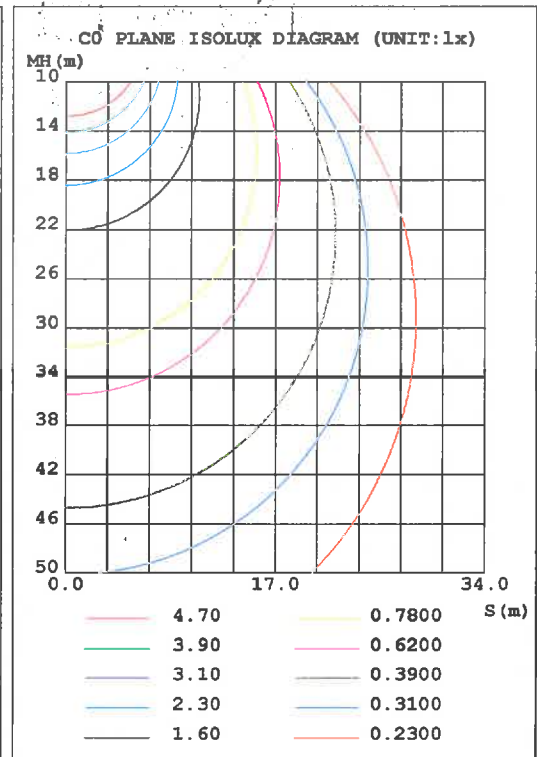
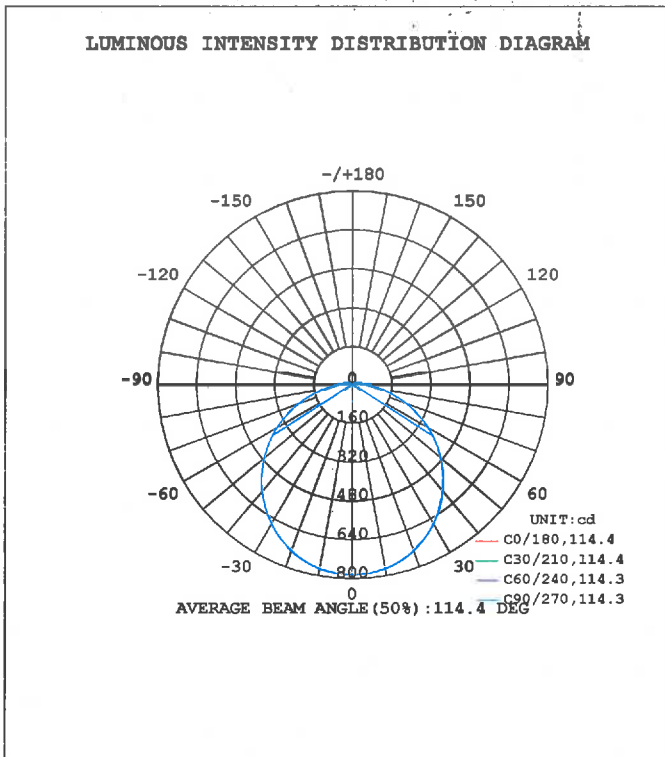


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.08V I:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 105.47 lm/W
MODEL	YR24WCCT	I _{max} (cd)	779.2	S/MH (C0/180)	1.26	
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.26	
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2383.1	η UP, DN (C0-180)	1.5, 48.4	
NOMINAL FLUX (lm)	2383.09	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.4, 48.6	
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:
 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	⊕ zona	⊕ total	%lum, lamp
10	766.9	766.3	764.7	763.6	766.9	766.0	764.9	764.7	0- 10	73.67	73.67	3.09,3.09
20	727.6	726.2	723.9	723.3	726.0	725.7	724.4	724.7	10- 20	211.3	285.0	12,12
30	661.8	660.0	658.4	657.2	660.3	659.9	659.6	659.5	20- 30	320.4	605.3	25.4,25.4
40	574.9	573.5	571.2	570.6	573.9	573.7	572.8	573.3	30- 40	386.9	992.2	41.6,41.6
50	472.3	470.9	468.8	468.0	471.4	471.1	470.3	470.9	40- 50	403.8	1396	58.6,58.6
60	396.9	395.8	394.2	393.5	396.5	396.3	395.5	396.3	50- 60	370.3	1766	74.1,74.1
70	233.2	231.9	230.8	230.2	232.8	232.8	232.7	233.3	60- 70	281.3	2058	86.3,86.3
80	112.9	112.4	112.3	111.8	113.6	113.1	113.1	114.4	70- 80	180.7	2238	93.9,93.9
90	36.76	36.53	36.24	36.30	36.64	36.55	36.33	36.48	80- 90	74.26	2312	97,97
100	31.87	30.46	32.57	29.02	32.05	27.52	31.33	27.42	90-100	38.05	2351	98.6,98.6
110	11.79	6.205	11.44	5.001	8.824	4.228	9.818	4.924	100-110	18.36	2369	99.4,99.4
120	2.357	2.362	2.412	2.412	2.426	2.369	2.343	2.333	110-120	3.300	2372	99.5,99.5
130	2.932	2.934	2.983	2.986	2.983	2.946	2.923	2.907	120-130	2.383	2375	99.6,99.6
140	3.475	3.484	3.512	3.523	3.512	3.489	3.461	3.446	130-140	2.489	2377	99.7,99.7
150	3.950	3.982	4.005	3.998	4.005	3.991	3.955	3.948	140-150	2.341	2379	99.8,99.8
160	4.412	4.407	4.435	4.412	4.458	4.421	4.412	4.387	150-160	1.941	2381	99.9,99.9
170	4.683	4.699	4.688	4.704	4.702	4.711	4.674	4.688	160-170	1.291	2383	100,100
180	4.819	4.835	4.801	4.830	4.824	4.835	4.806	4.824	170-180	0.4537	2383	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

Conical surface Flux(90deg): 1195.2 lm

%lum = 50.2%

%lamp = 50.2%

Conical surface Flux(120deg): 1766.2 lm

%lum = 74.1%

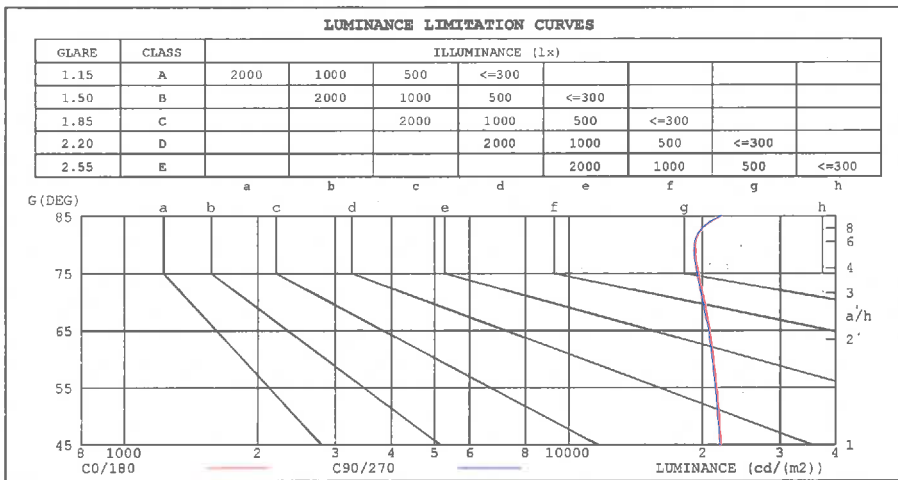
%lamp = 74.1%

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:

LUMINANCE LIMITATION CURVES

Test:U:230.08V I:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	22174	22087
80	19352	19246
75	19684	19506
70	20291	20084
65	20832	20691
60	21243	21085
55	21588	21450
50	21868	21706
45	22111	21963

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:230.08V I:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	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	.326	.186	.059	.318	.182	.058	.303	.174	.056	.290	.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	.041	.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	.187	.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	.025	.176	.088	.025	.170	.086	.025	.164	.084	.025	
9.0	.175	.085	.024	.172	.084	.023	.165	.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	

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	.204	.179	.156	.175	.153	.134	.120	.106	.093	.069	.061	.054	.022	.020	.017	
2.0	.196	.155	.120	.168	.133	.104	.115	.092	.072	.066	.054	.042	.021	.017	.014	
3.0	.189	.137	.096	.162	.119	.084	.111	.082	.059	.064	.048	.035	.021	.016	.011	
4.0	.181	.124	.081	.155	.107	.070	.107	.075	.049	.062	.044	.029	.020	.014	.010	
5.0	.173	.114	.070	.149	.099	.061	.103	.069	.043	.059	.040	.025	.019	.013	.008	
6.0	.166	.106	.062	.143	.091	.054	.099	.064	.038	.057	.038	.023	.018	.012	.008	
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	.049	.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:
 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:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:330C					DIM.: 330MM			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	20.4	21.9	20.7	22.1	22.4	20.3	21.8	20.6	22.1	22.3
3H	22.0	23.4	22.3	23.7	24.0	21.9	23.3	22.3	23.6	23.9
4H	22.7	24.0	23.1	24.3	24.6	22.6	24.0	23.0	24.3	24.6
6H	23.3	24.5	23.6	24.8	25.2	23.2	24.4	23.6	24.8	25.1
8H	23.5	24.7	23.9	25.0	25.4	23.4	24.6	23.8	25.0	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	21.0	22.3	21.3	22.6	22.9	21.0	22.3	21.3	22.6	22.9
3H	22.8	24.0	23.2	24.3	24.7	22.8	23.9	23.2	24.3	24.7
4H	23.7	24.7	24.1	25.1	25.5	23.6	24.7	24.0	25.0	25.4
6H	24.4	25.3	24.8	25.7	26.1	24.3	25.2	24.7	25.7	26.1
8H	24.7	25.5	25.1	26.0	26.4	24.6	25.5	25.1	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	24.0	24.8	24.4	25.3	25.7	23.9	24.8	24.4	25.2	25.7
6H	24.8	25.6	25.3	26.0	26.5	24.8	25.5	25.3	26.0	26.5
8H	25.3	25.9	25.8	26.4	26.9	25.2	25.8	25.7	26.3	26.8
12H	25.6	26.2	26.2	26.7	27.3	25.6	26.2	26.1	26.7	27.2
12H 4H	24.0	24.8	24.5	25.2	25.7	23.9	24.7	24.4	25.2	25.7
6H	24.9	25.6	25.4	26.1	26.6	24.9	25.5	25.4	26.0	26.5
8H	25.4	26.0	25.9	26.5	27.0	25.3	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, 2383 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 3.0$)

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:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

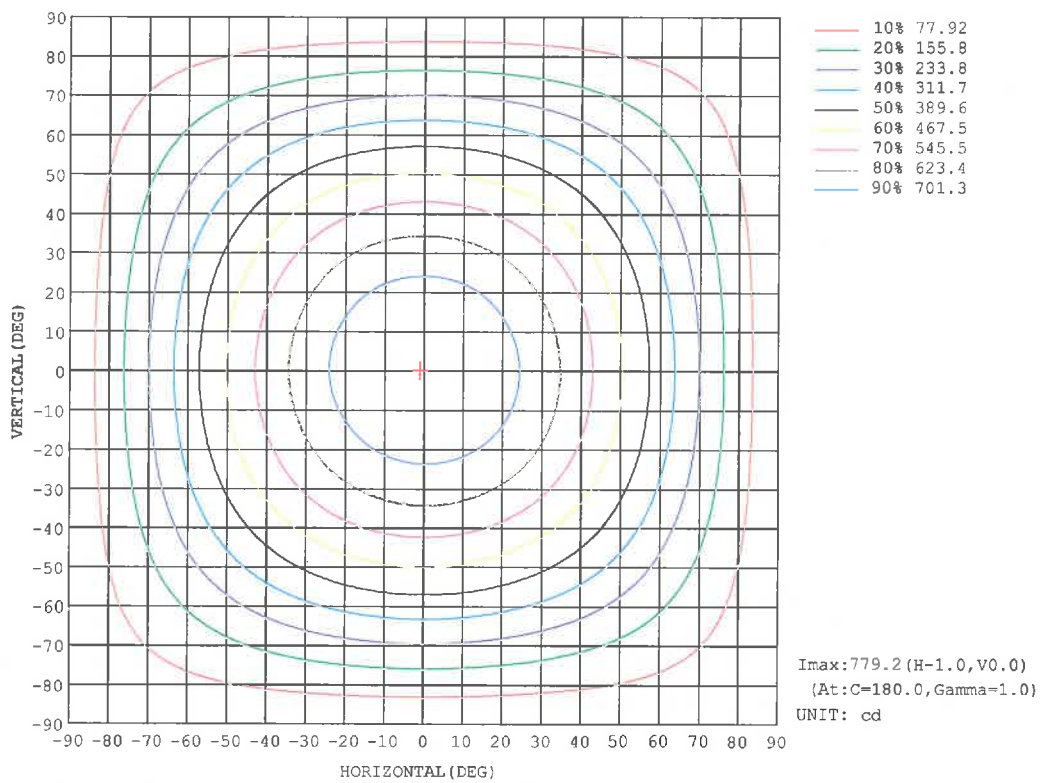
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	64	53	46	63	52	45	38
1.00	74	62	55	73	62	54	70	63	54	46
1.25	81	70	62	79	69	62	76	68	61	53
1.50	86	75	68	84	74	68	81	73	66	58
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	93	88	83	74
4.00	104	98	93	102	96	92	97	93	99	79
5.00	107	102	97	104	100	95	99	95	92	82
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004	Suspended									SHRNM = 1.25

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:

ISOCANDELA DIAGRAM

Test:U:230.08V I:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

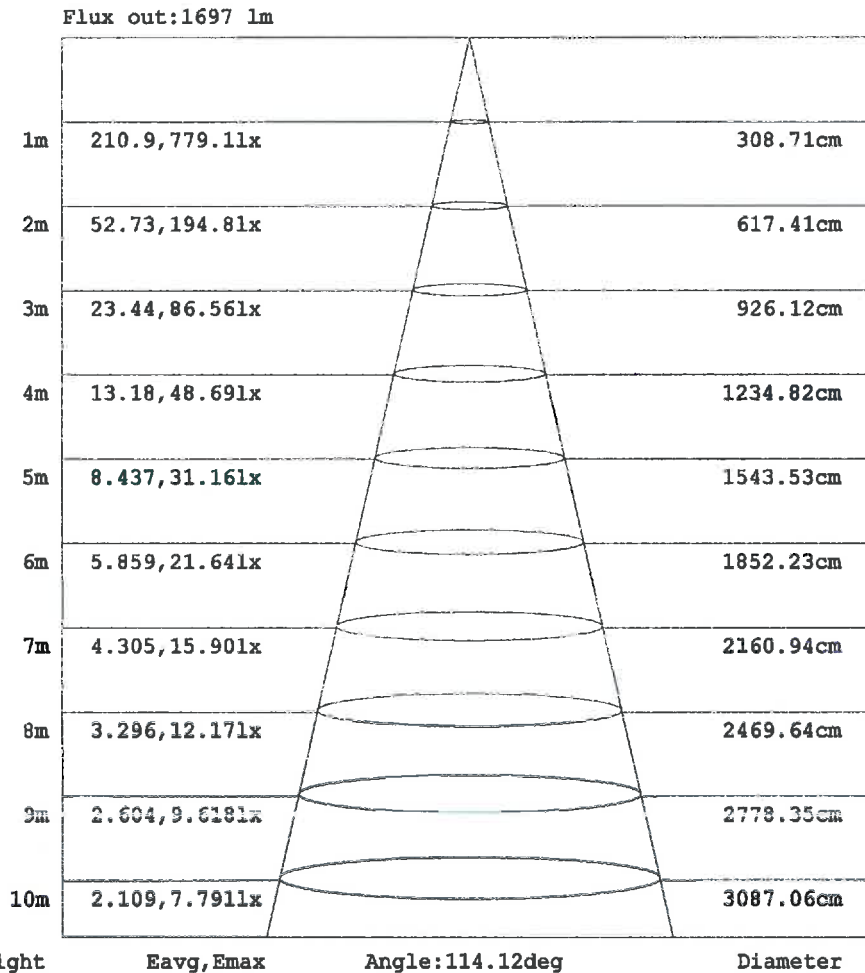


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

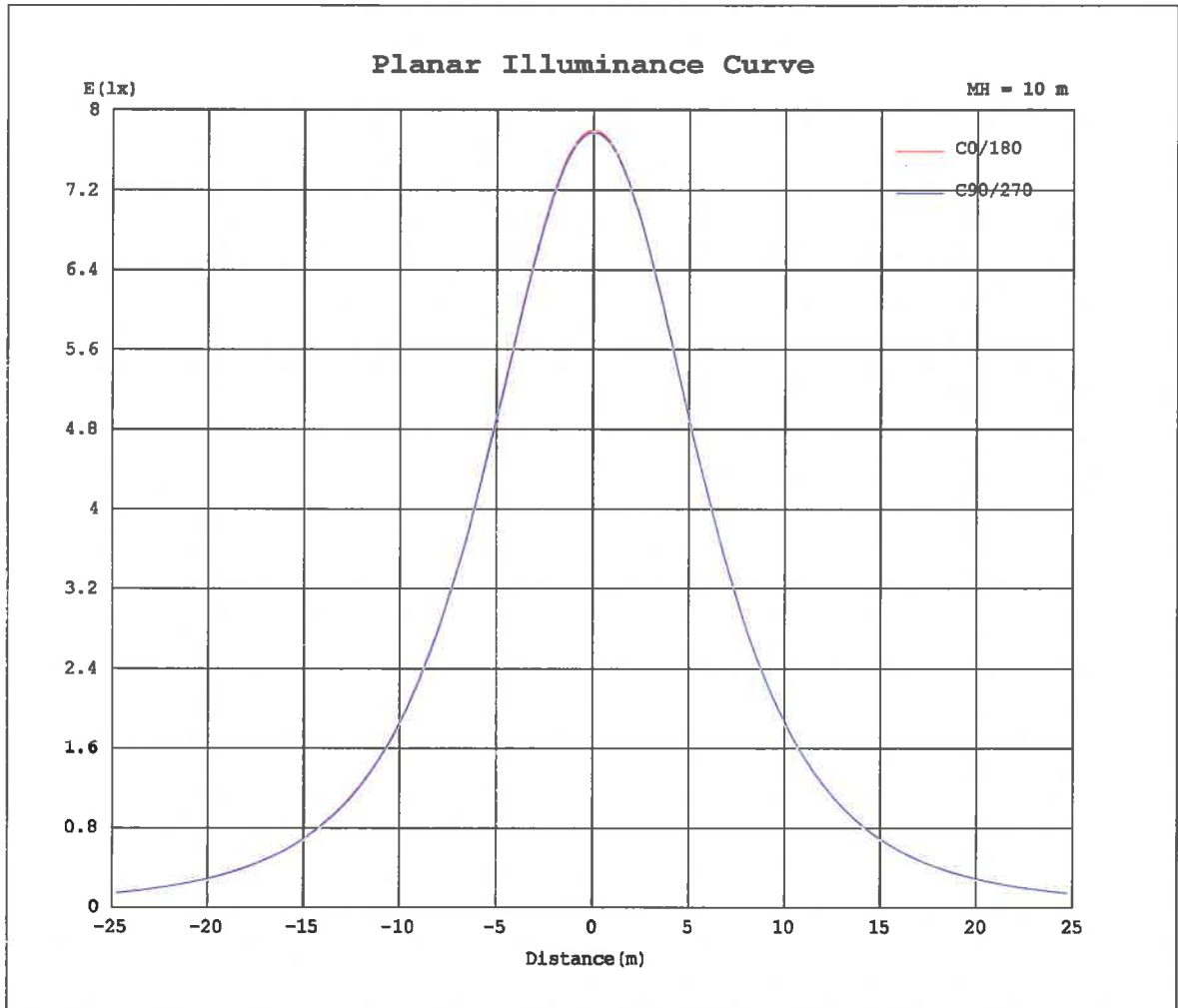


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: . . .
 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:0.1016A P:22.595W PF:0.9665 Freq:49.99Hz Lamp Flux:2383.09x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	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	779	778	778	777	776	776	779	778	778	777	776	776						
5	776	776	775	774	774	773	777	776	775	774	774	774						
10	767	767	766	765	764	763	767	766	766	765	765	765						
15	750	750	749	748	747	747	750	749	750	748	748	748						
20	728	727	725	724	723	723	726	725	726	724	725	724						
25	697	697	695	694	693	693	696	695	696	695	695	695						
30	662	662	659	658	657	657	660	659	661	660	660	659						
35	621	620	618	617	616	616	620	618	620	618	619	618						
40	575	575	572	571	570	571	574	573	575	573	573	573						
45	525	525	523	522	521	521	524	523	525	524	524	524						
50	472	472	470	469	468	468	471	470	472	470	471	471						
55	416	416	413	413	412	412	415	414	416	414	416	415						
60	357	357	354	354	353	354	357	355	357	356	357	356						
65	296	296	293	294	292	293	296	294	296	294	296	295						
70	233	233	231	231	230	230	233	232	233	233	234	233						
75	171	171	169	170	169	169	171	170	172	171	172	172						
80	113	113	111	112	111	112	114	112	114	113	115	114						
85	64.9	65.2	63.8	64.7	64.2	64.8	65.7	64.5	65.7	65.3	66.6	66.0						
90	36.8	36.6	36.4	36.2	36.3	36.3	36.6	36.6	36.5	36.3	36.4	36.6						
95	35.9	35.8	35.6	35.4	35.4	35.5	35.8	35.7	35.6	35.5	35.6	35.7						
100	31.9	30.5	30.4	32.6	28.8	29.3	32.1	27.4	27.7	31.3	27.6	27.2						
105	22.4	16.4	15.3	23.5	15.5	12.7	20.7	12.0	13.4	20.9	12.6	13.9						
110	11.8	6.77	5.64	11.4	6.11	3.89	8.82	3.68	4.78	9.82	4.34	5.51						
115	4.57	2.19	2.08	3.84	2.13	2.12	2.57	2.10	2.06	3.25	2.04	2.10						
120	2.36	2.35	2.37	2.41	2.42	2.41	2.43	2.38	2.35	2.34	2.34	2.33						
125	2.65	2.64	2.66	2.71	2.71	2.70	2.71	2.67	2.64	2.64	2.62	2.62						
130	2.93	2.92	2.95	2.98	2.99	2.98	2.98	2.96	2.93	2.92	2.91	2.91						
135	3.21	3.20	3.23	3.26	3.27	3.25	3.26	3.24	3.20	3.20	3.19	3.19						
140	3.47	3.47	3.50	3.51	3.52	3.52	3.51	3.51	3.47	3.46	3.45	3.44						
145	3.73	3.72	3.75	3.77	3.76	3.77	3.77	3.76	3.73	3.72	3.70	3.69						
150	3.95	3.97	3.99	4.01	4.00	4.00	4.01	4.00	3.98	3.95	3.96	3.94						
155	4.19	4.20	4.22	4.23	4.22	4.23	4.24	4.23	4.20	4.19	4.19	4.18						
160	4.41	4.39	4.43	4.43	4.40	4.42	4.46	4.44	4.40	4.41	4.40	4.38						
165	4.57	4.55	4.60	4.57	4.55	4.60	4.61	4.62	4.57	4.56	4.58	4.54						
170	4.68	4.68	4.71	4.69	4.68	4.72	4.70	4.73	4.69	4.67	4.71	4.67						
175	4.76	4.78	4.80	4.76	4.78	4.80	4.79	4.81	4.78	4.75	4.80	4.77						
180	4.82	4.84	4.83	4.80	4.83	4.83	4.82	4.84	4.83	4.81	4.82	4.82						

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: [Name]
 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: