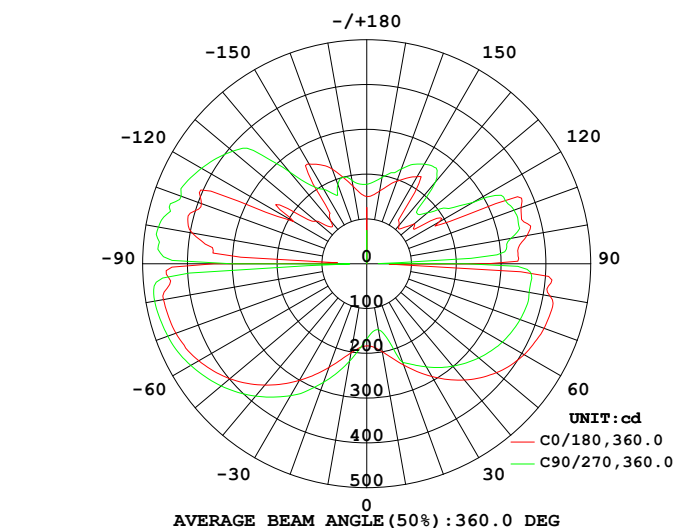


LUMINAIRE PHOTOMETRIC TEST REPORT

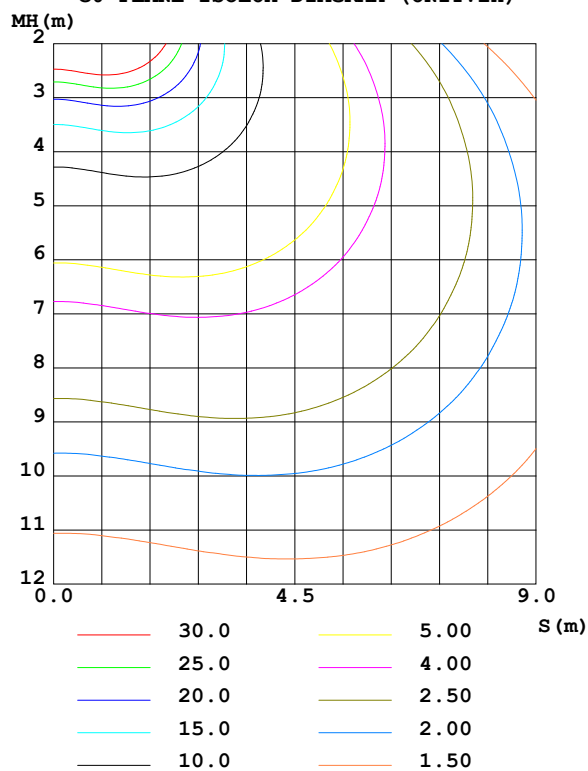
Test:U:219.96V I:0.3377A P:71.921W PF:0.9683 Freq:50.00Hz		
Lamp Flux:4012.37x1 lm		
NAME: SB-S01A70WSZ	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	

DATA OF LAMP		PHOTOMETRIC DATA Eff: 55.79 lm/W			
MODEL		I _{max} (cd)	487.3	S/MH (C0/180)	2.62
NOMINAL POWER(W)		LOR (%)	100.0	S/MH (C90/270)	2.81
RATED VOLTAGE (V)	--	TOTAL FLUX(lm)	4012.4	η UP,DN (C0-180)	18.8,26.4
NOMINAL FLUX(lm)	4012.37	CIE CLASS	DIFFUSE	η UP,DN (C180-360)	23.7,31.0
LAMPS INSIDE	1	η up (%)	42.6	CIBSE SHR NOM	2.00
TEST VOLTAGE (V)	--	η down (%)	57.4	CIBSE SHR MAX	2.00

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:DAMIN
Test Date:2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [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	199.2	169.0	149.6	159.7	201.8	215.5	220.6	211.4	0~ 10	17.32	17.32	0.43,0.43
20	240.4	211.6	233.8	209.7	246.2	274.7	281.4	265.4	10~ 20	61.47	78.78	1.96,1.96
30	290.7	275.6	265.8	275.0	300.5	334.0	340.0	319.0	20~ 30	127.1	205.9	5.13,5.13
40	338.8	315.8	298.5	306.4	353.5	386.6	385.8	366.8	30~ 40	202.5	408.4	10.2,10.2
50	378.3	346.8	326.8	334.0	399.1	430.2	424.3	400.7	40~ 50	280.2	688.5	17.2,17.2
60	405.8	371.6	349.7	356.3	432.9	460.8	453.6	424.1	50~ 60	352.5	1041	25.9,25.9
70	421.3	389.0	364.3	373.0	453.3	477.0	472.5	437.4	60~ 70	411.7	1453	36.2,36.2
80	415.4	390.3	368.1	366.0	460.7	485.8	480.6	442.2	70~ 80	450.4	1903	47.4,47.4
90	269.8	21.27	223.5	262.5	341.4	17.07	302.6	201.3	80~ 90	401.7	2305	57.4,57.4
100	363.0	306.5	327.1	278.3	395.3	438.9	472.2	389.2	90~100	329.5	2634	65.7,65.7
110	366.7	258.2	349.9	234.7	392.9	301.9	440.7	345.9	100~110	377.4	3012	75.1,75.1
120	186.4	255.3	274.8	255.6	188.8	353.5	426.2	337.0	110~120	302.2	3314	82.6,82.6
130	138.5	183.0	177.6	168.9	148.7	283.6	390.9	317.7	120~130	230.6	3545	88.3,88.3
140	112.5	214.9	238.9	206.6	125.8	146.4	267.9	256.9	130~140	158.3	3703	92.3,92.3
150	224.7	250.3	256.8	240.5	256.9	128.6	191.9	224.2	140~150	133.8	3837	95.6,95.6
160	195.8	219.8	225.3	230.2	224.9	223.4	188.8	216.7	150~160	102.1	3939	98.2,98.2
170	165.0	188.1	195.5	198.6	175.6	181.5	189.6	169.6	160~170	56.81	3996	99.6,99.6
180	150.3	170.2	177.6	170.8	150.4	170.7	177.5	170.7	170~180	16.70	4012	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 538.88 lm

%lum = 13.4%

%lamp = 13.4%

Conical surface Flux(120deg): 1041 lm

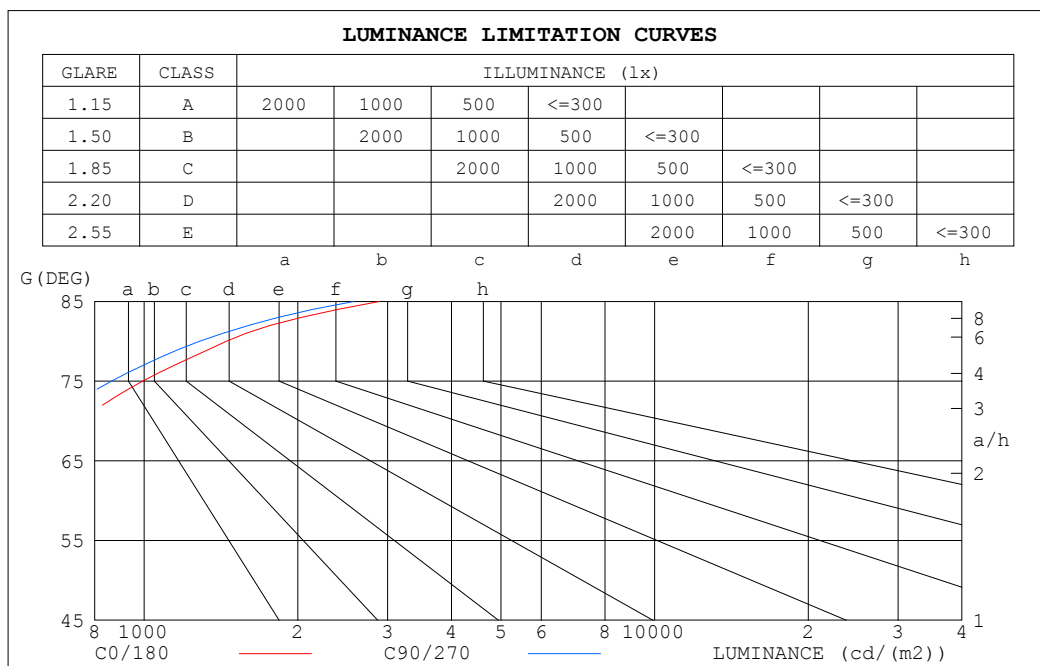
%lum = 25.9%

%lamp = 25.9%

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: 10.0deg/s
 Temperature:25.3℃
 Operators:DAMIN
 Test Date:2023-08-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity:65.0%
 Test Distance:9.000m [K=1.0000]
 Remarks:

LUMINANCE LIMITATION CURVES

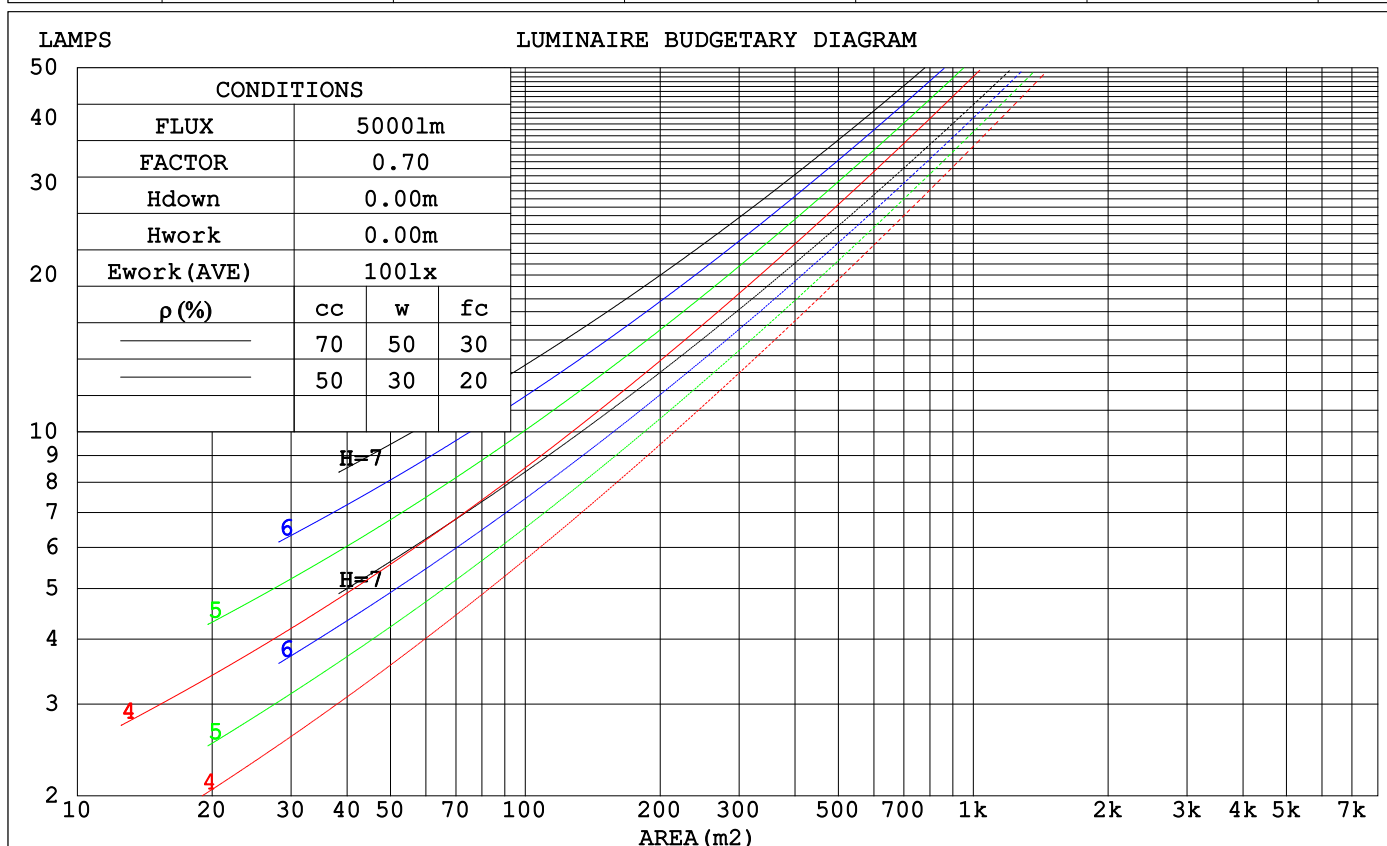


C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

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						Coefficients of Utilization(CU)									
0.0	1.09	1.09	1.09	1.01	1.01	1.01	.87	.87	.87	.75	.75	.75	.63	.63	.63	.57
1.0	.87	.82	.76	.81	.76	.71	.69	.65	.61	.58	.54	.51	.47	.45	.43	.37
2.0	.73	.65	.58	.68	.60	.54	.57	.51	.46	.47	.43	.39	.38	.35	.32	.27
3.0	.63	.53	.45	.58	.49	.42	.49	.42	.36	.40	.35	.30	.32	.28	.24	.20
4.0	.54	.44	.37	.50	.41	.34	.42	.35	.29	.35	.29	.24	.28	.23	.20	.16
5.0	.48	.38	.31	.44	.35	.28	.37	.30	.24	.30	.25	.20	.24	.20	.16	.13
6.0	.42	.33	.26	.39	.30	.24	.33	.26	.20	.27	.21	.17	.22	.17	.13	.10
7.0	.38	.28	.22	.35	.26	.20	.29	.22	.17	.24	.19	.14	.19	.15	.11	.09
8.0	.34	.25	.19	.31	.23	.18	.27	.20	.15	.22	.16	.12	.18	.13	.10	.07
9.0	.31	.22	.17	.28	.21	.15	.24	.18	.13	.20	.15	.11	.16	.12	.09	.06
10.0	.28	.20	.15	.26	.19	.14	.22	.16	.12	.18	.13	.10	.15	.11	.08	.06



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:DAMIN
Test Date:2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

WEC AND CCEC

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	.429	.244	.077	.408	.233	.074	.370	.213	.068	.336	.194	.062	.303	.176	.057		
2.0	.358	.196	.060	.340	.187	.058	.305	.170	.053	.273	.153	.048	.243	.138	.043		
3.0	.312	.166	.050	.295	.158	.048	.263	.143	.043	.234	.128	.039	.207	.114	.035		
4.0	.277	.144	.042	.261	.137	.040	.232	.123	.037	.205	.110	.033	.180	.098	.030		
5.0	.249	.127	.037	.235	.121	.035	.208	.108	.032	.183	.097	.029	.160	.086	.026		
6.0	.226	.113	.032	.213	.108	.031	.189	.097	.028	.166	.086	.025	.144	.076	.023		
7.0	.207	.103	.029	.195	.097	.028	.173	.087	.025	.151	.078	.023	.132	.068	.020		
8.0	.191	.093	.026	.180	.089	.025	.159	.080	.023	.140	.071	.020	.121	.062	.018		
9.0	.178	.086	.024	.167	.082	.023	.148	.073	.021	.129	.065	.019	.112	.057	.016		
10.0	.166	.079	.022	.156	.075	.021	.138	.068	.019	.121	.060	.017	.104	.052	.015		

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	.515	.515	.515	.440	.440	.440	.300	.300	.300	.172	.172	.172	.055	.055	.055		
1.0	.515	.482	.452	.441	.414	.389	.302	.285	.269	.174	.165	.156	.056	.053	.051		
2.0	.510	.461	.419	.437	.397	.362	.299	.274	.253	.173	.160	.148	.055	.052	.048		
3.0	.503	.445	.399	.432	.384	.346	.296	.267	.243	.171	.156	.143	.055	.051	.047		
4.0	.496	.434	.387	.426	.375	.336	.293	.261	.236	.169	.153	.140	.054	.050	.046		
5.0	.488	.425	.378	.419	.368	.329	.289	.257	.232	.167	.151	.138	.054	.049	.045		
6.0	.481	.417	.372	.413	.362	.324	.285	.253	.229	.165	.149	.136	.053	.049	.045		
7.0	.474	.411	.367	.408	.356	.320	.282	.250	.227	.164	.147	.135	.053	.048	.045		
8.0	.467	.406	.364	.402	.352	.317	.278	.247	.225	.162	.146	.134	.052	.048	.044		
9.0	.461	.402	.361	.397	.348	.315	.275	.245	.224	.160	.145	.133	.052	.047	.044		
10.0	.455	.398	.359	.392	.345	.313	.272	.243	.223	.159	.144	.133	.051	.047	.044		

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:DAMIN
Test Date:2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

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	7.2	8.3	7.9	9.2	10.2	6.6	7.8	7.4	8.6	9.6
3H	10.6	11.7	11.5	12.6	13.7	9.9	11.0	10.8	11.9	12.9
4H	12.6	13.6	13.4	14.5	15.6	11.8	12.9	12.7	13.7	14.8
6H	14.7	15.6	15.5	16.5	17.6	13.9	14.9	14.8	15.8	16.9
8H	15.8	16.7	16.6	17.6	18.7	15.0	16.0	15.9	16.9	18.0
12H	17.1	18.0	18.0	18.9	20.0	16.4	17.3	17.2	18.1	19.3
4H 2H	8.1	9.1	9.0	10.0	11.1	7.7	8.8	8.6	9.6	10.7
3H	11.7	12.6	12.6	13.5	14.6	11.2	12.1	12.1	13.0	14.1
4H	13.8	14.6	14.7	15.5	16.7	13.2	14.0	14.1	14.9	16.1
6H	16.0	16.8	16.9	17.7	18.9	15.4	16.1	16.3	17.1	18.2
8H	17.2	17.9	18.1	18.8	20.0	16.6	17.3	17.5	18.2	19.4
12H	18.7	19.3	19.6	20.3	21.5	18.0	18.6	18.9	19.6	20.8
8H 4H	14.5	15.1	15.4	16.1	17.3	14.0	14.7	14.9	15.6	16.8
6H	16.9	17.5	17.9	18.5	19.7	16.5	17.0	17.4	18.0	19.2
8H	18.3	18.8	19.3	19.8	21.0	17.9	18.4	18.8	19.3	20.6
12H	20.0	20.5	21.0	21.4	22.7	19.5	19.9	20.4	20.9	22.1
12H 4H	14.6	15.3	15.6	16.2	17.4	14.2	14.9	15.2	15.8	17.0
6H	17.2	17.8	18.2	18.7	20.0	16.8	17.3	17.8	18.3	19.5
8H	18.7	19.2	19.7	20.2	21.4	18.3	18.8	19.3	19.8	21.0
Variations with the observer position at spacings(CIE Pub.117):										
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, 4012 lm Total Lamp Luminous Flux Corrected ($8\log(F/F_0) = 4.8$)
Area: 1.6505 m²

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature:25.3°C
Operators:DAMIN
Test Date:2023-08-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks:

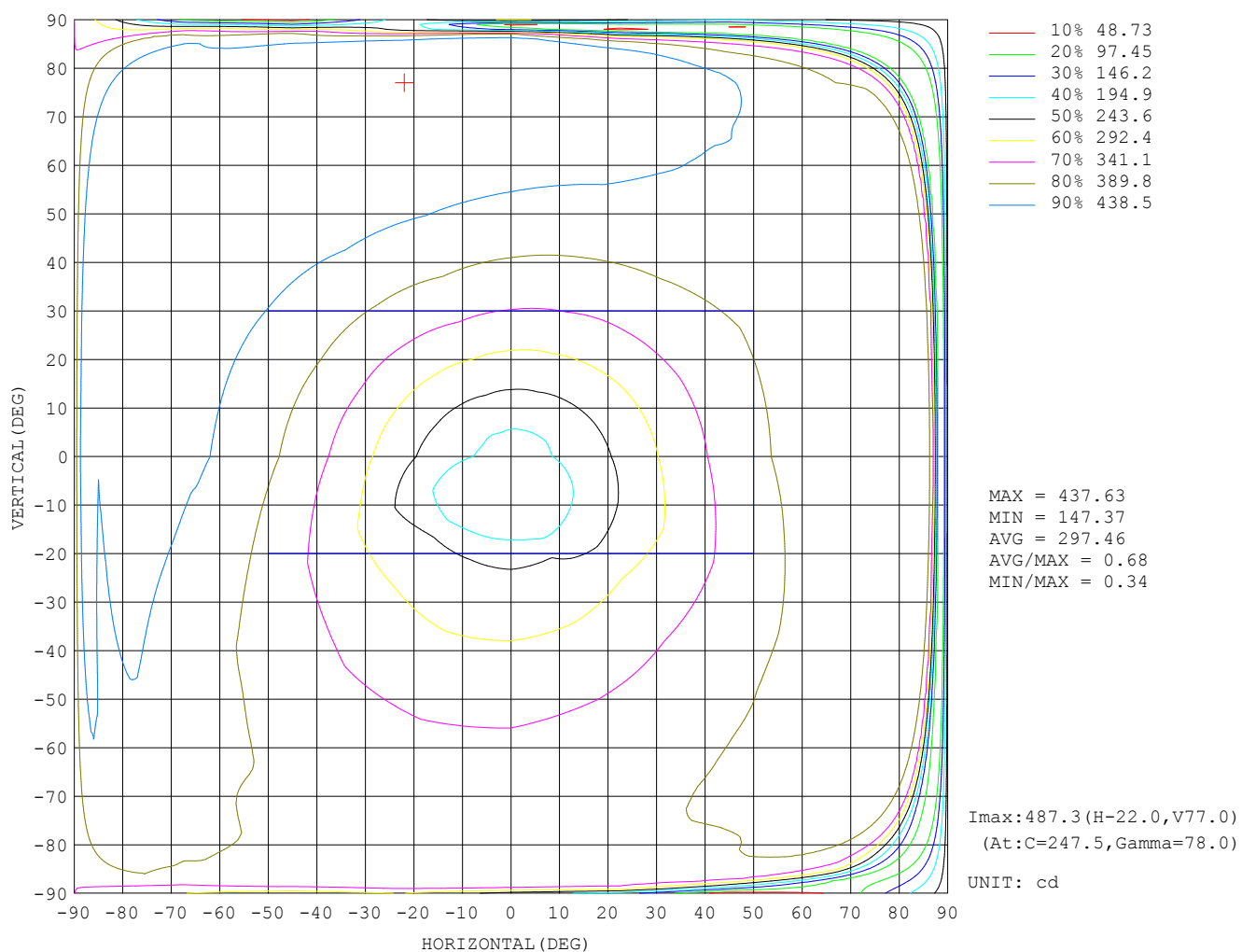
UTILIZATION FACTORS TABLE

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) $k(RI) \times RCR = 5$									
$k = 0.60$	36	23	16	35	23	16	32	21	14	7
0.80	45	31	22	42	29	21	38	27	20	10
1.00	52	38	29	49	36	27	43	35	25	14
1.25	59	45	35	55	42	33	49	38	30	17
1.50	65	50	41	60	48	39	53	42	35	20
2.00	73	59	50	68	56	47	59	49	42	25
2.50	78	66	56	72	62	53	62	54	47	28
3.00	82	71	62	76	66	58	66	58	51	31
4.00	87	78	70	81	73	66	70	63	57	35
5.00	91	82	75	84	77	71	73	67	62	38
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: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

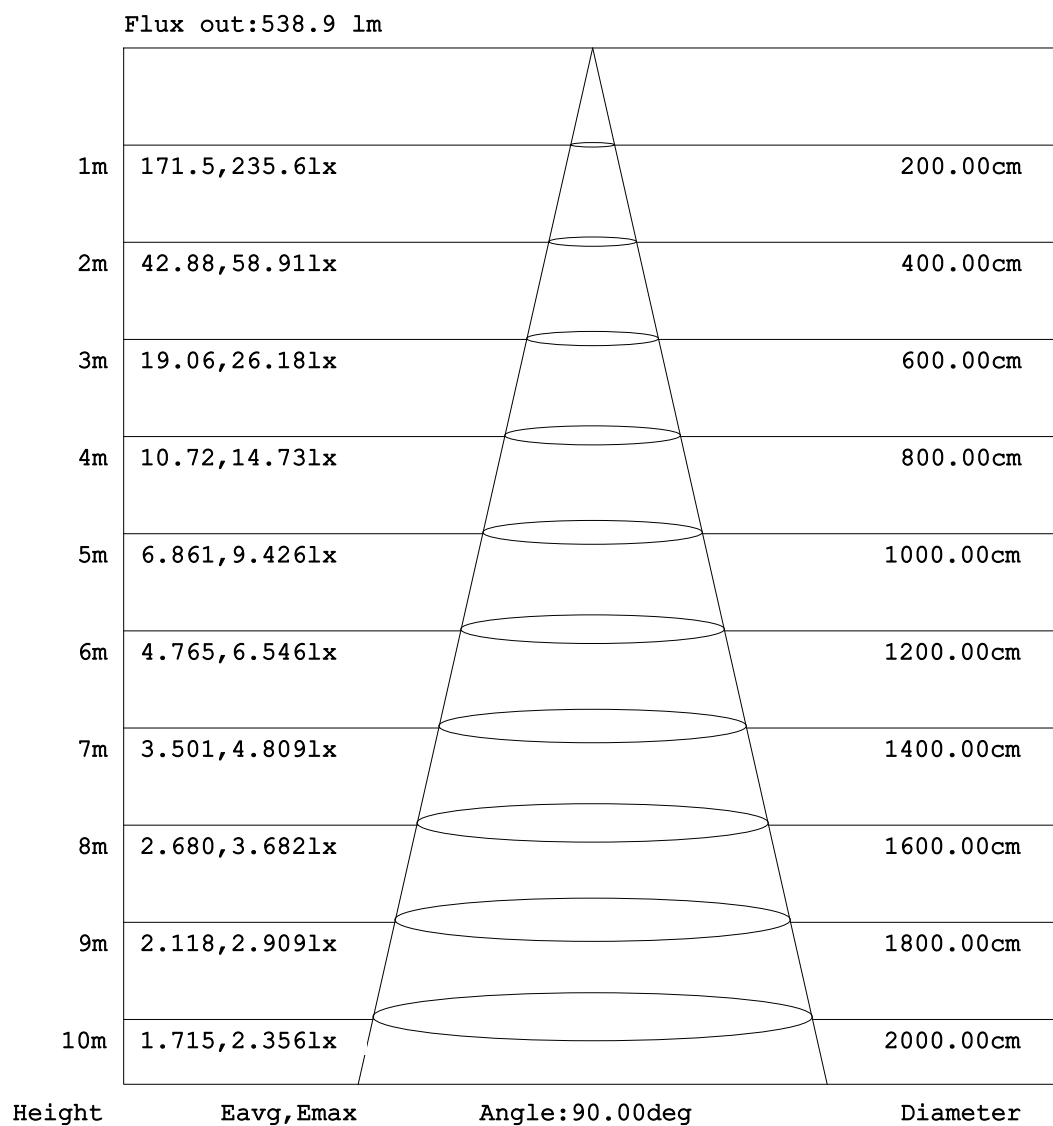
ISOCANDELA DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

AAI Figure

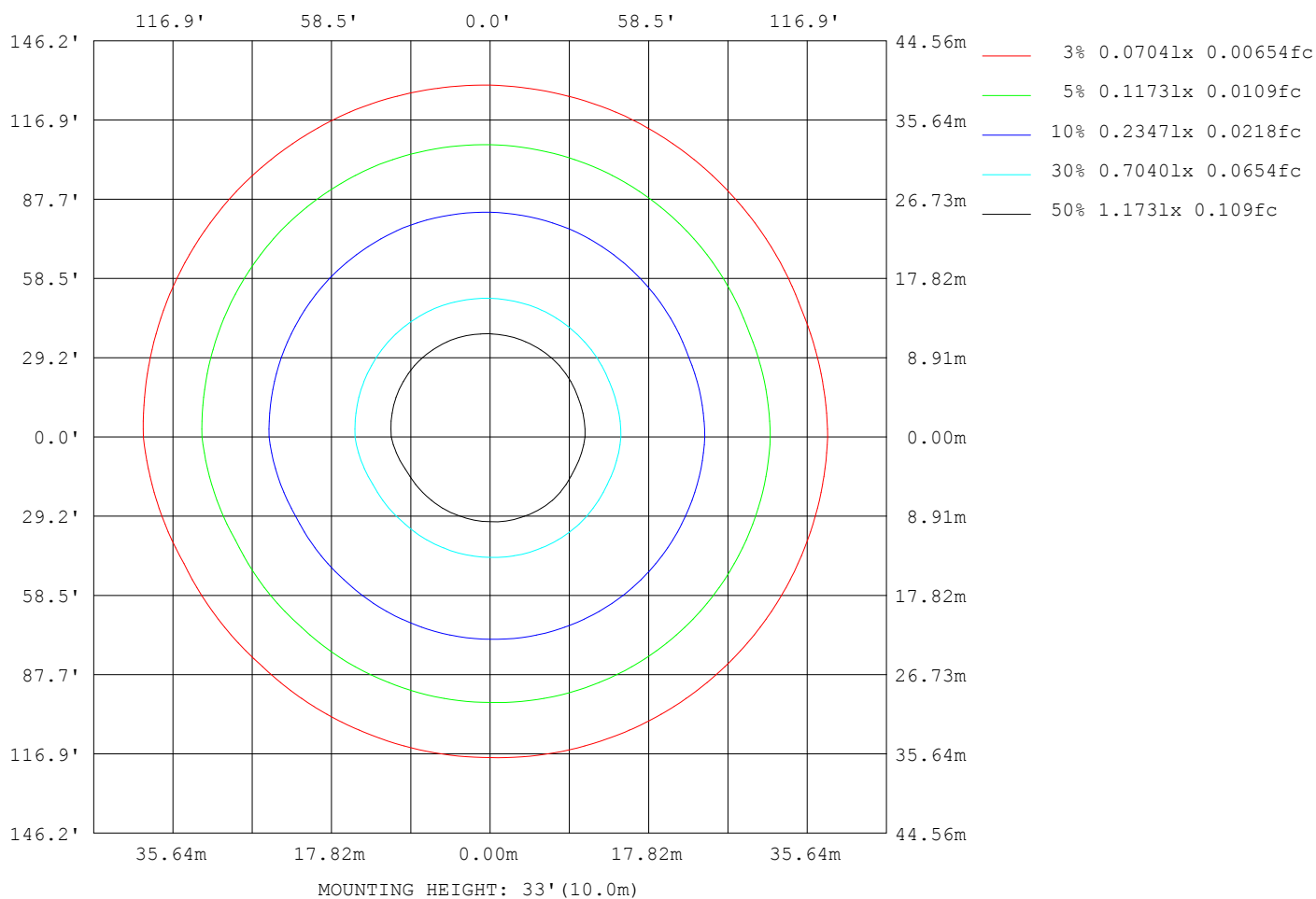


Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
 C Interval: 22.5DEG
 Test Speed: 10.0deg/s
 Temperature: 25.3°C
 Operators: DAMIN
 Test Date: 2023-08-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
 Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
 Humidity: 65.0%
 Test Distance: 9.000m [K=1.0000]
 Remarks:

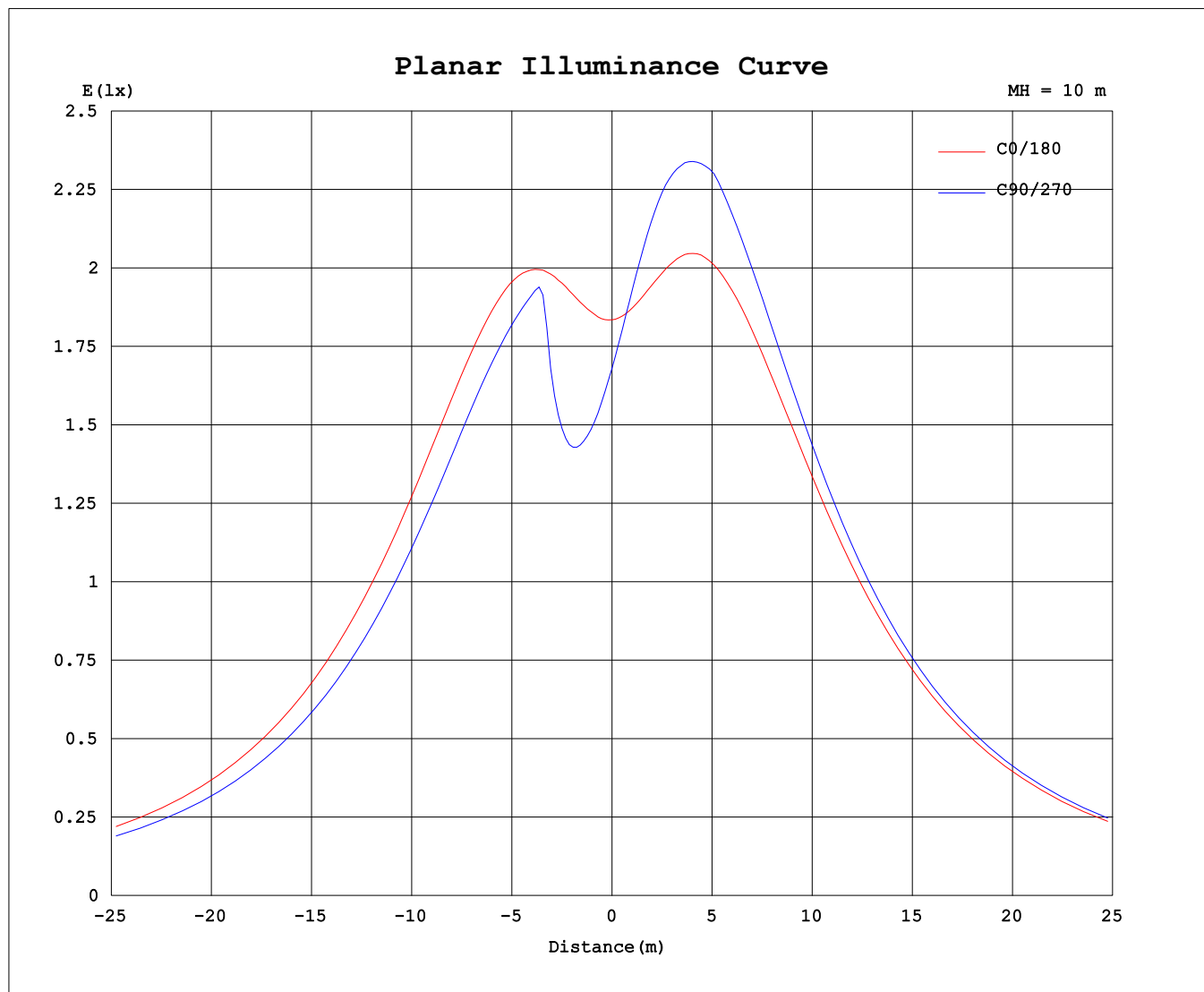
ISOLUX DIAGRAM



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature: 25.3°C
Operators: DAMIN
Test Date: 2023-08-11

γ Range: 0 - 180DEG
 γ Interval: 1.0DEG
Test System: EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity: 65.0%
Test Distance: 9.000m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

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	183	179	173	171	168	167	169	171	183	179	173	171	168	167	169	171			
5	187	176	165	158	153	152	159	166	189	191	190	193	192	190	187	184			
10	199	184	169	157	150	148	160	171	202	210	216	221	221	218	211	204			
15	218	200	186	171	170	166	174	185	222	234	245	252	251	247	238	227			
20	240	222	212	221	234	235	210	207	246	262	275	283	281	276	265	252			
25	265	249	240	252	249	250	259	236	273	291	305	314	312	306	293	278			
30	291	273	276	270	266	266	275	271	301	320	334	344	340	333	319	304			
35	315	295	298	288	283	282	291	294	328	349	361	370	363	356	344	329			
40	339	317	316	305	299	298	306	315	354	375	387	393	386	377	367	350			
45	360	337	332	320	313	313	321	336	378	397	409	413	406	397	385	368			
50	378	354	347	334	327	326	334	354	399	418	430	432	424	414	401	383			
55	394	369	360	348	339	338	346	369	418	434	446	449	440	430	413	396			
60	406	383	372	358	350	349	356	381	433	448	461	463	454	443	424	406			
65	414	396	381	367	358	357	365	390	446	459	471	474	465	453	432	414			
70	421	403	389	375	364	365	373	398	453	467	477	482	472	460	437	418			
75	425	409	394	380	369	370	377	403	458	472	483	486	477	464	441	421			
80	415	400	390	382	368	360	366	407	461	475	486	487	481	465	442	417			
85	415	398	388	380	370	365	374	400	439	442	471	475	472	422	395	390			
90	270	53.3	21.3	173	224	295	262	293	341	85.2	17.1	226	303	247	201	249			
95	338	292	269	274	309	271	256	272	344	356	409	384	467	417	390	353			
100	363	333	307	276	327	275	278	306	395	435	439	399	472	413	389	364			
105	363	349	311	271	350	269	303	342	413	411	396	377	453	383	359	354			
110	367	315	258	303	350	303	235	337	393	416	302	336	441	370	346	355			
115	318	222	251	290	340	296	256	200	384	274	368	378	440	382	262	293			
120	186	174	255	260	275	243	256	186	189	285	354	374	426	366	337	176			
125	145	184	205	220	216	179	169	198	215	320	344	379	410	357	332	270			
130	138	166	183	185	178	163	169	202	149	183	284	367	391	349	318	265			
135	113	148	174	171	159	151	161	193	117	168	165	237	358	331	283	239			
140	112	145	215	232	239	220	207	184	126	138	146	184	268	303	257	221			
145	148	256	258	261	263	255	239	235	161	140	127	165	212	258	240	203			
150	225	238	250	254	257	259	240	244	257	224	129	141	192	219	224	191			
155	211	220	237	241	245	241	241	238	244	242	245	180	171	191	211	205			
160	196	205	220	224	225	230	230	222	225	220	223	224	189	189	217	200			
165	180	190	203	207	211	213	214	199	199	196	202	208	200	182	190	190			
170	165	173	188	194	196	197	199	180	176	177	181	188	190	175	170	172			
175	154	162	181	183	184	186	184	162	158	167	168	177	179	176	163	160			
180	150	162	170	178	178	179	171	156	150	162	171	178	178	179	171	156			

C Range: 0 - 360DEG
C Interval: 22.5DEG
Test Speed: 10.0deg/s
Temperature:25.3℃
Operators:DAMIN
Test Date:2023-08-11

γ Range: 0 - 180DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-3000H_V1 SYSTEM V2.00.463
Humidity:65.0%
Test Distance:9.000m [K=1.0000]
Remarks: