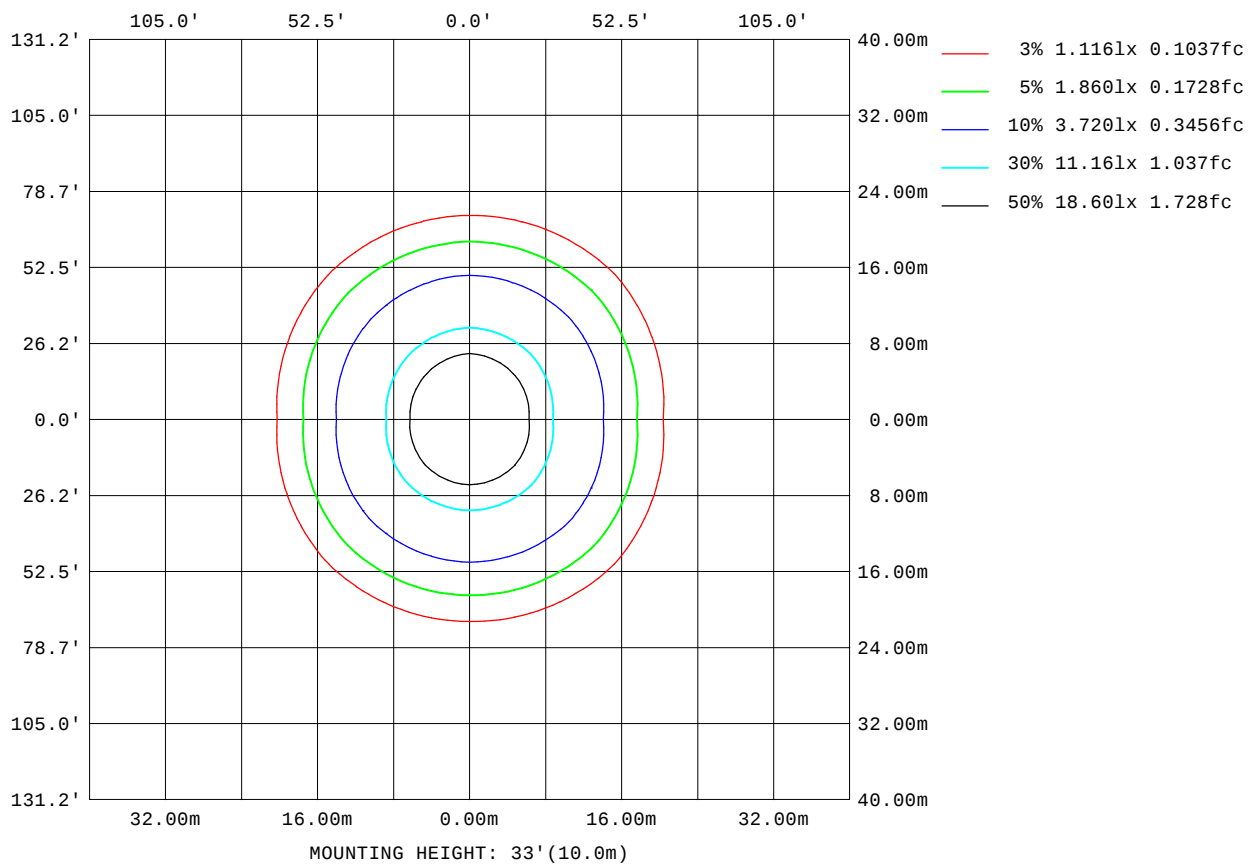
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 45.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity:65.0%
 Test Distance:9.460m [K=1.0000]
 Remarks:

ISOLUX DIAGRAM

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 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: 2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
 Humidity: 65.0%
 Test Distance: 9.460m [K=1.0000]
 Remarks:

LED Avg.L Report

Test:U:220.7V I:0.3790A P:81.80W PF:0.9760 Lamp Flux:11043.1x1 lm		
NAME: UNF-20210015-TDC 上 2700K	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

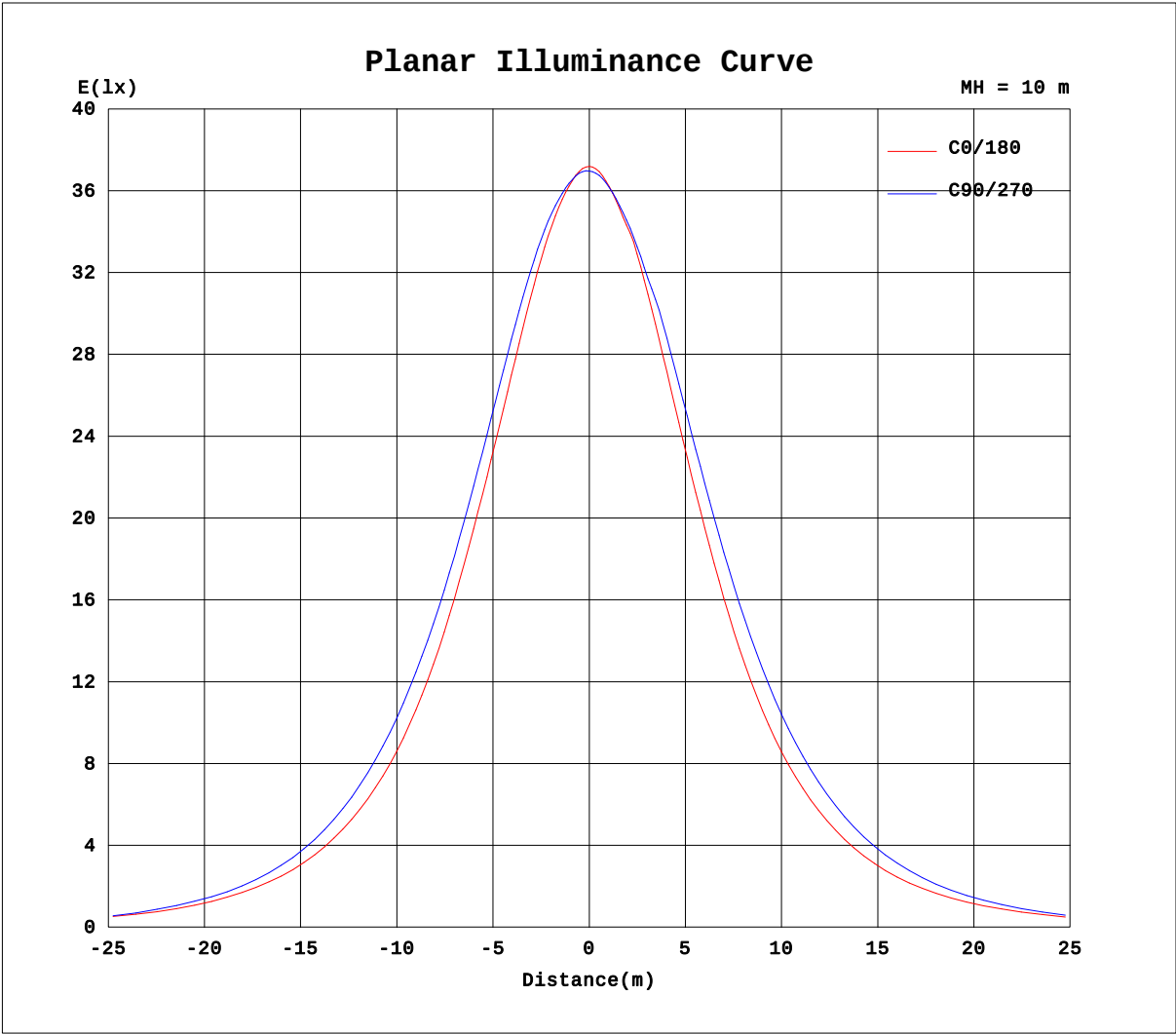
AvgL	cd/m2
L_0~180(65)av	19183
L_0~180(75)av	13475
L_0~180(85)av	4199
L_90~270(65)av	23122
L_90~270(75)av	13354
L_90~270(85)av	2187
L_45(65)av	23386
L_45(75)av	15833
L_45(85)av	4044

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 45.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:2023-07-26

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE G0-2000A_V1 SYSTEM V2.0.295T
Humidity:65.0%
Test Distance:9.460m [K=1.0000]
Remarks: