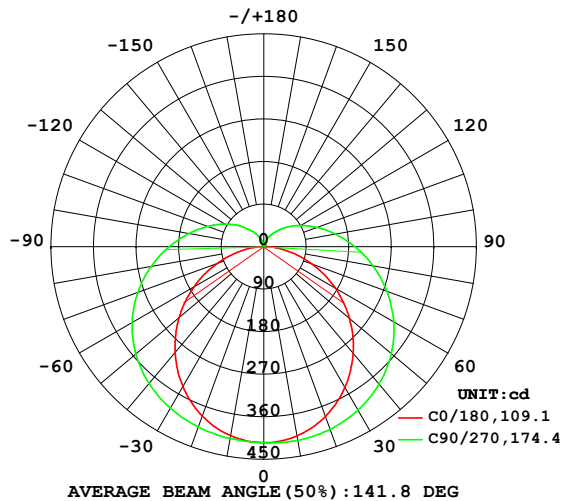


LUMINAIRE PHOTOMETRIC TEST REPORT

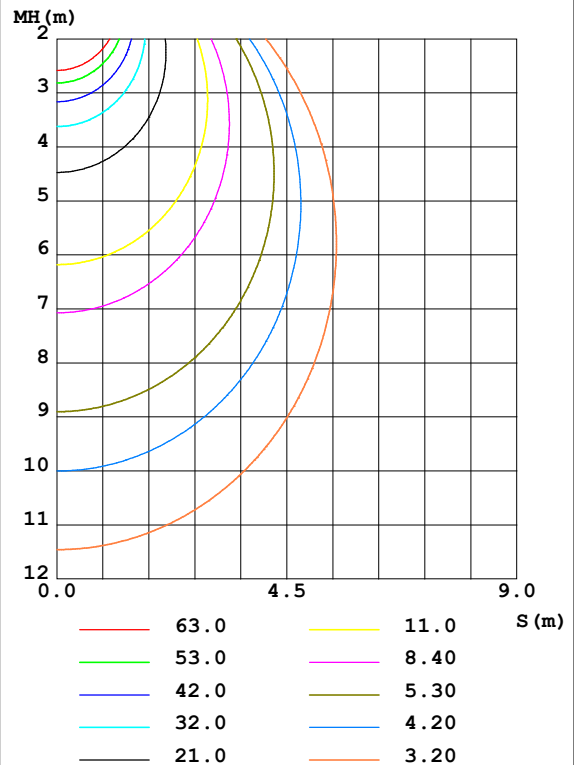
Test:U:230.4V I:0.1365A P:18W PF:0.5627 Freq:49.99Hz Lamp Flux:1890x1 lm		
SGSO SKU: 0028920140	TYPE:	WEIGHT:
SPEC.:1.2m T5 Cabinet,18W,1890lm,105lm/W,3CCT Switch,3000/3500/4000K,Linkable	DIM.: ϕ 1182*21.5mm	SERIAL No.:
MFR.: TOSPO	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 105 lm/W			
MODEL	1.2m-18w-3000K	I _{max} (cd)	415.9	S/MH (C0/180)	1.23
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH (C90/270)	1.44
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1890	η UP,DN(C0-180)	8.4,41.4
NOMINAL FLUX(lm)	1890	CIE CLASS	SEMI-D.	η UP,DN(C180-360)	8.8,41.4
LAMPS INSIDE	1	η up (%)	17.2	CIBSE SHR NOM	1.50
TEST VOLTAGE (V)		η down (%)	82.8	CIBSE SHR MAX	1.55

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Testing Room
Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
Humidity:25%
Test Distance:11.350m [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	406.4	411.4	415.8	411.3	406.0	408.8	411.9	408.8	0- 10	39.36	39.36	2.01,2.01
20	382.0	397.8	411.2	397.5	381.1	394.1	406.0	394.1	10- 20	114.2	153.5	7.86,7.86
30	343.7	373.8	399.2	373.4	342.1	370.2	394.8	370.4	20- 30	177.4	330.9	16.9,16.9
40	294.4	341.2	379.5	340.5	292.1	338.7	377.6	339.1	30- 40	222.7	553.6	28.3,28.3
50	236.9	302.1	352.1	301.3	234.2	301.4	353.4	301.8	40- 50	246.2	799.8	40.9,40.9
60	174.5	259.0	317.5	258.1	171.1	259.7	321.7	260.5	50- 60	247.2	1047	53.6,53.6
70	109.5	214.3	277.3	213.4	105.7	216.5	283.7	217.5	60- 70	227.5	1274	65.2,65.2
80	47.55	171.4	234.8	170.4	43.78	174.7	241.8	175.8	70- 80	192.8	1467	75.1,75.1
90	5.637	132.9	192.9	131.9	3.709	136.9	200.1	138.1	80- 90	151.7	1619	82.8,82.8
100	1.770	100.4	154.2	99.49	1.696	98.98	161.1	105.9	90-100	115.2	1734	88.7,88.7
110	1.950	74.25	119.9	70.73	1.748	75.77	126.3	79.58	100-110	84.49	1819	93,93
120	2.107	53.63	90.06	43.83	2.019	47.18	96.00	58.64	110-120	58.61	1877	96,96
130	2.364	37.44	64.71	28.06	2.237	30.33	70.03	41.94	120-130	37.73	1915	98,98
140	2.515	24.63	43.40	16.59	2.478	18.65	46.24	28.68	130-140	21.74	1937	99.1,99.1
150	2.620	14.97	26.36	9.689	2.621	10.77	29.42	17.80	140-150	11.17	1948	99.7,99.7
160	2.716	7.729	11.93	6.722	2.749	6.888	15.07	8.206	150-160	4.833	1953	99.9,99.9
170	2.774	3.808	4.403	3.717	2.854	3.321	3.119	3.205	160-170	1.510	1954	100,100
180	2.854	2.878	2.886	2.858	2.884	2.824	2.871	2.873	170-180	0.2955	1955	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 675.18 lm

%lum = 34.5%

%lamp = 34.5%

Conical surface Flux(120deg): 1047 lm

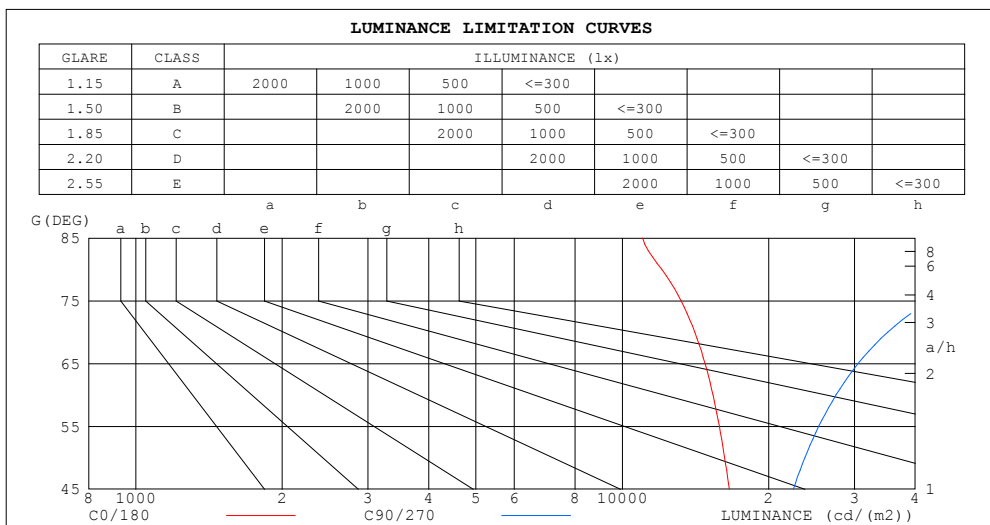
%lum = 53.6%

%lamp = 53.6%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:Testing Room
 Test Date:2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity:25%
 Test Distance:11.350m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	11014	106147
80	12060	58563
75	13201	42862
70	14095	35123
65	14794	30527
60	15367	27505
55	15833	25349
50	16233	23730
45	16595	22468

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Testing Room
 Test Date: 2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity: 25%
 Test Distance: 11.350m [K=1.0000]
 Remarks:

WEC AND CCEC

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	.391	.222	.070	.378	.216	.069	.355	.204	.065	.333	.192	.062	.314	.182	.059		
2.0	.337	.185	.057	.326	.180	.055	.305	.170	.053	.285	.160	.050	.267	.151	.048		
3.0	.299	.159	.048	.289	.155	.047	.270	.146	.044	.252	.138	.042	.236	.131	.040		
4.0	.269	.140	.041	.260	.136	.040	.242	.129	.038	.226	.122	.037	.211	.115	.035		
5.0	.244	.124	.036	.236	.121	.035	.220	.115	.034	.206	.108	.032	.192	.103	.031		
6.0	.224	.112	.032	.216	.109	.031	.202	.103	.030	.188	.098	.029	.176	.093	.027		
7.0	.206	.102	.029	.199	.099	.028	.186	.094	.027	.174	.089	.026	.162	.084	.025		
8.0	.191	.093	.026	.185	.091	.026	.173	.086	.025	.161	.082	.024	.151	.077	.023		
9.0	.178	.086	.024	.172	.084	.024	.161	.080	.023	.151	.076	.022	.141	.072	.021		
10.0	.166	.080	.022	.161	.078	.022	.151	.074	.021	.141	.070	.020	.132	.067	.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	.321	.321	.321	.275	.275	.275	.187	.187	.187	.108	.108	.108	.034	.034	.034		
1.0	.318	.287	.260	.272	.247	.224	.186	.170	.155	.107	.098	.090	.034	.032	.029		
2.0	.311	.264	.225	.266	.228	.195	.183	.158	.136	.105	.092	.080	.034	.030	.026		
3.0	.304	.248	.204	.260	.214	.177	.179	.149	.124	.103	.087	.073	.033	.028	.024		
4.0	.296	.236	.189	.254	.204	.165	.175	.142	.116	.101	.083	.069	.032	.027	.023		
5.0	.288	.226	.180	.247	.195	.156	.170	.136	.110	.099	.080	.065	.032	.026	.022		
6.0	.281	.218	.173	.241	.189	.150	.166	.132	.106	.097	.078	.063	.031	.025	.021		
7.0	.273	.211	.167	.235	.183	.146	.163	.128	.103	.094	.076	.062	.031	.025	.020		
8.0	.267	.206	.164	.230	.178	.143	.159	.125	.101	.092	.074	.060	.030	.024	.020		
9.0	.260	.201	.161	.224	.174	.140	.155	.122	.099	.091	.072	.059	.029	.024	.020		
10.0	.254	.197	.158	.219	.171	.138	.152	.120	.098	.089	.071	.058	.029	.023	.019		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Testing Room
Test Date:2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
Humidity:25%
Test Distance:11.350m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

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	18.8	20.2	19.3	20.7	21.3	21.2	22.6	21.7	23.1	23.6
3H	20.4	21.7	20.9	22.2	22.8	23.9	25.2	24.4	25.7	26.3
4H	21.1	22.3	21.6	22.8	23.5	25.3	26.6	25.9	27.1	27.7
6H	21.6	22.7	22.2	23.3	23.9	27.0	28.1	27.5	28.7	29.3
8H	21.8	22.9	22.3	23.5	24.1	27.8	29.0	28.4	29.5	30.2
12H	21.9	23.0	22.5	23.5	24.2	28.9	29.9	29.5	30.5	31.2
4H 2H	20.1	21.3	20.6	21.8	22.4	21.7	23.0	22.3	23.5	24.1
3H	21.9	23.0	22.5	23.6	24.2	24.7	25.8	25.3	26.3	27.0
4H	22.8	23.8	23.4	24.4	25.1	26.4	27.3	27.0	28.0	28.6
6H	23.5	24.4	24.1	25.0	25.7	28.2	29.1	28.8	29.7	30.4
8H	23.8	24.6	24.4	25.2	26.0	29.2	30.0	29.9	30.7	31.4
12H	24.0	24.7	24.6	25.4	26.2	30.4	31.1	31.0	31.8	32.6
8H 4H	23.9	24.7	24.5	25.4	26.1	26.7	27.5	27.4	28.2	28.9
6H	25.0	25.7	25.7	26.4	27.2	28.8	29.6	29.5	30.2	31.0
8H	25.5	26.1	26.2	26.8	27.6	30.1	30.7	30.8	31.4	32.2
12H	25.9	26.5	26.6	27.2	28.0	31.5	32.1	32.2	32.8	33.6
12H 4H	24.2	25.0	24.9	25.7	26.4	26.7	27.5	27.4	28.2	28.9
6H	25.6	26.2	26.3	26.9	27.7	29.0	29.6	29.7	30.3	31.1
8H	26.3	26.8	27.0	27.5	28.4	30.3	30.9	31.0	31.6	32.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.4					+ 0.2 / - 0.4				

CIE Pub.117, 1955 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.3$)

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Testing Room
Test Date:2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
Humidity:25%
Test Distance:11.350m [K=1.0000]
Remarks:

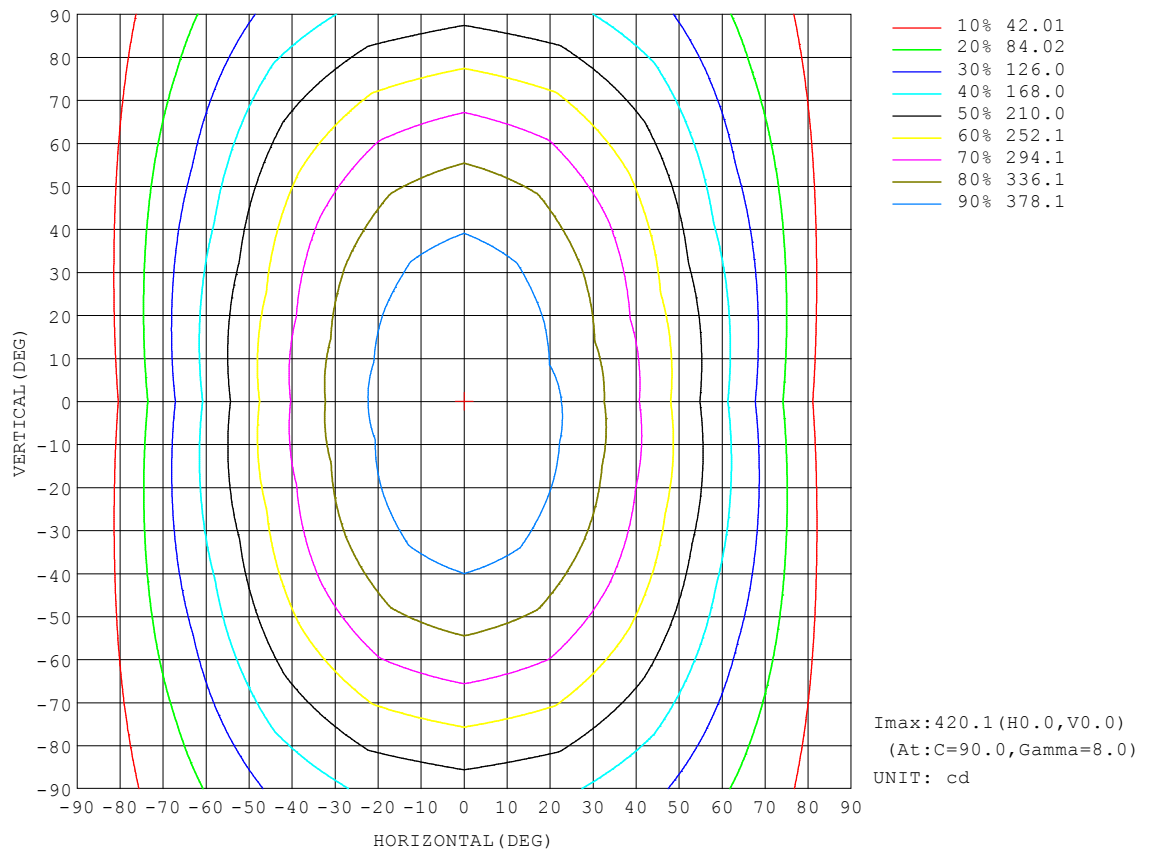
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	48	35	28	46	35	28	45	34	27	20
0.80	57	44	35	55	43	35	52	42	34	26
1.00	64	51	43	63	50	42	59	51	41	33
1.25	71	59	50	69	57	49	65	55	48	38
1.50	76	64	55	74	63	54	69	60	52	42
2.00	84	73	64	81	71	63	75	67	60	49
2.50	88	78	70	85	76	68	79	71	65	52
3.00	92	83	75	89	80	73	82	75	69	56
4.00	97	89	82	93	86	80	86	80	75	61
5.00	100	93	87	96	90	84	88	83	79	64
ROOM INDEX	UF (total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHR NOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Testing Room
 Test Date: 2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity: 25%
 Test Distance: 11.350m [K=1.0000]
 Remarks:

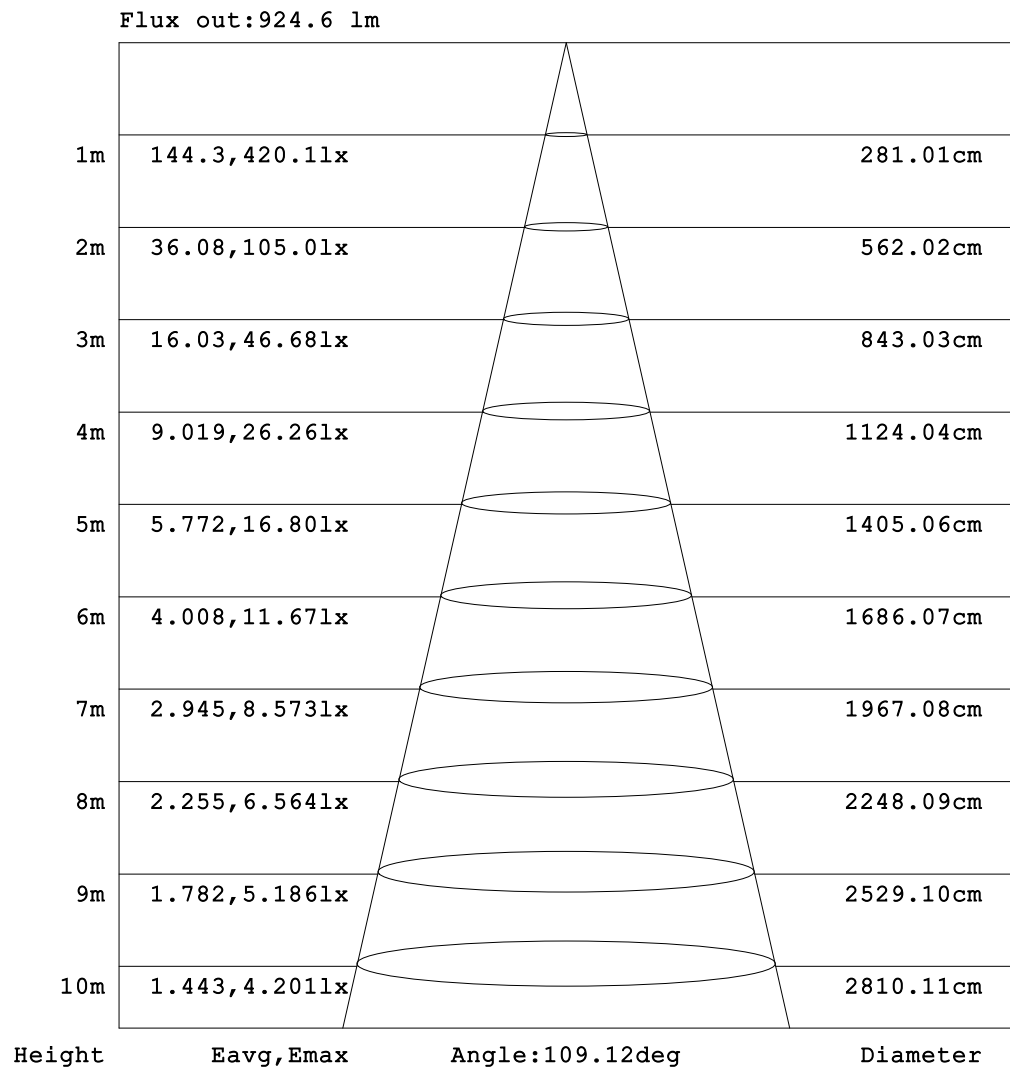
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: Testing Room
Test Date: 2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-3000H_V1 SYSTEM V2.0.361
Humidity: 25%
Test Distance: 11.350m [K=1.0000]
Remarks:

AAI Figure

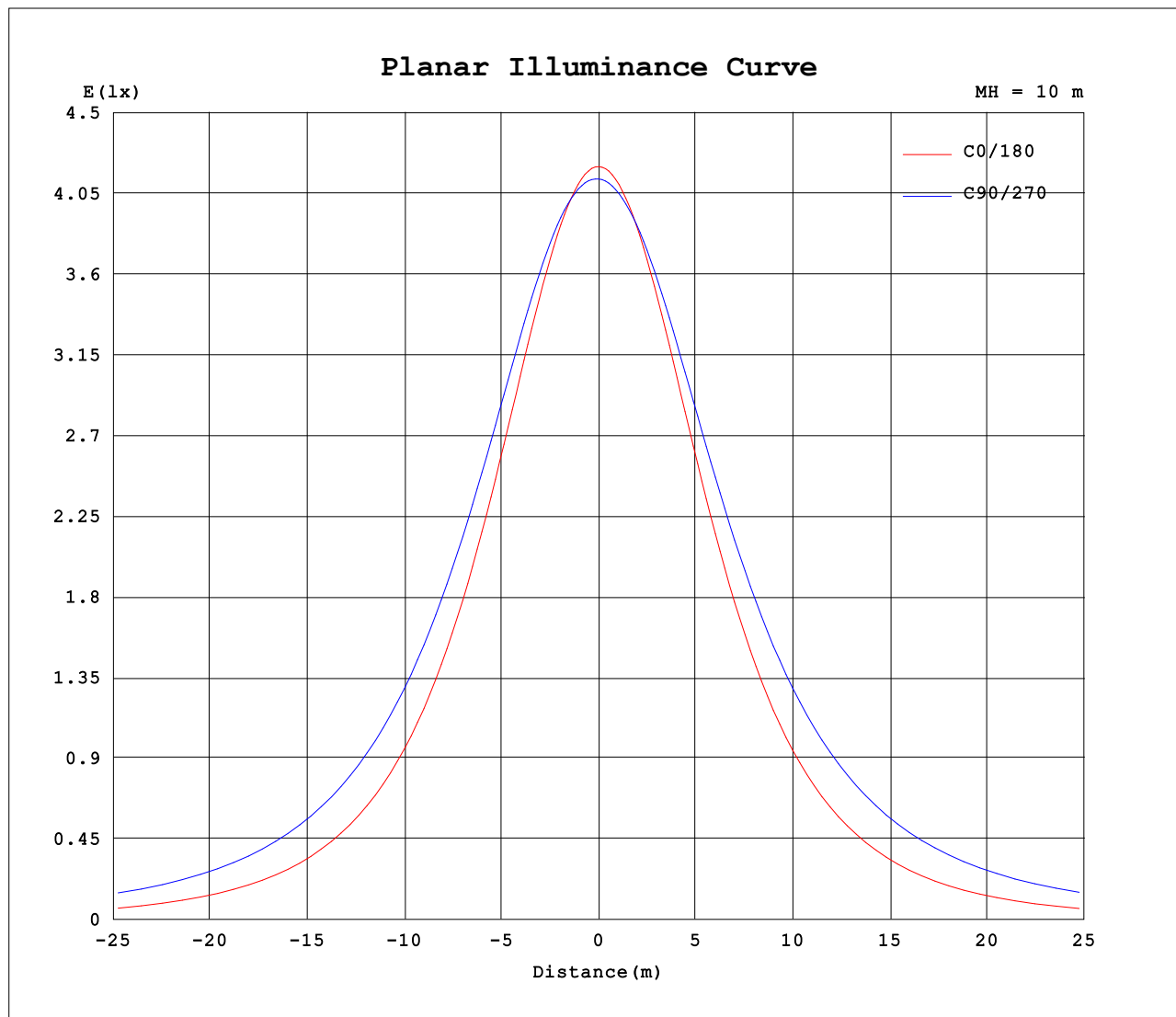


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:Testing Room
Test Date:2023-03-02

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361
Humidity:25%
Test Distance:11.350m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Testing Room
 Test Date: 2023-03-02

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.0.361
 Humidity: 25%
 Test Distance: 11.350m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Table--1

UNIT: cd

γ (DEG) \ C (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	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415	415			
5	413	413	414	415	416	415	414	413	412	412	413	413	414	413	413	412			
10	406	408	411	415	416	414	411	408	406	406	409	411	412	411	409	407			
15	396	400	406	412	414	412	406	400	395	397	403	408	410	408	403	397			
20	382	388	398	407	411	407	398	387	381	384	394	402	406	403	394	385			
25	365	373	387	401	406	401	387	372	363	368	383	396	401	396	383	369			
30	344	355	374	392	399	392	373	354	342	350	370	388	395	388	370	351			
35	320	334	358	382	390	381	358	333	318	329	355	378	387	378	356	330			
40	294	312	341	369	380	369	341	310	292	306	339	366	378	367	339	308			
45	266	287	322	355	367	354	322	285	264	282	321	353	366	354	321	283			
50	237	261	302	339	352	338	301	259	234	256	301	338	353	339	302	258			
55	206	235	281	321	336	321	280	232	203	230	281	322	338	323	282	231			
60	174	208	259	302	317	302	258	205	171	203	260	304	322	305	261	204			
65	142	181	237	282	298	282	236	177	138	176	238	285	303	286	239	178			
70	109	154	214	261	277	261	213	151	106	150	217	265	284	266	218	151			
75	77.6	129	192	240	256	240	192	125	73.8	125	195	244	263	245	196	127			
80	47.6	105	171	219	235	219	170	102	43.8	102	175	223	242	224	176	104			
85	21.8	84.5	151	198	214	198	151	81.0	18.5	82.4	155	203	221	204	156	83.8			
90	5.64	67.1	133	178	193	178	132	63.9	3.71	66.1	137	183	200	184	138	67.3			
95	4.15	53.5	116	159	173	159	115	50.6	2.83	53.3	120	164	180	165	121	54.3			
100	1.77	42.9	100	141	154	141	99.5	40.3	1.70	43.3	99.0	146	161	147	106	44.3			
105	1.84	35.0	86.6	124	136	124	80.4	31.9	1.63	34.6	87.2	129	143	130	92.1	36.6			
110	1.95	28.9	74.3	109	120	108	70.7	25.5	1.75	27.7	75.8	109	126	114	79.6	30.7			
115	2.00	24.0	63.3	94.1	104	93.9	56.6	20.0	1.89	21.7	60.2	95.9	111	99.5	68.5	26.0			
120	2.11	19.5	53.6	80.8	90.1	80.3	43.8	15.3	2.02	17.2	47.2	82.9	96.0	86.0	58.6	22.1			
125	2.25	16.2	45.1	68.7	76.9	67.3	34.5	12.5	2.14	13.5	37.0	70.6	82.5	73.7	49.8	18.6			
130	2.36	13.4	37.4	57.6	64.7	52.3	28.1	10.1	2.24	10.4	30.3	54.1	70.0	62.3	41.9	15.4			
135	2.44	10.9	30.3	47.5	53.5	37.2	21.3	7.96	2.37	8.56	23.9	39.2	56.9	52.0	34.9	13.1			
140	2.51	8.67	24.6	38.3	43.4	29.2	16.6	6.60	2.48	7.06	18.7	30.6	46.2	42.7	28.7	9.63			
145	2.53	6.57	19.7	30.1	33.9	21.4	12.8	5.76	2.55	5.82	14.0	23.5	37.7	34.3	22.5	7.26			
150	2.62	5.32	15.0	23.5	26.4	15.7	9.69	4.85	2.62	3.41	10.8	17.1	29.4	26.4	17.8	5.91			
155	2.65	4.34	11.2	17.2	19.6	11.2	8.03	4.21	2.68	3.49	9.20	12.0	18.5	19.9	13.3	4.63			
160	2.72	3.71	7.73	12.1	11.9	7.91	6.72	3.76	2.75	3.40	6.89	8.59	15.1	14.0	8.21	3.77			
165	2.74	3.24	5.24	8.12	9.05	5.71	5.17	3.32	2.80	2.82	4.10	4.64	6.21	7.61	4.87	2.91			
170	2.77	3.08	3.81	4.65	4.40	4.16	3.72	2.84	2.85	2.80	3.32	3.38	3.12	3.47	3.20	2.89			
175	2.82	2.93	2.93	2.89	3.09	2.86	2.86	2.86	2.88	2.80	2.97	2.87	2.94	2.90	2.97	2.88			
180	2.85	2.88	2.88	2.87	2.89	2.87	2.86	2.86	2.88	2.80	2.82	2.87	2.87	2.87	2.87	2.88			

C Range: 0 - 360DEG

C Interval: 22.5DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:Testing Room

Test Date:2023-03-02

 γ Range: 0 - 180DEG

 γ Interval: 1.0DEG

Test System:EVERFINE GO-3000H_V1 SYSTEM V2.0.361

Humidity:25%

Test Distance:11.350m [K=1.0000]

Remarks: