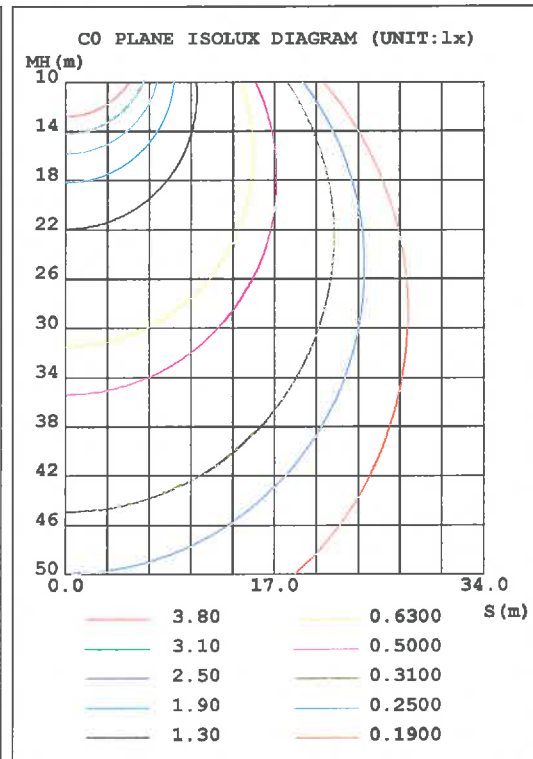
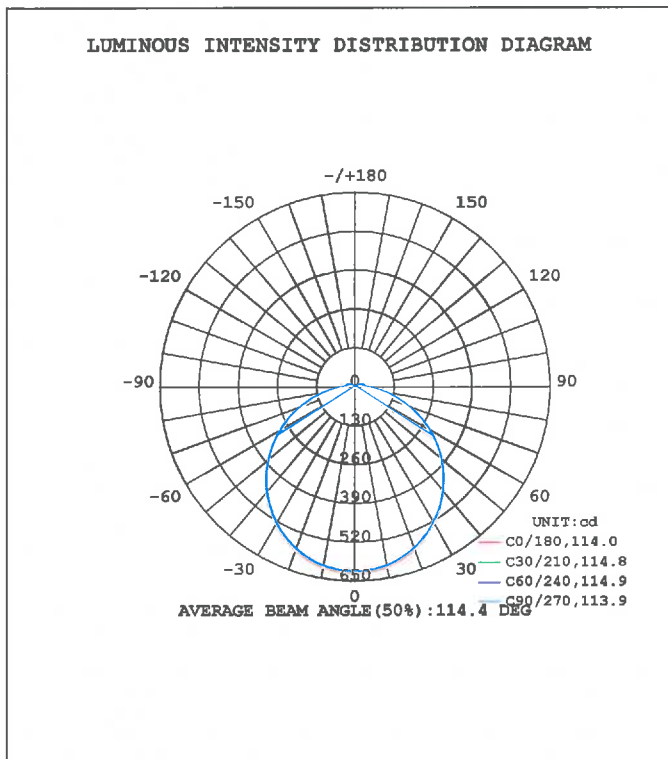


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 103.15 lm/W
MODEL	YYS18WCCT	I _{max} (cd)	625.3	S/MH(C0/180)	1.26	
NOMINAL POWER (W)	18	LOR(%)	100.0	S/MH(C90/270)	1.26	
RATED VOLTAGE (V)	230	TOTAL FLUX(lm)	1894.4	η UP, DN(C0-180)	1.4, 48.3	
NOMINAL FLUX(lm)	1894.37	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.4, 48.9	
LAMPS INSIDE	1	η up(%)	2.8	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down(%)	97.2	CIBSE SHR MAX	1.35	



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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	⊙ zone	⊙ total	%lum, lamp
10	614.7	609.8	606.2	604.5	615.8	611.6	606.8	604.5	0- 10	58.59	58.59	3.09,3.09
20	581.0	577.5	573.7	573.1	583.8	580.7	575.1	573.1	10- 20	168.1	226.6	12,12
30	527.3	528.2	521.0	521.9	531.7	529.4	523.1	521.7	20- 30	255.9	481.6	25.4,25.4
40	456.4	456.2	451.6	454.2	462.7	462.0	454.4	454.3	30- 40	309.2	789.8	41.7,41.7
50	373.5	374.7	369.8	373.6	380.7	380.7	372.8	373.9	40- 50	321.9	1112	58.7,58.7
60	280.0	282.8	278.2	283.0	287.5	289.3	281.2	283.2	50- 60	295.3	1407	74.3,74.3
70	180.2	183.7	178.6	185.0	187.1	190.4	182.4	185.2	60- 70	232.0	1539	86.5,86.5
80	83.77	88.24	83.10	89.94	90.27	94.27	86.04	90.29	70- 80	143.3	1782	94.1,94.1
90	24.98	30.43	25.34	31.29	26.95	31.54	25.01	29.94	80- 90	58.26	1841	97.2,97.2
100	23.29	22.61	24.24	24.53	25.65	22.82	23.89	19.11	90-100	38.88	1871	98.7,98.7
110	1.970	1.741	0.024	2.348	9.448	2.040	3.018	1.398	100-110	13.25	1884	99.4,99.4
120	1.909	1.900	1.074	1.837	1.851	1.828	1.837	1.853	110-120	1.858	1886	99.5,99.5
130	2.380	2.362	2.344	2.296	2.322	2.292	2.294	2.310	120-130	1.872	1888	99.6,99.6
140	2.810	2.799	2.779	2.724	2.765	2.735	2.733	2.742	130-140	1.964	1890	99.7,99.7
150	3.212	3.190	3.168	3.127	3.163	3.145	3.136	3.140	140-150	1.854	1891	99.8,99.8
160	3.574	3.536	3.521	3.475	3.539	3.498	3.498	3.482	150-160	1.540	1893	99.9,99.9
170	3.765	3.758	3.720	3.708	3.760	3.738	3.701	3.713	160-170	1.825	1894	100,100
180	3.860	3.853	3.815	3.810	3.869	3.851	3.801	3.810	170-180	0.3885	1894	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

Conical surface Flux(90deg): 951.6 lm

%lum = 50.2%
%lamp = 50.2%

Conical surface Flux(120deg): 1407.1 lm

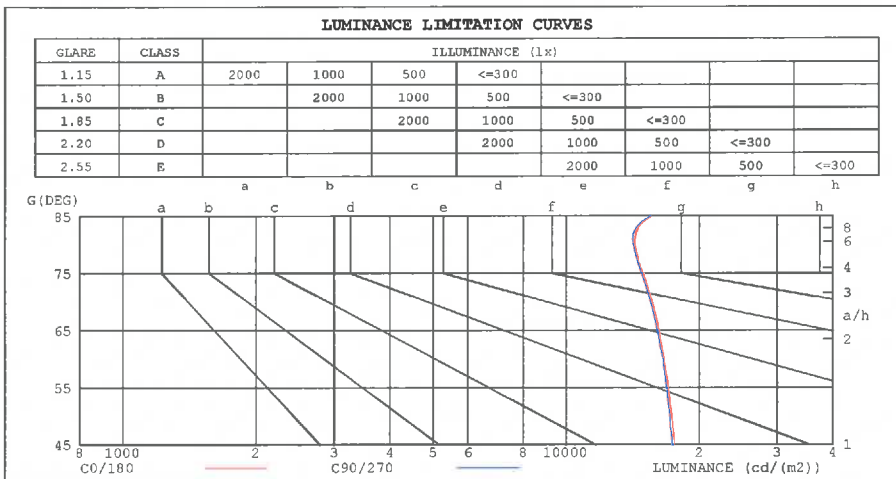
%lum = 74.3%
%lamp = 74.3%

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:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	15678	15555
80	14358	14242
75	14989	14869
70	15680	15545
65	16249	16081
60	16669	16559
55	17012	16871
50	17295	17124
45	17532	17329

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1111
 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:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

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	.326	.185	.059	.318	.181	.058	.303	.174	.056	.289	.167	.054	.277	.160	.052	
2.0	.301	.165	.051	.294	.162	.050	.281	.156	.048	.268	.151	.047	.257	.145	.046	
3.0	.276	.147	.044	.270	.144	.043	.258	.140	.042	.247	.135	.042	.237	.131	.041	
4.0	.253	.132	.039	.248	.130	.038	.237	.126	.038	.227	.122	.037	.218	.119	.036	
5.0	.233	.119	.034	.228	.117	.034	.219	.114	.034	.210	.111	.033	.202	.108	.032	
6.0	.216	.108	.031	.211	.107	.031	.203	.104	.030	.195	.101	.030	.188	.099	.029	
7.0	.200	.099	.028	.196	.098	.028	.189	.095	.027	.182	.093	.027	.175	.091	.027	
8.0	.187	.091	.026	.183	.090	.026	.176	.088	.025	.170	.086	.025	.164	.084	.025	
9.0	.175	.085	.024	.172	.084	.023	.166	.082	.023	.160	.080	.023	.154	.078	.023	
10.0	.164	.079	.022	.161	.078	.022	.156	.076	.021	.150	.075	.021	.145	.073	.021	

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	.212	.212	.212	.181	.181	.181	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.203	.178	.155	.174	.153	.133	.119	.105	.092	.068	.061	.054	.022	.020	.017	
2.0	.195	.154	.119	.167	.132	.103	.115	.092	.072	.066	.053	.042	.021	.017	.014	
3.0	.188	.136	.096	.161	.118	.083	.110	.082	.058	.064	.048	.034	.020	.015	.011	
4.0	.180	.123	.080	.154	.106	.069	.106	.074	.049	.061	.043	.029	.020	.014	.010	
5.0	.173	.113	.069	.148	.098	.060	.102	.068	.042	.059	.040	.025	.019	.013	.008	
6.0	.165	.105	.061	.142	.091	.053	.098	.063	.038	.057	.037	.022	.018	.012	.007	
7.0	.158	.098	.055	.136	.085	.048	.094	.059	.034	.055	.035	.020	.018	.011	.007	
8.0	.152	.092	.051	.131	.080	.044	.090	.056	.032	.053	.033	.019	.017	.011	.006	
9.0	.146	.087	.048	.126	.076	.041	.087	.053	.029	.051	.031	.018	.016	.010	.006	
10.0	.140	.083	.045	.121	.072	.039	.084	.051	.028	.049	.030	.017	.016	.010	.005	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:\n
 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:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:280S					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	20.3	21.8	20.6	22.1	22.4	20.3	21.8	20.6	22.0	22.3
3H	21.9	23.3	22.3	23.6	23.9	21.9	23.3	22.2	23.6	23.9
4H	22.6	23.9	23.0	24.2	24.5	22.5	23.9	22.9	24.2	24.5
6H	23.1	24.4	23.5	24.7	25.0	23.1	24.3	23.4	24.6	25.0
8H	23.3	24.5	23.7	24.9	25.2	23.3	24.5	23.6	24.8	25.2
12H	23.5	24.6	23.9	25.0	25.4	23.4	24.6	23.8	24.9	25.3
4H 2H	21.0	22.3	21.3	22.6	22.9	20.9	22.3	21.3	22.6	22.9
3H	22.8	23.9	23.2	24.3	24.6	22.7	23.9	23.1	24.2	24.6
4H	23.6	24.6	24.0	25.0	25.4	23.5	24.6	23.9	25.0	25.4
6H	24.2	25.2	24.7	25.6	26.0	24.2	25.1	24.6	25.5	26.0
8H	24.5	25.4	25.0	25.8	26.2	24.4	25.3	24.9	25.7	26.2
12H	24.7	25.5	25.2	26.0	26.4	24.7	25.5	25.1	25.9	26.4
8H 4H	23.9	24.8	24.3	25.2	25.6	23.8	24.7	24.3	25.1	25.6
6H	24.7	25.5	25.2	25.9	26.4	24.7	25.4	25.2	25.9	26.4
8H	25.1	25.8	25.6	26.2	26.8	25.1	25.7	25.6	26.2	26.7
12H	25.5	26.0	26.0	26.5	27.1	25.4	26.0	25.9	26.5	27.0
12H 4H	23.9	24.7	24.4	25.1	25.6	23.9	24.7	24.3	25.1	25.6
6H	24.8	25.5	25.3	25.9	26.5	24.8	25.4	25.3	25.9	26.4
8H	25.3	25.8	25.8	26.3	26.9	25.2	25.8	25.7	26.3	26.8
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, 1894 lm Total Lamp Luminous Flux Correct ($\theta \log(F/F_0) = 2.2$)

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:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

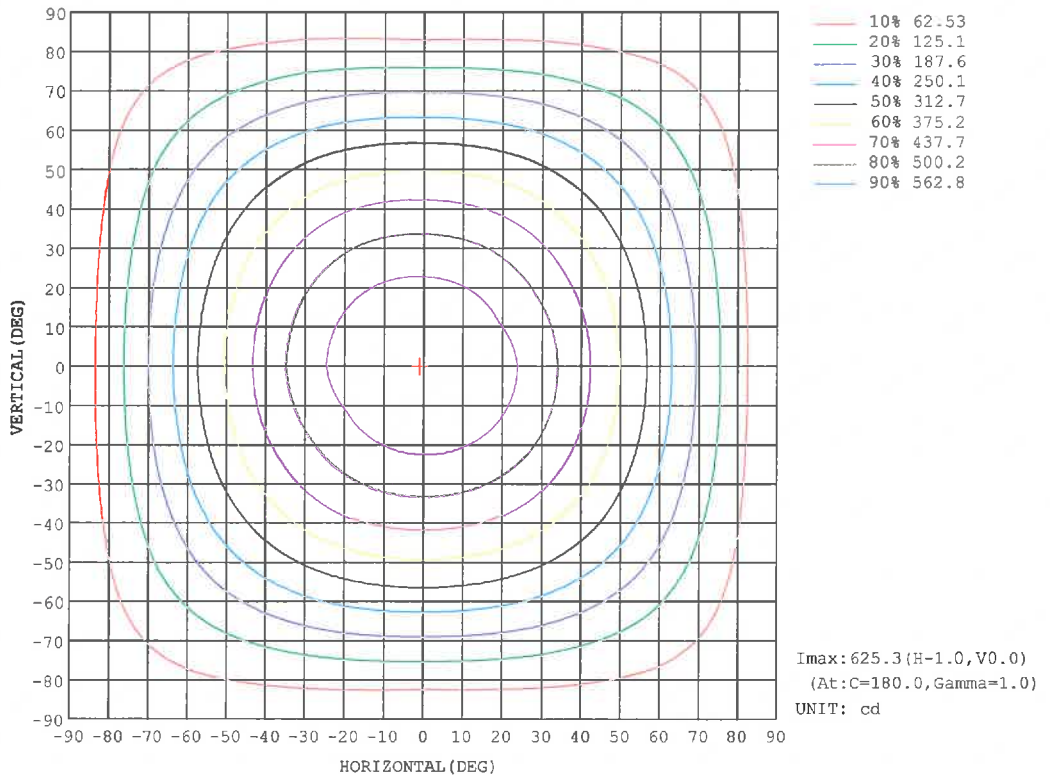
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	64	53	46	63	52	46	38
1.00	74	62	55	73	62	55	70	63	54	47
1.25	81	70	63	79	69	62	76	68	61	54
1.50	86	76	68	84	75	68	81	73	66	59
2.00	93	84	77	91	82	76	87	80	74	66
2.50	97	89	82	95	87	81	90	84	79	70
3.00	100	93	87	98	91	86	94	88	83	74
4.00	104	98	93	102	96	92	97	93	89	79
5.00	107	102	97	104	100	96	99	96	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNCM = 1.25			

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:1--
 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:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



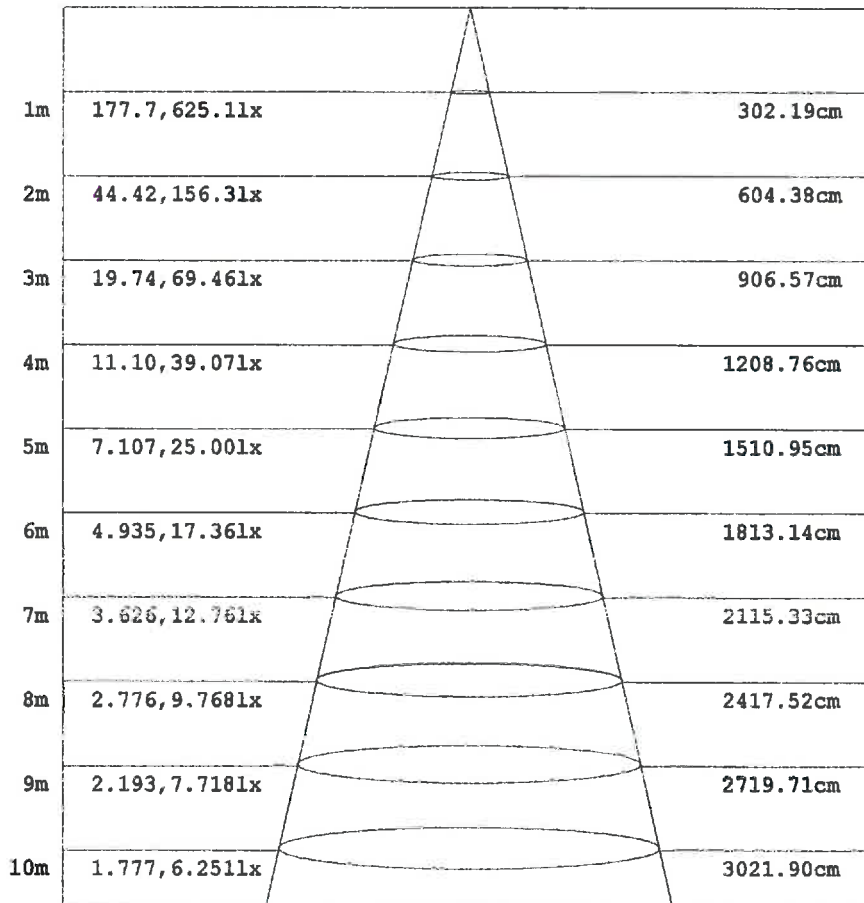
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: [redacted]
 Test Date: 14 July 2021

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:

AAI Figure

Test:U:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1324 lm



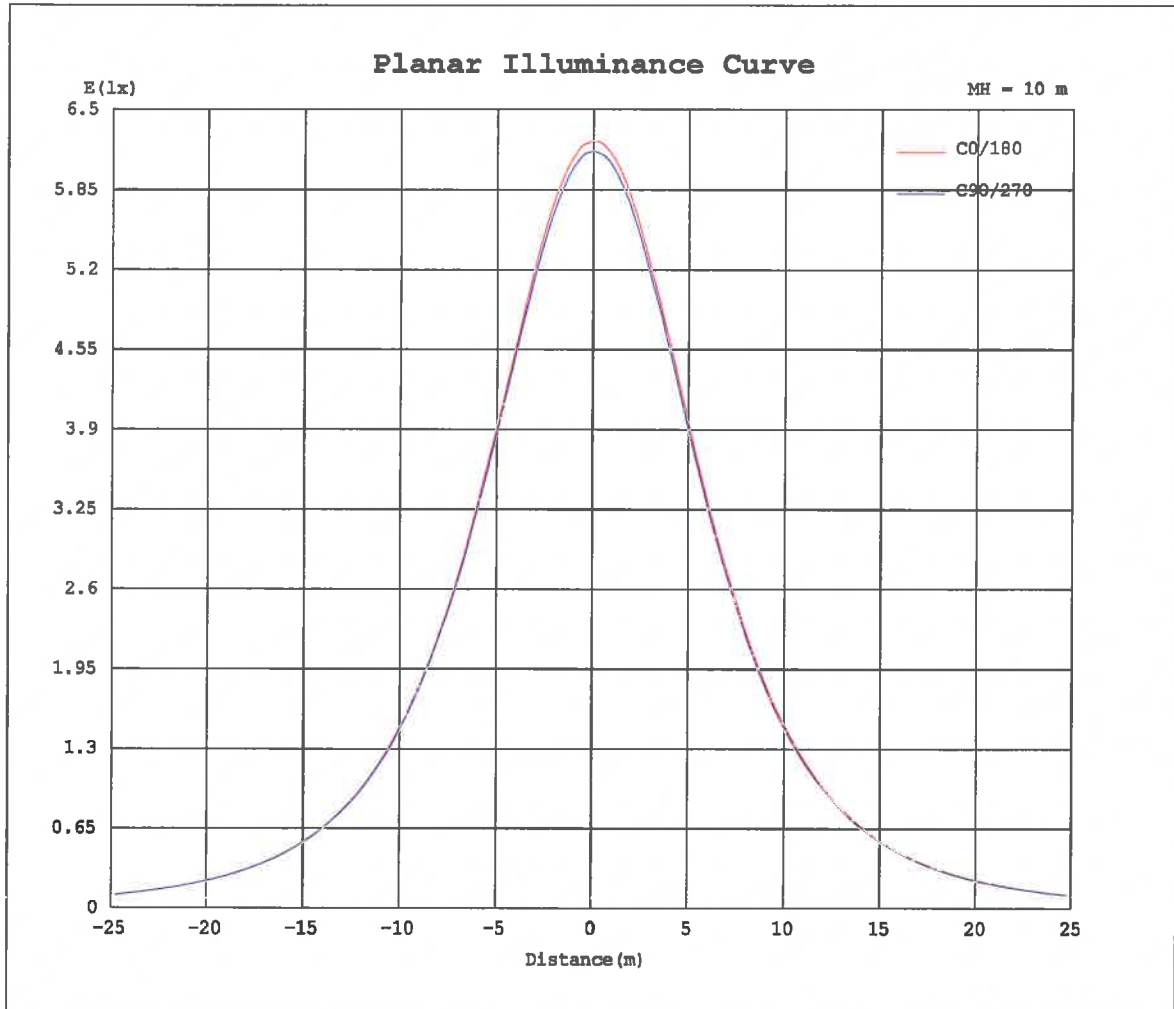
Height Eavg, Emax Angle:113.00deg Diameter

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:230.10V I:0.0834A P:18.365W PF:0.9572 Freq:0Hz Lamp Flux:1894.37x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

γ (DEG) \ C (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	625	622	619	617	615	613	625	622	619	617	615	613						
5	623	619	616	614	613	611	623	620	617	615	613	611						
10	615	611	608	606	605	604	616	613	610	607	606	603						
15	601	598	594	593	592	591	603	600	597	594	593	590						
20	581	579	576	574	573	573	584	582	580	575	575	572						
25	556	555	552	550	550	550	560	559	557	551	551	548						
30	527	527	524	521	522	522	532	530	529	523	524	520						
35	493	494	491	488	490	490	499	498	497	490	492	488						
40	456	458	455	452	454	455	463	463	461	454	456	453						
45	417	418	415	412	415	416	423	423	423	415	417	414						
50	374	376	373	370	373	374	381	381	380	373	375	372						
55	328	331	329	325	329	331	335	336	336	328	331	328						
60	280	284	282	278	282	284	287	289	289	281	285	282						
65	231	234	233	228	233	235	238	240	240	232	236	233						
70	180	184	183	179	184	186	187	190	190	182	186	184						
75	130	135	134	129	135	137	137	141	141	133	137	135						
80	83.8	88.9	87.5	83.1	88.6	91.2	90.3	94.0	94.6	86.0	91.1	89.5						
85	45.9	51.3	50.3	45.6	51.2	53.6	51.1	55.2	55.5	47.6	52.8	51.8						
90	25.0	30.2	30.6	25.3	30.9	31.7	26.9	31.6	31.5	25.0	29.9	30.0						
95	24.6	29.6	30.0	24.9	30.2	30.9	26.4	30.9	30.6	24.5	28.9	29.3						
100	23.3	22.7	22.5	24.2	24.2	24.8	25.7	23.1	22.6	23.9	20.1	18.1						
105	12.9	7.70	12.6	19.4	11.9	13.2	20.4	12.8	7.89	14.4	8.14	5.58						
110	1.87	1.44	2.04	8.02	1.72	2.98	9.45	2.71	1.37	3.02	1.39	1.41						
115	1.68	1.67	1.67	1.65	1.62	1.60	1.63	1.60	1.59	1.61	1.61	1.63						
120	1.91	1.90	1.90	1.87	1.85	1.82	1.85	1.83	1.82	1.84	1.85	1.86						
125	2.13	2.13	2.13	2.12	2.08	2.05	2.10	2.06	2.06	2.06	2.07	2.09						
130	2.38	2.36	2.36	2.34	2.31	2.28	2.32	2.29	2.29	2.29	2.31	2.31						
135	2.61	2.59	2.58	2.57	2.52	2.50	2.55	2.52	2.52	2.52	2.52	2.53						
140	2.81	2.80	2.80	2.78	2.73	2.72	2.77	2.74	2.73	2.73	2.75	2.74						
145	3.01	3.00	3.00	2.98	2.93	2.92	2.96	2.95	2.94	2.94	2.95	2.94						
150	3.21	3.19	3.19	3.17	3.14	3.11	3.16	3.15	3.14	3.14	3.15	3.14						
155	3.40	3.39	3.37	3.35	3.32	3.31	3.37	3.34	3.32	3.33	3.33	3.32						
160	3.57	3.53	3.54	3.52	3.47	3.48	3.54	3.52	3.48	3.50	3.49	3.47						
165	3.68	3.65	3.67	3.63	3.59	3.61	3.66	3.65	3.62	3.61	3.63	3.59						
170	3.76	3.75	3.76	3.72	3.70	3.72	3.76	3.76	3.72	3.70	3.73	3.70						
175	3.82	3.84	3.83	3.78	3.76	3.78	3.84	3.82	3.79	3.77	3.80	3.76						
180	3.86	3.86	3.84	3.81	3.81	3.81	3.87	3.85	3.85	3.80	3.82	3.80						

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: