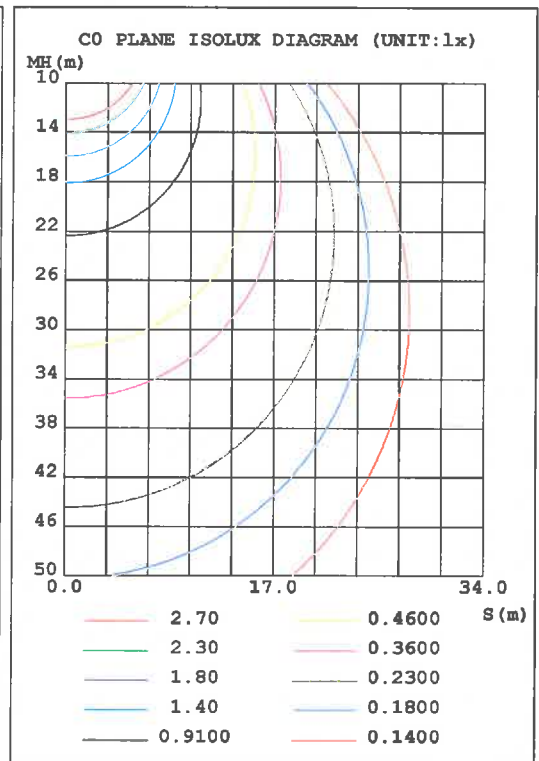
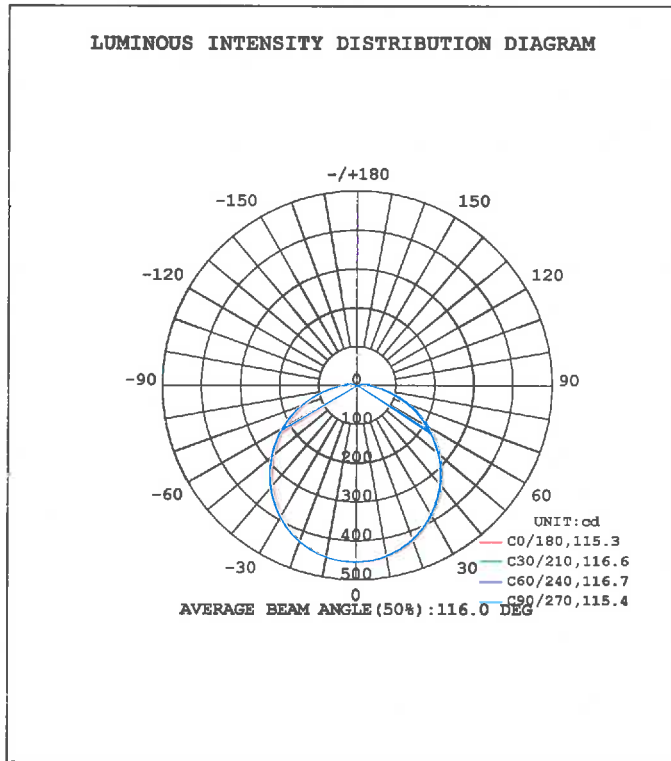


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.09V I:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 98.54 lm/W
MODEL	YYS15WCCT	I _{max} (cd)	455.0	S/MH(C0/180)		1.26
NOMINAL POWER(W)	15	LOR(%)	100.0	S/MH(C90/270)		1.29
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	1430.0	η UP, DN(C0-180)		1.6,47.4
NOMINAL FLUX(lm)	1429.96	CIE CLASS	DIRECT	η UP, DN(C180-360)		1.5,49.6
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	440.7	445.9	443.5	443.0	447.7	440.3	440.1	447.1	0- 10	42.94	42.94	3.3
20	426.0	422.3	419.7	420.5	424.7	427.7	427.4	427.0	10- 20	123.4	166.4	11.6,11.6
30	388.2	384.4	379.2	382.6	387.0	392.5	391.5	391.6	20- 30	187.8	354.2	24.8,24.8
40	338.1	334.5	328.0	332.8	337.3	344.8	343.8	344.1	30- 40	227.8	582.1	40.7,40.7
50	278.6	275.5	267.7	273.8	277.9	287.3	285.8	287.1	40- 50	239.2	821.3	57.4,57.4
60	212.0	208.8	200.4	207.4	210.6	221.9	220.6	221.8	50- 60	221.1	1042	72.9,72.9
70	140.5	137.9	129.0	136.9	139.5	151.6	150.0	151.8	60- 70	176.8	1219	85.3,85.3
80	71.37	70.37	61.82	70.02	71.49	82.59	79.77	82.71	70- 80	113.9	1333	93.2,93.2
90	24.89	30.67	26.17	32.55	28.00	33.93	28.90	32.38	80- 90	53.25	1386	96.9,96.9
100	19.07	17.57	24.61	19.36	25.12	15.41	19.43	11.73	90-100	28.34	1416	99.99
110	1.063	1.106	1.131	1.111	1.109	1.027	0.9952	1.020	100-110	6.726	1422	99.5,99.5
120	1.393	1.434	1.462	1.448	1.430	1.351	1.325	1.348	110-120	1.322	1424	99.6,99.6
130	1.728	1.758	1.783	1.765	1.761	1.674	1.660	1.677	120-130	1.398	1425	99.7,99.7
140	2.045	2.068	2.086	2.066	2.050	1.993	1.977	1.996	130-140	1.454	1426	99.8,99.8
150	2.326	2.349	2.362	2.344	2.335	2.287	2.271	2.287	140-150	1.365	1428	99.8,99.8
160	2.588	2.593	2.611	2.586	2.593	2.545	2.543	2.548	150-160	1.131	1428	99.9,99.9
170	2.737	2.756	2.742	2.751	2.733	2.735	2.706	2.726	160-170	0.7521	1438	100,100
180	2.819	2.819	2.801	2.815	2.824	2.815	2.796	2.808	170-180	0.2645	1430	100,100
DEG	LUMINOUS INTENSITY:cd								UNIT:lm			

Conical surface Flux(90deg): 702.12 lm

%lum = 49.1%
%lamp = 49.1%

Conical surface Flux(120deg): 1042.4 lm

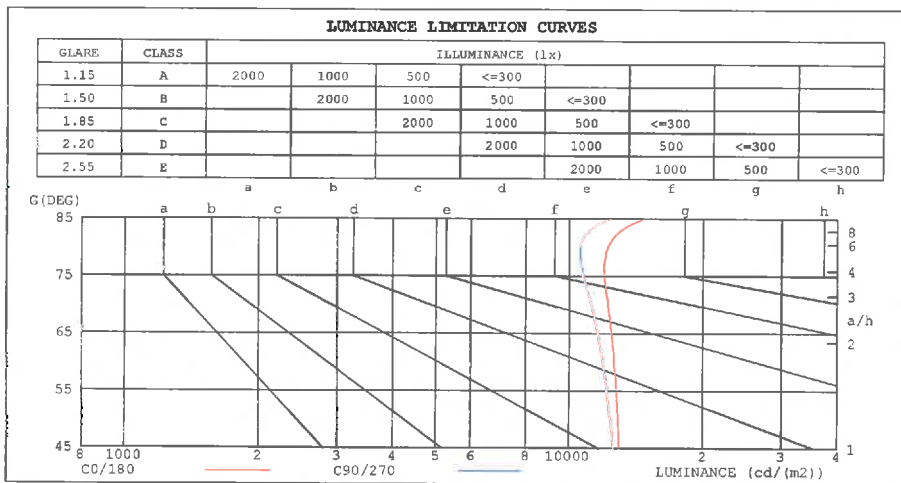
%lum = 72.9%
%lamp = 72.9%

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:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	14776	12441
80	12233	10595
75	12026	10782
70	12225	11225
65	12445	11616
60	12622	11927
55	12779	12168
50	12900	12395
45	13009	12588

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:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	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	.335	.191	.060	.327	.187	.059	.312	.179	.057	.298	.172	.055	.285	.165	.053	
2.0	.306	.168	.052	.299	.165	.051	.286	.159	.049	.274	.153	.048	.262	.148	.047	
3.0	.280	.149	.045	.273	.146	.044	.261	.142	.043	.250	.137	.042	.240	.133	.041	
4.0	.256	.133	.039	.250	.131	.039	.240	.127	.038	.230	.123	.037	.221	.120	.037	
5.0	.235	.120	.035	.230	.118	.034	.221	.115	.034	.212	.112	.033	.204	.109	.033	
6.0	.217	.109	.031	.213	.108	.031	.204	.105	.030	.196	.102	.030	.189	.099	.030	
7.0	.202	.100	.028	.198	.098	.028	.190	.096	.028	.183	.094	.027	.176	.091	.027	
8.0	.188	.092	.026	.184	.091	.026	.177	.089	.025	.171	.087	.025	.165	.085	.025	
9.0	.176	.085	.024	.173	.084	.024	.166	.082	.023	.160	.080	.023	.155	.079	.023	
10.0	.165	.079	.022	.162	.078	.022	.156	.077	.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
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	.206	.179	.156	.176	.154	.134	.120	.106	.093	.069	.061	.054	.022	.020	.017	
2.0	.198	.155	.120	.169	.134	.104	.116	.093	.072	.067	.054	.042	.021	.017	.014	
3.0	.190	.138	.097	.163	.119	.084	.112	.083	.059	.065	.048	.035	.021	.016	.011	
4.0	.182	.125	.081	.156	.108	.070	.108	.075	.050	.062	.044	.029	.020	.014	.010	
5.0	.175	.115	.070	.150	.099	.061	.103	.069	.043	.060	.041	.026	.019	.013	.008	
6.0	.168	.106	.063	.144	.092	.055	.099	.065	.039	.058	.038	.023	.019	.012	.008	
7.0	.161	.100	.057	.138	.086	.050	.095	.061	.035	.055	.036	.021	.018	.012	.007	
8.0	.154	.094	.053	.133	.081	.046	.092	.057	.032	.053	.034	.019	.017	.011	.006	
9.0	.148	.089	.049	.127	.077	.043	.088	.054	.030	.051	.032	.018	.017	.011	.006	
10.0	.142	.085	.046	.122	.073	.041	.085	.052	.029	.050	.031	.017	.016	.010	.006	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:LOI
 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:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:220S					DIM.: 220MM			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	22.0	22.3	20.0	21.5	20.3	21.8	22.1
3H	21.9	23.3	22.3	23.6	23.9	21.6	23.0	22.0	23.3	23.6
4H	22.7	24.0	23.0	24.3	24.6	22.3	23.6	22.7	23.9	24.3
6H	23.3	24.5	23.7	24.9	25.2	22.8	24.1	23.2	24.4	24.8
8H	23.5	24.8	23.9	25.1	25.5	23.0	24.3	23.4	24.6	25.0
12H	23.8	25.0	24.2	25.3	25.7	23.2	24.4	23.6	24.8	25.1
4H 2H	20.9	22.2	21.2	22.5	22.8	20.7	22.0	21.1	22.3	22.7
3H	22.8	23.9	23.2	24.3	24.7	22.5	23.7	22.9	24.0	24.4
4H	23.6	24.7	24.1	25.1	25.5	23.3	24.4	23.7	24.8	25.2
6H	24.4	25.4	24.9	25.8	26.2	24.0	24.9	24.4	25.3	25.8
8H	24.7	25.6	25.2	26.1	26.5	24.3	25.2	24.7	25.6	26.0
12H	25.1	25.9	25.5	26.3	26.8	24.5	25.4	25.0	25.8	26.3
8H 4H	23.9	24.8	24.4	25.3	25.7	23.7	24.5	24.1	25.0	25.4
6H	24.9	25.7	25.4	26.1	26.6	24.5	25.3	25.0	25.7	26.2
8H	25.4	26.1	25.9	26.5	27.1	25.0	25.6	25.5	26.1	26.6
12H	25.9	26.4	26.4	27.0	27.5	25.4	25.9	25.9	26.4	27.0
12H 4H	24.0	24.8	24.4	25.2	25.7	23.7	24.5	24.2	25.0	25.4
6H	25.0	25.7	25.5	26.2	26.7	24.7	25.3	25.2	25.8	26.3
8H	25.6	26.1	26.1	26.6	27.2	25.1	25.7	25.7	26.2	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, 1430 lm Total Lamp Luminous Flux Correct ($8\log(F/F_0) = 1.2$)

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:

UTILIZATION FACTORS TABLE

Test:U:230.09V I:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

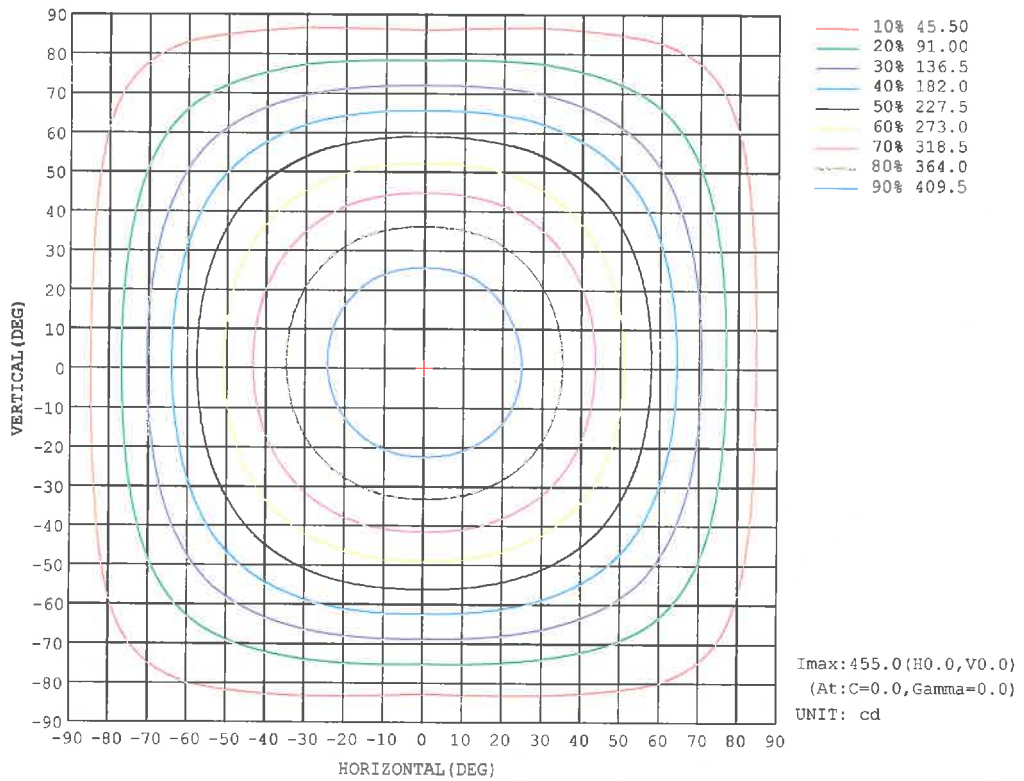
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	36	54	43	36	53	42	36	29
0.80	65	53	45	64	52	45	62	52	45	38
1.00	73	62	54	72	61	54	69	62	53	46
1.25	80	69	62	79	68	61	76	67	60	52
1.50	85	75	67	83	74	67	80	72	65	57
2.00	92	83	76	90	82	75	86	79	73	65
2.50	96	88	81	94	86	80	90	83	78	69
3.00	100	92	86	97	90	85	93	87	82	73
4.00	104	98	92	101	96	91	97	92	89	78
5.00	107	101	96	104	99	95	99	95	91	81
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:
 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:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



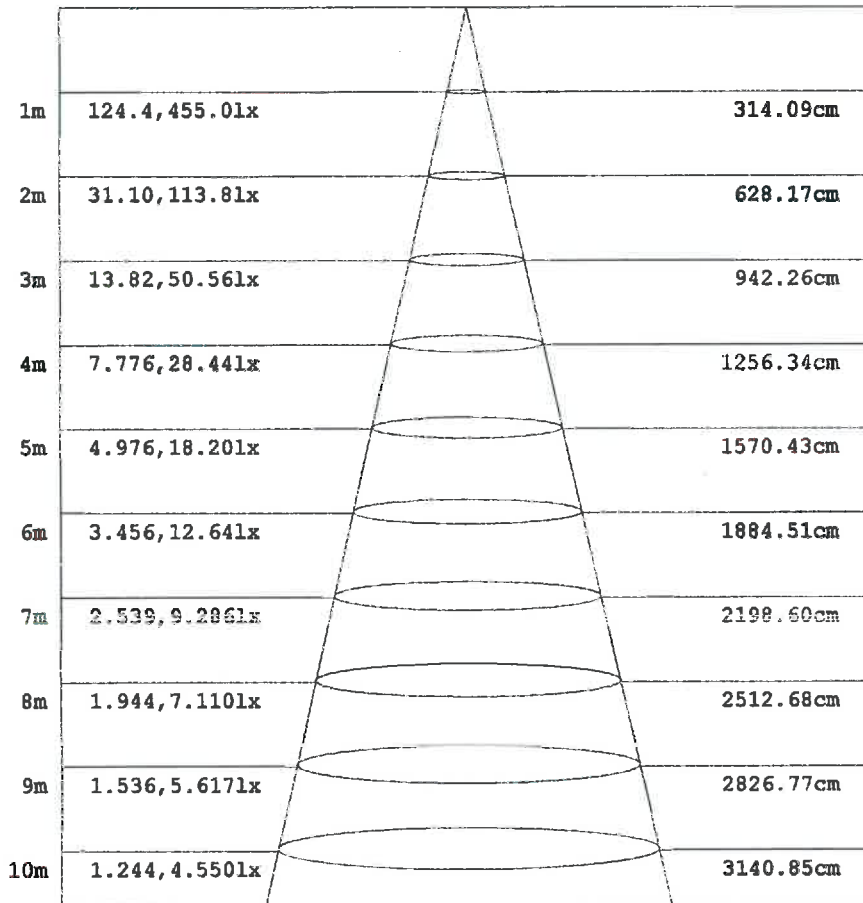
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 14 July 2021

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:230.09V I:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:1001 lm



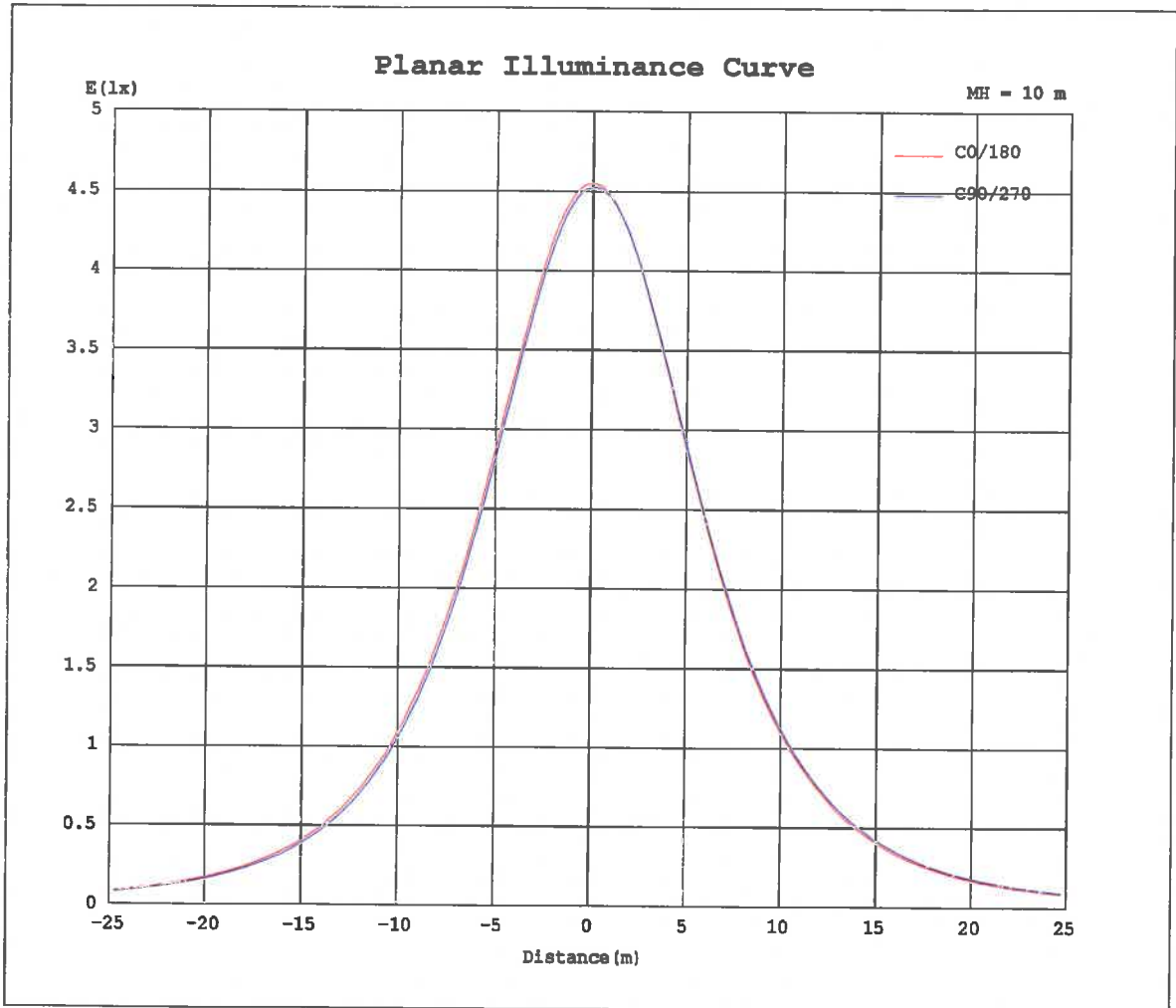
Height Eavg, Emax Angle:115.02deg Diameter

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: 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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.09V I:0.0671A P:14.511W PF:0.9400 Freq:49.99Hz Lamp Flux:1429.96x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220S	DIM.: 220MM	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	455	454	453	452	452	452	455	454	453	452	452	452						
5	454	452	450	450	450	450	453	453	452	452	452	451						
10	449	447	445	443	443	444	448	448	449	448	448	447						
15	439	438	435	433	433	435	438	439	441	440	440	438						
20	426	424	421	419	420	421	425	427	429	427	428	426						
25	409	407	403	401	402	404	408	411	413	411	413	409						
30	388	386	382	379	381	384	387	391	394	391	393	390						
35	365	363	359	355	358	360	363	369	372	369	371	368						
40	338	337	332	328	331	334	337	343	346	344	346	342						
45	309	309	304	299	303	306	308	315	319	316	319	315						
50	279	278	273	268	272	276	278	285	289	286	290	285						
55	246	245	240	235	240	243	245	254	257	254	257	253						
60	212	211	206	200	206	209	211	220	224	221	224	219						
65	177	176	171	165	171	174	175	185	189	186	190	185						
70	140	141	135	129	135	139	140	149	154	150	154	149						
75	105	105	99.9	93.8	99.8	104	104	114	118	114	119	114						
80	71.4	72.8	67.9	61.8	68.2	71.9	71.5	80.6	84.5	79.8	85.0	80.4						
85	43.3	45.8	42.1	36.4	42.7	45.7	44.1	52.7	55.5	50.4	55.6	51.9						
90	24.9	30.7	30.7	26.2	32.4	32.7	28.0	33.7	34.2	28.9	33.9	30.9						
95	24.3	29.9	29.1	25.4	31.1	31.7	27.3	30.7	31.4	26.1	29.8	26.5						
100	19.1	15.1	20.1	24.6	19.1	19.6	25.1	17.3	13.5	19.4	13.3	10.2						
105	5.17	1.37	4.45	11.7	3.72	3.68	10.5	2.81	0.83	4.58	0.84	0.89						
110	1.06	1.09	1.12	1.13	1.12	1.10	1.11	1.05	1.00	1.00	1.00	1.04						
115	1.23	1.25	1.29	1.29	1.29	1.27	1.27	1.21	1.17	1.16	1.17	1.20						
120	1.39	1.42	1.45	1.46	1.46	1.44	1.43	1.37	1.33	1.33	1.34	1.36						
125	1.56	1.58	1.61	1.62	1.62	1.60	1.59	1.53	1.49	1.50	1.50	1.53						
130	1.73	1.74	1.77	1.78	1.77	1.76	1.76	1.70	1.65	1.66	1.67	1.69						
135	1.89	1.91	1.93	1.94	1.93	1.91	1.91	1.85	1.82	1.82	1.83	1.85						
140	2.04	2.05	2.08	2.09	2.07	2.06	2.05	2.01	1.97	1.98	1.99	2.00						
145	2.19	2.20	2.23	2.24	2.22	2.20	2.19	2.16	2.12	2.13	2.14	2.15						
150	2.33	2.34	2.36	2.36	2.35	2.34	2.34	2.31	2.27	2.27	2.29	2.29						
155	2.46	2.48	2.49	2.49	2.49	2.48	2.47	2.44	2.41	2.41	2.43	2.43						
160	2.59	2.58	2.60	2.61	2.58	2.59	2.59	2.56	2.53	2.54	2.55	2.54						
165	2.67	2.67	2.70	2.69	2.67	2.69	2.67	2.67	2.64	2.64	2.65	2.63						
170	2.74	2.74	2.77	2.74	2.74	2.76	2.73	2.75	2.72	2.71	2.73	2.72						
175	2.79	2.79	2.81	2.79	2.78	2.79	2.79	2.80	2.78	2.76	2.79	2.78						
180	2.82	2.82	2.82	2.80	2.81	2.82	2.82	2.81	2.82	2.80	2.81	2.81						

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: