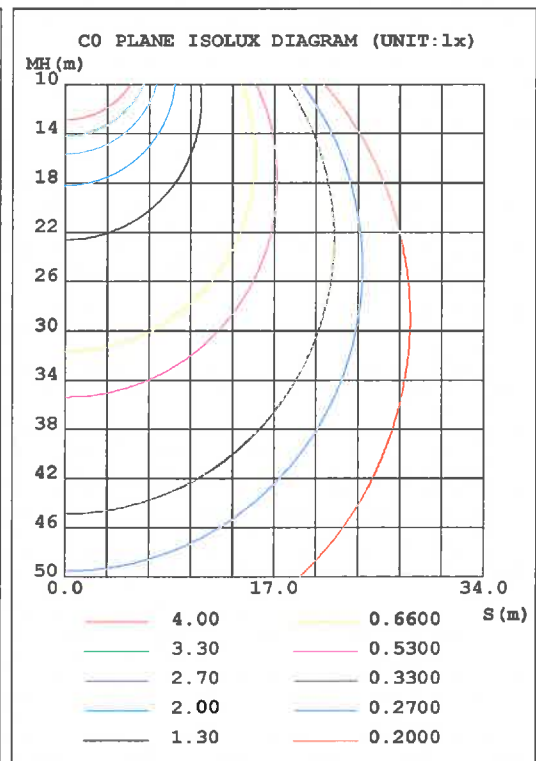
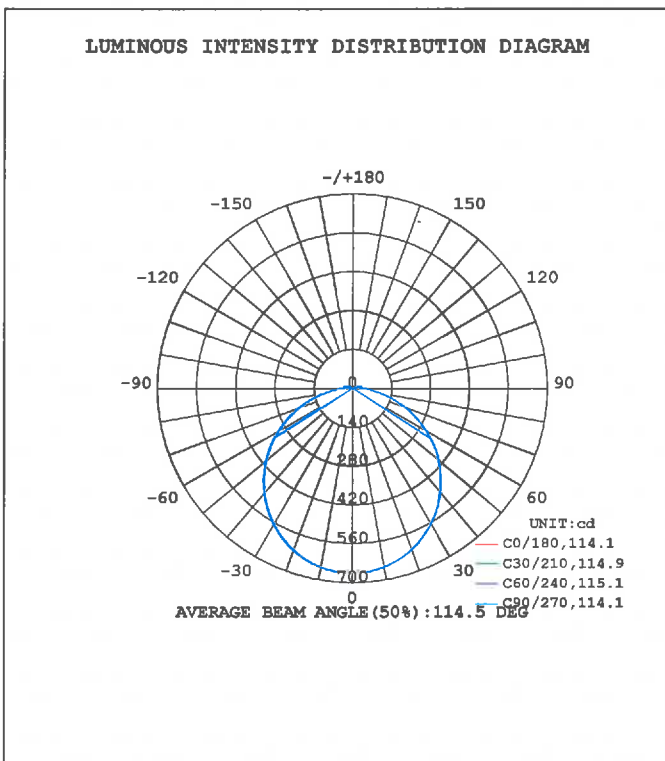


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.09V I:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 115.80 lm/W			
MODEL	YYS18WCCT	I _{max} (cd)	664.6	S/MH(C0/180)	1.26
NOMINAL POWER(W)	18	LOR(%)	100.0	S/MH(C90/270)	1.26
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	2033.9	η UP,DN(C0-180)	1.4,48.3
NOMINAL FLUX(lm)	2033.86	CIE CLASS	DIRECT	η UP,DN(C180-360)	1.4,48.8
LAMPS INSIDE	1	η up(%)	2.8	CIBSE SHR NOM	1.25
TEST VOLTAGE(V)	230	η down(%)	97.2	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	653.0	652.4	651.0	651.7	654.8	653.9	651.8	651.8	0- 10	62.80	62.80	3.09,3.09
20	617.7	617.9	616.0	618.4	620.8	621.1	617.6	618.4	10- 20	180.2	243.0	11.9,11.9
30	560.6	562.4	559.6	563.3	565.5	566.9	562.0	563.4	20- 30	273.5	516.5	25.4,25.4
40	486.3	489.1	485.4	490.2	492.2	494.8	489.0	490.6	30- 40	330.8	847.3	41.7,41.7
50	398.0	401.1	397.9	403.3	404.1	407.3	401.3	403.8	40- 50	345.6	1193	58.6,58.6
60	298.9	303.4	299.3	305.5	305.1	309.6	302.8	306.2	50- 60	317.2	1510	74.2,74.2
70	192.7	197.4	192.6	199.5	198.3	203.5	196.7	200.7	60- 70	249.4	1759	86.5,86.5
80	90.19	95.22	89.59	96.71	94.91	100.4	92.90	98.37	70- 80	154.1	1913	94.1,94.1
90	27.58	33.28	27.39	33.29	27.45	33.19	27.12	33.10	80- 90	62.67	1976	97.2,97.2
100	25.65	24.67	26.16	26.12	26.20	23.95	25.88	21.07	90-100	32.26	2008	98.7,98.7
110	2.035	1.891	8.737	2.525	9.642	2.142	3.242	1.516	100-110	14.19	2023	99.4,99.4
120	2.045	2.038	2.037	2.002	1.992	1.968	1.996	2.005	110-120	2.008	2025	99.5,99.5
130	2.547	2.541	2.530	2.489	2.480	2.466	2.488	2.505	120-130	2.021	2027	99.6,99.6
140	3.004	3.009	3.005	2.957	2.946	2.944	2.954	2.980	130-140	2.119	2029	99.7,99.7
150	3.439	3.434	3.426	3.389	3.376	3.385	3.393	3.403	140-150	2.800	2031	99.8,99.8
160	3.814	3.794	3.792	3.765	3.774	3.758	3.783	3.772	150-160	1.660	2032	99.9,99.9
170	4.023	4.039	4.009	4.014	4.009	4.016	4.004	4.023	160-170	1.104	2033	100,100
180	4.122	4.136	4.109	4.131	4.131	4.131	4.113	4.129	170-180	0.3982	2034	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1021 lm

%lum = 50.2%

%lamp = 50.2%

Conical surface Flux(120deg): 1510 lm

%lum = 74.2%

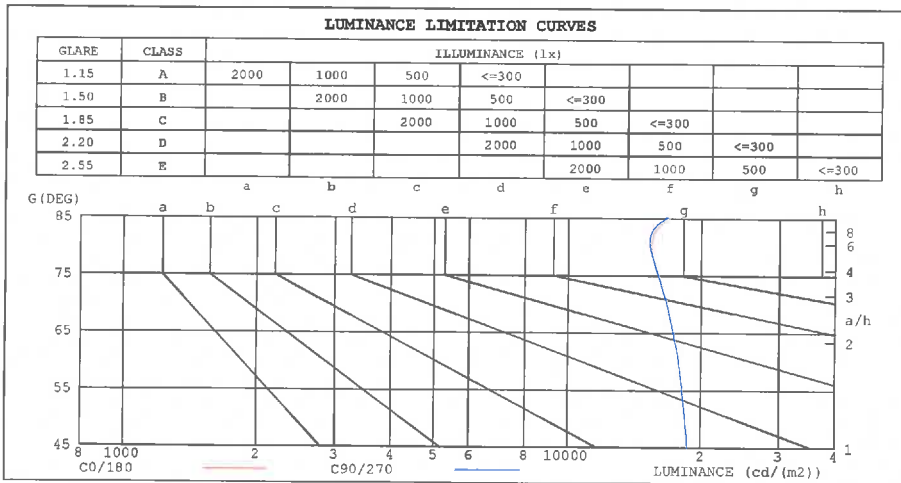
%lamp = 74.2%

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:

LUMINANCE LIMITATION CURVES

Test:U:230.09V I:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G (DEG)	C0/180	C90/270
85	17016	16784
80	15457	15355
75	16059	16029
70	16769	16755
65	17354	17329
60	17794	17817
55	18144	18134
50	18429	18424
45	18676	18661

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:

WEC AND CCEC

Test:U:230.09V I:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	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
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.326	.185	.059	.318	.181	.058	.303	.174	.056	.289	.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	.042	.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	.188	.099	.029	
7.0	.200	.099	.028	.196	.098	.028	.189	.095	.028	.182	.093	.027	.175	.091	.027	
8.0	.187	.091	.026	.183	.090	.026	.177	.088	.025	.170	.086	.025	.164	.084	.025	
9.0	.175	.085	.024	.172	.084	.023	.166	.082	.023	.160	.080	.023	.154	.078	.023	
10.0	.164	.079	.022	.161	.078	.022	.156	.076	.021	.151	.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	.212	.212	.212	.181	.181	.181	.124	.124	.124	.071	.071	.071	.023	.023	.023	
1.0	.203	.178	.155	.174	.153	.133	.119	.105	.092	.068	.061	.054	.022	.020	.017	
2.0	.195	.154	.119	.167	.132	.103	.115	.092	.072	.066	.053	.042	.021	.017	.014	
3.0	.188	.136	.096	.161	.118	.083	.110	.082	.058	.064	.046	.034	.021	.016	.011	
4.0	.180	.123	.080	.154	.107	.069	.106	.074	.049	.061	.043	.029	.020	.014	.010	
5.0	.173	.113	.069	.148	.098	.060	.102	.068	.042	.059	.040	.025	.019	.013	.008	
6.0	.165	.105	.061	.142	.091	.053	.098	.063	.038	.057	.037	.022	.018	.012	.007	
7.0	.158	.098	.055	.136	.085	.048	.094	.059	.034	.055	.035	.020	.018	.011	.007	
8.0	.152	.092	.051	.131	.080	.044	.090	.056	.032	.053	.033	.019	.017	.011	.006	
9.0	.146	.087	.048	.126	.076	.041	.087	.053	.029	.051	.031	.018	.016	.010	.006	
10.0	.140	.083	.045	.121	.072	.039	.084	.051	.028	.049	.030	.017	.016	.010	.005	

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:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:280S					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	20.3	21.8	20.6	22.1	22.3	20.3	21.8	20.6	22.1	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	22.9	24.2	24.5	22.6	23.9	22.9	24.2	24.5
6H	23.1	24.4	23.5	24.7	25.0	23.1	24.3	23.5	24.7	25.0
8H	23.3	24.5	23.7	24.8	25.2	23.3	24.5	23.7	24.8	25.2
12H	23.5	24.6	23.9	25.0	25.3	23.4	24.6	23.8	25.0	25.3
4H 2H	20.9	22.3	21.3	22.6	22.9	20.9	22.3	21.3	22.6	22.9
3H	22.7	23.9	23.1	24.3	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	24.2	25.1	24.6	25.5	26.0
8H	24.5	25.4	24.9	25.8	26.2	24.5	25.3	24.9	25.8	26.2
12H	24.7	25.5	25.2	26.0	26.4	24.7	25.5	25.2	25.9	26.4
8H 4H	23.9	24.7	24.3	25.2	25.6	23.9	24.7	24.3	25.2	25.6
6H	24.7	25.5	25.2	25.9	26.4	24.7	25.4	25.2	25.9	26.4
8H	25.1	25.8	25.6	26.2	26.8	25.1	25.7	25.6	26.2	26.7
12H	25.5	26.0	26.0	26.5	27.1	25.4	26.0	26.0	26.5	27.0
12H 4H	23.9	24.7	24.4	25.1	25.6	23.9	24.7	24.4	25.1	25.6
6H	24.8	25.5	25.3	25.9	26.5	24.8	25.4	25.3	25.9	26.4
8H	25.3	25.8	25.8	26.3	26.9	25.2	25.8	25.8	26.3	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, 2034 lm Total Lamp Luminous Flux Correct (8log(F/F0) = 2.5)

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:230.09V I:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

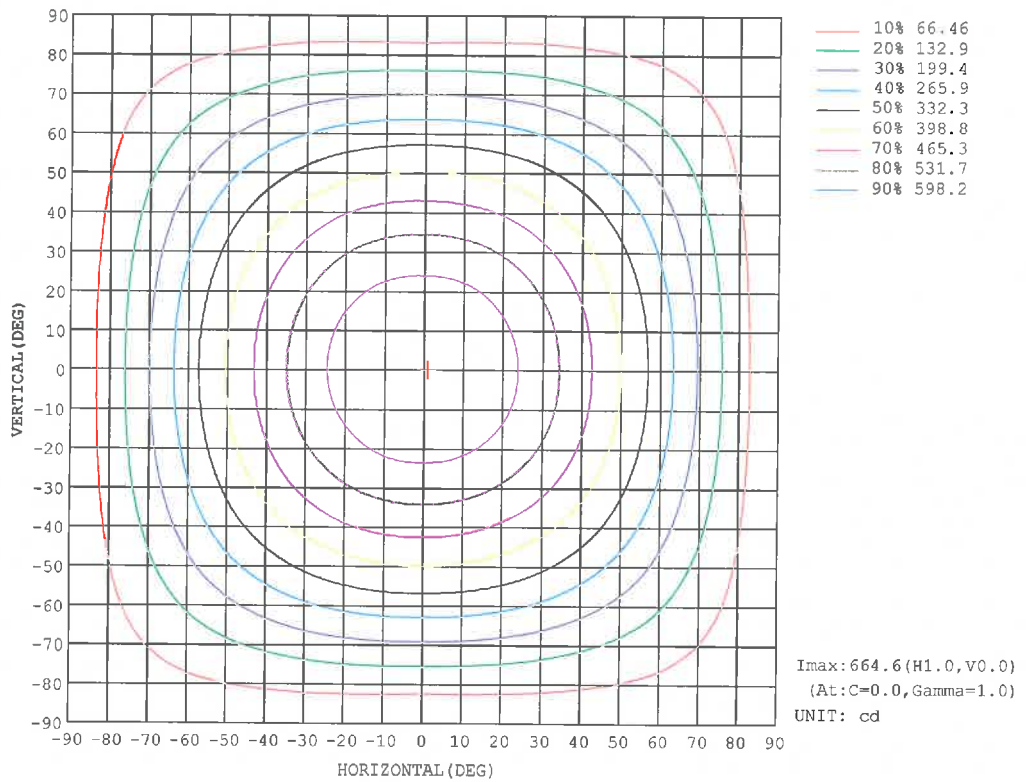
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	56	44	37	55	44	37	54	43	37	30
0.80	66	54	46	64	53	46	63	52	45	38
1.00	74	62	55	73	62	55	70	63	54	47
1.25	81	70	62	79	69	62	76	68	61	53
1.50	86	76	68	84	75	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	94	88	83	74
4.00	104	98	93	102	96	92	97	93	89	79
5.00	107	102	97	104	100	96	99	96	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:
 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:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

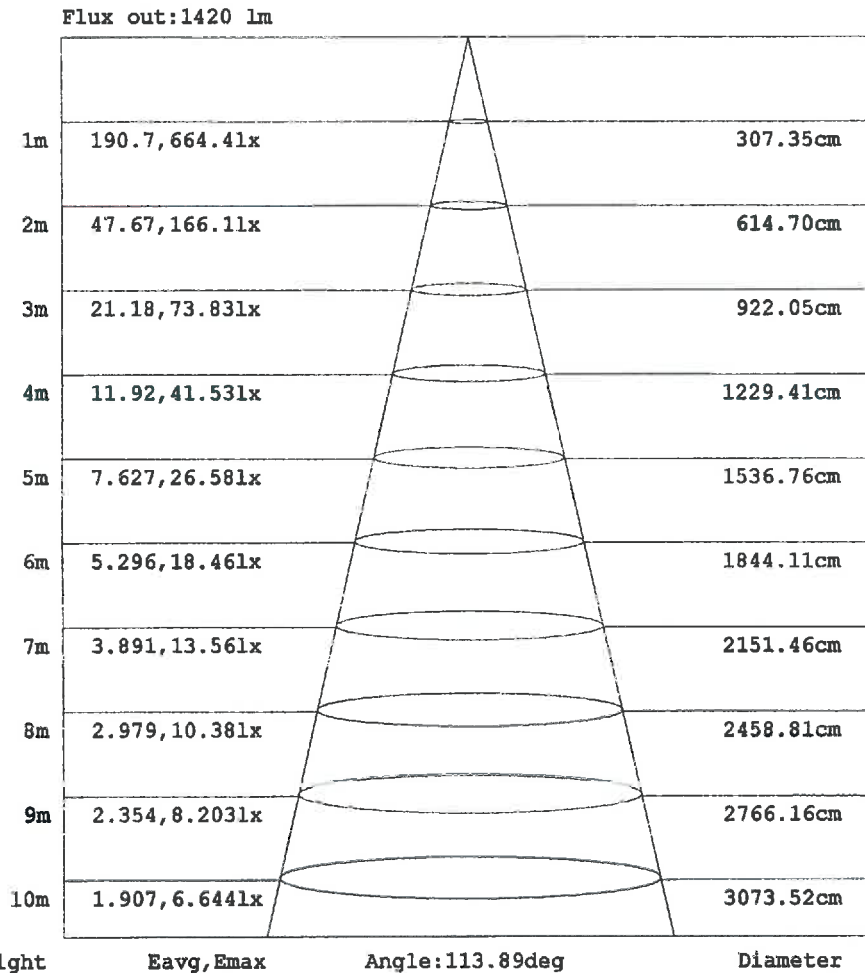


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:14 July 2021

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:230.09V I:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	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:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:230.09V I:0.0801A P:17.564W PF:0.9531 Freq:49.99Hz Lamp Flux:2033.86x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:280S	DIM.: 280MM	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	664	664	663	662	662	662	664	664	663	662	662	662							
5	662	661	660	660	660	660	663	662	661	660	660	660							
10	653	653	652	651	651	652	655	654	653	652	653	651							
15	638	639	637	636	637	639	641	640	640	638	638	637							
20	618	618	617	616	617	619	621	621	621	618	619	618							
25	592	593	592	590	592	594	596	596	597	593	594	593							
30	561	563	562	560	562	564	566	567	567	562	564	562							
35	526	528	527	525	528	530	531	533	533	528	530	528							
40	486	490	489	485	489	491	492	495	495	489	491	490							
45	444	447	446	443	447	449	450	452	453	447	450	448							
50	398	402	400	398	402	404	404	407	408	401	405	403							
55	350	354	353	349	354	357	356	359	360	353	357	355							
60	299	304	303	299	304	307	305	309	310	303	307	305							
65	246	251	251	246	252	254	252	256	258	250	255	253							
70	193	198	197	193	198	201	198	203	204	197	201	200							
75	140	145	144	139	145	148	145	150	151	143	149	147							
80	90.2	95.9	94.6	89.6	95.4	98.0	94.9	99.7	101	92.9	99.1	97.7							
85	49.8	55.7	54.6	49.2	55.0	57.2	53.2	58.2	59.3	51.6	57.8	57.0							
90	27.6	33.1	33.4	27.4	33.1	33.5	27.5	32.9	33.4	27.1	32.9	33.3							
95	27.1	32.4	32.6	26.8	32.3	32.7	26.9	32.2	32.5	26.6	31.8	32.6							
100	25.7	24.9	24.4	26.2	26.2	26.1	26.2	23.8	24.1	25.9	21.9	20.2							
105	14.2	8.47	13.6	21.0	13.0	13.9	20.8	13.2	8.50	15.5	8.84	6.26							
110	2.04	1.54	2.24	8.74	1.89	3.16	9.64	2.80	1.48	3.24	1.51	1.52							
115	1.79	1.79	1.80	1.79	1.77	1.74	1.75	1.72	1.72	1.73	1.76	1.77							
120	2.04	2.03	2.05	2.04	2.02	1.99	1.99	1.97	1.96	1.99	2.00	2.01							
125	2.30	2.28	2.29	2.29	2.27	2.24	2.25	2.23	2.22	2.24	2.24	2.27							
130	2.55	2.53	2.55	2.53	2.50	2.48	2.48	2.47	2.46	2.49	2.50	2.51							
135	2.79	2.77	2.79	2.77	2.73	2.72	2.72	2.71	2.71	2.72	2.75	2.75							
140	3.00	3.00	3.02	3.01	2.97	2.95	2.95	2.95	2.94	2.95	2.98	2.98							
145	3.22	3.21	3.23	3.22	3.19	3.17	3.17	3.17	3.17	3.18	3.20	3.20							
150	3.44	3.43	3.44	3.43	3.40	3.38	3.38	3.39	3.38	3.39	3.40	3.40							
155	3.63	3.61	3.64	3.61	3.60	3.59	3.58	3.60	3.58	3.59	3.61	3.60							
160	3.81	3.78	3.81	3.79	3.76	3.77	3.77	3.77	3.74	3.78	3.79	3.76							
165	3.93	3.91	3.95	3.91	3.90	3.92	3.90	3.92	3.89	3.90	3.93	3.90							
170	4.02	4.02	4.05	4.01	4.00	4.03	4.01	4.04	4.00	4.00	4.04	4.01							
175	4.09	4.09	4.12	4.08	4.08	4.10	4.09	4.11	4.08	4.08	4.10	4.08							
180	4.12	4.14	4.14	4.11	4.13	4.13	4.13	4.13	4.13	4.11	4.13	4.13							

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: