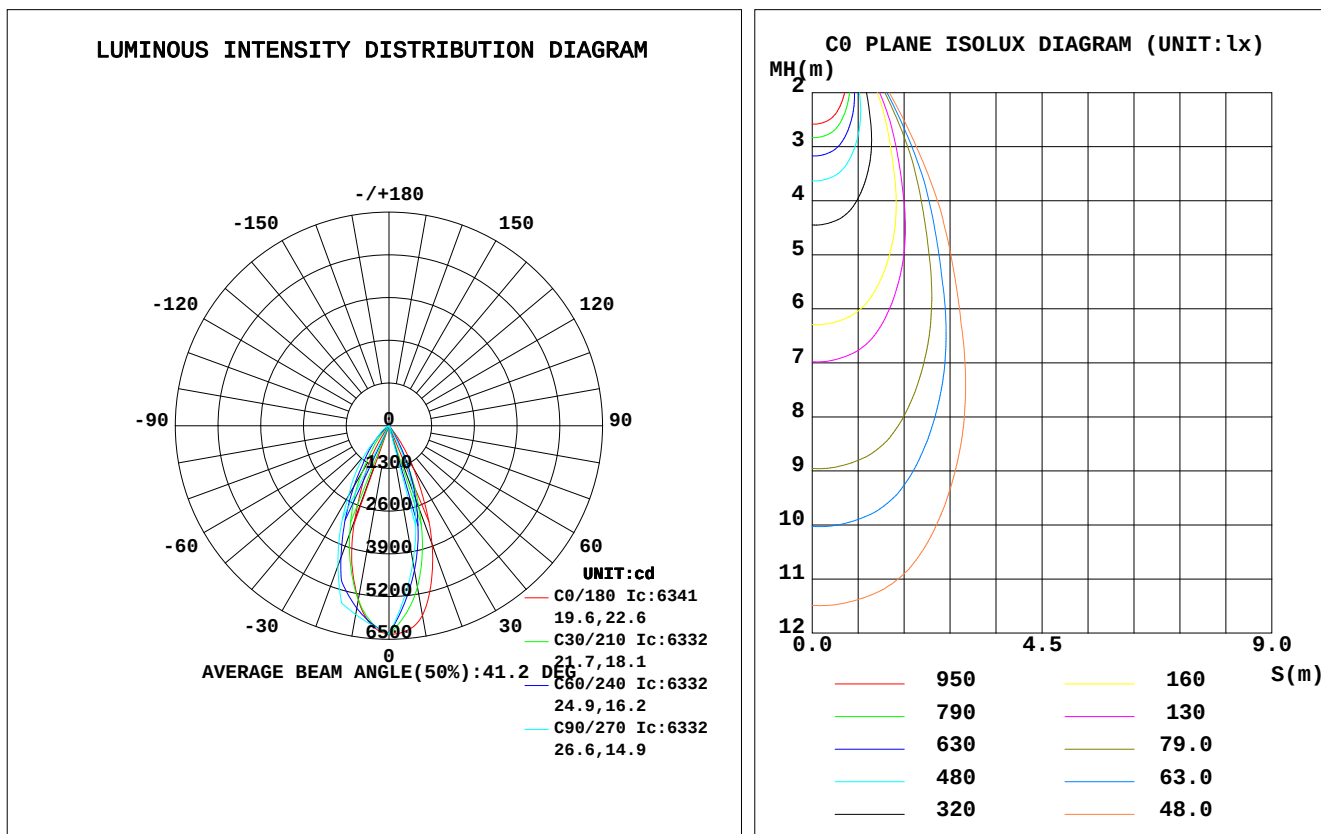


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 110.44 lm/W			
MODEL	490283 TEMPEST	I _{max} (cd)	6341	S/MH(C0/180)	0.63
NOMINAL POWER(W)	5	LOR(%)	226.0	S/MH(C90/270)	0.82
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	3390.6	η UP, DN(C0-180)	0.0, 74.0
NOMINAL FLUX(lm)	1500	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 152.1
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	η down(%)	226.0	CIBSE SHR MAX	0.65



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [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
5	6256	5571	5272	5448	6091	6022	6083	6135	0- 5	143.9	143.9	4.24,9.59
10	5866	4687	4211	4375	5381	5497	5834	5790	5- 10	392.2	536.1	15.8,35.7
15	4965	3632	3151	3204	4367	4805	5584	5231	10- 15	560.1	1096	32.3,73.1
20	3839	2508	2137	1947	3057	4011	4544	4565	15- 20	621.9	1718	50.7,115
25	2516	1456	1124	979.5	1850	2904	3503	3489	20- 25	564.6	2283	67.3,152
30	1493	684.5	110.1	378.8	946.4	1930	2463	2410	25- 30	428.4	2711	80,181
35	645.4	191.5	73.40	97.86	220.4	1145	1798	1496	30- 35	277.6	2989	88.1,199
40	134.0	5.878	36.70	3.175	49.48	614.0	1133	849.3	35- 40	173.8	3162	93.3,211
45	36.03	3.084	0	1.567	19.16	369.0	468.5	512.5	40- 45	100.2	3263	96.2,218
50	17.29	1.203	0	0.7682	10.67	199.7	350.3	290.2	45- 50	52.10	3315	97.8,221
55	10.40	0.0532	0	0	7.269	74.62	232.2	112.6	50- 55	32.10	3347	98.7,223
60	7.392	0.0334	0	0	5.259	34.60	114.1	46.27	55- 60	19.60	3366	99.3,224
65	5.660	0.0123	0.0090	0	3.932	17.86	81.51	21.69	60- 65	10.96	3377	99.6,225
70	4.114	0	0.0181	0	2.577	11.39	48.95	13.47	65- 70	6.976	3384	99.8,226
75	2.462	0	0.0271	0	1.384	8.803	16.39	10.36	70- 75	4.101	3388	99.9,226
80	1.189	0	0	0	0.3275	5.558	0	6.465	75- 80	1.778	3390	100,226
85	0	0	0	0	0	0	0	0	80- 85	0.4014	3391	100,226
90	0	0	0	0	0	0	0	0	85- 90	0.0284	3391	100,226
95									90- 95			
100									95-100			
105									100-105			
110									105-110			
115									110-115			
120									115-120			
125									120-125			
130									125-130			
135									130-135			
140									135-140			
145									140-145			
150									145-150			
155									150-155			
160									155-160			
165									160-165			
170									165-170			
175									170-175			
180									175-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

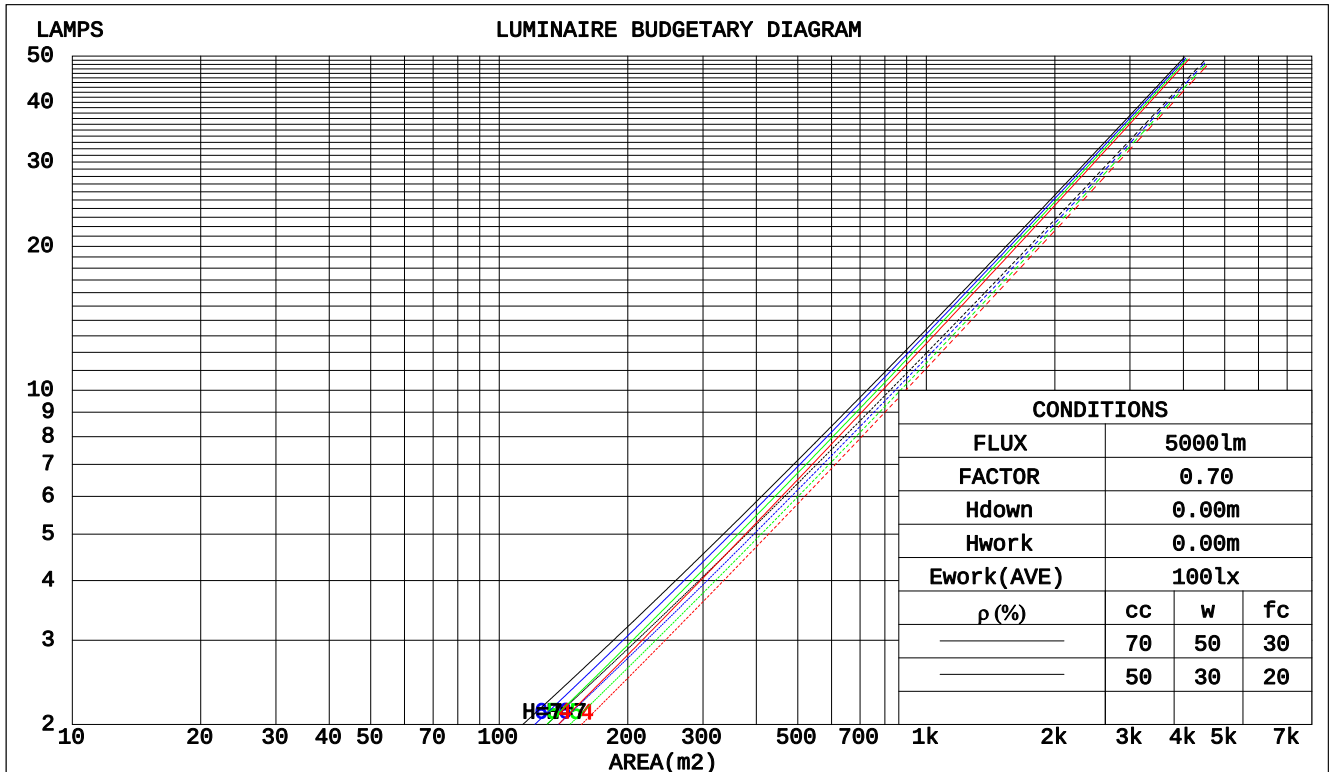
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

ρ_{CC}	80%			70%			50%			30%			10%			0
ρ_W	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρ_{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			Coefficients of Utilization(CU)												
0.0	2.69	2.69	2.69	2.63	2.63	2.63	2.51	2.51	2.51	2.40	2.40	2.40	2.31	2.31	2.31	2.26
1.0	2.52	2.46	2.42	2.47	2.42	2.38	2.38	2.34	2.30	2.29	2.26	2.24	2.21	2.19	2.17	2.13
2.0	2.36	2.27	2.20	2.32	2.24	2.17	2.24	2.18	2.13	2.18	2.13	2.08	2.12	2.08	2.04	2.00
3.0	2.21	2.11	2.02	2.18	2.09	2.01	2.12	2.04	1.98	2.07	2.00	1.95	2.02	1.96	1.92	1.88
4.0	2.08	1.97	1.88	2.06	1.95	1.87	2.01	1.92	1.85	1.97	1.89	1.83	1.93	1.86	1.80	1.77
5.0	1.97	1.85	1.76	1.95	1.83	1.75	1.91	1.81	1.73	1.87	1.79	1.72	1.84	1.76	1.70	1.67
6.0	1.86	1.74	1.65	1.84	1.73	1.64	1.81	1.71	1.63	1.78	1.69	1.62	1.75	1.67	1.61	1.58
7.0	1.77	1.64	1.55	1.75	1.63	1.55	1.72	1.62	1.54	1.70	1.60	1.53	1.67	1.59	1.53	1.50
8.0	1.68	1.56	1.47	1.67	1.55	1.47	1.64	1.54	1.46	1.62	1.53	1.46	1.60	1.51	1.45	1.42
9.0	1.60	1.48	1.40	1.59	1.47	1.39	1.57	1.46	1.39	1.55	1.45	1.38	1.53	1.44	1.38	1.35
10.0	1.53	1.41	1.33	1.52	1.40	1.33	1.50	1.39	1.32	1.48	1.39	1.32	1.47	1.38	1.31	1.29



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

WEC AND CCEC

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm									
NAME: 490283 TEMPEST					TYPE:490283 TEMPEST			WEIGHT:	
SPEC.:					DIM.:			SERIAL No.:	
MFR.:					SUR.:			PROTECTION ANGLE:	

ρ_{cc}	80%			70%			50%			30%			10%			0	
ρ_w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0	
ρ_{fc}	20%			20%			20%			20%			20%			0	
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)										
0.0																	
1.0	.379	.216	.068	.364	.208	.066	.336	.193	.062	.310	.179	.057	.286	.166	.053		
2.0	.361	.198	.061	.348	.192	.059	.325	.180	.056	.303	.170	.053	.282	.160	.050		
3.0	.342	.182	.055	.332	.178	.053	.311	.169	.051	.293	.160	.049	.276	.153	.047		
4.0	.325	.169	.050	.316	.165	.049	.298	.158	.047	.282	.152	.046	.267	.145	.044		
5.0	.309	.157	.046	.301	.155	.045	.286	.149	.044	.272	.144	.043	.259	.138	.042		
6.0	.294	.148	.042	.287	.145	.042	.274	.141	.041	.262	.136	.040	.250	.132	.039		
7.0	.281	.139	.039	.275	.137	.039	.263	.133	.038	.252	.129	.038	.242	.126	.037		
8.0	.269	.131	.037	.263	.130	.037	.253	.126	.036	.243	.123	.036	.234	.120	.035		
9.0	.257	.124	.035	.252	.123	.035	.243	.120	.034	.235	.118	.034	.226	.115	.033		
10.0	.247	.118	.033	.243	.117	.033	.234	.115	.032	.226	.112	.032	.219	.110	.032		

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	.431	.431	.431	.368	.368	.368	.251	.251	.251	.144	.144	.144	.046	.046	.046	
1.0	.385	.356	.329	.330	.305	.283	.226	.210	.196	.130	.122	.114	.042	.039	.037	
2.0	.350	.300	.258	.299	.258	.223	.205	.178	.155	.118	.104	.091	.038	.034	.030	
3.0	.320	.257	.206	.275	.221	.178	.188	.154	.125	.109	.090	.074	.035	.029	.024	
4.0	.296	.223	.167	.254	.193	.145	.175	.134	.102	.101	.079	.061	.032	.026	.020	
5.0	.275	.196	.138	.236	.170	.120	.163	.119	.085	.094	.070	.050	.030	.023	.017	
6.0	.258	.175	.116	.221	.152	.101	.153	.106	.071	.089	.062	.042	.029	.020	.014	
7.0	.242	.158	.098	.209	.137	.085	.144	.096	.061	.084	.056	.036	.027	.018	.012	
8.0	.229	.143	.084	.197	.124	.073	.137	.087	.052	.079	.051	.031	.026	.017	.010	
9.0	.217	.131	.073	.187	.114	.064	.130	.080	.045	.076	.047	.027	.024	.016	.009	
10.0	.207	.121	.064	.178	.105	.056	.124	.074	.040	.072	.044	.024	.023	.014	.008	

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

UGR(Unified Glare Rating) Table

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm										
NAME: 490283 TEMPEST					TYPE:490283 TEMPEST			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:			PROTECTION 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	3.1	4.0	3.3	4.1	4.3	-10.2	-9.3	-10.0	-9.2	-9.0
3H	3.0	3.8	3.2	4.0	4.2	-10.4	-9.6	-10.1	-9.4	-9.2
4H	2.9	3.6	3.1	3.9	4.1	-10.5	-9.7	-10.2	-9.5	-9.3
6H	2.8	3.5	3.1	3.7	4.0	-10.6	-9.8	-10.3	-9.6	-9.4
8H	2.7	3.4	3.0	3.7	3.9	-10.6	-9.9	-10.3	-9.7	-9.4
12H	2.7	3.4	3.0	3.6	3.9	-10.6	-10.0	-10.3	-9.7	-9.4
4H 2H	2.9	3.6	3.1	3.8	4.1	-10.5	-9.7	-10.2	-9.5	-9.3
3H	2.7	3.4	3.0	3.6	3.9	-10.6	-10.0	-10.3	-9.7	-9.4
4H	2.6	3.2	2.9	3.5	3.8	-10.7	-10.1	-10.4	-9.8	-9.5
6H	2.5	3.0	2.9	3.4	3.7	-10.8	-10.3	-10.5	-10.0	-9.6
8H	2.5	2.9	2.8	3.3	3.7	-10.9	-10.4	-10.5	-10.0	-9.7
12H	2.4	2.8	2.8	3.2	3.6	-10.9	-10.5	-10.5	-10.1	-9.7
8H 4H	2.5	2.9	2.8	3.3	3.7	-10.9	-10.4	-10.5	-10.0	-9.7
6H	2.3	2.8	2.8	3.1	3.6	-11.0	-10.6	-10.6	-10.2	-9.8
8H	2.3	2.6	2.7	3.1	3.5	-11.0	-10.7	-10.6	-10.3	-9.8
12H	2.2	2.5	2.7	3.0	3.5	-11.1	-10.8	-10.6	-10.4	-9.9
12H 4H	2.4	2.8	2.8	3.2	3.6	-10.9	-10.5	-10.5	-10.1	-9.7
6H	2.3	2.6	2.7	3.1	3.5	-11.0	-10.7	-10.6	-10.3	-9.8
8H	2.2	2.5	2.7	3.0	3.4	-11.1	-10.8	-10.6	-10.4	-9.9
Variations with the observer position at spacings:										
S = 1.0H	+ 6.7 / -15.2					+ 4.4 / -42.8				
1.5H	+ 9.4 / -20.1					+ 7.2 / - 1.\$				
2.0H	+ 8.3 / -32.2					+ 7.7 / - 1.\$				

CIE Pub.117 Corrected 1500 lm Total Lamp Luminous Flux.(8log(F/F0) = 1.4)

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

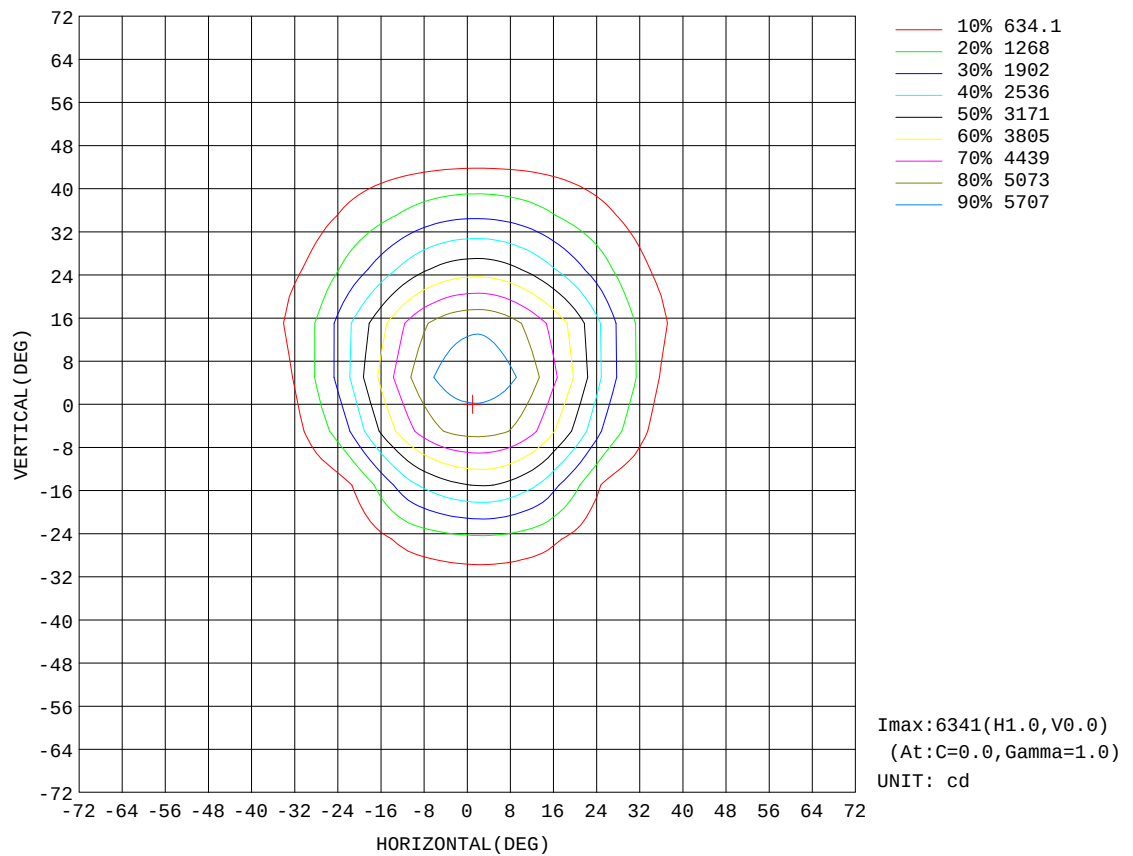
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	197	183	174	196	183	174	194	182	174	166
0.80	214	201	193	213	200	192	210	199	191	183
1.00	224	212	204	222	211	203	219	210	202	193
1.25	233	222	214	231	221	213	227	218	211	202
1.50	240	229	221	237	227	220	232	224	218	208
2.00	246	236	229	242	234	227	236	229	224	212
2.50	249	241	234	246	238	232	239	233	228	214
3.00	253	245	239	249	242	237	241	236	232	217
4.00	257	251	246	253	247	243	245	240	237	221
5.00	260	255	251	255	251	247	246	243	240	223
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
 C Interval: 5.0DEG
 Test Speed: HIGH
 Temperature:20DEG
 Operators:Y
 Test Date:2025-04-18

γ Range: 0 - 90DEG
 γ Interval: 0.5DEG
 Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
 Humidity:65.0%
 Test Distance:8.750m [K=1.0000]
 Remarks:

ISOCANDELA DIAGRAM

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

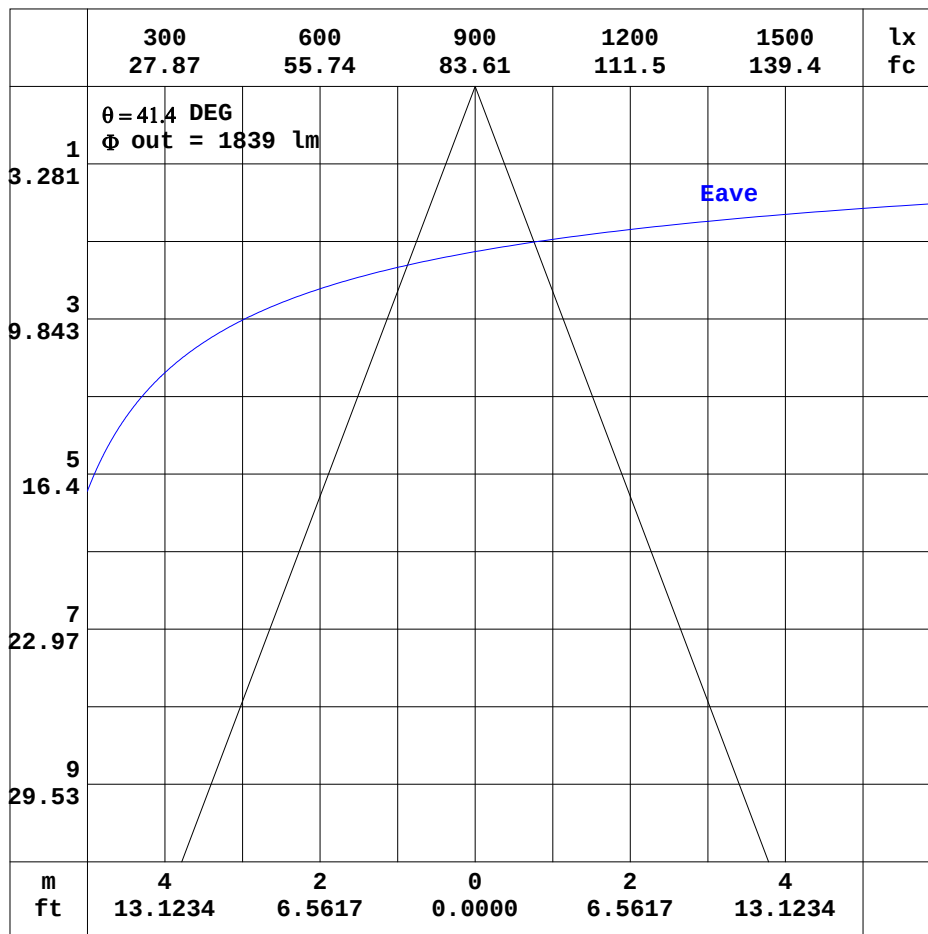


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 8.750m [K=1.0000]
Remarks:

AAI CURVES

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



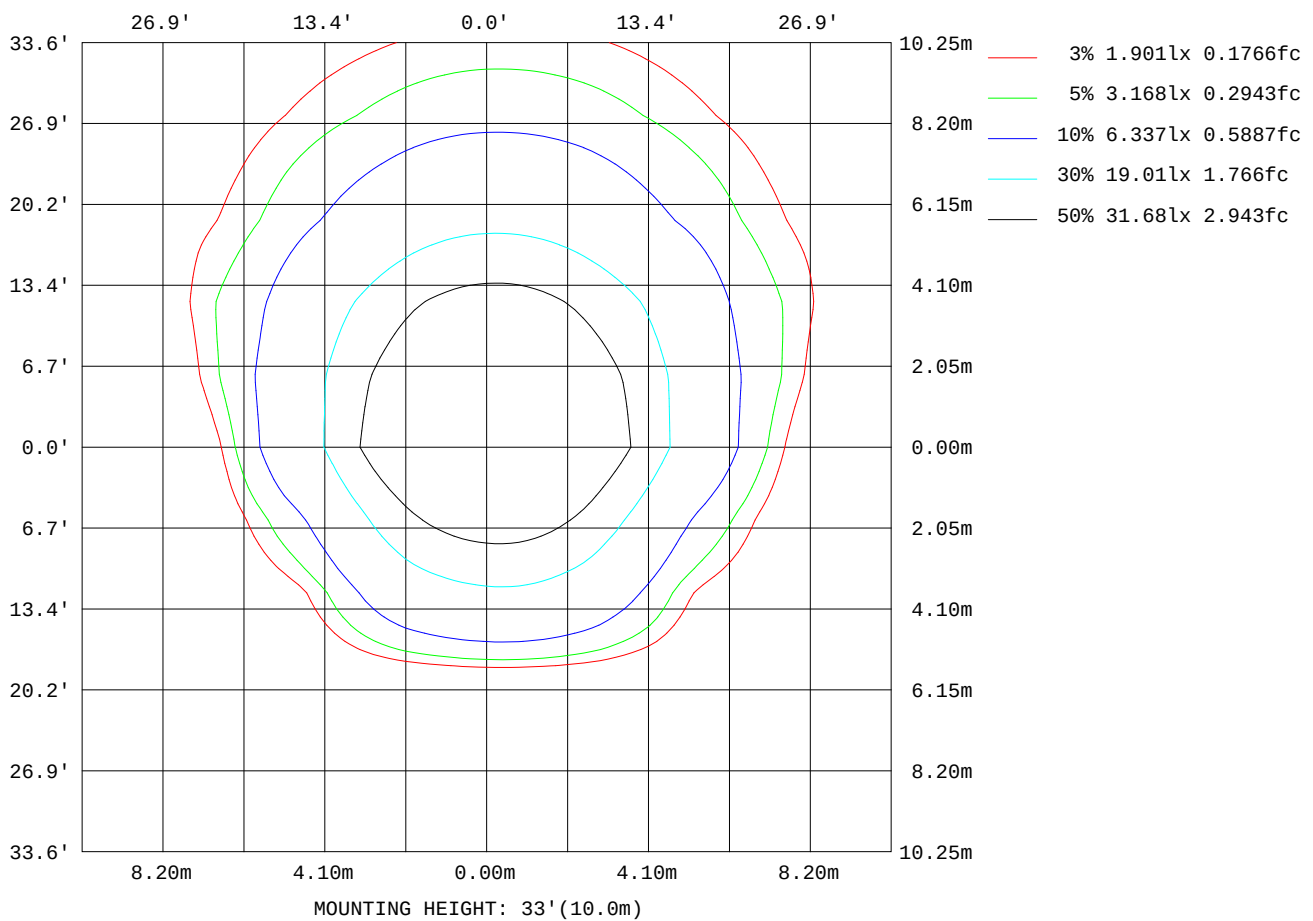
Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 8.750m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

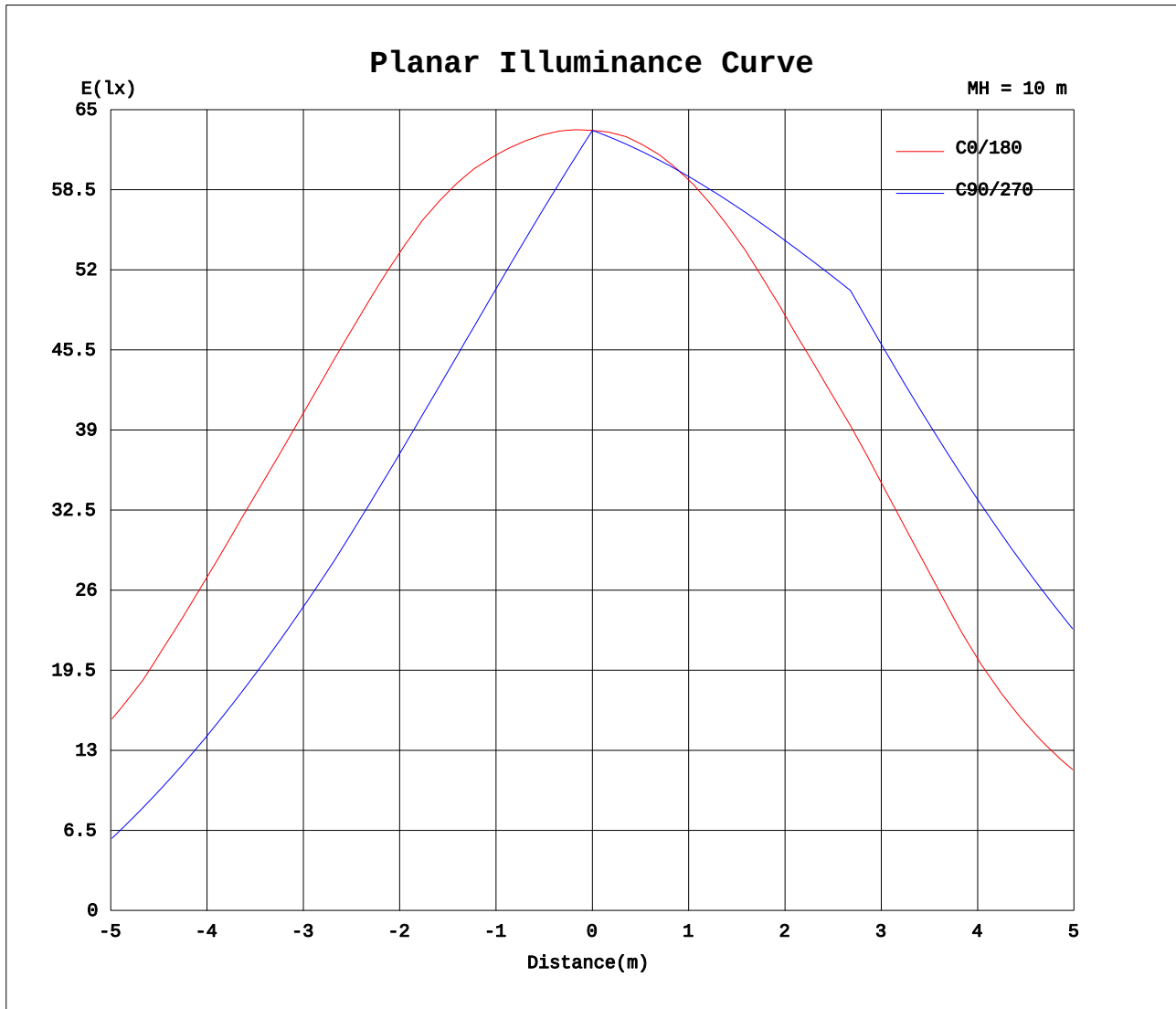
AvgL	cd/m2
L_0~180(65)av	57
L_0~180(75)av	37
L_0~180(85)av	0
L_90~270(65)av	482
L_90~270(75)av	159
L_90~270(85)av	0
L_45(65)av	117
L_45(75)av	93
L_45(85)av	0

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System: EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity: 65.0%
Test Distance: 8.750m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - -1

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - -2

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - -3

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

```

γ Range: 0 - 90DEG
γ Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

```

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:120.1V I:0.0407A P:4.810W PF:0.9847 Lamp Flux:235x1 lm		
NAME: 490283 TEMPEST	TYPE:490283 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

Table - -4

UNIT: cd

[illegible]

C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature: 20DEG
Operators: Y
Test Date: 2025-04-18

```

Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE GO-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

```