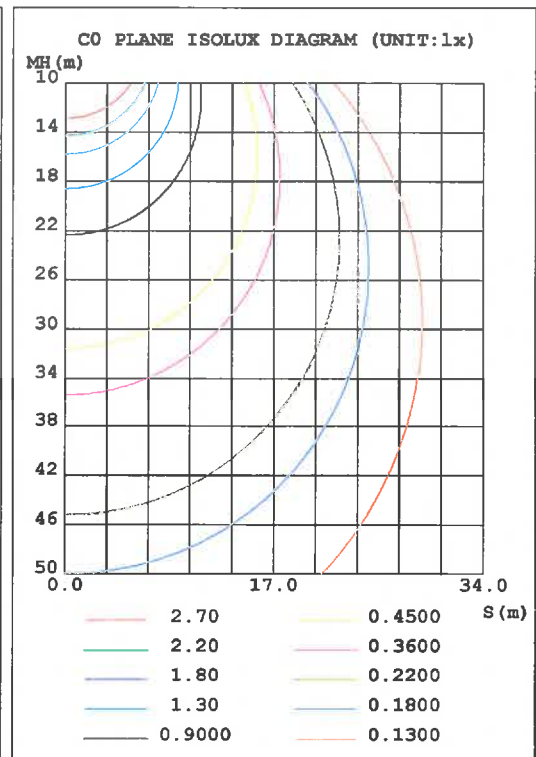
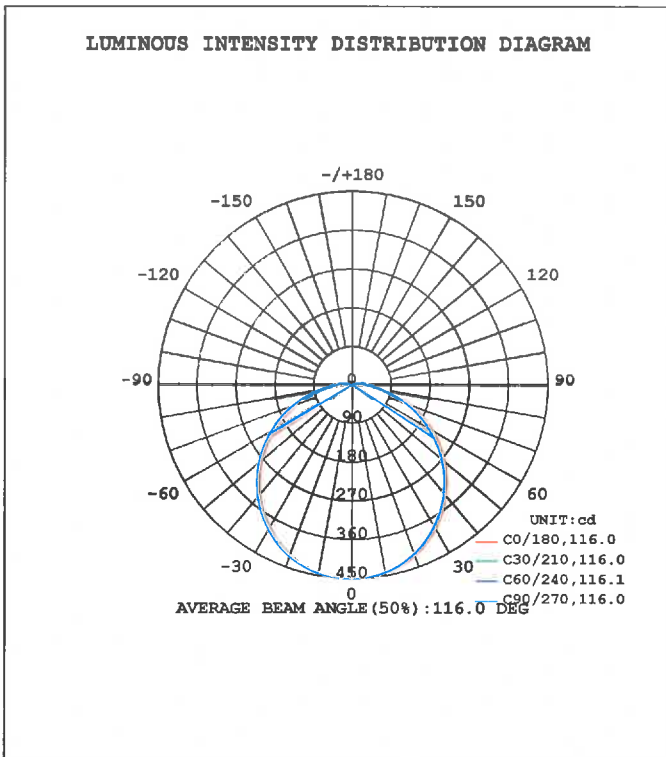


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.10V I:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 97.53 lm/W
MODEL	YYR15WCCT	I _{max} (cd)	449.2	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)	1413.9	η UP, DN(C0-180)	1.6,47.5	
NOMINAL FLUX(lm)	1413.87	CIE CLASS	DIRECT	η UP, DN(C180-360)	1.5,49.5	
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	⊙ zone	⊙ total	%lum, lamp
10	443.2	441.0	439.3	439.5	442.1	442.7	443.3	443.3	0- 10	42.49	42.49	3.01,3.01
20	421.7	416.0	415.1	415.0	419.1	421.6	423.3	423.2	10- 20	122.1	164.6	11.6,11.6
30	385.3	380.1	376.3	376.2	381.4	385.3	388.4	388.1	20- 30	185.6	350.2	24.8,24.8
40	336.8	330.7	326.1	325.7	331.9	337.3	341.4	341.0	30- 40	224.9	575.1	40.7,40.7
50	279.3	272.5	266.9	266.8	273.7	279.8	284.2	284.3	40- 50	236.8	811.1	57.4,57.4
60	215.0	207.0	201.1	200.9	207.6	214.9	220.3	220.2	50- 60	218.1	1029	72.8,72.8
70	145.3	137.6	131.7	131.1	138.0	145.6	151.4	151.2	60- 70	174.6	1204	85.1,85.1
80	77.53	71.65	66.95	65.68	71.24	78.36	83.44	83.30	70- 80	113.2	1317	93.1,93.1
90	31.75	30.92	30.23	29.67	30.22	31.95	34.24	33.99	80- 90	54.16	1371	97.97
100	19.55	15.69	25.01	16.55	23.51	12.93	19.36	9.632	90-100	29.91	1401	99.1,99.1
110	1.063	1.104	1.141	1.154	1.141	1.052	1.018	1.018	100-110	5.315	2406	99.8,99.8
120	1.393	1.425	1.462	1.475	1.457	1.376	1.344	1.342	110-120	1.236	1408	99.6,99.6
130	1.706	1.744	1.779	1.787	1.761	1.688	1.665	1.665	120-130	1.483	2489	99.7,99.7
140	2.004	2.041	2.073	2.068	2.041	1.989	1.968	1.968	130-140	1.448	1410	99.8,99.8
150	2.276	2.308	2.331	2.333	2.308	2.272	2.249	2.251	140-150	1.351	2412	99.8,99.8
160	2.538	2.548	2.566	2.557	2.552	2.509	2.498	2.502	150-160	1.115	1419	99.9,99.9
170	2.670	2.697	2.688	2.706	2.684	2.683	2.656	2.679	160-170	0.7391	1414	100,100
180	2.769	2.765	2.747	2.767	2.760	2.769	2.747	2.763	170-180	0.2598	1414	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 693.56 lm

%lum = 49.1%
%lamp = 49.1%

Conical surface Flux(120deg): 1029.2 lm

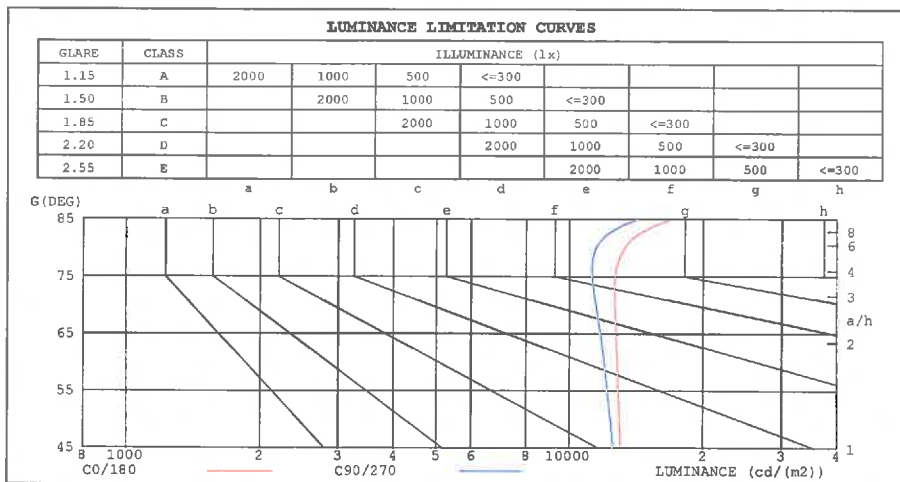
%lum = 72.8%
%lamp = 72.8%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:K...
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:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17134	14321
80	13207	11474
75	12660	11239
70	12644	11459
65	12715	11735
60	12798	11973
55	12862	12168
50	12934	12359
45	13013	12528

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:230.10V I:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	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	.336	.191	.061	.328	.187	.060	.313	.180	.057	.299	.173	.055	.287	.166	.054	
2.0	.307	.168	.052	.300	.165	.051	.287	.159	.049	.274	.154	.048	.263	.149	.047	
3.0	.280	.149	.045	.274	.147	.044	.262	.142	.043	.251	.137	.042	.241	.133	.041	
4.0	.256	.133	.039	.251	.131	.039	.240	.127	.038	.230	.124	.037	.221	.120	.037	
5.0	.236	.120	.035	.231	.118	.034	.221	.115	.034	.212	.112	.033	.204	.109	.033	
6.0	.218	.109	.031	.213	.108	.031	.204	.105	.030	.196	.102	.030	.189	.100	.030	
7.0	.202	.100	.028	.198	.099	.028	.190	.096	.028	.183	.094	.027	.176	.092	.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	.182	.182	.182	.125	.125	.125	.072	.072	.072	.023	.023	.023	
1.0	.205	.179	.155	.176	.154	.134	.120	.106	.093	.069	.061	.054	.022	.020	.017	
2.0	.198	.155	.120	.169	.134	.103	.116	.092	.072	.067	.054	.042	.021	.017	.014	
3.0	.190	.138	.096	.163	.119	.084	.112	.083	.059	.065	.048	.035	.021	.016	.011	
4.0	.182	.125	.081	.156	.108	.070	.108	.075	.049	.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	.167	.106	.062	.144	.092	.054	.099	.064	.038	.058	.038	.023	.019	.012	.008	
7.0	.160	.099	.057	.138	.086	.049	.095	.060	.035	.055	.036	.021	.018	.012	.007	
8.0	.154	.094	.052	.132	.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	.010	.006	
10.0	.142	.084	.046	.122	.073	.040	.085	.052	.029	.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:230.10V I:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:220C					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	22.1	22.4	20.1	21.6	20.4	21.9	22.1
3H	22.1	23.5	22.4	23.8	24.1	21.7	23.1	22.1	23.4	23.7
4H	22.8	24.2	23.2	24.5	24.8	22.4	23.8	22.8	24.1	24.4
6H	23.5	24.8	23.9	25.1	25.5	23.0	24.3	23.4	24.6	24.9
8H	23.8	25.0	24.2	25.4	25.7	23.3	24.5	23.7	24.8	25.2
12H	24.1	25.3	24.5	25.7	26.0	23.5	24.7	23.9	25.0	25.4
4H 2H	20.9	22.3	21.3	22.6	22.9	20.7	22.1	21.1	22.4	22.7
3H	22.9	24.0	23.3	24.4	24.8	22.6	23.7	23.0	24.1	24.5
4H	23.8	24.9	24.2	25.2	25.6	23.4	24.5	23.8	24.9	25.3
6H	24.6	25.6	25.1	26.0	26.4	24.2	25.1	24.6	25.5	26.0
8H	25.0	25.9	25.5	26.3	26.8	24.5	25.4	25.0	25.8	26.3
12H	25.4	26.2	25.9	26.7	27.1	24.8	25.7	25.3	26.1	26.6
8H 4H	24.1	25.0	24.6	25.4	25.9	23.8	24.7	24.2	25.1	25.5
6H	25.1	25.9	25.6	26.3	26.8	24.7	25.5	25.2	25.9	26.4
8H	25.7	26.3	26.2	26.8	27.3	25.2	25.8	25.7	26.3	26.8
12H	26.2	26.8	26.7	27.3	27.8	25.7	26.2	26.2	26.7	27.3
12H 4H	24.1	24.9	24.6	25.4	25.9	23.8	24.6	24.3	25.1	25.6
6H	25.2	25.9	25.7	26.4	26.9	24.8	25.5	25.3	26.0	26.5
8H	25.8	26.4	26.3	26.9	27.4	25.4	26.0	25.9	26.5	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, 1414 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: --
 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:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

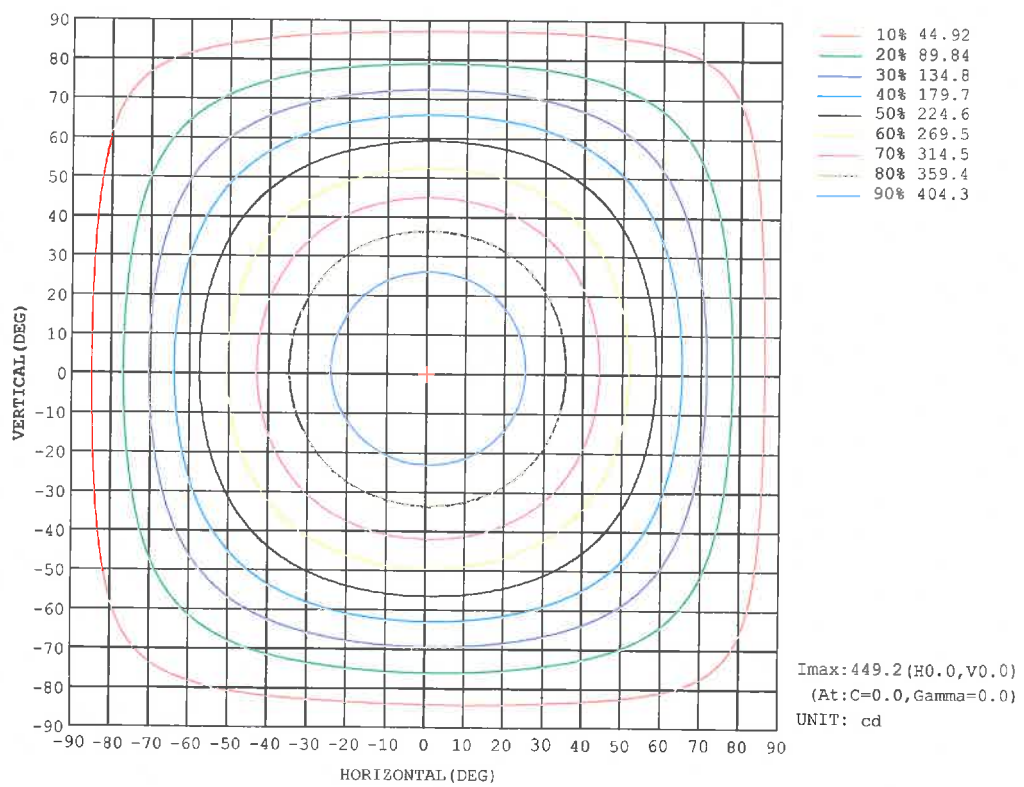
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS (PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	55	43	36	54	43	36	53	42	36	29
0.80	65	53	45	64	52	45	62	52	45	38
1.00	73	62	54	72	61	54	69	62	53	46
1.25	80	69	61	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	88	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:230.10V I:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



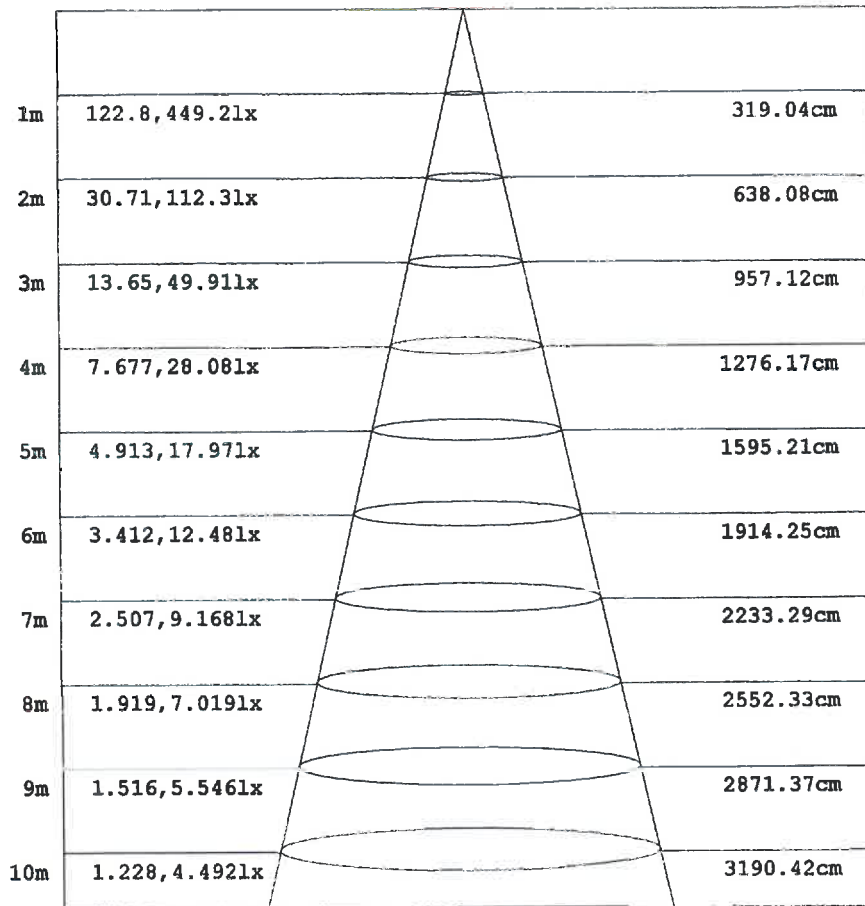
C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators: [Name]
 Test Date: 14 July 2021

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:

AAI Figure

Test:U:230.10V I:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Flux out:988.3 lm



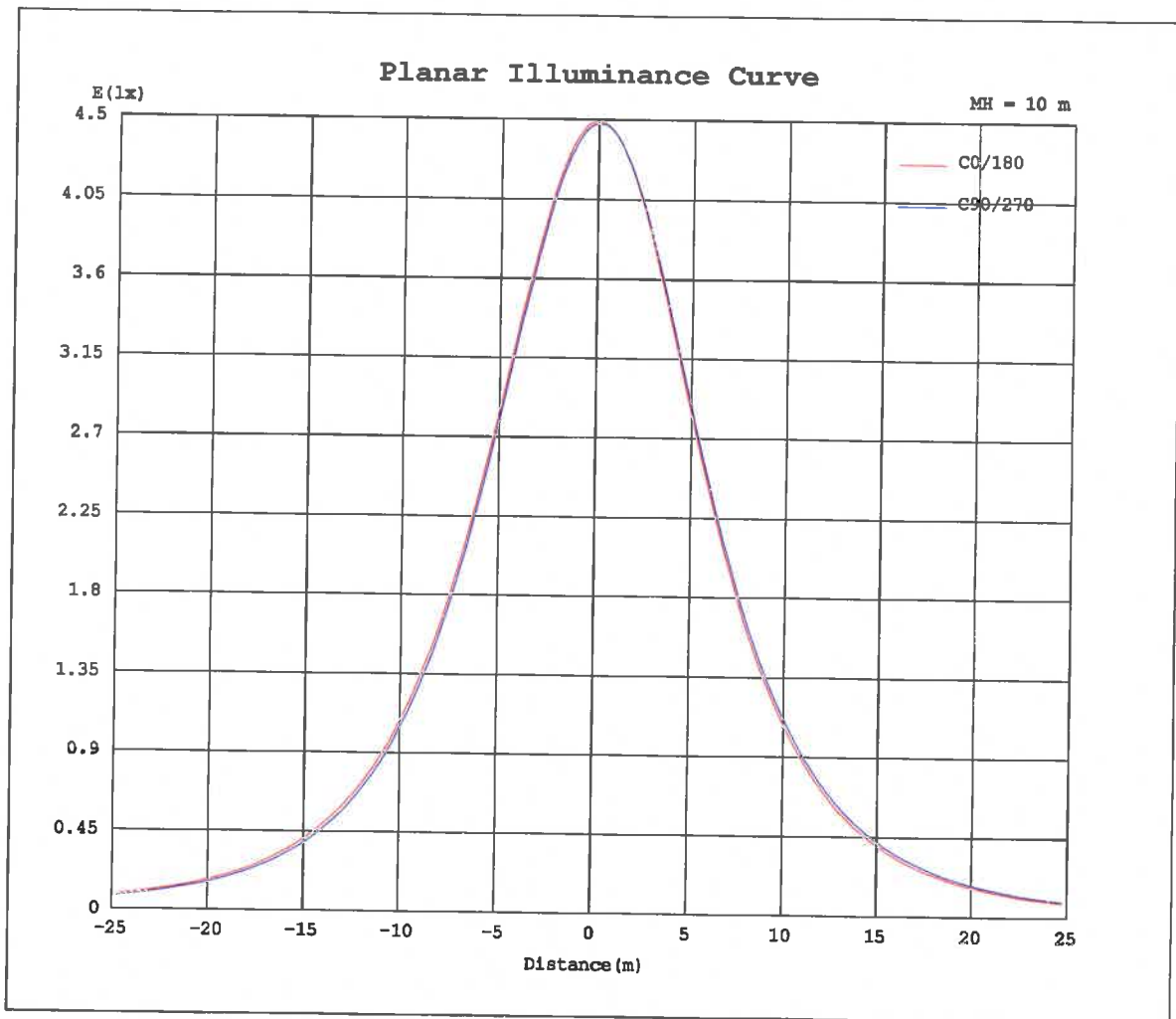
Height Eavg, Emax Angle:115.83deg Diameter

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: " ")
 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:0.0668A P:14.497W PF:0.9432 Freq:49.99Hz Lamp Flux:1413.87x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:220C	DIM.: 220MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

Table--1

UNIT: cd

C (DEG)	0	30	60	90	120	150	180	210	240	270	300	330						
0	449	448	448	448	448	448	449	448	448	448	448	448						
5	448	447	446	445	446	446	447	447	448	447	447	447						
10	443	442	440	439	439	440	442	442	443	443	444	443						
15	435	432	430	429	429	430	432	433	435	435	436	435						
20	422	419	417	415	414	416	419	420	423	423	424	423						
25	405	402	399	398	397	398	402	404	407	408	408	407						
30	385	382	379	376	375	377	381	384	387	388	389	387						
35	362	359	355	353	351	353	358	361	365	366	367	365						
40	337	333	329	326	325	327	332	335	340	341	342	340						
45	309	305	300	298	296	298	304	307	312	314	315	313						
50	279	275	270	267	266	268	274	277	282	284	286	283						
55	248	242	238	234	234	235	241	246	250	253	254	252						
60	215	209	205	201	200	202	208	212	217	220	221	219						
65	181	175	170	167	165	167	173	178	183	186	187	185						
70	145	140	135	132	130	132	138	143	148	151	152	150						
75	110	106	100	97.7	95.7	97.8	103	108	114	116	118	115						
80	77.5	73.8	69.5	66.9	64.9	66.4	71.2	75.5	81.2	83.4	84.6	82.0						
85	50.2	47.4	44.0	41.9	40.3	41.4	45.0	48.5	53.2	55.2	56.1	53.8						
90	31.8	31.1	30.7	30.2	29.7	29.7	30.2	30.9	33.0	34.2	34.8	33.2						
95	30.3	30.3	29.6	29.4	28.7	28.8	29.4	29.0	30.5	31.0	30.3	27.7						
100	19.5	14.0	17.4	25.0	16.4	16.7	23.5	14.0	11.9	19.4	11.0	8.23						
105	3.35	0.92	2.38	7.89	1.99	2.04	6.94	1.63	0.89	2.67	0.85	0.86						
110	1.06	1.09	1.12	1.14	1.15	1.15	1.14	1.07	1.04	1.02	1.01	1.03						
115	1.23	1.25	1.28	1.31	1.32	1.31	1.30	1.23	1.19	1.18	1.18	1.19						
120	1.39	1.41	1.44	1.46	1.48	1.47	1.46	1.39	1.36	1.34	1.33	1.35						
125	1.55	1.57	1.61	1.63	1.63	1.63	1.61	1.55	1.52	1.51	1.50	1.51						
130	1.71	1.72	1.76	1.78	1.79	1.78	1.76	1.71	1.67	1.66	1.65	1.66						
135	1.86	1.87	1.91	1.94	1.94	1.94	1.91	1.86	1.82	1.82	1.81	1.83						
140	2.00	2.03	2.05	2.07	2.07	2.07	2.04	2.01	1.97	1.97	1.96	1.97						
145	2.15	2.16	2.19	2.20	2.20	2.20	2.18	2.15	2.12	2.11	2.11	2.12						
150	2.28	2.29	2.33	2.33	2.33	2.33	2.31	2.28	2.26	2.25	2.24	2.26						
155	2.42	2.42	2.46	2.45	2.45	2.45	2.43	2.42	2.38	2.38	2.38	2.39						
160	2.54	2.53	2.57	2.57	2.55	2.56	2.55	2.53	2.49	2.50	2.50	2.50						
165	2.62	2.62	2.65	2.64	2.63	2.64	2.63	2.63	2.58	2.59	2.61	2.59						
170	2.67	2.68	2.71	2.69	2.70	2.72	2.68	2.70	2.67	2.66	2.69	2.67						
175	2.74	2.73	2.75	2.75	2.74	2.76	2.73	2.74	2.73	2.71	2.74	2.73						
180	2.77	2.77	2.76	2.75	2.76	2.77	2.76	2.77	2.77	2.75	2.76	2.76						

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: