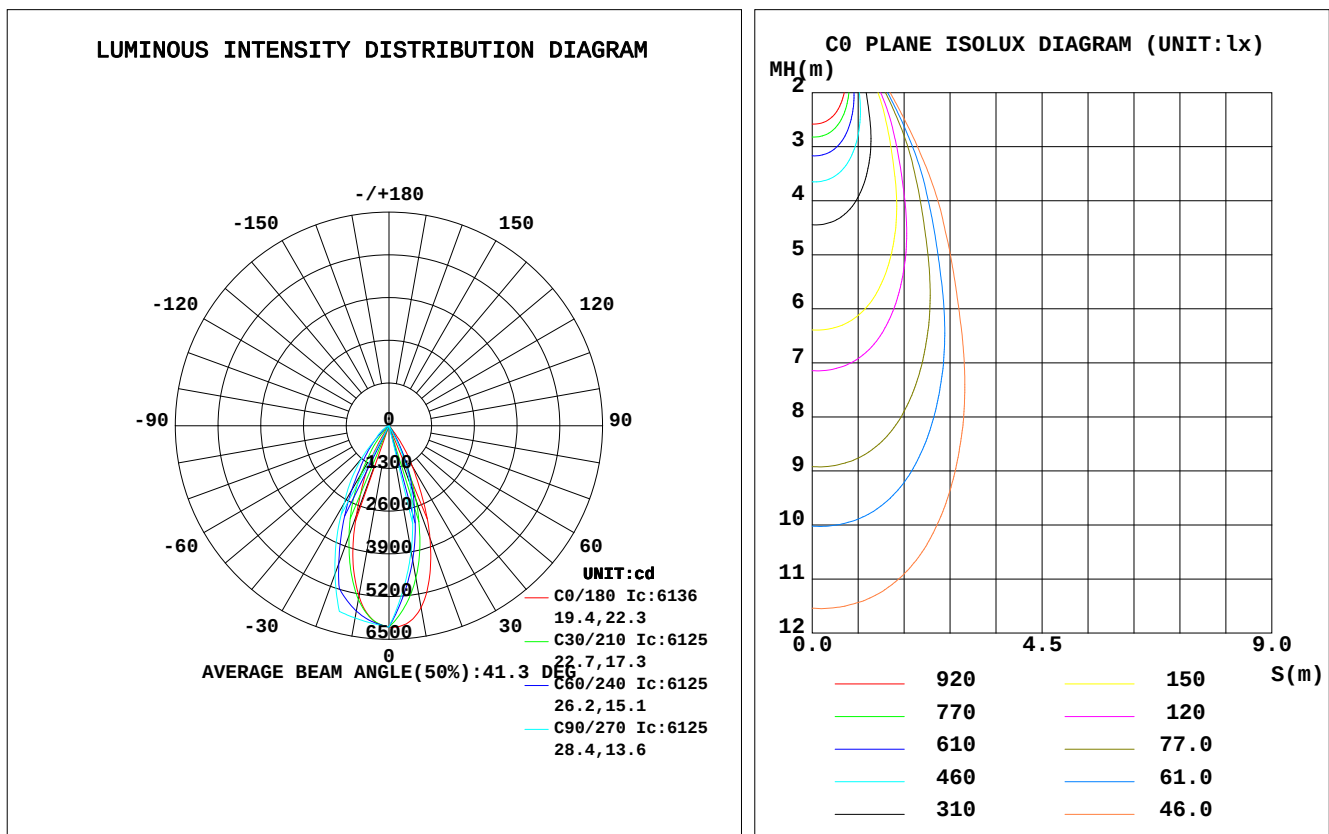


LUMINAIRE PHOTOMETRIC TEST REPORT

Test:U:120.1V I:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 107.64 lm/W			
MODEL	490280 TEMPEST	I _{max} (cd)	6136	S/MH(C0/180)	0.63
NOMINAL POWER(W)	5	LOR(%)	224.7	S/MH(C90/270)	0.87
RATED VOLTAGE(V)	120	TOTAL FLUX(lm)	3370.0	η UP, DN(C0-180)	0.0, 66.9
NOMINAL FLUX(lm)	1500	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0, 157.8
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.50
TEST VOLTAGE(V)	120	η down(%)	224.7	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	6053	5320	5003	5208	5917	5942	6033	6031	0- 5	139.5	139.5	4.14, 9.3
10	5620	4392	3881	4114	5263	5538	5941	5762	5- 10	381.2	520.7	15.4, 34.7
15	4773	3333	2758	2838	4244	4907	5849	5294	10- 15	545.2	1066	31.6, 71.1
20	3656	2122	1861	1506	2906	4146	4808	4687	15- 20	604.1	1670	49.6, 111
25	2390	1195	963.9	693.4	1801	3047	3767	3602	20- 25	550.2	2220	65.9, 148
30	1419	537.6	66.69	278.1	778.7	2058	2726	2503	25- 30	424.6	2645	78.5, 176
35	669.3	146.7	44.46	82.22	189.8	1237	2004	1566	30- 35	284.1	2929	86.9, 195
40	143.7	4.459	22.23	0.9573	47.13	705.0	1282	916.2	35- 40	184.2	3113	92.4, 208
45	40.92	2.863	0	0.7378	14.75	418.2	560.2	554.9	40- 45	109.0	3222	95.6, 215
50	19.64	1.714	0	0.4105	8.462	198.4	419.4	317.6	45- 50	58.74	3281	97.4, 219
55	11.29	0.7445	0	0	5.966	60.56	278.5	172.2	50- 55	37.06	3318	98.5, 221
60	8.041	0.4669	0	0	4.582	30.57	137.7	82.81	55- 60	23.01	3341	99.1, 223
65	5.931	0.1721	0.0090	0	3.174	16.36	99.29	33.59	60- 65	13.15	3354	99.5, 224
70	4.603	0	0.0181	0	1.845	10.85	60.90	16.48	65- 70	8.430	3363	99.8, 224
75	3.276	0	0.0271	0.0014	0.6261	8.527	22.51	11.16	70- 75	4.920	3368	99.9, 225
80	1.975	0	0	0.0217	0	5.468	0	6.703	75- 80	2.032	3370	100, 225
85	0.8108	0	0	0	0	0	0	0	80- 85	0.4167	3370	100, 225
90	0	0	0	0	0	0	0	0	85- 90	0.0378	3370	100, 225
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		

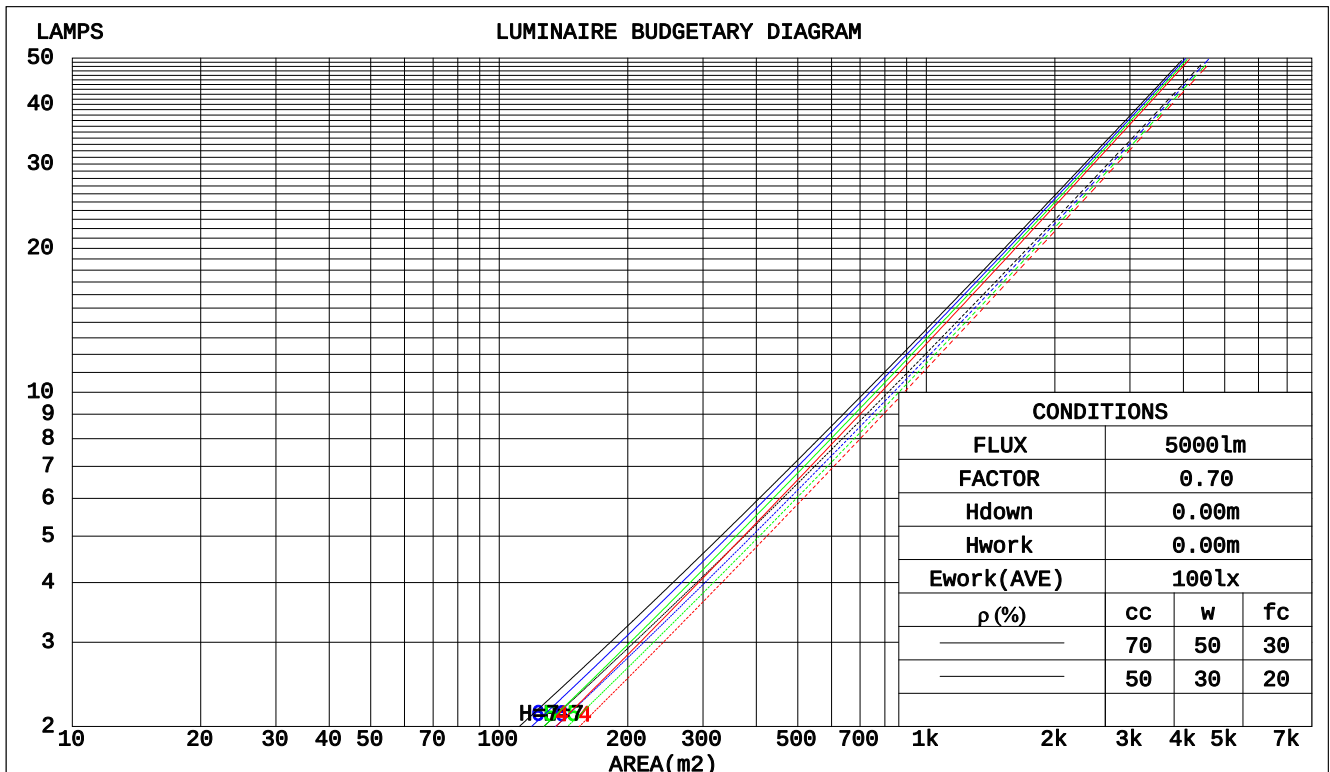
C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 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	2.67	2.67	2.67	2.61	2.61	2.61	2.50	2.50	2.50	2.39	2.39	2.39	2.29	2.29	2.29	2.25
1.0	2.50	2.44	2.40	2.45	2.40	2.36	2.36	2.32	2.29	2.28	2.25	2.22	2.20	2.18	2.15	2.11
2.0	2.34	2.25	2.18	2.30	2.22	2.15	2.23	2.16	2.11	2.16	2.11	2.06	2.10	2.06	2.02	1.98
3.0	2.19	2.09	2.00	2.16	2.06	1.99	2.10	2.02	1.95	2.05	1.98	1.92	2.00	1.94	1.89	1.86
4.0	2.06	1.94	1.86	2.04	1.93	1.84	1.99	1.90	1.82	1.94	1.87	1.80	1.90	1.84	1.78	1.75
5.0	1.94	1.82	1.73	1.92	1.81	1.72	1.88	1.78	1.71	1.85	1.76	1.69	1.81	1.74	1.68	1.65
6.0	1.84	1.71	1.62	1.82	1.70	1.62	1.79	1.68	1.61	1.76	1.67	1.60	1.73	1.65	1.59	1.56
7.0	1.74	1.62	1.53	1.73	1.61	1.52	1.70	1.59	1.52	1.67	1.58	1.51	1.65	1.57	1.50	1.47
8.0	1.65	1.53	1.44	1.64	1.52	1.44	1.62	1.51	1.44	1.60	1.50	1.43	1.58	1.49	1.42	1.40
9.0	1.58	1.45	1.37	1.56	1.45	1.37	1.54	1.44	1.36	1.52	1.43	1.36	1.51	1.42	1.35	1.33
10.0	1.50	1.38	1.30	1.49	1.38	1.30	1.48	1.37	1.30	1.46	1.36	1.29	1.44	1.35	1.29	1.26



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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm									
NAME: 490280 TEMPEST					TYPE:490280 TEMPEST			WEIGHT:	
SPEC.:					DIM.:			SERIAL No.:	
MFR.:					SUR.:			PROTECTION 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	.382	.217	.069	.366	.209	.066	.338	.194	.062	.312	.180	.058	.288	.167	.054	
2.0	.364	.199	.061	.351	.193	.060	.327	.182	.057	.306	.171	.054	.285	.161	.051	
3.0	.345	.184	.055	.334	.179	.054	.314	.170	.052	.296	.162	.050	.278	.154	.048	
4.0	.328	.170	.050	.318	.167	.049	.301	.160	.048	.285	.153	.046	.270	.147	.045	
5.0	.311	.159	.046	.303	.156	.045	.288	.150	.044	.274	.145	.043	.261	.140	.042	
6.0	.297	.149	.043	.290	.146	.042	.276	.142	.041	.264	.137	.040	.253	.133	.040	
7.0	.283	.140	.040	.277	.138	.039	.265	.134	.039	.254	.130	.038	.244	.127	.037	
8.0	.270	.132	.037	.265	.131	.037	.255	.127	.036	.245	.124	.036	.236	.121	.035	
9.0	.259	.125	.035	.254	.124	.035	.245	.121	.034	.236	.118	.034	.228	.116	.033	
10.0	.248	.119	.033	.244	.118	.033	.236	.115	.033	.228	.113	.032	.220	.111	.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	.428	.428	.428	.366	.366	.366	.250	.250	.250	.143	.143	.143	.046	.046	.046	
1.0	.383	.354	.327	.328	.303	.281	.224	.209	.194	.129	.121	.113	.041	.039	.037	
2.0	.348	.298	.256	.298	.256	.221	.204	.177	.154	.118	.103	.090	.038	.033	.029	
3.0	.319	.255	.204	.274	.220	.177	.188	.153	.124	.108	.089	.073	.035	.029	.024	
4.0	.295	.222	.166	.253	.192	.144	.174	.134	.101	.101	.078	.060	.032	.025	.020	
5.0	.275	.195	.137	.236	.169	.119	.163	.118	.084	.094	.069	.050	.030	.023	.016	
6.0	.257	.174	.114	.221	.151	.100	.153	.106	.070	.089	.062	.042	.029	.020	.014	
7.0	.242	.157	.097	.209	.136	.084	.144	.095	.060	.084	.056	.036	.027	.018	.012	
8.0	.229	.143	.083	.197	.124	.073	.137	.087	.051	.079	.051	.031	.026	.017	.010	
9.0	.218	.131	.072	.187	.114	.063	.130	.080	.045	.076	.047	.027	.024	.015	.009	
10.0	.207	.121	.063	.179	.105	.055	.124	.074	.039	.072	.044	.023	.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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm											
NAME: 490280 TEMPEST					TYPE:490280 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	2H	2.8	3.7	3.0	3.9	4.0	-14.0	-13.1	-13.8	-13.0	-12.8
	3H	2.7	3.5	2.9	3.7	3.9	-14.2	-13.4	-13.9	-13.2	-13.0
	4H	2.6	3.4	2.9	3.6	3.8	-14.3	-13.5	-14.0	-13.3	-13.0
	6H	2.5	3.2	2.8	3.5	3.7	-14.3	-13.6	-14.1	-13.4	-13.1
	8H	2.5	3.2	2.8	3.4	3.7	-14.4	-13.7	-14.1	-13.4	-13.2
	12H	2.4	3.1	2.7	3.4	3.6	-14.4	-13.8	-14.1	-13.5	-13.2
4H	2H	2.6	3.3	2.8	3.6	3.8	-14.2	-13.4	-13.9	-13.2	-13.0
	3H	2.4	3.1	2.7	3.3	3.6	-14.4	-13.7	-14.1	-13.5	-13.2
	4H	2.3	2.9	2.7	3.2	3.5	-14.5	-13.9	-14.1	-13.6	-13.3
	6H	2.2	2.8	2.6	3.1	3.4	-14.6	-14.1	-14.2	-13.7	-13.4
	8H	2.2	2.7	2.6	3.0	3.4	-14.6	-14.1	-14.2	-13.8	-13.4
	12H	2.1	2.6	2.5	3.0	3.3	-14.7	-14.2	-14.3	-13.9	-13.5
8H	4H	2.2	2.7	2.6	3.0	3.4	-14.6	-14.1	-14.2	-13.8	-13.4
	6H	2.1	2.5	2.5	2.9	3.3	-14.7	-14.3	-14.3	-13.9	-13.5
	8H	2.0	2.4	2.5	2.8	3.2	-14.8	-14.4	-14.3	-14.0	-13.6
	12H	2.0	2.3	2.4	2.7	3.2	-14.9	-14.5	-14.4	-14.1	-13.6
12H	4H	2.1	2.6	2.5	2.9	3.3	-14.7	-14.2	-14.3	-13.9	-13.5
	6H	2.0	2.4	2.5	2.8	3.2	-14.8	-14.4	-14.3	-14.0	-13.6
	8H	2.0	2.3	2.4	2.7	3.2	-14.9	-14.5	-14.4	-14.1	-13.6
Variations with the observer position at spacings:											
S = 1.0H	+ 6.8 / -12.9					+ 4.7 / -24.1					
1.5H	+ 9.5 / -15.5					+ 7.5 / -18.1					
2.0H	+ 7.9 / -10.9					+ 4.9 / -13.6					

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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

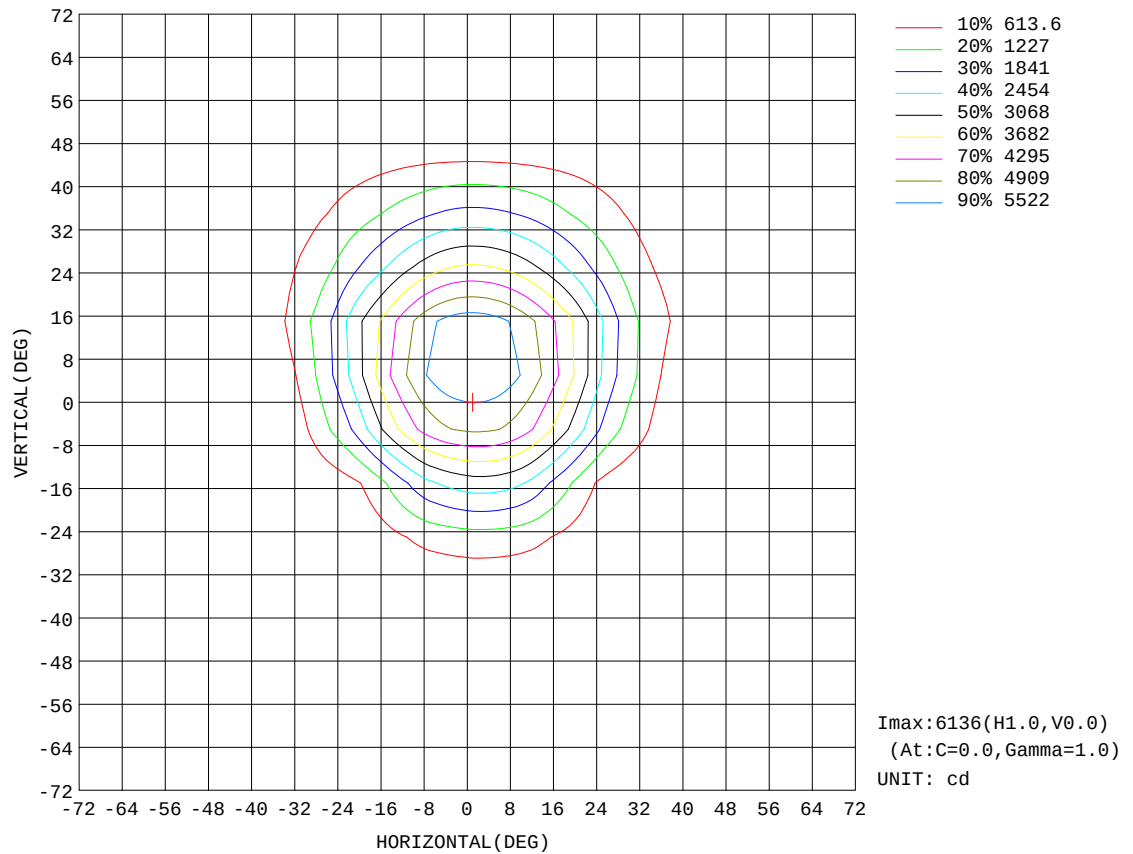
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
k = 0.60	195	180	172	194	180	171	192	179	171	163
0.80	212	198	190	210	198	190	208	196	189	180
1.00	222	209	201	220	208	201	217	208	199	190
1.25	231	220	212	229	218	211	225	216	209	200
1.50	237	227	219	235	225	218	230	222	216	206
2.00	244	234	227	240	232	225	234	227	222	210
2.50	247	239	232	244	236	230	237	231	226	213
3.00	251	243	237	247	240	235	239	234	230	215
4.00	256	249	244	251	246	241	243	239	235	219
5.00	258	253	249	254	249	245	245	241	238	221
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
 γ 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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

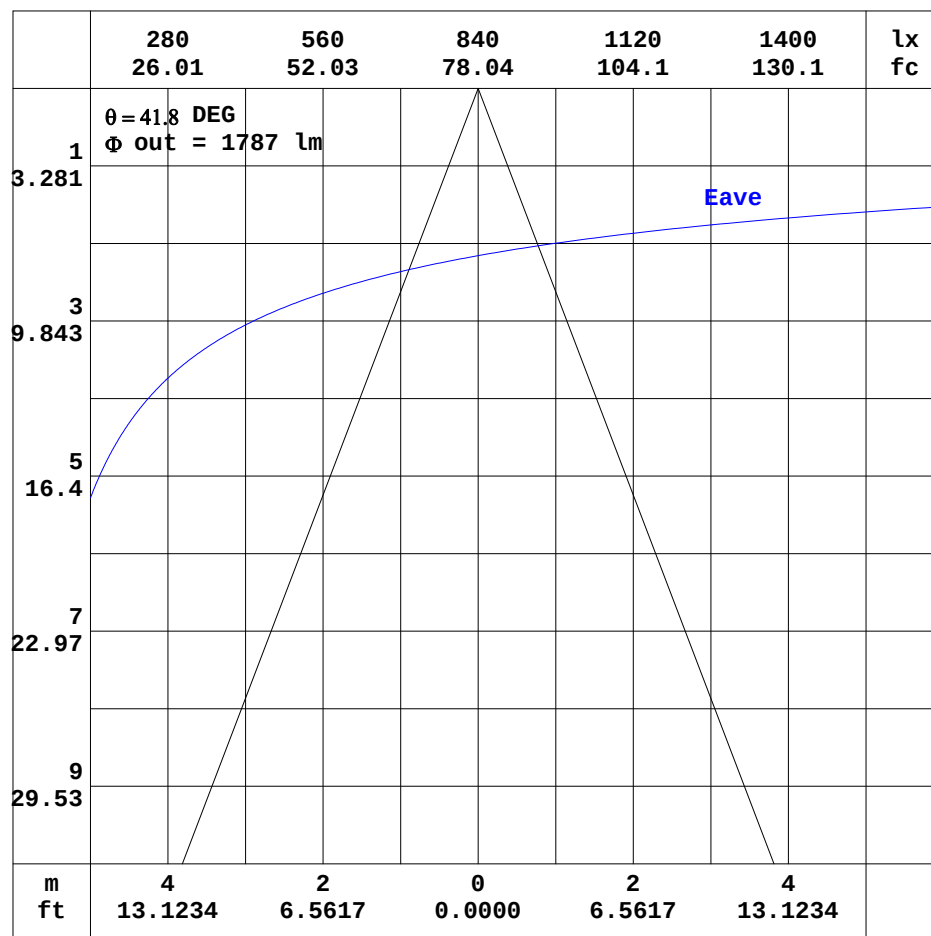


C Range: 0 - 360DEG
C Interval: 5.0DEG
Test Speed: HIGH
Temperature:20DEG
Operators:Y
Test Date:2025-04-18

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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 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

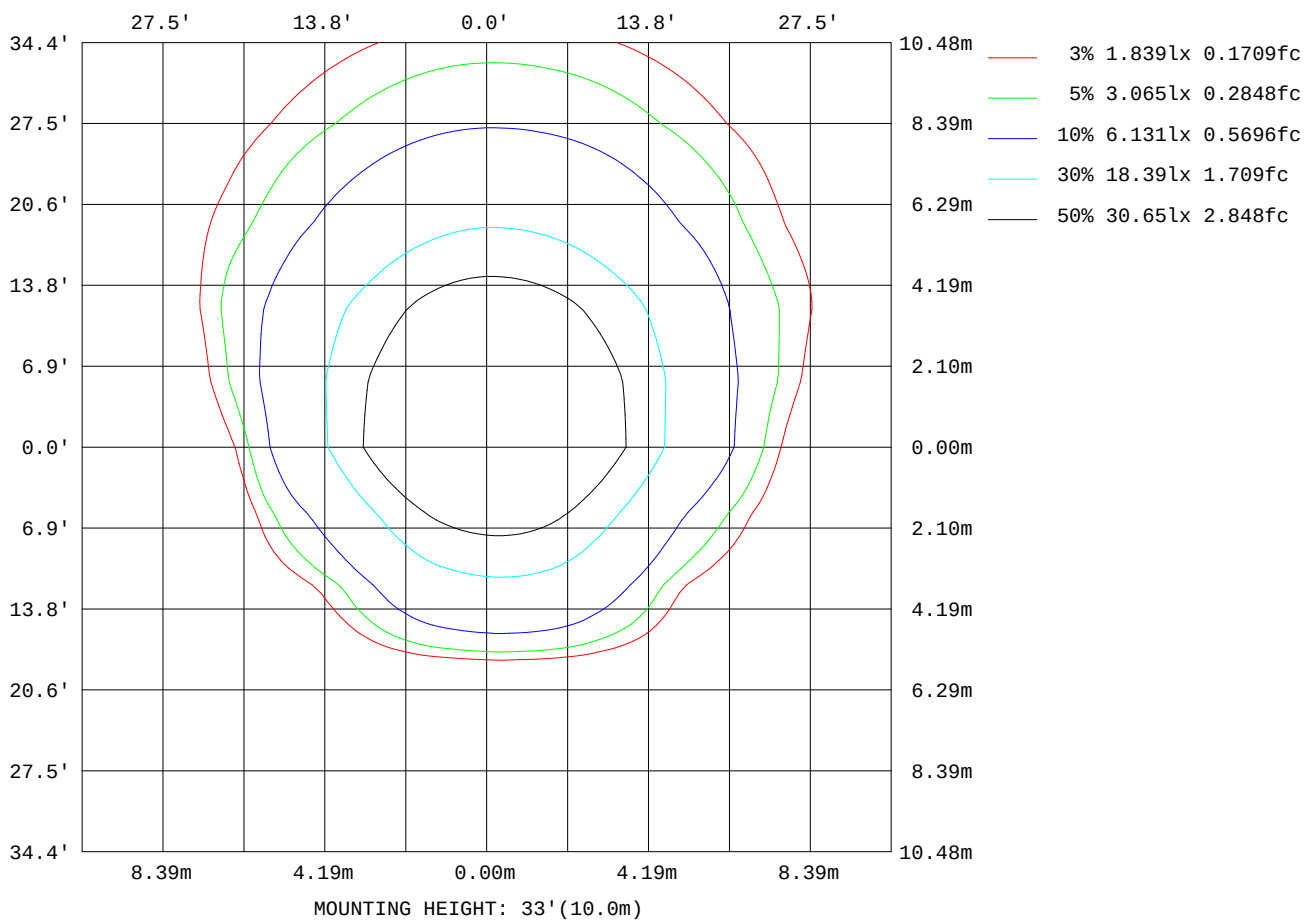
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Range: 0 - 90DEG
Interval: 0.5DEG
Test System:EVERFINE G0-2000B_V1 SYSTEM V2.0.291
Humidity:65.0%
Test Distance:8.750m [K=1.0000]
Remarks:

```


ISOLUX DIAGRAM

Test:U:120.1V I:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

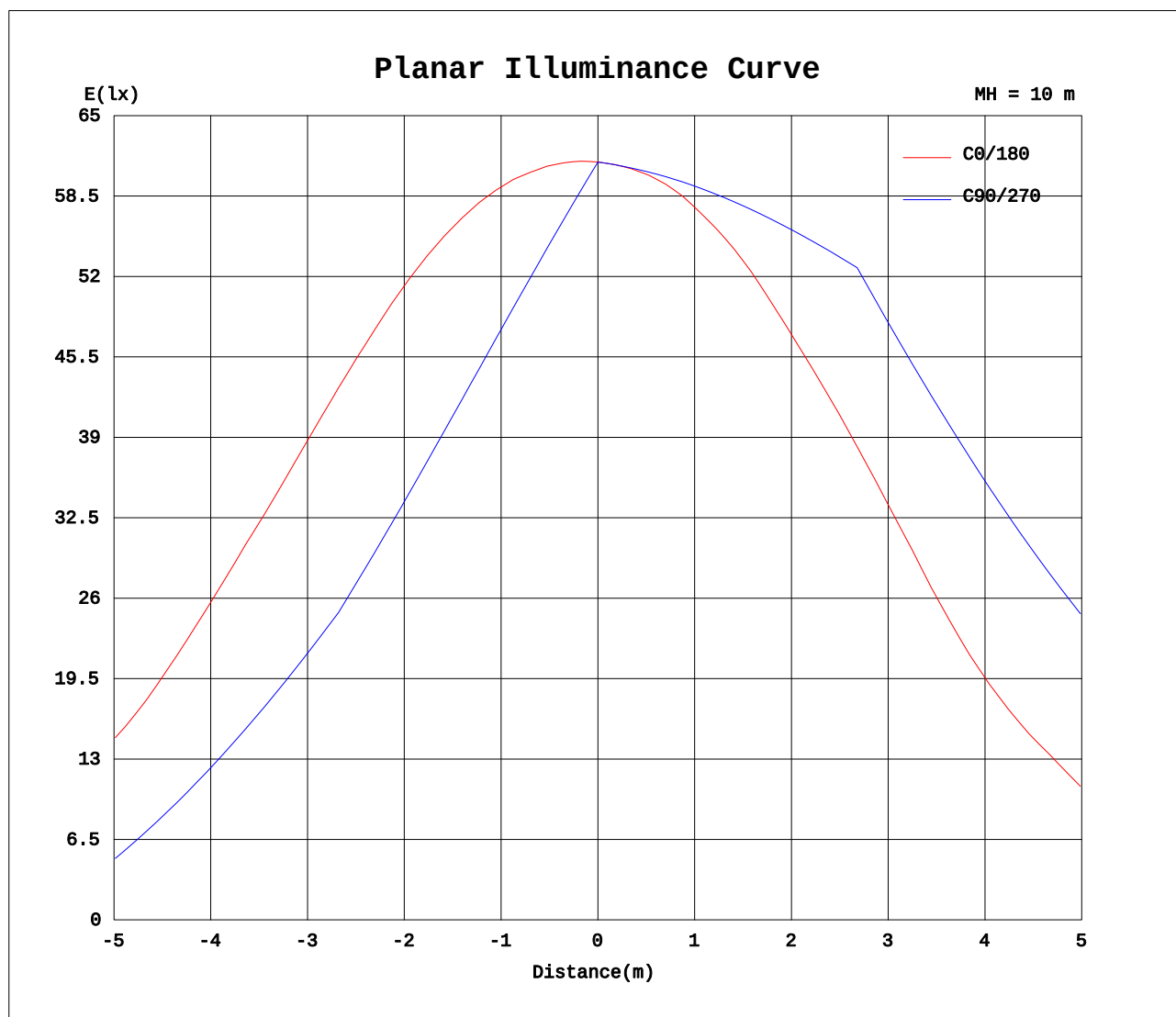
AvgL	cd/m2
L_0~180(65)av	54
L_0~180(75)av	38
L_0~180(85)av	23
L_90~270(65)av	587
L_90~270(75)av	218
L_90~270(85)av	0
L_45(65)av	148
L_45(75)av	95
L_45(85)av	0

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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 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

```

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:0.0415A P:4.905W PF:0.9842 Lamp Flux:235x1 lm		
NAME: 490280 TEMPEST	TYPE:490280 TEMPEST	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:	PROTECTION ANGLE:

UNIT: cd

[illegible]

```

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

```