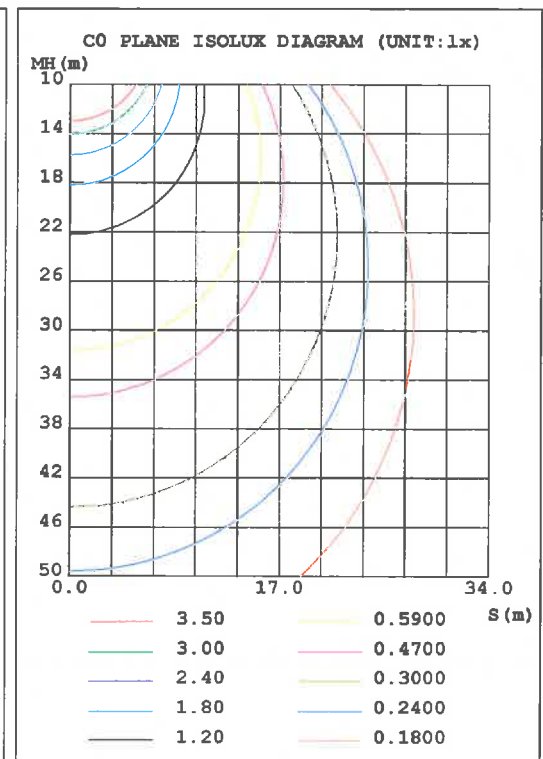
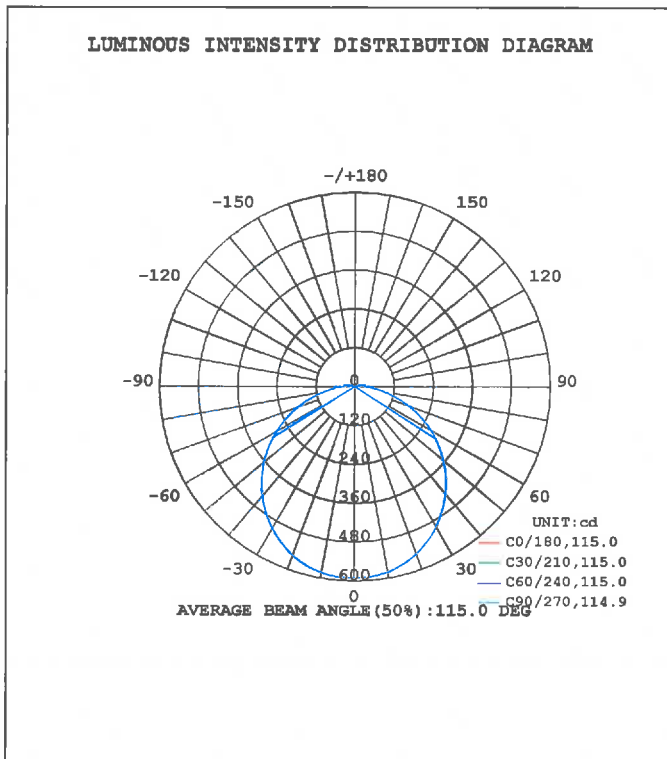


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 103.35 lm/W
MODEL	YYR18WCCT	Imax(cd)	591.4	S/MH(C0/180)	1.27	
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.27	
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1832.7	η UP, DN(C0-180)	1.5,48.0	
NOMINAL FLUX(lm)	1832.66	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.5,49.0	
LAMPS INSIDE	1	η up(%)	3.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	230	η down(%)	97.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:ī
 Test Date:14 July 2021

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	581.2	580.8	580.6	581.1	583.0	582.9	582.2	581.3	0- 10	58.96	58.96	3.05,3.05
20	550.4	549.8	549.9	551.0	553.9	554.4	553.2	551.6	10- 20	160.7	216.6	11.8,11.8
30	500.2	499.0	499.1	501.1	505.2	505.5	504.2	502.5	20- 30	243.8	460.5	25.1,25.1
40	434.3	433.0	434.0	435.5	440.6	441.1	439.7	437.8	30- 40	294.8	755.3	41.2,41.2
50	356.6	355.2	356.0	358.0	363.1	364.4	362.7	360.3	40- 50	309.2	1064	58,58
60	269.6	268.3	268.8	271.3	276.9	278.1	276.4	274.1	50- 60	283.5	1347	73.5,73.5
70	177.3	175.6	176.1	178.5	183.7	185.1	184.1	181.8	60- 70	224.4	1671	85.7,85.7
80	89.47	87.80	88.64	90.77	95.11	95.80	95.09	93.95	70- 80	142.5	2214	93.5,93.5
90	33.86	33.28	33.02	33.28	34.01	34.61	34.59	34.38	80- 90	63.77	1778	97,97
100	25.78	22.43	28.80	23.48	29.14	21.02	27.41	17.75	90-100	34.21	1812	98.9,98.9
110	1.548	1.424	4.410	1.497	4.886	1.413	1.801	1.360	100-110	10.79	1823	99.5,99.5
120	1.837	1.839	1.842	1.814	1.788	1.758	1.778	1.796	110-120	1.652	1824	99.5,99.5
130	2.280	2.276	2.277	2.247	2.209	2.197	2.217	2.242	120-130	1.813	1826	99.6,99.6
140	2.687	2.695	2.688	2.663	2.625	2.615	2.633	2.647	130-140	2.896	1828	99.7,99.7
150	3.063	3.068	3.059	3.041	3.010	3.012	3.022	3.034	140-150	2.786	1830	99.8,99.8
160	3.411	3.398	3.403	3.369	3.367	3.355	3.371	3.367	150-160	1.482	1831	99.9,99.9
170	3.588	3.611	3.589	3.593	3.566	3.591	3.575	3.595	160-170	0.9974	1832	100,100
180	3.683	3.699	3.683	3.695	3.683	3.699	3.679	3.695	170-180	0.3472	1833	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 910.18 lm

%lum = 49.7%

%lamp = 49.7%

Conical surface Flux(120deg): 1347.1 lm

%lum = 73.5%

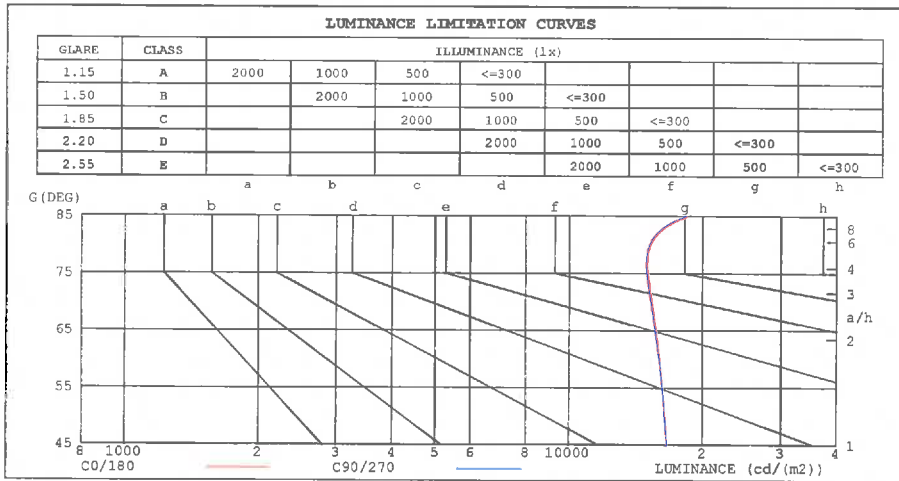
%lamp = 73.5%

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	18620	18348
80	15334	15192
75	15123	15013
70	15425	15327
65	15762	15679
60	16048	15999
55	16304	16265
50	16512	16484
45	16698	16671

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators: ..
 Test Date:14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	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	.331	.188	.060	.323	.184	.059	.308	.177	.056	.294	.170	.054	.282	.163	.053	
2.0	.304	.167	.051	.297	.163	.050	.283	.158	.049	.271	.152	.048	.260	.147	.046	
3.0	.278	.148	.044	.272	.145	.044	.260	.141	.043	.249	.136	.042	.238	.132	.041	
4.0	.255	.132	.039	.249	.130	.039	.238	.126	.038	.229	.123	.037	.219	.119	.036	
5.0	.234	.119	.035	.229	.118	.034	.220	.114	.034	.211	.111	.033	.203	.108	.033	
6.0	.217	.109	.031	.212	.107	.031	.204	.104	.030	.196	.102	.030	.188	.099	.029	
7.0	.201	.099	.028	.197	.098	.028	.189	.096	.028	.182	.093	.027	.175	.091	.027	
8.0	.187	.092	.026	.184	.090	.026	.177	.088	.025	.170	.086	.025	.164	.084	.025	
9.0	.175	.085	.024	.172	.084	.024	.166	.082	.023	.160	.080	.023	.154	.078	.023	
10.0	.165	.079	.022	.162	.078	.022	.156	.076	.022	.151	.075	.021	.146	.073	.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	.213	.213	.213	.182	.182	.182	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.205	.179	.156	.175	.154	.134	.120	.106	.093	.069	.061	.054	.022	.020	.017	
2.0	.197	.155	.120	.169	.133	.103	.116	.092	.072	.067	.054	.042	.021	.017	.014	
3.0	.189	.138	.096	.162	.119	.084	.111	.083	.059	.064	.048	.035	.021	.016	.011	
4.0	.182	.125	.081	.156	.108	.070	.107	.075	.050	.062	.044	.029	.020	.014	.010	
5.0	.174	.114	.070	.149	.099	.061	.103	.069	.043	.060	.041	.026	.019	.013	.008	
6.0	.167	.106	.062	.143	.092	.054	.099	.064	.038	.057	.038	.023	.019	.012	.008	
7.0	.160	.099	.057	.138	.086	.049	.095	.060	.035	.055	.035	.021	.018	.012	.007	
8.0	.153	.093	.052	.132	.081	.045	.091	.057	.032	.053	.034	.019	.017	.011	.006	
9.0	.147	.088	.049	.127	.077	.043	.088	.054	.030	.051	.032	.018	.017	.010	.006	
10.0	.141	.084	.046	.122	.073	.040	.085	.051	.029	.049	.030	.017	.016	.010	.006	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:280C					DIM.: 280MM			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	20.2	21.7	20.5	22.0	22.3	20.2	21.7	20.5	22.0	22.2
3H	21.9	23.3	22.2	23.6	23.9	21.8	23.2	22.2	23.5	23.8
4H	22.6	23.9	22.9	24.2	24.5	22.6	23.9	22.9	24.2	24.5
6H	23.2	24.4	23.6	24.8	25.1	23.1	24.4	23.5	24.7	25.1
8H	23.4	24.7	23.8	25.0	25.4	23.4	24.6	23.8	24.9	25.3
12H	23.7	24.8	24.1	25.2	25.6	23.6	24.8	24.0	25.1	25.5
4H 2H	20.9	22.2	21.2	22.5	22.8	20.8	22.2	21.2	22.5	22.8
3H	22.7	23.9	23.1	24.2	24.6	22.7	23.8	23.1	24.2	24.6
4H	23.5	24.6	24.0	25.0	25.4	23.5	24.6	23.9	25.0	25.4
6H	24.3	25.2	24.7	25.7	26.1	24.2	25.2	24.7	25.6	26.0
8H	24.6	25.5	25.1	25.9	26.4	24.6	25.5	25.0	25.9	26.3
12H	24.9	25.8	25.4	26.2	26.7	24.9	25.7	25.4	26.1	26.6
8H 4H	23.9	24.7	24.3	25.2	25.6	23.8	24.7	24.3	25.1	25.6
6H	24.8	25.5	25.3	26.0	26.5	24.8	25.5	25.2	26.0	26.4
8H	25.2	25.9	25.8	26.4	26.9	25.2	25.9	25.7	26.3	26.9
12H	25.7	26.3	26.2	26.8	27.3	25.6	26.2	26.2	26.7	27.3
12H 4H	23.9	24.7	24.4	25.1	25.6	23.9	24.7	24.3	25.1	25.6
6H	24.9	25.6	25.4	26.0	26.5	24.8	25.5	25.4	26.0	26.5
8H	25.4	26.0	25.9	26.5	27.0	25.4	25.9	25.9	26.4	27.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.2					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.1 / - 0.3					+ 0.1 / - 0.3				

CIE Pub.117, 1833 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.1)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

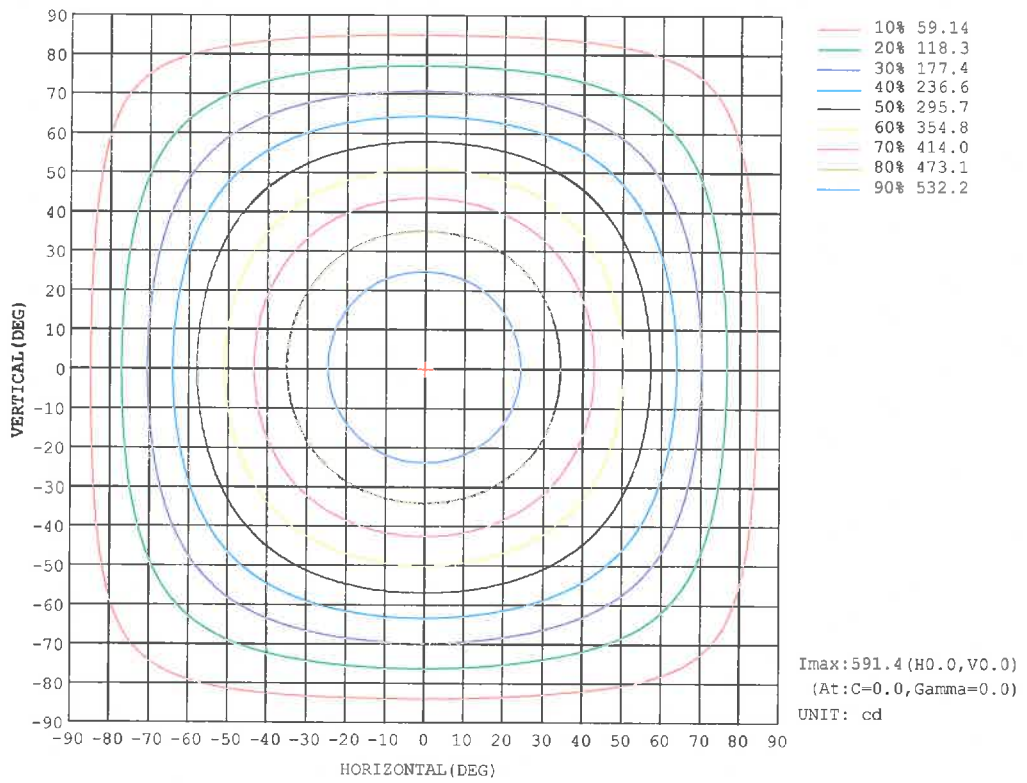
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	44	37	55	43	36	53	43	36	30
0.80	65	53	46	64	53	46	62	52	45	38
1.00	74	62	54	72	61	54	70	63	53	46
1.25	81	70	62	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	80	72	66	58
2.00	93	83	76	90	82	76	87	80	74	65
2.50	97	88	82	94	87	81	90	84	79	70
3.00	100	92	86	98	91	85	93	88	83	74
4.00	104	98	93	102	96	91	97	92	88	78
5.00	107	101	97	104	99	95	99	95	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 12002-2 2004										
Suspended										
SHRNOM = 1.25										

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: [redacted]
 Test Date: 14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



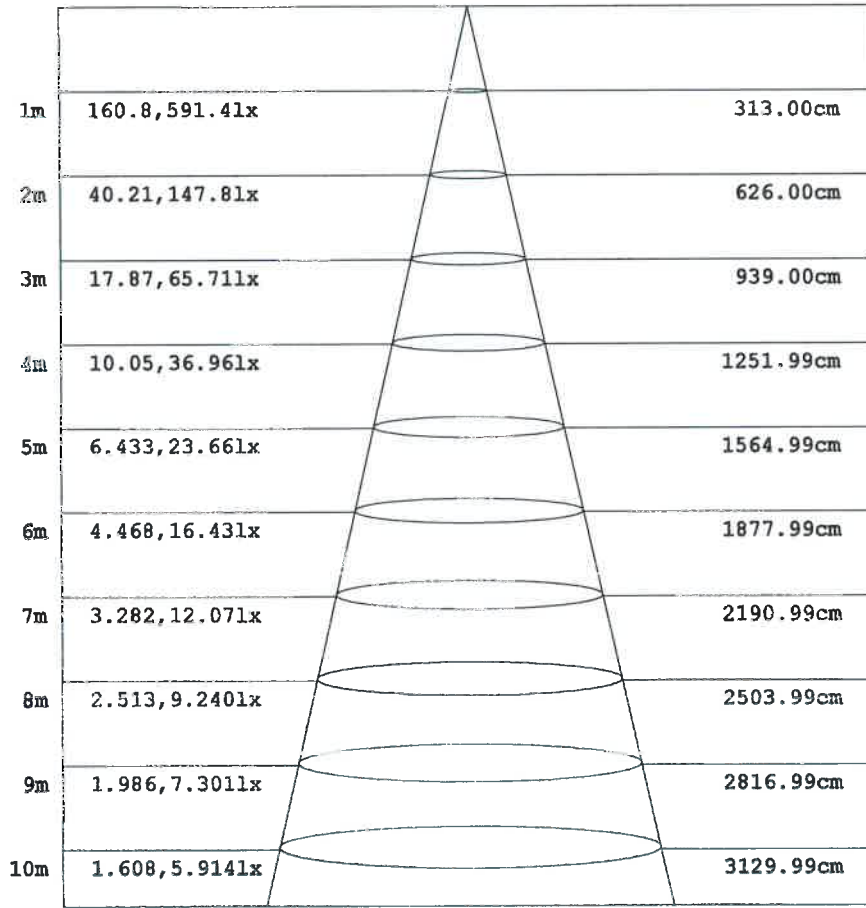
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1294 lm



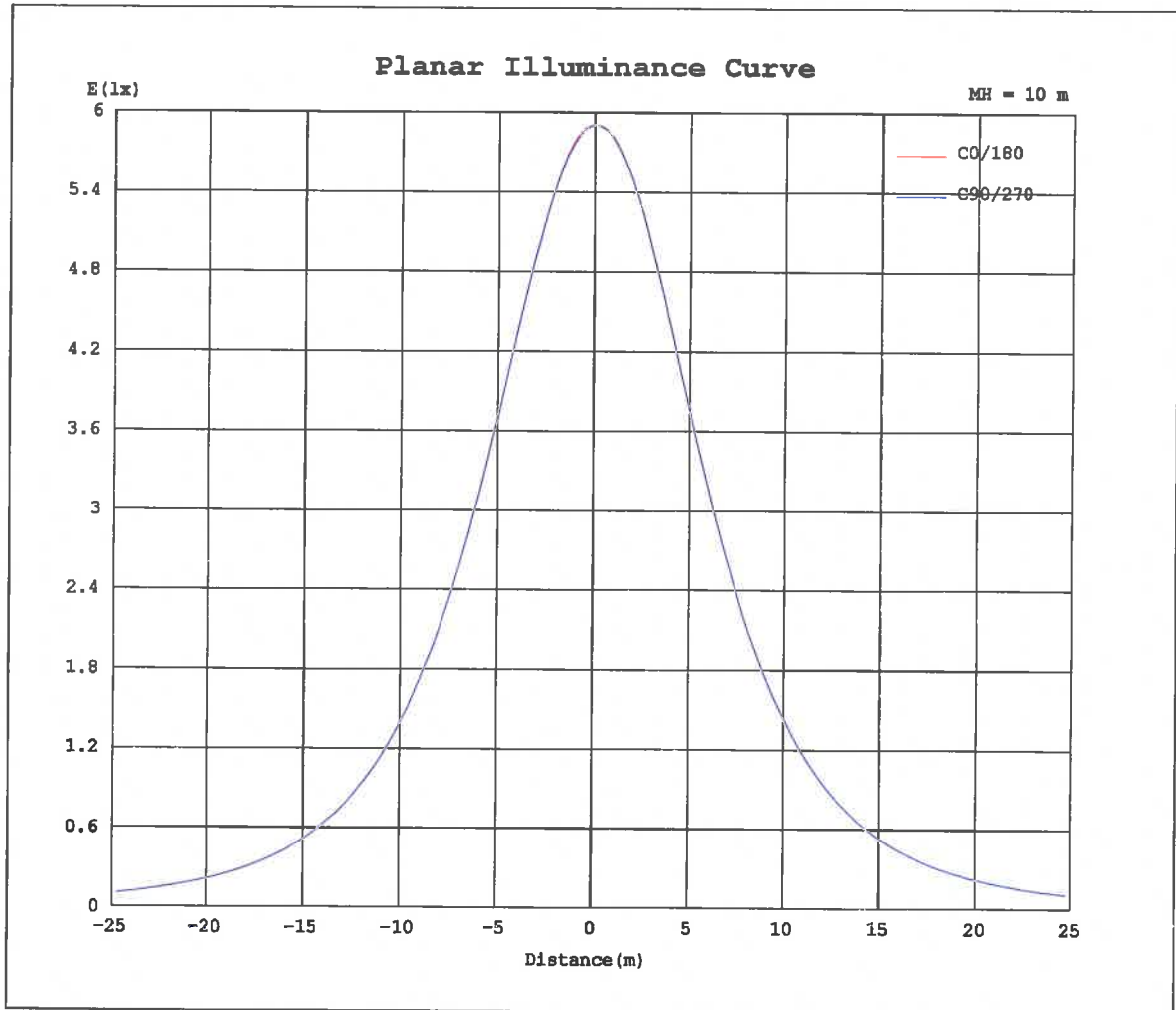
Height Eavg, Emax Angle:114.84deg Diameter

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:
 Test Date:14 July 2021

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: [redacted]
 Test Date: 14 July 2021

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:230.04V I:0.0807A P:17.733W PF:0.9556 Freq:49.99Hz Lamp Flux:1832.66x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	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	591	591	591	591	590	590	591	591	591	591	590	590						
5	589	589	588	588	588	588	590	590	589	589	589	588						
10	581	581	580	581	581	581	583	583	583	582	582	581						
15	568	568	567	568	568	569	571	571	572	570	570	568						
20	550	550	549	550	550	552	554	554	555	553	553	551						
25	528	527	526	527	527	529	532	532	533	531	530	528						
30	500	500	498	499	500	502	505	505	506	504	503	502						
35	469	468	467	468	469	471	475	475	476	474	473	470						
40	434	434	432	434	434	437	441	441	441	440	439	437						
45	397	396	395	396	397	399	403	404	404	403	402	399						
50	357	356	354	356	356	360	363	364	365	363	362	359						
55	314	314	312	313	314	317	321	322	323	321	320	317						
60	270	269	268	269	270	273	277	277	279	276	276	272						
65	224	223	222	223	224	226	230	231	232	231	229	227						
70	177	176	175	176	177	180	184	185	186	184	183	180						
75	132	131	129	131	132	134	138	138	139	138	137	135						
80	89.5	88.5	87.1	88.6	89.5	92.0	95.1	95.1	96.4	95.1	95.2	92.7						
85	54.5	53.7	52.5	53.7	54.4	56.5	58.9	58.9	60.0	59.0	59.2	57.2						
90	33.9	33.5	33.1	33.0	33.1	33.4	34.0	34.3	34.9	34.6	34.5	34.2						
95	33.0	32.7	32.3	32.2	32.3	32.5	33.0	33.2	33.4	33.6	33.4	33.0						
100	25.8	21.7	23.2	28.8	23.0	23.9	29.1	21.7	20.4	27.4	19.5	16.0						
105	10.2	4.98	8.60	15.8	7.90	8.84	15.9	8.16	4.87	11.1	5.17	3.33						
110	1.55	1.40	1.45	4.41	1.40	1.59	4.89	1.50	1.32	1.80	1.34	1.38						
115	1.61	1.62	1.62	1.62	1.61	1.58	1.58	1.55	1.54	1.56	1.57	1.59						
120	1.84	1.84	1.84	1.84	1.83	1.80	1.79	1.76	1.75	1.78	1.78	1.81						
125	2.06	2.05	2.06	2.06	2.04	2.02	2.01	1.98	1.97	2.00	2.00	2.03						
130	2.28	2.27	2.28	2.28	2.26	2.24	2.21	2.20	2.19	2.22	2.23	2.25						
135	2.49	2.48	2.49	2.49	2.47	2.44	2.43	2.42	2.41	2.43	2.43	2.45						
140	2.69	2.69	2.70	2.69	2.67	2.66	2.62	2.62	2.61	2.63	2.64	2.65						
145	2.88	2.87	2.90	2.88	2.85	2.85	2.83	2.83	2.81	2.83	2.84	2.86						
150	3.06	3.06	3.07	3.06	3.04	3.04	3.01	3.02	3.01	3.02	3.03	3.04						
155	3.24	3.24	3.25	3.24	3.22	3.21	3.19	3.20	3.19	3.20	3.21	3.21						
160	3.41	3.38	3.42	3.40	3.36	3.38	3.37	3.37	3.34	3.37	3.37	3.36						
165	3.52	3.50	3.54	3.51	3.49	3.51	3.48	3.51	3.47	3.48	3.50	3.48						
170	3.59	3.59	3.63	3.59	3.57	3.61	3.57	3.61	3.58	3.57	3.61	3.58						
175	3.66	3.67	3.68	3.65	3.65	3.67	3.64	3.67	3.66	3.64	3.67	3.67						
180	3.68	3.70	3.70	3.68	3.69	3.70	3.68	3.70	3.70	3.68	3.70	3.69						

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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: