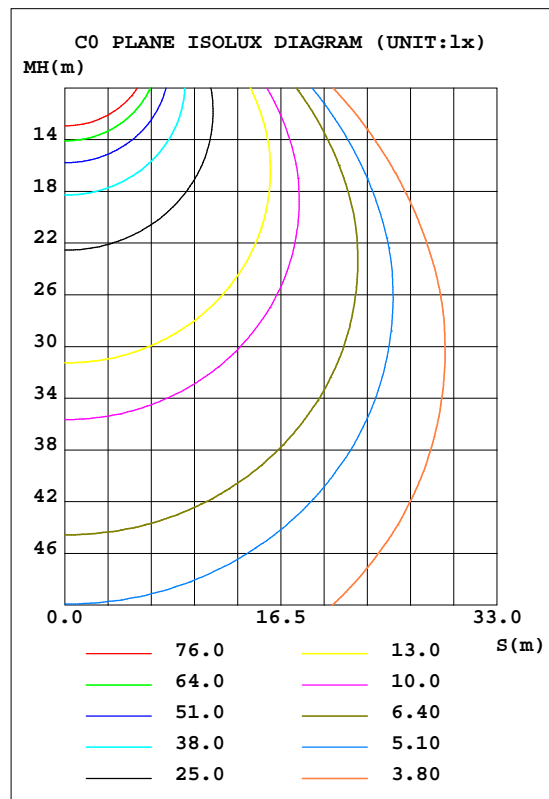
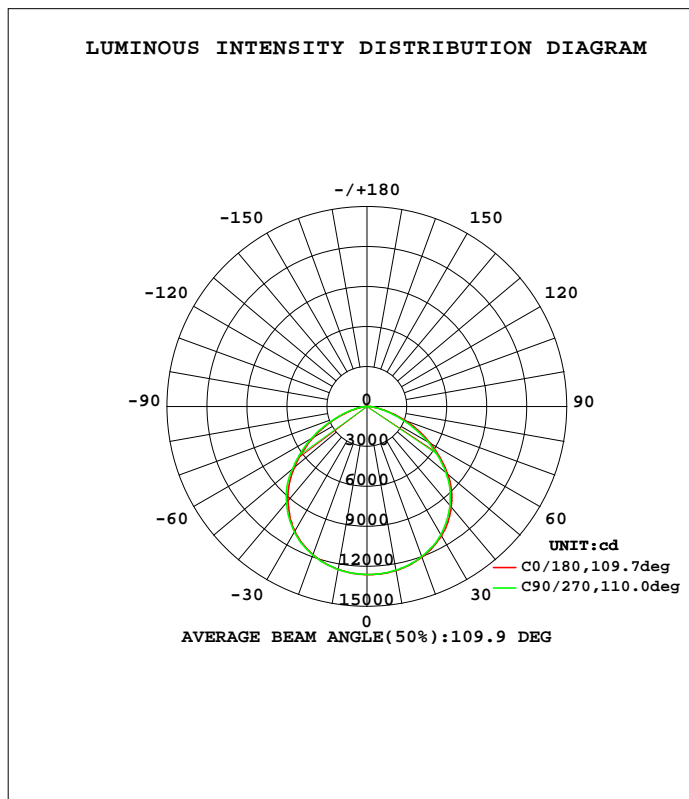


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 170.93 lm/W			
MODEL		I <sub>max</sub> (cd)	12629	S/MH(C0/180)	1.32
NOMINAL POWER(W)	200	LOR(%)	100.0	S/MH(C90/270)	1.30
RATED VOLTAGE(V)	220	TOTAL FLUX(lm)	34493	h UP, DN(C0-180)	0.0, 51.2
NOMINAL FLUX(lm)	34493.3	CIE CLASS	DIRECT	h UP, DN(C180-360)	0.0, 48.8
LAMPS INSIDE	1	h up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	220.7	h down(%)	100.0	CIBSE SHR MAX	1.35



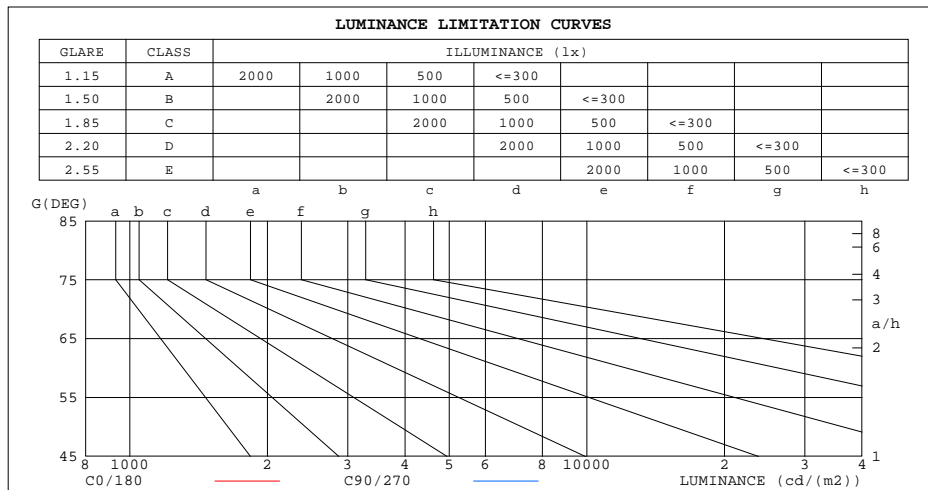
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:

ZONAL FLUX DIAGRAM  
AND LUMINANCE LIMITATION CURVES

ZONAL FLUX DIAGRAM:

g	C0	C45	C90	C135	C180	C225	C270	C315	g	F zone	F total	%lum,lamp
10	1249	1251	1247	1243	1240	1240	1242	1247	0- 10	1196	1196	3.47,3.47
20	1204	1206	1199	1189	1184	1183	1187	1197	10- 20	3456	4653	13.5,13.5
30	1120	1122	1110	1093	1084	1079	1090	1106	20- 30	5312	9965	28.9,28.9
40	984.3	986.4	967.6	940.8	923.9	924.7	940.3	965.5	30- 40	6457	16422	47.6,47.6
50	791.9	796.9	775.4	739.6	711.1	711.0	733.0	767.6	40- 50	6643	23064	66.9,66.9
60	544.4	550.8	526.8	490.9	466.8	464.4	482.5	518.7	50- 60	5634	28698	83.2,83.2
70	299.2	298.9	274.2	243.3	222.5	221.3	239.2	271.2	60- 70	3754	32452	94.1,94.1
80	99.27	101.2	89.86	72.47	59.07	57.96	69.46	86.55	70- 80	1689	34141	99,99
90	5.246	6.299	3.198	0.8486	0.9871	0.9984	0.9458	1.674	80- 90	352.3	34493	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:×10cd									UNIT:lm		



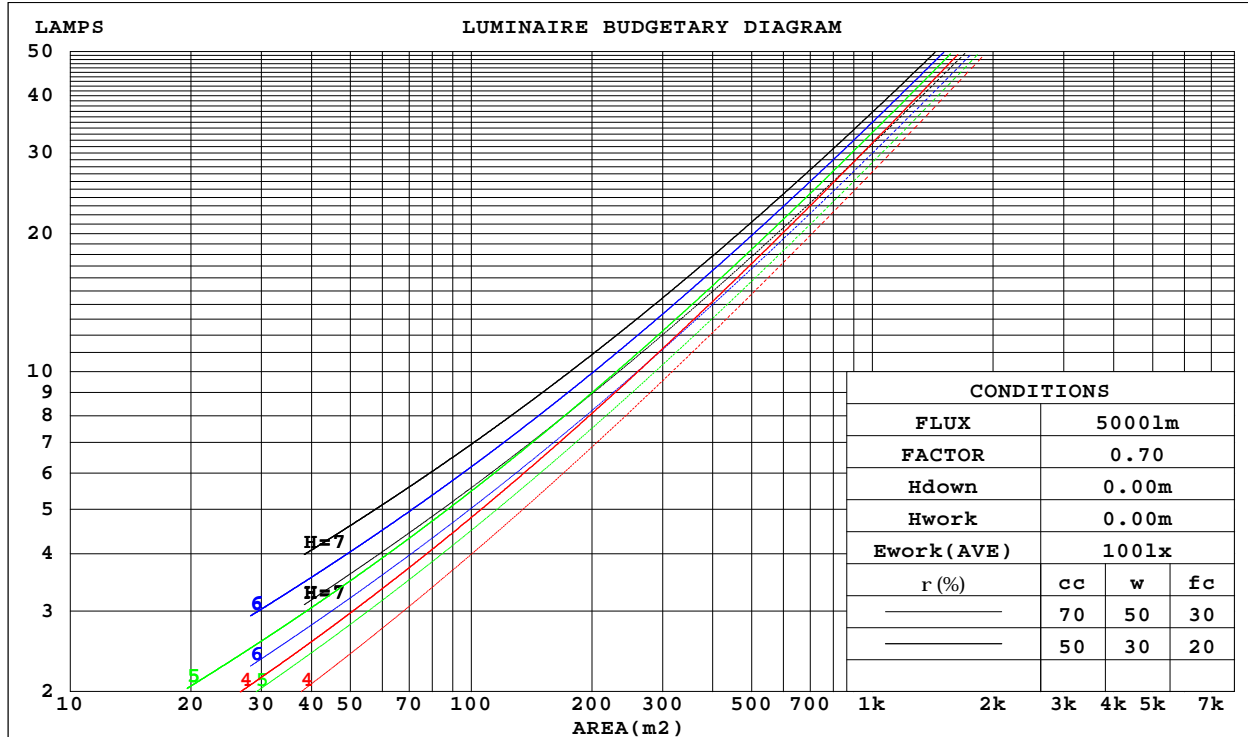
C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:  
Test Date:2023-10-20

g Range: 0 - 90DEG  
Interval: 1.0DEG  
Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
Humidity:65.0%  
Test Distance:8.280m [K=1.0000]  
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

r <sub>cc</sub>	80%			70%			50%			30%			10%			0
r <sub>w</sub>	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r <sub>fc</sub>	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	.98	1.03	.99	.96	.99	.96	.93	.95	.92	.90	.91	.89	.87	.85
2.0	.92	.86	.80	.90	.84	.79	.87	.82	.77	.84	.79	.76	.81	.77	.74	.72
3.0	.81	.73	.67	.80	.72	.67	.77	.71	.65	.74	.69	.64	.72	.67	.63	.61
4.0	.72	.64	.57	.71	.63	.57	.68	.61	.56	.66	.60	.55	.64	.59	.55	.52
5.0	.65	.56	.49	.63	.55	.49	.61	.54	.49	.59	.53	.48	.58	.52	.48	.45
6.0	.58	.49	.43	.57	.49	.43	.55	.48	.43	.54	.47	.42	.52	.46	.42	.40
7.0	.53	.44	.38	.52	.44	.38	.50	.43	.38	.49	.42	.37	.48	.42	.37	.35
8.0	.48	.40	.34	.47	.39	.34	.46	.39	.34	.45	.38	.33	.44	.38	.33	.31
9.0	.44	.36	.31	.44	.36	.31	.42	.35	.30	.41	.35	.30	.40	.34	.30	.28
10.0	.41	.33	.28	.40	.33	.28	.39	.32	.28	.38	.32	.27	.37	.32	.27	.26



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:

WEC AND CCEC

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm								
NAME:			TYPE:			WEIGHT:		
SPEC.:			DIM.:			SERIAL No.:		
MFR.:			SUR.:			PROTECTION ANGLE:		

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	.287	.163	.052	.280	.159	.051	.266	.153	.049	.254	.147	.047	.243	.141	.045	
2.0	.275	.151	.046	.269	.148	.046	.257	.143	.044	.247	.138	.043	.237	.134	.042	
3.0	.258	.137	.041	.252	.135	.041	.242	.131	.040	.232	.127	.039	.224	.124	.038	
4.0	.240	.125	.037	.235	.123	.036	.226	.120	.036	.218	.117	.035	.210	.114	.035	
5.0	.223	.114	.033	.219	.112	.033	.211	.110	.032	.203	.107	.032	.196	.105	.032	
6.0	.208	.104	.030	.204	.103	.030	.197	.101	.029	.190	.099	.029	.184	.097	.029	
7.0	.194	.096	.027	.191	.095	.027	.185	.093	.027	.179	.092	.027	.173	.090	.026	
8.0	.182	.089	.025	.179	.088	.025	.173	.087	.025	.168	.085	.025	.163	.084	.024	
9.0	.171	.083	.023	.168	.082	.023	.163	.081	.023	.158	.079	.023	.154	.078	.023	
10.0	.161	.077	.021	.159	.077	.021	.154	.076	.021	.150	.074	.021	.146	.073	.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	.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	.170	.132	.100	.146	.114	.086	.100	.079	.060	.058	.046	.035	.018	.015	.012	
3.0	.162	.114	.076	.139	.099	.066	.095	.068	.046	.055	.040	.027	.018	.013	.009	
4.0	.155	.101	.060	.133	.087	.052	.091	.061	.037	.053	.036	.022	.017	.012	.007	
5.0	.147	.090	.048	.126	.078	.042	.087	.055	.030	.050	.032	.018	.016	.010	.006	
6.0	.140	.082	.040	.121	.071	.035	.083	.050	.025	.048	.029	.015	.016	.010	.005	
7.0	.134	.075	.034	.115	.065	.029	.079	.046	.021	.046	.027	.012	.015	.009	.004	
8.0	.127	.069	.029	.110	.060	.025	.076	.042	.018	.044	.025	.011	.014	.008	.004	
9.0	.122	.064	.026	.105	.056	.022	.073	.039	.016	.042	.023	.009	.014	.008	.003	
10.0	.116	.060	.023	.100	.052	.020	.069	.037	.014	.040	.022	.008	.013	.007	.003	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:

Uncorrected UGR Table

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm										
NAME:					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:			PROTECTION 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	33.4	34.9	33.7	35.1	35.3	33.3	34.8	33.6	35.0	35.2
3H	34.6	36.0	34.9	36.2	36.5	34.4	35.8	34.7	36.0	36.2
4H	35.0	36.3	35.3	36.6	36.8	34.7	36.0	35.1	36.3	36.5
6H	35.2	36.5	35.6	36.7	37.0	34.9	36.1	35.3	36.4	36.7
8H	35.3	36.5	35.6	36.7	37.0	35.0	36.1	35.3	36.4	36.7
12H	35.3	36.4	35.7	36.7	37.0	35.0	36.1	35.3	36.4	36.7
4H 2H	33.9	35.2	34.3	35.5	35.7	33.8	35.1	34.1	35.4	35.6
3H	35.3	36.4	35.7	36.7	37.0	35.1	36.2	35.5	36.5	36.8
4H	35.8	36.8	36.2	37.1	37.5	35.6	36.6	35.9	36.9	37.2
6H	36.1	37.0	36.5	37.4	37.7	35.8	36.7	36.2	37.1	37.5
8H	36.2	37.0	36.6	37.4	37.8	35.9	36.7	36.3	37.1	37.5
12H	36.3	37.0	36.7	37.4	37.8	35.9	36.7	36.4	37.1	37.5
8H 4H	36.0	36.8	36.4	37.2	37.5	35.7	36.6	36.1	36.9	37.3
6H	36.4	37.1	36.8	37.5	37.9	36.1	36.8	36.6	37.2	37.6
8H	36.5	37.1	37.0	37.6	38.0	36.3	36.9	36.7	37.3	37.7
12H	36.6	37.2	37.1	37.6	38.1	36.3	36.9	36.8	37.3	37.8
12H 4H	35.9	36.7	36.4	37.1	37.5	35.7	36.5	36.1	36.9	37.3
6H	36.4	37.0	36.9	37.4	37.9	36.1	36.8	36.6	37.2	37.6
8H	36.6	37.1	37.1	37.5	38.0	36.3	36.8	36.8	37.3	37.8
Variations with the observer position at spacings:										
S = 1.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
1.5H	+ 0.2 / - 0.4					+ 0.2 / - 0.5				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117 Corrected 34493 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.3)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

g Range: 0 - 90DEG  
 g Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

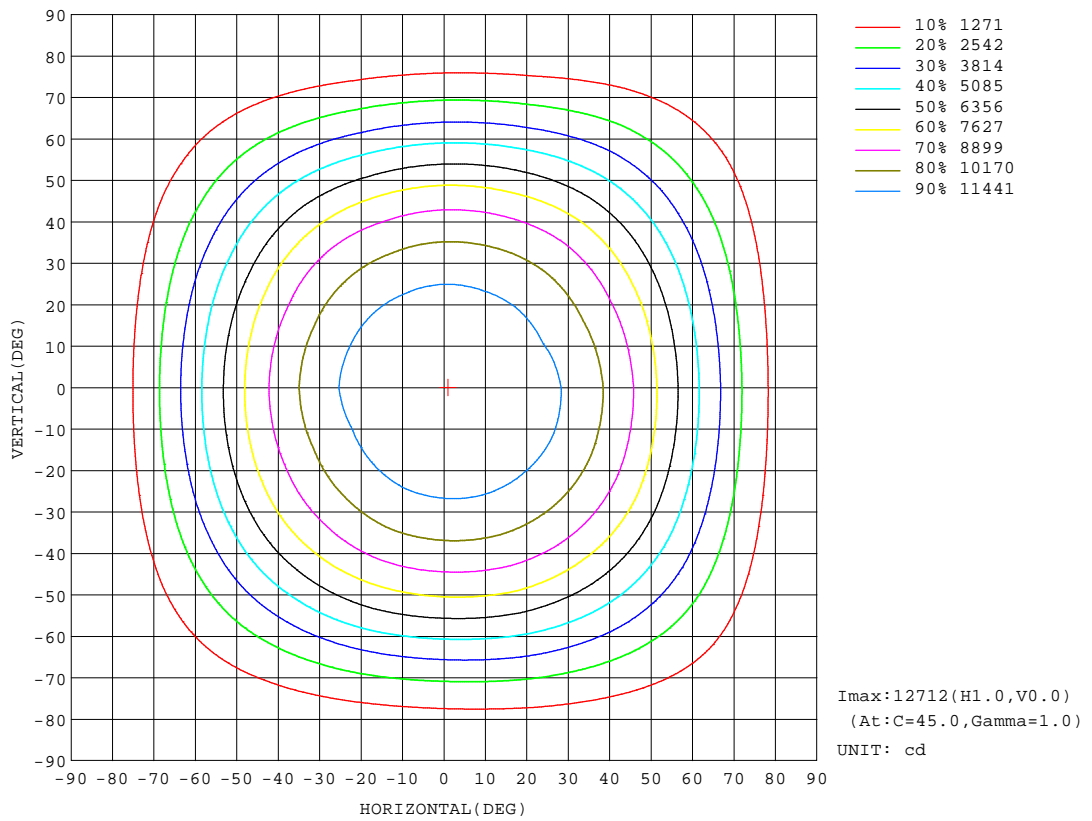
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	59	48	41	58	47	41	57	47	40	34
0.80	69	58	51	68	58	51	67	57	50	44
1.00	78	67	60	77	67	60	75	68	59	53
1.25	85	75	68	84	74	68	81	73	67	60
1.50	90	81	74	88	80	73	85	78	72	65
2.00	97	89	83	95	87	82	91	85	80	73
2.50	100	93	87	98	92	86	95	89	85	77
3.00	104	97	92	101	96	91	97	93	89	81
4.00	107	102	98	105	100	96	101	97	94	85
5.00	110	105	101	107	103	100	103	99	97	88
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

g Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:

**ISOCANDELA DIAGRAM**

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



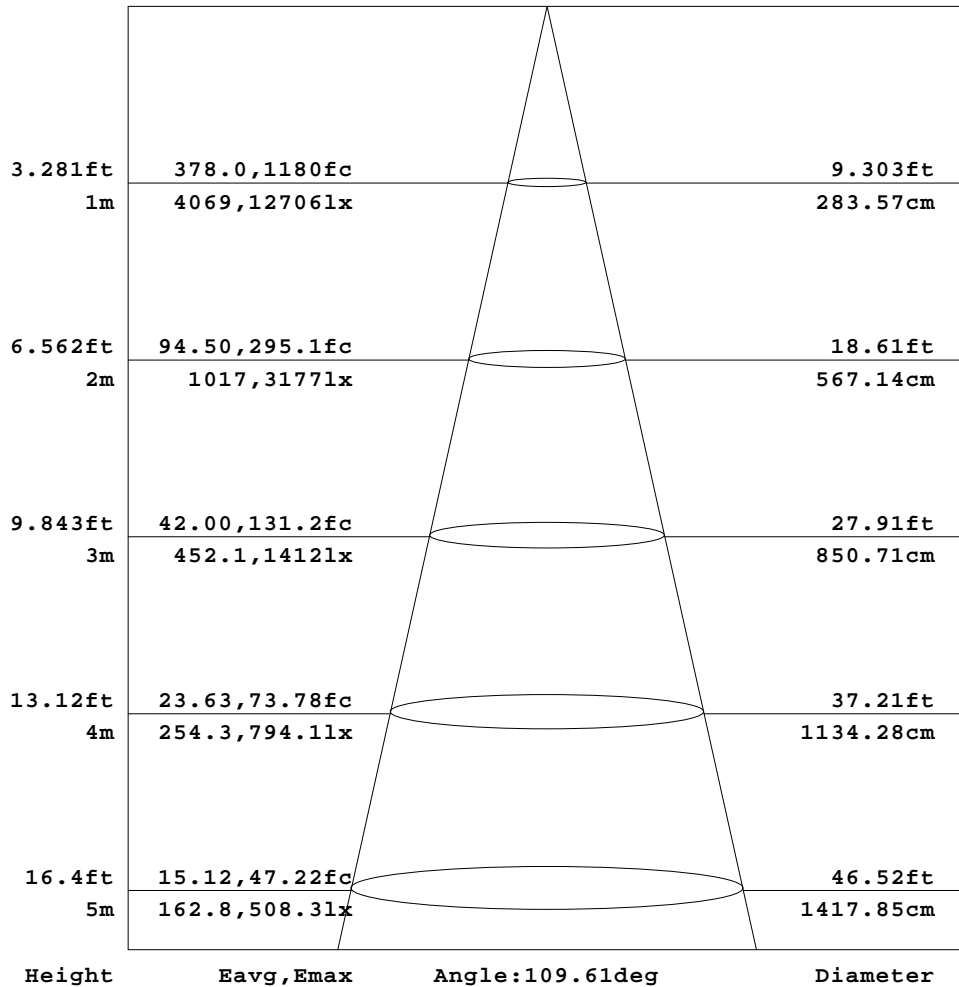
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:

AAI Figure

Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Flux out:26072 lm



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

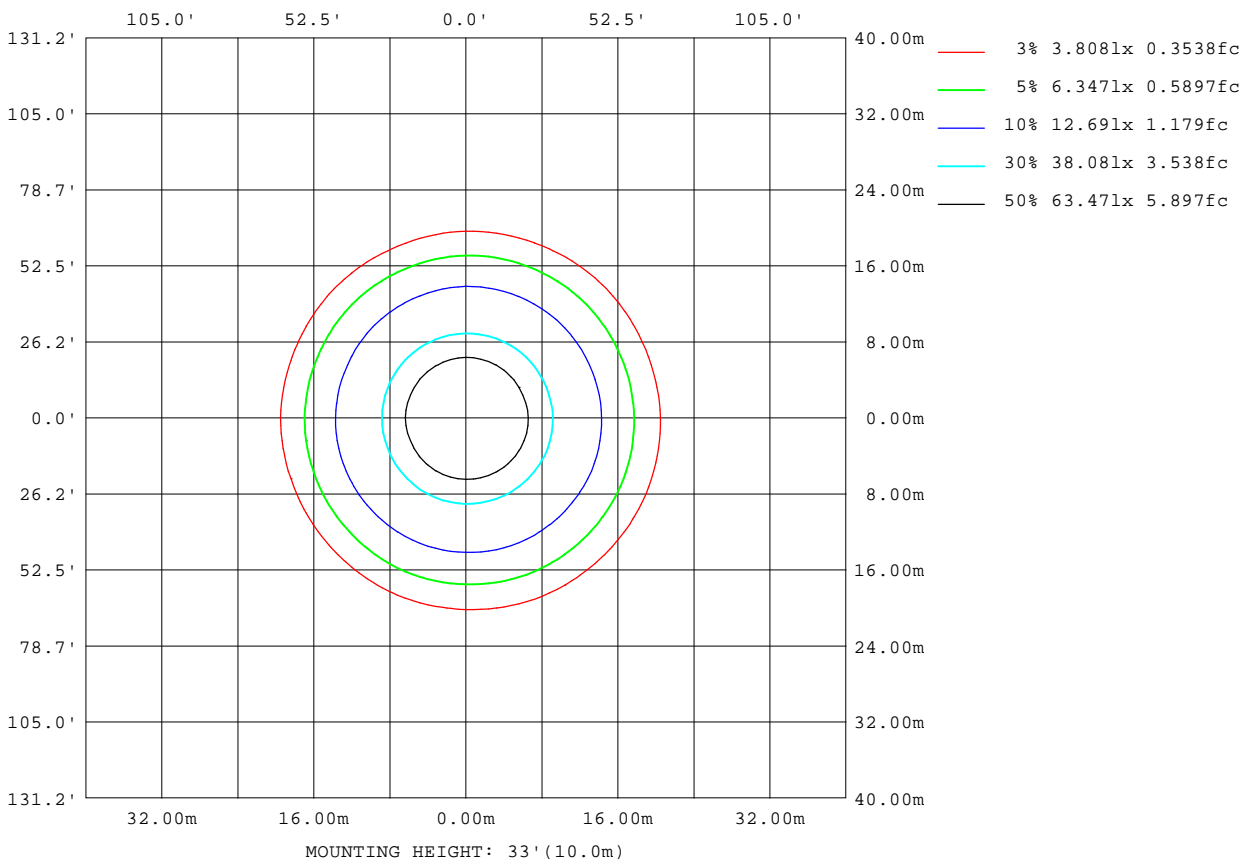
C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2023-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System:EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity:65.0%  
 Test Distance:8.280m [K=1.0000]  
 Remarks:



**ISOLUX DIAGRAM**

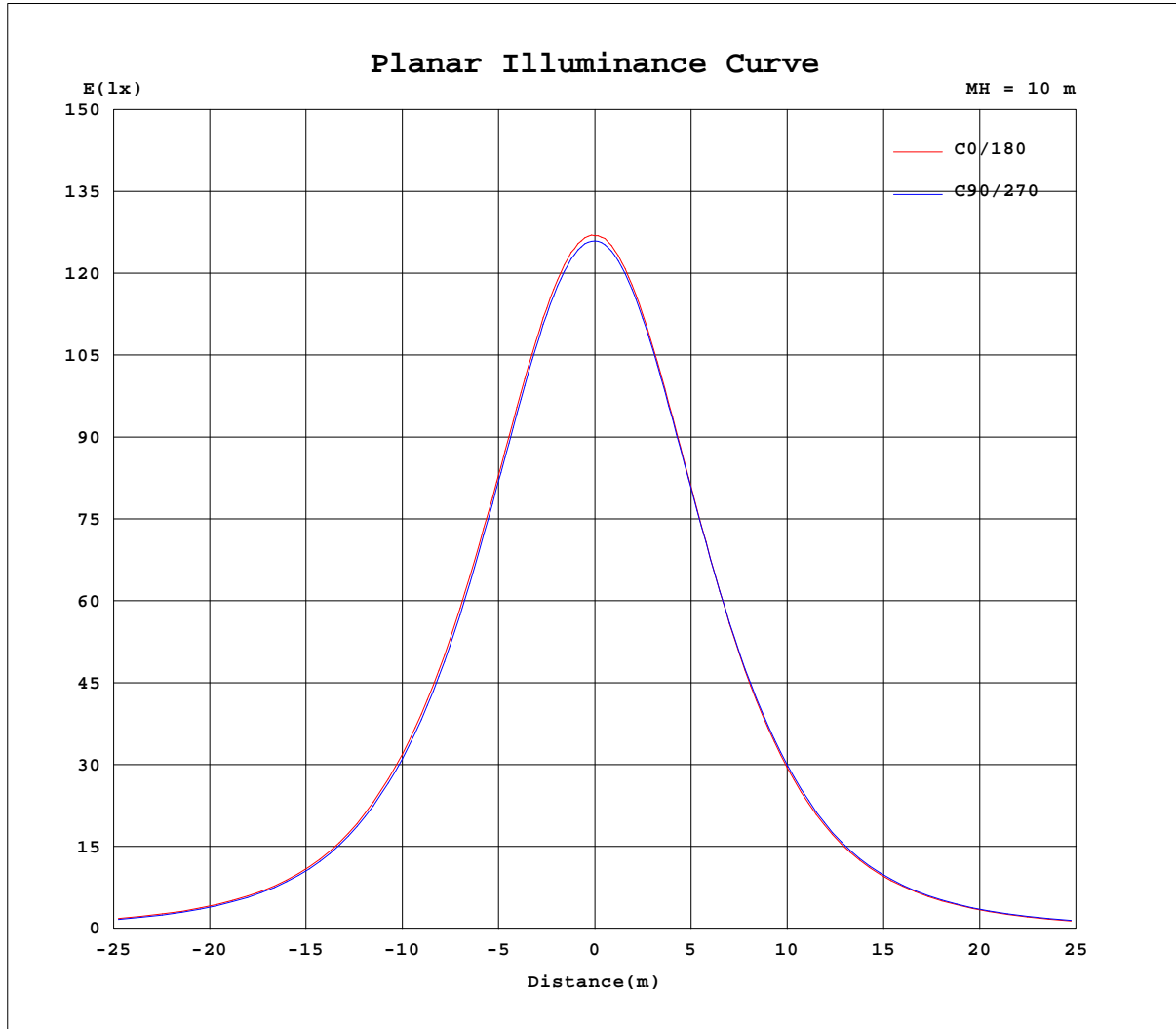
Test:U:220.3V I:0.9610A P:201.8W PF:0.9530 Lamp Flux:34493.3x1 lm		
NAME:	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2023-10-20

Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 8.280m [K=1.0000]  
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators:  
 Test Date: 2023-10-20

Page Range: 0 - 90DEG  
 Interval: 1.0DEG  
 Test System: EVERFINE GO-2000B\_V1 SYSTEM V2.0.281  
 Humidity: 65.0%  
 Test Distance: 8.280m [K=1.0000]  
 Remarks:

