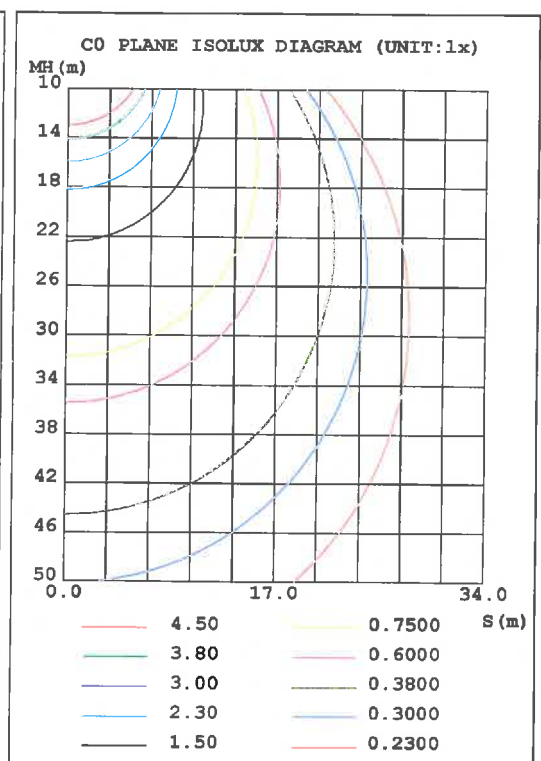
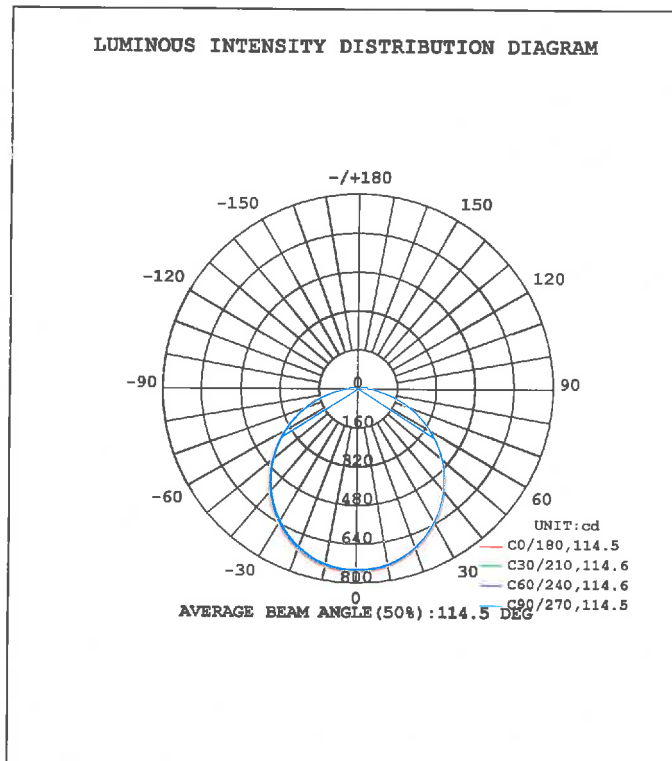


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 99.62 lm/W
MODEL	YJR24WCCT	I _{max} (cd)	754.9	S/MH (C0/180)	1.27	
NOMINAL POWER (W)	24	LOR (%)	100.0	S/MH (C90/270)	1.26	
RATED VOLTAGE (V)	230	TOTAL FLUX (lm)	2288.5	η UP, DN (C0-180)	1.6, 48.2	
NOMINAL FLUX (lm)	2288.49	CIE CLASS	DIRECT	η UP, DN (C180-360)	1.5, 48.7	
LAMPS INSIDE	1	η up (%)	3.1	CIBSE SHR NOM	1.25	
TEST VOLTAGE (V)	230	η down (%)	96.9	CIBSE SHR MAX	1.35	



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:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	⊙ zone	⊙ total	%lum, lamp
10	742.3	734.2	728.5	724.1	744.3	736.1	728.9	724.0	0- 10	70.42	70.42	3.08,3.08
20	701.5	695.2	689.9	686.4	706.8	698.6	690.7	685.8	10- 20	202.8	272.4	11.9,11.9
30	636.8	631.0	627.4	624.3	644.1	636.6	628.7	623.5	20- 30	306.4	578.8	25.3,25.3
40	552.1	547.2	544.8	542.9	562.0	554.5	546.5	541.5	30- 40	370.0	948.8	41.5,41.5
50	452.1	448.5	447.7	446.1	462.7	456.9	449.1	444.7	40- 50	386.4	1335	58.9,58.9
60	340.1	337.9	338.7	338.0	352.3	347.3	340.1	336.1	50- 60	354.6	1690	73.8,73.8
70	220.9	219.5	221.2	222.1	233.2	229.6	223.3	219.9	60- 70	279.7	1970	86.1,86.1
80	106.1	105.8	108.6	110.0	117.4	114.7	110.3	108.3	70- 80	174.6	2144	93.7,93.7
90	37.60	36.83	36.43	36.42	38.96	38.31	37.39	37.03	80- 90	70.42	2318	96.9,96.9
100	32.23	30.54	32.60	28.45	33.27	28.52	32.23	28.46	90-100	38.67	2256	98.6,98.6
110	11.62	5.995	11.18	4.326	9.312	4.522	10.33	5.537	100-110	18.63	2275	99.4,99.4
120	2.298	2.289	2.304	2.265	2.308	2.231	2.212	2.208	110-120	3.244	2278	99.5,99.5
130	2.855	2.830	2.847	2.805	2.838	2.781	2.755	2.747	120-130	2.287	2280	99.6,99.6
140	3.371	3.348	3.340	3.303	3.354	3.301	3.267	3.259	130-140	2.364	2283	99.8,99.8
150	3.823	3.819	3.792	3.756	3.847	3.781	3.737	3.724	140-150	2.224	2285	99.8,99.8
160	4.253	4.219	4.213	4.156	4.277	4.199	4.167	4.129	150-160	1.842	2287	99.9,99.9
170	4.502	4.484	4.448	4.425	4.530	4.480	4.407	4.421	160-170	1.225	2289	100,100
180	4.620	4.609	4.566	4.545	4.652	4.606	4.534	4.545	170-180	0.4387	2289	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

Conical surface Flux(90deg): 1143.1 lm

%lum = 49.9%

%lamp = 49.9%

Conical surface Flux(120deg): 1689.9 lm

%lum = 73.8%

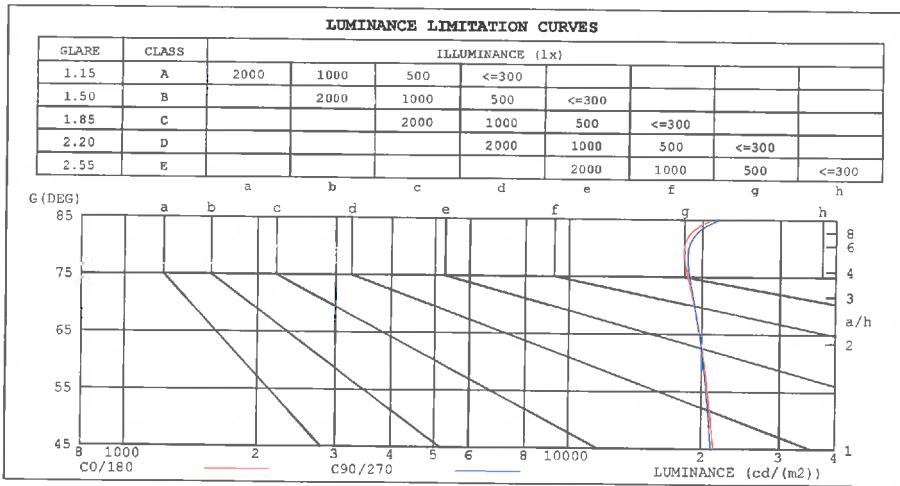
%lamp = 73.8%

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:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 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	20858	21671
80	18179	18616
75	18558	18746
70	19223	19251
65	19806	19773
60	20243	20160
55	20625	20448
50	20932	20729
45	21199	20955

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:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	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	.328	.186	.059	.320	.182	.058	.305	.175	.056	.291	.168	.054	.278	.161	.052	
2.0	.302	.165	.051	.295	.162	.050	.281	.156	.049	.269	.151	.047	.257	.146	.046	
3.0	.276	.147	.044	.270	.145	.044	.258	.140	.043	.247	.135	.042	.237	.131	.041	
4.0	.254	.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	.201	.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	.024	
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	

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	.214	.214	.214	.183	.183	.183	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.205	.180	.157	.176	.154	.135	.120	.106	.093	.069	.061	.054	.022	.020	.018	
2.0	.198	.156	.121	.169	.134	.104	.116	.093	.073	.067	.054	.043	.021	.017	.014	
3.0	.190	.138	.097	.163	.119	.085	.112	.083	.059	.065	.048	.035	.021	.016	.011	
4.0	.182	.125	.082	.156	.108	.071	.107	.075	.050	.062	.044	.030	.020	.014	.010	
5.0	.175	.115	.071	.150	.099	.062	.103	.070	.044	.060	.041	.026	.019	.013	.009	
6.0	.167	.107	.063	.144	.092	.055	.099	.065	.039	.058	.038	.023	.019	.012	.008	
7.0	.160	.100	.057	.138	.087	.050	.095	.061	.035	.055	.036	.021	.018	.012	.007	
8.0	.154	.094	.053	.133	.082	.046	.092	.057	.033	.053	.034	.020	.017	.011	.006	
9.0	.148	.089	.050	.127	.077	.043	.088	.054	.031	.051	.032	.018	.017	.011	.006	
10.0	.142	.085	.047	.122	.074	.041	.085	.052	.029	.050	.031	.017	.015	.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:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 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	20.3	21.8	20.6	22.1	22.3	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	24.6	22.6	23.9	23.0	24.2	24.5
6H	23.2	24.4	23.5	24.7	25.1	23.2	24.4	23.5	24.7	25.1
8H	23.4	24.6	23.8	24.9	25.3	23.4	24.6	23.8	24.9	25.3
12H	23.6	24.7	24.0	25.1	25.5	23.6	24.8	24.0	25.1	25.5
4H 2H	20.9	22.2	21.3	22.6	22.9	20.9	22.2	21.3	22.5	22.8
3H	22.7	23.9	23.1	24.2	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	24.0	25.0	25.4
6H	24.2	25.2	24.7	25.6	26.0	24.3	25.2	24.7	25.6	26.0
8H	24.5	25.4	25.0	25.8	26.3	24.6	25.4	25.0	25.9	26.3
12H	24.8	25.6	25.3	26.0	26.5	24.8	25.6	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	24.7	25.5	25.2	25.9	26.4	24.7	25.5	25.2	25.9	26.4
8H	25.1	25.8	25.6	26.3	26.8	25.1	25.8	25.7	26.3	26.8
12H	25.5	26.1	26.0	26.6	27.1	25.6	26.1	26.1	26.6	27.2
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	25.5	25.3	26.0	26.5
8H	25.3	25.8	25.8	26.3	26.9	25.3	25.9	25.8	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, 2288 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.9)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:l
 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:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

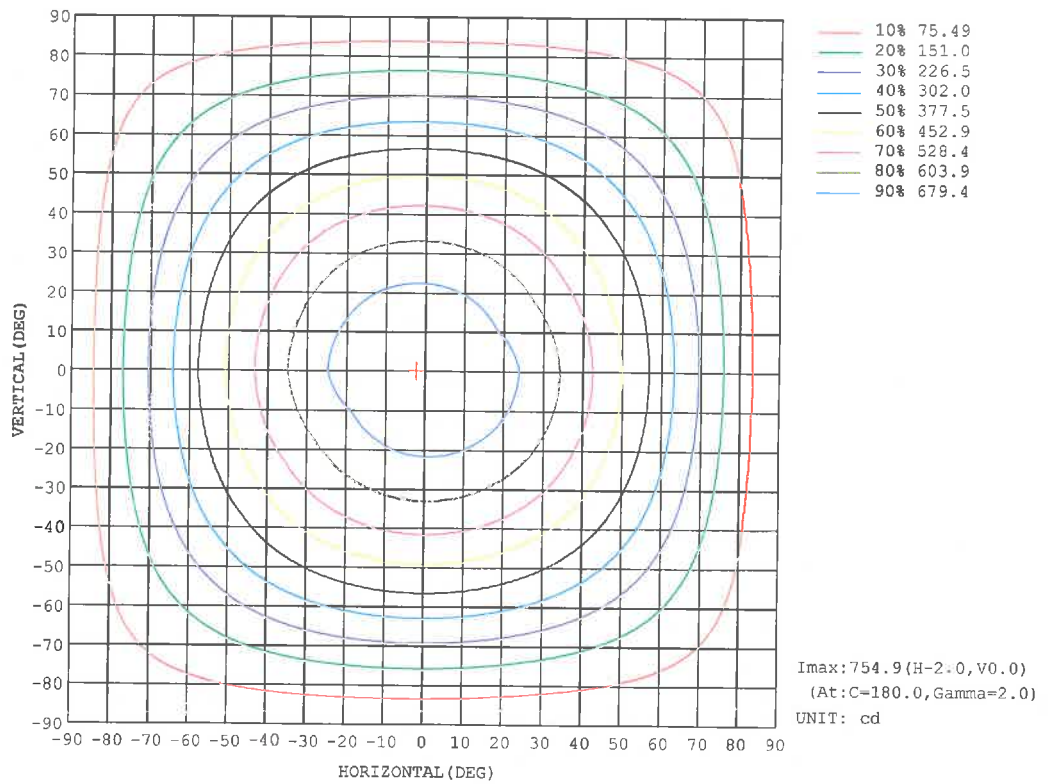
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	36	30
0.80	65	53	46	64	53	46	62	52	45	38
1.00	74	62	55	72	62	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	84	77	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	86	93	88	83	74
4.00	104	98	93	102	96	91	97	92	89	79
5.00	107	102	97	104	99	95	99	95	92	82
ROOM INDEX	UP(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:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



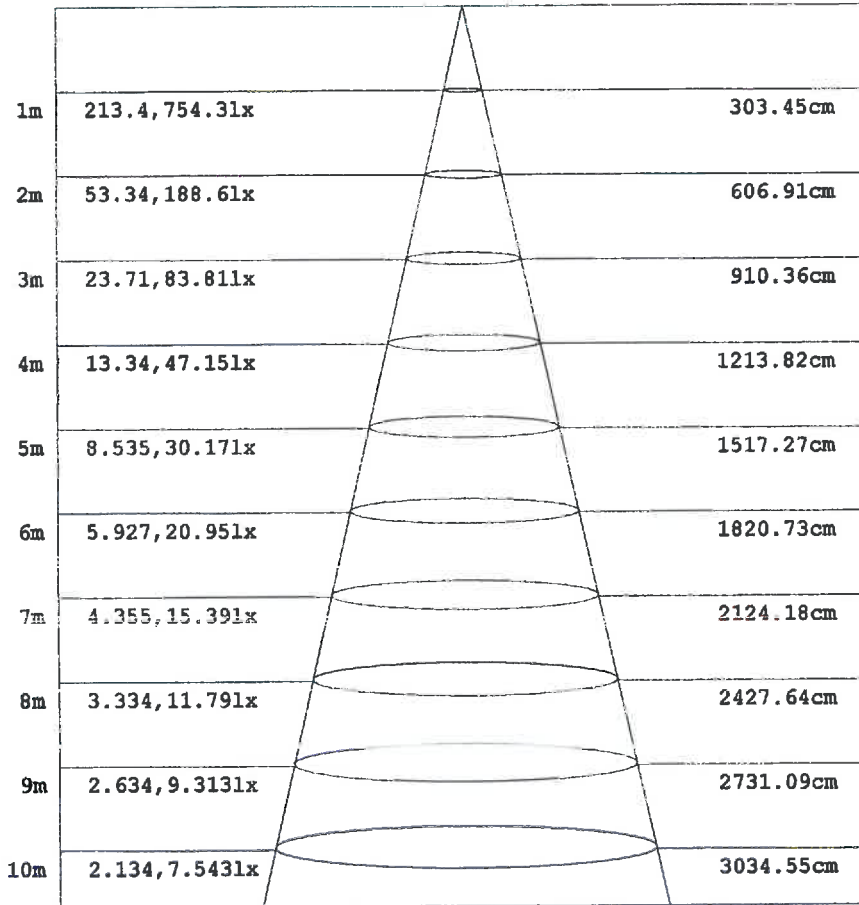
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: Y
 Test Date: 14 July 2021

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:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:330C	DIM.: 330MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1590 lm



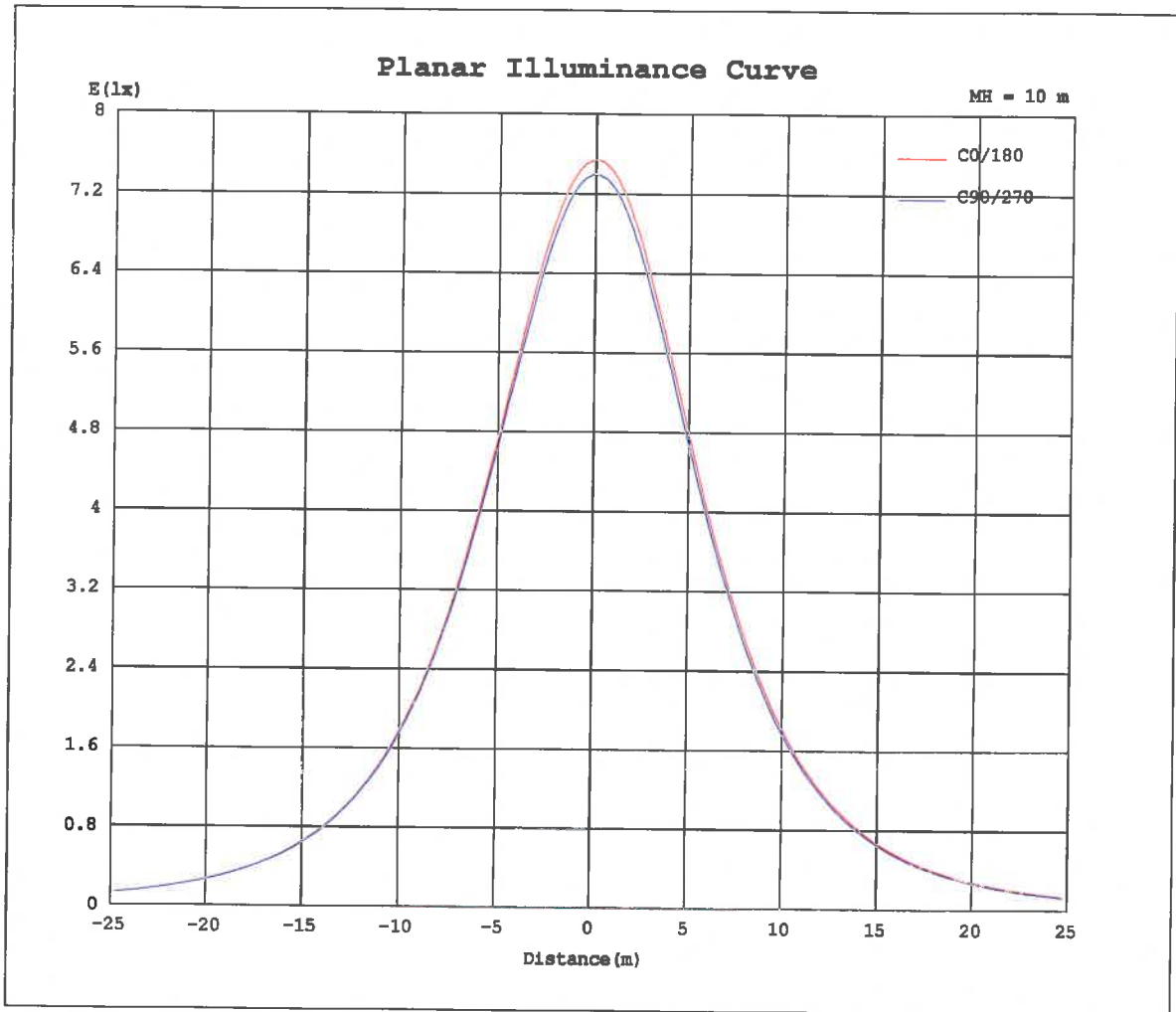
Height Eavg, Emax Angle:113.22deg Diameter

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: [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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.09V I:0.1033A P:22.972W PF:0.9668 Freq:49.99Hz Lamp Flux:2288.49x1 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	754	748	744	740	736	734	734	748	744	740	736	734						
5	751	746	741	737	734	732	732	752	747	743	738	734	731					
10	742	736	732	729	725	723	723	744	739	734	729	726	723					
15	726	720	716	712	709	708	708	729	723	719	713	710	707					
20	702	698	693	690	687	686	686	707	701	697	691	688	683					
25	672	668	663	662	659	658	658	678	672	669	662	659	655					
30	637	634	628	627	625	624	624	644	639	634	629	626	621					
35	597	593	589	588	586	586	586	605	599	596	590	587	582					
40	552	549	545	545	543	543	543	562	556	553	547	544	539					
45	504	501	498	498	496	496	496	514	509	506	499	497	493					
50	452	450	447	448	446	446	446	463	458	456	449	447	443					
55	397	395	393	394	393	394	394	409	405	402	396	394	389					
60	340	339	337	339	337	339	352	348	346	340	338	334						
65	281	280	279	281	280	282	294	290	288	282	281	277						
70	221	220	219	221	221	223	233	231	229	223	221	218						
75	161	161	161	163	164	165	174	172	170	165	164	161						
80	106	106	106	109	109	111	117	115	114	110	110	107						
85	61.1	61.0	60.9	63.5	64.1	65.6	69.9	68.1	67.6	64.9	64.5	62.3						
90	37.6	37.1	36.6	36.4	36.3	36.5	39.0	38.4	38.2	37.4	37.2	36.8						
95	36.6	36.2	35.7	35.5	35.4	35.5	37.0	36.8	36.8	36.5	36.3	35.9						
100	32.2	30.5	30.6	32.6	28.0	28.9	33.3	28.5	28.5	32.2	29.1	27.8						
105	22.5	16.3	15.3	23.3	14.2	12.0	21.6	12.4	14.2	21.8	14.0	14.5						
110	11.6	6.54	5.45	11.2	5.13	3.52	9.31	3.87	5.17	10.3	5.22	5.85						
115	4.37	2.07	2.01	3.68	2.01	1.98	2.73	1.97	1.95	3.44	1.93	2.11						
120	2.30	2.29	2.28	2.30	2.28	2.25	2.31	2.24	2.22	2.21	2.20	2.21						
125	2.57	2.56	2.56	2.57	2.56	2.52	2.58	2.52	2.50	2.50	2.48	2.49						
130	2.85	2.84	2.82	2.85	2.83	2.78	2.84	2.79	2.77	2.76	2.75	2.75						
135	3.12	3.10	3.09	3.10	3.07	3.04	3.10	3.06	3.04	3.02	3.01	3.00						
140	3.37	3.35	3.34	3.34	3.32	3.29	3.35	3.31	3.29	3.27	3.26	3.25						
145	3.60	3.60	3.58	3.58	3.55	3.52	3.60	3.56	3.54	3.51	3.49	3.49						
150	3.82	3.83	3.81	3.79	3.77	3.74	3.85	3.80	3.77	3.74	3.73	3.72						
155	4.04	4.04	4.03	4.00	3.97	3.96	4.06	4.01	3.99	3.95	3.95	3.93						
160	4.25	4.22	4.22	4.21	4.15	4.16	4.28	4.22	4.18	4.17	4.15	4.11						
165	4.39	4.37	4.38	4.34	4.29	4.32	4.41	4.38	4.33	4.30	4.32	4.26						
170	4.50	4.48	4.48	4.45	4.41	4.44	4.53	4.50	4.46	4.41	4.46	4.38						
175	4.57	4.58	4.56	4.51	4.49	4.51	4.61	4.58	4.55	4.48	4.53	4.48						
180	4.62	4.64	4.58	4.57	4.55	4.54	4.65	4.61	4.60	4.53	4.56	4.53						

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: