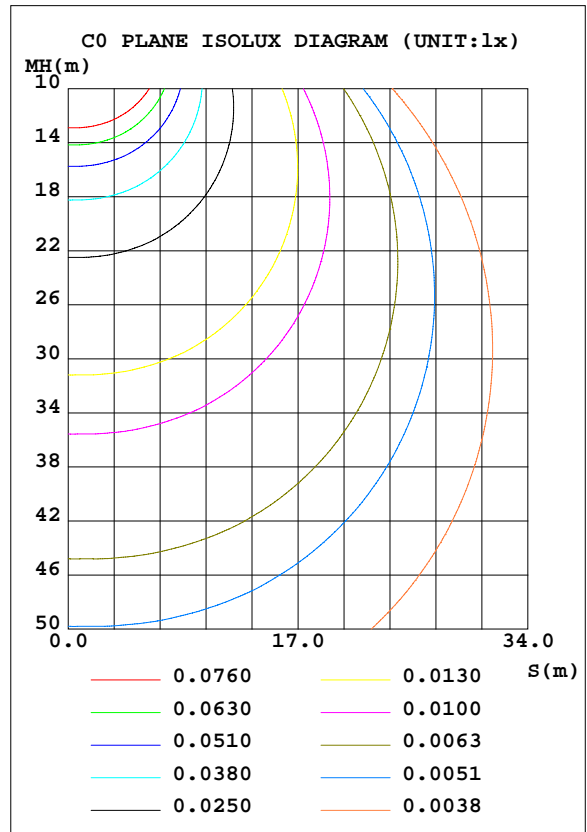
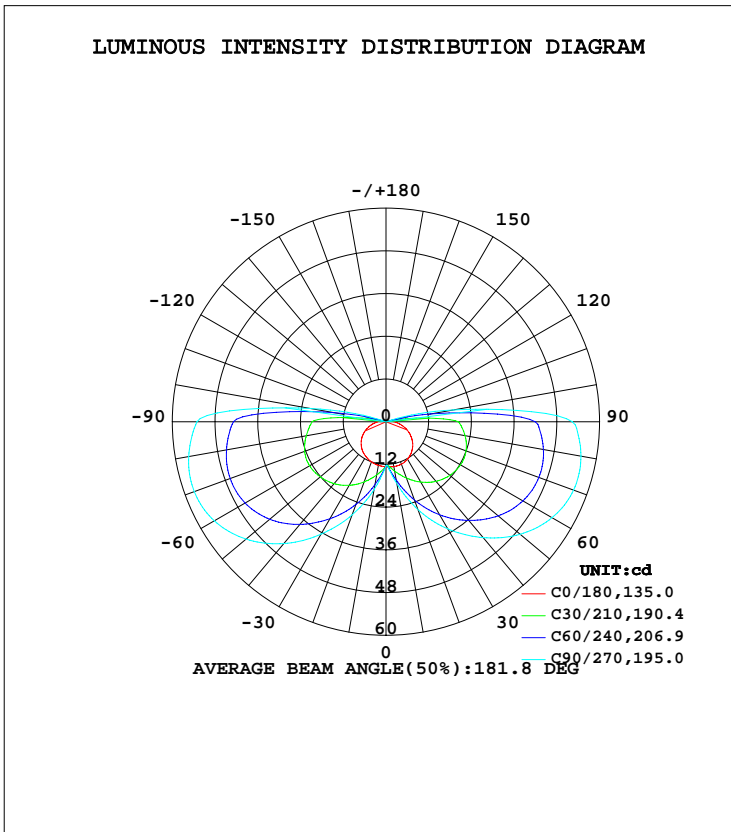


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	YBU8W3K	Imax(cd)	57.30	S/MH(C0/180)	1.34
NOMINAL POWER(W)	8	LOR(%)	100.0	S/MH(C90/270)	3.47
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	225.79	η UP, DN(C0-180)	5.9,43.1
NOMINAL FLUX(lm)	225.787	CIE CLASS	SEMI-D.	η UP, DN(C180-360)	6.6,44.4
LAMPS INSIDE	1	η up(%)	12.5	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	87.5	CIBSE SHR MAX	1.35



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [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	12.79	15.34	17.65	15.56	12.43	16.54	19.29	17.18	0- 10	1.388	1.388	0.61,0.61
20	12.68	20.10	26.25	21.05	11.99	21.36	27.83	22.79	10- 20	5.272	6.660	2.95,2.95
30	12.13	24.88	34.75	26.54	11.31	26.03	36.43	28.31	20- 30	10.80	17.46	7.73,7.73
40	11.17	29.03	42.50	31.34	10.40	30.18	44.66	33.29	30- 40	17.43	34.89	15.5,15.5
50	9.817	32.28	49.16	35.23	9.148	33.35	51.29	37.21	40- 50	24.37	59.26	26.2,26.2
60	8.093	34.31	53.86	37.83	7.568	35.23	55.67	39.64	50- 60	30.58	89.85	39.8,39.8
70	6.129	34.82	56.08	38.72	5.722	35.44	57.30	40.15	60- 70	35.00	124.8	55.3,55.3
80	4.011	33.72	55.59	37.84	3.831	34.12	56.27	38.71	70- 80	36.79	161.6	71.6,71.6
90	2.345	31.10	52.33	35.21	2.420	31.84	53.11	36.03	80- 90	35.91	197.6	87.5,87.5
100	1.187	8.496	19.32	9.698	1.352	10.23	21.68	11.25	90-100	23.55	221.1	97.9,97.9
110	0.2678	0.1765	0.3166	0.3412	0.4021	0.2970	0.4551	0.2245	100-110	4.027	225.1	99.7,99.7
120	0.0814	0.1629	0.2669	0.2081	0.0860	0.1877	0.2806	0.1629	110-120	0.2043	225.3	99.8,99.8
130	0.0860	0.1471	0.2487	0.1810	0.0860	0.1629	0.2399	0.1425	120-130	0.1526	225.5	99.9,99.9
140	0.0906	0.1290	0.1856	0.1584	0.0951	0.1516	0.1991	0.1221	130-140	0.1173	225.6	99.9,99.9
150	0.0996	0.1199	0.1538	0.1380	0.0950	0.1267	0.1629	0.1041	140-150	0.0834	225.7	100,100
160	0.1041	0.1063	0.1176	0.1244	0.0996	0.1154	0.1268	0.1041	150-160	0.0542	225.7	100,100
170	0.1041	0.0996	0.1041	0.1086	0.0995	0.1109	0.1086	0.1040	160-170	0.0308	225.8	100,100
180	0.1041	0.1063	0.1041	0.1063	0.1086	0.1063	0.0995	0.1041	170-180	0.0101	225.8	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 46.231 lm

%lum = 20.5%
%lamp = 20.5%

Conical surface Flux(120deg): 89.847 lm

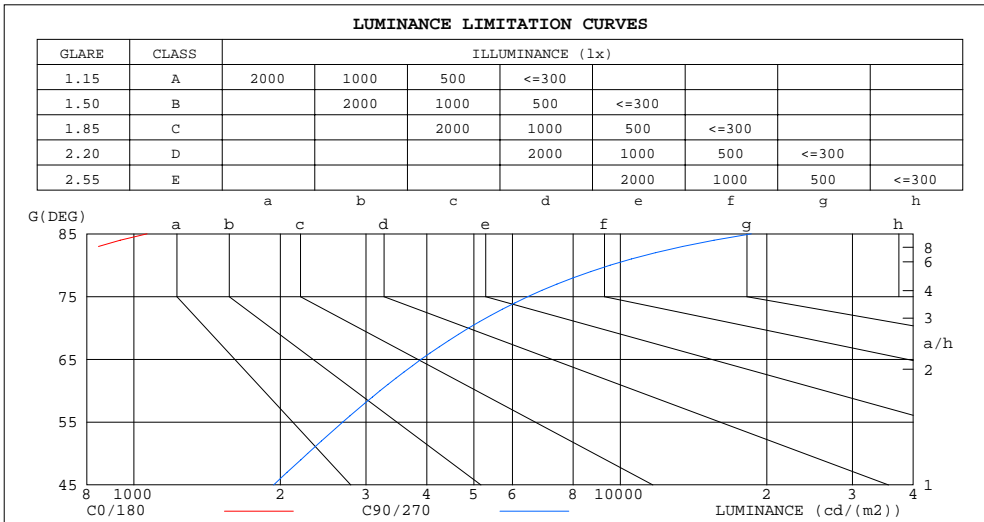
%lum = 39.8%
%lamp = 39.8%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:YOYO
Test Date:16 November 2020

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
Humidity:65.0%
Test Distance:8.791m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	1064	18592
80	688	9527
75	579	6458
70	533	4880
65	502	3895
60	482	3206
55	467	2688
50	455	2276
45	444	1937

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	.521	.296	.094	.510	.291	.092	.488	.280	.089	.469	.270	.087	.450	.261	.084	
2.0	.422	.231	.071	.412	.227	.070	.392	.218	.068	.374	.210	.066	.358	.202	.064	
3.0	.360	.192	.057	.351	.188	.057	.333	.181	.055	.317	.174	.053	.302	.167	.052	
4.0	.315	.164	.048	.307	.161	.047	.291	.154	.046	.276	.148	.045	.263	.143	.043	
5.0	.281	.143	.041	.273	.140	.041	.259	.135	.040	.245	.129	.039	.233	.124	.037	
6.0	.253	.127	.036	.246	.124	.036	.233	.119	.035	.221	.115	.034	.210	.110	.033	
7.0	.230	.114	.032	.224	.112	.032	.212	.107	.031	.201	.103	.030	.191	.099	.029	
8.0	.211	.103	.029	.205	.101	.029	.195	.097	.028	.185	.094	.027	.175	.090	.026	
9.0	.195	.094	.026	.190	.093	.026	.180	.089	.025	.171	.086	.025	.162	.082	.024	
10.0	.181	.087	.024	.176	.085	.024	.167	.082	.023	.159	.079	.022	.151	.076	.022	

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	.286	.286	.286	.244	.244	.244	.167	.167	.167	.096	.096	.096	.031	.031	.031	
1.0	.291	.250	.214	.249	.215	.184	.170	.148	.127	.098	.086	.074	.031	.028	.024	
2.0	.286	.228	.179	.245	.196	.155	.168	.136	.108	.097	.079	.063	.031	.026	.021	
3.0	.279	.212	.159	.239	.183	.138	.164	.127	.097	.095	.074	.057	.030	.024	.019	
4.0	.271	.200	.146	.232	.173	.127	.160	.121	.089	.092	.071	.053	.030	.023	.017	
5.0	.262	.191	.138	.225	.165	.120	.155	.115	.085	.090	.068	.050	.029	.022	.017	
6.0	.254	.183	.132	.218	.158	.115	.150	.111	.081	.087	.065	.048	.028	.021	.016	
7.0	.246	.176	.127	.211	.153	.111	.146	.107	.079	.085	.063	.047	.027	.021	.015	
8.0	.238	.171	.124	.205	.148	.108	.142	.104	.077	.083	.061	.046	.027	.020	.015	
9.0	.231	.166	.122	.199	.144	.106	.138	.101	.075	.080	.060	.045	.026	.020	.015	
10.0	.224	.161	.120	.193	.140	.104	.134	.099	.074	.078	.058	.044	.025	.019	.015	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding 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	15.4	17.1	15.8	17.5	18.0	21.8	23.5	22.2	23.9	24.4
3H	17.3	18.9	17.8	19.3	19.9	25.5	27.0	26.0	27.5	28.0
4H	18.2	19.7	18.7	20.2	20.7	27.5	29.0	28.0	29.5	30.0
6H	19.0	20.4	19.5	20.9	21.5	29.7	31.1	30.2	31.6	32.2
8H	19.4	20.7	19.9	21.3	21.9	30.8	32.2	31.4	32.8	33.4
12H	19.7	21.1	20.2	21.6	22.2	32.2	33.5	32.7	34.1	34.7
4H 2H	18.5	20.0	19.0	20.5	21.0	22.3	23.8	22.8	24.3	24.9
3H	20.6	21.9	21.1	22.5	23.1	26.3	27.6	26.8	28.1	28.8
4H	21.7	22.9	22.2	23.5	24.1	28.5	29.7	29.0	30.3	30.9
6H	22.6	23.8	23.2	24.4	25.0	30.9	32.0	31.5	32.6	33.3
8H	23.1	24.1	23.7	24.7	25.4	32.2	33.3	32.8	33.9	34.6
12H	23.5	24.5	24.1	25.1	25.8	33.7	34.7	34.3	35.3	36.0
8H 4H	24.1	25.1	24.7	25.7	26.4	28.8	29.9	29.4	30.5	31.2
6H	25.5	26.4	26.1	27.0	27.8	31.6	32.5	32.2	33.1	33.8
8H	26.2	27.0	26.8	27.7	28.4	33.1	34.0	33.8	34.6	35.3
12H	26.8	27.5	27.4	28.2	29.0	34.9	35.7	35.6	36.3	37.1
12H 4H	24.9	25.9	25.5	26.5	27.2	28.8	29.9	29.5	30.5	31.2
6H	26.6	27.5	27.3	28.1	28.8	31.7	32.5	32.3	33.2	33.9
8H	27.5	28.3	28.2	28.9	29.7	33.4	34.1	34.0	34.8	35.5
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.2				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.3				

CIE Pub.117, 225.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -5.2)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

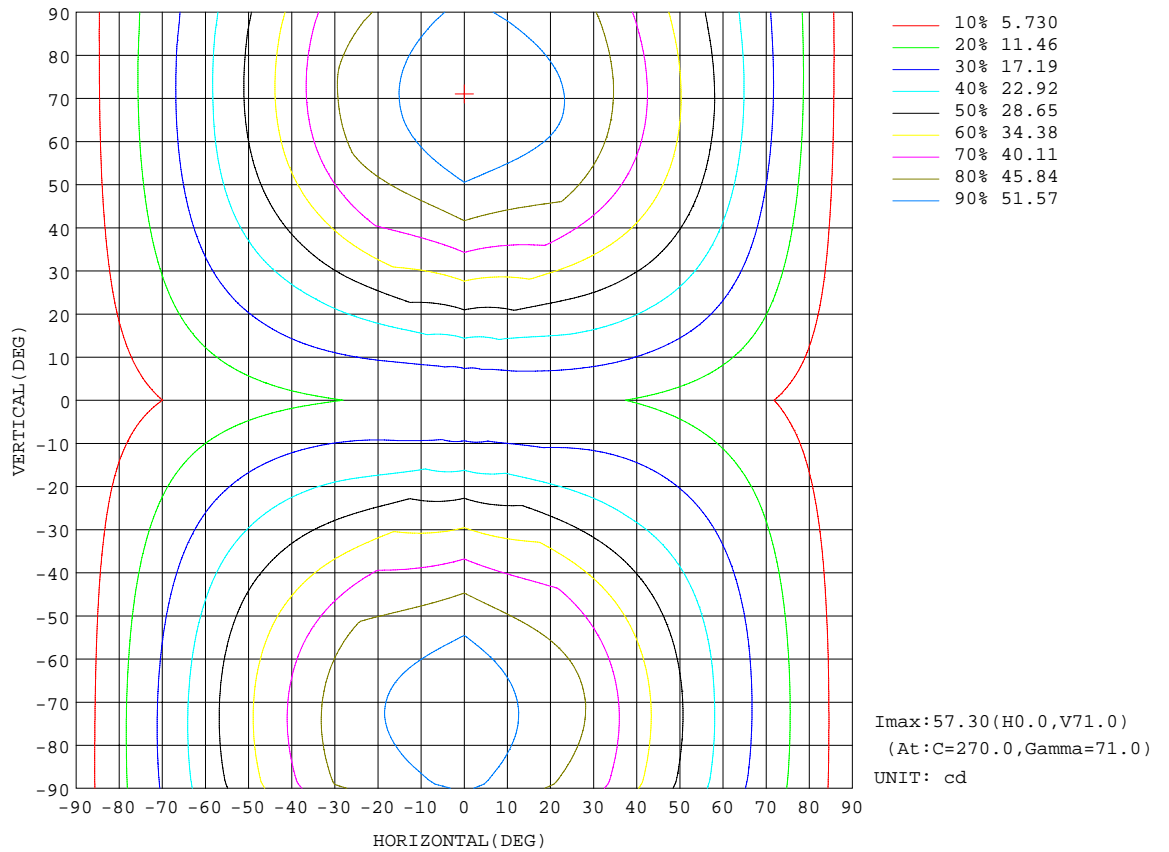
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	41	27	18	40	26	18	38	26	18	11
0.80	49	34	25	48	34	25	45	33	24	16
1.00	57	41	31	55	40	31	52	42	30	21
1.25	63	48	38	61	47	37	58	45	36	26
1.50	69	54	43	66	53	43	62	50	41	31
2.00	77	63	52	74	61	51	69	58	49	38
2.50	82	69	59	79	67	57	73	63	55	43
3.00	86	74	64	83	72	63	77	68	60	47
4.00	92	81	72	88	79	71	82	74	67	54
5.00	96	86	78	92	83	76	85	78	72	58
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:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

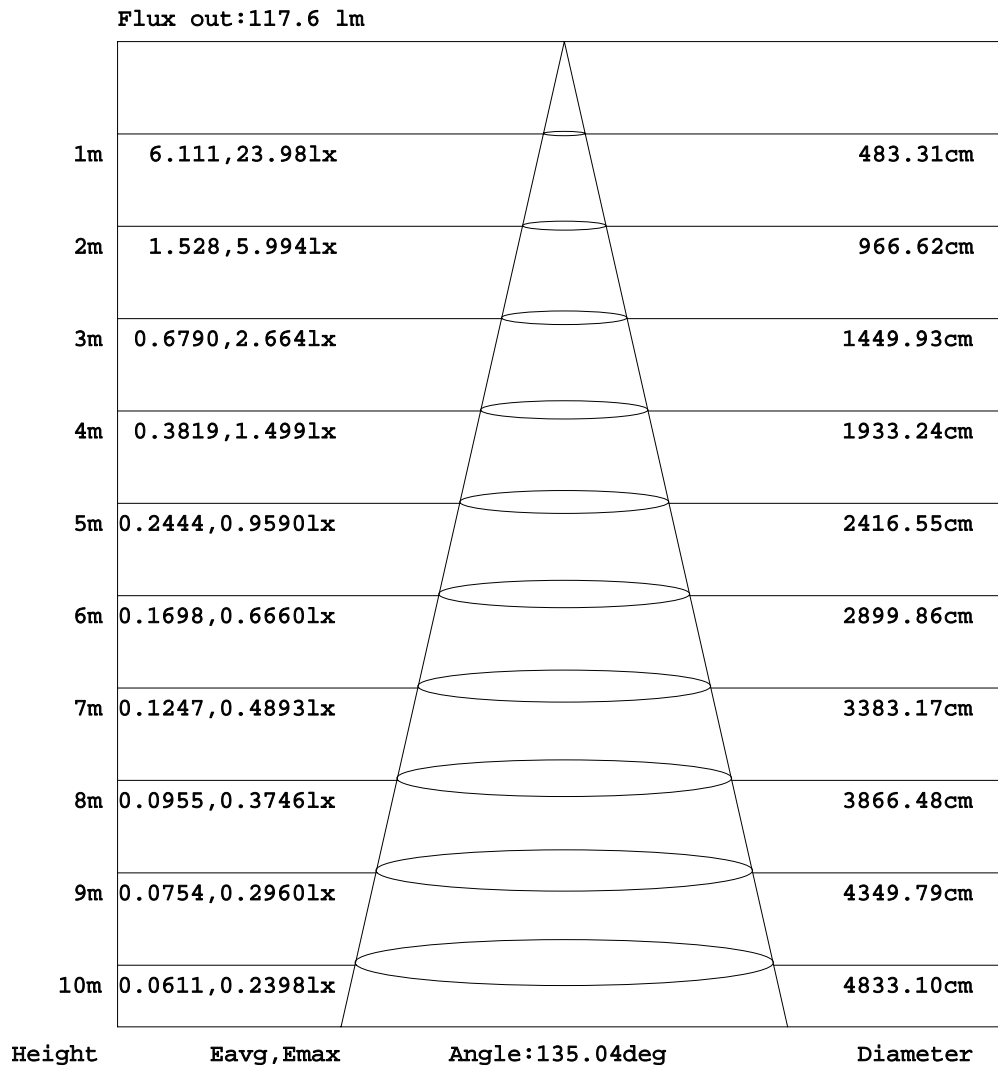


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks:

AAI Figure

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

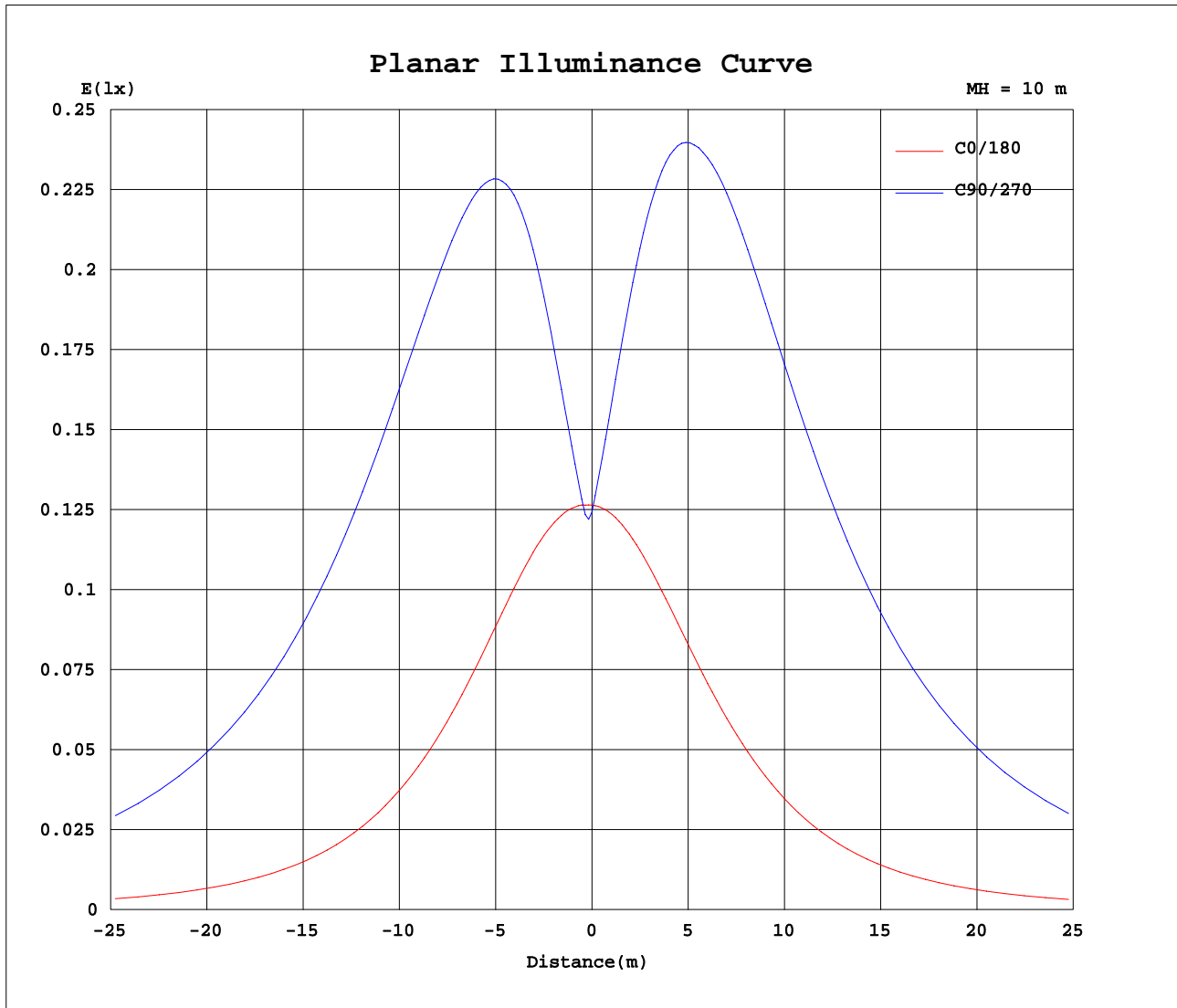


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: YOYO
 Test Date: 16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity: 65.0%
 Test Distance: 8.791m [K=1.0000]
 Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.05V I:0.0695A P:8.0520W PF:0.5033 Freq:0Hz Lamp Flux:225.787x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:200	DIM.: 200MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C(DEG) γ (DEG)	0	30	60	90	120	150	180	210	240	270	300	330							
0	12.6	12.6	12.4	12.4	12.5	12.6	12.6	12.6	12.4	12.4	12.5	12.6							
5	12.7	12.8	13.8	14.1	13.8	12.7	12.6	13.8	14.9	15.5	15.1	14.2							
10	12.8	14.1	16.6	17.6	16.9	14.3	12.4	15.2	17.9	19.3	18.4	16.0							
15	12.8	15.4	19.9	21.8	20.5	16.0	12.3	16.6	21.3	23.5	22.1	17.8							
20	12.7	16.8	23.4	26.2	24.3	17.8	12.0	18.0	24.7	27.8	25.8	19.7							
25	12.5	18.2	26.9	30.6	28.0	19.7	11.7	19.4	28.2	32.2	29.6	21.6							
30	12.1	19.6	30.2	34.8	31.6	21.5	11.3	20.6	31.5	36.4	33.3	23.4							
35	11.7	20.8	33.3	38.7	34.9	23.2	10.9	21.7	34.6	40.7	36.8	25.0							
40	11.2	21.9	36.2	42.5	38.1	24.6	10.4	22.7	37.7	44.7	40.2	26.4							
45	10.5	22.7	38.8	46.0	41.0	25.8	9.81	23.5	40.4	48.2	43.2	27.6							
50	9.82	23.4	41.1	49.2	43.6	26.9	9.15	24.1	42.6	51.3	45.8	28.6							
55	9.00	23.9	43.0	51.8	45.7	27.7	8.40	24.6	44.4	53.8	47.8	29.5							
60	8.09	24.2	44.4	53.9	47.4	28.3	7.57	24.8	45.7	55.7	49.3	30.0							
65	7.12	24.2	45.3	55.3	48.5	28.5	6.67	24.7	46.4	56.9	50.2	30.1							
70	6.13	23.9	45.7	56.1	49.0	28.5	5.72	24.3	46.6	57.3	50.4	29.9							
75	5.04	23.4	45.6	56.2	48.9	28.1	4.75	23.6	46.3	57.1	50.0	29.3							
80	4.01	22.5	44.9	55.6	48.3	27.4	3.83	22.7	45.5	56.3	49.1	28.3							
85	3.12	21.6	43.8	54.4	47.2	26.5	3.00	21.8	44.4	54.9	47.8	27.1							
90	2.35	20.3	41.9	52.3	45.2	25.2	2.42	20.8	42.9	53.1	46.2	25.8							
95	1.80	12.0	27.7	36.8	28.9	15.8	1.98	13.6	30.9	40.1	33.1	17.2							
100	1.19	4.29	12.7	19.3	13.0	6.42	1.35	5.50	15.0	21.7	15.5	6.96							
105	0.64	0.83	2.67	7.37	2.29	1.83	0.80	1.54	4.10	8.84	3.84	1.59							
110	0.27	0.11	0.24	0.32	0.29	0.40	0.40	0.34	0.25	0.46	0.25	0.20							
115	0.08	0.10	0.24	0.29	0.28	0.16	0.12	0.15	0.25	0.29	0.24	0.12							
120	0.08	0.10	0.22	0.27	0.26	0.15	0.09	0.14	0.23	0.28	0.21	0.11							
125	0.08	0.10	0.21	0.25	0.25	0.14	0.09	0.14	0.21	0.26	0.20	0.11							
130	0.09	0.10	0.19	0.25	0.23	0.14	0.09	0.14	0.19	0.24	0.18	0.11							
135	0.09	0.10	0.17	0.20	0.21	0.13	0.10	0.13	0.18	0.22	0.17	0.11							
140	0.09	0.10	0.16	0.19	0.19	0.12	0.10	0.13	0.17	0.20	0.14	0.10							
145	0.10	0.10	0.14	0.18	0.18	0.12	0.10	0.12	0.14	0.18	0.13	0.10							
150	0.10	0.10	0.14	0.15	0.16	0.11	0.09	0.12	0.14	0.16	0.12	0.09							
155	0.10	0.10	0.12	0.13	0.15	0.11	0.10	0.12	0.13	0.14	0.11	0.10							
160	0.10	0.10	0.11	0.12	0.14	0.11	0.10	0.11	0.12	0.13	0.11	0.10							
165	0.11	0.10	0.10	0.11	0.12	0.11	0.10	0.11	0.11	0.11	0.10	0.10							
170	0.10	0.10	0.10	0.10	0.11	0.11	0.10	0.11	0.11	0.11	0.10	0.10							
175	0.11	0.11	0.11	0.10	0.11	0.10	0.10	0.11	0.10	0.10	0.10	0.10							
180	0.10	0.11	0.10	0.10	0.10	0.11	0.11	0.10	0.11	0.10	0.10	0.10							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:YOYO
 Test Date:16 November 2020

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.366
 Humidity:65.0%
 Test Distance:8.791m [K=1.0000]
 Remarks: