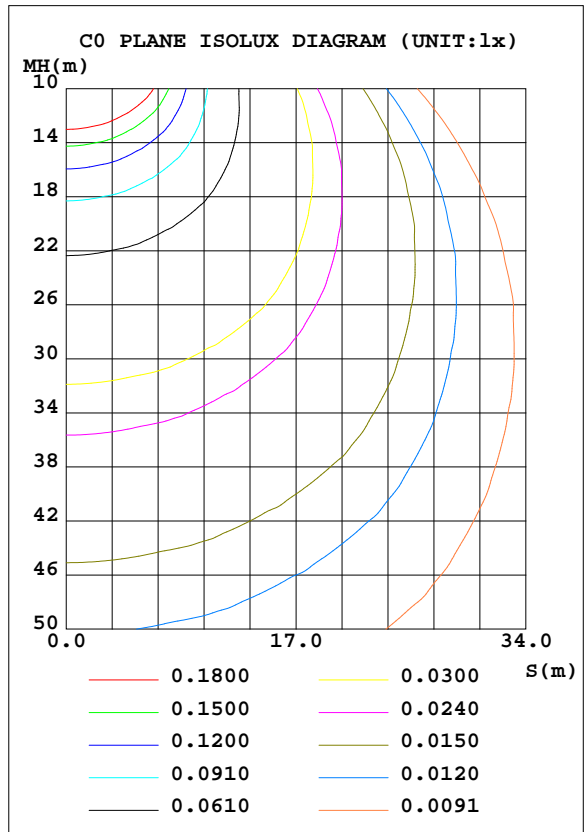
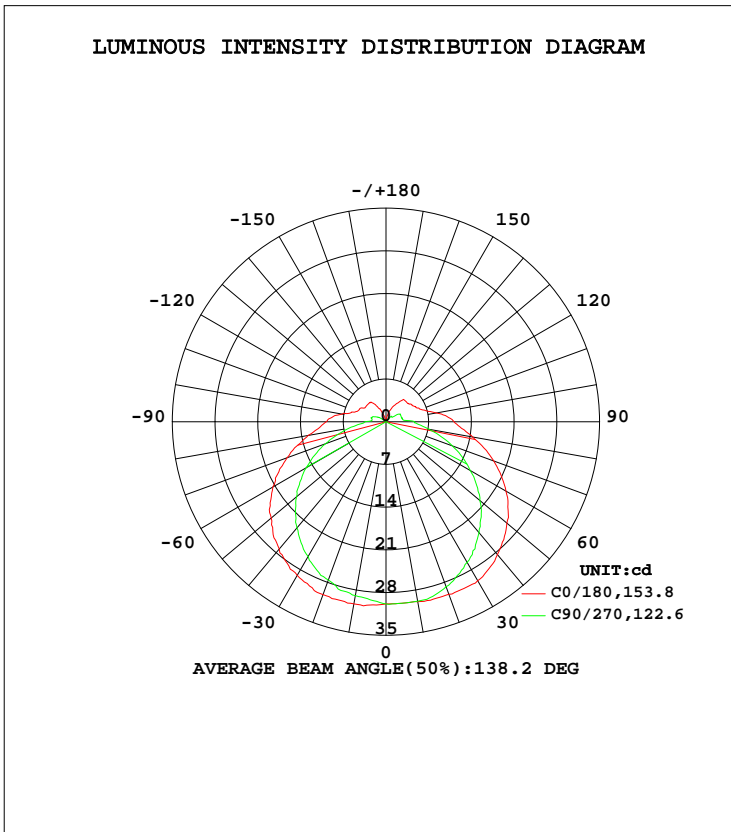


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 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			
MODEL	GWSI2012S	I <sub>max</sub> (cd)	30.38	S/MH(C0/180)	1.45
NOMINAL POWER(W)		LOR(%)	100.0	S/MH(C90/270)	1.28
RATED VOLTAGE(V)		TOTAL FLUX(lm)	145.07	η UP, DN(C0-180)	8.3,43.7
NOMINAL FLUX(lm)	145.068	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	6.5,41.6
LAMPS INSIDE	1	η up(%)	14.8	CIBSE SHR NOM	1.50
TEST VOLTAGE(V)		η down(%)	85.2	CIBSE SHR MAX	1.55



C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero Huang  
 Test Date:2021-05-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	29.93	29.85	29.86	30.01	30.30	29.85	28.92	29.85	0- 10	2.847	2.847	1.96,1.96
20	30.08	29.85	28.77	29.93	30.15	29.46	27.60	29.70	10- 20	8.417	11.26	7.76,7.76
30	30.08	29.54	26.59	29.47	29.09	28.45	25.50	28.69	20- 30	13.43	24.69	17,17
40	28.43	27.52	23.72	27.30	27.21	26.28	22.70	26.59	30- 40	17.21	41.91	28.9,28.9
50	25.86	25.04	20.06	24.66	24.57	23.55	19.12	23.95	40- 50	19.29	61.20	42.2,42.2
60	22.69	21.70	15.95	21.10	21.40	20.06	15.08	20.85	50- 60	19.52	80.72	55.6,55.6
70	18.78	17.65	11.60	17.07	17.26	16.08	10.49	16.74	60- 70	17.80	98.51	67.9,67.9
80	14.40	13.38	7.162	12.65	12.96	11.66	6.210	12.32	70- 80	14.46	113.0	77.9,77.9
90	11.16	10.26	4.666	9.775	9.797	8.706	3.415	8.914	80- 90	10.65	123.6	85.2,85.2
100	8.446	7.008	2.721	6.361	7.309	5.357	2.332	6.123	90-100	7.741	131.4	90.6,90.6
110	6.033	4.587	2.643	4.344	5.049	3.491	2.410	3.334	100-110	5.148	136.5	94.1,94.1
120	5.204	3.115	2.566	3.024	4.597	2.490	1.551	1.241	110-120	3.517	140.0	96.5,96.5
130	4.676	2.644	1.244	2.483	4.146	1.633	0.3887	1.241	120-130	2.244	142.3	98.1,98.1
140	4.674	1.403	0.5503	1.476	4.073	0.5442	0	0.3877	130-140	1.449	143.7	99.1,99.1
150	3.468	1.011	0.2332	1.083	2.935	0.2332	0	0.0775	140-150	0.8041	144.5	99.6,99.6
160	1.964	0.8552	0.1532	0.6203	1.206	0.1562	0	0	150-160	0.4243	145.0	99.9,99.9
170	0.7547	0.3887	0	0.1547	0	0	0	0	160-170	0.1082	145.1	100,100
180	0	0	0	0	0	0	0	0	170-180	0.0057	145.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 51.408 lm

%lum = 35.4%  
%lamp = 35.4%

Conical surface Flux(120deg): 80.716 lm

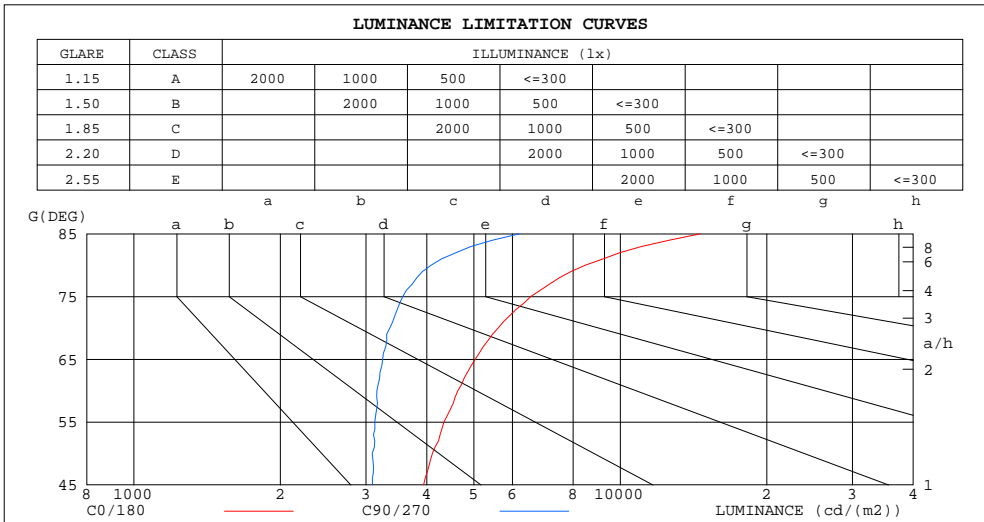
%lum = 55.6%  
%lamp = 55.6%

C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature:24.9DEG  
Operators:Zero Huang  
Test Date:2021-05-28

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
Humidity:60%  
Test Distance:26.000m [K=1.4238]  
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 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	14587	6196
80	8472	4085
75	6545	3571
70	5608	3358
65	5030	3246
60	4636	3159
55	4338	3128
50	4110	3090
45	3942	3093

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero Huang  
 Test Date:2021-05-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks:

WEC AND CCEC

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 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	.389	.221	.070	.377	.215	.068	.355	.204	.065	.335	.193	.062	.316	.183	.059	
2.0	.338	.185	.057	.327	.180	.056	.307	.171	.053	.289	.162	.051	.272	.154	.049	
3.0	.300	.160	.048	.291	.156	.047	.273	.148	.045	.256	.140	.043	.241	.133	.041	
4.0	.270	.141	.041	.262	.137	.041	.246	.130	.039	.231	.124	.037	.217	.118	.036	
5.0	.246	.125	.036	.238	.122	.036	.223	.116	.034	.210	.111	.033	.197	.105	.032	
6.0	.225	.113	.032	.218	.110	.032	.205	.105	.031	.192	.100	.029	.180	.095	.028	
7.0	.208	.103	.029	.201	.100	.029	.189	.096	.028	.177	.091	.026	.167	.087	.025	
8.0	.192	.094	.026	.187	.092	.026	.175	.088	.025	.165	.084	.024	.155	.080	.023	
9.0	.179	.087	.024	.174	.085	.024	.164	.081	.023	.154	.077	.022	.145	.074	.021	
10.0	.168	.080	.022	.163	.079	.022	.153	.075	.021	.144	.072	.020	.136	.068	.020	

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	.303	.303	.303	.259	.259	.259	.177	.177	.177	.102	.102	.102	.032	.032	.032	
1.0	.299	.269	.242	.256	.231	.208	.175	.159	.144	.101	.092	.084	.032	.030	.027	
2.0	.293	.246	.207	.251	.212	.179	.172	.146	.125	.099	.085	.073	.032	.028	.024	
3.0	.285	.229	.185	.245	.198	.160	.168	.137	.112	.097	.080	.066	.031	.026	.022	
4.0	.278	.217	.171	.238	.187	.148	.164	.131	.104	.095	.076	.062	.030	.025	.020	
5.0	.270	.207	.161	.232	.179	.140	.160	.125	.099	.092	.073	.059	.030	.024	.019	
6.0	.262	.199	.154	.225	.172	.134	.156	.121	.095	.090	.071	.056	.029	.023	.019	
7.0	.255	.192	.148	.219	.167	.129	.152	.117	.092	.088	.069	.055	.028	.023	.018	
8.0	.248	.187	.145	.214	.162	.126	.148	.114	.089	.086	.067	.053	.028	.022	.018	
9.0	.242	.182	.141	.209	.158	.123	.144	.111	.088	.084	.066	.052	.027	.022	.017	
10.0	.236	.178	.139	.204	.154	.121	.141	.109	.086	.082	.064	.051	.027	.021	.017	

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero Huang  
 Test Date:2021-05-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 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	24.3	25.7	24.8	26.2	26.7	22.8	24.2	23.3	24.7	25.2
3H	26.8	28.1	27.3	28.6	29.1	24.7	26.0	25.2	26.5	27.1
4H	28.0	29.3	28.6	29.8	30.4	25.6	26.9	26.1	27.4	28.0
6H	29.4	30.6	29.9	31.1	31.7	26.5	27.7	27.0	28.2	28.8
8H	30.1	31.3	30.7	31.8	32.4	26.9	28.0	27.4	28.6	29.2
12H	31.0	32.1	31.5	32.6	33.3	27.4	28.5	27.9	29.0	29.6
4H 2H	25.0	26.2	25.5	26.7	27.3	23.9	25.2	24.4	25.7	26.3
3H	27.7	28.8	28.2	29.3	29.9	26.1	27.2	26.6	27.7	28.3
4H	29.1	30.2	29.7	30.7	31.4	27.1	28.2	27.7	28.7	29.4
6H	30.7	31.6	31.3	32.2	32.9	28.2	29.1	28.8	29.7	30.4
8H	31.6	32.4	32.2	33.0	33.7	28.7	29.5	29.3	30.2	30.9
12H	32.5	33.3	33.2	33.9	34.7	29.2	30.0	29.9	30.6	31.4
8H 4H	29.6	30.4	30.2	31.0	31.7	28.0	28.8	28.6	29.5	30.2
6H	31.4	32.2	32.1	32.8	33.6	29.3	30.1	30.0	30.7	31.5
8H	32.5	33.1	33.2	33.8	34.6	30.1	30.7	30.7	31.4	32.1
12H	33.7	34.3	34.4	35.0	35.7	30.8	31.4	31.5	32.1	32.8
12H 4H	29.6	30.4	30.3	31.1	31.8	28.2	29.0	28.8	29.6	30.3
6H	31.6	32.3	32.3	32.9	33.7	29.7	30.4	30.4	31.1	31.8
8H	32.8	33.3	33.5	34.0	34.8	30.6	31.2	31.3	31.8	32.6
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					+ 0.3 / - 0.5				

CIE Pub.117, 145.1 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -6.7)

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero Huang  
 Test Date:2021-05-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

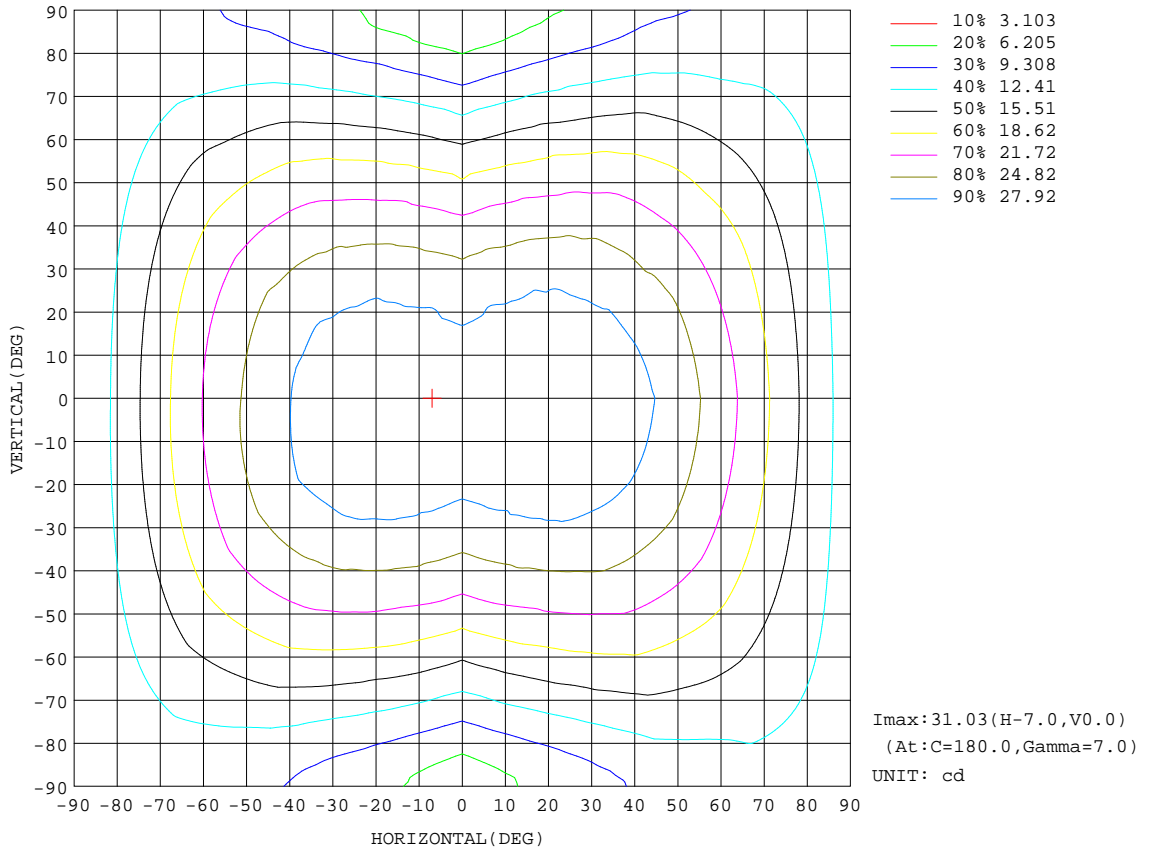
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	48	35	28	47	35	28	45	34	27	21
0.80	57	44	36	56	43	36	53	42	35	27
1.00	65	52	44	63	51	43	60	52	42	34
1.25	72	59	51	70	58	50	66	56	49	39
1.50	77	65	56	75	64	55	70	61	54	44
2.00	85	74	65	82	72	64	76	68	61	50
2.50	89	79	71	86	77	69	80	73	66	54
3.00	93	84	76	90	81	74	83	77	71	58
4.00	98	90	83	94	87	81	87	82	77	63
5.00	101	94	88	97	91	85	90	85	81	66
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:2021-05-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks:

ISOCANDELA DIAGRAM

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

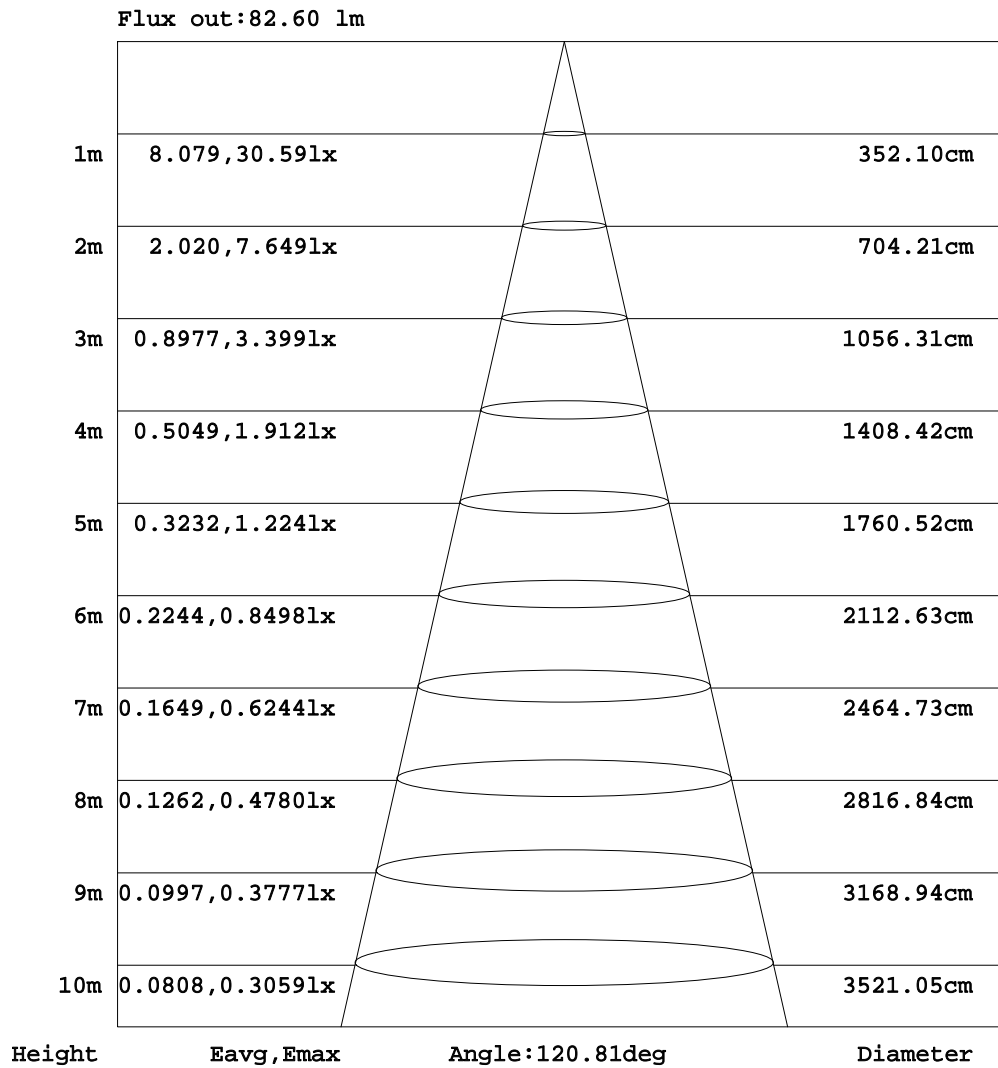


C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature: 24.9DEG  
 Operators: Zero Huang  
 Test Date: 2021-05-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity: 60%  
 Test Distance: 26.000m [K=1.4238]  
 Remarks:

AAI Figure

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



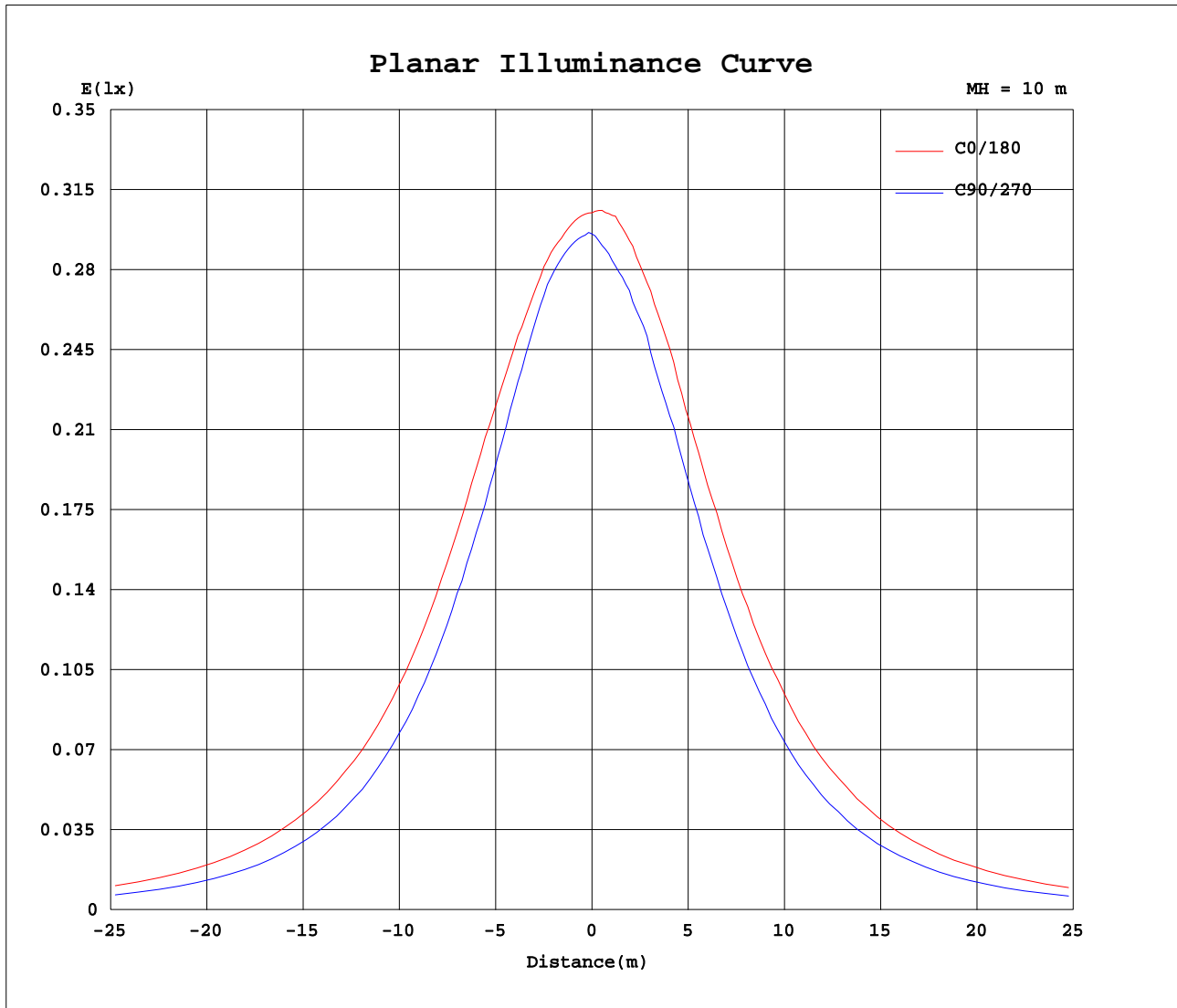
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
 C Interval: 22.5DEG  
 Test Speed: HIGH  
 Temperature:24.9DEG  
 Operators:Zero Huang  
 Test Date:2021-05-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks:



Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 22.5DEG  
Test Speed: HIGH  
Temperature: 24.9DEG  
Operators: Zero Huang  
Test Date: 2021-05-28

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
Humidity: 60%  
Test Distance: 26.000m [K=1.4238]  
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:0V I:0A P:0W PF:0 Freq:0Hz Lamp Flux:145.068x1 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	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9			
5	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	30.2	29.9	29.9	29.9	29.3	29.8	29.9	30.0			
10	29.9	29.9	29.9	29.9	29.9	29.9	30.0	29.9	30.3	29.9	29.9	29.4	28.9	29.4	29.9	30.0			
15	30.1	29.9	29.9	29.9	29.6	29.9	29.9	30.0	30.2	29.9	29.9	29.1	28.6	29.1	29.9	30.0			
20	30.1	30.1	29.9	29.5	28.8	29.6	29.9	30.2	30.2	29.7	29.5	28.5	27.6	28.6	29.7	29.9			
25	30.2	30.0	29.9	28.8	27.8	29.0	29.9	30.2	29.7	29.4	28.8	27.7	26.8	27.9	29.4	29.5			
30	30.1	29.9	29.5	27.9	26.6	28.1	29.5	29.7	29.1	28.8	28.4	26.7	25.5	27.5	28.7	29.0			
35	29.4	29.2	28.6	26.9	25.4	26.9	28.5	28.9	28.3	27.9	27.4	25.6	24.3	26.2	27.8	28.2			
40	28.4	28.3	27.5	25.5	23.7	25.7	27.3	27.8	27.2	27.0	26.3	24.4	22.7	24.8	26.6	27.4			
45	27.3	27.1	26.4	24.0	22.1	24.2	26.1	26.6	26.1	25.8	24.9	22.8	21.0	23.3	25.4	26.2			
50	25.9	25.9	25.0	22.4	20.1	22.4	24.7	25.2	24.6	24.6	23.6	21.3	19.1	21.6	24.0	24.7			
55	24.4	24.4	23.3	20.7	18.1	20.7	23.0	23.7	23.2	23.0	21.9	19.6	17.2	19.9	22.5	23.4			
60	22.7	22.7	21.7	18.7	15.9	18.7	21.1	21.9	21.4	21.2	20.1	17.6	15.1	17.9	20.9	21.6			
65	20.8	20.8	19.8	16.7	13.9	16.7	19.2	19.9	19.4	19.3	18.1	15.5	12.8	16.0	18.8	19.7			
70	18.8	18.8	17.6	14.6	11.6	14.5	17.1	17.8	17.3	17.1	16.1	13.4	10.5	13.8	16.7	18.0			
75	16.6	16.7	15.6	12.4	9.33	12.2	14.8	15.7	15.0	15.0	13.8	11.1	8.31	11.6	14.7	15.6			
80	14.4	14.5	13.4	10.3	7.16	10.1	12.6	13.5	13.0	12.8	11.7	8.88	6.21	9.43	12.3	13.4			
85	12.4	12.6	11.4	8.43	5.45	8.27	10.9	11.8	10.9	11.0	9.87	7.09	4.28	7.56	10.4	11.4			
90	11.2	11.4	10.3	7.48	4.67	7.33	9.78	10.7	9.80	9.90	8.71	6.14	3.41	6.16	8.91	9.97			
95	10.0	10.2	8.64	5.23	2.96	5.07	8.15	9.45	8.82	8.75	7.23	3.82	2.33	3.98	7.36	8.69			
100	8.45	8.46	7.01	4.21	2.72	4.29	6.36	7.71	7.31	7.15	5.36	3.74	2.33	3.98	6.12	7.32			
105	6.94	6.56	5.37	3.98	2.65	4.13	5.35	6.20	5.88	5.33	4.27	3.82	2.57	3.98	4.19	5.58			
110	6.03	5.03	4.59	3.98	2.64	4.13	4.34	4.84	5.05	3.96	3.49	3.74	2.41	3.98	3.33	4.00			
115	5.51	3.89	3.74	4.05	2.64	4.13	3.57	3.71	4.82	2.81	2.64	3.66	1.94	3.82	2.32	2.94			
120	5.20	3.12	3.11	4.05	2.57	4.21	3.02	2.95	4.60	2.05	2.49	2.80	1.55	3.35	1.24	2.11			
125	5.05	2.44	2.95	3.35	1.48	3.13	2.71	2.34	4.15	1.83	2.17	1.87	0.46	2.34	1.24	1.36			
130	4.68	2.13	2.64	2.65	1.24	2.58	2.48	1.97	4.15	1.83	1.63	1.33	0.39	1.48	1.24	1.28			
135	4.67	2.13	2.02	2.18	1.32	2.03	2.10	1.97	4.15	1.83	1.32	1.00	0.15	1.25	1.08	1.28			
140	4.67	2.13	1.40	1.25	0.55	1.09	1.48	1.97	4.07	1.83	0.54	0.23	0.00	0.38	0.39	1.28			
145	4.15	2.13	1.09	1.01	0.23	0.86	1.17	1.97	3.77	1.83	0.23	0.00	0.00	0.08	0.23	1.28			
150	3.47	2.13	1.01	0.62	0.23	0.62	1.08	1.97	2.93	1.83	0.23	0.08	0.00	0.00	0.08	1.28			
155	2.79	2.06	0.93	0.39	0.24	0.39	0.85	1.89	2.26	1.60	0.23	0.00	0.00	0.00	0.08	1.13			
160	1.96	1.60	0.86	0.16	0.15	0.08	0.62	1.44	1.21	1.22	0.16	0.00	0.00	0.00	0.00	0.45			
165	1.43	1.07	0.78	0.00	0.00	0.00	0.39	0.98	0.38	0.30	0.00	0.00	0.00	0.00	0.00	0.00			
170	0.75	0.69	0.39	0.00	0.00	0.00	0.15	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
175	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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:2021-05-28

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-R5000\_V2 SYSTEM V2.0.362  
 Humidity:60%  
 Test Distance:26.000m [K=1.4238]  
 Remarks: