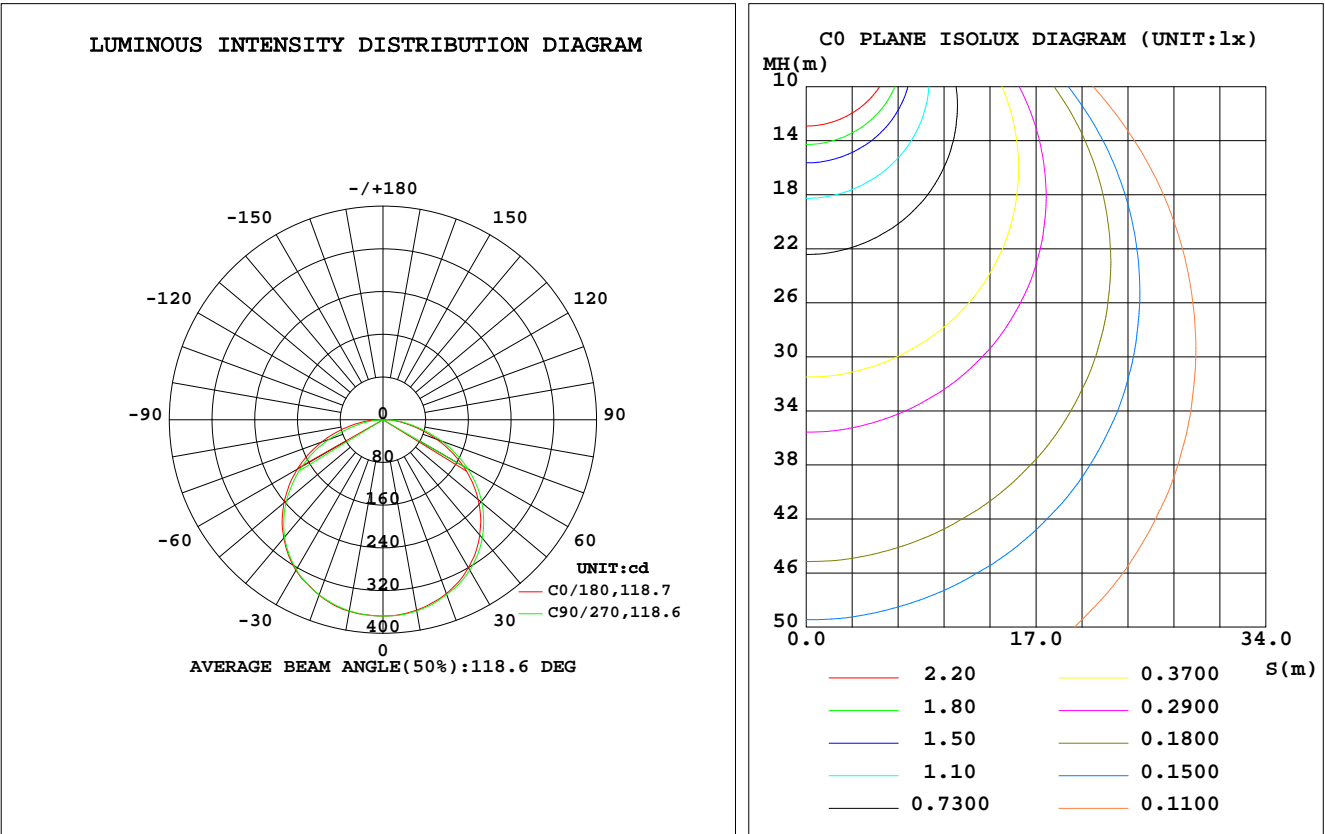


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 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: 124.21 lm/W			
MODEL	NO.1000OFF 1M IP20 21015120	Imax(cd)	367.7	S/MH(C0/180)	1.32
NOMINAL POWER(W)	8.5	LOR(%)	100.0	S/MH(C90/270)	1.31
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	1139.5	η UP,DN(C0-180)	0.2,50.3
NOMINAL FLUX(lm)	1139.53	CIE CLASS	DIRECT	η UP,DN(C180-360)	0.1,49.4
LAMPS INSIDE	1	η up(%)	0.3	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)	24	η down(%)	99.7	CIBSE SHR MAX	1.50



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Zero huang
Test Date:2023-12-18

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=1.5110]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	362.1	365.1	363.6	364.0	364.5	362.4	363.5	361.2	0- 10	34.88	34.88	3.06,3.06
20	346.5	350.3	348.5	349.7	349.4	346.9	348.8	345.3	10- 20	100.9	135.7	11.9,11.9
30	319.9	326.2	325.3	324.8	325.6	321.4	323.9	320.4	20- 30	155.7	291.4	25.6,25.6
40	282.0	289.3	289.3	289.5	289.2	285.6	286.8	280.7	30- 40	191.8	483.2	42.4,42.4
50	232.7	240.6	241.8	244.1	242.2	239.6	235.9	229.7	40- 50	203.5	686.7	60.3,60.3
60	173.3	180.7	183.3	185.5	185.5	180.6	175.4	171.9	50- 60	187.8	874.5	76.7,76.7
70	107.3	112.5	117.1	119.6	122.4	114.8	106.7	107.1	60- 70	145.7	1020	89.5,89.5
80	45.30	48.04	52.17	56.88	59.06	51.91	42.08	46.33	70- 80	85.43	1106	97,97
90	13.40	11.29	6.174	14.97	12.91	10.77	1.401	10.91	80- 90	30.37	1136	99.7,99.7
100	4.536	0	0	0.3442	0.4221	0	0.1777	2.050	90-100	2.371	1138	99.9,99.9
110	1.716	0.1786	0	0	0	0	0.4390	0	100-110	0.6229	1139	100,100
120	0.0008	0	0	0	0	0	0.4390	0.0860	110-120	0.1328	1139	100,100
130	0	0	0	0	0.0856	0.0873	0.4390	0.0860	120-130	0.0676	1139	100,100
140	0	0	0	0	0.0867	0.1746	0.4390	0.1721	130-140	0.0722	1139	100,100
150	0	0	0.0878	0	0.1712	0.1746	0.4390	0.1721	140-150	0.0808	1139	100,100
160	0.0856	0.2554	0.0878	0.0860	0.1712	0.1746	0.3172	0.1721	150-160	0.0742	1139	100,100
170	0.1338	0.2079	1.051	0.0860	0.1712	0.1746	0.2339	0.1721	160-170	0.0631	1140	100,100
180	0.1712	0.1746	1.405	0.0860	0.1712	0.0873	0.1756	0.1721	170-180	0.0284	1140	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 585.24 lm

%lum = 51.4%

%lamp = 51.4%

Conical surface Flux(120deg): 874.53 lm

%lum = 76.7%

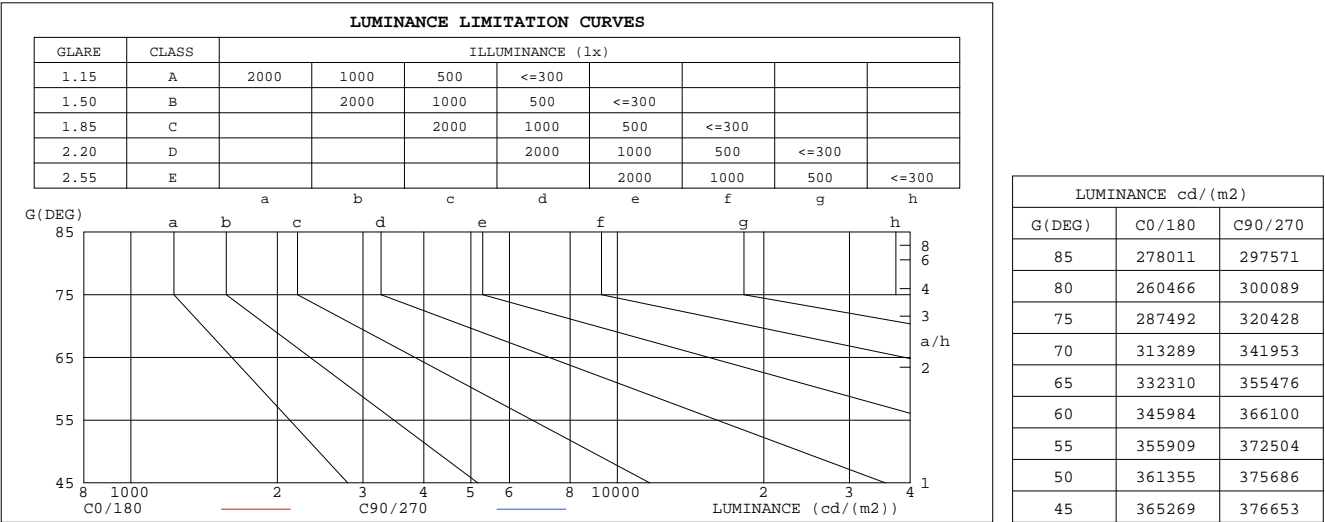
%lamp = 76.7%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2023-12-18

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=1.5110]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 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:2023-12-18

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=1.5110]
Remarks:

WEC AND CCEC

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 lm								
NAME:			TYPE:LED			WEIGHT:N/A		
SPEC.:N/A			DIM.:			SERIAL No.:N/A		
MFR.:			SUR.:			Shielding Angle:N/A		

pcc	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	.323	.184	.058	.316	.180	.057	.302	.173	.055	.290	.167	.054	.278	.161	.052	
2.0	.301	.165	.051	.294	.162	.050	.282	.157	.049	.271	.152	.048	.261	.148	.047	
3.0	.277	.147	.044	.271	.145	.044	.260	.141	.043	.251	.137	.042	.242	.134	.041	
4.0	.254	.132	.039	.249	.131	.039	.240	.127	.038	.231	.124	.037	.223	.121	.037	
5.0	.235	.120	.035	.230	.118	.034	.222	.115	.034	.214	.113	.034	.207	.110	.033	
6.0	.217	.109	.031	.213	.108	.031	.206	.105	.031	.199	.103	.030	.192	.101	.030	
7.0	.202	.100	.028	.198	.099	.028	.192	.097	.028	.185	.095	.028	.179	.093	.027	
8.0	.188	.092	.026	.185	.091	.026	.179	.089	.026	.173	.088	.025	.168	.086	.025	
9.0	.176	.085	.024	.173	.084	.024	.168	.083	.024	.163	.082	.023	.158	.080	.023	
10.0	.165	.079	.022	.163	.079	.022	.158	.077	.022	.154	.076	.022	.149	.075	.022	

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	.193	.193	.193	.165	.165	.165	.112	.112	.112	.065	.065	.065	.021	.021	.021	
1.0	.184	.158	.136	.157	.136	.117	.107	.094	.081	.062	.054	.047	.020	.017	.015	
2.0	.176	.134	.099	.151	.116	.086	.103	.080	.060	.059	.047	.035	.019	.015	.011	
3.0	.168	.117	.076	.144	.101	.066	.099	.070	.046	.057	.041	.027	.018	.013	.009	
4.0	.161	.104	.060	.138	.089	.052	.095	.062	.037	.055	.037	.022	.018	.012	.007	
5.0	.153	.093	.049	.131	.081	.043	.091	.056	.030	.052	.033	.018	.017	.011	.006	
6.0	.146	.085	.041	.125	.073	.036	.086	.051	.025	.050	.030	.015	.016	.010	.005	
7.0	.139	.078	.035	.120	.068	.031	.083	.047	.022	.048	.028	.013	.016	.009	.004	
8.0	.132	.072	.031	.114	.063	.027	.079	.044	.019	.046	.026	.011	.015	.009	.004	
9.0	.126	.067	.027	.109	.058	.024	.075	.041	.017	.044	.024	.010	.014	.008	.003	
10.0	.120	.063	.025	.104	.055	.022	.072	.038	.015	.042	.023	.009	.014	.007	.003	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2023-12-18

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=1.5110]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 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		33.3	34.9	33.6	35.1	35.3	33.6	35.1	33.8	35.3	35.5
	3H	34.8	36.2	35.1	36.5	36.7	35.2	36.6	35.5	36.8	37.1
	4H	35.4	36.7	35.7	37.0	37.3	35.8	37.2	36.1	37.4	37.7
	6H	35.8	37.1	36.1	37.4	37.6	36.3	37.6	36.6	37.8	38.1
	8H	35.9	37.2	36.3	37.5	37.8	36.5	37.7	36.8	38.0	38.3
	12H	36.1	37.2	36.4	37.6	37.9	36.6	37.8	36.9	38.1	38.4
4H	2H	34.0	35.3	34.3	35.6	35.9	34.2	35.5	34.5	35.8	36.0
	3H	35.6	36.8	36.0	37.1	37.4	35.9	37.1	36.3	37.4	37.7
	4H	36.3	37.4	36.7	37.7	38.1	36.7	37.8	37.1	38.1	38.5
	6H	36.9	37.8	37.3	38.2	38.6	37.3	38.3	37.7	38.7	39.0
	8H	37.1	38.0	37.5	38.3	38.7	37.6	38.5	38.0	38.9	39.2
	12H	37.2	38.1	37.7	38.5	38.9	37.8	38.6	38.2	39.0	39.4
8H	4H	36.6	37.5	37.0	37.9	38.3	37.0	37.9	37.4	38.2	38.6
	6H	37.3	38.1	37.8	38.5	38.9	37.7	38.5	38.2	38.9	39.3
	8H	37.6	38.3	38.1	38.7	39.2	38.1	38.7	38.5	39.2	39.6
	12H	37.9	38.5	38.4	38.9	39.4	38.4	38.9	38.9	39.4	39.9
12H	4H	36.6	37.5	37.1	37.9	38.3	37.0	37.8	37.4	38.2	38.6
	6H	37.4	38.1	37.8	38.5	38.9	37.8	38.5	38.3	38.9	39.4
	8H	37.7	38.3	38.2	38.8	39.2	38.2	38.8	38.7	39.2	39.7
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.1 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.4					+ 0.2 / - 0.3					

CIE Pub.117, 1140 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 0.5$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2023-12-18

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=1.5110]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

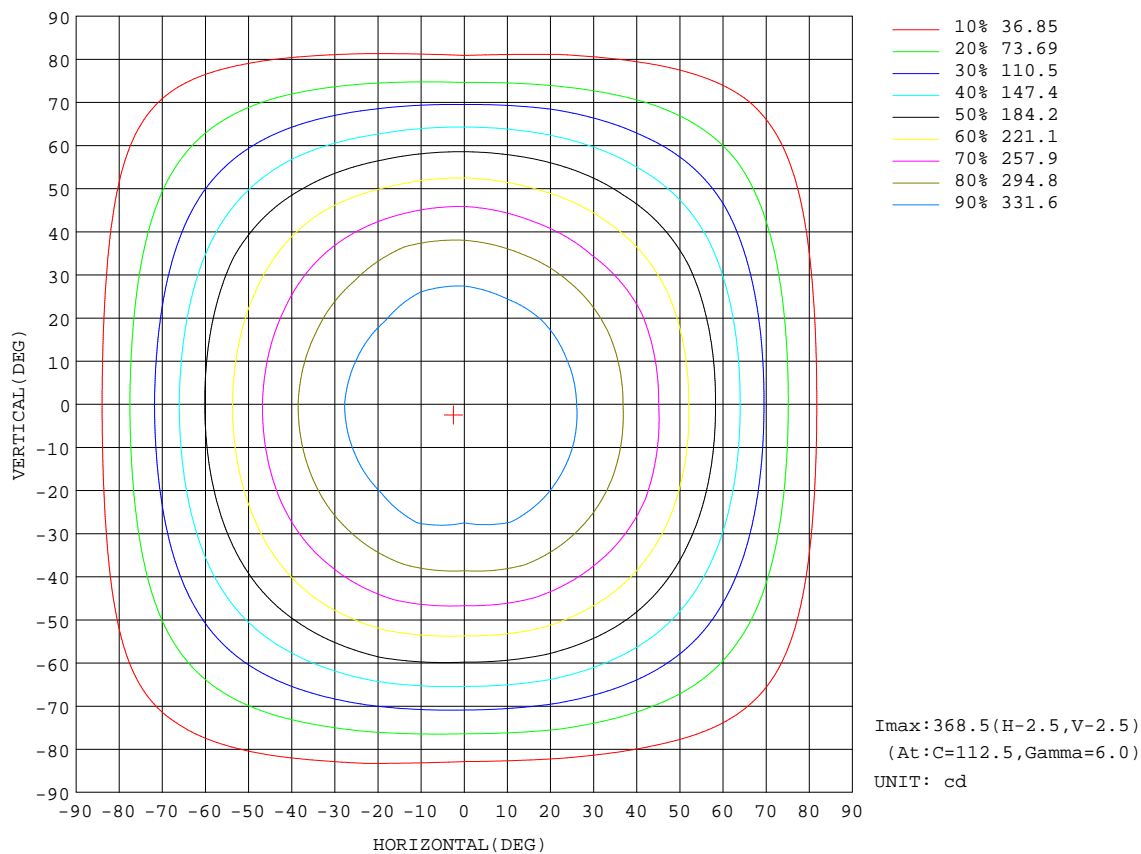
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	44	37	55	44	37	54	44	37	30
0.80	66	54	47	65	54	47	63	53	46	39
1.00	75	63	56	73	63	56	71	64	55	48
1.25	82	71	64	80	70	63	78	69	62	55
1.50	87	77	69	85	76	69	82	74	68	60
2.00	94	85	78	92	84	78	88	82	76	68
2.50	98	90	84	96	88	83	92	86	81	72
3.00	101	94	88	99	93	87	95	90	85	76
4.00	106	100	95	103	98	93	99	94	91	81
5.00	108	103	99	106	101	97	101	97	94	85
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:2023-12-18

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=1.5110]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

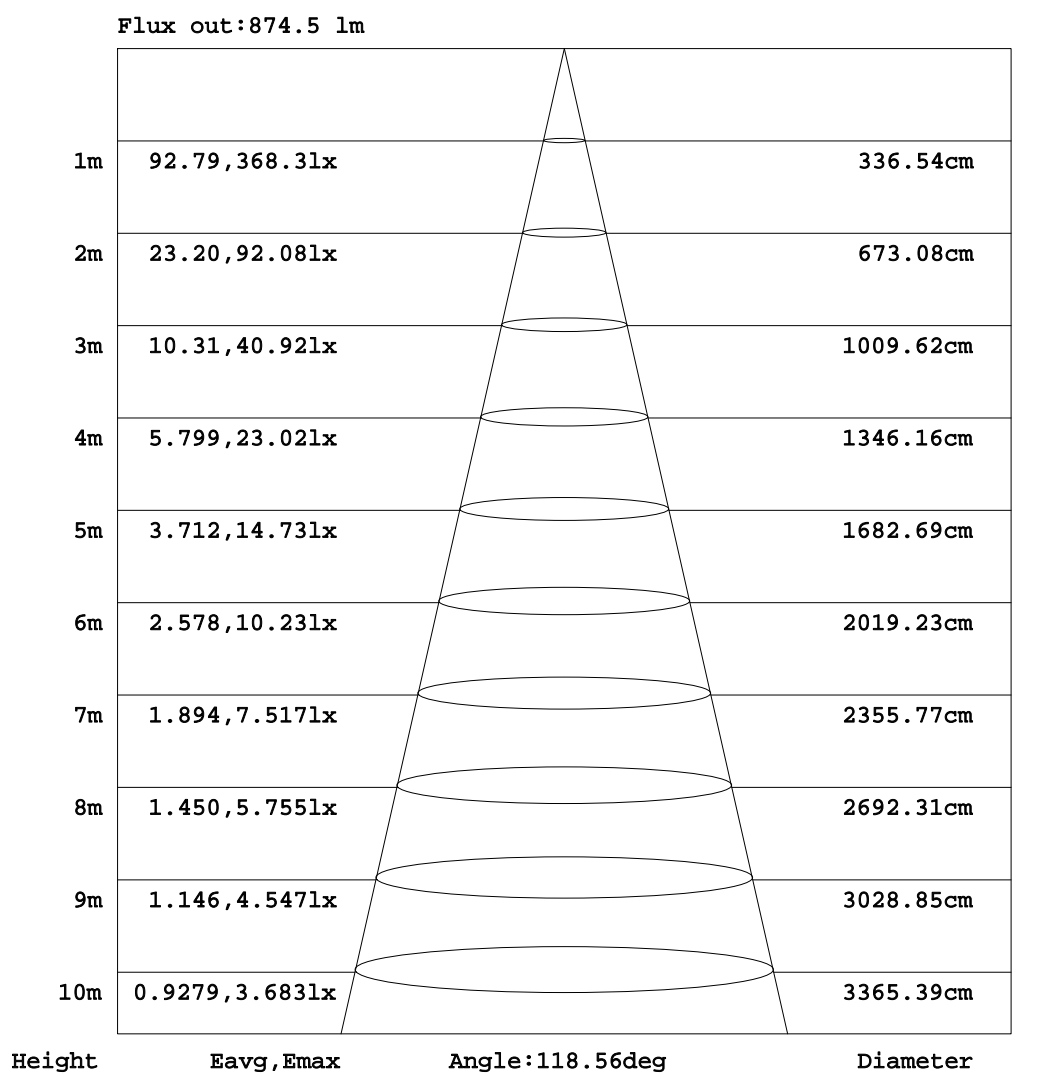


C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2023-12-18

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=1.5110]
 Remarks:

AAI Figure

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

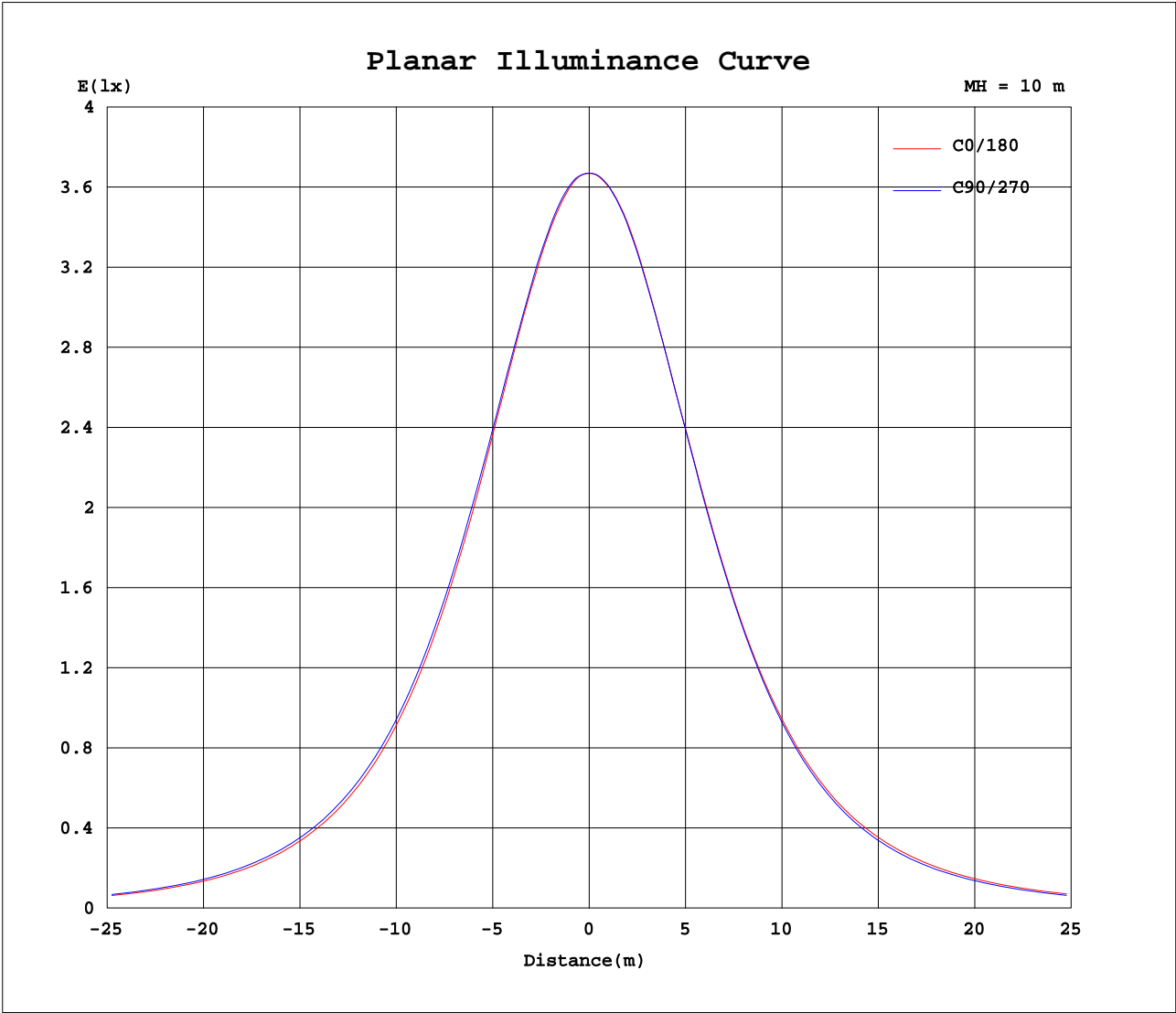


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2023-12-18

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=1.5110]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Zero huang
Test Date:2023-12-18

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=1.5110]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.007V I:0.3822A P:9.1745W PF:1.0000 Freq:0Hz Lamp Flux:1139.53x1 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(DEC) γ (DEC)	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	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367			
5	366	367	368	367	367	368	367	368	366	365	366	366	367	366	365	365			
10	362	362	365	365	364	365	364	364	364	362	362	361	364	361	361	361			
15	355	356	359	360	358	360	358	358	359	356	357	356	358	355	354	354			
20	346	348	350	354	348	353	350	349	349	348	347	348	349	346	345	345			
25	335	337	339	343	338	343	338	338	338	337	336	338	338	334	334	333			
30	320	323	326	330	325	330	325	324	326	323	321	326	324	321	320	319			
35	303	306	308	313	309	312	304	308	309	305	305	309	307	302	301	302			
40	282	287	289	292	289	292	290	289	289	287	286	289	287	280	281	282			
45	259	265	267	268	267	270	267	267	267	264	263	263	263	257	253	259			
50	233	239	241	243	242	246	244	243	242	239	240	235	236	231	230	233			
55	204	208	212	215	214	219	217	214	215	212	211	207	206	204	201	205			
60	173	175	181	184	183	189	185	185	185	187	181	176	175	173	172	175			
65	141	142	147	151	150	154	153	153	155	152	149	144	143	142	140	143			
70	107	108	113	117	117	120	120	121	122	119	115	110	107	109	107	110			
75	74.5	74.8	78.4	83.4	83.0	86.2	87.4	88.2	89.8	86.0	82.2	76.6	71.0	73.1	75.2	76.9			
80	45.3	45.9	48.0	51.7	52.2	56.1	56.9	56.9	59.1	55.5	51.9	47.4	42.1	45.3	46.3	47.2			
85	24.3	25.2	25.4	26.6	26.0	31.6	32.0	30.8	31.8	29.7	26.9	24.0	13.5	23.6	24.4	24.5			
90	13.4	12.8	11.3	10.3	6.17	15.0	15.0	13.2	12.9	11.5	10.8	10.1	1.40	10.0	10.9	12.2			
95	0.00	0.00	0.00	0.01	0.09	0.01	0.09	0.01	0.00	0.00	0.00	0.44	0.00	0.26	0.01	0.00			
100	4.54	4.05	0.00	0.00	0.00	0.48	0.34	0.00	0.42	0.00	0.00	0.09	0.18	0.00	2.05	3.94			
105	3.26	2.50	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.44	0.00	0.57	1.72			
110	1.72	1.12	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.44	0.09	0.00	0.43			
115	0.52	0.35	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.44	0.10	0.08	0.00			
120	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.44	0.17	0.09	0.00			
125	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.32	0.44	0.24	0.09	0.00			
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.09	0.27	0.44	0.30	0.09	0.17			
135	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.09	0.22	0.44	0.35	0.09	0.09			
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.17	0.18	0.44	0.35	0.17	0.09			
145	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.17	0.17	0.17	0.18	0.44	0.61	0.17	0.09			
150	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.17	0.17	0.17	0.18	0.44	0.74	0.17	0.09			
155	0.00	0.09	0.00	0.00	0.09	0.09	0.00	0.00	0.17	0.17	0.17	0.18	0.52	0.83	0.17	0.09			
160	0.09	0.09	0.26	0.00	0.09	0.10	0.09	0.00	0.17	0.17	0.17	0.18	0.32	1.31	0.17	0.09			
165	0.11	0.09	0.23	0.00	0.26	0.12	0.09	0.00	0.17	0.17	0.17	0.18	0.28	1.34	0.17	0.09			
170	0.13	0.09	0.21	0.17	1.05	0.14	0.09	0.00	0.17	0.17	0.17	0.18	0.23	1.36	0.17	0.09			
175	0.16	0.09	0.18	0.14	1.40	0.17	0.09	0.09	0.17	0.17	0.17	0.18	0.19	1.39	0.17	0.09			
180	0.17	0.09	0.17	0.18	1.40	0.17	0.09	0.17	0.17	0.17	0.09	0.18	0.18	1.40	0.17	0.09			

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Zero huang
Test Date:2023-12-18

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=1.5110]
Remarks: