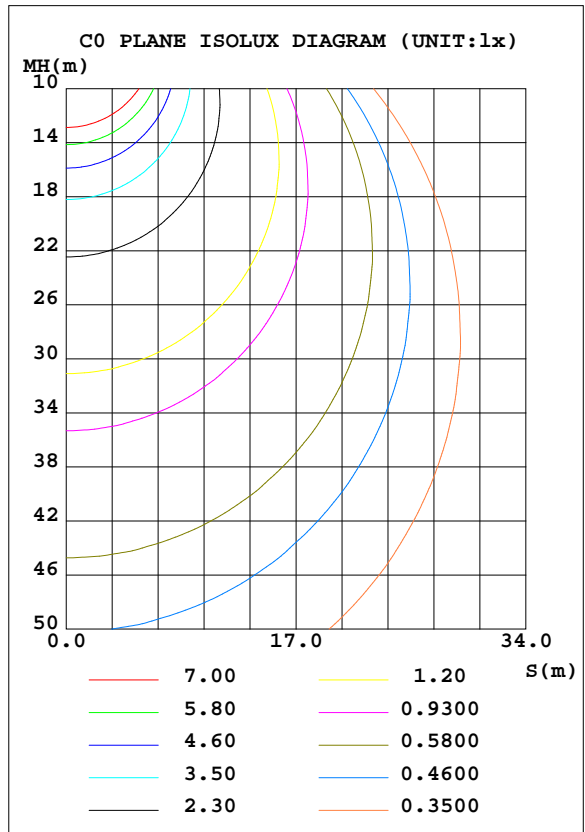
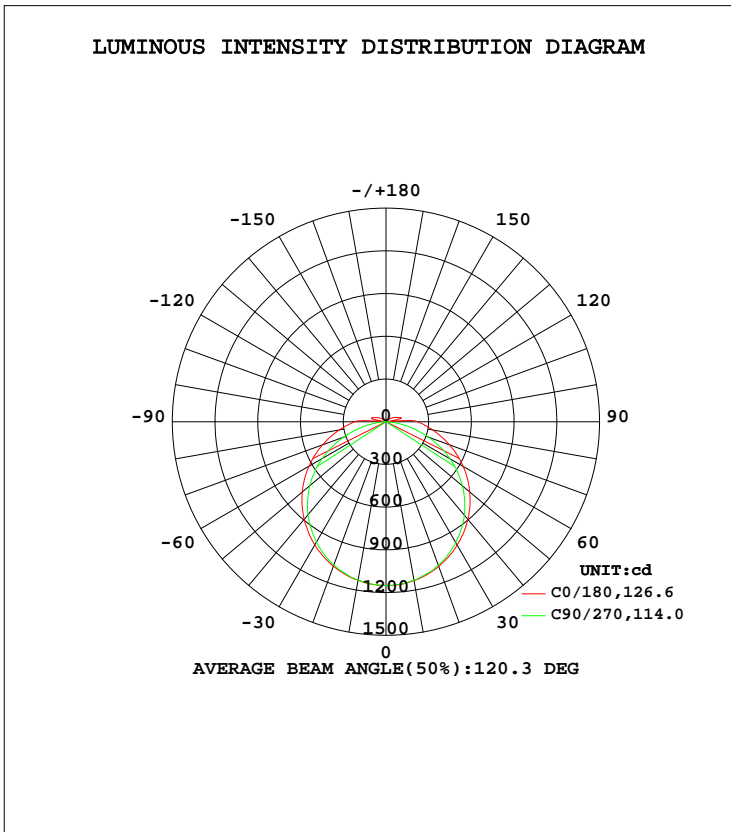


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA Eff: 109.81 lm/W			
MODEL	2400497	I <sub>max</sub> (cd)	1154	S/MH(C0/180)	1.29
NOMINAL POWER(W)	36	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	3867.4	η UP, DN(C0-180)	2.1,48.0
NOMINAL FLUX(lm)	3867.39	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.9,47.9
LAMPS INSIDE	1	η up(%)	4.0	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	230	η down(%)	96.0	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2022-12-19

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.4396]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	1132	1131	1130	1134	1130	1135	1129	1128	0- 10	109.0	109.0	2.82,2.82
20	1082	1072	1073	1081	1080	1083	1071	1070	10- 20	313.1	422.0	10.9,10.9
30	1000	983.9	980.6	992.1	998.5	996.2	977.4	979.9	20- 30	478.4	900.4	23.3,23.3
40	895.2	868.9	856.5	871.9	893.9	879.9	851.8	862.1	30- 40	585.6	1486	38.4,38.4
50	767.5	731.4	701.5	729.5	767.5	738.6	699.3	722.5	40- 50	622.0	2108	54.5,54.5
60	625.3	575.5	518.2	574.2	625.2	577.3	519.1	567.8	50- 60	585.2	2693	69.6,69.6
70	474.4	410.8	319.1	409.3	473.5	409.4	317.8	405.2	60- 70	484.0	3177	82.2,82.2
80	333.7	253.7	120.9	255.6	332.8	253.1	119.1	252.6	70- 80	338.6	3516	90.9,90.9
90	221.1	141.5	1.596	142.0	217.9	137.7	2.521	141.8	80- 90	195.7	3711	96,96
100	9.781	39.97	1.065	41.32	14.14	34.17	1.971	47.64	90-100	48.20	3760	97.2,97.2
110	89.80	40.27	1.313	38.03	87.35	35.29	3.697	41.32	100-110	47.34	3807	98.4,98.4
120	58.17	24.44	1.398	21.34	54.05	19.67	3.858	24.59	110-120	32.94	3840	99.3,99.3
130	33.00	13.33	1.395	10.26	28.76	8.047	3.858	7.995	120-130	17.03	3857	99.7,99.7
140	16.65	6.345	1.887	4.224	12.01	0	3.858	0	130-140	6.579	3864	99.9,99.9
150	6.869	3.411	2.627	2.423	3.610	0	3.858	0	140-150	2.337	3866	100,100
160	2.393	2.535	2.627	2.266	2.080	0	3.858	0	150-160	0.8856	3867	100,100
170	2.157	2.535	5.493	2.266	2.234	0	3.858	0	160-170	0.4460	3867	100,100
180	2.234	2.614	6.485	2.577	2.234	0	3.858	0	170-180	0.1723	3867	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1797.1 lm

%lum = 46.5%  
%lamp = 46.5%

Conical surface Flux(120deg): 2693.2 lm

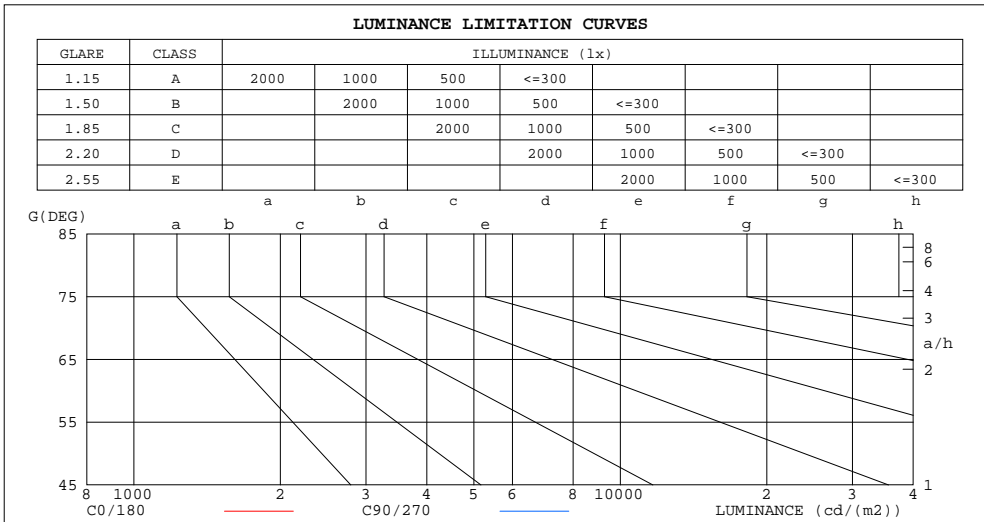
%lum = 69.6%  
%lamp = 69.6%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.9DEG  
Operators:Zero huang  
Test Date:2022-12-19

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity:60%  
Test Distance:26.000m [K=1.4396]  
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	3166562	475589
80	1937671	696091
75	1562466	837494
70	1398401	932843
65	1312675	993853
60	1260775	1036257
55	1228584	1066478
50	1203832	1091077
45	1190599	1105200

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.9DEG  
 Operators: Zero huang  
 Test Date: 2022-12-19

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity: 60%  
 Test Distance: 26.000m [K=1.4396]  
 Remarks:

WEC AND CCEC

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

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	.354	.201	.064	.346	.197	.063	.330	.189	.060	.315	.182	.058	.302	.175	.056	
2.0	.318	.174	.053	.310	.171	.053	.296	.165	.051	.283	.159	.050	.271	.153	.048	
3.0	.287	.153	.046	.281	.150	.045	.268	.145	.044	.257	.141	.043	.246	.136	.042	
4.0	.262	.136	.040	.256	.134	.040	.244	.130	.039	.234	.126	.038	.224	.122	.037	
5.0	.239	.122	.035	.234	.120	.035	.224	.117	.034	.215	.113	.034	.206	.110	.033	
6.0	.221	.111	.032	.216	.109	.031	.207	.106	.031	.198	.103	.030	.191	.100	.030	
7.0	.204	.101	.029	.200	.100	.028	.192	.097	.028	.184	.094	.027	.177	.092	.027	
8.0	.190	.093	.026	.186	.092	.026	.179	.089	.026	.172	.087	.025	.165	.085	.025	
9.0	.177	.086	.024	.174	.085	.024	.167	.083	.023	.161	.081	.023	.155	.079	.023	
10.0	.166	.080	.022	.163	.079	.022	.157	.077	.022	.152	.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	.221	.221	.221	.189	.189	.189	.129	.129	.129	.074	.074	.074	.024	.024	.024	
1.0	.214	.187	.162	.183	.160	.139	.125	.110	.096	.072	.064	.056	.023	.021	.018	
2.0	.207	.163	.126	.177	.140	.109	.121	.097	.076	.070	.056	.045	.022	.018	.015	
3.0	.199	.146	.103	.171	.126	.089	.117	.087	.063	.068	.051	.037	.022	.017	.012	
4.0	.191	.133	.088	.164	.115	.076	.113	.080	.054	.065	.047	.032	.021	.015	.010	
5.0	.184	.123	.077	.158	.106	.067	.109	.074	.048	.063	.043	.028	.020	.014	.009	
6.0	.176	.114	.070	.152	.099	.061	.105	.069	.043	.061	.041	.026	.020	.013	.008	
7.0	.169	.107	.064	.146	.093	.056	.101	.065	.040	.058	.038	.024	.019	.013	.008	
8.0	.163	.102	.060	.140	.088	.052	.097	.062	.037	.056	.037	.022	.018	.012	.007	
9.0	.156	.097	.057	.135	.084	.049	.093	.059	.035	.054	.035	.021	.018	.011	.007	
10.0	.150	.093	.054	.130	.080	.047	.090	.057	.034	.052	.033	.020	.017	.011	.007	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2022-12-19

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.4396]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm										
NAME:			TYPE:LED				WEIGHT:N/A			
SPEC.:N/A			DIM.:				SERIAL No.:N/A			
MFR.:			SUR.:				Shielding Angle:N/A			
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	37.5	39.0	37.8	39.3	39.6	36.7	38.2	37.0	38.5	38.8
3H	39.6	41.0	40.0	41.3	41.6	38.2	39.6	38.6	39.9	40.3
4H	40.7	42.0	41.0	42.3	42.7	38.8	40.1	39.2	40.5	40.8
6H	41.8	43.1	42.2	43.4	43.8	39.2	40.5	39.6	40.8	41.2
8H	42.4	43.6	42.8	44.0	44.4	39.3	40.5	39.7	40.9	41.3
12H	43.1	44.3	43.5	44.7	45.1	39.3	40.5	39.7	40.9	41.3
4H 2H	38.1	39.4	38.5	39.8	40.1	37.5	38.8	37.9	39.2	39.5
3H	40.4	41.6	40.8	42.0	42.4	39.2	40.4	39.6	40.8	41.2
4H	41.7	42.8	42.1	43.2	43.6	40.0	41.0	40.4	41.4	41.9
6H	43.0	44.0	43.5	44.4	44.9	40.5	41.5	41.0	41.9	42.4
8H	43.7	44.6	44.2	45.1	45.6	40.7	41.6	41.1	42.0	42.5
12H	44.6	45.4	45.0	45.9	46.4	40.8	41.6	41.2	42.1	42.6
8H 4H	42.0	42.9	42.5	43.3	43.8	40.5	41.4	41.0	41.9	42.4
6H	43.6	44.3	44.1	44.8	45.3	41.3	42.1	41.8	42.6	43.1
8H	44.5	45.2	45.0	45.7	46.2	41.6	42.3	42.2	42.8	43.4
12H	45.6	46.2	46.1	46.7	47.2	41.8	42.4	42.4	43.0	43.5
12H 4H	42.0	42.8	42.5	43.3	43.8	40.7	41.5	41.2	42.0	42.5
6H	43.7	44.4	44.2	44.9	45.4	41.6	42.3	42.1	42.8	43.3
8H	44.7	45.3	45.2	45.8	46.4	42.0	42.6	42.6	43.1	43.7
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.1 / - 0.4				

CIE Pub.117, 3867 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = 4.7)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2022-12-19

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.4396]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

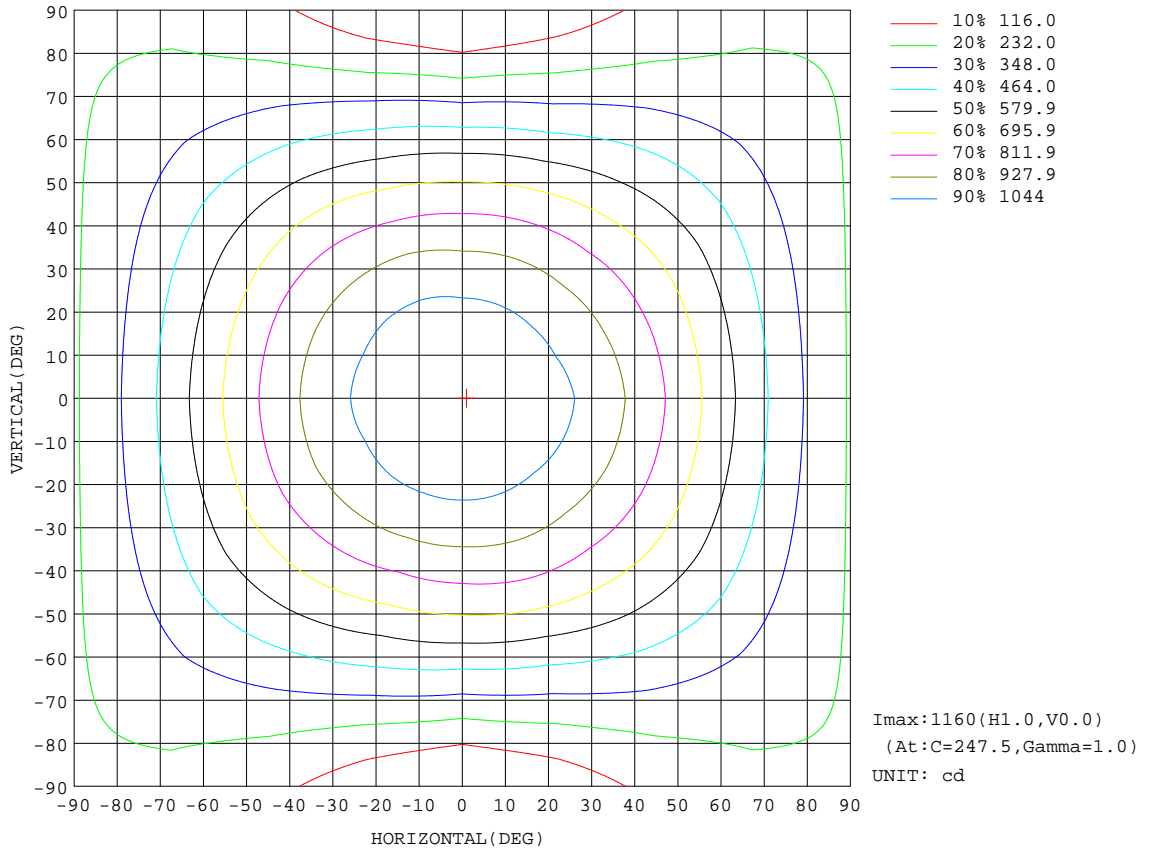
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	54	42	35	53	42	35	52	41	34	28
0.80	64	51	44	62	51	43	60	50	43	36
1.00	72	60	52	70	59	52	68	60	51	43
1.25	79	67	60	77	66	59	74	65	58	50
1.50	84	73	65	82	72	65	78	70	63	55
2.00	91	81	74	89	80	73	85	77	71	62
2.50	95	86	79	93	85	78	88	81	76	66
3.00	99	91	84	96	89	83	91	85	80	71
4.00	103	96	91	100	94	89	95	90	86	76
5.00	106	100	95	103	98	93	97	93	90	79
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:24.9DEG  
 Operators:Zero huang  
 Test Date:2022-12-19

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.4396]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

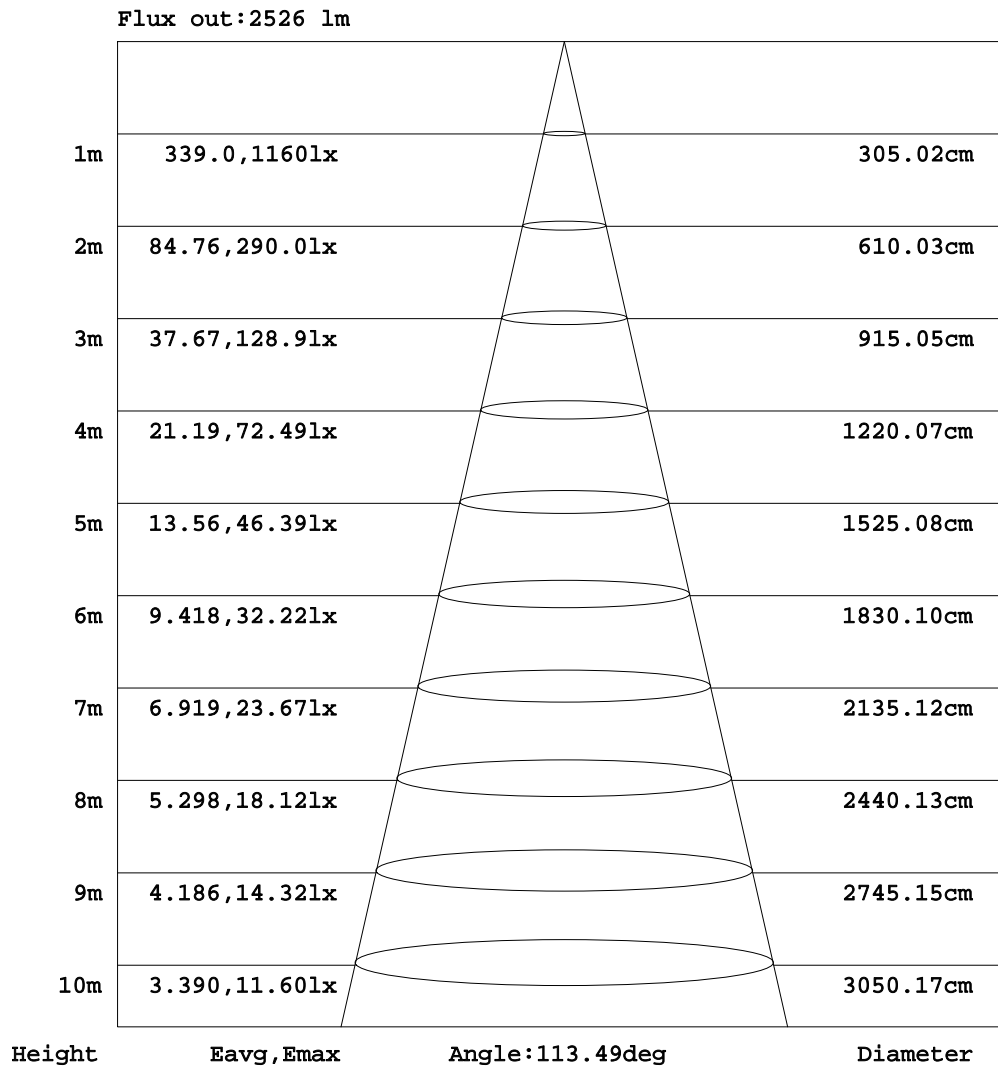


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.9DEG  
 Operators: Zero huang  
 Test Date: 2022-12-19

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity: 60%  
 Test Distance: 26.000m [K=1.4396]  
 Remarks:

AAI Figure

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



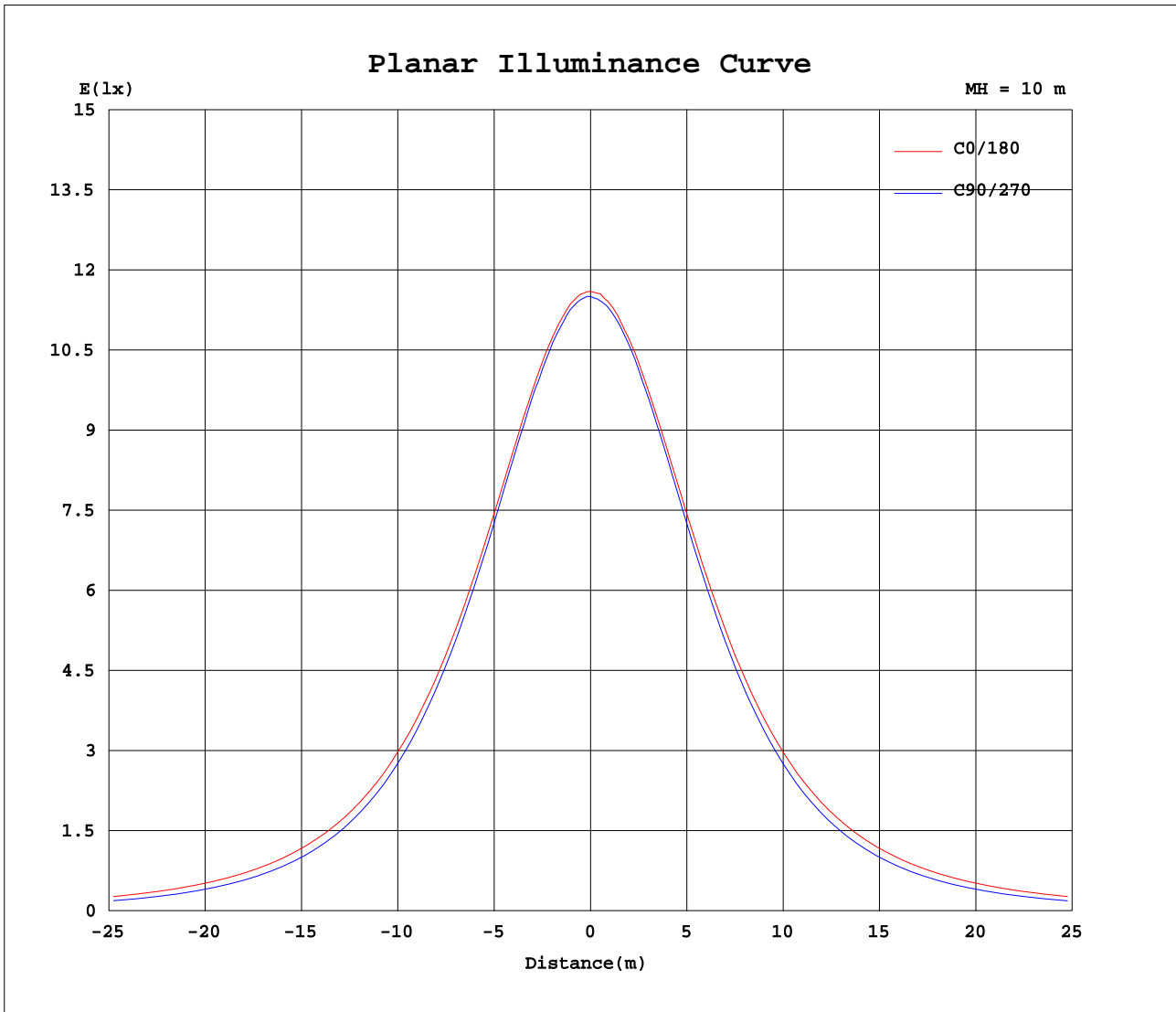
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.9DEG  
 Operators: Zero huang  
 Test Date: 2022-12-19

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity: 60%  
 Test Distance: 26.000m [K=1.4396]  
 Remarks:



### Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.9DEG  
Operators: Zero huang  
Test Date: 2022-12-19

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
Humidity: 60%  
Test Distance: 26.000m [K=1.4396]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.02V I:0.1581A P:35.219W PF:0.9686 Freq:50.01Hz Lamp Flux:3867.39x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150			
5	1146	1147	1145	1149	1146	1147	1148	1147	1146	1146	1148	1150	1145	1147	1145	1145			
10	1132	1133	1131	1134	1130	1135	1134	1133	1130	1131	1135	1135	1129	1130	1128	1131			
15	1112	1110	1104	1109	1104	1109	1112	1112	1109	1107	1114	1112	1103	1107	1103	1109			
20	1082	1079	1072	1077	1073	1079	1081	1082	1080	1077	1083	1083	1071	1074	1070	1078			
25	1044	1039	1032	1033	1031	1034	1040	1047	1044	1039	1043	1041	1029	1029	1029	1040			
30	1000	994	984	986	981	983	992	1005	998	994	996	994	977	980	980	996			
35	951	942	930	930	921	924	936	957	949	946	941	937	917	923	924	945			
40	895	886	869	871	856	852	872	899	894	889	880	867	852	859	862	886			
45	835	822	803	798	782	779	803	833	833	827	812	789	779	786	795	822			
50	768	754	731	718	701	700	730	764	768	754	739	711	699	706	722	756			
55	699	684	656	625	612	618	654	692	698	681	659	626	612	619	648	686			
60	625	610	575	533	518	534	574	618	625	607	577	540	519	530	568	614			
65	550	536	493	441	420	450	491	541	549	530	493	450	420	437	487	535			
70	474	457	411	349	319	356	409	463	474	452	409	356	318	345	405	456			
75	401	380	329	259	217	263	329	386	401	377	328	262	215	258	326	380			
80	334	310	254	175	121	177	256	316	333	309	253	175	119	178	253	312			
85	274	250	191	106	41.5	108	193	254	271	248	190	104	40.6	110	191	251			
90	221	199	142	60.7	1.60	62.2	142	200	218	195	138	57.0	2.52	63.7	142	199			
95	43.1	32.3	11.0	6.16	0.99	6.29	9.15	13.4	9.26	2.70	3.40	6.44	1.40	8.39	2.26	12.0			
100	9.78	21.4	40.0	7.38	1.07	6.97	41.3	25.3	14.1	40.9	34.2	7.00	1.97	9.12	47.6	57.3			
105	109	88.0	45.8	8.44	1.31	8.23	45.2	87.4	106	84.3	43.1	7.32	2.79	10.4	48.9	89.9			
110	89.8	74.7	40.3	7.81	1.31	6.98	38.0	73.5	87.4	70.3	35.3	5.71	3.70	7.84	41.3	75.8			
115	73.1	60.9	32.1	5.72	1.31	4.88	28.9	59.2	69.6	55.9	26.9	4.02	3.86	5.74	32.9	61.2			
120	58.2	48.1	24.4	4.19	1.40	3.07	21.3	45.1	54.1	43.3	19.7	2.89	3.86	4.59	24.6	46.5			
125	44.9	36.6	18.3	3.22	1.40	2.27	15.3	33.2	40.4	31.7	13.6	2.49	3.86	3.44	16.3	31.8			
130	33.0	26.7	13.3	2.82	1.40	2.20	10.3	23.8	28.8	22.4	8.05	2.09	3.86	2.29	7.99	17.2			
135	23.3	19.4	9.27	2.57	1.48	2.12	6.57	16.0	19.5	14.9	2.50	1.69	3.86	1.14	0.00	2.49			
140	16.7	13.4	6.34	2.41	1.89	2.12	4.22	10.2	12.0	8.89	0.00	1.29	3.86	0.00	0.00	0.00			
145	10.8	8.74	4.44	2.41	2.30	2.12	2.82	6.21	7.12	5.09	0.00	0.88	3.86	0.00	0.00	0.00			
150	6.87	5.65	3.41	2.41	2.63	2.12	2.42	3.69	3.61	2.74	0.00	0.48	3.86	0.00	0.00	0.00			
155	4.32	3.72	2.53	2.41	2.63	2.12	2.27	2.44	2.08	0.63	0.00	0.08	3.86	0.00	0.00	0.00			
160	2.39	2.32	2.53	2.41	2.63	2.12	2.27	2.04	2.08	0.00	0.00	0.00	3.86	0.00	0.00	0.00			
165	2.16	2.09	2.53	2.41	3.53	2.27	2.27	1.88	2.11	0.00	0.00	0.00	3.86	0.00	0.00	0.00			
170	2.16	2.09	2.53	2.89	5.49	2.20	2.27	1.88	2.23	0.00	0.00	0.00	3.86	0.00	0.00	0.00			
175	2.16	2.09	2.61	3.30	6.40	2.43	2.34	1.88	2.23	0.00	0.00	0.00	3.86	0.00	0.00	0.00			
180	2.23	2.09	2.61	3.54	6.48	2.51	2.58	1.88	2.23	0.00	0.00	0.00	3.86	0.00	0.00	0.00			

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero huang  
 Test Date:2022-12-19

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.366  
 Humidity:60%  
 Test Distance:26.000m [K=1.4396]  
 Remarks: