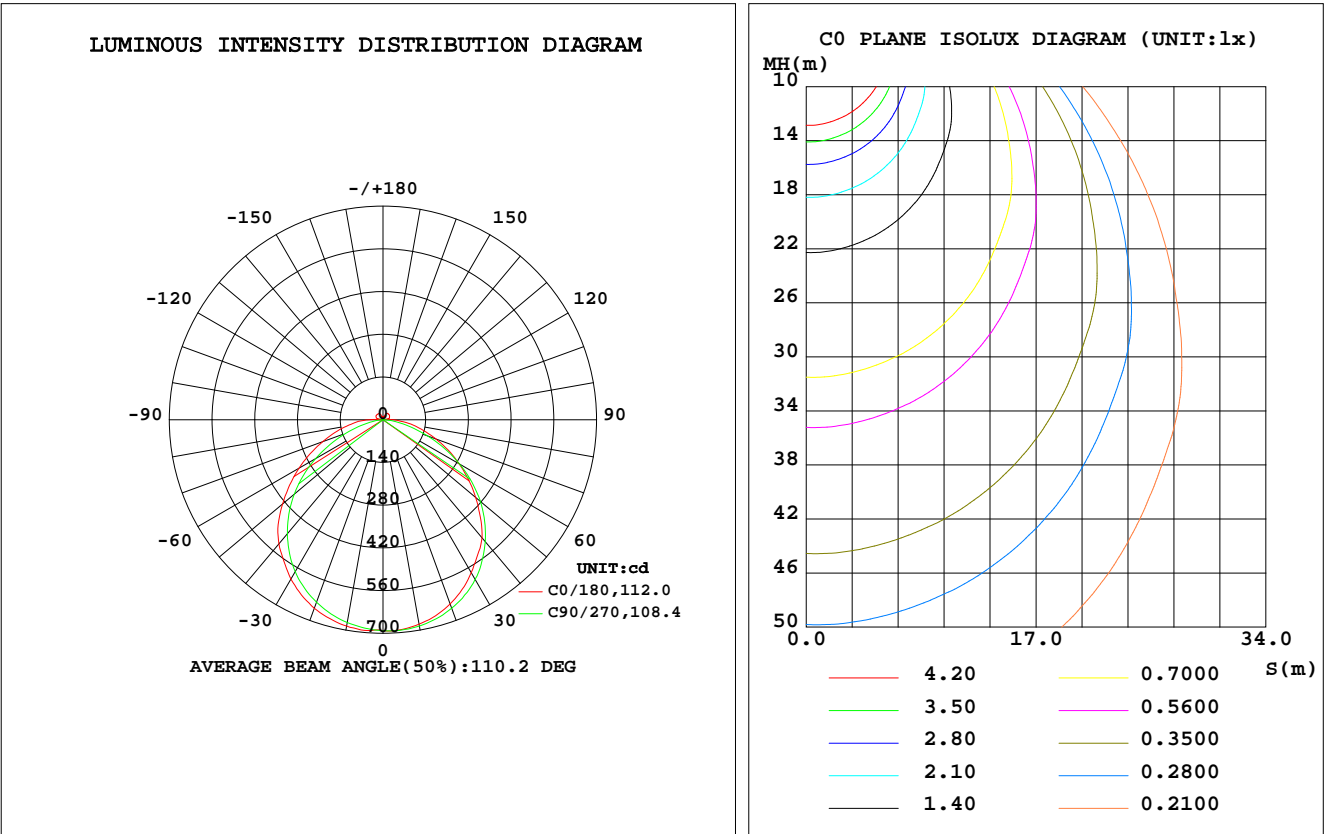


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 109.25 lm/W
MODEL	空心17.5w/m 840	I _{max} (cd)	692.9	S/MH(C0/180)	1.29	
NOMINAL POWER(W)	17.5	LOR(%)	100.0	S/MH(C90/270)	1.24	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	2054.9	η UP,DN(C0-180)	2.0,48.7	
NOMINAL FLUX(lm)	2054.9	CIE CLASS	DIRECT	η UP,DN(C180-360)	2.1,47.2	
LAMPS INSIDE	1	η up(%)	4.0	CIBSE SHR NOM	1.25	
TEST VOLTAGE(V)	24	η down(%)	96.0	CIBSE SHR MAX	1.35	



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Zero huang
Test Date:2024-01-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.5110]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	680.2	682.7	686.5	683.2	686.7	679.6	674.8	676.3	0- 10	65.55	65.55	3.19,3.19
20	642.7	651.3	657.4	652.5	657.9	646.7	636.4	639.7	10- 20	188.5	254.0	12.4,12.4
30	578.6	591.6	604.0	600.6	603.1	589.1	575.1	581.6	20- 30	286.7	540.8	26.3,26.3
40	505.0	509.5	521.6	522.3	530.7	507.8	487.3	496.8	30- 40	345.4	886.2	43.1,43.1
50	396.6	406.0	416.9	421.7	429.4	408.3	379.6	381.8	40- 50	355.1	1241	60.4,60.4
60	287.3	289.6	289.4	306.5	318.1	292.3	255.2	264.3	50- 60	310.9	1552	75.5,75.5
70	184.7	179.9	155.9	189.3	210.6	180.2	128.5	157.1	60- 70	228.4	1781	86.6,86.6
80	100.4	89.85	50.32	94.67	121.3	89.86	36.70	74.13	70- 80	133.7	1914	93.2,93.2
90	35.36	34.10	4.165	32.89	46.26	33.87	0.9640	24.19	80- 90	57.60	1972	96,96
100	6.824	9.163	0.3131	12.57	4.518	8.879	0.4477	14.64	90-100	10.87	1983	96.5,96.5
110	22.57	18.18	0.3390	16.53	23.86	19.15	1.343	18.69	100-110	14.01	1997	97.2,97.2
120	25.14	19.60	0.4213	17.74	26.52	19.61	2.324	19.30	110-120	16.07	2013	98,98
130	26.17	20.28	0.4941	17.62	26.17	19.84	2.437	19.42	120-130	14.97	2028	98.7,98.7
140	26.17	20.81	0.8921	17.50	25.57	19.32	2.489	17.73	130-140	12.21	2040	99.3,99.3
150	24.72	15.02	1.581	3.107	23.25	17.03	2.541	1.209	140-150	9.154	2049	99.7,99.7
160	1.370	11.11	1.832	6.988	1.369	11.19	2.604	4.812	150-160	3.979	2053	99.9,99.9
170	6.428	5.428	3.300	1.838	3.073	1.575	2.669	2.309	160-170	1.529	2055	100,100
180	1.797	1.927	3.755	1.721	1.454	1.395	2.682	1.807	170-180	0.2412	2055	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 1066.3 lm

%lum = 51.9%

%lamp = 51.9%

Conical surface Flux(120deg): 1552.2 lm

%lum = 75.5%

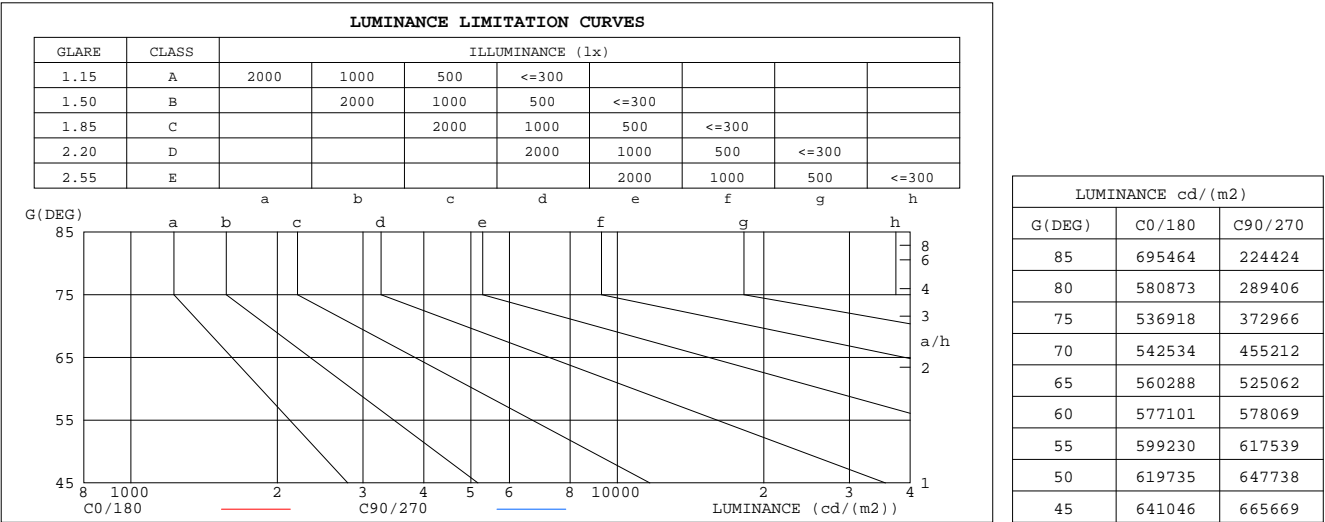
%lamp = 75.5%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2024-01-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.5110]
 Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Zero huang
Test Date:2024-01-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.5110]
Remarks:

WEC AND CCEC

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm					
NAME:			TYPE:LED		WEIGHT:N/A
SPEC.:N/A			DIM.:		SERIAL No.:N/A
MFR.:			SUR.:		Shielding Angle:N/A

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	.315	.179	.057	.306	.175	.056	.291	.167	.053	.277	.160	.051	.263	.153	.049	
2.0	.292	.160	.049	.284	.157	.048	.271	.150	.047	.258	.145	.045	.246	.139	.044	
3.0	.269	.143	.043	.262	.140	.042	.250	.135	.041	.238	.131	.040	.228	.126	.039	
4.0	.247	.129	.038	.242	.126	.037	.231	.122	.037	.220	.118	.036	.211	.115	.035	
5.0	.229	.116	.034	.223	.115	.033	.213	.111	.033	.204	.108	.032	.196	.105	.031	
6.0	.212	.106	.030	.207	.105	.030	.198	.102	.030	.190	.099	.029	.182	.096	.029	
7.0	.197	.098	.028	.193	.096	.027	.185	.094	.027	.178	.091	.026	.171	.089	.026	
8.0	.184	.090	.025	.180	.089	.025	.173	.087	.025	.166	.084	.024	.160	.082	.024	
9.0	.173	.084	.023	.169	.082	.023	.163	.080	.023	.157	.078	.022	.151	.077	.022	
10.0	.162	.078	.022	.159	.077	.021	.153	.075	.021	.148	.073	.021	.142	.072	.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	.221	.221	.221	.189	.189	.189	.129	.129	.129	.074	.074	.074	.024	.024	.024	
1.0	.212	.187	.165	.181	.161	.142	.124	.110	.098	.071	.064	.057	.023	.021	.018	
2.0	.203	.163	.129	.174	.140	.112	.119	.097	.078	.069	.057	.046	.022	.018	.015	
3.0	.196	.146	.106	.168	.126	.092	.115	.087	.064	.067	.051	.038	.021	.017	.012	
4.0	.188	.133	.090	.161	.114	.078	.111	.080	.055	.064	.047	.033	.021	.015	.011	
5.0	.181	.122	.079	.155	.106	.069	.107	.074	.049	.062	.043	.029	.020	.014	.010	
6.0	.173	.114	.071	.149	.099	.062	.103	.069	.044	.060	.041	.026	.019	.013	.009	
7.0	.167	.107	.065	.143	.093	.057	.099	.065	.040	.058	.038	.024	.019	.013	.008	
8.0	.160	.101	.061	.138	.088	.053	.095	.062	.038	.056	.036	.022	.018	.012	.007	
9.0	.154	.096	.057	.133	.084	.050	.092	.059	.035	.054	.035	.021	.017	.011	.007	
10.0	.149	.092	.055	.128	.080	.048	.089	.056	.034	.052	.033	.020	.017	.011	.007	

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2024-01-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.5110]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm											
NAME:					TYPE:LED			WEIGHT:N/A			
SPEC.:N/A					DIM.:			SERIAL No.:N/A			
MFR.:					SUR.:			Shielding Angle:N/A			
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		34.8	36.3	35.2	36.6	36.9	34.8	36.3	35.2	36.6	36.9
	3H	36.4	37.7	36.7	38.0	38.3	36.1	37.4	36.4	37.7	38.1
	4H	37.0	38.3	37.4	38.6	39.0	36.5	37.8	36.9	38.1	38.4
	6H	37.7	38.9	38.1	39.2	39.6	36.7	37.9	37.1	38.3	38.6
	8H	38.0	39.1	38.4	39.5	39.9	36.8	37.9	37.2	38.3	38.7
	12H	38.2	39.3	38.6	39.7	40.1	36.8	37.9	37.2	38.3	38.7
4H	2H	35.4	36.7	35.8	37.0	37.3	35.4	36.7	35.8	37.0	37.3
	3H	37.1	38.2	37.5	38.6	39.0	36.8	38.0	37.3	38.3	38.7
	4H	38.0	39.0	38.4	39.4	39.8	37.4	38.4	37.8	38.8	39.2
	6H	38.8	39.7	39.2	40.1	40.5	37.8	38.7	38.2	39.1	39.6
	8H	39.1	40.0	39.6	40.4	40.9	37.9	38.7	38.4	39.2	39.6
	12H	39.5	40.3	40.0	40.7	41.2	37.9	38.7	38.4	39.2	39.7
8H	4H	38.2	39.1	38.7	39.5	40.0	37.7	38.6	38.2	39.0	39.5
	6H	39.2	39.9	39.7	40.4	40.9	38.3	39.0	38.8	39.5	40.0
	8H	39.7	40.4	40.3	40.9	41.4	38.5	39.1	39.0	39.6	40.2
	12H	40.3	40.8	40.8	41.3	41.9	38.7	39.2	39.2	39.7	40.3
12H	4H	38.2	39.0	38.7	39.5	40.0	37.8	38.5	38.3	39.0	39.5
	6H	39.3	39.9	39.8	40.4	41.0	38.4	39.0	38.9	39.5	40.1
	8H	39.9	40.4	40.4	40.9	41.5	38.7	39.2	39.2	39.8	40.3
Variations with the observer position at spacings:											
S = 1.0H	+ 0.2 / - 0.2					+ 0.2 / - 0.2					
1.5H	+ 0.2 / - 0.3					+ 0.2 / - 0.3					
2.0H	+ 0.1 / - 0.3					+ 0.2 / - 0.3					

CIE Pub.117, 2055 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 2.5$)

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2024-01-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.5110]
 Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

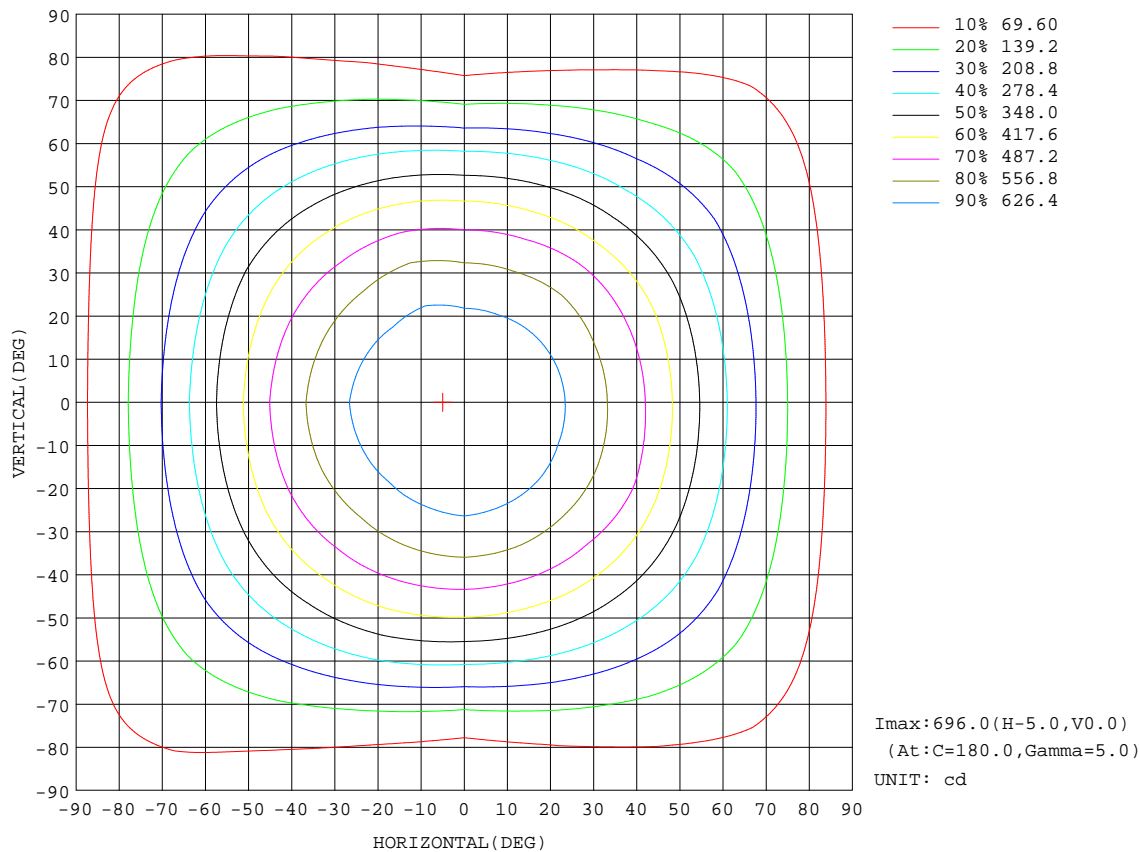
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	56	45	38	56	45	38	54	44	38	31
0.80	66	55	47	65	54	47	63	53	47	40
1.00	75	64	56	73	63	56	71	64	55	48
1.25	82	71	64	80	70	63	77	69	62	55
1.50	87	77	70	85	76	69	81	74	68	60
2.00	94	85	78	91	83	77	87	81	75	67
2.50	97	89	83	95	88	82	91	85	80	71
3.00	101	94	88	98	92	87	94	88	84	75
4.00	105	99	94	102	97	92	97	93	89	79
5.00	107	102	98	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: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2024-01-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.5110]
 Remarks:

ISOCANDELA DIAGRAM

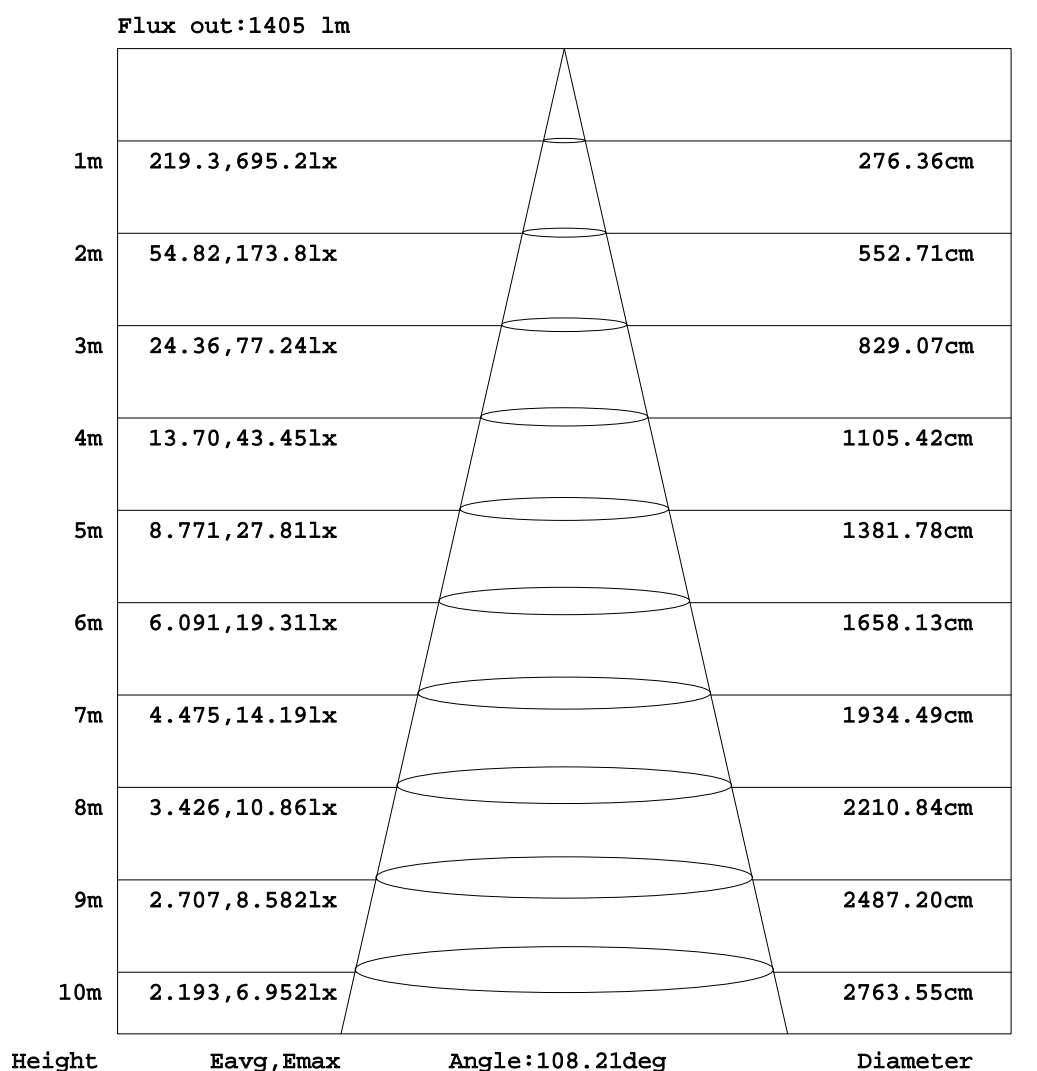
Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A



C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: 22.5DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Temperature:24.9DEG	Humidity:60%
Operators:Zero huang	Test Distance:26.000m [K=1.5110]
Test Date:2024-01-04	Remarks:

AAI Figure

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

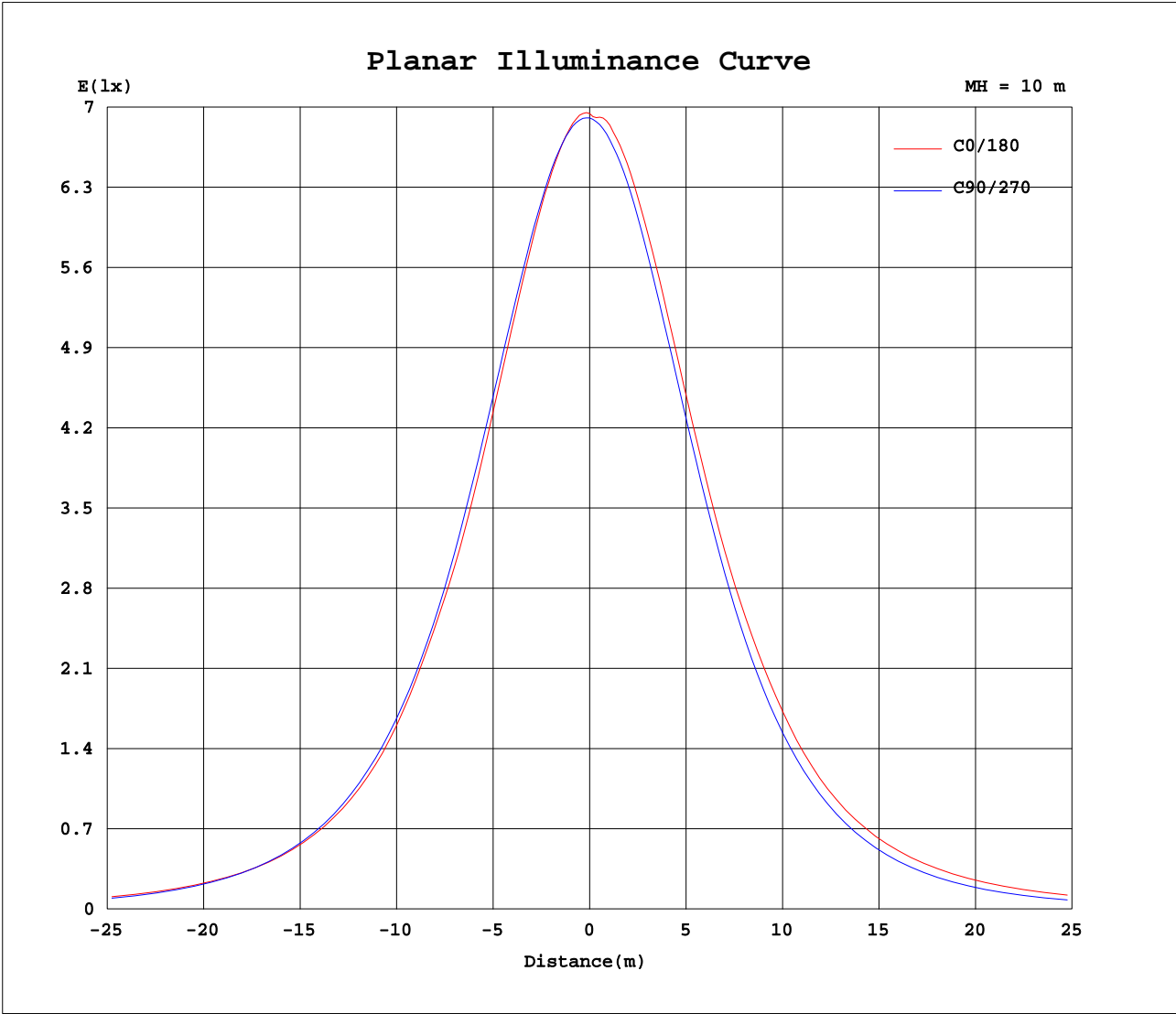


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: HIGH
 Temperature:24.9DEG
 Operators:Zero huang
 Test Date:2024-01-04

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
 Humidity:60%
 Test Distance:26.000m [K=1.5110]
 Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG	γ Range: 0 - 180DEG
C Interval: 22.5DEG	γ Interval: 1.0DEG
Test Speed: HIGH	Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Temperature:24.9DEG	Humidity:60%
Operators:Zero huang	Test Distance:26.000m [K=1.5110]
Test Date:2024-01-04	Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.007V I:0.7835A P:18.809W PF:1.0000 Freq:0Hz Lamp Flux:2054.9x1 lm		
NAME:	TYPE:LED	WEIGHT:N/A
SPEC.:N/A	DIM.:	SERIAL No.:N/A
MFR.:	SUR.:	Shielding Angle:N/A

Table--1																	UNIT: cd			
C(DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5				
0	691	691	691	691	691	691	691	691	691	691	691	691	691	691	691	691				
5	691	690	690	692	692	691	691	689	693	690	688	688	685	688	687	687				
10	680	682	683	686	687	685	683	683	687	682	680	679	675	677	676	676				
15	665	666	669	675	675	672	670	672	675	670	666	665	659	660	661	661				
20	643	646	651	656	657	656	653	654	658	652	647	647	636	637	640	639				
25	614	618	625	630	634	632	629	629	633	626	621	623	609	610	613	611				
30	579	584	592	598	604	602	601	599	603	593	589	592	575	576	582	577				
35	541	548	552	561	566	564	561	563	566	559	551	553	534	535	541	537				
40	505	512	510	517	522	522	522	527	531	519	508	504	487	488	497	498				
45	451	463	462	467	471	475	476	482	486	473	460	451	436	434	441	447				
50	397	402	406	411	417	422	422	428	429	421	408	395	380	378	382	391				
55	342	347	347	352	355	365	365	370	374	367	350	336	319	320	324	336				
60	287	292	290	290	289	303	307	314	318	312	292	274	255	260	264	281				
65	236	239	232	229	222	236	245	257	263	250	234	215	190	199	209	228				
70	185	188	180	169	156	174	189	204	211	198	180	157	129	142	157	178				
75	138	142	132	117	96.7	117	139	157	163	151	131	107	76.2	93.8	112	131				
80	100	101	89.8	72.8	50.3	72.0	94.7	113	121	110	89.9	66.3	36.7	55.0	74.1	94.3				
85	60.3	64.5	57.1	42.1	19.6	39.4	59.7	79.8	87.3	76.8	57.2	36.7	12.5	28.7	43.7	58.1				
90	35.4	38.0	34.1	24.1	4.16	20.4	32.9	40.9	46.3	43.8	33.9	20.8	0.96	15.7	24.2	32.6				
95	12.3	12.1	5.63	0.63	0.37	1.43	0.44	7.89	11.6	8.72	0.35	0.42	0.33	2.13	0.35	9.69				
100	6.82	7.78	9.16	4.83	0.31	2.97	12.6	7.97	4.52	7.20	8.88	7.22	0.45	6.56	14.6	10.2				
105	21.8	20.1	16.5	8.79	0.30	6.89	15.4	20.1	22.7	21.0	17.4	9.59	0.81	8.65	17.0	21.0				
110	22.6	21.5	18.2	9.84	0.34	7.25	16.5	21.9	23.9	23.1	19.2	10.8	1.34	9.43	18.7	22.7				
115	23.8	22.8	19.0	9.85	0.38	7.60	17.8	23.2	25.7	24.8	19.4	11.3	1.79	9.39	19.2	24.0				
120	25.1	24.2	19.6	10.4	0.42	6.37	17.7	24.1	26.5	25.3	19.6	11.3	2.32	9.36	19.3	24.5				
125	26.2	25.0	19.7	11.1	0.46	4.73	17.7	24.8	26.6	25.2	19.8	10.5	2.50	9.14	19.4	24.7				
130	26.2	24.9	20.3	9.95	0.49	3.08	17.6	24.8	26.2	25.1	19.8	10.1	2.44	8.59	19.4	24.6				
135	26.2	24.8	20.6	8.81	0.58	2.71	17.6	24.7	25.9	24.9	19.7	4.87	2.46	3.59	18.7	24.5				
140	26.2	24.8	20.8	2.38	0.89	5.47	17.5	24.4	25.6	24.5	19.3	2.29	2.49	6.90	17.7	23.8				
145	25.7	24.0	20.2	5.76	1.46	4.88	16.4	23.4	24.5	23.8	18.3	5.82	2.52	5.68	16.5	22.4				
150	24.7	23.3	15.0	7.55	1.58	2.90	3.11	21.1	23.3	22.0	17.0	7.12	2.54	4.11	1.21	21.0				
155	21.6	18.3	1.49	7.21	1.71	1.83	9.64	5.07	19.9	19.1	1.31	6.58	2.57	3.46	8.24	1.37				
160	1.37	7.61	11.1	5.72	1.83	1.81	6.99	10.2	1.37	1.38	11.2	4.11	2.60	3.41	4.81	11.3				
165	11.3	11.6	8.76	4.93	1.96	1.79	1.92	8.68	8.95	9.30	6.55	2.27	2.66	3.35	2.67	5.47				
170	6.43	6.39	5.43	4.13	3.30	1.77	1.84	1.73	3.07	1.55	1.57	1.91	2.67	3.40	2.31	0.69				
175	3.09	3.20	3.07	2.99	3.68	1.75	1.75	1.66	1.78	1.64	1.83	1.93	2.68	3.76	1.95	0.00				
180	1.80	1.72	1.93	2.64	3.75	1.75	1.72	1.63	1.45	1.72	1.39	1.93	2.68	4.21	1.81	0.00				

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: HIGH
Temperature:24.9DEG
Operators:Zero huang
Test Date:2024-01-04

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-R5000_V2 SYSTEM V2.0.366
Humidity:60%
Test Distance:26.000m [K=1.5110]
Remarks: