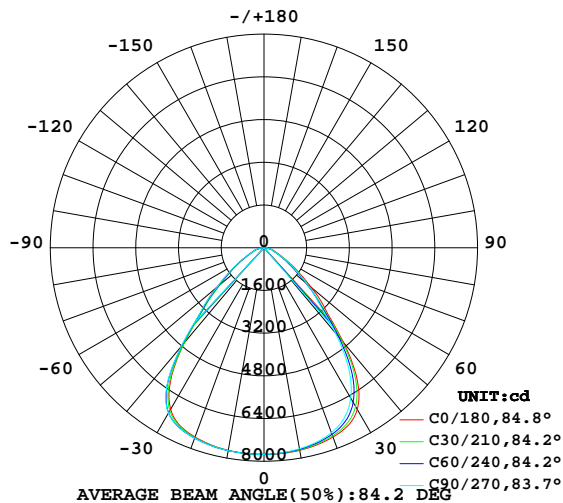


LUMINAIRE PHOTOMETRIC TEST REPORT

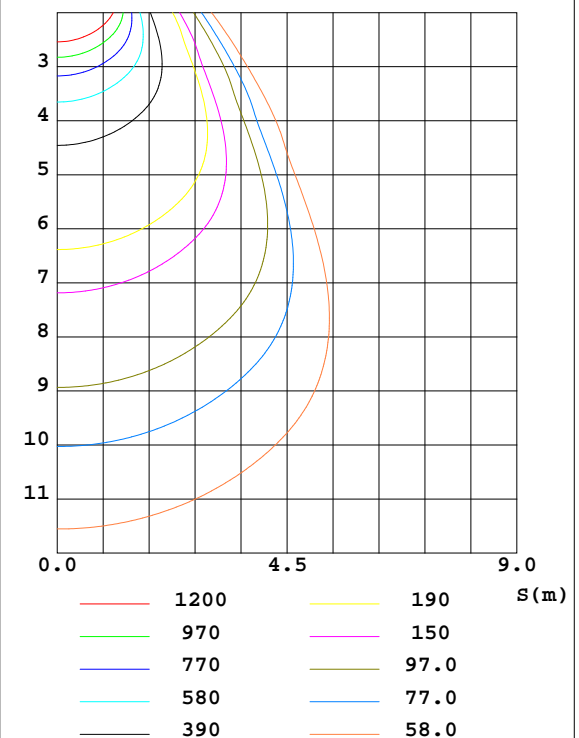
Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm		
NAME: 270770	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191*0.191	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 149.89 lm/W			
MODEL	270770	Imax(cd)	7742	S/MH(C0/180)	1.22
NOMINAL POWER(W)	100	LOR(%)	100.0	S/MH(C90/270)	1.18
RATED VOLTAGE(V)	222	TOTAL FLUX(lm)	14854	η UP,DN(C0-180)	0.0,48.9
NOMINAL FLUX(lm)	14853.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.0,51.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	222.1	η down(%)	100.0	CIBSE SHR MAX	1.25

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.080m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	7705	7675	7644	7675	7705	7713	7717	7713	0- 10	736.6	736.6	4.96,4.96
20	7548	7470	7378	7470	7548	7579	7590	7579	10- 20	2158	2895	19.5,19.5
30	6988	6774	6502	6774	6988	7098	7160	7098	20- 30	3370	6264	42.2,42.2
40	4638	4447	4165	4447	4638	4721	4815	4721	30- 40	3704	9968	67.1,67.1
50	2319	2077	2090	2077	2319	2186	2284	2186	40- 50	2466	12434	83.7,83.7
60	1029	934.4	939.9	934.4	1029	990.1	1036	990.1	50- 60	1339	13773	92.7,92.7
70	454.6	413.6	410.1	413.6	454.6	448.0	456.3	448.0	60- 70	653.2	14426	97.1,97.1
80	190.8	174.0	170.1	174.0	190.8	185.1	185.8	185.1	70- 80	334.0	14760	99.4,99.4
90	9.220	8.918	8.956	8.918	9.220	14.23	14.38	14.23	80- 90	93.79	14854	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		

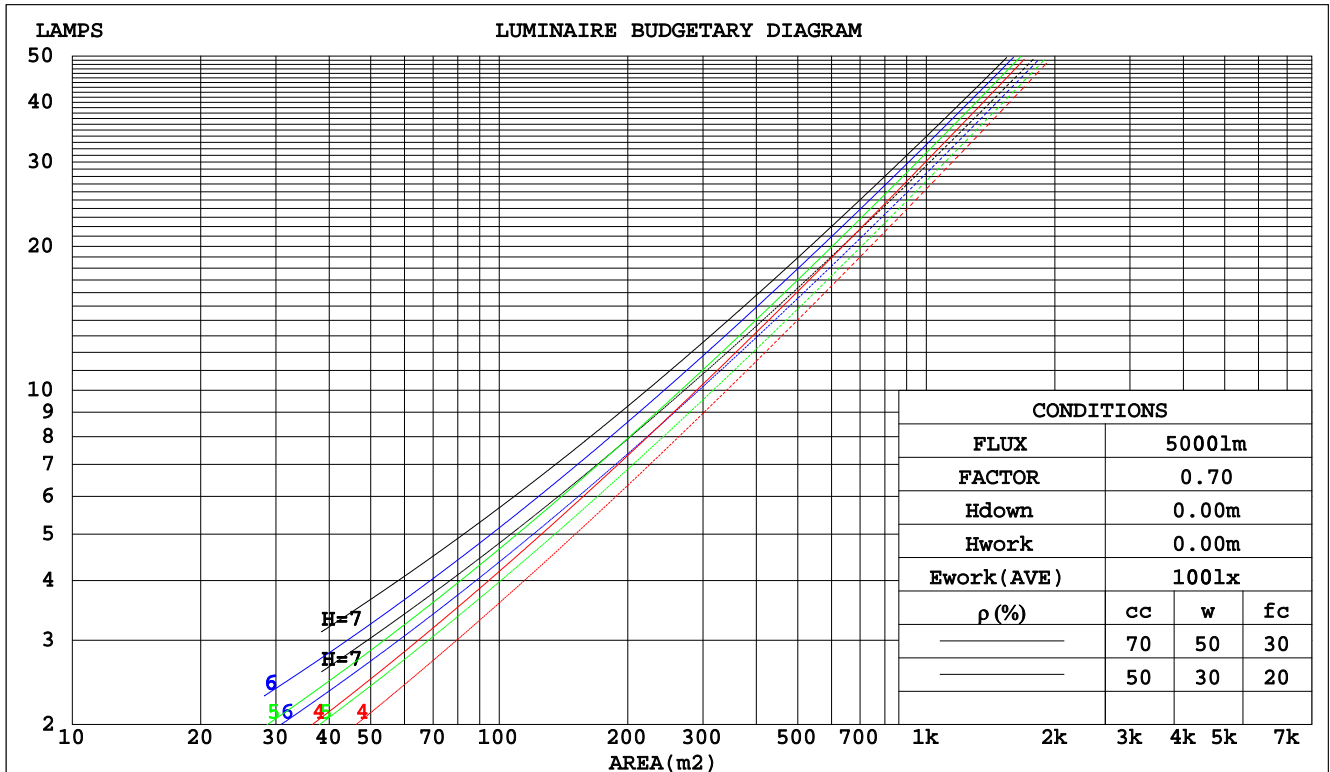
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:6.080m [K=1.0000]
 Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm		
NAME: 270770	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191*0.191	PROTECTION 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	1.19	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	.00
1.0	1.08	1.04	1.01	1.05	1.02	.00	1.01	.99	.97	.97	.96	.94	.94	.92	.91	.89
2.0	.97	.92	.87	.95	.90	.86	.92	.88	.84	.89	.85	.82	.86	.83	.81	.79
3.0	.88	.81	.76	.86	.80	.75	.83	.78	.74	.81	.76	.73	.78	.75	.72	.70
4.0	.80	.72	.67	.78	.72	.66	.76	.70	.65	.74	.69	.65	.72	.67	.64	.62
5.0	.73	.65	.59	.71	.64	.59	.69	.63	.58	.68	.62	.58	.66	.61	.57	.55
6.0	.66	.59	.53	.65	.58	.53	.64	.57	.53	.62	.56	.52	.61	.56	.52	.50
7.0	.61	.53	.48	.60	.53	.48	.59	.52	.48	.57	.52	.47	.56	.51	.47	.45
8.0	.56	.49	.44	.56	.48	.43	.54	.48	.43	.53	.47	.43	.52	.47	.43	.41
9.0	.52	.45	.40	.51	.44	.40	.50	.44	.40	.49	.44	.39	.48	.43	.39	.38
10.0	.48	.41	.36	.48	.41	.36	.47	.41	.36	.46	.40	.36	.45	.40	.36	.34



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:DAMIN
 Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
 Humidity:65.0%
 Test Distance:6.080m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm								
NAME: 270770				TYPE:			WEIGHT:	
DIM.:				SPEC.:			SERIAL No.:	
MFR.:				SUR.:0.191*0.191			PROTECTION 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						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.238	.135	.043	.231	.132	.042	.218	.125	.040	.206	.119	.038	.195	.113	.036	
2.0	.229	.125	.038	.223	.123	.038	.212	.118	.037	.201	.113	.035	.192	.109	.034	
3.0	.217	.115	.035	.211	.113	.034	.202	.109	.033	.193	.106	.032	.184	.102	.032	
4.0	.204	.106	.031	.200	.105	.031	.191	.101	.030	.183	.098	.030	.176	.096	.029	
5.0	.193	.098	.028	.189	.097	.028	.181	.094	.028	.174	.092	.027	.168	.090	.027	
6.0	.182	.091	.026	.178	.090	.026	.172	.088	.026	.165	.086	.025	.159	.084	.025	
7.0	.172	.085	.024	.169	.084	.024	.163	.082	.024	.157	.081	.023	.152	.079	.023	
8.0	.163	.079	.022	.160	.079	.022	.154	.077	.022	.149	.076	.022	.145	.074	.022	
9.0	.154	.075	.021	.152	.074	.021	.147	.073	.021	.142	.071	.020	.138	.070	.020	
10.0	.147	.070	.020	.144	.070	.019	.140	.069	.019	.136	.067	.019	.132	.066	.019	

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	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.175	.157	.140	.150	.135	.121	.103	.093	.083	.059	.054	.048	.019	.017	.016	
2.0	.164	.132	.106	.140	.114	.091	.096	.079	.064	.055	.046	.037	.018	.015	.012	
3.0	.154	.114	.082	.132	.098	.071	.091	.068	.050	.052	.040	.029	.017	.013	.010	
4.0	.146	.100	.065	.125	.086	.056	.086	.060	.040	.050	.035	.024	.016	.011	.008	
5.0	.138	.089	.053	.119	.077	.046	.082	.054	.032	.047	.032	.019	.015	.010	.006	
6.0	.131	.080	.044	.113	.070	.038	.078	.049	.027	.045	.029	.016	.015	.009	.005	
7.0	.125	.073	.037	.108	.064	.032	.074	.045	.023	.043	.026	.014	.014	.009	.004	
8.0	.119	.067	.032	.103	.058	.028	.071	.041	.020	.041	.024	.012	.013	.008	.004	
9.0	.114	.062	.028	.098	.054	.024	.068	.038	.017	.040	.022	.010	.013	.007	.003	
10.0	.109	.058	.024	.094	.051	.021	.065	.036	.015	.038	.021	.009	.012	.007	.003	

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.080m [K=1.0000]
Remarks:

Uncorrected UGR Table

Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm											
NAME: 270770					TYPE:			WEIGHT:			
DIM.:					SPEC.:			SERIAL No.:			
MFR.:					SUR.:0.191*0.191			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	21.3	22.6	21.6	22.8	22.9	20.8	22.1	21.1	22.3	22.5	
	3H	21.6	22.8	21.9	23.0	23.2	21.1	22.3	21.4	22.5	22.7
	4H	21.8	22.9	22.1	23.1	23.4	21.3	22.4	21.6	22.6	22.9
	6H	21.9	23.0	22.2	23.2	23.5	21.4	22.4	21.7	22.7	23.0
	8H	22.0	23.0	22.3	23.2	23.5	21.4	22.4	21.8	22.7	23.0
	12H	22.0	22.9	22.3	23.2	23.5	21.5	22.4	21.8	22.7	23.0
4H	2H	21.3	22.4	21.6	22.7	22.9	20.9	22.0	21.2	22.2	22.5
	3H	21.8	22.7	22.1	23.0	23.3	21.3	22.3	21.7	22.6	22.9
	4H	22.1	22.9	22.4	23.2	23.6	21.6	22.5	22.0	22.8	23.1
	6H	22.3	23.1	22.7	23.4	23.8	21.8	22.6	22.2	22.9	23.3
	8H	22.4	23.1	22.8	23.5	23.8	21.9	22.6	22.3	23.0	23.3
	12H	22.5	23.1	22.9	23.5	23.9	22.0	22.6	22.4	23.0	23.4
8H	4H	22.1	22.8	22.5	23.2	23.6	21.7	22.4	22.1	22.7	23.1
	6H	22.4	23.0	22.9	23.4	23.8	22.0	22.6	22.4	23.0	23.4
	8H	22.6	23.1	23.0	23.5	24.0	22.1	22.6	22.6	23.1	23.5
	12H	22.7	23.1	23.2	23.6	24.0	22.2	22.7	22.7	23.1	23.6
12H	4H	22.1	22.7	22.5	23.1	23.5	21.7	22.3	22.1	22.7	23.1
	6H	22.4	22.9	22.9	23.4	23.8	22.0	22.5	22.5	22.9	23.4
	8H	22.6	23.0	23.1	23.5	24.0	22.2	22.6	22.6	23.0	23.5
Variations with the observer position at spacings:											
S = 1.0H	+ 0.9 / - 1.1					+ 0.9 / - 1.2					
1.5H	+ 1.1 / - 0.9					+ 1.1 / - 1.0					
2.0H	+ 1.9 / - 1.4					+ 1.8 / - 1.5					

CIE Pub.117 Corrected 14854 lm Total Lamp Luminous Flux.(8log(F/F0) = 9.4)

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.080m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm		
NAME: 270770	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191*0.191	PROTECTION ANGLE:

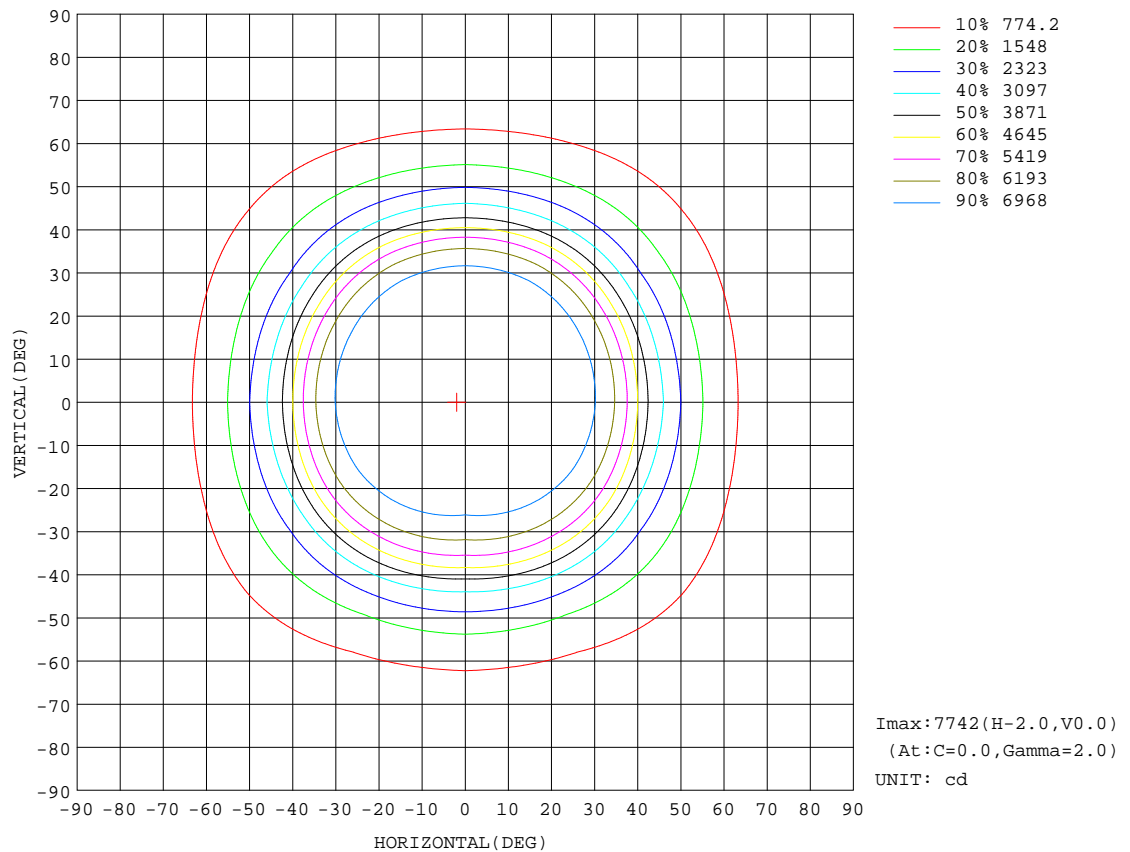
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	71	62	56	70	61	56	69	61	56	51
0.80	80	71	66	79	71	66	78	70	65	60
1.00	88	79	74	87	79	73	85	79	73	67
1.25	93	86	80	92	85	80	90	84	79	74
1.50	97	90	85	96	89	85	93	88	84	78
2.00	102	96	92	101	95	91	98	93	89	83
2.50	105	99	95	103	98	94	100	96	92	85
3.00	107	102	98	105	101	97	102	98	95	88
4.00	110	106	103	108	104	101	104	101	99	91
5.00	112	108	105	110	107	104	105	103	101	92
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.080m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm		
NAME: 270770	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191*0.191	PROTECTION ANGLE:

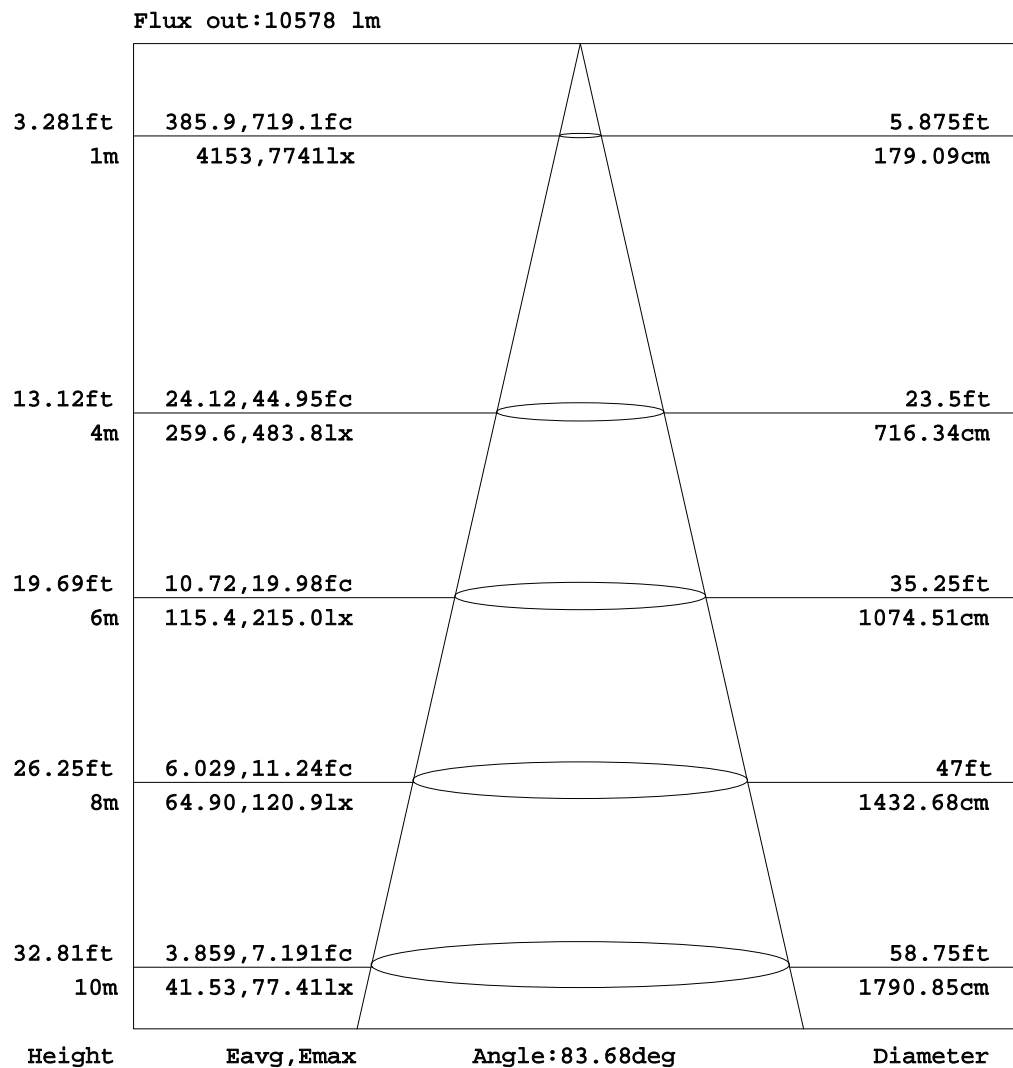


C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:DAMIN
Test Date:2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.080m [K=1.0000]
Remarks:

AAI Figure

Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm		
NAME: 270770	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191*0.191	PROTECTION ANGLE:



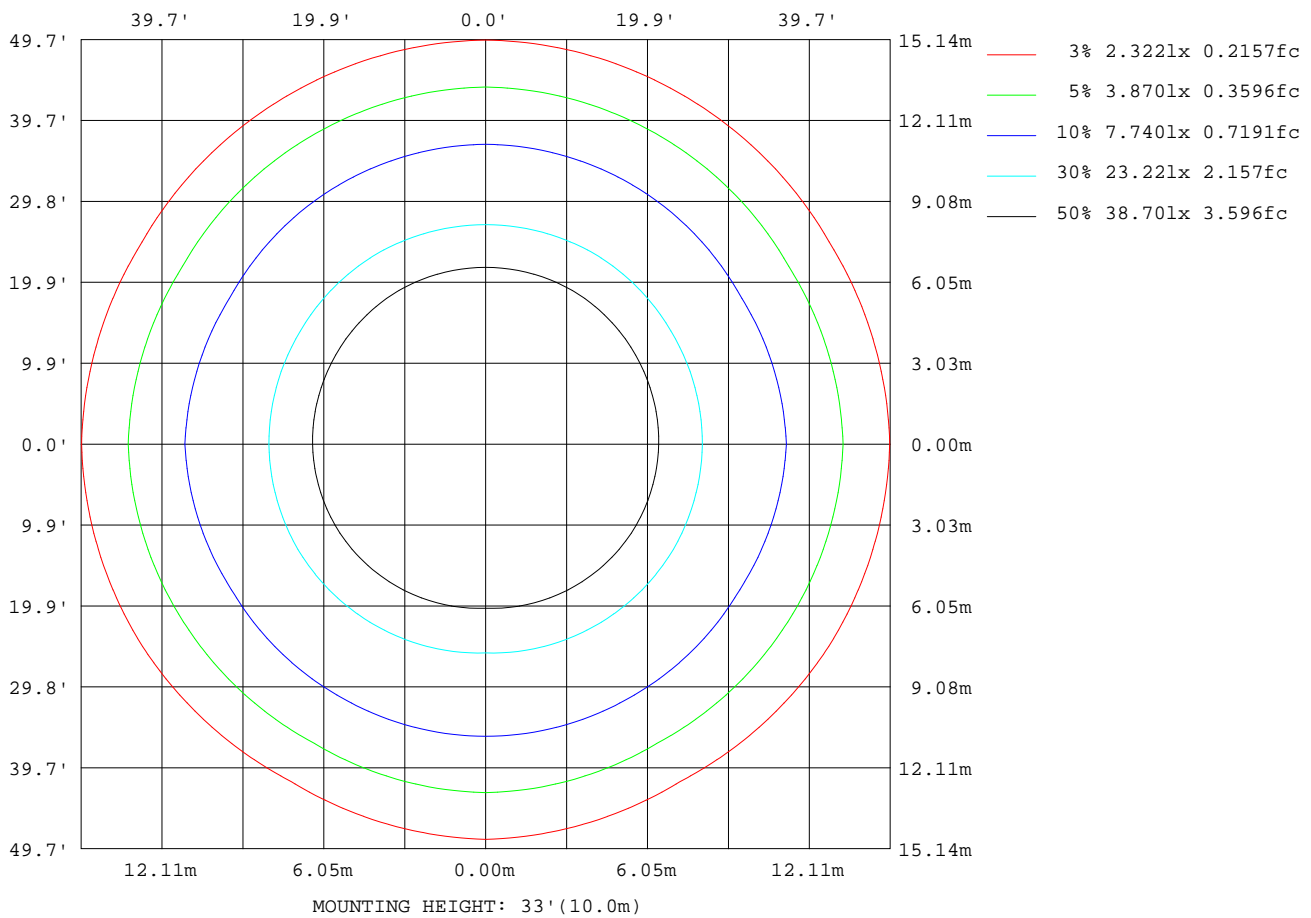
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-03-21

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 6.080m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

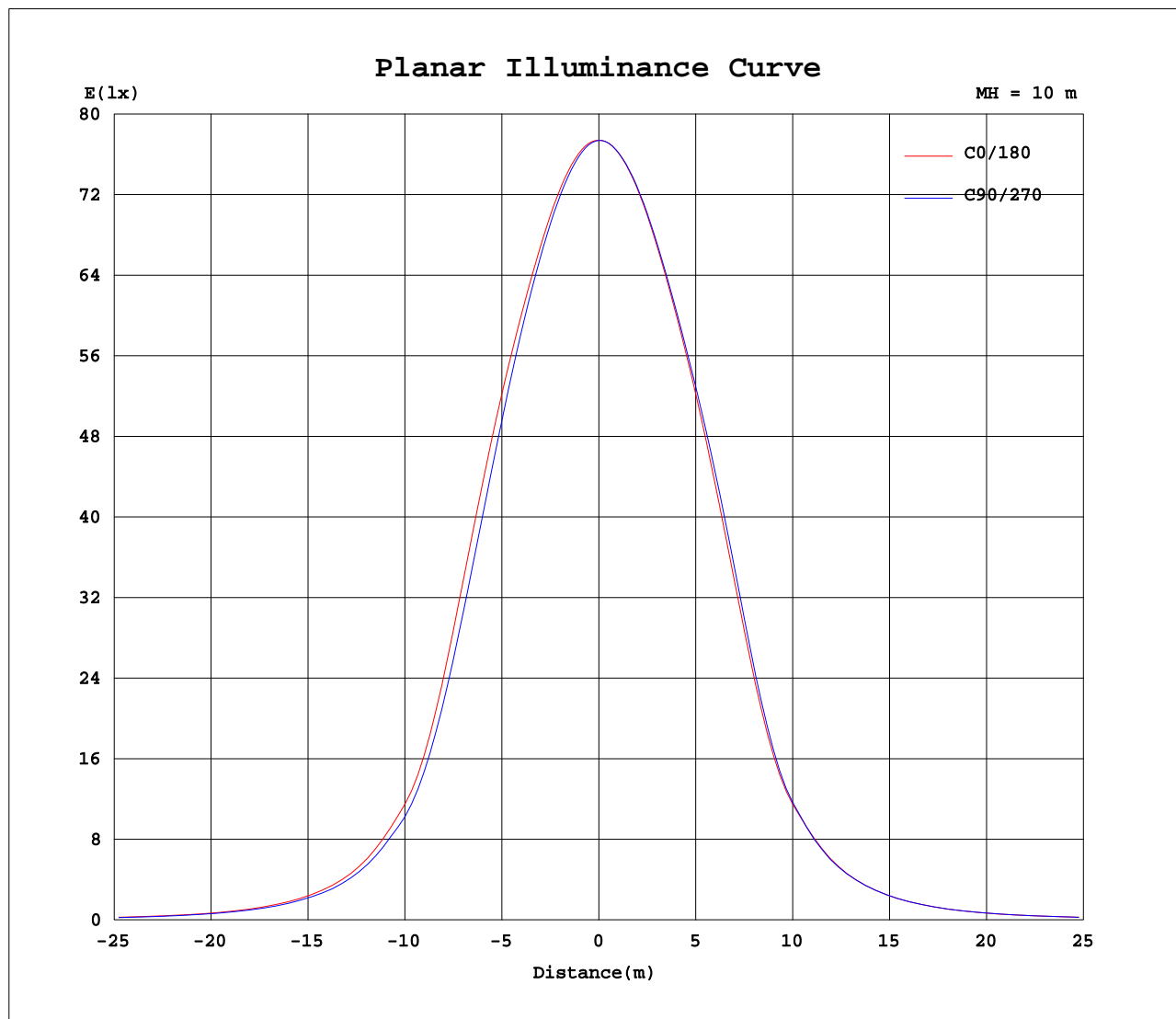
Test:U:222.1V I:0.4550A P:99.10W PF:0.9807 Lamp Flux:14853.9x1 lm		
NAME: 270770	TYPE:	WEIGHT:
DIM.:	SPEC.:	SERIAL No.:
MFR.:	SUR.:0.191*0.191	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 6.080m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: DAMIN
Test Date: 2022-03-21

γ Range: 0 - 90DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity: 65.0%
Test Distance: 6.080m [K=1.0000]
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.267
Humidity:65.0%
Test Distance:6.080m [K=1.0000]
Remarks:

```