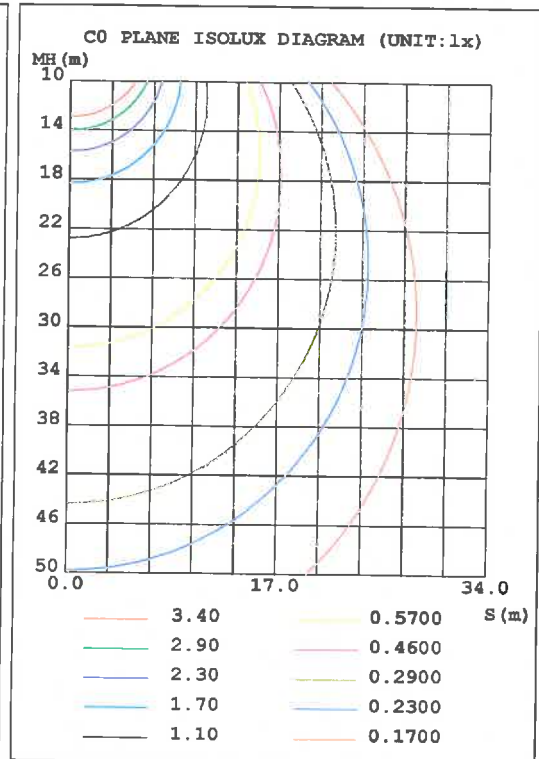
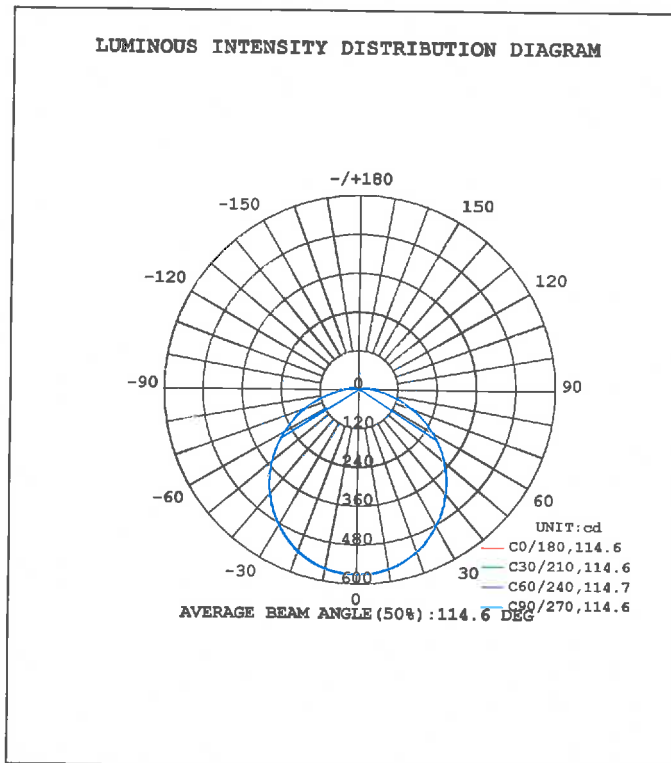


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA			
MODEL	YYR18WCCT	I _{max} (cd)	571.7	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)	1756.9	η UP,DN(C0-180)	1.5,48.1
NOMINAL FLUX(lm)	1756.88	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: [blank]
 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	562.1	559.8	558.4	558.4	563.5	561.6	560.6	558.7	0- 10	53.91	53.91	3.07,3.07
20	531.4	529.3	529.1	529.2	535.1	533.5	531.5	529.6	10- 20	154.7	208.6	11.9,11.9
30	482.4	480.3	479.5	480.7	487.5	486.7	484.1	481.9	20- 30	234.5	443.1	25.2,25.2
40	417.9	416.2	416.3	417.3	424.6	424.0	421.9	419.2	30- 40	283.2	726.3	41.3,41.3
50	342.9	341.0	341.1	342.6	349.9	349.6	347.4	344.5	40- 50	295.7	1022	58.2,58.2
60	258.8	257.0	256.9	259.0	265.9	266.2	264.2	261.4	50- 60	271.7	1294	73.6,73.6
70	169.8	168.0	168.3	170.4	176.5	177.2	175.7	173.1	60- 70	214.6	1508	85.9,85.9
80	85.31	83.68	84.43	86.45	91.16	91.39	90.40	89.13	70- 80	136.0	1644	93.6,93.6
90	31.93	31.31	31.13	31.43	32.39	32.79	32.57	32.29	80- 90	60.52	1705	97.97
100	24.26	21.08	27.10	22.19	27.75	19.98	25.91	16.67	90-100	32.38	1737	88.9,88.9
110	1.466	1.347	4.130	1.418	4.679	1.340	1.706	1.292	100-110	10.20	1747	99.5,99.5
120	1.760	1.749	1.747	1.715	1.706	1.672	1.687	1.701	110-120	1.569	1749	99.5,99.5
130	2.172	2.172	2.168	2.133	2.109	2.091	2.117	2.122	120-130	1.724	1751	99.6,99.6
140	2.574	2.570	2.562	2.525	2.516	2.491	2.506	2.523	130-140	1.805	1752	99.8,99.8
150	2.932	2.930	2.919	2.889	2.883	2.867	2.878	2.894	140-150	1.701	1754	99.8,99.8
160	3.258	3.244	3.249	3.206	3.227	3.204	3.208	3.208	150-160	1.414	1756	99.9,99.9
170	3.434	3.450	3.426	3.423	3.417	3.425	3.403	3.428	160-170	0.9410	1757	100,100
180	3.525	3.536	3.516	3.523	3.529	3.529	3.507	3.516	170-180	0.3314	1757	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 874.98 lm

%lum = 49.8%

%lamp = 49.8%

Conical surface Flux(120deg): 1293.7 lm

%lum = 73.6%

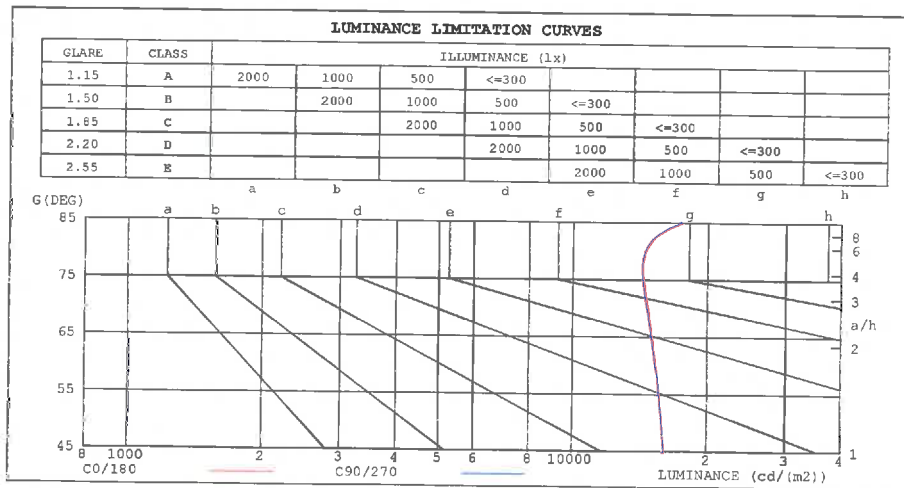
%lamp = 73.6%

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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 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	17647	17412
80	14622	14471
75	14461	14320
70	14777	14645
65	15107	14985
60	15408	15289
55	15660	15583
50	15876	15792
45	16071	15991

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:MLL
 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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	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
pf	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients (WEC)									
0.0																
1.0	.331	.188	.060	.323	.184	.058	.308	.176	.056	.294	.169	.054	.281	.163	.053	
2.0	.303	.166	.051	.296	.163	.050	.283	.157	.049	.271	.152	.048	.259	.147	.046	
3.0	.278	.148	.044	.271	.145	.044	.259	.141	.043	.248	.136	.042	.238	.132	.041	
4.0	.254	.132	.039	.249	.130	.038	.238	.126	.038	.228	.123	.037	.219	.119	.036	
5.0	.234	.119	.035	.229	.118	.034	.220	.114	.034	.211	.111	.033	.203	.108	.033	
6.0	.216	.108	.031	.212	.107	.031	.203	.104	.030	.195	.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	.091	.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	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pf	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	.204	.179	.155	.175	.153	.134	.120	.105	.093	.069	.061	.054	.022	.020	.017	
2.0	.197	.155	.119	.168	.133	.103	.115	.092	.072	.067	.054	.042	.021	.017	.014	
3.0	.189	.137	.096	.162	.118	.083	.111	.082	.059	.064	.048	.034	.021	.016	.011	
4.0	.181	.124	.081	.156	.107	.070	.107	.075	.049	.062	.044	.029	.020	.014	.010	
5.0	.174	.114	.070	.149	.099	.061	.103	.069	.043	.060	.040	.025	.019	.013	.008	
6.0	.166	.106	.062	.143	.091	.054	.099	.064	.038	.057	.038	.023	.018	.012	.007	
7.0	.159	.099	.056	.137	.086	.049	.095	.060	.035	.055	.035	.021	.018	.012	.007	
8.0	.153	.093	.052	.132	.081	.045	.091	.057	.032	.053	.033	.019	.017	.011	.006	
9.0	.147	.088	.048	.126	.076	.042	.088	.054	.030	.051	.032	.018	.017	.010	.006	
10.0	.141	.084	.046	.122	.073	.040	.084	.051	.028	.049	.030	.017	.016	.010	.006	

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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 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	22.5	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	24.6	23.8	25.0	25.3	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	24.5
4H	23.5	24.6	24.0	25.0	25.4	23.5	24.6	23.9	24.9	25.3
6H	24.3	25.2	24.7	25.6	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	25.4	25.0	25.9	26.3
12H	24.9	25.7	25.4	26.2	26.6	24.9	25.7	25.3	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	24.7	25.5	25.2	25.9	26.4
8H	25.2	25.9	25.7	26.4	26.9	25.2	25.8	25.7	26.3	26.8
12H	25.7	26.3	26.2	26.8	27.3	25.6	26.2	26.1	26.7	27.2
12H 4H	23.9	24.7	24.4	25.1	25.6	23.8	24.7	24.3	25.1	25.6
6H	24.9	25.5	25.4	26.0	26.5	24.8	25.5	25.3	26.0	26.5
8H	25.4	26.0	25.9	26.5	27.0	25.3	25.9	25.9	26.4	26.9
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, 1757 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 2.0$)

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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

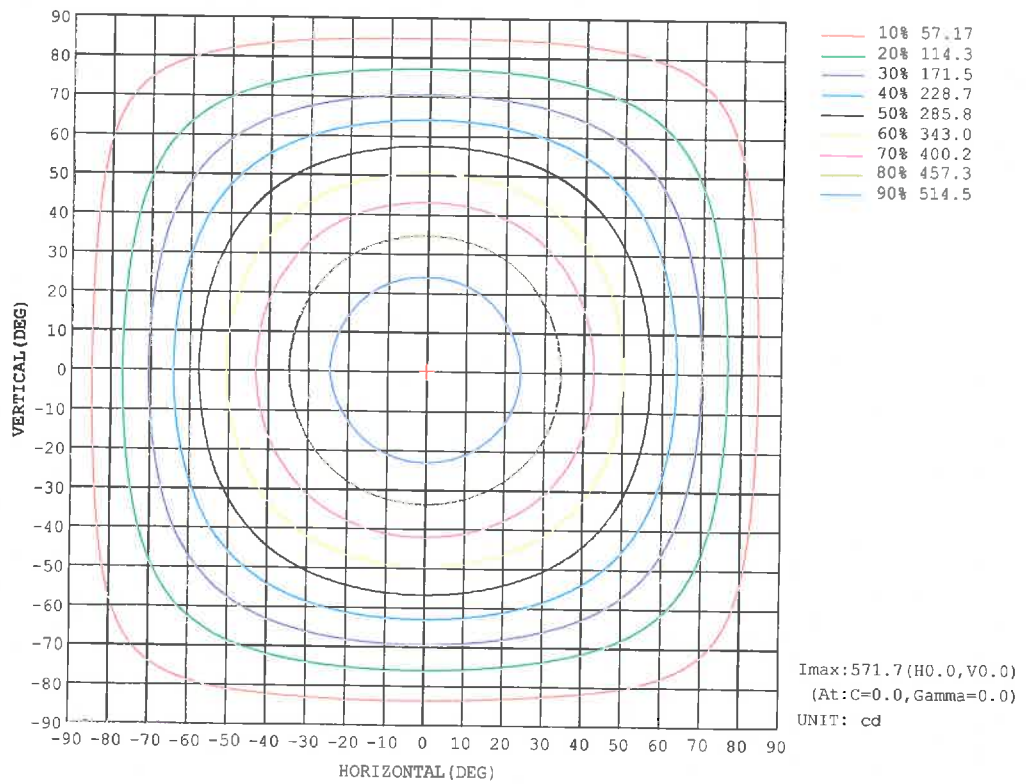
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) k(RI) x RCR = 5									
k = 0.60	56	44	37	55	43	37	53	43	36	30
0.80	65	53	46	64	53	46	62	52	45	38
1.00	74	62	54	72	61	54	70	63	54	46
1.25	81	70	62	79	69	62	76	67	61	53
1.50	86	75	68	84	74	67	81	72	66	58
2.00	93	83	76	91	82	76	87	80	74	66
2.50	97	88	82	94	87	81	90	84	79	70
3.00	100	93	87	98	91	85	93	88	83	74
4.00	104	98	93	102	96	91	97	92	88	79
5.00	107	101	97	104	99	95	99	95	92	82
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: [Signature]
 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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



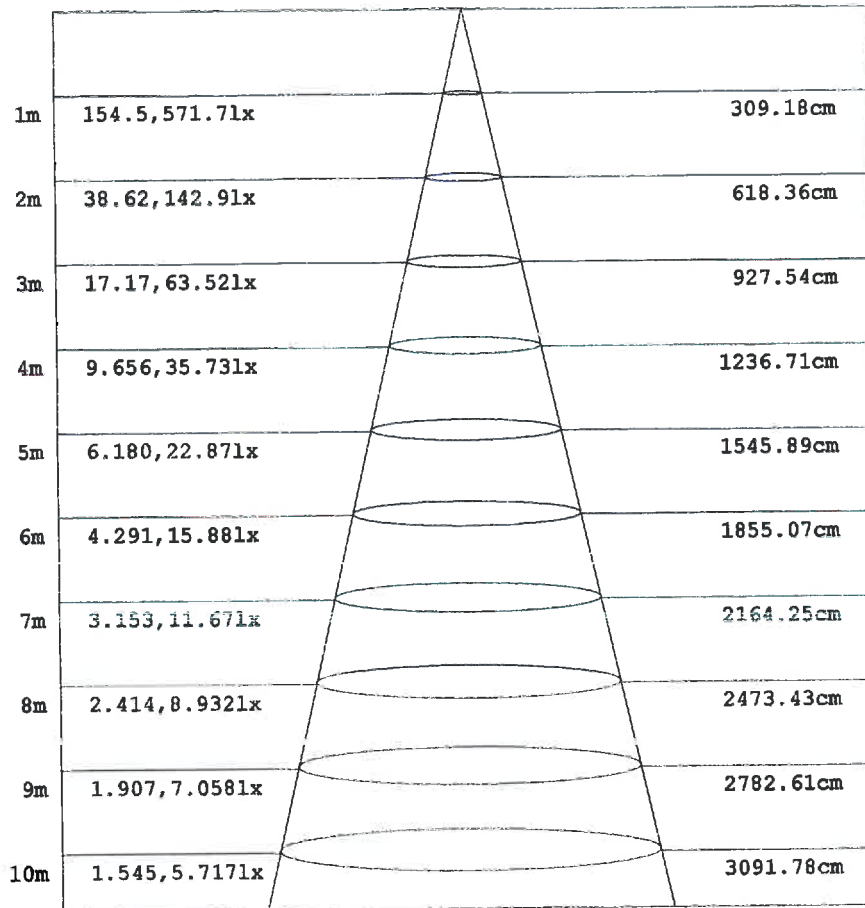
C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:14 July 2021

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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1243 lm



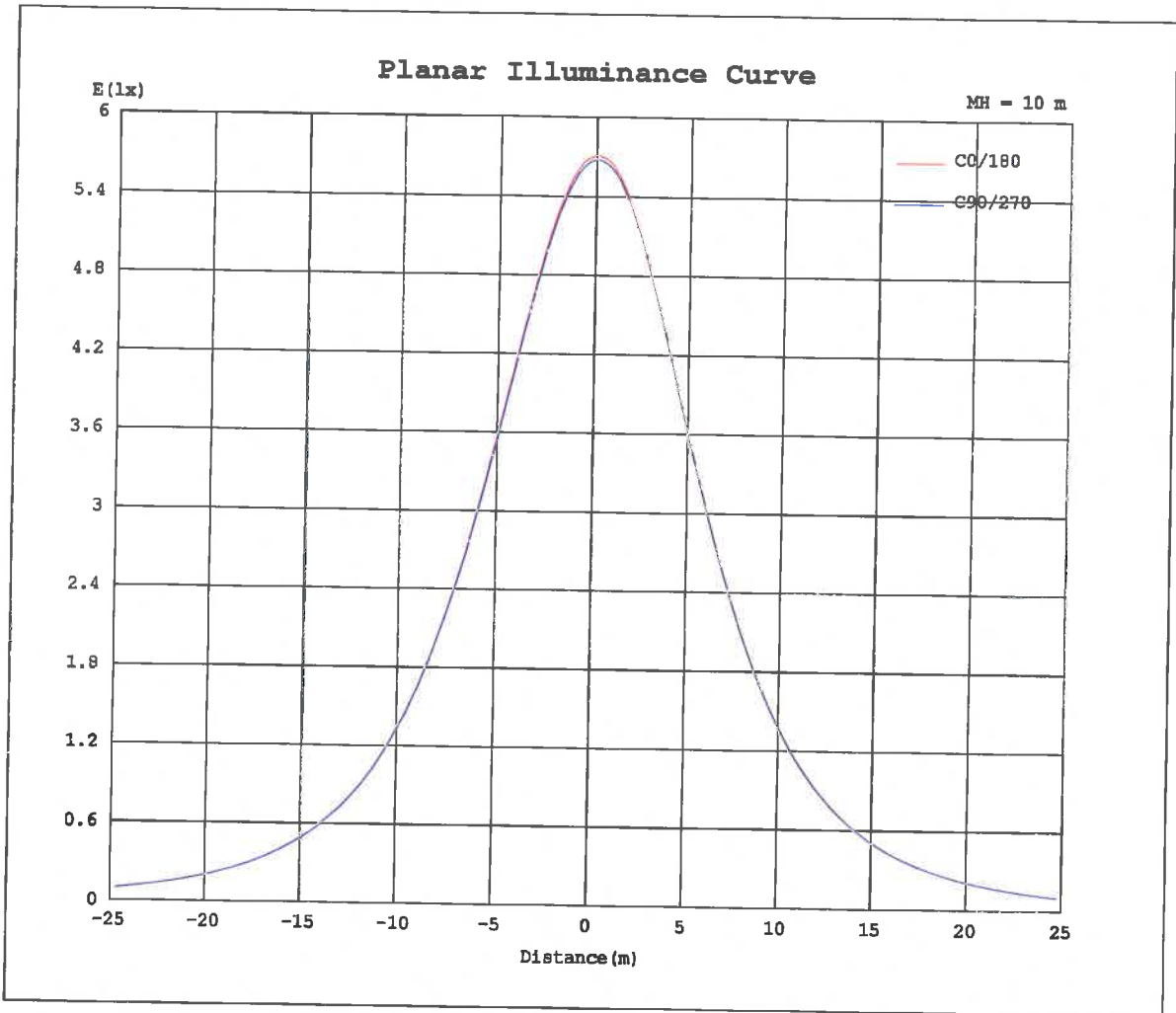
Height Eavg, Emax Angle:114.20deg Diameter

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: [unclear]
 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: ' ' ,
 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:230.08V I:0.0812A P:17.874W PF:0.9564 Freq:49.99Hz Lamp Flux:1756.88x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280C	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG) \ y (DEG)	0	30	60	90	120	150	180	210	240	270	300	330								
0	572	570	569	568	567	567	572	570	569	568	567	567								
5	569	568	567	566	565	565	571	569	568	567	565	565								
10	562	560	559	558	558	559	563	562	561	561	559	558								
15	550	548	547	546	546	546	552	550	550	548	548	546								
20	531	530	528	529	529	530	535	534	534	532	531	529								
25	509	508	506	507	506	508	513	512	512	510	509	507								
30	482	481	479	480	480	482	488	486	487	484	483	481								
35	452	451	449	449	449	452	458	457	457	455	453	451								
40	418	417	415	416	416	418	425	424	424	422	421	418								
45	382	380	379	380	380	382	388	388	388	386	385	382								
50	343	342	340	341	342	344	350	349	350	347	346	343								
55	302	301	299	300	301	303	309	309	309	307	306	302								
60	259	258	257	257	258	260	266	266	267	264	263	260								
65	215	213	212	213	214	216	221	222	222	220	219	216								
70	170	169	167	168	169	171	176	177	178	176	175	172								
75	126	125	123	125	126	128	132	132	133	132	131	128								
80	85.3	84.4	82.9	84.4	85.3	87.6	91.2	90.8	91.9	90.4	90.3	88.0								
85	51.7	50.9	49.7	51.0	51.7	53.6	56.3	56.1	56.9	55.8	55.9	54.0								
90	31.9	31.5	31.1	31.1	31.3	31.6	32.4	32.6	33.0	32.6	32.4	32.1								
95	31.1	30.8	30.4	30.3	30.5	30.7	31.4	31.5	31.6	31.7	31.4	30.9								
100	24.3	20.3	21.8	27.1	21.6	22.7	27.8	20.6	19.4	25.9	18.4	14.9								
105	9.62	4.65	8.08	14.8	7.37	8.39	15.1	7.76	4.66	10.5	4.93	3.11								
110	1.47	1.33	1.37	4.13	1.33	1.51	4.68	1.43	1.25	1.71	1.28	1.31								
115	1.55	1.54	1.54	1.53	1.53	1.50	1.50	1.48	1.46	1.48	1.49	1.50								
120	1.76	1.75	1.75	1.75	1.73	1.70	1.71	1.68	1.67	1.69	1.69	1.71								
125	1.93	1.93	1.93	1.93	1.94	1.91	1.92	1.89	1.88	1.90	1.90	1.93								
130	2.17	2.17	2.17	2.17	2.15	2.12	2.11	2.09	2.09	2.12	2.11	2.13								
135	2.38	2.38	2.38	2.38	2.34	2.33	2.32	2.31	2.29	2.31	2.33	2.33								
140	2.57	2.57	2.57	2.56	2.53	2.52	2.52	2.50	2.48	2.51	2.52	2.53								
145	2.76	2.76	2.76	2.75	2.71	2.70	2.70	2.69	2.68	2.69	2.71	2.71								
150	2.93	2.93	2.93	2.92	2.90	2.88	2.88	2.87	2.86	2.88	2.89	2.90								
155	3.10	3.10	3.11	3.09	3.07	3.06	3.06	3.05	3.04	3.04	3.05	3.06								
160	3.26	3.24	3.25	3.25	3.20	3.21	3.23	3.22	3.19	3.21	3.21	3.20								
165	3.36	3.35	3.37	3.34	3.31	3.34	3.34	3.35	3.31	3.32	3.34	3.31								
170	3.43	3.44	3.46	3.43	3.41	3.43	3.42	3.44	3.41	3.40	3.44	3.41								
175	3.49	3.50	3.52	3.49	3.49	3.50	3.49	3.51	3.49	3.47	3.49	3.48								
180	3.52	3.54	3.53	3.52	3.52	3.52	3.53	3.53	3.53	3.51	3.52	3.52								

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

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