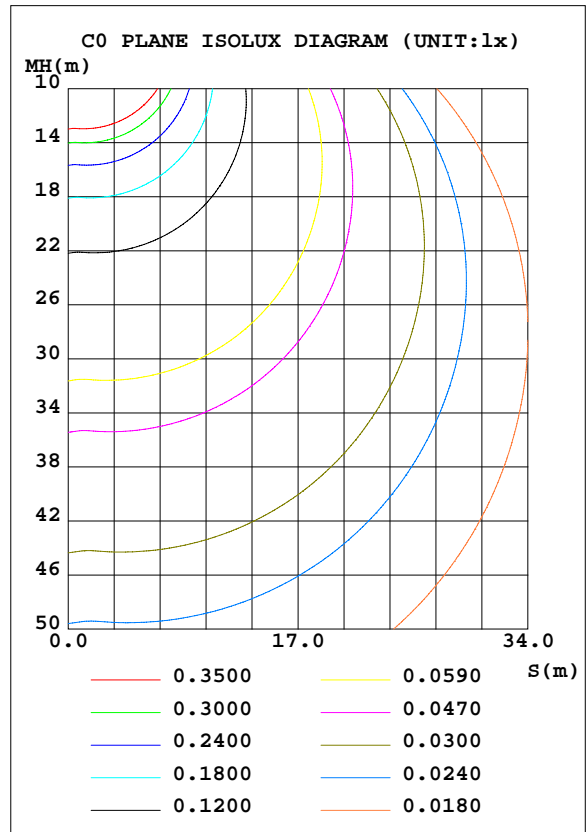
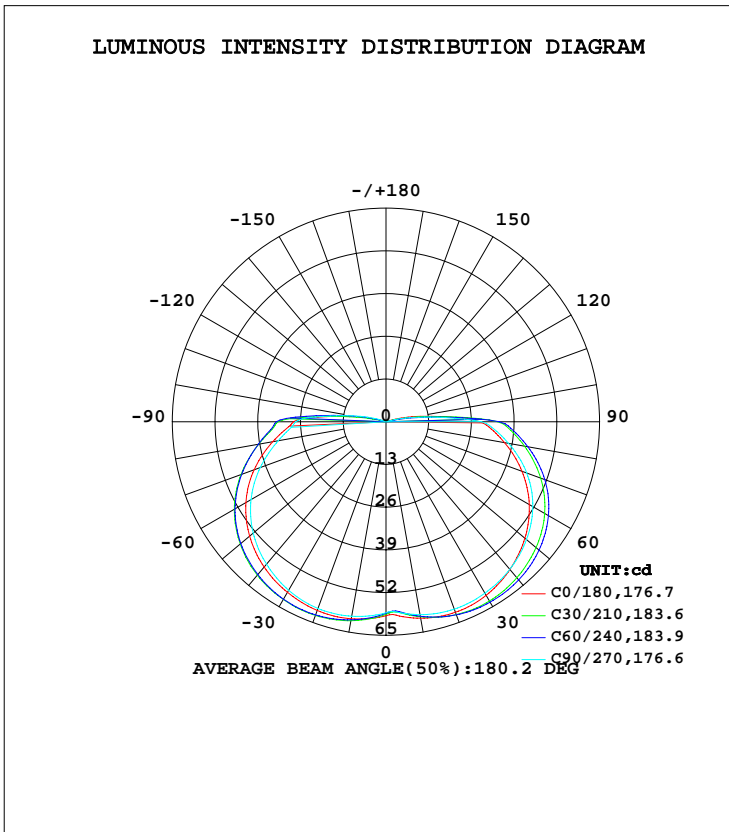


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 100MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 65.79 lm/W			
MODEL	YBL5W3K	Imax(cd)	63.39	S/MH(C0/180)	1.52
NOMINAL POWER(W)	5	LOR(%)	100.0	S/MH(C90/270)	1.52
RATED VOLTAGE(V)	230	TOTAL FLUX(lm)	343.78	η UP, DN(C0-180)	3.4,47.3
NOMINAL FLUX(lm)	343.782	CIE CLASS	DIRECT	η UP, DN(C180-360)	3.9,45.3
LAMPS INSIDE	1	η up(%)	7.4	CIBSE SHR NOM	1.75
TEST VOLTAGE(V)	230	η down(%)	92.6	CIBSE SHR MAX	1.75



C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:16 November 2020

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	Φ zone	Φ total	%lum,lamp
10	60.70	60.18	59.60	60.14	60.86	61.33	60.09	60.10	0- 10	5.684	5.684	1.65,1.65
20	61.70	62.49	60.70	62.04	61.11	62.65	60.48	61.73	10- 20	17.38	23.07	6.71,6.71
30	60.98	63.18	60.22	62.42	59.95	62.41	59.22	61.72	20- 30	28.63	51.70	15,15
40	58.67	62.40	58.62	61.50	57.71	60.81	56.56	60.19	30- 40	38.30	90.00	26.2,26.2
50	55.17	60.18	55.80	59.18	54.17	57.79	52.73	57.25	40- 50	45.49	135.5	39.4,39.4
60	50.35	56.43	51.58	55.28	49.22	53.16	47.42	52.84	50- 60	49.45	184.9	53.8,53.8
70	44.03	50.75	45.56	49.45	42.68	46.83	40.69	46.75	60- 70	49.51	234.4	68.2,68.2
80	36.63	43.29	37.86	41.73	34.99	39.38	33.31	39.35	70- 80	45.49	279.9	81.4,81.4
90	28.55	34.23	29.05	32.99	28.19	33.11	27.50	31.17	80- 90	38.52	318.5	92.6,92.6
100	9.278	6.780	7.248	6.177	8.958	8.678	10.46	9.198	90-100	20.91	339.4	98.7,98.7
110	0.2836	0.2715	0.2715	0.2693	0.2852	0.2851	0.8756	0.2783	100-110	3.064	342.4	99.6,99.6
120	0.2896	0.3009	0.2987	0.3009	0.3167	0.3168	0.3076	0.3032	110-120	0.2913	342.7	99.7,99.7
130	0.3258	0.3213	0.3214	0.3280	0.3394	0.3326	0.3348	0.3303	120-130	0.2848	343.0	99.8,99.8
140	0.3348	0.3348	0.3394	0.3349	0.3530	0.3416	0.3348	0.3394	130-140	0.2585	343.3	99.8,99.8
150	0.3439	0.3484	0.3620	0.3462	0.3665	0.3552	0.3439	0.3484	140-150	0.2161	343.5	99.9,99.9
160	0.3664	0.3620	0.3710	0.3597	0.3846	0.3710	0.3574	0.3665	150-160	0.1655	343.6	100,100
170	0.3846	0.3801	0.3801	0.3711	0.3936	0.3824	0.3710	0.3778	160-170	0.1052	343.7	100,100
180	0.3982	0.3937	0.3937	0.3846	0.3982	0.3937	0.3801	0.3891	170-180	0.0367	343.8	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 112.03 lm

%lum = 32.6%
%lamp = 32.6%

Conical surface Flux(120deg): 184.94 lm

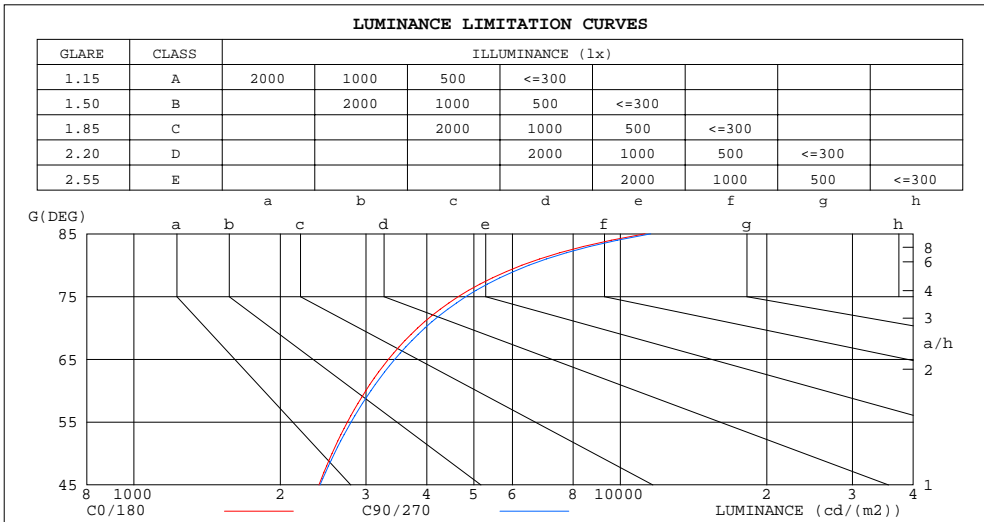
%lum = 53.8%
%lamp = 53.8%

C Range: 0 - 360DEG
C Interval: 30.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:
Test Date:16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 1000MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	11235	11552
80	6278	6489
75	4646	4815
70	3831	3965
65	3336	3438
60	2997	3071
55	2747	2796
50	2554	2584
45	2401	2414

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 100MM	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	.450	.256	.081	.440	.251	.080	.422	.242	.077	.405	.234	.075	.390	.226	.073	
2.0	.378	.207	.064	.369	.203	.063	.353	.196	.061	.338	.189	.059	.324	.183	.058	
3.0	.329	.175	.053	.322	.172	.052	.307	.166	.051	.293	.161	.049	.281	.155	.048	
4.0	.293	.152	.045	.286	.149	.044	.272	.144	.043	.260	.140	.042	.249	.135	.041	
5.0	.263	.134	.039	.257	.132	.038	.245	.128	.038	.234	.124	.037	.224	.120	.036	
6.0	.239	.120	.034	.234	.118	.034	.223	.114	.033	.213	.111	.033	.204	.107	.032	
7.0	.219	.108	.031	.214	.107	.030	.205	.103	.030	.196	.100	.029	.187	.097	.029	
8.0	.202	.099	.028	.198	.097	.028	.189	.094	.027	.181	.092	.026	.173	.089	.026	
9.0	.188	.091	.025	.183	.089	.025	.176	.087	.025	.168	.084	.024	.161	.082	.024	
10.0	.175	.084	.023	.171	.083	.023	.164	.080	.023	.157	.078	.022	.151	.076	.022	

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	.247	.247	.247	.211	.211	.211	.144	.144	.144	.083	.083	.083	.026	.026	.026	
1.0	.247	.211	.180	.211	.182	.155	.144	.125	.107	.083	.072	.062	.027	.023	.020	
2.0	.241	.188	.145	.206	.162	.125	.141	.112	.087	.081	.065	.051	.026	.021	.017	
3.0	.233	.172	.123	.200	.148	.107	.137	.103	.075	.079	.060	.044	.025	.020	.014	
4.0	.225	.159	.109	.193	.138	.095	.133	.096	.067	.077	.056	.040	.025	.018	.013	
5.0	.217	.150	.100	.186	.129	.087	.128	.090	.061	.074	.053	.036	.024	.017	.012	
6.0	.209	.142	.093	.179	.123	.081	.124	.086	.058	.072	.050	.034	.023	.017	.011	
7.0	.201	.135	.088	.173	.117	.077	.120	.082	.055	.069	.048	.033	.022	.016	.011	
8.0	.194	.129	.085	.167	.112	.074	.116	.079	.052	.067	.046	.031	.022	.015	.010	
9.0	.187	.124	.082	.161	.108	.071	.112	.076	.051	.065	.045	.030	.021	.015	.010	
10.0	.181	.120	.080	.156	.104	.069	.108	.073	.049	.063	.043	.029	.020	.014	.010	

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm										
NAME: LED Ceiling light					TYPE:			WEIGHT:		
SPEC.:100					DIM.: 100MM			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	20.0	21.6	20.4	22.0	22.4	20.1	21.8	20.5	22.1	22.5
3H	22.6	24.2	23.0	24.5	24.9	22.8	24.3	23.2	24.7	25.1
4H	24.0	25.5	24.5	25.9	26.3	24.2	25.7	24.7	26.1	26.5
6H	25.5	26.9	26.0	27.4	27.8	25.8	27.1	26.2	27.6	28.0
8H	26.4	27.7	26.8	28.1	28.6	26.6	27.9	27.0	28.4	28.8
12H	27.3	28.6	27.8	29.1	29.5	27.5	28.8	28.0	29.3	29.7
4H 2H	21.1	22.5	21.5	22.9	23.4	21.2	22.6	21.6	23.0	23.5
3H	23.9	25.2	24.4	25.7	26.1	24.1	25.4	24.5	25.8	26.3
4H	25.5	26.7	26.0	27.2	27.7	25.7	26.9	26.2	27.3	27.8
6H	27.2	28.3	27.7	28.8	29.3	27.4	28.4	27.9	28.9	29.5
8H	28.1	29.1	28.6	29.6	30.2	28.3	29.3	28.8	29.8	30.4
12H	29.1	30.1	29.7	30.6	31.2	29.3	30.3	29.9	30.8	31.4
8H 4H	26.2	27.3	26.8	27.8	28.3	26.4	27.4	26.9	27.9	28.5
6H	28.2	29.1	28.8	29.7	30.3	28.4	29.3	29.0	29.8	30.4
8H	29.4	30.2	29.9	30.7	31.3	29.5	30.3	30.1	30.9	31.5
12H	30.6	31.3	31.2	31.9	32.6	30.8	31.5	31.4	32.1	32.7
12H 4H	26.4	27.4	27.0	27.9	28.5	26.6	27.5	27.1	28.0	28.6
6H	28.6	29.4	29.2	29.9	30.6	28.7	29.5	29.3	30.1	30.7
8H	29.8	30.5	30.4	31.1	31.8	30.0	30.7	30.6	31.3	31.9
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.1				
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3				
2.0H	+ 0.3 / - 0.4					+ 0.3 / - 0.4				

CIE Pub.117, 343.8 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -3.7)

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 100MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

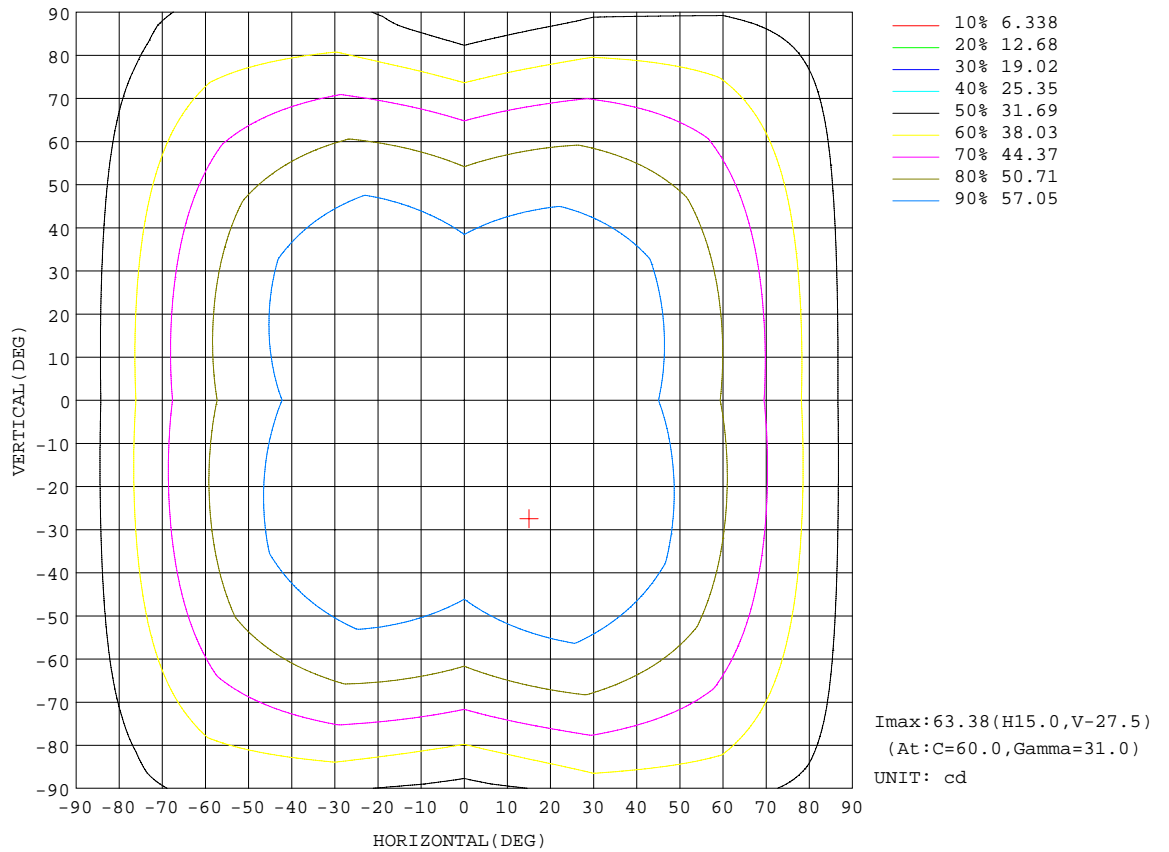
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	47	34	26	46	34	26	45	33	26	19
0.80	56	42	34	55	42	33	53	41	33	25
1.00	64	50	41	62	49	41	59	51	40	31
1.25	71	57	48	69	56	47	65	54	46	37
1.50	76	63	53	74	62	53	70	59	52	42
2.00	83	71	62	81	70	61	77	67	60	49
2.50	88	77	68	85	75	67	81	72	65	54
3.00	92	82	74	89	80	72	84	76	70	59
4.00	97	88	81	94	86	79	89	82	76	64
5.00	100	93	86	97	90	84	91	86	81	68
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:16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 100MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

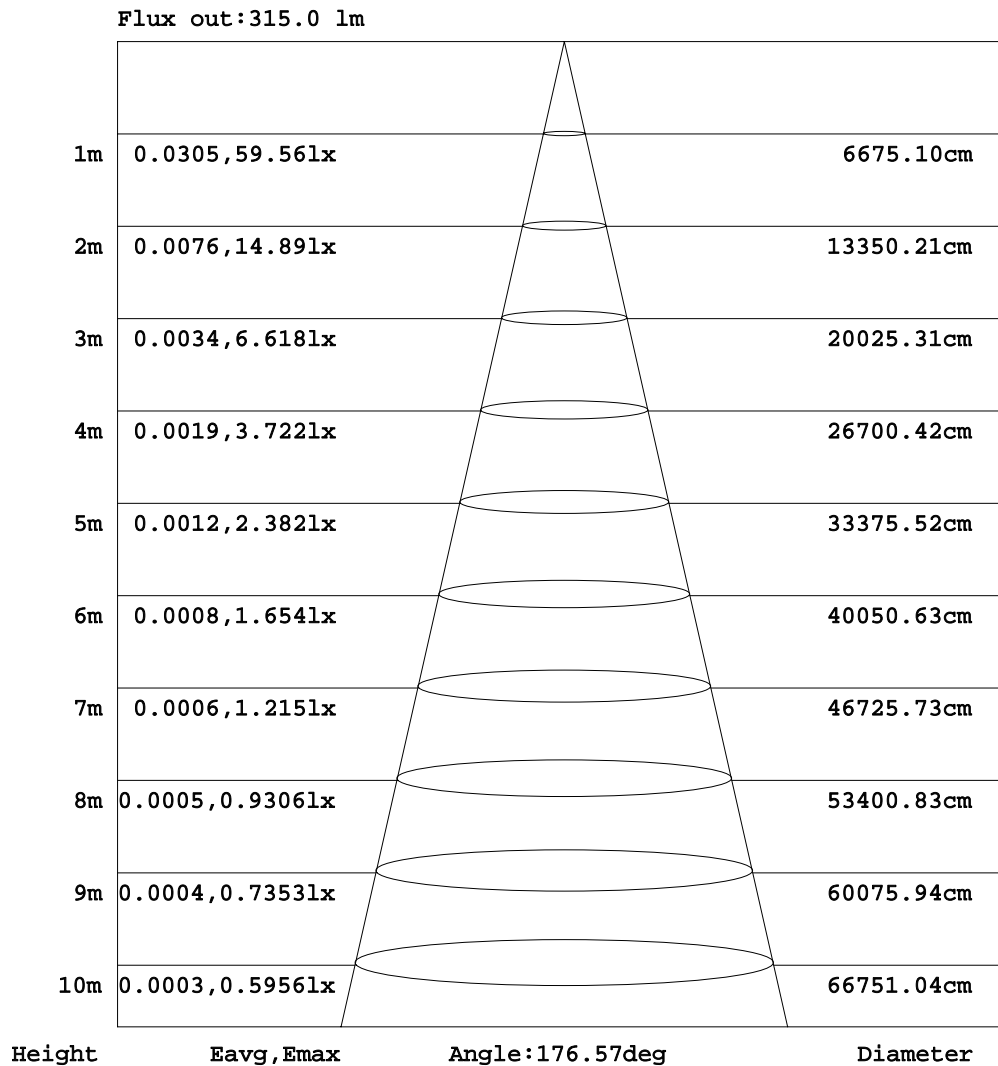


C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature: 25.3DEG
 Operators:
 Test Date: 16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 100MM	SERIAL No.:
MFR.:	SUR.:	Shielding Angle:

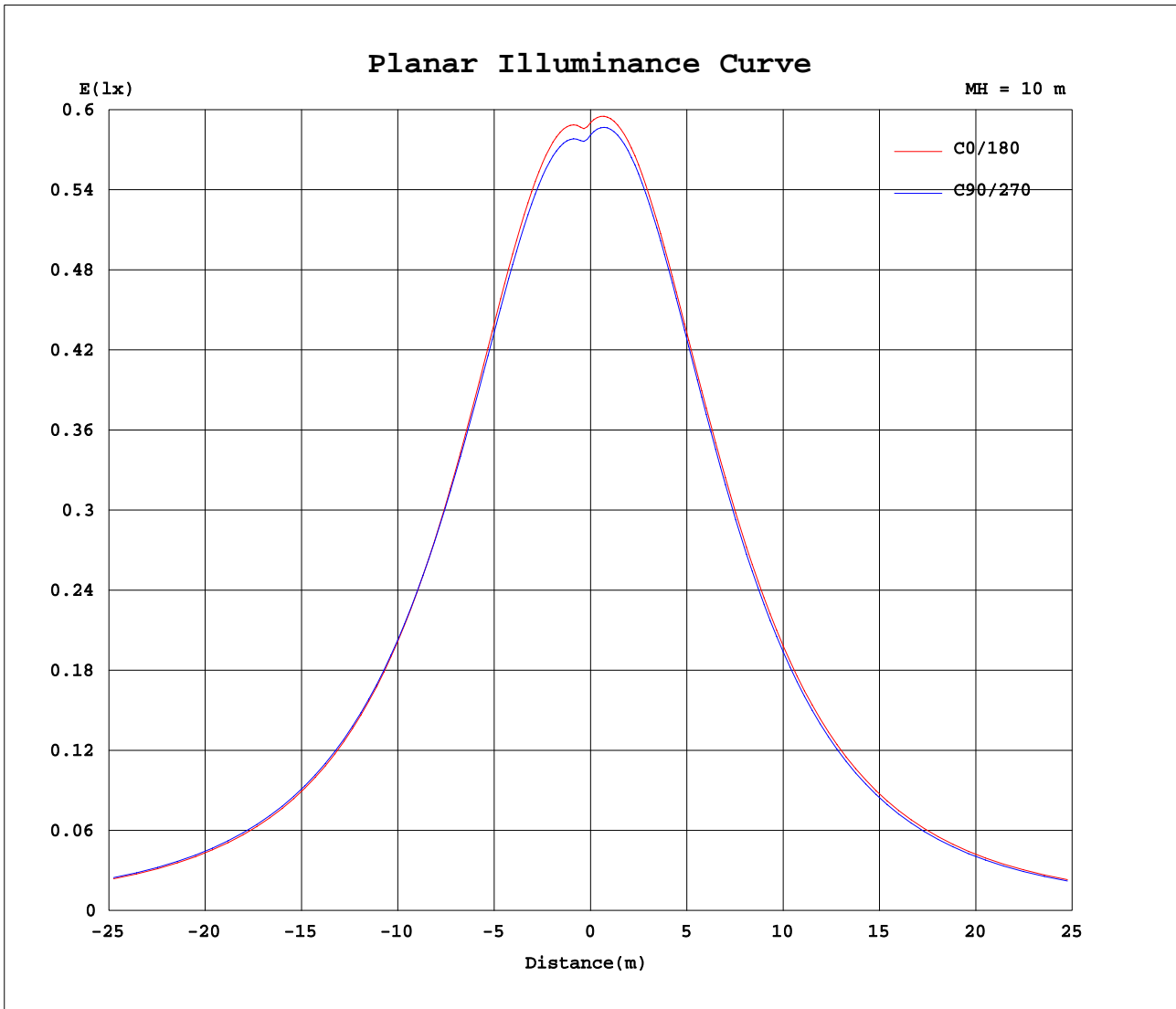


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:16 November 2020

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: 16 November 2020

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:230.04V I:0.0429A P:5.2252W PF:0.5289 Freq:0Hz Lamp Flux:343.782x1 lm		
NAME: LED Ceiling light	TYPE:	WEIGHT:
SPEC.:100	DIM.: 100MM	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	59.0	58.6	58.3	58.1	58.0	57.9	59.0	58.6	58.3	58.1	58.0	57.9							
5	59.5	58.6	58.3	58.5	58.8	58.5	60.1	60.2	59.9	59.3	58.6	58.7							
10	60.7	60.3	60.1	59.6	60.4	59.9	60.9	61.5	61.2	60.1	60.0	60.2							
15	61.4	61.6	61.5	60.3	61.6	61.0	61.2	62.3	62.1	60.5	60.9	61.3							
20	61.7	62.4	62.5	60.7	62.4	61.7	61.1	62.7	62.6	60.5	61.5	62.0							
25	61.6	62.9	63.2	60.6	62.8	62.0	60.7	62.8	62.6	60.0	61.6	62.2							
30	61.0	63.0	63.4	60.2	62.8	62.0	60.0	62.5	62.4	59.2	61.4	62.1							
35	60.0	62.7	63.3	59.6	62.5	61.7	59.0	61.9	61.7	58.0	60.7	61.6							
40	58.7	62.0	62.8	58.6	61.9	61.1	57.7	60.9	60.7	56.6	59.7	60.7							
45	57.1	60.9	62.0	57.4	60.9	60.1	56.1	59.6	59.3	54.8	58.4	59.4							
50	55.2	59.6	60.8	55.8	59.6	58.8	54.2	57.9	57.7	52.7	56.7	57.8							
55	52.9	57.9	59.2	53.9	57.9	57.0	51.9	55.8	55.6	50.3	54.7	55.9							
60	50.3	55.8	57.1	51.6	55.7	54.9	49.2	53.3	53.0	47.4	52.2	53.5							
65	47.4	53.2	54.5	48.8	53.1	52.2	46.2	50.3	50.1	44.2	49.3	50.7							
70	44.0	50.1	51.4	45.6	49.9	49.0	42.7	46.9	46.7	40.7	46.1	47.4							
75	40.4	46.6	47.8	41.9	46.1	45.4	38.9	43.2	43.1	37.0	42.5	43.9							
80	36.6	42.8	43.8	37.9	42.1	41.4	35.0	39.3	39.4	33.3	38.7	40.0							
85	32.9	38.9	39.6	33.8	37.8	37.3	31.1	35.5	35.9	29.9	34.7	35.7							
90	28.5	34.0	34.5	29.0	32.8	33.2	28.2	32.9	33.4	27.5	31.0	31.3							
95	17.7	18.4	16.7	15.8	15.9	18.2	18.3	18.8	21.4	19.3	20.4	20.2							
100	9.28	7.83	5.73	7.25	5.39	6.97	8.96	7.32	10.0	10.5	9.40	9.00							
105	3.87	1.57	0.27	1.77	0.25	0.81	3.11	0.85	3.12	4.96	2.84	2.22							
110	0.28	0.28	0.26	0.27	0.26	0.28	0.29	0.28	0.29	0.88	0.29	0.27							
115	0.28	0.29	0.28	0.29	0.27	0.30	0.30	0.29	0.31	0.29	0.30	0.28							
120	0.29	0.30	0.30	0.30	0.29	0.32	0.32	0.32	0.32	0.31	0.32	0.29							
125	0.32	0.31	0.32	0.31	0.30	0.32	0.32	0.33	0.33	0.32	0.33	0.31							
130	0.33	0.32	0.32	0.32	0.33	0.33	0.34	0.33	0.33	0.33	0.33	0.33							
135	0.33	0.34	0.33	0.33	0.33	0.34	0.34	0.33	0.34	0.33	0.34	0.33							
140	0.33	0.34	0.33	0.34	0.33	0.34	0.35	0.33	0.35	0.33	0.35	0.33							
145	0.33	0.35	0.33	0.35	0.33	0.35	0.36	0.34	0.36	0.34	0.35	0.33							
150	0.34	0.36	0.34	0.36	0.33	0.36	0.37	0.34	0.37	0.34	0.36	0.33							
155	0.35	0.37	0.35	0.37	0.34	0.36	0.38	0.35	0.37	0.35	0.37	0.35							
160	0.37	0.37	0.35	0.37	0.35	0.37	0.38	0.37	0.38	0.36	0.38	0.35							
165	0.37	0.38	0.36	0.38	0.35	0.38	0.39	0.37	0.38	0.37	0.38	0.36							
170	0.38	0.38	0.38	0.38	0.36	0.38	0.39	0.38	0.38	0.37	0.38	0.37							
175	0.39	0.39	0.39	0.39	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.38							
180	0.40	0.39	0.39	0.39	0.38	0.38	0.40	0.39	0.39	0.38	0.39	0.39							

C Range: 0 - 360DEG
 C Interval: 30.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:
 Test Date:16 November 2020

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: